

HEADER MEMBRANE PROTEIN 05-FEB-09 3G5U
 TITLE STRUCTURE OF P-GLYCOPROTEIN REVEALS A MOLECULAR BASIS FOR
 TITLE 2 POLY-SPECIFIC DRUG BINDING
 COMPND MOL_ID: 1;
 COMPND 2 MOLECULE: MULTIDRUG RESISTANCE PROTEIN 1A;
 COMPND 3 CHAIN: A, B;
 COMPND 4 SYNONYM: MCG1178;
 COMPND 5 ENGINEERED: YES;
 COMPND 6 MUTATION: YES
 SOURCE MOL_ID: 1;
 SOURCE 2 ORGANISM_SCIENTIFIC: MUS MUSCULUS;
 SOURCE 3 ORGANISM_COMMON: MOUSE;
 SOURCE 4 ORGANISM_TAXID: 10090;
 SOURCE 5 GENE: ABCB1A, MCG_1178
 KEYWDS P-GLYCOPROTEIN, MULTIDRUG RESISTANCE, PGP, CYCLIC PEPTIDE,
 KEYWDS 2 MEMBRANE PROTEIN
 EXPDTA X-RAY DIFFRACTION
 AUTHOR S.G.ALLER,J.YU,A.WARD,Y.WENG,S.CHITTABOINA,R.ZHUO,
 AUTHOR 2 P.M.HARRELL,Y.T.TRINH,Q.ZHANG,I.L.URBATSCH,G.CHANG
 REVDAT 3 21-APR-09 3G5U 1 JRNL
 REVDAT 2 07-APR-09 3G5U 1 SEQADV SEQRES
 REVDAT 1 24-MAR-09 3G5U 0
 JRNL AUTH S.G.ALLER,J.YU,A.WARD,Y.WENG,S.CHITTABOINA,R.ZHUO,
 JRNL AUTH 2 P.M.HARRELL,Y.T.TRINH,Q.ZHANG,I.L.URBATSCH,G.CHANG
 JRNL TITL STRUCTURE OF P-GLYCOPROTEIN REVEALS A MOLECULAR
 JRNL TITL 2 BASIS FOR POLY-SPECIFIC DRUG BINDING.
 JRNL REF SCIENCE V. 323 1718 2009
 JRNL REFN ISSN 0036-8075
 JRNL PMID 19325113
 JRNL DOI 10.1126/SCIENCE.1168750
 REMARK 1
 REMARK 2
 REMARK 2 RESOLUTION. 3.80 ANGSTROMS.
 REMARK 3
 REMARK 3 REFINEMENT.
 REMARK 3 PROGRAM : CNS 1.2
 REMARK 3 AUTHORS : BRUNGER,ADAMS,CLORE,DELANO,GROS,GROSSE-
 REMARK 3 : KUNSTLEVE,JIANG,KUSZEWSKI,NILGES, PANNU,
 REMARK 3 : READ,RICE,SIMONSON,WARREN
 REMARK 3
 REMARK 3 REFINEMENT TARGET : ENGH & HUBER
 REMARK 3
 REMARK 3 DATA USED IN REFINEMENT.
 REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 3.80
 REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 19.98
 REMARK 3 DATA CUTOFF (SIGMA(F)) : 0.000
 REMARK 3 DATA CUTOFF HIGH (ABS(F)) : 148683.320
 REMARK 3 DATA CUTOFF LOW (ABS(F)) : 0.0000
 REMARK 3 COMPLETENESS (WORKING+TEST) (%) : 96.1
 REMARK 3 NUMBER OF REFLECTIONS : 41131
 REMARK 3
 REMARK 3 FIT TO DATA USED IN REFINEMENT.
 REMARK 3 CROSS-VALIDATION METHOD : THROUGHOUT
 REMARK 3 FREE R VALUE TEST SET SELECTION : RANDOM
 REMARK 3 R VALUE (WORKING SET) : 0.306
 REMARK 3 FREE R VALUE : 0.347
 REMARK 3 FREE R VALUE TEST SET SIZE (%) : 10.200
 REMARK 3 FREE R VALUE TEST SET COUNT : 4203
 REMARK 3 ESTIMATED ERROR OF FREE R VALUE : 0.005
 REMARK 3
 REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.
 REMARK 3 TOTAL NUMBER OF BINS USED : 6
 REMARK 3 BIN RESOLUTION RANGE HIGH (A) : 3.80
 REMARK 3 BIN RESOLUTION RANGE LOW (A) : 4.04
 REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : 86.80
 REMARK 3 REFLECTIONS IN BIN (WORKING SET) : 5472
 REMARK 3 BIN R VALUE (WORKING SET) : 0.4480
 REMARK 3 BIN FREE R VALUE : 0.4860
 REMARK 3 BIN FREE R VALUE TEST SET SIZE (%) : 10.40
 REMARK 3 BIN FREE R VALUE TEST SET COUNT : 636
 REMARK 3 ESTIMATED ERROR OF BIN FREE R VALUE : 0.019
 REMARK 3
 REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
 REMARK 3 PROTEIN ATOMS : 18340

REMARK 3 NUCLEIC ACID ATOMS : 0
 REMARK 3 HETEROGEN ATOMS : 12
 REMARK 3 SOLVENT ATOMS : 0
 REMARK 3
 REMARK 3 B VALUES.
 REMARK 3 FROM WILSON PLOT (A**2) : 48.00
 REMARK 3 MEAN B VALUE (OVERALL, A**2) : 136.20
 REMARK 3 OVERALL ANISOTROPIC B VALUE.
 REMARK 3 B11 (A**2) : 0.56000
 REMARK 3 B22 (A**2) : 26.39000
 REMARK 3 B33 (A**2) : -26.95000
 REMARK 3 B12 (A**2) : 0.00000
 REMARK 3 B13 (A**2) : 0.00000
 REMARK 3 B23 (A**2) : 0.00000
 REMARK 3
 REMARK 3 ESTIMATED COORDINATE ERROR.
 REMARK 3 ESD FROM LUZZATI PLOT (A) : 0.76
 REMARK 3 ESD FROM SIGMAA (A) : 0.82
 REMARK 3 LOW RESOLUTION CUTOFF (A) : 20.00
 REMARK 3
 REMARK 3 CROSS-VALIDATED ESTIMATED COORDINATE ERROR.
 REMARK 3 ESD FROM C-V LUZZATI PLOT (A) : 0.93
 REMARK 3 ESD FROM C-V SIGMAA (A) : 0.98
 REMARK 3
 REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.
 REMARK 3 BOND LENGTHS (A) : 0.010
 REMARK 3 BOND ANGLES (DEGREES) : 1.90
 REMARK 3 DIHEDRAL ANGLES (DEGREES) : 20.70
 REMARK 3 IMPROPER ANGLES (DEGREES) : 1.15
 REMARK 3
 REMARK 3 ISOTROPIC THERMAL MODEL : RESTRAINED
 REMARK 3
 REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA
 REMARK 3 MAIN-CHAIN BOND (A**2) : NULL ; NULL
 REMARK 3 MAIN-CHAIN ANGLE (A**2) : NULL ; NULL
 REMARK 3 SIDE-CHAIN BOND (A**2) : NULL ; NULL
 REMARK 3 SIDE-CHAIN ANGLE (A**2) : NULL ; NULL
 REMARK 3
 REMARK 3 BULK SOLVENT MODELING.
 REMARK 3 METHOD USED : FLAT MODEL
 REMARK 3 KSQL : 0.20
 REMARK 3 BSOL : 68.01
 REMARK 3
 REMARK 3 NCS MODEL : CONSTR
 REMARK 3
 REMARK 3 NCS RESTRAINTS. RMS SIGMA/WEIGHT
 REMARK 3 GROUP 1 POSITIONAL (A) : NULL ; NULL
 REMARK 3 GROUP 1 B-FACTOR (A**2) : NULL ; NULL
 REMARK 3
 REMARK 3 PARAMETER FILE 1 : PROTEIN_REP.PARAM
 REMARK 3 PARAMETER FILE 2 : ION.PARAM
 REMARK 3 PARAMETER FILE 3 : NULL
 REMARK 3 TOPOLOGY FILE 1 : PROTEIN.TOP
 REMARK 3 TOPOLOGY FILE 2 : NULL
 REMARK 3 TOPOLOGY FILE 3 : NULL
 REMARK 3
 REMARK 3 OTHER REFINEMENT REMARKS: BULK SOLVENT MODEL USED
 REMARK 4
 REMARK 4 3G5U COMPLIES WITH FORMAT V. 3.20, 01-DEC-08
 REMARK 100
 REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 06-FEB-09.
 REMARK 100 THE RCSB ID CODE IS RCSB051460.
 REMARK 200
 REMARK 200 EXPERIMENTAL DETAILS
 REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION
 REMARK 200 DATE OF DATA COLLECTION : 16-DEC-07
 REMARK 200 TEMPERATURE (KELVIN) : 100
 REMARK 200 PH : 7.5
 REMARK 200 NUMBER OF CRYSTALS USED : 1
 REMARK 200
 REMARK 200 SYNCHROTRON (Y/N) : Y
 REMARK 200 RADIATION SOURCE : APS
 REMARK 200 BEAMLINE : 23-ID-B
 REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : M
 REMARK 200 WAVELENGTH OR RANGE (A) : 1.00695, 1.00923
 REMARK 200 MONOCHROMATOR : APS MIRRORS
 REMARK 200 OPTICS : NULL
 REMARK 200
 REMARK 200 DETECTOR TYPE : CCD
 REMARK 200 DETECTOR MANUFACTURER : MARRESEARCH
 REMARK 200 INTENSITY-INTEGRATION SOFTWARE : HKL-2000
 REMARK 200 DATA SCALING SOFTWARE : HKL-2000
 REMARK 200
 REMARK 200 NUMBER OF UNIQUE REFLECTIONS : 41131
 REMARK 200 RESOLUTION RANGE HIGH (A) : 3.800
 REMARK 200 RESOLUTION RANGE LOW (A) : 50.000
 REMARK 200 REJECTION CRITERIA (SIGMA(I)) : 0.000
 REMARK 200
 REMARK 200 OVERALL.
 REMARK 200 COMPLETENESS FOR RANGE (%) : 96.1
 REMARK 200 DATA REDUNDANCY : 7.900
 REMARK 200 R MERGE (I) : NULL
 REMARK 200 R SYM (I) : 0.08200
 REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : NULL
 REMARK 200
 REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
 REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : NULL
 REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : NULL
 REMARK 200 COMPLETENESS FOR SHELL (%) : NULL
 REMARK 200 DATA REDUNDANCY IN SHELL : NULL
 REMARK 200 R MERGE FOR SHELL (I) : NULL
 REMARK 200 R SYM FOR SHELL (I) : NULL
 REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL
 REMARK 200
 REMARK 200 DIFFRACTION PROTOCOL: MAD
 REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: MAD
 REMARK 200 SOFTWARE USED: SOLVE
 REMARK 200 STARTING MODEL: NULL
 REMARK 200
 REMARK 200 REMARK: NULL
 REMARK 280
 REMARK 280 CRYSTAL
 REMARK 280 SOLVENT CONTENT, VS (%): 67.27
 REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 3.76
 REMARK 280
 REMARK 280 CRYSTALLIZATION CONDITIONS: 17% PEG 350MME, 0.05M TRIS, 0.04%
 REMARK 280 SODIUM CHOLATE, PH 7.5, VAPOR DIFFUSION, SITTING DROP,
 REMARK 280 TEMPERATURE 278K
 REMARK 290
 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
 REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 21 21 21
 REMARK 290
 REMARK 290 SYMOP SYMMETRY
 REMARK 290 NNNMMM OPERATOR
 REMARK 290 1555 X,Y,Z
 REMARK 290 2555 -X+1/2,-Y,Z+1/2
 REMARK 290 3555 -X,Y+1/2,-Z+1/2
 REMARK 290 4555 X+1/2,-Y+1/2,-Z
 REMARK 290
 REMARK 290 WHERE NNN -> OPERATOR NUMBER
 REMARK 290 MMM -> TRANSLATION VECTOR
 REMARK 290
 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
 REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
 REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
 REMARK 290 RELATED MOLECULES.
 REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.000000
 REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.000000
 REMARK 290 SMTRY1 2 -1.000000 0.000000 0.000000 48.77100
 REMARK 290 SMTRY2 2 0.000000 -1.000000 0.000000 0.000000
 REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 189.42900
 REMARK 290 SMTRY1 3 -1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 3 0.000000 1.000000 0.000000 57.71300
 REMARK 290 SMTRY3 3 0.000000 0.000000 -1.000000 189.42900
 REMARK 290 SMTRY1 4 1.000000 0.000000 0.000000 48.77100
 REMARK 290 SMTRY2 4 0.000000 -1.000000 0.000000 57.71300

REMARK 290 SMTRY3 4 0.000000 0.000000 -1.000000 0.000000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1, 2

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 SOFTWARE DETERMINED QUATERNARY STRUCTURE: MONOMERIC

REMARK 350 SOFTWARE USED: PISA

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A

| | | | | | | |
|------------|--------|---|----------|----------|----------|----------|
| REMARK 350 | BIOMT1 | 1 | 1.000000 | 0.000000 | 0.000000 | 0.000000 |
| REMARK 350 | BIOMT2 | 1 | 0.000000 | 1.000000 | 0.000000 | 0.000000 |
| REMARK 350 | BIOMT3 | 1 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |

REMARK 350

REMARK 350 BIOMOLECULE: 2

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 SOFTWARE DETERMINED QUATERNARY STRUCTURE: MONOMERIC

REMARK 350 SOFTWARE USED: PISA

REMARK 350 APPLY THE FOLLOWING TO CHAINS: B

| | | | | | | |
|------------|--------|---|----------|----------|----------|----------|
| REMARK 350 | BIOMT1 | 1 | 1.000000 | 0.000000 | 0.000000 | 0.000000 |
| REMARK 350 | BIOMT2 | 1 | 0.000000 | 1.000000 | 0.000000 | 0.000000 |
| REMARK 350 | BIOMT3 | 1 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |

REMARK 465

REMARK 465 MISSING RESIDUES

REMARK 465 THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE

REMARK 465 EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 465 IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)

REMARK 465

| M | RES | C | SSSEQI |
|------------|-----|---|--------|
| REMARK 465 | MET | A | 1 |
| REMARK 465 | GLU | A | 2 |
| REMARK 465 | LEU | A | 3 |
| REMARK 465 | GLU | A | 4 |
| REMARK 465 | GLU | A | 5 |
| REMARK 465 | ASP | A | 6 |
| REMARK 465 | LEU | A | 7 |
| REMARK 465 | LYS | A | 8 |
| REMARK 465 | GLY | A | 9 |
| REMARK 465 | ARG | A | 10 |
| REMARK 465 | ALA | A | 11 |
| REMARK 465 | ASP | A | 12 |
| REMARK 465 | LYS | A | 13 |
| REMARK 465 | ASN | A | 14 |
| REMARK 465 | PHE | A | 15 |
| REMARK 465 | SER | A | 16 |
| REMARK 465 | LYS | A | 17 |
| REMARK 465 | MET | A | 18 |
| REMARK 465 | GLY | A | 19 |
| REMARK 465 | LYS | A | 20 |
| REMARK 465 | LYS | A | 21 |
| REMARK 465 | SER | A | 22 |
| REMARK 465 | LYS | A | 23 |
| REMARK 465 | LYS | A | 24 |
| REMARK 465 | GLU | A | 25 |
| REMARK 465 | LYS | A | 26 |
| REMARK 465 | LYS | A | 27 |
| REMARK 465 | GLU | A | 28 |
| REMARK 465 | LYS | A | 29 |
| REMARK 465 | LYS | A | 30 |
| REMARK 465 | PRO | A | 31 |
| REMARK 465 | ALA | A | 32 |
| REMARK 465 | ALA | A | 627 |
| REMARK 465 | GLY | A | 628 |

| | | | | |
|--------|-----|-----|---|------|
| REMARK | 465 | ASN | A | 629 |
| REMARK | 465 | GLU | A | 630 |
| REMARK | 465 | ILE | A | 631 |
| REMARK | 465 | GLU | A | 632 |
| REMARK | 465 | LEU | A | 633 |
| REMARK | 465 | GLY | A | 634 |
| REMARK | 465 | ASN | A | 635 |
| REMARK | 465 | GLU | A | 636 |
| REMARK | 465 | ALA | A | 637 |
| REMARK | 465 | CYS | A | 638 |
| REMARK | 465 | LYS | A | 639 |
| REMARK | 465 | SER | A | 640 |
| REMARK | 465 | LYS | A | 641 |
| REMARK | 465 | ASP | A | 642 |
| REMARK | 465 | GLU | A | 643 |
| REMARK | 465 | ILE | A | 644 |
| REMARK | 465 | ASP | A | 645 |
| REMARK | 465 | ASN | A | 646 |
| REMARK | 465 | LEU | A | 647 |
| REMARK | 465 | ASP | A | 648 |
| REMARK | 465 | MET | A | 649 |
| REMARK | 465 | SER | A | 650 |
| REMARK | 465 | SER | A | 651 |
| REMARK | 465 | LYS | A | 652 |
| REMARK | 465 | ASP | A | 653 |
| REMARK | 465 | SER | A | 654 |
| REMARK | 465 | GLY | A | 655 |
| REMARK | 465 | SER | A | 656 |
| REMARK | 465 | SER | A | 657 |
| REMARK | 465 | LEU | A | 658 |
| REMARK | 465 | ILE | A | 659 |
| REMARK | 465 | ARG | A | 660 |
| REMARK | 465 | ARG | A | 661 |
| REMARK | 465 | ARG | A | 662 |
| REMARK | 465 | SER | A | 663 |
| REMARK | 465 | THR | A | 664 |
| REMARK | 465 | ARG | A | 665 |
| REMARK | 465 | LYS | A | 666 |
| REMARK | 465 | SER | A | 667 |
| REMARK | 465 | ILE | A | 668 |
| REMARK | 465 | CYS | A | 669 |
| REMARK | 465 | GLY | A | 670 |
| REMARK | 465 | PRO | A | 671 |
| REMARK | 465 | HIS | A | 672 |
| REMARK | 465 | ASP | A | 673 |
| REMARK | 465 | GLN | A | 674 |
| REMARK | 465 | ASP | A | 675 |
| REMARK | 465 | ARG | A | 676 |
| REMARK | 465 | LYS | A | 677 |
| REMARK | 465 | LEU | A | 678 |
| REMARK | 465 | SER | A | 679 |
| REMARK | 465 | THR | A | 680 |
| REMARK | 465 | LYS | A | 681 |
| REMARK | 465 | GLU | A | 682 |
| REMARK | 465 | ALA | A | 683 |
| REMARK | 465 | GLY | A | 1272 |
| REMARK | 465 | ALA | A | 1273 |
| REMARK | 465 | LYS | A | 1274 |
| REMARK | 465 | ARG | A | 1275 |
| REMARK | 465 | SER | A | 1276 |
| REMARK | 465 | TYR | A | 1277 |
| REMARK | 465 | VAL | A | 1278 |
| REMARK | 465 | HIS | A | 1279 |
| REMARK | 465 | HIS | A | 1280 |
| REMARK | 465 | HIS | A | 1281 |
| REMARK | 465 | HIS | A | 1282 |
| REMARK | 465 | HIS | A | 1283 |
| REMARK | 465 | HIS | A | 1284 |
| REMARK | 465 | MET | B | 1 |
| REMARK | 465 | GLU | B | 2 |
| REMARK | 465 | LEU | B | 3 |
| REMARK | 465 | GLU | B | 4 |
| REMARK | 465 | GLU | B | 5 |
| REMARK | 465 | ASP | B | 6 |

| | | | | |
|--------|-----|-----|---|-----|
| REMARK | 465 | LEU | B | 7 |
| REMARK | 465 | LYS | B | 8 |
| REMARK | 465 | GLY | B | 9 |
| REMARK | 465 | ARG | B | 10 |
| REMARK | 465 | ALA | B | 11 |
| REMARK | 465 | ASP | B | 12 |
| REMARK | 465 | LYS | B | 13 |
| REMARK | 465 | ASN | B | 14 |
| REMARK | 465 | PHE | B | 15 |
| REMARK | 465 | SER | B | 16 |
| REMARK | 465 | LYS | B | 17 |
| REMARK | 465 | MET | B | 18 |
| REMARK | 465 | GLY | B | 19 |
| REMARK | 465 | LYS | B | 20 |
| REMARK | 465 | LYS | B | 21 |
| REMARK | 465 | SER | B | 22 |
| REMARK | 465 | LYS | B | 23 |
| REMARK | 465 | LYS | B | 24 |
| REMARK | 465 | GLU | B | 25 |
| REMARK | 465 | LYS | B | 26 |
| REMARK | 465 | LYS | B | 27 |
| REMARK | 465 | GLU | B | 28 |
| REMARK | 465 | LYS | B | 29 |
| REMARK | 465 | LYS | B | 30 |
| REMARK | 465 | PRO | B | 31 |
| REMARK | 465 | ALA | B | 32 |
| REMARK | 465 | ALA | B | 627 |
| REMARK | 465 | GLY | B | 628 |
| REMARK | 465 | ASN | B | 629 |
| REMARK | 465 | GLU | B | 630 |
| REMARK | 465 | ILE | B | 631 |
| REMARK | 465 | GLU | B | 632 |
| REMARK | 465 | LEU | B | 633 |
| REMARK | 465 | GLY | B | 634 |
| REMARK | 465 | ASN | B | 635 |
| REMARK | 465 | GLU | B | 636 |
| REMARK | 465 | ALA | B | 637 |
| REMARK | 465 | CYS | B | 638 |
| REMARK | 465 | LYS | B | 639 |
| REMARK | 465 | SER | B | 640 |
| REMARK | 465 | LYS | B | 641 |
| REMARK | 465 | ASP | B | 642 |
| REMARK | 465 | GLU | B | 643 |
| REMARK | 465 | ILE | B | 644 |
| REMARK | 465 | ASP | B | 645 |
| REMARK | 465 | ASN | B | 646 |
| REMARK | 465 | LEU | B | 647 |
| REMARK | 465 | ASP | B | 648 |
| REMARK | 465 | MET | B | 649 |
| REMARK | 465 | SER | B | 650 |
| REMARK | 465 | SER | B | 651 |
| REMARK | 465 | LYS | B | 652 |
| REMARK | 465 | ASP | B | 653 |
| REMARK | 465 | SER | B | 654 |
| REMARK | 465 | GLY | B | 655 |
| REMARK | 465 | SER | B | 656 |
| REMARK | 465 | SER | B | 657 |
| REMARK | 465 | LEU | B | 658 |
| REMARK | 465 | ILE | B | 659 |
| REMARK | 465 | ARG | B | 660 |
| REMARK | 465 | ARG | B | 661 |
| REMARK | 465 | ARG | B | 662 |
| REMARK | 465 | SER | B | 663 |
| REMARK | 465 | THR | B | 664 |
| REMARK | 465 | ARG | B | 665 |
| REMARK | 465 | LYS | B | 666 |
| REMARK | 465 | SER | B | 667 |
| REMARK | 465 | ILE | B | 668 |
| REMARK | 465 | CYS | B | 669 |
| REMARK | 465 | GLY | B | 670 |
| REMARK | 465 | PRO | B | 671 |
| REMARK | 465 | HIS | B | 672 |
| REMARK | 465 | ASP | B | 673 |
| REMARK | 465 | GLN | B | 674 |

REMARK 465 ASP B 675
 REMARK 465 ARG B 676
 REMARK 465 LYS B 677
 REMARK 465 LEU B 678
 REMARK 465 SER B 679
 REMARK 465 THR B 680
 REMARK 465 LYS B 681
 REMARK 465 GLU B 682
 REMARK 465 ALA B 683
 REMARK 465 GLY B 1272
 REMARK 465 ALA B 1273
 REMARK 465 LYS B 1274
 REMARK 465 ARG B 1275
 REMARK 465 SER B 1276
 REMARK 465 TYR B 1277
 REMARK 465 VAL B 1278
 REMARK 465 HIS B 1279
 REMARK 465 HIS B 1280
 REMARK 465 HIS B 1281
 REMARK 465 HIS B 1282
 REMARK 465 HIS B 1283
 REMARK 465 HIS B 1284

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: CLOSE CONTACTS IN SAME ASYMMETRIC UNIT

REMARK 500

REMARK 500 THE FOLLOWING ATOMS ARE IN CLOSE CONTACT.

REMARK 500

| REMARK 500 | ATM1 | RES | C | SSEQI | ATM2 | RES | C | SSEQI | DISTANCE |
|------------|------|-----|---|-------|------|-----|---|-------|----------|
| REMARK 500 | ND2 | ASN | B | 1039 | 0 | ILE | B | 1046 | 1.47 |
| REMARK 500 | 0 | ILE | A | 156 | OD1 | ASP | A | 160 | 1.52 |
| REMARK 500 | 0 | TYR | B | 958 | OG1 | THR | B | 966 | 1.77 |
| REMARK 500 | 0 | GLU | B | 1028 | OD1 | ASP | B | 1093 | 1.78 |
| REMARK 500 | 0 | ILE | A | 156 | CG | ASP | A | 160 | 1.82 |
| REMARK 500 | 0 | LEU | A | 853 | N | LEU | A | 856 | 1.91 |
| REMARK 500 | ND2 | ASN | A | 1039 | 0 | ILE | A | 1046 | 1.92 |
| REMARK 500 | 0 | GLY | B | 850 | N | GLN | B | 852 | 1.95 |
| REMARK 500 | CG2 | ILE | A | 405 | 0 | CYS | A | 427 | 1.96 |
| REMARK 500 | 0 | TYR | A | 994 | NZ | LYS | A | 996 | 1.96 |
| REMARK 500 | 0 | ASP | B | 796 | OD1 | ASP | B | 801 | 1.98 |
| REMARK 500 | 0 | LEU | A | 699 | OE1 | GLU | A | 703 | 1.99 |
| REMARK 500 | NH1 | ARG | A | 1081 | 0 | LYS | A | 1098 | 2.00 |
| REMARK 500 | 0 | PRO | A | 992 | N | TYR | A | 994 | 2.03 |
| REMARK 500 | 0 | LEU | B | 699 | OE1 | GLU | B | 703 | 2.04 |
| REMARK 500 | 0 | LEU | A | 684 | OE1 | GLU | A | 686 | 2.04 |
| REMARK 500 | 0 | ILE | A | 156 | OD2 | ASP | A | 160 | 2.05 |
| REMARK 500 | CB | ALA | B | 830 | CE2 | PHE | B | 990 | 2.06 |
| REMARK 500 | 0 | VAL | A | 797 | OD1 | ASP | A | 801 | 2.06 |
| REMARK 500 | NH2 | ARG | B | 543 | 0 | SER | B | 905 | 2.07 |
| REMARK 500 | 0 | GLU | A | 1205 | CG1 | VAL | A | 1209 | 2.11 |
| REMARK 500 | 0 | VAL | B | 797 | N | TRP | B | 799 | 2.12 |
| REMARK 500 | 0 | PRO | B | 992 | N | TYR | B | 994 | 2.12 |
| REMARK 500 | OG | SER | A | 315 | OD1 | ASN | A | 747 | 2.12 |
| REMARK 500 | CE2 | PHE | B | 263 | NE2 | GLN | B | 266 | 2.12 |
| REMARK 500 | 0 | THR | B | 765 | NE2 | GLN | B | 769 | 2.13 |
| REMARK 500 | 0 | LYS | B | 320 | OG | SER | B | 323 | 2.13 |
| REMARK 500 | OH | TYR | B | 849 | 0 | LEU | B | 972 | 2.13 |
| REMARK 500 | 0 | LEU | B | 964 | N | THR | B | 966 | 2.13 |
| REMARK 500 | 0 | TYR | B | 994 | OG1 | THR | B | 998 | 2.14 |
| REMARK 500 | 0 | ASN | A | 1126 | N | TYR | A | 1129 | 2.15 |
| REMARK 500 | 0 | ASN | B | 899 | N | ARG | B | 901 | 2.15 |
| REMARK 500 | OH | TYR | A | 849 | 0 | LEU | A | 972 | 2.15 |
| REMARK 500 | 0 | LEU | A | 857 | N | ILE | A | 860 | 2.16 |
| REMARK 500 | 0 | SER | A | 415 | N | GLN | A | 417 | 2.16 |
| REMARK 500 | 0 | TRP | B | 694 | N | LEU | B | 697 | 2.16 |
| REMARK 500 | 0 | ILE | B | 156 | OD1 | ASP | B | 160 | 2.16 |
| REMARK 500 | 0 | TYR | B | 958 | CB | THR | B | 966 | 2.16 |
| REMARK 500 | 0 | ILE | B | 936 | OG | SER | B | 939 | 2.17 |
| REMARK 500 | CG1 | VAL | A | 1090 | 0 | ILE | A | 1097 | 2.17 |
| REMARK 500 | NZ | LYS | A | 498 | OE2 | GLU | A | 502 | 2.18 |
| REMARK 500 | 0 | ALA | A | 995 | N | ALA | A | 997 | 2.18 |
| REMARK 500 | 0 | ILE | A | 936 | OG | SER | A | 939 | 2.18 |

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: CLOSE CONTACTS
 REMARK 500
 REMARK 500 THE FOLLOWING ATOMS THAT ARE RELATED BY CRYSTALLOGRAPHIC
 REMARK 500 SYMMETRY ARE IN CLOSE CONTACT. AN ATOM LOCATED WITHIN 0.15
 REMARK 500 ANGSTROMS OF A SYMMETRY RELATED ATOM IS ASSUMED TO BE ON A
 REMARK 500 SPECIAL POSITION AND IS, THEREFORE, LISTED IN REMARK 375
 REMARK 500 INSTEAD OF REMARK 500. ATOMS WITH NON-BLANK ALTERNATE
 REMARK 500 LOCATION INDICATORS ARE NOT INCLUDED IN THE CALCULATIONS.
 REMARK 500
 REMARK 500 DISTANCE CUTOFF:
 REMARK 500 2.2 ANGSTROMS FOR CONTACTS NOT INVOLVING HYDROGEN ATOMS
 REMARK 500 1.6 ANGSTROMS FOR CONTACTS INVOLVING HYDROGEN ATOMS
 REMARK 500

| ATM1 | RES | C | SSEQI | ATM2 | RES | C | SSEQI | SSYMOP | DISTANCE |
|------|-----|---|-------|------|-----|---|-------|--------|----------|
| CG | GLN | A | 1099 | OD1 | ASP | B | 450 | 1455 | 2.03 |

 REMARK 500
 REMARK 500 REMARK: NULL
 REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS
 REMARK 500
 REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
 REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
 REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X,I3,1X,2(A3,1X,A1,I4,A1,1X,A4,3X),1X,F6.3)
 REMARK 500
 REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999
 REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

| M | RES | CSSEQI | ATM1 | RES | CSSEQI | ATM2 | DEVIATION |
|---|-----|--------|------|-----|--------|------|-----------|
| | GLY | A 600 | CA | GLY | A 600 | C | 0.106 |

 REMARK 500
 REMARK 500 REMARK: NULL
 REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: COVALENT BOND ANGLES
 REMARK 500
 REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
 REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
 REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)
 REMARK 500
 REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999
 REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

| M | RES | CSSEQI | ATM1 | ATM2 | ATM3 | ANGL. | DEV. |
|-----|-----|--------|------|------|------|-------|-------------------------------|
| 500 | PRO | A 65 | C | - | N | - | CA ANGL. DEV. = -12.4 DEGREES |
| 500 | GLY | A 165 | N | - | CA | - | C ANGL. DEV. = -24.9 DEGREES |
| 500 | ASN | A 292 | N | - | CA | - | C ANGL. DEV. = -19.2 DEGREES |
| 500 | PRO | A 346 | C | - | N | - | CA ANGL. DEV. = -10.4 DEGREES |
| 500 | SER | A 377 | N | - | CA | - | C ANGL. DEV. = 18.2 DEGREES |
| 500 | GLY | A 378 | N | - | CA | - | C ANGL. DEV. = 17.7 DEGREES |
| 500 | ARG | A 573 | N | - | CA | - | C ANGL. DEV. = 16.9 DEGREES |
| 500 | PRO | A 722 | C | - | N | - | CA ANGL. DEV. = -9.0 DEGREES |
| 500 | LEU | A 853 | N | - | CA | - | C ANGL. DEV. = -20.1 DEGREES |
| 500 | THR | A 854 | O | - | C | - | N ANGL. DEV. = 11.0 DEGREES |
| 500 | TYR | A 994 | N | - | CA | - | C ANGL. DEV. = -22.4 DEGREES |
| 500 | ILE | A1097 | N | - | CA | - | C ANGL. DEV. = -24.1 DEGREES |
| 500 | LYS | A1098 | N | - | CA | - | C ANGL. DEV. = -21.9 DEGREES |
| 500 | THR | A1204 | N | - | CA | - | C ANGL. DEV. = 16.3 DEGREES |
| 500 | CYS | A1223 | CA | - | CB | - | SG ANGL. DEV. = 12.3 DEGREES |
| 500 | PRO | B 65 | C | - | N | - | CA ANGL. DEV. = -9.3 DEGREES |
| 500 | VAL | B 164 | CB | - | CA | - | C ANGL. DEV. = -12.3 DEGREES |
| 500 | GLY | B 165 | N | - | CA | - | C ANGL. DEV. = -15.8 DEGREES |
| 500 | ASN | B 292 | N | - | CA | - | C ANGL. DEV. = -18.8 DEGREES |
| 500 | PRO | B 346 | C | - | N | - | CA ANGL. DEV. = -10.1 DEGREES |

REMARK 500 SER B 377 N - CA - C ANGL. DEV. = 18.8 DEGREES
 REMARK 500 ASP B 450 N - CA - C ANGL. DEV. = -17.9 DEGREES
 REMARK 500 PHE B 693 N - CA - C ANGL. DEV. = 21.5 DEGREES
 REMARK 500 PRO B 722 C - N - CA ANGL. DEV. = -11.7 DEGREES
 REMARK 500 PRO B 862 C - N - CA ANGL. DEV. = -9.1 DEGREES
 REMARK 500 LEU B 959 N - CA - C ANGL. DEV. = 16.9 DEGREES
 REMARK 500 GLU B1009 N - CA - C ANGL. DEV. = -17.6 DEGREES
 REMARK 500 GLU B1013 N - CA - C ANGL. DEV. = 16.6 DEGREES
 REMARK 500 ILE B1014 N - CA - C ANGL. DEV. = 17.5 DEGREES
 REMARK 500 GLN B1020 N - CA - C ANGL. DEV. = 20.8 DEGREES
 REMARK 500 GLY B1021 N - CA - C ANGL. DEV. = 16.7 DEGREES
 REMARK 500 ILE B1097 N - CA - C ANGL. DEV. = -17.9 DEGREES

REMARK 500
 REMARK 500 REMARK: NULL

REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: TORSION ANGLES

REMARK 500
 REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:
 REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;
 REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X, I3, 1X, A3, 1X, A1, I4, A1, 4X, F7.2, 3X, F7.2)

REMARK 500
 REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-
 REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400

| REMARK 500 | M | RES | CSSEQI | PSI | PHI |
|------------|-----|-----|--------|---------|---------|
| REMARK 500 | SER | A | 34 | -66.34 | 1.86 |
| REMARK 500 | VAL | A | 35 | -77.01 | -50.42 |
| REMARK 500 | ARG | A | 40 | 69.88 | -116.31 |
| REMARK 500 | TYR | A | 41 | -159.71 | -104.85 |
| REMARK 500 | ALA | A | 42 | 93.92 | 47.82 |
| REMARK 500 | TRP | A | 44 | -95.19 | -79.84 |
| REMARK 500 | LEU | A | 45 | 1.62 | -57.53 |
| REMARK 500 | ASP | A | 46 | -75.42 | -82.72 |
| REMARK 500 | ILE | A | 58 | -72.43 | -46.23 |
| REMARK 500 | SER | A | 88 | -136.82 | 31.41 |
| REMARK 500 | THR | A | 89 | 14.85 | 46.34 |
| REMARK 500 | ASN | A | 90 | -157.20 | -139.72 |
| REMARK 500 | MET | A | 91 | 92.42 | -37.12 |
| REMARK 500 | ALA | A | 101 | -75.07 | -61.97 |
| REMARK 500 | LEU | A | 103 | -76.45 | -63.53 |
| REMARK 500 | THR | A | 115 | -90.79 | -55.32 |
| REMARK 500 | ILE | A | 117 | -70.48 | -64.34 |
| REMARK 500 | TRP | A | 132 | -81.01 | -28.87 |
| REMARK 500 | ALA | A | 135 | -98.03 | -55.30 |
| REMARK 500 | ALA | A | 136 | -44.13 | -28.27 |
| REMARK 500 | ILE | A | 143 | -76.82 | -45.07 |
| REMARK 500 | ARG | A | 144 | -64.38 | -22.51 |
| REMARK 500 | MET | A | 152 | 0.71 | -50.91 |
| REMARK 500 | GLU | A | 155 | -135.80 | 34.64 |
| REMARK 500 | ILE | A | 156 | 23.01 | -61.09 |
| REMARK 500 | TRP | A | 158 | 4.47 | -63.65 |
| REMARK 500 | PHE | A | 159 | -44.48 | -133.73 |
| REMARK 500 | VAL | A | 161 | -147.72 | -147.63 |
| REMARK 500 | HIS | A | 162 | 117.91 | 62.45 |
| REMARK 500 | VAL | A | 164 | -24.16 | 64.50 |
| REMARK 500 | LEU | A | 167 | -76.45 | -70.86 |
| REMARK 500 | MET | A | 188 | -72.52 | -47.63 |
| REMARK 500 | PHE | A | 189 | -65.59 | -25.33 |
| REMARK 500 | PHE | A | 190 | -71.90 | -39.88 |
| REMARK 500 | PHE | A | 200 | -91.76 | -93.85 |
| REMARK 500 | ILE | A | 201 | -69.69 | -15.77 |
| REMARK 500 | PHE | A | 204 | -71.19 | -147.03 |
| REMARK 500 | TRP | A | 208 | 77.82 | 43.04 |
| REMARK 500 | LYS | A | 209 | -15.75 | 85.15 |
| REMARK 500 | ILE | A | 214 | -85.78 | -52.72 |
| REMARK 500 | LEU | A | 215 | -54.45 | -22.55 |
| REMARK 500 | ALA | A | 216 | -103.19 | -57.04 |
| REMARK 500 | SER | A | 218 | -88.11 | -47.97 |
| REMARK 500 | PRO | A | 219 | -27.83 | -36.35 |
| REMARK 500 | ILE | A | 227 | -75.36 | -63.91 |

| | | | | |
|--------|-----|-----------|---------|---------|
| REMARK | 500 | GLU A 251 | -72.24 | -97.99 |
| REMARK | 500 | GLU A 252 | -162.01 | 63.37 |
| REMARK | 500 | LEU A 254 | 7.54 | -158.71 |
| REMARK | 500 | ALA A 255 | -166.08 | -109.55 |
| REMARK | 500 | ILE A 257 | -35.13 | -38.10 |
| REMARK | 500 | GLN A 266 | -71.61 | -52.33 |
| REMARK | 500 | LYS A 267 | -28.63 | 71.53 |
| REMARK | 500 | ASN A 274 | -86.18 | -45.25 |
| REMARK | 500 | ASN A 276 | -85.29 | -57.87 |
| REMARK | 500 | ALA A 280 | -84.43 | -37.29 |
| REMARK | 500 | ARG A 282 | -88.34 | -65.62 |
| REMARK | 500 | THR A 290 | 6.93 | -61.68 |
| REMARK | 500 | SER A 294 | -18.65 | -48.99 |
| REMARK | 500 | ALA A 298 | -89.62 | -61.15 |
| REMARK | 500 | LEU A 308 | -93.49 | -47.17 |
| REMARK | 500 | PHE A 310 | -89.28 | -46.04 |
| REMARK | 500 | TYR A 312 | -83.68 | -53.71 |
| REMARK | 500 | VAL A 317 | 24.27 | -73.94 |
| REMARK | 500 | LYS A 320 | -94.98 | -88.83 |
| REMARK | 500 | TYR A 322 | 46.67 | 35.27 |
| REMARK | 500 | SER A 323 | 93.09 | -69.86 |
| REMARK | 500 | LEU A 328 | -82.89 | -39.28 |
| REMARK | 500 | THR A 329 | -59.31 | -25.80 |
| REMARK | 500 | VAL A 330 | -87.43 | -56.96 |
| REMARK | 500 | PHE A 351 | -73.13 | -48.03 |
| REMARK | 500 | ALA A 357 | -80.88 | -47.29 |
| REMARK | 500 | ALA A 358 | -86.20 | -47.93 |
| REMARK | 500 | TYR A 359 | -59.08 | -20.84 |
| REMARK | 500 | VAL A 361 | 26.86 | -79.44 |
| REMARK | 500 | ILE A 365 | -92.89 | -78.55 |
| REMARK | 500 | ASP A 366 | -82.22 | -35.28 |
| REMARK | 500 | ASN A 367 | 135.54 | 0.67 |
| REMARK | 500 | LYS A 368 | 58.32 | -116.46 |
| REMARK | 500 | PRO A 369 | -84.04 | -43.61 |
| REMARK | 500 | SER A 370 | -132.62 | 48.07 |
| REMARK | 500 | ILE A 371 | -25.25 | 64.56 |
| REMARK | 500 | SER A 373 | -61.27 | 171.56 |
| REMARK | 500 | PHE A 374 | -169.38 | 69.29 |
| REMARK | 500 | SER A 375 | 59.38 | 178.99 |
| REMARK | 500 | SER A 377 | -108.65 | -7.98 |
| REMARK | 500 | ILE A 384 | -154.19 | 62.57 |
| REMARK | 500 | GLN A 385 | 150.89 | 6.87 |
| REMARK | 500 | ASN A 392 | 66.83 | 38.10 |
| REMARK | 500 | PHE A 395 | 142.47 | -174.19 |
| REMARK | 500 | SER A 399 | 68.88 | -67.07 |
| REMARK | 500 | ARG A 400 | -32.88 | 7.79 |
| REMARK | 500 | GLN A 404 | 82.85 | -66.30 |
| REMARK | 500 | LYS A 407 | 36.06 | -85.06 |
| REMARK | 500 | ASN A 424 | -52.93 | -157.48 |
| REMARK | 500 | SER A 425 | 20.76 | -66.33 |
| REMARK | 500 | LYS A 429 | -80.32 | -21.95 |
| REMARK | 500 | GLN A 434 | -82.55 | -74.64 |
| REMARK | 500 | MET A 436 | 9.99 | -65.55 |
| REMARK | 500 | MET A 446 | 178.40 | 179.55 |
| REMARK | 500 | ASP A 450 | -120.49 | 44.87 |
| REMARK | 500 | VAL A 459 | -73.45 | -63.24 |
| REMARK | 500 | LEU A 462 | -71.89 | -50.60 |
| REMARK | 500 | ARG A 463 | -35.56 | -37.35 |
| REMARK | 500 | ILE A 465 | 4.65 | -63.03 |
| REMARK | 500 | GLN A 471 | -106.07 | -58.59 |
| REMARK | 500 | GLU A 472 | 101.08 | -28.03 |
| REMARK | 500 | THR A 478 | -167.19 | -166.55 |
| REMARK | 500 | GLU A 489 | -86.44 | -40.68 |
| REMARK | 500 | VAL A 491 | 132.02 | 164.36 |
| REMARK | 500 | MET A 493 | -13.62 | -45.75 |
| REMARK | 500 | ALA A 503 | 39.96 | -98.92 |
| REMARK | 500 | ASN A 504 | 54.03 | 30.09 |
| REMARK | 500 | PRO A 513 | 171.46 | -52.98 |
| REMARK | 500 | HIS A 514 | -15.89 | 52.00 |
| REMARK | 500 | GLN A 515 | -142.11 | 81.36 |
| REMARK | 500 | LEU A 519 | -157.38 | -96.22 |
| REMARK | 500 | GLU A 522 | 103.46 | 53.42 |
| REMARK | 500 | ARG A 523 | 176.40 | 71.68 |
| REMARK | 500 | GLN A 526 | -36.64 | -174.48 |

| | | | | |
|--------|-----|-----------|---------|---------|
| REMARK | 500 | ASN A 544 | 74.80 | 38.19 |
| REMARK | 500 | PRO A 545 | -161.55 | -78.01 |
| REMARK | 500 | GLU A 552 | -2.08 | 63.02 |
| REMARK | 500 | ALA A 553 | -98.34 | -3.19 |
| REMARK | 500 | THR A 554 | -46.50 | -28.91 |
| REMARK | 500 | SER A 555 | 171.73 | -34.10 |
| REMARK | 500 | GLU A 562 | -38.29 | -32.98 |
| REMARK | 500 | ALA A 563 | -75.22 | -64.23 |
| REMARK | 500 | ARG A 589 | -70.92 | -15.48 |
| REMARK | 500 | ASN A 590 | 32.20 | -59.46 |
| REMARK | 500 | ASP A 598 | 71.07 | 155.55 |
| REMARK | 500 | VAL A 601 | 93.05 | -163.54 |
| REMARK | 500 | VAL A 603 | -86.55 | -147.38 |
| REMARK | 500 | HIS A 608 | -79.51 | -40.43 |
| REMARK | 500 | LYS A 620 | -73.28 | -48.49 |
| REMARK | 500 | GLU A 686 | -50.68 | 179.52 |
| REMARK | 500 | ASP A 687 | 121.77 | 0.30 |
| REMARK | 500 | ALA A 691 | -129.26 | -96.58 |
| REMARK | 500 | SER A 692 | 52.07 | 177.90 |
| REMARK | 500 | PHE A 693 | 109.28 | -41.21 |
| REMARK | 500 | TRP A 694 | -3.40 | 57.90 |
| REMARK | 500 | ASN A 700 | -79.78 | -44.45 |
| REMARK | 500 | GLU A 703 | 43.61 | -70.94 |
| REMARK | 500 | PRO A 705 | -60.22 | -96.44 |
| REMARK | 500 | TYR A 706 | 146.73 | 162.18 |
| REMARK | 500 | PHE A 707 | 56.38 | -172.67 |
| REMARK | 500 | VAL A 731 | -73.75 | -43.22 |
| REMARK | 500 | VAL A 734 | 24.73 | -66.62 |
| REMARK | 500 | PHE A 735 | -7.57 | -151.70 |
| REMARK | 500 | ASN A 737 | 108.18 | -168.01 |
| REMARK | 500 | GLU A 742 | -18.07 | 81.15 |
| REMARK | 500 | ASN A 747 | -90.29 | -56.62 |
| REMARK | 500 | SER A 748 | -48.40 | -22.70 |
| REMARK | 500 | ASN A 749 | -78.26 | -59.85 |
| REMARK | 500 | LEU A 750 | -39.54 | -38.91 |
| REMARK | 500 | PHE A 751 | -73.30 | -54.16 |
| REMARK | 500 | PHE A 755 | -83.29 | -65.88 |
| REMARK | 500 | ILE A 757 | -87.07 | -56.02 |
| REMARK | 500 | LEU A 758 | -80.27 | -43.34 |
| REMARK | 500 | ILE A 760 | -81.18 | -62.94 |
| REMARK | 500 | ILE A 761 | -56.70 | -20.87 |
| REMARK | 500 | ILE A 764 | -74.99 | -58.62 |
| REMARK | 500 | THR A 765 | -58.04 | -22.85 |
| REMARK | 500 | PHE A 766 | -74.93 | -58.15 |
| REMARK | 500 | PHE A 767 | -64.93 | -25.65 |
| REMARK | 500 | GLU A 778 | -82.43 | -52.57 |
| REMARK | 500 | ARG A 783 | -16.46 | -49.69 |
| REMARK | 500 | TYR A 786 | -74.88 | -59.15 |
| REMARK | 500 | GLN A 795 | -177.56 | -56.14 |
| REMARK | 500 | ASP A 796 | -154.01 | 151.22 |
| REMARK | 500 | VAL A 797 | -167.60 | 74.58 |
| REMARK | 500 | SER A 798 | 7.41 | -46.85 |
| REMARK | 500 | TRP A 799 | -80.71 | -58.66 |
| REMARK | 500 | ASP A 802 | 81.36 | -169.69 |
| REMARK | 500 | PRO A 803 | -153.96 | -101.84 |
| REMARK | 500 | LYS A 804 | 29.22 | 171.21 |
| REMARK | 500 | ALA A 809 | -34.07 | -32.82 |
| REMARK | 500 | THR A 812 | -74.16 | -44.16 |
| REMARK | 500 | LEU A 814 | -73.87 | -45.36 |
| REMARK | 500 | ALA A 815 | -72.30 | -54.42 |
| REMARK | 500 | ALA A 819 | -71.60 | -44.43 |
| REMARK | 500 | VAL A 831 | -74.30 | -86.66 |
| REMARK | 500 | PHE A 833 | -84.05 | -57.66 |
| REMARK | 500 | ASN A 835 | -76.82 | -42.13 |
| REMARK | 500 | ALA A 837 | -91.67 | -33.57 |
| REMARK | 500 | ASN A 838 | -72.89 | -38.56 |
| REMARK | 500 | LEU A 839 | -88.59 | -63.62 |
| REMARK | 500 | TRP A 851 | 73.07 | 29.37 |
| REMARK | 500 | GLN A 852 | 10.51 | -166.52 |
| REMARK | 500 | LEU A 853 | -67.50 | -148.76 |
| REMARK | 500 | THR A 854 | -60.58 | -23.12 |
| REMARK | 500 | VAL A 869 | -71.36 | -61.20 |
| REMARK | 500 | SER A 889 | -74.34 | -53.00 |
| REMARK | 500 | PHE A 900 | -29.27 | -10.83 |

| | | | |
|------------|-----------|---------|---------|
| REMARK 500 | ARG A 901 | 33.71 | -59.61 |
| REMARK 500 | LEU A 906 | 3.52 | 56.50 |
| REMARK 500 | ARG A 908 | -41.58 | -173.94 |
| REMARK 500 | GLU A 909 | -102.54 | 2.41 |
| REMARK 500 | LYS A 911 | -46.59 | -26.66 |
| REMARK 500 | PHE A 912 | -86.62 | -63.04 |
| REMARK 500 | GLN A 921 | -59.78 | -21.28 |
| REMARK 500 | THR A 937 | -75.44 | -48.58 |
| REMARK 500 | SER A 939 | -72.60 | -46.60 |
| REMARK 500 | PHE A 940 | -33.64 | -34.03 |
| REMARK 500 | MET A 945 | -71.69 | -42.04 |
| REMARK 500 | SER A 948 | -78.78 | -42.34 |
| REMARK 500 | TYR A 949 | -72.25 | -36.67 |
| REMARK 500 | ALA A 950 | -73.62 | -34.48 |
| REMARK 500 | ALA A 952 | -77.65 | -47.55 |
| REMARK 500 | ALA A 957 | -39.58 | -33.65 |
| REMARK 500 | TYR A 958 | 112.81 | -18.18 |
| REMARK 500 | LEU A 959 | 83.75 | 72.38 |
| REMARK 500 | GLN A 962 | 9.51 | 91.83 |
| REMARK 500 | GLN A 963 | 82.95 | 85.01 |
| REMARK 500 | MET A 965 | 8.71 | -43.16 |
| REMARK 500 | PHE A 967 | -140.96 | -160.72 |
| REMARK 500 | ASN A 969 | -31.84 | -30.35 |
| REMARK 500 | PHE A 990 | -149.60 | 63.03 |
| REMARK 500 | ALA A 991 | 168.78 | -45.51 |
| REMARK 500 | ASP A 993 | 50.90 | -46.82 |
| REMARK 500 | TYR A 994 | -132.62 | 51.88 |
| REMARK 500 | ALA A 995 | -131.46 | 52.46 |
| REMARK 500 | LYS A 996 | -38.03 | -17.83 |
| REMARK 500 | LYS A1010 | -155.03 | 39.01 |
| REMARK 500 | THR A1011 | 79.50 | -151.52 |
| REMARK 500 | PRO A1012 | -43.77 | -17.87 |
| REMARK 500 | GLU A1013 | -23.85 | 62.67 |
| REMARK 500 | ILE A1014 | 71.37 | -177.15 |
| REMARK 500 | ASP A1015 | -91.57 | -94.72 |
| REMARK 500 | SER A1016 | -164.19 | -106.40 |
| REMARK 500 | TYR A1017 | 172.55 | 146.74 |
| REMARK 500 | THR A1019 | 39.81 | 23.56 |
| REMARK 500 | GLN A1020 | 175.85 | 138.14 |
| REMARK 500 | LYS A1023 | 131.46 | -27.71 |
| REMARK 500 | PRO A1024 | 41.91 | -67.55 |
| REMARK 500 | ASN A1025 | -18.50 | -153.60 |
| REMARK 500 | MET A1026 | 17.14 | -62.82 |
| REMARK 500 | GLU A1028 | -75.61 | -46.93 |
| REMARK 500 | VAL A1036 | 92.23 | 15.61 |
| REMARK 500 | PHE A1038 | 147.50 | -176.53 |
| REMARK 500 | PRO A1041 | 102.00 | -22.40 |
| REMARK 500 | THR A1042 | 12.22 | 157.00 |
| REMARK 500 | ARG A1043 | -31.47 | -25.51 |
| REMARK 500 | SER A1045 | 35.21 | -76.65 |
| REMARK 500 | ILE A1046 | 175.09 | 42.09 |
| REMARK 500 | LYS A1057 | -159.29 | -53.58 |
| REMARK 500 | GLN A1060 | -137.54 | -126.20 |
| REMARK 500 | SER A1067 | -72.16 | -76.68 |
| REMARK 500 | CYS A1070 | 168.00 | -48.99 |
| REMARK 500 | ARG A1081 | 56.80 | 37.33 |
| REMARK 500 | LEU A1092 | -3.58 | -59.89 |
| REMARK 500 | ASP A1093 | -59.89 | 176.87 |
| REMARK 500 | LYS A1095 | 129.34 | -173.39 |
| REMARK 500 | GLU A1096 | 89.93 | 6.72 |
| REMARK 500 | LYS A1098 | -66.03 | -163.24 |
| REMARK 500 | LEU A1109 | 88.59 | -173.24 |
| REMARK 500 | GLN A1114 | -84.97 | -31.38 |
| REMARK 500 | PRO A1116 | -139.89 | -69.36 |
| REMARK 500 | ILE A1117 | 155.91 | 145.38 |
| REMARK 500 | ASP A1120 | 55.82 | -55.03 |
| REMARK 500 | ILE A1127 | -56.93 | -29.78 |
| REMARK 500 | ALA A1128 | 17.52 | -64.64 |
| REMARK 500 | TYR A1129 | 101.40 | -26.35 |
| REMARK 500 | ASP A1131 | -34.04 | -37.86 |
| REMARK 500 | ASN A1132 | -152.82 | 174.60 |
| REMARK 500 | ARG A1134 | 107.81 | -38.06 |
| REMARK 500 | VAL A1136 | 60.09 | -61.14 |
| REMARK 500 | SER A1137 | 98.72 | -54.90 |

| | | | | | |
|--------|-----|-----|-------|---------|---------|
| REMARK | 500 | TYR | A1138 | -80.40 | -45.33 |
| REMARK | 500 | ALA | A1144 | -72.45 | -56.38 |
| REMARK | 500 | ALA | A1145 | -35.73 | -37.27 |
| REMARK | 500 | LYS | A1146 | -82.58 | -61.42 |
| REMARK | 500 | SER | A1156 | -80.72 | -113.12 |
| REMARK | 500 | LEU | A1157 | 110.14 | 3.60 |
| REMARK | 500 | PRO | A1158 | 138.43 | -16.07 |
| REMARK | 500 | ASP | A1159 | 2.97 | 53.12 |
| REMARK | 500 | LYS | A1160 | -140.93 | 40.72 |
| REMARK | 500 | ASP | A1167 | 32.85 | 74.14 |
| REMARK | 500 | THR | A1170 | 91.78 | -32.95 |
| REMARK | 500 | GLN | A1171 | 12.49 | 172.48 |
| REMARK | 500 | ALA | A1183 | -80.97 | -53.97 |
| REMARK | 500 | ARG | A1184 | -61.03 | -13.77 |
| REMARK | 500 | ALA | A1185 | -74.26 | -59.28 |
| REMARK | 500 | LEU | A1186 | -1.99 | -55.97 |
| REMARK | 500 | PRO | A1190 | -144.88 | -63.77 |
| REMARK | 500 | HIS | A1191 | -29.84 | -158.39 |
| REMARK | 500 | GLU | A1197 | 21.61 | 44.71 |
| REMARK | 500 | ALA | A1198 | -91.00 | -18.96 |
| REMARK | 500 | SER | A1200 | 23.53 | -140.21 |
| REMARK | 500 | ALA | A1201 | 93.43 | -175.10 |
| REMARK | 500 | LEU | A1202 | -143.88 | -169.02 |
| REMARK | 500 | ASP | A1203 | -176.04 | -173.68 |
| REMARK | 500 | THR | A1204 | -98.97 | 0.14 |
| REMARK | 500 | GLU | A1207 | -77.07 | -48.55 |
| REMARK | 500 | ALA | A1213 | -77.62 | -65.48 |
| REMARK | 500 | LEU | A1214 | -30.87 | -36.39 |
| REMARK | 500 | ASP | A1215 | -81.80 | -63.21 |
| REMARK | 500 | GLU | A1219 | -22.27 | 66.52 |
| REMARK | 500 | ASN | A1235 | 48.78 | -76.82 |
| REMARK | 500 | ASN | A1244 | 101.60 | 9.69 |
| REMARK | 500 | HIS | A1250 | 158.92 | 167.54 |
| REMARK | 500 | HIS | A1253 | -71.87 | -45.58 |
| REMARK | 500 | ILE | A1262 | -77.65 | -57.25 |
| REMARK | 500 | SER | B 34 | -65.22 | 0.85 |
| REMARK | 500 | VAL | B 35 | -75.98 | -50.79 |
| REMARK | 500 | ARG | B 40 | 63.01 | -111.43 |
| REMARK | 500 | TYR | B 41 | -157.73 | -102.65 |
| REMARK | 500 | ALA | B 42 | 96.12 | 40.95 |
| REMARK | 500 | TRP | B 44 | -92.27 | -79.58 |
| REMARK | 500 | LEU | B 45 | -2.13 | -59.94 |
| REMARK | 500 | ASP | B 46 | -75.86 | -78.46 |
| REMARK | 500 | ILE | B 58 | -73.98 | -44.61 |
| REMARK | 500 | SER | B 88 | -135.82 | 32.28 |
| REMARK | 500 | THR | B 89 | 9.24 | 47.33 |
| REMARK | 500 | ASN | B 90 | -154.44 | -134.48 |
| REMARK | 500 | MET | B 91 | 96.67 | -40.65 |
| REMARK | 500 | ALA | B 101 | -72.26 | -63.27 |
| REMARK | 500 | THR | B 115 | -94.00 | -58.03 |
| REMARK | 500 | TRP | B 132 | -80.28 | -28.21 |
| REMARK | 500 | ALA | B 135 | -99.00 | -53.02 |
| REMARK | 500 | ALA | B 136 | -43.54 | -26.86 |
| REMARK | 500 | ILE | B 143 | -73.99 | -44.15 |
| REMARK | 500 | ARG | B 144 | -62.67 | -28.31 |
| REMARK | 500 | MET | B 152 | -1.73 | -53.13 |
| REMARK | 500 | GLU | B 155 | -151.31 | 51.76 |
| REMARK | 500 | ILE | B 156 | -29.21 | -37.79 |
| REMARK | 500 | TRP | B 158 | 5.58 | -60.63 |
| REMARK | 500 | PHE | B 159 | -37.21 | -130.04 |
| REMARK | 500 | VAL | B 161 | -146.31 | -151.53 |
| REMARK | 500 | HIS | B 162 | 117.48 | 57.85 |
| REMARK | 500 | VAL | B 164 | -14.68 | 52.23 |
| REMARK | 500 | LEU | B 167 | -75.83 | -72.45 |
| REMARK | 500 | MET | B 188 | -71.66 | -49.57 |
| REMARK | 500 | PHE | B 189 | -62.96 | -25.51 |
| REMARK | 500 | PHE | B 200 | -88.47 | -92.63 |
| REMARK | 500 | ILE | B 201 | -68.56 | -17.88 |
| REMARK | 500 | PHE | B 204 | -67.31 | -144.09 |
| REMARK | 500 | TRP | B 208 | -29.93 | 58.81 |
| REMARK | 500 | LYS | B 209 | -19.78 | -167.37 |
| REMARK | 500 | ILE | B 214 | -82.45 | -51.29 |
| REMARK | 500 | LEU | B 215 | -55.51 | -25.58 |
| REMARK | 500 | ALA | B 216 | -102.76 | -56.06 |

| | | | | |
|--------|-----|-----------|---------|---------|
| REMARK | 500 | SER B 218 | -85.52 | -50.76 |
| REMARK | 500 | PRO B 219 | -27.27 | -38.95 |
| REMARK | 500 | ILE B 227 | -76.94 | -61.71 |
| REMARK | 500 | GLU B 251 | -71.68 | -99.42 |
| REMARK | 500 | GLU B 252 | 179.40 | 57.60 |
| REMARK | 500 | LEU B 254 | 10.50 | -159.18 |
| REMARK | 500 | ALA B 255 | -167.08 | -113.87 |
| REMARK | 500 | GLN B 266 | -72.94 | -53.66 |
| REMARK | 500 | LYS B 267 | -29.31 | 87.34 |
| REMARK | 500 | ASN B 274 | -84.87 | -49.07 |
| REMARK | 500 | ASN B 276 | -82.82 | -57.43 |
| REMARK | 500 | ALA B 280 | -86.43 | -35.80 |
| REMARK | 500 | ARG B 282 | -90.89 | -63.97 |
| REMARK | 500 | THR B 290 | 5.24 | -59.03 |
| REMARK | 500 | SER B 294 | -18.83 | -48.91 |
| REMARK | 500 | ALA B 298 | -93.30 | -64.40 |
| REMARK | 500 | PHE B 299 | -47.59 | -27.90 |
| REMARK | 500 | LEU B 308 | -94.81 | -49.24 |
| REMARK | 500 | PHE B 310 | -88.26 | -51.51 |
| REMARK | 500 | TYR B 312 | -87.58 | -48.63 |
| REMARK | 500 | VAL B 317 | 22.23 | -74.40 |
| REMARK | 500 | LYS B 320 | -102.00 | -94.24 |
| REMARK | 500 | TYR B 322 | 41.60 | 28.31 |
| REMARK | 500 | LEU B 328 | -83.04 | -40.89 |
| REMARK | 500 | THR B 329 | -59.12 | -25.69 |
| REMARK | 500 | VAL B 330 | -85.11 | -56.95 |
| REMARK | 500 | ALA B 357 | -79.75 | -48.78 |
| REMARK | 500 | ALA B 358 | -91.90 | -48.11 |
| REMARK | 500 | TYR B 359 | -57.28 | -17.00 |
| REMARK | 500 | VAL B 361 | 24.20 | -78.61 |
| REMARK | 500 | ILE B 365 | -97.45 | -79.72 |
| REMARK | 500 | ASP B 366 | -85.87 | -31.58 |
| REMARK | 500 | ASN B 367 | 136.99 | 2.29 |
| REMARK | 500 | PRO B 369 | -36.02 | -39.65 |
| REMARK | 500 | SER B 370 | -101.05 | 15.76 |
| REMARK | 500 | ILE B 371 | -42.13 | 18.60 |
| REMARK | 500 | ASP B 372 | 11.77 | -59.00 |
| REMARK | 500 | SER B 373 | -55.50 | -172.88 |
| REMARK | 500 | PHE B 374 | 178.46 | 56.78 |
| REMARK | 500 | SER B 375 | 36.92 | -159.04 |
| REMARK | 500 | SER B 377 | 99.64 | 63.92 |
| REMARK | 500 | PRO B 381 | 74.58 | -104.22 |
| REMARK | 500 | ILE B 384 | -128.97 | 63.54 |
| REMARK | 500 | GLN B 385 | 166.28 | -46.02 |
| REMARK | 500 | ASN B 392 | 67.20 | 37.26 |
| REMARK | 500 | PHE B 395 | 134.98 | -174.47 |
| REMARK | 500 | TYR B 397 | 166.81 | -48.43 |
| REMARK | 500 | SER B 399 | 71.73 | -66.56 |
| REMARK | 500 | ARG B 400 | -30.08 | 3.51 |
| REMARK | 500 | GLN B 404 | 86.70 | -69.03 |
| REMARK | 500 | LYS B 407 | 34.93 | -84.17 |
| REMARK | 500 | LEU B 411 | 149.72 | -176.06 |
| REMARK | 500 | LYS B 414 | 170.92 | -58.40 |
| REMARK | 500 | GLN B 417 | -169.37 | -79.54 |
| REMARK | 500 | ASN B 424 | -50.31 | -155.64 |
| REMARK | 500 | SER B 425 | 28.08 | -69.93 |
| REMARK | 500 | CYS B 427 | 140.51 | -30.22 |
| REMARK | 500 | LEU B 435 | -16.46 | -46.69 |
| REMARK | 500 | ARG B 438 | 7.69 | 56.67 |
| REMARK | 500 | MET B 446 | 176.93 | 178.77 |
| REMARK | 500 | ASP B 450 | -124.59 | 51.45 |
| REMARK | 500 | VAL B 459 | -80.28 | -53.29 |
| REMARK | 500 | LEU B 462 | -73.40 | -42.93 |
| REMARK | 500 | ARG B 463 | -35.88 | -37.33 |
| REMARK | 500 | ILE B 465 | 3.67 | -57.32 |
| REMARK | 500 | GLN B 471 | -106.70 | -55.22 |
| REMARK | 500 | GLU B 472 | 103.11 | -27.00 |
| REMARK | 500 | ALA B 477 | 92.61 | -69.86 |
| REMARK | 500 | THR B 478 | -166.59 | -165.73 |
| REMARK | 500 | GLU B 489 | -86.66 | -39.52 |
| REMARK | 500 | VAL B 491 | 134.16 | 167.91 |
| REMARK | 500 | MET B 493 | -13.10 | -43.82 |
| REMARK | 500 | ALA B 503 | 40.08 | -98.99 |
| REMARK | 500 | ASN B 504 | 57.13 | 29.72 |

| | | | | | | |
|--------|-----|-----|---|-----|---------|---------|
| REMARK | 500 | PRO | B | 513 | 174.01 | -47.84 |
| REMARK | 500 | HIS | B | 514 | -17.98 | 53.44 |
| REMARK | 500 | GLN | B | 515 | -140.50 | 81.12 |
| REMARK | 500 | LEU | B | 519 | -158.17 | -91.16 |
| REMARK | 500 | GLU | B | 522 | 104.04 | 55.87 |
| REMARK | 500 | ARG | B | 523 | 178.87 | 71.95 |
| REMARK | 500 | GLN | B | 526 | -37.17 | -175.22 |
| REMARK | 500 | PRO | B | 545 | -159.64 | -67.06 |
| REMARK | 500 | ALA | B | 553 | -95.41 | -6.15 |
| REMARK | 500 | SER | B | 555 | 171.00 | -35.53 |
| REMARK | 500 | ALA | B | 563 | -70.57 | -61.55 |
| REMARK | 500 | ARG | B | 573 | -149.86 | -64.40 |
| REMARK | 500 | GLU | B | 574 | -27.38 | 49.66 |
| REMARK | 500 | ARG | B | 589 | -66.71 | -17.86 |
| REMARK | 500 | ASN | B | 590 | 35.22 | -63.71 |
| REMARK | 500 | ASP | B | 598 | 71.35 | 154.43 |
| REMARK | 500 | VAL | B | 601 | 93.62 | -165.89 |
| REMARK | 500 | VAL | B | 603 | -86.72 | -146.90 |
| REMARK | 500 | HIS | B | 608 | -80.05 | -37.67 |
| REMARK | 500 | ASP | B | 609 | -19.76 | -47.00 |
| REMARK | 500 | LYS | B | 620 | -76.94 | -47.52 |
| REMARK | 500 | ASP | B | 685 | -150.11 | -132.29 |
| REMARK | 500 | ALA | B | 691 | -151.54 | 52.59 |
| REMARK | 500 | SER | B | 692 | 65.29 | 159.52 |
| REMARK | 500 | ARG | B | 695 | -61.85 | -27.96 |
| REMARK | 500 | ASN | B | 700 | -82.69 | -41.34 |
| REMARK | 500 | GLU | B | 703 | 41.82 | -71.27 |
| REMARK | 500 | TYR | B | 706 | 146.85 | 161.78 |
| REMARK | 500 | PHE | B | 707 | 53.15 | -174.00 |
| REMARK | 500 | VAL | B | 731 | -76.01 | -37.63 |
| REMARK | 500 | VAL | B | 734 | 24.10 | -65.02 |
| REMARK | 500 | PHE | B | 735 | -8.80 | -149.04 |
| REMARK | 500 | ASN | B | 737 | 105.49 | -167.69 |
| REMARK | 500 | GLU | B | 742 | -15.55 | 77.86 |
| REMARK | 500 | ASN | B | 747 | -90.06 | -61.33 |
| REMARK | 500 | SER | B | 748 | -46.88 | -25.40 |
| REMARK | 500 | ASN | B | 749 | -77.46 | -58.20 |
| REMARK | 500 | PHE | B | 751 | -71.34 | -53.19 |
| REMARK | 500 | PHE | B | 755 | -82.62 | -63.79 |
| REMARK | 500 | ILE | B | 757 | -82.66 | -57.70 |
| REMARK | 500 | LEU | B | 758 | -80.21 | -47.76 |
| REMARK | 500 | ILE | B | 760 | -72.49 | -63.17 |
| REMARK | 500 | ILE | B | 761 | -57.75 | -28.00 |
| REMARK | 500 | ILE | B | 764 | -74.23 | -58.30 |
| REMARK | 500 | THR | B | 765 | -55.78 | -23.90 |
| REMARK | 500 | PHE | B | 766 | -73.34 | -60.97 |
| REMARK | 500 | PHE | B | 767 | -63.19 | -25.98 |
| REMARK | 500 | LEU | B | 768 | -72.70 | -57.85 |
| REMARK | 500 | GLU | B | 778 | -79.34 | -51.90 |
| REMARK | 500 | TYR | B | 786 | -71.31 | -59.32 |
| REMARK | 500 | GLN | B | 795 | -172.11 | -57.85 |
| REMARK | 500 | ASP | B | 796 | -47.84 | 152.13 |
| REMARK | 500 | VAL | B | 797 | -156.79 | -35.96 |
| REMARK | 500 | SER | B | 798 | 6.33 | -38.94 |
| REMARK | 500 | TRP | B | 799 | -80.48 | -58.49 |
| REMARK | 500 | ASP | B | 802 | 80.01 | -170.79 |
| REMARK | 500 | PRO | B | 803 | -152.95 | -99.90 |
| REMARK | 500 | LYS | B | 804 | 23.54 | 170.96 |
| REMARK | 500 | THR | B | 806 | 163.53 | -47.59 |
| REMARK | 500 | ALA | B | 809 | -36.71 | -29.68 |
| REMARK | 500 | THR | B | 812 | -73.40 | -44.54 |
| REMARK | 500 | LEU | B | 814 | -76.35 | -44.01 |
| REMARK | 500 | ALA | B | 815 | -75.78 | -50.51 |
| REMARK | 500 | ALA | B | 819 | -70.58 | -47.79 |
| REMARK | 500 | ALA | B | 830 | -5.55 | -59.64 |
| REMARK | 500 | PHE | B | 833 | -80.84 | -52.81 |
| REMARK | 500 | ASN | B | 835 | -73.50 | -45.94 |
| REMARK | 500 | ALA | B | 837 | -90.11 | -30.00 |
| REMARK | 500 | ASN | B | 838 | -74.08 | -38.55 |
| REMARK | 500 | LEU | B | 839 | -89.33 | -61.62 |
| REMARK | 500 | TRP | B | 851 | -20.79 | 33.36 |
| REMARK | 500 | THR | B | 854 | -67.67 | -29.95 |
| REMARK | 500 | VAL | B | 869 | -72.21 | -60.28 |
| REMARK | 500 | SER | B | 889 | -73.61 | -54.67 |

| | | | | | | |
|--------|-----|-----|---|------|---------|---------|
| REMARK | 500 | PHE | B | 900 | -29.52 | -10.37 |
| REMARK | 500 | ARG | B | 901 | 30.76 | -55.96 |
| REMARK | 500 | ARG | B | 908 | -43.62 | -178.08 |
| REMARK | 500 | GLU | B | 909 | -103.72 | 3.52 |
| REMARK | 500 | LYS | B | 911 | -43.82 | -26.21 |
| REMARK | 500 | PHE | B | 912 | -86.37 | -64.95 |
| REMARK | 500 | GLN | B | 921 | -57.37 | -21.27 |
| REMARK | 500 | ALA | B | 931 | -72.48 | -59.83 |
| REMARK | 500 | THR | B | 937 | -72.36 | -47.41 |
| REMARK | 500 | SER | B | 939 | -71.51 | -49.82 |
| REMARK | 500 | PHE | B | 940 | -34.72 | -33.40 |
| REMARK | 500 | SER | B | 948 | -76.75 | -46.81 |
| REMARK | 500 | TYR | B | 949 | -77.39 | -37.89 |
| REMARK | 500 | ALA | B | 952 | -74.70 | -51.55 |
| REMARK | 500 | TYR | B | 958 | 132.22 | -6.96 |
| REMARK | 500 | LEU | B | 959 | 77.12 | 52.11 |
| REMARK | 500 | GLN | B | 963 | 86.74 | 84.29 |
| REMARK | 500 | MET | B | 965 | 3.85 | -36.84 |
| REMARK | 500 | PHE | B | 967 | -140.42 | -161.03 |
| REMARK | 500 | ASN | B | 969 | -31.07 | -28.25 |
| REMARK | 500 | SER | B | 988 | 41.07 | -85.92 |
| REMARK | 500 | SER | B | 989 | -166.81 | -168.71 |
| REMARK | 500 | PHE | B | 990 | -156.39 | 67.51 |
| REMARK | 500 | ALA | B | 991 | -176.80 | -62.04 |
| REMARK | 500 | ASP | B | 993 | 45.96 | -50.70 |
| REMARK | 500 | TYR | B | 994 | 2.92 | 46.48 |
| REMARK | 500 | ALA | B | 995 | -84.15 | -91.94 |
| REMARK | 500 | HIS | B | 1003 | -70.44 | -51.68 |
| REMARK | 500 | LYS | B | 1010 | -122.47 | -96.27 |
| REMARK | 500 | THR | B | 1011 | -52.21 | 158.30 |
| REMARK | 500 | PRO | B | 1012 | -169.62 | -51.06 |
| REMARK | 500 | GLU | B | 1013 | -162.64 | -59.30 |
| REMARK | 500 | ILE | B | 1014 | 90.78 | 36.67 |
| REMARK | 500 | ASP | B | 1015 | 111.24 | 157.74 |
| REMARK | 500 | SER | B | 1016 | 98.06 | 41.05 |
| REMARK | 500 | TYR | B | 1017 | -73.13 | -137.18 |
| REMARK | 500 | THR | B | 1019 | 62.80 | 63.63 |
| REMARK | 500 | GLN | B | 1020 | -70.91 | -107.07 |
| REMARK | 500 | LYS | B | 1023 | 113.72 | -12.27 |
| REMARK | 500 | PRO | B | 1024 | -42.00 | -15.64 |
| REMARK | 500 | MET | B | 1026 | -6.32 | -54.30 |
| REMARK | 500 | LEU | B | 1027 | -76.15 | -53.98 |
| REMARK | 500 | GLU | B | 1028 | 106.37 | 2.72 |
| REMARK | 500 | VAL | B | 1036 | 95.05 | 11.04 |
| REMARK | 500 | PRO | B | 1041 | 106.47 | -14.31 |
| REMARK | 500 | THR | B | 1042 | 14.23 | 150.26 |
| REMARK | 500 | ARG | B | 1043 | -37.18 | -28.34 |
| REMARK | 500 | SER | B | 1045 | 40.83 | -80.89 |
| REMARK | 500 | ILE | B | 1046 | -176.50 | 30.97 |
| REMARK | 500 | SER | B | 1053 | 118.36 | -160.08 |
| REMARK | 500 | LYS | B | 1057 | -157.86 | -57.84 |
| REMARK | 500 | GLN | B | 1060 | -139.81 | -127.95 |
| REMARK | 500 | SER | B | 1067 | -70.78 | -76.58 |
| REMARK | 500 | CYS | B | 1070 | 169.00 | -46.61 |
| REMARK | 500 | GLU | B | 1080 | 2.59 | -67.30 |
| REMARK | 500 | ARG | B | 1081 | 57.17 | 37.01 |
| REMARK | 500 | ASP | B | 1093 | -58.27 | -165.08 |
| REMARK | 500 | LYS | B | 1098 | -17.58 | 156.18 |
| REMARK | 500 | LEU | B | 1109 | 87.79 | -174.27 |
| REMARK | 500 | GLN | B | 1114 | -85.97 | -28.95 |
| REMARK | 500 | PRO | B | 1116 | -140.21 | -70.91 |
| REMARK | 500 | ILE | B | 1117 | 157.04 | 147.69 |
| REMARK | 500 | ASP | B | 1120 | 49.74 | -49.98 |
| REMARK | 500 | ALA | B | 1128 | 19.41 | -69.74 |
| REMARK | 500 | TYR | B | 1129 | 102.19 | -26.74 |
| REMARK | 500 | ASP | B | 1131 | -32.93 | -37.55 |
| REMARK | 500 | ASN | B | 1132 | -151.26 | 173.58 |
| REMARK | 500 | ARG | B | 1134 | 108.80 | -35.30 |
| REMARK | 500 | VAL | B | 1136 | 60.86 | -66.03 |
| REMARK | 500 | SER | B | 1137 | 99.61 | -55.83 |
| REMARK | 500 | TYR | B | 1138 | -81.69 | -45.52 |
| REMARK | 500 | ALA | B | 1144 | -71.64 | -60.47 |
| REMARK | 500 | ALA | B | 1145 | -33.71 | -38.21 |
| REMARK | 500 | LYS | B | 1146 | -84.08 | -62.69 |


```

REMARK 500 SER B1156 -83.00 -114.48
REMARK 500 LEU B1157 107.76 5.93
REMARK 500 PRO B1158 133.93 -14.84
REMARK 500 ASP B1159 2.37 57.72
REMARK 500 LYS B1160 -141.81 41.68
REMARK 500 ASP B1167 32.28 73.94
REMARK 500 THR B1170 94.13 -32.49
REMARK 500 GLN B1171 12.24 168.90
REMARK 500 ALA B1183 -81.18 -51.61
REMARK 500 ARG B1184 -61.43 -13.40
REMARK 500 ALA B1185 -74.31 -57.60
REMARK 500 LEU B1186 -2.82 -56.09
REMARK 500 PRO B1190 -146.67 -63.45
REMARK 500 HIS B1191 -29.65 -155.78
REMARK 500 GLU B1197 24.56 41.61
REMARK 500 ALA B1198 -93.79 -18.65
REMARK 500 ALA B1201 89.70 -175.31
REMARK 500 LEU B1202 -140.82 -165.40
REMARK 500 ASP B1203 177.48 167.74
REMARK 500 THR B1204 -142.16 35.32
REMARK 500 LYS B1208 -72.52 -49.63
REMARK 500 ALA B1213 -74.61 -65.99
REMARK 500 LEU B1214 -31.39 -38.43
REMARK 500 ASP B1215 -83.40 -61.95
REMARK 500 ARG B1218 -158.39 -102.54
REMARK 500 GLU B1219 -17.33 61.23
REMARK 500 SER B1231 -70.80 -80.37
REMARK 500 ASN B1235 46.71 -78.69
REMARK 500 ASN B1244 102.95 10.41
REMARK 500 HIS B1250 159.09 167.12
REMARK 500 HIS B1253 -74.58 -44.02
REMARK 500 ILE B1262 -77.87 -57.63
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: CHIRAL CENTERS
REMARK 500
REMARK 500 UNEXPECTED CONFIGURATION OF THE FOLLOWING CHIRAL
REMARK 500 CENTER(S) USING IMPROPER CA--C--CB--N CHIRALITY
REMARK 500 M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT: (11X,I3,1X,A3,1X,A1,I4,A1,6X,F5.1,6X,A1,10X,A1,3X,A16)
REMARK 500
REMARK 500 M RES CSSEQI IMPROPER EXPECTED FOUND DETAILS
REMARK 500 GLU A 155 24.8 L L OUTSIDE RANGE
REMARK 500 ASN A 292 45.2 L L OUTSIDE RANGE
REMARK 500 SER A 377 21.3 L L OUTSIDE RANGE
REMARK 500 ARG A 573 23.9 L L OUTSIDE RANGE
REMARK 500 LEU A 853 45.0 L L OUTSIDE RANGE
REMARK 500 TYR A 994 48.5 L L OUTSIDE RANGE
REMARK 500 GLU A1096 24.7 L L OUTSIDE RANGE
REMARK 500 ILE A1097 45.9 L L OUTSIDE RANGE
REMARK 500 LYS A1098 46.9 L L OUTSIDE RANGE
REMARK 500 ASP A1120 23.2 L L OUTSIDE RANGE
REMARK 500 THR A1204 22.0 L L OUTSIDE RANGE
REMARK 500 GLU B 155 24.4 L L OUTSIDE RANGE
REMARK 500 SER B 377 21.3 L L OUTSIDE RANGE
REMARK 500 PHE B 693 23.4 L L OUTSIDE RANGE
REMARK 500 LEU B 959 22.3 L L OUTSIDE RANGE
REMARK 500 GLU B1013 24.4 L L OUTSIDE RANGE
REMARK 500 ILE B1014 21.9 L L OUTSIDE RANGE
REMARK 500 GLN B1020 21.7 L L OUTSIDE RANGE
REMARK 500
REMARK 500 REMARK: NULL
REMARK 800
REMARK 800 SITE
REMARK 800 SITE_IDENTIFIER: AC1
REMARK 800 EVIDENCE_CODE: SOFTWARE
REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1285
REMARK 800 SITE_IDENTIFIER: AC2
REMARK 800 EVIDENCE_CODE: SOFTWARE

```

REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1286
 REMARK 800 SITE_IDENTIFIER: AC3
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1287
 REMARK 800 SITE_IDENTIFIER: AC4
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1288
 REMARK 800 SITE_IDENTIFIER: AC5
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1289
 REMARK 800 SITE_IDENTIFIER: AC6
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG A1290
 REMARK 800 SITE_IDENTIFIER: AC7
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1285
 REMARK 800 SITE_IDENTIFIER: AC8
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1286
 REMARK 800 SITE_IDENTIFIER: AC9
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1287
 REMARK 800 SITE_IDENTIFIER: BC1
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1288
 REMARK 800 SITE_IDENTIFIER: BC2
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1289
 REMARK 800 SITE_IDENTIFIER: BC3
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE HG B1290
 REMARK 900
 REMARK 900 RELATED ENTRIES
 REMARK 900 RELATED ID: 3G60 RELATED DB: PDB
 REMARK 900 RELATED ID: 3G61 RELATED DB: PDB
 DBREF 3G5U A 1 1276 UNP Q5I1Y5 Q5I1Y5_MOUSE 1 1276
 DBREF 3G5U B 1 1276 UNP Q5I1Y5 Q5I1Y5_MOUSE 1 1276
 SEQADV 3G5U ALA A 952 UNP Q5I1Y5 CYS 952 ENGINEERED
 SEQADV 3G5U TYR A 1277 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U VAL A 1278 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1279 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1280 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1281 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1282 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1283 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS A 1284 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U ALA B 952 UNP Q5I1Y5 CYS 952 ENGINEERED
 SEQADV 3G5U TYR B 1277 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U VAL B 1278 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1279 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1280 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1281 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1282 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1283 UNP Q5I1Y5 EXPRESSION TAG
 SEQADV 3G5U HIS B 1284 UNP Q5I1Y5 EXPRESSION TAG
 SEQRES 1 A 1284 MET GLU LEU GLU GLU ASP LEU LYS GLY ARG ALA ASP LYS
 SEQRES 2 A 1284 ASN PHE SER LYS MET GLY LYS LYS SER LYS LYS GLU LYS
 SEQRES 3 A 1284 LYS GLU LYS LYS PRO ALA VAL SER VAL LEU THR MET PHE
 SEQRES 4 A 1284 ARG TYR ALA GLY TRP LEU ASP ARG LEU TYR MET LEU VAL
 SEQRES 5 A 1284 GLY THR LEU ALA ALA ILE ILE HIS GLY VAL ALA LEU PRO
 SEQRES 6 A 1284 LEU MET MET LEU ILE PHE GLY ASP MET THR ASP SER PHE
 SEQRES 7 A 1284 ALA SER VAL GLY ASN VAL SER LYS ASN SER THR ASN MET
 SEQRES 8 A 1284 SER GLU ALA ASP LYS ARG ALA MET PHE ALA LYS LEU GLU
 SEQRES 9 A 1284 GLU GLU MET THR THR TYR ALA TYR TYR TYR THR GLY ILE
 SEQRES 10 A 1284 GLY ALA GLY VAL LEU ILE VAL ALA TYR ILE GLN VAL SER
 SEQRES 11 A 1284 PHE TRP CYS LEU ALA ALA GLY ARG GLN ILE HIS LYS ILE
 SEQRES 12 A 1284 ARG GLN LYS PHE PHE HIS ALA ILE MET ASN GLN GLU ILE
 SEQRES 13 A 1284 GLY TRP PHE ASP VAL HIS ASP VAL GLY GLU LEU ASN THR
 SEQRES 14 A 1284 ARG LEU THR ASP ASP VAL SER LYS ILE ASN GLU GLY ILE
 SEQRES 15 A 1284 GLY ASP LYS ILE GLY MET PHE PHE GLN ALA MET ALA THR
 SEQRES 16 A 1284 PHE PHE GLY GLY PHE ILE ILE GLY PHE THR ARG GLY TRP
 SEQRES 17 A 1284 LYS LEU THR LEU VAL ILE LEU ALA ILE SER PRO VAL LEU
 SEQRES 18 A 1284 GLY LEU SER ALA GLY ILE TRP ALA LYS ILE LEU SER SER
 SEQRES 19 A 1284 PHE THR ASP LYS GLU LEU HIS ALA TYR ALA LYS ALA GLY

| | | | | | | | | | | | | | | | | |
|--------|----|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SEQRES | 20 | A | 1284 | ALA | VAL | ALA | GLU | GLU | VAL | LEU | ALA | ALA | ILE | ARG | THR | VAL |
| SEQRES | 21 | A | 1284 | ILE | ALA | PHE | GLY | GLY | GLN | LYS | LYS | GLU | LEU | GLU | ARG | TYR |
| SEQRES | 22 | A | 1284 | ASN | ASN | ASN | LEU | GLU | GLU | ALA | LYS | ARG | LEU | GLY | ILE | LYS |
| SEQRES | 23 | A | 1284 | LYS | ALA | ILE | THR | ALA | ASN | ILE | SER | MET | GLY | ALA | ALA | PHE |
| SEQRES | 24 | A | 1284 | LEU | LEU | ILE | TYR | ALA | SER | TYR | ALA | LEU | ALA | PHE | TRP | TYR |
| SEQRES | 25 | A | 1284 | GLY | THR | SER | LEU | VAL | ILE | SER | LYS | GLU | TYR | SER | ILE | GLY |
| SEQRES | 26 | A | 1284 | GLN | VAL | LEU | THR | VAL | PHE | PHE | SER | VAL | LEU | ILE | GLY | ALA |
| SEQRES | 27 | A | 1284 | PHE | SER | VAL | GLY | GLN | ALA | SER | PRO | ASN | ILE | GLU | ALA | PHE |
| SEQRES | 28 | A | 1284 | ALA | ASN | ALA | ARG | GLY | ALA | ALA | TYR | GLU | VAL | PHE | LYS | ILE |
| SEQRES | 29 | A | 1284 | ILE | ASP | ASN | LYS | PRO | SER | ILE | ASP | SER | PHE | SER | LYS | SER |
| SEQRES | 30 | A | 1284 | GLY | HIS | LYS | PRO | ASP | ASN | ILE | GLN | GLY | ASN | LEU | GLU | PHE |
| SEQRES | 31 | A | 1284 | LYS | ASN | ILE | HIS | PHE | SER | TYR | PRO | SER | ARG | LYS | GLU | VAL |
| SEQRES | 32 | A | 1284 | GLN | ILE | LEU | LYS | GLY | LEU | ASN | LEU | LYS | VAL | LYS | SER | GLY |
| SEQRES | 33 | A | 1284 | GLN | THR | VAL | ALA | LEU | VAL | GLY | ASN | SER | GLY | CYS | GLY | LYS |
| SEQRES | 34 | A | 1284 | SER | THR | THR | VAL | GLN | LEU | MET | GLN | ARG | LEU | TYR | ASP | PRO |
| SEQRES | 35 | A | 1284 | LEU | ASP | GLY | MET | VAL | SER | ILE | ASP | GLY | GLN | ASP | ILE | ARG |
| SEQRES | 36 | A | 1284 | THR | ILE | ASN | VAL | ARG | TYR | LEU | ARG | GLU | ILE | ILE | GLY | VAL |
| SEQRES | 37 | A | 1284 | VAL | SER | GLN | GLU | PRO | VAL | LEU | PHE | ALA | THR | THR | ILE | ALA |
| SEQRES | 38 | A | 1284 | GLU | ASN | ILE | ARG | TYR | GLY | ARG | GLU | ASP | VAL | THR | MET | ASP |
| SEQRES | 39 | A | 1284 | GLU | ILE | GLU | LYS | ALA | VAL | LYS | GLU | ALA | ASN | ALA | TYR | ASP |
| SEQRES | 40 | A | 1284 | PHE | ILE | MET | LYS | LEU | PRO | HIS | GLN | PHE | ASP | THR | LEU | VAL |
| SEQRES | 41 | A | 1284 | GLY | GLU | ARG | GLY | ALA | GLN | LEU | SER | GLY | GLY | GLN | LYS | GLN |
| SEQRES | 42 | A | 1284 | ARG | ILE | ALA | ILE | ALA | ARG | ALA | LEU | VAL | ARG | ASN | PRO | LYS |
| SEQRES | 43 | A | 1284 | ILE | LEU | LEU | LEU | ASP | GLU | ALA | THR | SER | ALA | LEU | ASP | THR |
| SEQRES | 44 | A | 1284 | GLU | SER | GLU | ALA | VAL | VAL | GLN | ALA | ALA | LEU | ASP | LYS | ALA |
| SEQRES | 45 | A | 1284 | ARG | GLU | GLY | ARG | THR | THR | ILE | VAL | ILE | ALA | HIS | ARG | LEU |
| SEQRES | 46 | A | 1284 | SER | THR | VAL | ARG | ASN | ALA | ASP | VAL | ILE | ALA | GLY | PHE | ASP |
| SEQRES | 47 | A | 1284 | GLY | GLY | VAL | ILE | VAL | GLU | GLN | GLY | ASN | HIS | ASP | GLU | LEU |
| SEQRES | 48 | A | 1284 | MET | ARG | GLU | LYS | GLY | ILE | TYR | PHE | LYS | LEU | VAL | MET | THR |
| SEQRES | 49 | A | 1284 | GLN | THR | ALA | GLY | ASN | GLU | ILE | GLU | LEU | GLY | ASN | GLU | ALA |
| SEQRES | 50 | A | 1284 | CYS | LYS | SER | LYS | ASP | GLU | ILE | ASP | ASN | LEU | ASP | MET | SER |
| SEQRES | 51 | A | 1284 | SER | LYS | ASP | SER | GLY | SER | SER | LEU | ILE | ARG | ARG | ARG | SER |
| SEQRES | 52 | A | 1284 | THR | ARG | LYS | SER | ILE | CYS | GLY | PRO | HIS | ASP | GLN | ASP | ARG |
| SEQRES | 53 | A | 1284 | LYS | LEU | SER | THR | LYS | GLU | ALA | LEU | ASP | GLU | ASP | VAL | PRO |
| SEQRES | 54 | A | 1284 | PRO | ALA | SER | PHE | TRP | ARG | ILE | LEU | LYS | LEU | ASN | SER | THR |
| SEQRES | 55 | A | 1284 | GLU | TRP | PRO | TYR | PHE | VAL | VAL | GLY | ILE | PHE | CYS | ALA | ILE |
| SEQRES | 56 | A | 1284 | ILE | ASN | GLY | GLY | LEU | GLN | PRO | ALA | PHE | SER | VAL | ILE | PHE |
| SEQRES | 57 | A | 1284 | SER | LYS | VAL | VAL | GLY | VAL | PHE | THR | ASN | GLY | GLY | PRO | PRO |
| SEQRES | 58 | A | 1284 | GLU | THR | GLN | ARG | GLN | ASN | SER | ASN | LEU | PHE | SER | LEU | LEU |
| SEQRES | 59 | A | 1284 | PHE | LEU | ILE | LEU | GLY | ILE | ILE | SER | PHE | ILE | THR | PHE | PHE |
| SEQRES | 60 | A | 1284 | LEU | GLN | GLY | PHE | THR | PHE | GLY | LYS | ALA | GLY | GLU | ILE | LEU |
| SEQRES | 61 | A | 1284 | THR | LYS | ARG | LEU | ARG | TYR | MET | VAL | PHE | LYS | SER | MET | LEU |
| SEQRES | 62 | A | 1284 | ARG | GLN | ASP | VAL | SER | TRP | PHE | ASP | ASP | PRO | LYS | ASN | THR |
| SEQRES | 63 | A | 1284 | THR | GLY | ALA | LEU | THR | THR | ARG | LEU | ALA | ASN | ASP | ALA | ALA |
| SEQRES | 64 | A | 1284 | GLN | VAL | LYS | GLY | ALA | THR | GLY | SER | ARG | LEU | ALA | VAL | ILE |
| SEQRES | 65 | A | 1284 | PHE | GLN | ASN | ILE | ALA | ASN | LEU | GLY | THR | GLY | ILE | ILE | ILE |
| SEQRES | 66 | A | 1284 | SER | LEU | ILE | TYR | GLY | TRP | GLN | LEU | THR | LEU | LEU | LEU | LEU |
| SEQRES | 67 | A | 1284 | ALA | ILE | VAL | PRO | ILE | ILE | ALA | ILE | ALA | GLY | VAL | VAL | GLU |
| SEQRES | 68 | A | 1284 | MET | LYS | MET | LEU | SER | GLY | GLN | ALA | LEU | LYS | ASP | LYS | LYS |
| SEQRES | 69 | A | 1284 | GLU | LEU | GLU | GLY | SER | GLY | LYS | ILE | ALA | THR | GLU | ALA | ILE |
| SEQRES | 70 | A | 1284 | GLU | ASN | PHE | ARG | THR | VAL | VAL | SER | LEU | THR | ARG | GLU | GLN |
| SEQRES | 71 | A | 1284 | LYS | PHE | GLU | THR | MET | TYR | ALA | GLN | SER | LEU | GLN | ILE | PRO |
| SEQRES | 72 | A | 1284 | TYR | ARG | ASN | ALA | MET | LYS | LYS | ALA | HIS | VAL | PHE | GLY | ILE |
| SEQRES | 73 | A | 1284 | THR | PHE | SER | PHE | THR | GLN | ALA | MET | MET | TYR | PHE | SER | TYR |
| SEQRES | 74 | A | 1284 | ALA | ALA | ALA | PHE | ARG | PHE | GLY | ALA | TYR | LEU | VAL | THR | GLN |
| SEQRES | 75 | A | 1284 | GLN | LEU | MET | THR | PHE | GLU | ASN | VAL | LEU | LEU | VAL | PHE | SER |
| SEQRES | 76 | A | 1284 | ALA | ILE | VAL | PHE | GLY | ALA | MET | ALA | VAL | GLY | GLN | VAL | SER |
| SEQRES | 77 | A | 1284 | SER | PHE | ALA | PRO | ASP | TYR | ALA | LYS | ALA | THR | VAL | SER | ALA |
| SEQRES | 78 | A | 1284 | SER | HIS | ILE | ILE | ARG | ILE | ILE | GLU | LYS | THR | PRO | GLU | ILE |
| SEQRES | 79 | A | 1284 | ASP | SER | TYR | SER | THR | GLN | GLY | LEU | LYS | PRO | ASN | MET | LEU |
| SEQRES | 80 | A | 1284 | GLU | GLY | ASN | VAL | GLN | PHE | SER | GLY | VAL | VAL | PHE | ASN | TYR |
| SEQRES | 81 | A | 1284 | PRO | THR | ARG | PRO | SER | ILE | PRO | VAL | LEU | GLN | GLY | LEU | SER |
| SEQRES | 82 | A | 1284 | LEU | GLU | VAL | LYS | LYS | GLY | GLN | THR | LEU | ALA | LEU | VAL | GLY |
| SEQRES | 83 | A | 1284 | SER | SER | GLY | CYS | GLY | LYS | SER | THR | VAL | VAL | GLN | LEU | LEU |
| SEQRES | 84 | A | 1284 | GLU | ARG | PHE | TYR | ASP | PRO | MET | ALA | GLY | SER | VAL | PHE | LEU |
| SEQRES | 85 | A | 1284 | ASP | GLY | LYS | GLU | ILE | LYS | GLN | LEU | ASN | VAL | GLN | TRP | LEU |
| SEQRES | 86 | A | 1284 | ARG | ALA | GLN | LEU | GLY | ILE | VAL | SER | GLN | GLU | PRO | ILE | LEU |
| SEQRES | 87 | A | 1284 | PHE | ASP | CYS | SER | ILE | ALA | GLU | ASN | ILE | ALA | TYR | GLY | ASP |
| SEQRES | 88 | A | 1284 | ASN | SER | ARG | VAL | VAL | SER | TYR | GLU | GLU | ILE | VAL | ARG | ALA |
| SEQRES | 89 | A | 1284 | ALA | LYS | GLU | ALA | ASN | ILE | HIS | GLN | PHE | ILE | ASP | SER | LEU |
| SEQRES | 90 | A | 1284 | PRO | ASP | LYS | TYR | ASN | THR | ARG | VAL | GLY | ASP | LYS | GLY | THR |
| SEQRES | 91 | A | 1284 | GLN | LEU | SER | GLY | GLN | GLN | LYS | GLN | ARG | ILE | ALA | ILE | ALA |
| SEQRES | 92 | A | 1284 | ARG | ALA | LEU | VAL | ARG | GLN | PRO | HIS | ILE | LEU | LEU | LEU | ASP |
| SEQRES | 93 | A | 1284 | GLU | ALA | THR | SER | ALA | LEU | ASP | THR | GLU | SER | GLU | LYS | VAL |

| | | | | | | | | | | | | | | | | |
|--------|----|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SEQRES | 94 | A | 1284 | VAL | GLN | GLU | ALA | LEU | ASP | LYS | ALA | ARG | GLU | GLY | ARG | THR |
| SEQRES | 95 | A | 1284 | CYS | ILE | VAL | ILE | ALA | HIS | ARG | LEU | SER | THR | ILE | GLN | ASN |
| SEQRES | 96 | A | 1284 | ALA | ASP | LEU | ILE | VAL | VAL | ILE | GLN | ASN | GLY | LYS | VAL | LYS |
| SEQRES | 97 | A | 1284 | GLU | HIS | GLY | THR | HIS | GLN | GLN | LEU | LEU | ALA | GLN | LYS | GLY |
| SEQRES | 98 | A | 1284 | ILE | TYR | PHE | SER | MET | VAL | SER | VAL | GLN | ALA | GLY | ALA | LYS |
| SEQRES | 99 | A | 1284 | ARG | SER | TYR | VAL | HIS | HIS | HIS | HIS | HIS | HIS | | | |
| SEQRES | 1 | B | 1284 | MET | GLU | LEU | GLU | GLU | ASP | LEU | LYS | GLY | ARG | ALA | ASP | LYS |
| SEQRES | 2 | B | 1284 | ASN | PHE | SER | LYS | MET | GLY | LYS | LYS | SER | LYS | LYS | GLU | LYS |
| SEQRES | 3 | B | 1284 | LYS | GLU | LYS | LYS | PRO | ALA | VAL | SER | VAL | LEU | THR | MET | PHE |
| SEQRES | 4 | B | 1284 | ARG | TYR | ALA | GLY | TRP | LEU | ASP | ARG | LEU | TYR | MET | LEU | VAL |
| SEQRES | 5 | B | 1284 | GLY | THR | LEU | ALA | ALA | ILE | ILE | HIS | GLY | VAL | ALA | LEU | PRO |
| SEQRES | 6 | B | 1284 | LEU | MET | MET | LEU | ILE | PHE | GLY | ASP | MET | THR | ASP | SER | PHE |
| SEQRES | 7 | B | 1284 | ALA | SER | VAL | GLY | ASN | VAL | SER | LYS | ASN | SER | THR | ASN | MET |
| SEQRES | 8 | B | 1284 | SER | GLU | ALA | ASP | LYS | ARG | ALA | MET | PHE | ALA | LYS | LEU | GLU |
| SEQRES | 9 | B | 1284 | GLU | GLU | MET | THR | THR | TYR | ALA | TYR | TYR | TYR | THR | GLY | ILE |
| SEQRES | 10 | B | 1284 | GLY | ALA | GLY | VAL | LEU | ILE | VAL | ALA | TYR | ILE | GLN | VAL | SER |
| SEQRES | 11 | B | 1284 | PHE | TRP | CYS | LEU | ALA | ALA | GLY | ARG | GLN | ILE | HIS | LYS | ILE |
| SEQRES | 12 | B | 1284 | ARG | GLN | LYS | PHE | PHE | HIS | ALA | ILE | MET | ASN | GLN | GLU | ILE |
| SEQRES | 13 | B | 1284 | GLY | TRP | PHE | ASP | VAL | HIS | ASP | VAL | GLY | GLU | LEU | ASN | THR |
| SEQRES | 14 | B | 1284 | ARG | LEU | THR | ASP | ASP | VAL | SER | LYS | ILE | ASN | GLU | GLY | ILE |
| SEQRES | 15 | B | 1284 | GLY | ASP | LYS | ILE | GLY | MET | PHE | PHE | GLN | ALA | MET | ALA | THR |
| SEQRES | 16 | B | 1284 | PHE | PHE | GLY | GLY | PHE | ILE | ILE | GLY | PHE | THR | ARG | GLY | TRP |
| SEQRES | 17 | B | 1284 | LYS | LEU | THR | LEU | VAL | ILE | LEU | ALA | ILE | SER | PRO | VAL | LEU |
| SEQRES | 18 | B | 1284 | GLY | LEU | SER | ALA | GLY | ILE | TRP | ALA | LYS | ILE | LEU | SER | SER |
| SEQRES | 19 | B | 1284 | PHE | THR | ASP | LYS | GLU | LEU | HIS | ALA | TYR | ALA | LYS | ALA | GLY |
| SEQRES | 20 | B | 1284 | ALA | VAL | ALA | GLU | GLU | VAL | LEU | ALA | ALA | ILE | ARG | THR | VAL |
| SEQRES | 21 | B | 1284 | ILE | ALA | PHE | GLY | GLY | GLN | LYS | LYS | GLU | LEU | GLU | ARG | TYR |
| SEQRES | 22 | B | 1284 | ASN | ASN | ASN | LEU | GLU | GLU | ALA | LYS | ARG | LEU | GLY | ILE | LYS |
| SEQRES | 23 | B | 1284 | LYS | ALA | ILE | THR | ALA | ASN | ILE | SER | MET | GLY | ALA | ALA | PHE |
| SEQRES | 24 | B | 1284 | LEU | LEU | ILE | TYR | ALA | SER | TYR | ALA | LEU | ALA | PHE | TRP | TYR |
| SEQRES | 25 | B | 1284 | GLY | THR | SER | LEU | VAL | ILE | SER | LYS | GLU | TYR | SER | ILE | GLY |
| SEQRES | 26 | B | 1284 | GLN | VAL | LEU | THR | VAL | PHE | PHE | SER | VAL | LEU | ILE | GLY | ALA |
| SEQRES | 27 | B | 1284 | PHE | SER | VAL | GLY | GLN | ALA | SER | PRO | ASN | ILE | GLU | ALA | PHE |
| SEQRES | 28 | B | 1284 | ALA | ASN | ALA | ARG | GLY | ALA | ALA | TYR | GLU | VAL | PHE | LYS | ILE |
| SEQRES | 29 | B | 1284 | ILE | ASP | ASN | LYS | PRO | SER | ILE | ASP | SER | PHE | SER | LYS | SER |
| SEQRES | 30 | B | 1284 | GLY | HIS | LYS | PRO | ASP | ASN | ILE | GLN | GLY | ASN | LEU | GLU | PHE |
| SEQRES | 31 | B | 1284 | LYS | ASN | ILE | HIS | PHE | SER | TYR | PRO | SER | ARG | LYS | GLU | VAL |
| SEQRES | 32 | B | 1284 | GLN | ILE | LEU | LYS | GLY | LEU | ASN | LEU | LYS | VAL | LYS | SER | GLY |
| SEQRES | 33 | B | 1284 | GLN | THR | VAL | ALA | LEU | VAL | GLY | ASN | SER | GLY | CYS | GLY | LYS |
| SEQRES | 34 | B | 1284 | SER | THR | THR | VAL | GLN | LEU | MET | GLN | ARG | LEU | TYR | ASP | PRO |
| SEQRES | 35 | B | 1284 | LEU | ASP | GLY | MET | VAL | SER | ILE | ASP | GLY | GLN | ASP | ILE | ARG |
| SEQRES | 36 | B | 1284 | THR | ILE | ASN | VAL | ARG | TYR | LEU | ARG | GLU | ILE | ILE | GLY | VAL |
| SEQRES | 37 | B | 1284 | VAL | SER | GLN | GLU | PRO | VAL | LEU | PHE | ALA | THR | THR | ILE | ALA |
| SEQRES | 38 | B | 1284 | GLU | ASN | ILE | ARG | TYR | GLY | ARG | GLU | ASP | VAL | THR | MET | ASP |
| SEQRES | 39 | B | 1284 | GLU | ILE | GLU | LYS | ALA | VAL | LYS | GLU | ALA | ASN | ALA | TYR | ASP |
| SEQRES | 40 | B | 1284 | PHE | ILE | MET | LYS | LEU | PRO | HIS | GLN | PHE | ASP | THR | LEU | VAL |
| SEQRES | 41 | B | 1284 | GLY | GLU | ARG | GLY | ALA | GLN | LEU | SER | GLY | GLY | GLN | LYS | GLN |
| SEQRES | 42 | B | 1284 | ARG | ILE | ALA | ILE | ALA | ARG | ALA | LEU | VAL | ARG | ASN | PRO | LYS |
| SEQRES | 43 | B | 1284 | ILE | LEU | LEU | LEU | ASP | GLU | ALA | THR | SER | ALA | LEU | ASP | THR |
| SEQRES | 44 | B | 1284 | GLU | SER | GLU | ALA | VAL | VAL | GLN | ALA | ALA | LEU | ASP | LYS | ALA |
| SEQRES | 45 | B | 1284 | ARG | GLU | GLY | ARG | THR | THR | ILE | VAL | ILE | ALA | HIS | ARG | LEU |
| SEQRES | 46 | B | 1284 | SER | THR | VAL | ARG | ASN | ALA | ASP | VAL | ILE | ALA | GLY | PHE | ASP |
| SEQRES | 47 | B | 1284 | GLY | GLY | VAL | ILE | VAL | GLU | GLN | GLY | ASN | HIS | ASP | GLU | LEU |
| SEQRES | 48 | B | 1284 | MET | ARG | GLU | LYS | GLY | ILE | TYR | PHE | LYS | LEU | VAL | MET | THR |
| SEQRES | 49 | B | 1284 | GLN | THR | ALA | GLY | ASN | GLU | ILE | GLU | LEU | GLY | ASN | GLU | ALA |
| SEQRES | 50 | B | 1284 | CYS | LYS | SER | LYS | ASP | GLU | ILE | ASP | ASN | LEU | ASP | MET | SER |
| SEQRES | 51 | B | 1284 | SER | LYS | ASP | SER | GLY | SER | SER | LEU | ILE | ARG | ARG | ARG | SER |
| SEQRES | 52 | B | 1284 | THR | ARG | LYS | SER | ILE | CYS | GLY | PRO | HIS | ASP | GLN | ASP | ARG |
| SEQRES | 53 | B | 1284 | LYS | LEU | SER | THR | LYS | GLU | ALA | LEU | ASP | GLU | ASP | VAL | PRO |
| SEQRES | 54 | B | 1284 | PRO | ALA | SER | PHE | TRP | ARG | ILE | LEU | LYS | LEU | ASN | SER | THR |
| SEQRES | 55 | B | 1284 | GLU | TRP | PRO | TYR | PHE | VAL | VAL | GLY | ILE | PHE | CYS | ALA | ILE |
| SEQRES | 56 | B | 1284 | ILE | ASN | GLY | GLY | LEU | GLN | PRO | ALA | PHE | SER | VAL | ILE | PHE |
| SEQRES | 57 | B | 1284 | SER | LYS | VAL | VAL | GLY | VAL | PHE | THR | ASN | GLY | GLY | PRO | PRO |
| SEQRES | 58 | B | 1284 | GLU | THR | GLN | ARG | GLN | ASN | SER | ASN | LEU | PHE | SER | LEU | LEU |
| SEQRES | 59 | B | 1284 | PHE | LEU | ILE | LEU | GLY | ILE | ILE | SER | PHE | ILE | THR | PHE | PHE |
| SEQRES | 60 | B | 1284 | LEU | GLN | GLY | PHE | THR | PHE | GLY | LYS | ALA | GLY | GLU | ILE | LEU |
| SEQRES | 61 | B | 1284 | THR | LYS | ARG | LEU | ARG | TYR | MET | VAL | PHE | LYS | SER | MET | LEU |
| SEQRES | 62 | B | 1284 | ARG | GLN | ASP | VAL | SER | TRP | PHE | ASP | ASP | PRO | LYS | ASN | THR |
| SEQRES | 63 | B | 1284 | THR | GLY | ALA | LEU | THR | THR | ARG | LEU | ALA | ASN | ASP | ALA | ALA |
| SEQRES | 64 | B | 1284 | GLN | VAL | LYS | GLY | ALA | THR | GLY | SER | ARG | LEU | ALA | VAL | ILE |
| SEQRES | 65 | B | 1284 | PHE | GLN | ASN | ILE | ALA | ASN | LEU | GLY | THR | GLY | ILE | ILE | ILE |
| SEQRES | 66 | B | 1284 | SER | LEU | ILE | TYR | GLY | TRP | GLN | LEU | THR | LEU | LEU | LEU | LEU |
| SEQRES | 67 | B | 1284 | ALA | ILE | VAL | PRO | ILE | ILE | ALA | ILE | ALA | GLY | VAL | VAL | GLU |
| SEQRES | 68 | B | 1284 | MET | LYS | MET | LEU | SER | GLY | GLN | ALA | LEU | LYS | ASP | LYS | LYS |

| | | | | | | | | | | | | | | | | |
|--------|----|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SEQRES | 69 | B | 1284 | GLU | LEU | GLU | GLY | SER | GLY | LYS | ILE | ALA | THR | GLU | ALA | ILE |
| SEQRES | 70 | B | 1284 | GLU | ASN | PHE | ARG | THR | VAL | VAL | SER | LEU | THR | ARG | GLU | GLN |
| SEQRES | 71 | B | 1284 | LYS | PHE | GLU | THR | MET | TYR | ALA | GLN | SER | LEU | GLN | ILE | PRO |
| SEQRES | 72 | B | 1284 | TYR | ARG | ASN | ALA | MET | LYS | LYS | ALA | HIS | VAL | PHE | GLY | ILE |
| SEQRES | 73 | B | 1284 | THR | PHE | SER | PHE | THR | GLN | ALA | MET | MET | TYR | PHE | SER | TYR |
| SEQRES | 74 | B | 1284 | ALA | ALA | ALA | PHE | ARG | PHE | GLY | ALA | TYR | LEU | VAL | THR | GLN |
| SEQRES | 75 | B | 1284 | GLN | LEU | MET | THR | PHE | GLU | ASN | VAL | LEU | LEU | VAL | PHE | SER |
| SEQRES | 76 | B | 1284 | ALA | ILE | VAL | PHE | GLY | ALA | MET | ALA | VAL | GLY | GLN | VAL | SER |
| SEQRES | 77 | B | 1284 | SER | PHE | ALA | PRO | ASP | TYR | ALA | LYS | ALA | THR | VAL | SER | ALA |
| SEQRES | 78 | B | 1284 | SER | HIS | ILE | ILE | ARG | ILE | ILE | GLU | LYS | THR | PRO | GLU | ILE |
| SEQRES | 79 | B | 1284 | ASP | SER | TYR | SER | THR | GLN | GLY | LEU | LYS | PRO | ASN | MET | LEU |
| SEQRES | 80 | B | 1284 | GLU | GLY | ASN | VAL | GLN | PHE | SER | GLY | VAL | VAL | PHE | ASN | TYR |
| SEQRES | 81 | B | 1284 | PRO | THR | ARG | PRO | SER | ILE | PRO | VAL | LEU | GLN | GLY | LEU | SER |
| SEQRES | 82 | B | 1284 | LEU | GLU | VAL | LYS | LYS | GLY | GLN | THR | LEU | ALA | LEU | VAL | GLY |
| SEQRES | 83 | B | 1284 | SER | SER | GLY | CYS | GLY | LYS | SER | THR | VAL | VAL | GLN | LEU | LEU |
| SEQRES | 84 | B | 1284 | GLU | ARG | PHE | TYR | ASP | PRO | MET | ALA | GLY | SER | VAL | PHE | LEU |
| SEQRES | 85 | B | 1284 | ASP | GLY | LYS | GLU | ILE | LYS | GLN | LEU | ASN | VAL | GLN | TRP | LEU |
| SEQRES | 86 | B | 1284 | ARG | ALA | GLN | LEU | GLY | ILE | VAL | SER | GLN | GLU | PRO | ILE | LEU |
| SEQRES | 87 | B | 1284 | PHE | ASP | CYS | SER | ILE | ALA | GLU | ASN | ILE | ALA | TYR | GLY | ASP |
| SEQRES | 88 | B | 1284 | ASN | SER | ARG | VAL | VAL | SER | TYR | GLU | GLU | ILE | VAL | ARG | ALA |
| SEQRES | 89 | B | 1284 | ALA | LYS | GLU | ALA | ASN | ILE | HIS | GLN | PHE | ILE | ASP | SER | LEU |
| SEQRES | 90 | B | 1284 | PRO | ASP | LYS | TYR | ASN | THR | ARG | VAL | GLY | ASP | LYS | GLY | THR |
| SEQRES | 91 | B | 1284 | GLN | LEU | SER | GLY | GLY | GLN | LYS | GLN | ARG | ILE | ALA | ILE | ALA |
| SEQRES | 92 | B | 1284 | ARG | ALA | LEU | VAL | ARG | GLN | PRO | HIS | ILE | LEU | LEU | LEU | ASP |
| SEQRES | 93 | B | 1284 | GLU | ALA | THR | SER | ALA | LEU | ASP | THR | GLU | SER | GLU | LYS | VAL |
| SEQRES | 94 | B | 1284 | VAL | GLN | GLU | ALA | LEU | ASP | LYS | ALA | ARG | GLU | GLY | ARG | THR |
| SEQRES | 95 | B | 1284 | CYS | ILE | VAL | ILE | ALA | HIS | ARG | LEU | SER | THR | ILE | GLN | ASN |
| SEQRES | 96 | B | 1284 | ALA | ASP | LEU | ILE | VAL | VAL | ILE | GLN | ASN | GLY | LYS | VAL | LYS |
| SEQRES | 97 | B | 1284 | GLU | HIS | GLY | THR | HIS | GLN | GLN | LEU | LEU | ALA | GLN | LYS | GLY |
| SEQRES | 98 | B | 1284 | ILE | TYR | PHE | SER | MET | VAL | SER | VAL | GLN | ALA | GLY | ALA | LYS |
| SEQRES | 99 | B | 1284 | ARG | SER | TYR | VAL | HIS | HIS | HIS | HIS | HIS | HIS | | | |

HETNAM HG MERCURY (II) ION

[illegible]

| | | | | | | | | | |
|--------|----------|---------------|-----------|-----------|-----------|------------|------------|-----------|------|
| SHEET | 4 | D 6 THR A1061 | VAL A1065 | 1 | N | LEU A1064 | 0 | VAL A1225 | |
| SHEET | 5 | D 6 LEU A1238 | GLN A1243 | 1 | 0 | VAL A1240 | N | ALA A1063 | |
| SHEET | 6 | D 6 LYS A1246 | GLY A1251 | -1 | 0 | LYS A1246 | N | GLN A1243 | |
| SHEET | 1 | E 4 LEU B 406 | VAL B 413 | 0 | | | | | |
| SHEET | 2 | E 4 LEU B 388 | PHE B 395 | -1 | N | PHE B 390 | 0 | LEU B 411 | |
| SHEET | 3 | E 4 ASP B 444 | ILE B 449 | -1 | 0 | ASP B 444 | N | HIS B 394 | |
| SHEET | 4 | E 4 GLN B 452 | ASP B 453 | -1 | 0 | GLN B 452 | N | ILE B 449 | |
| SHEET | 1 | F 6 ILE B 466 | SER B 470 | 0 | | | | | |
| SHEET | 2 | F 6 ILE B 547 | ASP B 551 | 1 | 0 | LEU B 549 | N | VAL B 469 | |
| SHEET | 3 | F 6 THR B 577 | ILE B 581 | 1 | 0 | ILE B 581 | N | LEU B 550 | |
| SHEET | 4 | F 6 THR B 418 | VAL B 422 | 1 | N | VAL B 419 | 0 | VAL B 580 | |
| SHEET | 5 | F 6 VAL B 593 | GLY B 596 | 1 | 0 | VAL B 593 | N | ALA B 420 | |
| SHEET | 6 | F 6 GLN B 605 | GLY B 606 | -1 | 0 | GLY B 606 | N | ILE B 594 | |
| SHEET | 1 | G 3 LEU B1049 | GLN B1050 | 0 | | | | | |
| SHEET | 2 | G 3 VAL B1031 | PHE B1038 | -1 | N | PHE B1038 | 0 | LEU B1049 | |
| SHEET | 3 | G 3 LEU B1054 | VAL B1056 | -1 | 0 | LEU B1054 | N | PHE B1033 | |
| SHEET | 1 | H 3 LEU B1049 | GLN B1050 | 0 | | | | | |
| SHEET | 2 | H 3 VAL B1031 | PHE B1038 | -1 | N | PHE B1038 | 0 | LEU B1049 | |
| SHEET | 3 | H 3 ALA B1087 | PHE B1091 | -1 | 0 | SER B1089 | N | SER B1034 | |
| SHEET | 1 | I 6 GLY B1110 | SER B1113 | 0 | | | | | |
| SHEET | 2 | I 6 LEU B1193 | ASP B1196 | 1 | 0 | LEU B1194 | N | VAL B1112 | |
| SHEET | 3 | I 6 CYS B1223 | ILE B1226 | 1 | 0 | ILE B1224 | N | LEU B1193 | |
| SHEET | 4 | I 6 THR B1061 | VAL B1065 | 1 | N | LEU B1064 | 0 | VAL B1225 | |
| SHEET | 5 | I 6 LEU B1238 | GLN B1243 | 1 | 0 | VAL B1240 | N | VAL B1065 | |
| SHEET | 6 | I 6 LYS B1246 | GLY B1251 | -1 | 0 | LYS B1246 | N | GLN B1243 | |
| LINK | | NE2 GLN A 769 | | | HG | HG A1287 | 1555 | 1555 | 2.26 |
| LINK | | NE1 TRP B 132 | | | HG | HG B1285 | 1555 | 1555 | 2.29 |
| SITE | 1 AC1 | 2 TRP A 132 | CYS A 133 | | | | | | |
| SITE | 1 AC2 | 2 TYR A 397 | CYS A 427 | | | | | | |
| SITE | 1 AC3 | 3 CYS A 713 | ALA A 714 | GLN A 769 | | | | | |
| SITE | 1 AC4 | 1 CYS A1070 | | | | | | | |
| SITE | 1 AC5 | 2 PHE A1119 | CYS A1121 | | | | | | |
| SITE | 1 AC6 | 4 THR A1061 | LEU A1195 | CYS A1223 | VAL A1225 | | | | |
| SITE | 1 AC7 | 2 TRP B 132 | CYS B 133 | | | | | | |
| SITE | 1 AC8 | 1 CYS B 427 | | | | | | | |
| SITE | 1 AC9 | 3 CYS B 713 | ALA B 714 | GLN B 769 | | | | | |
| SITE | 1 BC1 | 1 CYS B1070 | | | | | | | |
| SITE | 1 BC2 | 2 PHE B1119 | CYS B1121 | | | | | | |
| SITE | 1 BC3 | 5 LEU B1195 | LEU B1214 | ARG B1218 | CYS B1223 | | | | |
| SITE | 2 BC3 | 5 VAL B1225 | | | | | | | |
| CRYST1 | 97.542 | 115.426 | 378.858 | 90.00 | 90.00 | 90.00 | P 21 21 21 | 8 | |
| ORIGX1 | 1.000000 | 0.000000 | 0.000000 | | | 0.000000 | | | |
| ORIGX2 | 0.000000 | 1.000000 | 0.000000 | | | 0.000000 | | | |
| ORIGX3 | 0.000000 | 0.000000 | 1.000000 | | | 0.000000 | | | |
| SCALE1 | 0.010252 | 0.000000 | 0.000000 | | | 0.000000 | | | |
| SCALE2 | 0.000000 | 0.008664 | 0.000000 | | | 0.000000 | | | |
| SCALE3 | 0.000000 | 0.000000 | 0.002640 | | | 0.000000 | | | |
| ATOM | 1 | N VAL A 33 | 48.654 | 78.052 | 9.854 | 1.00172.16 | | | N |
| ATOM | 2 | CA VAL A 33 | 49.332 | 78.673 | 11.029 | 1.00172.16 | | | C |
| ATOM | 3 | C VAL A 33 | 48.333 | 79.036 | 12.141 | 1.00172.16 | | | C |
| ATOM | 4 | O VAL A 33 | 47.156 | 78.670 | 12.074 | 1.00172.16 | | | O |
| ATOM | 5 | CB VAL A 33 | 50.143 | 79.922 | 10.611 | 1.00207.38 | | | C |
| ATOM | 6 | CG1 VAL A 33 | 51.414 | 79.491 | 9.895 | 1.00207.38 | | | C |
| ATOM | 7 | CG2 VAL A 33 | 49.311 | 80.808 | 9.697 | 1.00207.38 | | | C |
| ATOM | 8 | N SER A 34 | 48.830 | 79.742 | 13.156 | 1.00160.38 | | | N |
| ATOM | 9 | CA SER A 34 | 48.059 | 80.171 | 14.325 | 1.00160.38 | | | C |
| ATOM | 10 | C SER A 34 | 46.620 | 79.709 | 14.329 | 1.00160.38 | | | C |
| ATOM | 11 | O SER A 34 | 46.225 | 78.916 | 15.176 | 1.00160.38 | | | O |
| ATOM | 12 | CB SER A 34 | 48.099 | 81.697 | 14.449 | 1.00186.49 | | | C |
| ATOM | 13 | OG SER A 34 | 47.362 | 82.322 | 13.413 | 1.00186.49 | | | O |
| ATOM | 14 | N VAL A 35 | 45.829 | 80.210 | 13.392 | 1.00204.94 | | | N |
| ATOM | 15 | CA VAL A 35 | 44.445 | 79.800 | 13.326 | 1.00204.94 | | | C |
| ATOM | 16 | C VAL A 35 | 44.395 | 78.286 | 13.348 | 1.00204.94 | | | C |
| ATOM | 17 | O VAL A 35 | 44.128 | 77.679 | 14.377 | 1.00204.94 | | | O |
| ATOM | 18 | CB VAL A 35 | 43.777 | 80.314 | 12.036 | 1.00139.52 | | | C |
| ATOM | 19 | CG1 VAL A 35 | 43.921 | 81.839 | 11.943 | 1.00139.52 | | | C |
| ATOM | 20 | CG2 VAL A 35 | 44.393 | 79.630 | 10.816 | 1.00139.52 | | | C |
| ATOM | 21 | N LEU A 36 | 44.706 | 77.693 | 12.206 | 1.00142.23 | | | N |
| ATOM | 22 | CA LEU A 36 | 44.697 | 76.258 | 12.007 | 1.00142.23 | | | C |
| ATOM | 23 | C LEU A 36 | 45.854 | 75.531 | 12.682 | 1.00142.23 | | | C |
| ATOM | 24 | O LEU A 36 | 45.660 | 74.538 | 13.378 | 1.00142.23 | | | O |
| ATOM | 25 | CB LEU A 36 | 44.760 | 75.989 | 10.512 | 1.00 72.84 | | | C |
| ATOM | 26 | CG LEU A 36 | 46.017 | 76.743 | 10.070 | 1.00 72.84 | | | C |
| ATOM | 27 | CD1 LEU A 36 | 47.076 | 75.750 | 9.652 | 1.00 72.84 | | | C |

| | | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|--------|------|--------|---|
| ATOM | 28 | CD2 | LEU | A | 36 | 45.703 | 77.723 | 8.962 | 1.00 | 72.84 | C |
| ATOM | 29 | N | THR | A | 37 | 47.066 | 76.014 | 12.479 | 1.00 | 125.61 | N |
| ATOM | 30 | CA | THR | A | 37 | 48.183 | 75.334 | 13.087 | 1.00 | 125.61 | C |
| ATOM | 31 | C | THR | A | 37 | 48.200 | 75.497 | 14.597 | 1.00 | 125.61 | C |
| ATOM | 32 | O | THR | A | 37 | 48.116 | 74.494 | 15.305 | 1.00 | 125.61 | O |
| ATOM | 33 | CB | THR | A | 37 | 49.528 | 75.797 | 12.489 | 1.00 | 170.59 | C |
| ATOM | 34 | OG1 | THR | A | 37 | 49.578 | 75.446 | 11.099 | 1.00 | 170.59 | O |
| ATOM | 35 | CG2 | THR | A | 37 | 50.686 | 75.120 | 13.203 | 1.00 | 170.59 | C |
| ATOM | 36 | N | MET | A | 38 | 48.294 | 76.726 | 15.114 | 1.00 | 152.06 | N |
| ATOM | 37 | CA | MET | A | 38 | 48.323 | 76.856 | 16.570 | 1.00 | 152.06 | C |
| ATOM | 38 | C | MET | A | 38 | 47.153 | 76.008 | 16.969 | 1.00 | 152.06 | C |
| ATOM | 39 | O | MET | A | 38 | 47.249 | 75.199 | 17.888 | 1.00 | 152.06 | O |
| ATOM | 40 | CB | MET | A | 38 | 48.138 | 78.310 | 17.025 | 1.00 | 155.79 | C |
| ATOM | 41 | CG | MET | A | 38 | 49.174 | 78.809 | 18.057 | 1.00 | 155.79 | C |
| ATOM | 42 | SD | MET | A | 38 | 49.159 | 78.028 | 19.698 | 1.00 | 155.79 | S |
| ATOM | 43 | CE | MET | A | 38 | 50.949 | 77.649 | 19.930 | 1.00 | 155.79 | C |
| ATOM | 44 | N | PHE | A | 39 | 46.063 | 76.147 | 16.222 | 1.00 | 96.46 | N |
| ATOM | 45 | CA | PHE | A | 39 | 44.904 | 75.359 | 16.541 | 1.00 | 96.46 | C |
| ATOM | 46 | C | PHE | A | 39 | 45.286 | 73.915 | 16.664 | 1.00 | 96.46 | C |
| ATOM | 47 | O | PHE | A | 39 | 44.796 | 73.205 | 17.521 | 1.00 | 96.46 | O |
| ATOM | 48 | CB | PHE | A | 39 | 43.808 | 75.525 | 15.502 | 1.00 | 122.57 | C |
| ATOM | 49 | CG | PHE | A | 39 | 42.489 | 75.055 | 15.988 | 1.00 | 122.57 | C |
| ATOM | 50 | CD1 | PHE | A | 39 | 42.035 | 73.774 | 15.695 | 1.00 | 122.57 | C |
| ATOM | 51 | CD2 | PHE | A | 39 | 41.757 | 75.848 | 16.854 | 1.00 | 122.57 | C |
| ATOM | 52 | CE1 | PHE | A | 39 | 40.864 | 73.286 | 16.275 | 1.00 | 122.57 | C |
| ATOM | 53 | CE2 | PHE | A | 39 | 40.599 | 75.383 | 17.438 | 1.00 | 122.57 | C |
| ATOM | 54 | CZ | PHE | A | 39 | 40.143 | 74.096 | 17.155 | 1.00 | 122.57 | C |
| ATOM | 55 | N | ARG | A | 40 | 46.165 | 73.458 | 15.805 | 1.00 | 102.85 | N |
| ATOM | 56 | CA | ARG | A | 40 | 46.569 | 72.089 | 15.923 | 1.00 | 102.85 | C |
| ATOM | 57 | C | ARG | A | 40 | 48.058 | 72.041 | 16.256 | 1.00 | 102.85 | C |
| ATOM | 58 | O | ARG | A | 40 | 48.859 | 71.662 | 15.416 | 1.00 | 102.85 | O |
| ATOM | 59 | CB | ARG | A | 40 | 46.336 | 71.349 | 14.599 | 1.00 | 98.50 | C |
| ATOM | 60 | CG | ARG | A | 40 | 45.229 | 70.295 | 14.606 | 1.00 | 98.50 | C |
| ATOM | 61 | CD | ARG | A | 40 | 45.031 | 69.690 | 13.231 | 1.00 | 98.50 | C |
| ATOM | 62 | NE | ARG | A | 40 | 46.270 | 69.116 | 12.722 | 1.00 | 98.50 | N |
| ATOM | 63 | CZ | ARG | A | 40 | 46.451 | 68.720 | 11.467 | 1.00 | 98.50 | C |
| ATOM | 64 | NH1 | ARG | A | 40 | 45.466 | 68.837 | 10.585 | 1.00 | 98.50 | N |
| ATOM | 65 | NH2 | ARG | A | 40 | 47.621 | 68.215 | 11.094 | 1.00 | 98.50 | N |
| ATOM | 66 | N | TYR | A | 41 | 48.454 | 72.444 | 17.459 | 1.00 | 109.82 | N |
| ATOM | 67 | CA | TYR | A | 41 | 49.875 | 72.373 | 17.823 | 1.00 | 109.82 | C |
| ATOM | 68 | C | TYR | A | 41 | 50.063 | 71.185 | 18.780 | 1.00 | 109.82 | C |
| ATOM | 69 | O | TYR | A | 41 | 49.254 | 70.262 | 18.812 | 1.00 | 109.82 | O |
| ATOM | 70 | CB | TYR | A | 41 | 50.300 | 73.651 | 18.543 | 1.00 | 170.72 | C |
| ATOM | 71 | CG | TYR | A | 41 | 49.962 | 73.662 | 20.022 | 1.00 | 170.72 | C |
| ATOM | 72 | CD1 | TYR | A | 41 | 48.665 | 73.399 | 20.468 | 1.00 | 170.72 | C |
| ATOM | 73 | CD2 | TYR | A | 41 | 50.940 | 73.942 | 20.975 | 1.00 | 170.72 | C |
| ATOM | 74 | CE1 | TYR | A | 41 | 48.351 | 73.416 | 21.828 | 1.00 | 170.72 | C |
| ATOM | 75 | CE2 | TYR | A | 41 | 50.636 | 73.964 | 22.338 | 1.00 | 170.72 | C |
| ATOM | 76 | CZ | TYR | A | 41 | 49.341 | 73.701 | 22.755 | 1.00 | 170.72 | C |
| ATOM | 77 | OH | TYR | A | 41 | 49.033 | 73.725 | 24.097 | 1.00 | 170.72 | O |
| ATOM | 78 | N | ALA | A | 42 | 51.152 | 71.194 | 19.536 | 1.00 | 145.44 | N |
| ATOM | 79 | CA | ALA | A | 42 | 51.386 | 70.177 | 20.556 | 1.00 | 145.44 | C |
| ATOM | 80 | C | ALA | A | 42 | 51.200 | 68.697 | 20.210 | 1.00 | 145.44 | C |
| ATOM | 81 | O | ALA | A | 42 | 50.093 | 68.178 | 20.329 | 1.00 | 145.44 | O |
| ATOM | 82 | CB | ALA | A | 42 | 50.569 | 70.502 | 21.791 | 1.00 | 38.03 | C |
| ATOM | 83 | N | GLY | A | 43 | 52.267 | 68.004 | 19.820 | 1.00 | 206.42 | N |
| ATOM | 84 | CA | GLY | A | 43 | 52.098 | 66.588 | 19.544 | 1.00 | 206.42 | C |
| ATOM | 85 | C | GLY | A | 43 | 53.087 | 65.776 | 18.726 | 1.00 | 206.42 | C |
| ATOM | 86 | O | GLY | A | 43 | 53.032 | 65.794 | 17.500 | 1.00 | 206.42 | O |
| ATOM | 87 | N | TRP | A | 44 | 53.973 | 65.034 | 19.387 | 1.00 | 107.05 | N |
| ATOM | 88 | CA | TRP | A | 44 | 54.923 | 64.200 | 18.661 | 1.00 | 107.05 | C |
| ATOM | 89 | C | TRP | A | 44 | 54.120 | 62.967 | 18.280 | 1.00 | 107.05 | C |
| ATOM | 90 | O | TRP | A | 44 | 53.391 | 62.957 | 17.286 | 1.00 | 107.05 | O |
| ATOM | 91 | CB | TRP | A | 44 | 56.131 | 63.821 | 19.555 | 1.00 | 207.38 | C |
| ATOM | 92 | CG | TRP | A | 44 | 57.201 | 62.899 | 18.921 | 1.00 | 207.38 | C |
| ATOM | 93 | CD1 | TRP | A | 44 | 56.978 | 61.736 | 18.238 | 1.00 | 207.38 | C |
| ATOM | 94 | CD2 | TRP | A | 44 | 58.632 | 63.036 | 19.006 | 1.00 | 207.38 | C |
| ATOM | 95 | NE1 | TRP | A | 44 | 58.168 | 61.139 | 17.898 | 1.00 | 207.38 | N |
| ATOM | 96 | CE2 | TRP | A | 44 | 59.199 | 61.915 | 18.355 | 1.00 | 207.38 | C |
| ATOM | 97 | CE3 | TRP | A | 44 | 59.486 | 63.995 | 19.569 | 1.00 | 207.38 | C |
| ATOM | 98 | CZ2 | TRP | A | 44 | 60.578 | 61.727 | 18.253 | 1.00 | 207.38 | C |
| ATOM | 99 | CZ3 | TRP | A | 44 | 60.859 | 63.807 | 19.467 | 1.00 | 207.38 | C |
| ATOM | 100 | CH2 | TRP | A | 44 | 61.391 | 62.681 | 18.812 | 1.00 | 207.38 | C |
| ATOM | 101 | N | LEU | A | 45 | 54.217 | 61.934 | 19.099 | 1.00 | 100.23 | N |

| | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|--------|------------|---|
| ATOM | 102 | CA | LEU | A | 45 | 53.511 | 60.677 | 18.840 | 1.00100.23 | C |
| ATOM | 103 | C | LEU | A | 45 | 51.992 | 60.913 | 18.723 | 1.00100.23 | C |
| ATOM | 104 | O | LEU | A | 45 | 51.187 | 59.973 | 18.497 | 1.00100.23 | O |
| ATOM | 105 | CB | LEU | A | 45 | 53.859 | 59.648 | 19.937 | 1.00146.16 | C |
| ATOM | 106 | CG | LEU | A | 45 | 55.333 | 59.269 | 20.223 | 1.00146.16 | C |
| ATOM | 107 | CD1 | LEU | A | 45 | 56.033 | 58.814 | 18.944 | 1.00146.16 | C |
| ATOM | 108 | CD2 | LEU | A | 45 | 56.066 | 60.444 | 20.862 | 1.00146.16 | C |
| ATOM | 109 | N | ASP | A | 46 | 51.653 | 62.205 | 18.847 | 1.00110.96 | N |
| ATOM | 110 | CA | ASP | A | 46 | 50.293 | 62.755 | 18.728 | 1.00110.96 | C |
| ATOM | 111 | C | ASP | A | 46 | 50.096 | 62.910 | 17.218 | 1.00110.96 | C |
| ATOM | 112 | O | ASP | A | 46 | 49.399 | 62.139 | 16.568 | 1.00110.96 | O |
| ATOM | 113 | CB | ASP | A | 46 | 50.214 | 64.146 | 19.376 | 1.00130.65 | C |
| ATOM | 114 | CG | ASP | A | 46 | 49.641 | 64.121 | 20.786 | 1.00130.65 | C |
| ATOM | 115 | OD1 | ASP | A | 46 | 49.629 | 65.191 | 21.434 | 1.00130.65 | O |
| ATOM | 116 | OD2 | ASP | A | 46 | 49.196 | 63.047 | 21.243 | 1.00130.65 | O |
| ATOM | 117 | N | ARG | A | 47 | 50.729 | 63.930 | 16.673 | 1.00 70.84 | N |
| ATOM | 118 | CA | ARG | A | 47 | 50.708 | 64.210 | 15.232 | 1.00 70.84 | C |
| ATOM | 119 | C | ARG | A | 47 | 50.868 | 62.922 | 14.394 | 1.00 70.84 | C |
| ATOM | 120 | O | ARG | A | 47 | 50.261 | 62.786 | 13.329 | 1.00 70.84 | O |
| ATOM | 121 | CB | ARG | A | 47 | 51.849 | 65.216 | 14.971 | 1.00207.38 | C |
| ATOM | 122 | CG | ARG | A | 47 | 52.031 | 65.771 | 13.567 | 1.00207.38 | C |
| ATOM | 123 | CD | ARG | A | 47 | 52.392 | 67.273 | 13.613 | 1.00207.38 | C |
| ATOM | 124 | NE | ARG | A | 47 | 53.368 | 67.615 | 14.652 | 1.00207.38 | N |
| ATOM | 125 | CZ | ARG | A | 47 | 53.520 | 68.836 | 15.165 | 1.00207.38 | C |
| ATOM | 126 | NH1 | ARG | A | 47 | 52.762 | 69.838 | 14.742 | 1.00207.38 | N |
| ATOM | 127 | NH2 | ARG | A | 47 | 54.426 | 69.055 | 16.110 | 1.00207.38 | N |
| ATOM | 128 | N | LEU | A | 48 | 51.695 | 61.988 | 14.872 | 1.00 74.38 | N |
| ATOM | 129 | CA | LEU | A | 48 | 51.906 | 60.745 | 14.137 | 1.00 74.38 | C |
| ATOM | 130 | C | LEU | A | 48 | 50.695 | 59.862 | 14.261 | 1.00 74.38 | C |
| ATOM | 131 | O | LEU | A | 48 | 50.181 | 59.379 | 13.245 | 1.00 74.38 | O |
| ATOM | 132 | CB | LEU | A | 48 | 53.166 | 60.021 | 14.624 | 1.00200.81 | C |
| ATOM | 133 | CG | LEU | A | 48 | 54.513 | 60.619 | 14.195 | 1.00200.81 | C |
| ATOM | 134 | CD1 | LEU | A | 48 | 55.637 | 59.684 | 14.617 | 1.00200.81 | C |
| ATOM | 135 | CD2 | LEU | A | 48 | 54.542 | 60.823 | 12.685 | 1.00200.81 | C |
| ATOM | 136 | N | TYR | A | 49 | 50.207 | 59.635 | 15.479 | 1.00 86.45 | N |
| ATOM | 137 | CA | TYR | A | 49 | 48.997 | 58.826 | 15.514 | 1.00 86.45 | C |
| ATOM | 138 | C | TYR | A | 49 | 47.910 | 59.509 | 14.661 | 1.00 86.45 | C |
| ATOM | 139 | O | TYR | A | 49 | 47.093 | 58.868 | 14.005 | 1.00 86.45 | O |
| ATOM | 140 | CB | TYR | A | 49 | 48.435 | 58.600 | 16.917 | 1.00141.79 | C |
| ATOM | 141 | CG | TYR | A | 49 | 47.336 | 57.562 | 16.825 | 1.00141.79 | C |
| ATOM | 142 | CD1 | TYR | A | 49 | 47.646 | 56.236 | 16.519 | 1.00141.79 | C |
| ATOM | 143 | CD2 | TYR | A | 49 | 45.987 | 57.920 | 16.890 | 1.00141.79 | C |
| ATOM | 144 | CE1 | TYR | A | 49 | 46.649 | 55.297 | 16.268 | 1.00141.79 | C |
| ATOM | 145 | CE2 | TYR | A | 49 | 44.975 | 56.980 | 16.640 | 1.00141.79 | C |
| ATOM | 146 | CZ | TYR | A | 49 | 45.317 | 55.673 | 16.324 | 1.00141.79 | C |
| ATOM | 147 | OH | TYR | A | 49 | 44.335 | 54.753 | 16.021 | 1.00141.79 | O |
| ATOM | 148 | N | MET | A | 50 | 47.909 | 60.823 | 14.672 | 1.00 44.28 | N |
| ATOM | 149 | CA | MET | A | 50 | 46.938 | 61.563 | 13.911 | 1.00 44.28 | C |
| ATOM | 150 | C | MET | A | 50 | 46.938 | 61.220 | 12.414 | 1.00 44.28 | C |
| ATOM | 151 | O | MET | A | 50 | 45.966 | 60.682 | 11.891 | 1.00 44.28 | O |
| ATOM | 152 | CB | MET | A | 50 | 47.175 | 63.060 | 14.111 | 1.00105.81 | C |
| ATOM | 153 | CG | MET | A | 50 | 46.216 | 63.957 | 13.358 | 1.00105.81 | C |
| ATOM | 154 | SD | MET | A | 50 | 46.274 | 65.648 | 13.981 | 1.00105.81 | S |
| ATOM | 155 | CE | MET | A | 50 | 44.656 | 65.764 | 14.732 | 1.00105.81 | C |
| ATOM | 156 | N | LEU | A | 51 | 48.029 | 61.543 | 11.722 | 1.00 86.83 | N |
| ATOM | 157 | CA | LEU | A | 51 | 48.120 | 61.293 | 10.280 | 1.00 86.83 | C |
| ATOM | 158 | C | LEU | A | 51 | 47.800 | 59.837 | 9.991 | 1.00 86.83 | C |
| ATOM | 159 | O | LEU | A | 51 | 47.225 | 59.515 | 8.952 | 1.00 86.83 | O |
| ATOM | 160 | CB | LEU | A | 51 | 49.512 | 61.696 | 9.786 | 1.00 91.57 | C |
| ATOM | 161 | CG | LEU | A | 51 | 49.867 | 63.156 | 10.115 | 1.00 91.57 | C |
| ATOM | 162 | CD1 | LEU | A | 51 | 51.332 | 63.411 | 9.794 | 1.00 91.57 | C |
| ATOM | 163 | CD2 | LEU | A | 51 | 48.959 | 64.110 | 9.339 | 1.00 91.57 | C |
| ATOM | 164 | N | VAL | A | 52 | 48.143 | 58.962 | 10.929 | 1.00 79.82 | N |
| ATOM | 165 | CA | VAL | A | 52 | 47.826 | 57.548 | 10.775 | 1.00 79.82 | C |
| ATOM | 166 | C | VAL | A | 52 | 46.305 | 57.420 | 10.624 | 1.00 79.82 | C |
| ATOM | 167 | O | VAL | A | 52 | 45.781 | 57.020 | 9.567 | 1.00 79.82 | O |
| ATOM | 168 | CB | VAL | A | 52 | 48.273 | 56.734 | 12.013 | 1.00 62.36 | C |
| ATOM | 169 | CG1 | VAL | A | 52 | 47.491 | 55.426 | 12.107 | 1.00 62.36 | C |
| ATOM | 170 | CG2 | VAL | A | 52 | 49.766 | 56.455 | 11.928 | 1.00 62.36 | C |
| ATOM | 171 | N | GLY | A | 53 | 45.596 | 57.761 | 11.692 | 1.00 43.09 | N |
| ATOM | 172 | CA | GLY | A | 53 | 44.147 | 57.691 | 11.665 | 1.00 43.09 | C |
| ATOM | 173 | C | GLY | A | 53 | 43.515 | 58.354 | 10.451 | 1.00 43.09 | C |
| ATOM | 174 | O | GLY | A | 53 | 42.531 | 57.863 | 9.896 | 1.00 43.09 | O |
| ATOM | 175 | N | THR | A | 54 | 44.056 | 59.484 | 10.029 | 1.00 58.74 | N |

| | | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|--------|------|--------|---|
| ATOM | 176 | CA | THR | A | 54 | 43.489 | 60.134 | 8.865 | 1.00 | 58.74 | C |
| ATOM | 177 | C | THR | A | 54 | 43.466 | 59.067 | 7.798 | 1.00 | 58.74 | C |
| ATOM | 178 | O | THR | A | 54 | 42.417 | 58.735 | 7.262 | 1.00 | 58.74 | O |
| ATOM | 179 | CB | THR | A | 54 | 44.374 | 61.299 | 8.386 | 1.00 | 71.42 | C |
| ATOM | 180 | OG1 | THR | A | 54 | 44.763 | 62.106 | 9.503 | 1.00 | 71.42 | O |
| ATOM | 181 | CG2 | THR | A | 54 | 43.615 | 62.165 | 7.415 | 1.00 | 71.42 | C |
| ATOM | 182 | N | LEU | A | 55 | 44.637 | 58.504 | 7.527 | 1.00 | 85.12 | N |
| ATOM | 183 | CA | LEU | A | 55 | 44.759 | 57.466 | 6.516 | 1.00 | 85.12 | C |
| ATOM | 184 | C | LEU | A | 55 | 43.624 | 56.456 | 6.605 | 1.00 | 85.12 | C |
| ATOM | 185 | O | LEU | A | 55 | 42.893 | 56.250 | 5.619 | 1.00 | 85.12 | O |
| ATOM | 186 | CB | LEU | A | 55 | 46.114 | 56.773 | 6.662 | 1.00 | 75.32 | C |
| ATOM | 187 | CG | LEU | A | 55 | 46.392 | 55.698 | 5.615 | 1.00 | 75.32 | C |
| ATOM | 188 | CD1 | LEU | A | 55 | 47.621 | 56.059 | 4.821 | 1.00 | 75.32 | C |
| ATOM | 189 | CD2 | LEU | A | 55 | 46.590 | 54.367 | 6.296 | 1.00 | 75.32 | C |
| ATOM | 190 | N | ALA | A | 56 | 43.464 | 55.836 | 7.779 | 1.00 | 51.11 | N |
| ATOM | 191 | CA | ALA | A | 56 | 42.381 | 54.853 | 7.944 | 1.00 | 51.11 | C |
| ATOM | 192 | C | ALA | A | 56 | 41.131 | 55.433 | 7.387 | 1.00 | 51.11 | C |
| ATOM | 193 | O | ALA | A | 56 | 40.410 | 54.756 | 6.679 | 1.00 | 51.11 | O |
| ATOM | 194 | CB | ALA | A | 56 | 42.231 | 54.526 | 9.435 | 1.00 | 25.57 | C |
| ATOM | 195 | N | ALA | A | 57 | 40.867 | 56.688 | 7.720 | 1.00 | 80.02 | N |
| ATOM | 196 | CA | ALA | A | 57 | 39.679 | 57.367 | 7.227 | 1.00 | 80.02 | C |
| ATOM | 197 | C | ALA | A | 57 | 39.604 | 57.248 | 5.713 | 1.00 | 80.02 | C |
| ATOM | 198 | O | ALA | A | 57 | 38.596 | 56.826 | 5.131 | 1.00 | 80.02 | O |
| ATOM | 199 | CB | ALA | A | 57 | 39.706 | 58.843 | 7.644 | 1.00 | 31.83 | C |
| ATOM | 200 | N | ILE | A | 58 | 40.687 | 57.638 | 5.071 | 1.00 | 77.23 | N |
| ATOM | 201 | CA | ILE | A | 58 | 40.747 | 57.573 | 3.638 | 1.00 | 77.23 | C |
| ATOM | 202 | C | ILE | A | 58 | 40.230 | 56.224 | 3.152 | 1.00 | 77.23 | C |
| ATOM | 203 | O | ILE | A | 58 | 39.102 | 56.117 | 2.614 | 1.00 | 77.23 | O |
| ATOM | 204 | CB | ILE | A | 58 | 42.199 | 57.791 | 3.148 | 1.00 | 110.59 | C |
| ATOM | 205 | CG1 | ILE | A | 58 | 42.563 | 59.275 | 3.262 | 1.00 | 110.59 | C |
| ATOM | 206 | CG2 | ILE | A | 58 | 42.357 | 57.300 | 1.713 | 1.00 | 110.59 | C |
| ATOM | 207 | CD1 | ILE | A | 58 | 42.280 | 59.881 | 4.629 | 1.00 | 110.59 | C |
| ATOM | 208 | N | ILE | A | 59 | 41.046 | 55.193 | 3.383 | 1.00 | 58.02 | N |
| ATOM | 209 | CA | ILE | A | 59 | 40.743 | 53.825 | 2.940 | 1.00 | 58.02 | C |
| ATOM | 210 | C | ILE | A | 59 | 39.316 | 53.409 | 3.179 | 1.00 | 58.02 | C |
| ATOM | 211 | O | ILE | A | 59 | 38.703 | 52.821 | 2.333 | 1.00 | 58.02 | O |
| ATOM | 212 | CB | ILE | A | 59 | 41.721 | 52.812 | 3.587 | 1.00 | 55.60 | C |
| ATOM | 213 | CG1 | ILE | A | 59 | 41.034 | 52.042 | 4.713 | 1.00 | 55.60 | C |
| ATOM | 214 | CG2 | ILE | A | 59 | 42.924 | 53.554 | 4.137 | 1.00 | 55.60 | C |
| ATOM | 215 | CD1 | ILE | A | 59 | 41.905 | 50.992 | 5.367 | 1.00 | 55.60 | C |
| ATOM | 216 | N | HIS | A | 60 | 38.809 | 53.726 | 4.345 | 1.00 | 49.85 | N |
| ATOM | 217 | CA | HIS | A | 60 | 37.432 | 53.472 | 4.733 | 1.00 | 49.85 | C |
| ATOM | 218 | C | HIS | A | 60 | 36.361 | 54.037 | 3.707 | 1.00 | 49.85 | C |
| ATOM | 219 | O | HIS | A | 60 | 35.419 | 53.316 | 3.230 | 1.00 | 49.85 | O |
| ATOM | 220 | CB | HIS | A | 60 | 37.288 | 54.121 | 6.116 | 1.00 | 103.55 | C |
| ATOM | 221 | CG | HIS | A | 60 | 35.969 | 53.913 | 6.783 | 1.00 | 103.55 | C |
| ATOM | 222 | ND1 | HIS | A | 60 | 35.249 | 52.743 | 6.680 | 1.00 | 103.55 | N |
| ATOM | 223 | CD2 | HIS | A | 60 | 35.285 | 54.701 | 7.646 | 1.00 | 103.55 | C |
| ATOM | 224 | CE1 | HIS | A | 60 | 34.180 | 52.819 | 7.452 | 1.00 | 103.55 | C |
| ATOM | 225 | NE2 | HIS | A | 60 | 34.179 | 53.996 | 8.050 | 1.00 | 103.55 | N |
| ATOM | 226 | N | GLY | A | 61 | 36.489 | 55.329 | 3.381 | 1.00 | 103.03 | N |
| ATOM | 227 | CA | GLY | A | 61 | 35.541 | 55.940 | 2.455 | 1.00 | 103.03 | C |
| ATOM | 228 | C | GLY | A | 61 | 35.597 | 55.190 | 1.151 | 1.00 | 103.03 | C |
| ATOM | 229 | O | GLY | A | 61 | 34.568 | 54.820 | 0.510 | 1.00 | 103.03 | O |
| ATOM | 230 | N | VAL | A | 62 | 36.840 | 54.931 | 0.765 | 1.00 | 110.24 | N |
| ATOM | 231 | CA | VAL | A | 62 | 37.076 | 54.195 | -0.463 | 1.00 | 110.24 | C |
| ATOM | 232 | C | VAL | A | 62 | 36.322 | 52.855 | -0.370 | 1.00 | 110.24 | C |
| ATOM | 233 | O | VAL | A | 62 | 35.838 | 52.328 | -1.374 | 1.00 | 110.24 | O |
| ATOM | 234 | CB | VAL | A | 62 | 38.581 | 53.933 | -0.684 | 1.00 | 120.25 | C |
| ATOM | 235 | CG1 | VAL | A | 62 | 38.835 | 53.594 | -2.151 | 1.00 | 120.25 | C |
| ATOM | 236 | CG2 | VAL | A | 62 | 39.391 | 55.150 | -0.266 | 1.00 | 120.25 | C |
| ATOM | 237 | N | ALA | A | 63 | 36.192 | 52.319 | 0.840 | 1.00 | 76.60 | N |
| ATOM | 238 | CA | ALA | A | 63 | 35.489 | 51.046 | 1.046 | 1.00 | 76.60 | C |
| ATOM | 239 | C | ALA | A | 63 | 34.066 | 51.126 | 0.498 | 1.00 | 76.60 | C |
| ATOM | 240 | O | ALA | A | 63 | 33.657 | 50.308 | -0.335 | 1.00 | 76.60 | O |
| ATOM | 241 | CB | ALA | A | 63 | 35.462 | 50.708 | 2.524 | 1.00 | 142.93 | C |
| ATOM | 242 | N | LEU | A | 64 | 33.310 | 52.125 | 0.963 | 1.00 | 78.35 | N |
| ATOM | 243 | CA | LEU | A | 64 | 31.904 | 52.303 | 0.493 | 1.00 | 78.35 | C |
| ATOM | 244 | C | LEU | A | 64 | 31.707 | 52.269 | -0.995 | 1.00 | 78.35 | C |
| ATOM | 245 | O | LEU | A | 64 | 30.811 | 51.576 | -1.485 | 1.00 | 78.35 | O |
| ATOM | 246 | CB | LEU | A | 64 | 31.332 | 53.595 | 1.063 | 1.00 | 179.39 | C |
| ATOM | 247 | CG | LEU | A | 64 | 30.230 | 53.245 | 2.056 | 1.00 | 179.39 | C |
| ATOM | 248 | CD1 | LEU | A | 64 | 29.154 | 52.406 | 1.362 | 1.00 | 179.39 | C |
| ATOM | 249 | CD2 | LEU | A | 64 | 30.841 | 52.463 | 3.208 | 1.00 | 179.39 | C |

| | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|---------|------------|---|
| ATOM | 250 | N | PRO | A | 65 | 32.519 | 53.045 | -1.743 | 1.00116.05 | N |
| ATOM | 251 | CA | PRO | A | 65 | 32.144 | 52.830 | -3.142 | 1.00116.05 | C |
| ATOM | 252 | C | PRO | A | 65 | 32.722 | 51.584 | -3.793 | 1.00116.05 | C |
| ATOM | 253 | O | PRO | A | 65 | 32.163 | 51.110 | -4.788 | 1.00116.05 | O |
| ATOM | 254 | CB | PRO | A | 65 | 32.606 | 54.120 | -3.820 | 1.00 90.97 | C |
| ATOM | 255 | CG | PRO | A | 65 | 33.800 | 54.543 | -2.982 | 1.00 90.97 | C |
| ATOM | 256 | CD | PRO | A | 65 | 33.299 | 54.284 | -1.576 | 1.00 90.97 | C |
| ATOM | 257 | N | LEU | A | 66 | 33.839 | 51.057 | -3.283 | 1.00 70.25 | N |
| ATOM | 258 | CA | LEU | A | 66 | 34.370 | 49.828 | -3.875 | 1.00 70.25 | C |
| ATOM | 259 | C | LEU | A | 66 | 33.233 | 48.872 | -3.729 | 1.00 70.25 | C |
| ATOM | 260 | O | LEU | A | 66 | 32.878 | 48.159 | -4.669 | 1.00 70.25 | O |
| ATOM | 261 | CB | LEU | A | 66 | 35.544 | 49.289 | -3.066 | 1.00 59.45 | C |
| ATOM | 262 | CG | LEU | A | 66 | 36.920 | 49.921 | -3.226 | 1.00 59.45 | C |
| ATOM | 263 | CD1 | LEU | A | 66 | 37.964 | 48.930 | -2.725 | 1.00 59.45 | C |
| ATOM | 264 | CD2 | LEU | A | 66 | 37.175 | 50.254 | -4.693 | 1.00 59.45 | C |
| ATOM | 265 | N | MET | A | 67 | 32.665 | 48.867 | -2.524 | 1.00 84.00 | N |
| ATOM | 266 | CA | MET | A | 67 | 31.543 | 48.008 | -2.220 | 1.00 84.00 | C |
| ATOM | 267 | C | MET | A | 67 | 30.488 | 48.163 | -3.321 | 1.00 84.00 | C |
| ATOM | 268 | O | MET | A | 67 | 29.850 | 47.181 | -3.723 | 1.00 84.00 | O |
| ATOM | 269 | CB | MET | A | 67 | 30.923 | 48.374 | -0.875 | 1.00121.34 | C |
| ATOM | 270 | CG | MET | A | 67 | 29.925 | 47.336 | -0.392 | 1.00121.34 | C |
| ATOM | 271 | SD | MET | A | 67 | 30.731 | 45.743 | -0.151 | 1.00121.34 | S |
| ATOM | 272 | CE | MET | A | 67 | 30.553 | 45.552 | 1.586 | 1.00121.34 | C |
| ATOM | 273 | N | MET | A | 68 | 30.287 | 49.390 | -3.808 | 1.00 80.95 | N |
| ATOM | 274 | CA | MET | A | 68 | 29.341 | 49.562 | -4.914 | 1.00 80.95 | C |
| ATOM | 275 | C | MET | A | 68 | 29.769 | 48.702 | -6.092 | 1.00 80.95 | C |
| ATOM | 276 | O | MET | A | 68 | 29.088 | 47.751 | -6.475 | 1.00 80.95 | O |
| ATOM | 277 | CB | MET | A | 68 | 29.262 | 51.036 | -5.316 | 1.00 87.71 | C |
| ATOM | 278 | CG | MET | A | 68 | 28.288 | 51.813 | -4.458 | 1.00 87.71 | C |
| ATOM | 279 | SD | MET | A | 68 | 26.692 | 50.967 | -4.436 | 1.00 87.71 | S |
| ATOM | 280 | CE | MET | A | 68 | 26.868 | 49.973 | -2.920 | 1.00 87.71 | C |
| ATOM | 281 | N | LEU | A | 69 | 30.915 | 49.033 | -6.664 | 1.00102.67 | N |
| ATOM | 282 | CA | LEU | A | 69 | 31.418 | 48.267 | -7.794 | 1.00102.67 | C |
| ATOM | 283 | C | LEU | A | 69 | 31.151 | 46.778 | -7.665 | 1.00102.67 | C |
| ATOM | 284 | O | LEU | A | 69 | 30.478 | 46.187 | -8.511 | 1.00102.67 | O |
| ATOM | 285 | CB | LEU | A | 69 | 32.915 | 48.503 | -7.983 | 1.00117.44 | C |
| ATOM | 286 | CG | LEU | A | 69 | 33.545 | 47.684 | -9.114 | 1.00117.44 | C |
| ATOM | 287 | CD1 | LEU | A | 69 | 32.768 | 47.906 | -10.401 | 1.00117.44 | C |
| ATOM | 288 | CD2 | LEU | A | 69 | 34.995 | 48.077 | -9.292 | 1.00117.44 | C |
| ATOM | 289 | N | ILE | A | 70 | 31.693 | 46.157 | -6.625 | 1.00 73.09 | N |
| ATOM | 290 | CA | ILE | A | 70 | 31.469 | 44.734 | -6.451 | 1.00 73.09 | C |
| ATOM | 291 | C | ILE | A | 70 | 29.984 | 44.397 | -6.552 | 1.00 73.09 | C |
| ATOM | 292 | O | ILE | A | 70 | 29.630 | 43.403 | -7.179 | 1.00 73.09 | O |
| ATOM | 293 | CB | ILE | A | 70 | 32.000 | 44.225 | -5.090 | 1.00 85.41 | C |
| ATOM | 294 | CG1 | ILE | A | 70 | 33.517 | 44.056 | -5.165 | 1.00 85.41 | C |
| ATOM | 295 | CG2 | ILE | A | 70 | 31.331 | 42.901 | -4.715 | 1.00 85.41 | C |
| ATOM | 296 | CD1 | ILE | A | 70 | 34.143 | 43.568 | -3.888 | 1.00 85.41 | C |
| ATOM | 297 | N | PHE | A | 71 | 29.107 | 45.189 | -5.936 | 1.00 83.93 | N |
| ATOM | 298 | CA | PHE | A | 71 | 27.685 | 44.891 | -6.071 | 1.00 83.93 | C |
| ATOM | 299 | C | PHE | A | 71 | 27.385 | 44.789 | -7.568 | 1.00 83.93 | C |
| ATOM | 300 | O | PHE | A | 71 | 26.571 | 43.977 | -7.993 | 1.00 83.93 | O |
| ATOM | 301 | CB | PHE | A | 71 | 26.835 | 45.994 | -5.447 | 1.00159.98 | C |
| ATOM | 302 | CG | PHE | A | 71 | 25.387 | 45.934 | -5.846 | 1.00159.98 | C |
| ATOM | 303 | CD1 | PHE | A | 71 | 24.857 | 46.869 | -6.730 | 1.00159.98 | C |
| ATOM | 304 | CD2 | PHE | A | 71 | 24.561 | 44.921 | -5.370 | 1.00159.98 | C |
| ATOM | 305 | CE1 | PHE | A | 71 | 23.525 | 46.798 | -7.137 | 1.00159.98 | C |
| ATOM | 306 | CE2 | PHE | A | 71 | 23.224 | 44.839 | -5.772 | 1.00159.98 | C |
| ATOM | 307 | CZ | PHE | A | 71 | 22.707 | 45.780 | -6.658 | 1.00159.98 | C |
| ATOM | 308 | N | GLY | A | 72 | 28.062 | 45.612 | -8.363 | 1.00 83.30 | N |
| ATOM | 309 | CA | GLY | A | 72 | 27.886 | 45.575 | -9.808 | 1.00 83.30 | C |
| ATOM | 310 | C | GLY | A | 72 | 28.312 | 44.267 | -10.465 | 1.00 83.30 | C |
| ATOM | 311 | O | GLY | A | 72 | 27.480 | 43.581 | -11.035 | 1.00 83.30 | O |
| ATOM | 312 | N | ASP | A | 73 | 29.591 | 43.907 | -10.398 | 1.00108.25 | N |
| ATOM | 313 | CA | ASP | A | 73 | 30.049 | 42.645 | -10.997 | 1.00108.25 | C |
| ATOM | 314 | C | ASP | A | 73 | 29.249 | 41.396 | -10.549 | 1.00108.25 | C |
| ATOM | 315 | O | ASP | A | 73 | 29.016 | 40.450 | -11.327 | 1.00108.25 | O |
| ATOM | 316 | CB | ASP | A | 73 | 31.539 | 42.442 | -10.716 | 1.00187.41 | C |
| ATOM | 317 | CG | ASP | A | 73 | 32.393 | 43.551 | -11.303 | 1.00187.41 | C |
| ATOM | 318 | OD1 | ASP | A | 73 | 33.634 | 43.413 | -11.310 | 1.00187.41 | O |
| ATOM | 319 | OD2 | ASP | A | 73 | 31.821 | 44.566 | -11.756 | 1.00187.41 | O |
| ATOM | 320 | N | MET | A | 74 | 28.823 | 41.376 | -9.296 | 1.00150.37 | N |
| ATOM | 321 | CA | MET | A | 74 | 28.037 | 40.238 | -8.860 | 1.00150.37 | C |
| ATOM | 322 | C | MET | A | 74 | 26.738 | 40.317 | -9.656 | 1.00150.37 | C |
| ATOM | 323 | O | MET | A | 74 | 26.230 | 39.313 | -10.176 | 1.00150.37 | O |

| | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|---------|------------|---|
| ATOM | 324 | CB | MET | A | 74 | 27.748 | 40.308 | -7.356 | 1.00157.67 | C |
| ATOM | 325 | CG | MET | A | 74 | 26.921 | 41.501 | -6.906 | 1.00157.67 | C |
| ATOM | 326 | SD | MET | A | 74 | 26.526 | 41.435 | -5.144 | 1.00157.67 | S |
| ATOM | 327 | CE | MET | A | 74 | 28.011 | 42.177 | -4.445 | 1.00157.67 | C |
| ATOM | 328 | N | THR | A | 75 | 26.218 | 41.531 | -9.778 | 1.00 90.81 | N |
| ATOM | 329 | CA | THR | A | 75 | 24.978 | 41.732 | -10.508 | 1.00 90.81 | C |
| ATOM | 330 | C | THR | A | 75 | 25.112 | 41.400 | -11.980 | 1.00 90.81 | C |
| ATOM | 331 | O | THR | A | 75 | 24.173 | 40.915 | -12.595 | 1.00 90.81 | O |
| ATOM | 332 | CB | THR | A | 75 | 24.476 | 43.186 | -10.389 | 1.00207.38 | C |
| ATOM | 333 | OG1 | THR | A | 75 | 24.338 | 43.540 | -9.007 | 1.00207.38 | O |
| ATOM | 334 | CG2 | THR | A | 75 | 23.127 | 43.332 | -11.075 | 1.00207.38 | C |
| ATOM | 335 | N | ASP | A | 76 | 26.263 | 41.673 | -12.574 | 1.00188.44 | N |
| ATOM | 336 | CA | ASP | A | 76 | 26.393 | 41.350 | -13.983 | 1.00188.44 | C |
| ATOM | 337 | C | ASP | A | 76 | 26.331 | 39.842 | -14.190 | 1.00188.44 | C |
| ATOM | 338 | O | ASP | A | 76 | 25.505 | 39.360 | -14.982 | 1.00188.44 | O |
| ATOM | 339 | CB | ASP | A | 76 | 27.687 | 41.914 | -14.569 | 1.00168.51 | C |
| ATOM | 340 | CG | ASP | A | 76 | 27.430 | 43.087 | -15.497 | 1.00168.51 | C |
| ATOM | 341 | OD1 | ASP | A | 76 | 26.480 | 43.004 | -16.304 | 1.00168.51 | O |
| ATOM | 342 | OD2 | ASP | A | 76 | 28.172 | 44.087 | -15.429 | 1.00168.51 | O |
| ATOM | 343 | N | SER | A | 77 | 27.177 | 39.091 | -13.479 | 1.00143.98 | N |
| ATOM | 344 | CA | SER | A | 77 | 27.151 | 37.629 | -13.629 | 1.00143.98 | C |
| ATOM | 345 | C | SER | A | 77 | 25.706 | 37.133 | -13.461 | 1.00143.98 | C |
| ATOM | 346 | O | SER | A | 77 | 25.276 | 36.137 | -14.084 | 1.00143.98 | O |
| ATOM | 347 | CB | SER | A | 77 | 28.055 | 36.965 | -12.588 | 1.00104.98 | C |
| ATOM | 348 | OG | SER | A | 77 | 29.421 | 37.213 | -12.862 | 1.00104.98 | O |
| ATOM | 349 | N | PHE | A | 78 | 24.971 | 37.866 | -12.621 | 1.00129.68 | N |
| ATOM | 350 | CA | PHE | A | 78 | 23.563 | 37.606 | -12.295 | 1.00129.68 | C |
| ATOM | 351 | C | PHE | A | 78 | 22.623 | 37.806 | -13.509 | 1.00129.68 | C |
| ATOM | 352 | O | PHE | A | 78 | 21.610 | 37.108 | -13.681 | 1.00129.68 | O |
| ATOM | 353 | CB | PHE | A | 78 | 23.154 | 38.551 | -11.175 | 1.00137.71 | C |
| ATOM | 354 | CG | PHE | A | 78 | 22.139 | 37.982 | -10.264 | 1.00137.71 | C |
| ATOM | 355 | CD1 | PHE | A | 78 | 22.416 | 36.840 | -9.531 | 1.00137.71 | C |
| ATOM | 356 | CD2 | PHE | A | 78 | 20.888 | 38.562 | -10.158 | 1.00137.71 | C |
| ATOM | 357 | CE1 | PHE | A | 78 | 21.450 | 36.277 | -8.700 | 1.00137.71 | C |
| ATOM | 358 | CE2 | PHE | A | 78 | 19.919 | 38.006 | -9.331 | 1.00137.71 | C |
| ATOM | 359 | CZ | PHE | A | 78 | 20.203 | 36.859 | -8.601 | 1.00137.71 | C |
| ATOM | 360 | N | ALA | A | 79 | 22.973 | 38.776 | -14.346 | 1.00166.37 | N |
| ATOM | 361 | CA | ALA | A | 79 | 22.203 | 39.072 | -15.541 | 1.00166.37 | C |
| ATOM | 362 | C | ALA | A | 79 | 22.441 | 37.953 | -16.552 | 1.00166.37 | C |
| ATOM | 363 | O | ALA | A | 79 | 21.487 | 37.390 | -17.091 | 1.00166.37 | O |
| ATOM | 364 | CB | ALA | A | 79 | 22.632 | 40.406 | -16.127 | 1.00176.21 | C |
| ATOM | 365 | N | SER | A | 80 | 23.714 | 37.626 | -16.793 | 1.00177.16 | N |
| ATOM | 366 | CA | SER | A | 80 | 24.074 | 36.565 | -17.748 | 1.00177.16 | C |
| ATOM | 367 | C | SER | A | 80 | 23.345 | 35.256 | -17.438 | 1.00177.16 | C |
| ATOM | 368 | O | SER | A | 80 | 22.820 | 34.585 | -18.342 | 1.00177.16 | O |
| ATOM | 369 | CB | SER | A | 80 | 25.585 | 36.325 | -17.734 | 1.00207.38 | C |
| ATOM | 370 | OG | SER | A | 80 | 26.277 | 37.437 | -18.275 | 1.00207.38 | O |
| ATOM | 371 | N | VAL | A | 81 | 23.315 | 34.896 | -16.156 | 1.00126.07 | N |
| ATOM | 372 | CA | VAL | A | 81 | 22.624 | 33.678 | -15.740 | 1.00126.07 | C |
| ATOM | 373 | C | VAL | A | 81 | 21.120 | 33.818 | -15.956 | 1.00126.07 | C |
| ATOM | 374 | O | VAL | A | 81 | 20.439 | 32.851 | -16.282 | 1.00126.07 | O |
| ATOM | 375 | CB | VAL | A | 81 | 22.870 | 33.368 | -14.247 | 1.00182.49 | C |
| ATOM | 376 | CG1 | VAL | A | 81 | 22.060 | 32.153 | -13.828 | 1.00182.49 | C |
| ATOM | 377 | CG2 | VAL | A | 81 | 24.341 | 33.114 | -14.005 | 1.00182.49 | C |
| ATOM | 378 | N | GLY | A | 82 | 20.603 | 35.026 | -15.763 | 1.00109.73 | N |
| ATOM | 379 | CA | GLY | A | 82 | 19.177 | 35.231 | -15.958 | 1.00109.73 | C |
| ATOM | 380 | C | GLY | A | 82 | 18.822 | 35.362 | -17.427 | 1.00109.73 | C |
| ATOM | 381 | O | GLY | A | 82 | 17.681 | 35.149 | -17.857 | 1.00109.73 | O |
| ATOM | 382 | N | ASN | A | 83 | 19.827 | 35.730 | -18.204 | 1.00198.11 | N |
| ATOM | 383 | CA | ASN | A | 83 | 19.647 | 35.896 | -19.630 | 1.00198.11 | C |
| ATOM | 384 | C | ASN | A | 83 | 19.481 | 34.509 | -20.253 | 1.00198.11 | C |
| ATOM | 385 | O | ASN | A | 83 | 18.526 | 34.265 | -20.997 | 1.00198.11 | O |
| ATOM | 386 | CB | ASN | A | 83 | 20.866 | 36.596 | -20.237 | 1.00165.60 | C |
| ATOM | 387 | CG | ASN | A | 83 | 20.497 | 37.550 | -21.359 | 1.00165.60 | C |
| ATOM | 388 | OD1 | ASN | A | 83 | 21.368 | 38.080 | -22.049 | 1.00165.60 | O |
| ATOM | 389 | ND2 | ASN | A | 83 | 19.201 | 37.780 | -21.540 | 1.00165.60 | N |
| ATOM | 390 | N | VAL | A | 84 | 20.407 | 33.599 | -19.946 | 1.00207.06 | N |
| ATOM | 391 | CA | VAL | A | 84 | 20.316 | 32.249 | -20.493 | 1.00207.06 | C |
| ATOM | 392 | C | VAL | A | 84 | 19.131 | 31.526 | -19.848 | 1.00207.06 | C |
| ATOM | 393 | O | VAL | A | 84 | 18.582 | 30.579 | -20.420 | 1.00207.06 | O |
| ATOM | 394 | CB | VAL | A | 84 | 21.608 | 31.442 | -20.247 | 1.00196.40 | C |
| ATOM | 395 | CG1 | VAL | A | 84 | 21.560 | 30.137 | -21.032 | 1.00196.40 | C |
| ATOM | 396 | CG2 | VAL | A | 84 | 22.818 | 32.263 | -20.660 | 1.00196.40 | C |
| ATOM | 397 | N | SER | A | 85 | 18.743 | 31.966 | -18.650 | 1.00200.28 | N |

| | | | | | | | | | | |
|------|-----|-----|-----|---|----|--------|--------|---------|------------|---|
| ATOM | 398 | CA | SER | A | 85 | 17.584 | 31.375 | -17.980 | 1.00200.28 | C |
| ATOM | 399 | C | SER | A | 85 | 16.394 | 31.745 | -18.867 | 1.00200.28 | C |
| ATOM | 400 | O | SER | A | 85 | 15.503 | 30.921 | -19.106 | 1.00200.28 | O |
| ATOM | 401 | CB | SER | A | 85 | 17.388 | 31.979 | -16.589 | 1.00185.26 | C |
| ATOM | 402 | OG | SER | A | 85 | 18.400 | 31.547 | -15.699 | 1.00185.26 | O |
| ATOM | 403 | N | LYS | A | 86 | 16.416 | 32.996 | -19.352 | 1.00207.38 | N |
| ATOM | 404 | CA | LYS | A | 86 | 15.381 | 33.558 | -20.231 | 1.00207.38 | C |
| ATOM | 405 | C | LYS | A | 86 | 15.322 | 32.718 | -21.505 | 1.00207.38 | C |
| ATOM | 406 | O | LYS | A | 86 | 14.237 | 32.346 | -21.966 | 1.00207.38 | O |
| ATOM | 407 | CB | LYS | A | 86 | 15.702 | 35.014 | -20.580 | 1.00177.89 | C |
| ATOM | 408 | CG | LYS | A | 86 | 14.540 | 35.728 | -21.245 | 1.00177.89 | C |
| ATOM | 409 | CD | LYS | A | 86 | 13.318 | 35.765 | -20.329 | 1.00177.89 | C |
| ATOM | 410 | CE | LYS | A | 86 | 12.038 | 36.063 | -21.096 | 1.00177.89 | C |
| ATOM | 411 | NZ | LYS | A | 86 | 10.850 | 35.952 | -20.201 | 1.00177.89 | N |
| ATOM | 412 | N | ASN | A | 87 | 16.495 | 32.422 | -22.066 | 1.00207.38 | N |
| ATOM | 413 | CA | ASN | A | 87 | 16.573 | 31.599 | -23.267 | 1.00207.38 | C |
| ATOM | 414 | C | ASN | A | 87 | 15.936 | 30.248 | -22.939 | 1.00207.38 | C |
| ATOM | 415 | O | ASN | A | 87 | 14.928 | 29.867 | -23.542 | 1.00207.38 | O |
| ATOM | 416 | CB | ASN | A | 87 | 18.031 | 31.375 | -23.673 | 1.00183.10 | C |
| ATOM | 417 | CG | ASN | A | 87 | 18.166 | 30.465 | -24.881 | 1.00183.10 | C |
| ATOM | 418 | OD1 | ASN | A | 87 | 19.168 | 29.768 | -25.035 | 1.00183.10 | O |
| ATOM | 419 | ND2 | ASN | A | 87 | 17.160 | 30.477 | -25.750 | 1.00183.10 | N |
| ATOM | 420 | N | SER | A | 88 | 16.519 | 29.549 | -21.962 | 1.00207.38 | N |
| ATOM | 421 | CA | SER | A | 88 | 16.045 | 28.230 | -21.534 | 1.00207.38 | C |
| ATOM | 422 | C | SER | A | 88 | 15.427 | 27.479 | -22.732 | 1.00207.38 | C |
| ATOM | 423 | O | SER | A | 88 | 15.994 | 27.495 | -23.829 | 1.00207.38 | O |
| ATOM | 424 | CB | SER | A | 88 | 15.012 | 28.380 | -20.413 | 1.00207.38 | C |
| ATOM | 425 | OG | SER | A | 88 | 14.847 | 27.157 | -19.716 | 1.00207.38 | O |
| ATOM | 426 | N | THR | A | 89 | 14.286 | 26.821 | -22.532 | 1.00187.24 | N |
| ATOM | 427 | CA | THR | A | 89 | 13.622 | 26.093 | -23.615 | 1.00187.24 | C |
| ATOM | 428 | C | THR | A | 89 | 14.587 | 25.212 | -24.442 | 1.00187.24 | C |
| ATOM | 429 | O | THR | A | 89 | 14.251 | 24.752 | -25.537 | 1.00187.24 | O |
| ATOM | 430 | CB | THR | A | 89 | 12.895 | 27.069 | -24.564 | 1.00139.01 | C |
| ATOM | 431 | OG1 | THR | A | 89 | 13.853 | 27.865 | -25.271 | 1.00139.01 | O |
| ATOM | 432 | CG2 | THR | A | 89 | 11.982 | 27.986 | -23.771 | 1.00139.01 | C |
| ATOM | 433 | N | ASN | A | 90 | 15.784 | 24.980 | -23.909 | 1.00176.01 | N |
| ATOM | 434 | CA | ASN | A | 90 | 16.790 | 24.158 | -24.581 | 1.00176.01 | C |
| ATOM | 435 | C | ASN | A | 90 | 17.522 | 23.257 | -23.577 | 1.00176.01 | C |
| ATOM | 436 | O | ASN | A | 90 | 17.002 | 22.970 | -22.482 | 1.00176.01 | O |
| ATOM | 437 | CB | ASN | A | 90 | 17.816 | 25.033 | -25.305 | 1.00174.33 | C |
| ATOM | 438 | CG | ASN | A | 90 | 17.240 | 25.740 | -26.512 | 1.00174.33 | C |
| ATOM | 439 | OD1 | ASN | A | 90 | 16.493 | 25.155 | -27.296 | 1.00174.33 | O |
| ATOM | 440 | ND2 | ASN | A | 90 | 17.611 | 27.004 | -26.684 | 1.00174.33 | N |
| ATOM | 441 | N | MET | A | 91 | 18.734 | 22.836 | -23.963 | 1.00149.66 | N |
| ATOM | 442 | CA | MET | A | 91 | 19.581 | 21.957 | -23.153 | 1.00149.66 | C |
| ATOM | 443 | C | MET | A | 91 | 19.517 | 22.225 | -21.657 | 1.00149.66 | C |
| ATOM | 444 | O | MET | A | 91 | 20.254 | 23.045 | -21.132 | 1.00149.66 | O |
| ATOM | 445 | CB | MET | A | 91 | 21.041 | 21.998 | -23.635 | 1.00204.45 | C |
| ATOM | 446 | CG | MET | A | 91 | 21.388 | 23.097 | -24.631 | 1.00204.45 | C |
| ATOM | 447 | SD | MET | A | 91 | 21.917 | 24.656 | -23.881 | 1.00204.45 | S |
| ATOM | 448 | CE | MET | A | 91 | 20.939 | 25.831 | -24.781 | 1.00204.45 | C |
| ATOM | 449 | N | SER | A | 92 | 18.623 | 21.512 | -20.981 | 1.00207.38 | N |
| ATOM | 450 | CA | SER | A | 92 | 18.426 | 21.637 | -19.540 | 1.00207.38 | C |
| ATOM | 451 | C | SER | A | 92 | 19.719 | 21.397 | -18.729 | 1.00207.38 | C |
| ATOM | 452 | O | SER | A | 92 | 20.121 | 22.235 | -17.913 | 1.00207.38 | O |
| ATOM | 453 | CB | SER | A | 92 | 17.347 | 20.646 | -19.097 | 1.00157.51 | C |
| ATOM | 454 | OG | SER | A | 92 | 17.083 | 20.751 | -17.711 | 1.00157.51 | O |
| ATOM | 455 | N | GLU | A | 93 | 20.378 | 20.267 | -18.960 | 1.00207.38 | N |
| ATOM | 456 | CA | GLU | A | 93 | 21.604 | 19.947 | -18.237 | 1.00207.38 | C |
| ATOM | 457 | C | GLU | A | 93 | 22.678 | 21.052 | -18.305 | 1.00207.38 | C |
| ATOM | 458 | O | GLU | A | 93 | 23.358 | 21.302 | -17.309 | 1.00207.38 | O |
| ATOM | 459 | CB | GLU | A | 93 | 22.188 | 18.622 | -18.757 | 1.00207.38 | C |
| ATOM | 460 | CG | GLU | A | 93 | 22.842 | 18.671 | -20.144 | 1.00207.38 | C |
| ATOM | 461 | CD | GLU | A | 93 | 21.846 | 18.775 | -21.283 | 1.00207.38 | C |
| ATOM | 462 | OE1 | GLU | A | 93 | 21.037 | 17.840 | -21.467 | 1.00207.38 | O |
| ATOM | 463 | OE2 | GLU | A | 93 | 21.879 | 19.797 | -21.998 | 1.00207.38 | O |
| ATOM | 464 | N | ALA | A | 94 | 22.830 | 21.713 | -19.460 | 1.00196.61 | N |
| ATOM | 465 | CA | ALA | A | 94 | 23.836 | 22.782 | -19.609 | 1.00196.61 | C |
| ATOM | 466 | C | ALA | A | 94 | 23.415 | 24.021 | -18.839 | 1.00196.61 | C |
| ATOM | 467 | O | ALA | A | 94 | 24.181 | 24.974 | -18.719 | 1.00196.61 | O |
| ATOM | 468 | CB | ALA | A | 94 | 24.012 | 23.107 | -21.077 | 1.00108.72 | C |
| ATOM | 469 | N | ASP | A | 95 | 22.181 | 24.003 | -18.339 | 1.00186.69 | N |
| ATOM | 470 | CA | ASP | A | 95 | 21.644 | 25.105 | -17.554 | 1.00186.69 | C |
| ATOM | 471 | C | ASP | A | 95 | 21.994 | 24.772 | -16.122 | 1.00186.69 | C |

| | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 472 | O | ASP | A | 95 | 22.298 | 25.652 | -15.327 | 1.00186.69 | O |
| ATOM | 473 | CB | ASP | A | 95 | 20.121 | 25.193 | -17.690 | 1.00205.61 | C |
| ATOM | 474 | CG | ASP | A | 95 | 19.673 | 25.506 | -19.103 | 1.00205.61 | C |
| ATOM | 475 | OD1 | ASP | A | 95 | 20.179 | 26.485 | -19.691 | 1.00205.61 | O |
| ATOM | 476 | OD2 | ASP | A | 95 | 18.802 | 24.776 | -19.621 | 1.00205.61 | O |
| ATOM | 477 | N | LYS | A | 96 | 21.942 | 23.487 | -15.794 | 1.00132.38 | N |
| ATOM | 478 | CA | LYS | A | 96 | 22.281 | 23.063 | -14.440 | 1.00132.38 | C |
| ATOM | 479 | C | LYS | A | 96 | 23.771 | 23.346 | -14.251 | 1.00132.38 | C |
| ATOM | 480 | O | LYS | A | 96 | 24.238 | 23.678 | -13.156 | 1.00132.38 | O |
| ATOM | 481 | CB | LYS | A | 96 | 22.049 | 21.559 | -14.260 | 1.00184.08 | C |
| ATOM | 482 | CG | LYS | A | 96 | 20.675 | 21.034 | -14.659 | 1.00184.08 | C |
| ATOM | 483 | CD | LYS | A | 96 | 20.588 | 19.530 | -14.392 | 1.00184.08 | C |
| ATOM | 484 | CE | LYS | A | 96 | 19.343 | 18.898 | -15.006 | 1.00184.08 | C |
| ATOM | 485 | NZ | LYS | A | 96 | 19.364 | 18.954 | -16.496 | 1.00184.08 | N |
| ATOM | 486 | N | ARG | A | 97 | 24.516 | 23.222 | -15.340 | 1.00138.61 | N |
| ATOM | 487 | CA | ARG | A | 97 | 25.945 | 23.448 | -15.291 | 1.00138.61 | C |
| ATOM | 488 | C | ARG | A | 97 | 26.317 | 24.930 | -15.352 | 1.00138.61 | C |
| ATOM | 489 | O | ARG | A | 97 | 27.098 | 25.411 | -14.529 | 1.00138.61 | O |
| ATOM | 490 | CB | ARG | A | 97 | 26.645 | 22.679 | -16.416 | 1.00179.50 | C |
| ATOM | 491 | CG | ARG | A | 97 | 26.399 | 21.175 | -16.371 | 1.00179.50 | C |
| ATOM | 492 | CD | ARG | A | 97 | 27.370 | 20.401 | -17.252 | 1.00179.50 | C |
| ATOM | 493 | NE | ARG | A | 97 | 27.304 | 20.809 | -18.652 | 1.00179.50 | N |
| ATOM | 494 | CZ | ARG | A | 97 | 28.018 | 20.250 | -19.623 | 1.00179.50 | C |
| ATOM | 495 | NH1 | ARG | A | 97 | 28.851 | 19.256 | -19.348 | 1.00179.50 | N |
| ATOM | 496 | NH2 | ARG | A | 97 | 27.900 | 20.683 | -20.870 | 1.00179.50 | N |
| ATOM | 497 | N | ALA | A | 98 | 25.766 | 25.661 | -16.318 | 1.00185.66 | N |
| ATOM | 498 | CA | ALA | A | 98 | 26.068 | 27.093 | -16.442 | 1.00185.66 | C |
| ATOM | 499 | C | ALA | A | 98 | 25.705 | 27.796 | -15.139 | 1.00185.66 | C |
| ATOM | 500 | O | ALA | A | 98 | 26.433 | 28.673 | -14.651 | 1.00185.66 | O |
| ATOM | 501 | CB | ALA | A | 98 | 25.286 | 27.687 | -17.596 | 1.00167.07 | C |
| ATOM | 502 | N | MET | A | 99 | 24.574 | 27.377 | -14.579 | 1.00207.22 | N |
| ATOM | 503 | CA | MET | A | 99 | 24.055 | 27.943 | -13.347 | 1.00207.22 | C |
| ATOM | 504 | C | MET | A | 99 | 24.829 | 27.596 | -12.083 | 1.00207.22 | C |
| ATOM | 505 | O | MET | A | 99 | 25.353 | 28.511 | -11.452 | 1.00207.22 | O |
| ATOM | 506 | CB | MET | A | 99 | 22.576 | 27.600 | -13.202 | 1.00152.08 | C |
| ATOM | 507 | CG | MET | A | 99 | 21.699 | 28.444 | -14.114 | 1.00152.08 | C |
| ATOM | 508 | SD | MET | A | 99 | 22.170 | 28.357 | -15.859 | 1.00152.08 | S |
| ATOM | 509 | CE | MET | A | 99 | 23.326 | 29.758 | -15.983 | 1.00152.08 | C |
| ATOM | 510 | N | PHE | A | 100 | 24.933 | 26.321 | -11.691 | 1.00158.31 | N |
| ATOM | 511 | CA | PHE | A | 100 | 25.698 | 26.048 | -10.458 | 1.00158.31 | C |
| ATOM | 512 | C | PHE | A | 100 | 27.084 | 26.647 | -10.666 | 1.00158.31 | C |
| ATOM | 513 | O | PHE | A | 100 | 27.816 | 26.904 | -9.709 | 1.00158.31 | O |
| ATOM | 514 | CB | PHE | A | 100 | 25.804 | 24.547 | -10.147 | 1.00207.38 | C |
| ATOM | | | | | | | | | | |

| | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 546 | O | GLU | A | 104 | 30.711 | 30.287 | -5.943 | 1.00152.36 | O |
| ATOM | 547 | CB | GLU | A | 104 | 29.574 | 27.318 | -6.708 | 1.00207.38 | C |
| ATOM | 548 | CG | GLU | A | 104 | 30.103 | 27.017 | -8.095 | 1.00207.38 | C |
| ATOM | 549 | CD | GLU | A | 104 | 30.260 | 25.536 | -8.342 | 1.00207.38 | C |
| ATOM | 550 | OE1 | GLU | A | 104 | 31.092 | 24.897 | -7.664 | 1.00207.38 | O |
| ATOM | 551 | OE2 | GLU | A | 104 | 29.540 | 25.014 | -9.218 | 1.00207.38 | O |
| ATOM | 552 | N | GLU | A | 105 | 30.380 | 29.998 | -8.149 | 1.00 93.48 | N |
| ATOM | 553 | CA | GLU | A | 105 | 31.425 | 30.948 | -8.542 | 1.00 93.48 | C |
| ATOM | 554 | C | GLU | A | 105 | 31.312 | 32.360 | -7.922 | 1.00 93.48 | C |
| ATOM | 555 | O | GLU | A | 105 | 32.201 | 32.804 | -7.183 | 1.00 93.48 | O |
| ATOM | 556 | CB | GLU | A | 105 | 31.479 | 31.056 | -10.069 | 1.00152.64 | C |
| ATOM | 557 | CG | GLU | A | 105 | 32.384 | 32.159 | -10.596 | 1.00152.64 | C |
| ATOM | 558 | CD | GLU | A | 105 | 31.609 | 33.401 | -10.978 | 1.00152.64 | C |
| ATOM | 559 | OE1 | GLU | A | 105 | 32.245 | 34.427 | -11.302 | 1.00152.64 | O |
| ATOM | 560 | OE2 | GLU | A | 105 | 30.361 | 33.348 | -10.963 | 1.00152.64 | O |
| ATOM | 561 | N | GLU | A | 106 | 30.242 | 33.090 | -8.202 | 1.00129.13 | N |
| ATOM | 562 | CA | GLU | A | 106 | 30.151 | 34.413 | -7.601 | 1.00129.13 | C |
| ATOM | 563 | C | GLU | A | 106 | 29.967 | 34.231 | -6.117 | 1.00129.13 | C |
| ATOM | 564 | O | GLU | A | 106 | 30.131 | 35.170 | -5.362 | 1.00129.13 | O |
| ATOM | 565 | CB | GLU | A | 106 | 28.996 | 35.238 | -8.191 | 1.00142.07 | C |
| ATOM | 566 | CG | GLU | A | 106 | 28.686 | 36.559 | -7.451 | 1.00142.07 | C |
| ATOM | 567 | CD | GLU | A | 106 | 29.843 | 37.554 | -7.446 | 1.00142.07 | C |
| ATOM | 568 | OE1 | GLU | A | 106 | 30.301 | 37.947 | -8.539 | 1.00142.07 | O |
| ATOM | 569 | OE2 | GLU | A | 106 | 30.289 | 37.948 | -6.345 | 1.00142.07 | O |
| ATOM | 570 | N | MET | A | 107 | 29.631 | 33.016 | -5.700 | 1.00113.91 | N |
| ATOM | 571 | CA | MET | A | 107 | 29.443 | 32.736 | -4.281 | 1.00113.91 | C |
| ATOM | 572 | C | MET | A | 107 | 30.805 | 32.874 | -3.608 | 1.00113.91 | C |
| ATOM | 573 | O | MET | A | 107 | 30.927 | 33.271 | -2.434 | 1.00113.91 | O |
| ATOM | 574 | CB | MET | A | 107 | 28.879 | 31.326 | -4.088 | 1.00207.38 | C |
| ATOM | 575 | CG | MET | A | 107 | 28.210 | 31.111 | -2.740 | 1.00207.38 | C |
| ATOM | 576 | SD | MET | A | 107 | 26.567 | 30.372 | -2.893 | 1.00207.38 | S |
| ATOM | 577 | CE | MET | A | 107 | 25.546 | 31.829 | -3.127 | 1.00207.38 | C |
| ATOM | 578 | N | THR | A | 108 | 31.839 | 32.551 | -4.371 | 1.00108.29 | N |
| ATOM | 579 | CA | THR | A | 108 | 33.197 | 32.664 | -3.871 | 1.00108.29 | C |
| ATOM | 580 | C | THR | A | 108 | 33.439 | 34.146 | -3.867 | 1.00108.29 | C |
| ATOM | 581 | O | THR | A | 108 | 33.917 | 34.721 | -2.894 | 1.00108.29 | O |
| ATOM | 582 | CB | THR | A | 108 | 34.210 | 31.977 | -4.811 | 1.00207.38 | C |
| ATOM | 583 | OG1 | THR | A | 108 | 34.137 | 30.557 | -4.638 | 1.00207.38 | O |
| ATOM | 584 | CG2 | THR | A | 108 | 35.624 | 32.449 | -4.514 | 1.00207.38 | C |
| ATOM | 585 | N | THR | A | 109 | 33.068 | 34.769 | -4.968 | 1.00 66.96 | N |
| ATOM | 586 | CA | THR | A | 109 | 33.235 | 36.195 | -5.078 | 1.00 66.96 | C |
| ATOM | 587 | C | THR | A | 109 | 32.537 | 36.975 | -3.953 | 1.00 66.96 | C |
| ATOM | 588 | O | THR | A | 109 | 33.092 | 37.924 | -3.403 | 1.00 66.96 | O |
| ATOM | 589 | CB | THR | A | 109 | 32.731 | 36.672 | -6.455 | 1.00138.53 | C |
| ATOM | 590 | OG1 | THR | A | 109 | 33.440 | 35.972 | -7.488 | 1.00138.53 | O |
| ATOM | 591 | CG2 | THR | A | 109 | 32.954 | 38.160 | -6.620 | 1.00138.53 | C |
| ATOM | 592 | N | TYR | A | 110 | 31.325 | 36.582 | -3.596 | 1.00139.27 | N |
| ATOM | 593 | CA | TYR | A | 110 | 30.633 | 37.264 | -2.508 | 1.00139.27 | C |
| ATOM | 594 | C | TYR | A | 110 | 31.507 | 37.102 | -1.253 | 1.00139.27 | C |
| ATOM | 595 | O | TYR | A | 110 | 31.816 | 38.078 | -0.572 | 1.00139.27 | O |
| ATOM | 596 | CB | TYR | A | 110 | 29.250 | 36.638 | -2.237 | 1.00207.38 | C |
| ATOM | 597 | CG | TYR | A | 110 | 28.195 | 36.785 | -3.330 | 1.00207.38 | C |
| ATOM | 598 | CD1 | TYR | A | 110 | 27.873 | 38.034 | -3.870 | 1.00207.38 | C |
| ATOM | 599 | CD2 | TYR | A | 110 | 27.479 | 35.673 | -3.784 | 1.00207.38 | C |
| ATOM | 600 | CE1 | TYR | A | 110 | 26.862 | 38.168 | -4.834 | 1.00207.38 | C |
| ATOM | 601 | CE2 | TYR | A | 110 | 26.472 | 35.798 | -4.743 | 1.00207.38 | C |
| ATOM | 602 | CZ | TYR | A | 110 | 26.168 | 37.045 | -5.264 | 1.00207.38 | C |
| ATOM | 603 | OH | TYR | A | 110 | 25.173 | 37.166 | -6.212 | 1.00207.38 | O |
| ATOM | 604 | N | ALA | A | 111 | 31.910 | 35.866 | -0.959 | 1.00121.34 | N |
| ATOM | 605 | CA | ALA | A | 111 | 32.736 | 35.608 | 0.220 | 1.00121.34 | C |
| ATOM | 606 | C | ALA | A | 111 | 33.909 | 36.578 | 0.329 | 1.00121.34 | C |
| ATOM | 607 | O | ALA | A | 111 | 34.051 | 37.305 | 1.308 | 1.00121.34 | O |
| ATOM | 608 | CB | ALA | A | 111 | 33.245 | 34.175 | 0.186 | 1.00185.04 | C |
| ATOM | 609 | N | TYR | A | 112 | 34.750 | 36.593 | -0.692 | 1.00110.92 | N |
| ATOM | 610 | CA | TYR | A | 112 | 35.911 | 37.459 | -0.690 | 1.00110.92 | C |
| ATOM | 611 | C | TYR | A | 112 | 35.540 | 38.935 | -0.659 | 1.00110.92 | C |
| ATOM | 612 | O | TYR | A | 112 | 36.361 | 39.776 | -0.319 | 1.00110.92 | O |
| ATOM | 613 | CB | TYR | A | 112 | 36.793 | 37.118 | -1.893 | 1.00194.69 | C |
| ATOM | 614 | CG | TYR | A | 112 | 37.283 | 35.679 | -1.862 | 1.00194.69 | C |
| ATOM | 615 | CD1 | TYR | A | 112 | 37.811 | 35.071 | -3.000 | 1.00194.69 | C |
| ATOM | 616 | CD2 | TYR | A | 112 | 37.213 | 34.924 | -0.688 | 1.00194.69 | C |
| ATOM | 617 | CE1 | TYR | A | 112 | 38.255 | 33.746 | -2.969 | 1.00194.69 | C |
| ATOM | 618 | CE2 | TYR | A | 112 | 37.653 | 33.604 | -0.647 | 1.00194.69 | C |
| ATOM | 619 | CZ | TYR | A | 112 | 38.172 | 33.021 | -1.790 | 1.00194.69 | C |

| | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 620 | OH | TYR | A | 112 | 38.605 | 31.714 | -1.753 | 1.00194.69 | O |
| ATOM | 621 | N | TYR | A | 113 | 34.294 | 39.250 | -0.977 | 1.00 74.40 | N |
| ATOM | 622 | CA | TYR | A | 113 | 33.836 | 40.636 | -0.951 | 1.00 74.40 | C |
| ATOM | 623 | C | TYR | A | 113 | 33.466 | 41.111 | 0.459 | 1.00 74.40 | C |
| ATOM | 624 | O | TYR | A | 113 | 34.030 | 42.091 | 0.957 | 1.00 74.40 | O |
| ATOM | 625 | CB | TYR | A | 113 | 32.694 | 40.797 | -1.964 | 1.00148.44 | C |
| ATOM | 626 | CG | TYR | A | 113 | 31.278 | 40.927 | -1.444 | 1.00148.44 | C |
| ATOM | 627 | CD1 | TYR | A | 113 | 30.771 | 42.167 | -1.062 | 1.00148.44 | C |
| ATOM | 628 | CD2 | TYR | A | 113 | 30.402 | 39.840 | -1.473 | 1.00148.44 | C |
| ATOM | 629 | CE1 | TYR | A | 113 | 29.420 | 42.331 | -0.744 | 1.00148.44 | C |
| ATOM | 630 | CE2 | TYR | A | 113 | 29.051 | 39.989 | -1.151 | 1.00148.44 | C |
| ATOM | 631 | CZ | TYR | A | 113 | 28.563 | 41.240 | -0.796 | 1.00148.44 | C |
| ATOM | 632 | OH | TYR | A | 113 | 27.218 | 41.412 | -0.548 | 1.00148.44 | O |
| ATOM | 633 | N | TYR | A | 114 | 32.538 | 40.424 | 1.113 | 1.00143.85 | N |
| ATOM | 634 | CA | TYR | A | 114 | 32.193 | 40.820 | 2.463 | 1.00143.85 | C |
| ATOM | 635 | C | TYR | A | 114 | 33.504 | 40.784 | 3.232 | 1.00143.85 | C |
| ATOM | 636 | O | TYR | A | 114 | 33.766 | 41.623 | 4.084 | 1.00143.85 | O |
| ATOM | 637 | CB | TYR | A | 114 | 31.224 | 39.829 | 3.108 | 1.00169.93 | C |
| ATOM | 638 | CG | TYR | A | 114 | 31.893 | 38.604 | 3.713 | 1.00169.93 | C |
| ATOM | 639 | CD1 | TYR | A | 114 | 31.993 | 37.412 | 2.998 | 1.00169.93 | C |
| ATOM | 640 | CD2 | TYR | A | 114 | 32.434 | 38.645 | 5.002 | 1.00169.93 | C |
| ATOM | 641 | CE1 | TYR | A | 114 | 32.614 | 36.289 | 3.549 | 1.00169.93 | C |
| ATOM | 642 | CE2 | TYR | A | 114 | 33.056 | 37.532 | 5.560 | 1.00169.93 | C |
| ATOM | 643 | CZ | TYR | A | 114 | 33.142 | 36.357 | 4.829 | 1.00169.93 | C |
| ATOM | 644 | OH | TYR | A | 114 | 33.745 | 35.247 | 5.378 | 1.00169.93 | O |
| ATOM | 645 | N | THR | A | 115 | 34.323 | 39.786 | 2.935 | 1.00135.99 | N |
| ATOM | 646 | CA | THR | A | 115 | 35.602 | 39.649 | 3.609 | 1.00135.99 | C |
| ATOM | 647 | C | THR | A | 115 | 36.392 | 40.938 | 3.448 | 1.00135.99 | C |
| ATOM | 648 | O | THR | A | 115 | 36.270 | 41.859 | 4.268 | 1.00135.99 | O |
| ATOM | 649 | CB | THR | A | 115 | 36.424 | 38.485 | 3.018 | 1.00194.91 | C |
| ATOM | 650 | OG1 | THR | A | 115 | 35.700 | 37.258 | 3.167 | 1.00194.91 | O |
| ATOM | 651 | CG2 | THR | A | 115 | 37.760 | 38.364 | 3.730 | 1.00194.91 | C |
| ATOM | 652 | N | GLY | A | 116 | 37.192 | 40.990 | 2.380 | 1.00207.38 | N |
| ATOM | 653 | CA | GLY | A | 116 | 38.009 | 42.159 | 2.102 | 1.00207.38 | C |
| ATOM | 654 | C | GLY | A | 116 | 37.443 | 43.428 | 2.707 | 1.00207.38 | C |
| ATOM | 655 | O | GLY | A | 116 | 38.096 | 44.068 | 3.538 | 1.00207.38 | O |
| ATOM | 656 | N | ILE | A | 117 | 36.216 | 43.782 | 2.324 | 1.00 68.43 | N |
| ATOM | 657 | CA | ILE | A | 117 | 35.607 | 44.998 | 2.848 | 1.00 68.43 | C |
| ATOM | 658 | C | ILE | A | 117 | 35.397 | 44.873 | 4.352 | 1.00 68.43 | C |
| ATOM | 659 | O | ILE | A | 117 | 36.074 | 45.511 | 5.151 | 1.00 68.43 | O |
| ATOM | 660 | CB | ILE | A | 117 | 34.236 | 45.263 | 2.193 | 1.00 65.16 | C |
| ATOM | 661 | CG1 | ILE | A | 117 | 34.375 | 45.287 | 0.668 | 1.00 65.16 | C |
| ATOM | 662 | CG2 | ILE | A | 117 | 33.667 | 46.585 | 2.689 | 1.00 65.16 | C |
| ATOM | 663 | CD1 | ILE | A | 117 | 35.303 | 46.379 | 0.121 | 1.00 65.16 | C |
| ATOM | 664 | N | GLY | A | 118 | 34.454 | 44.025 | 4.720 | 1.00 85.23 | N |
| ATOM | 665 | CA | GLY | A | 118 | 34.138 | 43.807 | 6.112 | 1.00 85.23 | C |
| ATOM | 666 | C | GLY | A | 118 | 35.287 | 43.874 | 7.078 | 1.00 85.23 | C |
| ATOM | 667 | O | GLY | A | 118 | 35.383 | 44.801 | 7.891 | 1.00 85.23 | O |
| ATOM | 668 | N | ALA | A | 119 | 36.158 | 42.885 | 7.022 | 1.00 89.41 | N |
| ATOM | 669 | CA | ALA | A | 119 | 37.284 | 42.919 | 7.919 | 1.00 89.41 | C |
| ATOM | 670 | C | ALA | A | 119 | 37.863 | 44.316 | 7.754 | 1.00 89.41 | C |
| ATOM | 671 | O | ALA | A | 119 | 38.152 | 45.016 | 8.738 | 1.00 89.41 | O |
| ATOM | 672 | CB | ALA | A | 119 | 38.318 | 41.862 | 7.520 | 1.00165.43 | C |
| ATOM | 673 | N | GLY | A | 120 | 38.001 | 44.722 | 6.496 | 1.00 74.80 | N |
| ATOM | 674 | CA | GLY | A | 120 | 38.532 | 46.033 | 6.211 | 1.00 74.80 | C |
| ATOM | 675 | C | GLY | A | 120 | 37.957 | 47.092 | 7.137 | 1.00 74.80 | C |
| ATOM | 676 | O | GLY | A | 120 | 38.667 | 47.549 | 8.048 | 1.00 74.80 | O |
| ATOM | 677 | N | VAL | A | 121 | 36.690 | 47.480 | 6.949 | 1.00 59.18 | N |
| ATOM | 678 | CA | VAL | A | 121 | 36.113 | 48.519 | 7.805 | 1.00 59.18 | C |
| ATOM | 679 | C | VAL | A | 121 | 36.397 | 48.296 | 9.289 | 1.00 59.18 | C |
| ATOM | 680 | O | VAL | A | 121 | 37.085 | 49.119 | 9.904 | 1.00 59.18 | O |
| ATOM | 681 | CB | VAL | A | 121 | 34.581 | 48.677 | 7.579 | 1.00 57.10 | C |
| ATOM | 682 | CG1 | VAL | A | 121 | 34.250 | 48.483 | 6.096 | 1.00 57.10 | C |
| ATOM | 683 | CG2 | VAL | A | 121 | 33.806 | 47.724 | 8.463 | 1.00 57.10 | C |
| ATOM | 684 | N | LEU | A | 122 | 35.929 | 47.181 | 9.858 | 1.00 77.83 | N |
| ATOM | 685 | CA | LEU | A | 122 | 36.154 | 46.921 | 11.283 | 1.00 77.83 | C |
| ATOM | 686 | C | LEU | A | 122 | 37.523 | 47.442 | 11.741 | 1.00 77.83 | C |
| ATOM | 687 | O | LEU | A | 122 | 37.627 | 48.337 | 12.605 | 1.00 77.83 | O |
| ATOM | 688 | CB | LEU | A | 122 | 36.034 | 45.424 | 11.577 | 1.00116.58 | C |
| ATOM | 689 | CG | LEU | A | 122 | 35.926 | 45.049 | 13.057 | 1.00116.58 | C |
| ATOM | 690 | CD1 | LEU | A | 122 | 34.824 | 45.877 | 13.719 | 1.00116.58 | C |
| ATOM | 691 | CD2 | LEU | A | 122 | 35.646 | 43.556 | 13.185 | 1.00116.58 | C |
| ATOM | 692 | N | ILE | A | 123 | 38.569 | 46.906 | 11.130 | 1.00 82.03 | N |
| ATOM | 693 | CA | ILE | A | 123 | 39.918 | 47.325 | 11.463 | 1.00 82.03 | C |

| | | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 694 | C | ILE | A | 123 | 40.117 | 48.843 | 11.353 | 1.00 | 82.03 | C |
| ATOM | 695 | O | ILE | A | 123 | 40.481 | 49.511 | 12.340 | 1.00 | 82.03 | O |
| ATOM | 696 | CB | ILE | A | 123 | 40.962 | 46.645 | 10.541 | 1.00 | 65.04 | C |
| ATOM | 697 | CG1 | ILE | A | 123 | 40.974 | 45.126 | 10.750 | 1.00 | 65.04 | C |
| ATOM | 698 | CG2 | ILE | A | 123 | 42.345 | 47.223 | 10.814 | 1.00 | 65.04 | C |
| ATOM | 699 | CD1 | ILE | A | 123 | 41.796 | 44.655 | 11.944 | 1.00 | 65.04 | C |
| ATOM | 700 | N | VAL | A | 124 | 39.863 | 49.407 | 10.175 | 1.00 | 61.87 | N |
| ATOM | 701 | CA | VAL | A | 124 | 40.112 | 50.830 | 10.014 | 1.00 | 61.87 | C |
| ATOM | 702 | C | VAL | A | 124 | 39.165 | 51.820 | 10.649 | 1.00 | 61.87 | C |
| ATOM | 703 | O | VAL | A | 124 | 39.570 | 52.965 | 10.910 | 1.00 | 61.87 | O |
| ATOM | 704 | CB | VAL | A | 124 | 40.230 | 51.173 | 8.519 | 1.00 | 50.80 | C |
| ATOM | 705 | CG1 | VAL | A | 124 | 41.398 | 50.404 | 7.903 | 1.00 | 50.80 | C |
| ATOM | 706 | CG2 | VAL | A | 124 | 38.918 | 50.843 | 7.809 | 1.00 | 50.80 | C |
| ATOM | 707 | N | ALA | A | 125 | 37.917 | 51.416 | 10.890 | 1.00 | 84.07 | N |
| ATOM | 708 | CA | ALA | A | 125 | 36.966 | 52.312 | 11.546 | 1.00 | 84.07 | C |
| ATOM | 709 | C | ALA | A | 125 | 37.566 | 52.506 | 12.918 | 1.00 | 84.07 | C |
| ATOM | 710 | O | ALA | A | 125 | 37.898 | 53.633 | 13.306 | 1.00 | 84.07 | O |
| ATOM | 711 | CB | ALA | A | 125 | 35.602 | 51.645 | 11.641 | 1.00 | 85.45 | C |
| ATOM | 712 | N | TYR | A | 126 | 37.742 | 51.386 | 13.630 | 1.00 | 60.09 | N |
| ATOM | 713 | CA | TYR | A | 126 | 38.316 | 51.425 | 14.977 | 1.00 | 60.09 | C |
| ATOM | 714 | C | TYR | A | 126 | 39.538 | 52.308 | 15.016 | 1.00 | 60.09 | C |
| ATOM | 715 | O | TYR | A | 126 | 39.817 | 53.000 | 16.005 | 1.00 | 60.09 | O |
| ATOM | 716 | CB | TYR | A | 126 | 38.708 | 50.020 | 15.423 | 1.00 | 119.74 | C |
| ATOM | 717 | CG | TYR | A | 126 | 39.410 | 50.010 | 16.755 | 1.00 | 119.74 | C |
| ATOM | 718 | CD1 | TYR | A | 126 | 38.758 | 50.453 | 17.903 | 1.00 | 119.74 | C |
| ATOM | 719 | CD2 | TYR | A | 126 | 40.732 | 49.580 | 16.869 | 1.00 | 119.74 | C |
| ATOM | 720 | CE1 | TYR | A | 126 | 39.399 | 50.470 | 19.133 | 1.00 | 119.74 | C |
| ATOM | 721 | CE2 | TYR | A | 126 | 41.390 | 49.593 | 18.100 | 1.00 | 119.74 | C |
| ATOM | 722 | CZ | TYR | A | 126 | 40.714 | 50.037 | 19.227 | 1.00 | 119.74 | C |
| ATOM | 723 | OH | TYR | A | 126 | 41.346 | 50.019 | 20.449 | 1.00 | 119.74 | O |
| ATOM | 724 | N | ILE | A | 127 | 40.282 | 52.261 | 13.928 | 1.00 | 55.43 | N |
| ATOM | 725 | CA | ILE | A | 127 | 41.449 | 53.086 | 13.846 | 1.00 | 55.43 | C |
| ATOM | 726 | C | ILE | A | 127 | 41.101 | 54.563 | 13.753 | 1.00 | 55.43 | C |
| ATOM | 727 | O | ILE | A | 127 | 41.578 | 55.355 | 14.562 | 1.00 | 55.43 | O |
| ATOM | 728 | CB | ILE | A | 127 | 42.343 | 52.675 | 12.656 | 1.00 | 53.39 | C |
| ATOM | 729 | CG1 | ILE | A | 127 | 42.905 | 51.275 | 12.918 | 1.00 | 53.39 | C |
| ATOM | 730 | CG2 | ILE | A | 127 | 43.478 | 53.680 | 12.470 | 1.00 | 53.39 | C |
| ATOM | 731 | CD1 | ILE | A | 127 | 43.646 | 51.155 | 14.251 | 1.00 | 53.39 | C |
| ATOM | 732 | N | GLN | A | 128 | 40.259 | 54.970 | 12.818 | 1.00 | 126.83 | N |
| ATOM | 733 | CA | GLN | A | 128 | 39.988 | 56.401 | 12.748 | 1.00 | 126.83 | C |
| ATOM | 734 | C | GLN | A | 128 | 39.382 | 56.988 | 14.035 | 1.00 | 126.83 | C |
| ATOM | 735 | O | GLN | A | 128 | 39.532 | 58.178 | 14.331 | 1.00 | 126.83 | O |
| ATOM | 736 | CB | GLN | A | 128 | 39.116 | 56.730 | 11.534 | 1.00 | 140.83 | C |
| ATOM | 737 | CG | GLN | A | 128 | 37.674 | 56.313 | 11.623 | 1.00 | 140.83 | C |
| ATOM | 738 | CD | GLN | A | 128 | 36.922 | 56.675 | 10.360 | 1.00 | 140.83 | C |
| ATOM | 739 | OE1 | GLN | A | 128 | 36.932 | 55.929 | 9.382 | 1.00 | 140.83 | O |
| ATOM | 740 | NE2 | GLN | A | 128 | 36.286 | 57.840 | 10.365 | 1.00 | 140.83 | N |
| ATOM | 741 | N | VAL | A | 129 | 38.719 | 56.169 | 14.831 | 1.00 | 75.22 | N |
| ATOM | 742 | CA | VAL | A | 129 | 38.174 | 56.711 | 16.055 | 1.00 | 75.22 | C |
| ATOM | 743 | C | VAL | A | 129 | 39.291 | 56.826 | 17.102 | 1.00 | 75.22 | C |
| ATOM | 744 | O | VAL | A | 129 | 39.275 | 57.725 | 17.994 | 1.00 | 75.22 | O |
| ATOM | 745 | CB | VAL | A | 129 | 37.029 | 55.816 | 16.561 | 1.00 | 74.88 | C |
| ATOM | 746 | CG1 | VAL | A | 129 | 36.013 | 56.664 | 17.337 | 1.00 | 74.88 | C |
| ATOM | 747 | CG2 | VAL | A | 129 | 36.380 | 55.081 | 15.370 | 1.00 | 74.88 | C |
| ATOM | 748 | N | SER | A | 130 | 40.270 | 55.925 | 17.007 | 1.00 | 75.01 | N |
| ATOM | 749 | CA | SER | A | 130 | 41.421 | 56.003 | 17.907 | 1.00 | 75.01 | C |
| ATOM | 750 | C | SER | A | 130 | 42.121 | 57.342 | 17.599 | 1.00 | 75.01 | C |
| ATOM | 751 | O | SER | A | 130 | 42.868 | 57.887 | 18.440 | 1.00 | 75.01 | O |
| ATOM | 752 | CB | SER | A | 130 | 42.362 | 54.826 | 17.653 | 1.00 | 207.38 | C |
| ATOM | 753 | OG | SER | A | 130 | 41.691 | 53.589 | 17.839 | 1.00 | 207.38 | O |
| ATOM | 754 | N | PHE | A | 131 | 41.857 | 57.844 | 16.378 | 1.00 | 86.57 | N |
| ATOM | 755 | CA | PHE | A | 131 | 42.328 | 59.160 | 15.876 | 1.00 | 86.57 | C |
| ATOM | 756 | C | PHE | A | 131 | 41.636 | 60.131 | 16.807 | 1.00 | 86.57 | C |
| ATOM | 757 | O | PHE | A | 131 | 42.255 | 60.801 | 17.654 | 1.00 | 86.57 | O |
| ATOM | 758 | CB | PHE | A | 131 | 41.844 | 59.391 | 14.432 | 1.00 | 103.16 | C |
| ATOM | 759 | CG | PHE | A | 131 | 42.072 | 60.808 | 13.892 | 1.00 | 103.16 | C |
| ATOM | 760 | CD1 | PHE | A | 131 | 42.247 | 61.013 | 12.518 | 1.00 | 103.16 | C |
| ATOM | 761 | CD2 | PHE | A | 131 | 42.062 | 61.928 | 14.729 | 1.00 | 103.16 | C |
| ATOM | 762 | CE1 | PHE | A | 131 | 42.407 | 62.303 | 11.983 | 1.00 | 103.16 | C |
| ATOM | 763 | CE2 | PHE | A | 131 | 42.222 | 63.232 | 14.196 | 1.00 | 103.16 | C |
| ATOM | 764 | CZ | PHE | A | 131 | 42.393 | 63.410 | 12.822 | 1.00 | 103.16 | C |
| ATOM | 765 | N | TRP | A | 132 | 40.320 | 60.167 | 16.656 | 1.00 | 179.38 | N |
| ATOM | 766 | CA | TRP | A | 132 | 39.559 | 61.067 | 17.476 | 1.00 | 179.38 | C |
| ATOM | 767 | C | TRP | A | 132 | 40.190 | 61.347 | 18.819 | 1.00 | 179.38 | C |

| | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 768 | O | TRP | A | 132 | 40.857 | 62.359 | 19.009 | 1.00179.38 | O |
| ATOM | 769 | CB | TRP | A | 132 | 38.122 | 60.591 | 17.759 | 1.00107.27 | C |
| ATOM | 770 | CG | TRP | A | 132 | 37.445 | 61.566 | 18.686 | 1.00107.27 | C |
| ATOM | 771 | CD1 | TRP | A | 132 | 38.004 | 62.146 | 19.799 | 1.00107.27 | C |
| ATOM | 772 | CD2 | TRP | A | 132 | 36.144 | 62.146 | 18.550 | 1.00107.27 | C |
| ATOM | 773 | NE1 | TRP | A | 132 | 37.138 | 63.057 | 20.357 | 1.00107.27 | N |
| ATOM | 774 | CE2 | TRP | A | 132 | 35.987 | 63.078 | 19.614 | 1.00107.27 | C |
| ATOM | 775 | CE3 | TRP | A | 132 | 35.094 | 61.977 | 17.637 | 1.00107.27 | C |
| ATOM | 776 | CZ2 | TRP | A | 132 | 34.822 | 63.834 | 19.783 | 1.00107.27 | C |
| ATOM | 777 | CZ3 | TRP | A | 132 | 33.941 | 62.730 | 17.809 | 1.00107.27 | C |
| ATOM | 778 | CH2 | TRP | A | 132 | 33.815 | 63.646 | 18.874 | 1.00107.27 | C |
| ATOM | 779 | N | CYS | A | 133 | 40.002 | 60.440 | 19.761 | 1.00147.20 | N |
| ATOM | 780 | CA | CYS | A | 133 | 40.468 | 60.820 | 21.068 | 1.00147.20 | C |
| ATOM | 781 | C | CYS | A | 133 | 41.912 | 60.857 | 21.332 | 1.00147.20 | C |
| ATOM | 782 | O | CYS | A | 133 | 42.374 | 61.781 | 21.970 | 1.00147.20 | O |
| ATOM | 783 | CB | CYS | A | 133 | 39.876 | 59.893 | 22.129 | 1.00147.20 | C |
| ATOM | 784 | SG | CYS | A | 133 | 38.209 | 59.195 | 21.887 | 1.00147.20 | S |
| ATOM | 785 | N | LEU | A | 134 | 42.641 | 59.842 | 20.902 | 1.00 95.34 | N |
| ATOM | 786 | CA | LEU | A | 134 | 44.032 | 59.878 | 21.295 | 1.00 95.34 | C |
| ATOM | 787 | C | LEU | A | 134 | 44.408 | 61.314 | 21.056 | 1.00 95.34 | C |
| ATOM | 788 | O | LEU | A | 134 | 44.840 | 62.046 | 21.957 | 1.00 95.34 | O |
| ATOM | 789 | CB | LEU | A | 134 | 44.909 | 58.934 | 20.464 | 1.00127.30 | C |
| ATOM | 790 | CG | LEU | A | 134 | 45.773 | 57.956 | 21.285 | 1.00127.30 | C |
| ATOM | 791 | CD1 | LEU | A | 134 | 47.161 | 57.897 | 20.678 | 1.00127.30 | C |
| ATOM | 792 | CD2 | LEU | A | 134 | 45.882 | 58.393 | 22.742 | 1.00127.30 | C |
| ATOM | 793 | N | ALA | A | 135 | 44.129 | 61.747 | 19.846 | 1.00 85.27 | N |
| ATOM | 794 | CA | ALA | A | 135 | 44.427 | 63.106 | 19.489 | 1.00 85.27 | C |
| ATOM | 795 | C | ALA | A | 135 | 43.776 | 64.108 | 20.454 | 1.00 85.27 | C |
| ATOM | 796 | O | ALA | A | 135 | 44.298 | 64.402 | 21.534 | 1.00 85.27 | O |
| ATOM | 797 | CB | ALA | A | 135 | 43.969 | 63.388 | 18.057 | 1.00207.38 | C |
| ATOM | 798 | N | ALA | A | 136 | 42.633 | 64.636 | 20.035 | 1.00 71.50 | N |
| ATOM | 799 | CA | ALA | A | 136 | 41.886 | 65.607 | 20.808 | 1.00 71.50 | C |
| ATOM | 800 | C | ALA | A | 136 | 42.135 | 65.418 | 22.289 | 1.00 71.50 | C |
| ATOM | 801 | O | ALA | A | 136 | 42.328 | 66.361 | 23.026 | 1.00 71.50 | O |
| ATOM | 802 | CB | ALA | A | 136 | 40.390 | 65.484 | 20.509 | 1.00139.68 | C |
| ATOM | 803 | N | GLY | A | 137 | 42.118 | 64.183 | 22.740 | 1.00111.64 | N |
| ATOM | 804 | CA | GLY | A | 137 | 42.366 | 63.966 | 24.143 | 1.00111.64 | C |
| ATOM | 805 | C | GLY | A | 137 | 43.612 | 64.697 | 24.619 | 1.00111.64 | C |
| ATOM | 806 | O | GLY | A | 137 | 43.515 | 65.730 | 25.277 | 1.00111.64 | O |
| ATOM | 807 | N | ARG | A | 138 | 44.786 | 64.179 | 24.264 | 1.00 74.66 | N |
| ATOM | 808 | CA | ARG | A | 138 | 46.034 | 64.786 | 24.723 | 1.00 74.66 | C |
| ATOM | 809 | C | ARG | A | 138 | 46.098 | 66.275 | 24.397 | 1.00 74.66 | C |
| ATOM | 810 | O | ARG | A | 138 | 46.570 | 67.104 | 25.183 | 1.00 74.66 | O |
| ATOM | 811 | CB | ARG | A | 138 | 47.257 | 64.106 | 24.088 | 1.00118.94 | C |
| ATOM | 812 | CG | ARG | A | 138 | 47.063 | 62.666 | 23.678 | 1.00118.94 | C |
| ATOM | 813 | CD | ARG | A | 138 | 48.345 | 61.861 | 23.813 | 1.00118.94 | C |
| ATOM | 814 | NE | ARG | A | 138 | 48.461 | 61.273 | 25.145 | 1.00118.94 | N |
| ATOM | 815 | CZ | ARG | A | 138 | 49.459 | 60.487 | 25.541 | 1.00118.94 | C |
| ATOM | 816 | NH1 | ARG | A | 138 | 50.451 | 60.187 | 24.710 | 1.00118.94 | N |
| ATOM | 817 | NH2 | ARG | A | 138 | 49.451 | 59.985 | 26.770 | 1.00118.94 | N |
| ATOM | 818 | N | GLN | A | 139 | 45.628 | 66.590 | 23.209 | 1.00 64.08 | N |
| ATOM | 819 | CA | GLN | A | 139 | 45.632 | 67.951 | 22.724 | 1.00 64.08 | C |
| ATOM | 820 | C | GLN | A | 139 | 44.897 | 68.909 | 23.695 | 1.00 64.08 | C |
| ATOM | 821 | O | GLN | A | 139 | 45.339 | 70.028 | 23.958 | 1.00 64.08 | O |
| ATOM | 822 | CB | GLN | A | 139 | 44.921 | 68.010 | 21.375 | 1.00 91.26 | C |
| ATOM | 823 | CG | GLN | A | 139 | 45.603 | 67.248 | 20.260 | 1.00 91.26 | C |
| ATOM | 824 | CD | GLN | A | 139 | 46.471 | 68.137 | 19.384 | 1.00 91.26 | C |
| ATOM | 825 | OE1 | GLN | A | 139 | 47.413 | 68.774 | 19.858 | 1.00 91.26 | O |
| ATOM | 826 | NE2 | GLN | A | 139 | 46.155 | 68.183 | 18.092 | 1.00 91.26 | N |
| ATOM | 827 | N | ILE | A | 140 | 43.751 | 68.477 | 24.208 | 1.00 67.61 | N |
| ATOM | 828 | CA | ILE | A | 140 | 42.967 | 69.306 | 25.114 | 1.00 67.61 | C |
| ATOM | 829 | C | ILE | A | 140 | 43.663 | 69.348 | 26.473 | 1.00 67.61 | C |
| ATOM | 830 | O | ILE | A | 140 | 43.920 | 70.413 | 27.001 | 1.00 67.61 | O |
| ATOM | 831 | CB | ILE | A | 140 | 41.524 | 68.765 | 25.242 | 1.00103.86 | C |
| ATOM | 832 | CG1 | ILE | A | 140 | 40.786 | 69.007 | 23.922 | 1.00103.86 | C |
| ATOM | 833 | CG2 | ILE | A | 140 | 40.801 | 69.420 | 26.413 | 1.00103.86 | C |
| ATOM | 834 | CD1 | ILE | A | 140 | 40.869 | 70.448 | 23.426 | 1.00103.86 | C |
| ATOM | 835 | N | HIS | A | 141 | 43.987 | 68.179 | 27.018 | 1.00 72.26 | N |
| ATOM | 836 | CA | HIS | A | 141 | 44.681 | 68.092 | 28.294 | 1.00 72.26 | C |
| ATOM | 837 | C | HIS | A | 141 | 45.684 | 69.234 | 28.318 | 1.00 72.26 | C |
| ATOM | 838 | O | HIS | A | 141 | 45.663 | 70.085 | 29.205 | 1.00 72.26 | O |
| ATOM | 839 | CB | HIS | A | 141 | 45.409 | 66.756 | 28.402 | 1.00116.64 | C |
| ATOM | 840 | CG | HIS | A | 141 | 45.517 | 66.246 | 29.801 | 1.00116.64 | C |
| ATOM | 841 | ND1 | HIS | A | 141 | 44.411 | 65.906 | 30.550 | 1.00116.64 | N |

| | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 842 | CD2 | HIS | A | 141 | 46.591 | 66.040 | 30.598 | 1.00116.64 | C |
| ATOM | 843 | CE1 | HIS | A | 141 | 44.799 | 65.514 | 31.750 | 1.00116.64 | C |
| ATOM | 844 | NE2 | HIS | A | 141 | 46.117 | 65.587 | 31.806 | 1.00116.64 | N |
| ATOM | 845 | N | LYS | A | 142 | 46.567 | 69.245 | 27.328 | 1.00 63.27 | N |
| ATOM | 846 | CA | LYS | A | 142 | 47.554 | 70.309 | 27.202 | 1.00 63.27 | C |
| ATOM | 847 | C | LYS | A | 142 | 46.799 | 71.649 | 27.265 | 1.00 63.27 | C |
| ATOM | 848 | O | LYS | A | 142 | 47.045 | 72.475 | 28.140 | 1.00 63.27 | O |
| ATOM | 849 | CB | LYS | A | 142 | 48.259 | 70.201 | 25.851 | 1.00169.08 | C |
| ATOM | 850 | CG | LYS | A | 142 | 49.758 | 70.414 | 25.896 | 1.00169.08 | C |
| ATOM | 851 | CD | LYS | A | 142 | 50.505 | 69.104 | 26.105 | 1.00169.08 | C |
| ATOM | 852 | CE | LYS | A | 142 | 50.311 | 68.162 | 24.922 | 1.00169.08 | C |
| ATOM | 853 | NZ | LYS | A | 142 | 51.227 | 66.991 | 24.985 | 1.00169.08 | N |
| ATOM | 854 | N | ILE | A | 143 | 45.872 | 71.851 | 26.333 | 1.00 66.36 | N |
| ATOM | 855 | CA | ILE | A | 143 | 45.109 | 73.083 | 26.299 | 1.00 66.36 | C |
| ATOM | 856 | C | ILE | A | 143 | 44.685 | 73.366 | 27.718 | 1.00 66.36 | C |
| ATOM | 857 | O | ILE | A | 143 | 45.275 | 74.214 | 28.384 | 1.00 66.36 | O |
| ATOM | 858 | CB | ILE | A | 143 | 43.833 | 72.961 | 25.431 | 1.00 91.92 | C |
| ATOM | 859 | CG1 | ILE | A | 143 | 44.204 | 72.841 | 23.952 | 1.00 91.92 | C |
| ATOM | 860 | CG2 | ILE | A | 143 | 42.922 | 74.173 | 25.664 | 1.00 91.92 | C |
| ATOM | 861 | CD1 | ILE | A | 143 | 44.693 | 74.129 | 23.329 | 1.00 91.92 | C |
| ATOM | 862 | N | ARG | A | 144 | 43.667 | 72.629 | 28.166 | 1.00 55.28 | N |
| ATOM | 863 | CA | ARG | A | 144 | 43.103 | 72.733 | 29.504 | 1.00 55.28 | C |
| ATOM | 864 | C | ARG | A | 144 | 44.085 | 73.335 | 30.496 | 1.00 55.28 | C |
| ATOM | 865 | O | ARG | A | 144 | 43.837 | 74.427 | 30.990 | 1.00 55.28 | O |
| ATOM | 866 | CB | ARG | A | 144 | 42.702 | 71.356 | 30.022 | 1.00137.34 | C |
| ATOM | 867 | CG | ARG | A | 144 | 41.939 | 71.402 | 31.337 | 1.00137.34 | C |
| ATOM | 868 | CD | ARG | A | 144 | 40.455 | 71.353 | 31.070 | 1.00137.34 | C |
| ATOM | 869 | NE | ARG | A | 144 | 40.118 | 70.123 | 30.361 | 1.00137.34 | N |
| ATOM | 870 | CZ | ARG | A | 144 | 39.062 | 69.973 | 29.569 | 1.00137.34 | C |
| ATOM | 871 | NH1 | ARG | A | 144 | 38.221 | 70.981 | 29.375 | 1.00137.34 | N |
| ATOM | 872 | NH2 | ARG | A | 144 | 38.852 | 68.811 | 28.963 | 1.00137.34 | N |
| ATOM | 873 | N | GLN | A | 145 | 45.203 | 72.652 | 30.763 | 1.00 77.40 | N |
| ATOM | 874 | CA | GLN | A | 145 | 46.169 | 73.150 | 31.743 | 1.00 77.40 | C |
| ATOM | 875 | C | GLN | A | 145 | 46.780 | 74.512 | 31.420 | 1.00 77.40 | C |
| ATOM | 876 | O | GLN | A | 145 | 46.882 | 75.375 | 32.313 | 1.00 77.40 | O |
| ATOM | 877 | CB | GLN | A | 145 | 47.249 | 72.096 | 31.989 | 1.00142.99 | C |
| ATOM | 878 | CG | GLN | A | 145 | 46.705 | 70.915 | 32.783 | 1.00142.99 | C |
| ATOM | 879 | CD | GLN | A | 145 | 47.738 | 69.845 | 33.057 | 1.00142.99 | C |
| ATOM | 880 | OE1 | GLN | A | 145 | 48.756 | 70.097 | 33.702 | 1.00142.99 | O |
| ATOM | 881 | NE2 | GLN | A | 145 | 47.477 | 68.636 | 32.571 | 1.00142.99 | N |
| ATOM | 882 | N | LYS | A | 146 | 47.158 | 74.725 | 30.158 | 1.00 54.67 | N |
| ATOM | 883 | CA | LYS | A | 146 | 47.729 | 76.004 | 29.768 | 1.00 54.67 | C |
| ATOM | 884 | C | LYS | A | 146 | 46.738 | 77.071 | 30.094 | 1.00 54.67 | C |
| ATOM | 885 | O | LYS | A | 146 | 47.110 | 78.020 | 30.747 | 1.00 54.67 | O |
| ATOM | 886 | CB | LYS | A | 146 | 48.032 | 76.025 | 28.269 | 1.00102.52 | C |
| ATOM | 887 | CG | LYS | A | 146 | 49.128 | 75.062 | 27.842 | 1.00102.52 | C |
| ATOM | 888 | CD | LYS | A | 146 | 50.421 | 75.312 | 28.608 | 1.00102.52 | C |
| ATOM | 889 | CE | LYS | A | 146 | 51.120 | 76.583 | 28.156 | 1.00102.52 | C |
| ATOM | 890 | NZ | LYS | A | 146 | 52.504 | 76.641 | 28.706 | 1.00102.52 | N |
| ATOM | 891 | N | PHE | A | 147 | 45.478 | 76.915 | 29.675 | 1.00 40.26 | N |
| ATOM | 892 | CA | PHE | A | 147 | 44.444 | 77.915 | 29.950 | 1.00 40.26 | C |
| ATOM | 893 | C | PHE | A | 147 | 44.222 | 78.160 | 31.428 | 1.00 40.26 | C |
| ATOM | 894 | O | PHE | A | 147 | 44.209 | 79.301 | 31.855 | 1.00 40.26 | O |
| ATOM | 895 | CB | PHE | A | 147 | 43.122 | 77.522 | 29.287 | 1.00 55.15 | C |
| ATOM | 896 | CG | PHE | A | 147 | 42.208 | 78.690 | 29.021 | 1.00 55.15 | C |
| ATOM | 897 | CD1 | PHE | A | 147 | 40.879 | 78.491 | 28.659 | 1.00 55.15 | C |
| ATOM | 898 | CD2 | PHE | A | 147 | 42.693 | 79.990 | 29.099 | 1.00 55.15 | C |
| ATOM | 899 | CE1 | PHE | A | 147 | 40.060 | 79.571 | 28.379 | 1.00 55.15 | C |
| ATOM | 900 | CE2 | PHE | A | 147 | 41.879 | 81.081 | 28.819 | 1.00 55.15 | C |
| ATOM | 901 | CZ | PHE | A | 147 | 40.566 | 80.874 | 28.459 | 1.00 55.15 | C |
| ATOM | 902 | N | PHE | A | 148 | 44.041 | 77.096 | 32.211 | 1.00 72.92 | N |
| ATOM | 903 | CA | PHE | A | 148 | 43.848 | 77.182 | 33.682 | 1.00 72.92 | C |
| ATOM | 904 | C | PHE | A | 148 | 44.881 | 78.161 | 34.243 | 1.00 72.92 | C |
| ATOM | 905 | O | PHE | A | 148 | 44.525 | 79.183 | 34.822 | 1.00 72.92 | O |
| ATOM | 906 | CB | PHE | A | 148 | 44.074 | 75.792 | 34.312 | 1.00175.76 | C |
| ATOM | 907 | CG | PHE | A | 148 | 42.801 | 75.032 | 34.689 | 1.00175.76 | C |
| ATOM | 908 | CD1 | PHE | A | 148 | 41.571 | 75.306 | 34.090 | 1.00175.76 | C |
| ATOM | 909 | CD2 | PHE | A | 148 | 42.865 | 73.988 | 35.618 | 1.00175.76 | C |
| ATOM | 910 | CE1 | PHE | A | 148 | 40.430 | 74.547 | 34.413 | 1.00175.76 | C |
| ATOM | 911 | CE2 | PHE | A | 148 | 41.735 | 73.231 | 35.942 | 1.00175.76 | C |
| ATOM | 912 | CZ | PHE | A | 148 | 40.519 | 73.510 | 35.339 | 1.00175.76 | C |
| ATOM | 913 | N | HIS | A | 149 | 46.160 | 77.830 | 34.056 | 1.00 68.24 | N |
| ATOM | 914 | CA | HIS | A | 149 | 47.287 | 78.670 | 34.499 | 1.00 68.24 | C |
| ATOM | 915 | C | HIS | A | 149 | 47.302 | 80.015 | 33.755 | 1.00 68.24 | C |

| | | | | | | | | | | | |
|------|-----|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 916 | O | HIS | A | 149 | 47.767 | 81.035 | 34.261 | 1.00 | 68.24 | O |
| ATOM | 917 | CB | HIS | A | 149 | 48.587 | 77.884 | 34.242 | 1.00 | 71.95 | C |
| ATOM | 918 | CG | HIS | A | 149 | 49.842 | 78.705 | 34.253 | 1.00 | 71.95 | C |
| ATOM | 919 | ND1 | HIS | A | 149 | 50.765 | 78.639 | 35.276 | 1.00 | 71.95 | N |
| ATOM | 920 | CD2 | HIS | A | 149 | 50.370 | 79.542 | 33.329 | 1.00 | 71.95 | C |
| ATOM | 921 | CE1 | HIS | A | 149 | 51.807 | 79.395 | 34.980 | 1.00 | 71.95 | C |
| ATOM | 922 | NE2 | HIS | A | 149 | 51.593 | 79.955 | 33.804 | 1.00 | 71.95 | N |
| ATOM | 923 | N | ALA | A | 150 | 46.788 | 80.023 | 32.542 | 1.00 | 54.91 | N |
| ATOM | 924 | CA | ALA | A | 150 | 46.756 | 81.253 | 31.780 | 1.00 | 54.91 | C |
| ATOM | 925 | C | ALA | A | 150 | 45.872 | 82.213 | 32.530 | 1.00 | 54.91 | C |
| ATOM | 926 | O | ALA | A | 150 | 46.336 | 83.262 | 32.981 | 1.00 | 54.91 | O |
| ATOM | 927 | CB | ALA | A | 150 | 46.200 | 80.992 | 30.389 | 1.00 | 172.15 | C |
| ATOM | 928 | N | ILE | A | 151 | 44.595 | 81.858 | 32.656 | 1.00 | 49.06 | N |
| ATOM | 929 | CA | ILE | A | 151 | 43.662 | 82.704 | 33.365 | 1.00 | 49.06 | C |
| ATOM | 930 | C | ILE | A | 151 | 44.377 | 83.168 | 34.609 | 1.00 | 49.06 | C |
| ATOM | 931 | O | ILE | A | 151 | 44.632 | 84.357 | 34.761 | 1.00 | 49.06 | O |
| ATOM | 932 | CB | ILE | A | 151 | 42.410 | 81.931 | 33.828 | 1.00 | 61.84 | C |
| ATOM | 933 | CG1 | ILE | A | 151 | 41.624 | 81.400 | 32.627 | 1.00 | 61.84 | C |
| ATOM | 934 | CG2 | ILE | A | 151 | 41.533 | 82.846 | 34.692 | 1.00 | 61.84 | C |
| ATOM | 935 | CD1 | ILE | A | 151 | 40.851 | 82.473 | 31.862 | 1.00 | 61.84 | C |
| ATOM | 936 | N | MET | A | 152 | 44.733 | 82.226 | 35.483 | 1.00 | 72.19 | N |
| ATOM | 937 | CA | MET | A | 152 | 45.427 | 82.562 | 36.727 | 1.00 | 72.19 | C |
| ATOM | 938 | C | MET | A | 152 | 46.644 | 83.437 | 36.579 | 1.00 | 72.19 | C |
| ATOM | 939 | O | MET | A | 152 | 47.315 | 83.733 | 37.550 | 1.00 | 72.19 | O |
| ATOM | 940 | CB | MET | A | 152 | 45.822 | 81.258 | 37.414 | 1.00 | 91.91 | C |
| ATOM | 941 | CG | MET | A | 152 | 44.633 | 80.537 | 37.987 | 1.00 | 91.91 | C |
| ATOM | 942 | SD | MET | A | 152 | 43.829 | 81.679 | 39.115 | 1.00 | 91.91 | S |
| ATOM | 943 | CE | MET | A | 152 | 44.828 | 81.448 | 40.540 | 1.00 | 91.91 | C |
| ATOM | 944 | N | ASN | A | 153 | 46.971 | 83.834 | 35.365 | 1.00 | 79.66 | N |
| ATOM | 945 | CA | ASN | A | 153 | 48.113 | 84.699 | 35.225 | 1.00 | 79.66 | C |
| ATOM | 946 | C | ASN | A | 153 | 47.764 | 86.012 | 34.543 | 1.00 | 79.66 | C |
| ATOM | 947 | O | ASN | A | 153 | 48.571 | 86.919 | 34.548 | 1.00 | 79.66 | O |
| ATOM | 948 | CB | ASN | A | 153 | 49.229 | 83.989 | 34.459 | 1.00 | 92.90 | C |
| ATOM | 949 | CG | ASN | A | 153 | 50.592 | 84.589 | 34.739 | 1.00 | 92.90 | C |
| ATOM | 950 | OD1 | ASN | A | 153 | 51.212 | 85.205 | 33.869 | 1.00 | 92.90 | O |
| ATOM | 951 | ND2 | ASN | A | 153 | 51.066 | 84.414 | 35.969 | 1.00 | 92.90 | N |
| ATOM | 952 | N | GLN | A | 154 | 46.582 | 86.136 | 33.957 | 1.00 | 161.99 | N |
| ATOM | 953 | CA | GLN | A | 154 | 46.244 | 87.370 | 33.274 | 1.00 | 161.99 | C |
| ATOM | 954 | C | GLN | A | 154 | 46.283 | 88.563 | 34.257 | 1.00 | 161.99 | C |
| ATOM | 955 | O | GLN | A | 154 | 46.118 | 89.756 | 33.862 | 1.00 | 161.99 | O |
| ATOM | 956 | CB | GLN | A | 154 | 44.839 | 87.285 | 32.672 | 1.00 | 73.57 | C |
| ATOM | 957 | CG | GLN | A | 154 | 44.620 | 88.151 | 31.438 | 1.00 | 73.57 | C |
| ATOM | 958 | CD | GLN | A | 154 | 43.205 | 88.684 | 31.337 | 1.00 | 73.57 | C |
| ATOM | 959 | OE1 | GLN | A | 154 | 42.239 | 87.946 | 31.506 | 1.00 | 73.57 | O |
| ATOM | 960 | NE2 | GLN | A | 154 | 43.078 | 89.973 | 31.052 | 1.00 | 73.57 | N |
| ATOM | 961 | N | GLU | A | 155 | 46.533 | 88.245 | 35.526 | 1.00 | 89.78 | N |
| ATOM | 962 | CA | GLU | A | 155 | 46.497 | 89.179 | 36.661 | 1.00 | 89.78 | C |
| ATOM | 963 | C | GLU | A | 155 | 45.530 | 90.320 | 36.751 | 1.00 | 89.78 | C |
| ATOM | 964 | O | GLU | A | 155 | 44.383 | 90.147 | 36.381 | 1.00 | 89.78 | O |
| ATOM | 965 | CB | GLU | A | 155 | 47.939 | 89.569 | 36.979 | 1.00 | 166.26 | C |
| ATOM | 966 | CG | GLU | A | 155 | 48.557 | 88.595 | 37.947 | 1.00 | 166.26 | C |
| ATOM | 967 | CD | GLU | A | 155 | 48.162 | 87.174 | 37.612 | 1.00 | 166.26 | C |
| ATOM | 968 | OE1 | GLU | A | 155 | 46.935 | 86.893 | 37.614 | 1.00 | 166.26 | O |
| ATOM | 969 | OE2 | GLU | A | 155 | 49.074 | 86.360 | 37.324 | 1.00 | 166.26 | O |
| ATOM | 970 | N | ILE | A | 156 | 45.941 | 91.521 | 37.143 | 1.00 | 112.25 | N |
| ATOM | 971 | CA | ILE | A | 156 | 44.935 | 92.578 | 37.286 | 1.00 | 112.25 | C |
| ATOM | 972 | C | ILE | A | 156 | 44.102 | 93.044 | 36.090 | 1.00 | 112.25 | C |
| ATOM | 973 | O | ILE | A | 156 | 43.524 | 94.142 | 36.072 | 1.00 | 112.25 | O |
| ATOM | 974 | CB | ILE | A | 156 | 45.555 | 93.814 | 37.903 | 1.00 | 80.65 | C |
| ATOM | 975 | CG1 | ILE | A | 156 | 46.767 | 93.419 | 38.756 | 1.00 | 80.65 | C |
| ATOM | 976 | CG2 | ILE | A | 156 | 44.492 | 94.517 | 38.753 | 1.00 | 80.65 | C |
| ATOM | 977 | CD1 | ILE | A | 156 | 47.796 | 92.692 | 37.919 | 1.00 | 80.65 | C |
| ATOM | 978 | N | GLY | A | 157 | 43.980 | 92.186 | 35.097 | 1.00 | 57.09 | N |
| ATOM | 979 | CA | GLY | A | 157 | 43.177 | 92.637 | 33.992 | 1.00 | 57.09 | C |
| ATOM | 980 | C | GLY | A | 157 | 41.868 | 91.927 | 34.139 | 1.00 | 57.09 | C |
| ATOM | 981 | O | GLY | A | 157 | 40.778 | 92.413 | 33.773 | 1.00 | 57.09 | O |
| ATOM | 982 | N | TRP | A | 158 | 42.056 | 90.747 | 34.737 | 1.00 | 173.23 | N |
| ATOM | 983 | CA | TRP | A | 158 | 41.054 | 89.741 | 35.045 | 1.00 | 173.23 | C |
| ATOM | 984 | C | TRP | A | 158 | 40.073 | 90.321 | 36.034 | 1.00 | 173.23 | C |
| ATOM | 985 | O | TRP | A | 158 | 39.160 | 89.654 | 36.504 | 1.00 | 173.23 | O |
| ATOM | 986 | CB | TRP | A | 158 | 41.787 | 88.473 | 35.562 | 1.00 | 86.74 | C |
| ATOM | 987 | CG | TRP | A | 158 | 41.384 | 87.859 | 36.897 | 1.00 | 86.74 | C |
| ATOM | 988 | CD1 | TRP | A | 158 | 40.113 | 87.671 | 37.372 | 1.00 | 86.74 | C |
| ATOM | 989 | CD2 | TRP | A | 158 | 42.260 | 87.259 | 37.865 | 1.00 | 86.74 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 990 | NE1 | TRP | A | 158 | 40.146 | 86.994 | 38.567 | 1.00 | 86.74 | N |
| ATOM | 991 | CE2 | TRP | A | 158 | 41.449 | 86.729 | 38.893 | 1.00 | 86.74 | C |
| ATOM | 992 | CE3 | TRP | A | 158 | 43.650 | 87.118 | 37.962 | 1.00 | 86.74 | C |
| ATOM | 993 | CZ2 | TRP | A | 158 | 41.981 | 86.070 | 39.999 | 1.00 | 86.74 | C |
| ATOM | 994 | CZ3 | TRP | A | 158 | 44.174 | 86.463 | 39.059 | 1.00 | 86.74 | C |
| ATOM | 995 | CH2 | TRP | A | 158 | 43.344 | 85.948 | 40.063 | 1.00 | 86.74 | C |
| ATOM | 996 | N | PHE | A | 159 | 40.276 | 91.599 | 36.319 | 1.00 | 139.74 | N |
| ATOM | 997 | CA | PHE | A | 159 | 39.405 | 92.359 | 37.194 | 1.00 | 139.74 | C |
| ATOM | 998 | C | PHE | A | 159 | 39.267 | 93.571 | 36.348 | 1.00 | 139.74 | C |
| ATOM | 999 | O | PHE | A | 159 | 38.233 | 94.100 | 36.148 | 1.00 | 139.74 | O |
| ATOM | 1000 | CB | PHE | A | 159 | 40.093 | 92.722 | 38.512 | 1.00 | 207.38 | C |
| ATOM | 1001 | CG | PHE | A | 159 | 39.273 | 93.637 | 39.391 | 1.00 | 207.38 | C |
| ATOM | 1002 | CD1 | PHE | A | 159 | 38.064 | 93.208 | 39.931 | 1.00 | 207.38 | C |
| ATOM | 1003 | CD2 | PHE | A | 159 | 39.705 | 94.930 | 39.672 | 1.00 | 207.38 | C |
| ATOM | 1004 | CE1 | PHE | A | 159 | 37.300 | 94.050 | 40.734 | 1.00 | 207.38 | C |
| ATOM | 1005 | CE2 | PHE | A | 159 | 38.944 | 95.780 | 40.477 | 1.00 | 207.38 | C |
| ATOM | 1006 | CZ | PHE | A | 159 | 37.740 | 95.336 | 41.008 | 1.00 | 207.38 | C |
| ATOM | 1007 | N | ASP | A | 160 | 40.351 | 94.027 | 35.811 | 1.00 | 126.50 | N |
| ATOM | 1008 | CA | ASP | A | 160 | 40.174 | 95.148 | 34.930 | 1.00 | 126.50 | C |
| ATOM | 1009 | C | ASP | A | 160 | 38.963 | 95.047 | 33.975 | 1.00 | 126.50 | C |
| ATOM | 1010 | O | ASP | A | 160 | 38.242 | 96.022 | 33.787 | 1.00 | 126.50 | O |
| ATOM | 1011 | CB | ASP | A | 160 | 41.456 | 95.357 | 34.141 | 1.00 | 86.95 | C |
| ATOM | 1012 | CG | ASP | A | 160 | 42.658 | 95.376 | 35.046 | 1.00 | 86.95 | C |
| ATOM | 1013 | OD1 | ASP | A | 160 | 42.458 | 95.204 | 36.265 | 1.00 | 86.95 | O |
| ATOM | 1014 | OD2 | ASP | A | 160 | 43.802 | 95.523 | 34.583 | 1.00 | 86.95 | O |
| ATOM | 1015 | N | VAL | A | 161 | 38.725 | 93.893 | 33.370 | 1.00 | 135.24 | N |
| ATOM | 1016 | CA | VAL | A | 161 | 37.572 | 93.766 | 32.477 | 1.00 | 135.24 | C |
| ATOM | 1017 | C | VAL | A | 161 | 37.138 | 92.320 | 32.641 | 1.00 | 135.24 | C |
| ATOM | 1018 | O | VAL | A | 161 | 37.290 | 91.779 | 33.725 | 1.00 | 135.24 | O |
| ATOM | 1019 | CB | VAL | A | 161 | 37.964 | 94.053 | 31.012 | 1.00 | 74.26 | C |
| ATOM | 1020 | CG1 | VAL | A | 161 | 38.322 | 95.525 | 30.863 | 1.00 | 74.26 | C |
| ATOM | 1021 | CG2 | VAL | A | 161 | 39.144 | 93.167 | 30.595 | 1.00 | 74.26 | C |
| ATOM | 1022 | N | HIS | A | 162 | 36.605 | 91.693 | 31.599 | 1.00 | 135.77 | N |
| ATOM | 1023 | CA | HIS | A | 162 | 36.190 | 90.283 | 31.677 | 1.00 | 135.77 | C |
| ATOM | 1024 | C | HIS | A | 162 | 35.051 | 90.020 | 32.718 | 1.00 | 135.77 | C |
| ATOM | 1025 | O | HIS | A | 162 | 35.233 | 90.235 | 33.913 | 1.00 | 135.77 | O |
| ATOM | 1026 | CB | HIS | A | 162 | 37.390 | 89.384 | 32.007 | 1.00 | 97.07 | C |
| ATOM | 1027 | CG | HIS | A | 162 | 38.626 | 89.672 | 31.202 | 1.00 | 97.07 | C |
| ATOM | 1028 | ND1 | HIS | A | 162 | 38.606 | 89.893 | 29.841 | 1.00 | 97.07 | N |
| ATOM | 1029 | CD2 | HIS | A | 162 | 39.931 | 89.706 | 31.565 | 1.00 | 97.07 | C |
| ATOM | 1030 | CE1 | HIS | A | 162 | 39.843 | 90.046 | 29.400 | 1.00 | 97.07 | C |
| ATOM | 1031 | NE2 | HIS | A | 162 | 40.666 | 89.936 | 30.428 | 1.00 | 97.07 | N |
| ATOM | 1032 | N | ASP | A | 163 | 33.887 | 89.547 | 32.262 | 1.00 | 96.27 | N |
| ATOM | 1033 | CA | ASP | A | 163 | 32.740 | 89.269 | 33.142 | 1.00 | 96.27 | C |
| ATOM | 1034 | C | ASP | A | 163 | 33.177 | 88.308 | 34.205 | 1.00 | 96.27 | C |
| ATOM | 1035 | O | ASP | A | 163 | 32.490 | 88.103 | 35.198 | 1.00 | 96.27 | O |
| ATOM | 1036 | CB | ASP | A | 163 | 31.593 | 88.598 | 32.374 | 1.00 | 207.38 | C |
| ATOM | 1037 | CG | ASP | A | 163 | 30.874 | 89.538 | 31.432 | 1.00 | 207.38 | C |
| ATOM | 1038 | OD1 | ASP | A | 163 | 31.442 | 89.869 | 30.372 | 1.00 | 207.38 | O |
| ATOM | 1039 | OD2 | ASP | A | 163 | 29.735 | 89.940 | 31.754 | 1.00 | 207.38 | O |
| ATOM | 1040 | N | VAL | A | 164 | 34.307 | 87.680 | 33.942 | 1.00 | 113.94 | N |
| ATOM | 1041 | CA | VAL | A | 164 | 34.887 | 86.687 | 34.843 | 1.00 | 113.94 | C |
| ATOM | 1042 | C | VAL | A | 164 | 33.964 | 85.471 | 34.955 | 1.00 | 113.94 | C |
| ATOM | 1043 | O | VAL | A | 164 | 34.394 | 84.309 | 35.121 | 1.00 | 113.94 | O |
| ATOM | 1044 | CB | VAL | A | 164 | 35.026 | 87.279 | 36.267 | 1.00 | 98.54 | C |
| ATOM | 1045 | CG1 | VAL | A | 164 | 35.415 | 86.193 | 37.256 | 1.00 | 98.54 | C |
| ATOM | 1046 | CG2 | VAL | A | 164 | 36.036 | 88.409 | 36.269 | 1.00 | 98.54 | C |
| ATOM | 1047 | N | GLY | A | 165 | 32.703 | 85.762 | 34.676 | 1.00 | 87.78 | N |
| ATOM | 1048 | CA | GLY | A | 165 | 31.631 | 84.854 | 35.022 | 1.00 | 87.78 | C |
| ATOM | 1049 | C | GLY | A | 165 | 31.687 | 84.328 | 33.612 | 1.00 | 87.78 | C |
| ATOM | 1050 | O | GLY | A | 165 | 31.970 | 83.141 | 33.352 | 1.00 | 87.78 | O |
| ATOM | 1051 | N | GLU | A | 166 | 31.430 | 85.236 | 32.683 | 1.00 | 167.54 | N |
| ATOM | 1052 | CA | GLU | A | 166 | 31.445 | 84.895 | 31.278 | 1.00 | 167.54 | C |
| ATOM | 1053 | C | GLU | A | 166 | 32.716 | 84.121 | 30.979 | 1.00 | 167.54 | C |
| ATOM | 1054 | O | GLU | A | 166 | 32.745 | 83.323 | 30.048 | 1.00 | 167.54 | O |
| ATOM | 1055 | CB | GLU | A | 166 | 31.334 | 86.179 | 30.453 | 1.00 | 198.48 | C |
| ATOM | 1056 | CG | GLU | A | 166 | 31.609 | 86.026 | 28.979 | 1.00 | 198.48 | C |
| ATOM | 1057 | CD | GLU | A | 166 | 33.082 | 86.170 | 28.665 | 1.00 | 198.48 | C |
| ATOM | 1058 | OE1 | GLU | A | 166 | 33.454 | 86.095 | 27.475 | 1.00 | 198.48 | O |
| ATOM | 1059 | OE2 | GLU | A | 166 | 33.872 | 86.364 | 29.613 | 1.00 | 198.48 | O |
| ATOM | 1060 | N | LEU | A | 167 | 33.750 | 84.332 | 31.794 | 1.00 | 87.89 | N |
| ATOM | 1061 | CA | LEU | A | 167 | 35.015 | 83.626 | 31.604 | 1.00 | 87.89 | C |
| ATOM | 1062 | C | LEU | A | 167 | 34.949 | 82.152 | 31.947 | 1.00 | 87.89 | C |
| ATOM | 1063 | O | LEU | A | 167 | 34.902 | 81.310 | 31.054 | 1.00 | 87.89 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1064 | CB | LEU | A | 167 | 36.136 | 84.273 | 32.423 | 1.00101.27 | C |
| ATOM | 1065 | CG | LEU | A | 167 | 37.485 | 83.557 | 32.256 | 1.00101.27 | C |
| ATOM | 1066 | CD1 | LEU | A | 167 | 38.609 | 84.578 | 32.235 | 1.00101.27 | C |
| ATOM | 1067 | CD2 | LEU | A | 167 | 37.685 | 82.519 | 33.359 | 1.00101.27 | C |
| ATOM | 1068 | N | ASN | A | 168 | 34.951 | 81.819 | 33.235 | 1.00105.09 | N |
| ATOM | 1069 | CA | ASN | A | 168 | 34.920 | 80.394 | 33.558 | 1.00105.09 | C |
| ATOM | 1070 | C | ASN | A | 168 | 33.972 | 79.716 | 32.591 | 1.00105.09 | C |
| ATOM | 1071 | O | ASN | A | 168 | 34.289 | 78.672 | 31.978 | 1.00105.09 | O |
| ATOM | 1072 | CB | ASN | A | 168 | 34.501 | 80.133 | 35.016 | 1.00124.61 | C |
| ATOM | 1073 | CG | ASN | A | 168 | 33.211 | 80.826 | 35.399 | 1.00124.61 | C |
| ATOM | 1074 | OD1 | ASN | A | 168 | 33.225 | 81.938 | 35.922 | 1.00124.61 | O |
| ATOM | 1075 | ND2 | ASN | A | 168 | 32.088 | 80.172 | 35.141 | 1.00124.61 | N |
| ATOM | 1076 | N | THR | A | 169 | 32.817 | 80.340 | 32.423 | 1.00101.55 | N |
| ATOM | 1077 | CA | THR | A | 169 | 31.855 | 79.780 | 31.520 | 1.00101.55 | C |
| ATOM | 1078 | C | THR | A | 169 | 32.601 | 79.423 | 30.231 | 1.00101.55 | C |
| ATOM | 1079 | O | THR | A | 169 | 32.620 | 78.263 | 29.820 | 1.00101.55 | O |
| ATOM | 1080 | CB | THR | A | 169 | 30.714 | 80.780 | 31.253 | 1.00111.75 | C |
| ATOM | 1081 | OG1 | THR | A | 169 | 30.044 | 81.070 | 32.489 | 1.00111.75 | O |
| ATOM | 1082 | CG2 | THR | A | 169 | 29.708 | 80.199 | 30.275 | 1.00111.75 | C |
| ATOM | 1083 | N | ARG | A | 170 | 33.273 | 80.390 | 29.622 | 1.00103.84 | N |
| ATOM | 1084 | CA | ARG | A | 170 | 33.974 | 80.080 | 28.390 | 1.00103.84 | C |
| ATOM | 1085 | C | ARG | A | 170 | 35.079 | 79.068 | 28.584 | 1.00103.84 | C |
| ATOM | 1086 | O | ARG | A | 170 | 35.378 | 78.330 | 27.660 | 1.00103.84 | O |
| ATOM | 1087 | CB | ARG | A | 170 | 34.538 | 81.346 | 27.723 | 1.00 95.99 | C |
| ATOM | 1088 | CG | ARG | A | 170 | 35.949 | 81.743 | 28.149 | 1.00 95.99 | C |
| ATOM | 1089 | CD | ARG | A | 170 | 36.634 | 82.644 | 27.119 | 1.00 95.99 | C |
| ATOM | 1090 | NE | ARG | A | 170 | 35.795 | 83.762 | 26.698 | 1.00 95.99 | N |
| ATOM | 1091 | CZ | ARG | A | 170 | 35.015 | 83.757 | 25.622 | 1.00 95.99 | C |
| ATOM | 1092 | NH1 | ARG | A | 170 | 34.959 | 82.690 | 24.840 | 1.00 95.99 | N |
| ATOM | 1093 | NH2 | ARG | A | 170 | 34.296 | 84.828 | 25.325 | 1.00 95.99 | N |
| ATOM | 1094 | N | LEU | A | 171 | 35.701 | 79.021 | 29.755 | 1.00 60.95 | N |
| ATOM | 1095 | CA | LEU | A | 171 | 36.757 | 78.028 | 29.949 | 1.00 60.95 | C |
| ATOM | 1096 | C | LEU | A | 171 | 36.191 | 76.686 | 29.513 | 1.00 60.95 | C |
| ATOM | 1097 | O | LEU | A | 171 | 36.690 | 76.044 | 28.582 | 1.00 60.95 | O |
| ATOM | 1098 | CB | LEU | A | 171 | 37.154 | 77.945 | 31.435 | 1.00 92.22 | C |
| ATOM | 1099 | CG | LEU | A | 171 | 38.163 | 76.906 | 31.967 | 1.00 92.22 | C |
| ATOM | 1100 | CD1 | LEU | A | 171 | 37.651 | 75.488 | 31.716 | 1.00 92.22 | C |
| ATOM | 1101 | CD2 | LEU | A | 171 | 39.526 | 77.111 | 31.314 | 1.00 92.22 | C |
| ATOM | 1102 | N | THR | A | 172 | 35.126 | 76.254 | 30.169 | 1.00137.50 | N |
| ATOM | 1103 | CA | THR | A | 172 | 34.587 | 74.963 | 29.787 | 1.00137.50 | C |
| ATOM | 1104 | C | THR | A | 172 | 33.969 | 74.953 | 28.389 | 1.00137.50 | C |
| ATOM | 1105 | O | THR | A | 172 | 34.417 | 74.192 | 27.529 | 1.00137.50 | O |
| ATOM | 1106 | CB | THR | A | 172 | 33.552 | 74.464 | 30.810 | 1.00 86.31 | C |
| ATOM | 1107 | OG1 | THR | A | 172 | 34.084 | 74.606 | 32.133 | 1.00 86.31 | O |
| ATOM | 1108 | CG2 | THR | A | 172 | 33.233 | 72.990 | 30.563 | 1.00 86.31 | C |
| ATOM | 1109 | N | ASP | A | 173 | 32.957 | 75.787 | 28.151 | 1.00 71.64 | N |
| ATOM | 1110 | CA | ASP | A | 173 | 32.315 | 75.839 | 26.841 | 1.00 71.64 | C |
| ATOM | 1111 | C | ASP | A | 173 | 33.281 | 75.725 | 25.699 | 1.00 71.64 | C |
| ATOM | 1112 | O | ASP | A | 173 | 33.230 | 74.779 | 24.911 | 1.00 71.64 | O |
| ATOM | 1113 | CB | ASP | A | 173 | 31.522 | 77.136 | 26.690 | 1.00123.13 | C |
| ATOM | 1114 | CG | ASP | A | 173 | 30.083 | 76.983 | 27.104 | 1.00123.13 | C |
| ATOM | 1115 | OD1 | ASP | A | 173 | 29.842 | 76.619 | 28.273 | 1.00123.13 | O |
| ATOM | 1116 | OD2 | ASP | A | 173 | 29.194 | 77.221 | 26.258 | 1.00123.13 | O |
| ATOM | 1117 | N | ASP | A | 174 | 34.183 | 76.683 | 25.598 | 1.00 90.30 | N |
| ATOM | 1118 | CA | ASP | A | 174 | 35.144 | 76.649 | 24.512 | 1.00 90.30 | C |
| ATOM | 1119 | C | ASP | A | 174 | 36.066 | 75.436 | 24.521 | 1.00 90.30 | C |
| ATOM | 1120 | O | ASP | A | 174 | 36.070 | 74.666 | 23.551 | 1.00 90.30 | O |
| ATOM | 1121 | CB | ASP | A | 174 | 35.946 | 77.954 | 24.508 | 1.00 89.61 | C |
| ATOM | 1122 | CG | ASP | A | 174 | 35.042 | 79.177 | 24.463 | 1.00 89.61 | C |
| ATOM | 1123 | OD1 | ASP | A | 174 | 35.536 | 80.298 | 24.217 | 1.00 89.61 | O |
| ATOM | 1124 | OD2 | ASP | A | 174 | 33.822 | 79.005 | 24.680 | 1.00 89.61 | O |
| ATOM | 1125 | N | VAL | A | 175 | 36.831 | 75.238 | 25.593 | 1.00 79.02 | N |
| ATOM | 1126 | CA | VAL | A | 175 | 37.724 | 74.080 | 25.640 | 1.00 79.02 | C |
| ATOM | 1127 | C | VAL | A | 175 | 37.049 | 72.883 | 24.931 | 1.00 79.02 | C |
| ATOM | 1128 | O | VAL | A | 175 | 37.608 | 72.277 | 23.990 | 1.00 79.02 | O |
| ATOM | 1129 | CB | VAL | A | 175 | 38.085 | 73.707 | 27.101 | 1.00108.57 | C |
| ATOM | 1130 | CG1 | VAL | A | 175 | 36.882 | 73.094 | 27.798 | 1.00108.57 | C |
| ATOM | 1131 | CG2 | VAL | A | 175 | 39.290 | 72.773 | 27.127 | 1.00108.57 | C |
| ATOM | 1132 | N | SER | A | 176 | 35.819 | 72.579 | 25.335 | 1.00142.37 | N |
| ATOM | 1133 | CA | SER | A | 176 | 35.089 | 71.461 | 24.741 | 1.00142.37 | C |
| ATOM | 1134 | C | SER | A | 176 | 34.861 | 71.592 | 23.226 | 1.00142.37 | C |
| ATOM | 1135 | O | SER | A | 176 | 35.151 | 70.653 | 22.456 | 1.00142.37 | O |
| ATOM | 1136 | CB | SER | A | 176 | 33.744 | 71.286 | 25.450 | 1.00 56.83 | C |
| ATOM | 1137 | OG | SER | A | 176 | 33.937 | 70.994 | 26.823 | 1.00 56.83 | O |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 1138 | N | LYS | A | 177 | 34.353 | 72.744 | 22.787 | 1.00 | 80.15 | N |
| ATOM | 1139 | CA | LYS | A | 177 | 34.111 | 72.899 | 21.358 | 1.00 | 80.15 | C |
| ATOM | 1140 | C | LYS | A | 177 | 35.356 | 72.626 | 20.531 | 1.00 | 80.15 | C |
| ATOM | 1141 | O | LYS | A | 177 | 35.266 | 72.241 | 19.359 | 1.00 | 80.15 | O |
| ATOM | 1142 | CB | LYS | A | 177 | 33.526 | 74.276 | 21.055 | 1.00 | 147.19 | C |
| ATOM | 1143 | CG | LYS | A | 177 | 32.032 | 74.194 | 20.771 | 1.00 | 147.19 | C |
| ATOM | 1144 | CD | LYS | A | 177 | 31.264 | 75.358 | 21.350 | 1.00 | 147.19 | C |
| ATOM | 1145 | CE | LYS | A | 177 | 29.772 | 75.092 | 21.260 | 1.00 | 147.19 | C |
| ATOM | 1146 | NZ | LYS | A | 177 | 28.987 | 76.117 | 21.995 | 1.00 | 147.19 | N |
| ATOM | 1147 | N | ILE | A | 178 | 36.515 | 72.795 | 21.159 | 1.00 | 118.84 | N |
| ATOM | 1148 | CA | ILE | A | 178 | 37.788 | 72.515 | 20.503 | 1.00 | 118.84 | C |
| ATOM | 1149 | C | ILE | A | 178 | 37.770 | 71.010 | 20.311 | 1.00 | 118.84 | C |
| ATOM | 1150 | O | ILE | A | 178 | 37.937 | 70.483 | 19.192 | 1.00 | 118.84 | O |
| ATOM | 1151 | CB | ILE | A | 178 | 38.976 | 72.890 | 21.410 | 1.00 | 72.06 | C |
| ATOM | 1152 | CG1 | ILE | A | 178 | 38.626 | 74.142 | 22.209 | 1.00 | 72.06 | C |
| ATOM | 1153 | CG2 | ILE | A | 178 | 40.236 | 73.097 | 20.577 | 1.00 | 72.06 | C |
| ATOM | 1154 | CD1 | ILE | A | 178 | 37.984 | 75.232 | 21.364 | 1.00 | 72.06 | C |
| ATOM | 1155 | N | ASN | A | 179 | 37.547 | 70.316 | 21.419 | 1.00 | 89.63 | N |
| ATOM | 1156 | CA | ASN | A | 179 | 37.525 | 68.873 | 21.358 | 1.00 | 89.63 | C |
| ATOM | 1157 | C | ASN | A | 179 | 36.701 | 68.362 | 20.151 | 1.00 | 89.63 | C |
| ATOM | 1158 | O | ASN | A | 179 | 37.232 | 67.665 | 19.205 | 1.00 | 89.63 | O |
| ATOM | 1159 | CB | ASN | A | 179 | 36.964 | 68.317 | 22.668 | 1.00 | 120.77 | C |
| ATOM | 1160 | CG | ASN | A | 179 | 37.640 | 67.025 | 23.090 | 1.00 | 120.77 | C |
| ATOM | 1161 | OD1 | ASN | A | 179 | 37.316 | 65.948 | 22.592 | 1.00 | 120.77 | O |
| ATOM | 1162 | ND2 | ASN | A | 179 | 38.599 | 67.132 | 24.004 | 1.00 | 120.77 | N |
| ATOM | 1163 | N | GLU | A | 180 | 35.414 | 68.703 | 20.152 | 1.00 | 105.72 | N |
| ATOM | 1164 | CA | GLU | A | 180 | 34.556 | 68.251 | 19.064 | 1.00 | 105.72 | C |
| ATOM | 1165 | C | GLU | A | 180 | 35.216 | 68.544 | 17.724 | 1.00 | 105.72 | C |
| ATOM | 1166 | O | GLU | A | 180 | 35.182 | 67.702 | 16.799 | 1.00 | 105.72 | O |
| ATOM | 1167 | CB | GLU | A | 180 | 33.203 | 68.950 | 19.127 | 1.00 | 156.22 | C |
| ATOM | 1168 | CG | GLU | A | 180 | 32.439 | 68.677 | 20.401 | 1.00 | 156.22 | C |
| ATOM | 1169 | CD | GLU | A | 180 | 31.072 | 69.310 | 20.389 | 1.00 | 156.22 | C |
| ATOM | 1170 | OE1 | GLU | A | 180 | 30.372 | 69.233 | 21.421 | 1.00 | 156.22 | O |
| ATOM | 1171 | OE2 | GLU | A | 180 | 30.700 | 69.880 | 19.343 | 1.00 | 156.22 | O |
| ATOM | 1172 | N | GLY | A | 181 | 35.826 | 69.730 | 17.639 | 1.00 | 110.29 | N |
| ATOM | 1173 | CA | GLY | A | 181 | 36.513 | 70.145 | 16.429 | 1.00 | 110.29 | C |
| ATOM | 1174 | C | GLY | A | 181 | 37.486 | 69.109 | 15.905 | 1.00 | 110.29 | C |
| ATOM | 1175 | O | GLY | A | 181 | 37.485 | 68.810 | 14.707 | 1.00 | 110.29 | O |
| ATOM | 1176 | N | ILE | A | 182 | 38.287 | 68.524 | 16.792 | 1.00 | 116.26 | N |
| ATOM | 1177 | CA | ILE | A | 182 | 39.281 | 67.514 | 16.376 | 1.00 | 116.26 | C |
| ATOM | 1178 | C | ILE | A | 182 | 38.816 | 66.089 | 15.923 | 1.00 | 116.26 | C |
| ATOM | 1179 | O | ILE | A | 182 | 39.098 | 65.650 | 14.771 | 1.00 | 116.26 | O |
| ATOM | 1180 | CB | ILE | A | 182 | 40.337 | 67.333 | 17.483 | 1.00 | 43.05 | C |
| ATOM | 1181 | CG1 | ILE | A | 182 | 40.624 | 68.691 | 18.135 | 1.00 | 43.05 | C |
| ATOM | 1182 | CG2 | ILE | A | 182 | 41.615 | 66.742 | 16.900 | 1.00 | 43.05 | C |
| ATOM | 1183 | CD1 | ILE | A | 182 | 40.751 | 69.863 | 17.141 | 1.00 | 43.05 | C |
| ATOM | 1184 | N | GLY | A | 183 | 38.119 | 65.350 | 16.793 | 1.00 | 52.81 | N |
| ATOM | 1185 | CA | GLY | A | 183 | 37.649 | 64.012 | 16.335 | 1.00 | 52.81 | C |
| ATOM | 1186 | C | GLY | A | 183 | 36.600 | 63.947 | 15.195 | 1.00 | 52.81 | C |
| ATOM | 1187 | O | GLY | A | 183 | 36.494 | 62.968 | 14.436 | 1.00 | 52.81 | O |
| ATOM | 1188 | N | ASP | A | 184 | 35.790 | 65.007 | 15.102 | 1.00 | 53.45 | N |
| ATOM | 1189 | CA | ASP | A | 184 | 34.793 | 65.110 | 14.050 | 1.00 | 53.45 | C |
| ATOM | 1190 | C | ASP | A | 184 | 35.602 | 65.405 | 12.830 | 1.00 | 53.45 | C |
| ATOM | 1191 | O | ASP | A | 184 | 35.409 | 64.738 | 11.845 | 1.00 | 53.45 | O |
| ATOM | 1192 | CB | ASP | A | 184 | 33.809 | 66.255 | 14.320 | 1.00 | 121.70 | C |
| ATOM | 1193 | CG | ASP | A | 184 | 32.730 | 65.883 | 15.325 | 1.00 | 121.70 | C |
| ATOM | 1194 | OD1 | ASP | A | 184 | 32.135 | 64.789 | 15.201 | 1.00 | 121.70 | O |
| ATOM | 1195 | OD2 | ASP | A | 184 | 32.470 | 66.700 | 16.232 | 1.00 | 121.70 | O |
| ATOM | 1196 | N | LYS | A | 185 | 36.520 | 66.379 | 12.873 | 1.00 | 187.26 | N |
| ATOM | 1197 | CA | LYS | A | 185 | 37.314 | 66.649 | 11.662 | 1.00 | 187.26 | C |
| ATOM | 1198 | C | LYS | A | 185 | 37.749 | 65.338 | 11.054 | 1.00 | 187.26 | C |
| ATOM | 1199 | O | LYS | A | 185 | 37.789 | 65.169 | 9.820 | 1.00 | 187.26 | O |
| ATOM | 1200 | CB | LYS | A | 185 | 38.552 | 67.486 | 11.973 | 1.00 | 97.07 | C |
| ATOM | 1201 | CG | LYS | A | 185 | 39.554 | 67.470 | 10.827 | 1.00 | 97.07 | C |
| ATOM | 1202 | CD | LYS | A | 185 | 40.975 | 67.355 | 11.334 | 1.00 | 97.07 | C |
| ATOM | 1203 | CE | LYS | A | 185 | 41.094 | 66.198 | 12.313 | 1.00 | 97.07 | C |
| ATOM | 1204 | NZ | LYS | A | 185 | 40.547 | 64.936 | 11.736 | 1.00 | 97.07 | N |
| ATOM | 1205 | N | ILE | A | 186 | 38.117 | 64.412 | 11.926 | 1.00 | 77.94 | N |
| ATOM | 1206 | CA | ILE | A | 186 | 38.514 | 63.115 | 11.401 | 1.00 | 77.94 | C |
| ATOM | 1207 | C | ILE | A | 186 | 37.338 | 62.571 | 10.576 | 1.00 | 77.94 | C |
| ATOM | 1208 | O | ILE | A | 186 | 37.482 | 62.266 | 9.375 | 1.00 | 77.94 | O |
| ATOM | 1209 | CB | ILE | A | 186 | 38.888 | 62.143 | 12.560 | 1.00 | 206.67 | C |
| ATOM | 1210 | CG1 | ILE | A | 186 | 37.767 | 61.135 | 12.815 | 1.00 | 206.67 | C |
| ATOM | 1211 | CG2 | ILE | A | 186 | 39.168 | 62.934 | 13.833 | 1.00 | 206.67 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1212 | CD1 | ILE | A | 186 | 37.734 | 60.001 | 11.821 | 1.00206.67 | C |
| ATOM | 1213 | N | GLY | A | 187 | 36.177 | 62.453 | 11.223 | 1.00 79.73 | N |
| ATOM | 1214 | CA | GLY | A | 187 | 35.015 | 61.976 | 10.491 | 1.00 79.73 | C |
| ATOM | 1215 | C | GLY | A | 187 | 34.995 | 62.563 | 9.080 | 1.00 79.73 | C |
| ATOM | 1216 | O | GLY | A | 187 | 34.971 | 61.816 | 8.113 | 1.00 79.73 | O |
| ATOM | 1217 | N | MET | A | 188 | 35.021 | 63.891 | 8.946 | 1.00 98.87 | N |
| ATOM | 1218 | CA | MET | A | 188 | 35.011 | 64.538 | 7.622 | 1.00 98.87 | C |
| ATOM | 1219 | C | MET | A | 188 | 36.025 | 63.901 | 6.693 | 1.00 98.87 | C |
| ATOM | 1220 | O | MET | A | 188 | 35.657 | 63.195 | 5.754 | 1.00 98.87 | O |
| ATOM | 1221 | CB | MET | A | 188 | 35.310 | 66.036 | 7.756 | 1.00118.01 | C |
| ATOM | 1222 | CG | MET | A | 188 | 35.424 | 66.795 | 6.432 | 1.00118.01 | C |
| ATOM | 1223 | SD | MET | A | 188 | 37.017 | 66.626 | 5.583 | 1.00118.01 | S |
| ATOM | 1224 | CE | MET | A | 188 | 37.953 | 67.970 | 6.354 | 1.00118.01 | C |
| ATOM | 1225 | N | PHE | A | 189 | 37.304 | 64.168 | 6.951 | 1.00 84.30 | N |
| ATOM | 1226 | CA | PHE | A | 189 | 38.375 | 63.607 | 6.130 | 1.00 84.30 | C |
| ATOM | 1227 | C | PHE | A | 189 | 37.848 | 62.334 | 5.510 | 1.00 84.30 | C |
| ATOM | 1228 | O | PHE | A | 189 | 37.662 | 62.249 | 4.302 | 1.00 84.30 | O |
| ATOM | 1229 | CB | PHE | A | 189 | 39.577 | 63.285 | 7.012 | 1.00140.49 | C |
| ATOM | 1230 | CG | PHE | A | 189 | 40.855 | 63.874 | 6.520 | 1.00140.49 | C |
| ATOM | 1231 | CD1 | PHE | A | 189 | 41.409 | 63.455 | 5.317 | 1.00140.49 | C |
| ATOM | 1232 | CD2 | PHE | A | 189 | 41.493 | 64.872 | 7.247 | 1.00140.49 | C |
| ATOM | 1233 | CE1 | PHE | A | 189 | 42.585 | 64.023 | 4.840 | 1.00140.49 | C |
| ATOM | 1234 | CE2 | PHE | A | 189 | 42.667 | 65.449 | 6.785 | 1.00140.49 | C |
| ATOM | 1235 | CZ | PHE | A | 189 | 43.217 | 65.025 | 5.576 | 1.00140.49 | C |
| ATOM | 1236 | N | PHE | A | 190 | 37.579 | 61.361 | 6.369 | 1.00 57.22 | N |
| ATOM | 1237 | CA | PHE | A | 190 | 37.029 | 60.088 | 5.933 | 1.00 57.22 | C |
| ATOM | 1238 | C | PHE | A | 190 | 35.982 | 60.325 | 4.838 | 1.00 57.22 | C |
| ATOM | 1239 | O | PHE | A | 190 | 36.243 | 60.060 | 3.667 | 1.00 57.22 | O |
| ATOM | 1240 | CB | PHE | A | 190 | 36.487 | 59.372 | 7.180 | 1.00142.28 | C |
| ATOM | 1241 | CG | PHE | A | 190 | 35.284 | 58.502 | 6.951 | 1.00142.28 | C |
| ATOM | 1242 | CD1 | PHE | A | 190 | 35.164 | 57.700 | 5.821 | 1.00142.28 | C |
| ATOM | 1243 | CD2 | PHE | A | 190 | 34.289 | 58.440 | 7.923 | 1.00142.28 | C |
| ATOM | 1244 | CE1 | PHE | A | 190 | 34.063 | 56.841 | 5.663 | 1.00142.28 | C |
| ATOM | 1245 | CE2 | PHE | A | 190 | 33.190 | 57.592 | 7.781 | 1.00142.28 | C |
| ATOM | 1246 | CZ | PHE | A | 190 | 33.075 | 56.787 | 6.646 | 1.00142.28 | C |
| ATOM | 1247 | N | GLN | A | 191 | 34.817 | 60.855 | 5.173 | 1.00 98.90 | N |
| ATOM | 1248 | CA | GLN | A | 191 | 33.822 | 61.070 | 4.119 | 1.00 98.90 | C |
| ATOM | 1249 | C | GLN | A | 191 | 34.319 | 61.913 | 2.937 | 1.00 98.90 | C |
| ATOM | 1250 | O | GLN | A | 191 | 33.981 | 61.630 | 1.788 | 1.00 98.90 | O |
| ATOM | 1251 | CB | GLN | A | 191 | 32.552 | 61.703 | 4.702 | 1.00151.70 | C |
| ATOM | 1252 | CG | GLN | A | 191 | 31.580 | 60.715 | 5.357 | 1.00151.70 | C |
| ATOM | 1253 | CD | GLN | A | 191 | 30.805 | 59.878 | 4.349 | 1.00151.70 | C |
| ATOM | 1254 | OE1 | GLN | A | 191 | 31.387 | 59.116 | 3.575 | 1.00151.70 | O |
| ATOM | 1255 | NE2 | GLN | A | 191 | 29.482 | 60.019 | 4.356 | 1.00151.70 | N |
| ATOM | 1256 | N | ALA | A | 192 | 35.116 | 62.940 | 3.200 | 1.00100.92 | N |
| ATOM | 1257 | CA | ALA | A | 192 | 35.599 | 63.765 | 2.108 | 1.00100.92 | C |
| ATOM | 1258 | C | ALA | A | 192 | 36.165 | 62.842 | 1.057 | 1.00100.92 | C |
| ATOM | 1259 | O | ALA | A | 192 | 36.034 | 63.110 | -0.121 | 1.00100.92 | O |
| ATOM | 1260 | CB | ALA | A | 192 | 36.675 | 64.721 | 2.615 | 1.00165.20 | C |
| ATOM | 1261 | N | MET | A | 193 | 36.766 | 61.734 | 1.480 | 1.00 82.90 | N |
| ATOM | 1262 | CA | MET | A | 193 | 37.369 | 60.790 | 0.536 | 1.00 82.90 | C |
| ATOM | 1263 | C | MET | A | 193 | 36.457 | 59.686 | 0.009 | 1.00 82.90 | C |
| ATOM | 1264 | O | MET | A | 193 | 36.709 | 59.174 | -1.079 | 1.00 82.90 | O |
| ATOM | 1265 | CB | MET | A | 193 | 38.632 | 60.176 | 1.153 | 1.00180.64 | C |
| ATOM | 1266 | CG | MET | A | 193 | 39.714 | 61.197 | 1.529 | 1.00180.64 | C |
| ATOM | 1267 | SD | MET | A | 193 | 40.523 | 62.001 | 0.125 | 1.00180.64 | S |
| ATOM | 1268 | CE | MET | A | 193 | 42.201 | 61.340 | 0.262 | 1.00180.64 | C |
| ATOM | 1269 | N | ALA | A | 194 | 35.427 | 59.286 | 0.758 | 1.00114.86 | N |
| ATOM | 1270 | CA | ALA | A | 194 | 34.529 | 58.270 | 0.199 | 1.00114.86 | C |
| ATOM | 1271 | C | ALA | A | 194 | 33.812 | 58.968 | -0.924 | 1.00114.86 | C |
| ATOM | 1272 | O | ALA | A | 194 | 33.484 | 58.342 | -1.916 | 1.00114.86 | O |
| ATOM | 1273 | CB | ALA | A | 194 | 33.552 | 57.813 | 1.287 | 1.00 12.54 | C |
| ATOM | 1274 | N | THR | A | 195 | 33.551 | 60.264 | -0.767 | 1.00 76.01 | N |
| ATOM | 1275 | CA | THR | A | 195 | 32.889 | 61.013 | -1.828 | 1.00 76.01 | C |
| ATOM | 1276 | C | THR | A | 195 | 33.862 | 61.273 | -2.959 | 1.00 76.01 | C |
| ATOM | 1277 | O | THR | A | 195 | 33.600 | 60.950 | -4.121 | 1.00 76.01 | O |
| ATOM | 1278 | CB | THR | A | 195 | 32.371 | 62.379 | -1.349 | 1.00191.22 | C |
| ATOM | 1279 | OG1 | THR | A | 195 | 32.138 | 63.215 | -2.489 | 1.00191.22 | O |
| ATOM | 1280 | CG2 | THR | A | 195 | 33.378 | 63.053 | -0.428 | 1.00191.22 | C |
| ATOM | 1281 | N | PHE | A | 196 | 34.992 | 61.865 | -2.618 | 1.00 60.60 | N |
| ATOM | 1282 | CA | PHE | A | 196 | 35.979 | 62.185 | -3.627 | 1.00 60.60 | C |
| ATOM | 1283 | C | PHE | A | 196 | 36.310 | 60.972 | -4.479 | 1.00 60.60 | C |
| ATOM | 1284 | O | PHE | A | 196 | 35.958 | 60.936 | -5.650 | 1.00 60.60 | O |
| ATOM | 1285 | CB | PHE | A | 196 | 37.243 | 62.711 | -2.970 | 1.00 90.78 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------|--------|---|
| ATOM | 1286 | CG | PHE | A | 196 | 38.065 | 63.551 | -3.878 | 1.00 | 90.78 | C |
| ATOM | 1287 | CD1 | PHE | A | 196 | 39.440 | 63.417 | -3.922 | 1.00 | 90.78 | C |
| ATOM | 1288 | CD2 | PHE | A | 196 | 37.453 | 64.470 | -4.721 | 1.00 | 90.78 | C |
| ATOM | 1289 | CE1 | PHE | A | 196 | 40.198 | 64.194 | -4.809 | 1.00 | 90.78 | C |
| ATOM | 1290 | CE2 | PHE | A | 196 | 38.196 | 65.246 | -5.605 | 1.00 | 90.78 | C |
| ATOM | 1291 | CZ | PHE | A | 196 | 39.567 | 65.110 | -5.652 | 1.00 | 90.78 | C |
| ATOM | 1292 | N | PHE | A | 197 | 36.964 | 59.971 | -3.886 | 1.00 | 85.02 | N |
| ATOM | 1293 | CA | PHE | A | 197 | 37.351 | 58.769 | -4.626 | 1.00 | 85.02 | C |
| ATOM | 1294 | C | PHE | A | 197 | 36.171 | 57.996 | -5.208 | 1.00 | 85.02 | C |
| ATOM | 1295 | O | PHE | A | 197 | 36.254 | 57.460 | -6.303 | 1.00 | 85.02 | O |
| ATOM | 1296 | CB | PHE | A | 197 | 38.228 | 57.854 | -3.759 | 1.00 | 164.22 | C |
| ATOM | 1297 | CG | PHE | A | 197 | 39.669 | 58.302 | -3.669 | 1.00 | 164.22 | C |
| ATOM | 1298 | CD1 | PHE | A | 197 | 40.360 | 58.695 | -4.814 | 1.00 | 164.22 | C |
| ATOM | 1299 | CD2 | PHE | A | 197 | 40.343 | 58.305 | -2.450 | 1.00 | 164.22 | C |
| ATOM | 1300 | CE1 | PHE | A | 197 | 41.697 | 59.083 | -4.746 | 1.00 | 164.22 | C |
| ATOM | 1301 | CE2 | PHE | A | 197 | 41.683 | 58.692 | -2.373 | 1.00 | 164.22 | C |
| ATOM | 1302 | CZ | PHE | A | 197 | 42.359 | 59.080 | -3.522 | 1.00 | 164.22 | C |
| ATOM | 1303 | N | GLY | A | 198 | 35.065 | 57.934 | -4.486 | 1.00 | 69.05 | N |
| ATOM | 1304 | CA | GLY | A | 198 | 33.922 | 57.246 | -5.044 | 1.00 | 69.05 | C |
| ATOM | 1305 | C | GLY | A | 198 | 33.629 | 57.908 | -6.373 | 1.00 | 69.05 | C |
| ATOM | 1306 | O | GLY | A | 198 | 34.029 | 57.387 | -7.418 | 1.00 | 69.05 | O |
| ATOM | 1307 | N | GLY | A | 199 | 32.966 | 59.069 | -6.314 | 1.00 | 76.05 | N |
| ATOM | 1308 | CA | GLY | A | 199 | 32.605 | 59.844 | -7.494 | 1.00 | 76.05 | C |
| ATOM | 1309 | C | GLY | A | 199 | 33.692 | 59.806 | -8.544 | 1.00 | 76.05 | C |
| ATOM | 1310 | O | GLY | A | 199 | 33.457 | 60.056 | -9.723 | 1.00 | 76.05 | O |
| ATOM | 1311 | N | PHE | A | 200 | 34.905 | 59.489 | -8.101 | 1.00 | 98.64 | N |
| ATOM | 1312 | CA | PHE | A | 200 | 36.043 | 59.394 | -9.003 | 1.00 | 98.64 | C |
| ATOM | 1313 | C | PHE | A | 200 | 36.145 | 57.962 | -9.402 | 1.00 | 98.64 | C |
| ATOM | 1314 | O | PHE | A | 200 | 35.516 | 57.565 | -10.369 | 1.00 | 98.64 | O |
| ATOM | 1315 | CB | PHE | A | 200 | 37.339 | 59.852 | -8.321 | 1.00 | 173.32 | C |
| ATOM | 1316 | CG | PHE | A | 200 | 38.532 | 59.892 | -9.244 | 1.00 | 173.32 | C |
| ATOM | 1317 | CD1 | PHE | A | 200 | 38.429 | 60.473 | -10.505 | 1.00 | 173.32 | C |
| ATOM | 1318 | CD2 | PHE | A | 200 | 39.762 | 59.377 | -8.846 | 1.00 | 173.32 | C |
| ATOM | 1319 | CE1 | PHE | A | 200 | 39.523 | 60.545 | -11.354 | 1.00 | 173.32 | C |
| ATOM | 1320 | CE2 | PHE | A | 200 | 40.870 | 59.445 | -9.694 | 1.00 | 173.32 | C |
| ATOM | 1321 | CZ | PHE | A | 200 | 40.747 | 60.031 | -10.950 | 1.00 | 173.32 | C |
| ATOM | 1322 | N | ILE | A | 201 | 36.933 | 57.197 | -8.652 | 1.00 | 121.18 | N |
| ATOM | 1323 | CA | ILE | A | 201 | 37.113 | 55.788 | -8.930 | 1.00 | 121.18 | C |
| ATOM | 1324 | C | ILE | A | 201 | 36.003 | 55.369 | -9.870 | 1.00 | 121.18 | C |
| ATOM | 1325 | O | ILE | A | 201 | 36.248 | 55.148 | -11.059 | 1.00 | 121.18 | O |
| ATOM | 1326 | CB | ILE | A | 201 | 37.097 | 54.929 | -7.635 | 1.00 | 171.62 | C |
| ATOM | 1327 | CG1 | ILE | A | 201 | 38.532 | 54.579 | -7.220 | 1.00 | 171.62 | C |
| ATOM | 1328 | CG2 | ILE | A | 201 | 36.333 | 53.632 | -7.865 | 1.00 | 171.62 | C |
| ATOM | 1329 | CD1 | ILE | A | 201 | 39.434 | 55.773 | -6.994 | 1.00 | 171.62 | C |
| ATOM | 1330 | N | ILE | A | 202 | 34.767 | 55.326 | -9.390 | 1.00 | 84.83 | N |
| ATOM | 1331 | CA | ILE | A | 202 | 33.710 | 54.910 | -10.293 | 1.00 | 84.83 | C |
| ATOM | 1332 | C | ILE | A | 202 | 33.270 | 55.995 | -11.288 | 1.00 | 84.83 | C |
| ATOM | 1333 | O | ILE | A | 202 | 33.182 | 55.717 | -12.495 | 1.00 | 84.83 | O |
| ATOM | 1334 | CB | ILE | A | 202 | 32.505 | 54.344 | -9.490 | 1.00 | 104.79 | C |
| ATOM | 1335 | CG1 | ILE | A | 202 | 32.052 | 55.326 | -8.408 | 1.00 | 104.79 | C |
| ATOM | 1336 | CG2 | ILE | A | 202 | 32.902 | 53.029 | -8.847 | 1.00 | 104.79 | C |
| ATOM | 1337 | CD1 | ILE | A | 202 | 31.119 | 56.389 | -8.908 | 1.00 | 104.79 | C |
| ATOM | 1338 | N | GLY | A | 203 | 33.064 | 57.219 | -10.784 | 1.00 | 156.66 | N |
| ATOM | 1339 | CA | GLY | A | 203 | 32.631 | 58.359 | -11.590 | 1.00 | 156.66 | C |
| ATOM | 1340 | C | GLY | A | 203 | 33.430 | 58.665 | -12.841 | 1.00 | 156.66 | C |
| ATOM | 1341 | O | GLY | A | 203 | 33.216 | 59.660 | -13.537 | 1.00 | 156.66 | O |
| ATOM | 1342 | N | PHE | A | 204 | 34.388 | 57.803 | -13.118 | 1.00 | 84.56 | N |
| ATOM | 1343 | CA | PHE | A | 204 | 35.173 | 57.948 | -14.310 | 1.00 | 84.56 | C |
| ATOM | 1344 | C | PHE | A | 204 | 35.514 | 56.540 | -14.746 | 1.00 | 84.56 | C |
| ATOM | 1345 | O | PHE | A | 204 | 34.955 | 56.042 | -15.727 | 1.00 | 84.56 | O |
| ATOM | 1346 | CB | PHE | A | 204 | 36.457 | 58.734 | -14.046 | 1.00 | 207.38 | C |
| ATOM | 1347 | CG | PHE | A | 204 | 37.385 | 58.777 | -15.228 | 1.00 | 207.38 | C |
| ATOM | 1348 | CD1 | PHE | A | 204 | 36.988 | 59.368 | -16.425 | 1.00 | 207.38 | C |
| ATOM | 1349 | CD2 | PHE | A | 204 | 38.642 | 58.188 | -15.159 | 1.00 | 207.38 | C |
| ATOM | 1350 | CE1 | PHE | A | 204 | 37.829 | 59.365 | -17.534 | 1.00 | 207.38 | C |
| ATOM | 1351 | CE2 | PHE | A | 204 | 39.484 | 58.182 | -16.259 | 1.00 | 207.38 | C |
| ATOM | 1352 | CZ | PHE | A | 204 | 39.077 | 58.771 | -17.449 | 1.00 | 207.38 | C |
| ATOM | 1353 | N | THR | A | 205 | 36.395 | 55.886 | -13.989 | 1.00 | 146.74 | N |
| ATOM | 1354 | CA | THR | A | 205 | 36.835 | 54.540 | -14.327 | 1.00 | 146.74 | C |
| ATOM | 1355 | C | THR | A | 205 | 35.769 | 53.748 | -15.004 | 1.00 | 146.74 | C |
| ATOM | 1356 | O | THR | A | 205 | 35.995 | 53.203 | -16.081 | 1.00 | 146.74 | O |
| ATOM | 1357 | CB | THR | A | 205 | 37.306 | 53.742 | -13.088 | 1.00 | 177.59 | C |
| ATOM | 1358 | OG1 | THR | A | 205 | 38.625 | 54.157 | -12.716 | 1.00 | 177.59 | O |
| ATOM | 1359 | CG2 | THR | A | 205 | 37.325 | 52.253 | -13.394 | 1.00 | 177.59 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------|--------|---|
| ATOM | 1360 | N | ARG | A | 206 | 34.597 | 53.666 | -14.397 | 1.00 | 85.62 | N |
| ATOM | 1361 | CA | ARG | A | 206 | 33.597 | 52.890 | -15.086 | 1.00 | 85.62 | C |
| ATOM | 1362 | C | ARG | A | 206 | 32.677 | 53.682 | -16.016 | 1.00 | 85.62 | C |
| ATOM | 1363 | O | ARG | A | 206 | 31.805 | 54.438 | -15.617 | 1.00 | 85.62 | O |
| ATOM | 1364 | CB | ARG | A | 206 | 32.802 | 52.048 | -14.091 | 1.00 | 141.04 | C |
| ATOM | 1365 | CG | ARG | A | 206 | 33.104 | 50.547 | -14.226 | 1.00 | 141.04 | C |
| ATOM | 1366 | CD | ARG | A | 206 | 34.616 | 50.269 | -14.316 | 1.00 | 141.04 | C |
| ATOM | 1367 | NE | ARG | A | 206 | 34.908 | 48.967 | -14.920 | 1.00 | 141.04 | N |
| ATOM | 1368 | CZ | ARG | A | 206 | 36.126 | 48.537 | -15.246 | 1.00 | 141.04 | C |
| ATOM | 1369 | NH1 | ARG | A | 206 | 37.190 | 49.302 | -15.030 | 1.00 | 141.04 | N |
| ATOM | 1370 | NH2 | ARG | A | 206 | 36.282 | 47.340 | -15.799 | 1.00 | 141.04 | N |
| ATOM | 1371 | N | GLY | A | 207 | 32.903 | 53.480 | -17.298 | 1.00 | 207.38 | N |
| ATOM | 1372 | CA | GLY | A | 207 | 32.091 | 54.166 | -18.267 | 1.00 | 207.38 | C |
| ATOM | 1373 | C | GLY | A | 207 | 32.922 | 54.803 | -19.343 | 1.00 | 207.38 | C |
| ATOM | 1374 | O | GLY | A | 207 | 32.510 | 54.787 | -20.486 | 1.00 | 207.38 | O |
| ATOM | 1375 | N | TRP | A | 208 | 34.114 | 55.306 | -19.006 | 1.00 | 207.38 | N |
| ATOM | 1376 | CA | TRP | A | 208 | 34.968 | 55.989 | -20.036 | 1.00 | 207.38 | C |
| ATOM | 1377 | C | TRP | A | 208 | 33.931 | 56.883 | -20.833 | 1.00 | 207.38 | C |
| ATOM | 1378 | O | TRP | A | 208 | 33.476 | 56.453 | -21.883 | 1.00 | 207.38 | O |
| ATOM | 1379 | CB | TRP | A | 208 | 35.507 | 55.033 | -21.103 | 1.00 | 207.38 | C |
| ATOM | 1380 | CG | TRP | A | 208 | 36.589 | 54.053 | -20.775 | 1.00 | 207.38 | C |
| ATOM | 1381 | CD1 | TRP | A | 208 | 37.776 | 54.310 | -20.169 | 1.00 | 207.38 | C |
| ATOM | 1382 | CD2 | TRP | A | 208 | 36.631 | 52.678 | -21.170 | 1.00 | 207.38 | C |
| ATOM | 1383 | NE1 | TRP | A | 208 | 38.563 | 53.187 | -20.160 | 1.00 | 207.38 | N |
| ATOM | 1384 | CE2 | TRP | A | 208 | 37.883 | 52.167 | -20.770 | 1.00 | 207.38 | C |
| ATOM | 1385 | CE3 | TRP | A | 208 | 35.729 | 51.825 | -21.827 | 1.00 | 207.38 | C |
| ATOM | 1386 | CZ2 | TRP | A | 208 | 38.261 | 50.841 | -21.005 | 1.00 | 207.38 | C |
| ATOM | 1387 | CZ3 | TRP | A | 208 | 36.103 | 50.500 | -22.061 | 1.00 | 207.38 | C |
| ATOM | 1388 | CH2 | TRP | A | 208 | 37.358 | 50.024 | -21.650 | 1.00 | 207.38 | C |
| ATOM | 1389 | N | LYS | A | 209 | 33.494 | 58.038 | -20.307 | 1.00 | 116.12 | N |
| ATOM | 1390 | CA | LYS | A | 209 | 32.496 | 58.895 | -20.963 | 1.00 | 116.12 | C |
| ATOM | 1391 | C | LYS | A | 209 | 30.988 | 58.431 | -20.625 | 1.00 | 116.12 | C |
| ATOM | 1392 | O | LYS | A | 209 | 29.985 | 59.107 | -20.910 | 1.00 | 116.12 | O |
| ATOM | 1393 | CB | LYS | A | 209 | 32.709 | 58.889 | -22.482 | 1.00 | 165.73 | C |
| ATOM | 1394 | CG | LYS | A | 209 | 34.080 | 59.419 | -23.003 | 1.00 | 165.73 | C |
| ATOM | 1395 | CD | LYS | A | 209 | 35.249 | 58.465 | -22.724 | 1.00 | 165.73 | C |
| ATOM | 1396 | CE | LYS | A | 209 | 35.218 | 57.262 | -23.661 | 1.00 | 165.73 | C |
| ATOM | 1397 | NZ | LYS | A | 209 | 36.388 | 56.360 | -23.473 | 1.00 | 165.73 | N |
| ATOM | 1398 | N | LEU | A | 210 | 30.809 | 57.212 | -20.107 | 1.00 | 127.64 | N |
| ATOM | 1399 | CA | LEU | A | 210 | 29.469 | 56.644 | -19.779 | 1.00 | 127.64 | C |
| ATOM | 1400 | C | LEU | A | 210 | 29.425 | 56.949 | -18.332 | 1.00 | 127.64 | C |
| ATOM | 1401 | O | LEU | A | 210 | 28.433 | 57.441 | -17.821 | 1.00 | 127.64 | O |
| ATOM | 1402 | CB | LEU | A | 210 | 29.464 | 55.132 | -20.032 | 1.00 | 124.60 | C |
| ATOM | 1403 | CG | LEU | A | 210 | 28.302 | 54.242 | -19.564 | 1.00 | 124.60 | C |
| ATOM | 1404 | CD1 | LEU | A | 210 | 28.434 | 54.025 | -18.071 | 1.00 | 124.60 | C |
| ATOM | 1405 | CD2 | LEU | A | 210 | 26.946 | 54.824 | -19.947 | 1.00 | 124.60 | C |
| ATOM | 1406 | N | THR | A | 211 | 30.557 | 56.701 | -17.690 | 1.00 | 183.63 | N |
| ATOM | 1407 | CA | THR | A | 211 | 30.698 | 57.019 | -16.284 | 1.00 | 183.63 | C |
| ATOM | 1408 | C | THR | A | 211 | 30.559 | 58.529 | -16.289 | 1.00 | 183.63 | C |
| ATOM | 1409 | O | THR | A | 211 | 30.375 | 59.178 | -15.250 | 1.00 | 183.63 | O |
| ATOM | 1410 | CB | THR | A | 211 | 32.107 | 56.681 | -15.776 | 1.00 | 185.57 | C |
| ATOM | 1411 | OG1 | THR | A | 211 | 32.180 | 56.945 | -14.373 | 1.00 | 185.57 | O |
| ATOM | 1412 | CG2 | THR | A | 211 | 33.154 | 57.524 | -16.487 | 1.00 | 185.57 | C |
| ATOM | 1413 | N | LEU | A | 212 | 30.698 | 59.068 | -17.499 | 1.00 | 140.18 | N |
| ATOM | 1414 | CA | LEU | A | 212 | 30.605 | 60.495 | -17.738 | 1.00 | 140.18 | C |
| ATOM | 1415 | C | LEU | A | 212 | 29.166 | 60.781 | -17.982 | 1.00 | 140.18 | C |
| ATOM | 1416 | O | LEU | A | 212 | 28.703 | 61.852 | -17.665 | 1.00 | 140.18 | O |
| ATOM | 1417 | CB | LEU | A | 212 | 31.453 | 60.906 | -18.946 | 1.00 | 175.17 | C |
| ATOM | 1418 | CG | LEU | A | 212 | 31.395 | 62.372 | -19.399 | 1.00 | 175.17 | C |
| ATOM | 1419 | CD1 | LEU | A | 212 | 31.633 | 63.317 | -18.231 | 1.00 | 175.17 | C |
| ATOM | 1420 | CD2 | LEU | A | 212 | 32.440 | 62.593 | -20.476 | 1.00 | 175.17 | C |
| ATOM | 1421 | N | VAL | A | 213 | 28.448 | 59.827 | -18.561 | 1.00 | 112.44 | N |
| ATOM | 1422 | CA | VAL | A | 213 | 27.019 | 60.050 | -18.742 | 1.00 | 112.44 | C |
| ATOM | 1423 | C | VAL | A | 213 | 26.662 | 60.394 | -17.312 | 1.00 | 112.44 | C |
| ATOM | 1424 | O | VAL | A | 213 | 25.915 | 61.330 | -17.038 | 1.00 | 112.44 | O |
| ATOM | 1425 | CB | VAL | A | 213 | 26.272 | 58.768 | -19.152 | 1.00 | 180.46 | C |
| ATOM | 1426 | CG1 | VAL | A | 213 | 24.778 | 59.060 | -19.244 | 1.00 | 180.46 | C |
| ATOM | 1427 | CG2 | VAL | A | 213 | 26.801 | 58.245 | -20.482 | 1.00 | 180.46 | C |
| ATOM | 1428 | N | ILE | A | 214 | 27.249 | 59.621 | -16.408 | 1.00 | 120.11 | N |
| ATOM | 1429 | CA | ILE | A | 214 | 27.077 | 59.826 | -14.988 | 1.00 | 120.11 | C |
| ATOM | 1430 | C | ILE | A | 214 | 27.421 | 61.265 | -14.783 | 1.00 | 120.11 | C |
| ATOM | 1431 | O | ILE | A | 214 | 26.546 | 62.132 | -14.804 | 1.00 | 120.11 | O |
| ATOM | 1432 | CB | ILE | A | 214 | 28.088 | 59.014 | -14.175 | 1.00 | 168.62 | C |
| ATOM | 1433 | CG1 | ILE | A | 214 | 27.924 | 57.524 | -14.460 | 1.00 | 168.62 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 1434 | CG2 | ILE | A | 214 | 27.942 | 59.340 | -12.701 | 1.00168.62 | C |
| ATOM | 1435 | CD1 | ILE | A | 214 | 28.882 | 56.650 | -13.670 | 1.00168.62 | C |
| ATOM | 1436 | N | LEU | A | 215 | 28.726 | 61.487 | -14.612 | 1.00207.34 | N |
| ATOM | 1437 | CA | LEU | A | 215 | 29.310 | 62.802 | -14.379 | 1.00207.34 | C |
| ATOM | 1438 | C | LEU | A | 215 | 28.359 | 63.881 | -14.906 | 1.00207.34 | C |
| ATOM | 1439 | O | LEU | A | 215 | 27.924 | 64.787 | -14.177 | 1.00207.34 | O |
| ATOM | 1440 | CB | LEU | A | 215 | 30.697 | 62.906 | -15.037 | 1.00154.60 | C |
| ATOM | 1441 | CG | LEU | A | 215 | 31.776 | 61.894 | -14.611 | 1.00154.60 | C |
| ATOM | 1442 | CD1 | LEU | A | 215 | 33.113 | 62.265 | -15.259 | 1.00154.60 | C |
| ATOM | 1443 | CD2 | LEU | A | 215 | 31.908 | 61.871 | -13.092 | 1.00154.60 | C |
| ATOM | 1444 | N | ALA | A | 216 | 28.001 | 63.742 | -16.170 | 1.00160.91 | N |
| ATOM | 1445 | CA | ALA | A | 216 | 27.094 | 64.666 | -16.804 | 1.00160.91 | C |
| ATOM | 1446 | C | ALA | A | 216 | 25.756 | 64.756 | -16.058 | 1.00160.91 | C |
| ATOM | 1447 | O | ALA | A | 216 | 25.651 | 65.389 | -14.994 | 1.00160.91 | O |
| ATOM | 1448 | CB | ALA | A | 216 | 26.856 | 64.256 | -18.253 | 1.00198.72 | C |
| ATOM | 1449 | N | ILE | A | 217 | 24.741 | 64.104 | -16.620 | 1.00142.72 | N |
| ATOM | 1450 | CA | ILE | A | 217 | 23.400 | 64.141 | -16.045 | 1.00142.72 | C |
| ATOM | 1451 | C | ILE | A | 217 | 23.440 | 64.190 | -14.513 | 1.00142.72 | C |
| ATOM | 1452 | O | ILE | A | 217 | 23.019 | 65.184 | -13.892 | 1.00142.72 | O |
| ATOM | 1453 | CB | ILE | A | 217 | 22.520 | 62.951 | -16.523 | 1.00 95.05 | C |
| ATOM | 1454 | CG1 | ILE | A | 217 | 23.367 | 61.704 | -16.770 | 1.00 95.05 | C |
| ATOM | 1455 | CG2 | ILE | A | 217 | 21.802 | 63.329 | -17.792 | 1.00 95.05 | C |
| ATOM | 1456 | CD1 | ILE | A | 217 | 23.800 | 60.992 | -15.528 | 1.00 95.05 | C |
| ATOM | 1457 | N | SER | A | 218 | 23.988 | 63.132 | -13.921 | 1.00182.26 | N |
| ATOM | 1458 | CA | SER | A | 218 | 24.071 | 63.043 | -12.483 | 1.00182.26 | C |
| ATOM | 1459 | C | SER | A | 218 | 24.633 | 64.370 | -11.919 | 1.00182.26 | C |
| ATOM | 1460 | O | SER | A | 218 | 23.840 | 65.267 | -11.632 | 1.00182.26 | O |
| ATOM | 1461 | CB | SER | A | 218 | 24.928 | 61.851 | -12.078 | 1.00 51.97 | C |
| ATOM | 1462 | OG | SER | A | 218 | 24.254 | 60.660 | -12.425 | 1.00 51.97 | O |
| ATOM | 1463 | N | PRO | A | 219 | 25.972 | 64.549 | -11.794 | 1.00201.32 | N |
| ATOM | 1464 | CA | PRO | A | 219 | 26.403 | 65.840 | -11.244 | 1.00201.32 | C |
| ATOM | 1465 | C | PRO | A | 219 | 25.624 | 67.099 | -11.608 | 1.00201.32 | C |
| ATOM | 1466 | O | PRO | A | 219 | 25.584 | 68.046 | -10.821 | 1.00201.32 | O |
| ATOM | 1467 | CB | PRO | A | 219 | 27.864 | 65.892 | -11.661 | 1.00145.68 | C |
| ATOM | 1468 | CG | PRO | A | 219 | 28.278 | 64.464 | -11.375 | 1.00145.68 | C |
| ATOM | 1469 | CD | PRO | A | 219 | 27.122 | 63.638 | -11.943 | 1.00145.68 | C |
| ATOM | 1470 | N | VAL | A | 220 | 24.989 | 67.117 | -12.775 | 1.00161.75 | N |
| ATOM | 1471 | CA | VAL | A | 220 | 24.226 | 68.297 | -13.167 | 1.00161.75 | C |
| ATOM | 1472 | C | VAL | A | 220 | 22.931 | 68.413 | -12.381 | 1.00161.75 | C |
| ATOM | 1473 | O | VAL | A | 220 | 22.591 | 69.477 | -11.822 | 1.00161.75 | O |
| ATOM | 1474 | CB | VAL | A | 220 | 23.881 | 68.275 | -14.670 | 1.00126.27 | C |
| ATOM | 1475 | CG1 | VAL | A | 220 | 23.135 | 69.559 | -15.045 | 1.00126.27 | C |
| ATOM | 1476 | CG2 | VAL | A | 220 | 25.151 | 68.122 | -15.494 | 1.00126.27 | C |
| ATOM | 1477 | N | LEU | A | 221 | 22.187 | 67.319 | -12.365 | 1.00162.24 | N |
| ATOM | 1478 | CA | LEU | A | 221 | 20.960 | 67.309 | -11.608 | 1.00162.24 | C |
| ATOM | 1479 | C | LEU | A | 221 | 21.360 | 67.707 | -10.191 | 1.00162.24 | C |
| ATOM | 1480 | O | LEU | A | 221 | 20.817 | 68.657 | -9.623 | 1.00162.24 | O |
| ATOM | 1481 | CB | LEU | A | 221 | 20.342 | 65.912 | -11.586 | 1.00146.49 | C |
| ATOM | 1482 | CG | LEU | A | 221 | 20.009 | 65.323 | -12.956 | 1.00146.49 | C |
| ATOM | 1483 | CD1 | LEU | A | 221 | 19.318 | 63.988 | -12.776 | 1.00146.49 | C |
| ATOM | 1484 | CD2 | LEU | A | 221 | 19.112 | 66.279 | -13.727 | 1.00146.49 | C |
| ATOM | 1485 | N | GLY | A | 222 | 22.333 | 66.975 | -9.646 | 1.00207.38 | N |
| ATOM | 1486 | CA | GLY | A | 222 | 22.824 | 67.235 | -8.303 | 1.00207.38 | C |
| ATOM | 1487 | C | GLY | A | 222 | 23.071 | 68.711 | -8.089 | 1.00207.38 | C |
| ATOM | 1488 | O | GLY | A | 222 | 22.937 | 69.218 | -6.969 | 1.00207.38 | O |
| ATOM | 1489 | N | LEU | A | 223 | 23.440 | 69.402 | -9.165 | 1.00192.35 | N |
| ATOM | 1490 | CA | LEU | A | 223 | 23.677 | 70.830 | -9.077 | 1.00192.35 | C |
| ATOM | 1491 | C | LEU | A | 223 | 22.356 | 71.524 | -8.793 | 1.00192.35 | C |
| ATOM | 1492 | O | LEU | A | 223 | 22.234 | 72.246 | -7.800 | 1.00192.35 | O |
| ATOM | 1493 | CB | LEU | A | 223 | 24.298 | 71.358 | -10.372 | 1.00166.80 | C |
| ATOM | 1494 | CG | LEU | A | 223 | 25.716 | 70.862 | -10.675 | 1.00166.80 | C |
| ATOM | 1495 | CD1 | LEU | A | 223 | 26.276 | 71.629 | -11.866 | 1.00166.80 | C |
| ATOM | 1496 | CD2 | LEU | A | 223 | 26.607 | 71.055 | -9.452 | 1.00166.80 | C |
| ATOM | 1497 | N | SER | A | 224 | 21.351 | 71.297 | -9.632 | 1.00118.60 | N |
| ATOM | 1498 | CA | SER | A | 224 | 20.070 | 71.960 | -9.371 | 1.00118.60 | C |
| ATOM | 1499 | C | SER | A | 224 | 19.570 | 71.695 | -7.960 | 1.00118.60 | C |
| ATOM | 1500 | O | SER | A | 224 | 19.000 | 72.593 | -7.324 | 1.00118.60 | O |
| ATOM | 1501 | CB | SER | A | 224 | 19.028 | 71.509 | -10.403 | 1.00131.99 | C |
| ATOM | 1502 | OG | SER | A | 224 | 18.784 | 70.117 | -10.327 | 1.00131.99 | O |
| ATOM | 1503 | N | ALA | A | 225 | 19.776 | 70.466 | -7.477 | 1.00207.38 | N |
| ATOM | 1504 | CA | ALA | A | 225 | 19.349 | 70.088 | -6.126 | 1.00207.38 | C |
| ATOM | 1505 | C | ALA | A | 225 | 20.075 | 70.986 | -5.129 | 1.00207.38 | C |
| ATOM | 1506 | O | ALA | A | 225 | 19.446 | 71.793 | -4.442 | 1.00207.38 | O |
| ATOM | 1507 | CB | ALA | A | 225 | 19.685 | 68.653 | -5.876 | 1.00 26.40 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1508 | N | GLY | A | 226 | 21.396 | 70.862 | -5.072 | 1.00147.39 | N |
| ATOM | 1509 | CA | GLY | A | 226 | 22.169 | 71.674 | -4.150 | 1.00147.39 | C |
| ATOM | 1510 | C | GLY | A | 226 | 21.742 | 73.135 | -4.075 | 1.00147.39 | C |
| ATOM | 1511 | O | GLY | A | 226 | 21.485 | 73.663 | -2.982 | 1.00147.39 | O |
| ATOM | 1512 | N | ILE | A | 227 | 21.658 | 73.791 | -5.233 | 1.00179.06 | N |
| ATOM | 1513 | CA | ILE | A | 227 | 21.274 | 75.201 | -5.287 | 1.00179.06 | C |
| ATOM | 1514 | C | ILE | A | 227 | 19.869 | 75.476 | -4.805 | 1.00179.06 | C |
| ATOM | 1515 | O | ILE | A | 227 | 19.697 | 75.987 | -3.707 | 1.00179.06 | O |
| ATOM | 1516 | CB | ILE | A | 227 | 21.351 | 75.769 | -6.721 | 1.00109.37 | C |
| ATOM | 1517 | CG1 | ILE | A | 227 | 22.764 | 75.622 | -7.279 | 1.00109.37 | C |
| ATOM | 1518 | CG2 | ILE | A | 227 | 20.914 | 77.229 | -6.722 | 1.00109.37 | C |
| ATOM | 1519 | CD1 | ILE | A | 227 | 22.831 | 75.817 | -8.768 | 1.00109.37 | C |
| ATOM | 1520 | N | TRP | A | 228 | 18.869 | 75.144 | -5.628 | 1.00201.81 | N |
| ATOM | 1521 | CA | TRP | A | 228 | 17.477 | 75.419 | -5.266 | 1.00201.81 | C |
| ATOM | 1522 | C | TRP | A | 228 | 17.164 | 75.044 | -3.828 | 1.00201.81 | C |
| ATOM | 1523 | O | TRP | A | 228 | 16.699 | 75.877 | -3.046 | 1.00201.81 | O |
| ATOM | 1524 | CB | TRP | A | 228 | 16.480 | 74.722 | -6.203 | 1.00207.38 | C |
| ATOM | 1525 | CG | TRP | A | 228 | 15.400 | 75.663 | -6.696 | 1.00207.38 | C |
| ATOM | 1526 | CD1 | TRP | A | 228 | 15.471 | 76.489 | -7.782 | 1.00207.38 | C |
| ATOM | 1527 | CD2 | TRP | A | 228 | 14.127 | 75.917 | -6.086 | 1.00207.38 | C |
| ATOM | 1528 | NE1 | TRP | A | 228 | 14.327 | 77.242 | -7.885 | 1.00207.38 | N |
| ATOM | 1529 | CE2 | TRP | A | 228 | 13.484 | 76.913 | -6.858 | 1.00207.38 | C |
| ATOM | 1530 | CE3 | TRP | A | 228 | 13.467 | 75.404 | -4.961 | 1.00207.38 | C |
| ATOM | 1531 | CZ2 | TRP | A | 228 | 12.216 | 77.403 | -6.543 | 1.00207.38 | C |
| ATOM | 1532 | CZ3 | TRP | A | 228 | 12.205 | 75.894 | -4.648 | 1.00207.38 | C |
| ATOM | 1533 | CH2 | TRP | A | 228 | 11.594 | 76.885 | -5.438 | 1.00207.38 | C |
| ATOM | 1534 | N | ALA | A | 229 | 17.409 | 73.794 | -3.471 | 1.00173.57 | N |
| ATOM | 1535 | CA | ALA | A | 229 | 17.163 | 73.383 | -2.102 | 1.00173.57 | C |
| ATOM | 1536 | C | ALA | A | 229 | 17.833 | 74.377 | -1.137 | 1.00173.57 | C |
| ATOM | 1537 | O | ALA | A | 229 | 17.148 | 75.124 | -0.432 | 1.00173.57 | O |
| ATOM | 1538 | CB | ALA | A | 229 | 17.712 | 71.973 | -1.870 | 1.00182.88 | C |
| ATOM | 1539 | N | LYS | A | 230 | 19.167 | 74.399 | -1.117 | 1.00117.86 | N |
| ATOM | 1540 | CA | LYS | A | 230 | 19.891 | 75.303 | -0.227 | 1.00117.86 | C |
| ATOM | 1541 | C | LYS | A | 230 | 19.428 | 76.756 | -0.336 | 1.00117.86 | C |
| ATOM | 1542 | O | LYS | A | 230 | 19.480 | 77.506 | 0.635 | 1.00117.86 | O |
| ATOM | 1543 | CB | LYS | A | 230 | 21.400 | 75.183 | -0.462 | 1.00203.29 | C |
| ATOM | 1544 | CG | LYS | A | 230 | 21.938 | 73.804 | -0.089 | 1.00203.29 | C |
| ATOM | 1545 | CD | LYS | A | 230 | 21.467 | 73.401 | 1.309 | 1.00203.29 | C |
| ATOM | 1546 | CE | LYS | A | 230 | 21.675 | 71.920 | 1.579 | 1.00203.29 | C |
| ATOM | 1547 | NZ | LYS | A | 230 | 21.026 | 71.507 | 2.857 | 1.00203.29 | N |
| ATOM | 1548 | N | ILE | A | 231 | 18.973 | 77.152 | -1.516 | 1.00176.64 | N |
| ATOM | 1549 | CA | ILE | A | 231 | 18.478 | 78.506 | -1.698 | 1.00176.64 | C |
| ATOM | 1550 | C | ILE | A | 231 | 17.363 | 78.681 | -0.677 | 1.00176.64 | C |
| ATOM | 1551 | O | ILE | A | 231 | 17.474 | 79.478 | 0.259 | 1.00176.64 | O |
| ATOM | 1552 | CB | ILE | A | 231 | 17.906 | 78.721 | -3.122 | 1.00177.13 | C |
| ATOM | 1553 | CG1 | ILE | A | 231 | 19.048 | 78.788 | -4.141 | 1.00177.13 | C |
| ATOM | 1554 | CG2 | ILE | A | 231 | 17.066 | 79.989 | -3.164 | 1.00177.13 | C |
| ATOM | 1555 | CD1 | ILE | A | 231 | 18.593 | 79.066 | -5.562 | 1.00177.13 | C |
| ATOM | 1556 | N | LEU | A | 232 | 16.295 | 77.912 | -0.841 | 1.00142.31 | N |
| ATOM | 1557 | CA | LEU | A | 232 | 15.174 | 78.005 | 0.079 | 1.00142.31 | C |
| ATOM | 1558 | C | LEU | A | 232 | 15.621 | 77.812 | 1.512 | 1.00142.31 | C |
| ATOM | 1559 | O | LEU | A | 232 | 15.137 | 78.490 | 2.405 | 1.00142.31 | O |
| ATOM | 1560 | CB | LEU | A | 232 | 14.108 | 76.966 | -0.280 | 1.00207.38 | C |
| ATOM | 1561 | CG | LEU | A | 232 | 13.207 | 77.311 | -1.469 | 1.00207.38 | C |
| ATOM | 1562 | CD1 | LEU | A | 232 | 12.258 | 78.435 | -1.082 | 1.00207.38 | C |
| ATOM | 1563 | CD2 | LEU | A | 232 | 14.059 | 77.717 | -2.661 | 1.00207.38 | C |
| ATOM | 1564 | N | SER | A | 233 | 16.549 | 76.894 | 1.741 | 1.00113.11 | N |
| ATOM | 1565 | CA | SER | A | 233 | 17.023 | 76.674 | 3.097 | 1.00113.11 | C |
| ATOM | 1566 | C | SER | A | 233 | 17.480 | 77.982 | 3.757 | 1.00113.11 | C |
| ATOM | 1567 | O | SER | A | 233 | 17.121 | 78.267 | 4.904 | 1.00113.11 | O |
| ATOM | 1568 | CB | SER | A | 233 | 18.157 | 75.649 | 3.110 | 1.00207.38 | C |
| ATOM | 1569 | OG | SER | A | 233 | 17.654 | 74.346 | 2.864 | 1.00207.38 | O |
| ATOM | 1570 | N | SER | A | 234 | 18.265 | 78.789 | 3.059 | 1.00207.02 | N |
| ATOM | 1571 | CA | SER | A | 234 | 18.659 | 80.050 | 3.662 | 1.00207.02 | C |
| ATOM | 1572 | C | SER | A | 234 | 17.339 | 80.808 | 3.876 | 1.00207.02 | C |
| ATOM | 1573 | O | SER | A | 234 | 17.087 | 81.364 | 4.953 | 1.00207.02 | O |
| ATOM | 1574 | CB | SER | A | 234 | 19.565 | 80.850 | 2.722 | 1.00207.38 | C |
| ATOM | 1575 | OG | SER | A | 234 | 18.839 | 81.365 | 1.618 | 1.00207.38 | O |
| ATOM | 1576 | N | PHE | A | 235 | 16.492 | 80.802 | 2.846 | 1.00126.33 | N |
| ATOM | 1577 | CA | PHE | A | 235 | 15.184 | 81.466 | 2.887 | 1.00126.33 | C |
| ATOM | 1578 | C | PHE | A | 235 | 14.426 | 81.097 | 4.187 | 1.00126.33 | C |
| ATOM | 1579 | O | PHE | A | 235 | 13.792 | 81.942 | 4.848 | 1.00126.33 | O |
| ATOM | 1580 | CB | PHE | A | 235 | 14.372 | 81.011 | 1.670 | 1.00205.93 | C |
| ATOM | 1581 | CG | PHE | A | 235 | 13.173 | 81.856 | 1.378 | 1.00205.93 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1582 | CD1 | PHE | A | 235 | 13.303 | 83.079 | 0.728 | 1.00205.93 | C |
| ATOM | 1583 | CD2 | PHE | A | 235 | 11.905 | 81.420 | 1.736 | 1.00205.93 | C |
| ATOM | 1584 | CE1 | PHE | A | 235 | 12.182 | 83.854 | 0.439 | 1.00205.93 | C |
| ATOM | 1585 | CE2 | PHE | A | 235 | 10.782 | 82.187 | 1.452 | 1.00205.93 | C |
| ATOM | 1586 | CZ | PHE | A | 235 | 10.921 | 83.405 | 0.802 | 1.00205.93 | C |
| ATOM | 1587 | N | THR | A | 236 | 14.507 | 79.820 | 4.542 | 1.00207.38 | N |
| ATOM | 1588 | CA | THR | A | 236 | 13.880 | 79.285 | 5.744 | 1.00207.38 | C |
| ATOM | 1589 | C | THR | A | 236 | 14.425 | 79.979 | 6.985 | 1.00207.38 | C |
| ATOM | 1590 | O | THR | A | 236 | 13.667 | 80.546 | 7.781 | 1.00207.38 | O |
| ATOM | 1591 | CB | THR | A | 236 | 14.152 | 77.765 | 5.874 | 1.00111.48 | C |
| ATOM | 1592 | OG1 | THR | A | 236 | 13.143 | 77.034 | 5.164 | 1.00111.48 | O |
| ATOM | 1593 | CG2 | THR | A | 236 | 14.185 | 77.335 | 7.340 | 1.00111.48 | C |
| ATOM | 1594 | N | ASP | A | 237 | 15.746 | 79.914 | 7.150 | 1.00117.13 | N |
| ATOM | 1595 | CA | ASP | A | 237 | 16.381 | 80.533 | 8.304 | 1.00117.13 | C |
| ATOM | 1596 | C | ASP | A | 237 | 15.899 | 81.952 | 8.475 | 1.00117.13 | C |
| ATOM | 1597 | O | ASP | A | 237 | 15.447 | 82.313 | 9.557 | 1.00117.13 | O |
| ATOM | 1598 | CB | ASP | A | 237 | 17.907 | 80.508 | 8.156 | 1.00141.55 | C |
| ATOM | 1599 | CG | ASP | A | 237 | 18.557 | 79.448 | 9.024 | 1.00141.55 | C |
| ATOM | 1600 | OD1 | ASP | A | 237 | 19.796 | 79.303 | 8.968 | 1.00141.55 | O |
| ATOM | 1601 | OD2 | ASP | A | 237 | 17.824 | 78.764 | 9.769 | 1.00141.55 | O |
| ATOM | 1602 | N | LYS | A | 238 | 15.982 | 82.753 | 7.416 | 1.00150.20 | N |
| ATOM | 1603 | CA | LYS | A | 238 | 15.527 | 84.134 | 7.501 | 1.00150.20 | C |
| ATOM | 1604 | C | LYS | A | 238 | 14.131 | 84.098 | 8.137 | 1.00150.20 | C |
| ATOM | 1605 | O | LYS | A | 238 | 13.846 | 84.837 | 9.106 | 1.00150.20 | O |
| ATOM | 1606 | CB | LYS | A | 238 | 15.474 | 84.752 | 6.101 | 1.00156.59 | C |
| ATOM | 1607 | CG | LYS | A | 238 | 15.435 | 86.277 | 6.051 | 1.00156.59 | C |
| ATOM | 1608 | CD | LYS | A | 238 | 14.035 | 86.842 | 6.255 | 1.00156.59 | C |
| ATOM | 1609 | CE | LYS | A | 238 | 13.738 | 87.131 | 7.713 | 1.00156.59 | C |
| ATOM | 1610 | NZ | LYS | A | 238 | 12.377 | 87.718 | 7.873 | 1.00156.59 | N |
| ATOM | 1611 | N | GLU | A | 239 | 13.275 | 83.212 | 7.625 | 1.00127.27 | N |
| ATOM | 1612 | CA | GLU | A | 239 | 11.932 | 83.078 | 8.181 | 1.00127.27 | C |
| ATOM | 1613 | C | GLU | A | 239 | 11.967 | 82.862 | 9.684 | 1.00127.27 | C |
| ATOM | 1614 | O | GLU | A | 239 | 11.246 | 83.538 | 10.416 | 1.00127.27 | O |
| ATOM | 1615 | CB | GLU | A | 239 | 11.202 | 81.919 | 7.500 | 1.00160.07 | C |
| ATOM | 1616 | CG | GLU | A | 239 | 10.919 | 82.178 | 6.035 | 1.00160.07 | C |
| ATOM | 1617 | CD | GLU | A | 239 | 10.276 | 83.535 | 5.819 | 1.00160.07 | C |
| ATOM | 1618 | OE1 | GLU | A | 239 | 10.940 | 84.561 | 6.083 | 1.00160.07 | O |
| ATOM | 1619 | OE2 | GLU | A | 239 | 9.104 | 83.580 | 5.394 | 1.00160.07 | O |
| ATOM | 1620 | N | LEU | A | 240 | 12.815 | 81.945 | 10.152 | 1.00125.60 | N |
| ATOM | 1621 | CA | LEU | A | 240 | 12.933 | 81.665 | 11.592 | 1.00125.60 | C |
| ATOM | 1622 | C | LEU | A | 240 | 13.384 | 82.859 | 12.468 | 1.00125.60 | C |
| ATOM | 1623 | O | LEU | A | 240 | 12.876 | 83.032 | 13.582 | 1.00125.60 | O |
| ATOM | 1624 | CB | LEU | A | 240 | 13.866 | 80.471 | 11.833 | 1.00140.54 | C |
| ATOM | 1625 | CG | LEU | A | 240 | 13.301 | 79.065 | 11.587 | 1.00140.54 | C |
| ATOM | 1626 | CD1 | LEU | A | 240 | 14.376 | 78.020 | 11.830 | 1.00140.54 | C |
| ATOM | 1627 | CD2 | LEU | A | 240 | 12.122 | 78.819 | 12.512 | 1.00140.54 | C |
| ATOM | 1628 | N | HIS | A | 241 | 14.329 | 83.664 | 11.969 | 1.00 98.68 | N |
| ATOM | 1629 | CA | HIS | A | 241 | 14.829 | 84.854 | 12.678 | 1.00 98.68 | C |
| ATOM | 1630 | C | HIS | A | 241 | 13.702 | 85.854 | 12.909 | 1.00 98.68 | C |
| ATOM | 1631 | O | HIS | A | 241 | 13.470 | 86.304 | 14.050 | 1.00 98.68 | O |
| ATOM | 1632 | CB | HIS | A | 241 | 15.945 | 85.521 | 11.873 | 1.00192.91 | C |
| ATOM | 1633 | CG | HIS | A | 241 | 17.244 | 84.779 | 11.913 | 1.00192.91 | C |
| ATOM | 1634 | ND1 | HIS | A | 241 | 17.353 | 83.450 | 11.564 | 1.00192.91 | N |
| ATOM | 1635 | CD2 | HIS | A | 241 | 18.488 | 85.179 | 12.266 | 1.00192.91 | C |
| ATOM | 1636 | CE1 | HIS | A | 241 | 18.609 | 83.063 | 11.701 | 1.00192.91 | C |
| ATOM | 1637 | NE2 | HIS | A | 241 | 19.318 | 84.093 | 12.126 | 1.00192.91 | N |
| ATOM | 1638 | N | ALA | A | 242 | 13.006 | 86.214 | 11.831 | 1.00113.48 | N |
| ATOM | 1639 | CA | ALA | A | 242 | 11.887 | 87.138 | 11.985 | 1.00113.48 | C |
| ATOM | 1640 | C | ALA | A | 242 | 10.928 | 86.511 | 13.036 | 1.00113.48 | C |
| ATOM | 1641 | O | ALA | A | 242 | 10.356 | 87.204 | 13.903 | 1.00113.48 | O |
| ATOM | 1642 | CB | ALA | A | 242 | 11.152 | 87.310 | 10.663 | 1.00 23.24 | C |
| ATOM | 1643 | N | TYR | A | 243 | 10.780 | 85.193 | 12.982 | 1.00 93.72 | N |
| ATOM | 1644 | CA | TYR | A | 243 | 9.964 | 84.514 | 13.967 | 1.00 93.72 | C |
| ATOM | 1645 | C | TYR | A | 243 | 10.465 | 85.021 | 15.328 | 1.00 93.72 | C |
| ATOM | 1646 | O | TYR | A | 243 | 9.740 | 85.731 | 16.021 | 1.00 93.72 | O |
| ATOM | 1647 | CB | TYR | A | 243 | 10.165 | 82.994 | 13.836 | 1.00207.38 | C |
| ATOM | 1648 | CG | TYR | A | 243 | 9.599 | 82.128 | 14.950 | 1.00207.38 | C |
| ATOM | 1649 | CD1 | TYR | A | 243 | 9.856 | 80.754 | 14.979 | 1.00207.38 | C |
| ATOM | 1650 | CD2 | TYR | A | 243 | 8.841 | 82.674 | 15.984 | 1.00207.38 | C |
| ATOM | 1651 | CE1 | TYR | A | 243 | 9.377 | 79.949 | 16.010 | 1.00207.38 | C |
| ATOM | 1652 | CE2 | TYR | A | 243 | 8.358 | 81.875 | 17.023 | 1.00207.38 | C |
| ATOM | 1653 | CZ | TYR | A | 243 | 8.633 | 80.516 | 17.028 | 1.00207.38 | C |
| ATOM | 1654 | OH | TYR | A | 243 | 8.180 | 79.718 | 18.052 | 1.00207.38 | O |
| ATOM | 1655 | N | ALA | A | 244 | 11.710 | 84.700 | 15.691 | 1.00 72.00 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 1656 | CA | ALA | A | 244 | 12.314 | 85.102 | 16.990 | 1.00 | 72.00 | C |
| ATOM | 1657 | C | ALA | A | 244 | 11.987 | 86.502 | 17.514 | 1.00 | 72.00 | C |
| ATOM | 1658 | O | ALA | A | 244 | 11.746 | 86.707 | 18.727 | 1.00 | 72.00 | O |
| ATOM | 1659 | CB | ALA | A | 244 | 13.833 | 84.922 | 16.914 | 1.00 | 159.79 | C |
| ATOM | 1660 | N | LYS | A | 245 | 12.014 | 87.469 | 16.604 | 1.00 | 84.09 | N |
| ATOM | 1661 | CA | LYS | A | 245 | 11.698 | 88.839 | 16.978 | 1.00 | 84.09 | C |
| ATOM | 1662 | C | LYS | A | 245 | 10.246 | 88.852 | 17.492 | 1.00 | 84.09 | C |
| ATOM | 1663 | O | LYS | A | 245 | 9.950 | 89.286 | 18.635 | 1.00 | 84.09 | O |
| ATOM | 1664 | CB | LYS | A | 245 | 11.845 | 89.759 | 15.759 | 1.00 | 137.65 | C |
| ATOM | 1665 | CG | LYS | A | 245 | 12.470 | 91.130 | 16.028 | 1.00 | 137.65 | C |
| ATOM | 1666 | CD | LYS | A | 245 | 13.977 | 91.156 | 15.753 | 1.00 | 137.65 | C |
| ATOM | 1667 | CE | LYS | A | 245 | 14.800 | 90.726 | 16.957 | 1.00 | 137.65 | C |
| ATOM | 1668 | NZ | LYS | A | 245 | 14.551 | 89.316 | 17.359 | 1.00 | 137.65 | N |
| ATOM | 1669 | N | ALA | A | 246 | 9.336 | 88.360 | 16.657 | 1.00 | 66.40 | N |
| ATOM | 1670 | CA | ALA | A | 246 | 7.916 | 88.298 | 17.029 | 1.00 | 66.40 | C |
| ATOM | 1671 | C | ALA | A | 246 | 7.659 | 87.599 | 18.391 | 1.00 | 66.40 | C |
| ATOM | 1672 | O | ALA | A | 246 | 6.732 | 87.980 | 19.111 | 1.00 | 66.40 | O |
| ATOM | 1673 | CB | ALA | A | 246 | 7.118 | 87.593 | 15.930 | 1.00 | 172.54 | C |
| ATOM | 1674 | N | GLY | A | 247 | 8.482 | 86.582 | 18.715 | 1.00 | 101.48 | N |
| ATOM | 1675 | CA | GLY | A | 247 | 8.382 | 85.805 | 19.962 | 1.00 | 101.48 | C |
| ATOM | 1676 | C | GLY | A | 247 | 8.768 | 86.540 | 21.238 | 1.00 | 101.48 | C |
| ATOM | 1677 | O | GLY | A | 247 | 8.252 | 86.214 | 22.326 | 1.00 | 101.48 | O |
| ATOM | 1678 | N | ALA | A | 248 | 9.687 | 87.511 | 21.107 | 1.00 | 125.56 | N |
| ATOM | 1679 | CA | ALA | A | 248 | 10.112 | 88.386 | 22.236 | 1.00 | 125.56 | C |
| ATOM | 1680 | C | ALA | A | 248 | 8.979 | 89.405 | 22.553 | 1.00 | 125.56 | C |
| ATOM | 1681 | O | ALA | A | 248 | 8.630 | 89.706 | 23.760 | 1.00 | 125.56 | O |
| ATOM | 1682 | CB | ALA | A | 248 | 11.394 | 89.120 | 21.871 | 1.00 | 73.70 | C |
| ATOM | 1683 | N | VAL | A | 249 | 8.432 | 89.950 | 21.457 | 1.00 | 100.08 | N |
| ATOM | 1684 | CA | VAL | A | 249 | 7.292 | 90.860 | 21.564 | 1.00 | 100.08 | C |
| ATOM | 1685 | C | VAL | A | 249 | 6.085 | 89.954 | 21.915 | 1.00 | 100.08 | C |
| ATOM | 1686 | O | VAL | A | 249 | 4.924 | 90.391 | 22.007 | 1.00 | 100.08 | O |
| ATOM | 1687 | CB | VAL | A | 249 | 7.034 | 91.595 | 20.234 | 1.00 | 163.95 | C |
| ATOM | 1688 | CG1 | VAL | A | 249 | 5.850 | 92.537 | 20.386 | 1.00 | 163.95 | C |
| ATOM | 1689 | CG2 | VAL | A | 249 | 8.280 | 92.369 | 19.819 | 1.00 | 163.95 | C |
| ATOM | 1690 | N | ALA | A | 250 | 6.390 | 88.662 | 22.077 | 1.00 | 207.38 | N |
| ATOM | 1691 | CA | ALA | A | 250 | 5.419 | 87.642 | 22.485 | 1.00 | 207.38 | C |
| ATOM | 1692 | C | ALA | A | 250 | 5.673 | 87.378 | 23.990 | 1.00 | 207.38 | C |
| ATOM | 1693 | O | ALA | A | 250 | 4.947 | 86.611 | 24.616 | 1.00 | 207.38 | O |
| ATOM | 1694 | CB | ALA | A | 250 | 5.633 | 86.383 | 21.689 | 1.00 | 145.11 | C |
| ATOM | 1695 | N | GLU | A | 251 | 6.714 | 88.014 | 24.548 | 1.00 | 130.00 | N |
| ATOM | 1696 | CA | GLU | A | 251 | 7.080 | 87.905 | 25.978 | 1.00 | 130.00 | C |
| ATOM | 1697 | C | GLU | A | 251 | 6.621 | 89.010 | 26.954 | 1.00 | 130.00 | C |
| ATOM | 1698 | O | GLU | A | 251 | 5.732 | 88.822 | 27.803 | 1.00 | 130.00 | O |
| ATOM | 1699 | CB | GLU | A | 251 | 8.606 | 87.780 | 26.100 | 1.00 | 159.82 | C |
| ATOM | 1700 | CG | GLU | A | 251 | 9.181 | 86.381 | 25.940 | 1.00 | 159.82 | C |
| ATOM | 1701 | CD | GLU | A | 251 | 9.569 | 85.754 | 27.270 | 1.00 | 159.82 | C |
| ATOM | 1702 | OE1 | GLU | A | 251 | 9.594 | 86.467 | 28.298 | 1.00 | 159.82 | O |
| ATOM | 1703 | OE2 | GLU | A | 251 | 9.861 | 84.542 | 27.284 | 1.00 | 159.82 | O |
| ATOM | 1704 | N | GLU | A | 252 | 7.252 | 90.172 | 26.835 | 1.00 | 162.18 | N |
| ATOM | 1705 | CA | GLU | A | 252 | 6.934 | 91.263 | 27.778 | 1.00 | 162.18 | C |
| ATOM | 1706 | C | GLU | A | 252 | 7.298 | 90.891 | 29.212 | 1.00 | 162.18 | C |
| ATOM | 1707 | O | GLU | A | 252 | 8.019 | 89.936 | 29.397 | 1.00 | 162.18 | O |
| ATOM | 1708 | CB | GLU | A | 252 | 5.428 | 91.600 | 27.684 | 1.00 | 207.38 | C |
| ATOM | 1709 | CG | GLU | A | 252 | 5.008 | 92.221 | 26.377 | 1.00 | 207.38 | C |
| ATOM | 1710 | CD | GLU | A | 252 | 5.473 | 91.429 | 25.177 | 1.00 | 207.38 | C |
| ATOM | 1711 | OE1 | GLU | A | 252 | 6.692 | 91.439 | 24.909 | 1.00 | 207.38 | O |
| ATOM | 1712 | OE2 | GLU | A | 252 | 4.623 | 90.801 | 24.505 | 1.00 | 207.38 | O |
| ATOM | 1713 | N | VAL | A | 253 | 6.750 | 91.598 | 30.216 | 1.00 | 207.38 | N |
| ATOM | 1714 | CA | VAL | A | 253 | 7.074 | 91.274 | 31.633 | 1.00 | 207.38 | C |
| ATOM | 1715 | C | VAL | A | 253 | 6.141 | 90.178 | 32.059 | 1.00 | 207.38 | C |
| ATOM | 1716 | O | VAL | A | 253 | 5.125 | 89.978 | 31.420 | 1.00 | 207.38 | O |
| ATOM | 1717 | CB | VAL | A | 253 | 6.859 | 92.454 | 32.612 | 1.00 | 116.53 | C |
| ATOM | 1718 | CG1 | VAL | A | 253 | 6.652 | 91.931 | 34.026 | 1.00 | 116.53 | C |
| ATOM | 1719 | CG2 | VAL | A | 253 | 8.078 | 93.357 | 32.608 | 1.00 | 116.53 | C |
| ATOM | 1720 | N | LEU | A | 254 | 6.481 | 89.480 | 33.136 | 1.00 | 151.27 | N |
| ATOM | 1721 | CA | LEU | A | 254 | 5.669 | 88.371 | 33.601 | 1.00 | 151.27 | C |
| ATOM | 1722 | C | LEU | A | 254 | 6.007 | 88.155 | 35.073 | 1.00 | 151.27 | C |
| ATOM | 1723 | O | LEU | A | 254 | 5.592 | 87.181 | 35.716 | 1.00 | 151.27 | O |
| ATOM | 1724 | CB | LEU | A | 254 | 6.027 | 87.111 | 32.789 | 1.00 | 133.01 | C |
| ATOM | 1725 | CG | LEU | A | 254 | 6.625 | 87.227 | 31.369 | 1.00 | 133.01 | C |
| ATOM | 1726 | CD1 | LEU | A | 254 | 5.623 | 87.827 | 30.407 | 1.00 | 133.01 | C |
| ATOM | 1727 | CD2 | LEU | A | 254 | 7.894 | 88.063 | 31.405 | 1.00 | 133.01 | C |
| ATOM | 1728 | N | ALA | A | 255 | 6.795 | 89.094 | 35.573 | 1.00 | 129.42 | N |
| ATOM | 1729 | CA | ALA | A | 255 | 7.264 | 89.095 | 36.940 | 1.00 | 129.42 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1730 | C | ALA | A | 255 | 6.552 | 90.215 | 37.619 | 1.00129.42 | C |
| ATOM | 1731 | O | ALA | A | 255 | 5.603 | 90.753 | 37.061 | 1.00129.42 | O |
| ATOM | 1732 | CB | ALA | A | 255 | 8.784 | 89.312 | 36.981 | 1.00164.84 | C |
| ATOM | 1733 | N | ALA | A | 256 | 7.037 | 90.583 | 38.802 | 1.00 89.01 | N |
| ATOM | 1734 | CA | ALA | A | 256 | 6.419 | 91.639 | 39.602 | 1.00 89.01 | C |
| ATOM | 1735 | C | ALA | A | 256 | 5.026 | 91.119 | 40.021 | 1.00 89.01 | C |
| ATOM | 1736 | O | ALA | A | 256 | 4.227 | 91.767 | 40.745 | 1.00 89.01 | O |
| ATOM | 1737 | CB | ALA | A | 256 | 6.276 | 92.912 | 38.786 | 1.00206.05 | C |
| ATOM | 1738 | N | ILE | A | 257 | 4.761 | 89.902 | 39.570 | 1.00 91.57 | N |
| ATOM | 1739 | CA | ILE | A | 257 | 3.483 | 89.290 | 39.812 | 1.00 91.57 | C |
| ATOM | 1740 | C | ILE | A | 257 | 2.862 | 89.545 | 41.162 | 1.00 91.57 | C |
| ATOM | 1741 | O | ILE | A | 257 | 1.662 | 89.655 | 41.255 | 1.00 91.57 | O |
| ATOM | 1742 | CB | ILE | A | 257 | 3.523 | 87.760 | 39.563 | 1.00 74.37 | C |
| ATOM | 1743 | CG1 | ILE | A | 257 | 2.164 | 87.152 | 39.925 | 1.00 74.37 | C |
| ATOM | 1744 | CG2 | ILE | A | 257 | 4.675 | 87.140 | 40.315 | 1.00 74.37 | C |
| ATOM | 1745 | CD1 | ILE | A | 257 | 0.992 | 87.766 | 39.169 | 1.00 74.37 | C |
| ATOM | 1746 | N | ARG | A | 258 | 3.646 | 89.642 | 42.216 | 1.00 98.50 | N |
| ATOM | 1747 | CA | ARG | A | 258 | 3.005 | 89.899 | 43.482 | 1.00 98.50 | C |
| ATOM | 1748 | C | ARG | A | 258 | 2.135 | 91.153 | 43.254 | 1.00 98.50 | C |
| ATOM | 1749 | O | ARG | A | 258 | 0.901 | 91.135 | 43.444 | 1.00 98.50 | O |
| ATOM | 1750 | CB | ARG | A | 258 | 4.046 | 90.166 | 44.589 | 1.00150.79 | C |
| ATOM | 1751 | CG | ARG | A | 258 | 3.822 | 89.366 | 45.899 | 1.00150.79 | C |
| ATOM | 1752 | CD | ARG | A | 258 | 4.798 | 89.744 | 47.020 | 1.00150.79 | C |
| ATOM | 1753 | NE | ARG | A | 258 | 4.595 | 91.112 | 47.487 | 1.00150.79 | N |
| ATOM | 1754 | CZ | ARG | A | 258 | 5.304 | 91.697 | 48.448 | 1.00150.79 | C |
| ATOM | 1755 | NH1 | ARG | A | 258 | 6.274 | 91.036 | 49.064 | 1.00150.79 | N |
| ATOM | 1756 | NH2 | ARG | A | 258 | 5.043 | 92.952 | 48.785 | 1.00150.79 | N |
| ATOM | 1757 | N | THR | A | 259 | 2.761 | 92.234 | 42.805 | 1.00 93.42 | N |
| ATOM | 1758 | CA | THR | A | 259 | 2.011 | 93.467 | 42.570 | 1.00 93.42 | C |
| ATOM | 1759 | C | THR | A | 259 | 0.857 | 93.190 | 41.604 | 1.00 93.42 | C |
| ATOM | 1760 | O | THR | A | 259 | -0.246 | 93.786 | 41.698 | 1.00 93.42 | O |
| ATOM | 1761 | CB | THR | A | 259 | 2.914 | 94.552 | 41.954 | 1.00 76.99 | C |
| ATOM | 1762 | OG1 | THR | A | 259 | 4.110 | 94.678 | 42.730 | 1.00 76.99 | O |
| ATOM | 1763 | CG2 | THR | A | 259 | 2.209 | 95.887 | 41.945 | 1.00 76.99 | C |
| ATOM | 1764 | N | VAL | A | 260 | 1.108 | 92.261 | 40.683 | 1.00108.77 | N |
| ATOM | 1765 | CA | VAL | A | 260 | 0.081 | 91.927 | 39.704 | 1.00108.77 | C |
| ATOM | 1766 | C | VAL | A | 260 | -1.009 | 90.983 | 40.199 | 1.00108.77 | C |
| ATOM | 1767 | O | VAL | A | 260 | -2.048 | 90.867 | 39.559 | 1.00108.77 | O |
| ATOM | 1768 | CB | VAL | A | 260 | 0.706 | 91.362 | 38.411 | 1.00 89.09 | C |
| ATOM | 1769 | CG1 | VAL | A | 260 | -0.367 | 91.201 | 37.351 | 1.00 89.09 | C |
| ATOM | 1770 | CG2 | VAL | A | 260 | 1.805 | 92.304 | 37.911 | 1.00 89.09 | C |
| ATOM | 1771 | N | ILE | A | 261 | -0.792 | 90.312 | 41.327 | 1.00 80.95 | N |
| ATOM | 1772 | CA | ILE | A | 261 | -1.824 | 89.438 | 41.865 | 1.00 80.95 | C |
| ATOM | 1773 | C | ILE | A | 261 | -2.785 | 90.350 | 42.610 | 1.00 80.95 | C |
| ATOM | 1774 | O | ILE | A | 261 | -3.994 | 90.132 | 42.587 | 1.00 80.95 | O |
| ATOM | 1775 | CB | ILE | A | 261 | -1.252 | 88.355 | 42.813 | 1.00 79.37 | C |
| ATOM | 1776 | CG1 | ILE | A | 261 | -1.070 | 87.048 | 42.037 | 1.00 79.37 | C |
| ATOM | 1777 | CG2 | ILE | A | 261 | -2.182 | 88.131 | 44.005 | 1.00 79.37 | C |
| ATOM | 1778 | CD1 | ILE | A | 261 | -2.363 | 86.499 | 41.445 | 1.00 79.37 | C |
| ATOM | 1779 | N | ALA | A | 262 | -2.259 | 91.386 | 43.261 | 1.00 85.08 | N |
| ATOM | 1780 | CA | ALA | A | 262 | -3.146 | 92.334 | 43.950 | 1.00 85.08 | C |
| ATOM | 1781 | C | ALA | A | 262 | -3.715 | 93.268 | 42.883 | 1.00 85.08 | C |
| ATOM | 1782 | O | ALA | A | 262 | -4.410 | 94.224 | 43.186 | 1.00 85.08 | O |
| ATOM | 1783 | CB | ALA | A | 262 | -2.358 | 93.128 | 44.987 | 1.00196.60 | C |
| ATOM | 1784 | N | PHE | A | 263 | -3.363 | 92.993 | 41.629 | 1.00143.28 | N |
| ATOM | 1785 | CA | PHE | A | 263 | -3.839 | 93.765 | 40.472 | 1.00143.28 | C |
| ATOM | 1786 | C | PHE | A | 263 | -5.026 | 93.025 | 39.811 | 1.00143.28 | C |
| ATOM | 1787 | O | PHE | A | 263 | -6.063 | 93.627 | 39.515 | 1.00143.28 | O |
| ATOM | 1788 | CB | PHE | A | 263 | -2.664 | 93.925 | 39.490 | 1.00179.63 | C |
| ATOM | 1789 | CG | PHE | A | 263 | -2.868 | 94.967 | 38.405 | 1.00179.63 | C |
| ATOM | 1790 | CD1 | PHE | A | 263 | -3.546 | 96.161 | 38.654 | 1.00179.63 | C |
| ATOM | 1791 | CD2 | PHE | A | 263 | -2.290 | 94.783 | 37.146 | 1.00179.63 | C |
| ATOM | 1792 | CE1 | PHE | A | 263 | -3.639 | 97.156 | 37.663 | 1.00179.63 | C |
| ATOM | 1793 | CE2 | PHE | A | 263 | -2.376 | 95.768 | 36.155 | 1.00179.63 | C |
| ATOM | 1794 | CZ | PHE | A | 263 | -3.050 | 96.956 | 36.414 | 1.00179.63 | C |
| ATOM | 1795 | N | GLY | A | 264 | -4.858 | 91.721 | 39.588 | 1.00123.47 | N |
| ATOM | 1796 | CA | GLY | A | 264 | -5.900 | 90.905 | 38.978 | 1.00123.47 | C |
| ATOM | 1797 | C | GLY | A | 264 | -5.411 | 89.877 | 37.957 | 1.00123.47 | C |
| ATOM | 1798 | O | GLY | A | 264 | -5.437 | 88.649 | 38.191 | 1.00123.47 | O |
| ATOM | 1799 | N | GLY | A | 265 | -4.928 | 90.388 | 36.822 | 1.00100.64 | N |
| ATOM | 1800 | CA | GLY | A | 265 | -4.416 | 89.549 | 35.744 | 1.00100.64 | C |
| ATOM | 1801 | C | GLY | A | 265 | -4.460 | 90.244 | 34.395 | 1.00100.64 | C |
| ATOM | 1802 | O | GLY | A | 265 | -5.535 | 90.494 | 33.857 | 1.00100.64 | O |
| ATOM | 1803 | N | GLN | A | 266 | -3.278 | 90.586 | 33.843 | 1.00164.95 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1804 | CA | GLN | A | 266 | -3.206 | 91.237 | 32.542 | 1.00164.95 | C |
| ATOM | 1805 | C | GLN | A | 266 | -4.019 | 90.353 | 31.624 | 1.00164.95 | C |
| ATOM | 1806 | O | GLN | A | 266 | -5.088 | 90.736 | 31.138 | 1.00164.95 | O |
| ATOM | 1807 | CB | GLN | A | 266 | -1.755 | 91.285 | 32.037 | 1.00130.35 | C |
| ATOM | 1808 | CG | GLN | A | 266 | -0.686 | 91.485 | 33.110 | 1.00130.35 | C |
| ATOM | 1809 | CD | GLN | A | 266 | -0.791 | 92.814 | 33.823 | 1.00130.35 | C |
| ATOM | 1810 | OE1 | GLN | A | 266 | -1.640 | 93.000 | 34.692 | 1.00130.35 | O |
| ATOM | 1811 | NE2 | GLN | A | 266 | 0.075 | 93.753 | 33.455 | 1.00130.35 | N |
| ATOM | 1812 | N | LYS | A | 267 | -3.489 | 89.174 | 31.298 | 1.00112.12 | N |
| ATOM | 1813 | CA | LYS | A | 267 | -4.232 | 88.172 | 30.565 | 1.00112.12 | C |
| ATOM | 1814 | C | LYS | A | 267 | -4.590 | 88.308 | 29.061 | 1.00112.12 | C |
| ATOM | 1815 | O | LYS | A | 267 | -4.725 | 87.321 | 28.337 | 1.00112.12 | O |
| ATOM | 1816 | CB | LYS | A | 267 | -5.593 | 87.927 | 31.239 | 1.00114.71 | C |
| ATOM | 1817 | CG | LYS | A | 267 | -5.601 | 87.554 | 32.715 | 1.00114.71 | C |
| ATOM | 1818 | CD | LYS | A | 267 | -7.083 | 87.450 | 33.130 | 1.00114.71 | C |
| ATOM | 1819 | CE | LYS | A | 267 | -7.829 | 88.787 | 33.030 | 1.00114.71 | C |
| ATOM | 1820 | NZ | LYS | A | 267 | -7.910 | 89.277 | 31.630 | 1.00114.71 | N |
| ATOM | 1821 | N | LYS | A | 268 | -4.725 | 89.555 | 28.623 | 1.00104.30 | N |
| ATOM | 1822 | CA | LYS | A | 268 | -5.243 | 89.893 | 27.308 | 1.00104.30 | C |
| ATOM | 1823 | C | LYS | A | 268 | -4.159 | 90.646 | 26.558 | 1.00104.30 | C |
| ATOM | 1824 | O | LYS | A | 268 | -4.120 | 90.577 | 25.328 | 1.00104.30 | O |
| ATOM | 1825 | CB | LYS | A | 268 | -6.535 | 90.699 | 27.295 | 1.00161.72 | C |
| ATOM | 1826 | CG | LYS | A | 268 | -7.171 | 90.759 | 25.889 | 1.00161.72 | C |
| ATOM | 1827 | CD | LYS | A | 268 | -6.337 | 91.628 | 24.893 | 1.00161.72 | C |
| ATOM | 1828 | CE | LYS | A | 268 | -7.007 | 91.855 | 23.522 | 1.00161.72 | C |
| ATOM | 1829 | NZ | LYS | A | 268 | -6.263 | 92.879 | 22.715 | 1.00161.72 | N |
| ATOM | 1830 | N | GLU | A | 269 | -3.291 | 91.397 | 27.247 | 1.00122.15 | N |
| ATOM | 1831 | CA | GLU | A | 269 | -2.227 | 92.105 | 26.508 | 1.00122.15 | C |
| ATOM | 1832 | C | GLU | A | 269 | -1.314 | 90.993 | 26.025 | 1.00122.15 | C |
| ATOM | 1833 | O | GLU | A | 269 | -0.891 | 90.960 | 24.850 | 1.00122.15 | O |
| ATOM | 1834 | CB | GLU | A | 269 | -1.452 | 93.040 | 27.444 | 1.00207.38 | C |
| ATOM | 1835 | CG | GLU | A | 269 | -2.180 | 94.316 | 27.818 | 1.00207.38 | C |
| ATOM | 1836 | CD | GLU | A | 269 | -1.288 | 95.283 | 28.576 | 1.00207.38 | C |
| ATOM | 1837 | OE1 | GLU | A | 269 | -0.895 | 94.959 | 29.716 | 1.00207.38 | O |
| ATOM | 1838 | OE2 | GLU | A | 269 | -0.972 | 96.363 | 28.030 | 1.00207.38 | O |
| ATOM | 1839 | N | LEU | A | 270 | -0.999 | 90.106 | 26.970 | 1.00108.48 | N |
| ATOM | 1840 | CA | LEU | A | 270 | -0.188 | 88.930 | 26.723 | 1.00108.48 | C |
| ATOM | 1841 | C | LEU | A | 270 | -0.739 | 88.185 | 25.546 | 1.00108.48 | C |
| ATOM | 1842 | O | LEU | A | 270 | -0.090 | 88.134 | 24.524 | 1.00108.48 | O |
| ATOM | 1843 | CB | LEU | A | 270 | -0.168 | 88.033 | 27.958 | 1.00116.37 | C |
| ATOM | 1844 | CG | LEU | A | 270 | -1.379 | 88.165 | 28.881 | 1.00116.37 | C |
| ATOM | 1845 | CD1 | LEU | A | 270 | -1.538 | 86.924 | 29.731 | 1.00116.37 | C |
| ATOM | 1846 | CD2 | LEU | A | 270 | -1.200 | 89.388 | 29.752 | 1.00116.37 | C |
| ATOM | 1847 | N | GLU | A | 271 | -1.937 | 87.616 | 25.669 | 1.00185.40 | N |
| ATOM | 1848 | CA | GLU | A | 271 | -2.488 | 86.881 | 24.526 | 1.00185.40 | C |
| ATOM | 1849 | C | GLU | A | 271 | -2.373 | 87.682 | 23.228 | 1.00185.40 | C |
| ATOM | 1850 | O | GLU | A | 271 | -1.848 | 87.186 | 22.229 | 1.00185.40 | O |
| ATOM | 1851 | CB | GLU | A | 271 | -3.960 | 86.520 | 24.778 | 1.00175.72 | C |
| ATOM | 1852 | CG | GLU | A | 271 | -4.566 | 85.509 | 23.792 | 1.00175.72 | C |
| ATOM | 1853 | CD | GLU | A | 271 | -5.338 | 86.153 | 22.648 | 1.00175.72 | C |
| ATOM | 1854 | OE1 | GLU | A | 271 | -5.979 | 85.406 | 21.876 | 1.00175.72 | O |
| ATOM | 1855 | OE2 | GLU | A | 271 | -5.307 | 87.395 | 22.520 | 1.00175.72 | O |
| ATOM | 1856 | N | ARG | A | 272 | -2.855 | 88.922 | 23.259 | 1.00126.74 | N |
| ATOM | 1857 | CA | ARG | A | 272 | -2.841 | 89.794 | 22.096 | 1.00126.74 | C |
| ATOM | 1858 | C | ARG | A | 272 | -1.530 | 89.724 | 21.309 | 1.00126.74 | C |
| ATOM | 1859 | O | ARG | A | 272 | -1.479 | 89.202 | 20.183 | 1.00126.74 | O |
| ATOM | 1860 | CB | ARG | A | 272 | -3.139 | 91.244 | 22.503 | 1.00207.38 | C |
| ATOM | 1861 | CG | ARG | A | 272 | -3.141 | 92.234 | 21.346 | 1.00207.38 | C |
| ATOM | 1862 | CD | ARG | A | 272 | -4.020 | 91.777 | 20.193 | 1.00207.38 | C |
| ATOM | 1863 | NE | ARG | A | 272 | -3.835 | 92.644 | 19.034 | 1.00207.38 | N |
| ATOM | 1864 | CZ | ARG | A | 272 | -4.382 | 92.440 | 17.841 | 1.00207.38 | C |
| ATOM | 1865 | NH1 | ARG | A | 272 | -5.164 | 91.389 | 17.630 | 1.00207.38 | N |
| ATOM | 1866 | NH2 | ARG | A | 272 | -4.138 | 93.291 | 16.854 | 1.00207.38 | N |
| ATOM | 1867 | N | TYR | A | 273 | -0.450 | 90.223 | 21.883 | 1.00 93.79 | N |
| ATOM | 1868 | CA | TYR | A | 273 | 0.793 | 90.155 | 21.133 | 1.00 93.79 | C |
| ATOM | 1869 | C | TYR | A | 273 | 1.222 | 88.715 | 20.846 | 1.00 93.79 | C |
| ATOM | 1870 | O | TYR | A | 273 | 1.671 | 88.399 | 19.737 | 1.00 93.79 | O |
| ATOM | 1871 | CB | TYR | A | 273 | 1.878 | 90.958 | 21.860 | 1.00207.38 | C |
| ATOM | 1872 | CG | TYR | A | 273 | 1.532 | 92.439 | 21.974 | 1.00207.38 | C |
| ATOM | 1873 | CD1 | TYR | A | 273 | 2.301 | 93.303 | 22.753 | 1.00207.38 | C |
| ATOM | 1874 | CD2 | TYR | A | 273 | 0.419 | 92.969 | 21.313 | 1.00207.38 | C |
| ATOM | 1875 | CE1 | TYR | A | 273 | 1.969 | 94.652 | 22.875 | 1.00207.38 | C |
| ATOM | 1876 | CE2 | TYR | A | 273 | 0.082 | 94.312 | 21.427 | 1.00207.38 | C |
| ATOM | 1877 | CZ | TYR | A | 273 | 0.858 | 95.146 | 22.209 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1878 | OH | TYR | A | 273 | 0.519 | 96.473 | 22.334 | 1.00207.38 | O |
| ATOM | 1879 | N | ASN | A | 274 | 1.048 | 87.837 | 21.824 | 1.00166.54 | N |
| ATOM | 1880 | CA | ASN | A | 274 | 1.394 | 86.439 | 21.628 | 1.00166.54 | C |
| ATOM | 1881 | C | ASN | A | 274 | 0.865 | 85.958 | 20.271 | 1.00166.54 | C |
| ATOM | 1882 | O | ASN | A | 274 | 1.592 | 86.006 | 19.271 | 1.00166.54 | O |
| ATOM | 1883 | CB | ASN | A | 274 | 0.818 | 85.566 | 22.745 | 1.00187.47 | C |
| ATOM | 1884 | CG | ASN | A | 274 | 1.516 | 85.777 | 24.075 | 1.00187.47 | C |
| ATOM | 1885 | OD1 | ASN | A | 274 | 1.401 | 84.948 | 24.979 | 1.00187.47 | O |
| ATOM | 1886 | ND2 | ASN | A | 274 | 2.234 | 86.889 | 24.207 | 1.00187.47 | N |
| ATOM | 1887 | N | ASN | A | 275 | -0.396 | 85.514 | 20.229 | 1.00177.42 | N |
| ATOM | 1888 | CA | ASN | A | 275 | -1.013 | 85.004 | 18.988 | 1.00177.42 | C |
| ATOM | 1889 | C | ASN | A | 275 | -0.836 | 85.901 | 17.763 | 1.00177.42 | C |
| ATOM | 1890 | O | ASN | A | 275 | -0.896 | 85.433 | 16.620 | 1.00177.42 | O |
| ATOM | 1891 | CB | ASN | A | 275 | -2.502 | 84.724 | 19.214 | 1.00163.25 | C |
| ATOM | 1892 | CG | ASN | A | 275 | -2.790 | 83.248 | 19.427 | 1.00163.25 | C |
| ATOM | 1893 | OD1 | ASN | A | 275 | -2.178 | 82.598 | 20.276 | 1.00163.25 | O |
| ATOM | 1894 | ND2 | ASN | A | 275 | -3.729 | 82.714 | 18.655 | 1.00163.25 | N |
| ATOM | 1895 | N | ASN | A | 276 | -0.627 | 87.190 | 18.001 | 1.00114.56 | N |
| ATOM | 1896 | CA | ASN | A | 276 | -0.418 | 88.120 | 16.904 | 1.00114.56 | C |
| ATOM | 1897 | C | ASN | A | 276 | 0.799 | 87.636 | 16.084 | 1.00114.56 | C |
| ATOM | 1898 | O | ASN | A | 276 | 0.686 | 86.890 | 15.086 | 1.00114.56 | O |
| ATOM | 1899 | CB | ASN | A | 276 | -0.159 | 89.520 | 17.482 | 1.00207.38 | C |
| ATOM | 1900 | CG | ASN | A | 276 | -0.082 | 90.600 | 16.417 | 1.00207.38 | C |
| ATOM | 1901 | OD1 | ASN | A | 276 | 0.780 | 90.565 | 15.537 | 1.00207.38 | O |
| ATOM | 1902 | ND2 | ASN | A | 276 | -0.984 | 91.572 | 16.498 | 1.00207.38 | N |
| ATOM | 1903 | N | LEU | A | 277 | 1.972 | 88.045 | 16.552 | 1.00124.88 | N |
| ATOM | 1904 | CA | LEU | A | 277 | 3.201 | 87.713 | 15.856 | 1.00124.88 | C |
| ATOM | 1905 | C | LEU | A | 277 | 3.336 | 86.220 | 15.630 | 1.00124.88 | C |
| ATOM | 1906 | O | LEU | A | 277 | 3.710 | 85.789 | 14.539 | 1.00124.88 | O |
| ATOM | 1907 | CB | LEU | A | 277 | 4.426 | 88.240 | 16.622 | 1.00192.17 | C |
| ATOM | 1908 | CG | LEU | A | 277 | 4.829 | 89.723 | 16.539 | 1.00192.17 | C |
| ATOM | 1909 | CD1 | LEU | A | 277 | 5.148 | 90.078 | 15.094 | 1.00192.17 | C |
| ATOM | 1910 | CD2 | LEU | A | 277 | 3.722 | 90.619 | 17.080 | 1.00192.17 | C |
| ATOM | 1911 | N | GLU | A | 278 | 3.020 | 85.424 | 16.642 | 1.00 88.11 | N |
| ATOM | 1912 | CA | GLU | A | 278 | 3.133 | 83.989 | 16.467 | 1.00 88.11 | C |
| ATOM | 1913 | C | GLU | A | 278 | 2.377 | 83.538 | 15.229 | 1.00 88.11 | C |
| ATOM | 1914 | O | GLU | A | 278 | 2.987 | 83.054 | 14.282 | 1.00 88.11 | O |
| ATOM | 1915 | CB | GLU | A | 278 | 2.631 | 83.218 | 17.701 | 1.00158.55 | C |
| ATOM | 1916 | CG | GLU | A | 278 | 3.601 | 83.200 | 18.892 | 1.00158.55 | C |
| ATOM | 1917 | CD | GLU | A | 278 | 3.513 | 81.920 | 19.716 | 1.00158.55 | C |
| ATOM | 1918 | OE1 | GLU | A | 278 | 2.388 | 81.492 | 20.055 | 1.00158.55 | O |
| ATOM | 1919 | OE2 | GLU | A | 278 | 4.579 | 81.347 | 20.030 | 1.00158.55 | O |
| ATOM | 1920 | N | GLU | A | 279 | 1.057 | 83.680 | 15.217 | 1.00146.72 | N |
| ATOM | 1921 | CA | GLU | A | 279 | 0.304 | 83.271 | 14.033 | 1.00146.72 | C |
| ATOM | 1922 | C | GLU | A | 279 | 1.071 | 83.725 | 12.779 | 1.00146.72 | C |
| ATOM | 1923 | O | GLU | A | 279 | 1.412 | 82.917 | 11.897 | 1.00146.72 | O |
| ATOM | 1924 | CB | GLU | A | 279 | -1.094 | 83.904 | 14.000 | 1.00169.63 | C |
| ATOM | 1925 | CG | GLU | A | 279 | -2.154 | 83.215 | 14.843 | 1.00169.63 | C |
| ATOM | 1926 | CD | GLU | A | 279 | -3.568 | 83.547 | 14.379 | 1.00169.63 | C |
| ATOM | 1927 | OE1 | GLU | A | 279 | -3.931 | 83.146 | 13.254 | 1.00169.63 | O |
| ATOM | 1928 | OE2 | GLU | A | 279 | -4.316 | 84.211 | 15.129 | 1.00169.63 | O |
| ATOM | 1929 | N | ALA | A | 280 | 1.348 | 85.031 | 12.730 | 1.00120.48 | N |
| ATOM | 1930 | CA | ALA | A | 280 | 2.040 | 85.643 | 11.598 | 1.00120.48 | C |
| ATOM | 1931 | C | ALA | A | 280 | 3.125 | 84.737 | 11.031 | 1.00120.48 | C |
| ATOM | 1932 | O | ALA | A | 280 | 2.883 | 84.010 | 10.076 | 1.00120.48 | O |
| ATOM | 1933 | CB | ALA | A | 280 | 2.650 | 86.975 | 12.017 | 1.00156.99 | C |
| ATOM | 1934 | N | LYS | A | 281 | 4.312 | 84.781 | 11.628 | 1.00 60.64 | N |
| ATOM | 1935 | CA | LYS | A | 281 | 5.430 | 83.947 | 11.184 | 1.00 60.64 | C |
| ATOM | 1936 | C | LYS | A | 281 | 5.076 | 82.491 | 11.430 | 1.00 60.64 | C |
| ATOM | 1937 | O | LYS | A | 281 | 5.883 | 81.628 | 11.132 | 1.00 60.64 | O |
| ATOM | 1938 | CB | LYS | A | 281 | 6.716 | 84.254 | 11.964 | 1.00108.98 | C |
| ATOM | 1939 | CG | LYS | A | 281 | 7.323 | 85.620 | 11.737 | 1.00108.98 | C |
| ATOM | 1940 | CD | LYS | A | 281 | 6.554 | 86.691 | 12.474 | 1.00108.98 | C |
| ATOM | 1941 | CE | LYS | A | 281 | 7.213 | 88.055 | 12.311 | 1.00108.98 | C |
| ATOM | 1942 | NZ | LYS | A | 281 | 8.519 | 88.184 | 13.024 | 1.00108.98 | N |
| ATOM | 1943 | N | ARG | A | 282 | 3.912 | 82.200 | 12.017 | 1.00 96.43 | N |
| ATOM | 1944 | CA | ARG | A | 282 | 3.564 | 80.791 | 12.205 | 1.00 96.43 | C |
| ATOM | 1945 | C | ARG | A | 282 | 3.419 | 80.346 | 10.766 | 1.00 96.43 | C |
| ATOM | 1946 | O | ARG | A | 282 | 4.380 | 79.916 | 10.147 | 1.00 96.43 | O |
| ATOM | 1947 | CB | ARG | A | 282 | 2.224 | 80.598 | 12.926 | 1.00177.59 | C |
| ATOM | 1948 | CG | ARG | A | 282 | 2.264 | 80.760 | 14.437 | 1.00177.59 | C |
| ATOM | 1949 | CD | ARG | A | 282 | 3.379 | 79.960 | 15.101 | 1.00177.59 | C |
| ATOM | 1950 | NE | ARG | A | 282 | 4.140 | 80.828 | 15.991 | 1.00177.59 | N |
| ATOM | 1951 | CZ | ARG | A | 282 | 4.972 | 81.770 | 15.563 | 1.00177.59 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 1952 | NH1 | ARG | A | 282 | 5.156 | 81.950 | 14.261 | 1.00177.59 | N |
| ATOM | 1953 | NH2 | ARG | A | 282 | 5.597 | 82.550 | 16.434 | 1.00177.59 | N |
| ATOM | 1954 | N | LEU | A | 283 | 2.218 | 80.493 | 10.223 | 1.00118.49 | N |
| ATOM | 1955 | CA | LEU | A | 283 | 1.989 | 80.130 | 8.841 | 1.00118.49 | C |
| ATOM | 1956 | C | LEU | A | 283 | 3.132 | 80.697 | 7.973 | 1.00118.49 | C |
| ATOM | 1957 | O | LEU | A | 283 | 3.545 | 80.069 | 7.019 | 1.00118.49 | O |
| ATOM | 1958 | CB | LEU | A | 283 | 0.623 | 80.653 | 8.375 | 1.00153.39 | C |
| ATOM | 1959 | CG | LEU | A | 283 | 0.132 | 82.013 | 8.877 | 1.00153.39 | C |
| ATOM | 1960 | CD1 | LEU | A | 283 | 0.892 | 83.125 | 8.182 | 1.00153.39 | C |
| ATOM | 1961 | CD2 | LEU | A | 283 | -1.361 | 82.146 | 8.603 | 1.00153.39 | C |
| ATOM | 1962 | N | GLY | A | 284 | 3.662 | 81.866 | 8.330 | 1.00142.03 | N |
| ATOM | 1963 | CA | GLY | A | 284 | 4.748 | 82.474 | 7.564 | 1.00142.03 | C |
| ATOM | 1964 | C | GLY | A | 284 | 6.001 | 81.619 | 7.516 | 1.00142.03 | C |
| ATOM | 1965 | O | GLY | A | 284 | 6.343 | 81.100 | 6.454 | 1.00142.03 | O |
| ATOM | 1966 | N | ILE | A | 285 | 6.699 | 81.482 | 8.649 | 1.00142.79 | N |
| ATOM | 1967 | CA | ILE | A | 285 | 7.903 | 80.639 | 8.708 | 1.00142.79 | C |
| ATOM | 1968 | C | ILE | A | 285 | 7.367 | 79.250 | 8.454 | 1.00142.79 | C |
| ATOM | 1969 | O | ILE | A | 285 | 8.112 | 78.285 | 8.395 | 1.00142.79 | O |
| ATOM | 1970 | CB | ILE | A | 285 | 8.573 | 80.662 | 10.104 | 1.00144.66 | C |
| ATOM | 1971 | CG1 | ILE | A | 285 | 10.073 | 80.361 | 9.978 | 1.00144.66 | C |
| ATOM | 1972 | CG2 | ILE | A | 285 | 7.945 | 79.600 | 11.006 | 1.00144.66 | C |
| ATOM | 1973 | CD1 | ILE | A | 285 | 10.408 | 78.948 | 9.488 | 1.00144.66 | C |
| ATOM | 1974 | N | LYS | A | 286 | 6.045 | 79.179 | 8.348 | 1.00124.32 | N |
| ATOM | 1975 | CA | LYS | A | 286 | 5.361 | 77.943 | 8.075 | 1.00124.32 | C |
| ATOM | 1976 | C | LYS | A | 286 | 5.194 | 77.789 | 6.568 | 1.00124.32 | C |
| ATOM | 1977 | O | LYS | A | 286 | 4.800 | 76.725 | 6.108 | 1.00124.32 | O |
| ATOM | 1978 | CB | LYS | A | 286 | 4.013 | 77.910 | 8.801 | 1.00 84.22 | C |
| ATOM | 1979 | CG | LYS | A | 286 | 4.010 | 77.089 | 10.096 | 1.00 84.22 | C |
| ATOM | 1980 | CD | LYS | A | 286 | 4.835 | 77.711 | 11.225 | 1.00 84.22 | C |
| ATOM | 1981 | CE | LYS | A | 286 | 4.544 | 77.016 | 12.554 | 1.00 84.22 | C |
| ATOM | 1982 | NZ | LYS | A | 286 | 5.027 | 77.766 | 13.752 | 1.00 84.22 | N |
| ATOM | 1983 | N | LYS | A | 287 | 5.456 | 78.859 | 5.804 | 1.00207.38 | N |
| ATOM | 1984 | CA | LYS | A | 287 | 5.405 | 78.788 | 4.330 | 1.00207.38 | C |
| ATOM | 1985 | C | LYS | A | 287 | 6.813 | 78.304 | 4.070 | 1.00207.38 | C |
| ATOM | 1986 | O | LYS | A | 287 | 7.035 | 77.433 | 3.247 | 1.00207.38 | O |
| ATOM | 1987 | CB | LYS | A | 287 | 5.229 | 80.155 | 3.649 | 1.00150.31 | C |
| ATOM | 1988 | CG | LYS | A | 287 | 5.503 | 80.082 | 2.121 | 1.00150.31 | C |
| ATOM | 1989 | CD | LYS | A | 287 | 5.478 | 81.448 | 1.421 | 1.00150.31 | C |
| ATOM | 1990 | CE | LYS | A | 287 | 6.350 | 81.485 | 0.142 | 1.00150.31 | C |
| ATOM | 1991 | NZ | LYS | A | 287 | 5.922 | 80.569 | -0.961 | 1.00150.31 | N |
| ATOM | 1992 | N | ALA | A | 288 | 7.765 | 78.896 | 4.782 | 1.00166.91 | N |
| ATOM | 1993 | CA | ALA | A | 288 | 9.127 | 78.455 | 4.640 | 1.00166.91 | C |
| ATOM | 1994 | C | ALA | A | 288 | 9.098 | 77.109 | 5.350 | 1.00166.91 | C |
| ATOM | 1995 | O | ALA | A | 288 | 9.921 | 76.259 | 5.081 | 1.00166.91 | O |
| ATOM | 1996 | CB | ALA | A | 288 | 10.073 | 79.418 | 5.360 | 1.00160.18 | C |
| ATOM | 1997 | N | ILE | A | 289 | 8.138 | 76.919 | 6.256 | 1.00104.54 | N |
| ATOM | 1998 | CA | ILE | A | 289 | 8.015 | 75.654 | 6.968 | 1.00104.54 | C |
| ATOM | 1999 | C | ILE | A | 289 | 7.608 | 74.725 | 5.863 | 1.00104.54 | C |
| ATOM | 2000 | O | ILE | A | 289 | 8.357 | 73.843 | 5.448 | 1.00104.54 | O |
| ATOM | 2001 | CB | ILE | A | 289 | 6.887 | 75.701 | 8.032 | 1.00 71.38 | C |
| ATOM | 2002 | CG1 | ILE | A | 289 | 7.447 | 76.164 | 9.378 | 1.00 71.38 | C |
| ATOM | 2003 | CG2 | ILE | A | 289 | 6.198 | 74.347 | 8.128 | 1.00 71.38 | C |
| ATOM | 2004 | CD1 | ILE | A | 289 | 8.593 | 75.310 | 9.887 | 1.00 71.38 | C |
| ATOM | 2005 | N | THR | A | 290 | 6.405 | 74.974 | 5.375 | 1.00137.52 | N |
| ATOM | 2006 | CA | THR | A | 290 | 5.819 | 74.214 | 4.301 | 1.00137.52 | C |
| ATOM | 2007 | C | THR | A | 290 | 6.722 | 74.400 | 3.093 | 1.00137.52 | C |
| ATOM | 2008 | O | THR | A | 290 | 6.408 | 73.952 | 1.991 | 1.00137.52 | O |
| ATOM | 2009 | CB | THR | A | 290 | 4.391 | 74.706 | 3.992 | 1.00190.34 | C |
| ATOM | 2010 | OG1 | THR | A | 290 | 4.402 | 76.123 | 3.765 | 1.00190.34 | O |
| ATOM | 2011 | CG2 | THR | A | 290 | 3.468 | 74.391 | 5.159 | 1.00190.34 | C |
| ATOM | 2012 | N | ALA | A | 291 | 7.855 | 75.056 | 3.335 | 1.00192.17 | N |
| ATOM | 2013 | CA | ALA | A | 291 | 8.863 | 75.314 | 2.316 | 1.00192.17 | C |
| ATOM | 2014 | C | ALA | A | 291 | 10.069 | 74.459 | 2.642 | 1.00192.17 | C |
| ATOM | 2015 | O | ALA | A | 291 | 10.887 | 74.190 | 1.782 | 1.00192.17 | O |
| ATOM | 2016 | CB | ALA | A | 291 | 9.232 | 76.790 | 2.324 | 1.00139.58 | C |
| ATOM | 2017 | N | ASN | A | 292 | 10.199 | 74.076 | 3.905 | 1.00152.04 | N |
| ATOM | 2018 | CA | ASN | A | 292 | 11.281 | 73.204 | 4.324 | 1.00152.04 | C |
| ATOM | 2019 | C | ASN | A | 292 | 10.606 | 71.997 | 3.723 | 1.00152.04 | C |
| ATOM | 2020 | O | ASN | A | 292 | 11.211 | 71.143 | 3.080 | 1.00152.04 | O |
| ATOM | 2021 | CB | ASN | A | 292 | 11.328 | 73.127 | 5.854 | 1.00206.68 | C |
| ATOM | 2022 | CG | ASN | A | 292 | 12.468 | 72.269 | 6.368 | 1.00206.68 | C |
| ATOM | 2023 | OD1 | ASN | A | 292 | 12.299 | 71.076 | 6.622 | 1.00206.68 | O |
| ATOM | 2024 | ND2 | ASN | A | 292 | 13.642 | 72.874 | 6.517 | 1.00206.68 | N |
| ATOM | 2025 | N | ILE | A | 293 | 9.298 | 71.998 | 3.920 | 1.00150.07 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 2026 | CA | ILE | A | 293 | 8.425 | 70.984 | 3.401 | 1.00150.07 | C |
| ATOM | 2027 | C | ILE | A | 293 | 8.604 | 71.072 | 1.897 | 1.00150.07 | C |
| ATOM | 2028 | O | ILE | A | 293 | 9.126 | 70.155 | 1.269 | 1.00150.07 | O |
| ATOM | 2029 | CB | ILE | A | 293 | 6.966 | 71.309 | 3.775 | 1.00 85.28 | C |
| ATOM | 2030 | CG1 | ILE | A | 293 | 6.783 | 71.189 | 5.291 | 1.00 85.28 | C |
| ATOM | 2031 | CG2 | ILE | A | 293 | 6.011 | 70.412 | 3.013 | 1.00 85.28 | C |
| ATOM | 2032 | CD1 | ILE | A | 293 | 7.183 | 69.832 | 5.862 | 1.00 85.28 | C |
| ATOM | 2033 | N | SER | A | 294 | 8.186 | 72.189 | 1.319 | 1.00125.07 | N |
| ATOM | 2034 | CA | SER | A | 294 | 8.348 | 72.375 | -0.108 | 1.00125.07 | C |
| ATOM | 2035 | C | SER | A | 294 | 9.793 | 72.034 | -0.472 | 1.00125.07 | C |
| ATOM | 2036 | O | SER | A | 294 | 10.095 | 71.771 | -1.634 | 1.00125.07 | O |
| ATOM | 2037 | CB | SER | A | 294 | 8.041 | 73.822 | -0.498 | 1.00 90.38 | C |
| ATOM | 2038 | OG | SER | A | 294 | 6.692 | 74.154 | -0.214 | 1.00 90.38 | O |
| ATOM | 2039 | N | MET | A | 295 | 10.680 | 72.027 | 0.524 | 1.00141.34 | N |
| ATOM | 2040 | CA | MET | A | 295 | 12.089 | 71.714 | 0.300 | 1.00141.34 | C |
| ATOM | 2041 | C | MET | A | 295 | 12.310 | 70.219 | 0.262 | 1.00141.34 | C |
| ATOM | 2042 | O | MET | A | 295 | 13.050 | 69.727 | -0.589 | 1.00141.34 | O |
| ATOM | 2043 | CB | MET | A | 295 | 12.962 | 72.385 | 1.359 | 1.00143.04 | C |
| ATOM | 2044 | CG | MET | A | 295 | 13.408 | 73.780 | 0.951 | 1.00143.04 | C |
| ATOM | 2045 | SD | MET | A | 295 | 12.475 | 74.432 | -0.457 | 1.00143.04 | S |
| ATOM | 2046 | CE | MET | A | 295 | 13.632 | 74.138 | -1.816 | 1.00143.04 | C |
| ATOM | 2047 | N | GLY | A | 296 | 11.681 | 69.488 | 1.176 | 1.00120.40 | N |
| ATOM | 2048 | CA | GLY | A | 296 | 11.812 | 68.049 | 1.125 | 1.00120.40 | C |
| ATOM | 2049 | C | GLY | A | 296 | 11.399 | 67.776 | -0.309 | 1.00120.40 | C |
| ATOM | 2050 | O | GLY | A | 296 | 12.041 | 67.018 | -1.037 | 1.00120.40 | O |
| ATOM | 2051 | N | ALA | A | 297 | 10.331 | 68.459 | -0.715 | 1.00127.24 | N |
| ATOM | 2052 | CA | ALA | A | 297 | 9.790 | 68.361 | -2.060 | 1.00127.24 | C |
| ATOM | 2053 | C | ALA | A | 297 | 10.891 | 68.702 | -3.053 | 1.00127.24 | C |
| ATOM | 2054 | O | ALA | A | 297 | 11.001 | 68.069 | -4.091 | 1.00127.24 | O |
| ATOM | 2055 | CB | ALA | A | 297 | 8.618 | 69.321 | -2.230 | 1.00 84.27 | C |
| ATOM | 2056 | N | ALA | A | 298 | 11.707 | 69.698 | -2.735 | 1.00 84.51 | N |
| ATOM | 2057 | CA | ALA | A | 298 | 12.797 | 70.056 | -3.617 | 1.00 84.51 | C |
| ATOM | 2058 | C | ALA | A | 298 | 13.721 | 68.838 | -3.735 | 1.00 84.51 | C |
| ATOM | 2059 | O | ALA | A | 298 | 13.523 | 68.004 | -4.614 | 1.00 84.51 | O |
| ATOM | 2060 | CB | ALA | A | 298 | 13.565 | 71.250 | -3.046 | 1.00 53.98 | C |
| ATOM | 2061 | N | PHE | A | 299 | 14.715 | 68.724 | -2.851 | 1.00198.73 | N |
| ATOM | 2062 | CA | PHE | A | 299 | 15.674 | 67.599 | -2.867 | 1.00198.73 | C |
| ATOM | 2063 | C | PHE | A | 299 | 15.078 | 66.291 | -3.400 | 1.00198.73 | C |
| ATOM | 2064 | O | PHE | A | 299 | 15.713 | 65.607 | -4.209 | 1.00198.73 | O |
| ATOM | 2065 | CB | PHE | A | 299 | 16.231 | 67.338 | -1.454 | 1.00207.38 | C |
| ATOM | 2066 | CG | PHE | A | 299 | 17.594 | 67.957 | -1.183 | 1.00207.38 | C |
| ATOM | 2067 | CD1 | PHE | A | 299 | 18.651 | 67.804 | -2.079 | 1.00207.38 | C |
| ATOM | 2068 | CD2 | PHE | A | 299 | 17.835 | 68.633 | 0.014 | 1.00207.38 | C |
| ATOM | 2069 | CE1 | PHE | A | 299 | 19.925 | 68.312 | -1.780 | 1.00207.38 | C |
| ATOM | 2070 | CE2 | PHE | A | 299 | 19.100 | 69.138 | 0.315 | 1.00207.38 | C |
| ATOM | 2071 | CZ | PHE | A | 299 | 20.143 | 68.976 | -0.583 | 1.00207.38 | C |
| ATOM | 2072 | N | LEU | A | 300 | 13.869 | 65.955 | -2.938 | 1.00166.71 | N |
| ATOM | 2073 | CA | LEU | A | 300 | 13.176 | 64.721 | -3.344 | 1.00166.71 | C |
| ATOM | 2074 | C | LEU | A | 300 | 12.568 | 64.739 | -4.777 | 1.00166.71 | C |
| ATOM | 2075 | O | LEU | A | 300 | 12.728 | 63.781 | -5.542 | 1.00166.71 | O |
| ATOM | 2076 | CB | LEU | A | 300 | 12.093 | 64.344 | -2.318 | 1.00110.20 | C |
| ATOM | 2077 | CG | LEU | A | 300 | 12.547 | 63.972 | -0.897 | 1.00110.20 | C |
| ATOM | 2078 | CD1 | LEU | A | 300 | 11.346 | 63.497 | -0.092 | 1.00110.20 | C |
| ATOM | 2079 | CD2 | LEU | A | 300 | 13.602 | 62.877 | -0.941 | 1.00110.20 | C |
| ATOM | 2080 | N | LEU | A | 301 | 11.852 | 65.797 | -5.136 | 1.00 57.40 | N |
| ATOM | 2081 | CA | LEU | A | 301 | 11.319 | 65.908 | -6.485 | 1.00 57.40 | C |
| ATOM | 2082 | C | LEU | A | 301 | 12.554 | 65.725 | -7.354 | 1.00 57.40 | C |
| ATOM | 2083 | O | LEU | A | 301 | 12.597 | 64.877 | -8.224 | 1.00 57.40 | O |
| ATOM | 2084 | CB | LEU | A | 301 | 10.776 | 67.318 | -6.697 | 1.00 99.39 | C |
| ATOM | 2085 | CG | LEU | A | 301 | 10.397 | 67.658 | -8.139 | 1.00 99.39 | C |
| ATOM | 2086 | CD1 | LEU | A | 301 | 9.041 | 67.040 | -8.457 | 1.00 99.39 | C |
| ATOM | 2087 | CD2 | LEU | A | 301 | 10.363 | 69.166 | -8.343 | 1.00 99.39 | C |
| ATOM | 2088 | N | ILE | A | 302 | 13.567 | 66.532 | -7.079 | 1.00 75.77 | N |
| ATOM | 2089 | CA | ILE | A | 302 | 14.836 | 66.492 | -7.788 | 1.00 75.77 | C |
| ATOM | 2090 | C | ILE | A | 302 | 15.609 | 65.170 | -7.563 | 1.00 75.77 | C |
| ATOM | 2091 | O | ILE | A | 302 | 16.536 | 64.814 | -8.307 | 1.00 75.77 | O |
| ATOM | 2092 | CB | ILE | A | 302 | 15.682 | 67.724 | -7.384 | 1.00151.78 | C |
| ATOM | 2093 | CG1 | ILE | A | 302 | 15.261 | 68.923 | -8.242 | 1.00151.78 | C |
| ATOM | 2094 | CG2 | ILE | A | 302 | 17.162 | 67.432 | -7.521 | 1.00151.78 | C |
| ATOM | 2095 | CD1 | ILE | A | 302 | 13.751 | 69.109 | -8.356 | 1.00151.78 | C |
| ATOM | 2096 | N | TYR | A | 303 | 15.230 | 64.439 | -6.527 | 1.00 89.72 | N |
| ATOM | 2097 | CA | TYR | A | 303 | 15.833 | 63.135 | -6.262 | 1.00 89.72 | C |
| ATOM | 2098 | C | TYR | A | 303 | 15.353 | 62.293 | -7.451 | 1.00 89.72 | C |
| ATOM | 2099 | O | TYR | A | 303 | 16.139 | 61.903 | -8.307 | 1.00 89.72 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 2100 | CB | TYR | A | 303 | 15.274 | 62.561 | -4.946 | 1.00207.38 | C |
| ATOM | 2101 | CG | TYR | A | 303 | 15.465 | 61.065 | -4.700 | 1.00207.38 | C |
| ATOM | 2102 | CD1 | TYR | A | 303 | 14.458 | 60.314 | -4.082 | 1.00207.38 | C |
| ATOM | 2103 | CD2 | TYR | A | 303 | 16.641 | 60.405 | -5.061 | 1.00207.38 | C |
| ATOM | 2104 | CE1 | TYR | A | 303 | 14.615 | 58.951 | -3.834 | 1.00207.38 | C |
| ATOM | 2105 | CE2 | TYR | A | 303 | 16.808 | 59.034 | -4.812 | 1.00207.38 | C |
| ATOM | 2106 | CZ | TYR | A | 303 | 15.790 | 58.319 | -4.201 | 1.00207.38 | C |
| ATOM | 2107 | OH | TYR | A | 303 | 15.942 | 56.972 | -3.966 | 1.00207.38 | O |
| ATOM | 2108 | N | ALA | A | 304 | 14.044 | 62.055 | -7.519 | 1.00123.44 | N |
| ATOM | 2109 | CA | ALA | A | 304 | 13.477 | 61.268 | -8.602 | 1.00123.44 | C |
| ATOM | 2110 | C | ALA | A | 304 | 13.886 | 61.824 | -9.984 | 1.00123.44 | C |
| ATOM | 2111 | O | ALA | A | 304 | 13.848 | 61.102 | -10.985 | 1.00123.44 | O |
| ATOM | 2112 | CB | ALA | A | 304 | 11.955 | 61.245 | -8.492 | 1.00 88.83 | C |
| ATOM | 2113 | N | SER | A | 305 | 14.265 | 63.103 | -10.048 | 1.00 75.70 | N |
| ATOM | 2114 | CA | SER | A | 305 | 14.740 | 63.682 | -11.305 | 1.00 75.70 | C |
| ATOM | 2115 | C | SER | A | 305 | 16.025 | 62.926 | -11.568 | 1.00 75.70 | C |
| ATOM | 2116 | O | SER | A | 305 | 16.301 | 62.523 | -12.701 | 1.00 75.70 | O |
| ATOM | 2117 | CB | SER | A | 305 | 15.068 | 65.163 | -11.135 | 1.00154.62 | C |
| ATOM | 2118 | OG | SER | A | 305 | 16.210 | 65.510 | -11.902 | 1.00154.62 | O |
| ATOM | 2119 | N | TYR | A | 306 | 16.819 | 62.758 | -10.508 | 1.00 99.83 | N |
| ATOM | 2120 | CA | TYR | A | 306 | 18.058 | 61.998 | -10.596 | 1.00 99.83 | C |
| ATOM | 2121 | C | TYR | A | 306 | 17.629 | 60.754 | -11.353 | 1.00 99.83 | C |
| ATOM | 2122 | O | TYR | A | 306 | 18.114 | 60.489 | -12.449 | 1.00 99.83 | O |
| ATOM | 2123 | CB | TYR | A | 306 | 18.553 | 61.603 | -9.192 | 1.00207.38 | C |
| ATOM | 2124 | CG | TYR | A | 306 | 18.342 | 60.137 | -8.791 | 1.00207.38 | C |
| ATOM | 2125 | CD1 | TYR | A | 306 | 19.331 | 59.174 | -9.021 | 1.00207.38 | C |
| ATOM | 2126 | CD2 | TYR | A | 306 | 17.158 | 59.719 | -8.176 | 1.00207.38 | C |
| ATOM | 2127 | CE1 | TYR | A | 306 | 19.145 | 57.831 | -8.643 | 1.00207.38 | C |
| ATOM | 2128 | CE2 | TYR | A | 306 | 16.962 | 58.387 | -7.803 | 1.00207.38 | C |
| ATOM | 2129 | CZ | TYR | A | 306 | 17.958 | 57.448 | -8.038 | 1.00207.38 | C |
| ATOM | 2130 | OH | TYR | A | 306 | 17.759 | 56.130 | -7.682 | 1.00207.38 | O |
| ATOM | 2131 | N | ALA | A | 307 | 16.669 | 60.035 | -10.763 | 1.00125.28 | N |
| ATOM | 2132 | CA | ALA | A | 307 | 16.148 | 58.791 | -11.328 | 1.00125.28 | C |
| ATOM | 2133 | C | ALA | A | 307 | 15.892 | 58.963 | -12.806 | 1.00125.28 | C |
| ATOM | 2134 | O | ALA | A | 307 | 16.254 | 58.115 | -13.620 | 1.00125.28 | O |
| ATOM | 2135 | CB | ALA | A | 307 | 14.845 | 58.389 | -10.609 | 1.00 51.19 | C |
| ATOM | 2136 | N | LEU | A | 308 | 15.242 | 60.066 | -13.145 | 1.00 67.80 | N |
| ATOM | 2137 | CA | LEU | A | 308 | 14.985 | 60.386 | -14.532 | 1.00 67.80 | C |
| ATOM | 2138 | C | LEU | A | 308 | 16.281 | 60.197 | -15.340 | 1.00 67.80 | C |
| ATOM | 2139 | O | LEU | A | 308 | 16.614 | 59.089 | -15.778 | 1.00 67.80 | O |
| ATOM | 2140 | CB | LEU | A | 308 | 14.512 | 61.841 | -14.641 | 1.00173.12 | C |
| ATOM | 2141 | CG | LEU | A | 308 | 14.381 | 62.504 | -16.015 | 1.00173.12 | C |
| ATOM | 2142 | CD1 | LEU | A | 308 | 12.920 | 62.820 | -16.298 | 1.00173.12 | C |
| ATOM | 2143 | CD2 | LEU | A | 308 | 15.207 | 63.783 | -16.037 | 1.00173.12 | C |
| ATOM | 2144 | N | ALA | A | 309 | 17.033 | 61.277 | -15.501 | 1.00 59.73 | N |
| ATOM | 2145 | CA | ALA | A | 309 | 18.232 | 61.166 | -16.300 | 1.00 59.73 | C |
| ATOM | 2146 | C | ALA | A | 309 | 18.944 | 59.905 | -15.938 | 1.00 59.73 | C |
| ATOM | 2147 | O | ALA | A | 309 | 19.538 | 59.276 | -16.803 | 1.00 59.73 | O |
| ATOM | 2148 | CB | ALA | A | 309 | 19.134 | 62.378 | -16.046 | 1.00 26.57 | C |
| ATOM | 2149 | N | PHE | A | 310 | 18.855 | 59.525 | -14.668 | 1.00126.36 | N |
| ATOM | 2150 | CA | PHE | A | 310 | 19.493 | 58.310 | -14.171 | 1.00126.36 | C |
| ATOM | 2151 | C | PHE | A | 310 | 19.148 | 57.245 | -15.204 | 1.00126.36 | C |
| ATOM | 2152 | O | PHE | A | 310 | 19.853 | 57.046 | -16.197 | 1.00126.36 | O |
| ATOM | 2153 | CB | PHE | A | 310 | 18.912 | 57.929 | -12.790 | 1.00166.72 | C |
| ATOM | 2154 | CG | PHE | A | 310 | 19.909 | 57.288 | -11.823 | 1.00166.72 | C |
| ATOM | 2155 | CD1 | PHE | A | 310 | 19.628 | 56.054 | -11.227 | 1.00166.72 | C |
| ATOM | 2156 | CD2 | PHE | A | 310 | 21.071 | 57.957 | -11.432 | 1.00166.72 | C |
| ATOM | 2157 | CE1 | PHE | A | 310 | 20.482 | 55.506 | -10.255 | 1.00166.72 | C |
| ATOM | 2158 | CE2 | PHE | A | 310 | 21.927 | 57.412 | -10.461 | 1.00166.72 | C |
| ATOM | 2159 | CZ | PHE | A | 310 | 21.627 | 56.189 | -9.875 | 1.00166.72 | C |
| ATOM | 2160 | N | TRP | A | 311 | 18.022 | 56.597 | -14.976 | 1.00120.81 | N |
| ATOM | 2161 | CA | TRP | A | 311 | 17.562 | 55.536 | -15.835 | 1.00120.81 | C |
| ATOM | 2162 | C | TRP | A | 311 | 17.483 | 55.864 | -17.308 | 1.00120.81 | C |
| ATOM | 2163 | O | TRP | A | 311 | 17.854 | 55.052 | -18.157 | 1.00120.81 | O |
| ATOM | 2164 | CB | TRP | A | 311 | 16.219 | 55.060 | -15.301 | 1.00102.07 | C |
| ATOM | 2165 | CG | TRP | A | 311 | 16.363 | 54.573 | -13.896 | 1.00102.07 | C |
| ATOM | 2166 | CD1 | TRP | A | 311 | 15.516 | 54.796 | -12.849 | 1.00102.07 | C |
| ATOM | 2167 | CD2 | TRP | A | 311 | 17.414 | 53.743 | -13.394 | 1.00102.07 | C |
| ATOM | 2168 | NE1 | TRP | A | 311 | 15.976 | 54.151 | -11.724 | 1.00102.07 | N |
| ATOM | 2169 | CE2 | TRP | A | 311 | 17.140 | 53.496 | -12.032 | 1.00102.07 | C |
| ATOM | 2170 | CE3 | TRP | A | 311 | 18.563 | 53.181 | -13.965 | 1.00102.07 | C |
| ATOM | 2171 | CZ2 | TRP | A | 311 | 17.976 | 52.707 | -11.229 | 1.00102.07 | C |
| ATOM | 2172 | CZ3 | TRP | A | 311 | 19.396 | 52.394 | -13.165 | 1.00102.07 | C |
| ATOM | 2173 | CH2 | TRP | A | 311 | 19.096 | 52.166 | -11.813 | 1.00102.07 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 2174 | N | TYR | A | 312 | 17.017 | 57.058 | -17.618 | 1.00100.78 | N |
| ATOM | 2175 | CA | TYR | A | 312 | 16.915 | 57.440 | -19.007 | 1.00100.78 | C |
| ATOM | 2176 | C | TYR | A | 312 | 18.253 | 57.247 | -19.675 | 1.00100.78 | C |
| ATOM | 2177 | O | TYR | A | 312 | 18.506 | 56.212 | -20.296 | 1.00100.78 | O |
| ATOM | 2178 | CB | TYR | A | 312 | 16.502 | 58.900 | -19.096 | 1.00177.87 | C |
| ATOM | 2179 | CG | TYR | A | 312 | 15.902 | 59.271 | -20.425 | 1.00177.87 | C |
| ATOM | 2180 | CD1 | TYR | A | 312 | 14.820 | 58.560 | -20.934 | 1.00177.87 | C |
| ATOM | 2181 | CD2 | TYR | A | 312 | 16.381 | 60.358 | -21.154 | 1.00177.87 | C |
| ATOM | 2182 | CE1 | TYR | A | 312 | 14.218 | 58.922 | -22.136 | 1.00177.87 | C |
| ATOM | 2183 | CE2 | TYR | A | 312 | 15.788 | 60.732 | -22.360 | 1.00177.87 | C |
| ATOM | 2184 | CZ | TYR | A | 312 | 14.703 | 60.012 | -22.845 | 1.00177.87 | C |
| ATOM | 2185 | OH | TYR | A | 312 | 14.086 | 60.399 | -24.016 | 1.00177.87 | O |
| ATOM | 2186 | N | GLY | A | 313 | 19.107 | 58.254 | -19.523 | 1.00111.67 | N |
| ATOM | 2187 | CA | GLY | A | 313 | 20.426 | 58.231 | -20.123 | 1.00111.67 | C |
| ATOM | 2188 | C | GLY | A | 313 | 21.042 | 56.864 | -20.009 | 1.00111.67 | C |
| ATOM | 2189 | O | GLY | A | 313 | 21.850 | 56.454 | -20.850 | 1.00111.67 | O |
| ATOM | 2190 | N | THR | A | 314 | 20.632 | 56.152 | -18.966 | 1.00 76.43 | N |
| ATOM | 2191 | CA | THR | A | 314 | 21.136 | 54.810 | -18.701 | 1.00 76.43 | C |
| ATOM | 2192 | C | THR | A | 314 | 20.675 | 53.825 | -19.738 | 1.00 76.43 | C |
| ATOM | 2193 | O | THR | A | 314 | 21.467 | 53.228 | -20.471 | 1.00 76.43 | O |
| ATOM | 2194 | CB | THR | A | 314 | 20.665 | 54.298 | -17.316 | 1.00207.38 | C |
| ATOM | 2195 | OG1 | THR | A | 314 | 21.546 | 54.783 | -16.296 | 1.00207.38 | O |
| ATOM | 2196 | CG2 | THR | A | 314 | 20.636 | 52.773 | -17.285 | 1.00207.38 | C |
| ATOM | 2197 | N | SER | A | 315 | 19.372 | 53.639 | -19.744 | 1.00 89.61 | N |
| ATOM | 2198 | CA | SER | A | 315 | 18.725 | 52.767 | -20.673 | 1.00 89.61 | C |
| ATOM | 2199 | C | SER | A | 315 | 19.230 | 53.018 | -22.101 | 1.00 89.61 | C |
| ATOM | 2200 | O | SER | A | 315 | 19.708 | 52.090 | -22.764 | 1.00 89.61 | O |
| ATOM | 2201 | CB | SER | A | 315 | 17.214 | 52.969 | -20.544 | 1.00 85.50 | C |
| ATOM | 2202 | OG | SER | A | 315 | 16.856 | 53.096 | -19.172 | 1.00 85.50 | O |
| ATOM | 2203 | N | LEU | A | 316 | 19.153 | 54.264 | -22.576 | 1.00149.93 | N |
| ATOM | 2204 | CA | LEU | A | 316 | 19.630 | 54.543 | -23.939 | 1.00149.93 | C |
| ATOM | 2205 | C | LEU | A | 316 | 21.052 | 53.968 | -24.060 | 1.00149.93 | C |
| ATOM | 2206 | O | LEU | A | 316 | 21.321 | 53.116 | -24.938 | 1.00149.93 | O |
| ATOM | 2207 | CB | LEU | A | 316 | 19.606 | 56.050 | -24.249 | 1.00 95.43 | C |
| ATOM | 2208 | CG | LEU | A | 316 | 19.496 | 56.480 | -25.723 | 1.00 95.43 | C |
| ATOM | 2209 | CD1 | LEU | A | 316 | 18.563 | 57.678 | -25.835 | 1.00 95.43 | C |
| ATOM | 2210 | CD2 | LEU | A | 316 | 20.867 | 56.822 | -26.280 | 1.00 95.43 | C |
| ATOM | 2211 | N | VAL | A | 317 | 21.939 | 54.389 | -23.150 | 1.00162.34 | N |
| ATOM | 2212 | CA | VAL | A | 317 | 23.326 | 53.919 | -23.176 | 1.00162.34 | C |
| ATOM | 2213 | C | VAL | A | 317 | 23.480 | 52.482 | -22.697 | 1.00162.34 | C |
| ATOM | 2214 | O | VAL | A | 317 | 24.549 | 52.073 | -22.245 | 1.00162.34 | O |
| ATOM | 2215 | CB | VAL | A | 317 | 24.256 | 54.813 | -22.326 | 1.00161.96 | C |
| ATOM | 2216 | CG1 | VAL | A | 317 | 25.713 | 54.507 | -22.662 | 1.00161.96 | C |
| ATOM | 2217 | CG2 | VAL | A | 317 | 23.946 | 56.277 | -22.579 | 1.00161.96 | C |
| ATOM | 2218 | N | ILE | A | 318 | 22.411 | 51.709 | -22.802 | 1.00140.05 | N |
| ATOM | 2219 | CA | ILE | A | 318 | 22.480 | 50.326 | -22.386 | 1.00140.05 | C |
| ATOM | 2220 | C | ILE | A | 318 | 21.849 | 49.450 | -23.466 | 1.00140.05 | C |
| ATOM | 2221 | O | ILE | A | 318 | 22.019 | 48.232 | -23.477 | 1.00140.05 | O |
| ATOM | 2222 | CB | ILE | A | 318 | 21.772 | 50.143 | -21.013 | 1.00145.11 | C |
| ATOM | 2223 | CG1 | ILE | A | 318 | 22.329 | 48.910 | -20.294 | 1.00145.11 | C |
| ATOM | 2224 | CG2 | ILE | A | 318 | 20.262 | 50.074 | -21.199 | 1.00145.11 | C |
| ATOM | 2225 | CD1 | ILE | A | 318 | 22.110 | 47.604 | -21.025 | 1.00145.11 | C |
| ATOM | 2226 | N | SER | A | 319 | 21.118 | 50.072 | -24.385 | 1.00136.76 | N |
| ATOM | 2227 | CA | SER | A | 319 | 20.528 | 49.317 | -25.482 | 1.00136.76 | C |
| ATOM | 2228 | C | SER | A | 319 | 21.438 | 49.509 | -26.671 | 1.00136.76 | C |
| ATOM | 2229 | O | SER | A | 319 | 21.513 | 48.661 | -27.546 | 1.00136.76 | O |
| ATOM | 2230 | CB | SER | A | 319 | 19.108 | 49.813 | -25.780 | 1.00 69.33 | C |
| ATOM | 2231 | OG | SER | A | 319 | 18.201 | 49.349 | -24.788 | 1.00 69.33 | O |
| ATOM | 2232 | N | LYS | A | 320 | 22.144 | 50.632 | -26.695 | 1.00163.83 | N |
| ATOM | 2233 | CA | LYS | A | 320 | 23.084 | 50.859 | -27.784 | 1.00163.83 | C |
| ATOM | 2234 | C | LYS | A | 320 | 24.430 | 50.248 | -27.344 | 1.00163.83 | C |
| ATOM | 2235 | O | LYS | A | 320 | 24.642 | 49.044 | -27.478 | 1.00163.83 | O |
| ATOM | 2236 | CB | LYS | A | 320 | 23.200 | 52.363 | -28.060 | 1.00204.64 | C |
| ATOM | 2237 | CG | LYS | A | 320 | 21.857 | 52.994 | -28.452 | 1.00204.64 | C |
| ATOM | 2238 | CD | LYS | A | 320 | 21.955 | 54.485 | -28.763 | 1.00204.64 | C |
| ATOM | 2239 | CE | LYS | A | 320 | 20.590 | 55.054 | -29.165 | 1.00204.64 | C |
| ATOM | 2240 | NZ | LYS | A | 320 | 20.627 | 56.506 | -29.513 | 1.00204.64 | N |
| ATOM | 2241 | N | GLU | A | 321 | 25.302 | 51.079 | -26.779 | 1.00206.97 | N |
| ATOM | 2242 | CA | GLU | A | 321 | 26.633 | 50.684 | -26.290 | 1.00206.97 | C |
| ATOM | 2243 | C | GLU | A | 321 | 26.620 | 50.235 | -24.817 | 1.00206.97 | C |
| ATOM | 2244 | O | GLU | A | 321 | 25.585 | 50.275 | -24.148 | 1.00206.97 | O |
| ATOM | 2245 | CB | GLU | A | 321 | 27.572 | 51.890 | -26.424 | 1.00127.29 | C |
| ATOM | 2246 | CG | GLU | A | 321 | 26.967 | 53.179 | -25.839 | 1.00127.29 | C |
| ATOM | 2247 | CD | GLU | A | 321 | 27.889 | 54.392 | -25.903 | 1.00127.29 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 2248 | OE1 | GLU | A | 321 | 27.405 | 55.508 | -25.615 | 1.00127.29 | O |
| ATOM | 2249 | OE2 | GLU | A | 321 | 29.085 | 54.241 | -26.230 | 1.00127.29 | O |
| ATOM | 2250 | N | TYR | A | 322 | 27.779 | 49.806 | -24.323 | 1.00123.82 | N |
| ATOM | 2251 | CA | TYR | A | 322 | 27.921 | 49.397 | -22.922 | 1.00123.82 | C |
| ATOM | 2252 | C | TYR | A | 322 | 26.676 | 48.696 | -22.343 | 1.00123.82 | C |
| ATOM | 2253 | O | TYR | A | 322 | 26.231 | 49.008 | -21.234 | 1.00123.82 | O |
| ATOM | 2254 | CB | TYR | A | 322 | 28.268 | 50.638 | -22.080 | 1.00140.48 | C |
| ATOM | 2255 | CG | TYR | A | 322 | 28.740 | 50.373 | -20.661 | 1.00140.48 | C |
| ATOM | 2256 | CD1 | TYR | A | 322 | 29.906 | 49.648 | -20.413 | 1.00140.48 | C |
| ATOM | 2257 | CD2 | TYR | A | 322 | 28.034 | 50.872 | -19.564 | 1.00140.48 | C |
| ATOM | 2258 | CE1 | TYR | A | 322 | 30.360 | 49.427 | -19.106 | 1.00140.48 | C |
| ATOM | 2259 | CE2 | TYR | A | 322 | 28.478 | 50.657 | -18.251 | 1.00140.48 | C |
| ATOM | 2260 | CZ | TYR | A | 322 | 29.640 | 49.934 | -18.031 | 1.00140.48 | C |
| ATOM | 2261 | OH | TYR | A | 322 | 30.072 | 49.718 | -16.740 | 1.00140.48 | O |
| ATOM | 2262 | N | SER | A | 323 | 26.129 | 47.742 | -23.097 | 1.00207.38 | N |
| ATOM | 2263 | CA | SER | A | 323 | 24.944 | 46.984 | -22.670 | 1.00207.38 | C |
| ATOM | 2264 | C | SER | A | 323 | 25.302 | 46.034 | -21.493 | 1.00207.38 | C |
| ATOM | 2265 | O | SER | A | 323 | 25.739 | 44.899 | -21.711 | 1.00207.38 | O |
| ATOM | 2266 | CB | SER | A | 323 | 24.397 | 46.155 | -23.831 | 1.00126.51 | C |
| ATOM | 2267 | OG | SER | A | 323 | 24.042 | 47.002 | -24.906 | 1.00126.51 | O |
| ATOM | 2268 | N | ILE | A | 324 | 25.115 | 46.491 | -20.252 | 1.00176.00 | N |
| ATOM | 2269 | CA | ILE | A | 324 | 25.437 | 45.663 | -19.078 | 1.00176.00 | C |
| ATOM | 2270 | C | ILE | A | 324 | 24.367 | 45.560 | -17.956 | 1.00176.00 | C |
| ATOM | 2271 | O | ILE | A | 324 | 24.370 | 44.601 | -17.164 | 1.00176.00 | O |
| ATOM | 2272 | CB | ILE | A | 324 | 26.775 | 46.120 | -18.442 | 1.00107.64 | C |
| ATOM | 2273 | CG1 | ILE | A | 324 | 27.041 | 47.591 | -18.771 | 1.00107.64 | C |
| ATOM | 2274 | CG2 | ILE | A | 324 | 27.917 | 45.257 | -18.958 | 1.00107.64 | C |
| ATOM | 2275 | CD1 | ILE | A | 324 | 25.961 | 48.550 | -18.323 | 1.00107.64 | C |
| ATOM | 2276 | N | GLY | A | 325 | 23.441 | 46.519 | -17.903 | 1.00132.90 | N |
| ATOM | 2277 | CA | GLY | A | 325 | 22.445 | 46.509 | -16.849 | 1.00132.90 | C |
| ATOM | 2278 | C | GLY | A | 325 | 23.298 | 46.701 | -15.620 | 1.00132.90 | C |
| ATOM | 2279 | O | GLY | A | 325 | 22.893 | 46.344 | -14.519 | 1.00132.90 | O |
| ATOM | 2280 | N | GLN | A | 326 | 24.498 | 47.259 | -15.849 | 1.00124.22 | N |
| ATOM | 2281 | CA | GLN | A | 326 | 25.529 | 47.537 | -14.825 | 1.00124.22 | C |
| ATOM | 2282 | C | GLN | A | 326 | 25.983 | 48.992 | -14.798 | 1.00124.22 | C |
| ATOM | 2283 | O | GLN | A | 326 | 27.023 | 49.338 | -14.240 | 1.00124.22 | O |
| ATOM | 2284 | CB | GLN | A | 326 | 26.733 | 46.623 | -15.027 | 1.00207.38 | C |
| ATOM | 2285 | CG | GLN | A | 326 | 27.265 | 46.130 | -13.713 | 1.00207.38 | C |
| ATOM | 2286 | CD | GLN | A | 326 | 26.144 | 45.621 | -12.832 | 1.00207.38 | C |
| ATOM | 2287 | OE1 | GLN | A | 326 | 25.473 | 44.645 | -13.167 | 1.00207.38 | O |
| ATOM | 2288 | NE2 | GLN | A | 326 | 25.922 | 46.292 | -11.709 | 1.00207.38 | N |
| ATOM | 2289 | N | VAL | A | 327 | 25.201 | 49.834 | -15.453 | 1.00207.38 | N |
| ATOM | 2290 | CA | VAL | A | 327 | 25.462 | 51.255 | -15.447 | 1.00207.38 | C |
| ATOM | 2291 | C | VAL | A | 327 | 25.069 | 51.530 | -14.011 | 1.00207.38 | C |
| ATOM | 2292 | O | VAL | A | 327 | 25.460 | 52.520 | -13.399 | 1.00207.38 | O |
| ATOM | 2293 | CB | VAL | A | 327 | 24.513 | 52.003 | -16.402 | 1.00196.29 | C |
| ATOM | 2294 | CG1 | VAL | A | 327 | 25.302 | 52.606 | -17.556 | 1.00196.29 | C |
| ATOM | 2295 | CG2 | VAL | A | 327 | 23.451 | 51.050 | -16.932 | 1.00196.29 | C |
| ATOM | 2296 | N | LEU | A | 328 | 24.262 | 50.610 | -13.503 | 1.00113.01 | N |
| ATOM | 2297 | CA | LEU | A | 328 | 23.797 | 50.627 | -12.142 | 1.00113.01 | C |
| ATOM | 2298 | C | LEU | A | 328 | 24.976 | 51.079 | -11.306 | 1.00113.01 | C |
| ATOM | 2299 | O | LEU | A | 328 | 25.095 | 52.259 | -10.994 | 1.00113.01 | O |
| ATOM | 2300 | CB | LEU | A | 328 | 23.375 | 49.217 | -11.743 | 1.00 98.36 | C |
| ATOM | 2301 | CG | LEU | A | 328 | 22.767 | 49.030 | -10.360 | 1.00 98.36 | C |
| ATOM | 2302 | CD1 | LEU | A | 328 | 21.434 | 49.756 | -10.298 | 1.00 98.36 | C |
| ATOM | 2303 | CD2 | LEU | A | 328 | 22.587 | 47.548 | -10.085 | 1.00 98.36 | C |
| ATOM | 2304 | N | THR | A | 329 | 25.855 | 50.129 | -10.976 | 1.00112.97 | N |
| ATOM | 2305 | CA | THR | A | 329 | 27.061 | 50.386 | -10.173 | 1.00112.97 | C |
| ATOM | 2306 | C | THR | A | 329 | 27.553 | 51.809 | -10.271 | 1.00112.97 | C |
| ATOM | 2307 | O | THR | A | 329 | 27.667 | 52.520 | -9.285 | 1.00112.97 | O |
| ATOM | 2308 | CB | THR | A | 329 | 28.239 | 49.482 | -10.606 | 1.00106.08 | C |
| ATOM | 2309 | OG1 | THR | A | 329 | 27.926 | 48.110 | -10.342 | 1.00106.08 | O |
| ATOM | 2310 | CG2 | THR | A | 329 | 29.505 | 49.871 | -9.859 | 1.00106.08 | C |
| ATOM | 2311 | N | VAL | A | 330 | 27.864 | 52.206 | -11.487 | 1.00 64.29 | N |
| ATOM | 2312 | CA | VAL | A | 330 | 28.371 | 53.528 | -11.744 | 1.00 64.29 | C |
| ATOM | 2313 | C | VAL | A | 330 | 27.447 | 54.612 | -11.263 | 1.00 64.29 | C |
| ATOM | 2314 | O | VAL | A | 330 | 27.604 | 55.058 | -10.138 | 1.00 64.29 | O |
| ATOM | 2315 | CB | VAL | A | 330 | 28.657 | 53.734 | -13.247 | 1.00142.34 | C |
| ATOM | 2316 | CG1 | VAL | A | 330 | 30.096 | 54.180 | -13.442 | 1.00142.34 | C |
| ATOM | 2317 | CG2 | VAL | A | 330 | 28.407 | 52.446 | -14.010 | 1.00142.34 | C |
| ATOM | 2318 | N | PHE | A | 331 | 26.488 | 55.031 | -12.091 | 1.00206.78 | N |
| ATOM | 2319 | CA | PHE | A | 331 | 25.554 | 56.105 | -11.724 | 1.00206.78 | C |
| ATOM | 2320 | C | PHE | A | 331 | 25.149 | 56.035 | -10.238 | 1.00206.78 | C |
| ATOM | 2321 | O | PHE | A | 331 | 25.381 | 56.975 | -9.487 | 1.00206.78 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 2322 | CB | PHE | A | 331 | 24.329 | 56.082 | -12.652 | 1.00186.71 | C |
| ATOM | 2323 | CG | PHE | A | 331 | 24.654 | 56.391 | -14.106 | 1.00186.71 | C |
| ATOM | 2324 | CD1 | PHE | A | 331 | 25.321 | 55.459 | -14.905 | 1.00186.71 | C |
| ATOM | 2325 | CD2 | PHE | A | 331 | 24.292 | 57.615 | -14.675 | 1.00186.71 | C |
| ATOM | 2326 | CE1 | PHE | A | 331 | 25.619 | 55.741 | -16.246 | 1.00186.71 | C |
| ATOM | 2327 | CE2 | PHE | A | 331 | 24.587 | 57.904 | -16.011 | 1.00186.71 | C |
| ATOM | 2328 | CZ | PHE | A | 331 | 25.250 | 56.964 | -16.796 | 1.00186.71 | C |
| ATOM | 2329 | N | PHE | A | 332 | 24.557 | 54.921 | -9.823 | 1.00119.86 | N |
| ATOM | 2330 | CA | PHE | A | 332 | 24.166 | 54.665 | -8.418 | 1.00119.86 | C |
| ATOM | 2331 | C | PHE | A | 332 | 25.266 | 55.109 | -7.412 | 1.00119.86 | C |
| ATOM | 2332 | O | PHE | A | 332 | 25.014 | 55.772 | -6.391 | 1.00119.86 | O |
| ATOM | 2333 | CB | PHE | A | 332 | 23.950 | 53.156 | -8.303 | 1.00116.82 | C |
| ATOM | 2334 | CG | PHE | A | 332 | 23.264 | 52.716 | -7.056 | 1.00116.82 | C |
| ATOM | 2335 | CD1 | PHE | A | 332 | 23.801 | 51.687 | -6.292 | 1.00116.82 | C |
| ATOM | 2336 | CD2 | PHE | A | 332 | 22.048 | 53.270 | -6.677 | 1.00116.82 | C |
| ATOM | 2337 | CE1 | PHE | A | 332 | 23.133 | 51.211 | -5.168 | 1.00116.82 | C |
| ATOM | 2338 | CE2 | PHE | A | 332 | 21.371 | 52.802 | -5.554 | 1.00116.82 | C |
| ATOM | 2339 | CZ | PHE | A | 332 | 21.914 | 51.770 | -4.798 | 1.00116.82 | C |
| ATOM | 2340 | N | SER | A | 333 | 26.491 | 54.706 | -7.728 | 1.00110.26 | N |
| ATOM | 2341 | CA | SER | A | 333 | 27.662 | 55.018 | -6.938 | 1.00110.26 | C |
| ATOM | 2342 | C | SER | A | 333 | 27.998 | 56.499 | -6.961 | 1.00110.26 | C |
| ATOM | 2343 | O | SER | A | 333 | 28.323 | 57.064 | -5.924 | 1.00110.26 | O |
| ATOM | 2344 | CB | SER | A | 333 | 28.873 | 54.217 | -7.425 | 1.00 69.06 | C |
| ATOM | 2345 | OG | SER | A | 333 | 30.024 | 54.483 | -6.644 | 1.00 69.06 | O |
| ATOM | 2346 | N | VAL | A | 334 | 27.965 | 57.145 | -8.120 | 1.00 75.32 | N |
| ATOM | 2347 | CA | VAL | A | 334 | 28.234 | 58.576 | -8.115 | 1.00 75.32 | C |
| ATOM | 2348 | C | VAL | A | 334 | 27.237 | 59.205 | -7.111 | 1.00 75.32 | C |
| ATOM | 2349 | O | VAL | A | 334 | 27.577 | 60.101 | -6.308 | 1.00 75.32 | O |
| ATOM | 2350 | CB | VAL | A | 334 | 28.019 | 59.219 | -9.501 | 1.00 82.84 | C |
| ATOM | 2351 | CG1 | VAL | A | 334 | 26.533 | 59.283 | -9.828 | 1.00 82.84 | C |
| ATOM | 2352 | CG2 | VAL | A | 334 | 28.641 | 60.615 | -9.533 | 1.00 82.84 | C |
| ATOM | 2353 | N | LEU | A | 335 | 26.000 | 58.723 | -7.133 | 1.00 63.12 | N |
| ATOM | 2354 | CA | LEU | A | 335 | 24.985 | 59.244 | -6.226 | 1.00 63.12 | C |
| ATOM | 2355 | C | LEU | A | 335 | 25.550 | 59.185 | -4.798 | 1.00 63.12 | C |
| ATOM | 2356 | O | LEU | A | 335 | 25.524 | 60.179 | -4.047 | 1.00 63.12 | O |
| ATOM | 2357 | CB | LEU | A | 335 | 23.717 | 58.399 | -6.354 | 1.00 77.38 | C |
| ATOM | 2358 | CG | LEU | A | 335 | 22.496 | 58.857 | -5.564 | 1.00 77.38 | C |
| ATOM | 2359 | CD1 | LEU | A | 335 | 21.271 | 58.877 | -6.455 | 1.00 77.38 | C |
| ATOM | 2360 | CD2 | LEU | A | 335 | 22.292 | 57.922 | -4.392 | 1.00 77.38 | C |
| ATOM | 2361 | N | ILE | A | 336 | 26.083 | 58.023 | -4.427 | 1.00 75.06 | N |
| ATOM | 2362 | CA | ILE | A | 336 | 26.698 | 57.864 | -3.097 | 1.00 75.06 | C |
| ATOM | 2363 | C | ILE | A | 336 | 27.617 | 59.054 | -2.854 | 1.00 75.06 | C |
| ATOM | 2364 | O | ILE | A | 336 | 27.690 | 59.575 | -1.743 | 1.00 75.06 | O |
| ATOM | 2365 | CB | ILE | A | 336 | 27.532 | 56.564 | -3.032 | 1.00108.40 | C |
| ATOM | 2366 | CG1 | ILE | A | 336 | 26.606 | 55.347 | -3.111 | 1.00108.40 | C |
| ATOM | 2367 | CG2 | ILE | A | 336 | 28.383 | 56.548 | -1.781 | 1.00108.40 | C |
| ATOM | 2368 | CD1 | ILE | A | 336 | 25.448 | 55.382 | -2.125 | 1.00108.40 | C |
| ATOM | 2369 | N | GLY | A | 337 | 28.303 | 59.470 | -3.917 | 1.00 57.95 | N |
| ATOM | 2370 | CA | GLY | A | 337 | 29.216 | 60.598 | -3.847 | 1.00 57.95 | C |
| ATOM | 2371 | C | GLY | A | 337 | 28.534 | 61.848 | -3.341 | 1.00 57.95 | C |
| ATOM | 2372 | O | GLY | A | 337 | 28.977 | 62.436 | -2.354 | 1.00 57.95 | O |
| ATOM | 2373 | N | ALA | A | 338 | 27.463 | 62.271 | -4.010 | 1.00 85.02 | N |
| ATOM | 2374 | CA | ALA | A | 338 | 26.723 | 63.459 | -3.551 | 1.00 85.02 | C |
| ATOM | 2375 | C | ALA | A | 338 | 26.447 | 63.332 | -2.044 | 1.00 85.02 | C |
| ATOM | 2376 | O | ALA | A | 338 | 26.954 | 64.125 | -1.235 | 1.00 85.02 | O |
| ATOM | 2377 | CB | ALA | A | 338 | 25.419 | 63.582 | -4.318 | 1.00126.95 | C |
| ATOM | 2378 | N | PHE | A | 339 | 25.666 | 62.321 | -1.662 | 1.00108.91 | N |
| ATOM | 2379 | CA | PHE | A | 339 | 25.353 | 62.141 | -0.238 | 1.00108.91 | C |
| ATOM | 2380 | C | PHE | A | 339 | 26.579 | 62.400 | 0.662 | 1.00108.91 | C |
| ATOM | 2381 | O | PHE | A | 339 | 26.512 | 63.157 | 1.663 | 1.00108.91 | O |
| ATOM | 2382 | CB | PHE | A | 339 | 24.802 | 60.729 | 0.016 | 1.00161.66 | C |
| ATOM | 2383 | CG | PHE | A | 339 | 23.397 | 60.504 | -0.515 | 1.00161.66 | C |
| ATOM | 2384 | CD1 | PHE | A | 339 | 22.734 | 59.304 | -0.264 | 1.00161.66 | C |
| ATOM | 2385 | CD2 | PHE | A | 339 | 22.736 | 61.481 | -1.264 | 1.00161.66 | C |
| ATOM | 2386 | CE1 | PHE | A | 339 | 21.440 | 59.082 | -0.747 | 1.00161.66 | C |
| ATOM | 2387 | CE2 | PHE | A | 339 | 21.442 | 61.262 | -1.750 | 1.00161.66 | C |
| ATOM | 2388 | CZ | PHE | A | 339 | 20.797 | 60.060 | -1.489 | 1.00161.66 | C |
| ATOM | 2389 | N | SER | A | 340 | 27.707 | 61.792 | 0.302 | 1.00 96.51 | N |
| ATOM | 2390 | CA | SER | A | 340 | 28.918 | 61.981 | 1.091 | 1.00 96.51 | C |
| ATOM | 2391 | C | SER | A | 340 | 29.398 | 63.437 | 1.155 | 1.00 96.51 | C |
| ATOM | 2392 | O | SER | A | 340 | 29.922 | 63.863 | 2.179 | 1.00 96.51 | O |
| ATOM | 2393 | CB | SER | A | 340 | 30.040 | 61.064 | 0.583 | 1.00144.54 | C |
| ATOM | 2394 | OG | SER | A | 340 | 30.014 | 60.926 | -0.825 | 1.00144.54 | O |
| ATOM | 2395 | N | VAL | A | 341 | 29.230 | 64.217 | 0.092 | 1.00 53.88 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 2396 | CA | VAL | A | 341 | 29.650 | 65.615 | 0.189 | 1.00 | 53.88 | C |
| ATOM | 2397 | C | VAL | A | 341 | 28.800 | 66.266 | 1.265 | 1.00 | 53.88 | C |
| ATOM | 2398 | O | VAL | A | 341 | 29.218 | 67.231 | 1.914 | 1.00 | 53.88 | O |
| ATOM | 2399 | CB | VAL | A | 341 | 29.437 | 66.393 | -1.125 | 1.00 | 101.09 | C |
| ATOM | 2400 | CG1 | VAL | A | 341 | 29.784 | 67.858 | -0.921 | 1.00 | 101.09 | C |
| ATOM | 2401 | CG2 | VAL | A | 341 | 30.307 | 65.810 | -2.221 | 1.00 | 101.09 | C |
| ATOM | 2402 | N | GLY | A | 342 | 27.592 | 65.739 | 1.450 | 1.00 | 77.48 | N |
| ATOM | 2403 | CA | GLY | A | 342 | 26.728 | 66.288 | 2.484 | 1.00 | 77.48 | C |
| ATOM | 2404 | C | GLY | A | 342 | 27.357 | 66.078 | 3.855 | 1.00 | 77.48 | C |
| ATOM | 2405 | O | GLY | A | 342 | 27.746 | 67.044 | 4.562 | 1.00 | 77.48 | O |
| ATOM | 2406 | N | GLN | A | 343 | 27.490 | 64.811 | 4.242 | 1.00 | 65.06 | N |
| ATOM | 2407 | CA | GLN | A | 343 | 28.066 | 64.519 | 5.559 | 1.00 | 65.06 | C |
| ATOM | 2408 | C | GLN | A | 343 | 29.360 | 65.312 | 5.766 | 1.00 | 65.06 | C |
| ATOM | 2409 | O | GLN | A | 343 | 29.614 | 65.907 | 6.828 | 1.00 | 65.06 | O |
| ATOM | 2410 | CB | GLN | A | 343 | 28.331 | 63.018 | 5.694 | 1.00 | 191.49 | C |
| ATOM | 2411 | CG | GLN | A | 343 | 27.129 | 62.152 | 5.334 | 1.00 | 191.49 | C |
| ATOM | 2412 | CD | GLN | A | 343 | 25.849 | 62.614 | 6.008 | 1.00 | 191.49 | C |
| ATOM | 2413 | OE1 | GLN | A | 343 | 25.431 | 63.762 | 5.848 | 1.00 | 191.49 | O |
| ATOM | 2414 | NE2 | GLN | A | 343 | 25.218 | 61.722 | 6.763 | 1.00 | 191.49 | N |
| ATOM | 2415 | N | ALA | A | 344 | 30.179 | 65.344 | 4.731 | 1.00 | 79.10 | N |
| ATOM | 2416 | CA | ALA | A | 344 | 31.422 | 66.081 | 4.816 | 1.00 | 79.10 | C |
| ATOM | 2417 | C | ALA | A | 344 | 31.130 | 67.501 | 5.316 | 1.00 | 79.10 | C |
| ATOM | 2418 | O | ALA | A | 344 | 31.800 | 67.996 | 6.227 | 1.00 | 79.10 | O |
| ATOM | 2419 | CB | ALA | A | 344 | 32.090 | 66.136 | 3.458 | 1.00 | 176.18 | C |
| ATOM | 2420 | N | SER | A | 345 | 30.112 | 68.144 | 4.742 | 1.00 | 93.34 | N |
| ATOM | 2421 | CA | SER | A | 345 | 29.784 | 69.515 | 5.137 | 1.00 | 93.34 | C |
| ATOM | 2422 | C | SER | A | 345 | 29.516 | 69.702 | 6.633 | 1.00 | 93.34 | C |
| ATOM | 2423 | O | SER | A | 345 | 30.111 | 70.584 | 7.268 | 1.00 | 93.34 | O |
| ATOM | 2424 | CB | SER | A | 345 | 28.578 | 70.028 | 4.345 | 1.00 | 183.67 | C |
| ATOM | 2425 | OG | SER | A | 345 | 28.337 | 71.397 | 4.624 | 1.00 | 183.67 | O |
| ATOM | 2426 | N | PRO | A | 346 | 28.598 | 68.907 | 7.217 | 1.00 | 51.66 | N |
| ATOM | 2427 | CA | PRO | A | 346 | 28.509 | 69.251 | 8.642 | 1.00 | 51.66 | C |
| ATOM | 2428 | C | PRO | A | 346 | 29.806 | 69.064 | 9.405 | 1.00 | 51.66 | C |
| ATOM | 2429 | O | PRO | A | 346 | 30.153 | 69.881 | 10.242 | 1.00 | 51.66 | O |
| ATOM | 2430 | CB | PRO | A | 346 | 27.396 | 68.336 | 9.132 | 1.00 | 144.92 | C |
| ATOM | 2431 | CG | PRO | A | 346 | 26.448 | 68.370 | 7.963 | 1.00 | 144.92 | C |
| ATOM | 2432 | CD | PRO | A | 346 | 27.378 | 68.213 | 6.766 | 1.00 | 144.92 | C |
| ATOM | 2433 | N | ASN | A | 347 | 30.539 | 67.998 | 9.108 | 1.00 | 65.27 | N |
| ATOM | 2434 | CA | ASN | A | 347 | 31.787 | 67.766 | 9.835 | 1.00 | 65.27 | C |
| ATOM | 2435 | C | ASN | A | 347 | 32.688 | 68.978 | 9.737 | 1.00 | 65.27 | C |
| ATOM | 2436 | O | ASN | A | 347 | 33.257 | 69.423 | 10.739 | 1.00 | 65.27 | O |
| ATOM | 2437 | CB | ASN | A | 347 | 32.495 | 66.530 | 9.279 | 1.00 | 133.20 | C |
| ATOM | 2438 | CG | ASN | A | 347 | 31.919 | 65.234 | 9.821 | 1.00 | 133.20 | C |
| ATOM | 2439 | OD1 | ASN | A | 347 | 31.928 | 64.204 | 9.144 | 1.00 | 133.20 | O |
| ATOM | 2440 | ND2 | ASN | A | 347 | 31.431 | 65.275 | 11.058 | 1.00 | 133.20 | N |
| ATOM | 2441 | N | ILE | A | 348 | 32.808 | 69.521 | 8.531 | 1.00 | 96.41 | N |
| ATOM | 2442 | CA | ILE | A | 348 | 33.640 | 70.699 | 8.312 | 1.00 | 96.41 | C |
| ATOM | 2443 | C | ILE | A | 348 | 33.156 | 71.842 | 9.185 | 1.00 | 96.41 | C |
| ATOM | 2444 | O | ILE | A | 348 | 33.951 | 72.492 | 9.873 | 1.00 | 96.41 | O |
| ATOM | 2445 | CB | ILE | A | 348 | 33.582 | 71.174 | 6.838 | 1.00 | 109.22 | C |
| ATOM | 2446 | CG1 | ILE | A | 348 | 34.418 | 70.248 | 5.948 | 1.00 | 109.22 | C |
| ATOM | 2447 | CG2 | ILE | A | 348 | 34.082 | 72.615 | 6.732 | 1.00 | 109.22 | C |
| ATOM | 2448 | CD1 | ILE | A | 348 | 35.923 | 70.338 | 6.193 | 1.00 | 109.22 | C |
| ATOM | 2449 | N | GLU | A | 349 | 31.856 | 72.111 | 9.133 | 1.00 | 87.85 | N |
| ATOM | 2450 | CA | GLU | A | 349 | 31.316 | 73.164 | 9.963 | 1.00 | 87.85 | C |
| ATOM | 2451 | C | GLU | A | 349 | 31.946 | 72.999 | 11.341 | 1.00 | 87.85 | C |
| ATOM | 2452 | O | GLU | A | 349 | 32.622 | 73.891 | 11.830 | 1.00 | 87.85 | O |
| ATOM | 2453 | CB | GLU | A | 349 | 29.797 | 73.056 | 10.074 | 1.00 | 207.31 | C |
| ATOM | 2454 | CG | GLU | A | 349 | 29.223 | 73.883 | 11.215 | 1.00 | 207.31 | C |
| ATOM | 2455 | CD | GLU | A | 349 | 27.731 | 74.086 | 11.101 | 1.00 | 207.31 | C |
| ATOM | 2456 | OE1 | GLU | A | 349 | 26.995 | 73.083 | 10.997 | 1.00 | 207.31 | O |
| ATOM | 2457 | OE2 | GLU | A | 349 | 27.295 | 75.256 | 11.120 | 1.00 | 207.31 | O |
| ATOM | 2458 | N | ALA | A | 350 | 31.756 | 71.833 | 11.949 | 1.00 | 79.80 | N |
| ATOM | 2459 | CA | ALA | A | 350 | 32.302 | 71.563 | 13.286 | 1.00 | 79.80 | C |
| ATOM | 2460 | C | ALA | A | 350 | 33.722 | 72.064 | 13.446 | 1.00 | 79.80 | C |
| ATOM | 2461 | O | ALA | A | 350 | 34.034 | 72.848 | 14.352 | 1.00 | 79.80 | O |
| ATOM | 2462 | CB | ALA | A | 350 | 32.241 | 70.076 | 13.574 | 1.00 | 207.38 | C |
| ATOM | 2463 | N | PHE | A | 351 | 34.578 | 71.588 | 12.557 | 1.00 | 77.24 | N |
| ATOM | 2464 | CA | PHE | A | 351 | 35.962 | 71.997 | 12.591 | 1.00 | 77.24 | C |
| ATOM | 2465 | C | PHE | A | 351 | 36.017 | 73.511 | 12.710 | 1.00 | 77.24 | C |
| ATOM | 2466 | O | PHE | A | 351 | 36.348 | 74.039 | 13.757 | 1.00 | 77.24 | O |
| ATOM | 2467 | CB | PHE | A | 351 | 36.662 | 71.555 | 11.309 | 1.00 | 105.63 | C |
| ATOM | 2468 | CG | PHE | A | 351 | 38.134 | 71.865 | 11.278 | 1.00 | 105.63 | C |
| ATOM | 2469 | CD1 | PHE | A | 351 | 38.641 | 72.984 | 11.933 | 1.00 | 105.63 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 2470 | CD2 | PHE | A | 351 | 39.011 | 71.053 | 10.566 | 1.00105.63 | C |
| ATOM | 2471 | CE1 | PHE | A | 351 | 40.002 | 73.293 | 11.881 | 1.00105.63 | C |
| ATOM | 2472 | CE2 | PHE | A | 351 | 40.378 | 71.350 | 10.504 | 1.00105.63 | C |
| ATOM | 2473 | CZ | PHE | A | 351 | 40.875 | 72.474 | 11.163 | 1.00105.63 | C |
| ATOM | 2474 | N | ALA | A | 352 | 35.699 | 74.216 | 11.635 | 1.00 76.93 | N |
| ATOM | 2475 | CA | ALA | A | 352 | 35.740 | 75.673 | 11.660 | 1.00 76.93 | C |
| ATOM | 2476 | C | ALA | A | 352 | 35.249 | 76.335 | 12.969 | 1.00 76.93 | C |
| ATOM | 2477 | O | ALA | A | 352 | 35.896 | 77.247 | 13.473 | 1.00 76.93 | O |
| ATOM | 2478 | CB | ALA | A | 352 | 34.945 | 76.230 | 10.478 | 1.00156.76 | C |
| ATOM | 2479 | N | ASN | A | 353 | 34.116 | 75.882 | 13.515 | 1.00140.30 | N |
| ATOM | 2480 | CA | ASN | A | 353 | 33.572 | 76.465 | 14.748 | 1.00140.30 | C |
| ATOM | 2481 | C | ASN | A | 353 | 34.542 | 76.335 | 15.894 | 1.00140.30 | C |
| ATOM | 2482 | O | ASN | A | 353 | 34.915 | 77.335 | 16.508 | 1.00140.30 | O |
| ATOM | 2483 | CB | ASN | A | 353 | 32.260 | 75.784 | 15.153 | 1.00182.18 | C |
| ATOM | 2484 | CG | ASN | A | 353 | 31.138 | 76.035 | 14.171 | 1.00182.18 | C |
| ATOM | 2485 | OD1 | ASN | A | 353 | 30.947 | 75.279 | 13.221 | 1.00182.18 | O |
| ATOM | 2486 | ND2 | ASN | A | 353 | 30.390 | 77.110 | 14.394 | 1.00182.18 | N |
| ATOM | 2487 | N | ALA | A | 354 | 34.926 | 75.094 | 16.195 | 1.00 69.88 | N |
| ATOM | 2488 | CA | ALA | A | 354 | 35.871 | 74.830 | 17.279 | 1.00 69.88 | C |
| ATOM | 2489 | C | ALA | A | 354 | 37.141 | 75.631 | 17.059 | 1.00 69.88 | C |
| ATOM | 2490 | O | ALA | A | 354 | 37.756 | 76.059 | 18.018 | 1.00 69.88 | O |
| ATOM | 2491 | CB | ALA | A | 354 | 36.192 | 73.327 | 17.338 | 1.00 93.24 | C |
| ATOM | 2492 | N | ARG | A | 355 | 37.526 | 75.827 | 15.795 | 1.00 65.65 | N |
| ATOM | 2493 | CA | ARG | A | 355 | 38.712 | 76.603 | 15.451 | 1.00 65.65 | C |
| ATOM | 2494 | C | ARG | A | 355 | 38.441 | 78.017 | 15.923 | 1.00 65.65 | C |
| ATOM | 2495 | O | ARG | A | 355 | 39.048 | 78.470 | 16.883 | 1.00 65.65 | O |
| ATOM | 2496 | CB | ARG | A | 355 | 38.954 | 76.586 | 13.939 | 1.00148.16 | C |
| ATOM | 2497 | CG | ARG | A | 355 | 40.107 | 77.459 | 13.464 | 1.00148.16 | C |
| ATOM | 2498 | CD | ARG | A | 355 | 40.917 | 76.728 | 12.408 | 1.00148.16 | C |
| ATOM | 2499 | NE | ARG | A | 355 | 41.536 | 77.621 | 11.435 | 1.00148.16 | N |
| ATOM | 2500 | CZ | ARG | A | 355 | 40.881 | 78.190 | 10.428 | 1.00148.16 | C |
| ATOM | 2501 | NH1 | ARG | A | 355 | 39.581 | 77.960 | 10.260 | 1.00148.16 | N |
| ATOM | 2502 | NH2 | ARG | A | 355 | 41.527 | 78.983 | 9.583 | 1.00148.16 | N |
| ATOM | 2503 | N | GLY | A | 356 | 37.497 | 78.694 | 15.271 | 1.00 90.48 | N |
| ATOM | 2504 | CA | GLY | A | 356 | 37.142 | 80.055 | 15.642 | 1.00 90.48 | C |
| ATOM | 2505 | C | GLY | A | 356 | 37.197 | 80.215 | 17.138 | 1.00 90.48 | C |
| ATOM | 2506 | O | GLY | A | 356 | 37.947 | 81.051 | 17.635 | 1.00 90.48 | O |
| ATOM | 2507 | N | ALA | A | 357 | 36.427 | 79.389 | 17.846 | 1.00158.02 | N |
| ATOM | 2508 | CA | ALA | A | 357 | 36.368 | 79.401 | 19.308 | 1.00158.02 | C |
| ATOM | 2509 | C | ALA | A | 357 | 37.755 | 79.431 | 19.936 | 1.00158.02 | C |
| ATOM | 2510 | O | ALA | A | 357 | 38.236 | 80.486 | 20.350 | 1.00158.02 | O |
| ATOM | 2511 | CB | ALA | A | 357 | 35.593 | 78.186 | 19.801 | 1.00101.41 | C |
| ATOM | 2512 | N | ALA | A | 358 | 38.390 | 78.265 | 20.017 | 1.00 62.54 | N |
| ATOM | 2513 | CA | ALA | A | 358 | 39.733 | 78.158 | 20.591 | 1.00 62.54 | C |
| ATOM | 2514 | C | ALA | A | 358 | 40.590 | 79.220 | 19.988 | 1.00 62.54 | C |
| ATOM | 2515 | O | ALA | A | 358 | 40.668 | 80.283 | 20.546 | 1.00 62.54 | O |
| ATOM | 2516 | CB | ALA | A | 358 | 40.303 | 76.766 | 20.302 | 1.00120.61 | C |
| ATOM | 2517 | N | TYR | A | 359 | 41.194 | 78.945 | 18.833 | 1.00135.86 | N |
| ATOM | 2518 | CA | TYR | A | 359 | 42.091 | 79.885 | 18.123 | 1.00135.86 | C |
| ATOM | 2519 | C | TYR | A | 359 | 41.987 | 81.402 | 18.444 | 1.00135.86 | C |
| ATOM | 2520 | O | TYR | A | 359 | 42.986 | 81.994 | 18.889 | 1.00135.86 | O |
| ATOM | 2521 | CB | TYR | A | 359 | 42.041 | 79.554 | 16.619 | 1.00 81.40 | C |
| ATOM | 2522 | CG | TYR | A | 359 | 41.656 | 80.657 | 15.651 | 1.00 81.40 | C |
| ATOM | 2523 | CD1 | TYR | A | 359 | 40.317 | 80.924 | 15.361 | 1.00 81.40 | C |
| ATOM | 2524 | CD2 | TYR | A | 359 | 42.632 | 81.394 | 14.971 | 1.00 81.40 | C |
| ATOM | 2525 | CE1 | TYR | A | 359 | 39.953 | 81.900 | 14.406 | 1.00 81.40 | C |
| ATOM | 2526 | CE2 | TYR | A | 359 | 42.278 | 82.381 | 14.013 | 1.00 81.40 | C |
| ATOM | 2527 | CZ | TYR | A | 359 | 40.936 | 82.631 | 13.736 | 1.00 81.40 | C |
| ATOM | 2528 | OH | TYR | A | 359 | 40.577 | 83.629 | 12.830 | 1.00 81.40 | O |
| ATOM | 2529 | N | GLU | A | 360 | 40.819 | 82.029 | 18.249 | 1.00100.31 | N |
| ATOM | 2530 | CA | GLU | A | 360 | 40.683 | 83.455 | 18.557 | 1.00100.31 | C |
| ATOM | 2531 | C | GLU | A | 360 | 40.734 | 83.641 | 20.102 | 1.00100.31 | C |
| ATOM | 2532 | O | GLU | A | 360 | 41.661 | 84.282 | 20.633 | 1.00100.31 | O |
| ATOM | 2533 | CB | GLU | A | 360 | 39.383 | 83.998 | 17.913 | 1.00120.20 | C |
| ATOM | 2534 | CG | GLU | A | 360 | 39.578 | 84.516 | 16.451 | 1.00120.20 | C |
| ATOM | 2535 | CD | GLU | A | 360 | 38.335 | 84.430 | 15.555 | 1.00120.20 | C |
| ATOM | 2536 | OE1 | GLU | A | 360 | 37.934 | 83.302 | 15.188 | 1.00120.20 | O |
| ATOM | 2537 | OE2 | GLU | A | 360 | 37.769 | 85.491 | 15.207 | 1.00120.20 | O |
| ATOM | 2538 | N | VAL | A | 361 | 39.797 | 83.060 | 20.851 | 1.00 74.10 | N |
| ATOM | 2539 | CA | VAL | A | 361 | 39.864 | 83.220 | 22.310 | 1.00 74.10 | C |
| ATOM | 2540 | C | VAL | A | 361 | 40.914 | 82.243 | 22.882 | 1.00 74.10 | C |
| ATOM | 2541 | O | VAL | A | 361 | 40.859 | 81.827 | 24.022 | 1.00 74.10 | O |
| ATOM | 2542 | CB | VAL | A | 361 | 38.483 | 82.989 | 22.978 | 1.00 95.01 | C |
| ATOM | 2543 | CG1 | VAL | A | 361 | 37.461 | 83.934 | 22.368 | 1.00 95.01 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 2544 | CG2 | VAL | A | 361 | 38.047 | 81.540 | 22.825 | 1.00 | 95.01 | C |
| ATOM | 2545 | N | PHE | A | 362 | 41.879 | 81.910 | 22.039 | 1.00 | 85.33 | N |
| ATOM | 2546 | CA | PHE | A | 362 | 42.989 | 81.009 | 22.328 | 1.00 | 85.33 | C |
| ATOM | 2547 | C | PHE | A | 362 | 44.151 | 81.972 | 22.374 | 1.00 | 85.33 | C |
| ATOM | 2548 | O | PHE | A | 362 | 45.109 | 81.799 | 23.112 | 1.00 | 85.33 | O |
| ATOM | 2549 | CB | PHE | A | 362 | 43.116 | 80.023 | 21.168 | 1.00 | 98.22 | C |
| ATOM | 2550 | CG | PHE | A | 362 | 44.335 | 79.162 | 21.217 | 1.00 | 98.22 | C |
| ATOM | 2551 | CD1 | PHE | A | 362 | 45.606 | 79.712 | 21.078 | 1.00 | 98.22 | C |
| ATOM | 2552 | CD2 | PHE | A | 362 | 44.214 | 77.787 | 21.363 | 1.00 | 98.22 | C |
| ATOM | 2553 | CE1 | PHE | A | 362 | 46.748 | 78.901 | 21.079 | 1.00 | 98.22 | C |
| ATOM | 2554 | CE2 | PHE | A | 362 | 45.347 | 76.968 | 21.366 | 1.00 | 98.22 | C |
| ATOM | 2555 | CZ | PHE | A | 362 | 46.617 | 77.528 | 21.223 | 1.00 | 98.22 | C |
| ATOM | 2556 | N | LYS | A | 363 | 44.072 | 82.985 | 21.527 | 1.00 | 170.03 | N |
| ATOM | 2557 | CA | LYS | A | 363 | 45.075 | 84.018 | 21.575 | 1.00 | 170.03 | C |
| ATOM | 2558 | C | LYS | A | 363 | 44.622 | 84.665 | 22.881 | 1.00 | 170.03 | C |
| ATOM | 2559 | O | LYS | A | 363 | 45.347 | 85.437 | 23.481 | 1.00 | 170.03 | O |
| ATOM | 2560 | CB | LYS | A | 363 | 44.911 | 85.021 | 20.436 | 1.00 | 124.19 | C |
| ATOM | 2561 | CG | LYS | A | 363 | 45.425 | 84.565 | 19.086 | 1.00 | 124.19 | C |
| ATOM | 2562 | CD | LYS | A | 363 | 44.951 | 85.523 | 18.010 | 1.00 | 124.19 | C |
| ATOM | 2563 | CE | LYS | A | 363 | 43.427 | 85.587 | 18.011 | 1.00 | 124.19 | C |
| ATOM | 2564 | NZ | LYS | A | 363 | 42.872 | 86.669 | 17.160 | 1.00 | 124.19 | N |
| ATOM | 2565 | N | ILE | A | 364 | 43.388 | 84.375 | 23.296 | 1.00 | 133.88 | N |
| ATOM | 2566 | CA | ILE | A | 364 | 42.903 | 84.896 | 24.585 | 1.00 | 133.88 | C |
| ATOM | 2567 | C | ILE | A | 364 | 43.394 | 83.885 | 25.627 | 1.00 | 133.88 | C |
| ATOM | 2568 | O | ILE | A | 364 | 43.654 | 84.209 | 26.797 | 1.00 | 133.88 | O |
| ATOM | 2569 | CB | ILE | A | 364 | 41.356 | 84.948 | 24.655 | 1.00 | 106.11 | C |
| ATOM | 2570 | CG1 | ILE | A | 364 | 40.820 | 86.095 | 23.794 | 1.00 | 106.11 | C |
| ATOM | 2571 | CG2 | ILE | A | 364 | 40.912 | 85.137 | 26.098 | 1.00 | 106.11 | C |
| ATOM | 2572 | CD1 | ILE | A | 364 | 39.304 | 86.280 | 23.873 | 1.00 | 106.11 | C |
| ATOM | 2573 | N | ILE | A | 365 | 43.519 | 82.653 | 25.144 | 1.00 | 190.26 | N |
| ATOM | 2574 | CA | ILE | A | 365 | 43.943 | 81.498 | 25.921 | 1.00 | 190.26 | C |
| ATOM | 2575 | C | ILE | A | 365 | 45.481 | 81.474 | 26.125 | 1.00 | 190.26 | C |
| ATOM | 2576 | O | ILE | A | 365 | 45.989 | 82.075 | 27.078 | 1.00 | 190.26 | O |
| ATOM | 2577 | CB | ILE | A | 365 | 43.464 | 80.196 | 25.231 | 1.00 | 57.57 | C |
| ATOM | 2578 | CG1 | ILE | A | 365 | 41.932 | 80.151 | 25.256 | 1.00 | 57.57 | C |
| ATOM | 2579 | CG2 | ILE | A | 365 | 44.041 | 78.963 | 25.938 | 1.00 | 57.57 | C |
| ATOM | 2580 | CD1 | ILE | A | 365 | 41.304 | 79.149 | 24.282 | 1.00 | 57.57 | C |
| ATOM | 2581 | N | ASP | A | 366 | 46.200 | 80.784 | 25.233 | 1.00 | 138.49 | N |
| ATOM | 2582 | CA | ASP | A | 366 | 47.666 | 80.670 | 25.280 | 1.00 | 138.49 | C |
| ATOM | 2583 | C | ASP | A | 366 | 48.223 | 81.978 | 25.788 | 1.00 | 138.49 | C |
| ATOM | 2584 | O | ASP | A | 366 | 48.510 | 82.103 | 26.974 | 1.00 | 138.49 | O |
| ATOM | 2585 | CB | ASP | A | 366 | 48.230 | 80.388 | 23.882 | 1.00 | 207.38 | C |
| ATOM | 2586 | CG | ASP | A | 366 | 48.492 | 78.909 | 23.634 | 1.00 | 207.38 | C |
| ATOM | 2587 | OD1 | ASP | A | 366 | 47.569 | 78.086 | 23.822 | 1.00 | 207.38 | O |
| ATOM | 2588 | OD2 | ASP | A | 366 | 49.630 | 78.571 | 23.240 | 1.00 | 207.38 | O |
| ATOM | 2589 | N | ASN | A | 367 | 48.348 | 82.937 | 24.866 | 1.00 | 207.38 | N |
| ATOM | 2590 | CA | ASN | A | 367 | 48.852 | 84.290 | 25.114 | 1.00 | 207.38 | C |
| ATOM | 2591 | C | ASN | A | 367 | 49.266 | 84.578 | 26.536 | 1.00 | 207.38 | C |
| ATOM | 2592 | O | ASN | A | 367 | 48.549 | 84.265 | 27.478 | 1.00 | 207.38 | O |
| ATOM | 2593 | CB | ASN | A | 367 | 47.801 | 85.312 | 24.673 | 1.00 | 115.54 | C |
| ATOM | 2594 | CG | ASN | A | 367 | 46.555 | 85.287 | 25.550 | 1.00 | 115.54 | C |
| ATOM | 2595 | OD1 | ASN | A | 367 | 45.979 | 84.229 | 25.792 | 1.00 | 115.54 | O |
| ATOM | 2596 | ND2 | ASN | A | 367 | 46.133 | 86.457 | 26.025 | 1.00 | 115.54 | N |
| ATOM | 2597 | N | LYS | A | 368 | 50.410 | 85.223 | 26.689 | 1.00 | 149.87 | N |
| ATOM | 2598 | CA | LYS | A | 368 | 50.913 | 85.530 | 28.018 | 1.00 | 149.87 | C |
| ATOM | 2599 | C | LYS | A | 368 | 51.010 | 87.023 | 28.303 | 1.00 | 149.87 | C |
| ATOM | 2600 | O | LYS | A | 368 | 52.094 | 87.528 | 28.611 | 1.00 | 149.87 | O |
| ATOM | 2601 | CB | LYS | A | 368 | 52.301 | 84.914 | 28.197 | 1.00 | 192.50 | C |
| ATOM | 2602 | CG | LYS | A | 368 | 52.324 | 83.405 | 28.318 | 1.00 | 192.50 | C |
| ATOM | 2603 | CD | LYS | A | 368 | 51.817 | 82.954 | 29.678 | 1.00 | 192.50 | C |
| ATOM | 2604 | CE | LYS | A | 368 | 52.011 | 81.460 | 29.869 | 1.00 | 192.50 | C |
| ATOM | 2605 | NZ | LYS | A | 368 | 51.541 | 81.020 | 31.210 | 1.00 | 192.50 | N |
| ATOM | 2606 | N | PRO | A | 369 | 49.890 | 87.754 | 28.209 | 1.00 | 139.37 | N |
| ATOM | 2607 | CA | PRO | A | 369 | 49.990 | 89.192 | 28.488 | 1.00 | 139.37 | C |
| ATOM | 2608 | C | PRO | A | 369 | 50.851 | 89.517 | 29.739 | 1.00 | 139.37 | C |
| ATOM | 2609 | O | PRO | A | 369 | 52.048 | 89.804 | 29.618 | 1.00 | 139.37 | O |
| ATOM | 2610 | CB | PRO | A | 369 | 48.531 | 89.599 | 28.630 | 1.00 | 103.65 | C |
| ATOM | 2611 | CG | PRO | A | 369 | 47.892 | 88.760 | 27.553 | 1.00 | 103.65 | C |
| ATOM | 2612 | CD | PRO | A | 369 | 48.529 | 87.396 | 27.773 | 1.00 | 103.65 | C |
| ATOM | 2613 | N | SER | A | 370 | 50.253 | 89.461 | 30.926 | 1.00 | 84.76 | N |
| ATOM | 2614 | CA | SER | A | 370 | 50.972 | 89.724 | 32.162 | 1.00 | 84.76 | C |
| ATOM | 2615 | C | SER | A | 370 | 51.795 | 91.003 | 32.062 | 1.00 | 84.76 | C |
| ATOM | 2616 | O | SER | A | 370 | 51.302 | 92.035 | 31.615 | 1.00 | 84.76 | O |
| ATOM | 2617 | CB | SER | A | 370 | 51.914 | 88.561 | 32.476 | 1.00 | 126.69 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 2618 | OG | SER | A | 370 | 52.976 | 88.505 | 31.534 | 1.00126.69 | O |
| ATOM | 2619 | N | ILE | A | 371 | 53.057 | 90.908 | 32.488 | 1.00103.60 | N |
| ATOM | 2620 | CA | ILE | A | 371 | 54.024 | 92.014 | 32.496 | 1.00103.60 | C |
| ATOM | 2621 | C | ILE | A | 371 | 53.596 | 93.139 | 33.454 | 1.00103.60 | C |
| ATOM | 2622 | O | ILE | A | 371 | 54.433 | 93.889 | 33.972 | 1.00103.60 | O |
| ATOM | 2623 | CB | ILE | A | 371 | 54.255 | 92.546 | 31.062 | 1.00130.53 | C |
| ATOM | 2624 | CG1 | ILE | A | 371 | 54.853 | 91.428 | 30.193 | 1.00130.53 | C |
| ATOM | 2625 | CG2 | ILE | A | 371 | 55.202 | 93.726 | 31.088 | 1.00130.53 | C |
| ATOM | 2626 | CD1 | ILE | A | 371 | 56.096 | 90.756 | 30.788 | 1.00130.53 | C |
| ATOM | 2627 | N | ASP | A | 372 | 52.290 | 93.236 | 33.705 | 1.00 86.33 | N |
| ATOM | 2628 | CA | ASP | A | 372 | 51.779 | 94.236 | 34.645 | 1.00 86.33 | C |
| ATOM | 2629 | C | ASP | A | 372 | 51.963 | 93.644 | 36.023 | 1.00 86.33 | C |
| ATOM | 2630 | O | ASP | A | 372 | 51.377 | 94.092 | 37.017 | 1.00 86.33 | O |
| ATOM | 2631 | CB | ASP | A | 372 | 50.298 | 94.550 | 34.385 | 1.00107.65 | C |
| ATOM | 2632 | CG | ASP | A | 372 | 49.338 | 93.551 | 35.024 | 1.00107.65 | C |
| ATOM | 2633 | OD1 | ASP | A | 372 | 48.129 | 93.885 | 35.103 | 1.00107.65 | O |
| ATOM | 2634 | OD2 | ASP | A | 372 | 49.769 | 92.451 | 35.426 | 1.00107.65 | O |
| ATOM | 2635 | N | SER | A | 373 | 52.805 | 92.621 | 36.064 | 1.00 78.22 | N |
| ATOM | 2636 | CA | SER | A | 373 | 53.004 | 91.937 | 37.295 | 1.00 78.22 | C |
| ATOM | 2637 | C | SER | A | 373 | 53.825 | 90.654 | 37.239 | 1.00 78.22 | C |
| ATOM | 2638 | O | SER | A | 373 | 54.875 | 90.619 | 37.832 | 1.00 78.22 | O |
| ATOM | 2639 | CB | SER | A | 373 | 51.662 | 91.632 | 37.961 | 1.00152.07 | C |
| ATOM | 2640 | OG | SER | A | 373 | 50.967 | 90.624 | 37.252 | 1.00152.07 | O |
| ATOM | 2641 | N | PHE | A | 374 | 53.428 | 89.618 | 36.521 | 1.00120.35 | N |
| ATOM | 2642 | CA | PHE | A | 374 | 54.165 | 88.348 | 36.612 | 1.00120.35 | C |
| ATOM | 2643 | C | PHE | A | 374 | 54.071 | 87.529 | 37.963 | 1.00120.35 | C |
| ATOM | 2644 | O | PHE | A | 374 | 53.255 | 87.783 | 38.859 | 1.00120.35 | O |
| ATOM | 2645 | CB | PHE | A | 374 | 55.645 | 88.519 | 36.263 | 1.00183.93 | C |
| ATOM | 2646 | CG | PHE | A | 374 | 56.220 | 87.318 | 35.592 | 1.00183.93 | C |
| ATOM | 2647 | CD1 | PHE | A | 374 | 57.587 | 87.187 | 35.391 | 1.00183.93 | C |
| ATOM | 2648 | CD2 | PHE | A | 374 | 55.371 | 86.313 | 35.135 | 1.00183.93 | C |
| ATOM | 2649 | CE1 | PHE | A | 374 | 58.099 | 86.072 | 34.736 | 1.00183.93 | C |
| ATOM | 2650 | CE2 | PHE | A | 374 | 55.868 | 85.204 | 34.483 | 1.00183.93 | C |
| ATOM | 2651 | CZ | PHE | A | 374 | 57.237 | 85.077 | 34.283 | 1.00183.93 | C |
| ATOM | 2652 | N | SER | A | 375 | 54.913 | 86.517 | 38.081 | 1.00 92.93 | N |
| ATOM | 2653 | CA | SER | A | 375 | 54.955 | 85.687 | 39.259 | 1.00 92.93 | C |
| ATOM | 2654 | C | SER | A | 375 | 55.999 | 84.695 | 38.948 | 1.00 92.93 | C |
| ATOM | 2655 | O | SER | A | 375 | 55.707 | 83.506 | 38.882 | 1.00 92.93 | O |
| ATOM | 2656 | CB | SER | A | 375 | 53.597 | 85.001 | 39.503 | 1.00130.48 | C |
| ATOM | 2657 | OG | SER | A | 375 | 52.730 | 85.802 | 40.296 | 1.00130.48 | O |
| ATOM | 2658 | N | LYS | A | 376 | 57.204 | 85.210 | 38.696 | 1.00129.38 | N |
| ATOM | 2659 | CA | LYS | A | 376 | 58.394 | 84.403 | 38.387 | 1.00129.38 | C |
| ATOM | 2660 | C | LYS | A | 376 | 59.631 | 85.090 | 39.004 | 1.00129.38 | C |
| ATOM | 2661 | O | LYS | A | 376 | 59.434 | 86.091 | 39.662 | 1.00129.38 | O |
| ATOM | 2662 | CB | LYS | A | 376 | 58.502 | 84.238 | 36.870 | 1.00141.16 | C |
| ATOM | 2663 | CG | LYS | A | 376 | 59.460 | 83.159 | 36.391 | 1.00141.16 | C |
| ATOM | 2664 | CD | LYS | A | 376 | 60.878 | 83.655 | 36.500 | 1.00141.16 | C |
| ATOM | 2665 | CE | LYS | A | 376 | 61.012 | 84.961 | 35.737 | 1.00141.16 | C |
| ATOM | 2666 | NZ | LYS | A | 376 | 62.304 | 85.635 | 35.996 | 1.00141.16 | N |
| ATOM | 2667 | N | SER | A | 377 | 60.867 | 84.597 | 38.796 | 1.00151.62 | N |
| ATOM | 2668 | CA | SER | A | 377 | 62.159 | 85.140 | 39.367 | 1.00151.62 | C |
| ATOM | 2669 | C | SER | A | 377 | 62.407 | 86.460 | 40.171 | 1.00151.62 | C |
| ATOM | 2670 | O | SER | A | 377 | 62.066 | 86.474 | 41.350 | 1.00151.62 | O |
| ATOM | 2671 | CB | SER | A | 377 | 63.258 | 85.009 | 38.304 | 1.00120.72 | C |
| ATOM | 2672 | OG | SER | A | 377 | 63.822 | 83.701 | 38.315 | 1.00120.72 | O |
| ATOM | 2673 | N | GLY | A | 378 | 63.062 | 87.496 | 39.623 | 1.00185.64 | N |
| ATOM | 2674 | CA | GLY | A | 378 | 63.199 | 88.748 | 40.359 | 1.00185.64 | C |
| ATOM | 2675 | C | GLY | A | 378 | 64.258 | 89.213 | 41.317 | 1.00185.64 | C |
| ATOM | 2676 | O | GLY | A | 378 | 65.344 | 88.657 | 41.294 | 1.00185.64 | O |
| ATOM | 2677 | N | HIS | A | 379 | 63.875 | 90.188 | 42.166 | 1.00162.61 | N |
| ATOM | 2678 | CA | HIS | A | 379 | 64.728 | 90.846 | 43.180 | 1.00162.61 | C |
| ATOM | 2679 | C | HIS | A | 379 | 64.284 | 90.464 | 44.611 | 1.00162.61 | C |
| ATOM | 2680 | O | HIS | A | 379 | 63.089 | 90.306 | 44.866 | 1.00162.61 | O |
| ATOM | 2681 | CB | HIS | A | 379 | 64.599 | 92.356 | 42.964 | 1.00143.84 | C |
| ATOM | 2682 | CG | HIS | A | 379 | 65.709 | 93.171 | 43.554 | 1.00143.84 | C |
| ATOM | 2683 | ND1 | HIS | A | 379 | 66.030 | 94.427 | 43.084 | 1.00143.84 | N |
| ATOM | 2684 | CD2 | HIS | A | 379 | 66.550 | 92.932 | 44.588 | 1.00143.84 | C |
| ATOM | 2685 | CE1 | HIS | A | 379 | 67.020 | 94.926 | 43.801 | 1.00143.84 | C |
| ATOM | 2686 | NE2 | HIS | A | 379 | 67.354 | 94.040 | 44.721 | 1.00143.84 | N |
| ATOM | 2687 | N | LYS | A | 380 | 65.233 | 90.367 | 45.546 | 1.00143.38 | N |
| ATOM | 2688 | CA | LYS | A | 380 | 64.923 | 89.976 | 46.933 | 1.00143.38 | C |
| ATOM | 2689 | C | LYS | A | 380 | 65.490 | 90.884 | 48.073 | 1.00143.38 | C |
| ATOM | 2690 | O | LYS | A | 380 | 66.671 | 90.811 | 48.415 | 1.00143.38 | O |
| ATOM | 2691 | CB | LYS | A | 380 | 65.373 | 88.527 | 47.170 | 1.00149.69 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 2692 | CG | LYS | A | 380 | 65.145 | 87.564 | 45.988 | 1.00149.69 | C |
| ATOM | 2693 | CD | LYS | A | 380 | 63.670 | 87.274 | 45.705 | 1.00149.69 | C |
| ATOM | 2694 | CE | LYS | A | 380 | 63.038 | 86.374 | 46.768 | 1.00149.69 | C |
| ATOM | 2695 | NZ | LYS | A | 380 | 63.561 | 84.975 | 46.758 | 1.00149.69 | N |
| ATOM | 2696 | N | PRO | A | 381 | 64.634 | 91.719 | 48.698 | 1.00134.15 | N |
| ATOM | 2697 | CA | PRO | A | 381 | 65.040 | 92.624 | 49.778 | 1.00134.15 | C |
| ATOM | 2698 | C | PRO | A | 381 | 64.865 | 91.866 | 51.055 | 1.00134.15 | C |
| ATOM | 2699 | O | PRO | A | 381 | 63.858 | 92.026 | 51.742 | 1.00134.15 | O |
| ATOM | 2700 | CB | PRO | A | 381 | 64.023 | 93.734 | 49.648 | 1.00123.00 | C |
| ATOM | 2701 | CG | PRO | A | 381 | 62.753 | 92.918 | 49.456 | 1.00123.00 | C |
| ATOM | 2702 | CD | PRO | A | 381 | 63.182 | 91.833 | 48.455 | 1.00123.00 | C |
| ATOM | 2703 | N | ASP | A | 382 | 65.844 | 91.039 | 51.376 | 1.00125.52 | N |
| ATOM | 2704 | CA | ASP | A | 382 | 65.771 | 90.208 | 52.576 | 1.00125.52 | C |
| ATOM | 2705 | C | ASP | A | 382 | 66.232 | 90.918 | 53.853 | 1.00125.52 | C |
| ATOM | 2706 | O | ASP | A | 382 | 66.332 | 90.334 | 54.940 | 1.00125.52 | O |
| ATOM | 2707 | CB | ASP | A | 382 | 66.567 | 88.928 | 52.335 | 1.00207.38 | C |
| ATOM | 2708 | CG | ASP | A | 382 | 66.241 | 88.297 | 50.987 | 1.00207.38 | C |
| ATOM | 2709 | OD1 | ASP | A | 382 | 66.749 | 87.196 | 50.690 | 1.00207.38 | O |
| ATOM | 2710 | OD2 | ASP | A | 382 | 65.471 | 88.916 | 50.219 | 1.00207.38 | O |
| ATOM | 2711 | N | ASN | A | 383 | 66.497 | 92.206 | 53.678 | 1.00207.38 | N |
| ATOM | 2712 | CA | ASN | A | 383 | 66.925 | 93.092 | 54.746 | 1.00207.38 | C |
| ATOM | 2713 | C | ASN | A | 383 | 65.773 | 93.060 | 55.736 | 1.00207.38 | C |
| ATOM | 2714 | O | ASN | A | 383 | 65.922 | 93.468 | 56.898 | 1.00207.38 | O |
| ATOM | 2715 | CB | ASN | A | 383 | 67.102 | 94.498 | 54.182 | 1.00207.38 | C |
| ATOM | 2716 | CG | ASN | A | 383 | 65.992 | 94.874 | 53.204 | 1.00207.38 | C |
| ATOM | 2717 | OD1 | ASN | A | 383 | 64.836 | 95.052 | 53.593 | 1.00207.38 | O |
| ATOM | 2718 | ND2 | ASN | A | 383 | 66.340 | 94.977 | 51.923 | 1.00207.38 | N |
| ATOM | 2719 | N | ILE | A | 384 | 64.620 | 92.586 | 55.254 | 1.00122.10 | N |
| ATOM | 2720 | CA | ILE | A | 384 | 63.396 | 92.562 | 56.041 | 1.00122.10 | C |
| ATOM | 2721 | C | ILE | A | 384 | 63.084 | 94.105 | 56.346 | 1.00122.10 | C |
| ATOM | 2722 | O | ILE | A | 384 | 63.380 | 94.958 | 55.606 | 1.00122.10 | O |
| ATOM | 2723 | CB | ILE | A | 384 | 63.608 | 91.841 | 57.389 | 1.00174.55 | C |
| ATOM | 2724 | CG1 | ILE | A | 384 | 64.289 | 90.487 | 57.198 | 1.00174.55 | C |
| ATOM | 2725 | CG2 | ILE | A | 384 | 62.307 | 91.721 | 58.143 | 1.00174.55 | C |
| ATOM | 2726 | CD1 | ILE | A | 384 | 65.783 | 90.519 | 57.454 | 1.00174.55 | C |
| ATOM | 2727 | N | GLN | A | 385 | 62.388 | 94.454 | 57.403 | 1.00128.46 | N |
| ATOM | 2728 | CA | GLN | A | 385 | 62.088 | 95.863 | 57.768 | 1.00128.46 | C |
| ATOM | 2729 | C | GLN | A | 385 | 62.460 | 97.052 | 56.806 | 1.00128.46 | C |
| ATOM | 2730 | O | GLN | A | 385 | 63.515 | 97.148 | 56.073 | 1.00128.46 | O |
| ATOM | 2731 | CB | GLN | A | 385 | 62.587 | 96.182 | 59.174 | 1.00157.34 | C |
| ATOM | 2732 | CG | GLN | A | 385 | 62.066 | 97.533 | 59.667 | 1.00157.34 | C |
| ATOM | 2733 | CD | GLN | A | 385 | 60.636 | 97.756 | 59.242 | 1.00157.34 | C |
| ATOM | 2734 | OE1 | GLN | A | 385 | 59.792 | 96.868 | 59.364 | 1.00157.34 | O |
| ATOM | 2735 | NE2 | GLN | A | 385 | 60.356 | 98.940 | 58.730 | 1.00157.34 | N |
| ATOM | 2736 | N | GLY | A | 386 | 61.632 | 98.066 | 56.956 | 1.00 77.43 | N |
| ATOM | 2737 | CA | GLY | A | 386 | 61.774 | 99.268 | 56.170 | 1.00 77.43 | C |
| ATOM | 2738 | C | GLY | A | 386 | 60.529 | 100.161 | 56.127 | 1.00 77.43 | C |
| ATOM | 2739 | O | GLY | A | 386 | 59.430 | 99.791 | 56.570 | 1.00 77.43 | O |
| ATOM | 2740 | N | ASN | A | 387 | 60.693 | 101.349 | 55.544 | 1.00142.36 | N |
| ATOM | 2741 | CA | ASN | A | 387 | 59.592 | 102.297 | 55.560 | 1.00142.36 | C |
| ATOM | 2742 | C | ASN | A | 387 | 58.942 | 102.384 | 54.242 | 1.00142.36 | C |
| ATOM | 2743 | O | ASN | A | 387 | 59.572 | 102.143 | 53.228 | 1.00142.36 | O |
| ATOM | 2744 | CB | ASN | A | 387 | 60.094 | 103.681 | 55.967 | 1.00110.48 | C |
| ATOM | 2745 | CG | ASN | A | 387 | 61.071 | 103.628 | 57.123 | 1.00110.48 | C |
| ATOM | 2746 | OD1 | ASN | A | 387 | 62.204 | 103.168 | 56.973 | 1.00110.48 | O |
| ATOM | 2747 | ND2 | ASN | A | 387 | 60.633 | 104.088 | 58.289 | 1.00110.48 | N |
| ATOM | 2748 | N | LEU | A | 388 | 57.667 | 102.714 | 54.234 | 1.00 91.51 | N |
| ATOM | 2749 | CA | LEU | A | 388 | 57.016 | 102.839 | 52.946 | 1.00 91.51 | C |
| ATOM | 2750 | C | LEU | A | 388 | 57.336 | 104.253 | 52.499 | 1.00 91.51 | C |
| ATOM | 2751 | O | LEU | A | 388 | 57.539 | 105.137 | 53.350 | 1.00 91.51 | O |
| ATOM | 2752 | CB | LEU | A | 388 | 55.497 | 102.700 | 53.081 | 1.00 96.18 | C |
| ATOM | 2753 | CG | LEU | A | 388 | 54.896 | 101.305 | 53.267 | 1.00 96.18 | C |
| ATOM | 2754 | CD1 | LEU | A | 388 | 55.607 | 100.555 | 54.393 | 1.00 96.18 | C |
| ATOM | 2755 | CD2 | LEU | A | 388 | 53.406 | 101.440 | 53.555 | 1.00 96.18 | C |
| ATOM | 2756 | N | GLU | A | 389 | 57.370 | 104.469 | 51.182 | 1.00 69.77 | N |
| ATOM | 2757 | CA | GLU | A | 389 | 57.680 | 105.780 | 50.630 | 1.00 69.77 | C |
| ATOM | 2758 | C | GLU | A | 389 | 56.858 | 106.052 | 49.400 | 1.00 69.77 | C |
| ATOM | 2759 | O | GLU | A | 389 | 57.254 | 105.663 | 48.327 | 1.00 69.77 | O |
| ATOM | 2760 | CB | GLU | A | 389 | 59.163 | 105.873 | 50.224 | 1.00207.38 | C |
| ATOM | 2761 | CG | GLU | A | 389 | 60.194 | 105.249 | 51.170 | 1.00207.38 | C |
| ATOM | 2762 | CD | GLU | A | 389 | 60.610 | 106.164 | 52.306 | 1.00207.38 | C |
| ATOM | 2763 | OE1 | GLU | A | 389 | 59.847 | 106.277 | 53.285 | 1.00207.38 | O |
| ATOM | 2764 | OE2 | GLU | A | 389 | 61.699 | 106.774 | 52.217 | 1.00207.38 | O |
| ATOM | 2765 | N | PHE | A | 390 | 55.721 | 106.704 | 49.522 | 1.00134.47 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 2766 | CA | PHE | A | 390 | 54.977 | 107.021 | 48.315 | 1.00134.47 | C |
| ATOM | 2767 | C | PHE | A | 390 | 55.549 | 108.325 | 47.769 | 1.00134.47 | C |
| ATOM | 2768 | O | PHE | A | 390 | 55.314 | 109.389 | 48.342 | 1.00134.47 | O |
| ATOM | 2769 | CB | PHE | A | 390 | 53.502 | 107.243 | 48.614 | 1.00102.45 | C |
| ATOM | 2770 | CG | PHE | A | 390 | 52.727 | 105.981 | 48.818 | 1.00102.45 | C |
| ATOM | 2771 | CD1 | PHE | A | 390 | 51.347 | 105.968 | 48.639 | 1.00102.45 | C |
| ATOM | 2772 | CD2 | PHE | A | 390 | 53.366 | 104.804 | 49.182 | 1.00102.45 | C |
| ATOM | 2773 | CE1 | PHE | A | 390 | 50.619 | 104.798 | 48.815 | 1.00102.45 | C |
| ATOM | 2774 | CE2 | PHE | A | 390 | 52.644 | 103.623 | 49.363 | 1.00102.45 | C |
| ATOM | 2775 | CZ | PHE | A | 390 | 51.272 | 103.619 | 49.179 | 1.00102.45 | C |
| ATOM | 2776 | N | LYS | A | 391 | 56.284 | 108.270 | 46.666 | 1.00108.70 | N |
| ATOM | 2777 | CA | LYS | A | 391 | 56.862 | 109.501 | 46.155 | 1.00108.70 | C |
| ATOM | 2778 | C | LYS | A | 391 | 56.336 | 109.984 | 44.805 | 1.00108.70 | C |
| ATOM | 2779 | O | LYS | A | 391 | 56.481 | 109.307 | 43.784 | 1.00108.70 | O |
| ATOM | 2780 | CB | LYS | A | 391 | 58.391 | 109.385 | 46.117 | 1.00181.14 | C |
| ATOM | 2781 | CG | LYS | A | 391 | 59.046 | 109.447 | 47.503 | 1.00181.14 | C |
| ATOM | 2782 | CD | LYS | A | 391 | 60.556 | 109.243 | 47.440 | 1.00181.14 | C |
| ATOM | 2783 | CE | LYS | A | 391 | 61.230 | 110.269 | 46.536 | 1.00181.14 | C |
| ATOM | 2784 | NZ | LYS | A | 391 | 62.686 | 110.004 | 46.358 | 1.00181.14 | N |
| ATOM | 2785 | N | ASN | A | 392 | 55.707 | 111.161 | 44.842 | 1.00 75.00 | N |
| ATOM | 2786 | CA | ASN | A | 392 | 55.144 | 111.832 | 43.681 | 1.00 75.00 | C |
| ATOM | 2787 | C | ASN | A | 392 | 54.507 | 110.875 | 42.708 | 1.00 75.00 | C |
| ATOM | 2788 | O | ASN | A | 392 | 55.015 | 110.732 | 41.607 | 1.00 75.00 | O |
| ATOM | 2789 | CB | ASN | A | 392 | 56.233 | 112.642 | 42.974 | 1.00152.35 | C |
| ATOM | 2790 | CG | ASN | A | 392 | 55.791 | 113.160 | 41.618 | 1.00152.35 | C |
| ATOM | 2791 | OD1 | ASN | A | 392 | 54.736 | 113.777 | 41.491 | 1.00152.35 | O |
| ATOM | 2792 | ND2 | ASN | A | 392 | 56.605 | 112.917 | 40.596 | 1.00152.35 | N |
| ATOM | 2793 | N | ILE | A | 393 | 53.408 | 110.218 | 43.085 | 1.00108.52 | N |
| ATOM | 2794 | CA | ILE | A | 393 | 52.774 | 109.275 | 42.159 | 1.00108.52 | C |
| ATOM | 2795 | C | ILE | A | 393 | 51.412 | 109.675 | 41.649 | 1.00108.52 | C |
| ATOM | 2796 | O | ILE | A | 393 | 50.496 | 109.928 | 42.414 | 1.00108.52 | O |
| ATOM | 2797 | CB | ILE | A | 393 | 52.623 | 107.834 | 42.739 | 1.00164.99 | C |
| ATOM | 2798 | CG1 | ILE | A | 393 | 51.837 | 107.853 | 44.053 | 1.00164.99 | C |
| ATOM | 2799 | CG2 | ILE | A | 393 | 53.985 | 107.186 | 42.881 | 1.00164.99 | C |
| ATOM | 2800 | CD1 | ILE | A | 393 | 52.653 | 108.248 | 45.266 | 1.00164.99 | C |
| ATOM | 2801 | N | HIS | A | 394 | 51.295 | 109.718 | 40.335 | 1.00159.70 | N |
| ATOM | 2802 | CA | HIS | A | 394 | 50.030 | 110.033 | 39.711 | 1.00159.70 | C |
| ATOM | 2803 | C | HIS | A | 394 | 49.528 | 108.670 | 39.271 | 1.00159.70 | C |
| ATOM | 2804 | O | HIS | A | 394 | 50.335 | 107.760 | 39.074 | 1.00159.70 | O |
| ATOM | 2805 | CB | HIS | A | 394 | 50.237 | 110.916 | 38.476 | 1.00154.70 | C |
| ATOM | 2806 | CG | HIS | A | 394 | 50.976 | 112.187 | 38.752 | 1.00154.70 | C |
| ATOM | 2807 | ND1 | HIS | A | 394 | 52.199 | 112.213 | 39.388 | 1.00154.70 | N |
| ATOM | 2808 | CD2 | HIS | A | 394 | 50.676 | 113.474 | 38.460 | 1.00154.70 | C |
| ATOM | 2809 | CE1 | HIS | A | 394 | 52.619 | 113.462 | 39.476 | 1.00154.70 | C |
| ATOM | 2810 | NE2 | HIS | A | 394 | 51.713 | 114.247 | 38.921 | 1.00154.70 | N |
| ATOM | 2811 | N | PHE | A | 395 | 48.216 | 108.509 | 39.126 | 1.00 80.54 | N |
| ATOM | 2812 | CA | PHE | A | 395 | 47.682 | 107.231 | 38.669 | 1.00 80.54 | C |
| ATOM | 2813 | C | PHE | A | 395 | 46.211 | 107.295 | 38.439 | 1.00 80.54 | C |
| ATOM | 2814 | O | PHE | A | 395 | 45.504 | 107.935 | 39.191 | 1.00 80.54 | O |
| ATOM | 2815 | CB | PHE | A | 395 | 47.957 | 106.124 | 39.689 | 1.00106.75 | C |
| ATOM | 2816 | CG | PHE | A | 395 | 47.108 | 104.892 | 39.486 | 1.00106.75 | C |
| ATOM | 2817 | CD1 | PHE | A | 395 | 47.439 | 103.944 | 38.518 | 1.00106.75 | C |
| ATOM | 2818 | CD2 | PHE | A | 395 | 45.949 | 104.708 | 40.239 | 1.00106.75 | C |
| ATOM | 2819 | CE1 | PHE | A | 395 | 46.628 | 102.827 | 38.298 | 1.00106.75 | C |
| ATOM | 2820 | CE2 | PHE | A | 395 | 45.128 | 103.601 | 40.033 | 1.00106.75 | C |
| ATOM | 2821 | CZ | PHE | A | 395 | 45.467 | 102.654 | 39.056 | 1.00106.75 | C |
| ATOM | 2822 | N | SER | A | 396 | 45.754 | 106.613 | 37.405 | 1.00138.77 | N |
| ATOM | 2823 | CA | SER | A | 396 | 44.341 | 106.553 | 37.102 | 1.00138.77 | C |
| ATOM | 2824 | C | SER | A | 396 | 44.001 | 105.061 | 37.037 | 1.00138.77 | C |
| ATOM | 2825 | O | SER | A | 396 | 44.846 | 104.249 | 36.674 | 1.00138.77 | O |
| ATOM | 2826 | CB | SER | A | 396 | 44.055 | 107.216 | 35.750 | 1.00197.06 | C |
| ATOM | 2827 | OG | SER | A | 396 | 42.668 | 107.215 | 35.458 | 1.00197.06 | O |
| ATOM | 2828 | N | TYR | A | 397 | 42.787 | 104.678 | 37.403 | 1.00121.86 | N |
| ATOM | 2829 | CA | TYR | A | 397 | 42.439 | 103.268 | 37.336 | 1.00121.86 | C |
| ATOM | 2830 | C | TYR | A | 397 | 42.752 | 102.664 | 35.958 | 1.00121.86 | C |
| ATOM | 2831 | O | TYR | A | 397 | 43.026 | 103.375 | 35.000 | 1.00121.86 | O |
| ATOM | 2832 | CB | TYR | A | 397 | 40.962 | 103.062 | 37.675 | 1.00144.37 | C |
| ATOM | 2833 | CG | TYR | A | 397 | 40.755 | 102.591 | 39.095 | 1.00144.37 | C |
| ATOM | 2834 | CD1 | TYR | A | 397 | 39.552 | 102.814 | 39.766 | 1.00144.37 | C |
| ATOM | 2835 | CD2 | TYR | A | 397 | 41.772 | 101.922 | 39.772 | 1.00144.37 | C |
| ATOM | 2836 | CE1 | TYR | A | 397 | 39.375 | 102.382 | 41.080 | 1.00144.37 | C |
| ATOM | 2837 | CE2 | TYR | A | 397 | 41.606 | 101.486 | 41.078 | 1.00144.37 | C |
| ATOM | 2838 | CZ | TYR | A | 397 | 40.409 | 101.719 | 41.728 | 1.00144.37 | C |
| ATOM | 2839 | OH | TYR | A | 397 | 40.246 | 101.294 | 43.026 | 1.00144.37 | O |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------|--------|---|
| ATOM | 2840 | N | PRO | A | 398 | 42.710 | 101.337 | 35.842 | 1.00 | 99.74 | N |
| ATOM | 2841 | CA | PRO | A | 398 | 43.000 | 100.680 | 34.565 | 1.00 | 99.74 | C |
| ATOM | 2842 | C | PRO | A | 398 | 42.143 | 101.204 | 33.444 | 1.00 | 99.74 | C |
| ATOM | 2843 | O | PRO | A | 398 | 42.560 | 101.169 | 32.297 | 1.00 | 99.74 | O |
| ATOM | 2844 | CB | PRO | A | 398 | 42.707 | 99.216 | 34.871 | 1.00 | 124.55 | C |
| ATOM | 2845 | CG | PRO | A | 398 | 41.536 | 99.318 | 35.817 | 1.00 | 124.55 | C |
| ATOM | 2846 | CD | PRO | A | 398 | 42.033 | 100.402 | 36.762 | 1.00 | 124.55 | C |
| ATOM | 2847 | N | SER | A | 399 | 40.940 | 101.666 | 33.793 | 1.00 | 179.25 | N |
| ATOM | 2848 | CA | SER | A | 399 | 39.979 | 102.201 | 32.827 | 1.00 | 179.25 | C |
| ATOM | 2849 | C | SER | A | 399 | 40.451 | 103.510 | 32.188 | 1.00 | 179.25 | C |
| ATOM | 2850 | O | SER | A | 399 | 39.882 | 104.572 | 32.431 | 1.00 | 179.25 | O |
| ATOM | 2851 | CB | SER | A | 399 | 38.633 | 102.438 | 33.515 | 1.00 | 115.38 | C |
| ATOM | 2852 | OG | SER | A | 399 | 38.148 | 101.252 | 34.117 | 1.00 | 115.38 | O |
| ATOM | 2853 | N | ARG | A | 400 | 41.494 | 103.384 | 31.366 | 1.00 | 207.38 | N |
| ATOM | 2854 | CA | ARG | A | 400 | 42.169 | 104.446 | 30.592 | 1.00 | 207.38 | C |
| ATOM | 2855 | C | ARG | A | 400 | 41.852 | 105.967 | 30.759 | 1.00 | 207.38 | C |
| ATOM | 2856 | O | ARG | A | 400 | 42.766 | 106.794 | 30.624 | 1.00 | 207.38 | O |
| ATOM | 2857 | CB | ARG | A | 400 | 42.079 | 104.083 | 29.094 | 1.00 | 153.57 | C |
| ATOM | 2858 | CG | ARG | A | 400 | 43.016 | 104.854 | 28.146 | 1.00 | 153.57 | C |
| ATOM | 2859 | CD | ARG | A | 400 | 44.479 | 104.385 | 28.183 | 1.00 | 153.57 | C |
| ATOM | 2860 | NE | ARG | A | 400 | 45.248 | 104.938 | 27.064 | 1.00 | 153.57 | N |
| ATOM | 2861 | CZ | ARG | A | 400 | 46.545 | 104.721 | 26.852 | 1.00 | 153.57 | C |
| ATOM | 2862 | NH1 | ARG | A | 400 | 47.239 | 103.957 | 27.685 | 1.00 | 153.57 | N |
| ATOM | 2863 | NH2 | ARG | A | 400 | 47.149 | 105.270 | 25.805 | 1.00 | 153.57 | N |
| ATOM | 2864 | N | LYS | A | 401 | 40.608 | 106.352 | 31.065 | 1.00 | 205.58 | N |
| ATOM | 2865 | CA | LYS | A | 401 | 40.281 | 107.784 | 31.175 | 1.00 | 205.58 | C |
| ATOM | 2866 | C | LYS | A | 401 | 39.825 | 108.422 | 32.507 | 1.00 | 205.58 | C |
| ATOM | 2867 | O | LYS | A | 401 | 39.904 | 109.647 | 32.639 | 1.00 | 205.58 | O |
| ATOM | 2868 | CB | LYS | A | 401 | 39.254 | 108.147 | 30.088 | 1.00 | 162.75 | C |
| ATOM | 2869 | CG | LYS | A | 401 | 37.878 | 107.492 | 30.244 | 1.00 | 162.75 | C |
| ATOM | 2870 | CD | LYS | A | 401 | 37.892 | 106.012 | 29.889 | 1.00 | 162.75 | C |
| ATOM | 2871 | CE | LYS | A | 401 | 37.375 | 105.759 | 28.475 | 1.00 | 162.75 | C |
| ATOM | 2872 | NZ | LYS | A | 401 | 38.230 | 106.360 | 27.417 | 1.00 | 162.75 | N |
| ATOM | 2873 | N | GLU | A | 402 | 39.344 | 107.634 | 33.478 | 1.00 | 167.82 | N |
| ATOM | 2874 | CA | GLU | A | 402 | 38.905 | 108.203 | 34.764 | 1.00 | 167.82 | C |
| ATOM | 2875 | C | GLU | A | 402 | 40.002 | 109.090 | 35.289 | 1.00 | 167.82 | C |
| ATOM | 2876 | O | GLU | A | 402 | 41.158 | 108.940 | 34.924 | 1.00 | 167.82 | O |
| ATOM | 2877 | CB | GLU | A | 402 | 38.607 | 107.109 | 35.797 | 1.00 | 192.35 | C |
| ATOM | 2878 | CG | GLU | A | 402 | 37.271 | 106.408 | 35.625 | 1.00 | 192.35 | C |
| ATOM | 2879 | CD | GLU | A | 402 | 37.349 | 105.227 | 34.693 | 1.00 | 192.35 | C |
| ATOM | 2880 | OE1 | GLU | A | 402 | 36.298 | 104.601 | 34.447 | 1.00 | 192.35 | O |
| ATOM | 2881 | OE2 | GLU | A | 402 | 38.461 | 104.923 | 34.214 | 1.00 | 192.35 | O |
| ATOM | 2882 | N | VAL | A | 403 | 39.648 | 110.011 | 36.162 | 1.00 | 103.05 | N |
| ATOM | 2883 | CA | VAL | A | 403 | 40.655 | 110.937 | 36.682 | 1.00 | 103.05 | C |
| ATOM | 2884 | C | VAL | A | 403 | 41.793 | 110.217 | 37.347 | 1.00 | 103.05 | C |
| ATOM | 2885 | O | VAL | A | 403 | 41.580 | 109.202 | 37.975 | 1.00 | 103.05 | O |
| ATOM | 2886 | CB | VAL | A | 403 | 40.052 | 111.929 | 37.702 | 1.00 | 207.38 | C |
| ATOM | 2887 | CG1 | VAL | A | 403 | 39.603 | 111.192 | 38.952 | 1.00 | 207.38 | C |
| ATOM | 2888 | CG2 | VAL | A | 403 | 41.080 | 112.994 | 38.054 | 1.00 | 207.38 | C |
| ATOM | 2889 | N | GLN | A | 404 | 43.007 | 110.724 | 37.202 | 1.00 | 206.31 | N |
| ATOM | 2890 | CA | GLN | A | 404 | 44.105 | 110.066 | 37.871 | 1.00 | 206.31 | C |
| ATOM | 2891 | C | GLN | A | 404 | 43.846 | 110.255 | 39.349 | 1.00 | 206.31 | C |
| ATOM | 2892 | O | GLN | A | 404 | 44.348 | 111.187 | 39.978 | 1.00 | 206.31 | O |
| ATOM | 2893 | CB | GLN | A | 404 | 45.457 | 110.675 | 37.485 | 1.00 | 207.38 | C |
| ATOM | 2894 | CG | GLN | A | 404 | 45.402 | 112.110 | 36.997 | 1.00 | 207.38 | C |
| ATOM | 2895 | CD | GLN | A | 404 | 44.909 | 112.214 | 35.569 | 1.00 | 207.38 | C |
| ATOM | 2896 | OE1 | GLN | A | 404 | 44.732 | 113.311 | 35.042 | 1.00 | 207.38 | O |
| ATOM | 2897 | NE2 | GLN | A | 404 | 44.689 | 111.068 | 34.931 | 1.00 | 207.38 | N |
| ATOM | 2898 | N | ILE | A | 405 | 43.006 | 109.387 | 39.883 | 1.00 | 94.45 | N |
| ATOM | 2899 | CA | ILE | A | 405 | 42.698 | 109.430 | 41.272 | 1.00 | 94.45 | C |
| ATOM | 2900 | C | ILE | A | 405 | 43.930 | 109.923 | 42.075 | 1.00 | 94.45 | C |
| ATOM | 2901 | O | ILE | A | 405 | 43.841 | 110.898 | 42.827 | 1.00 | 94.45 | O |
| ATOM | 2902 | CB | ILE | A | 405 | 42.349 | 108.033 | 41.817 | 1.00 | 196.58 | C |
| ATOM | 2903 | CG1 | ILE | A | 405 | 41.258 | 107.429 | 40.943 | 1.00 | 196.58 | C |
| ATOM | 2904 | CG2 | ILE | A | 405 | 41.906 | 108.101 | 43.308 | 1.00 | 196.58 | C |
| ATOM | 2905 | CD1 | ILE | A | 405 | 41.736 | 106.906 | 39.595 | 1.00 | 196.58 | C |
| ATOM | 2906 | N | LEU | A | 406 | 45.067 | 109.238 | 41.931 | 1.00 | 89.09 | N |
| ATOM | 2907 | CA | LEU | A | 406 | 46.294 | 109.681 | 42.585 | 1.00 | 89.09 | C |
| ATOM | 2908 | C | LEU | A | 406 | 46.745 | 110.754 | 41.611 | 1.00 | 89.09 | C |
| ATOM | 2909 | O | LEU | A | 406 | 47.424 | 110.445 | 40.635 | 1.00 | 89.09 | O |
| ATOM | 2910 | CB | LEU | A | 406 | 47.320 | 108.543 | 42.634 | 1.00 | 87.57 | C |
| ATOM | 2911 | CG | LEU | A | 406 | 47.422 | 107.701 | 43.911 | 1.00 | 87.57 | C |
| ATOM | 2912 | CD1 | LEU | A | 406 | 48.169 | 108.477 | 44.988 | 1.00 | 87.57 | C |
| ATOM | 2913 | CD2 | LEU | A | 406 | 46.032 | 107.305 | 44.377 | 1.00 | 87.57 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 2914 | N | LYS | A | 407 | 46.336 | 111.999 | 41.870 | 1.00165.05 | N |
| ATOM | 2915 | CA | LYS | A | 407 | 46.634 | 113.163 | 41.024 | 1.00165.05 | C |
| ATOM | 2916 | C | LYS | A | 407 | 47.989 | 113.812 | 41.324 | 1.00165.05 | C |
| ATOM | 2917 | O | LYS | A | 407 | 48.132 | 115.029 | 41.231 | 1.00165.05 | O |
| ATOM | 2918 | CB | LYS | A | 407 | 45.522 | 114.195 | 41.218 | 1.00147.46 | C |
| ATOM | 2919 | CG | LYS | A | 407 | 45.467 | 114.722 | 42.647 | 1.00147.46 | C |
| ATOM | 2920 | CD | LYS | A | 407 | 44.065 | 115.122 | 43.075 | 1.00147.46 | C |
| ATOM | 2921 | CE | LYS | A | 407 | 44.083 | 115.661 | 44.499 | 1.00147.46 | C |
| ATOM | 2922 | NZ | LYS | A | 407 | 44.847 | 114.764 | 45.410 | 1.00147.46 | N |
| ATOM | 2923 | N | GLY | A | 408 | 48.982 | 112.993 | 41.658 | 1.00146.59 | N |
| ATOM | 2924 | CA | GLY | A | 408 | 50.302 | 113.501 | 41.992 | 1.00146.59 | C |
| ATOM | 2925 | C | GLY | A | 408 | 50.337 | 113.513 | 43.499 | 1.00146.59 | C |
| ATOM | 2926 | O | GLY | A | 408 | 49.971 | 114.500 | 44.133 | 1.00146.59 | O |
| ATOM | 2927 | N | LEU | A | 409 | 50.775 | 112.410 | 44.084 | 1.00 81.89 | N |
| ATOM | 2928 | CA | LEU | A | 409 | 50.774 | 112.316 | 45.535 | 1.00 81.89 | C |
| ATOM | 2929 | C | LEU | A | 409 | 52.089 | 111.888 | 46.132 | 1.00 81.89 | C |
| ATOM | 2930 | O | LEU | A | 409 | 52.759 | 111.000 | 45.608 | 1.00 81.89 | O |
| ATOM | 2931 | CB | LEU | A | 409 | 49.647 | 111.366 | 45.965 | 1.00 89.18 | C |
| ATOM | 2932 | CG | LEU | A | 409 | 49.604 | 110.770 | 47.375 | 1.00 89.18 | C |
| ATOM | 2933 | CD1 | LEU | A | 409 | 50.489 | 109.533 | 47.438 | 1.00 89.18 | C |
| ATOM | 2934 | CD2 | LEU | A | 409 | 50.041 | 111.815 | 48.397 | 1.00 89.18 | C |
| ATOM | 2935 | N | ASN | A | 410 | 52.449 | 112.542 | 47.233 | 1.00115.47 | N |
| ATOM | 2936 | CA | ASN | A | 410 | 53.691 | 112.277 | 47.962 | 1.00115.47 | C |
| ATOM | 2937 | C | ASN | A | 410 | 53.341 | 111.921 | 49.389 | 1.00115.47 | C |
| ATOM | 2938 | O | ASN | A | 410 | 52.428 | 112.495 | 49.968 | 1.00115.47 | O |
| ATOM | 2939 | CB | ASN | A | 410 | 54.580 | 113.524 | 47.969 | 1.00127.56 | C |
| ATOM | 2940 | CG | ASN | A | 410 | 55.334 | 113.719 | 46.667 | 1.00127.56 | C |
| ATOM | 2941 | OD1 | ASN | A | 410 | 56.395 | 113.131 | 46.456 | 1.00127.56 | O |
| ATOM | 2942 | ND2 | ASN | A | 410 | 54.786 | 114.542 | 45.782 | 1.00127.56 | N |
| ATOM | 2943 | N | LEU | A | 411 | 54.077 | 110.979 | 49.955 | 1.00115.15 | N |
| ATOM | 2944 | CA | LEU | A | 411 | 53.841 | 110.543 | 51.324 | 1.00115.15 | C |
| ATOM | 2945 | C | LEU | A | 411 | 54.923 | 109.579 | 51.721 | 1.00115.15 | C |
| ATOM | 2946 | O | LEU | A | 411 | 55.502 | 108.888 | 50.891 | 1.00115.15 | O |
| ATOM | 2947 | CB | LEU | A | 411 | 52.472 | 109.854 | 51.432 | 1.00 72.50 | C |
| ATOM | 2948 | CG | LEU | A | 411 | 51.902 | 109.452 | 52.804 | 1.00 72.50 | C |
| ATOM | 2949 | CD1 | LEU | A | 411 | 50.494 | 108.927 | 52.601 | 1.00 72.50 | C |
| ATOM | 2950 | CD2 | LEU | A | 411 | 52.755 | 108.390 | 53.486 | 1.00 72.50 | C |
| ATOM | 2951 | N | LYS | A | 412 | 55.181 | 109.528 | 53.010 | 1.00 93.49 | N |
| ATOM | 2952 | CA | LYS | A | 412 | 56.180 | 108.641 | 53.524 | 1.00 93.49 | C |
| ATOM | 2953 | C | LYS | A | 412 | 55.614 | 108.145 | 54.847 | 1.00 93.49 | C |
| ATOM | 2954 | O | LYS | A | 412 | 54.743 | 108.790 | 55.427 | 1.00 93.49 | O |
| ATOM | 2955 | CB | LYS | A | 412 | 57.489 | 109.405 | 53.773 | 1.00 84.30 | C |
| ATOM | 2956 | CG | LYS | A | 412 | 57.343 | 110.928 | 53.733 | 1.00 84.30 | C |
| ATOM | 2957 | CD | LYS | A | 412 | 58.467 | 111.656 | 54.469 | 1.00 84.30 | C |
| ATOM | 2958 | CE | LYS | A | 412 | 59.815 | 111.482 | 53.793 | 1.00 84.30 | C |
| ATOM | 2959 | NZ | LYS | A | 412 | 60.887 | 112.190 | 54.550 | 1.00 84.30 | N |
| ATOM | 2960 | N | VAL | A | 413 | 56.073 | 106.982 | 55.303 | 1.00 77.79 | N |
| ATOM | 2961 | CA | VAL | A | 413 | 55.604 | 106.456 | 56.568 | 1.00 77.79 | C |
| ATOM | 2962 | C | VAL | A | 413 | 56.664 | 105.543 | 57.208 | 1.00 77.79 | C |
| ATOM | 2963 | O | VAL | A | 413 | 57.065 | 104.512 | 56.636 | 1.00 77.79 | O |
| ATOM | 2964 | CB | VAL | A | 413 | 54.247 | 105.725 | 56.378 | 1.00 99.25 | C |
| ATOM | 2965 | CG1 | VAL | A | 413 | 54.462 | 104.370 | 55.747 | 1.00 99.25 | C |
| ATOM | 2966 | CG2 | VAL | A | 413 | 53.499 | 105.637 | 57.710 | 1.00 99.25 | C |
| ATOM | 2967 | N | LYS | A | 414 | 57.138 | 105.982 | 58.381 | 1.00 99.79 | N |
| ATOM | 2968 | CA | LYS | A | 414 | 58.188 | 105.310 | 59.165 | 1.00 99.79 | C |
| ATOM | 2969 | C | LYS | A | 414 | 57.889 | 103.896 | 59.551 | 1.00 99.79 | C |
| ATOM | 2970 | O | LYS | A | 414 | 56.759 | 103.458 | 59.460 | 1.00 99.79 | O |
| ATOM | 2971 | CB | LYS | A | 414 | 58.496 | 106.068 | 60.458 | 1.00149.17 | C |
| ATOM | 2972 | CG | LYS | A | 414 | 59.051 | 107.452 | 60.269 | 1.00149.17 | C |
| ATOM | 2973 | CD | LYS | A | 414 | 57.973 | 108.377 | 59.777 | 1.00149.17 | C |
| ATOM | 2974 | CE | LYS | A | 414 | 58.485 | 109.791 | 59.678 | 1.00149.17 | C |
| ATOM | 2975 | NZ | LYS | A | 414 | 57.389 | 110.715 | 59.296 | 1.00149.17 | N |
| ATOM | 2976 | N | SER | A | 415 | 58.907 | 103.196 | 60.032 | 1.00 91.06 | N |
| ATOM | 2977 | CA | SER | A | 415 | 58.730 | 101.807 | 60.423 | 1.00 91.06 | C |
| ATOM | 2978 | C | SER | A | 415 | 57.884 | 101.664 | 61.680 | 1.00 91.06 | C |
| ATOM | 2979 | O | SER | A | 415 | 57.487 | 102.667 | 62.280 | 1.00 91.06 | O |
| ATOM | 2980 | CB | SER | A | 415 | 60.092 | 101.141 | 60.652 | 1.00 96.65 | C |
| ATOM | 2981 | OG | SER | A | 415 | 60.767 | 101.704 | 61.762 | 1.00 96.65 | O |
| ATOM | 2982 | N | GLY | A | 416 | 57.608 | 100.408 | 62.042 | 1.00203.86 | N |
| ATOM | 2983 | CA | GLY | A | 416 | 56.822 | 100.075 | 63.217 | 1.00203.86 | C |
| ATOM | 2984 | C | GLY | A | 416 | 55.622 | 100.961 | 63.480 | 1.00203.86 | C |
| ATOM | 2985 | O | GLY | A | 416 | 54.837 | 100.676 | 64.382 | 1.00203.86 | O |
| ATOM | 2986 | N | GLN | A | 417 | 55.471 | 102.032 | 62.704 | 1.00 71.49 | N |
| ATOM | 2987 | CA | GLN | A | 417 | 54.352 | 102.939 | 62.897 | 1.00 71.49 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------|--------|---|
| ATOM | 2988 | C | GLN | A | 417 | 53.090 | 102.322 | 62.375 | 1.00 | 71.49 | C |
| ATOM | 2989 | O | GLN | A | 417 | 53.041 | 101.138 | 62.061 | 1.00 | 71.49 | O |
| ATOM | 2990 | CB | GLN | A | 417 | 54.578 | 104.248 | 62.147 | 1.00 | 171.88 | C |
| ATOM | 2991 | CG | GLN | A | 417 | 55.674 | 105.119 | 62.697 | 1.00 | 171.88 | C |
| ATOM | 2992 | CD | GLN | A | 417 | 55.502 | 106.560 | 62.271 | 1.00 | 171.88 | C |
| ATOM | 2993 | OE1 | GLN | A | 417 | 55.381 | 106.856 | 61.082 | 1.00 | 171.88 | O |
| ATOM | 2994 | NE2 | GLN | A | 417 | 55.484 | 107.467 | 63.242 | 1.00 | 171.88 | N |
| ATOM | 2995 | N | THR | A | 418 | 52.055 | 103.137 | 62.322 | 1.00 | 81.39 | N |
| ATOM | 2996 | CA | THR | A | 418 | 50.791 | 102.706 | 61.791 | 1.00 | 81.39 | C |
| ATOM | 2997 | C | THR | A | 418 | 50.165 | 104.033 | 61.411 | 1.00 | 81.39 | C |
| ATOM | 2998 | O | THR | A | 418 | 50.020 | 104.916 | 62.252 | 1.00 | 81.39 | O |
| ATOM | 2999 | CB | THR | A | 418 | 49.938 | 101.931 | 62.836 | 1.00 | 77.18 | C |
| ATOM | 3000 | OG1 | THR | A | 418 | 49.024 | 102.818 | 63.494 | 1.00 | 77.18 | O |
| ATOM | 3001 | CG2 | THR | A | 418 | 50.843 | 101.265 | 63.858 | 1.00 | 77.18 | C |
| ATOM | 3002 | N | VAL | A | 419 | 49.860 | 104.190 | 60.128 | 1.00 | 90.68 | N |
| ATOM | 3003 | CA | VAL | A | 419 | 49.284 | 105.431 | 59.624 | 1.00 | 90.68 | C |
| ATOM | 3004 | C | VAL | A | 419 | 47.833 | 105.299 | 59.203 | 1.00 | 90.68 | C |
| ATOM | 3005 | O | VAL | A | 419 | 47.436 | 104.301 | 58.588 | 1.00 | 90.68 | O |
| ATOM | 3006 | CB | VAL | A | 419 | 50.071 | 105.932 | 58.401 | 1.00 | 75.69 | C |
| ATOM | 3007 | CG1 | VAL | A | 419 | 50.144 | 104.833 | 57.343 | 1.00 | 75.69 | C |
| ATOM | 3008 | CG2 | VAL | A | 419 | 49.402 | 107.158 | 57.822 | 1.00 | 75.69 | C |
| ATOM | 3009 | N | ALA | A | 420 | 47.056 | 106.337 | 59.501 | 1.00 | 61.36 | N |
| ATOM | 3010 | CA | ALA | A | 420 | 45.642 | 106.324 | 59.198 | 1.00 | 61.36 | C |
| ATOM | 3011 | C | ALA | A | 420 | 45.323 | 107.165 | 58.005 | 1.00 | 61.36 | C |
| ATOM | 3012 | O | ALA | A | 420 | 45.741 | 108.290 | 57.909 | 1.00 | 61.36 | O |
| ATOM | 3013 | CB | ALA | A | 420 | 44.844 | 106.803 | 60.407 | 1.00 | 163.11 | C |
| ATOM | 3014 | N | LEU | A | 421 | 44.591 | 106.622 | 57.067 | 1.00 | 96.84 | N |
| ATOM | 3015 | CA | LEU | A | 421 | 44.224 | 107.437 | 55.944 | 1.00 | 96.84 | C |
| ATOM | 3016 | C | LEU | A | 421 | 42.760 | 107.725 | 56.132 | 1.00 | 96.84 | C |
| ATOM | 3017 | O | LEU | A | 421 | 41.935 | 106.814 | 56.445 | 1.00 | 96.84 | O |
| ATOM | 3018 | CB | LEU | A | 421 | 44.465 | 106.697 | 54.632 | 1.00 | 152.74 | C |
| ATOM | 3019 | CG | LEU | A | 421 | 45.907 | 106.834 | 54.137 | 1.00 | 152.74 | C |
| ATOM | 3020 | CD1 | LEU | A | 421 | 46.877 | 106.457 | 55.246 | 1.00 | 152.74 | C |
| ATOM | 3021 | CD2 | LEU | A | 421 | 46.117 | 105.964 | 52.917 | 1.00 | 152.74 | C |
| ATOM | 3022 | N | VAL | A | 422 | 42.443 | 109.000 | 55.948 | 1.00 | 60.03 | N |
| ATOM | 3023 | CA | VAL | A | 422 | 41.083 | 109.471 | 56.107 | 1.00 | 60.03 | C |
| ATOM | 3024 | C | VAL | A | 422 | 40.502 | 110.108 | 54.861 | 1.00 | 60.03 | C |
| ATOM | 3025 | O | VAL | A | 422 | 40.929 | 111.174 | 54.436 | 1.00 | 60.03 | O |
| ATOM | 3026 | CB | VAL | A | 422 | 40.998 | 110.480 | 57.264 | 1.00 | 87.16 | C |
| ATOM | 3027 | CG1 | VAL | A | 422 | 41.330 | 109.787 | 58.566 | 1.00 | 87.16 | C |
| ATOM | 3028 | CG2 | VAL | A | 422 | 41.967 | 111.625 | 57.041 | 1.00 | 87.16 | C |
| ATOM | 3029 | N | GLY | A | 423 | 39.521 | 109.423 | 54.288 | 1.00 | 167.27 | N |
| ATOM | 3030 | CA | GLY | A | 423 | 38.856 | 109.910 | 53.099 | 1.00 | 167.27 | C |
| ATOM | 3031 | C | GLY | A | 423 | 37.385 | 109.560 | 53.182 | 1.00 | 167.27 | C |
| ATOM | 3032 | O | GLY | A | 423 | 36.937 | 109.014 | 54.196 | 1.00 | 167.27 | O |
| ATOM | 3033 | N | ASN | A | 424 | 36.628 | 109.872 | 52.130 | 1.00 | 206.98 | N |
| ATOM | 3034 | CA | ASN | A | 424 | 35.197 | 109.565 | 52.116 | 1.00 | 206.98 | C |
| ATOM | 3035 | C | ASN | A | 424 | 34.581 | 109.468 | 50.705 | 1.00 | 206.98 | C |
| ATOM | 3036 | O | ASN | A | 424 | 33.944 | 108.460 | 50.388 | 1.00 | 206.98 | O |
| ATOM | 3037 | CB | ASN | A | 424 | 34.434 | 110.598 | 52.950 | 1.00 | 173.77 | C |
| ATOM | 3038 | CG | ASN | A | 424 | 33.382 | 109.964 | 53.847 | 1.00 | 173.77 | C |
| ATOM | 3039 | OD1 | ASN | A | 424 | 33.688 | 109.091 | 54.659 | 1.00 | 173.77 | O |
| ATOM | 3040 | ND2 | ASN | A | 424 | 32.138 | 110.410 | 53.709 | 1.00 | 173.77 | N |
| ATOM | 3041 | N | SER | A | 425 | 34.770 | 110.497 | 49.867 | 1.00 | 207.38 | N |
| ATOM | 3042 | CA | SER | A | 425 | 34.204 | 110.508 | 48.509 | 1.00 | 207.38 | C |
| ATOM | 3043 | C | SER | A | 425 | 34.802 | 109.444 | 47.576 | 1.00 | 207.38 | C |
| ATOM | 3044 | O | SER | A | 425 | 34.726 | 109.557 | 46.326 | 1.00 | 207.38 | O |
| ATOM | 3045 | CB | SER | A | 425 | 34.309 | 111.906 | 47.875 | 1.00 | 197.65 | C |
| ATOM | 3046 | OG | SER | A | 425 | 35.640 | 112.387 | 47.868 | 1.00 | 197.65 | O |
| ATOM | 3047 | N | GLY | A | 426 | 35.389 | 108.422 | 48.218 | 1.00 | 207.38 | N |
| ATOM | 3048 | CA | GLY | A | 426 | 35.960 | 107.259 | 47.542 | 1.00 | 207.38 | C |
| ATOM | 3049 | C | GLY | A | 426 | 37.032 | 107.462 | 46.480 | 1.00 | 207.38 | C |
| ATOM | 3050 | O | GLY | A | 426 | 37.485 | 108.547 | 46.223 | 1.00 | 207.38 | O |
| ATOM | 3051 | N | CYS | A | 427 | 37.414 | 106.389 | 45.832 | 1.00 | 207.06 | N |
| ATOM | 3052 | CA | CYS | A | 427 | 38.380 | 106.556 | 44.790 | 1.00 | 207.06 | C |
| ATOM | 3053 | C | CYS | A | 427 | 39.767 | 107.042 | 45.172 | 1.00 | 207.06 | C |
| ATOM | 3054 | O | CYS | A | 427 | 40.334 | 107.883 | 44.458 | 1.00 | 207.06 | O |
| ATOM | 3055 | CB | CYS | A | 427 | 37.814 | 107.471 | 43.699 | 1.00 | 166.54 | C |
| ATOM | 3056 | SG | CYS | A | 427 | 36.442 | 106.753 | 42.771 | 1.00 | 166.54 | S |
| ATOM | 3057 | N | GLY | A | 428 | 40.293 | 106.684 | 46.341 | 1.00 | 146.88 | N |
| ATOM | 3058 | CA | GLY | A | 428 | 41.735 | 107.012 | 46.391 | 1.00 | 146.88 | C |
| ATOM | 3059 | C | GLY | A | 428 | 42.356 | 106.172 | 47.476 | 1.00 | 146.88 | C |
| ATOM | 3060 | O | GLY | A | 428 | 43.016 | 105.143 | 47.290 | 1.00 | 146.88 | O |
| ATOM | 3061 | N | LYS | A | 429 | 42.099 | 106.652 | 48.674 | 1.00 | 138.86 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 3062 | CA | LYS | A | 429 | 42.583 | 105.989 | 49.860 | 1.00138.86 | C |
| ATOM | 3063 | C | LYS | A | 429 | 42.865 | 104.532 | 49.504 | 1.00138.86 | C |
| ATOM | 3064 | O | LYS | A | 429 | 44.024 | 104.156 | 49.231 | 1.00138.86 | O |
| ATOM | 3065 | CB | LYS | A | 429 | 41.527 | 106.018 | 50.976 | 1.00176.02 | C |
| ATOM | 3066 | CG | LYS | A | 429 | 41.054 | 107.390 | 51.403 | 1.00176.02 | C |
| ATOM | 3067 | CD | LYS | A | 429 | 40.097 | 108.009 | 50.389 | 1.00176.02 | C |
| ATOM | 3068 | CE | LYS | A | 429 | 38.752 | 107.289 | 50.347 | 1.00176.02 | C |
| ATOM | 3069 | NZ | LYS | A | 429 | 37.812 | 107.965 | 49.405 | 1.00176.02 | N |
| ATOM | 3070 | N | SER | A | 430 | 41.790 | 103.729 | 49.474 | 1.00 90.91 | N |
| ATOM | 3071 | CA | SER | A | 430 | 41.871 | 102.293 | 49.177 | 1.00 90.91 | C |
| ATOM | 3072 | C | SER | A | 430 | 42.903 | 101.969 | 48.099 | 1.00 90.91 | C |
| ATOM | 3073 | O | SER | A | 430 | 43.731 | 101.078 | 48.293 | 1.00 90.91 | O |
| ATOM | 3074 | CB | SER | A | 430 | 40.491 | 101.765 | 48.759 | 1.00170.28 | C |
| ATOM | 3075 | OG | SER | A | 430 | 39.953 | 102.518 | 47.684 | 1.00170.28 | O |
| ATOM | 3076 | N | THR | A | 431 | 42.872 | 102.713 | 46.987 | 1.00125.42 | N |
| ATOM | 3077 | CA | THR | A | 431 | 43.784 | 102.503 | 45.845 | 1.00125.42 | C |
| ATOM | 3078 | C | THR | A | 431 | 45.267 | 102.635 | 46.135 | 1.00125.42 | C |
| ATOM | 3079 | O | THR | A | 431 | 46.061 | 101.852 | 45.641 | 1.00125.42 | O |
| ATOM | 3080 | CB | THR | A | 431 | 43.452 | 103.464 | 44.685 | 1.00112.27 | C |
| ATOM | 3081 | OG1 | THR | A | 431 | 42.112 | 103.953 | 44.831 | 1.00112.27 | O |
| ATOM | 3082 | CG2 | THR | A | 431 | 43.584 | 102.738 | 43.350 | 1.00112.27 | C |
| ATOM | 3083 | N | THR | A | 432 | 45.671 | 103.648 | 46.880 | 1.00 97.59 | N |
| ATOM | 3084 | CA | THR | A | 432 | 47.084 | 103.711 | 47.189 | 1.00 97.59 | C |
| ATOM | 3085 | C | THR | A | 432 | 47.321 | 102.425 | 47.989 | 1.00 97.59 | C |
| ATOM | 3086 | O | THR | A | 432 | 48.321 | 101.714 | 47.798 | 1.00 97.59 | O |
| ATOM | 3087 | CB | THR | A | 432 | 47.422 | 104.945 | 48.047 | 1.00152.05 | C |
| ATOM | 3088 | OG1 | THR | A | 432 | 46.257 | 105.372 | 48.764 | 1.00152.05 | O |
| ATOM | 3089 | CG2 | THR | A | 432 | 47.928 | 106.077 | 47.168 | 1.00152.05 | C |
| ATOM | 3090 | N | VAL | A | 433 | 46.377 | 102.112 | 48.872 | 1.00 78.01 | N |
| ATOM | 3091 | CA | VAL | A | 433 | 46.498 | 100.890 | 49.653 | 1.00 78.01 | C |
| ATOM | 3092 | C | VAL | A | 433 | 46.542 | 99.740 | 48.667 | 1.00 78.01 | C |
| ATOM | 3093 | O | VAL | A | 433 | 46.961 | 98.629 | 49.000 | 1.00 78.01 | O |
| ATOM | 3094 | CB | VAL | A | 433 | 45.281 | 100.684 | 50.577 | 1.00102.85 | C |
| ATOM | 3095 | CG1 | VAL | A | 433 | 45.338 | 99.306 | 51.220 | 1.00102.85 | C |
| ATOM | 3096 | CG2 | VAL | A | 433 | 45.248 | 101.766 | 51.642 | 1.00102.85 | C |
| ATOM | 3097 | N | GLN | A | 434 | 46.093 | 100.024 | 47.448 | 1.00122.72 | N |
| ATOM | 3098 | CA | GLN | A | 434 | 46.068 | 99.027 | 46.398 | 1.00122.72 | C |
| ATOM | 3099 | C | GLN | A | 434 | 47.456 | 98.780 | 45.877 | 1.00122.72 | C |
| ATOM | 3100 | O | GLN | A | 434 | 48.107 | 97.845 | 46.308 | 1.00122.72 | O |
| ATOM | 3101 | CB | GLN | A | 434 | 45.156 | 99.449 | 45.247 | 1.00132.98 | C |
| ATOM | 3102 | CG | GLN | A | 434 | 44.557 | 98.262 | 44.553 | 1.00132.98 | C |
| ATOM | 3103 | CD | GLN | A | 434 | 43.885 | 97.342 | 45.553 | 1.00132.98 | C |
| ATOM | 3104 | OE1 | GLN | A | 434 | 42.959 | 97.749 | 46.248 | 1.00132.98 | O |
| ATOM | 3105 | NE2 | GLN | A | 434 | 44.357 | 96.103 | 45.644 | 1.00132.98 | N |
| ATOM | 3106 | N | LEU | A | 435 | 47.930 | 99.623 | 44.967 | 1.00101.41 | N |
| ATOM | 3107 | CA | LEU | A | 435 | 49.270 | 99.426 | 44.406 | 1.00101.41 | C |
| ATOM | 3108 | C | LEU | A | 435 | 50.376 | 99.225 | 45.443 | 1.00101.41 | C |
| ATOM | 3109 | O | LEU | A | 435 | 51.489 | 98.818 | 45.113 | 1.00101.41 | O |
| ATOM | 3110 | CB | LEU | A | 435 | 49.634 | 100.574 | 43.455 | 1.00 82.30 | C |
| ATOM | 3111 | CG | LEU | A | 435 | 49.816 | 101.971 | 44.041 | 1.00 82.30 | C |
| ATOM | 3112 | CD1 | LEU | A | 435 | 51.155 | 102.525 | 43.595 | 1.00 82.30 | C |
| ATOM | 3113 | CD2 | LEU | A | 435 | 48.689 | 102.878 | 43.587 | 1.00 82.30 | C |
| ATOM | 3114 | N | MET | A | 436 | 50.077 | 99.498 | 46.702 | 1.00122.97 | N |
| ATOM | 3115 | CA | MET | A | 436 | 51.079 | 99.269 | 47.718 | 1.00122.97 | C |
| ATOM | 3116 | C | MET | A | 436 | 51.302 | 97.756 | 47.746 | 1.00122.97 | C |
| ATOM | 3117 | O | MET | A | 436 | 51.954 | 97.223 | 48.638 | 1.00122.97 | O |
| ATOM | 3118 | CB | MET | A | 436 | 50.598 | 99.765 | 49.085 | 1.00112.37 | C |
| ATOM | 3119 | CG | MET | A | 436 | 51.606 | 99.563 | 50.210 | 1.00112.37 | C |
| ATOM | 3120 | SD | MET | A | 436 | 53.262 | 100.103 | 49.758 | 1.00112.37 | S |
| ATOM | 3121 | CE | MET | A | 436 | 54.140 | 98.522 | 49.778 | 1.00112.37 | C |
| ATOM | 3122 | N | GLN | A | 437 | 50.733 | 97.076 | 46.757 | 1.00123.13 | N |
| ATOM | 3123 | CA | GLN | A | 437 | 50.843 | 95.625 | 46.604 | 1.00123.13 | C |
| ATOM | 3124 | C | GLN | A | 437 | 51.165 | 95.417 | 45.134 | 1.00123.13 | C |
| ATOM | 3125 | O | GLN | A | 437 | 51.043 | 94.317 | 44.591 | 1.00123.13 | O |
| ATOM | 3126 | CB | GLN | A | 437 | 49.499 | 94.943 | 46.883 | 1.00135.33 | C |
| ATOM | 3127 | CG | GLN | A | 437 | 49.029 | 94.917 | 48.328 | 1.00135.33 | C |
| ATOM | 3128 | CD | GLN | A | 437 | 47.639 | 94.309 | 48.465 | 1.00135.33 | C |
| ATOM | 3129 | OE1 | GLN | A | 437 | 46.634 | 94.962 | 48.183 | 1.00135.33 | O |
| ATOM | 3130 | NE2 | GLN | A | 437 | 47.578 | 93.049 | 48.885 | 1.00135.33 | N |
| ATOM | 3131 | N | ARG | A | 438 | 51.547 | 96.502 | 44.486 | 1.00 63.01 | N |
| ATOM | 3132 | CA | ARG | A | 438 | 51.882 | 96.445 | 43.082 | 1.00 63.01 | C |
| ATOM | 3133 | C | ARG | A | 438 | 50.682 | 96.004 | 42.251 | 1.00 63.01 | C |
| ATOM | 3134 | O | ARG | A | 438 | 50.800 | 95.812 | 41.040 | 1.00 63.01 | O |
| ATOM | 3135 | CB | ARG | A | 438 | 53.051 | 95.481 | 42.875 | 1.00107.35 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 3136 | CG | ARG | A | 438 | 53.981 | 95.864 | 41.744 | 1.00107.35 | C |
| ATOM | 3137 | CD | ARG | A | 438 | 53.615 | 95.227 | 40.419 | 1.00107.35 | C |
| ATOM | 3138 | NE | ARG | A | 438 | 54.523 | 95.683 | 39.371 | 1.00107.35 | N |
| ATOM | 3139 | CZ | ARG | A | 438 | 55.845 | 95.723 | 39.501 | 1.00107.35 | C |
| ATOM | 3140 | NH1 | ARG | A | 438 | 56.409 | 95.332 | 40.632 | 1.00107.35 | N |
| ATOM | 3141 | NH2 | ARG | A | 438 | 56.601 | 96.165 | 38.508 | 1.00107.35 | N |
| ATOM | 3142 | N | LEU | A | 439 | 49.529 | 95.850 | 42.901 | 1.00 56.73 | N |
| ATOM | 3143 | CA | LEU | A | 439 | 48.301 | 95.453 | 42.216 | 1.00 56.73 | C |
| ATOM | 3144 | C | LEU | A | 439 | 48.267 | 96.085 | 40.841 | 1.00 56.73 | C |
| ATOM | 3145 | O | LEU | A | 439 | 47.906 | 95.447 | 39.866 | 1.00 56.73 | O |
| ATOM | 3146 | CB | LEU | A | 439 | 47.081 | 95.891 | 43.030 | 1.00 99.16 | C |
| ATOM | 3147 | CG | LEU | A | 439 | 46.005 | 94.818 | 43.197 | 1.00 99.16 | C |
| ATOM | 3148 | CD1 | LEU | A | 439 | 45.355 | 94.502 | 41.862 | 1.00 99.16 | C |
| ATOM | 3149 | CD2 | LEU | A | 439 | 46.650 | 93.573 | 43.785 | 1.00 99.16 | C |
| ATOM | 3150 | N | TYR | A | 440 | 48.635 | 97.361 | 40.790 | 1.00101.17 | N |
| ATOM | 3151 | CA | TYR | A | 440 | 48.724 | 98.117 | 39.548 | 1.00101.17 | C |
| ATOM | 3152 | C | TYR | A | 440 | 50.009 | 98.890 | 39.640 | 1.00101.17 | C |
| ATOM | 3153 | O | TYR | A | 440 | 50.329 | 99.413 | 40.694 | 1.00101.17 | O |
| ATOM | 3154 | CB | TYR | A | 440 | 47.579 | 99.126 | 39.407 | 1.00 78.15 | C |
| ATOM | 3155 | CG | TYR | A | 440 | 46.177 | 98.578 | 39.438 | 1.00 78.15 | C |
| ATOM | 3156 | CD1 | TYR | A | 440 | 45.669 | 97.970 | 40.584 | 1.00 78.15 | C |
| ATOM | 3157 | CD2 | TYR | A | 440 | 45.329 | 98.751 | 38.346 | 1.00 78.15 | C |
| ATOM | 3158 | CE1 | TYR | A | 440 | 44.358 | 97.562 | 40.643 | 1.00 78.15 | C |
| ATOM | 3159 | CE2 | TYR | A | 440 | 44.024 | 98.350 | 38.397 | 1.00 78.15 | C |
| ATOM | 3160 | CZ | TYR | A | 440 | 43.543 | 97.762 | 39.547 | 1.00 78.15 | C |
| ATOM | 3161 | OH | TYR | A | 440 | 42.227 | 97.409 | 39.615 | 1.00 78.15 | O |
| ATOM | 3162 | N | ASP | A | 441 | 50.750 | 98.970 | 38.549 | 1.00133.06 | N |
| ATOM | 3163 | CA | ASP | A | 441 | 51.981 | 99.726 | 38.578 | 1.00133.06 | C |
| ATOM | 3164 | C | ASP | A | 441 | 51.612 | 101.201 | 38.614 | 1.00133.06 | C |
| ATOM | 3165 | O | ASP | A | 441 | 50.589 | 101.587 | 38.060 | 1.00133.06 | O |
| ATOM | 3166 | CB | ASP | A | 441 | 52.818 | 99.416 | 37.339 | 1.00138.84 | C |
| ATOM | 3167 | CG | ASP | A | 441 | 54.172 | 98.850 | 37.687 | 1.00138.84 | C |
| ATOM | 3168 | OD1 | ASP | A | 441 | 54.222 | 97.939 | 38.539 | 1.00138.84 | O |
| ATOM | 3169 | OD2 | ASP | A | 441 | 55.179 | 99.307 | 37.108 | 1.00138.84 | O |
| ATOM | 3170 | N | PRO | A | 442 | 52.436 | 102.049 | 39.258 | 1.00105.77 | N |
| ATOM | 3171 | CA | PRO | A | 442 | 52.123 | 103.477 | 39.331 | 1.00105.77 | C |
| ATOM | 3172 | C | PRO | A | 442 | 52.086 | 104.121 | 37.962 | 1.00105.77 | C |
| ATOM | 3173 | O | PRO | A | 442 | 52.956 | 103.872 | 37.129 | 1.00105.77 | O |
| ATOM | 3174 | CB | PRO | A | 442 | 53.248 | 104.029 | 40.204 | 1.00126.38 | C |
| ATOM | 3175 | CG | PRO | A | 442 | 54.404 | 103.155 | 39.829 | 1.00126.38 | C |
| ATOM | 3176 | CD | PRO | A | 442 | 53.773 | 101.778 | 39.815 | 1.00126.38 | C |
| ATOM | 3177 | N | LEU | A | 443 | 51.068 | 104.934 | 37.721 | 1.00 80.73 | N |
| ATOM | 3178 | CA | LEU | A | 443 | 50.962 | 105.601 | 36.440 | 1.00 80.73 | C |
| ATOM | 3179 | C | LEU | A | 443 | 52.211 | 106.481 | 36.288 | 1.00 80.73 | C |
| ATOM | 3180 | O | LEU | A | 443 | 52.875 | 106.466 | 35.258 | 1.00 80.73 | O |
| ATOM | 3181 | CB | LEU | A | 443 | 49.693 | 106.459 | 36.410 | 1.00 93.85 | C |
| ATOM | 3182 | CG | LEU | A | 443 | 48.860 | 106.502 | 35.121 | 1.00 93.85 | C |
| ATOM | 3183 | CD1 | LEU | A | 443 | 47.549 | 107.234 | 35.380 | 1.00 93.85 | C |
| ATOM | 3184 | CD2 | LEU | A | 443 | 49.647 | 107.171 | 34.003 | 1.00 93.85 | C |
| ATOM | 3185 | N | ASP | A | 444 | 52.559 | 107.230 | 37.324 | 1.00200.35 | N |
| ATOM | 3186 | CA | ASP | A | 444 | 53.746 | 108.074 | 37.243 | 1.00200.35 | C |
| ATOM | 3187 | C | ASP | A | 444 | 54.358 | 108.220 | 38.628 | 1.00200.35 | C |
| ATOM | 3188 | O | ASP | A | 444 | 53.679 | 108.000 | 39.634 | 1.00200.35 | O |
| ATOM | 3189 | CB | ASP | A | 444 | 53.382 | 109.446 | 36.673 | 1.00206.66 | C |
| ATOM | 3190 | CG | ASP | A | 444 | 54.601 | 110.273 | 36.319 | 1.00206.66 | C |
| ATOM | 3191 | OD1 | ASP | A | 444 | 55.509 | 109.739 | 35.647 | 1.00206.66 | O |
| ATOM | 3192 | OD2 | ASP | A | 444 | 54.647 | 111.460 | 36.702 | 1.00206.66 | O |
| ATOM | 3193 | N | GLY | A | 445 | 55.635 | 108.591 | 38.685 | 1.00108.38 | N |
| ATOM | 3194 | CA | GLY | A | 445 | 56.284 | 108.727 | 39.974 | 1.00108.38 | C |
| ATOM | 3195 | C | GLY | A | 445 | 56.671 | 107.344 | 40.448 | 1.00108.38 | C |
| ATOM | 3196 | O | GLY | A | 445 | 57.090 | 106.540 | 39.632 | 1.00108.38 | O |
| ATOM | 3197 | N | MET | A | 446 | 56.546 | 107.044 | 41.739 | 1.00109.60 | N |
| ATOM | 3198 | CA | MET | A | 446 | 56.910 | 105.709 | 42.208 | 1.00109.60 | C |
| ATOM | 3199 | C | MET | A | 446 | 56.723 | 105.527 | 43.696 | 1.00109.60 | C |
| ATOM | 3200 | O | MET | A | 446 | 56.335 | 106.452 | 44.406 | 1.00109.60 | O |
| ATOM | 3201 | CB | MET | A | 446 | 58.368 | 105.412 | 41.859 | 1.00125.18 | C |
| ATOM | 3202 | CG | MET | A | 446 | 59.367 | 106.187 | 42.697 | 1.00125.18 | C |
| ATOM | 3203 | SD | MET | A | 446 | 61.067 | 105.864 | 42.209 | 1.00125.18 | S |
| ATOM | 3204 | CE | MET | A | 446 | 61.205 | 106.941 | 40.808 | 1.00125.18 | C |
| ATOM | 3205 | N | VAL | A | 447 | 57.012 | 104.315 | 44.156 | 1.00106.41 | N |
| ATOM | 3206 | CA | VAL | A | 447 | 56.907 | 103.973 | 45.565 | 1.00106.41 | C |
| ATOM | 3207 | C | VAL | A | 447 | 58.078 | 103.120 | 45.914 | 1.00106.41 | C |
| ATOM | 3208 | O | VAL | A | 447 | 58.606 | 102.422 | 45.059 | 1.00106.41 | O |
| ATOM | 3209 | CB | VAL | A | 447 | 55.610 | 103.177 | 45.890 | 1.00 43.61 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------|--------|---|
| ATOM | 3210 | CG1 | VAL | A | 447 | 54.909 | 102.765 | 44.603 | 1.00 | 43.61 | C |
| ATOM | 3211 | CG2 | VAL | A | 447 | 55.936 | 101.944 | 46.735 | 1.00 | 43.61 | C |
| ATOM | 3212 | N | SER | A | 448 | 58.453 | 103.166 | 47.185 | 1.00 | 74.39 | N |
| ATOM | 3213 | CA | SER | A | 448 | 59.572 | 102.406 | 47.696 | 1.00 | 74.39 | C |
| ATOM | 3214 | C | SER | A | 448 | 59.271 | 101.732 | 49.019 | 1.00 | 74.39 | C |
| ATOM | 3215 | O | SER | A | 448 | 58.636 | 102.315 | 49.888 | 1.00 | 74.39 | O |
| ATOM | 3216 | CB | SER | A | 448 | 60.788 | 103.315 | 47.878 | 1.00 | 172.40 | C |
| ATOM | 3217 | OG | SER | A | 448 | 61.682 | 102.775 | 48.839 | 1.00 | 172.40 | O |
| ATOM | 3218 | N | ILE | A | 449 | 59.728 | 100.494 | 49.164 | 1.00 | 99.04 | N |
| ATOM | 3219 | CA | ILE | A | 449 | 59.555 | 99.760 | 50.405 | 1.00 | 99.04 | C |
| ATOM | 3220 | C | ILE | A | 449 | 60.932 | 99.866 | 51.049 | 1.00 | 99.04 | C |
| ATOM | 3221 | O | ILE | A | 449 | 61.913 | 100.163 | 50.364 | 1.00 | 99.04 | O |
| ATOM | 3222 | CB | ILE | A | 449 | 59.272 | 98.248 | 50.166 | 1.00 | 54.43 | C |
| ATOM | 3223 | CG1 | ILE | A | 449 | 58.293 | 97.736 | 51.221 | 1.00 | 54.43 | C |
| ATOM | 3224 | CG2 | ILE | A | 449 | 60.582 | 97.427 | 50.273 | 1.00 | 54.43 | C |
| ATOM | 3225 | CD1 | ILE | A | 449 | 56.905 | 98.343 | 51.113 | 1.00 | 54.43 | C |
| ATOM | 3226 | N | ASP | A | 450 | 61.025 | 99.605 | 52.346 | 1.00 | 200.55 | N |
| ATOM | 3227 | CA | ASP | A | 450 | 62.319 | 99.711 | 53.001 | 1.00 | 200.55 | C |
| ATOM | 3228 | C | ASP | A | 450 | 62.736 | 101.023 | 52.382 | 1.00 | 200.55 | C |
| ATOM | 3229 | O | ASP | A | 450 | 62.083 | 102.051 | 52.606 | 1.00 | 200.55 | O |
| ATOM | 3230 | CB | ASP | A | 450 | 63.259 | 98.599 | 52.535 | 1.00 | 207.38 | C |
| ATOM | 3231 | CG | ASP | A | 450 | 64.710 | 98.877 | 52.889 | 1.00 | 207.38 | C |
| ATOM | 3232 | OD1 | ASP | A | 450 | 65.595 | 98.137 | 52.407 | 1.00 | 207.38 | O |
| ATOM | 3233 | OD2 | ASP | A | 450 | 64.965 | 99.836 | 53.652 | 1.00 | 207.38 | O |
| ATOM | 3234 | N | GLY | A | 451 | 63.860 | 100.962 | 51.676 | 1.00 | 97.55 | N |
| ATOM | 3235 | CA | GLY | A | 451 | 64.380 | 102.027 | 50.842 | 1.00 | 97.55 | C |
| ATOM | 3236 | C | GLY | A | 451 | 64.569 | 101.797 | 49.341 | 1.00 | 97.55 | C |
| ATOM | 3237 | O | GLY | A | 451 | 65.154 | 102.621 | 48.618 | 1.00 | 97.55 | O |
| ATOM | 3238 | N | GLN | A | 452 | 64.068 | 100.666 | 48.860 | 1.00 | 113.52 | N |
| ATOM | 3239 | CA | GLN | A | 452 | 64.166 | 100.328 | 47.440 | 1.00 | 113.52 | C |
| ATOM | 3240 | C | GLN | A | 452 | 62.807 | 100.587 | 46.807 | 1.00 | 113.52 | C |
| ATOM | 3241 | O | GLN | A | 452 | 61.828 | 100.742 | 47.521 | 1.00 | 113.52 | O |
| ATOM | 3242 | CB | GLN | A | 452 | 64.502 | 98.848 | 47.270 | 1.00 | 137.06 | C |
| ATOM | 3243 | CG | GLN | A | 452 | 65.518 | 98.306 | 48.252 | 1.00 | 137.06 | C |
| ATOM | 3244 | CD | GLN | A | 452 | 65.581 | 96.792 | 48.233 | 1.00 | 137.06 | C |
| ATOM | 3245 | OE1 | GLN | A | 452 | 64.592 | 96.114 | 48.513 | 1.00 | 137.06 | O |
| ATOM | 3246 | NE2 | GLN | A | 452 | 66.745 | 96.254 | 47.901 | 1.00 | 137.06 | N |
| ATOM | 3247 | N | ASP | A | 453 | 62.724 | 100.613 | 45.481 | 1.00 | 119.47 | N |
| ATOM | 3248 | CA | ASP | A | 453 | 61.424 | 100.835 | 44.837 | 1.00 | 119.47 | C |
| ATOM | 3249 | C | ASP | A | 453 | 60.632 | 99.550 | 44.659 | 1.00 | 119.47 | C |
| ATOM | 3250 | O | ASP | A | 453 | 61.116 | 98.597 | 44.069 | 1.00 | 119.47 | O |
| ATOM | 3251 | CB | ASP | A | 453 | 61.580 | 101.499 | 43.468 | 1.00 | 206.00 | C |
| ATOM | 3252 | CG | ASP | A | 453 | 60.303 | 101.421 | 42.641 | 1.00 | 206.00 | C |
| ATOM | 3253 | OD1 | ASP | A | 453 | 59.935 | 100.303 | 42.219 | 1.00 | 206.00 | O |
| ATOM | 3254 | OD2 | ASP | A | 453 | 59.659 | 102.470 | 42.425 | 1.00 | 206.00 | O |
| ATOM | 3255 | N | ILE | A | 454 | 59.399 | 99.547 | 45.146 | 1.00 | 103.24 | N |
| ATOM | 3256 | CA | ILE | A | 454 | 58.523 | 98.384 | 45.061 | 1.00 | 103.24 | C |
| ATOM | 3257 | C | ILE | A | 454 | 58.644 | 97.589 | 43.768 | 1.00 | 103.24 | C |
| ATOM | 3258 | O | ILE | A | 454 | 59.006 | 96.411 | 43.757 | 1.00 | 103.24 | O |
| ATOM | 3259 | CB | ILE | A | 454 | 57.053 | 98.803 | 45.209 | 1.00 | 101.94 | C |
| ATOM | 3260 | CG1 | ILE | A | 454 | 56.141 | 97.617 | 44.887 | 1.00 | 101.94 | C |
| ATOM | 3261 | CG2 | ILE | A | 454 | 56.761 | 99.978 | 44.289 | 1.00 | 101.94 | C |
| ATOM | 3262 | CD1 | ILE | A | 454 | 54.671 | 97.912 | 45.017 | 1.00 | 101.94 | C |
| ATOM | 3263 | N | ARG | A | 455 | 58.301 | 98.249 | 42.677 | 1.00 | 102.82 | N |
| ATOM | 3264 | CA | ARG | A | 455 | 58.348 | 97.637 | 41.369 | 1.00 | 102.82 | C |
| ATOM | 3265 | C | ARG | A | 455 | 59.597 | 96.803 | 41.180 | 1.00 | 102.82 | C |
| ATOM | 3266 | O | ARG | A | 455 | 59.509 | 95.717 | 40.648 | 1.00 | 102.82 | O |
| ATOM | 3267 | CB | ARG | A | 455 | 58.289 | 98.744 | 40.313 | 1.00 | 154.81 | C |
| ATOM | 3268 | CG | ARG | A | 455 | 57.164 | 99.743 | 40.563 | 1.00 | 154.81 | C |
| ATOM | 3269 | CD | ARG | A | 455 | 57.459 | 101.122 | 39.997 | 1.00 | 154.81 | C |
| ATOM | 3270 | NE | ARG | A | 455 | 57.371 | 101.168 | 38.544 | 1.00 | 154.81 | N |
| ATOM | 3271 | CZ | ARG | A | 455 | 57.263 | 102.295 | 37.850 | 1.00 | 154.81 | C |
| ATOM | 3272 | NH1 | ARG | A | 455 | 57.229 | 103.459 | 38.482 | 1.00 | 154.81 | N |
| ATOM | 3273 | NH2 | ARG | A | 455 | 57.184 | 102.257 | 36.529 | 1.00 | 154.81 | N |
| ATOM | 3274 | N | THR | A | 456 | 60.756 | 97.284 | 41.630 | 1.00 | 147.39 | N |
| ATOM | 3275 | CA | THR | A | 456 | 62.008 | 96.531 | 41.432 | 1.00 | 147.39 | C |
| ATOM | 3276 | C | THR | A | 456 | 62.125 | 95.161 | 42.109 | 1.00 | 147.39 | C |
| ATOM | 3277 | O | THR | A | 456 | 62.748 | 94.262 | 41.551 | 1.00 | 147.39 | O |
| ATOM | 3278 | CB | THR | A | 456 | 63.260 | 97.360 | 41.829 | 1.00 | 111.59 | C |
| ATOM | 3279 | OG1 | THR | A | 456 | 63.713 | 96.953 | 43.127 | 1.00 | 111.59 | O |
| ATOM | 3280 | CG2 | THR | A | 456 | 62.945 | 98.855 | 41.832 | 1.00 | 111.59 | C |
| ATOM | 3281 | N | ILE | A | 457 | 61.548 | 94.984 | 43.296 | 1.00 | 128.72 | N |
| ATOM | 3282 | CA | ILE | A | 457 | 61.648 | 93.686 | 43.965 | 1.00 | 128.72 | C |
| ATOM | 3283 | C | ILE | A | 457 | 60.643 | 92.715 | 43.393 | 1.00 | 128.72 | C |

| | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|
| ATOM | 3284 | O | ILE | A | 457 | 59.657 | 93.127 | 42.788 | 1.00128.72 |
| ATOM | 3285 | CB | ILE | A | 457 | 61.400 | 93.786 | 45.490 | 1.00117.98 |
| ATOM | 3286 | CG1 | ILE | A | 457 | 59.955 | 94.205 | 45.760 | 1.00117.98 |
| ATOM | 3287 | CG2 | ILE | A | 457 | 62.388 | 94.760 | 46.116 | 1.00117.98 |
| ATOM | 3288 | CD1 | ILE | A | 457 | 59.575 | 94.169 | 47.225 | 1.00117.98 |
| ATOM | 3289 | N | ASN | A | 458 | 60.884 | 91.425 | 43.597 | 1.00108.74 |
| ATOM | 3290 | CA | ASN | A | 458 | 59.983 | 90.413 | 43.071 | 1.00108.74 |
| ATOM | 3291 | C | ASN | A | 458 | 58.629 | 90.394 | 43.758 | 1.00108.74 |
| ATOM | 3292 | O | ASN | A | 458 | 58.520 | 90.638 | 44.953 | 1.00108.74 |
| ATOM | 3293 | CB | ASN | A | 458 | 60.561 | 89.016 | 43.197 | 1.00 73.59 |
| ATOM | 3294 | CG | ASN | A | 458 | 59.515 | 87.944 | 42.934 | 1.00 73.59 |
| ATOM | 3295 | OD1 | ASN | A | 458 | 59.310 | 87.052 | 43.756 | 1.00 73.59 |
| ATOM | 3296 | ND2 | ASN | A | 458 | 58.845 | 88.032 | 41.785 | 1.00 73.59 |
| ATOM | 3297 | N | VAL | A | 459 | 57.602 | 90.053 | 42.995 | 1.00 48.80 |
| ATOM | 3298 | CA | VAL | A | 459 | 56.221 | 89.996 | 43.496 | 1.00 48.80 |
| ATOM | 3299 | C | VAL | A | 459 | 55.951 | 88.971 | 44.590 | 1.00 48.80 |
| ATOM | 3300 | O | VAL | A | 459 | 55.775 | 89.334 | 45.747 | 1.00 48.80 |
| ATOM | 3301 | CB | VAL | A | 459 | 55.265 | 89.698 | 42.315 | 1.00 19.83 |
| ATOM | 3302 | CG1 | VAL | A | 459 | 53.976 | 90.432 | 42.522 | 1.00 19.83 |
| ATOM | 3303 | CG2 | VAL | A | 459 | 55.929 | 90.071 | 40.970 | 1.00 19.83 |
| ATOM | 3304 | N | ARG | A | 460 | 55.915 | 87.695 | 44.213 | 1.00124.19 |
| ATOM | 3305 | CA | ARG | A | 460 | 55.603 | 86.663 | 45.180 | 1.00124.19 |
| ATOM | 3306 | C | ARG | A | 460 | 56.134 | 87.109 | 46.503 | 1.00124.19 |
| ATOM | 3307 | O | ARG | A | 460 | 55.447 | 87.048 | 47.527 | 1.00124.19 |
| ATOM | 3308 | CB | ARG | A | 460 | 56.202 | 85.306 | 44.833 | 1.00123.98 |
| ATOM | 3309 | CG | ARG | A | 460 | 55.906 | 84.298 | 45.935 | 1.00123.98 |
| ATOM | 3310 | CD | ARG | A | 460 | 56.320 | 82.891 | 45.590 | 1.00123.98 |
| ATOM | 3311 | NE | ARG | A | 460 | 55.559 | 82.348 | 44.470 | 1.00123.98 |
| ATOM | 3312 | CZ | ARG | A | 460 | 55.481 | 81.051 | 44.191 | 1.00123.98 |
| ATOM | 3313 | NH1 | ARG | A | 460 | 56.118 | 80.170 | 44.952 | 1.00123.98 |
| ATOM | 3314 | NH2 | ARG | A | 460 | 54.763 | 80.631 | 43.156 | 1.00123.98 |
| ATOM | 3315 | N | TYR | A | 461 | 57.359 | 87.606 | 46.467 | 1.00 86.82 |
| ATOM | 3316 | CA | TYR | A | 461 | 57.999 | 88.069 | 47.677 | 1.00 86.82 |
| ATOM | 3317 | C | TYR | A | 461 | 57.253 | 89.286 | 48.260 | 1.00 86.82 |
| ATOM | 3318 | O | TYR | A | 461 | 56.857 | 89.267 | 49.426 | 1.00 86.82 |
| ATOM | 3319 | CB | TYR | A | 461 | 59.453 | 88.414 | 47.349 | 1.00132.61 |
| ATOM | 3320 | CG | TYR | A | 461 | 60.384 | 88.451 | 48.534 | 1.00132.61 |
| ATOM | 3321 | CD1 | TYR | A | 461 | 60.431 | 89.561 | 49.365 | 1.00132.61 |
| ATOM | 3322 | CD2 | TYR | A | 461 | 61.242 | 87.381 | 48.810 | 1.00132.61 |
| ATOM | 3323 | CE1 | TYR | A | 461 | 61.310 | 89.619 | 50.442 | 1.00132.61 |
| ATOM | 3324 | CE2 | TYR | A | 461 | 62.131 | 87.426 | 49.889 | 1.00132.61 |
| ATOM | 3325 | CZ | TYR | A | 461 | 62.160 | 88.549 | 50.697 | 1.00132.61 |
| ATOM | 3326 | OH | TYR | A | 461 | 63.052 | 88.611 | 51.744 | 1.00132.61 |
| ATOM | 3327 | N | LEU | A | 462 | 57.044 | 90.327 | 47.455 | 1.00 67.30 |
| ATOM | 3328 | CA | LEU | A | 462 | 56.349 | 91.528 | 47.926 | 1.00 67.30 |
| ATOM | 3329 | C | LEU | A | 462 | 55.066 | 91.109 | 48.584 | 1.00 67.30 |
| ATOM | 3330 | O | LEU | A | 462 | 54.906 | 91.179 | 49.792 | 1.00 67.30 |
| ATOM | 3331 | CB | LEU | A | 462 | 56.025 | 92.455 | 46.754 | 1.00 57.08 |
| ATOM | 3332 | CG | LEU | A | 462 | 55.216 | 93.679 | 47.190 | 1.00 57.08 |
| ATOM | 3333 | CD1 | LEU | A | 462 | 56.153 | 94.868 | 47.334 | 1.00 57.08 |
| ATOM | 3334 | CD2 | LEU | A | 462 | 54.108 | 93.976 | 46.187 | 1.00 57.08 |
| ATOM | 3335 | N | ARG | A | 463 | 54.151 | 90.683 | 47.738 | 1.00 59.23 |
| ATOM | 3336 | CA | ARG | A | 463 | 52.856 | 90.216 | 48.146 | 1.00 59.23 |
| ATOM | 3337 | C | ARG | A | 463 | 52.917 | 89.414 | 49.472 | 1.00 59.23 |
| ATOM | 3338 | O | ARG | A | 463 | 51.990 | 89.464 | 50.292 | 1.00 59.23 |
| ATOM | 3339 | CB | ARG | A | 463 | 52.258 | 89.345 | 47.041 | 1.00 66.39 |
| ATOM | 3340 | CG | ARG | A | 463 | 52.255 | 89.979 | 45.648 | 1.00 66.39 |
| ATOM | 3341 | CD | ARG | A | 463 | 51.290 | 91.162 | 45.558 | 1.00 66.39 |
| ATOM | 3342 | NE | ARG | A | 463 | 51.065 | 91.644 | 44.191 | 1.00 66.39 |
| ATOM | 3343 | CZ | ARG | A | 463 | 50.554 | 90.921 | 43.198 | 1.00 66.39 |
| ATOM | 3344 | NH1 | ARG | A | 463 | 50.210 | 89.663 | 43.402 | 1.00 66.39 |
| ATOM | 3345 | NH2 | ARG | A | 463 | 50.376 | 91.464 | 42.003 | 1.00 66.39 |
| ATOM | 3346 | N | GLU | A | 464 | 53.981 | 88.652 | 49.689 | 1.00 87.43 |
| ATOM | 3347 | CA | GLU | A | 464 | 54.077 | 87.895 | 50.939 | 1.00 87.43 |
| ATOM | 3348 | C | GLU | A | 464 | 54.346 | 88.845 | 52.111 | 1.00 87.43 |
| ATOM | 3349 | O | GLU | A | 464 | 53.641 | 88.839 | 53.127 | 1.00 87.43 |
| ATOM | 3350 | CB | GLU | A | 464 | 55.239 | 86.906 | 50.892 | 1.00125.85 |
| ATOM | 3351 | CG | GLU | A | 464 | 54.970 | 85.613 | 50.182 | 1.00125.85 |
| ATOM | 3352 | CD | GLU | A | 464 | 56.099 | 84.626 | 50.404 | 1.00125.85 |
| ATOM | 3353 | OE1 | GLU | A | 464 | 57.235 | 84.918 | 49.974 | 1.00125.85 |
| ATOM | 3354 | OE2 | GLU | A | 464 | 55.863 | 83.564 | 51.020 | 1.00125.85 |
| ATOM | 3355 | N | ILE | A | 465 | 55.402 | 89.639 | 51.925 | 1.00 78.25 |
| ATOM | 3356 | CA | ILE | A | 465 | 55.914 | 90.626 | 52.871 | 1.00 78.25 |
| ATOM | 3357 | C | ILE | A | 465 | 54.913 | 91.733 | 53.152 | 1.00 78.25 |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3358 | O | ILE | A | 465 | 55.199 | 92.670 | 53.868 | 1.00 | 78.25 | O |
| ATOM | 3359 | CB | ILE | A | 465 | 57.237 | 91.232 | 52.343 | 1.00 | 85.57 | C |
| ATOM | 3360 | CG1 | ILE | A | 465 | 58.184 | 90.101 | 51.931 | 1.00 | 85.57 | C |
| ATOM | 3361 | CG2 | ILE | A | 465 | 57.871 | 92.123 | 53.398 | 1.00 | 85.57 | C |
| ATOM | 3362 | CD1 | ILE | A | 465 | 58.329 | 89.007 | 52.969 | 1.00 | 85.57 | C |
| ATOM | 3363 | N | ILE | A | 466 | 53.720 | 91.615 | 52.604 | 1.00 | 112.11 | N |
| ATOM | 3364 | CA | ILE | A | 466 | 52.719 | 92.642 | 52.818 | 1.00 | 112.11 | C |
| ATOM | 3365 | C | ILE | A | 466 | 51.362 | 92.063 | 53.275 | 1.00 | 112.11 | C |
| ATOM | 3366 | O | ILE | A | 466 | 50.486 | 91.764 | 52.461 | 1.00 | 112.11 | O |
| ATOM | 3367 | CB | ILE | A | 466 | 52.544 | 93.453 | 51.525 | 1.00 | 109.41 | C |
| ATOM | 3368 | CG1 | ILE | A | 466 | 53.903 | 94.037 | 51.130 | 1.00 | 109.41 | C |
| ATOM | 3369 | CG2 | ILE | A | 466 | 51.517 | 94.555 | 51.716 | 1.00 | 109.41 | C |
| ATOM | 3370 | CD1 | ILE | A | 466 | 53.913 | 94.846 | 49.853 | 1.00 | 109.41 | C |
| ATOM | 3371 | N | GLY | A | 467 | 51.193 | 91.905 | 54.587 | 1.00 | 96.92 | N |
| ATOM | 3372 | CA | GLY | A | 467 | 49.958 | 91.345 | 55.109 | 1.00 | 96.92 | C |
| ATOM | 3373 | C | GLY | A | 467 | 48.839 | 92.276 | 54.744 | 1.00 | 96.92 | C |
| ATOM | 3374 | O | GLY | A | 467 | 49.021 | 93.488 | 54.853 | 1.00 | 96.92 | O |
| ATOM | 3375 | N | VAL | A | 468 | 47.700 | 91.729 | 54.306 | 1.00 | 92.78 | N |
| ATOM | 3376 | CA | VAL | A | 468 | 46.546 | 92.549 | 53.912 | 1.00 | 92.78 | C |
| ATOM | 3377 | C | VAL | A | 468 | 45.157 | 92.014 | 54.206 | 1.00 | 92.78 | C |
| ATOM | 3378 | O | VAL | A | 468 | 44.799 | 90.902 | 53.814 | 1.00 | 92.78 | O |
| ATOM | 3379 | CB | VAL | A | 468 | 46.569 | 92.877 | 52.399 | 1.00 | 120.01 | C |
| ATOM | 3380 | CG1 | VAL | A | 468 | 45.250 | 93.521 | 51.975 | 1.00 | 120.01 | C |
| ATOM | 3381 | CG2 | VAL | A | 468 | 47.727 | 93.808 | 52.091 | 1.00 | 120.01 | C |
| ATOM | 3382 | N | VAL | A | 469 | 44.365 | 92.853 | 54.867 | 1.00 | 81.95 | N |
| ATOM | 3383 | CA | VAL | A | 469 | 42.995 | 92.506 | 55.215 | 1.00 | 81.95 | C |
| ATOM | 3384 | C | VAL | A | 469 | 42.000 | 93.612 | 54.913 | 1.00 | 81.95 | C |
| ATOM | 3385 | O | VAL | A | 469 | 41.945 | 94.658 | 55.580 | 1.00 | 81.95 | O |
| ATOM | 3386 | CB | VAL | A | 469 | 42.863 | 92.143 | 56.709 | 1.00 | 40.07 | C |
| ATOM | 3387 | CG1 | VAL | A | 469 | 41.782 | 91.089 | 56.879 | 1.00 | 40.07 | C |
| ATOM | 3388 | CG2 | VAL | A | 469 | 44.190 | 91.652 | 57.255 | 1.00 | 40.07 | C |
| ATOM | 3389 | N | SER | A | 470 | 41.212 | 93.337 | 53.885 | 1.00 | 65.36 | N |
| ATOM | 3390 | CA | SER | A | 470 | 40.206 | 94.233 | 53.378 | 1.00 | 65.36 | C |
| ATOM | 3391 | C | SER | A | 470 | 38.871 | 93.835 | 53.984 | 1.00 | 65.36 | C |
| ATOM | 3392 | O | SER | A | 470 | 38.828 | 92.942 | 54.838 | 1.00 | 65.36 | O |
| ATOM | 3393 | CB | SER | A | 470 | 40.150 | 94.146 | 51.856 | 1.00 | 185.08 | C |
| ATOM | 3394 | OG | SER | A | 470 | 40.362 | 92.813 | 51.425 | 1.00 | 185.08 | O |
| ATOM | 3395 | N | GLN | A | 471 | 37.802 | 94.508 | 53.541 | 1.00 | 103.54 | N |
| ATOM | 3396 | CA | GLN | A | 471 | 36.443 | 94.273 | 54.017 | 1.00 | 103.54 | C |
| ATOM | 3397 | C | GLN | A | 471 | 36.027 | 92.834 | 53.781 | 1.00 | 103.54 | C |
| ATOM | 3398 | O | GLN | A | 471 | 36.494 | 91.955 | 54.486 | 1.00 | 103.54 | O |
| ATOM | 3399 | CB | GLN | A | 471 | 35.449 | 95.247 | 53.357 | 1.00 | 193.60 | C |
| ATOM | 3400 | CG | GLN | A | 471 | 35.253 | 95.107 | 51.851 | 1.00 | 193.60 | C |
| ATOM | 3401 | CD | GLN | A | 471 | 36.464 | 95.540 | 51.047 | 1.00 | 193.60 | C |
| ATOM | 3402 | OE1 | GLN | A | 471 | 37.491 | 94.863 | 51.038 | 1.00 | 193.60 | O |
| ATOM | 3403 | NE2 | GLN | A | 471 | 36.348 | 96.678 | 50.368 | 1.00 | 193.60 | N |
| ATOM | 3404 | N | GLU | A | 472 | 35.164 | 92.578 | 52.807 | 1.00 | 67.63 | N |
| ATOM | 3405 | CA | GLU | A | 472 | 34.733 | 91.209 | 52.521 | 1.00 | 67.63 | C |
| ATOM | 3406 | C | GLU | A | 472 | 35.776 | 90.168 | 52.895 | 1.00 | 67.63 | C |
| ATOM | 3407 | O | GLU | A | 472 | 36.756 | 89.958 | 52.184 | 1.00 | 67.63 | O |
| ATOM | 3408 | CB | GLU | A | 472 | 34.376 | 91.047 | 51.038 | 1.00 | 174.05 | C |
| ATOM | 3409 | CG | GLU | A | 472 | 34.723 | 89.669 | 50.449 | 1.00 | 174.05 | C |
| ATOM | 3410 | CD | GLU | A | 472 | 33.965 | 88.520 | 51.103 | 1.00 | 174.05 | C |
| ATOM | 3411 | OE1 | GLU | A | 472 | 33.850 | 88.509 | 52.346 | 1.00 | 174.05 | O |
| ATOM | 3412 | OE2 | GLU | A | 472 | 33.494 | 87.620 | 50.373 | 1.00 | 174.05 | O |
| ATOM | 3413 | N | PRO | A | 473 | 35.593 | 89.513 | 54.033 | 1.00 | 119.49 | N |
| ATOM | 3414 | CA | PRO | A | 473 | 36.563 | 88.497 | 54.426 | 1.00 | 119.49 | C |
| ATOM | 3415 | C | PRO | A | 473 | 36.074 | 87.223 | 53.765 | 1.00 | 119.49 | C |
| ATOM | 3416 | O | PRO | A | 473 | 35.019 | 86.704 | 54.114 | 1.00 | 119.49 | O |
| ATOM | 3417 | CB | PRO | A | 473 | 36.413 | 88.463 | 55.939 | 1.00 | 82.24 | C |
| ATOM | 3418 | CG | PRO | A | 473 | 34.931 | 88.646 | 56.114 | 1.00 | 82.24 | C |
| ATOM | 3419 | CD | PRO | A | 473 | 34.617 | 89.760 | 55.112 | 1.00 | 82.24 | C |
| ATOM | 3420 | N | VAL | A | 474 | 36.823 | 86.717 | 52.800 | 1.00 | 83.49 | N |
| ATOM | 3421 | CA | VAL | A | 474 | 36.388 | 85.522 | 52.106 | 1.00 | 83.49 | C |
| ATOM | 3422 | C | VAL | A | 474 | 37.080 | 84.249 | 52.582 | 1.00 | 83.49 | C |
| ATOM | 3423 | O | VAL | A | 474 | 38.295 | 84.227 | 52.808 | 1.00 | 83.49 | O |
| ATOM | 3424 | CB | VAL | A | 474 | 36.618 | 85.676 | 50.587 | 1.00 | 109.51 | C |
| ATOM | 3425 | CG1 | VAL | A | 474 | 38.111 | 85.756 | 50.302 | 1.00 | 109.51 | C |
| ATOM | 3426 | CG2 | VAL | A | 474 | 35.978 | 84.527 | 49.830 | 1.00 | 109.51 | C |
| ATOM | 3427 | N | LEU | A | 475 | 36.287 | 83.194 | 52.740 | 1.00 | 107.94 | N |
| ATOM | 3428 | CA | LEU | A | 475 | 36.799 | 81.897 | 53.163 | 1.00 | 107.94 | C |
| ATOM | 3429 | C | LEU | A | 475 | 36.339 | 80.819 | 52.211 | 1.00 | 107.94 | C |
| ATOM | 3430 | O | LEU | A | 475 | 35.149 | 80.689 | 51.952 | 1.00 | 107.94 | O |
| ATOM | 3431 | CB | LEU | A | 475 | 36.320 | 81.592 | 54.572 | 1.00 | 92.86 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3432 | CG | LEU | A | 475 | 36.904 | 82.647 | 55.507 | 1.00 | 92.86 | C |
| ATOM | 3433 | CD1 | LEU | A | 475 | 36.451 | 82.406 | 56.925 | 1.00 | 92.86 | C |
| ATOM | 3434 | CD2 | LEU | A | 475 | 38.426 | 82.610 | 55.406 | 1.00 | 92.86 | C |
| ATOM | 3435 | N | PHE | A | 476 | 37.277 | 80.036 | 51.696 | 1.00 | 90.47 | N |
| ATOM | 3436 | CA | PHE | A | 476 | 36.937 | 79.003 | 50.733 | 1.00 | 90.47 | C |
| ATOM | 3437 | C | PHE | A | 476 | 36.206 | 77.905 | 51.460 | 1.00 | 90.47 | C |
| ATOM | 3438 | O | PHE | A | 476 | 36.260 | 77.833 | 52.688 | 1.00 | 90.47 | O |
| ATOM | 3439 | CB | PHE | A | 476 | 38.209 | 78.451 | 50.082 | 1.00 | 97.74 | C |
| ATOM | 3440 | CG | PHE | A | 476 | 39.199 | 79.516 | 49.662 | 1.00 | 97.74 | C |
| ATOM | 3441 | CD1 | PHE | A | 476 | 39.980 | 80.172 | 50.615 | 1.00 | 97.74 | C |
| ATOM | 3442 | CD2 | PHE | A | 476 | 39.354 | 79.855 | 48.316 | 1.00 | 97.74 | C |
| ATOM | 3443 | CE1 | PHE | A | 476 | 40.900 | 81.146 | 50.238 | 1.00 | 97.74 | C |
| ATOM | 3444 | CE2 | PHE | A | 476 | 40.273 | 80.830 | 47.925 | 1.00 | 97.74 | C |
| ATOM | 3445 | CZ | PHE | A | 476 | 41.048 | 81.477 | 48.890 | 1.00 | 97.74 | C |
| ATOM | 3446 | N | ALA | A | 477 | 35.520 | 77.052 | 50.712 | 1.00 | 78.10 | N |
| ATOM | 3447 | CA | ALA | A | 477 | 34.771 | 75.962 | 51.323 | 1.00 | 78.10 | C |
| ATOM | 3448 | C | ALA | A | 477 | 35.710 | 74.905 | 51.877 | 1.00 | 78.10 | C |
| ATOM | 3449 | O | ALA | A | 477 | 36.109 | 73.998 | 51.155 | 1.00 | 78.10 | O |
| ATOM | 3450 | CB | ALA | A | 477 | 33.826 | 75.342 | 50.298 | 1.00 | 154.59 | C |
| ATOM | 3451 | N | THR | A | 478 | 36.061 | 75.018 | 53.157 | 1.00 | 94.29 | N |
| ATOM | 3452 | CA | THR | A | 478 | 36.959 | 74.055 | 53.788 | 1.00 | 94.29 | C |
| ATOM | 3453 | C | THR | A | 478 | 36.984 | 74.155 | 55.274 | 1.00 | 94.29 | C |
| ATOM | 3454 | O | THR | A | 478 | 36.161 | 74.821 | 55.899 | 1.00 | 94.29 | O |
| ATOM | 3455 | CB | THR | A | 478 | 38.420 | 74.261 | 53.321 | 1.00 | 95.39 | C |
| ATOM | 3456 | OG1 | THR | A | 478 | 38.463 | 74.569 | 51.920 | 1.00 | 95.39 | O |
| ATOM | 3457 | CG2 | THR | A | 478 | 39.222 | 73.014 | 53.611 | 1.00 | 95.39 | C |
| ATOM | 3458 | N | THR | A | 479 | 37.974 | 73.487 | 55.836 | 1.00 | 76.87 | N |
| ATOM | 3459 | CA | THR | A | 479 | 38.147 | 73.498 | 57.254 | 1.00 | 76.87 | C |
| ATOM | 3460 | C | THR | A | 479 | 38.742 | 74.855 | 57.599 | 1.00 | 76.87 | C |
| ATOM | 3461 | O | THR | A | 479 | 39.319 | 75.547 | 56.737 | 1.00 | 76.87 | O |
| ATOM | 3462 | CB | THR | A | 479 | 39.121 | 72.392 | 57.693 | 1.00 | 178.59 | C |
| ATOM | 3463 | OG1 | THR | A | 479 | 40.364 | 72.546 | 56.993 | 1.00 | 178.59 | O |
| ATOM | 3464 | CG2 | THR | A | 479 | 38.535 | 71.019 | 57.394 | 1.00 | 178.59 | C |
| ATOM | 3465 | N | ILE | A | 480 | 38.573 | 75.241 | 58.860 | 1.00 | 135.17 | N |
| ATOM | 3466 | CA | ILE | A | 480 | 39.150 | 76.483 | 59.362 | 1.00 | 135.17 | C |
| ATOM | 3467 | C | ILE | A | 480 | 40.639 | 76.318 | 59.085 | 1.00 | 135.17 | C |
| ATOM | 3468 | O | ILE | A | 480 | 41.256 | 77.126 | 58.380 | 1.00 | 135.17 | O |
| ATOM | 3469 | CB | ILE | A | 480 | 38.948 | 76.617 | 60.885 | 1.00 | 94.73 | C |
| ATOM | 3470 | CG1 | ILE | A | 480 | 37.454 | 76.653 | 61.206 | 1.00 | 94.73 | C |
| ATOM | 3471 | CG2 | ILE | A | 480 | 39.669 | 77.851 | 61.406 | 1.00 | 94.73 | C |
| ATOM | 3472 | CD1 | ILE | A | 480 | 36.697 | 77.744 | 60.469 | 1.00 | 94.73 | C |
| ATOM | 3473 | N | ALA | A | 481 | 41.200 | 75.246 | 59.648 | 1.00 | 62.41 | N |
| ATOM | 3474 | CA | ALA | A | 481 | 42.613 | 74.903 | 59.469 | 1.00 | 62.41 | C |
| ATOM | 3475 | C | ALA | A | 481 | 43.070 | 75.193 | 58.044 | 1.00 | 62.41 | C |
| ATOM | 3476 | O | ALA | A | 481 | 43.884 | 76.080 | 57.812 | 1.00 | 62.41 | O |
| ATOM | 3477 | CB | ALA | A | 481 | 42.839 | 73.437 | 59.802 | 1.00 | 204.55 | C |
| ATOM | 3478 | N | GLU | A | 482 | 42.531 | 74.441 | 57.092 | 1.00 | 119.75 | N |
| ATOM | 3479 | CA | GLU | A | 482 | 42.885 | 74.618 | 55.695 | 1.00 | 119.75 | C |
| ATOM | 3480 | C | GLU | A | 482 | 42.882 | 76.063 | 55.242 | 1.00 | 119.75 | C |
| ATOM | 3481 | O | GLU | A | 482 | 43.716 | 76.438 | 54.427 | 1.00 | 119.75 | O |
| ATOM | 3482 | CB | GLU | A | 482 | 41.964 | 73.785 | 54.801 | 1.00 | 151.08 | C |
| ATOM | 3483 | CG | GLU | A | 482 | 42.369 | 72.321 | 54.700 | 1.00 | 151.08 | C |
| ATOM | 3484 | CD | GLU | A | 482 | 43.758 | 72.150 | 54.113 | 1.00 | 151.08 | C |
| ATOM | 3485 | OE1 | GLU | A | 482 | 43.974 | 72.579 | 52.959 | 1.00 | 151.08 | O |
| ATOM | 3486 | OE2 | GLU | A | 482 | 44.634 | 71.593 | 54.806 | 1.00 | 151.08 | O |
| ATOM | 3487 | N | ASN | A | 483 | 41.958 | 76.884 | 55.734 | 1.00 | 47.65 | N |
| ATOM | 3488 | CA | ASN | A | 483 | 41.996 | 78.279 | 55.311 | 1.00 | 47.65 | C |
| ATOM | 3489 | C | ASN | A | 483 | 43.253 | 78.927 | 55.860 | 1.00 | 47.65 | C |
| ATOM | 3490 | O | ASN | A | 483 | 43.999 | 79.546 | 55.107 | 1.00 | 47.65 | O |
| ATOM | 3491 | CB | ASN | A | 483 | 40.745 | 79.019 | 55.778 | 1.00 | 95.54 | C |
| ATOM | 3492 | CG | ASN | A | 483 | 39.601 | 78.891 | 54.791 | 1.00 | 95.54 | C |
| ATOM | 3493 | OD1 | ASN | A | 483 | 39.663 | 79.430 | 53.688 | 1.00 | 95.54 | O |
| ATOM | 3494 | ND2 | ASN | A | 483 | 38.556 | 78.171 | 55.178 | 1.00 | 95.54 | N |
| ATOM | 3495 | N | ILE | A | 484 | 43.521 | 78.782 | 57.154 | 1.00 | 63.74 | N |
| ATOM | 3496 | CA | ILE | A | 484 | 44.748 | 79.372 | 57.685 | 1.00 | 63.74 | C |
| ATOM | 3497 | C | ILE | A | 484 | 45.887 | 78.792 | 56.837 | 1.00 | 63.74 | C |
| ATOM | 3498 | O | ILE | A | 484 | 46.824 | 79.488 | 56.412 | 1.00 | 63.74 | O |
| ATOM | 3499 | CB | ILE | A | 484 | 44.999 | 79.032 | 59.188 | 1.00 | 58.85 | C |
| ATOM | 3500 | CG1 | ILE | A | 484 | 44.455 | 80.143 | 60.095 | 1.00 | 58.85 | C |
| ATOM | 3501 | CG2 | ILE | A | 484 | 46.499 | 78.921 | 59.461 | 1.00 | 58.85 | C |
| ATOM | 3502 | CD1 | ILE | A | 484 | 42.976 | 80.408 | 59.977 | 1.00 | 58.85 | C |
| ATOM | 3503 | N | ARG | A | 485 | 45.803 | 77.505 | 56.556 | 1.00 | 56.58 | N |
| ATOM | 3504 | CA | ARG | A | 485 | 46.853 | 76.887 | 55.768 | 1.00 | 56.58 | C |
| ATOM | 3505 | C | ARG | A | 485 | 46.995 | 77.590 | 54.426 | 1.00 | 56.58 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3506 | O | ARG | A | 485 | 48.090 | 77.713 | 53.915 | 1.00 | 56.58 | O |
| ATOM | 3507 | CB | ARG | A | 485 | 46.557 | 75.410 | 55.536 | 1.00 | 104.22 | C |
| ATOM | 3508 | CG | ARG | A | 485 | 47.796 | 74.602 | 55.220 | 1.00 | 104.22 | C |
| ATOM | 3509 | CD | ARG | A | 485 | 48.084 | 73.647 | 56.367 | 1.00 | 104.22 | C |
| ATOM | 3510 | NE | ARG | A | 485 | 47.009 | 72.668 | 56.520 | 1.00 | 104.22 | N |
| ATOM | 3511 | CZ | ARG | A | 485 | 46.932 | 71.774 | 57.502 | 1.00 | 104.22 | C |
| ATOM | 3512 | NH1 | ARG | A | 485 | 47.868 | 71.726 | 58.436 | 1.00 | 104.22 | N |
| ATOM | 3513 | NH2 | ARG | A | 485 | 45.919 | 70.919 | 57.546 | 1.00 | 104.22 | N |
| ATOM | 3514 | N | TYR | A | 486 | 45.891 | 78.039 | 53.844 | 1.00 | 69.25 | N |
| ATOM | 3515 | CA | TYR | A | 486 | 45.992 | 78.745 | 52.586 | 1.00 | 69.25 | C |
| ATOM | 3516 | C | TYR | A | 486 | 46.899 | 79.893 | 52.830 | 1.00 | 69.25 | C |
| ATOM | 3517 | O | TYR | A | 486 | 47.703 | 80.249 | 51.975 | 1.00 | 69.25 | O |
| ATOM | 3518 | CB | TYR | A | 486 | 44.650 | 79.280 | 52.129 | 1.00 | 81.43 | C |
| ATOM | 3519 | CG | TYR | A | 486 | 43.964 | 78.318 | 51.218 | 1.00 | 81.43 | C |
| ATOM | 3520 | CD1 | TYR | A | 486 | 42.861 | 78.704 | 50.468 | 1.00 | 81.43 | C |
| ATOM | 3521 | CD2 | TYR | A | 486 | 44.412 | 77.003 | 51.116 | 1.00 | 81.43 | C |
| ATOM | 3522 | CE1 | TYR | A | 486 | 42.217 | 77.800 | 49.637 | 1.00 | 81.43 | C |
| ATOM | 3523 | CE2 | TYR | A | 486 | 43.781 | 76.095 | 50.295 | 1.00 | 81.43 | C |
| ATOM | 3524 | CZ | TYR | A | 486 | 42.682 | 76.494 | 49.555 | 1.00 | 81.43 | C |
| ATOM | 3525 | OH | TYR | A | 486 | 42.041 | 75.583 | 48.746 | 1.00 | 81.43 | O |
| ATOM | 3526 | N | GLY | A | 487 | 46.760 | 80.490 | 54.006 | 1.00 | 109.65 | N |
| ATOM | 3527 | CA | GLY | A | 487 | 47.635 | 81.597 | 54.338 | 1.00 | 109.65 | C |
| ATOM | 3528 | C | GLY | A | 487 | 49.070 | 81.144 | 54.136 | 1.00 | 109.65 | C |
| ATOM | 3529 | O | GLY | A | 487 | 49.903 | 81.860 | 53.576 | 1.00 | 109.65 | O |
| ATOM | 3530 | N | ARG | A | 488 | 49.362 | 79.932 | 54.588 | 1.00 | 78.51 | N |
| ATOM | 3531 | CA | ARG | A | 488 | 50.715 | 79.412 | 54.425 | 1.00 | 78.51 | C |
| ATOM | 3532 | C | ARG | A | 488 | 50.702 | 77.905 | 54.255 | 1.00 | 78.51 | C |
| ATOM | 3533 | O | ARG | A | 488 | 50.388 | 77.177 | 55.196 | 1.00 | 78.51 | O |
| ATOM | 3534 | CB | ARG | A | 488 | 51.562 | 79.789 | 55.631 | 1.00 | 146.19 | C |
| ATOM | 3535 | CG | ARG | A | 488 | 53.016 | 79.997 | 55.305 | 1.00 | 146.19 | C |
| ATOM | 3536 | CD | ARG | A | 488 | 53.734 | 80.568 | 56.502 | 1.00 | 146.19 | C |
| ATOM | 3537 | NE | ARG | A | 488 | 54.106 | 79.527 | 57.452 | 1.00 | 146.19 | N |
| ATOM | 3538 | CZ | ARG | A | 488 | 54.364 | 79.756 | 58.734 | 1.00 | 146.19 | N |
| ATOM | 3539 | NH1 | ARG | A | 488 | 54.279 | 80.988 | 59.215 | 1.00 | 146.19 | N |
| ATOM | 3540 | NH2 | ARG | A | 488 | 54.726 | 78.761 | 59.533 | 1.00 | 146.19 | N |
| ATOM | 3541 | N | GLU | A | 489 | 51.043 | 77.445 | 53.054 | 1.00 | 119.82 | N |
| ATOM | 3542 | CA | GLU | A | 489 | 51.046 | 76.024 | 52.740 | 1.00 | 119.82 | C |
| ATOM | 3543 | C | GLU | A | 489 | 51.600 | 75.206 | 53.885 | 1.00 | 119.82 | C |
| ATOM | 3544 | O | GLU | A | 489 | 50.853 | 74.721 | 54.724 | 1.00 | 119.82 | O |
| ATOM | 3545 | CB | GLU | A | 489 | 51.869 | 75.745 | 51.480 | 1.00 | 195.35 | C |
| ATOM | 3546 | CG | GLU | A | 489 | 51.582 | 76.671 | 50.311 | 1.00 | 195.35 | C |
| ATOM | 3547 | CD | GLU | A | 489 | 52.236 | 78.029 | 50.474 | 1.00 | 195.35 | C |
| ATOM | 3548 | OE1 | GLU | A | 489 | 52.086 | 78.875 | 49.569 | 1.00 | 195.35 | O |
| ATOM | 3549 | OE2 | GLU | A | 489 | 52.902 | 78.250 | 51.507 | 1.00 | 195.35 | O |
| ATOM | 3550 | N | ASP | A | 490 | 52.916 | 75.047 | 53.923 | 1.00 | 120.47 | N |
| ATOM | 3551 | CA | ASP | A | 490 | 53.521 | 74.270 | 54.990 | 1.00 | 120.47 | C |
| ATOM | 3552 | C | ASP | A | 490 | 53.345 | 75.073 | 56.271 | 1.00 | 120.47 | C |
| ATOM | 3553 | O | ASP | A | 490 | 53.523 | 76.285 | 56.282 | 1.00 | 120.47 | O |
| ATOM | 3554 | CB | ASP | A | 490 | 55.004 | 74.008 | 54.692 | 1.00 | 190.66 | C |
| ATOM | 3555 | CG | ASP | A | 490 | 55.923 | 74.999 | 55.364 | 1.00 | 190.66 | C |
| ATOM | 3556 | OD1 | ASP | A | 490 | 56.059 | 74.934 | 56.603 | 1.00 | 190.66 | O |
| ATOM | 3557 | OD2 | ASP | A | 490 | 56.507 | 75.843 | 54.654 | 1.00 | 190.66 | O |
| ATOM | 3558 | N | VAL | A | 491 | 52.981 | 74.388 | 57.344 | 1.00 | 110.45 | N |
| ATOM | 3559 | CA | VAL | A | 491 | 52.732 | 75.037 | 58.613 | 1.00 | 110.45 | C |
| ATOM | 3560 | C | VAL | A | 491 | 51.971 | 74.045 | 59.492 | 1.00 | 110.45 | C |
| ATOM | 3561 | O | VAL | A | 491 | 50.993 | 73.447 | 59.053 | 1.00 | 110.45 | O |
| ATOM | 3562 | CB | VAL | A | 491 | 51.866 | 76.302 | 58.421 | 1.00 | 61.84 | C |
| ATOM | 3563 | CG1 | VAL | A | 491 | 50.599 | 75.939 | 57.637 | 1.00 | 61.84 | C |
| ATOM | 3564 | CG2 | VAL | A | 491 | 51.537 | 76.942 | 59.786 | 1.00 | 61.84 | C |
| ATOM | 3565 | N | THR | A | 492 | 52.396 | 73.861 | 60.734 | 1.00 | 109.16 | N |
| ATOM | 3566 | CA | THR | A | 492 | 51.707 | 72.908 | 61.603 | 1.00 | 109.16 | C |
| ATOM | 3567 | C | THR | A | 492 | 50.662 | 73.534 | 62.521 | 1.00 | 109.16 | C |
| ATOM | 3568 | O | THR | A | 492 | 50.849 | 74.640 | 63.027 | 1.00 | 109.16 | O |
| ATOM | 3569 | CB | THR | A | 492 | 52.731 | 72.123 | 62.454 | 1.00 | 178.23 | C |
| ATOM | 3570 | OG1 | THR | A | 492 | 53.632 | 71.419 | 61.589 | 1.00 | 178.23 | O |
| ATOM | 3571 | CG2 | THR | A | 492 | 52.028 | 71.131 | 63.351 | 1.00 | 178.23 | C |
| ATOM | 3572 | N | MET | A | 493 | 49.558 | 72.812 | 62.726 | 1.00 | 115.51 | N |
| ATOM | 3573 | CA | MET | A | 493 | 48.452 | 73.264 | 63.578 | 1.00 | 115.51 | C |
| ATOM | 3574 | C | MET | A | 493 | 48.916 | 73.845 | 64.922 | 1.00 | 115.51 | C |
| ATOM | 3575 | O | MET | A | 493 | 48.144 | 74.479 | 65.641 | 1.00 | 115.51 | O |
| ATOM | 3576 | CB | MET | A | 493 | 47.460 | 72.114 | 63.819 | 1.00 | 180.28 | C |
| ATOM | 3577 | CG | MET | A | 493 | 47.984 | 70.953 | 64.661 | 1.00 | 180.28 | C |
| ATOM | 3578 | SD | MET | A | 493 | 47.880 | 71.256 | 66.438 | 1.00 | 180.28 | S |
| ATOM | 3579 | CE | MET | A | 493 | 48.709 | 69.798 | 67.091 | 1.00 | 180.28 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3580 | N | ASP | A | 494 | 50.181 | 73.613 | 65.258 | 1.00 | 87.17 | N |
| ATOM | 3581 | CA | ASP | A | 494 | 50.735 | 74.147 | 66.481 | 1.00 | 87.17 | C |
| ATOM | 3582 | C | ASP | A | 494 | 50.883 | 75.597 | 66.146 | 1.00 | 87.17 | C |
| ATOM | 3583 | O | ASP | A | 494 | 50.547 | 76.455 | 66.941 | 1.00 | 87.17 | O |
| ATOM | 3584 | CB | ASP | A | 494 | 52.086 | 73.513 | 66.801 | 1.00 | 186.50 | C |
| ATOM | 3585 | CG | ASP | A | 494 | 51.947 | 72.246 | 67.621 | 1.00 | 186.50 | C |
| ATOM | 3586 | OD1 | ASP | A | 494 | 51.312 | 72.305 | 68.697 | 1.00 | 186.50 | O |
| ATOM | 3587 | OD2 | ASP | A | 494 | 52.470 | 71.196 | 67.197 | 1.00 | 186.50 | O |
| ATOM | 3588 | N | GLU | A | 495 | 51.357 | 75.877 | 64.938 | 1.00 | 65.00 | N |
| ATOM | 3589 | CA | GLU | A | 495 | 51.500 | 77.262 | 64.529 | 1.00 | 65.00 | C |
| ATOM | 3590 | C | GLU | A | 495 | 50.121 | 77.863 | 64.319 | 1.00 | 65.00 | C |
| ATOM | 3591 | O | GLU | A | 495 | 49.881 | 78.964 | 64.779 | 1.00 | 65.00 | O |
| ATOM | 3592 | CB | GLU | A | 495 | 52.302 | 77.386 | 63.233 | 1.00 | 103.81 | C |
| ATOM | 3593 | CG | GLU | A | 495 | 53.742 | 76.927 | 63.337 | 1.00 | 103.81 | C |
| ATOM | 3594 | CD | GLU | A | 495 | 54.000 | 75.659 | 62.555 | 1.00 | 103.81 | C |
| ATOM | 3595 | OE1 | GLU | A | 495 | 54.679 | 75.732 | 61.510 | 1.00 | 103.81 | O |
| ATOM | 3596 | OE2 | GLU | A | 495 | 53.516 | 74.589 | 62.981 | 1.00 | 103.81 | O |
| ATOM | 3597 | N | ILE | A | 496 | 49.217 | 77.151 | 63.639 | 1.00 | 84.72 | N |
| ATOM | 3598 | CA | ILE | A | 496 | 47.870 | 77.688 | 63.424 | 1.00 | 84.72 | C |
| ATOM | 3599 | C | ILE | A | 496 | 47.279 | 77.929 | 64.778 | 1.00 | 84.72 | C |
| ATOM | 3600 | O | ILE | A | 496 | 46.736 | 78.990 | 65.031 | 1.00 | 84.72 | O |
| ATOM | 3601 | CB | ILE | A | 496 | 46.898 | 76.721 | 62.693 | 1.00 | 89.24 | C |
| ATOM | 3602 | CG1 | ILE | A | 496 | 47.416 | 76.375 | 61.299 | 1.00 | 89.24 | C |
| ATOM | 3603 | CG2 | ILE | A | 496 | 45.518 | 77.368 | 62.591 | 1.00 | 89.24 | C |
| ATOM | 3604 | CD1 | ILE | A | 496 | 48.605 | 75.470 | 61.300 | 1.00 | 89.24 | C |
| ATOM | 3605 | N | GLU | A | 497 | 47.366 | 76.926 | 65.643 | 1.00 | 124.72 | N |
| ATOM | 3606 | CA | GLU | A | 497 | 46.851 | 77.067 | 66.993 | 1.00 | 124.72 | C |
| ATOM | 3607 | C | GLU | A | 497 | 47.345 | 78.429 | 67.469 | 1.00 | 124.72 | C |
| ATOM | 3608 | O | GLU | A | 497 | 46.545 | 79.312 | 67.782 | 1.00 | 124.72 | O |
| ATOM | 3609 | CB | GLU | A | 497 | 47.383 | 75.951 | 67.902 | 1.00 | 182.49 | C |
| ATOM | 3610 | CG | GLU | A | 497 | 46.748 | 75.920 | 69.293 | 1.00 | 182.49 | C |
| ATOM | 3611 | CD | GLU | A | 497 | 47.145 | 74.698 | 70.107 | 1.00 | 182.49 | C |
| ATOM | 3612 | OE1 | GLU | A | 497 | 48.348 | 74.532 | 70.399 | 1.00 | 182.49 | O |
| ATOM | 3613 | OE2 | GLU | A | 497 | 46.246 | 73.903 | 70.456 | 1.00 | 182.49 | O |
| ATOM | 3614 | N | LYS | A | 498 | 48.663 | 78.615 | 67.491 | 1.00 | 65.79 | N |
| ATOM | 3615 | CA | LYS | A | 498 | 49.217 | 79.884 | 67.918 | 1.00 | 65.79 | C |
| ATOM | 3616 | C | LYS | A | 498 | 48.492 | 80.986 | 67.129 | 1.00 | 65.79 | C |
| ATOM | 3617 | O | LYS | A | 498 | 47.825 | 81.847 | 67.700 | 1.00 | 65.79 | O |
| ATOM | 3618 | CB | LYS | A | 498 | 50.723 | 79.921 | 67.633 | 1.00 | 156.14 | C |
| ATOM | 3619 | CG | LYS | A | 498 | 51.534 | 80.871 | 68.516 | 1.00 | 156.14 | C |
| ATOM | 3620 | CD | LYS | A | 498 | 51.825 | 82.198 | 67.831 | 1.00 | 156.14 | C |
| ATOM | 3621 | CE | LYS | A | 498 | 50.651 | 83.158 | 67.911 | 1.00 | 156.14 | C |
| ATOM | 3622 | NZ | LYS | A | 498 | 50.911 | 84.394 | 67.121 | 1.00 | 156.14 | N |
| ATOM | 3623 | N | ALA | A | 499 | 48.589 | 80.935 | 65.807 | 1.00 | 114.67 | N |
| ATOM | 3624 | CA | ALA | A | 499 | 47.955 | 81.943 | 64.968 | 1.00 | 114.67 | C |
| ATOM | 3625 | C | ALA | A | 499 | 46.567 | 82.341 | 65.457 | 1.00 | 114.67 | C |
| ATOM | 3626 | O | ALA | A | 499 | 46.356 | 83.486 | 65.843 | 1.00 | 114.67 | O |
| ATOM | 3627 | CB | ALA | A | 499 | 47.874 | 81.440 | 63.533 | 1.00 | 190.50 | C |
| ATOM | 3628 | N | VAL | A | 500 | 45.625 | 81.402 | 65.463 | 1.00 | 67.50 | N |
| ATOM | 3629 | CA | VAL | A | 500 | 44.266 | 81.720 | 65.882 | 1.00 | 67.50 | C |
| ATOM | 3630 | C | VAL | A | 500 | 44.254 | 82.409 | 67.200 | 1.00 | 67.50 | C |
| ATOM | 3631 | O | VAL | A | 500 | 43.837 | 83.557 | 67.308 | 1.00 | 67.50 | O |
| ATOM | 3632 | CB | VAL | A | 500 | 43.383 | 80.457 | 65.991 | 1.00 | 70.21 | C |
| ATOM | 3633 | CG1 | VAL | A | 500 | 42.574 | 80.278 | 64.716 | 1.00 | 70.21 | C |
| ATOM | 3634 | CG2 | VAL | A | 500 | 44.251 | 79.232 | 66.252 | 1.00 | 70.21 | C |
| ATOM | 3635 | N | LYS | A | 501 | 44.724 | 81.700 | 68.209 | 1.00 | 115.60 | N |
| ATOM | 3636 | CA | LYS | A | 501 | 44.758 | 82.271 | 69.528 | 1.00 | 115.60 | C |
| ATOM | 3637 | C | LYS | A | 501 | 45.271 | 83.697 | 69.452 | 1.00 | 115.60 | C |
| ATOM | 3638 | O | LYS | A | 501 | 44.741 | 84.570 | 70.138 | 1.00 | 115.60 | O |
| ATOM | 3639 | CB | LYS | A | 501 | 45.657 | 81.432 | 70.443 | 1.00 | 148.43 | C |
| ATOM | 3640 | CG | LYS | A | 501 | 44.967 | 80.921 | 71.707 | 1.00 | 148.43 | C |
| ATOM | 3641 | CD | LYS | A | 501 | 45.904 | 80.089 | 72.570 | 1.00 | 148.43 | C |
| ATOM | 3642 | CE | LYS | A | 501 | 46.342 | 78.811 | 71.861 | 1.00 | 148.43 | C |
| ATOM | 3643 | NZ | LYS | A | 501 | 45.261 | 77.791 | 71.755 | 1.00 | 148.43 | N |
| ATOM | 3644 | N | GLU | A | 502 | 46.275 | 83.944 | 68.604 | 1.00 | 96.62 | N |
| ATOM | 3645 | CA | GLU | A | 502 | 46.858 | 85.287 | 68.496 | 1.00 | 96.62 | C |
| ATOM | 3646 | C | GLU | A | 502 | 45.840 | 86.249 | 67.912 | 1.00 | 96.62 | C |
| ATOM | 3647 | O | GLU | A | 502 | 45.780 | 87.411 | 68.300 | 1.00 | 96.62 | O |
| ATOM | 3648 | CB | GLU | A | 502 | 48.108 | 85.263 | 67.616 | 1.00 | 143.93 | C |
| ATOM | 3649 | CG | GLU | A | 502 | 49.169 | 86.247 | 68.061 | 1.00 | 143.93 | C |
| ATOM | 3650 | CD | GLU | A | 502 | 49.878 | 86.905 | 66.900 | 1.00 | 143.93 | C |
| ATOM | 3651 | OE1 | GLU | A | 502 | 49.285 | 87.819 | 66.290 | 1.00 | 143.93 | O |
| ATOM | 3652 | OE2 | GLU | A | 502 | 51.023 | 86.506 | 66.593 | 1.00 | 143.93 | O |
| ATOM | 3653 | N | ALA | A | 503 | 45.024 | 85.749 | 66.994 | 1.00 | 93.01 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3654 | CA | ALA | A | 503 | 44.010 | 86.573 | 66.377 | 1.00 | 93.01 | C |
| ATOM | 3655 | C | ALA | A | 503 | 42.689 | 86.302 | 67.069 | 1.00 | 93.01 | C |
| ATOM | 3656 | O | ALA | A | 503 | 41.650 | 86.239 | 66.417 | 1.00 | 93.01 | O |
| ATOM | 3657 | CB | ALA | A | 503 | 43.903 | 86.249 | 64.890 | 1.00 | 138.01 | C |
| ATOM | 3658 | N | ASN | A | 504 | 42.736 | 86.152 | 68.392 | 1.00 | 124.41 | N |
| ATOM | 3659 | CA | ASN | A | 504 | 41.548 | 85.874 | 69.206 | 1.00 | 124.41 | C |
| ATOM | 3660 | C | ASN | A | 504 | 40.483 | 85.075 | 68.429 | 1.00 | 124.41 | C |
| ATOM | 3661 | O | ASN | A | 504 | 39.318 | 85.477 | 68.340 | 1.00 | 124.41 | O |
| ATOM | 3662 | CB | ASN | A | 504 | 40.931 | 87.178 | 69.711 | 1.00 | 166.84 | C |
| ATOM | 3663 | CG | ASN | A | 504 | 40.061 | 87.851 | 68.671 | 1.00 | 166.84 | C |
| ATOM | 3664 | OD1 | ASN | A | 504 | 40.494 | 88.108 | 67.548 | 1.00 | 166.84 | O |
| ATOM | 3665 | ND2 | ASN | A | 504 | 38.822 | 88.144 | 69.044 | 1.00 | 166.84 | N |
| ATOM | 3666 | N | ALA | A | 505 | 40.895 | 83.939 | 67.870 | 1.00 | 79.97 | N |
| ATOM | 3667 | CA | ALA | A | 505 | 39.996 | 83.092 | 67.106 | 1.00 | 79.97 | C |
| ATOM | 3668 | C | ALA | A | 505 | 39.799 | 81.818 | 67.832 | 1.00 | 79.97 | C |
| ATOM | 3669 | O | ALA | A | 505 | 38.814 | 81.118 | 67.609 | 1.00 | 79.97 | O |
| ATOM | 3670 | CB | ALA | A | 505 | 40.583 | 82.848 | 65.702 | 1.00 | 57.46 | C |
| ATOM | 3671 | N | TYR | A | 506 | 40.756 | 81.522 | 68.698 | 1.00 | 93.47 | N |
| ATOM | 3672 | CA | TYR | A | 506 | 40.749 | 80.285 | 69.448 | 1.00 | 93.47 | C |
| ATOM | 3673 | C | TYR | A | 506 | 39.495 | 79.899 | 70.226 | 1.00 | 93.47 | C |
| ATOM | 3674 | O | TYR | A | 506 | 39.234 | 78.713 | 70.421 | 1.00 | 93.47 | O |
| ATOM | 3675 | CB | TYR | A | 506 | 41.946 | 80.231 | 70.392 | 1.00 | 120.57 | C |
| ATOM | 3676 | CG | TYR | A | 506 | 42.176 | 78.836 | 70.918 | 1.00 | 120.57 | C |
| ATOM | 3677 | CD1 | TYR | A | 506 | 42.235 | 77.753 | 70.042 | 1.00 | 120.57 | C |
| ATOM | 3678 | CD2 | TYR | A | 506 | 42.304 | 78.588 | 72.283 | 1.00 | 120.57 | C |
| ATOM | 3679 | CE1 | TYR | A | 506 | 42.410 | 76.461 | 70.506 | 1.00 | 120.57 | C |
| ATOM | 3680 | CE2 | TYR | A | 506 | 42.481 | 77.293 | 72.761 | 1.00 | 120.57 | C |
| ATOM | 3681 | CZ | TYR | A | 506 | 42.532 | 76.235 | 71.865 | 1.00 | 120.57 | C |
| ATOM | 3682 | OH | TYR | A | 506 | 42.701 | 74.950 | 72.327 | 1.00 | 120.57 | O |
| ATOM | 3683 | N | ASP | A | 507 | 38.710 | 80.871 | 70.668 | 1.00 | 140.18 | N |
| ATOM | 3684 | CA | ASP | A | 507 | 37.528 | 80.523 | 71.436 | 1.00 | 140.18 | C |
| ATOM | 3685 | C | ASP | A | 507 | 36.411 | 79.937 | 70.597 | 1.00 | 140.18 | C |
| ATOM | 3686 | O | ASP | A | 507 | 36.048 | 78.776 | 70.779 | 1.00 | 140.18 | O |
| ATOM | 3687 | CB | ASP | A | 507 | 37.029 | 81.734 | 72.240 | 1.00 | 191.91 | C |
| ATOM | 3688 | CG | ASP | A | 507 | 36.702 | 82.929 | 71.371 | 1.00 | 191.91 | C |
| ATOM | 3689 | OD1 | ASP | A | 507 | 35.693 | 82.879 | 70.638 | 1.00 | 191.91 | O |
| ATOM | 3690 | OD2 | ASP | A | 507 | 37.456 | 83.923 | 71.428 | 1.00 | 191.91 | O |
| ATOM | 3691 | N | PHE | A | 508 | 35.887 | 80.712 | 69.657 | 1.00 | 79.60 | N |
| ATOM | 3692 | CA | PHE | A | 508 | 34.784 | 80.222 | 68.861 | 1.00 | 79.60 | C |
| ATOM | 3693 | C | PHE | A | 508 | 35.152 | 78.996 | 68.080 | 1.00 | 79.60 | C |
| ATOM | 3694 | O | PHE | A | 508 | 34.327 | 78.097 | 67.938 | 1.00 | 79.60 | O |
| ATOM | 3695 | CB | PHE | A | 508 | 34.248 | 81.317 | 67.935 | 1.00 | 104.86 | C |
| ATOM | 3696 | CG | PHE | A | 508 | 35.199 | 81.730 | 66.850 | 1.00 | 104.86 | C |
| ATOM | 3697 | CD1 | PHE | A | 508 | 35.490 | 80.872 | 65.796 | 1.00 | 104.86 | C |
| ATOM | 3698 | CD2 | PHE | A | 508 | 35.786 | 82.993 | 66.874 | 1.00 | 104.86 | C |
| ATOM | 3699 | CE1 | PHE | A | 508 | 36.353 | 81.266 | 64.773 | 1.00 | 104.86 | C |
| ATOM | 3700 | CE2 | PHE | A | 508 | 36.650 | 83.408 | 65.863 | 1.00 | 104.86 | C |
| ATOM | 3701 | CZ | PHE | A | 508 | 36.938 | 82.543 | 64.805 | 1.00 | 104.86 | C |
| ATOM | 3702 | N | ILE | A | 509 | 36.382 | 78.947 | 67.572 | 1.00 | 86.18 | N |
| ATOM | 3703 | CA | ILE | A | 509 | 36.798 | 77.785 | 66.799 | 1.00 | 86.18 | C |
| ATOM | 3704 | C | ILE | A | 509 | 36.765 | 76.590 | 67.724 | 1.00 | 86.18 | C |
| ATOM | 3705 | O | ILE | A | 509 | 36.606 | 75.466 | 67.272 | 1.00 | 86.18 | O |
| ATOM | 3706 | CB | ILE | A | 509 | 38.227 | 77.956 | 66.206 | 1.00 | 112.01 | C |
| ATOM | 3707 | CG1 | ILE | A | 509 | 39.237 | 78.298 | 67.305 | 1.00 | 112.01 | C |
| ATOM | 3708 | CG2 | ILE | A | 509 | 38.209 | 79.001 | 65.115 | 1.00 | 112.01 | C |
| ATOM | 3709 | CD1 | ILE | A | 509 | 39.637 | 77.118 | 68.156 | 1.00 | 112.01 | C |
| ATOM | 3710 | N | MET | A | 510 | 36.903 | 76.835 | 69.025 | 1.00 | 98.85 | N |
| ATOM | 3711 | CA | MET | A | 510 | 36.868 | 75.748 | 69.985 | 1.00 | 98.85 | C |
| ATOM | 3712 | C | MET | A | 510 | 35.459 | 75.316 | 70.338 | 1.00 | 98.85 | C |
| ATOM | 3713 | O | MET | A | 510 | 35.176 | 74.121 | 70.317 | 1.00 | 98.85 | O |
| ATOM | 3714 | CB | MET | A | 510 | 37.640 | 76.138 | 71.249 | 1.00 | 93.63 | C |
| ATOM | 3715 | CG | MET | A | 510 | 39.152 | 76.159 | 71.056 | 1.00 | 93.63 | C |
| ATOM | 3716 | SD | MET | A | 510 | 39.699 | 74.654 | 70.209 | 1.00 | 93.63 | S |
| ATOM | 3717 | CE | MET | A | 510 | 39.013 | 73.382 | 71.262 | 1.00 | 93.63 | C |
| ATOM | 3718 | N | LYS | A | 511 | 34.568 | 76.261 | 70.655 | 1.00 | 135.64 | N |
| ATOM | 3719 | CA | LYS | A | 511 | 33.184 | 75.889 | 70.992 | 1.00 | 135.64 | C |
| ATOM | 3720 | C | LYS | A | 511 | 32.482 | 75.395 | 69.735 | 1.00 | 135.64 | C |
| ATOM | 3721 | O | LYS | A | 511 | 31.804 | 74.364 | 69.754 | 1.00 | 135.64 | O |
| ATOM | 3722 | CB | LYS | A | 511 | 32.401 | 77.052 | 71.634 | 1.00 | 191.96 | C |
| ATOM | 3723 | CG | LYS | A | 511 | 30.887 | 76.789 | 71.853 | 1.00 | 191.96 | C |
| ATOM | 3724 | CD | LYS | A | 511 | 30.552 | 75.493 | 72.615 | 1.00 | 191.96 | C |
| ATOM | 3725 | CE | LYS | A | 511 | 29.029 | 75.297 | 72.721 | 1.00 | 191.96 | C |
| ATOM | 3726 | NZ | LYS | A | 511 | 28.606 | 73.926 | 73.148 | 1.00 | 191.96 | N |
| ATOM | 3727 | N | LEU | A | 512 | 32.659 | 76.120 | 68.639 | 1.00 | 76.92 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3728 | CA | LEU | A | 512 | 32.054 | 75.710 | 67.391 | 1.00 | 76.92 | C |
| ATOM | 3729 | C | LEU | A | 512 | 32.330 | 74.217 | 67.242 | 1.00 | 76.92 | C |
| ATOM | 3730 | O | LEU | A | 512 | 33.378 | 73.714 | 67.644 | 1.00 | 76.92 | O |
| ATOM | 3731 | CB | LEU | A | 512 | 32.679 | 76.510 | 66.245 | 1.00 | 112.63 | C |
| ATOM | 3732 | CG | LEU | A | 512 | 33.259 | 75.757 | 65.048 | 1.00 | 112.63 | C |
| ATOM | 3733 | CD1 | LEU | A | 512 | 32.145 | 75.118 | 64.234 | 1.00 | 112.63 | C |
| ATOM | 3734 | CD2 | LEU | A | 512 | 34.049 | 76.731 | 64.194 | 1.00 | 112.63 | C |
| ATOM | 3735 | N | PRO | A | 513 | 31.368 | 73.483 | 66.684 | 1.00 | 171.92 | N |
| ATOM | 3736 | CA | PRO | A | 513 | 31.529 | 72.041 | 66.503 | 1.00 | 171.92 | C |
| ATOM | 3737 | C | PRO | A | 513 | 32.799 | 71.643 | 65.775 | 1.00 | 171.92 | C |
| ATOM | 3738 | O | PRO | A | 513 | 33.524 | 72.494 | 65.280 | 1.00 | 171.92 | O |
| ATOM | 3739 | CB | PRO | A | 513 | 30.271 | 71.655 | 65.733 | 1.00 | 85.79 | C |
| ATOM | 3740 | CG | PRO | A | 513 | 29.967 | 72.900 | 64.944 | 1.00 | 85.79 | C |
| ATOM | 3741 | CD | PRO | A | 513 | 30.164 | 73.964 | 65.984 | 1.00 | 85.79 | C |
| ATOM | 3742 | N | HIS | A | 514 | 33.067 | 70.343 | 65.747 | 1.00 | 145.55 | N |
| ATOM | 3743 | CA | HIS | A | 514 | 34.195 | 69.790 | 65.013 | 1.00 | 145.55 | C |
| ATOM | 3744 | C | HIS | A | 514 | 35.606 | 70.331 | 65.207 | 1.00 | 145.55 | C |
| ATOM | 3745 | O | HIS | A | 514 | 36.562 | 69.689 | 64.764 | 1.00 | 145.55 | O |
| ATOM | 3746 | CB | HIS | A | 514 | 33.911 | 69.888 | 63.505 | 1.00 | 125.51 | C |
| ATOM | 3747 | CG | HIS | A | 514 | 32.636 | 69.236 | 63.065 | 1.00 | 125.51 | C |
| ATOM | 3748 | ND1 | HIS | A | 514 | 32.489 | 67.869 | 62.973 | 1.00 | 125.51 | N |
| ATOM | 3749 | CD2 | HIS | A | 514 | 31.454 | 69.768 | 62.667 | 1.00 | 125.51 | C |
| ATOM | 3750 | CE1 | HIS | A | 514 | 31.274 | 67.586 | 62.539 | 1.00 | 125.51 | C |
| ATOM | 3751 | NE2 | HIS | A | 514 | 30.625 | 68.720 | 62.345 | 1.00 | 125.51 | N |
| ATOM | 3752 | N | GLN | A | 515 | 35.750 | 71.511 | 65.804 | 1.00 | 109.59 | N |
| ATOM | 3753 | CA | GLN | A | 515 | 37.075 | 72.096 | 66.016 | 1.00 | 109.59 | C |
| ATOM | 3754 | C | GLN | A | 515 | 37.587 | 72.791 | 64.756 | 1.00 | 109.59 | C |
| ATOM | 3755 | O | GLN | A | 515 | 36.826 | 73.422 | 64.027 | 1.00 | 109.59 | O |
| ATOM | 3756 | CB | GLN | A | 515 | 38.073 | 71.006 | 66.426 | 1.00 | 120.96 | C |
| ATOM | 3757 | CG | GLN | A | 515 | 37.691 | 70.246 | 67.686 | 1.00 | 120.96 | C |
| ATOM | 3758 | CD | GLN | A | 515 | 37.731 | 71.111 | 68.934 | 1.00 | 120.96 | C |
| ATOM | 3759 | OE1 | GLN | A | 515 | 38.687 | 71.064 | 69.709 | 1.00 | 120.96 | O |
| ATOM | 3760 | NE2 | GLN | A | 515 | 36.692 | 71.912 | 69.130 | 1.00 | 120.96 | N |
| ATOM | 3761 | N | PHE | A | 516 | 38.890 | 72.662 | 64.513 | 1.00 | 87.69 | N |
| ATOM | 3762 | CA | PHE | A | 516 | 39.546 | 73.286 | 63.368 | 1.00 | 87.69 | C |
| ATOM | 3763 | C | PHE | A | 516 | 39.216 | 72.566 | 62.086 | 1.00 | 87.69 | C |
| ATOM | 3764 | O | PHE | A | 516 | 39.344 | 73.115 | 60.988 | 1.00 | 87.69 | O |
| ATOM | 3765 | CB | PHE | A | 516 | 41.062 | 73.275 | 63.545 | 1.00 | 85.25 | C |
| ATOM | 3766 | CG | PHE | A | 516 | 41.572 | 74.310 | 64.498 | 1.00 | 85.25 | C |
| ATOM | 3767 | CD1 | PHE | A | 516 | 41.343 | 75.660 | 64.264 | 1.00 | 85.25 | C |
| ATOM | 3768 | CD2 | PHE | A | 516 | 42.302 | 73.940 | 65.622 | 1.00 | 85.25 | C |
| ATOM | 3769 | CE1 | PHE | A | 516 | 41.836 | 76.630 | 65.136 | 1.00 | 85.25 | C |
| ATOM | 3770 | CE2 | PHE | A | 516 | 42.803 | 74.904 | 66.505 | 1.00 | 85.25 | C |
| ATOM | 3771 | CZ | PHE | A | 516 | 42.569 | 76.252 | 66.260 | 1.00 | 85.25 | C |
| ATOM | 3772 | N | ASP | A | 517 | 38.819 | 71.316 | 62.235 | 1.00 | 96.13 | N |
| ATOM | 3773 | CA | ASP | A | 517 | 38.476 | 70.517 | 61.094 | 1.00 | 96.13 | C |
| ATOM | 3774 | C | ASP | A | 517 | 37.074 | 70.834 | 60.699 | 1.00 | 96.13 | C |
| ATOM | 3775 | O | ASP | A | 517 | 36.545 | 70.263 | 59.751 | 1.00 | 96.13 | O |
| ATOM | 3776 | CB | ASP | A | 517 | 38.619 | 69.039 | 61.440 | 1.00 | 123.65 | C |
| ATOM | 3777 | CG | ASP | A | 517 | 40.014 | 68.697 | 61.900 | 1.00 | 123.65 | C |
| ATOM | 3778 | OD1 | ASP | A | 517 | 40.939 | 68.792 | 61.069 | 1.00 | 123.65 | O |
| ATOM | 3779 | OD2 | ASP | A | 517 | 40.189 | 68.349 | 63.087 | 1.00 | 123.65 | O |
| ATOM | 3780 | N | THR | A | 518 | 36.458 | 71.740 | 61.444 | 1.00 | 97.73 | N |
| ATOM | 3781 | CA | THR | A | 518 | 35.104 | 72.125 | 61.118 | 1.00 | 97.73 | C |
| ATOM | 3782 | C | THR | A | 518 | 35.210 | 72.724 | 59.735 | 1.00 | 97.73 | C |
| ATOM | 3783 | O | THR | A | 518 | 36.266 | 73.254 | 59.366 | 1.00 | 97.73 | O |
| ATOM | 3784 | CB | THR | A | 518 | 34.561 | 73.198 | 62.076 | 1.00 | 87.56 | C |
| ATOM | 3785 | OG1 | THR | A | 518 | 34.780 | 72.791 | 63.429 | 1.00 | 87.56 | O |
| ATOM | 3786 | CG2 | THR | A | 518 | 33.070 | 73.373 | 61.875 | 1.00 | 87.56 | C |
| ATOM | 3787 | N | LEU | A | 519 | 34.126 | 72.643 | 58.971 | 1.00 | 127.02 | N |
| ATOM | 3788 | CA | LEU | A | 519 | 34.132 | 73.162 | 57.609 | 1.00 | 127.02 | C |
| ATOM | 3789 | C | LEU | A | 519 | 33.578 | 74.571 | 57.429 | 1.00 | 127.02 | C |
| ATOM | 3790 | O | LEU | A | 519 | 33.561 | 75.380 | 58.354 | 1.00 | 127.02 | O |
| ATOM | 3791 | CB | LEU | A | 519 | 33.416 | 72.178 | 56.668 | 1.00 | 198.82 | C |
| ATOM | 3792 | CG | LEU | A | 519 | 32.127 | 71.458 | 57.088 | 1.00 | 198.82 | C |
| ATOM | 3793 | CD1 | LEU | A | 519 | 32.408 | 70.567 | 58.288 | 1.00 | 198.82 | C |
| ATOM | 3794 | CD2 | LEU | A | 519 | 31.037 | 72.464 | 57.401 | 1.00 | 198.82 | C |
| ATOM | 3795 | N | VAL | A | 520 | 33.151 | 74.865 | 56.211 | 1.00 | 181.92 | N |
| ATOM | 3796 | CA | VAL | A | 520 | 32.598 | 76.166 | 55.898 | 1.00 | 181.92 | C |
| ATOM | 3797 | C | VAL | A | 520 | 31.519 | 75.967 | 54.832 | 1.00 | 181.92 | C |
| ATOM | 3798 | O | VAL | A | 520 | 31.699 | 76.333 | 53.670 | 1.00 | 181.92 | O |
| ATOM | 3799 | CB | VAL | A | 520 | 33.708 | 77.112 | 55.390 | 1.00 | 67.53 | C |
| ATOM | 3800 | CG1 | VAL | A | 520 | 33.108 | 78.405 | 54.860 | 1.00 | 67.53 | C |
| ATOM | 3801 | CG2 | VAL | A | 520 | 34.681 | 77.401 | 56.527 | 1.00 | 67.53 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 3802 | N | GLY | A | 521 | 30.404 | 75.368 | 55.264 | 1.00166.07 | N |
| ATOM | 3803 | CA | GLY | A | 521 | 29.264 | 75.059 | 54.409 | 1.00166.07 | C |
| ATOM | 3804 | C | GLY | A | 521 | 29.142 | 75.789 | 53.087 | 1.00166.07 | C |
| ATOM | 3805 | O | GLY | A | 521 | 28.333 | 76.699 | 52.947 | 1.00166.07 | O |
| ATOM | 3806 | N | GLU | A | 522 | 29.940 | 75.378 | 52.109 | 1.00200.23 | N |
| ATOM | 3807 | CA | GLU | A | 522 | 29.931 | 75.982 | 50.775 | 1.00200.23 | C |
| ATOM | 3808 | C | GLU | A | 522 | 30.110 | 77.503 | 50.772 | 1.00200.23 | C |
| ATOM | 3809 | O | GLU | A | 522 | 29.174 | 78.255 | 51.061 | 1.00200.23 | O |
| ATOM | 3810 | CB | GLU | A | 522 | 28.651 | 75.602 | 50.020 | 1.00207.38 | C |
| ATOM | 3811 | CG | GLU | A | 522 | 28.522 | 74.113 | 49.693 | 1.00207.38 | C |
| ATOM | 3812 | CD | GLU | A | 522 | 29.587 | 73.618 | 48.728 | 1.00207.38 | C |
| ATOM | 3813 | OE1 | GLU | A | 522 | 29.670 | 74.151 | 47.600 | 1.00207.38 | O |
| ATOM | 3814 | OE2 | GLU | A | 522 | 30.336 | 72.689 | 49.098 | 1.00207.38 | O |
| ATOM | 3815 | N | ARG | A | 523 | 31.325 | 77.933 | 50.420 | 1.00207.38 | N |
| ATOM | 3816 | CA | ARG | A | 523 | 31.712 | 79.348 | 50.364 | 1.00207.38 | C |
| ATOM | 3817 | C | ARG | A | 523 | 31.813 | 79.846 | 51.818 | 1.00207.38 | C |
| ATOM | 3818 | O | ARG | A | 523 | 31.541 | 79.087 | 52.749 | 1.00207.38 | O |
| ATOM | 3819 | CB | ARG | A | 523 | 30.669 | 80.168 | 49.588 | 1.00207.38 | C |
| ATOM | 3820 | CG | ARG | A | 523 | 31.232 | 81.364 | 48.809 | 1.00207.38 | C |
| ATOM | 3821 | CD | ARG | A | 523 | 31.797 | 82.451 | 49.709 | 1.00207.38 | C |
| ATOM | 3822 | NE | ARG | A | 523 | 32.170 | 83.654 | 48.965 | 1.00207.38 | N |
| ATOM | 3823 | CZ | ARG | A | 523 | 32.695 | 84.739 | 49.527 | 1.00207.38 | C |
| ATOM | 3824 | NH1 | ARG | A | 523 | 32.908 | 84.764 | 50.837 | 1.00207.38 | N |
| ATOM | 3825 | NH2 | ARG | A | 523 | 33.008 | 85.798 | 48.787 | 1.00207.38 | N |
| ATOM | 3826 | N | GLY | A | 524 | 32.226 | 81.097 | 52.017 | 1.00184.41 | N |
| ATOM | 3827 | CA | GLY | A | 524 | 32.335 | 81.641 | 53.362 | 1.00184.41 | C |
| ATOM | 3828 | C | GLY | A | 524 | 30.963 | 81.876 | 53.967 | 1.00184.41 | C |
| ATOM | 3829 | O | GLY | A | 524 | 30.717 | 82.913 | 54.583 | 1.00184.41 | O |
| ATOM | 3830 | N | ALA | A | 525 | 30.072 | 80.902 | 53.785 | 1.00207.38 | N |
| ATOM | 3831 | CA | ALA | A | 525 | 28.700 | 80.971 | 54.290 | 1.00207.38 | C |
| ATOM | 3832 | C | ALA | A | 525 | 28.422 | 79.927 | 55.382 | 1.00207.38 | C |
| ATOM | 3833 | O | ALA | A | 525 | 28.092 | 78.776 | 55.081 | 1.00207.38 | O |
| ATOM | 3834 | CB | ALA | A | 525 | 27.724 | 80.796 | 53.150 | 1.00166.54 | C |
| ATOM | 3835 | N | GLN | A | 526 | 28.560 | 80.328 | 56.646 | 1.00175.36 | N |
| ATOM | 3836 | CA | GLN | A | 526 | 28.302 | 79.429 | 57.769 | 1.00175.36 | C |
| ATOM | 3837 | C | GLN | A | 526 | 28.401 | 80.170 | 59.098 | 1.00175.36 | C |
| ATOM | 3838 | O | GLN | A | 526 | 27.636 | 79.905 | 60.033 | 1.00175.36 | O |
| ATOM | 3839 | CB | GLN | A | 526 | 29.276 | 78.249 | 57.740 | 1.00157.59 | C |
| ATOM | 3840 | CG | GLN | A | 526 | 28.837 | 77.078 | 58.595 | 1.00157.59 | C |
| ATOM | 3841 | CD | GLN | A | 526 | 28.919 | 75.762 | 57.847 | 1.00157.59 | C |
| ATOM | 3842 | OE1 | GLN | A | 526 | 28.267 | 75.582 | 56.820 | 1.00157.59 | O |
| ATOM | 3843 | NE2 | GLN | A | 526 | 29.721 | 74.837 | 58.358 | 1.00157.59 | N |
| ATOM | 3844 | N | LEU | A | 527 | 29.342 | 81.109 | 59.168 | 1.00116.20 | N |
| ATOM | 3845 | CA | LEU | A | 527 | 29.542 | 81.898 | 60.374 | 1.00116.20 | C |
| ATOM | 3846 | C | LEU | A | 527 | 29.521 | 83.409 | 60.160 | 1.00116.20 | C |
| ATOM | 3847 | O | LEU | A | 527 | 29.466 | 83.895 | 59.030 | 1.00116.20 | O |
| ATOM | 3848 | CB | LEU | A | 527 | 30.820 | 81.454 | 61.102 | 1.00 72.22 | C |
| ATOM | 3849 | CG | LEU | A | 527 | 32.169 | 81.320 | 60.394 | 1.00 72.22 | C |
| ATOM | 3850 | CD1 | LEU | A | 527 | 33.102 | 80.521 | 61.304 | 1.00 72.22 | C |
| ATOM | 3851 | CD2 | LEU | A | 527 | 32.014 | 80.612 | 59.053 | 1.00 72.22 | C |
| ATOM | 3852 | N | SER | A | 528 | 29.553 | 84.133 | 61.274 | 1.00100.70 | N |
| ATOM | 3853 | CA | SER | A | 528 | 29.485 | 85.587 | 61.294 | 1.00100.70 | C |
| ATOM | 3854 | C | SER | A | 528 | 30.682 | 86.271 | 60.704 | 1.00100.70 | C |
| ATOM | 3855 | O | SER | A | 528 | 31.827 | 85.944 | 61.045 | 1.00100.70 | O |
| ATOM | 3856 | CB | SER | A | 528 | 29.350 | 86.067 | 62.736 | 1.00 73.47 | C |
| ATOM | 3857 | OG | SER | A | 528 | 30.607 | 86.010 | 63.398 | 1.00 73.47 | O |
| ATOM | 3858 | N | GLY | A | 529 | 30.399 | 87.264 | 59.861 | 1.00129.39 | N |
| ATOM | 3859 | CA | GLY | A | 529 | 31.445 | 88.038 | 59.213 | 1.00129.39 | C |
| ATOM | 3860 | C | GLY | A | 529 | 32.500 | 88.414 | 60.224 | 1.00129.39 | C |
| ATOM | 3861 | O | GLY | A | 529 | 33.680 | 88.532 | 59.907 | 1.00129.39 | O |
| ATOM | 3862 | N | GLY | A | 530 | 32.053 | 88.606 | 61.455 | 1.00 85.05 | N |
| ATOM | 3863 | CA | GLY | A | 530 | 32.971 | 88.937 | 62.517 | 1.00 85.05 | C |
| ATOM | 3864 | C | GLY | A | 530 | 34.063 | 87.892 | 62.542 | 1.00 85.05 | C |
| ATOM | 3865 | O | GLY | A | 530 | 35.222 | 88.210 | 62.313 | 1.00 85.05 | O |
| ATOM | 3866 | N | GLN | A | 531 | 33.695 | 86.641 | 62.805 | 1.00 80.81 | N |
| ATOM | 3867 | CA | GLN | A | 531 | 34.675 | 85.576 | 62.856 | 1.00 80.81 | C |
| ATOM | 3868 | C | GLN | A | 531 | 35.333 | 85.421 | 61.516 | 1.00 80.81 | C |
| ATOM | 3869 | O | GLN | A | 531 | 36.540 | 85.232 | 61.441 | 1.00 80.81 | O |
| ATOM | 3870 | CB | GLN | A | 531 | 34.016 | 84.271 | 63.267 | 1.00111.68 | C |
| ATOM | 3871 | CG | GLN | A | 531 | 33.356 | 84.364 | 64.609 | 1.00111.68 | C |
| ATOM | 3872 | CD | GLN | A | 531 | 32.211 | 83.405 | 64.729 | 1.00111.68 | C |
| ATOM | 3873 | OE1 | GLN | A | 531 | 31.366 | 83.325 | 63.837 | 1.00111.68 | O |
| ATOM | 3874 | NE2 | GLN | A | 531 | 32.161 | 82.674 | 65.835 | 1.00111.68 | N |
| ATOM | 3875 | N | LYS | A | 532 | 34.552 | 85.512 | 60.447 | 1.00 58.34 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 3876 | CA | LYS | A | 532 | 35.149 | 85.371 | 59.128 | 1.00 | 58.34 | C |
| ATOM | 3877 | C | LYS | A | 532 | 36.374 | 86.251 | 59.171 | 1.00 | 58.34 | C |
| ATOM | 3878 | O | LYS | A | 532 | 37.516 | 85.792 | 59.161 | 1.00 | 58.34 | O |
| ATOM | 3879 | CB | LYS | A | 532 | 34.190 | 85.832 | 58.022 | 1.00 | 99.44 | C |
| ATOM | 3880 | CG | LYS | A | 532 | 32.963 | 84.941 | 57.836 | 1.00 | 99.44 | C |
| ATOM | 3881 | CD | LYS | A | 532 | 32.144 | 85.321 | 56.600 | 1.00 | 99.44 | C |
| ATOM | 3882 | CE | LYS | A | 532 | 32.774 | 84.817 | 55.301 | 1.00 | 99.44 | C |
| ATOM | 3883 | NZ | LYS | A | 532 | 31.903 | 85.079 | 54.114 | 1.00 | 99.44 | N |
| ATOM | 3884 | N | GLN | A | 533 | 36.116 | 87.536 | 59.274 | 1.00 | 76.90 | N |
| ATOM | 3885 | CA | GLN | A | 533 | 37.181 | 88.507 | 59.322 | 1.00 | 76.90 | C |
| ATOM | 3886 | C | GLN | A | 533 | 38.309 | 88.020 | 60.228 | 1.00 | 76.90 | C |
| ATOM | 3887 | O | GLN | A | 533 | 39.481 | 88.029 | 59.852 | 1.00 | 76.90 | O |
| ATOM | 3888 | CB | GLN | A | 533 | 36.620 | 89.833 | 59.848 | 1.00 | 95.48 | C |
| ATOM | 3889 | CG | GLN | A | 533 | 37.592 | 90.997 | 59.819 | 1.00 | 95.48 | C |
| ATOM | 3890 | CD | GLN | A | 533 | 38.331 | 91.095 | 58.501 | 1.00 | 95.48 | C |
| ATOM | 3891 | OE1 | GLN | A | 533 | 39.303 | 90.377 | 58.270 | 1.00 | 95.48 | O |
| ATOM | 3892 | NE2 | GLN | A | 533 | 37.865 | 91.976 | 57.622 | 1.00 | 95.48 | N |
| ATOM | 3893 | N | ARG | A | 534 | 37.947 | 87.554 | 61.410 | 1.00 | 88.04 | N |
| ATOM | 3894 | CA | ARG | A | 534 | 38.954 | 87.100 | 62.352 | 1.00 | 88.04 | C |
| ATOM | 3895 | C | ARG | A | 534 | 39.796 | 86.024 | 61.708 | 1.00 | 88.04 | C |
| ATOM | 3896 | O | ARG | A | 534 | 41.013 | 86.141 | 61.618 | 1.00 | 88.04 | O |
| ATOM | 3897 | CB | ARG | A | 534 | 38.279 | 86.570 | 63.613 | 1.00 | 73.50 | C |
| ATOM | 3898 | CG | ARG | A | 534 | 39.009 | 86.905 | 64.900 | 1.00 | 73.50 | C |
| ATOM | 3899 | CD | ARG | A | 534 | 38.107 | 86.662 | 66.106 | 1.00 | 73.50 | C |
| ATOM | 3900 | NE | ARG | A | 534 | 36.789 | 87.270 | 65.930 | 1.00 | 73.50 | N |
| ATOM | 3901 | CZ | ARG | A | 534 | 35.756 | 87.101 | 66.749 | 1.00 | 73.50 | C |
| ATOM | 3902 | NH1 | ARG | A | 534 | 35.864 | 86.335 | 67.822 | 1.00 | 73.50 | N |
| ATOM | 3903 | NH2 | ARG | A | 534 | 34.607 | 87.701 | 66.485 | 1.00 | 73.50 | N |
| ATOM | 3904 | N | ILE | A | 535 | 39.141 | 84.980 | 61.232 | 1.00 | 48.77 | N |
| ATOM | 3905 | CA | ILE | A | 535 | 39.873 | 83.881 | 60.633 | 1.00 | 48.77 | C |
| ATOM | 3906 | C | ILE | A | 535 | 40.877 | 84.436 | 59.688 | 1.00 | 48.77 | C |
| ATOM | 3907 | O | ILE | A | 535 | 42.037 | 84.064 | 59.725 | 1.00 | 48.77 | O |
| ATOM | 3908 | CB | ILE | A | 535 | 38.931 | 82.919 | 59.892 | 1.00 | 65.54 | C |
| ATOM | 3909 | CG1 | ILE | A | 535 | 38.118 | 82.132 | 60.920 | 1.00 | 65.54 | C |
| ATOM | 3910 | CG2 | ILE | A | 535 | 39.727 | 81.977 | 58.985 | 1.00 | 65.54 | C |
| ATOM | 3911 | CD1 | ILE | A | 535 | 37.048 | 81.252 | 60.310 | 1.00 | 65.54 | C |
| ATOM | 3912 | N | ALA | A | 536 | 40.416 | 85.358 | 58.863 | 1.00 | 81.51 | N |
| ATOM | 3913 | CA | ALA | A | 536 | 41.275 | 85.991 | 57.895 | 1.00 | 81.51 | C |
| ATOM | 3914 | C | ALA | A | 536 | 42.548 | 86.413 | 58.575 | 1.00 | 81.51 | C |
| ATOM | 3915 | O | ALA | A | 536 | 43.643 | 85.936 | 58.274 | 1.00 | 81.51 | O |
| ATOM | 3916 | CB | ALA | A | 536 | 40.562 | 87.206 | 57.271 | 1.00 | 30.39 | C |
| ATOM | 3917 | N | ILE | A | 537 | 42.376 | 87.347 | 59.497 | 1.00 | 76.35 | N |
| ATOM | 3918 | CA | ILE | A | 537 | 43.475 | 87.914 | 60.264 | 1.00 | 76.35 | C |
| ATOM | 3919 | C | ILE | A | 537 | 44.470 | 86.852 | 60.660 | 1.00 | 76.35 | C |
| ATOM | 3920 | O | ILE | A | 537 | 45.675 | 87.057 | 60.623 | 1.00 | 76.35 | O |
| ATOM | 3921 | CB | ILE | A | 537 | 42.911 | 88.620 | 61.499 | 1.00 | 86.13 | C |
| ATOM | 3922 | CG1 | ILE | A | 537 | 42.157 | 89.868 | 61.037 | 1.00 | 86.13 | C |
| ATOM | 3923 | CG2 | ILE | A | 537 | 44.020 | 88.959 | 62.478 | 1.00 | 86.13 | C |
| ATOM | 3924 | CD1 | ILE | A | 537 | 41.154 | 90.405 | 62.037 | 1.00 | 86.13 | C |
| ATOM | 3925 | N | ALA | A | 538 | 43.933 | 85.710 | 61.035 | 1.00 | 78.76 | N |
| ATOM | 3926 | CA | ALA | A | 538 | 44.751 | 84.607 | 61.420 | 1.00 | 78.76 | C |
| ATOM | 3927 | C | ALA | A | 538 | 45.540 | 84.249 | 60.175 | 1.00 | 78.76 | C |
| ATOM | 3928 | O | ALA | A | 538 | 46.757 | 84.166 | 60.193 | 1.00 | 78.76 | O |
| ATOM | 3929 | CB | ALA | A | 538 | 43.892 | 83.422 | 61.862 | 1.00 | 96.54 | C |
| ATOM | 3930 | N | ARG | A | 539 | 44.828 | 84.044 | 59.082 | 1.00 | 60.45 | N |
| ATOM | 3931 | CA | ARG | A | 539 | 45.453 | 83.675 | 57.828 | 1.00 | 60.45 | C |
| ATOM | 3932 | C | ARG | A | 539 | 46.616 | 84.611 | 57.597 | 1.00 | 60.45 | C |
| ATOM | 3933 | O | ARG | A | 539 | 47.795 | 84.214 | 57.625 | 1.00 | 60.45 | O |
| ATOM | 3934 | CB | ARG | A | 539 | 44.411 | 83.797 | 56.703 | 1.00 | 83.16 | C |
| ATOM | 3935 | CG | ARG | A | 539 | 44.809 | 83.282 | 55.321 | 1.00 | 83.16 | C |
| ATOM | 3936 | CD | ARG | A | 539 | 43.569 | 83.026 | 54.453 | 1.00 | 83.16 | C |
| ATOM | 3937 | NE | ARG | A | 539 | 42.819 | 84.246 | 54.162 | 1.00 | 83.16 | N |
| ATOM | 3938 | CZ | ARG | A | 539 | 41.555 | 84.261 | 53.750 | 1.00 | 83.16 | C |
| ATOM | 3939 | NH1 | ARG | A | 539 | 40.899 | 83.121 | 53.582 | 1.00 | 83.16 | N |
| ATOM | 3940 | NH2 | ARG | A | 539 | 40.945 | 85.413 | 53.505 | 1.00 | 83.16 | N |
| ATOM | 3941 | N | ALA | A | 540 | 46.284 | 85.876 | 57.397 | 1.00 | 78.61 | N |
| ATOM | 3942 | CA | ALA | A | 540 | 47.308 | 86.857 | 57.136 | 1.00 | 78.61 | C |
| ATOM | 3943 | C | ALA | A | 540 | 48.327 | 86.808 | 58.248 | 1.00 | 78.61 | C |
| ATOM | 3944 | O | ALA | A | 540 | 49.517 | 87.038 | 58.024 | 1.00 | 78.61 | O |
| ATOM | 3945 | CB | ALA | A | 540 | 46.688 | 88.258 | 57.048 | 1.00 | 151.40 | C |
| ATOM | 3946 | N | LEU | A | 541 | 47.865 | 86.479 | 59.449 | 1.00 | 68.47 | N |
| ATOM | 3947 | CA | LEU | A | 541 | 48.751 | 86.417 | 60.614 | 1.00 | 68.47 | C |
| ATOM | 3948 | C | LEU | A | 541 | 49.920 | 85.424 | 60.490 | 1.00 | 68.47 | C |
| ATOM | 3949 | O | LEU | A | 541 | 51.027 | 85.696 | 60.951 | 1.00 | 68.47 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 3950 | CB | LEU | A | 541 | 47.934 | 86.096 | 61.868 | 1.00155.60 | C |
| ATOM | 3951 | CG | LEU | A | 541 | 48.350 | 86.853 | 63.133 | 1.00155.60 | C |
| ATOM | 3952 | CD1 | LEU | A | 541 | 49.790 | 86.527 | 63.484 | 1.00155.60 | C |
| ATOM | 3953 | CD2 | LEU | A | 541 | 48.190 | 88.347 | 62.903 | 1.00155.60 | C |
| ATOM | 3954 | N | VAL | A | 542 | 49.659 | 84.273 | 59.879 | 1.00 54.74 | N |
| ATOM | 3955 | CA | VAL | A | 542 | 50.670 | 83.251 | 59.674 | 1.00 54.74 | C |
| ATOM | 3956 | C | VAL | A | 542 | 51.570 | 83.713 | 58.535 | 1.00 54.74 | C |
| ATOM | 3957 | O | VAL | A | 542 | 52.729 | 83.313 | 58.462 | 1.00 54.74 | O |
| ATOM | 3958 | CB | VAL | A | 542 | 50.040 | 81.908 | 59.258 | 1.00 58.29 | C |
| ATOM | 3959 | CG1 | VAL | A | 542 | 50.999 | 80.754 | 59.558 | 1.00 58.29 | C |
| ATOM | 3960 | CG2 | VAL | A | 542 | 48.715 | 81.723 | 59.952 | 1.00 58.29 | C |
| ATOM | 3961 | N | ARG | A | 543 | 50.998 | 84.520 | 57.631 | 1.00110.70 | N |
| ATOM | 3962 | CA | ARG | A | 543 | 51.746 | 85.098 | 56.497 | 1.00110.70 | C |
| ATOM | 3963 | C | ARG | A | 543 | 52.892 | 85.895 | 57.126 | 1.00110.70 | C |
| ATOM | 3964 | O | ARG | A | 543 | 53.997 | 85.997 | 56.588 | 1.00110.70 | O |
| ATOM | 3965 | CB | ARG | A | 543 | 50.852 | 86.069 | 55.727 | 1.00 90.51 | C |
| ATOM | 3966 | CG | ARG | A | 543 | 51.091 | 86.095 | 54.248 | 1.00 90.51 | C |
| ATOM | 3967 | CD | ARG | A | 543 | 50.197 | 85.093 | 53.555 | 1.00 90.51 | C |
| ATOM | 3968 | NE | ARG | A | 543 | 50.611 | 84.828 | 52.180 | 1.00 90.51 | N |
| ATOM | 3969 | CZ | ARG | A | 543 | 50.831 | 85.766 | 51.263 | 1.00 90.51 | C |
| ATOM | 3970 | NH1 | ARG | A | 543 | 50.685 | 87.049 | 51.567 | 1.00 90.51 | N |
| ATOM | 3971 | NH2 | ARG | A | 543 | 51.174 | 85.420 | 50.031 | 1.00 90.51 | N |
| ATOM | 3972 | N | ASN | A | 544 | 52.565 | 86.477 | 58.278 | 1.00 82.85 | N |
| ATOM | 3973 | CA | ASN | A | 544 | 53.457 | 87.298 | 59.101 | 1.00 82.85 | C |
| ATOM | 3974 | C | ASN | A | 544 | 54.415 | 88.223 | 58.358 | 1.00 82.85 | C |
| ATOM | 3975 | O | ASN | A | 544 | 55.617 | 87.989 | 58.300 | 1.00 82.85 | O |
| ATOM | 3976 | CB | ASN | A | 544 | 54.208 | 86.424 | 60.125 | 1.00155.50 | C |
| ATOM | 3977 | CG | ASN | A | 544 | 55.472 | 85.808 | 59.573 | 1.00155.50 | C |
| ATOM | 3978 | OD1 | ASN | A | 544 | 55.451 | 85.115 | 58.558 | 1.00155.50 | O |
| ATOM | 3979 | ND2 | ASN | A | 544 | 56.587 | 86.048 | 60.254 | 1.00155.50 | N |
| ATOM | 3980 | N | PRO | A | 545 | 53.871 | 89.323 | 57.818 | 1.00122.99 | N |
| ATOM | 3981 | CA | PRO | A | 545 | 54.537 | 90.375 | 57.057 | 1.00122.99 | C |
| ATOM | 3982 | C | PRO | A | 545 | 55.323 | 91.393 | 57.865 | 1.00122.99 | C |
| ATOM | 3983 | O | PRO | A | 545 | 55.665 | 91.185 | 59.027 | 1.00122.99 | O |
| ATOM | 3984 | CB | PRO | A | 545 | 53.379 | 91.032 | 56.331 | 1.00 54.63 | C |
| ATOM | 3985 | CG | PRO | A | 545 | 52.324 | 91.041 | 57.403 | 1.00 54.63 | C |
| ATOM | 3986 | CD | PRO | A | 545 | 52.423 | 89.612 | 57.913 | 1.00 54.63 | C |
| ATOM | 3987 | N | LYS | A | 546 | 55.578 | 92.516 | 57.207 | 1.00 48.69 | N |
| ATOM | 3988 | CA | LYS | A | 546 | 56.296 | 93.627 | 57.787 | 1.00 48.69 | C |
| ATOM | 3989 | C | LYS | A | 546 | 55.516 | 94.863 | 57.441 | 1.00 48.69 | C |
| ATOM | 3990 | O | LYS | A | 546 | 55.870 | 95.942 | 57.859 | 1.00 48.69 | O |
| ATOM | 3991 | CB | LYS | A | 546 | 57.700 | 93.746 | 57.196 | 1.00150.41 | C |
| ATOM | 3992 | CG | LYS | A | 546 | 58.530 | 92.475 | 57.236 | 1.00150.41 | C |
| ATOM | 3993 | CD | LYS | A | 546 | 58.567 | 91.860 | 58.623 | 1.00150.41 | C |
| ATOM | 3994 | CE | LYS | A | 546 | 59.556 | 90.711 | 58.660 | 1.00150.41 | C |
| ATOM | 3995 | NZ | LYS | A | 546 | 59.392 | 89.820 | 57.474 | 1.00150.41 | N |
| ATOM | 3996 | N | ILE | A | 547 | 54.478 | 94.695 | 56.634 | 1.00 79.80 | N |
| ATOM | 3997 | CA | ILE | A | 547 | 53.593 | 95.792 | 56.264 | 1.00 79.80 | C |
| ATOM | 3998 | C | ILE | A | 547 | 52.191 | 95.212 | 56.429 | 1.00 79.80 | C |
| ATOM | 3999 | O | ILE | A | 547 | 51.938 | 94.058 | 56.098 | 1.00 79.80 | O |
| ATOM | 4000 | CB | ILE | A | 547 | 53.724 | 96.190 | 54.790 | 1.00 44.77 | C |
| ATOM | 4001 | CG1 | ILE | A | 547 | 55.176 | 96.083 | 54.317 | 1.00 44.77 | C |
| ATOM | 4002 | CG2 | ILE | A | 547 | 53.208 | 97.610 | 54.606 | 1.00 44.77 | C |
| ATOM | 4003 | CD1 | ILE | A | 547 | 56.024 | 97.378 | 54.491 | 1.00 44.77 | C |
| ATOM | 4004 | N | LEU | A | 548 | 51.272 | 96.006 | 56.938 | 1.00 59.17 | N |
| ATOM | 4005 | CA | LEU | A | 548 | 49.932 | 95.511 | 57.129 | 1.00 59.17 | C |
| ATOM | 4006 | C | LEU | A | 548 | 48.971 | 96.570 | 56.662 | 1.00 59.17 | C |
| ATOM | 4007 | O | LEU | A | 548 | 49.019 | 97.693 | 57.138 | 1.00 59.17 | O |
| ATOM | 4008 | CB | LEU | A | 548 | 49.704 | 95.195 | 58.603 | 1.00 46.85 | C |
| ATOM | 4009 | CG | LEU | A | 548 | 48.552 | 94.255 | 58.962 | 1.00 46.85 | C |
| ATOM | 4010 | CD1 | LEU | A | 548 | 48.608 | 93.955 | 60.450 | 1.00 46.85 | C |
| ATOM | 4011 | CD2 | LEU | A | 548 | 47.219 | 94.872 | 58.578 | 1.00 46.85 | C |
| ATOM | 4012 | N | LEU | A | 549 | 48.107 | 96.229 | 55.722 | 1.00 73.45 | N |
| ATOM | 4013 | CA | LEU | A | 549 | 47.138 | 97.192 | 55.240 | 1.00 73.45 | C |
| ATOM | 4014 | C | LEU | A | 549 | 45.764 | 96.775 | 55.697 | 1.00 73.45 | C |
| ATOM | 4015 | O | LEU | A | 549 | 45.388 | 95.625 | 55.516 | 1.00 73.45 | O |
| ATOM | 4016 | CB | LEU | A | 549 | 47.156 | 97.274 | 53.716 | 1.00 73.37 | C |
| ATOM | 4017 | CG | LEU | A | 549 | 48.475 | 97.723 | 53.092 | 1.00 73.37 | C |
| ATOM | 4018 | CD1 | LEU | A | 549 | 49.574 | 96.733 | 53.456 | 1.00 73.37 | C |
| ATOM | 4019 | CD2 | LEU | A | 549 | 48.317 | 97.834 | 51.585 | 1.00 73.37 | C |
| ATOM | 4020 | N | LEU | A | 550 | 45.012 | 97.689 | 56.302 | 1.00110.75 | N |
| ATOM | 4021 | CA | LEU | A | 550 | 43.652 | 97.347 | 56.717 | 1.00110.75 | C |
| ATOM | 4022 | C | LEU | A | 550 | 42.680 | 98.254 | 55.983 | 1.00110.75 | C |
| ATOM | 4023 | O | LEU | A | 550 | 42.556 | 99.445 | 56.308 | 1.00110.75 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4024 | CB | LEU | A | 550 | 43.475 | 97.507 | 58.228 | 1.00101.78 | C |
| ATOM | 4025 | CG | LEU | A | 550 | 44.414 | 96.623 | 59.049 | 1.00101.78 | C |
| ATOM | 4026 | CD1 | LEU | A | 550 | 45.804 | 97.252 | 59.059 | 1.00101.78 | C |
| ATOM | 4027 | CD2 | LEU | A | 550 | 43.881 | 96.455 | 60.466 | 1.00101.78 | C |
| ATOM | 4028 | N | ASP | A | 551 | 41.995 | 97.684 | 54.990 | 1.00109.21 | N |
| ATOM | 4029 | CA | ASP | A | 551 | 41.057 | 98.446 | 54.165 | 1.00109.21 | C |
| ATOM | 4030 | C | ASP | A | 551 | 39.676 | 98.476 | 54.814 | 1.00109.21 | C |
| ATOM | 4031 | O | ASP | A | 551 | 38.790 | 97.714 | 54.450 | 1.00109.21 | O |
| ATOM | 4032 | CB | ASP | A | 551 | 40.974 | 97.826 | 52.765 | 1.00182.19 | C |
| ATOM | 4033 | CG | ASP | A | 551 | 40.652 | 98.849 | 51.682 | 1.00182.19 | C |
| ATOM | 4034 | OD1 | ASP | A | 551 | 40.594 | 98.453 | 50.498 | 1.00182.19 | O |
| ATOM | 4035 | OD2 | ASP | A | 551 | 40.463 | 100.042 | 52.009 | 1.00182.19 | O |
| ATOM | 4036 | N | GLU | A | 552 | 39.484 | 99.353 | 55.787 | 1.00178.06 | N |
| ATOM | 4037 | CA | GLU | A | 552 | 38.187 | 99.421 | 56.443 | 1.00178.06 | C |
| ATOM | 4038 | C | GLU | A | 552 | 37.890 | 98.111 | 57.148 | 1.00178.06 | C |
| ATOM | 4039 | O | GLU | A | 552 | 36.843 | 97.974 | 57.772 | 1.00178.06 | O |
| ATOM | 4040 | CB | GLU | A | 552 | 37.093 | 99.678 | 55.414 | 1.00170.77 | C |
| ATOM | 4041 | CG | GLU | A | 552 | 37.263 | 100.944 | 54.619 | 1.00170.77 | C |
| ATOM | 4042 | CD | GLU | A | 552 | 36.529 | 100.876 | 53.302 | 1.00170.77 | C |
| ATOM | 4043 | OE1 | GLU | A | 552 | 35.676 | 99.975 | 53.144 | 1.00170.77 | O |
| ATOM | 4044 | OE2 | GLU | A | 552 | 36.799 | 101.721 | 52.425 | 1.00170.77 | O |
| ATOM | 4045 | N | ALA | A | 553 | 38.802 | 97.152 | 57.016 | 1.00 88.25 | N |
| ATOM | 4046 | CA | ALA | A | 553 | 38.683 | 95.847 | 57.646 | 1.00 88.25 | C |
| ATOM | 4047 | C | ALA | A | 553 | 37.440 | 95.779 | 58.513 | 1.00 88.25 | C |
| ATOM | 4048 | O | ALA | A | 553 | 36.347 | 95.570 | 58.012 | 1.00 88.25 | O |
| ATOM | 4049 | CB | ALA | A | 553 | 39.925 | 95.553 | 58.482 | 1.00131.26 | C |
| ATOM | 4050 | N | THR | A | 554 | 37.618 | 95.978 | 59.813 | 1.00141.73 | N |
| ATOM | 4051 | CA | THR | A | 554 | 36.519 | 95.955 | 60.762 | 1.00141.73 | C |
| ATOM | 4052 | C | THR | A | 554 | 35.147 | 96.373 | 60.213 | 1.00141.73 | C |
| ATOM | 4053 | O | THR | A | 554 | 34.174 | 95.677 | 60.478 | 1.00141.73 | O |
| ATOM | 4054 | CB | THR | A | 554 | 36.826 | 96.846 | 61.985 | 1.00153.22 | C |
| ATOM | 4055 | OG1 | THR | A | 554 | 35.773 | 96.727 | 62.954 | 1.00153.22 | O |
| ATOM | 4056 | CG2 | THR | A | 554 | 36.952 | 98.297 | 61.553 | 1.00153.22 | C |
| ATOM | 4057 | N | SER | A | 555 | 35.079 | 97.487 | 59.461 | 1.00122.96 | N |
| ATOM | 4058 | CA | SER | A | 555 | 33.829 | 98.042 | 58.875 | 1.00122.96 | C |
| ATOM | 4059 | C | SER | A | 555 | 32.771 | 97.053 | 58.433 | 1.00122.96 | C |
| ATOM | 4060 | O | SER | A | 555 | 33.013 | 95.856 | 58.406 | 1.00122.96 | O |
| ATOM | 4061 | CB | SER | A | 555 | 34.175 | 98.953 | 57.690 | 1.00139.16 | C |
| ATOM | 4062 | OG | SER | A | 555 | 34.557 | 100.248 | 58.121 | 1.00139.16 | O |
| ATOM | 4063 | N | ALA | A | 556 | 31.597 | 97.562 | 58.071 | 1.00126.86 | N |
| ATOM | 4064 | CA | ALA | A | 556 | 30.492 | 96.707 | 57.642 | 1.00126.86 | C |
| ATOM | 4065 | C | ALA | A | 556 | 30.406 | 95.475 | 58.551 | 1.00126.86 | C |
| ATOM | 4066 | O | ALA | A | 556 | 30.355 | 94.346 | 58.070 | 1.00126.86 | O |
| ATOM | 4067 | CB | ALA | A | 556 | 30.693 | 96.278 | 56.199 | 1.00121.66 | C |
| ATOM | 4068 | N | LEU | A | 557 | 30.395 | 95.699 | 59.862 | 1.00199.17 | N |
| ATOM | 4069 | CA | LEU | A | 557 | 30.354 | 94.613 | 60.847 | 1.00199.17 | C |
| ATOM | 4070 | C | LEU | A | 557 | 29.637 | 95.132 | 62.096 | 1.00199.17 | C |
| ATOM | 4071 | O | LEU | A | 557 | 29.637 | 96.338 | 62.343 | 1.00199.17 | O |
| ATOM | 4072 | CB | LEU | A | 557 | 31.793 | 94.205 | 61.192 | 1.00118.18 | C |
| ATOM | 4073 | CG | LEU | A | 557 | 32.101 | 93.060 | 62.159 | 1.00118.18 | C |
| ATOM | 4074 | CD1 | LEU | A | 557 | 31.627 | 91.737 | 61.584 | 1.00118.18 | C |
| ATOM | 4075 | CD2 | LEU | A | 557 | 33.602 | 93.008 | 62.394 | 1.00118.18 | C |
| ATOM | 4076 | N | ASP | A | 558 | 29.027 | 94.240 | 62.879 | 1.00207.38 | N |
| ATOM | 4077 | CA | ASP | A | 558 | 28.312 | 94.666 | 64.085 | 1.00207.38 | C |
| ATOM | 4078 | C | ASP | A | 558 | 29.250 | 95.448 | 65.004 | 1.00207.38 | C |
| ATOM | 4079 | O | ASP | A | 558 | 30.460 | 95.209 | 65.032 | 1.00207.38 | O |
| ATOM | 4080 | CB | ASP | A | 558 | 27.719 | 93.456 | 64.824 | 1.00 94.86 | C |
| ATOM | 4081 | CG | ASP | A | 558 | 28.681 | 92.851 | 65.833 | 1.00 94.86 | C |
| ATOM | 4082 | OD1 | ASP | A | 558 | 28.940 | 93.501 | 66.869 | 1.00 94.86 | O |
| ATOM | 4083 | OD2 | ASP | A | 558 | 29.183 | 91.731 | 65.592 | 1.00 94.86 | O |
| ATOM | 4084 | N | THR | A | 559 | 28.685 | 96.391 | 65.745 | 1.00206.98 | N |
| ATOM | 4085 | CA | THR | A | 559 | 29.467 | 97.216 | 66.650 | 1.00206.98 | C |
| ATOM | 4086 | C | THR | A | 559 | 30.383 | 96.412 | 67.575 | 1.00206.98 | C |
| ATOM | 4087 | O | THR | A | 559 | 31.611 | 96.459 | 67.441 | 1.00206.98 | O |
| ATOM | 4088 | CB | THR | A | 559 | 28.549 | 98.108 | 67.509 | 1.00169.89 | C |
| ATOM | 4089 | OG1 | THR | A | 559 | 27.427 | 97.344 | 67.965 | 1.00169.89 | O |
| ATOM | 4090 | CG2 | THR | A | 559 | 28.057 | 99.295 | 66.704 | 1.00169.89 | C |
| ATOM | 4091 | N | GLU | A | 560 | 29.784 | 95.667 | 68.500 | 1.00136.53 | N |
| ATOM | 4092 | CA | GLU | A | 560 | 30.543 | 94.879 | 69.472 | 1.00136.53 | C |
| ATOM | 4093 | C | GLU | A | 560 | 31.737 | 94.117 | 68.868 | 1.00136.53 | C |
| ATOM | 4094 | O | GLU | A | 560 | 32.879 | 94.156 | 69.395 | 1.00136.53 | O |
| ATOM | 4095 | CB | GLU | A | 560 | 29.594 | 93.916 | 70.191 | 1.00207.38 | C |
| ATOM | 4096 | CG | GLU | A | 560 | 30.229 | 93.201 | 71.363 | 1.00207.38 | C |
| ATOM | 4097 | CD | GLU | A | 560 | 31.250 | 92.182 | 70.920 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4098 | OE1 | GLU | A | 560 | 32.100 | 91.791 | 71.745 | 1.00207.38 | O |
| ATOM | 4099 | OE2 | GLU | A | 560 | 31.196 | 91.764 | 69.744 | 1.00207.38 | O |
| ATOM | 4100 | N | SER | A | 561 | 31.470 | 93.410 | 67.771 | 1.00100.96 | N |
| ATOM | 4101 | CA | SER | A | 561 | 32.526 | 92.671 | 67.103 | 1.00100.96 | C |
| ATOM | 4102 | C | SER | A | 561 | 33.569 | 93.704 | 66.703 | 1.00100.96 | C |
| ATOM | 4103 | O | SER | A | 561 | 34.731 | 93.583 | 67.092 | 1.00100.96 | O |
| ATOM | 4104 | CB | SER | A | 561 | 31.985 | 91.951 | 65.862 | 1.00153.23 | C |
| ATOM | 4105 | OG | SER | A | 561 | 31.456 | 92.863 | 64.916 | 1.00153.23 | O |
| ATOM | 4106 | N | GLU | A | 562 | 33.143 | 94.728 | 65.952 | 1.00102.31 | N |
| ATOM | 4107 | CA | GLU | A | 562 | 34.036 | 95.815 | 65.525 | 1.00102.31 | C |
| ATOM | 4108 | C | GLU | A | 562 | 35.078 | 96.045 | 66.626 | 1.00102.31 | C |
| ATOM | 4109 | O | GLU | A | 562 | 36.264 | 96.316 | 66.376 | 1.00102.31 | O |
| ATOM | 4110 | CB | GLU | A | 562 | 33.265 | 97.124 | 65.316 | 1.00117.72 | C |
| ATOM | 4111 | CG | GLU | A | 562 | 34.162 | 98.298 | 64.907 | 1.00117.72 | C |
| ATOM | 4112 | CD | GLU | A | 562 | 33.458 | 99.643 | 64.966 | 1.00117.72 | C |
| ATOM | 4113 | OE1 | GLU | A | 562 | 32.312 | 99.740 | 64.481 | 1.00117.72 | O |
| ATOM | 4114 | OE2 | GLU | A | 562 | 34.056 | 100.607 | 65.490 | 1.00117.72 | O |
| ATOM | 4115 | N | ALA | A | 563 | 34.607 | 95.936 | 67.859 | 1.00 71.59 | N |
| ATOM | 4116 | CA | ALA | A | 563 | 35.472 | 96.123 | 68.997 | 1.00 71.59 | C |
| ATOM | 4117 | C | ALA | A | 563 | 36.471 | 95.015 | 68.918 | 1.00 71.59 | C |
| ATOM | 4118 | O | ALA | A | 563 | 37.622 | 95.217 | 68.523 | 1.00 71.59 | O |
| ATOM | 4119 | CB | ALA | A | 563 | 34.674 | 96.034 | 70.287 | 1.00139.44 | C |
| ATOM | 4120 | N | VAL | A | 564 | 35.990 | 93.835 | 69.278 | 1.00104.52 | N |
| ATOM | 4121 | CA | VAL | A | 564 | 36.814 | 92.641 | 69.283 | 1.00104.52 | C |
| ATOM | 4122 | C | VAL | A | 564 | 37.754 | 92.531 | 68.096 | 1.00104.52 | C |
| ATOM | 4123 | O | VAL | A | 564 | 38.932 | 92.209 | 68.259 | 1.00104.52 | O |
| ATOM | 4124 | CB | VAL | A | 564 | 35.927 | 91.380 | 69.294 | 1.00119.78 | C |
| ATOM | 4125 | CG1 | VAL | A | 564 | 36.699 | 90.208 | 69.856 | 1.00119.78 | C |
| ATOM | 4126 | CG2 | VAL | A | 564 | 34.659 | 91.638 | 70.092 | 1.00119.78 | C |
| ATOM | 4127 | N | VAL | A | 565 | 37.214 | 92.779 | 66.904 | 1.00142.77 | N |
| ATOM | 4128 | CA | VAL | A | 565 | 37.967 | 92.719 | 65.651 | 1.00142.77 | C |
| ATOM | 4129 | C | VAL | A | 565 | 39.124 | 93.714 | 65.645 | 1.00142.77 | C |
| ATOM | 4130 | O | VAL | A | 565 | 40.269 | 93.340 | 65.382 | 1.00142.77 | O |
| ATOM | 4131 | CB | VAL | A | 565 | 37.043 | 92.998 | 64.442 | 1.00116.57 | C |
| ATOM | 4132 | CG1 | VAL | A | 565 | 37.868 | 93.245 | 63.192 | 1.00116.57 | C |
| ATOM | 4133 | CG2 | VAL | A | 565 | 36.102 | 91.815 | 64.229 | 1.00116.57 | C |
| ATOM | 4134 | N | GLN | A | 566 | 38.834 | 94.980 | 65.937 | 1.00122.93 | N |
| ATOM | 4135 | CA | GLN | A | 566 | 39.887 | 95.989 | 65.959 | 1.00122.93 | C |
| ATOM | 4136 | C | GLN | A | 566 | 40.912 | 95.566 | 67.015 | 1.00122.93 | C |
| ATOM | 4137 | O | GLN | A | 566 | 42.115 | 95.816 | 66.867 | 1.00122.93 | O |
| ATOM | 4138 | CB | GLN | A | 566 | 39.312 | 97.368 | 66.314 | 1.00144.37 | C |
| ATOM | 4139 | CG | GLN | A | 566 | 40.319 | 98.523 | 66.270 | 1.00144.37 | C |
| ATOM | 4140 | CD | GLN | A | 566 | 40.534 | 99.086 | 64.873 | 1.00144.37 | C |
| ATOM | 4141 | OE1 | GLN | A | 566 | 39.592 | 99.538 | 64.219 | 1.00144.37 | O |
| ATOM | 4142 | NE2 | GLN | A | 566 | 41.780 | 99.073 | 64.416 | 1.00144.37 | N |
| ATOM | 4143 | N | ALA | A | 567 | 40.418 | 94.897 | 68.060 | 1.00 96.40 | N |
| ATOM | 4144 | CA | ALA | A | 567 | 41.250 | 94.424 | 69.170 | 1.00 96.40 | C |
| ATOM | 4145 | C | ALA | A | 567 | 42.346 | 93.507 | 68.672 | 1.00 96.40 | C |
| ATOM | 4146 | O | ALA | A | 567 | 43.521 | 93.678 | 69.015 | 1.00 96.40 | O |
| ATOM | 4147 | CB | ALA | A | 567 | 40.385 | 93.699 | 70.195 | 1.00105.41 | C |
| ATOM | 4148 | N | ALA | A | 568 | 41.942 | 92.534 | 67.859 | 1.00133.34 | N |
| ATOM | 4149 | CA | ALA | A | 568 | 42.869 | 91.568 | 67.279 | 1.00133.34 | C |
| ATOM | 4150 | C | ALA | A | 568 | 43.780 | 92.283 | 66.304 | 1.00133.34 | C |
| ATOM | 4151 | O | ALA | A | 568 | 44.972 | 91.992 | 66.213 | 1.00133.34 | O |
| ATOM | 4152 | CB | ALA | A | 568 | 42.094 | 90.465 | 66.569 | 1.00190.18 | C |
| ATOM | 4153 | N | LEU | A | 569 | 43.208 | 93.213 | 65.557 | 1.00 84.56 | N |
| ATOM | 4154 | CA | LEU | A | 569 | 44.001 | 93.962 | 64.619 | 1.00 84.56 | C |
| ATOM | 4155 | C | LEU | A | 569 | 45.127 | 94.601 | 65.416 | 1.00 84.56 | C |
| ATOM | 4156 | O | LEU | A | 569 | 46.305 | 94.437 | 65.083 | 1.00 84.56 | O |
| ATOM | 4157 | CB | LEU | A | 569 | 43.145 | 95.031 | 63.946 | 1.00 96.43 | C |
| ATOM | 4158 | CG | LEU | A | 569 | 42.085 | 94.436 | 63.014 | 1.00 96.43 | C |
| ATOM | 4159 | CD1 | LEU | A | 569 | 41.201 | 95.523 | 62.427 | 1.00 96.43 | C |
| ATOM | 4160 | CD2 | LEU | A | 569 | 42.787 | 93.654 | 61.910 | 1.00 96.43 | C |
| ATOM | 4161 | N | ASP | A | 570 | 44.762 | 95.312 | 66.484 | 1.00116.86 | N |
| ATOM | 4162 | CA | ASP | A | 570 | 45.741 | 95.975 | 67.340 | 1.00116.86 | C |
| ATOM | 4163 | C | ASP | A | 570 | 46.844 | 95.039 | 67.777 | 1.00116.86 | C |
| ATOM | 4164 | O | ASP | A | 570 | 48.007 | 95.261 | 67.462 | 1.00116.86 | O |
| ATOM | 4165 | CB | ASP | A | 570 | 45.047 | 96.567 | 68.565 | 1.00148.66 | C |
| ATOM | 4166 | CG | ASP | A | 570 | 44.283 | 97.832 | 68.238 | 1.00148.66 | C |
| ATOM | 4167 | OD1 | ASP | A | 570 | 43.566 | 97.842 | 67.216 | 1.00148.66 | O |
| ATOM | 4168 | OD2 | ASP | A | 570 | 44.397 | 98.815 | 68.999 | 1.00148.66 | O |
| ATOM | 4169 | N | LYS | A | 571 | 46.490 | 93.988 | 68.503 | 1.00100.23 | N |
| ATOM | 4170 | CA | LYS | A | 571 | 47.510 | 93.042 | 68.935 | 1.00100.23 | C |
| ATOM | 4171 | C | LYS | A | 571 | 48.313 | 92.578 | 67.713 | 1.00100.23 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4172 | O | LYS | A | 571 | 49.342 | 91.913 | 67.833 | 1.00100.23 | O |
| ATOM | 4173 | CB | LYS | A | 571 | 46.873 | 91.829 | 69.621 | 1.00145.73 | C |
| ATOM | 4174 | CG | LYS | A | 571 | 46.343 | 92.086 | 71.029 | 1.00145.73 | C |
| ATOM | 4175 | CD | LYS | A | 571 | 45.721 | 90.830 | 71.632 | 1.00145.73 | C |
| ATOM | 4176 | CE | LYS | A | 571 | 44.562 | 90.330 | 70.776 | 1.00145.73 | C |
| ATOM | 4177 | NZ | LYS | A | 571 | 43.976 | 89.050 | 71.265 | 1.00145.73 | N |
| ATOM | 4178 | N | ALA | A | 572 | 47.850 | 92.899 | 66.523 | 1.00118.07 | N |
| ATOM | 4179 | CA | ALA | A | 572 | 48.560 | 92.448 | 65.330 | 1.00118.07 | C |
| ATOM | 4180 | C | ALA | A | 572 | 49.605 | 93.417 | 64.793 | 1.00118.07 | C |
| ATOM | 4181 | O | ALA | A | 572 | 50.770 | 93.073 | 64.620 | 1.00118.07 | O |
| ATOM | 4182 | CB | ALA | A | 572 | 47.559 | 92.114 | 64.232 | 1.00164.25 | C |
| ATOM | 4183 | N | ARG | A | 573 | 49.172 | 94.645 | 64.529 | 1.00 77.67 | N |
| ATOM | 4184 | CA | ARG | A | 573 | 49.994 | 95.610 | 63.809 | 1.00 77.67 | C |
| ATOM | 4185 | C | ARG | A | 573 | 51.250 | 96.322 | 64.301 | 1.00 77.67 | C |
| ATOM | 4186 | O | ARG | A | 573 | 52.181 | 96.560 | 63.532 | 1.00 77.67 | O |
| ATOM | 4187 | CB | ARG | A | 573 | 49.164 | 96.829 | 63.375 | 1.00117.42 | C |
| ATOM | 4188 | CG | ARG | A | 573 | 47.756 | 96.665 | 62.786 | 1.00117.42 | C |
| ATOM | 4189 | CD | ARG | A | 573 | 47.246 | 98.139 | 62.724 | 1.00117.42 | C |
| ATOM | 4190 | NE | ARG | A | 573 | 46.932 | 98.733 | 64.035 | 1.00117.42 | N |
| ATOM | 4191 | CZ | ARG | A | 573 | 45.803 | 98.514 | 64.709 | 1.00117.42 | C |
| ATOM | 4192 | NH1 | ARG | A | 573 | 44.868 | 97.717 | 64.205 | 1.00117.42 | N |
| ATOM | 4193 | NH2 | ARG | A | 573 | 45.605 | 99.090 | 65.887 | 1.00117.42 | N |
| ATOM | 4194 | N | GLU | A | 574 | 51.267 | 96.661 | 65.586 | 1.00207.38 | N |
| ATOM | 4195 | CA | GLU | A | 574 | 52.381 | 97.534 | 65.935 | 1.00207.38 | C |
| ATOM | 4196 | C | GLU | A | 574 | 53.719 | 96.871 | 65.625 | 1.00207.38 | C |
| ATOM | 4197 | O | GLU | A | 574 | 54.633 | 97.509 | 65.103 | 1.00207.38 | O |
| ATOM | 4198 | CB | GLU | A | 574 | 52.324 | 97.903 | 67.418 | 1.00171.43 | C |
| ATOM | 4199 | CG | GLU | A | 574 | 53.444 | 98.829 | 67.875 | 1.00171.43 | C |
| ATOM | 4200 | CD | GLU | A | 574 | 53.473 | 100.143 | 67.111 | 1.00171.43 | C |
| ATOM | 4201 | OE1 | GLU | A | 574 | 52.612 | 100.345 | 66.228 | 1.00171.43 | O |
| ATOM | 4202 | OE2 | GLU | A | 574 | 54.360 | 100.976 | 67.394 | 1.00171.43 | O |
| ATOM | 4203 | N | GLY | A | 575 | 53.827 | 95.587 | 65.951 | 1.00 84.51 | N |
| ATOM | 4204 | CA | GLY | A | 575 | 54.990 | 94.815 | 65.606 | 1.00 84.51 | C |
| ATOM | 4205 | C | GLY | A | 575 | 55.332 | 95.170 | 64.178 | 1.00 84.51 | C |
| ATOM | 4206 | O | GLY | A | 575 | 56.500 | 95.291 | 63.826 | 1.00 84.51 | O |
| ATOM | 4207 | N | ARG | A | 576 | 54.298 | 95.375 | 63.366 | 1.00159.40 | N |
| ATOM | 4208 | CA | ARG | A | 576 | 54.454 | 95.673 | 61.939 | 1.00159.40 | C |
| ATOM | 4209 | C | ARG | A | 576 | 54.148 | 97.113 | 61.484 | 1.00159.40 | C |
| ATOM | 4210 | O | ARG | A | 576 | 53.286 | 97.782 | 62.030 | 1.00159.40 | O |
| ATOM | 4211 | CB | ARG | A | 576 | 53.588 | 94.711 | 61.128 | 1.00148.42 | C |
| ATOM | 4212 | CG | ARG | A | 576 | 53.722 | 93.280 | 61.582 | 1.00148.42 | C |
| ATOM | 4213 | CD | ARG | A | 576 | 52.834 | 92.339 | 60.794 | 1.00148.42 | C |
| ATOM | 4214 | NE | ARG | A | 576 | 53.039 | 90.955 | 61.211 | 1.00148.42 | N |
| ATOM | 4215 | CZ | ARG | A | 576 | 52.782 | 90.495 | 62.431 | 1.00148.42 | C |
| ATOM | 4216 | NH1 | ARG | A | 576 | 52.299 | 91.305 | 63.363 | 1.00148.42 | N |
| ATOM | 4217 | NH2 | ARG | A | 576 | 53.030 | 89.226 | 62.725 | 1.00148.42 | N |
| ATOM | 4218 | N | THR | A | 577 | 54.849 | 97.606 | 60.476 | 1.00 99.16 | N |
| ATOM | 4219 | CA | THR | A | 577 | 54.540 | 98.947 | 59.991 | 1.00 99.16 | C |
| ATOM | 4220 | C | THR | A | 577 | 53.203 | 98.840 | 59.225 | 1.00 99.16 | C |
| ATOM | 4221 | O | THR | A | 577 | 53.097 | 98.059 | 58.287 | 1.00 99.16 | O |
| ATOM | 4222 | CB | THR | A | 577 | 55.661 | 99.471 | 59.061 | 1.00 70.59 | C |
| ATOM | 4223 | OG1 | THR | A | 577 | 55.127 | 99.753 | 57.764 | 1.00 70.59 | O |
| ATOM | 4224 | CG2 | THR | A | 577 | 56.761 | 98.442 | 58.923 | 1.00 70.59 | C |
| ATOM | 4225 | N | THR | A | 578 | 52.187 | 99.616 | 59.592 | 1.00 69.56 | N |
| ATOM | 4226 | CA | THR | A | 578 | 50.891 | 99.469 | 58.924 | 1.00 69.56 | C |
| ATOM | 4227 | C | THR | A | 578 | 50.065 | 100.652 | 58.457 | 1.00 69.56 | C |
| ATOM | 4228 | O | THR | A | 578 | 49.760 | 101.580 | 59.199 | 1.00 69.56 | O |
| ATOM | 4229 | CB | THR | A | 578 | 49.926 | 98.633 | 59.788 | 1.00 79.67 | C |
| ATOM | 4230 | OG1 | THR | A | 578 | 48.569 | 98.930 | 59.414 | 1.00 79.67 | O |
| ATOM | 4231 | CG2 | THR | A | 578 | 50.142 | 98.936 | 61.270 | 1.00 79.67 | C |
| ATOM | 4232 | N | ILE | A | 579 | 49.617 | 100.553 | 57.223 | 1.00106.74 | N |
| ATOM | 4233 | CA | ILE | A | 579 | 48.816 | 101.595 | 56.626 | 1.00106.74 | C |
| ATOM | 4234 | C | ILE | A | 579 | 47.328 | 101.201 | 56.754 | 1.00106.74 | C |
| ATOM | 4235 | O | ILE | A | 579 | 46.908 | 100.164 | 56.220 | 1.00106.74 | O |
| ATOM | 4236 | CB | ILE | A | 579 | 49.254 | 101.770 | 55.143 | 1.00 70.43 | C |
| ATOM | 4237 | CG1 | ILE | A | 579 | 48.941 | 103.181 | 54.653 | 1.00 70.43 | C |
| ATOM | 4238 | CG2 | ILE | A | 579 | 48.608 | 100.706 | 54.272 | 1.00 70.43 | C |
| ATOM | 4239 | CD1 | ILE | A | 579 | 47.462 | 103.495 | 54.570 | 1.00 70.43 | C |
| ATOM | 4240 | N | VAL | A | 580 | 46.540 | 101.978 | 57.507 | 1.00 84.81 | N |
| ATOM | 4241 | CA | VAL | A | 580 | 45.098 | 101.675 | 57.638 | 1.00 84.81 | C |
| ATOM | 4242 | C | VAL | A | 580 | 44.215 | 102.807 | 57.179 | 1.00 84.81 | C |
| ATOM | 4243 | O | VAL | A | 580 | 44.404 | 103.963 | 57.570 | 1.00 84.81 | O |
| ATOM | 4244 | CB | VAL | A | 580 | 44.655 | 101.385 | 59.079 | 1.00 76.00 | C |
| ATOM | 4245 | CG1 | VAL | A | 580 | 44.730 | 102.658 | 59.926 | 1.00 76.00 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------|--------|---|
| ATOM | 4246 | CG2 | VAL | A | 580 | 43.220 | 100.872 | 59.068 | 1.00 | 76.00 | C |
| ATOM | 4247 | N | ILE | A | 581 | 43.213 | 102.453 | 56.387 | 1.00 | 80.27 | N |
| ATOM | 4248 | CA | ILE | A | 581 | 42.296 | 103.433 | 55.855 | 1.00 | 80.27 | C |
| ATOM | 4249 | C | ILE | A | 581 | 40.956 | 103.105 | 56.462 | 1.00 | 80.27 | C |
| ATOM | 4250 | O | ILE | A | 581 | 40.579 | 101.939 | 56.480 | 1.00 | 80.27 | O |
| ATOM | 4251 | CB | ILE | A | 581 | 42.248 | 103.323 | 54.307 | 1.00 | 131.42 | C |
| ATOM | 4252 | CG1 | ILE | A | 581 | 41.171 | 104.244 | 53.726 | 1.00 | 131.42 | C |
| ATOM | 4253 | CG2 | ILE | A | 581 | 42.035 | 101.868 | 53.908 | 1.00 | 131.42 | C |
| ATOM | 4254 | CD1 | ILE | A | 581 | 39.765 | 103.717 | 53.868 | 1.00 | 131.42 | C |
| ATOM | 4255 | N | ALA | A | 582 | 40.238 | 104.095 | 56.992 | 1.00 | 155.34 | N |
| ATOM | 4256 | CA | ALA | A | 582 | 38.923 | 103.744 | 57.563 | 1.00 | 155.34 | C |
| ATOM | 4257 | C | ALA | A | 582 | 38.000 | 104.897 | 57.975 | 1.00 | 155.34 | C |
| ATOM | 4258 | O | ALA | A | 582 | 38.404 | 106.063 | 57.962 | 1.00 | 155.34 | O |
| ATOM | 4259 | CB | ALA | A | 582 | 39.122 | 102.812 | 58.747 | 1.00 | 77.94 | C |
| ATOM | 4260 | N | HIS | A | 583 | 36.761 | 104.554 | 58.340 | 1.00 | 123.17 | N |
| ATOM | 4261 | CA | HIS | A | 583 | 35.748 | 105.541 | 58.738 | 1.00 | 123.17 | C |
| ATOM | 4262 | C | HIS | A | 583 | 35.522 | 105.740 | 60.262 | 1.00 | 123.17 | C |
| ATOM | 4263 | O | HIS | A | 583 | 35.004 | 106.774 | 60.703 | 1.00 | 123.17 | O |
| ATOM | 4264 | CB | HIS | A | 583 | 34.417 | 105.195 | 58.067 | 1.00 | 178.41 | C |
| ATOM | 4265 | CG | HIS | A | 583 | 34.485 | 105.179 | 56.572 | 1.00 | 178.41 | C |
| ATOM | 4266 | ND1 | HIS | A | 583 | 34.793 | 106.298 | 55.828 | 1.00 | 178.41 | N |
| ATOM | 4267 | CD2 | HIS | A | 583 | 34.292 | 104.177 | 55.682 | 1.00 | 178.41 | C |
| ATOM | 4268 | CE1 | HIS | A | 583 | 34.787 | 105.986 | 54.545 | 1.00 | 178.41 | C |
| ATOM | 4269 | NE2 | HIS | A | 583 | 34.486 | 104.705 | 54.429 | 1.00 | 178.41 | N |
| ATOM | 4270 | N | ARG | A | 584 | 35.908 | 104.749 | 61.061 | 1.00 | 166.18 | N |
| ATOM | 4271 | CA | ARG | A | 584 | 35.722 | 104.809 | 62.513 | 1.00 | 166.18 | C |
| ATOM | 4272 | C | ARG | A | 584 | 36.705 | 105.756 | 63.170 | 1.00 | 166.18 | C |
| ATOM | 4273 | O | ARG | A | 584 | 37.670 | 105.322 | 63.802 | 1.00 | 166.18 | O |
| ATOM | 4274 | CB | ARG | A | 584 | 35.877 | 103.411 | 63.128 | 1.00 | 207.38 | C |
| ATOM | 4275 | CG | ARG | A | 584 | 34.850 | 102.376 | 62.666 | 1.00 | 207.38 | C |
| ATOM | 4276 | CD | ARG | A | 584 | 33.462 | 102.667 | 63.210 | 1.00 | 207.38 | C |
| ATOM | 4277 | NE | ARG | A | 584 | 32.945 | 103.939 | 62.720 | 1.00 | 207.38 | N |
| ATOM | 4278 | CZ | ARG | A | 584 | 32.662 | 104.189 | 61.446 | 1.00 | 207.38 | C |
| ATOM | 4279 | NH1 | ARG | A | 584 | 32.842 | 103.251 | 60.523 | 1.00 | 207.38 | N |
| ATOM | 4280 | NH2 | ARG | A | 584 | 32.199 | 105.381 | 61.095 | 1.00 | 207.38 | N |
| ATOM | 4281 | N | LEU | A | 585 | 36.471 | 107.051 | 63.024 | 1.00 | 87.13 | N |
| ATOM | 4282 | CA | LEU | A | 585 | 37.375 | 108.011 | 63.642 | 1.00 | 87.13 | C |
| ATOM | 4283 | C | LEU | A | 585 | 37.734 | 107.599 | 65.082 | 1.00 | 87.13 | C |
| ATOM | 4284 | O | LEU | A | 585 | 38.801 | 107.963 | 65.611 | 1.00 | 87.13 | O |
| ATOM | 4285 | CB | LEU | A | 585 | 36.765 | 109.418 | 63.620 | 1.00 | 206.26 | C |
| ATOM | 4286 | CG | LEU | A | 585 | 36.682 | 110.101 | 62.248 | 1.00 | 206.26 | C |
| ATOM | 4287 | CD1 | LEU | A | 585 | 38.087 | 110.260 | 61.671 | 1.00 | 206.26 | C |
| ATOM | 4288 | CD2 | LEU | A | 585 | 35.800 | 109.286 | 61.307 | 1.00 | 206.26 | C |
| ATOM | 4289 | N | SER | A | 586 | 36.848 | 106.816 | 65.691 | 1.00 | 174.13 | N |
| ATOM | 4290 | CA | SER | A | 586 | 37.051 | 106.317 | 67.046 | 1.00 | 174.13 | C |
| ATOM | 4291 | C | SER | A | 586 | 38.266 | 105.399 | 67.078 | 1.00 | 174.13 | C |
| ATOM | 4292 | O | SER | A | 586 | 39.013 | 105.387 | 68.055 | 1.00 | 174.13 | O |
| ATOM | 4293 | CB | SER | A | 586 | 35.827 | 105.539 | 67.525 | 1.00 | 174.42 | C |
| ATOM | 4294 | OG | SER | A | 586 | 36.075 | 104.142 | 67.496 | 1.00 | 174.42 | O |
| ATOM | 4295 | N | THR | A | 587 | 38.449 | 104.613 | 66.018 | 1.00 | 116.42 | N |
| ATOM | 4296 | CA | THR | A | 587 | 39.591 | 103.703 | 65.938 | 1.00 | 116.42 | C |
| ATOM | 4297 | C | THR | A | 587 | 40.714 | 104.339 | 65.106 | 1.00 | 116.42 | C |
| ATOM | 4298 | O | THR | A | 587 | 41.697 | 103.684 | 64.741 | 1.00 | 116.42 | O |
| ATOM | 4299 | CB | THR | A | 587 | 39.189 | 102.349 | 65.315 | 1.00 | 88.97 | C |
| ATOM | 4300 | OG1 | THR | A | 587 | 38.945 | 102.508 | 63.914 | 1.00 | 88.97 | O |
| ATOM | 4301 | CG2 | THR | A | 587 | 37.926 | 101.834 | 65.963 | 1.00 | 88.97 | C |
| ATOM | 4302 | N | VAL | A | 588 | 40.532 | 105.628 | 64.815 | 1.00 | 157.35 | N |
| ATOM | 4303 | CA | VAL | A | 588 | 41.503 | 106.428 | 64.068 | 1.00 | 157.35 | C |
| ATOM | 4304 | C | VAL | A | 588 | 42.454 | 107.003 | 65.088 | 1.00 | 157.35 | C |
| ATOM | 4305 | O | VAL | A | 588 | 43.666 | 106.820 | 64.998 | 1.00 | 157.35 | O |
| ATOM | 4306 | CB | VAL | A | 588 | 40.849 | 107.624 | 63.342 | 1.00 | 92.44 | C |
| ATOM | 4307 | CG1 | VAL | A | 588 | 41.929 | 108.547 | 62.793 | 1.00 | 92.44 | C |
| ATOM | 4308 | CG2 | VAL | A | 588 | 39.951 | 107.136 | 62.217 | 1.00 | 92.44 | C |
| ATOM | 4309 | N | ARG | A | 589 | 41.881 | 107.721 | 66.051 | 1.00 | 100.05 | N |
| ATOM | 4310 | CA | ARG | A | 589 | 42.661 | 108.352 | 67.122 | 1.00 | 100.05 | C |
| ATOM | 4311 | C | ARG | A | 589 | 44.106 | 107.829 | 67.271 | 1.00 | 100.05 | C |
| ATOM | 4312 | O | ARG | A | 589 | 45.096 | 108.519 | 66.943 | 1.00 | 100.05 | O |
| ATOM | 4313 | CB | ARG | A | 589 | 41.918 | 108.191 | 68.453 | 1.00 | 167.84 | C |
| ATOM | 4314 | CG | ARG | A | 589 | 42.643 | 108.771 | 69.659 | 1.00 | 167.84 | C |
| ATOM | 4315 | CD | ARG | A | 589 | 42.997 | 110.236 | 69.447 | 1.00 | 167.84 | C |
| ATOM | 4316 | NE | ARG | A | 589 | 41.827 | 111.047 | 69.123 | 1.00 | 167.84 | N |
| ATOM | 4317 | CZ | ARG | A | 589 | 40.824 | 111.296 | 69.960 | 1.00 | 167.84 | C |
| ATOM | 4318 | NH1 | ARG | A | 589 | 40.838 | 110.800 | 71.189 | 1.00 | 167.84 | N |
| ATOM | 4319 | NH2 | ARG | A | 589 | 39.800 | 112.039 | 69.563 | 1.00 | 167.84 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4320 | N | ASN | A | 590 | 44.215 | 106.597 | 67.757 | 1.00151.49 | N |
| ATOM | 4321 | CA | ASN | A | 590 | 45.510 | 105.967 | 67.981 | 1.00151.49 | C |
| ATOM | 4322 | C | ASN | A | 590 | 46.392 | 105.823 | 66.743 | 1.00151.49 | C |
| ATOM | 4323 | O | ASN | A | 590 | 47.167 | 104.875 | 66.629 | 1.00151.49 | O |
| ATOM | 4324 | CB | ASN | A | 590 | 45.320 | 104.592 | 68.632 | 1.00205.87 | C |
| ATOM | 4325 | CG | ASN | A | 590 | 44.638 | 103.597 | 67.712 | 1.00205.87 | C |
| ATOM | 4326 | OD1 | ASN | A | 590 | 43.509 | 103.813 | 67.274 | 1.00205.87 | O |
| ATOM | 4327 | ND2 | ASN | A | 590 | 45.323 | 102.497 | 67.415 | 1.00205.87 | N |
| ATOM | 4328 | N | ALA | A | 591 | 46.280 | 106.766 | 65.821 | 1.00151.11 | N |
| ATOM | 4329 | CA | ALA | A | 591 | 47.082 | 106.712 | 64.618 | 1.00151.11 | C |
| ATOM | 4330 | C | ALA | A | 591 | 48.371 | 107.463 | 64.893 | 1.00151.11 | C |
| ATOM | 4331 | O | ALA | A | 591 | 48.328 | 108.574 | 65.424 | 1.00151.11 | O |
| ATOM | 4332 | CB | ALA | A | 591 | 46.336 | 107.352 | 63.459 | 1.00130.56 | C |
| ATOM | 4333 | N | ASP | A | 592 | 49.514 | 106.857 | 64.560 | 1.00112.79 | N |
| ATOM | 4334 | CA | ASP | A | 592 | 50.807 | 107.523 | 64.763 | 1.00112.79 | C |
| ATOM | 4335 | C | ASP | A | 592 | 50.813 | 108.806 | 63.914 | 1.00112.79 | C |
| ATOM | 4336 | O | ASP | A | 592 | 51.520 | 109.780 | 64.204 | 1.00112.79 | O |
| ATOM | 4337 | CB | ASP | A | 592 | 51.963 | 106.607 | 64.348 | 1.00198.17 | C |
| ATOM | 4338 | CG | ASP | A | 592 | 52.277 | 105.553 | 65.394 | 1.00198.17 | C |
| ATOM | 4339 | OD1 | ASP | A | 592 | 53.161 | 104.708 | 65.141 | 1.00198.17 | O |
| ATOM | 4340 | OD2 | ASP | A | 592 | 51.646 | 105.572 | 66.472 | 1.00198.17 | O |
| ATOM | 4341 | N | VAL | A | 593 | 50.003 | 108.763 | 62.857 | 1.00 73.84 | N |
| ATOM | 4342 | CA | VAL | A | 593 | 49.794 | 109.854 | 61.915 | 1.00 73.84 | C |
| ATOM | 4343 | C | VAL | A | 593 | 48.535 | 109.571 | 61.049 | 1.00 73.84 | C |
| ATOM | 4344 | O | VAL | A | 593 | 48.059 | 108.431 | 60.903 | 1.00 73.84 | O |
| ATOM | 4345 | CB | VAL | A | 593 | 51.062 | 110.121 | 61.047 | 1.00 79.75 | C |
| ATOM | 4346 | CG1 | VAL | A | 593 | 51.635 | 108.826 | 60.525 | 1.00 79.75 | C |
| ATOM | 4347 | CG2 | VAL | A | 593 | 50.726 | 111.063 | 59.904 | 1.00 79.75 | C |
| ATOM | 4348 | N | ILE | A | 594 | 47.967 | 110.653 | 60.542 | 1.00 64.82 | N |
| ATOM | 4349 | CA | ILE | A | 594 | 46.775 | 110.611 | 59.720 | 1.00 64.82 | C |
| ATOM | 4350 | C | ILE | A | 594 | 47.095 | 111.452 | 58.482 | 1.00 64.82 | C |
| ATOM | 4351 | O | ILE | A | 594 | 48.025 | 112.259 | 58.490 | 1.00 64.82 | O |
| ATOM | 4352 | CB | ILE | A | 594 | 45.554 | 111.208 | 60.464 | 1.00 93.35 | C |
| ATOM | 4353 | CG1 | ILE | A | 594 | 45.299 | 110.440 | 61.766 | 1.00 93.35 | C |
| ATOM | 4354 | CG2 | ILE | A | 594 | 44.312 | 111.146 | 59.575 | 1.00 93.35 | C |
| ATOM | 4355 | CD1 | ILE | A | 594 | 46.283 | 110.718 | 62.883 | 1.00 93.35 | C |
| ATOM | 4356 | N | ALA | A | 595 | 46.343 | 111.227 | 57.410 | 1.00 93.09 | N |
| ATOM | 4357 | CA | ALA | A | 595 | 46.511 | 111.964 | 56.162 | 1.00 93.09 | C |
| ATOM | 4358 | C | ALA | A | 595 | 45.125 | 112.238 | 55.579 | 1.00 93.09 | C |
| ATOM | 4359 | O | ALA | A | 595 | 44.225 | 111.388 | 55.633 | 1.00 93.09 | O |
| ATOM | 4360 | CB | ALA | A | 595 | 47.343 | 111.144 | 55.180 | 1.00130.19 | C |
| ATOM | 4361 | N | GLY | A | 596 | 44.965 | 113.427 | 55.011 | 1.00 69.37 | N |
| ATOM | 4362 | CA | GLY | A | 596 | 43.674 | 113.821 | 54.469 | 1.00 69.37 | C |
| ATOM | 4363 | C | GLY | A | 596 | 43.327 | 113.518 | 53.033 | 1.00 69.37 | C |
| ATOM | 4364 | O | GLY | A | 596 | 43.855 | 114.098 | 52.082 | 1.00 69.37 | O |
| ATOM | 4365 | N | PHE | A | 597 | 42.405 | 112.587 | 52.895 | 1.00141.98 | N |
| ATOM | 4366 | CA | PHE | A | 597 | 41.913 | 112.178 | 51.606 | 1.00141.98 | C |
| ATOM | 4367 | C | PHE | A | 597 | 40.420 | 112.387 | 51.654 | 1.00141.98 | C |
| ATOM | 4368 | O | PHE | A | 597 | 39.889 | 112.864 | 52.653 | 1.00141.98 | O |
| ATOM | 4369 | CB | PHE | A | 597 | 42.213 | 110.700 | 51.347 | 1.00117.20 | C |
| ATOM | 4370 | CG | PHE | A | 597 | 43.624 | 110.431 | 50.935 | 1.00117.20 | C |
| ATOM | 4371 | CD1 | PHE | A | 597 | 44.141 | 111.005 | 49.781 | 1.00117.20 | C |
| ATOM | 4372 | CD2 | PHE | A | 597 | 44.437 | 109.603 | 51.698 | 1.00117.20 | C |
| ATOM | 4373 | CE1 | PHE | A | 597 | 45.447 | 110.762 | 49.388 | 1.00117.20 | C |
| ATOM | 4374 | CE2 | PHE | A | 597 | 45.749 | 109.351 | 51.317 | 1.00117.20 | C |
| ATOM | 4375 | CZ | PHE | A | 597 | 46.257 | 109.934 | 50.156 | 1.00117.20 | C |
| ATOM | 4376 | N | ASP | A | 598 | 39.759 | 112.009 | 50.564 | 1.00191.05 | N |
| ATOM | 4377 | CA | ASP | A | 598 | 38.315 | 112.120 | 50.399 | 1.00191.05 | C |
| ATOM | 4378 | C | ASP | A | 598 | 38.049 | 112.180 | 48.891 | 1.00191.05 | C |
| ATOM | 4379 | O | ASP | A | 598 | 37.692 | 113.243 | 48.383 | 1.00191.05 | O |
| ATOM | 4380 | CB | ASP | A | 598 | 37.790 | 113.393 | 51.068 | 1.00154.78 | C |
| ATOM | 4381 | CG | ASP | A | 598 | 36.354 | 113.261 | 51.517 | 1.00154.78 | C |
| ATOM | 4382 | OD1 | ASP | A | 598 | 36.107 | 112.511 | 52.483 | 1.00154.78 | O |
| ATOM | 4383 | OD2 | ASP | A | 598 | 35.476 | 113.898 | 50.904 | 1.00154.78 | O |
| ATOM | 4384 | N | GLY | A | 599 | 38.246 | 111.038 | 48.204 | 1.00207.38 | N |
| ATOM | 4385 | CA | GLY | A | 599 | 38.060 | 110.877 | 46.744 | 1.00207.38 | C |
| ATOM | 4386 | C | GLY | A | 599 | 39.276 | 111.367 | 45.987 | 1.00207.38 | C |
| ATOM | 4387 | O | GLY | A | 599 | 39.175 | 112.394 | 45.345 | 1.00207.38 | O |
| ATOM | 4388 | N | GLY | A | 600 | 40.406 | 110.676 | 45.985 | 1.00153.11 | N |
| ATOM | 4389 | CA | GLY | A | 600 | 41.603 | 111.369 | 45.485 | 1.00153.11 | C |
| ATOM | 4390 | C | GLY | A | 600 | 41.999 | 112.878 | 45.920 | 1.00153.11 | C |
| ATOM | 4391 | O | GLY | A | 600 | 41.937 | 113.775 | 45.059 | 1.00153.11 | O |
| ATOM | 4392 | N | VAL | A | 601 | 42.418 | 113.237 | 47.166 | 1.00162.46 | N |
| ATOM | 4393 | CA | VAL | A | 601 | 42.861 | 114.650 | 47.534 | 1.00162.46 | C |

| | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|
| ATOM | 4394 | C | VAL | A | 601 | 43.662 | 114.722 | 48.865 | 1.00162.46 |
| ATOM | 4395 | O | VAL | A | 601 | 43.084 | 114.817 | 49.956 | 1.00162.46 |
| ATOM | 4396 | CB | VAL | A | 601 | 41.667 | 115.634 | 47.614 | 1.00138.25 |
| ATOM | 4397 | CG1 | VAL | A | 601 | 40.709 | 115.220 | 48.716 | 1.00138.25 |
| ATOM | 4398 | CG2 | VAL | A | 601 | 42.174 | 117.040 | 47.848 | 1.00138.25 |
| ATOM | 4399 | N | ILE | A | 602 | 44.994 | 114.649 | 48.745 | 1.00207.38 |
| ATOM | 4400 | CA | ILE | A | 602 | 45.939 | 114.675 | 49.882 | 1.00207.38 |
| ATOM | 4401 | C | ILE | A | 602 | 46.114 | 116.075 | 50.449 | 1.00207.38 |
| ATOM | 4402 | O | ILE | A | 602 | 46.305 | 117.018 | 49.691 | 1.00207.38 |
| ATOM | 4403 | CB | ILE | A | 602 | 47.332 | 114.155 | 49.461 | 1.00138.33 |
| ATOM | 4404 | CG1 | ILE | A | 602 | 48.377 | 114.499 | 50.529 | 1.00138.33 |
| ATOM | 4405 | CG2 | ILE | A | 602 | 47.734 | 114.776 | 48.141 | 1.00138.33 |
| ATOM | 4406 | CD1 | ILE | A | 602 | 48.209 | 113.751 | 51.830 | 1.00138.33 |
| ATOM | 4407 | N | VAL | A | 603 | 46.085 | 116.224 | 51.772 | 1.00129.82 |
| ATOM | 4408 | CA | VAL | A | 603 | 46.236 | 117.569 | 52.346 | 1.00129.82 |
| ATOM | 4409 | C | VAL | A | 603 | 46.942 | 117.678 | 53.703 | 1.00129.82 |
| ATOM | 4410 | O | VAL | A | 603 | 48.148 | 117.907 | 53.781 | 1.00129.82 |
| ATOM | 4411 | CB | VAL | A | 603 | 44.865 | 118.278 | 52.464 | 1.00207.38 |
| ATOM | 4412 | CG1 | VAL | A | 603 | 44.257 | 118.471 | 51.078 | 1.00207.38 |
| ATOM | 4413 | CG2 | VAL | A | 603 | 43.932 | 117.472 | 53.356 | 1.00207.38 |
| ATOM | 4414 | N | GLU | A | 604 | 46.153 | 117.526 | 54.759 | 1.00109.61 |
| ATOM | 4415 | CA | GLU | A | 604 | 46.585 | 117.598 | 56.151 | 1.00109.61 |
| ATOM | 4416 | C | GLU | A | 604 | 47.206 | 116.308 | 56.721 | 1.00109.61 |
| ATOM | 4417 | O | GLU | A | 604 | 46.528 | 115.299 | 56.928 | 1.00109.61 |
| ATOM | 4418 | CB | GLU | A | 604 | 45.384 | 118.006 | 56.995 | 1.00144.97 |
| ATOM | 4419 | CG | GLU | A | 604 | 44.633 | 119.182 | 56.393 | 1.00144.97 |
| ATOM | 4420 | CD | GLU | A | 604 | 43.184 | 119.240 | 56.824 | 1.00144.97 |
| ATOM | 4421 | OE1 | GLU | A | 604 | 42.577 | 120.324 | 56.705 | 1.00144.97 |
| ATOM | 4422 | OE2 | GLU | A | 604 | 42.648 | 118.203 | 57.270 | 1.00144.97 |
| ATOM | 4423 | N | GLN | A | 605 | 48.504 | 116.359 | 56.984 | 1.00116.33 |
| ATOM | 4424 | CA | GLN | A | 605 | 49.222 | 115.215 | 57.518 | 1.00116.33 |
| ATOM | 4425 | C | GLN | A | 605 | 49.666 | 115.500 | 58.929 | 1.00116.33 |
| ATOM | 4426 | O | GLN | A | 605 | 50.082 | 116.603 | 59.233 | 1.00116.33 |
| ATOM | 4427 | CB | GLN | A | 605 | 50.435 | 114.904 | 56.640 | 1.00124.65 |
| ATOM | 4428 | CG | GLN | A | 605 | 51.336 | 113.815 | 57.188 | 1.00124.65 |
| ATOM | 4429 | CD | GLN | A | 605 | 52.421 | 113.421 | 56.211 | 1.00124.65 |
| ATOM | 4430 | OE1 | GLN | A | 605 | 53.234 | 112.541 | 56.490 | 1.00124.65 |
| ATOM | 4431 | NE2 | GLN | A | 605 | 52.439 | 114.072 | 55.053 | 1.00124.65 |
| ATOM | 4432 | N | GLY | A | 606 | 49.598 | 114.506 | 59.795 | 1.00112.93 |
| ATOM | 4433 | CA | GLY | A | 606 | 50.022 | 114.750 | 61.154 | 1.00112.93 |
| ATOM | 4434 | C | GLY | A | 606 | 49.149 | 114.084 | 62.190 | 1.00112.93 |
| ATOM | 4435 | O | GLY | A | 606 | 48.208 | 113.362 | 61.871 | 1.00112.93 |
| ATOM | 4436 | N | ASN | A | 607 | 49.457 | 114.346 | 63.451 | 1.00129.34 |
| ATOM | 4437 | CA | ASN | A | 607 | 48.730 | 113.754 | 64.557 | 1.00129.34 |
| ATOM | 4438 | C | ASN | A | 607 | 47.314 | 114.258 | 64.757 | 1.00129.34 |
| ATOM | 4439 | O | ASN | A | 607 | 46.964 | 115.337 | 64.303 | 1.00129.34 |
| ATOM | 4440 | CB | ASN | A | 607 | 49.507 | 113.961 | 65.858 | 1.00101.72 |
| ATOM | 4441 | CG | ASN | A | 607 | 48.703 | 113.584 | 67.073 | 1.00101.72 |
| ATOM | 4442 | OD1 | ASN | A | 607 | 48.342 | 112.422 | 67.255 | 1.00101.72 |
| ATOM | 4443 | ND2 | ASN | A | 607 | 48.408 | 114.569 | 67.915 | 1.00101.72 |
| ATOM | 4444 | N | HIS | A | 608 | 46.513 | 113.470 | 65.465 | 1.00207.10 |
| ATOM | 4445 | CA | HIS | A | 608 | 45.120 | 113.808 | 65.751 | 1.00207.10 |
| ATOM | 4446 | C | HIS | A | 608 | 44.876 | 115.266 | 66.092 | 1.00207.10 |
| ATOM | 4447 | O | HIS | A | 608 | 44.405 | 116.045 | 65.265 | 1.00207.10 |
| ATOM | 4448 | CB | HIS | A | 608 | 44.586 | 112.953 | 66.904 | 1.00177.97 |
| ATOM | 4449 | CG | HIS | A | 608 | 43.248 | 113.399 | 67.409 | 1.00177.97 |
| ATOM | 4450 | ND1 | HIS | A | 608 | 42.100 | 113.317 | 66.651 | 1.00177.97 |
| ATOM | 4451 | CD2 | HIS | A | 608 | 42.884 | 113.968 | 68.583 | 1.00177.97 |
| ATOM | 4452 | CE1 | HIS | A | 608 | 41.086 | 113.816 | 67.336 | 1.00177.97 |
| ATOM | 4453 | NE2 | HIS | A | 608 | 41.535 | 114.218 | 68.511 | 1.00177.97 |
| ATOM | 4454 | N | ASP | A | 609 | 45.177 | 115.608 | 67.339 | 1.00206.20 |
| ATOM | 4455 | CA | ASP | A | 609 | 44.993 | 116.955 | 67.848 | 1.00206.20 |
| ATOM | 4456 | C | ASP | A | 609 | 45.543 | 117.991 | 66.895 | 1.00206.20 |
| ATOM | 4457 | O | ASP | A | 609 | 45.161 | 119.157 | 66.970 | 1.00206.20 |
| ATOM | 4458 | CB | ASP | A | 609 | 45.690 | 117.086 | 69.203 | 1.00160.05 |
| ATOM | 4459 | CG | ASP | A | 609 | 45.463 | 115.881 | 70.085 | 1.00160.05 |
| ATOM | 4460 | OD1 | ASP | A | 609 | 45.901 | 114.779 | 69.694 | 1.00160.05 |
| ATOM | 4461 | OD2 | ASP | A | 609 | 44.844 | 116.028 | 71.159 | 1.00160.05 |
| ATOM | 4462 | N | GLU | A | 610 | 46.444 | 117.563 | 66.008 | 1.00 94.07 |
| ATOM | 4463 | CA | GLU | A | 610 | 47.055 | 118.456 | 65.024 | 1.00 94.07 |
| ATOM | 4464 | C | GLU | A | 610 | 46.098 | 118.770 | 63.869 | 1.00 94.07 |
| ATOM | 4465 | O | GLU | A | 610 | 45.961 | 119.930 | 63.458 | 1.00 94.07 |
| ATOM | 4466 | CB | GLU | A | 610 | 48.340 | 117.826 | 64.490 | 1.00136.51 |
| ATOM | 4467 | CG | GLU | A | 610 | 49.174 | 117.180 | 65.582 | 1.00136.51 |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4468 | CD | GLU | A | 610 | 50.636 | 117.079 | 65.218 | 1.00136.51 | C |
| ATOM | 4469 | OE1 | GLU | A | 610 | 51.293 | 118.136 | 65.133 | 1.00136.51 | O |
| ATOM | 4470 | OE2 | GLU | A | 610 | 51.128 | 115.948 | 65.016 | 1.00136.51 | O |
| ATOM | 4471 | N | LEU | A | 611 | 45.434 | 117.734 | 63.354 | 1.00207.38 | N |
| ATOM | 4472 | CA | LEU | A | 611 | 44.474 | 117.900 | 62.264 | 1.00207.38 | C |
| ATOM | 4473 | C | LEU | A | 611 | 43.150 | 118.475 | 62.779 | 1.00207.38 | C |
| ATOM | 4474 | O | LEU | A | 611 | 42.332 | 118.980 | 62.006 | 1.00207.38 | O |
| ATOM | 4475 | CB | LEU | A | 611 | 44.249 | 116.574 | 61.534 | 1.00101.74 | C |
| ATOM | 4476 | CG | LEU | A | 611 | 45.228 | 116.290 | 60.387 | 1.00101.74 | C |
| ATOM | 4477 | CD1 | LEU | A | 611 | 46.651 | 116.124 | 60.929 | 1.00101.74 | C |
| ATOM | 4478 | CD2 | LEU | A | 611 | 44.769 | 115.045 | 59.635 | 1.00101.74 | C |
| ATOM | 4479 | N | MET | A | 612 | 42.950 | 118.386 | 64.091 | 1.00157.44 | N |
| ATOM | 4480 | CA | MET | A | 612 | 41.773 | 118.946 | 64.748 | 1.00157.44 | C |
| ATOM | 4481 | C | MET | A | 612 | 42.154 | 120.405 | 64.967 | 1.00157.44 | C |
| ATOM | 4482 | O | MET | A | 612 | 41.374 | 121.309 | 64.672 | 1.00157.44 | O |
| ATOM | 4483 | CB | MET | A | 612 | 41.562 | 118.267 | 66.101 | 1.00165.36 | C |
| ATOM | 4484 | CG | MET | A | 612 | 41.012 | 116.860 | 66.018 | 1.00165.36 | C |
| ATOM | 4485 | SD | MET | A | 612 | 39.211 | 116.849 | 65.974 | 1.00165.36 | S |
| ATOM | 4486 | CE | MET | A | 612 | 38.854 | 116.527 | 67.693 | 1.00165.36 | C |
| ATOM | 4487 | N | ARG | A | 613 | 43.372 | 120.597 | 65.487 | 1.00139.52 | N |
| ATOM | 4488 | CA | ARG | A | 613 | 43.973 | 121.905 | 65.753 | 1.00139.52 | C |
| ATOM | 4489 | C | ARG | A | 613 | 44.001 | 122.693 | 64.449 | 1.00139.52 | C |
| ATOM | 4490 | O | ARG | A | 613 | 44.065 | 123.927 | 64.443 | 1.00139.52 | O |
| ATOM | 4491 | CB | ARG | A | 613 | 45.401 | 121.692 | 66.260 | 1.00206.11 | C |
| ATOM | 4492 | CG | ARG | A | 613 | 45.631 | 122.007 | 67.726 | 1.00206.11 | C |
| ATOM | 4493 | CD | ARG | A | 613 | 45.867 | 123.492 | 67.910 | 1.00206.11 | C |
| ATOM | 4494 | NE | ARG | A | 613 | 46.766 | 124.004 | 66.879 | 1.00206.11 | N |
| ATOM | 4495 | CZ | ARG | A | 613 | 47.203 | 125.258 | 66.815 | 1.00206.11 | C |
| ATOM | 4496 | NH1 | ARG | A | 613 | 46.827 | 126.143 | 67.730 | 1.00206.11 | N |
| ATOM | 4497 | NH2 | ARG | A | 613 | 48.009 | 125.632 | 65.829 | 1.00206.11 | N |
| ATOM | 4498 | N | GLU | A | 614 | 43.977 | 121.966 | 63.337 | 1.00138.42 | N |
| ATOM | 4499 | CA | GLU | A | 614 | 43.971 | 122.604 | 62.039 | 1.00138.42 | C |
| ATOM | 4500 | C | GLU | A | 614 | 42.558 | 123.044 | 61.739 | 1.00138.42 | C |
| ATOM | 4501 | O | GLU | A | 614 | 42.349 | 124.043 | 61.071 | 1.00138.42 | O |
| ATOM | 4502 | CB | GLU | A | 614 | 44.421 | 121.644 | 60.946 | 1.00129.87 | C |
| ATOM | 4503 | CG | GLU | A | 614 | 44.653 | 122.358 | 59.645 | 1.00129.87 | C |
| ATOM | 4504 | CD | GLU | A | 614 | 45.685 | 123.453 | 59.811 | 1.00129.87 | C |
| ATOM | 4505 | OE1 | GLU | A | 614 | 46.857 | 123.114 | 60.081 | 1.00129.87 | O |
| ATOM | 4506 | OE2 | GLU | A | 614 | 45.331 | 124.646 | 59.693 | 1.00129.87 | O |
| ATOM | 4507 | N | LYS | A | 615 | 41.588 | 122.291 | 62.245 | 1.00142.40 | N |
| ATOM | 4508 | CA | LYS | A | 615 | 40.189 | 122.597 | 62.009 | 1.00142.40 | C |
| ATOM | 4509 | C | LYS | A | 615 | 39.971 | 122.394 | 60.515 | 1.00142.40 | C |
| ATOM | 4510 | O | LYS | A | 615 | 39.083 | 123.001 | 59.921 | 1.00142.40 | O |
| ATOM | 4511 | CB | LYS | A | 615 | 39.891 | 124.063 | 62.369 | 1.00141.41 | C |
| ATOM | 4512 | CG | LYS | A | 615 | 40.269 | 124.510 | 63.783 | 1.00141.41 | C |
| ATOM | 4513 | CD | LYS | A | 615 | 39.990 | 126.005 | 63.963 | 1.00141.41 | C |
| ATOM | 4514 | CE | LYS | A | 615 | 40.394 | 126.506 | 65.344 | 1.00141.41 | C |
| ATOM | 4515 | NZ | LYS | A | 615 | 40.200 | 127.977 | 65.495 | 1.00141.41 | N |
| ATOM | 4516 | N | GLY | A | 616 | 40.791 | 121.542 | 59.908 | 1.00207.38 | N |
| ATOM | 4517 | CA | GLY | A | 616 | 40.667 | 121.295 | 58.483 | 1.00207.38 | C |
| ATOM | 4518 | C | GLY | A | 616 | 39.769 | 120.136 | 58.078 | 1.00207.38 | C |
| ATOM | 4519 | O | GLY | A | 616 | 38.640 | 120.014 | 58.558 | 1.00207.38 | O |
| ATOM | 4520 | N | ILE | A | 617 | 40.277 | 119.282 | 57.188 | 1.00 93.06 | N |
| ATOM | 4521 | CA | ILE | A | 617 | 39.528 | 118.130 | 56.685 | 1.00 93.06 | C |
| ATOM | 4522 | C | ILE | A | 617 | 39.270 | 117.129 | 57.804 | 1.00 93.06 | C |
| ATOM | 4523 | O | ILE | A | 617 | 38.122 | 116.812 | 58.109 | 1.00 93.06 | O |
| ATOM | 4524 | CB | ILE | A | 617 | 40.287 | 117.422 | 55.531 | 1.00133.42 | C |
| ATOM | 4525 | CG1 | ILE | A | 617 | 40.486 | 118.394 | 54.363 | 1.00133.42 | C |
| ATOM | 4526 | CG2 | ILE | A | 617 | 39.511 | 116.184 | 55.068 | 1.00133.42 | C |
| ATOM | 4527 | CD1 | ILE | A | 617 | 39.203 | 118.772 | 53.637 | 1.00133.42 | C |
| ATOM | 4528 | N | TYR | A | 618 | 40.344 | 116.649 | 58.421 | 1.00 83.76 | N |
| ATOM | 4529 | CA | TYR | A | 618 | 40.205 | 115.689 | 59.497 | 1.00 83.76 | C |
| ATOM | 4530 | C | TYR | A | 618 | 39.153 | 116.178 | 60.426 | 1.00 83.76 | C |
| ATOM | 4531 | O | TYR | A | 618 | 38.089 | 115.584 | 60.512 | 1.00 83.76 | O |
| ATOM | 4532 | CB | TYR | A | 618 | 41.509 | 115.502 | 60.270 | 1.00108.78 | C |
| ATOM | 4533 | CG | TYR | A | 618 | 41.383 | 114.443 | 61.339 | 1.00108.78 | C |
| ATOM | 4534 | CD1 | TYR | A | 618 | 40.845 | 113.196 | 61.032 | 1.00108.78 | C |
| ATOM | 4535 | CD2 | TYR | A | 618 | 41.800 | 114.680 | 62.649 | 1.00108.78 | C |
| ATOM | 4536 | CE1 | TYR | A | 618 | 40.724 | 112.211 | 61.989 | 1.00108.78 | C |
| ATOM | 4537 | CE2 | TYR | A | 618 | 41.683 | 113.692 | 63.625 | 1.00108.78 | C |
| ATOM | 4538 | CZ | TYR | A | 618 | 41.147 | 112.461 | 63.283 | 1.00108.78 | C |
| ATOM | 4539 | OH | TYR | A | 618 | 41.064 | 111.468 | 64.227 | 1.00108.78 | O |
| ATOM | 4540 | N | PHE | A | 619 | 39.468 | 117.267 | 61.123 | 1.00207.38 | N |
| ATOM | 4541 | CA | PHE | A | 619 | 38.546 | 117.909 | 62.053 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|---------|--------|------------|---|
| ATOM | 4542 | C | PHE | A | 619 | 37.151 | 117.993 | 61.408 | 1.00207.38 | C |
| ATOM | 4543 | O | PHE | A | 619 | 36.164 | 117.540 | 61.994 | 1.00207.38 | O |
| ATOM | 4544 | CB | PHE | A | 619 | 39.043 | 119.320 | 62.385 | 1.00155.28 | C |
| ATOM | 4545 | CG | PHE | A | 619 | 38.052 | 120.151 | 63.150 | 1.00155.28 | C |
| ATOM | 4546 | CD1 | PHE | A | 619 | 37.864 | 119.966 | 64.520 | 1.00155.28 | C |
| ATOM | 4547 | CD2 | PHE | A | 619 | 37.298 | 121.117 | 62.494 | 1.00155.28 | C |
| ATOM | 4548 | CE1 | PHE | A | 619 | 36.934 | 120.739 | 65.226 | 1.00155.28 | C |
| ATOM | 4549 | CE2 | PHE | A | 619 | 36.370 | 121.890 | 63.183 | 1.00155.28 | C |
| ATOM | 4550 | CZ | PHE | A | 619 | 36.185 | 121.703 | 64.554 | 1.00155.28 | C |
| ATOM | 4551 | N | LYS | A | 620 | 37.081 | 118.558 | 60.200 | 1.00113.03 | N |
| ATOM | 4552 | CA | LYS | A | 620 | 35.823 | 118.704 | 59.477 | 1.00113.03 | C |
| ATOM | 4553 | C | LYS | A | 620 | 35.080 | 117.368 | 59.493 | 1.00113.03 | C |
| ATOM | 4554 | O | LYS | A | 620 | 34.102 | 117.198 | 60.217 | 1.00113.03 | O |
| ATOM | 4555 | CB | LYS | A | 620 | 36.110 | 119.159 | 58.043 | 1.00191.26 | C |
| ATOM | 4556 | CG | LYS | A | 620 | 35.002 | 119.987 | 57.426 | 1.00191.26 | C |
| ATOM | 4557 | CD | LYS | A | 620 | 33.855 | 119.119 | 56.948 | 1.00191.26 | C |
| ATOM | 4558 | CE | LYS | A | 620 | 32.554 | 119.898 | 56.921 | 1.00191.26 | C |
| ATOM | 4559 | NZ | LYS | A | 620 | 32.069 | 120.167 | 58.303 | 1.00191.26 | N |
| ATOM | 4560 | N | LEU | A | 621 | 35.564 | 116.410 | 58.716 | 1.00150.70 | N |
| ATOM | 4561 | CA | LEU | A | 621 | 34.935 | 115.097 | 58.660 | 1.00150.70 | C |
| ATOM | 4562 | C | LEU | A | 621 | 34.749 | 114.464 | 60.043 | 1.00150.70 | C |
| ATOM | 4563 | O | LEU | A | 621 | 33.795 | 113.720 | 60.264 | 1.00150.70 | O |
| ATOM | 4564 | CB | LEU | A | 621 | 35.743 | 114.156 | 57.759 | 1.00154.04 | C |
| ATOM | 4565 | CG | LEU | A | 621 | 35.737 | 114.465 | 56.257 | 1.00154.04 | C |
| ATOM | 4566 | CD1 | LEU | A | 621 | 34.306 | 114.407 | 55.739 | 1.00154.04 | C |
| ATOM | 4567 | CD2 | LEU | A | 621 | 36.349 | 115.836 | 56.000 | 1.00154.04 | C |
| ATOM | 4568 | N | VAL | A | 622 | 35.658 | 114.758 | 60.967 | 1.00128.87 | N |
| ATOM | 4569 | CA | VAL | A | 622 | 35.572 | 114.230 | 62.327 | 1.00128.87 | C |
| ATOM | 4570 | C | VAL | A | 622 | 34.293 | 114.710 | 63.016 | 1.00128.87 | C |
| ATOM | 4571 | O | VAL | A | 622 | 33.564 | 113.924 | 63.647 | 1.00128.87 | O |
| ATOM | 4572 | CB | VAL | A | 622 | 36.779 | 114.682 | 63.181 | 1.00124.09 | C |
| ATOM | 4573 | CG1 | VAL | A | 622 | 36.536 | 114.361 | 64.649 | 1.00124.09 | C |
| ATOM | 4574 | CG2 | VAL | A | 622 | 38.041 | 113.992 | 62.696 | 1.00124.09 | C |
| ATOM | 4575 | N | MET | A | 623 | 34.028 | 116.009 | 62.900 | 1.00207.38 | N |
| ATOM | 4576 | CA | MET | A | 623 | 32.837 | 116.591 | 63.503 | 1.00207.38 | C |
| ATOM | 4577 | C | MET | A | 623 | 31.603 | 116.305 | 62.674 | 1.00207.38 | C |
| ATOM | 4578 | O | MET | A | 623 | 30.511 | 116.178 | 63.220 | 1.00207.38 | O |
| ATOM | 4579 | CB | MET | A | 623 | 33.017 | 118.094 | 63.710 | 1.00207.38 | C |
| ATOM | 4580 | CG | MET | A | 623 | 34.074 | 118.416 | 64.748 | 1.00207.38 | C |
| ATOM | 4581 | SD | MET | A | 623 | 34.213 | 117.113 | 65.995 | 1.00207.38 | S |
| ATOM | 4582 | CE | MET | A | 623 | 32.949 | 117.598 | 67.165 | 1.00207.38 | C |
| ATOM | 4583 | N | THR | A | 624 | 31.769 | 116.199 | 61.358 | 1.00185.18 | N |
| ATOM | 4584 | CA | THR | A | 624 | 30.633 | 115.890 | 60.501 | 1.00185.18 | C |
| ATOM | 4585 | C | THR | A | 624 | 30.084 | 114.550 | 60.979 | 1.00185.18 | C |
| ATOM | 4586 | O | THR | A | 624 | 28.873 | 114.335 | 60.954 | 1.00185.18 | O |
| ATOM | 4587 | CB | THR | A | 624 | 31.050 | 115.759 | 59.024 | 1.00169.86 | C |
| ATOM | 4588 | OG1 | THR | A | 624 | 31.974 | 116.802 | 58.689 | 1.00169.86 | O |
| ATOM | 4589 | CG2 | THR | A | 624 | 29.830 | 115.879 | 58.125 | 1.00169.86 | C |
| ATOM | 4590 | N | GLN | A | 625 | 30.980 | 113.657 | 61.416 | 1.00207.38 | N |
| ATOM | 4591 | CA | GLN | A | 625 | 30.580 | 112.340 | 61.936 | 1.00207.38 | C |
| ATOM | 4592 | C | GLN | A | 625 | 30.202 | 112.419 | 63.427 | 1.00207.38 | C |
| ATOM | 4593 | O | GLN | A | 625 | 29.661 | 111.457 | 63.987 | 1.00207.38 | O |
| ATOM | 4594 | CB | GLN | A | 625 | 31.702 | 111.302 | 61.764 | 1.00207.38 | C |
| ATOM | 4595 | CG | GLN | A | 625 | 31.991 | 110.879 | 60.326 | 1.00207.38 | C |
| ATOM | 4596 | CD | GLN | A | 625 | 32.668 | 109.514 | 60.239 | 1.00207.38 | C |
| ATOM | 4597 | OE1 | GLN | A | 625 | 33.184 | 109.128 | 59.189 | 1.00207.38 | O |
| ATOM | 4598 | NE2 | GLN | A | 625 | 32.655 | 108.774 | 61.342 | 1.00207.38 | N |
| ATOM | 4599 | N | THR | A | 626 | 30.505 | 113.560 | 64.053 | 1.00207.38 | N |
| ATOM | 4600 | CA | THR | A | 626 | 30.205 | 113.833 | 65.472 | 1.00207.38 | C |
| ATOM | 4601 | C | THR | A | 626 | 31.398 | 113.490 | 66.370 | 1.00207.38 | C |
| ATOM | 4602 | O | THR | A | 626 | 32.307 | 114.304 | 66.562 | 1.00207.38 | O |
| ATOM | 4603 | CB | THR | A | 626 | 28.968 | 113.051 | 65.965 | 1.00169.44 | C |
| ATOM | 4604 | OG1 | THR | A | 626 | 27.811 | 113.496 | 65.249 | 1.00169.44 | O |
| ATOM | 4605 | CG2 | THR | A | 626 | 28.744 | 113.280 | 67.455 | 1.00169.44 | C |
| ATOM | 4606 | N | LEU | A | 684 | 19.161 | 76.529 | 36.254 | 1.00174.33 | N |
| ATOM | 4607 | CA | LEU | A | 684 | 17.725 | 76.669 | 36.471 | 1.00174.33 | C |
| ATOM | 4608 | C | LEU | A | 684 | 17.190 | 75.265 | 36.262 | 1.00174.33 | C |
| ATOM | 4609 | O | LEU | A | 684 | 16.655 | 75.000 | 35.210 | 1.00174.33 | O |
| ATOM | 4610 | CB | LEU | A | 684 | 17.141 | 77.648 | 35.452 | 1.00114.91 | C |
| ATOM | 4611 | CG | LEU | A | 684 | 18.065 | 78.797 | 35.027 | 1.00114.91 | C |
| ATOM | 4612 | CD1 | LEU | A | 684 | 17.223 | 79.920 | 34.447 | 1.00114.91 | C |
| ATOM | 4613 | CD2 | LEU | A | 684 | 18.875 | 79.305 | 36.215 | 1.00114.91 | C |
| ATOM | 4614 | N | ASP | A | 685 | 17.454 | 74.363 | 37.226 | 1.00207.38 | N |
| ATOM | 4615 | CA | ASP | A | 685 | 17.026 | 72.924 | 37.245 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 4616 | C | ASP | A | 685 | 15.585 | 72.546 | 37.724 | 1.00207.38 | C |
| ATOM | 4617 | O | ASP | A | 685 | 14.859 | 73.352 | 38.315 | 1.00207.38 | O |
| ATOM | 4618 | CB | ASP | A | 685 | 18.055 | 72.142 | 38.044 | 1.00165.63 | C |
| ATOM | 4619 | CG | ASP | A | 685 | 19.437 | 72.268 | 37.448 | 1.00165.63 | C |
| ATOM | 4620 | OD1 | ASP | A | 685 | 19.607 | 71.908 | 36.258 | 1.00165.63 | O |
| ATOM | 4621 | OD2 | ASP | A | 685 | 20.344 | 72.743 | 38.162 | 1.00165.63 | O |
| ATOM | 4622 | N | GLU | A | 686 | 15.158 | 71.315 | 37.405 | 1.00207.38 | N |
| ATOM | 4623 | CA | GLU | A | 686 | 13.767 | 70.872 | 37.675 | 1.00207.38 | C |
| ATOM | 4624 | C | GLU | A | 686 | 13.240 | 69.445 | 37.303 | 1.00207.38 | C |
| ATOM | 4625 | O | GLU | A | 686 | 12.609 | 68.791 | 38.130 | 1.00207.38 | O |
| ATOM | 4626 | CB | GLU | A | 686 | 12.810 | 71.855 | 37.005 | 1.00207.38 | C |
| ATOM | 4627 | CG | GLU | A | 686 | 13.470 | 72.988 | 36.182 | 1.00207.38 | C |
| ATOM | 4628 | CD | GLU | A | 686 | 14.584 | 72.538 | 35.248 | 1.00207.38 | C |
| ATOM | 4629 | OE1 | GLU | A | 686 | 15.407 | 73.417 | 34.916 | 1.00207.38 | O |
| ATOM | 4630 | OE2 | GLU | A | 686 | 14.645 | 71.350 | 34.853 | 1.00207.38 | O |
| ATOM | 4631 | N | ASP | A | 687 | 13.447 | 69.015 | 36.058 | 1.00154.58 | N |
| ATOM | 4632 | CA | ASP | A | 687 | 12.963 | 67.729 | 35.527 | 1.00154.58 | C |
| ATOM | 4633 | C | ASP | A | 687 | 12.158 | 66.813 | 36.457 | 1.00154.58 | C |
| ATOM | 4634 | O | ASP | A | 687 | 12.642 | 66.385 | 37.509 | 1.00154.58 | O |
| ATOM | 4635 | CB | ASP | A | 687 | 14.170 | 66.991 | 34.957 | 1.00168.38 | C |
| ATOM | 4636 | CG | ASP | A | 687 | 15.184 | 67.948 | 34.354 | 1.00168.38 | C |
| ATOM | 4637 | OD1 | ASP | A | 687 | 14.834 | 68.663 | 33.389 | 1.00168.38 | O |
| ATOM | 4638 | OD2 | ASP | A | 687 | 16.325 | 68.004 | 34.858 | 1.00168.38 | O |
| ATOM | 4639 | N | VAL | A | 688 | 10.934 | 66.499 | 36.031 | 1.00189.14 | N |
| ATOM | 4640 | CA | VAL | A | 688 | 10.002 | 65.682 | 36.811 | 1.00189.14 | C |
| ATOM | 4641 | C | VAL | A | 688 | 9.609 | 64.234 | 36.384 | 1.00189.14 | C |
| ATOM | 4642 | O | VAL | A | 688 | 9.477 | 63.931 | 35.188 | 1.00189.14 | O |
| ATOM | 4643 | CB | VAL | A | 688 | 8.682 | 66.466 | 36.993 | 1.00156.44 | C |
| ATOM | 4644 | CG1 | VAL | A | 688 | 8.432 | 66.695 | 38.469 | 1.00156.44 | C |
| ATOM | 4645 | CG2 | VAL | A | 688 | 8.744 | 67.801 | 36.252 | 1.00156.44 | C |
| ATOM | 4646 | N | PRO | A | 689 | 9.418 | 63.308 | 37.370 | 1.00207.38 | N |
| ATOM | 4647 | CA | PRO | A | 689 | 9.026 | 61.911 | 37.094 | 1.00207.38 | C |
| ATOM | 4648 | C | PRO | A | 689 | 7.721 | 61.685 | 36.324 | 1.00207.38 | C |
| ATOM | 4649 | O | PRO | A | 689 | 7.721 | 60.919 | 35.365 | 1.00207.38 | O |
| ATOM | 4650 | CB | PRO | A | 689 | 8.991 | 61.301 | 38.493 | 1.00185.59 | C |
| ATOM | 4651 | CG | PRO | A | 689 | 10.179 | 61.975 | 39.109 | 1.00185.59 | C |
| ATOM | 4652 | CD | PRO | A | 689 | 9.959 | 63.422 | 38.735 | 1.00185.59 | C |
| ATOM | 4653 | N | PRO | A | 690 | 6.606 | 62.354 | 36.703 | 1.00190.96 | N |
| ATOM | 4654 | CA | PRO | A | 690 | 5.402 | 62.080 | 35.916 | 1.00190.96 | C |
| ATOM | 4655 | C | PRO | A | 690 | 5.654 | 62.266 | 34.421 | 1.00190.96 | C |
| ATOM | 4656 | O | PRO | A | 690 | 6.099 | 63.332 | 33.977 | 1.00190.96 | O |
| ATOM | 4657 | CB | PRO | A | 690 | 4.414 | 63.103 | 36.453 | 1.00111.19 | C |
| ATOM | 4658 | CG | PRO | A | 690 | 4.828 | 63.247 | 37.889 | 1.00111.19 | C |
| ATOM | 4659 | CD | PRO | A | 690 | 6.331 | 63.312 | 37.787 | 1.00111.19 | C |
| ATOM | 4660 | N | ALA | A | 691 | 5.367 | 61.219 | 33.653 | 1.00 92.38 | N |
| ATOM | 4661 | CA | ALA | A | 691 | 5.516 | 61.248 | 32.204 | 1.00 92.38 | C |
| ATOM | 4662 | C | ALA | A | 691 | 4.147 | 61.567 | 31.646 | 1.00 92.38 | C |
| ATOM | 4663 | O | ALA | A | 691 | 3.483 | 62.512 | 32.076 | 1.00 92.38 | O |
| ATOM | 4664 | CB | ALA | A | 691 | 5.998 | 59.899 | 31.711 | 1.00 66.12 | C |
| ATOM | 4665 | N | SER | A | 692 | 3.700 | 60.768 | 30.699 | 1.00129.33 | N |
| ATOM | 4666 | CA | SER | A | 692 | 2.407 | 61.049 | 30.132 | 1.00129.33 | C |
| ATOM | 4667 | C | SER | A | 692 | 2.102 | 60.048 | 29.028 | 1.00129.33 | C |
| ATOM | 4668 | O | SER | A | 692 | 1.759 | 60.392 | 27.890 | 1.00129.33 | O |
| ATOM | 4669 | CB | SER | A | 692 | 2.372 | 62.475 | 29.562 | 1.00 68.77 | C |
| ATOM | 4670 | OG | SER | A | 692 | 1.050 | 62.946 | 29.383 | 1.00 68.77 | O |
| ATOM | 4671 | N | PHE | A | 693 | 2.243 | 58.785 | 29.391 | 1.00205.79 | N |
| ATOM | 4672 | CA | PHE | A | 693 | 1.977 | 57.699 | 28.481 | 1.00205.79 | C |
| ATOM | 4673 | C | PHE | A | 693 | 0.730 | 57.973 | 27.658 | 1.00205.79 | C |
| ATOM | 4674 | O | PHE | A | 693 | -0.368 | 58.004 | 28.214 | 1.00205.79 | O |
| ATOM | 4675 | CB | PHE | A | 693 | 1.803 | 56.396 | 29.273 | 1.00151.19 | C |
| ATOM | 4676 | CG | PHE | A | 693 | 0.374 | 55.908 | 29.357 | 1.00151.19 | C |
| ATOM | 4677 | CD1 | PHE | A | 693 | -0.137 | 55.056 | 28.382 | 1.00151.19 | C |
| ATOM | 4678 | CD2 | PHE | A | 693 | -0.459 | 56.298 | 30.407 | 1.00151.19 | C |
| ATOM | 4679 | CE1 | PHE | A | 693 | -1.451 | 54.594 | 28.450 | 1.00151.19 | C |
| ATOM | 4680 | CE2 | PHE | A | 693 | -1.780 | 55.841 | 30.483 | 1.00151.19 | C |
| ATOM | 4681 | CZ | PHE | A | 693 | -2.274 | 54.988 | 29.502 | 1.00151.19 | C |
| ATOM | 4682 | N | TRP | A | 694 | 0.885 | 58.244 | 26.357 | 1.00103.70 | N |
| ATOM | 4683 | CA | TRP | A | 694 | -0.321 | 58.373 | 25.494 | 1.00103.70 | C |
| ATOM | 4684 | C | TRP | A | 694 | -1.273 | 59.461 | 25.996 | 1.00103.70 | C |
| ATOM | 4685 | O | TRP | A | 694 | -2.303 | 59.770 | 25.436 | 1.00103.70 | O |
| ATOM | 4686 | CB | TRP | A | 694 | -1.157 | 57.099 | 25.574 | 1.00164.16 | C |
| ATOM | 4687 | CG | TRP | A | 694 | -0.816 | 55.940 | 24.685 | 1.00164.16 | C |
| ATOM | 4688 | CD1 | TRP | A | 694 | -1.708 | 55.085 | 24.111 | 1.00164.16 | C |
| ATOM | 4689 | CD2 | TRP | A | 694 | 0.489 | 55.483 | 24.293 | 1.00164.16 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 4690 | NE1 | TRP | A | 694 | -1.049 | 54.129 | 23.386 | 1.00164.16 | N |
| ATOM | 4691 | CE2 | TRP | A | 694 | 0.301 | 54.347 | 23.480 | 1.00164.16 | C |
| ATOM | 4692 | CE3 | TRP | A | 694 | 1.796 | 55.925 | 24.552 | 1.00164.16 | C |
| ATOM | 4693 | CZ2 | TRP | A | 694 | 1.371 | 53.637 | 22.913 | 1.00164.16 | C |
| ATOM | 4694 | CZ3 | TRP | A | 694 | 2.879 | 55.215 | 23.980 | 1.00164.16 | C |
| ATOM | 4695 | CH2 | TRP | A | 694 | 2.649 | 54.081 | 23.170 | 1.00164.16 | C |
| ATOM | 4696 | N | ARG | A | 695 | -0.968 | 60.066 | 27.100 | 1.00122.37 | N |
| ATOM | 4697 | CA | ARG | A | 695 | -1.933 | 61.044 | 27.610 | 1.00122.37 | C |
| ATOM | 4698 | C | ARG | A | 695 | -2.005 | 62.350 | 26.778 | 1.00122.37 | C |
| ATOM | 4699 | O | ARG | A | 695 | -3.103 | 62.828 | 26.410 | 1.00122.37 | O |
| ATOM | 4700 | CB | ARG | A | 695 | -1.567 | 61.352 | 29.095 | 1.00148.79 | C |
| ATOM | 4701 | CG | ARG | A | 695 | -2.363 | 62.459 | 29.778 | 1.00148.79 | C |
| ATOM | 4702 | CD | ARG | A | 695 | -1.914 | 62.562 | 31.261 | 1.00148.79 | C |
| ATOM | 4703 | NE | ARG | A | 695 | -2.126 | 63.885 | 31.838 | 1.00148.79 | N |
| ATOM | 4704 | CZ | ARG | A | 695 | -1.644 | 64.268 | 33.016 | 1.00148.79 | C |
| ATOM | 4705 | NH1 | ARG | A | 695 | -1.882 | 65.490 | 33.465 | 1.00148.79 | N |
| ATOM | 4706 | NH2 | ARG | A | 695 | -0.918 | 63.430 | 33.747 | 1.00148.79 | N |
| ATOM | 4707 | N | ILE | A | 696 | -0.832 | 62.919 | 26.504 | 1.00133.18 | N |
| ATOM | 4708 | CA | ILE | A | 696 | -0.762 | 64.129 | 25.755 | 1.00133.18 | C |
| ATOM | 4709 | C | ILE | A | 696 | -1.197 | 63.716 | 24.389 | 1.00133.18 | C |
| ATOM | 4710 | O | ILE | A | 696 | -1.229 | 64.549 | 23.526 | 1.00133.18 | O |
| ATOM | 4711 | CB | ILE | A | 696 | 0.682 | 64.678 | 25.730 | 1.00103.07 | C |
| ATOM | 4712 | CG1 | ILE | A | 696 | 1.621 | 63.679 | 25.050 | 1.00103.07 | C |
| ATOM | 4713 | CG2 | ILE | A | 696 | 1.156 | 64.952 | 27.142 | 1.00103.07 | C |
| ATOM | 4714 | CD1 | ILE | A | 696 | 3.097 | 64.027 | 25.158 | 1.00103.07 | C |
| ATOM | 4715 | N | LEU | A | 697 | -1.486 | 62.429 | 24.186 | 1.00157.91 | N |
| ATOM | 4716 | CA | LEU | A | 697 | -1.968 | 61.979 | 22.883 | 1.00157.91 | C |
| ATOM | 4717 | C | LEU | A | 697 | -3.443 | 62.268 | 23.004 | 1.00157.91 | C |
| ATOM | 4718 | O | LEU | A | 697 | -4.059 | 62.923 | 22.171 | 1.00157.91 | O |
| ATOM | 4719 | CB | LEU | A | 697 | -1.757 | 60.474 | 22.658 | 1.00123.85 | C |
| ATOM | 4720 | CG | LEU | A | 697 | -2.678 | 59.355 | 23.171 | 1.00123.85 | C |
| ATOM | 4721 | CD1 | LEU | A | 697 | -4.102 | 59.497 | 22.627 | 1.00123.85 | C |
| ATOM | 4722 | CD2 | LEU | A | 697 | -2.070 | 58.016 | 22.732 | 1.00123.85 | C |
| ATOM | 4723 | N | LYS | A | 698 | -4.001 | 61.751 | 24.085 | 1.00207.14 | N |
| ATOM | 4724 | CA | LYS | A | 698 | -5.403 | 61.935 | 24.376 | 1.00207.14 | C |
| ATOM | 4725 | C | LYS | A | 698 | -5.604 | 63.437 | 24.358 | 1.00207.14 | C |
| ATOM | 4726 | O | LYS | A | 698 | -6.318 | 63.990 | 23.510 | 1.00207.14 | O |
| ATOM | 4727 | CB | LYS | A | 698 | -5.737 | 61.364 | 25.755 | 1.00207.38 | C |
| ATOM | 4728 | CG | LYS | A | 698 | -5.326 | 59.914 | 25.919 | 1.00207.38 | C |
| ATOM | 4729 | CD | LYS | A | 698 | -5.800 | 59.344 | 27.241 | 1.00207.38 | C |
| ATOM | 4730 | CE | LYS | A | 698 | -5.552 | 57.846 | 27.302 | 1.00207.38 | C |
| ATOM | 4731 | NZ | LYS | A | 698 | -6.118 | 57.240 | 28.536 | 1.00207.38 | N |
| ATOM | 4732 | N | LEU | A | 699 | -4.959 | 64.096 | 25.309 | 1.00205.62 | N |
| ATOM | 4733 | CA | LEU | A | 699 | -5.035 | 65.531 | 25.413 | 1.00205.62 | C |
| ATOM | 4734 | C | LEU | A | 699 | -4.555 | 66.068 | 24.040 | 1.00205.62 | C |
| ATOM | 4735 | O | LEU | A | 699 | -5.041 | 67.092 | 23.575 | 1.00205.62 | O |
| ATOM | 4736 | CB | LEU | A | 699 | -4.191 | 66.039 | 26.601 | 1.00122.92 | C |
| ATOM | 4737 | CG | LEU | A | 699 | -4.790 | 65.780 | 28.003 | 1.00122.92 | C |
| ATOM | 4738 | CD1 | LEU | A | 699 | -3.712 | 65.910 | 29.082 | 1.00122.92 | C |
| ATOM | 4739 | CD2 | LEU | A | 699 | -5.940 | 66.755 | 28.264 | 1.00122.92 | C |
| ATOM | 4740 | N | ASN | A | 700 | -3.672 | 65.338 | 23.355 | 1.00112.43 | N |
| ATOM | 4741 | CA | ASN | A | 700 | -3.204 | 65.785 | 22.041 | 1.00112.43 | C |
| ATOM | 4742 | C | ASN | A | 700 | -4.438 | 66.245 | 21.305 | 1.00112.43 | C |
| ATOM | 4743 | O | ASN | A | 700 | -4.732 | 67.439 | 21.221 | 1.00112.43 | O |
| ATOM | 4744 | CB | ASN | A | 700 | -2.565 | 64.602 | 21.300 | 1.00190.05 | C |
| ATOM | 4745 | CG | ASN | A | 700 | -1.091 | 64.808 | 21.022 | 1.00190.05 | C |
| ATOM | 4746 | OD1 | ASN | A | 700 | -0.477 | 65.746 | 21.527 | 1.00190.05 | O |
| ATOM | 4747 | ND2 | ASN | A | 700 | -0.512 | 63.924 | 20.215 | 1.00190.05 | N |
| ATOM | 4748 | N | SER | A | 701 | -5.156 | 65.259 | 20.782 | 1.00160.45 | N |
| ATOM | 4749 | CA | SER | A | 701 | -6.380 | 65.500 | 20.040 | 1.00160.45 | C |
| ATOM | 4750 | C | SER | A | 701 | -7.232 | 66.576 | 20.735 | 1.00160.45 | C |
| ATOM | 4751 | O | SER | A | 701 | -7.919 | 67.369 | 20.071 | 1.00160.45 | O |
| ATOM | 4752 | CB | SER | A | 701 | -7.173 | 64.203 | 19.895 | 1.00207.38 | C |
| ATOM | 4753 | OG | SER | A | 701 | -6.421 | 63.253 | 19.163 | 1.00207.38 | O |
| ATOM | 4754 | N | THR | A | 702 | -7.199 | 66.611 | 22.068 | 1.00177.90 | N |
| ATOM | 4755 | CA | THR | A | 702 | -7.967 | 67.650 | 22.746 | 1.00177.90 | C |
| ATOM | 4756 | C | THR | A | 702 | -7.426 | 68.912 | 22.103 | 1.00177.90 | C |
| ATOM | 4757 | O | THR | A | 702 | -8.185 | 69.694 | 21.527 | 1.00177.90 | O |
| ATOM | 4758 | CB | THR | A | 702 | -7.707 | 67.671 | 24.265 | 1.00197.28 | C |
| ATOM | 4759 | OG1 | THR | A | 702 | -8.124 | 66.427 | 24.843 | 1.00197.28 | O |
| ATOM | 4760 | CG2 | THR | A | 702 | -8.481 | 68.808 | 24.914 | 1.00197.28 | C |
| ATOM | 4761 | N | GLU | A | 703 | -6.104 | 69.082 | 22.171 | 1.00204.75 | N |
| ATOM | 4762 | CA | GLU | A | 703 | -5.442 | 70.228 | 21.553 | 1.00204.75 | C |
| ATOM | 4763 | C | GLU | A | 703 | -5.521 | 70.000 | 20.053 | 1.00204.75 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|---------|--------|--------|------------|---|
| ATOM | 4764 | O | GLU | A | 703 | -4.542 | 70.194 | 19.323 | 1.00204.75 | O |
| ATOM | 4765 | CB | GLU | A | 703 | -3.953 | 70.315 | 21.916 | 1.00 93.50 | C |
| ATOM | 4766 | CG | GLU | A | 703 | -3.600 | 70.501 | 23.376 | 1.00 93.50 | C |
| ATOM | 4767 | CD | GLU | A | 703 | -3.677 | 69.211 | 24.158 | 1.00 93.50 | C |
| ATOM | 4768 | OE1 | GLU | A | 703 | -4.790 | 68.809 | 24.558 | 1.00 93.50 | O |
| ATOM | 4769 | OE2 | GLU | A | 703 | -2.614 | 68.591 | 24.360 | 1.00 93.50 | O |
| ATOM | 4770 | N | TRP | A | 704 | -6.680 | 69.574 | 19.582 | 1.00 93.30 | N |
| ATOM | 4771 | CA | TRP | A | 704 | -6.796 | 69.325 | 18.176 | 1.00 93.30 | C |
| ATOM | 4772 | C | TRP | A | 704 | -8.233 | 69.421 | 17.722 | 1.00 93.30 | C |
| ATOM | 4773 | O | TRP | A | 704 | -9.170 | 69.128 | 18.467 | 1.00 93.30 | O |
| ATOM | 4774 | CB | TRP | A | 704 | -6.266 | 67.905 | 17.876 | 1.00205.41 | C |
| ATOM | 4775 | CG | TRP | A | 704 | -5.908 | 67.522 | 16.428 | 1.00205.41 | C |
| ATOM | 4776 | CD1 | TRP | A | 704 | -4.931 | 68.077 | 15.646 | 1.00205.41 | C |
| ATOM | 4777 | CD2 | TRP | A | 704 | -6.441 | 66.418 | 15.667 | 1.00205.41 | C |
| ATOM | 4778 | NE1 | TRP | A | 704 | -4.817 | 67.386 | 14.456 | 1.00205.41 | N |
| ATOM | 4779 | CE2 | TRP | A | 704 | -5.731 | 66.367 | 14.443 | 1.00205.41 | C |
| ATOM | 4780 | CE3 | TRP | A | 704 | -7.446 | 65.469 | 15.906 | 1.00205.41 | C |
| ATOM | 4781 | CZ2 | TRP | A | 704 | -5.995 | 65.406 | 13.465 | 1.00205.41 | C |
| ATOM | 4782 | CZ3 | TRP | A | 704 | -7.706 | 64.517 | 14.936 | 1.00205.41 | C |
| ATOM | 4783 | CH2 | TRP | A | 704 | -6.983 | 64.493 | 13.730 | 1.00205.41 | C |
| ATOM | 4784 | N | PRO | A | 705 | -8.408 | 69.933 | 16.512 | 1.00204.38 | N |
| ATOM | 4785 | CA | PRO | A | 705 | -9.690 | 70.095 | 15.844 | 1.00204.38 | C |
| ATOM | 4786 | C | PRO | A | 705 | -9.855 | 68.860 | 14.923 | 1.00204.38 | C |
| ATOM | 4787 | O | PRO | A | 705 | -10.786 | 68.072 | 15.096 | 1.00204.38 | O |
| ATOM | 4788 | CB | PRO | A | 705 | -9.525 | 71.401 | 15.070 | 1.00110.39 | C |
| ATOM | 4789 | CG | PRO | A | 705 | -8.077 | 71.451 | 14.773 | 1.00110.39 | C |
| ATOM | 4790 | CD | PRO | A | 705 | -7.464 | 70.979 | 16.065 | 1.00110.39 | C |
| ATOM | 4791 | N | TYR | A | 706 | -8.933 | 68.680 | 13.975 | 1.00108.66 | N |
| ATOM | 4792 | CA | TYR | A | 706 | -8.951 | 67.534 | 13.050 | 1.00108.66 | C |
| ATOM | 4793 | C | TYR | A | 706 | -8.060 | 67.816 | 11.818 | 1.00108.66 | C |
| ATOM | 4794 | O | TYR | A | 706 | -7.976 | 68.957 | 11.396 | 1.00108.66 | O |
| ATOM | 4795 | CB | TYR | A | 706 | -10.380 | 67.252 | 12.579 | 1.00152.61 | C |
| ATOM | 4796 | CG | TYR | A | 706 | -10.828 | 68.236 | 11.537 | 1.00152.61 | C |
| ATOM | 4797 | CD1 | TYR | A | 706 | -10.270 | 68.217 | 10.259 | 1.00152.61 | C |
| ATOM | 4798 | CD2 | TYR | A | 706 | -11.724 | 69.250 | 11.852 | 1.00152.61 | C |
| ATOM | 4799 | CE1 | TYR | A | 706 | -10.583 | 69.189 | 9.327 | 1.00152.61 | C |
| ATOM | 4800 | CE2 | TYR | A | 706 | -12.048 | 70.230 | 10.925 | 1.00152.61 | C |
| ATOM | 4801 | CZ | TYR | A | 706 | -11.469 | 70.196 | 9.666 | 1.00152.61 | C |
| ATOM | 4802 | OH | TYR | A | 706 | -11.747 | 71.188 | 8.758 | 1.00152.61 | O |
| ATOM | 4803 | N | PHE | A | 707 | -7.421 | 66.771 | 11.269 | 1.00127.95 | N |
| ATOM | 4804 | CA | PHE | A | 707 | -6.550 | 66.812 | 10.079 | 1.00127.95 | C |
| ATOM | 4805 | C | PHE | A | 707 | -6.163 | 65.388 | 9.671 | 1.00127.95 | C |
| ATOM | 4806 | O | PHE | A | 707 | -4.971 | 64.990 | 9.566 | 1.00127.95 | O |
| ATOM | 4807 | CB | PHE | A | 707 | -5.305 | 67.660 | 10.347 | 1.00122.95 | C |
| ATOM | 4808 | CG | PHE | A | 707 | -5.552 | 69.141 | 10.238 | 1.00122.95 | C |
| ATOM | 4809 | CD1 | PHE | A | 707 | -4.723 | 70.049 | 10.887 | 1.00122.95 | C |
| ATOM | 4810 | CD2 | PHE | A | 707 | -6.624 | 69.625 | 9.484 | 1.00122.95 | C |
| ATOM | 4811 | CE1 | PHE | A | 707 | -4.961 | 71.410 | 10.789 | 1.00122.95 | C |
| ATOM | 4812 | CE2 | PHE | A | 707 | -6.877 | 70.986 | 9.373 | 1.00122.95 | C |
| ATOM | 4813 | CZ | PHE | A | 707 | -6.049 | 71.884 | 10.025 | 1.00122.95 | C |
| ATOM | 4814 | N | VAL | A | 708 | -7.214 | 64.611 | 9.447 | 1.00116.67 | N |
| ATOM | 4815 | CA | VAL | A | 708 | -7.077 | 63.227 | 9.032 | 1.00116.67 | C |
| ATOM | 4816 | C | VAL | A | 708 | -6.416 | 63.297 | 7.686 | 1.00116.67 | C |
| ATOM | 4817 | O | VAL | A | 708 | -5.682 | 62.402 | 7.271 | 1.00116.67 | O |
| ATOM | 4818 | CB | VAL | A | 708 | -8.451 | 62.552 | 8.869 | 1.00207.38 | C |
| ATOM | 4819 | CG1 | VAL | A | 708 | -9.347 | 63.404 | 7.987 | 1.00207.38 | C |
| ATOM | 4820 | CG2 | VAL | A | 708 | -8.280 | 61.176 | 8.249 | 1.00207.38 | C |
| ATOM | 4821 | N | VAL | A | 709 | -6.731 | 64.383 | 7.002 | 1.00112.52 | N |
| ATOM | 4822 | CA | VAL | A | 709 | -6.169 | 64.681 | 5.702 | 1.00112.52 | C |
| ATOM | 4823 | C | VAL | A | 709 | -4.637 | 64.497 | 5.764 | 1.00112.52 | C |
| ATOM | 4824 | O | VAL | A | 709 | -4.022 | 63.717 | 5.016 | 1.00112.52 | O |
| ATOM | 4825 | CB | VAL | A | 709 | -6.521 | 66.140 | 5.316 | 1.00164.79 | C |
| ATOM | 4826 | CG1 | VAL | A | 709 | -6.977 | 66.906 | 6.551 | 1.00164.79 | C |
| ATOM | 4827 | CG2 | VAL | A | 709 | -5.319 | 66.839 | 4.712 | 1.00164.79 | C |
| ATOM | 4828 | N | GLY | A | 710 | -4.016 | 65.240 | 6.663 | 1.00111.68 | N |
| ATOM | 4829 | CA | GLY | A | 710 | -2.591 | 65.104 | 6.800 | 1.00111.68 | C |
| ATOM | 4830 | C | GLY | A | 710 | -2.322 | 63.624 | 6.928 | 1.00111.68 | C |
| ATOM | 4831 | O | GLY | A | 710 | -1.835 | 63.011 | 5.969 | 1.00111.68 | O |
| ATOM | 4832 | N | ILE | A | 711 | -2.705 | 63.025 | 8.060 | 1.00 99.08 | N |
| ATOM | 4833 | CA | ILE | A | 711 | -2.369 | 61.610 | 8.184 | 1.00 99.08 | C |
| ATOM | 4834 | C | ILE | A | 711 | -2.666 | 60.818 | 6.939 | 1.00 99.08 | C |
| ATOM | 4835 | O | ILE | A | 711 | -2.047 | 59.781 | 6.680 | 1.00 99.08 | O |
| ATOM | 4836 | CB | ILE | A | 711 | -3.103 | 60.904 | 9.315 | 1.00 65.10 | C |
| ATOM | 4837 | CG1 | ILE | A | 711 | -2.968 | 59.392 | 9.080 | 1.00 65.10 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 4838 | CG2 | ILE | A | 711 | -4.552 | 61.356 | 9.385 | 1.00 | 65.10 | C |
| ATOM | 4839 | CD1 | ILE | A | 711 | -3.844 | 58.502 | 9.918 | 1.00 | 65.10 | C |
| ATOM | 4840 | N | PHE | A | 712 | -3.634 | 61.296 | 6.178 | 1.00 | 118.33 | N |
| ATOM | 4841 | CA | PHE | A | 712 | -4.034 | 60.631 | 4.958 | 1.00 | 118.33 | C |
| ATOM | 4842 | C | PHE | A | 712 | -2.830 | 60.536 | 4.024 | 1.00 | 118.33 | C |
| ATOM | 4843 | O | PHE | A | 712 | -2.294 | 59.440 | 3.738 | 1.00 | 118.33 | O |
| ATOM | 4844 | CB | PHE | A | 712 | -5.157 | 61.449 | 4.315 | 1.00 | 173.76 | C |
| ATOM | 4845 | CG | PHE | A | 712 | -6.130 | 60.643 | 3.504 | 1.00 | 173.76 | C |
| ATOM | 4846 | CD1 | PHE | A | 712 | -5.937 | 60.456 | 2.140 | 1.00 | 173.76 | C |
| ATOM | 4847 | CD2 | PHE | A | 712 | -7.264 | 60.098 | 4.098 | 1.00 | 173.76 | C |
| ATOM | 4848 | CE1 | PHE | A | 712 | -6.862 | 59.740 | 1.376 | 1.00 | 173.76 | C |
| ATOM | 4849 | CE2 | PHE | A | 712 | -8.195 | 59.380 | 3.342 | 1.00 | 173.76 | C |
| ATOM | 4850 | CZ | PHE | A | 712 | -7.992 | 59.203 | 1.979 | 1.00 | 173.76 | C |
| ATOM | 4851 | N | CYS | A | 713 | -2.362 | 61.682 | 3.560 | 1.00 | 147.20 | N |
| ATOM | 4852 | CA | CYS | A | 713 | -1.254 | 61.609 | 2.641 | 1.00 | 147.20 | C |
| ATOM | 4853 | C | CYS | A | 713 | -0.074 | 60.931 | 3.323 | 1.00 | 147.20 | C |
| ATOM | 4854 | O | CYS | A | 713 | 0.781 | 60.345 | 2.659 | 1.00 | 147.20 | O |
| ATOM | 4855 | CB | CYS | A | 713 | -0.914 | 63.004 | 2.082 | 1.00 | 147.20 | C |
| ATOM | 4856 | SG | CYS | A | 713 | -0.303 | 64.246 | 3.231 | 1.00 | 147.20 | S |
| ATOM | 4857 | N | ALA | A | 714 | -0.069 | 60.939 | 4.654 | 1.00 | 85.27 | N |
| ATOM | 4858 | CA | ALA | A | 714 | 1.017 | 60.282 | 5.395 | 1.00 | 85.27 | C |
| ATOM | 4859 | C | ALA | A | 714 | 1.083 | 58.888 | 4.877 | 1.00 | 85.27 | C |
| ATOM | 4860 | O | ALA | A | 714 | 2.123 | 58.434 | 4.418 | 1.00 | 85.27 | O |
| ATOM | 4861 | CB | ALA | A | 714 | 0.703 | 60.305 | 6.886 | 1.00 | 48.84 | C |
| ATOM | 4862 | N | ILE | A | 715 | -0.050 | 58.209 | 4.966 | 1.00 | 121.92 | N |
| ATOM | 4863 | CA | ILE | A | 715 | -0.119 | 56.849 | 4.504 | 1.00 | 121.92 | C |
| ATOM | 4864 | C | ILE | A | 715 | 0.429 | 56.784 | 3.087 | 1.00 | 121.92 | C |
| ATOM | 4865 | O | ILE | A | 715 | 1.281 | 55.931 | 2.786 | 1.00 | 121.92 | O |
| ATOM | 4866 | CB | ILE | A | 715 | -1.571 | 56.326 | 4.490 | 1.00 | 99.99 | C |
| ATOM | 4867 | CG1 | ILE | A | 715 | -2.433 | 57.122 | 5.478 | 1.00 | 99.99 | C |
| ATOM | 4868 | CG2 | ILE | A | 715 | -1.590 | 54.841 | 4.853 | 1.00 | 99.99 | C |
| ATOM | 4869 | CD1 | ILE | A | 715 | -2.001 | 57.008 | 6.933 | 1.00 | 99.99 | C |
| ATOM | 4870 | N | ILE | A | 716 | -0.025 | 57.694 | 2.219 | 1.00 | 115.78 | N |
| ATOM | 4871 | CA | ILE | A | 716 | 0.480 | 57.650 | 0.832 | 1.00 | 115.78 | C |
| ATOM | 4872 | C | ILE | A | 716 | 2.013 | 57.827 | 0.719 | 1.00 | 115.78 | C |
| ATOM | 4873 | O | ILE | A | 716 | 2.698 | 57.060 | 0.038 | 1.00 | 115.78 | O |
| ATOM | 4874 | CB | ILE | A | 716 | -0.245 | 58.677 | -0.095 | 1.00 | 101.20 | C |
| ATOM | 4875 | CG1 | ILE | A | 716 | 0.426 | 60.046 | -0.023 | 1.00 | 101.20 | C |
| ATOM | 4876 | CG2 | ILE | A | 716 | -1.715 | 58.767 | 0.276 | 1.00 | 101.20 | C |
| ATOM | 4877 | CD1 | ILE | A | 716 | 1.615 | 60.192 | -0.954 | 1.00 | 101.20 | C |
| ATOM | 4878 | N | ASN | A | 717 | 2.546 | 58.844 | 1.381 | 1.00 | 124.96 | N |
| ATOM | 4879 | CA | ASN | A | 717 | 3.977 | 59.097 | 1.361 | 1.00 | 124.96 | C |
| ATOM | 4880 | C | ASN | A | 717 | 4.655 | 57.746 | 1.588 | 1.00 | 124.96 | C |
| ATOM | 4881 | O | ASN | A | 717 | 5.543 | 57.325 | 0.837 | 1.00 | 124.96 | O |
| ATOM | 4882 | CB | ASN | A | 717 | 4.329 | 60.057 | 2.502 | 1.00 | 102.11 | C |
| ATOM | 4883 | CG | ASN | A | 717 | 5.721 | 60.630 | 2.382 | 1.00 | 102.11 | C |
| ATOM | 4884 | OD1 | ASN | A | 717 | 6.690 | 59.903 | 2.171 | 1.00 | 102.11 | O |
| ATOM | 4885 | ND2 | ASN | A | 717 | 5.830 | 61.945 | 2.534 | 1.00 | 102.11 | N |
| ATOM | 4886 | N | GLY | A | 718 | 4.190 | 57.061 | 2.626 | 1.00 | 105.81 | N |
| ATOM | 4887 | CA | GLY | A | 718 | 4.741 | 55.774 | 2.976 | 1.00 | 105.81 | C |
| ATOM | 4888 | C | GLY | A | 718 | 4.760 | 54.818 | 1.817 | 1.00 | 105.81 | C |
| ATOM | 4889 | O | GLY | A | 718 | 5.822 | 54.293 | 1.401 | 1.00 | 105.81 | O |
| ATOM | 4890 | N | GLY | A | 719 | 3.577 | 54.564 | 1.281 | 1.00 | 207.38 | N |
| ATOM | 4891 | CA | GLY | A | 719 | 3.515 | 53.674 | 0.142 | 1.00 | 207.38 | C |
| ATOM | 4892 | C | GLY | A | 719 | 4.502 | 54.166 | -0.904 | 1.00 | 207.38 | C |
| ATOM | 4893 | O | GLY | A | 719 | 5.266 | 53.384 | -1.480 | 1.00 | 207.38 | O |
| ATOM | 4894 | N | LEU | A | 720 | 4.486 | 55.477 | -1.131 | 1.00 | 117.46 | N |
| ATOM | 4895 | CA | LEU | A | 720 | 5.361 | 56.121 | -2.096 | 1.00 | 117.46 | C |
| ATOM | 4896 | C | LEU | A | 720 | 6.758 | 55.494 | -2.050 | 1.00 | 117.46 | C |
| ATOM | 4897 | O | LEU | A | 720 | 7.321 | 55.095 | -3.087 | 1.00 | 117.46 | O |
| ATOM | 4898 | CB | LEU | A | 720 | 5.448 | 57.614 | -1.778 | 1.00 | 149.60 | C |
| ATOM | 4899 | CG | LEU | A | 720 | 6.160 | 58.510 | -2.789 | 1.00 | 149.60 | C |
| ATOM | 4900 | CD1 | LEU | A | 720 | 5.579 | 58.288 | -4.184 | 1.00 | 149.60 | C |
| ATOM | 4901 | CD2 | LEU | A | 720 | 6.003 | 59.961 | -2.359 | 1.00 | 149.60 | C |
| ATOM | 4902 | N | GLN | A | 721 | 7.302 | 55.388 | -0.839 | 1.00 | 169.24 | N |
| ATOM | 4903 | CA | GLN | A | 721 | 8.626 | 54.784 | -0.637 | 1.00 | 169.24 | C |
| ATOM | 4904 | C | GLN | A | 721 | 8.700 | 53.300 | -1.070 | 1.00 | 169.24 | C |
| ATOM | 4905 | O | GLN | A | 721 | 9.443 | 52.948 | -2.011 | 1.00 | 169.24 | O |
| ATOM | 4906 | CB | GLN | A | 721 | 9.020 | 54.888 | 0.840 | 1.00 | 202.24 | C |
| ATOM | 4907 | CG | GLN | A | 721 | 10.397 | 54.317 | 1.171 | 1.00 | 202.24 | C |
| ATOM | 4908 | CD | GLN | A | 721 | 11.540 | 55.253 | 0.805 | 1.00 | 202.24 | C |
| ATOM | 4909 | OE1 | GLN | A | 721 | 12.711 | 54.879 | 0.890 | 1.00 | 202.24 | O |
| ATOM | 4910 | NE2 | GLN | A | 721 | 11.204 | 56.476 | 0.407 | 1.00 | 202.24 | N |
| ATOM | 4911 | N | PRO | A | 722 | 7.949 | 52.403 | -0.390 | 1.00 | 96.83 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------|--------|---|
| ATOM | 4912 | CA | PRO | A | 722 | 8.145 | 51.050 | -0.941 | 1.00 | 96.83 | C |
| ATOM | 4913 | C | PRO | A | 722 | 7.925 | 50.945 | -2.441 | 1.00 | 96.83 | C |
| ATOM | 4914 | O | PRO | A | 722 | 8.530 | 50.111 | -3.117 | 1.00 | 96.83 | O |
| ATOM | 4915 | CB | PRO | A | 722 | 7.160 | 50.224 | -0.131 | 1.00 | 140.54 | C |
| ATOM | 4916 | CG | PRO | A | 722 | 7.312 | 50.842 | 1.243 | 1.00 | 140.54 | C |
| ATOM | 4917 | CD | PRO | A | 722 | 7.328 | 52.340 | 0.947 | 1.00 | 140.54 | C |
| ATOM | 4918 | N | ALA | A | 723 | 7.056 | 51.815 | -2.946 | 1.00 | 92.29 | N |
| ATOM | 4919 | CA | ALA | A | 723 | 6.730 | 51.891 | -4.371 | 1.00 | 92.29 | C |
| ATOM | 4920 | C | ALA | A | 723 | 8.023 | 51.981 | -5.125 | 1.00 | 92.29 | C |
| ATOM | 4921 | O | ALA | A | 723 | 8.251 | 51.247 | -6.088 | 1.00 | 92.29 | O |
| ATOM | 4922 | CB | ALA | A | 723 | 5.861 | 53.109 | -4.641 | 1.00 | 60.94 | C |
| ATOM | 4923 | N | PHE | A | 724 | 8.861 | 52.913 | -4.680 | 1.00 | 94.33 | N |
| ATOM | 4924 | CA | PHE | A | 724 | 10.147 | 53.097 | -5.319 | 1.00 | 94.33 | C |
| ATOM | 4925 | C | PHE | A | 724 | 10.881 | 51.808 | -5.302 | 1.00 | 94.33 | C |
| ATOM | 4926 | O | PHE | A | 724 | 11.432 | 51.363 | -6.301 | 1.00 | 94.33 | O |
| ATOM | 4927 | CB | PHE | A | 724 | 11.016 | 54.115 | -4.597 | 1.00 | 101.85 | C |
| ATOM | 4928 | CG | PHE | A | 724 | 12.463 | 54.002 | -4.969 | 1.00 | 101.85 | C |
| ATOM | 4929 | CD1 | PHE | A | 724 | 12.892 | 54.397 | -6.227 | 1.00 | 101.85 | C |
| ATOM | 4930 | CD2 | PHE | A | 724 | 13.371 | 53.386 | -4.111 | 1.00 | 101.85 | C |
| ATOM | 4931 | CE1 | PHE | A | 724 | 14.200 | 54.177 | -6.641 | 1.00 | 101.85 | C |
| ATOM | 4932 | CE2 | PHE | A | 724 | 14.695 | 53.154 | -4.509 | 1.00 | 101.85 | C |
| ATOM | 4933 | CZ | PHE | A | 724 | 15.111 | 53.550 | -5.783 | 1.00 | 101.85 | C |
| ATOM | 4934 | N | SER | A | 725 | 10.937 | 51.227 | -4.127 | 1.00 | 74.65 | N |
| ATOM | 4935 | CA | SER | A | 725 | 11.616 | 49.961 | -4.036 | 1.00 | 74.65 | C |
| ATOM | 4936 | C | SER | A | 725 | 11.273 | 49.057 | -5.248 | 1.00 | 74.65 | C |
| ATOM | 4937 | O | SER | A | 725 | 12.163 | 48.477 | -5.901 | 1.00 | 74.65 | O |
| ATOM | 4938 | CB | SER | A | 725 | 11.238 | 49.264 | -2.730 | 1.00 | 107.88 | C |
| ATOM | 4939 | OG | SER | A | 725 | 11.480 | 50.105 | -1.617 | 1.00 | 107.88 | O |
| ATOM | 4940 | N | VAL | A | 726 | 9.981 | 48.958 | -5.569 | 1.00 | 140.70 | N |
| ATOM | 4941 | CA | VAL | A | 726 | 9.557 | 48.092 | -6.678 | 1.00 | 140.70 | C |
| ATOM | 4942 | C | VAL | A | 726 | 9.752 | 48.623 | -8.075 | 1.00 | 140.70 | C |
| ATOM | 4943 | O | VAL | A | 726 | 10.179 | 47.896 | -8.969 | 1.00 | 140.70 | O |
| ATOM | 4944 | CB | VAL | A | 726 | 8.063 | 47.700 | -6.585 | 1.00 | 70.44 | C |
| ATOM | 4945 | CG1 | VAL | A | 726 | 7.714 | 46.733 | -7.719 | 1.00 | 70.44 | C |
| ATOM | 4946 | CG2 | VAL | A | 726 | 7.769 | 47.074 | -5.237 | 1.00 | 70.44 | C |
| ATOM | 4947 | N | ILE | A | 727 | 9.388 | 49.880 | -8.275 | 1.00 | 92.11 | N |
| ATOM | 4948 | CA | ILE | A | 727 | 9.514 | 50.480 | -9.589 | 1.00 | 92.11 | C |
| ATOM | 4949 | C | ILE | A | 727 | 10.971 | 50.247 | -10.067 | 1.00 | 92.11 | C |
| ATOM | 4950 | O | ILE | A | 727 | 11.211 | 49.870 | -11.223 | 1.00 | 92.11 | O |
| ATOM | 4951 | CB | ILE | A | 727 | 9.128 | 51.997 | -9.530 | 1.00 | 94.67 | C |
| ATOM | 4952 | CG1 | ILE | A | 727 | 8.695 | 52.482 | -10.916 | 1.00 | 94.67 | C |
| ATOM | 4953 | CG2 | ILE | A | 727 | 10.267 | 52.825 | -8.941 | 1.00 | 94.67 | C |
| ATOM | 4954 | CD1 | ILE | A | 727 | 9.801 | 52.528 | -11.929 | 1.00 | 94.67 | C |
| ATOM | 4955 | N | PHE | A | 728 | 11.933 | 50.414 | -9.157 | 1.00 | 131.66 | N |
| ATOM | 4956 | CA | PHE | A | 728 | 13.355 | 50.215 | -9.479 | 1.00 | 131.66 | C |
| ATOM | 4957 | C | PHE | A | 728 | 13.600 | 48.733 | -9.717 | 1.00 | 131.66 | C |
| ATOM | 4958 | O | PHE | A | 728 | 14.003 | 48.300 | -10.817 | 1.00 | 131.66 | O |
| ATOM | 4959 | CB | PHE | A | 728 | 14.228 | 50.749 | -8.335 | 1.00 | 68.48 | C |
| ATOM | 4960 | CG | PHE | A | 728 | 15.575 | 50.095 | -8.230 | 1.00 | 68.48 | C |
| ATOM | 4961 | CD1 | PHE | A | 728 | 15.787 | 49.068 | -7.314 | 1.00 | 68.48 | C |
| ATOM | 4962 | CD2 | PHE | A | 728 | 16.630 | 50.507 | -9.034 | 1.00 | 68.48 | C |
| ATOM | 4963 | CE1 | PHE | A | 728 | 17.037 | 48.452 | -7.194 | 1.00 | 68.48 | C |
| ATOM | 4964 | CE2 | PHE | A | 728 | 17.890 | 49.902 | -8.929 | 1.00 | 68.48 | C |
| ATOM | 4965 | CZ | PHE | A | 728 | 18.094 | 48.870 | -8.004 | 1.00 | 68.48 | C |
| ATOM | 4966 | N | SER | A | 729 | 13.327 | 47.951 | -8.682 | 1.00 | 101.46 | N |
| ATOM | 4967 | CA | SER | A | 729 | 13.526 | 46.528 | -8.783 | 1.00 | 101.46 | C |
| ATOM | 4968 | C | SER | A | 729 | 12.928 | 46.053 | -10.084 | 1.00 | 101.46 | C |
| ATOM | 4969 | O | SER | A | 729 | 13.433 | 45.120 | -10.697 | 1.00 | 101.46 | O |
| ATOM | 4970 | CB | SER | A | 729 | 12.860 | 45.823 | -7.598 | 1.00 | 112.02 | C |
| ATOM | 4971 | OG | SER | A | 729 | 11.552 | 46.319 | -7.367 | 1.00 | 112.02 | O |
| ATOM | 4972 | N | LYS | A | 730 | 11.860 | 46.706 | -10.522 | 1.00 | 79.61 | N |
| ATOM | 4973 | CA | LYS | A | 730 | 11.241 | 46.304 | -11.767 | 1.00 | 79.61 | C |
| ATOM | 4974 | C | LYS | A | 730 | 12.188 | 46.602 | -12.913 | 1.00 | 79.61 | C |
| ATOM | 4975 | O | LYS | A | 730 | 12.567 | 45.703 | -13.660 | 1.00 | 79.61 | O |
| ATOM | 4976 | CB | LYS | A | 730 | 9.911 | 47.025 | -11.996 | 1.00 | 167.08 | C |
| ATOM | 4977 | CG | LYS | A | 730 | 9.263 | 46.652 | -13.324 | 1.00 | 167.08 | C |
| ATOM | 4978 | CD | LYS | A | 730 | 7.817 | 47.097 | -13.414 | 1.00 | 167.08 | C |
| ATOM | 4979 | CE | LYS | A | 730 | 7.222 | 46.702 | -14.756 | 1.00 | 167.08 | C |
| ATOM | 4980 | NZ | LYS | A | 730 | 5.772 | 47.014 | -14.844 | 1.00 | 167.08 | N |
| ATOM | 4981 | N | VAL | A | 731 | 12.590 | 47.866 | -13.035 | 1.00 | 97.81 | N |
| ATOM | 4982 | CA | VAL | A | 731 | 13.484 | 48.264 | -14.126 | 1.00 | 97.81 | C |
| ATOM | 4983 | C | VAL | A | 731 | 14.563 | 47.240 | -14.281 | 1.00 | 97.81 | C |
| ATOM | 4984 | O | VAL | A | 731 | 14.562 | 46.435 | -15.217 | 1.00 | 97.81 | O |
| ATOM | 4985 | CB | VAL | A | 731 | 14.163 | 49.629 | -13.869 | 1.00 | 50.43 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------|--------|---|
| ATOM | 4986 | CG1 | VAL | A | 731 | 15.150 | 49.929 | -14.977 | 1.00 | 50.43 | C |
| ATOM | 4987 | CG2 | VAL | A | 731 | 13.120 | 50.726 | -13.809 | 1.00 | 50.43 | C |
| ATOM | 4988 | N | VAL | A | 732 | 15.481 | 47.270 | -13.333 | 1.00 | 122.07 | N |
| ATOM | 4989 | CA | VAL | A | 732 | 16.574 | 46.342 | -13.387 | 1.00 | 122.07 | C |
| ATOM | 4990 | C | VAL | A | 732 | 16.024 | 44.976 | -13.786 | 1.00 | 122.07 | C |
| ATOM | 4991 | O | VAL | A | 732 | 16.403 | 44.420 | -14.813 | 1.00 | 122.07 | O |
| ATOM | 4992 | CB | VAL | A | 732 | 17.290 | 46.260 | -12.025 | 1.00 | 207.38 | C |
| ATOM | 4993 | CG1 | VAL | A | 732 | 18.013 | 47.574 | -11.748 | 1.00 | 207.38 | C |
| ATOM | 4994 | CG2 | VAL | A | 732 | 16.282 | 45.974 | -10.918 | 1.00 | 207.38 | C |
| ATOM | 4995 | N | GLY | A | 733 | 15.093 | 44.457 | -13.000 | 1.00 | 146.32 | N |
| ATOM | 4996 | CA | GLY | A | 733 | 14.541 | 43.154 | -13.306 | 1.00 | 146.32 | C |
| ATOM | 4997 | C | GLY | A | 733 | 14.181 | 43.007 | -14.768 | 1.00 | 146.32 | C |
| ATOM | 4998 | O | GLY | A | 733 | 14.796 | 42.234 | -15.523 | 1.00 | 146.32 | O |
| ATOM | 4999 | N | VAL | A | 734 | 13.184 | 43.784 | -15.166 | 1.00 | 86.79 | N |
| ATOM | 5000 | CA | VAL | A | 734 | 12.672 | 43.762 | -16.521 | 1.00 | 86.79 | C |
| ATOM | 5001 | C | VAL | A | 734 | 13.664 | 44.269 | -17.553 | 1.00 | 86.79 | C |
| ATOM | 5002 | O | VAL | A | 734 | 13.311 | 44.741 | -18.640 | 1.00 | 86.79 | O |
| ATOM | 5003 | CB | VAL | A | 734 | 11.366 | 44.584 | -16.623 | 1.00 | 207.38 | C |
| ATOM | 5004 | CG1 | VAL | A | 734 | 11.656 | 46.064 | -16.458 | 1.00 | 207.38 | C |
| ATOM | 5005 | CG2 | VAL | A | 734 | 10.689 | 44.313 | -17.950 | 1.00 | 207.38 | C |
| ATOM | 5006 | N | PHE | A | 735 | 14.928 | 44.170 | -17.212 | 1.00 | 99.70 | N |
| ATOM | 5007 | CA | PHE | A | 735 | 15.917 | 44.591 | -18.156 | 1.00 | 99.70 | C |
| ATOM | 5008 | C | PHE | A | 735 | 17.188 | 43.800 | -17.920 | 1.00 | 99.70 | C |
| ATOM | 5009 | O | PHE | A | 735 | 18.123 | 43.877 | -18.699 | 1.00 | 99.70 | O |
| ATOM | 5010 | CB | PHE | A | 735 | 16.154 | 46.087 | -17.996 | 1.00 | 107.62 | C |
| ATOM | 5011 | CG | PHE | A | 735 | 17.184 | 46.628 | -18.920 | 1.00 | 107.62 | C |
| ATOM | 5012 | CD1 | PHE | A | 735 | 18.530 | 46.377 | -18.689 | 1.00 | 107.62 | C |
| ATOM | 5013 | CD2 | PHE | A | 735 | 16.813 | 47.355 | -20.045 | 1.00 | 107.62 | C |
| ATOM | 5014 | CE1 | PHE | A | 735 | 19.498 | 46.837 | -19.561 | 1.00 | 107.62 | C |
| ATOM | 5015 | CE2 | PHE | A | 735 | 17.778 | 47.826 | -20.935 | 1.00 | 107.62 | C |
| ATOM | 5016 | CZ | PHE | A | 735 | 19.125 | 47.564 | -20.691 | 1.00 | 107.62 | C |
| ATOM | 5017 | N | THR | A | 736 | 17.197 | 43.027 | -16.838 | 1.00 | 99.66 | N |
| ATOM | 5018 | CA | THR | A | 736 | 18.325 | 42.180 | -16.490 | 1.00 | 99.66 | C |
| ATOM | 5019 | C | THR | A | 736 | 17.955 | 40.786 | -16.958 | 1.00 | 99.66 | C |
| ATOM | 5020 | O | THR | A | 736 | 18.800 | 39.878 | -16.937 | 1.00 | 99.66 | O |
| ATOM | 5021 | CB | THR | A | 736 | 18.541 | 42.148 | -14.966 | 1.00 | 88.52 | C |
| ATOM | 5022 | OG1 | THR | A | 736 | 17.277 | 41.989 | -14.306 | 1.00 | 88.52 | O |
| ATOM | 5023 | CG2 | THR | A | 736 | 19.215 | 43.424 | -14.500 | 1.00 | 88.52 | C |
| ATOM | 5024 | N | ASN | A | 737 | 16.677 | 40.633 | -17.345 | 1.00 | 170.92 | N |
| ATOM | 5025 | CA | ASN | A | 737 | 16.122 | 39.381 | -17.902 | 1.00 | 170.92 | C |
| ATOM | 5026 | C | ASN | A | 737 | 14.730 | 39.540 | -18.533 | 1.00 | 170.92 | C |
| ATOM | 5027 | O | ASN | A | 737 | 13.740 | 39.707 | -17.817 | 1.00 | 170.92 | O |
| ATOM | 5028 | CB | ASN | A | 737 | 16.080 | 38.279 | -16.834 | 1.00 | 123.23 | C |
| ATOM | 5029 | CG | ASN | A | 737 | 15.506 | 38.757 | -15.523 | 1.00 | 123.23 | C |
| ATOM | 5030 | OD1 | ASN | A | 737 | 16.233 | 39.235 | -14.654 | 1.00 | 123.23 | O |
| ATOM | 5031 | ND2 | ASN | A | 737 | 14.193 | 38.637 | -15.373 | 1.00 | 123.23 | N |
| ATOM | 5032 | N | GLY | A | 738 | 14.663 | 39.472 | -19.869 | 1.00 | 193.13 | N |
| ATOM | 5033 | CA | GLY | A | 738 | 13.390 | 39.610 | -20.571 | 1.00 | 193.13 | C |
| ATOM | 5034 | C | GLY | A | 738 | 13.412 | 39.666 | -22.100 | 1.00 | 193.13 | C |
| ATOM | 5035 | O | GLY | A | 738 | 14.425 | 39.329 | -22.727 | 1.00 | 193.13 | O |
| ATOM | 5036 | N | GLY | A | 739 | 12.280 | 40.087 | -22.687 | 1.00 | 145.03 | N |
| ATOM | 5037 | CA | GLY | A | 739 | 12.129 | 40.203 | -24.135 | 1.00 | 145.03 | C |
| ATOM | 5038 | C | GLY | A | 739 | 12.763 | 41.462 | -24.711 | 1.00 | 145.03 | C |
| ATOM | 5039 | O | GLY | A | 739 | 12.380 | 42.573 | -24.333 | 1.00 | 145.03 | O |
| ATOM | 5040 | N | PRO | A | 740 | 13.718 | 41.313 | -25.656 | 1.00 | 182.23 | N |
| ATOM | 5041 | CA | PRO | A | 740 | 14.491 | 42.346 | -26.359 | 1.00 | 182.23 | C |
| ATOM | 5042 | C | PRO | A | 740 | 13.796 | 43.601 | -26.856 | 1.00 | 182.23 | C |
| ATOM | 5043 | O | PRO | A | 740 | 14.192 | 44.697 | -26.476 | 1.00 | 182.23 | O |
| ATOM | 5044 | CB | PRO | A | 740 | 15.174 | 41.564 | -27.487 | 1.00 | 82.07 | C |
| ATOM | 5045 | CG | PRO | A | 740 | 14.266 | 40.394 | -27.708 | 1.00 | 82.07 | C |
| ATOM | 5046 | CD | PRO | A | 740 | 13.940 | 40.003 | -26.292 | 1.00 | 82.07 | C |
| ATOM | 5047 | N | PRO | A | 741 | 12.779 | 43.478 | -27.730 | 1.00 | 111.78 | N |
| ATOM | 5048 | CA | PRO | A | 741 | 12.157 | 44.732 | -28.156 | 1.00 | 111.78 | C |
| ATOM | 5049 | C | PRO | A | 741 | 11.270 | 45.173 | -27.012 | 1.00 | 111.78 | C |
| ATOM | 5050 | O | PRO | A | 741 | 10.889 | 44.355 | -26.160 | 1.00 | 111.78 | O |
| ATOM | 5051 | CB | PRO | A | 741 | 11.352 | 44.301 | -29.370 | 1.00 | 189.20 | C |
| ATOM | 5052 | CG | PRO | A | 741 | 10.833 | 42.958 | -28.921 | 1.00 | 189.20 | C |
| ATOM | 5053 | CD | PRO | A | 741 | 12.065 | 42.316 | -28.290 | 1.00 | 189.20 | C |
| ATOM | 5054 | N | GLU | A | 742 | 10.938 | 46.455 | -26.986 | 1.00 | 207.38 | N |
| ATOM | 5055 | CA | GLU | A | 742 | 10.101 | 46.988 | -25.923 | 1.00 | 207.38 | C |
| ATOM | 5056 | C | GLU | A | 742 | 10.908 | 47.281 | -24.650 | 1.00 | 207.38 | C |
| ATOM | 5057 | O | GLU | A | 742 | 10.445 | 48.020 | -23.789 | 1.00 | 207.38 | O |
| ATOM | 5058 | CB | GLU | A | 742 | 8.974 | 45.998 | -25.597 | 1.00 | 169.42 | C |
| ATOM | 5059 | CG | GLU | A | 742 | 8.057 | 45.661 | -26.763 | 1.00 | 169.42 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 5060 | CD | GLU | A | 742 | 7.227 | 46.844 | -27.234 | 1.00169.42 | C |
| ATOM | 5061 | OE1 | GLU | A | 742 | 6.341 | 46.643 | -28.091 | 1.00169.42 | O |
| ATOM | 5062 | OE2 | GLU | A | 742 | 7.461 | 47.974 | -26.753 | 1.00169.42 | O |
| ATOM | 5063 | N | THR | A | 743 | 12.103 | 46.709 | -24.514 | 1.00144.64 | N |
| ATOM | 5064 | CA | THR | A | 743 | 12.909 | 46.971 | -23.322 | 1.00144.64 | C |
| ATOM | 5065 | C | THR | A | 743 | 13.114 | 48.483 | -23.209 | 1.00144.64 | C |
| ATOM | 5066 | O | THR | A | 743 | 13.307 | 49.010 | -22.116 | 1.00144.64 | O |
| ATOM | 5067 | CB | THR | A | 743 | 14.277 | 46.254 | -23.377 | 1.00207.38 | C |
| ATOM | 5068 | OG1 | THR | A | 743 | 14.843 | 46.391 | -24.686 | 1.00207.38 | O |
| ATOM | 5069 | CG2 | THR | A | 743 | 14.119 | 44.777 | -23.031 | 1.00207.38 | C |
| ATOM | 5070 | N | GLN | A | 744 | 13.051 | 49.162 | -24.354 | 1.00163.24 | N |
| ATOM | 5071 | CA | GLN | A | 744 | 13.206 | 50.610 | -24.428 | 1.00163.24 | C |
| ATOM | 5072 | C | GLN | A | 744 | 11.992 | 51.232 | -23.755 | 1.00163.24 | C |
| ATOM | 5073 | O | GLN | A | 744 | 12.127 | 52.094 | -22.886 | 1.00163.24 | O |
| ATOM | 5074 | CB | GLN | A | 744 | 13.255 | 51.050 | -25.893 | 1.00156.58 | C |
| ATOM | 5075 | CG | GLN | A | 744 | 13.381 | 52.553 | -26.103 | 1.00156.58 | C |
| ATOM | 5076 | CD | GLN | A | 744 | 14.804 | 53.058 | -25.958 | 1.00156.58 | C |
| ATOM | 5077 | OE1 | GLN | A | 744 | 15.482 | 52.779 | -24.968 | 1.00156.58 | O |
| ATOM | 5078 | NE2 | GLN | A | 744 | 15.262 | 53.818 | -26.950 | 1.00156.58 | N |
| ATOM | 5079 | N | ARG | A | 745 | 10.803 | 50.788 | -24.165 | 1.00205.67 | N |
| ATOM | 5080 | CA | ARG | A | 745 | 9.542 | 51.279 | -23.598 | 1.00205.67 | C |
| ATOM | 5081 | C | ARG | A | 745 | 9.457 | 50.848 | -22.138 | 1.00205.67 | C |
| ATOM | 5082 | O | ARG | A | 745 | 9.042 | 51.621 | -21.290 | 1.00205.67 | O |
| ATOM | 5083 | CB | ARG | A | 745 | 8.346 | 50.716 | -24.377 | 1.00192.10 | C |
| ATOM | 5084 | CG | ARG | A | 745 | 6.976 | 51.056 | -23.788 | 1.00192.10 | C |
| ATOM | 5085 | CD | ARG | A | 745 | 6.645 | 52.543 | -23.856 | 1.00192.10 | C |
| ATOM | 5086 | NE | ARG | A | 745 | 5.346 | 52.830 | -23.247 | 1.00192.10 | N |
| ATOM | 5087 | CZ | ARG | A | 745 | 4.818 | 54.046 | -23.140 | 1.00192.10 | C |
| ATOM | 5088 | NH1 | ARG | A | 745 | 5.474 | 55.102 | -23.602 | 1.00192.10 | N |
| ATOM | 5089 | NH2 | ARG | A | 745 | 3.630 | 54.206 | -22.568 | 1.00192.10 | N |
| ATOM | 5090 | N | GLN | A | 746 | 9.844 | 49.603 | -21.862 | 1.00139.08 | N |
| ATOM | 5091 | CA | GLN | A | 746 | 9.855 | 49.053 | -20.510 | 1.00139.08 | C |
| ATOM | 5092 | C | GLN | A | 746 | 10.735 | 49.993 | -19.705 | 1.00139.08 | C |
| ATOM | 5093 | O | GLN | A | 746 | 10.350 | 50.487 | -18.645 | 1.00139.08 | O |
| ATOM | 5094 | CB | GLN | A | 746 | 10.444 | 47.640 | -20.512 | 1.00164.84 | C |
| ATOM | 5095 | CG | GLN | A | 746 | 9.648 | 46.644 | -21.334 | 1.00164.84 | C |
| ATOM | 5096 | CD | GLN | A | 746 | 8.302 | 46.330 | -20.717 | 1.00164.84 | C |
| ATOM | 5097 | OE1 | GLN | A | 746 | 8.216 | 45.616 | -19.719 | 1.00164.84 | O |
| ATOM | 5098 | NE2 | GLN | A | 746 | 7.242 | 46.873 | -21.300 | 1.00164.84 | N |
| ATOM | 5099 | N | ASN | A | 747 | 11.933 | 50.226 | -20.225 | 1.00 95.05 | N |
| ATOM | 5100 | CA | ASN | A | 747 | 12.861 | 51.153 | -19.608 | 1.00 95.05 | C |
| ATOM | 5101 | C | ASN | A | 747 | 12.079 | 52.467 | -19.538 | 1.00 95.05 | C |
| ATOM | 5102 | O | ASN | A | 747 | 11.360 | 52.738 | -18.581 | 1.00 95.05 | O |
| ATOM | 5103 | CB | ASN | A | 747 | 14.084 | 51.353 | -20.511 | 1.00126.75 | C |
| ATOM | 5104 | CG | ASN | A | 747 | 15.392 | 51.083 | -19.801 | 1.00126.75 | C |
| ATOM | 5105 | OD1 | ASN | A | 747 | 15.581 | 51.482 | -18.652 | 1.00126.75 | O |
| ATOM | 5106 | ND2 | ASN | A | 747 | 16.313 | 50.419 | -20.490 | 1.00126.75 | N |
| ATOM | 5107 | N | SER | A | 748 | 12.214 | 53.257 | -20.596 | 1.00138.87 | N |
| ATOM | 5108 | CA | SER | A | 748 | 11.559 | 54.541 | -20.694 | 1.00138.87 | C |
| ATOM | 5109 | C | SER | A | 748 | 10.353 | 54.611 | -19.796 | 1.00138.87 | C |
| ATOM | 5110 | O | SER | A | 748 | 10.197 | 55.566 | -19.040 | 1.00138.87 | O |
| ATOM | 5111 | CB | SER | A | 748 | 11.160 | 54.838 | -22.141 | 1.00136.03 | C |
| ATOM | 5112 | OG | SER | A | 748 | 12.285 | 55.255 | -22.897 | 1.00136.03 | O |
| ATOM | 5113 | N | ASN | A | 749 | 9.498 | 53.606 | -19.844 | 1.00114.79 | N |
| ATOM | 5114 | CA | ASN | A | 749 | 8.352 | 53.667 | -18.965 | 1.00114.79 | C |
| ATOM | 5115 | C | ASN | A | 749 | 8.805 | 53.731 | -17.536 | 1.00114.79 | C |
| ATOM | 5116 | O | ASN | A | 749 | 8.777 | 54.789 | -16.922 | 1.00114.79 | O |
| ATOM | 5117 | CB | ASN | A | 749 | 7.425 | 52.468 | -19.090 | 1.00165.21 | C |
| ATOM | 5118 | CG | ASN | A | 749 | 6.485 | 52.357 | -17.890 | 1.00165.21 | C |
| ATOM | 5119 | OD1 | ASN | A | 749 | 6.904 | 51.975 | -16.796 | 1.00165.21 | O |
| ATOM | 5120 | ND2 | ASN | A | 749 | 5.223 | 52.725 | -18.083 | 1.00165.21 | N |
| ATOM | 5121 | N | LEU | A | 750 | 9.195 | 52.588 | -16.992 | 1.00 88.60 | N |
| ATOM | 5122 | CA | LEU | A | 750 | 9.652 | 52.542 | -15.614 | 1.00 88.60 | C |
| ATOM | 5123 | C | LEU | A | 750 | 10.502 | 53.771 | -15.236 | 1.00 88.60 | C |
| ATOM | 5124 | O | LEU | A | 750 | 10.343 | 54.290 | -14.132 | 1.00 88.60 | O |
| ATOM | 5125 | CB | LEU | A | 750 | 10.424 | 51.243 | -15.391 | 1.00100.14 | C |
| ATOM | 5126 | CG | LEU | A | 750 | 9.504 | 50.037 | -15.631 | 1.00100.14 | C |
| ATOM | 5127 | CD1 | LEU | A | 750 | 10.314 | 48.748 | -15.718 | 1.00100.14 | C |
| ATOM | 5128 | CD2 | LEU | A | 750 | 8.448 | 49.976 | -14.518 | 1.00100.14 | C |
| ATOM | 5129 | N | PHE | A | 751 | 11.374 | 54.249 | -16.141 | 1.00 71.73 | N |
| ATOM | 5130 | CA | PHE | A | 751 | 12.194 | 55.440 | -15.874 | 1.00 71.73 | C |
| ATOM | 5131 | C | PHE | A | 751 | 11.227 | 56.561 | -15.474 | 1.00 71.73 | C |
| ATOM | 5132 | O | PHE | A | 751 | 11.130 | 56.907 | -14.294 | 1.00 71.73 | O |
| ATOM | 5133 | CB | PHE | A | 751 | 13.017 | 55.812 | -17.123 | 1.00204.71 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 5134 | CG | PHE | A | 751 | 12.860 | 57.243 | -17.574 | 1.00204.71 | C |
| ATOM | 5135 | CD1 | PHE | A | 751 | 12.140 | 57.539 | -18.727 | 1.00204.71 | C |
| ATOM | 5136 | CD2 | PHE | A | 751 | 13.449 | 58.289 | -16.866 | 1.00204.71 | C |
| ATOM | 5137 | CE1 | PHE | A | 751 | 12.010 | 58.845 | -19.168 | 1.00204.71 | C |
| ATOM | 5138 | CE2 | PHE | A | 751 | 13.323 | 59.607 | -17.303 | 1.00204.71 | C |
| ATOM | 5139 | CZ | PHE | A | 751 | 12.604 | 59.883 | -18.454 | 1.00204.71 | C |
| ATOM | 5140 | N | SER | A | 752 | 10.484 | 57.106 | -16.435 | 1.00 58.40 | N |
| ATOM | 5141 | CA | SER | A | 752 | 9.505 | 58.167 | -16.151 | 1.00 58.40 | C |
| ATOM | 5142 | C | SER | A | 752 | 8.664 | 57.811 | -14.915 | 1.00 58.40 | C |
| ATOM | 5143 | O | SER | A | 752 | 8.473 | 58.612 | -14.002 | 1.00 58.40 | O |
| ATOM | 5144 | CB | SER | A | 752 | 8.584 | 58.355 | -17.360 | 1.00135.54 | C |
| ATOM | 5145 | OG | SER | A | 752 | 7.519 | 59.237 | -17.060 | 1.00135.54 | O |
| ATOM | 5146 | N | LEU | A | 753 | 8.172 | 56.587 | -14.909 | 1.00 84.53 | N |
| ATOM | 5147 | CA | LEU | A | 753 | 7.376 | 56.087 | -13.816 | 1.00 84.53 | C |
| ATOM | 5148 | C | LEU | A | 753 | 8.078 | 56.420 | -12.533 | 1.00 84.53 | C |
| ATOM | 5149 | O | LEU | A | 753 | 7.493 | 57.021 | -11.658 | 1.00 84.53 | O |
| ATOM | 5150 | CB | LEU | A | 753 | 7.201 | 54.578 | -13.963 | 1.00101.89 | C |
| ATOM | 5151 | CG | LEU | A | 753 | 6.229 | 53.917 | -12.990 | 1.00101.89 | C |
| ATOM | 5152 | CD1 | LEU | A | 753 | 4.944 | 54.739 | -12.875 | 1.00101.89 | C |
| ATOM | 5153 | CD2 | LEU | A | 753 | 5.942 | 52.507 | -13.479 | 1.00101.89 | C |
| ATOM | 5154 | N | LEU | A | 754 | 9.336 | 56.022 | -12.417 | 1.00114.58 | N |
| ATOM | 5155 | CA | LEU | A | 754 | 10.109 | 56.319 | -11.214 | 1.00114.58 | C |
| ATOM | 5156 | C | LEU | A | 754 | 10.025 | 57.835 | -10.923 | 1.00114.58 | C |
| ATOM | 5157 | O | LEU | A | 754 | 9.764 | 58.260 | -9.785 | 1.00114.58 | O |
| ATOM | 5158 | CB | LEU | A | 754 | 11.571 | 55.890 | -11.407 | 1.00 60.77 | C |
| ATOM | 5159 | CG | LEU | A | 754 | 12.089 | 54.662 | -10.644 | 1.00 60.77 | C |
| ATOM | 5160 | CD1 | LEU | A | 754 | 13.275 | 54.032 | -11.389 | 1.00 60.77 | C |
| ATOM | 5161 | CD2 | LEU | A | 754 | 12.476 | 55.083 | -9.223 | 1.00 60.77 | C |
| ATOM | 5162 | N | PHE | A | 755 | 10.222 | 58.646 | -11.958 | 1.00 83.77 | N |
| ATOM | 5163 | CA | PHE | A | 755 | 10.166 | 60.082 | -11.769 | 1.00 83.77 | C |
| ATOM | 5164 | C | PHE | A | 755 | 8.777 | 60.551 | -11.389 | 1.00 83.77 | C |
| ATOM | 5165 | O | PHE | A | 755 | 8.489 | 60.746 | -10.202 | 1.00 83.77 | O |
| ATOM | 5166 | CB | PHE | A | 755 | 10.598 | 60.826 | -13.033 | 1.00130.72 | C |
| ATOM | 5167 | CG | PHE | A | 755 | 10.233 | 62.286 | -13.019 | 1.00130.72 | C |
| ATOM | 5168 | CD1 | PHE | A | 755 | 9.637 | 62.880 | -14.128 | 1.00130.72 | C |
| ATOM | 5169 | CD2 | PHE | A | 755 | 10.452 | 63.060 | -11.882 | 1.00130.72 | C |
| ATOM | 5170 | CE1 | PHE | A | 755 | 9.259 | 64.224 | -14.104 | 1.00130.72 | C |
| ATOM | 5171 | CE2 | PHE | A | 755 | 10.080 | 64.401 | -11.846 | 1.00130.72 | C |
| ATOM | 5172 | CZ | PHE | A | 755 | 9.480 | 64.986 | -12.961 | 1.00130.72 | C |
| ATOM | 5173 | N | LEU | A | 756 | 7.927 | 60.741 | -12.401 | 1.00 91.32 | N |
| ATOM | 5174 | CA | LEU | A | 756 | 6.567 | 61.225 | -12.184 | 1.00 91.32 | C |
| ATOM | 5175 | C | LEU | A | 756 | 6.043 | 60.731 | -10.849 | 1.00 91.32 | C |
| ATOM | 5176 | O | LEU | A | 756 | 5.593 | 61.513 | -10.022 | 1.00 91.32 | O |
| ATOM | 5177 | CB | LEU | A | 756 | 5.656 | 60.773 | -13.329 | 1.00106.82 | C |
| ATOM | 5178 | CG | LEU | A | 756 | 5.276 | 59.295 | -13.383 | 1.00106.82 | C |
| ATOM | 5179 | CD1 | LEU | A | 756 | 4.140 | 59.029 | -12.401 | 1.00106.82 | C |
| ATOM | 5180 | CD2 | LEU | A | 756 | 4.850 | 58.927 | -14.795 | 1.00106.82 | C |
| ATOM | 5181 | N | ILE | A | 757 | 6.138 | 59.431 | -10.627 | 1.00123.73 | N |
| ATOM | 5182 | CA | ILE | A | 757 | 5.695 | 58.868 | -9.375 | 1.00123.73 | C |
| ATOM | 5183 | C | ILE | A | 757 | 6.411 | 59.553 | -8.215 | 1.00123.73 | C |
| ATOM | 5184 | O | ILE | A | 757 | 5.899 | 60.540 | -7.686 | 1.00123.73 | O |
| ATOM | 5185 | CB | ILE | A | 757 | 5.965 | 57.347 | -9.320 | 1.00148.28 | C |
| ATOM | 5186 | CG1 | ILE | A | 757 | 5.031 | 56.616 | -10.288 | 1.00148.28 | C |
| ATOM | 5187 | CG2 | ILE | A | 757 | 5.767 | 56.829 | -7.902 | 1.00148.28 | C |
| ATOM | 5188 | CD1 | ILE | A | 757 | 3.554 | 56.723 | -9.923 | 1.00148.28 | C |
| ATOM | 5189 | N | LEU | A | 758 | 7.595 | 59.073 | -7.828 | 1.00105.71 | N |
| ATOM | 5190 | CA | LEU | A | 758 | 8.270 | 59.694 | -6.690 | 1.00105.71 | C |
| ATOM | 5191 | C | LEU | A | 758 | 8.168 | 61.221 | -6.800 | 1.00105.71 | C |
| ATOM | 5192 | O | LEU | A | 758 | 7.296 | 61.840 | -6.173 | 1.00105.71 | O |
| ATOM | 5193 | CB | LEU | A | 758 | 9.726 | 59.224 | -6.585 | 1.00 80.65 | C |
| ATOM | 5194 | CG | LEU | A | 758 | 10.423 | 59.467 | -5.237 | 1.00 80.65 | C |
| ATOM | 5195 | CD1 | LEU | A | 758 | 11.199 | 58.233 | -4.813 | 1.00 80.65 | C |
| ATOM | 5196 | CD2 | LEU | A | 758 | 11.345 | 60.662 | -5.350 | 1.00 80.65 | C |
| ATOM | 5197 | N | GLY | A | 759 | 9.032 | 61.809 | -7.624 | 1.00142.82 | N |
| ATOM | 5198 | CA | GLY | A | 759 | 9.058 | 63.250 | -7.813 | 1.00142.82 | C |
| ATOM | 5199 | C | GLY | A | 759 | 7.768 | 63.971 | -7.497 | 1.00142.82 | C |
| ATOM | 5200 | O | GLY | A | 759 | 7.668 | 64.708 | -6.508 | 1.00142.82 | O |
| ATOM | 5201 | N | ILE | A | 760 | 6.766 | 63.759 | -8.332 | 1.00 89.35 | N |
| ATOM | 5202 | CA | ILE | A | 760 | 5.494 | 64.420 | -8.108 | 1.00 89.35 | C |
| ATOM | 5203 | C | ILE | A | 760 | 4.842 | 63.996 | -6.785 | 1.00 89.35 | C |
| ATOM | 5204 | O | ILE | A | 760 | 4.959 | 64.710 | -5.787 | 1.00 89.35 | O |
| ATOM | 5205 | CB | ILE | A | 760 | 4.534 | 64.170 | -9.294 | 1.00 86.29 | C |
| ATOM | 5206 | CG1 | ILE | A | 760 | 4.957 | 65.034 | -10.486 | 1.00 86.29 | C |
| ATOM | 5207 | CG2 | ILE | A | 760 | 3.102 | 64.500 | -8.902 | 1.00 86.29 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------|--------|---|
| ATOM | 5208 | CD1 | ILE | A | 760 | 6.405 | 64.839 | -10.927 | 1.00 | 86.29 | C |
| ATOM | 5209 | N | ILE | A | 761 | 4.172 | 62.845 | -6.774 | 1.00 | 85.79 | N |
| ATOM | 5210 | CA | ILE | A | 761 | 3.498 | 62.354 | -5.577 | 1.00 | 85.79 | C |
| ATOM | 5211 | C | ILE | A | 761 | 4.058 | 62.988 | -4.320 | 1.00 | 85.79 | C |
| ATOM | 5212 | O | ILE | A | 761 | 3.322 | 63.605 | -3.548 | 1.00 | 85.79 | O |
| ATOM | 5213 | CB | ILE | A | 761 | 3.625 | 60.810 | -5.411 | 1.00 | 146.42 | C |
| ATOM | 5214 | CG1 | ILE | A | 761 | 2.766 | 60.081 | -6.447 | 1.00 | 146.42 | C |
| ATOM | 5215 | CG2 | ILE | A | 761 | 3.211 | 60.403 | -3.997 | 1.00 | 146.42 | C |
| ATOM | 5216 | CD1 | ILE | A | 761 | 2.716 | 58.582 | -6.238 | 1.00 | 146.42 | C |
| ATOM | 5217 | N | SER | A | 762 | 5.364 | 62.847 | -4.115 | 1.00 | 88.48 | N |
| ATOM | 5218 | CA | SER | A | 762 | 5.956 | 63.401 | -2.915 | 1.00 | 88.48 | C |
| ATOM | 5219 | C | SER | A | 762 | 5.842 | 64.915 | -2.880 | 1.00 | 88.48 | C |
| ATOM | 5220 | O | SER | A | 762 | 5.193 | 65.442 | -1.978 | 1.00 | 88.48 | O |
| ATOM | 5221 | CB | SER | A | 762 | 7.417 | 62.980 | -2.795 | 1.00 | 91.34 | C |
| ATOM | 5222 | OG | SER | A | 762 | 7.859 | 63.111 | -1.452 | 1.00 | 91.34 | O |
| ATOM | 5223 | N | PHE | A | 763 | 6.445 | 65.617 | -3.848 | 1.00 | 73.17 | N |
| ATOM | 5224 | CA | PHE | A | 763 | 6.370 | 67.079 | -3.856 | 1.00 | 73.17 | C |
| ATOM | 5225 | C | PHE | A | 763 | 5.014 | 67.416 | -3.285 | 1.00 | 73.17 | C |
| ATOM | 5226 | O | PHE | A | 763 | 4.867 | 68.240 | -2.381 | 1.00 | 73.17 | O |
| ATOM | 5227 | CB | PHE | A | 763 | 6.452 | 67.621 | -5.281 | 1.00 | 151.92 | C |
| ATOM | 5228 | CG | PHE | A | 763 | 6.279 | 69.118 | -5.375 | 1.00 | 151.92 | C |
| ATOM | 5229 | CD1 | PHE | A | 763 | 5.931 | 69.717 | -6.583 | 1.00 | 151.92 | C |
| ATOM | 5230 | CD2 | PHE | A | 763 | 6.470 | 69.928 | -4.257 | 1.00 | 151.92 | C |
| ATOM | 5231 | CE1 | PHE | A | 763 | 5.776 | 71.097 | -6.675 | 1.00 | 151.92 | C |
| ATOM | 5232 | CE2 | PHE | A | 763 | 6.318 | 71.308 | -4.338 | 1.00 | 151.92 | C |
| ATOM | 5233 | CZ | PHE | A | 763 | 5.970 | 71.895 | -5.547 | 1.00 | 151.92 | C |
| ATOM | 5234 | N | ILE | A | 764 | 4.021 | 66.734 | -3.831 | 1.00 | 87.38 | N |
| ATOM | 5235 | CA | ILE | A | 764 | 2.658 | 66.877 | -3.392 | 1.00 | 87.38 | C |
| ATOM | 5236 | C | ILE | A | 764 | 2.645 | 66.521 | -1.931 | 1.00 | 87.38 | C |
| ATOM | 5237 | O | ILE | A | 764 | 2.577 | 67.419 | -1.090 | 1.00 | 87.38 | O |
| ATOM | 5238 | CB | ILE | A | 764 | 1.708 | 65.925 | -4.165 | 1.00 | 95.95 | C |
| ATOM | 5239 | CG1 | ILE | A | 764 | 1.306 | 66.562 | -5.498 | 1.00 | 95.95 | C |
| ATOM | 5240 | CG2 | ILE | A | 764 | 0.500 | 65.573 | -3.307 | 1.00 | 95.95 | C |
| ATOM | 5241 | CD1 | ILE | A | 764 | 0.654 | 67.913 | -5.347 | 1.00 | 95.95 | C |
| ATOM | 5242 | N | THR | A | 765 | 2.742 | 65.220 | -1.641 | 1.00 | 73.96 | N |
| ATOM | 5243 | CA | THR | A | 765 | 2.708 | 64.705 | -0.274 | 1.00 | 73.96 | C |
| ATOM | 5244 | C | THR | A | 765 | 3.107 | 65.755 | 0.765 | 1.00 | 73.96 | C |
| ATOM | 5245 | O | THR | A | 765 | 2.318 | 66.078 | 1.671 | 1.00 | 73.96 | O |
| ATOM | 5246 | CB | THR | A | 765 | 3.590 | 63.440 | -0.113 | 1.00 | 145.85 | C |
| ATOM | 5247 | OG1 | THR | A | 765 | 3.163 | 62.704 | 1.043 | 1.00 | 145.85 | O |
| ATOM | 5248 | CG2 | THR | A | 765 | 5.058 | 63.816 | 0.031 | 1.00 | 145.85 | C |
| ATOM | 5249 | N | PHE | A | 766 | 4.318 | 66.293 | 0.612 | 1.00 | 89.73 | N |
| ATOM | 5250 | CA | PHE | A | 766 | 4.866 | 67.324 | 1.491 | 1.00 | 89.73 | C |
| ATOM | 5251 | C | PHE | A | 766 | 3.974 | 68.553 | 1.516 | 1.00 | 89.73 | C |
| ATOM | 5252 | O | PHE | A | 766 | 3.260 | 68.807 | 2.494 | 1.00 | 89.73 | O |
| ATOM | 5253 | CB | PHE | A | 766 | 6.249 | 67.749 | 1.005 | 1.00 | 91.55 | C |
| ATOM | 5254 | CG | PHE | A | 766 | 7.349 | 66.826 | 1.421 | 1.00 | 91.55 | C |
| ATOM | 5255 | CD1 | PHE | A | 766 | 7.254 | 65.459 | 1.191 | 1.00 | 91.55 | C |
| ATOM | 5256 | CD2 | PHE | A | 766 | 8.482 | 67.326 | 2.046 | 1.00 | 91.55 | C |
| ATOM | 5257 | CE1 | PHE | A | 766 | 8.277 | 64.596 | 1.582 | 1.00 | 91.55 | C |
| ATOM | 5258 | CE2 | PHE | A | 766 | 9.510 | 66.483 | 2.442 | 1.00 | 91.55 | C |
| ATOM | 5259 | CZ | PHE | A | 766 | 9.409 | 65.109 | 2.210 | 1.00 | 91.55 | C |
| ATOM | 5260 | N | PHE | A | 767 | 4.044 | 69.313 | 0.427 | 1.00 | 78.59 | N |
| ATOM | 5261 | CA | PHE | A | 767 | 3.250 | 70.511 | 0.277 | 1.00 | 78.59 | C |
| ATOM | 5262 | C | PHE | A | 767 | 2.018 | 70.385 | 1.118 | 1.00 | 78.59 | C |
| ATOM | 5263 | O | PHE | A | 767 | 1.859 | 71.114 | 2.076 | 1.00 | 78.59 | O |
| ATOM | 5264 | CB | PHE | A | 767 | 2.866 | 70.714 | -1.190 | 1.00 | 99.85 | C |
| ATOM | 5265 | CG | PHE | A | 767 | 2.063 | 71.948 | -1.435 | 1.00 | 99.85 | C |
| ATOM | 5266 | CD1 | PHE | A | 767 | 2.384 | 73.127 | -0.779 | 1.00 | 99.85 | C |
| ATOM | 5267 | CD2 | PHE | A | 767 | 1.002 | 71.944 | -2.336 | 1.00 | 99.85 | C |
| ATOM | 5268 | CE1 | PHE | A | 767 | 1.670 | 74.283 | -1.007 | 1.00 | 99.85 | C |
| ATOM | 5269 | CE2 | PHE | A | 767 | 0.277 | 73.102 | -2.573 | 1.00 | 99.85 | C |
| ATOM | 5270 | CZ | PHE | A | 767 | 0.616 | 74.277 | -1.904 | 1.00 | 99.85 | C |
| ATOM | 5271 | N | LEU | A | 768 | 1.160 | 69.431 | 0.775 | 1.00 | 98.53 | N |
| ATOM | 5272 | CA | LEU | A | 768 | -0.083 | 69.215 | 1.521 | 1.00 | 98.53 | C |
| ATOM | 5273 | C | LEU | A | 768 | 0.100 | 68.929 | 3.012 | 1.00 | 98.53 | C |
| ATOM | 5274 | O | LEU | A | 768 | -0.331 | 69.724 | 3.853 | 1.00 | 98.53 | O |
| ATOM | 5275 | CB | LEU | A | 768 | -0.889 | 68.079 | 0.872 | 1.00 | 207.38 | C |
| ATOM | 5276 | CG | LEU | A | 768 | -1.047 | 66.723 | 1.573 | 1.00 | 207.38 | C |
| ATOM | 5277 | CD1 | LEU | A | 768 | -1.981 | 66.852 | 2.769 | 1.00 | 207.38 | C |
| ATOM | 5278 | CD2 | LEU | A | 768 | -1.613 | 65.714 | 0.588 | 1.00 | 207.38 | C |
| ATOM | 5279 | N | GLN | A | 769 | 0.727 | 67.801 | 3.343 | 1.00 | 161.87 | N |
| ATOM | 5280 | CA | GLN | A | 769 | 0.911 | 67.431 | 4.742 | 1.00 | 161.87 | C |
| ATOM | 5281 | C | GLN | A | 769 | 1.533 | 68.529 | 5.550 | 1.00 | 161.87 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5282 | O | GLN | A | 769 | 1.069 | 68.818 | 6.643 | 1.00161.87 | O |
| ATOM | 5283 | CB | GLN | A | 769 | 1.701 | 66.111 | 4.859 | 1.00 63.02 | C |
| ATOM | 5284 | CG | GLN | A | 769 | 3.224 | 66.202 | 4.823 | 1.00 63.02 | C |
| ATOM | 5285 | CD | GLN | A | 769 | 3.856 | 64.956 | 4.236 | 1.00 63.02 | C |
| ATOM | 5286 | OE1 | GLN | A | 769 | 4.753 | 64.348 | 4.831 | 1.00 63.02 | O |
| ATOM | 5287 | NE2 | GLN | A | 769 | 3.393 | 64.572 | 3.052 | 1.00 63.02 | N |
| ATOM | 5288 | N | GLY | A | 770 | 2.582 | 69.139 | 5.016 | 1.00121.53 | N |
| ATOM | 5289 | CA | GLY | A | 770 | 3.222 | 70.235 | 5.720 | 1.00121.53 | C |
| ATOM | 5290 | C | GLY | A | 770 | 2.242 | 71.379 | 5.974 | 1.00121.53 | C |
| ATOM | 5291 | O | GLY | A | 770 | 2.302 | 72.074 | 6.996 | 1.00121.53 | O |
| ATOM | 5292 | N | PHE | A | 771 | 1.324 | 71.577 | 5.039 | 1.00115.29 | N |
| ATOM | 5293 | CA | PHE | A | 771 | 0.323 | 72.622 | 5.167 | 1.00115.29 | C |
| ATOM | 5294 | C | PHE | A | 771 | -0.588 | 72.363 | 6.367 | 1.00115.29 | C |
| ATOM | 5295 | O | PHE | A | 771 | -0.623 | 73.146 | 7.319 | 1.00115.29 | O |
| ATOM | 5296 | CB | PHE | A | 771 | -0.499 | 72.679 | 3.885 | 1.00163.63 | C |
| ATOM | 5297 | CG | PHE | A | 771 | -1.302 | 73.924 | 3.744 | 1.00163.63 | C |
| ATOM | 5298 | CD1 | PHE | A | 771 | -1.949 | 74.212 | 2.552 | 1.00163.63 | C |
| ATOM | 5299 | CD2 | PHE | A | 771 | -1.397 | 74.822 | 4.796 | 1.00163.63 | C |
| ATOM | 5300 | CE1 | PHE | A | 771 | -2.678 | 75.384 | 2.409 | 1.00163.63 | C |
| ATOM | 5301 | CE2 | PHE | A | 771 | -2.122 | 75.995 | 4.667 | 1.00163.63 | C |
| ATOM | 5302 | CZ | PHE | A | 771 | -2.765 | 76.279 | 3.470 | 1.00163.63 | C |
| ATOM | 5303 | N | THR | A | 772 | -1.316 | 71.254 | 6.315 | 1.00113.98 | N |
| ATOM | 5304 | CA | THR | A | 772 | -2.224 | 70.852 | 7.388 | 1.00113.98 | C |
| ATOM | 5305 | C | THR | A | 772 | -1.568 | 70.639 | 8.776 | 1.00113.98 | C |
| ATOM | 5306 | O | THR | A | 772 | -1.879 | 71.379 | 9.722 | 1.00113.98 | O |
| ATOM | 5307 | CB | THR | A | 772 | -2.953 | 69.560 | 6.990 | 1.00105.13 | C |
| ATOM | 5308 | OG1 | THR | A | 772 | -2.003 | 68.491 | 6.885 | 1.00105.13 | O |
| ATOM | 5309 | CG2 | THR | A | 772 | -3.655 | 69.743 | 5.638 | 1.00105.13 | C |
| ATOM | 5310 | N | PHE | A | 773 | -0.667 | 69.647 | 8.896 | 1.00118.25 | N |
| ATOM | 5311 | CA | PHE | A | 773 | 0.009 | 69.329 | 10.175 | 1.00118.25 | C |
| ATOM | 5312 | C | PHE | A | 773 | 0.810 | 70.496 | 10.737 | 1.00118.25 | C |
| ATOM | 5313 | O | PHE | A | 773 | 0.838 | 70.723 | 11.946 | 1.00118.25 | O |
| ATOM | 5314 | CB | PHE | A | 773 | 0.892 | 68.066 | 10.037 | 1.00207.38 | C |
| ATOM | 5315 | CG | PHE | A | 773 | 2.310 | 68.321 | 9.565 | 1.00207.38 | C |
| ATOM | 5316 | CD1 | PHE | A | 773 | 3.203 | 69.070 | 10.329 | 1.00207.38 | C |
| ATOM | 5317 | CD2 | PHE | A | 773 | 2.775 | 67.735 | 8.390 | 1.00207.38 | C |
| ATOM | 5318 | CE1 | PHE | A | 773 | 4.537 | 69.222 | 9.929 | 1.00207.38 | C |
| ATOM | 5319 | CE2 | PHE | A | 773 | 4.104 | 67.884 | 7.987 | 1.00207.38 | C |
| ATOM | 5320 | CZ | PHE | A | 773 | 4.983 | 68.625 | 8.757 | 1.00207.38 | C |
| ATOM | 5321 | N | GLY | A | 774 | 1.460 | 71.240 | 9.857 | 1.00 67.76 | N |
| ATOM | 5322 | CA | GLY | A | 774 | 2.219 | 72.372 | 10.315 | 1.00 67.76 | C |
| ATOM | 5323 | C | GLY | A | 774 | 1.245 | 73.299 | 10.989 | 1.00 67.76 | C |
| ATOM | 5324 | O | GLY | A | 774 | 1.543 | 73.748 | 12.097 | 1.00 67.76 | O |
| ATOM | 5325 | N | LYS | A | 775 | 0.089 | 73.557 | 10.346 | 1.00 42.46 | N |
| ATOM | 5326 | CA | LYS | A | 775 | -0.955 | 74.467 | 10.884 | 1.00 42.46 | C |
| ATOM | 5327 | C | LYS | A | 775 | -1.430 | 73.996 | 12.233 | 1.00 42.46 | C |
| ATOM | 5328 | O | LYS | A | 775 | -1.870 | 74.796 | 13.053 | 1.00 42.46 | O |
| ATOM | 5329 | CB | LYS | A | 775 | -2.131 | 74.587 | 9.905 | 1.00207.36 | C |
| ATOM | 5330 | CG | LYS | A | 775 | -2.978 | 75.834 | 10.143 | 1.00207.36 | C |
| ATOM | 5331 | CD | LYS | A | 775 | -3.958 | 76.121 | 9.009 | 1.00207.36 | C |
| ATOM | 5332 | CE | LYS | A | 775 | -5.071 | 75.090 | 8.931 | 1.00207.36 | C |
| ATOM | 5333 | NZ | LYS | A | 775 | -4.571 | 73.748 | 8.530 | 1.00207.36 | N |
| ATOM | 5334 | N | ALA | A | 776 | -1.318 | 72.689 | 12.450 | 1.00 70.26 | N |
| ATOM | 5335 | CA | ALA | A | 776 | -1.674 | 72.082 | 13.729 | 1.00 70.26 | C |
| ATOM | 5336 | C | ALA | A | 776 | -0.651 | 72.537 | 14.751 | 1.00 70.26 | C |
| ATOM | 5337 | O | ALA | A | 776 | -0.969 | 72.717 | 15.924 | 1.00 70.26 | O |
| ATOM | 5338 | CB | ALA | A | 776 | -1.676 | 70.562 | 13.595 | 1.00 37.90 | C |
| ATOM | 5339 | N | GLY | A | 777 | 0.593 | 72.679 | 14.294 | 1.00142.17 | N |
| ATOM | 5340 | CA | GLY | A | 777 | 1.671 | 73.110 | 15.171 | 1.00142.17 | C |
| ATOM | 5341 | C | GLY | A | 777 | 1.456 | 74.551 | 15.547 | 1.00142.17 | C |
| ATOM | 5342 | O | GLY | A | 777 | 1.617 | 74.959 | 16.697 | 1.00142.17 | O |
| ATOM | 5343 | N | GLU | A | 778 | 1.098 | 75.331 | 14.545 | 1.00 66.70 | N |
| ATOM | 5344 | CA | GLU | A | 778 | 0.812 | 76.710 | 14.767 | 1.00 66.70 | C |
| ATOM | 5345 | C | GLU | A | 778 | -0.218 | 76.725 | 15.900 | 1.00 66.70 | C |
| ATOM | 5346 | O | GLU | A | 778 | 0.157 | 76.869 | 17.076 | 1.00 66.70 | O |
| ATOM | 5347 | CB | GLU | A | 778 | 0.214 | 77.338 | 13.505 | 1.00133.33 | C |
| ATOM | 5348 | CG | GLU | A | 778 | 1.135 | 77.323 | 12.295 | 1.00133.33 | C |
| ATOM | 5349 | CD | GLU | A | 778 | 0.484 | 77.901 | 11.056 | 1.00133.33 | C |
| ATOM | 5350 | OE1 | GLU | A | 778 | -0.136 | 78.979 | 11.167 | 1.00133.33 | O |
| ATOM | 5351 | OE2 | GLU | A | 778 | 0.601 | 77.284 | 9.976 | 1.00133.33 | O |
| ATOM | 5352 | N | ILE | A | 779 | -1.501 | 76.520 | 15.562 | 1.00 66.16 | N |
| ATOM | 5353 | CA | ILE | A | 779 | -2.578 | 76.592 | 16.564 | 1.00 66.16 | C |
| ATOM | 5354 | C | ILE | A | 779 | -2.205 | 75.986 | 17.891 | 1.00 66.16 | C |
| ATOM | 5355 | O | ILE | A | 779 | -2.202 | 76.679 | 18.897 | 1.00 66.16 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5356 | CB | ILE | A | 779 | -3.906 | 75.917 | 16.101 | 1.00123.96 | C |
| ATOM | 5357 | CG1 | ILE | A | 779 | -3.736 | 74.399 | 16.010 | 1.00123.96 | C |
| ATOM | 5358 | CG2 | ILE | A | 779 | -4.381 | 76.533 | 14.794 | 1.00123.96 | C |
| ATOM | 5359 | CD1 | ILE | A | 779 | -5.035 | 73.645 | 16.226 | 1.00123.96 | C |
| ATOM | 5360 | N | LEU | A | 780 | -1.880 | 74.698 | 17.889 | 1.00149.41 | N |
| ATOM | 5361 | CA | LEU | A | 780 | -1.529 | 73.990 | 19.110 | 1.00149.41 | C |
| ATOM | 5362 | C | LEU | A | 780 | -0.657 | 74.845 | 19.995 | 1.00149.41 | C |
| ATOM | 5363 | O | LEU | A | 780 | -0.957 | 75.024 | 21.172 | 1.00149.41 | O |
| ATOM | 5364 | CB | LEU | A | 780 | -0.847 | 72.669 | 18.754 | 1.00127.80 | C |
| ATOM | 5365 | CG | LEU | A | 780 | -1.640 | 71.441 | 19.212 | 1.00127.80 | C |
| ATOM | 5366 | CD1 | LEU | A | 780 | -1.652 | 70.385 | 18.128 | 1.00127.80 | C |
| ATOM | 5367 | CD2 | LEU | A | 780 | -1.040 | 70.900 | 20.496 | 1.00127.80 | C |
| ATOM | 5368 | N | THR | A | 781 | 0.403 | 75.399 | 19.419 | 1.00 82.92 | N |
| ATOM | 5369 | CA | THR | A | 781 | 1.312 | 76.245 | 20.179 | 1.00 82.92 | C |
| ATOM | 5370 | C | THR | A | 781 | 0.664 | 77.517 | 20.708 | 1.00 82.92 | C |
| ATOM | 5371 | O | THR | A | 781 | 0.920 | 77.912 | 21.849 | 1.00 82.92 | O |
| ATOM | 5372 | CB | THR | A | 781 | 2.551 | 76.630 | 19.330 | 1.00 69.05 | C |
| ATOM | 5373 | OG1 | THR | A | 781 | 3.594 | 75.673 | 19.545 | 1.00 69.05 | O |
| ATOM | 5374 | CG2 | THR | A | 781 | 3.062 | 78.012 | 19.704 | 1.00 69.05 | C |
| ATOM | 5375 | N | LYS | A | 782 | -0.168 | 78.156 | 19.884 | 1.00 47.30 | N |
| ATOM | 5376 | CA | LYS | A | 782 | -0.846 | 79.396 | 20.289 | 1.00 47.30 | C |
| ATOM | 5377 | C | LYS | A | 782 | -1.919 | 79.159 | 21.349 | 1.00 47.30 | C |
| ATOM | 5378 | O | LYS | A | 782 | -1.793 | 79.582 | 22.496 | 1.00 47.30 | O |
| ATOM | 5379 | CB | LYS | A | 782 | -1.431 | 80.084 | 19.051 | 1.00118.78 | C |
| ATOM | 5380 | CG | LYS | A | 782 | -0.349 | 80.558 | 18.075 | 1.00118.78 | C |
| ATOM | 5381 | CD | LYS | A | 782 | -0.929 | 81.070 | 16.769 | 1.00118.78 | C |
| ATOM | 5382 | CE | LYS | A | 782 | -1.595 | 79.953 | 15.986 | 1.00118.78 | C |
| ATOM | 5383 | NZ | LYS | A | 782 | -2.130 | 80.431 | 14.685 | 1.00118.78 | N |
| ATOM | 5384 | N | ARG | A | 783 | -2.979 | 78.476 | 20.967 | 1.00 65.59 | N |
| ATOM | 5385 | CA | ARG | A | 783 | -4.022 | 78.180 | 21.913 | 1.00 65.59 | C |
| ATOM | 5386 | C | ARG | A | 783 | -3.363 | 77.584 | 23.172 | 1.00 65.59 | C |
| ATOM | 5387 | O | ARG | A | 783 | -3.970 | 77.556 | 24.259 | 1.00 65.59 | O |
| ATOM | 5388 | CB | ARG | A | 783 | -4.999 | 77.189 | 21.256 | 1.00126.68 | C |
| ATOM | 5389 | CG | ARG | A | 783 | -5.878 | 76.366 | 22.184 | 1.00126.68 | C |
| ATOM | 5390 | CD | ARG | A | 783 | -7.157 | 75.906 | 21.481 | 1.00126.68 | C |
| ATOM | 5391 | NE | ARG | A | 783 | -6.931 | 75.226 | 20.205 | 1.00126.68 | N |
| ATOM | 5392 | CZ | ARG | A | 783 | -6.713 | 73.922 | 20.070 | 1.00126.68 | C |
| ATOM | 5393 | NH1 | ARG | A | 783 | -6.685 | 73.138 | 21.140 | 1.00126.68 | N |
| ATOM | 5394 | NH2 | ARG | A | 783 | -6.547 | 73.397 | 18.860 | 1.00126.68 | N |
| ATOM | 5395 | N | LEU | A | 784 | -2.105 | 77.145 | 23.043 | 1.00 72.08 | N |
| ATOM | 5396 | CA | LEU | A | 784 | -1.373 | 76.559 | 24.184 | 1.00 72.08 | C |
| ATOM | 5397 | C | LEU | A | 784 | -0.720 | 77.627 | 25.060 | 1.00 72.08 | C |
| ATOM | 5398 | O | LEU | A | 784 | -1.003 | 77.677 | 26.262 | 1.00 72.08 | O |
| ATOM | 5399 | CB | LEU | A | 784 | -0.307 | 75.573 | 23.680 | 1.00 93.50 | C |
| ATOM | 5400 | CG | LEU | A | 784 | -0.243 | 74.124 | 24.205 | 1.00 93.50 | C |
| ATOM | 5401 | CD1 | LEU | A | 784 | -0.780 | 74.036 | 25.635 | 1.00 93.50 | C |
| ATOM | 5402 | CD2 | LEU | A | 784 | -1.041 | 73.211 | 23.287 | 1.00 93.50 | C |
| ATOM | 5403 | N | ARG | A | 785 | 0.148 | 78.463 | 24.471 | 1.00120.94 | N |
| ATOM | 5404 | CA | ARG | A | 785 | 0.811 | 79.527 | 25.231 | 1.00120.94 | C |
| ATOM | 5405 | C | ARG | A | 785 | -0.299 | 80.206 | 26.042 | 1.00120.94 | C |
| ATOM | 5406 | O | ARG | A | 785 | -0.130 | 80.502 | 27.223 | 1.00120.94 | O |
| ATOM | 5407 | CB | ARG | A | 785 | 1.504 | 80.577 | 24.301 | 1.00 87.72 | C |
| ATOM | 5408 | CG | ARG | A | 785 | 2.902 | 80.232 | 23.675 | 1.00 87.72 | C |
| ATOM | 5409 | CD | ARG | A | 785 | 3.918 | 81.410 | 23.757 | 1.00 87.72 | C |
| ATOM | 5410 | NE | ARG | A | 785 | 4.877 | 81.452 | 22.643 | 1.00 87.72 | N |
| ATOM | 5411 | CZ | ARG | A | 785 | 5.913 | 82.288 | 22.580 | 1.00 87.72 | C |
| ATOM | 5412 | NH1 | ARG | A | 785 | 6.130 | 83.146 | 23.568 | 1.00 87.72 | N |
| ATOM | 5413 | NH2 | ARG | A | 785 | 6.722 | 82.278 | 21.526 | 1.00 87.72 | N |
| ATOM | 5414 | N | TYR | A | 786 | -1.446 | 80.422 | 25.403 | 1.00 57.60 | N |
| ATOM | 5415 | CA | TYR | A | 786 | -2.590 | 81.047 | 26.056 | 1.00 57.60 | C |
| ATOM | 5416 | C | TYR | A | 786 | -2.957 | 80.167 | 27.247 | 1.00 57.60 | C |
| ATOM | 5417 | O | TYR | A | 786 | -2.661 | 80.501 | 28.397 | 1.00 57.60 | O |
| ATOM | 5418 | CB | TYR | A | 786 | -3.759 | 81.133 | 25.059 | 1.00161.72 | C |
| ATOM | 5419 | CG | TYR | A | 786 | -4.930 | 82.008 | 25.470 | 1.00161.72 | C |
| ATOM | 5420 | CD1 | TYR | A | 786 | -6.050 | 82.136 | 24.642 | 1.00161.72 | C |
| ATOM | 5421 | CD2 | TYR | A | 786 | -4.925 | 82.703 | 26.678 | 1.00161.72 | C |
| ATOM | 5422 | CE1 | TYR | A | 786 | -7.131 | 82.929 | 25.010 | 1.00161.72 | C |
| ATOM | 5423 | CE2 | TYR | A | 786 | -6.003 | 83.501 | 27.053 | 1.00161.72 | C |
| ATOM | 5424 | CZ | TYR | A | 786 | -7.101 | 83.607 | 26.215 | 1.00161.72 | C |
| ATOM | 5425 | OH | TYR | A | 786 | -8.177 | 84.380 | 26.581 | 1.00161.72 | O |
| ATOM | 5426 | N | MET | A | 787 | -3.579 | 79.028 | 26.964 | 1.00 88.56 | N |
| ATOM | 5427 | CA | MET | A | 787 | -3.976 | 78.121 | 28.021 | 1.00 88.56 | C |
| ATOM | 5428 | C | MET | A | 787 | -3.043 | 78.172 | 29.231 | 1.00 88.56 | C |
| ATOM | 5429 | O | MET | A | 787 | -3.476 | 78.438 | 30.356 | 1.00 88.56 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5430 | CB | MET | A | 787 | -4.056 | 76.679 | 27.516 | 1.00115.24 | C |
| ATOM | 5431 | CG | MET | A | 787 | -5.289 | 76.373 | 26.691 | 1.00115.24 | C |
| ATOM | 5432 | SD | MET | A | 787 | -5.844 | 74.676 | 26.926 | 1.00115.24 | S |
| ATOM | 5433 | CE | MET | A | 787 | -7.132 | 74.920 | 28.163 | 1.00115.24 | C |
| ATOM | 5434 | N | VAL | A | 788 | -1.760 | 77.932 | 28.986 | 1.00116.55 | N |
| ATOM | 5435 | CA | VAL | A | 788 | -0.763 | 77.922 | 30.043 | 1.00116.55 | C |
| ATOM | 5436 | C | VAL | A | 788 | -0.659 | 79.201 | 30.794 | 1.00116.55 | C |
| ATOM | 5437 | O | VAL | A | 788 | -0.686 | 79.203 | 32.019 | 1.00116.55 | O |
| ATOM | 5438 | CB | VAL | A | 788 | 0.647 | 77.622 | 29.489 | 1.00 83.02 | C |
| ATOM | 5439 | CG1 | VAL | A | 788 | 1.663 | 77.714 | 30.611 | 1.00 83.02 | C |
| ATOM | 5440 | CG2 | VAL | A | 788 | 0.681 | 76.245 | 28.824 | 1.00 83.02 | C |
| ATOM | 5441 | N | PHE | A | 789 | -0.508 | 80.294 | 30.062 | 1.00 76.73 | N |
| ATOM | 5442 | CA | PHE | A | 789 | -0.359 | 81.568 | 30.722 | 1.00 76.73 | C |
| ATOM | 5443 | C | PHE | A | 789 | -1.511 | 81.825 | 31.658 | 1.00 76.73 | C |
| ATOM | 5444 | O | PHE | A | 789 | -1.299 | 82.073 | 32.835 | 1.00 76.73 | O |
| ATOM | 5445 | CB | PHE | A | 789 | -0.228 | 82.699 | 29.708 | 1.00118.37 | C |
| ATOM | 5446 | CG | PHE | A | 789 | 0.208 | 83.994 | 30.320 | 1.00118.37 | C |
| ATOM | 5447 | CD1 | PHE | A | 789 | 0.852 | 84.961 | 29.557 | 1.00118.37 | C |
| ATOM | 5448 | CD2 | PHE | A | 789 | -0.009 | 84.239 | 31.670 | 1.00118.37 | C |
| ATOM | 5449 | CE1 | PHE | A | 789 | 1.280 | 86.158 | 30.131 | 1.00118.37 | C |
| ATOM | 5450 | CE2 | PHE | A | 789 | 0.411 | 85.424 | 32.256 | 1.00118.37 | C |
| ATOM | 5451 | CZ | PHE | A | 789 | 1.060 | 86.390 | 31.484 | 1.00118.37 | C |
| ATOM | 5452 | N | LYS | A | 790 | -2.734 | 81.768 | 31.170 | 1.00 86.19 | N |
| ATOM | 5453 | CA | LYS | A | 790 | -3.808 | 82.002 | 32.103 | 1.00 86.19 | C |
| ATOM | 5454 | C | LYS | A | 790 | -3.734 | 81.007 | 33.260 | 1.00 86.19 | C |
| ATOM | 5455 | O | LYS | A | 790 | -4.098 | 81.344 | 34.380 | 1.00 86.19 | O |
| ATOM | 5456 | CB | LYS | A | 790 | -5.161 | 81.870 | 31.415 | 1.00117.51 | C |
| ATOM | 5457 | CG | LYS | A | 790 | -5.369 | 82.876 | 30.303 | 1.00117.51 | C |
| ATOM | 5458 | CD | LYS | A | 790 | -5.114 | 84.303 | 30.790 | 1.00117.51 | C |
| ATOM | 5459 | CE | LYS | A | 790 | -5.355 | 85.318 | 29.690 | 1.00117.51 | C |
| ATOM | 5460 | NZ | LYS | A | 790 | -6.746 | 85.151 | 29.197 | 1.00117.51 | N |
| ATOM | 5461 | N | SER | A | 791 | -3.261 | 79.788 | 33.015 | 1.00 83.42 | N |
| ATOM | 5462 | CA | SER | A | 791 | -3.150 | 78.817 | 34.107 | 1.00 83.42 | C |
| ATOM | 5463 | C | SER | A | 791 | -2.339 | 79.453 | 35.238 | 1.00 83.42 | C |
| ATOM | 5464 | O | SER | A | 791 | -2.685 | 79.312 | 36.405 | 1.00 83.42 | O |
| ATOM | 5465 | CB | SER | A | 791 | -2.438 | 77.549 | 33.625 | 1.00198.73 | C |
| ATOM | 5466 | OG | SER | A | 791 | -3.168 | 76.903 | 32.598 | 1.00198.73 | O |
| ATOM | 5467 | N | MET | A | 792 | -1.262 | 80.154 | 34.861 | 1.00 90.79 | N |
| ATOM | 5468 | CA | MET | A | 792 | -0.337 | 80.837 | 35.789 | 1.00 90.79 | C |
| ATOM | 5469 | C | MET | A | 792 | -0.999 | 82.025 | 36.448 | 1.00 90.79 | C |
| ATOM | 5470 | O | MET | A | 792 | -1.027 | 82.141 | 37.655 | 1.00 90.79 | O |
| ATOM | 5471 | CB | MET | A | 792 | 0.894 | 81.341 | 35.029 | 1.00122.72 | C |
| ATOM | 5472 | CG | MET | A | 792 | 1.734 | 80.270 | 34.348 | 1.00122.72 | C |
| ATOM | 5473 | SD | MET | A | 792 | 2.850 | 80.980 | 33.108 | 1.00122.72 | S |
| ATOM | 5474 | CE | MET | A | 792 | 4.375 | 81.185 | 34.034 | 1.00122.72 | C |
| ATOM | 5475 | N | LEU | A | 793 | -1.498 | 82.931 | 35.631 | 1.00102.43 | N |
| ATOM | 5476 | CA | LEU | A | 793 | -2.181 | 84.099 | 36.136 | 1.00102.43 | C |
| ATOM | 5477 | C | LEU | A | 793 | -3.175 | 83.620 | 37.212 | 1.00102.43 | C |
| ATOM | 5478 | O | LEU | A | 793 | -3.206 | 84.124 | 38.347 | 1.00102.43 | O |
| ATOM | 5479 | CB | LEU | A | 793 | -2.939 | 84.765 | 34.986 | 1.00188.11 | C |
| ATOM | 5480 | CG | LEU | A | 793 | -3.243 | 86.262 | 35.047 | 1.00188.11 | C |
| ATOM | 5481 | CD1 | LEU | A | 793 | -4.247 | 86.553 | 36.139 | 1.00188.11 | C |
| ATOM | 5482 | CD2 | LEU | A | 793 | -1.955 | 87.025 | 35.287 | 1.00188.11 | C |
| ATOM | 5483 | N | ARG | A | 794 | -3.989 | 82.638 | 36.841 | 1.00 79.50 | N |
| ATOM | 5484 | CA | ARG | A | 794 | -4.974 | 82.104 | 37.755 | 1.00 79.50 | C |
| ATOM | 5485 | C | ARG | A | 794 | -4.248 | 81.380 | 38.876 | 1.00 79.50 | C |
| ATOM | 5486 | O | ARG | A | 794 | -4.593 | 81.510 | 40.049 | 1.00 79.50 | O |
| ATOM | 5487 | CB | ARG | A | 794 | -5.937 | 81.178 | 37.006 | 1.00207.38 | C |
| ATOM | 5488 | CG | ARG | A | 794 | -6.943 | 81.953 | 36.153 | 1.00207.38 | C |
| ATOM | 5489 | CD | ARG | A | 794 | -7.628 | 81.079 | 35.120 | 1.00207.38 | C |
| ATOM | 5490 | NE | ARG | A | 794 | -6.674 | 80.553 | 34.149 | 1.00207.38 | N |
| ATOM | 5491 | CZ | ARG | A | 794 | -7.001 | 79.800 | 33.105 | 1.00207.38 | C |
| ATOM | 5492 | NH1 | ARG | A | 794 | -8.269 | 79.477 | 32.884 | 1.00207.38 | N |
| ATOM | 5493 | NH2 | ARG | A | 794 | -6.057 | 79.370 | 32.280 | 1.00207.38 | N |
| ATOM | 5494 | N | GLN | A | 795 | -3.216 | 80.633 | 38.532 | 1.00 98.20 | N |
| ATOM | 5495 | CA | GLN | A | 795 | -2.450 | 79.958 | 39.558 | 1.00 98.20 | C |
| ATOM | 5496 | C | GLN | A | 795 | -2.027 | 81.087 | 40.465 | 1.00 98.20 | C |
| ATOM | 5497 | O | GLN | A | 795 | -2.409 | 82.227 | 40.235 | 1.00 98.20 | O |
| ATOM | 5498 | CB | GLN | A | 795 | -1.223 | 79.312 | 38.920 | 1.00113.44 | C |
| ATOM | 5499 | CG | GLN | A | 795 | -1.329 | 77.821 | 38.717 | 1.00113.44 | C |
| ATOM | 5500 | CD | GLN | A | 795 | -0.991 | 77.055 | 39.974 | 1.00113.44 | C |
| ATOM | 5501 | OE1 | GLN | A | 795 | -1.106 | 75.830 | 40.019 | 1.00113.44 | O |
| ATOM | 5502 | NE2 | GLN | A | 795 | -0.561 | 77.774 | 41.006 | 1.00113.44 | N |
| ATOM | 5503 | N | ASP | A | 796 | -1.255 | 80.779 | 41.491 | 1.00100.09 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5504 | CA | ASP | A | 796 | -0.728 | 81.778 | 42.417 | 1.00100.09 | C |
| ATOM | 5505 | C | ASP | A | 796 | -0.589 | 81.012 | 43.672 | 1.00100.09 | C |
| ATOM | 5506 | O | ASP | A | 796 | -0.462 | 79.795 | 43.604 | 1.00100.09 | O |
| ATOM | 5507 | CB | ASP | A | 796 | -1.687 | 82.965 | 42.548 | 1.00169.53 | C |
| ATOM | 5508 | CG | ASP | A | 796 | -3.071 | 82.556 | 42.976 | 1.00169.53 | C |
| ATOM | 5509 | OD1 | ASP | A | 796 | -3.961 | 83.429 | 42.977 | 1.00169.53 | O |
| ATOM | 5510 | OD2 | ASP | A | 796 | -3.272 | 81.372 | 43.316 | 1.00169.53 | O |
| ATOM | 5511 | N | VAL | A | 797 | -0.643 | 81.686 | 44.814 | 1.00117.60 | N |
| ATOM | 5512 | CA | VAL | A | 797 | -0.453 | 80.982 | 46.073 | 1.00117.60 | C |
| ATOM | 5513 | C | VAL | A | 797 | 1.060 | 80.717 | 46.098 | 1.00117.60 | C |
| ATOM | 5514 | O | VAL | A | 797 | 1.807 | 81.263 | 45.286 | 1.00117.60 | O |
| ATOM | 5515 | CB | VAL | A | 797 | -1.199 | 79.629 | 46.097 | 1.00135.30 | C |
| ATOM | 5516 | CG1 | VAL | A | 797 | -1.172 | 79.042 | 47.501 | 1.00135.30 | C |
| ATOM | 5517 | CG2 | VAL | A | 797 | -2.627 | 79.812 | 45.614 | 1.00135.30 | C |
| ATOM | 5518 | N | SER | A | 798 | 1.514 | 79.868 | 47.005 | 1.00 91.74 | N |
| ATOM | 5519 | CA | SER | A | 798 | 2.932 | 79.585 | 47.093 | 1.00 91.74 | C |
| ATOM | 5520 | C | SER | A | 798 | 3.647 | 79.293 | 45.802 | 1.00 91.74 | C |
| ATOM | 5521 | O | SER | A | 798 | 4.806 | 78.912 | 45.847 | 1.00 91.74 | O |
| ATOM | 5522 | CB | SER | A | 798 | 3.172 | 78.443 | 48.088 | 1.00187.72 | C |
| ATOM | 5523 | OG | SER | A | 798 | 3.020 | 78.888 | 49.428 | 1.00187.72 | O |
| ATOM | 5524 | N | TRP | A | 799 | 2.985 | 79.457 | 44.660 | 1.00123.34 | N |
| ATOM | 5525 | CA | TRP | A | 799 | 3.664 | 79.241 | 43.389 | 1.00123.34 | C |
| ATOM | 5526 | C | TRP | A | 799 | 4.805 | 80.237 | 43.464 | 1.00123.34 | C |
| ATOM | 5527 | O | TRP | A | 799 | 5.938 | 79.871 | 43.794 | 1.00123.34 | O |
| ATOM | 5528 | CB | TRP | A | 799 | 2.751 | 79.603 | 42.214 | 1.00114.82 | C |
| ATOM | 5529 | CG | TRP | A | 799 | 3.148 | 78.985 | 40.880 | 1.00114.82 | C |
| ATOM | 5530 | CD1 | TRP | A | 799 | 3.058 | 79.569 | 39.645 | 1.00114.82 | C |
| ATOM | 5531 | CD2 | TRP | A | 799 | 3.587 | 77.636 | 40.651 | 1.00114.82 | C |
| ATOM | 5532 | NE1 | TRP | A | 799 | 3.407 | 78.667 | 38.666 | 1.00114.82 | N |
| ATOM | 5533 | CE2 | TRP | A | 799 | 3.737 | 77.474 | 39.255 | 1.00114.82 | C |
| ATOM | 5534 | CE3 | TRP | A | 799 | 3.865 | 76.550 | 41.493 | 1.00114.82 | C |
| ATOM | 5535 | CZ2 | TRP | A | 799 | 4.154 | 76.257 | 38.679 | 1.00114.82 | C |
| ATOM | 5536 | CZ3 | TRP | A | 799 | 4.279 | 75.332 | 40.919 | 1.00114.82 | C |
| ATOM | 5537 | CH2 | TRP | A | 799 | 4.419 | 75.202 | 39.525 | 1.00114.82 | C |
| ATOM | 5538 | N | PHE | A | 800 | 4.513 | 81.502 | 43.165 | 1.00 82.59 | N |
| ATOM | 5539 | CA | PHE | A | 800 | 5.559 | 82.514 | 43.280 | 1.00 82.59 | C |
| ATOM | 5540 | C | PHE | A | 800 | 5.544 | 83.009 | 44.721 | 1.00 82.59 | C |
| ATOM | 5541 | O | PHE | A | 800 | 6.485 | 83.648 | 45.190 | 1.00 82.59 | O |
| ATOM | 5542 | CB | PHE | A | 800 | 5.345 | 83.735 | 42.374 | 1.00 59.43 | C |
| ATOM | 5543 | CG | PHE | A | 800 | 4.240 | 83.597 | 41.371 | 1.00 59.43 | C |
| ATOM | 5544 | CD1 | PHE | A | 800 | 4.180 | 82.508 | 40.507 | 1.00 59.43 | C |
| ATOM | 5545 | CD2 | PHE | A | 800 | 3.298 | 84.618 | 41.236 | 1.00 59.43 | C |
| ATOM | 5546 | CE1 | PHE | A | 800 | 3.196 | 82.435 | 39.513 | 1.00 59.43 | C |
| ATOM | 5547 | CE2 | PHE | A | 800 | 2.314 | 84.566 | 40.257 | 1.00 59.43 | C |
| ATOM | 5548 | CZ | PHE | A | 800 | 2.259 | 83.469 | 39.384 | 1.00 59.43 | C |
| ATOM | 5549 | N | ASP | A | 801 | 4.448 | 82.715 | 45.415 | 1.00198.06 | N |
| ATOM | 5550 | CA | ASP | A | 801 | 4.300 | 83.125 | 46.801 | 1.00198.06 | C |
| ATOM | 5551 | C | ASP | A | 801 | 5.441 | 82.528 | 47.642 | 1.00198.06 | C |
| ATOM | 5552 | O | ASP | A | 801 | 5.772 | 83.035 | 48.713 | 1.00198.06 | O |
| ATOM | 5553 | CB | ASP | A | 801 | 2.930 | 82.705 | 47.345 | 1.00 80.84 | C |
| ATOM | 5554 | CG | ASP | A | 801 | 1.793 | 83.520 | 46.748 | 1.00 80.84 | C |
| ATOM | 5555 | OD1 | ASP | A | 801 | 1.424 | 83.268 | 45.582 | 1.00 80.84 | O |
| ATOM | 5556 | OD2 | ASP | A | 801 | 1.275 | 84.419 | 47.444 | 1.00 80.84 | O |
| ATOM | 5557 | N | ASP | A | 802 | 6.024 | 81.440 | 47.146 | 1.00206.81 | N |
| ATOM | 5558 | CA | ASP | A | 802 | 7.181 | 80.785 | 47.773 | 1.00206.81 | C |
| ATOM | 5559 | C | ASP | A | 802 | 7.586 | 79.800 | 46.685 | 1.00206.81 | C |
| ATOM | 5560 | O | ASP | A | 802 | 7.204 | 78.633 | 46.697 | 1.00206.81 | O |
| ATOM | 5561 | CB | ASP | A | 802 | 6.812 | 80.047 | 49.064 | 1.00207.38 | C |
| ATOM | 5562 | CG | ASP | A | 802 | 8.036 | 79.757 | 49.940 | 1.00207.38 | C |
| ATOM | 5563 | OD1 | ASP | A | 802 | 8.692 | 80.720 | 50.400 | 1.00207.38 | O |
| ATOM | 5564 | OD2 | ASP | A | 802 | 8.345 | 78.567 | 50.168 | 1.00207.38 | O |
| ATOM | 5565 | N | PRO | A | 803 | 8.324 | 80.289 | 45.689 | 1.00 71.00 | N |
| ATOM | 5566 | CA | PRO | A | 803 | 8.792 | 79.486 | 44.568 | 1.00 71.00 | C |
| ATOM | 5567 | C | PRO | A | 803 | 10.265 | 78.985 | 44.531 | 1.00 71.00 | C |
| ATOM | 5568 | O | PRO | A | 803 | 10.941 | 78.798 | 45.546 | 1.00 71.00 | O |
| ATOM | 5569 | CB | PRO | A | 803 | 8.496 | 80.384 | 43.382 | 1.00 78.04 | C |
| ATOM | 5570 | CG | PRO | A | 803 | 8.905 | 81.716 | 43.914 | 1.00 78.04 | C |
| ATOM | 5571 | CD | PRO | A | 803 | 8.347 | 81.721 | 45.334 | 1.00 78.04 | C |
| ATOM | 5572 | N | LYS | A | 804 | 10.707 | 78.770 | 43.293 | 1.00127.32 | N |
| ATOM | 5573 | CA | LYS | A | 804 | 12.022 | 78.295 | 42.862 | 1.00127.32 | C |
| ATOM | 5574 | C | LYS | A | 804 | 11.751 | 78.066 | 41.357 | 1.00127.32 | C |
| ATOM | 5575 | O | LYS | A | 804 | 12.329 | 77.198 | 40.702 | 1.00127.32 | O |
| ATOM | 5576 | CB | LYS | A | 804 | 12.348 | 76.963 | 43.551 | 1.00 90.71 | C |
| ATOM | 5577 | CG | LYS | A | 804 | 11.167 | 75.994 | 43.661 | 1.00 90.71 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 5578 | CD | LYS | A | 804 | 10.525 | 76.087 | 45.037 | 1.00 | 90.71 | C |
| ATOM | 5579 | CE | LYS | A | 804 | 9.199 | 75.350 | 45.092 | 1.00 | 90.71 | C |
| ATOM | 5580 | NZ | LYS | A | 804 | 8.085 | 76.157 | 44.528 | 1.00 | 90.71 | N |
| ATOM | 5581 | N | ASN | A | 805 | 10.812 | 78.877 | 40.861 | 1.00 | 125.98 | N |
| ATOM | 5582 | CA | ASN | A | 805 | 10.332 | 78.933 | 39.475 | 1.00 | 125.98 | C |
| ATOM | 5583 | C | ASN | A | 805 | 10.478 | 80.396 | 39.030 | 1.00 | 125.98 | C |
| ATOM | 5584 | O | ASN | A | 805 | 9.490 | 81.138 | 38.891 | 1.00 | 125.98 | O |
| ATOM | 5585 | CB | ASN | A | 805 | 8.854 | 78.541 | 39.390 | 1.00 | 103.61 | C |
| ATOM | 5586 | CG | ASN | A | 805 | 8.552 | 77.237 | 40.086 | 1.00 | 103.61 | C |
| ATOM | 5587 | OD1 | ASN | A | 805 | 9.209 | 76.225 | 39.848 | 1.00 | 103.61 | O |
| ATOM | 5588 | ND2 | ASN | A | 805 | 7.539 | 77.251 | 40.948 | 1.00 | 103.61 | N |
| ATOM | 5589 | N | THR | A | 806 | 11.722 | 80.800 | 38.817 | 1.00 | 71.90 | N |
| ATOM | 5590 | CA | THR | A | 806 | 12.042 | 82.162 | 38.424 | 1.00 | 71.90 | C |
| ATOM | 5591 | C | THR | A | 806 | 11.292 | 82.709 | 37.232 | 1.00 | 71.90 | C |
| ATOM | 5592 | O | THR | A | 806 | 10.768 | 81.957 | 36.430 | 1.00 | 71.90 | O |
| ATOM | 5593 | CB | THR | A | 806 | 13.547 | 82.301 | 38.117 | 1.00 | 136.60 | C |
| ATOM | 5594 | OG1 | THR | A | 806 | 13.749 | 83.375 | 37.188 | 1.00 | 136.60 | O |
| ATOM | 5595 | CG2 | THR | A | 806 | 14.097 | 81.002 | 37.541 | 1.00 | 136.60 | C |
| ATOM | 5596 | N | THR | A | 807 | 11.258 | 84.029 | 37.117 | 1.00 | 101.83 | N |
| ATOM | 5597 | CA | THR | A | 807 | 10.612 | 84.661 | 35.987 | 1.00 | 101.83 | C |
| ATOM | 5598 | C | THR | A | 807 | 11.106 | 83.951 | 34.727 | 1.00 | 101.83 | C |
| ATOM | 5599 | O | THR | A | 807 | 10.313 | 83.549 | 33.870 | 1.00 | 101.83 | O |
| ATOM | 5600 | CB | THR | A | 807 | 10.984 | 86.155 | 35.903 | 1.00 | 207.38 | C |
| ATOM | 5601 | OG1 | THR | A | 807 | 10.672 | 86.805 | 37.143 | 1.00 | 207.38 | O |
| ATOM | 5602 | CG2 | THR | A | 807 | 10.218 | 86.823 | 34.780 | 1.00 | 207.38 | C |
| ATOM | 5603 | N | GLY | A | 808 | 12.417 | 83.787 | 34.609 | 1.00 | 122.97 | N |
| ATOM | 5604 | CA | GLY | A | 808 | 12.938 | 83.107 | 33.444 | 1.00 | 122.97 | C |
| ATOM | 5605 | C | GLY | A | 808 | 12.222 | 81.779 | 33.284 | 1.00 | 122.97 | C |
| ATOM | 5606 | O | GLY | A | 808 | 11.430 | 81.614 | 32.348 | 1.00 | 122.97 | O |
| ATOM | 5607 | N | ALA | A | 809 | 12.471 | 80.853 | 34.219 | 1.00 | 83.25 | N |
| ATOM | 5608 | CA | ALA | A | 809 | 11.873 | 79.501 | 34.190 | 1.00 | 83.25 | C |
| ATOM | 5609 | C | ALA | A | 809 | 10.493 | 79.501 | 33.596 | 1.00 | 83.25 | C |
| ATOM | 5610 | O | ALA | A | 809 | 10.103 | 78.541 | 32.936 | 1.00 | 83.25 | O |
| ATOM | 5611 | CB | ALA | A | 809 | 11.848 | 78.939 | 35.600 | 1.00 | 37.46 | C |
| ATOM | 5612 | N | LEU | A | 810 | 9.760 | 80.585 | 33.837 | 1.00 | 87.74 | N |
| ATOM | 5613 | CA | LEU | A | 810 | 8.405 | 80.720 | 33.323 | 1.00 | 87.74 | C |
| ATOM | 5614 | C | LEU | A | 810 | 8.326 | 81.279 | 31.920 | 1.00 | 87.74 | C |
| ATOM | 5615 | O | LEU | A | 810 | 7.596 | 80.741 | 31.097 | 1.00 | 87.74 | O |
| ATOM | 5616 | CB | LEU | A | 810 | 7.587 | 81.570 | 34.288 | 1.00 | 121.76 | C |
| ATOM | 5617 | CG | LEU | A | 810 | 7.461 | 80.855 | 35.634 | 1.00 | 121.76 | C |
| ATOM | 5618 | CD1 | LEU | A | 810 | 6.861 | 81.789 | 36.663 | 1.00 | 121.76 | C |
| ATOM | 5619 | CD2 | LEU | A | 810 | 6.611 | 79.600 | 35.466 | 1.00 | 121.76 | C |
| ATOM | 5620 | N | THR | A | 811 | 9.040 | 82.352 | 31.624 | 1.00 | 105.09 | N |
| ATOM | 5621 | CA | THR | A | 811 | 8.985 | 82.859 | 30.266 | 1.00 | 105.09 | C |
| ATOM | 5622 | C | THR | A | 811 | 9.412 | 81.651 | 29.426 | 1.00 | 105.09 | C |
| ATOM | 5623 | O | THR | A | 811 | 8.784 | 81.311 | 28.403 | 1.00 | 105.09 | O |
| ATOM | 5624 | CB | THR | A | 811 | 10.005 | 83.990 | 30.058 | 1.00 | 99.78 | C |
| ATOM | 5625 | OG1 | THR | A | 811 | 11.329 | 83.439 | 29.988 | 1.00 | 99.78 | O |
| ATOM | 5626 | CG2 | THR | A | 811 | 9.930 | 84.987 | 31.213 | 1.00 | 99.78 | C |
| ATOM | 5627 | N | THR | A | 812 | 10.485 | 81.001 | 29.886 | 1.00 | 77.91 | N |
| ATOM | 5628 | CA | THR | A | 812 | 11.041 | 79.792 | 29.263 | 1.00 | 77.91 | C |
| ATOM | 5629 | C | THR | A | 812 | 9.878 | 78.883 | 28.924 | 1.00 | 77.91 | C |
| ATOM | 5630 | O | THR | A | 812 | 9.485 | 78.744 | 27.751 | 1.00 | 77.91 | O |
| ATOM | 5631 | CB | THR | A | 812 | 11.965 | 79.045 | 30.254 | 1.00 | 99.16 | C |
| ATOM | 5632 | OG1 | THR | A | 812 | 13.153 | 79.814 | 30.488 | 1.00 | 99.16 | O |
| ATOM | 5633 | CG2 | THR | A | 812 | 12.317 | 77.668 | 29.724 | 1.00 | 99.16 | C |
| ATOM | 5634 | N | ARG | A | 813 | 9.341 | 78.281 | 29.988 | 1.00 | 135.90 | N |
| ATOM | 5635 | CA | ARG | A | 813 | 8.215 | 77.377 | 29.892 | 1.00 | 135.90 | C |
| ATOM | 5636 | C | ARG | A | 813 | 7.300 | 77.804 | 28.786 | 1.00 | 135.90 | C |
| ATOM | 5637 | O | ARG | A | 813 | 7.061 | 77.039 | 27.854 | 1.00 | 135.90 | O |
| ATOM | 5638 | CB | ARG | A | 813 | 7.445 | 77.377 | 31.212 | 1.00 | 97.07 | C |
| ATOM | 5639 | CG | ARG | A | 813 | 8.004 | 76.460 | 32.268 | 1.00 | 97.07 | C |
| ATOM | 5640 | CD | ARG | A | 813 | 7.403 | 75.079 | 32.158 | 1.00 | 97.07 | C |
| ATOM | 5641 | NE | ARG | A | 813 | 7.971 | 74.191 | 33.163 | 1.00 | 97.07 | N |
| ATOM | 5642 | CZ | ARG | A | 813 | 9.188 | 73.665 | 33.084 | 1.00 | 97.07 | C |
| ATOM | 5643 | NH1 | ARG | A | 813 | 9.966 | 73.930 | 32.039 | 1.00 | 97.07 | N |
| ATOM | 5644 | NH2 | ARG | A | 813 | 9.637 | 72.889 | 34.061 | 1.00 | 97.07 | N |
| ATOM | 5645 | N | LEU | A | 814 | 6.795 | 79.028 | 28.875 | 1.00 | 84.81 | N |
| ATOM | 5646 | CA | LEU | A | 814 | 5.890 | 79.517 | 27.849 | 1.00 | 84.81 | C |
| ATOM | 5647 | C | LEU | A | 814 | 6.396 | 79.205 | 26.445 | 1.00 | 84.81 | C |
| ATOM | 5648 | O | LEU | A | 814 | 5.880 | 78.277 | 25.794 | 1.00 | 84.81 | O |
| ATOM | 5649 | CB | LEU | A | 814 | 5.657 | 81.025 | 28.022 | 1.00 | 110.07 | C |
| ATOM | 5650 | CG | LEU | A | 814 | 4.558 | 81.462 | 29.007 | 1.00 | 110.07 | C |
| ATOM | 5651 | CD1 | LEU | A | 814 | 3.192 | 81.373 | 28.333 | 1.00 | 110.07 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5652 | CD2 | LEU | A | 814 | 4.605 | 80.601 | 30.266 | 1.00110.07 | C |
| ATOM | 5653 | N | ALA | A | 815 | 7.419 | 79.924 | 25.994 | 1.00159.85 | N |
| ATOM | 5654 | CA | ALA | A | 815 | 7.962 | 79.721 | 24.646 | 1.00159.85 | C |
| ATOM | 5655 | C | ALA | A | 815 | 8.402 | 78.285 | 24.251 | 1.00159.85 | C |
| ATOM | 5656 | O | ALA | A | 815 | 7.745 | 77.579 | 23.416 | 1.00159.85 | O |
| ATOM | 5657 | CB | ALA | A | 815 | 9.134 | 80.688 | 24.410 | 1.00115.86 | C |
| ATOM | 5658 | N | ASN | A | 816 | 9.519 | 77.851 | 24.828 | 1.00105.32 | N |
| ATOM | 5659 | CA | ASN | A | 816 | 10.007 | 76.525 | 24.513 | 1.00105.32 | C |
| ATOM | 5660 | C | ASN | A | 816 | 8.874 | 75.458 | 24.505 | 1.00105.32 | C |
| ATOM | 5661 | O | ASN | A | 816 | 8.621 | 74.870 | 23.448 | 1.00105.32 | O |
| ATOM | 5662 | CB | ASN | A | 816 | 11.123 | 76.118 | 25.484 | 1.00207.38 | C |
| ATOM | 5663 | CG | ASN | A | 816 | 10.597 | 75.455 | 26.744 | 1.00207.38 | C |
| ATOM | 5664 | OD1 | ASN | A | 816 | 10.072 | 74.342 | 26.699 | 1.00207.38 | O |
| ATOM | 5665 | ND2 | ASN | A | 816 | 10.731 | 76.138 | 27.874 | 1.00207.38 | N |
| ATOM | 5666 | N | ASP | A | 817 | 8.173 | 75.248 | 25.638 | 1.00110.78 | N |
| ATOM | 5667 | CA | ASP | A | 817 | 7.097 | 74.227 | 25.778 | 1.00110.78 | C |
| ATOM | 5668 | C | ASP | A | 817 | 5.973 | 74.183 | 24.768 | 1.00110.78 | C |
| ATOM | 5669 | O | ASP | A | 817 | 5.614 | 73.096 | 24.292 | 1.00110.78 | O |
| ATOM | 5670 | CB | ASP | A | 817 | 6.520 | 74.299 | 27.188 | 1.00146.53 | C |
| ATOM | 5671 | CG | ASP | A | 817 | 7.564 | 74.005 | 28.247 | 1.00146.53 | C |
| ATOM | 5672 | OD1 | ASP | A | 817 | 8.357 | 73.054 | 28.052 | 1.00146.53 | O |
| ATOM | 5673 | OD2 | ASP | A | 817 | 7.590 | 74.719 | 29.272 | 1.00146.53 | O |
| ATOM | 5674 | N | ALA | A | 818 | 5.380 | 75.328 | 24.453 | 1.00 78.29 | N |
| ATOM | 5675 | CA | ALA | A | 818 | 4.359 | 75.283 | 23.403 | 1.00 78.29 | C |
| ATOM | 5676 | C | ALA | A | 818 | 5.032 | 74.607 | 22.202 | 1.00 78.29 | C |
| ATOM | 5677 | O | ALA | A | 818 | 4.523 | 73.607 | 21.664 | 1.00 78.29 | O |
| ATOM | 5678 | CB | ALA | A | 818 | 3.918 | 76.693 | 23.046 | 1.00207.38 | C |
| ATOM | 5679 | N | ALA | A | 819 | 6.189 | 75.137 | 21.798 | 1.00 94.04 | N |
| ATOM | 5680 | CA | ALA | A | 819 | 6.897 | 74.525 | 20.669 | 1.00 94.04 | C |
| ATOM | 5681 | C | ALA | A | 819 | 6.935 | 72.982 | 20.770 | 1.00 94.04 | C |
| ATOM | 5682 | O | ALA | A | 819 | 6.283 | 72.239 | 20.013 | 1.00 94.04 | O |
| ATOM | 5683 | CB | ALA | A | 819 | 8.320 | 75.079 | 20.584 | 1.00119.28 | C |
| ATOM | 5684 | N | GLN | A | 820 | 7.734 | 72.513 | 21.712 | 1.00 84.77 | N |
| ATOM | 5685 | CA | GLN | A | 820 | 7.888 | 71.099 | 21.978 | 1.00 84.77 | C |
| ATOM | 5686 | C | GLN | A | 820 | 6.597 | 70.288 | 21.771 | 1.00 84.77 | C |
| ATOM | 5687 | O | GLN | A | 820 | 6.565 | 69.320 | 20.986 | 1.00 84.77 | O |
| ATOM | 5688 | CB | GLN | A | 820 | 8.375 | 70.904 | 23.418 | 1.00127.94 | C |
| ATOM | 5689 | CG | GLN | A | 820 | 9.109 | 72.104 | 24.019 | 1.00127.94 | C |
| ATOM | 5690 | CD | GLN | A | 820 | 10.589 | 72.112 | 23.705 | 1.00127.94 | C |
| ATOM | 5691 | OE1 | GLN | A | 820 | 11.350 | 71.311 | 24.246 | 1.00127.94 | O |
| ATOM | 5692 | NE2 | GLN | A | 820 | 11.007 | 73.012 | 22.823 | 1.00127.94 | N |
| ATOM | 5693 | N | VAL | A | 821 | 5.531 | 70.655 | 22.481 | 1.00 81.95 | N |
| ATOM | 5694 | CA | VAL | A | 821 | 4.278 | 69.901 | 22.357 | 1.00 81.95 | C |
| ATOM | 5695 | C | VAL | A | 821 | 3.809 | 69.740 | 20.895 | 1.00 81.95 | C |
| ATOM | 5696 | O | VAL | A | 821 | 3.462 | 68.622 | 20.404 | 1.00 81.95 | O |
| ATOM | 5697 | CB | VAL | A | 821 | 3.189 | 70.538 | 23.257 | 1.00 35.34 | C |
| ATOM | 5698 | CG1 | VAL | A | 821 | 3.749 | 70.700 | 24.700 | 1.00 35.34 | C |
| ATOM | 5699 | CG2 | VAL | A | 821 | 2.739 | 71.857 | 22.682 | 1.00 35.34 | C |
| ATOM | 5700 | N | LYS | A | 822 | 3.826 | 70.858 | 20.187 | 1.00 51.42 | N |
| ATOM | 5701 | CA | LYS | A | 822 | 3.472 | 70.837 | 18.781 | 1.00 51.42 | C |
| ATOM | 5702 | C | LYS | A | 822 | 4.187 | 69.599 | 18.255 | 1.00 51.42 | C |
| ATOM | 5703 | O | LYS | A | 822 | 3.655 | 68.809 | 17.449 | 1.00 51.42 | O |
| ATOM | 5704 | CB | LYS | A | 822 | 4.012 | 72.115 | 18.141 | 1.00154.24 | C |
| ATOM | 5705 | CG | LYS | A | 822 | 4.292 | 72.058 | 16.665 | 1.00154.24 | C |
| ATOM | 5706 | CD | LYS | A | 822 | 4.879 | 73.388 | 16.225 | 1.00154.24 | C |
| ATOM | 5707 | CE | LYS | A | 822 | 5.183 | 73.418 | 14.740 | 1.00154.24 | C |
| ATOM | 5708 | NZ | LYS | A | 822 | 5.662 | 74.761 | 14.309 | 1.00154.24 | N |
| ATOM | 5709 | N | GLY | A | 823 | 5.406 | 69.435 | 18.753 | 1.00126.10 | N |
| ATOM | 5710 | CA | GLY | A | 823 | 6.201 | 68.291 | 18.354 | 1.00126.10 | C |
| ATOM | 5711 | C | GLY | A | 823 | 5.563 | 66.943 | 18.644 | 1.00126.10 | C |
| ATOM | 5712 | O | GLY | A | 823 | 5.572 | 66.072 | 17.760 | 1.00126.10 | O |
| ATOM | 5713 | N | ALA | A | 824 | 5.023 | 66.758 | 19.856 | 1.00 68.65 | N |
| ATOM | 5714 | CA | ALA | A | 824 | 4.386 | 65.468 | 20.233 | 1.00 68.65 | C |
| ATOM | 5715 | C | ALA | A | 824 | 3.215 | 65.013 | 19.320 | 1.00 68.65 | C |
| ATOM | 5716 | O | ALA | A | 824 | 2.988 | 63.792 | 19.102 | 1.00 68.65 | O |
| ATOM | 5717 | CB | ALA | A | 824 | 3.903 | 65.543 | 21.686 | 1.00166.88 | C |
| ATOM | 5718 | N | THR | A | 825 | 2.489 | 65.992 | 18.769 | 1.00 80.06 | N |
| ATOM | 5719 | CA | THR | A | 825 | 1.381 | 65.721 | 17.804 | 1.00 80.06 | C |
| ATOM | 5720 | C | THR | A | 825 | 1.843 | 65.389 | 16.314 | 1.00 80.06 | C |
| ATOM | 5721 | O | THR | A | 825 | 1.426 | 64.360 | 15.708 | 1.00 80.06 | O |
| ATOM | 5722 | CB | THR | A | 825 | 0.432 | 66.937 | 17.738 | 1.00124.28 | C |
| ATOM | 5723 | OG1 | THR | A | 825 | -0.157 | 67.150 | 19.025 | 1.00124.28 | O |
| ATOM | 5724 | CG2 | THR | A | 825 | -0.667 | 66.717 | 16.715 | 1.00124.28 | C |
| ATOM | 5725 | N | GLY | A | 826 | 2.675 | 66.279 | 15.733 | 1.00 77.41 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 5726 | CA | GLY | A | 826 | 3.204 | 66.064 | 14.388 | 1.00 | 77.41 | C |
| ATOM | 5727 | C | GLY | A | 826 | 3.888 | 64.711 | 14.351 | 1.00 | 77.41 | C |
| ATOM | 5728 | O | GLY | A | 826 | 3.978 | 64.072 | 13.312 | 1.00 | 77.41 | O |
| ATOM | 5729 | N | SER | A | 827 | 4.380 | 64.286 | 15.514 | 1.00 | 73.15 | N |
| ATOM | 5730 | CA | SER | A | 827 | 5.036 | 62.978 | 15.709 | 1.00 | 73.15 | C |
| ATOM | 5731 | C | SER | A | 827 | 4.016 | 61.855 | 15.549 | 1.00 | 73.15 | C |
| ATOM | 5732 | O | SER | A | 827 | 4.235 | 60.889 | 14.818 | 1.00 | 73.15 | O |
| ATOM | 5733 | CB | SER | A | 827 | 5.649 | 62.921 | 17.106 | 1.00 | 207.38 | C |
| ATOM | 5734 | OG | SER | A | 827 | 5.913 | 61.584 | 17.480 | 1.00 | 207.38 | O |
| ATOM | 5735 | N | ARG | A | 828 | 2.902 | 61.957 | 16.256 | 1.00 | 70.99 | N |
| ATOM | 5736 | CA | ARG | A | 828 | 1.905 | 60.894 | 16.076 | 1.00 | 70.99 | C |
| ATOM | 5737 | C | ARG | A | 828 | 1.638 | 60.692 | 14.559 | 1.00 | 70.99 | C |
| ATOM | 5738 | O | ARG | A | 828 | 1.307 | 59.588 | 14.049 | 1.00 | 70.99 | O |
| ATOM | 5739 | CB | ARG | A | 828 | 0.602 | 61.255 | 16.802 | 1.00 | 131.73 | C |
| ATOM | 5740 | CG | ARG | A | 828 | 0.760 | 61.596 | 18.297 | 1.00 | 131.73 | C |
| ATOM | 5741 | CD | ARG | A | 828 | 1.013 | 60.360 | 19.164 | 1.00 | 131.73 | C |
| ATOM | 5742 | NE | ARG | A | 828 | 1.039 | 60.672 | 20.595 | 1.00 | 131.73 | N |
| ATOM | 5743 | CZ | ARG | A | 828 | 1.132 | 59.769 | 21.569 | 1.00 | 131.73 | C |
| ATOM | 5744 | NH1 | ARG | A | 828 | 1.206 | 58.475 | 21.284 | 1.00 | 131.73 | N |
| ATOM | 5745 | NH2 | ARG | A | 828 | 1.167 | 60.164 | 22.836 | 1.00 | 131.73 | N |
| ATOM | 5746 | N | LEU | A | 829 | 1.807 | 61.793 | 13.846 | 1.00 | 62.19 | N |
| ATOM | 5747 | CA | LEU | A | 829 | 1.607 | 61.797 | 12.399 | 1.00 | 62.19 | C |
| ATOM | 5748 | C | LEU | A | 829 | 2.673 | 60.976 | 11.625 | 1.00 | 62.19 | C |
| ATOM | 5749 | O | LEU | A | 829 | 2.325 | 60.045 | 10.898 | 1.00 | 62.19 | O |
| ATOM | 5750 | CB | LEU | A | 829 | 1.604 | 63.246 | 11.868 | 1.00 | 145.61 | C |
| ATOM | 5751 | CG | LEU | A | 829 | 0.439 | 64.217 | 12.138 | 1.00 | 145.61 | C |
| ATOM | 5752 | CD1 | LEU | A | 829 | 0.965 | 65.650 | 12.258 | 1.00 | 145.61 | C |
| ATOM | 5753 | CD2 | LEU | A | 829 | -0.597 | 64.114 | 11.017 | 1.00 | 145.61 | C |
| ATOM | 5754 | N | ALA | A | 830 | 3.958 | 61.329 | 11.774 | 1.00 | 88.76 | N |
| ATOM | 5755 | CA | ALA | A | 830 | 5.065 | 60.614 | 11.093 | 1.00 | 88.76 | C |
| ATOM | 5756 | C | ALA | A | 830 | 5.177 | 59.162 | 11.577 | 1.00 | 88.76 | C |
| ATOM | 5757 | O | ALA | A | 830 | 6.043 | 58.382 | 11.127 | 1.00 | 88.76 | O |
| ATOM | 5758 | CB | ALA | A | 830 | 6.383 | 61.352 | 11.337 | 1.00 | 124.39 | C |
| ATOM | 5759 | N | VAL | A | 831 | 4.276 | 58.835 | 12.511 | 1.00 | 103.44 | N |
| ATOM | 5760 | CA | VAL | A | 831 | 4.123 | 57.498 | 13.100 | 1.00 | 103.44 | C |
| ATOM | 5761 | C | VAL | A | 831 | 3.186 | 56.705 | 12.192 | 1.00 | 103.44 | C |
| ATOM | 5762 | O | VAL | A | 831 | 3.648 | 55.842 | 11.448 | 1.00 | 103.44 | O |
| ATOM | 5763 | CB | VAL | A | 831 | 3.502 | 57.560 | 14.516 | 1.00 | 109.61 | C |
| ATOM | 5764 | CG1 | VAL | A | 831 | 3.002 | 56.187 | 14.937 | 1.00 | 109.61 | C |
| ATOM | 5765 | CG2 | VAL | A | 831 | 4.541 | 58.052 | 15.507 | 1.00 | 109.61 | C |
| ATOM | 5766 | N | ILE | A | 832 | 1.882 | 57.001 | 12.228 | 1.00 | 141.83 | N |
| ATOM | 5767 | CA | ILE | A | 832 | 0.986 | 56.238 | 11.337 | 1.00 | 141.83 | C |
| ATOM | 5768 | C | ILE | A | 832 | 1.733 | 56.140 | 9.986 | 1.00 | 141.83 | C |
| ATOM | 5769 | O | ILE | A | 832 | 1.858 | 55.049 | 9.406 | 1.00 | 141.83 | O |
| ATOM | 5770 | CB | ILE | A | 832 | -0.425 | 56.902 | 11.210 | 1.00 | 67.98 | C |
| ATOM | 5771 | CG1 | ILE | A | 832 | -1.500 | 55.921 | 11.712 | 1.00 | 67.98 | C |
| ATOM | 5772 | CG2 | ILE | A | 832 | -0.727 | 57.249 | 9.770 | 1.00 | 67.98 | C |
| ATOM | 5773 | CD1 | ILE | A | 832 | -2.955 | 56.473 | 11.743 | 1.00 | 67.98 | C |
| ATOM | 5774 | N | PHE | A | 833 | 2.320 | 57.253 | 9.542 | 1.00 | 81.17 | N |
| ATOM | 5775 | CA | PHE | A | 833 | 3.002 | 57.257 | 8.256 | 1.00 | 81.17 | C |
| ATOM | 5776 | C | PHE | A | 833 | 4.127 | 56.245 | 8.086 | 1.00 | 81.17 | C |
| ATOM | 5777 | O | PHE | A | 833 | 3.912 | 55.154 | 7.521 | 1.00 | 81.17 | O |
| ATOM | 5778 | CB | PHE | A | 833 | 3.528 | 58.660 | 7.938 | 1.00 | 139.87 | C |
| ATOM | 5779 | CG | PHE | A | 833 | 4.720 | 58.668 | 7.015 | 1.00 | 139.87 | C |
| ATOM | 5780 | CD1 | PHE | A | 833 | 4.689 | 57.988 | 5.799 | 1.00 | 139.87 | C |
| ATOM | 5781 | CD2 | PHE | A | 833 | 5.887 | 59.338 | 7.379 | 1.00 | 139.87 | C |
| ATOM | 5782 | CE1 | PHE | A | 833 | 5.806 | 57.973 | 4.961 | 1.00 | 139.87 | C |
| ATOM | 5783 | CE2 | PHE | A | 833 | 7.010 | 59.333 | 6.552 | 1.00 | 139.87 | C |
| ATOM | 5784 | CZ | PHE | A | 833 | 6.971 | 58.648 | 5.339 | 1.00 | 139.87 | C |
| ATOM | 5785 | N | GLN | A | 834 | 5.330 | 56.586 | 8.543 | 1.00 | 78.00 | N |
| ATOM | 5786 | CA | GLN | A | 834 | 6.426 | 55.658 | 8.345 | 1.00 | 78.00 | C |
| ATOM | 5787 | C | GLN | A | 834 | 5.888 | 54.225 | 8.491 | 1.00 | 78.00 | C |
| ATOM | 5788 | O | GLN | A | 834 | 6.164 | 53.351 | 7.661 | 1.00 | 78.00 | O |
| ATOM | 5789 | CB | GLN | A | 834 | 7.549 | 55.896 | 9.353 | 1.00 | 150.08 | C |
| ATOM | 5790 | CG | GLN | A | 834 | 7.198 | 55.563 | 10.791 | 1.00 | 150.08 | C |
| ATOM | 5791 | CD | GLN | A | 834 | 8.391 | 55.025 | 11.555 | 1.00 | 150.08 | C |
| ATOM | 5792 | OE1 | GLN | A | 834 | 8.298 | 54.721 | 12.743 | 1.00 | 150.08 | O |
| ATOM | 5793 | NE2 | GLN | A | 834 | 9.521 | 54.899 | 10.870 | 1.00 | 150.08 | N |
| ATOM | 5794 | N | ASN | A | 835 | 5.078 | 54.012 | 9.526 | 1.00 | 101.94 | N |
| ATOM | 5795 | CA | ASN | A | 835 | 4.472 | 52.709 | 9.813 | 1.00 | 101.94 | C |
| ATOM | 5796 | C | ASN | A | 835 | 3.952 | 51.980 | 8.591 | 1.00 | 101.94 | C |
| ATOM | 5797 | O | ASN | A | 835 | 4.566 | 51.024 | 8.117 | 1.00 | 101.94 | O |
| ATOM | 5798 | CB | ASN | A | 835 | 3.338 | 52.876 | 10.832 | 1.00 | 113.79 | C |
| ATOM | 5799 | CG | ASN | A | 835 | 2.339 | 51.745 | 10.781 | 1.00 | 113.79 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5800 | OD1 | ASN | A | 835 | 2.712 | 50.584 | 10.636 | 1.00113.79 | O |
| ATOM | 5801 | ND2 | ASN | A | 835 | 1.058 | 52.078 | 10.913 | 1.00113.79 | N |
| ATOM | 5802 | N | ILE | A | 836 | 2.801 | 52.421 | 8.105 | 1.00 96.44 | N |
| ATOM | 5803 | CA | ILE | A | 836 | 2.227 | 51.816 | 6.920 | 1.00 96.44 | C |
| ATOM | 5804 | C | ILE | A | 836 | 3.322 | 51.611 | 5.877 | 1.00 96.44 | C |
| ATOM | 5805 | O | ILE | A | 836 | 3.608 | 50.482 | 5.486 | 1.00 96.44 | O |
| ATOM | 5806 | CB | ILE | A | 836 | 1.129 | 52.717 | 6.301 | 1.00200.11 | C |
| ATOM | 5807 | CG1 | ILE | A | 836 | -0.083 | 52.794 | 7.233 | 1.00200.11 | C |
| ATOM | 5808 | CG2 | ILE | A | 836 | 0.732 | 52.184 | 4.929 | 1.00200.11 | C |
| ATOM | 5809 | CD1 | ILE | A | 836 | -0.820 | 51.482 | 7.403 | 1.00200.11 | C |
| ATOM | 5810 | N | ALA | A | 837 | 3.936 | 52.705 | 5.431 | 1.00 84.57 | N |
| ATOM | 5811 | CA | ALA | A | 837 | 5.005 | 52.628 | 4.423 | 1.00 84.57 | C |
| ATOM | 5812 | C | ALA | A | 837 | 5.830 | 51.373 | 4.568 | 1.00 84.57 | C |
| ATOM | 5813 | O | ALA | A | 837 | 5.532 | 50.327 | 3.998 | 1.00 84.57 | O |
| ATOM | 5814 | CB | ALA | A | 837 | 5.898 | 53.884 | 4.515 | 1.00128.27 | C |
| ATOM | 5815 | N | ASN | A | 838 | 6.889 | 51.524 | 5.343 | 1.00 51.91 | N |
| ATOM | 5816 | CA | ASN | A | 838 | 7.809 | 50.453 | 5.654 | 1.00 51.91 | C |
| ATOM | 5817 | C | ASN | A | 838 | 7.148 | 49.122 | 5.867 | 1.00 51.91 | C |
| ATOM | 5818 | O | ASN | A | 838 | 7.283 | 48.236 | 5.055 | 1.00 51.91 | O |
| ATOM | 5819 | CB | ASN | A | 838 | 8.637 | 50.820 | 6.899 | 1.00115.14 | C |
| ATOM | 5820 | CG | ASN | A | 838 | 9.374 | 49.623 | 7.485 | 1.00115.14 | C |
| ATOM | 5821 | OD1 | ASN | A | 838 | 10.297 | 49.767 | 8.291 | 1.00115.14 | O |
| ATOM | 5822 | ND2 | ASN | A | 838 | 8.959 | 48.431 | 7.083 | 1.00115.14 | N |
| ATOM | 5823 | N | LEU | A | 839 | 6.465 | 48.937 | 6.978 | 1.00 99.59 | N |
| ATOM | 5824 | CA | LEU | A | 839 | 5.865 | 47.631 | 7.167 | 1.00 99.59 | C |
| ATOM | 5825 | C | LEU | A | 839 | 4.794 | 47.330 | 6.089 | 1.00 99.59 | C |
| ATOM | 5826 | O | LEU | A | 839 | 5.079 | 46.751 | 5.033 | 1.00 99.59 | O |
| ATOM | 5827 | CB | LEU | A | 839 | 5.251 | 47.544 | 8.571 | 1.00207.38 | C |
| ATOM | 5828 | CG | LEU | A | 839 | 4.855 | 46.181 | 9.148 | 1.00207.38 | C |
| ATOM | 5829 | CD1 | LEU | A | 839 | 6.042 | 45.234 | 9.137 | 1.00207.38 | C |
| ATOM | 5830 | CD2 | LEU | A | 839 | 4.360 | 46.373 | 10.573 | 1.00207.38 | C |
| ATOM | 5831 | N | GLY | A | 840 | 3.566 | 47.735 | 6.384 | 1.00139.04 | N |
| ATOM | 5832 | CA | GLY | A | 840 | 2.448 | 47.506 | 5.496 | 1.00139.04 | C |
| ATOM | 5833 | C | GLY | A | 840 | 2.842 | 47.171 | 4.089 | 1.00139.04 | C |
| ATOM | 5834 | O | GLY | A | 840 | 2.661 | 46.038 | 3.639 | 1.00139.04 | O |
| ATOM | 5835 | N | THR | A | 841 | 3.418 | 48.152 | 3.409 | 1.00 85.24 | N |
| ATOM | 5836 | CA | THR | A | 841 | 3.799 | 47.955 | 2.028 | 1.00 85.24 | C |
| ATOM | 5837 | C | THR | A | 841 | 4.865 | 46.872 | 1.876 | 1.00 85.24 | C |
| ATOM | 5838 | O | THR | A | 841 | 4.820 | 46.028 | 0.963 | 1.00 85.24 | O |
| ATOM | 5839 | CB | THR | A | 841 | 4.322 | 49.268 | 1.415 | 1.00207.38 | C |
| ATOM | 5840 | OG1 | THR | A | 841 | 3.469 | 50.350 | 1.808 | 1.00207.38 | O |
| ATOM | 5841 | CG2 | THR | A | 841 | 4.306 | 49.188 | -0.098 | 1.00207.38 | C |
| ATOM | 5842 | N | GLY | A | 842 | 5.820 | 46.894 | 2.791 | 1.00 74.50 | N |
| ATOM | 5843 | CA | GLY | A | 842 | 6.903 | 45.938 | 2.739 | 1.00 74.50 | C |
| ATOM | 5844 | C | GLY | A | 842 | 6.378 | 44.555 | 2.951 | 1.00 74.50 | C |
| ATOM | 5845 | O | GLY | A | 842 | 6.742 | 43.635 | 2.235 | 1.00 74.50 | O |
| ATOM | 5846 | N | ILE | A | 843 | 5.503 | 44.415 | 3.934 | 1.00 94.53 | N |
| ATOM | 5847 | CA | ILE | A | 843 | 4.926 | 43.124 | 4.229 | 1.00 94.53 | C |
| ATOM | 5848 | C | ILE | A | 843 | 4.136 | 42.543 | 3.053 | 1.00 94.53 | C |
| ATOM | 5849 | O | ILE | A | 843 | 4.323 | 41.383 | 2.691 | 1.00 94.53 | O |
| ATOM | 5850 | CB | ILE | A | 843 | 4.073 | 43.192 | 5.523 | 1.00164.34 | C |
| ATOM | 5851 | CG1 | ILE | A | 843 | 4.810 | 42.437 | 6.636 | 1.00164.34 | C |
| ATOM | 5852 | CG2 | ILE | A | 843 | 2.675 | 42.637 | 5.289 | 1.00164.34 | C |
| ATOM | 5853 | CD1 | ILE | A | 843 | 4.132 | 42.478 | 7.982 | 1.00164.34 | C |
| ATOM | 5854 | N | ILE | A | 844 | 3.263 | 43.335 | 2.449 | 1.00118.81 | N |
| ATOM | 5855 | CA | ILE | A | 844 | 2.510 | 42.852 | 1.292 | 1.00118.81 | C |
| ATOM | 5856 | C | ILE | A | 844 | 3.552 | 42.302 | 0.294 | 1.00118.81 | C |
| ATOM | 5857 | O | ILE | A | 844 | 3.570 | 41.099 | -0.087 | 1.00118.81 | O |
| ATOM | 5858 | CB | ILE | A | 844 | 1.716 | 44.007 | 0.647 | 1.00154.78 | C |
| ATOM | 5859 | CG1 | ILE | A | 844 | 0.903 | 44.738 | 1.723 | 1.00154.78 | C |
| ATOM | 5860 | CG2 | ILE | A | 844 | 0.821 | 43.479 | -0.454 | 1.00154.78 | C |
| ATOM | 5861 | CD1 | ILE | A | 844 | 0.273 | 43.826 | 2.771 | 1.00154.78 | C |
| ATOM | 5862 | N | ILE | A | 845 | 4.450 | 43.186 | -0.114 | 1.00 64.26 | N |
| ATOM | 5863 | CA | ILE | A | 845 | 5.484 | 42.777 | -1.045 | 1.00 64.26 | C |
| ATOM | 5864 | C | ILE | A | 845 | 6.343 | 41.683 | -0.397 | 1.00 64.26 | C |
| ATOM | 5865 | O | ILE | A | 845 | 7.164 | 41.064 | -1.075 | 1.00 64.26 | O |
| ATOM | 5866 | CB | ILE | A | 845 | 6.395 | 43.960 | -1.430 | 1.00 97.38 | C |
| ATOM | 5867 | CG1 | ILE | A | 845 | 5.541 | 45.167 | -1.833 | 1.00 97.38 | C |
| ATOM | 5868 | CG2 | ILE | A | 845 | 7.310 | 43.562 | -2.580 | 1.00 97.38 | C |
| ATOM | 5869 | CD1 | ILE | A | 845 | 4.510 | 44.889 | -2.937 | 1.00 97.38 | C |
| ATOM | 5870 | N | SER | A | 846 | 6.142 | 41.473 | 0.911 | 1.00 87.34 | N |
| ATOM | 5871 | CA | SER | A | 846 | 6.860 | 40.450 | 1.677 | 1.00 87.34 | C |
| ATOM | 5872 | C | SER | A | 846 | 6.151 | 39.155 | 1.399 | 1.00 87.34 | C |
| ATOM | 5873 | O | SER | A | 846 | 6.712 | 38.066 | 1.569 | 1.00 87.34 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5874 | CB | SER | A | 846 | 6.783 | 40.749 | 3.179 | 1.00156.91 | C |
| ATOM | 5875 | OG | SER | A | 846 | 7.462 | 41.945 | 3.520 | 1.00156.91 | O |
| ATOM | 5876 | N | LEU | A | 847 | 4.889 | 39.275 | 1.005 | 1.00148.94 | N |
| ATOM | 5877 | CA | LEU | A | 847 | 4.125 | 38.095 | 0.657 | 1.00148.94 | C |
| ATOM | 5878 | C | LEU | A | 847 | 4.768 | 37.651 | -0.641 | 1.00148.94 | C |
| ATOM | 5879 | O | LEU | A | 847 | 5.307 | 36.546 | -0.721 | 1.00148.94 | O |
| ATOM | 5880 | CB | LEU | A | 847 | 2.644 | 38.429 | 0.450 | 1.00196.94 | C |
| ATOM | 5881 | CG | LEU | A | 847 | 1.710 | 38.070 | 1.613 | 1.00196.94 | C |
| ATOM | 5882 | CD1 | LEU | A | 847 | 2.016 | 38.944 | 2.820 | 1.00196.94 | C |
| ATOM | 5883 | CD2 | LEU | A | 847 | 0.263 | 38.246 | 1.177 | 1.00196.94 | C |
| ATOM | 5884 | N | ILE | A | 848 | 4.752 | 38.511 | -1.654 | 1.00 71.52 | N |
| ATOM | 5885 | CA | ILE | A | 848 | 5.409 | 38.093 | -2.897 | 1.00 71.52 | C |
| ATOM | 5886 | C | ILE | A | 848 | 6.843 | 37.639 | -2.609 | 1.00 71.52 | C |
| ATOM | 5887 | O | ILE | A | 848 | 7.468 | 36.992 | -3.439 | 1.00 71.52 | O |
| ATOM | 5888 | CB | ILE | A | 848 | 5.403 | 39.235 | -3.975 | 1.00 82.73 | C |
| ATOM | 5889 | CG1 | ILE | A | 848 | 6.830 | 39.578 | -4.414 | 1.00 82.73 | C |
| ATOM | 5890 | CG2 | ILE | A | 848 | 4.691 | 40.478 | -3.444 | 1.00 82.73 | C |
| ATOM | 5891 | CD1 | ILE | A | 848 | 7.349 | 38.755 | -5.584 | 1.00 82.73 | C |
| ATOM | 5892 | N | TYR | A | 849 | 7.389 | 37.999 | -1.448 | 1.00127.37 | N |
| ATOM | 5893 | CA | TYR | A | 849 | 8.741 | 37.547 | -1.106 | 1.00127.37 | C |
| ATOM | 5894 | C | TYR | A | 849 | 8.522 | 36.083 | -0.868 | 1.00127.37 | C |
| ATOM | 5895 | O | TYR | A | 849 | 7.524 | 35.705 | -0.261 | 1.00127.37 | O |
| ATOM | 5896 | CB | TYR | A | 849 | 9.241 | 38.126 | 0.212 | 1.00193.03 | C |
| ATOM | 5897 | CG | TYR | A | 849 | 9.922 | 39.473 | 0.171 | 1.00193.03 | C |
| ATOM | 5898 | CD1 | TYR | A | 849 | 10.835 | 39.824 | 1.166 | 1.00193.03 | C |
| ATOM | 5899 | CD2 | TYR | A | 849 | 9.601 | 40.424 | -0.792 | 1.00193.03 | C |
| ATOM | 5900 | CE1 | TYR | A | 849 | 11.407 | 41.085 | 1.210 | 1.00193.03 | C |
| ATOM | 5901 | CE2 | TYR | A | 849 | 10.167 | 41.699 | -0.758 | 1.00193.03 | C |
| ATOM | 5902 | CZ | TYR | A | 849 | 11.067 | 42.022 | 0.248 | 1.00193.03 | C |
| ATOM | 5903 | OH | TYR | A | 849 | 11.607 | 43.286 | 0.309 | 1.00193.03 | O |
| ATOM | 5904 | N | GLY | A | 850 | 9.434 | 35.253 | -1.355 | 1.00207.38 | N |
| ATOM | 5905 | CA | GLY | A | 850 | 9.293 | 33.814 | -1.151 | 1.00207.38 | C |
| ATOM | 5906 | C | GLY | A | 850 | 10.038 | 33.353 | 0.088 | 1.00207.38 | C |
| ATOM | 5907 | O | GLY | A | 850 | 10.970 | 32.534 | 0.030 | 1.00207.38 | O |
| ATOM | 5908 | N | TRP | A | 851 | 9.674 | 33.850 | 1.262 | 1.00108.82 | N |
| ATOM | 5909 | CA | TRP | A | 851 | 10.219 | 33.270 | 2.497 | 1.00108.82 | C |
| ATOM | 5910 | C | TRP | A | 851 | 11.631 | 32.666 | 2.313 | 1.00108.82 | C |
| ATOM | 5911 | O | TRP | A | 851 | 11.798 | 31.447 | 2.298 | 1.00108.82 | O |
| ATOM | 5912 | CB | TRP | A | 851 | 9.276 | 32.181 | 3.011 | 1.00151.18 | C |
| ATOM | 5913 | CG | TRP | A | 851 | 7.828 | 32.478 | 2.770 | 1.00151.18 | C |
| ATOM | 5914 | CD1 | TRP | A | 851 | 7.229 | 32.687 | 1.561 | 1.00151.18 | C |
| ATOM | 5915 | CD2 | TRP | A | 851 | 6.788 | 32.585 | 3.756 | 1.00151.18 | C |
| ATOM | 5916 | NE1 | TRP | A | 851 | 5.884 | 32.913 | 1.731 | 1.00151.18 | N |
| ATOM | 5917 | CE2 | TRP | A | 851 | 5.586 | 32.857 | 3.066 | 1.00151.18 | C |
| ATOM | 5918 | CE3 | TRP | A | 851 | 6.755 | 32.475 | 5.154 | 1.00151.18 | C |
| ATOM | 5919 | CZ2 | TRP | A | 851 | 4.361 | 33.021 | 3.726 | 1.00151.18 | C |
| ATOM | 5920 | CZ3 | TRP | A | 851 | 5.533 | 32.639 | 5.810 | 1.00151.18 | C |
| ATOM | 5921 | CH2 | TRP | A | 851 | 4.355 | 32.910 | 5.093 | 1.00151.18 | C |
| ATOM | 5922 | N | GLN | A | 852 | 12.632 | 33.534 | 2.175 | 1.00207.38 | N |
| ATOM | 5923 | CA | GLN | A | 852 | 14.063 | 33.197 | 2.309 | 1.00207.38 | C |
| ATOM | 5924 | C | GLN | A | 852 | 15.026 | 34.489 | 2.433 | 1.00207.38 | C |
| ATOM | 5925 | O | GLN | A | 852 | 16.233 | 34.517 | 2.663 | 1.00207.38 | O |
| ATOM | 5926 | CB | GLN | A | 852 | 14.552 | 32.316 | 1.134 | 1.00185.79 | C |
| ATOM | 5927 | CG | GLN | A | 852 | 13.519 | 31.332 | 0.466 | 1.00185.79 | C |
| ATOM | 5928 | CD | GLN | A | 852 | 12.972 | 30.191 | 1.331 | 1.00185.79 | C |
| ATOM | 5929 | OE1 | GLN | A | 852 | 13.679 | 29.552 | 2.125 | 1.00185.79 | O |
| ATOM | 5930 | NE2 | GLN | A | 852 | 11.696 | 29.905 | 1.131 | 1.00185.79 | N |
| ATOM | 5931 | N | LEU | A | 853 | 14.353 | 35.590 | 2.612 | 1.00118.59 | N |
| ATOM | 5932 | CA | LEU | A | 853 | 15.093 | 36.836 | 2.442 | 1.00118.59 | C |
| ATOM | 5933 | C | LEU | A | 853 | 14.225 | 37.520 | 3.472 | 1.00118.59 | C |
| ATOM | 5934 | O | LEU | A | 853 | 14.692 | 37.878 | 4.553 | 1.00118.59 | O |
| ATOM | 5935 | CB | LEU | A | 853 | 14.892 | 37.410 | 1.029 | 1.00186.31 | C |
| ATOM | 5936 | CG | LEU | A | 853 | 16.049 | 37.156 | 0.042 | 1.00186.31 | C |
| ATOM | 5937 | CD1 | LEU | A | 853 | 17.503 | 37.278 | 0.634 | 1.00186.31 | C |
| ATOM | 5938 | CD2 | LEU | A | 853 | 15.825 | 35.760 | -0.408 | 1.00186.31 | C |
| ATOM | 5939 | N | THR | A | 854 | 12.953 | 37.706 | 3.136 | 1.00105.32 | N |
| ATOM | 5940 | CA | THR | A | 854 | 11.990 | 38.279 | 4.069 | 1.00105.32 | C |
| ATOM | 5941 | C | THR | A | 854 | 12.492 | 38.056 | 5.482 | 1.00105.32 | C |
| ATOM | 5942 | O | THR | A | 854 | 12.803 | 39.014 | 6.198 | 1.00105.32 | O |
| ATOM | 5943 | CB | THR | A | 854 | 10.625 | 37.576 | 3.949 | 1.00195.60 | C |
| ATOM | 5944 | OG1 | THR | A | 854 | 10.453 | 37.082 | 2.615 | 1.00195.60 | O |
| ATOM | 5945 | CG2 | THR | A | 854 | 9.498 | 38.542 | 4.275 | 1.00195.60 | C |
| ATOM | 5946 | N | LEU | A | 855 | 12.578 | 36.715 | 5.628 | 1.00113.08 | N |
| ATOM | 5947 | CA | LEU | A | 855 | 13.068 | 36.347 | 6.925 | 1.00113.08 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 5948 | C | LEU | A | 855 | 14.483 | 36.737 | 6.871 | 1.00113.08 | C |
| ATOM | 5949 | O | LEU | A | 855 | 14.924 | 37.288 | 7.898 | 1.00113.08 | O |
| ATOM | 5950 | CB | LEU | A | 855 | 13.059 | 34.832 | 7.205 | 1.00116.54 | C |
| ATOM | 5951 | CG | LEU | A | 855 | 14.212 | 34.456 | 8.178 | 1.00116.54 | C |
| ATOM | 5952 | CD1 | LEU | A | 855 | 13.889 | 34.815 | 9.633 | 1.00116.54 | C |
| ATOM | 5953 | CD2 | LEU | A | 855 | 14.487 | 32.975 | 8.078 | 1.00116.54 | C |
| ATOM | 5954 | N | LEU | A | 856 | 15.189 | 36.491 | 5.772 | 1.00 86.56 | N |
| ATOM | 5955 | CA | LEU | A | 856 | 16.626 | 36.733 | 5.714 | 1.00 86.56 | C |
| ATOM | 5956 | C | LEU | A | 856 | 16.986 | 38.070 | 6.352 | 1.00 86.56 | C |
| ATOM | 5957 | O | LEU | A | 856 | 18.010 | 38.192 | 7.026 | 1.00 86.56 | O |
| ATOM | 5958 | CB | LEU | A | 856 | 17.120 | 36.708 | 4.269 | 1.00 75.75 | C |
| ATOM | 5959 | CG | LEU | A | 856 | 18.620 | 36.945 | 4.055 | 1.00 75.75 | C |
| ATOM | 5960 | CD1 | LEU | A | 856 | 19.425 | 35.924 | 4.845 | 1.00 75.75 | C |
| ATOM | 5961 | CD2 | LEU | A | 856 | 18.949 | 36.855 | 2.576 | 1.00 75.75 | C |
| ATOM | 5962 | N | LEU | A | 857 | 16.139 | 39.071 | 6.136 | 1.00 66.03 | N |
| ATOM | 5963 | CA | LEU | A | 857 | 16.475 | 40.447 | 6.480 | 1.00 66.03 | C |
| ATOM | 5964 | C | LEU | A | 857 | 15.906 | 40.830 | 7.842 | 1.00 66.03 | C |
| ATOM | 5965 | O | LEU | A | 857 | 16.646 | 41.200 | 8.753 | 1.00 66.03 | O |
| ATOM | 5966 | CB | LEU | A | 857 | 15.945 | 41.409 | 5.420 | 1.00 75.50 | C |
| ATOM | 5967 | CG | LEU | A | 857 | 16.242 | 42.895 | 5.642 | 1.00 75.50 | C |
| ATOM | 5968 | CD1 | LEU | A | 857 | 15.739 | 43.711 | 4.463 | 1.00 75.50 | C |
| ATOM | 5969 | CD2 | LEU | A | 857 | 15.587 | 43.357 | 6.931 | 1.00 75.50 | C |
| ATOM | 5970 | N | LEU | A | 858 | 14.586 | 40.740 | 7.973 | 1.00 68.49 | N |
| ATOM | 5971 | CA | LEU | A | 858 | 13.890 | 41.266 | 9.151 | 1.00 68.49 | C |
| ATOM | 5972 | C | LEU | A | 858 | 14.755 | 40.914 | 10.349 | 1.00 68.49 | C |
| ATOM | 5973 | O | LEU | A | 858 | 14.729 | 41.615 | 11.377 | 1.00 68.49 | O |
| ATOM | 5974 | CB | LEU | A | 858 | 12.508 | 40.616 | 9.289 | 1.00 94.72 | C |
| ATOM | 5975 | CG | LEU | A | 858 | 12.464 | 39.089 | 9.412 | 1.00 94.72 | C |
| ATOM | 5976 | CD1 | LEU | A | 858 | 12.925 | 38.663 | 10.799 | 1.00 94.72 | C |
| ATOM | 5977 | CD2 | LEU | A | 858 | 11.047 | 38.600 | 9.164 | 1.00 94.72 | C |
| ATOM | 5978 | N | ALA | A | 859 | 15.521 | 39.828 | 10.233 | 1.00 85.07 | N |
| ATOM | 5979 | CA | ALA | A | 859 | 16.404 | 39.516 | 11.364 | 1.00 85.07 | C |
| ATOM | 5980 | C | ALA | A | 859 | 17.474 | 40.614 | 11.441 | 1.00 85.07 | C |
| ATOM | 5981 | O | ALA | A | 859 | 17.702 | 41.253 | 12.493 | 1.00 85.07 | O |
| ATOM | 5982 | CB | ALA | A | 859 | 17.062 | 38.144 | 11.162 | 1.00141.43 | C |
| ATOM | 5983 | N | ILE | A | 860 | 18.111 | 40.832 | 10.291 | 1.00 81.33 | N |
| ATOM | 5984 | CA | ILE | A | 860 | 19.160 | 41.839 | 10.140 | 1.00 81.33 | C |
| ATOM | 5985 | C | ILE | A | 860 | 18.718 | 43.243 | 10.537 | 1.00 81.33 | C |
| ATOM | 5986 | O | ILE | A | 860 | 19.324 | 43.836 | 11.411 | 1.00 81.33 | O |
| ATOM | 5987 | CB | ILE | A | 860 | 19.684 | 41.885 | 8.691 | 1.00 99.00 | C |
| ATOM | 5988 | CG1 | ILE | A | 860 | 20.190 | 40.501 | 8.283 | 1.00 99.00 | C |
| ATOM | 5989 | CG2 | ILE | A | 860 | 20.807 | 42.911 | 8.566 | 1.00 99.00 | C |
| ATOM | 5990 | CD1 | ILE | A | 860 | 21.294 | 39.950 | 9.179 | 1.00 99.00 | C |
| ATOM | 5991 | N | VAL | A | 861 | 17.685 | 43.784 | 9.902 | 1.00 67.94 | N |
| ATOM | 5992 | CA | VAL | A | 861 | 17.220 | 45.108 | 10.289 | 1.00 67.94 | C |
| ATOM | 5993 | C | VAL | A | 861 | 17.052 | 45.205 | 11.814 | 1.00 67.94 | C |
| ATOM | 5994 | O | VAL | A | 861 | 17.665 | 46.082 | 12.440 | 1.00 67.94 | O |
| ATOM | 5995 | CB | VAL | A | 861 | 15.891 | 45.479 | 9.598 | 1.00 91.75 | C |
| ATOM | 5996 | CG1 | VAL | A | 861 | 15.327 | 46.749 | 10.222 | 1.00 91.75 | C |
| ATOM | 5997 | CG2 | VAL | A | 861 | 16.118 | 45.697 | 8.102 | 1.00 91.75 | C |
| ATOM | 5998 | N | PRO | A | 862 | 16.190 | 44.361 | 12.436 | 1.00 72.06 | N |
| ATOM | 5999 | CA | PRO | A | 862 | 16.164 | 44.576 | 13.887 | 1.00 72.06 | C |
| ATOM | 6000 | C | PRO | A | 862 | 17.517 | 44.677 | 14.576 | 1.00 72.06 | C |
| ATOM | 6001 | O | PRO | A | 862 | 17.696 | 45.587 | 15.375 | 1.00 72.06 | O |
| ATOM | 6002 | CB | PRO | A | 862 | 15.310 | 43.415 | 14.361 | 1.00111.46 | C |
| ATOM | 6003 | CG | PRO | A | 862 | 14.194 | 43.451 | 13.317 | 1.00111.46 | C |
| ATOM | 6004 | CD | PRO | A | 862 | 14.926 | 43.745 | 11.987 | 1.00111.46 | C |
| ATOM | 6005 | N | ILE | A | 863 | 18.460 | 43.774 | 14.264 | 1.00 70.17 | N |
| ATOM | 6006 | CA | ILE | A | 863 | 19.803 | 43.842 | 14.877 | 1.00 70.17 | C |
| ATOM | 6007 | C | ILE | A | 863 | 20.588 | 45.100 | 14.528 | 1.00 70.17 | C |
| ATOM | 6008 | O | ILE | A | 863 | 21.136 | 45.742 | 15.413 | 1.00 70.17 | O |
| ATOM | 6009 | CB | ILE | A | 863 | 20.698 | 42.631 | 14.496 | 1.00148.81 | C |
| ATOM | 6010 | CG1 | ILE | A | 863 | 20.196 | 41.356 | 15.173 | 1.00148.81 | C |
| ATOM | 6011 | CG2 | ILE | A | 863 | 22.127 | 42.894 | 14.933 | 1.00148.81 | C |
| ATOM | 6012 | CD1 | ILE | A | 863 | 18.813 | 40.953 | 14.752 | 1.00148.81 | C |
| ATOM | 6013 | N | ILE | A | 864 | 20.681 | 45.439 | 13.249 | 1.00 84.66 | N |
| ATOM | 6014 | CA | ILE | A | 864 | 21.395 | 46.648 | 12.895 | 1.00 84.66 | C |
| ATOM | 6015 | C | ILE | A | 864 | 20.647 | 47.828 | 13.462 | 1.00 84.66 | C |
| ATOM | 6016 | O | ILE | A | 864 | 21.261 | 48.757 | 13.963 | 1.00 84.66 | O |
| ATOM | 6017 | CB | ILE | A | 864 | 21.550 | 46.836 | 11.362 | 1.00126.05 | C |
| ATOM | 6018 | CG1 | ILE | A | 864 | 20.207 | 46.636 | 10.660 | 1.00126.05 | C |
| ATOM | 6019 | CG2 | ILE | A | 864 | 22.629 | 45.905 | 10.830 | 1.00126.05 | C |
| ATOM | 6020 | CD1 | ILE | A | 864 | 20.280 | 46.834 | 9.163 | 1.00126.05 | C |
| ATOM | 6021 | N | ALA | A | 865 | 19.323 | 47.819 | 13.400 | 1.00113.45 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6022 | CA | ALA | A | 865 | 18.577 | 48.941 | 13.962 | 1.00113.45 | C |
| ATOM | 6023 | C | ALA | A | 865 | 19.003 | 49.062 | 15.432 | 1.00113.45 | C |
| ATOM | 6024 | O | ALA | A | 865 | 19.494 | 50.121 | 15.903 | 1.00113.45 | O |
| ATOM | 6025 | CB | ALA | A | 865 | 17.079 | 48.681 | 13.867 | 1.00152.82 | C |
| ATOM | 6026 | N | ILE | A | 866 | 18.814 | 47.951 | 16.139 | 1.00 97.19 | N |
| ATOM | 6027 | CA | ILE | A | 866 | 19.168 | 47.829 | 17.544 | 1.00 97.19 | C |
| ATOM | 6028 | C | ILE | A | 866 | 20.535 | 48.413 | 17.787 | 1.00 97.19 | C |
| ATOM | 6029 | O | ILE | A | 866 | 20.797 | 48.950 | 18.851 | 1.00 97.19 | O |
| ATOM | 6030 | CB | ILE | A | 866 | 19.175 | 46.353 | 17.985 | 1.00133.98 | C |
| ATOM | 6031 | CG1 | ILE | A | 866 | 17.738 | 45.840 | 18.087 | 1.00133.98 | C |
| ATOM | 6032 | CG2 | ILE | A | 866 | 19.927 | 46.199 | 19.303 | 1.00133.98 | C |
| ATOM | 6033 | CD1 | ILE | A | 866 | 17.641 | 44.360 | 18.372 | 1.00133.98 | C |
| ATOM | 6034 | N | ALA | A | 867 | 21.419 | 48.286 | 16.810 | 1.00127.31 | N |
| ATOM | 6035 | CA | ALA | A | 867 | 22.738 | 48.863 | 16.960 | 1.00127.31 | C |
| ATOM | 6036 | C | ALA | A | 867 | 22.554 | 50.386 | 16.998 | 1.00127.31 | C |
| ATOM | 6037 | O | ALA | A | 867 | 22.860 | 51.002 | 18.020 | 1.00127.31 | O |
| ATOM | 6038 | CB | ALA | A | 867 | 23.621 | 48.468 | 15.780 | 1.00184.10 | C |
| ATOM | 6039 | N | GLY | A | 868 | 22.039 | 50.988 | 15.914 | 1.00113.97 | N |
| ATOM | 6040 | CA | GLY | A | 868 | 21.838 | 52.436 | 15.894 | 1.00113.97 | C |
| ATOM | 6041 | C | GLY | A | 868 | 21.583 | 52.934 | 17.312 | 1.00113.97 | C |
| ATOM | 6042 | O | GLY | A | 868 | 22.309 | 53.795 | 17.877 | 1.00113.97 | O |
| ATOM | 6043 | N | VAL | A | 869 | 20.561 | 52.335 | 17.916 | 1.00 88.68 | N |
| ATOM | 6044 | CA | VAL | A | 869 | 20.187 | 52.688 | 19.282 | 1.00 88.68 | C |
| ATOM | 6045 | C | VAL | A | 869 | 21.269 | 52.437 | 20.326 | 1.00 88.68 | C |
| ATOM | 6046 | O | VAL | A | 869 | 21.838 | 53.378 | 20.853 | 1.00 88.68 | O |
| ATOM | 6047 | CB | VAL | A | 869 | 18.905 | 51.936 | 19.717 | 1.00 71.85 | C |
| ATOM | 6048 | CG1 | VAL | A | 869 | 18.794 | 51.911 | 21.233 | 1.00 71.85 | C |
| ATOM | 6049 | CG2 | VAL | A | 869 | 17.687 | 52.624 | 19.141 | 1.00 71.85 | C |
| ATOM | 6050 | N | VAL | A | 870 | 21.544 | 51.177 | 20.639 | 1.00126.96 | N |
| ATOM | 6051 | CA | VAL | A | 870 | 22.563 | 50.851 | 21.632 | 1.00126.96 | C |
| ATOM | 6052 | C | VAL | A | 870 | 23.839 | 51.728 | 21.525 | 1.00126.96 | C |
| ATOM | 6053 | O | VAL | A | 870 | 24.352 | 52.249 | 22.533 | 1.00126.96 | O |
| ATOM | 6054 | CB | VAL | A | 870 | 22.947 | 49.351 | 21.547 | 1.00164.61 | C |
| ATOM | 6055 | CG1 | VAL | A | 870 | 23.562 | 49.043 | 20.192 | 1.00164.61 | C |
| ATOM | 6056 | CG2 | VAL | A | 870 | 23.895 | 48.985 | 22.686 | 1.00164.61 | C |
| ATOM | 6057 | N | GLU | A | 871 | 24.342 | 51.913 | 20.308 | 1.00112.20 | N |
| ATOM | 6058 | CA | GLU | A | 871 | 25.546 | 52.713 | 20.114 | 1.00112.20 | C |
| ATOM | 6059 | C | GLU | A | 871 | 25.331 | 54.095 | 20.645 | 1.00112.20 | C |
| ATOM | 6060 | O | GLU | A | 871 | 26.001 | 54.495 | 21.596 | 1.00112.20 | O |
| ATOM | 6061 | CB | GLU | A | 871 | 25.916 | 52.802 | 18.637 | 1.00126.99 | C |
| ATOM | 6062 | CG | GLU | A | 871 | 26.976 | 53.850 | 18.372 | 1.00126.99 | C |
| ATOM | 6063 | CD | GLU | A | 871 | 26.709 | 54.654 | 17.121 | 1.00126.99 | C |
| ATOM | 6064 | OE1 | GLU | A | 871 | 27.091 | 54.194 | 16.026 | 1.00126.99 | O |
| ATOM | 6065 | OE2 | GLU | A | 871 | 26.111 | 55.745 | 17.234 | 1.00126.99 | O |
| ATOM | 6066 | N | MET | A | 872 | 24.402 | 54.828 | 20.029 | 1.00121.47 | N |
| ATOM | 6067 | CA | MET | A | 872 | 24.134 | 56.192 | 20.486 | 1.00121.47 | C |
| ATOM | 6068 | C | MET | A | 872 | 23.972 | 56.269 | 22.022 | 1.00121.47 | C |
| ATOM | 6069 | O | MET | A | 872 | 24.484 | 57.198 | 22.666 | 1.00121.47 | O |
| ATOM | 6070 | CB | MET | A | 872 | 22.871 | 56.737 | 19.801 | 1.00207.38 | C |
| ATOM | 6071 | CG | MET | A | 872 | 22.156 | 57.860 | 20.547 | 1.00207.38 | C |
| ATOM | 6072 | SD | MET | A | 872 | 21.056 | 57.219 | 21.823 | 1.00207.38 | S |
| ATOM | 6073 | CE | MET | A | 872 | 21.668 | 58.076 | 23.285 | 1.00207.38 | C |
| ATOM | 6074 | N | LYS | A | 873 | 23.275 | 55.282 | 22.594 | 1.00164.08 | N |
| ATOM | 6075 | CA | LYS | A | 873 | 23.025 | 55.211 | 24.038 | 1.00164.08 | C |
| ATOM | 6076 | C | LYS | A | 873 | 24.322 | 55.286 | 24.841 | 1.00164.08 | C |
| ATOM | 6077 | O | LYS | A | 873 | 24.543 | 56.245 | 25.601 | 1.00164.08 | O |
| ATOM | 6078 | CB | LYS | A | 873 | 22.276 | 53.916 | 24.389 | 1.00207.38 | C |
| ATOM | 6079 | CG | LYS | A | 873 | 22.203 | 53.593 | 25.889 | 1.00207.38 | C |
| ATOM | 6080 | CD | LYS | A | 873 | 21.393 | 54.617 | 26.680 | 1.00207.38 | C |
| ATOM | 6081 | CE | LYS | A | 873 | 21.367 | 54.284 | 28.175 | 1.00207.38 | C |
| ATOM | 6082 | NZ | LYS | A | 873 | 22.697 | 54.430 | 28.833 | 1.00207.38 | N |
| ATOM | 6083 | N | MET | A | 874 | 25.181 | 54.283 | 24.662 | 1.00207.38 | N |
| ATOM | 6084 | CA | MET | A | 874 | 26.452 | 54.226 | 25.387 | 1.00207.38 | C |
| ATOM | 6085 | C | MET | A | 874 | 27.270 | 55.493 | 25.144 | 1.00207.38 | C |
| ATOM | 6086 | O | MET | A | 874 | 27.923 | 56.016 | 26.060 | 1.00207.38 | O |
| ATOM | 6087 | CB | MET | A | 874 | 27.248 | 52.986 | 24.954 | 1.00176.01 | C |
| ATOM | 6088 | CG | MET | A | 874 | 28.437 | 52.632 | 25.851 | 1.00176.01 | C |
| ATOM | 6089 | SD | MET | A | 874 | 27.968 | 52.118 | 27.524 | 1.00176.01 | S |
| ATOM | 6090 | CE | MET | A | 874 | 27.315 | 50.466 | 27.219 | 1.00176.01 | C |
| ATOM | 6091 | N | LEU | A | 875 | 27.221 | 55.981 | 23.908 | 1.00132.49 | N |
| ATOM | 6092 | CA | LEU | A | 875 | 27.925 | 57.191 | 23.512 | 1.00132.49 | C |
| ATOM | 6093 | C | LEU | A | 875 | 27.492 | 58.358 | 24.435 | 1.00132.49 | C |
| ATOM | 6094 | O | LEU | A | 875 | 28.318 | 59.185 | 24.869 | 1.00132.49 | O |
| ATOM | 6095 | CB | LEU | A | 875 | 27.591 | 57.463 | 22.043 | 1.00 81.80 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 6096 | CG | LEU | A | 875 | 28.059 | 58.694 | 21.275 | 1.00 | 81.80 | C |
| ATOM | 6097 | CD1 | LEU | A | 875 | 27.992 | 58.423 | 19.777 | 1.00 | 81.80 | C |
| ATOM | 6098 | CD2 | LEU | A | 875 | 27.184 | 59.871 | 21.651 | 1.00 | 81.80 | C |
| ATOM | 6099 | N | SER | A | 876 | 26.207 | 58.399 | 24.776 | 1.00 | 205.21 | N |
| ATOM | 6100 | CA | SER | A | 876 | 25.700 | 59.429 | 25.678 | 1.00 | 205.21 | C |
| ATOM | 6101 | C | SER | A | 876 | 26.241 | 59.225 | 27.085 | 1.00 | 205.21 | C |
| ATOM | 6102 | O | SER | A | 876 | 26.771 | 60.152 | 27.698 | 1.00 | 205.21 | O |
| ATOM | 6103 | CB | SER | A | 876 | 24.163 | 59.405 | 25.691 | 1.00 | 143.46 | C |
| ATOM | 6104 | OG | SER | A | 876 | 23.625 | 59.673 | 24.404 | 1.00 | 143.46 | O |
| ATOM | 6105 | N | GLY | A | 877 | 26.095 | 58.005 | 27.594 | 1.00 | 138.35 | N |
| ATOM | 6106 | CA | GLY | A | 877 | 26.582 | 57.700 | 28.931 | 1.00 | 138.35 | C |
| ATOM | 6107 | C | GLY | A | 877 | 27.980 | 58.225 | 29.170 | 1.00 | 138.35 | C |
| ATOM | 6108 | O | GLY | A | 877 | 28.214 | 58.961 | 30.121 | 1.00 | 138.35 | O |
| ATOM | 6109 | N | GLN | A | 878 | 28.913 | 57.848 | 28.306 | 1.00 | 183.75 | N |
| ATOM | 6110 | CA | GLN | A | 878 | 30.272 | 58.320 | 28.471 | 1.00 | 183.75 | C |
| ATOM | 6111 | C | GLN | A | 878 | 30.298 | 59.838 | 28.400 | 1.00 | 183.75 | C |
| ATOM | 6112 | O | GLN | A | 878 | 30.950 | 60.473 | 29.231 | 1.00 | 183.75 | O |
| ATOM | 6113 | CB | GLN | A | 878 | 31.172 | 57.713 | 27.391 | 1.00 | 152.82 | C |
| ATOM | 6114 | CG | GLN | A | 878 | 31.337 | 56.196 | 27.505 | 1.00 | 152.82 | C |
| ATOM | 6115 | CD | GLN | A | 878 | 32.222 | 55.773 | 28.667 | 1.00 | 152.82 | C |
| ATOM | 6116 | OE1 | GLN | A | 878 | 32.194 | 54.615 | 29.090 | 1.00 | 152.82 | O |
| ATOM | 6117 | NE2 | GLN | A | 878 | 33.022 | 56.705 | 29.179 | 1.00 | 152.82 | N |
| ATOM | 6118 | N | ALA | A | 879 | 29.584 | 60.433 | 27.442 | 1.00 | 172.18 | N |
| ATOM | 6119 | CA | ALA | A | 879 | 29.592 | 61.901 | 27.343 | 1.00 | 172.18 | C |
| ATOM | 6120 | C | ALA | A | 879 | 29.191 | 62.596 | 28.651 | 1.00 | 172.18 | C |
| ATOM | 6121 | O | ALA | A | 879 | 29.916 | 63.459 | 29.171 | 1.00 | 172.18 | O |
| ATOM | 6122 | CB | ALA | A | 879 | 28.662 | 62.341 | 26.210 | 1.00 | 68.23 | C |
| ATOM | 6123 | N | LEU | A | 880 | 28.041 | 62.218 | 29.191 | 1.00 | 130.97 | N |
| ATOM | 6124 | CA | LEU | A | 880 | 27.583 | 62.825 | 30.429 | 1.00 | 130.97 | C |
| ATOM | 6125 | C | LEU | A | 880 | 28.511 | 62.547 | 31.609 | 1.00 | 130.97 | C |
| ATOM | 6126 | O | LEU | A | 880 | 28.942 | 63.483 | 32.274 | 1.00 | 130.97 | O |
| ATOM | 6127 | CB | LEU | A | 880 | 26.164 | 62.354 | 30.773 | 1.00 | 173.56 | C |
| ATOM | 6128 | CG | LEU | A | 880 | 25.563 | 62.870 | 32.089 | 1.00 | 173.56 | C |
| ATOM | 6129 | CD1 | LEU | A | 880 | 25.563 | 64.393 | 32.109 | 1.00 | 173.56 | C |
| ATOM | 6130 | CD2 | LEU | A | 880 | 24.148 | 62.332 | 32.245 | 1.00 | 173.56 | C |
| ATOM | 6131 | N | LYS | A | 881 | 28.824 | 61.279 | 31.876 | 1.00 | 117.09 | N |
| ATOM | 6132 | CA | LYS | A | 881 | 29.689 | 60.955 | 33.011 | 1.00 | 117.09 | C |
| ATOM | 6133 | C | LYS | A | 881 | 30.946 | 61.820 | 33.002 | 1.00 | 117.09 | C |
| ATOM | 6134 | O | LYS | A | 881 | 31.330 | 62.380 | 34.038 | 1.00 | 117.09 | O |
| ATOM | 6135 | CB | LYS | A | 881 | 30.088 | 59.475 | 33.000 | 1.00 | 204.96 | C |
| ATOM | 6136 | CG | LYS | A | 881 | 30.835 | 59.022 | 31.756 | 1.00 | 204.96 | C |
| ATOM | 6137 | CD | LYS | A | 881 | 31.507 | 57.669 | 31.966 | 1.00 | 204.96 | C |
| ATOM | 6138 | CE | LYS | A | 881 | 32.777 | 57.792 | 32.805 | 1.00 | 204.96 | C |
| ATOM | 6139 | NZ | LYS | A | 881 | 32.525 | 58.303 | 34.181 | 1.00 | 204.96 | N |
| ATOM | 6140 | N | ASP | A | 882 | 31.591 | 61.947 | 31.845 | 1.00 | 106.53 | N |
| ATOM | 6141 | CA | ASP | A | 882 | 32.781 | 62.777 | 31.804 | 1.00 | 106.53 | C |
| ATOM | 6142 | C | ASP | A | 882 | 32.380 | 64.175 | 32.217 | 1.00 | 106.53 | C |
| ATOM | 6143 | O | ASP | A | 882 | 33.060 | 64.793 | 33.036 | 1.00 | 106.53 | O |
| ATOM | 6144 | CB | ASP | A | 882 | 33.409 | 62.773 | 30.412 | 1.00 | 179.20 | C |
| ATOM | 6145 | CG | ASP | A | 882 | 34.850 | 62.296 | 30.436 | 1.00 | 179.20 | C |
| ATOM | 6146 | OD1 | ASP | A | 882 | 35.084 | 61.154 | 30.885 | 1.00 | 179.20 | O |
| ATOM | 6147 | OD2 | ASP | A | 882 | 35.748 | 63.057 | 30.017 | 1.00 | 179.20 | O |
| ATOM | 6148 | N | LYS | A | 883 | 31.267 | 64.679 | 31.682 | 1.00 | 93.94 | N |
| ATOM | 6149 | CA | LYS | A | 883 | 30.824 | 66.028 | 32.075 | 1.00 | 93.94 | C |
| ATOM | 6150 | C | LYS | A | 883 | 30.832 | 66.118 | 33.600 | 1.00 | 93.94 | C |
| ATOM | 6151 | O | LYS | A | 883 | 31.032 | 67.182 | 34.166 | 1.00 | 93.94 | O |
| ATOM | 6152 | CB | LYS | A | 883 | 29.402 | 66.302 | 31.568 | 1.00 | 147.72 | C |
| ATOM | 6153 | CG | LYS | A | 883 | 29.176 | 66.084 | 30.072 | 1.00 | 147.72 | C |
| ATOM | 6154 | CD | LYS | A | 883 | 30.089 | 66.940 | 29.207 | 1.00 | 147.72 | C |
| ATOM | 6155 | CE | LYS | A | 883 | 29.632 | 66.917 | 27.754 | 1.00 | 147.72 | C |
| ATOM | 6156 | NZ | LYS | A | 883 | 29.414 | 65.530 | 27.261 | 1.00 | 147.72 | N |
| ATOM | 6157 | N | LYS | A | 884 | 30.621 | 64.985 | 34.257 | 1.00 | 117.04 | N |
| ATOM | 6158 | CA | LYS | A | 884 | 30.604 | 64.953 | 35.706 | 1.00 | 117.04 | C |
| ATOM | 6159 | C | LYS | A | 884 | 32.004 | 65.114 | 36.277 | 1.00 | 117.04 | C |
| ATOM | 6160 | O | LYS | A | 884 | 32.282 | 66.118 | 36.926 | 1.00 | 117.04 | O |
| ATOM | 6161 | CB | LYS | A | 884 | 29.981 | 63.645 | 36.213 | 1.00 | 143.54 | C |
| ATOM | 6162 | CG | LYS | A | 884 | 28.492 | 63.474 | 35.890 | 1.00 | 143.54 | C |
| ATOM | 6163 | CD | LYS | A | 884 | 27.608 | 64.494 | 36.610 | 1.00 | 143.54 | C |
| ATOM | 6164 | CE | LYS | A | 884 | 27.606 | 64.293 | 38.121 | 1.00 | 143.54 | C |
| ATOM | 6165 | NZ | LYS | A | 884 | 26.719 | 65.272 | 38.817 | 1.00 | 143.54 | N |
| ATOM | 6166 | N | GLU | A | 885 | 32.888 | 64.144 | 36.049 | 1.00 | 87.11 | N |
| ATOM | 6167 | CA | GLU | A | 885 | 34.269 | 64.232 | 36.575 | 1.00 | 87.11 | C |
| ATOM | 6168 | C | GLU | A | 885 | 34.868 | 65.662 | 36.369 | 1.00 | 87.11 | C |
| ATOM | 6169 | O | GLU | A | 885 | 35.326 | 66.348 | 37.336 | 1.00 | 87.11 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6170 | CB | GLU | A | 885 | 35.139 | 63.199 | 35.840 | 1.00133.69 | C |
| ATOM | 6171 | CG | GLU | A | 885 | 34.594 | 61.762 | 35.876 | 1.00133.69 | C |
| ATOM | 6172 | CD | GLU | A | 885 | 34.951 | 60.947 | 34.640 | 1.00133.69 | C |
| ATOM | 6173 | OE1 | GLU | A | 885 | 34.724 | 59.716 | 34.648 | 1.00133.69 | O |
| ATOM | 6174 | OE2 | GLU | A | 885 | 35.447 | 61.542 | 33.660 | 1.00133.69 | O |
| ATOM | 6175 | N | LEU | A | 886 | 34.841 | 66.093 | 35.097 | 1.00 93.50 | N |
| ATOM | 6176 | CA | LEU | A | 886 | 35.332 | 67.403 | 34.684 | 1.00 93.50 | C |
| ATOM | 6177 | C | LEU | A | 886 | 34.605 | 68.448 | 35.518 | 1.00 93.50 | C |
| ATOM | 6178 | O | LEU | A | 886 | 35.195 | 69.468 | 35.867 | 1.00 93.50 | O |
| ATOM | 6179 | CB | LEU | A | 886 | 35.057 | 67.623 | 33.194 | 1.00 95.94 | C |
| ATOM | 6180 | CG | LEU | A | 886 | 33.639 | 67.615 | 32.616 | 1.00 95.94 | C |
| ATOM | 6181 | CD1 | LEU | A | 886 | 32.954 | 68.945 | 32.897 | 1.00 95.94 | C |
| ATOM | 6182 | CD2 | LEU | A | 886 | 33.723 | 67.366 | 31.109 | 1.00 95.94 | C |
| ATOM | 6183 | N | GLU | A | 887 | 33.332 | 68.185 | 35.845 | 1.00 95.75 | N |
| ATOM | 6184 | CA | GLU | A | 887 | 32.519 | 69.111 | 36.650 | 1.00 95.75 | C |
| ATOM | 6185 | C | GLU | A | 887 | 33.146 | 69.314 | 38.006 | 1.00 95.75 | C |
| ATOM | 6186 | O | GLU | A | 887 | 33.122 | 70.416 | 38.523 | 1.00 95.75 | O |
| ATOM | 6187 | CB | GLU | A | 887 | 31.089 | 68.573 | 36.837 | 1.00139.68 | C |
| ATOM | 6188 | CG | GLU | A | 887 | 30.781 | 68.089 | 38.264 | 1.00139.68 | C |
| ATOM | 6189 | CD | GLU | A | 887 | 29.306 | 67.808 | 38.512 | 1.00139.68 | C |
| ATOM | 6190 | OE1 | GLU | A | 887 | 28.985 | 67.233 | 39.575 | 1.00139.68 | O |
| ATOM | 6191 | OE2 | GLU | A | 887 | 28.469 | 68.169 | 37.657 | 1.00139.68 | O |
| ATOM | 6192 | N | GLY | A | 888 | 33.677 | 68.251 | 38.600 | 1.00121.10 | N |
| ATOM | 6193 | CA | GLY | A | 888 | 34.321 | 68.415 | 39.889 | 1.00121.10 | C |
| ATOM | 6194 | C | GLY | A | 888 | 35.440 | 69.424 | 39.676 | 1.00121.10 | C |
| ATOM | 6195 | O | GLY | A | 888 | 35.507 | 70.504 | 40.324 | 1.00121.10 | O |
| ATOM | 6196 | N | SER | A | 889 | 36.312 | 69.090 | 38.725 | 1.00 84.47 | N |
| ATOM | 6197 | CA | SER | A | 889 | 37.437 | 69.981 | 38.414 | 1.00 84.47 | C |
| ATOM | 6198 | C | SER | A | 889 | 36.970 | 71.419 | 38.119 | 1.00 84.47 | C |
| ATOM | 6199 | O | SER | A | 889 | 37.128 | 72.324 | 38.943 | 1.00 84.47 | O |
| ATOM | 6200 | CB | SER | A | 889 | 38.212 | 69.434 | 37.215 | 1.00 93.35 | C |
| ATOM | 6201 | OG | SER | A | 889 | 38.623 | 68.096 | 37.444 | 1.00 93.35 | O |
| ATOM | 6202 | N | GLY | A | 890 | 36.385 | 71.618 | 36.941 | 1.00111.53 | N |
| ATOM | 6203 | CA | GLY | A | 890 | 35.894 | 72.931 | 36.556 | 1.00111.53 | C |
| ATOM | 6204 | C | GLY | A | 890 | 35.178 | 73.712 | 37.651 | 1.00111.53 | C |
| ATOM | 6205 | O | GLY | A | 890 | 35.349 | 74.924 | 37.758 | 1.00111.53 | O |
| ATOM | 6206 | N | LYS | A | 891 | 34.380 | 73.023 | 38.461 | 1.00 48.60 | N |
| ATOM | 6207 | CA | LYS | A | 891 | 33.625 | 73.642 | 39.549 | 1.00 48.60 | C |
| ATOM | 6208 | C | LYS | A | 891 | 34.565 | 74.346 | 40.463 | 1.00 48.60 | C |
| ATOM | 6209 | O | LYS | A | 891 | 34.325 | 75.499 | 40.871 | 1.00 48.60 | O |
| ATOM | 6210 | CB | LYS | A | 891 | 32.854 | 72.578 | 40.344 | 1.00207.38 | C |
| ATOM | 6211 | CG | LYS | A | 891 | 31.364 | 72.472 | 40.027 | 1.00207.38 | C |
| ATOM | 6212 | CD | LYS | A | 891 | 30.649 | 71.621 | 41.079 | 1.00207.38 | C |
| ATOM | 6213 | CE | LYS | A | 891 | 29.135 | 71.655 | 40.902 | 1.00207.38 | C |
| ATOM | 6214 | NZ | LYS | A | 891 | 28.420 | 70.912 | 41.981 | 1.00207.38 | N |
| ATOM | 6215 | N | ILE | A | 892 | 35.642 | 73.644 | 40.791 | 1.00 71.40 | N |
| ATOM | 6216 | CA | ILE | A | 892 | 36.640 | 74.234 | 41.683 | 1.00 71.40 | C |
| ATOM | 6217 | C | ILE | A | 892 | 37.592 | 75.290 | 41.036 | 1.00 71.40 | C |
| ATOM | 6218 | O | ILE | A | 892 | 38.136 | 76.202 | 41.698 | 1.00 71.40 | O |
| ATOM | 6219 | CB | ILE | A | 892 | 37.433 | 73.118 | 42.380 | 1.00196.35 | C |
| ATOM | 6220 | CG1 | ILE | A | 892 | 37.826 | 72.040 | 41.369 | 1.00196.35 | C |
| ATOM | 6221 | CG2 | ILE | A | 892 | 36.580 | 72.503 | 43.484 | 1.00196.35 | C |
| ATOM | 6222 | CD1 | ILE | A | 892 | 38.447 | 70.798 | 41.992 | 1.00196.35 | C |
| ATOM | 6223 | N | ALA | A | 893 | 37.762 | 75.177 | 39.728 | 1.00 62.83 | N |
| ATOM | 6224 | CA | ALA | A | 893 | 38.569 | 76.137 | 38.970 | 1.00 62.83 | C |
| ATOM | 6225 | C | ALA | A | 893 | 37.819 | 77.490 | 38.877 | 1.00 62.83 | C |
| ATOM | 6226 | O | ALA | A | 893 | 38.397 | 78.573 | 38.633 | 1.00 62.83 | O |
| ATOM | 6227 | CB | ALA | A | 893 | 38.853 | 75.600 | 37.572 | 1.00207.38 | C |
| ATOM | 6228 | N | THR | A | 894 | 36.506 | 77.409 | 39.038 | 1.00109.63 | N |
| ATOM | 6229 | CA | THR | A | 894 | 35.702 | 78.606 | 39.023 | 1.00109.63 | C |
| ATOM | 6230 | C | THR | A | 894 | 35.867 | 79.123 | 40.446 | 1.00109.63 | C |
| ATOM | 6231 | O | THR | A | 894 | 36.082 | 80.318 | 40.650 | 1.00109.63 | O |
| ATOM | 6232 | CB | THR | A | 894 | 34.227 | 78.293 | 38.706 | 1.00 76.69 | C |
| ATOM | 6233 | OG1 | THR | A | 894 | 34.150 | 77.570 | 37.469 | 1.00 76.69 | O |
| ATOM | 6234 | CG2 | THR | A | 894 | 33.430 | 79.583 | 38.575 | 1.00 76.69 | C |
| ATOM | 6235 | N | GLU | A | 895 | 35.818 | 78.226 | 41.434 | 1.00 76.50 | N |
| ATOM | 6236 | CA | GLU | A | 895 | 35.992 | 78.704 | 42.803 | 1.00 76.50 | C |
| ATOM | 6237 | C | GLU | A | 895 | 37.102 | 79.728 | 42.784 | 1.00 76.50 | C |
| ATOM | 6238 | O | GLU | A | 895 | 36.911 | 80.861 | 43.201 | 1.00 76.50 | O |
| ATOM | 6239 | CB | GLU | A | 895 | 36.380 | 77.583 | 43.779 | 1.00162.46 | C |
| ATOM | 6240 | CG | GLU | A | 895 | 36.567 | 78.106 | 45.218 | 1.00162.46 | C |
| ATOM | 6241 | CD | GLU | A | 895 | 37.136 | 77.085 | 46.193 | 1.00162.46 | C |
| ATOM | 6242 | OE1 | GLU | A | 895 | 38.299 | 76.670 | 46.012 | 1.00162.46 | O |
| ATOM | 6243 | OE2 | GLU | A | 895 | 36.423 | 76.709 | 47.150 | 1.00162.46 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6244 | N | ALA | A | 896 | 38.253 | 79.342 | 42.246 | 1.00110.59 | N |
| ATOM | 6245 | CA | ALA | A | 896 | 39.410 | 80.258 | 42.220 | 1.00110.59 | C |
| ATOM | 6246 | C | ALA | A | 896 | 39.316 | 81.517 | 41.352 | 1.00110.59 | C |
| ATOM | 6247 | O | ALA | A | 896 | 39.367 | 82.681 | 41.834 | 1.00110.59 | O |
| ATOM | 6248 | CB | ALA | A | 896 | 40.661 | 79.474 | 41.844 | 1.00196.55 | C |
| ATOM | 6249 | N | ILE | A | 897 | 39.218 | 81.270 | 40.053 | 1.00 81.48 | N |
| ATOM | 6250 | CA | ILE | A | 897 | 39.158 | 82.371 | 39.127 | 1.00 81.48 | C |
| ATOM | 6251 | C | ILE | A | 897 | 38.050 | 83.295 | 39.610 | 1.00 81.48 | C |
| ATOM | 6252 | O | ILE | A | 897 | 38.208 | 84.513 | 39.665 | 1.00 81.48 | O |
| ATOM | 6253 | CB | ILE | A | 897 | 38.927 | 81.842 | 37.687 | 1.00107.39 | C |
| ATOM | 6254 | CG1 | ILE | A | 897 | 37.602 | 81.085 | 37.588 | 1.00107.39 | C |
| ATOM | 6255 | CG2 | ILE | A | 897 | 40.063 | 80.888 | 37.312 | 1.00107.39 | C |
| ATOM | 6256 | CD1 | ILE | A | 897 | 36.411 | 81.965 | 37.309 | 1.00107.39 | C |
| ATOM | 6257 | N | GLU | A | 898 | 36.952 | 82.693 | 40.032 | 1.00110.82 | N |
| ATOM | 6258 | CA | GLU | A | 898 | 35.825 | 83.458 | 40.502 | 1.00110.82 | C |
| ATOM | 6259 | C | GLU | A | 898 | 36.160 | 84.185 | 41.781 | 1.00110.82 | C |
| ATOM | 6260 | O | GLU | A | 898 | 35.435 | 85.104 | 42.163 | 1.00110.82 | O |
| ATOM | 6261 | CB | GLU | A | 898 | 34.636 | 82.527 | 40.739 | 1.00107.95 | C |
| ATOM | 6262 | CG | GLU | A | 898 | 33.410 | 83.185 | 41.329 | 1.00107.95 | C |
| ATOM | 6263 | CD | GLU | A | 898 | 32.451 | 82.176 | 41.914 | 1.00107.95 | C |
| ATOM | 6264 | OE1 | GLU | A | 898 | 31.367 | 82.586 | 42.383 | 1.00107.95 | O |
| ATOM | 6265 | OE2 | GLU | A | 898 | 32.792 | 80.975 | 41.908 | 1.00107.95 | O |
| ATOM | 6266 | N | ASN | A | 899 | 37.242 | 83.784 | 42.453 | 1.00111.60 | N |
| ATOM | 6267 | CA | ASN | A | 899 | 37.616 | 84.447 | 43.704 | 1.00111.60 | C |
| ATOM | 6268 | C | ASN | A | 899 | 38.932 | 85.164 | 43.773 | 1.00111.60 | C |
| ATOM | 6269 | O | ASN | A | 899 | 39.510 | 85.175 | 44.841 | 1.00111.60 | O |
| ATOM | 6270 | CB | ASN | A | 899 | 37.583 | 83.440 | 44.856 | 1.00112.62 | C |
| ATOM | 6271 | CG | ASN | A | 899 | 36.201 | 83.257 | 45.446 | 1.00112.62 | C |
| ATOM | 6272 | OD1 | ASN | A | 899 | 35.475 | 84.223 | 45.674 | 1.00112.62 | O |
| ATOM | 6273 | ND2 | ASN | A | 899 | 35.843 | 82.009 | 45.728 | 1.00112.62 | N |
| ATOM | 6274 | N | PHE | A | 900 | 39.434 | 85.713 | 42.671 | 1.00 77.70 | N |
| ATOM | 6275 | CA | PHE | A | 900 | 40.678 | 86.533 | 42.686 | 1.00 77.70 | C |
| ATOM | 6276 | C | PHE | A | 900 | 41.331 | 87.006 | 44.042 | 1.00 77.70 | C |
| ATOM | 6277 | O | PHE | A | 900 | 42.545 | 87.266 | 44.100 | 1.00 77.70 | O |
| ATOM | 6278 | CB | PHE | A | 900 | 40.470 | 87.780 | 41.812 | 1.00153.21 | C |
| ATOM | 6279 | CG | PHE | A | 900 | 40.366 | 89.088 | 42.592 | 1.00153.21 | C |
| ATOM | 6280 | CD1 | PHE | A | 900 | 41.444 | 89.567 | 43.338 | 1.00153.21 | C |
| ATOM | 6281 | CD2 | PHE | A | 900 | 39.206 | 89.863 | 42.538 | 1.00153.21 | C |
| ATOM | 6282 | CE1 | PHE | A | 900 | 41.374 | 90.793 | 44.012 | 1.00153.21 | C |
| ATOM | 6283 | CE2 | PHE | A | 900 | 39.128 | 91.102 | 43.217 | 1.00153.21 | C |
| ATOM | 6284 | CZ | PHE | A | 900 | 40.214 | 91.562 | 43.951 | 1.00153.21 | C |
| ATOM | 6285 | N | ARG | A | 901 | 40.508 | 87.196 | 45.085 | 1.00 91.72 | N |
| ATOM | 6286 | CA | ARG | A | 901 | 40.902 | 87.631 | 46.443 | 1.00 91.72 | C |
| ATOM | 6287 | C | ARG | A | 901 | 41.872 | 86.589 | 46.961 | 1.00 91.72 | C |
| ATOM | 6288 | O | ARG | A | 901 | 41.905 | 86.265 | 48.137 | 1.00 91.72 | O |
| ATOM | 6289 | CB | ARG | A | 901 | 39.660 | 87.667 | 47.348 | 1.00203.97 | C |
| ATOM | 6290 | CG | ARG | A | 901 | 38.470 | 88.483 | 46.814 | 1.00203.97 | C |
| ATOM | 6291 | CD | ARG | A | 901 | 37.895 | 87.946 | 45.498 | 1.00203.97 | C |
| ATOM | 6292 | NE | ARG | A | 901 | 36.599 | 87.285 | 45.663 | 1.00203.97 | N |
| ATOM | 6293 | CZ | ARG | A | 901 | 35.803 | 86.943 | 44.654 | 1.00203.97 | C |
| ATOM | 6294 | NH1 | ARG | A | 901 | 36.166 | 87.204 | 43.406 | 1.00203.97 | N |
| ATOM | 6295 | NH2 | ARG | A | 901 | 34.649 | 86.332 | 44.887 | 1.00203.97 | N |
| ATOM | 6296 | N | THR | A | 902 | 42.631 | 86.064 | 46.014 | 1.00 36.41 | N |
| ATOM | 6297 | CA | THR | A | 902 | 43.625 | 85.021 | 46.157 | 1.00 36.41 | C |
| ATOM | 6298 | C | THR | A | 902 | 44.979 | 85.536 | 45.739 | 1.00 36.41 | C |
| ATOM | 6299 | O | THR | A | 902 | 45.951 | 85.354 | 46.451 | 1.00 36.41 | O |
| ATOM | 6300 | CB | THR | A | 902 | 43.344 | 83.828 | 45.230 | 1.00 42.87 | C |
| ATOM | 6301 | OG1 | THR | A | 902 | 44.587 | 83.263 | 44.772 | 1.00 42.87 | O |
| ATOM | 6302 | CG2 | THR | A | 902 | 42.533 | 84.278 | 44.041 | 1.00 42.87 | C |
| ATOM | 6303 | N | VAL | A | 903 | 45.036 | 86.155 | 44.559 | 1.00108.03 | N |
| ATOM | 6304 | CA | VAL | A | 903 | 46.281 | 86.728 | 44.029 | 1.00108.03 | C |
| ATOM | 6305 | C | VAL | A | 903 | 46.788 | 87.668 | 45.114 | 1.00108.03 | C |
| ATOM | 6306 | O | VAL | A | 903 | 47.948 | 88.081 | 45.141 | 1.00108.03 | O |
| ATOM | 6307 | CB | VAL | A | 903 | 46.028 | 87.515 | 42.720 | 1.00207.38 | C |
| ATOM | 6308 | CG1 | VAL | A | 903 | 45.161 | 88.734 | 42.998 | 1.00207.38 | C |
| ATOM | 6309 | CG2 | VAL | A | 903 | 47.349 | 87.922 | 42.098 | 1.00207.38 | C |
| ATOM | 6310 | N | VAL | A | 904 | 45.856 | 87.991 | 45.999 | 1.00 71.79 | N |
| ATOM | 6311 | CA | VAL | A | 904 | 46.078 | 88.812 | 47.162 | 1.00 71.79 | C |
| ATOM | 6312 | C | VAL | A | 904 | 47.296 | 88.228 | 47.875 | 1.00 71.79 | C |
| ATOM | 6313 | O | VAL | A | 904 | 48.183 | 88.955 | 48.301 | 1.00 71.79 | O |
| ATOM | 6314 | CB | VAL | A | 904 | 44.852 | 88.741 | 48.095 | 1.00 88.59 | C |
| ATOM | 6315 | CG1 | VAL | A | 904 | 44.565 | 87.286 | 48.445 | 1.00 88.59 | C |
| ATOM | 6316 | CG2 | VAL | A | 904 | 45.086 | 89.562 | 49.355 | 1.00 88.59 | C |
| ATOM | 6317 | N | SER | A | 905 | 47.320 | 86.902 | 47.993 | 1.00 80.68 | N |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 6318 | CA | SER | A | 905 | 48.411 | 86.190 | 48.652 | 1.00 | 80.68 | C |
| ATOM | 6319 | C | SER | A | 905 | 49.199 | 85.387 | 47.611 | 1.00 | 80.68 | C |
| ATOM | 6320 | O | SER | A | 905 | 50.400 | 85.148 | 47.746 | 1.00 | 80.68 | O |
| ATOM | 6321 | CB | SER | A | 905 | 47.893 | 85.244 | 49.733 | 1.00 | 54.07 | C |
| ATOM | 6322 | OG | SER | A | 905 | 46.478 | 85.278 | 49.792 | 1.00 | 54.07 | O |
| ATOM | 6323 | N | LEU | A | 906 | 48.511 | 84.981 | 46.555 | 1.00 | 137.88 | N |
| ATOM | 6324 | CA | LEU | A | 906 | 49.123 | 84.201 | 45.486 | 1.00 | 137.88 | C |
| ATOM | 6325 | C | LEU | A | 906 | 49.768 | 82.918 | 46.003 | 1.00 | 137.88 | C |
| ATOM | 6326 | O | LEU | A | 906 | 50.371 | 82.172 | 45.235 | 1.00 | 137.88 | O |
| ATOM | 6327 | CB | LEU | A | 906 | 50.154 | 85.056 | 44.740 | 1.00 | 180.16 | C |
| ATOM | 6328 | CG | LEU | A | 906 | 50.696 | 84.476 | 43.431 | 1.00 | 180.16 | C |
| ATOM | 6329 | CD1 | LEU | A | 906 | 50.754 | 85.561 | 42.369 | 1.00 | 180.16 | C |
| ATOM | 6330 | CD2 | LEU | A | 906 | 52.066 | 83.869 | 43.665 | 1.00 | 180.16 | C |
| ATOM | 6331 | N | THR | A | 907 | 49.613 | 82.675 | 47.306 | 1.00 | 107.95 | N |
| ATOM | 6332 | CA | THR | A | 907 | 50.125 | 81.481 | 47.989 | 1.00 | 107.95 | C |
| ATOM | 6333 | C | THR | A | 907 | 49.207 | 80.274 | 47.784 | 1.00 | 107.95 | C |
| ATOM | 6334 | O | THR | A | 907 | 48.702 | 79.682 | 48.744 | 1.00 | 107.95 | O |
| ATOM | 6335 | CB | THR | A | 907 | 50.301 | 81.712 | 49.508 | 1.00 | 202.27 | C |
| ATOM | 6336 | OG1 | THR | A | 907 | 49.131 | 82.349 | 50.036 | 1.00 | 202.27 | O |
| ATOM | 6337 | CG2 | THR | A | 907 | 51.537 | 82.567 | 49.784 | 1.00 | 202.27 | C |
| ATOM | 6338 | N | ARG | A | 908 | 49.032 | 79.916 | 46.511 | 1.00 | 202.45 | N |
| ATOM | 6339 | CA | ARG | A | 908 | 48.199 | 78.795 | 46.091 | 1.00 | 202.45 | C |
| ATOM | 6340 | C | ARG | A | 908 | 48.355 | 78.592 | 44.587 | 1.00 | 202.45 | C |
| ATOM | 6341 | O | ARG | A | 908 | 48.460 | 77.479 | 44.102 | 1.00 | 202.45 | O |
| ATOM | 6342 | CB | ARG | A | 908 | 46.728 | 79.073 | 46.439 | 1.00 | 172.30 | C |
| ATOM | 6343 | CG | ARG | A | 908 | 45.969 | 79.981 | 45.458 | 1.00 | 172.30 | C |
| ATOM | 6344 | CD | ARG | A | 908 | 46.801 | 81.182 | 45.012 | 1.00 | 172.30 | C |
| ATOM | 6345 | NE | ARG | A | 908 | 47.431 | 81.874 | 46.134 | 1.00 | 172.30 | N |
| ATOM | 6346 | CZ | ARG | A | 908 | 46.790 | 82.628 | 47.024 | 1.00 | 172.30 | C |
| ATOM | 6347 | NH1 | ARG | A | 908 | 47.469 | 83.204 | 48.006 | 1.00 | 172.30 | N |
| ATOM | 6348 | NH2 | ARG | A | 908 | 45.481 | 82.825 | 46.933 | 1.00 | 172.30 | N |
| ATOM | 6349 | N | GLU | A | 909 | 48.381 | 79.701 | 43.866 | 1.00 | 126.30 | N |
| ATOM | 6350 | CA | GLU | A | 909 | 48.491 | 79.707 | 42.429 | 1.00 | 126.30 | C |
| ATOM | 6351 | C | GLU | A | 909 | 48.520 | 78.340 | 41.769 | 1.00 | 126.30 | C |
| ATOM | 6352 | O | GLU | A | 909 | 47.485 | 77.664 | 41.590 | 1.00 | 126.30 | O |
| ATOM | 6353 | CB | GLU | A | 909 | 49.729 | 80.499 | 42.001 | 1.00 | 153.92 | C |
| ATOM | 6354 | CG | GLU | A | 909 | 49.416 | 81.771 | 41.223 | 1.00 | 153.92 | C |
| ATOM | 6355 | CD | GLU | A | 909 | 48.260 | 82.556 | 41.819 | 1.00 | 153.92 | C |
| ATOM | 6356 | OE1 | GLU | A | 909 | 48.270 | 83.799 | 41.715 | 1.00 | 153.92 | O |
| ATOM | 6357 | OE2 | GLU | A | 909 | 47.334 | 81.933 | 42.381 | 1.00 | 153.92 | O |
| ATOM | 6358 | N | GLN | A | 910 | 49.714 | 77.929 | 41.381 | 1.00 | 202.72 | N |
| ATOM | 6359 | CA | GLN | A | 910 | 49.817 | 76.650 | 40.739 | 1.00 | 202.72 | C |
| ATOM | 6360 | C | GLN | A | 910 | 49.193 | 75.722 | 41.740 | 1.00 | 202.72 | C |
| ATOM | 6361 | O | GLN | A | 910 | 48.218 | 75.070 | 41.422 | 1.00 | 202.72 | O |
| ATOM | 6362 | CB | GLN | A | 910 | 51.272 | 76.281 | 40.451 | 1.00 | 207.38 | C |
| ATOM | 6363 | CG | GLN | A | 910 | 51.392 | 75.397 | 39.221 | 1.00 | 207.38 | C |
| ATOM | 6364 | CD | GLN | A | 910 | 50.612 | 75.963 | 38.047 | 1.00 | 207.38 | C |
| ATOM | 6365 | OE1 | GLN | A | 910 | 51.084 | 76.857 | 37.343 | 1.00 | 207.38 | O |
| ATOM | 6366 | NE2 | GLN | A | 910 | 49.397 | 75.460 | 37.848 | 1.00 | 207.38 | N |
| ATOM | 6367 | N | LYS | A | 911 | 49.728 | 75.719 | 42.960 | 1.00 | 207.38 | N |
| ATOM | 6368 | CA | LYS | A | 911 | 49.209 | 74.894 | 44.048 | 1.00 | 207.38 | C |
| ATOM | 6369 | C | LYS | A | 911 | 47.728 | 74.655 | 43.767 | 1.00 | 207.38 | C |
| ATOM | 6370 | O | LYS | A | 911 | 47.236 | 73.531 | 43.834 | 1.00 | 207.38 | O |
| ATOM | 6371 | CB | LYS | A | 911 | 49.372 | 75.628 | 45.396 | 1.00 | 133.12 | C |
| ATOM | 6372 | CG | LYS | A | 911 | 48.918 | 74.878 | 46.661 | 1.00 | 133.12 | C |
| ATOM | 6373 | CD | LYS | A | 911 | 47.400 | 74.880 | 46.828 | 1.00 | 133.12 | C |
| ATOM | 6374 | CE | LYS | A | 911 | 46.973 | 74.473 | 48.238 | 1.00 | 133.12 | C |
| ATOM | 6375 | NZ | LYS | A | 911 | 47.383 | 73.092 | 48.606 | 1.00 | 133.12 | N |
| ATOM | 6376 | N | PHE | A | 912 | 47.032 | 75.729 | 43.422 | 1.00 | 147.12 | N |
| ATOM | 6377 | CA | PHE | A | 912 | 45.614 | 75.676 | 43.096 | 1.00 | 147.12 | C |
| ATOM | 6378 | C | PHE | A | 912 | 45.324 | 74.830 | 41.875 | 1.00 | 147.12 | C |
| ATOM | 6379 | O | PHE | A | 912 | 44.999 | 73.618 | 41.936 | 1.00 | 147.12 | O |
| ATOM | 6380 | CB | PHE | A | 912 | 45.129 | 77.092 | 42.797 | 1.00 | 118.99 | C |
| ATOM | 6381 | CG | PHE | A | 912 | 44.031 | 77.558 | 43.682 | 1.00 | 118.99 | C |
| ATOM | 6382 | CD1 | PHE | A | 912 | 43.418 | 78.782 | 43.447 | 1.00 | 118.99 | C |
| ATOM | 6383 | CD2 | PHE | A | 912 | 43.627 | 76.799 | 44.771 | 1.00 | 118.99 | C |
| ATOM | 6384 | CE1 | PHE | A | 912 | 42.417 | 79.248 | 44.286 | 1.00 | 118.99 | C |
| ATOM | 6385 | CE2 | PHE | A | 912 | 42.627 | 77.253 | 45.619 | 1.00 | 118.99 | C |
| ATOM | 6386 | CZ | PHE | A | 912 | 42.020 | 78.483 | 45.376 | 1.00 | 118.99 | C |
| ATOM | 6387 | N | GLU | A | 913 | 45.425 | 75.520 | 40.747 | 1.00 | 164.79 | N |
| ATOM | 6388 | CA | GLU | A | 913 | 45.143 | 74.904 | 39.473 | 1.00 | 164.79 | C |
| ATOM | 6389 | C | GLU | A | 913 | 45.787 | 73.508 | 39.488 | 1.00 | 164.79 | C |
| ATOM | 6390 | O | GLU | A | 913 | 45.367 | 72.594 | 38.768 | 1.00 | 164.79 | O |
| ATOM | 6391 | CB | GLU | A | 913 | 45.595 | 75.795 | 38.296 | 1.00 | 109.67 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6392 | CG | GLU | A | 913 | 44.881 | 77.183 | 38.219 | 1.00109.67 | C |
| ATOM | 6393 | CD | GLU | A | 913 | 43.513 | 77.171 | 37.547 | 1.00109.67 | C |
| ATOM | 6394 | OE1 | GLU | A | 913 | 42.903 | 78.260 | 37.434 | 1.00109.67 | O |
| ATOM | 6395 | OE2 | GLU | A | 913 | 43.055 | 76.088 | 37.137 | 1.00109.67 | O |
| ATOM | 6396 | N | THR | A | 914 | 46.759 | 73.361 | 40.385 | 1.00148.03 | N |
| ATOM | 6397 | CA | THR | A | 914 | 47.510 | 72.134 | 40.640 | 1.00148.03 | C |
| ATOM | 6398 | C | THR | A | 914 | 46.623 | 71.024 | 41.193 | 1.00148.03 | C |
| ATOM | 6399 | O | THR | A | 914 | 46.606 | 69.901 | 40.680 | 1.00148.03 | O |
| ATOM | 6400 | CB | THR | A | 914 | 48.634 | 72.386 | 41.675 | 1.00119.81 | C |
| ATOM | 6401 | OG1 | THR | A | 914 | 49.782 | 72.926 | 41.018 | 1.00119.81 | O |
| ATOM | 6402 | CG2 | THR | A | 914 | 49.017 | 71.103 | 42.391 | 1.00119.81 | C |
| ATOM | 6403 | N | MET | A | 915 | 45.929 | 71.329 | 42.279 | 1.00170.83 | N |
| ATOM | 6404 | CA | MET | A | 915 | 45.019 | 70.368 | 42.877 | 1.00170.83 | C |
| ATOM | 6405 | C | MET | A | 915 | 44.142 | 69.900 | 41.691 | 1.00170.83 | C |
| ATOM | 6406 | O | MET | A | 915 | 43.753 | 68.705 | 41.563 | 1.00170.83 | O |
| ATOM | 6407 | CB | MET | A | 915 | 44.150 | 71.069 | 43.931 | 1.00194.44 | C |
| ATOM | 6408 | CG | MET | A | 915 | 44.915 | 72.051 | 44.823 | 1.00194.44 | C |
| ATOM | 6409 | SD | MET | A | 915 | 43.867 | 73.111 | 45.864 | 1.00194.44 | S |
| ATOM | 6410 | CE | MET | A | 915 | 44.208 | 72.478 | 47.518 | 1.00194.44 | C |
| ATOM | 6411 | N | TYR | A | 916 | 43.865 | 70.852 | 40.795 | 1.00118.43 | N |
| ATOM | 6412 | CA | TYR | A | 916 | 43.026 | 70.533 | 39.645 | 1.00118.43 | C |
| ATOM | 6413 | C | TYR | A | 916 | 43.780 | 69.734 | 38.607 | 1.00118.43 | C |
| ATOM | 6414 | O | TYR | A | 916 | 43.189 | 69.024 | 37.805 | 1.00118.43 | O |
| ATOM | 6415 | CB | TYR | A | 916 | 42.398 | 71.821 | 39.111 | 1.00133.97 | C |
| ATOM | 6416 | CG | TYR | A | 916 | 41.625 | 72.520 | 40.219 | 1.00133.97 | C |
| ATOM | 6417 | CD1 | TYR | A | 916 | 41.562 | 71.955 | 41.498 | 1.00133.97 | C |
| ATOM | 6418 | CD2 | TYR | A | 916 | 40.981 | 73.738 | 40.010 | 1.00133.97 | C |
| ATOM | 6419 | CE1 | TYR | A | 916 | 40.890 | 72.578 | 42.532 | 1.00133.97 | C |
| ATOM | 6420 | CE2 | TYR | A | 916 | 40.296 | 74.376 | 41.051 | 1.00133.97 | C |
| ATOM | 6421 | CZ | TYR | A | 916 | 40.260 | 73.788 | 42.307 | 1.00133.97 | C |
| ATOM | 6422 | OH | TYR | A | 916 | 39.614 | 74.416 | 43.345 | 1.00133.97 | O |
| ATOM | 6423 | N | ALA | A | 917 | 45.099 | 69.817 | 38.659 | 1.00153.67 | N |
| ATOM | 6424 | CA | ALA | A | 917 | 45.924 | 69.041 | 37.759 | 1.00153.67 | C |
| ATOM | 6425 | C | ALA | A | 917 | 45.670 | 67.594 | 38.151 | 1.00153.67 | C |
| ATOM | 6426 | O | ALA | A | 917 | 45.665 | 66.708 | 37.305 | 1.00153.67 | O |
| ATOM | 6427 | CB | ALA | A | 917 | 47.394 | 69.401 | 37.948 | 1.00146.77 | C |
| ATOM | 6428 | N | GLN | A | 918 | 45.452 | 67.360 | 39.442 | 1.00168.57 | N |
| ATOM | 6429 | CA | GLN | A | 918 | 45.198 | 66.006 | 39.952 | 1.00168.57 | C |
| ATOM | 6430 | C | GLN | A | 918 | 43.851 | 65.491 | 39.456 | 1.00168.57 | C |
| ATOM | 6431 | O | GLN | A | 918 | 43.742 | 64.456 | 38.751 | 1.00168.57 | O |
| ATOM | 6432 | CB | GLN | A | 918 | 45.214 | 66.009 | 41.483 | 1.00207.38 | C |
| ATOM | 6433 | CG | GLN | A | 918 | 46.423 | 66.702 | 42.104 | 1.00207.38 | C |
| ATOM | 6434 | CD | GLN | A | 918 | 47.738 | 66.121 | 41.637 | 1.00207.38 | C |
| ATOM | 6435 | OE1 | GLN | A | 918 | 48.149 | 66.322 | 40.495 | 1.00207.38 | O |
| ATOM | 6436 | NE2 | GLN | A | 918 | 48.405 | 65.385 | 42.520 | 1.00207.38 | N |
| ATOM | 6437 | N | SER | A | 919 | 42.815 | 66.205 | 39.865 | 1.00122.81 | N |
| ATOM | 6438 | CA | SER | A | 919 | 41.472 | 65.869 | 39.417 | 1.00122.81 | C |
| ATOM | 6439 | C | SER | A | 919 | 41.521 | 65.427 | 37.936 | 1.00122.81 | C |
| ATOM | 6440 | O | SER | A | 919 | 41.207 | 64.272 | 37.562 | 1.00122.81 | O |
| ATOM | 6441 | CB | SER | A | 919 | 40.595 | 67.103 | 39.572 | 1.00 89.66 | C |
| ATOM | 6442 | OG | SER | A | 919 | 41.379 | 68.276 | 39.424 | 1.00 89.66 | O |
| ATOM | 6443 | N | LEU | A | 920 | 41.906 | 66.380 | 37.094 | 1.00 95.97 | N |
| ATOM | 6444 | CA | LEU | A | 920 | 42.055 | 66.131 | 35.671 | 1.00 95.97 | C |
| ATOM | 6445 | C | LEU | A | 920 | 42.661 | 64.741 | 35.525 | 1.00 95.97 | C |
| ATOM | 6446 | O | LEU | A | 920 | 42.004 | 63.817 | 35.044 | 1.00 95.97 | O |
| ATOM | 6447 | CB | LEU | A | 920 | 43.011 | 67.150 | 35.042 | 1.00133.47 | C |
| ATOM | 6448 | CG | LEU | A | 920 | 42.480 | 68.414 | 34.358 | 1.00133.47 | C |
| ATOM | 6449 | CD1 | LEU | A | 920 | 41.877 | 68.037 | 33.012 | 1.00133.47 | C |
| ATOM | 6450 | CD2 | LEU | A | 920 | 41.471 | 69.123 | 35.255 | 1.00133.47 | C |
| ATOM | 6451 | N | GLN | A | 921 | 43.920 | 64.629 | 35.955 | 1.00155.38 | N |
| ATOM | 6452 | CA | GLN | A | 921 | 44.698 | 63.395 | 35.912 | 1.00155.38 | C |
| ATOM | 6453 | C | GLN | A | 921 | 43.785 | 62.183 | 35.823 | 1.00155.38 | C |
| ATOM | 6454 | O | GLN | A | 921 | 43.834 | 61.419 | 34.844 | 1.00155.38 | O |
| ATOM | 6455 | CB | GLN | A | 921 | 45.584 | 63.349 | 37.164 | 1.00179.64 | C |
| ATOM | 6456 | CG | GLN | A | 921 | 45.627 | 62.039 | 37.925 | 1.00179.64 | C |
| ATOM | 6457 | CD | GLN | A | 921 | 46.189 | 62.223 | 39.325 | 1.00179.64 | C |
| ATOM | 6458 | OE1 | GLN | A | 921 | 47.295 | 62.736 | 39.502 | 1.00179.64 | O |
| ATOM | 6459 | NE2 | GLN | A | 921 | 45.422 | 61.809 | 40.329 | 1.00179.64 | N |
| ATOM | 6460 | N | ILE | A | 922 | 42.921 | 62.012 | 36.816 | 1.00 98.71 | N |
| ATOM | 6461 | CA | ILE | A | 922 | 42.011 | 60.853 | 36.757 | 1.00 98.71 | C |
| ATOM | 6462 | C | ILE | A | 922 | 41.088 | 60.887 | 35.529 | 1.00 98.71 | C |
| ATOM | 6463 | O | ILE | A | 922 | 41.069 | 59.957 | 34.694 | 1.00 98.71 | O |
| ATOM | 6464 | CB | ILE | A | 922 | 41.152 | 60.760 | 38.040 | 1.00130.87 | C |
| ATOM | 6465 | CG1 | ILE | A | 922 | 42.025 | 60.288 | 39.205 | 1.00130.87 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6466 | CG2 | ILE | A | 922 | 39.966 | 59.837 | 37.820 | 1.00130.87 | C |
| ATOM | 6467 | CD1 | ILE | A | 922 | 42.831 | 59.034 | 38.907 | 1.00130.87 | C |
| ATOM | 6468 | N | PRO | A | 923 | 40.292 | 61.954 | 35.410 | 1.00103.58 | N |
| ATOM | 6469 | CA | PRO | A | 923 | 39.457 | 61.909 | 34.215 | 1.00103.58 | C |
| ATOM | 6470 | C | PRO | A | 923 | 40.232 | 61.774 | 32.926 | 1.00103.58 | C |
| ATOM | 6471 | O | PRO | A | 923 | 39.646 | 61.519 | 31.875 | 1.00103.58 | O |
| ATOM | 6472 | CB | PRO | A | 923 | 38.675 | 63.215 | 34.301 | 1.00 98.52 | C |
| ATOM | 6473 | CG | PRO | A | 923 | 38.402 | 63.322 | 35.779 | 1.00 98.52 | C |
| ATOM | 6474 | CD | PRO | A | 923 | 39.749 | 62.918 | 36.391 | 1.00 98.52 | C |
| ATOM | 6475 | N | TYR | A | 924 | 41.545 | 61.953 | 33.000 | 1.00 97.97 | N |
| ATOM | 6476 | CA | TYR | A | 924 | 42.398 | 61.846 | 31.818 | 1.00 97.97 | C |
| ATOM | 6477 | C | TYR | A | 924 | 42.660 | 60.380 | 31.446 | 1.00 97.97 | C |
| ATOM | 6478 | O | TYR | A | 924 | 42.448 | 59.961 | 30.281 | 1.00 97.97 | O |
| ATOM | 6479 | CB | TYR | A | 924 | 43.725 | 62.567 | 32.076 | 1.00165.19 | C |
| ATOM | 6480 | CG | TYR | A | 924 | 44.678 | 62.600 | 30.897 | 1.00165.19 | C |
| ATOM | 6481 | CD1 | TYR | A | 924 | 46.034 | 62.327 | 31.073 | 1.00165.19 | C |
| ATOM | 6482 | CD2 | TYR | A | 924 | 44.234 | 62.919 | 29.611 | 1.00165.19 | C |
| ATOM | 6483 | CE1 | TYR | A | 924 | 46.925 | 62.369 | 30.004 | 1.00165.19 | C |
| ATOM | 6484 | CE2 | TYR | A | 924 | 45.121 | 62.965 | 28.532 | 1.00165.19 | C |
| ATOM | 6485 | CZ | TYR | A | 924 | 46.465 | 62.688 | 28.737 | 1.00165.19 | C |
| ATOM | 6486 | OH | TYR | A | 924 | 47.350 | 62.731 | 27.683 | 1.00165.19 | O |
| ATOM | 6487 | N | ARG | A | 925 | 43.126 | 59.598 | 32.419 | 1.00111.67 | N |
| ATOM | 6488 | CA | ARG | A | 925 | 43.378 | 58.186 | 32.138 | 1.00111.67 | C |
| ATOM | 6489 | C | ARG | A | 925 | 42.055 | 57.594 | 31.626 | 1.00111.67 | C |
| ATOM | 6490 | O | ARG | A | 925 | 41.987 | 56.967 | 30.531 | 1.00111.67 | O |
| ATOM | 6491 | CB | ARG | A | 925 | 43.874 | 57.472 | 33.406 | 1.00121.16 | C |
| ATOM | 6492 | CG | ARG | A | 925 | 45.212 | 58.021 | 33.934 | 1.00121.16 | C |
| ATOM | 6493 | CD | ARG | A | 925 | 45.952 | 57.028 | 34.830 | 1.00121.16 | C |
| ATOM | 6494 | NE | ARG | A | 925 | 45.588 | 57.117 | 36.242 | 1.00121.16 | N |
| ATOM | 6495 | CZ | ARG | A | 925 | 46.009 | 58.067 | 37.072 | 1.00121.16 | C |
| ATOM | 6496 | NH1 | ARG | A | 925 | 46.813 | 59.028 | 36.640 | 1.00121.16 | N |
| ATOM | 6497 | NH2 | ARG | A | 925 | 45.635 | 58.042 | 38.343 | 1.00121.16 | N |
| ATOM | 6498 | N | ASN | A | 926 | 40.992 | 57.835 | 32.396 | 1.00118.34 | N |
| ATOM | 6499 | CA | ASN | A | 926 | 39.653 | 57.366 | 32.023 | 1.00118.34 | C |
| ATOM | 6500 | C | ASN | A | 926 | 39.288 | 57.760 | 30.560 | 1.00118.34 | C |
| ATOM | 6501 | O | ASN | A | 926 | 38.627 | 56.996 | 29.832 | 1.00118.34 | O |
| ATOM | 6502 | CB | ASN | A | 926 | 38.639 | 57.928 | 33.032 | 1.00199.45 | C |
| ATOM | 6503 | CG | ASN | A | 926 | 37.261 | 58.124 | 32.443 | 1.00199.45 | C |
| ATOM | 6504 | OD1 | ASN | A | 926 | 36.964 | 59.171 | 31.869 | 1.00199.45 | O |
| ATOM | 6505 | ND2 | ASN | A | 926 | 36.409 | 57.115 | 32.579 | 1.00199.45 | N |
| ATOM | 6506 | N | ALA | A | 927 | 39.747 | 58.940 | 30.134 | 1.00 78.73 | N |
| ATOM | 6507 | CA | ALA | A | 927 | 39.499 | 59.437 | 28.792 | 1.00 78.73 | C |
| ATOM | 6508 | C | ALA | A | 927 | 40.159 | 58.537 | 27.760 | 1.00 78.73 | C |
| ATOM | 6509 | O | ALA | A | 927 | 39.504 | 58.153 | 26.799 | 1.00 78.73 | O |
| ATOM | 6510 | CB | ALA | A | 927 | 40.028 | 60.864 | 28.659 | 1.00156.40 | C |
| ATOM | 6511 | N | MET | A | 928 | 41.440 | 58.195 | 27.934 | 1.00122.43 | N |
| ATOM | 6512 | CA | MET | A | 928 | 42.117 | 57.311 | 26.956 | 1.00122.43 | C |
| ATOM | 6513 | C | MET | A | 928 | 41.297 | 56.056 | 26.719 | 1.00122.43 | C |
| ATOM | 6514 | O | MET | A | 928 | 41.048 | 55.651 | 25.566 | 1.00122.43 | O |
| ATOM | 6515 | CB | MET | A | 928 | 43.514 | 56.942 | 27.463 | 1.00207.38 | C |
| ATOM | 6516 | CG | MET | A | 928 | 44.308 | 58.144 | 27.963 | 1.00207.38 | C |
| ATOM | 6517 | SD | MET | A | 928 | 46.090 | 57.911 | 27.871 | 1.00207.38 | S |
| ATOM | 6518 | CE | MET | A | 928 | 46.495 | 59.050 | 26.561 | 1.00207.38 | C |
| ATOM | 6519 | N | LYS | A | 929 | 40.861 | 55.443 | 27.819 | 1.00102.66 | N |
| ATOM | 6520 | CA | LYS | A | 929 | 40.024 | 54.244 | 27.683 | 1.00102.66 | C |
| ATOM | 6521 | C | LYS | A | 929 | 38.801 | 54.564 | 26.807 | 1.00102.66 | C |
| ATOM | 6522 | O | LYS | A | 929 | 38.690 | 54.070 | 25.684 | 1.00102.66 | O |
| ATOM | 6523 | CB | LYS | A | 929 | 39.537 | 53.754 | 29.053 | 1.00133.25 | C |
| ATOM | 6524 | CG | LYS | A | 929 | 38.700 | 52.468 | 29.005 | 1.00133.25 | C |
| ATOM | 6525 | CD | LYS | A | 929 | 37.816 | 52.313 | 30.244 | 1.00133.25 | C |
| ATOM | 6526 | CE | LYS | A | 929 | 37.000 | 51.023 | 30.220 | 1.00133.25 | C |
| ATOM | 6527 | NZ | LYS | A | 929 | 37.840 | 49.800 | 30.372 | 1.00133.25 | N |
| ATOM | 6528 | N | LYS | A | 930 | 37.891 | 55.401 | 27.306 | 1.00111.12 | N |
| ATOM | 6529 | CA | LYS | A | 930 | 36.684 | 55.735 | 26.531 | 1.00111.12 | C |
| ATOM | 6530 | C | LYS | A | 930 | 36.991 | 56.041 | 25.059 | 1.00111.12 | C |
| ATOM | 6531 | O | LYS | A | 930 | 36.122 | 55.941 | 24.183 | 1.00111.12 | O |
| ATOM | 6532 | CB | LYS | A | 930 | 35.934 | 56.911 | 27.154 | 1.00 98.81 | C |
| ATOM | 6533 | CG | LYS | A | 930 | 36.584 | 58.252 | 26.912 | 1.00 98.81 | C |
| ATOM | 6534 | CD | LYS | A | 930 | 35.689 | 59.378 | 27.398 | 1.00 98.81 | C |
| ATOM | 6535 | CE | LYS | A | 930 | 36.408 | 60.719 | 27.327 | 1.00 98.81 | C |
| ATOM | 6536 | NZ | LYS | A | 930 | 36.934 | 60.971 | 25.959 | 1.00 98.81 | N |
| ATOM | 6537 | N | ALA | A | 931 | 38.224 | 56.442 | 24.792 | 1.00127.43 | N |
| ATOM | 6538 | CA | ALA | A | 931 | 38.613 | 56.717 | 23.429 | 1.00127.43 | C |
| ATOM | 6539 | C | ALA | A | 931 | 38.403 | 55.383 | 22.767 | 1.00127.43 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6540 | O | ALA | A | 931 | 37.513 | 55.176 | 21.917 | 1.00127.43 | O |
| ATOM | 6541 | CB | ALA | A | 931 | 40.078 | 57.130 | 23.359 | 1.00162.67 | C |
| ATOM | 6542 | N | HIS | A | 932 | 39.240 | 54.465 | 23.219 | 1.0077.91 | N |
| ATOM | 6543 | CA | HIS | A | 932 | 39.209 | 53.114 | 22.732 | 1.0077.91 | C |
| ATOM | 6544 | C | HIS | A | 932 | 37.767 | 52.662 | 22.586 | 1.0077.91 | C |
| ATOM | 6545 | O | HIS | A | 932 | 37.341 | 52.229 | 21.528 | 1.0077.91 | O |
| ATOM | 6546 | CB | HIS | A | 932 | 39.954 | 52.218 | 23.730 | 1.00124.63 | C |
| ATOM | 6547 | CG | HIS | A | 932 | 39.854 | 50.759 | 23.428 | 1.00124.63 | C |
| ATOM | 6548 | ND1 | HIS | A | 932 | 38.648 | 50.131 | 23.207 | 1.00124.63 | N |
| ATOM | 6549 | CD2 | HIS | A | 932 | 40.806 | 49.806 | 23.305 | 1.00124.63 | C |
| ATOM | 6550 | CE1 | HIS | A | 932 | 38.863 | 48.852 | 22.958 | 1.00124.63 | C |
| ATOM | 6551 | NE2 | HIS | A | 932 | 40.164 | 48.629 | 23.011 | 1.00124.63 | N |
| ATOM | 6552 | N | VAL | A | 933 | 37.001 | 52.756 | 23.651 | 1.0041.35 | N |
| ATOM | 6553 | CA | VAL | A | 933 | 35.596 | 52.372 | 23.575 | 1.0041.35 | C |
| ATOM | 6554 | C | VAL | A | 933 | 34.833 | 52.879 | 22.315 | 1.0041.35 | C |
| ATOM | 6555 | O | VAL | A | 933 | 34.189 | 52.095 | 21.601 | 1.0041.35 | O |
| ATOM | 6556 | CB | VAL | A | 933 | 34.836 | 52.914 | 24.804 | 1.0068.22 | C |
| ATOM | 6557 | CG1 | VAL | A | 933 | 33.376 | 52.493 | 24.743 | 1.0068.22 | C |
| ATOM | 6558 | CG2 | VAL | A | 933 | 35.497 | 52.445 | 26.085 | 1.0068.22 | C |
| ATOM | 6559 | N | PHE | A | 934 | 34.875 | 54.199 | 22.084 | 1.0074.27 | N |
| ATOM | 6560 | CA | PHE | A | 934 | 34.179 | 54.820 | 20.955 | 1.0074.27 | C |
| ATOM | 6561 | C | PHE | A | 934 | 34.568 | 54.116 | 19.716 | 1.0074.27 | C |
| ATOM | 6562 | O | PHE | A | 934 | 33.744 | 53.875 | 18.836 | 1.0074.27 | O |
| ATOM | 6563 | CB | PHE | A | 934 | 34.520 | 56.315 | 20.846 | 1.0098.06 | C |
| ATOM | 6564 | CG | PHE | A | 934 | 33.580 | 57.208 | 21.603 | 1.0098.06 | C |
| ATOM | 6565 | CD1 | PHE | A | 934 | 33.506 | 57.148 | 22.988 | 1.0098.06 | C |
| ATOM | 6566 | CD2 | PHE | A | 934 | 32.753 | 58.097 | 20.928 | 1.0098.06 | C |
| ATOM | 6567 | CE1 | PHE | A | 934 | 32.625 | 57.953 | 23.677 | 1.0098.06 | C |
| ATOM | 6568 | CE2 | PHE | A | 934 | 31.874 | 58.898 | 21.623 | 1.0098.06 | C |
| ATOM | 6569 | CZ | PHE | A | 934 | 31.813 | 58.824 | 22.993 | 1.0098.06 | C |
| ATOM | 6570 | N | GLY | A | 935 | 35.849 | 53.787 | 19.656 | 1.0095.08 | N |
| ATOM | 6571 | CA | GLY | A | 935 | 36.335 | 53.063 | 18.505 | 1.0095.08 | C |
| ATOM | 6572 | C | GLY | A | 935 | 35.619 | 51.723 | 18.335 | 1.0095.08 | C |
| ATOM | 6573 | O | GLY | A | 935 | 34.781 | 51.574 | 17.433 | 1.0095.08 | O |
| ATOM | 6574 | N | ILE | A | 936 | 35.926 | 50.756 | 19.210 | 1.0048.32 | N |
| ATOM | 6575 | CA | ILE | A | 936 | 35.340 | 49.424 | 19.122 | 1.0048.32 | C |
| ATOM | 6576 | C | ILE | A | 936 | 33.882 | 49.541 | 18.738 | 1.0048.32 | C |
| ATOM | 6577 | O | ILE | A | 936 | 33.453 | 48.985 | 17.744 | 1.0048.32 | O |
| ATOM | 6578 | CB | ILE | A | 936 | 35.522 | 48.650 | 20.459 | 1.00122.99 | C |
| ATOM | 6579 | CG1 | ILE | A | 936 | 34.661 | 47.386 | 20.461 | 1.00122.99 | C |
| ATOM | 6580 | CG2 | ILE | A | 936 | 35.236 | 49.562 | 21.638 | 1.00122.99 | C |
| ATOM | 6581 | CD1 | ILE | A | 936 | 34.776 | 46.576 | 21.732 | 1.00122.99 | C |
| ATOM | 6582 | N | THR | A | 937 | 33.126 | | | | |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6614 | CE1 | PHE | A | 940 | 27.544 | 45.360 | 17.085 | 1.00134.73 | C |
| ATOM | 6615 | CE2 | PHE | A | 940 | 29.016 | 43.834 | 18.204 | 1.00134.73 | C |
| ATOM | 6616 | CZ | PHE | A | 940 | 27.739 | 44.204 | 17.831 | 1.00134.73 | C |
| ATOM | 6617 | N | THR | A | 941 | 29.810 | 48.548 | 14.455 | 1.00 96.27 | N |
| ATOM | 6618 | CA | THR | A | 941 | 28.615 | 48.938 | 13.707 | 1.00 96.27 | C |
| ATOM | 6619 | C | THR | A | 941 | 28.817 | 48.747 | 12.204 | 1.00 96.27 | C |
| ATOM | 6620 | O | THR | A | 941 | 27.935 | 48.239 | 11.479 | 1.00 96.27 | O |
| ATOM | 6621 | CB | THR | A | 941 | 28.239 | 50.410 | 13.950 | 1.00149.49 | C |
| ATOM | 6622 | OG1 | THR | A | 941 | 28.175 | 50.661 | 15.358 | 1.00149.49 | O |
| ATOM | 6623 | CG2 | THR | A | 941 | 26.876 | 50.719 | 13.332 | 1.00149.49 | C |
| ATOM | 6624 | N | GLN | A | 942 | 29.984 | 49.157 | 11.727 | 1.00 96.64 | N |
| ATOM | 6625 | CA | GLN | A | 942 | 30.273 | 48.995 | 10.298 | 1.00 96.64 | C |
| ATOM | 6626 | C | GLN | A | 942 | 30.479 | 47.511 | 9.898 | 1.00 96.64 | C |
| ATOM | 6627 | O | GLN | A | 942 | 30.157 | 47.077 | 8.771 | 1.00 96.64 | O |
| ATOM | 6628 | CB | GLN | A | 942 | 31.487 | 49.850 | 9.937 | 1.00150.21 | C |
| ATOM | 6629 | CG | GLN | A | 942 | 31.373 | 51.262 | 10.495 | 1.00150.21 | C |
| ATOM | 6630 | CD | GLN | A | 942 | 29.939 | 51.774 | 10.478 | 1.00150.21 | C |
| ATOM | 6631 | OE1 | GLN | A | 942 | 29.075 | 51.259 | 11.190 | 1.00150.21 | O |
| ATOM | 6632 | NE2 | GLN | A | 942 | 29.680 | 52.783 | 9.659 | 1.00150.21 | N |
| ATOM | 6633 | N | ALA | A | 943 | 31.023 | 46.736 | 10.832 | 1.00126.22 | N |
| ATOM | 6634 | CA | ALA | A | 943 | 31.218 | 45.317 | 10.600 | 1.00126.22 | C |
| ATOM | 6635 | C | ALA | A | 943 | 29.811 | 44.813 | 10.345 | 1.00126.22 | C |
| ATOM | 6636 | O | ALA | A | 943 | 29.560 | 44.090 | 9.396 | 1.00126.22 | O |
| ATOM | 6637 | CB | ALA | A | 943 | 31.809 | 44.652 | 11.843 | 1.00156.03 | C |
| ATOM | 6638 | N | MET | A | 944 | 28.881 | 45.187 | 11.202 | 1.00 95.49 | N |
| ATOM | 6639 | CA | MET | A | 944 | 27.524 | 44.790 | 10.946 | 1.00 95.49 | C |
| ATOM | 6640 | C | MET | A | 944 | 27.248 | 45.142 | 9.482 | 1.00 95.49 | C |
| ATOM | 6641 | O | MET | A | 944 | 26.597 | 44.365 | 8.782 | 1.00 95.49 | O |
| ATOM | 6642 | CB | MET | A | 944 | 26.571 | 45.542 | 11.868 | 1.00193.82 | C |
| ATOM | 6643 | CG | MET | A | 944 | 26.744 | 45.142 | 13.312 | 1.00193.82 | C |
| ATOM | 6644 | SD | MET | A | 944 | 26.682 | 43.343 | 13.443 | 1.00193.82 | S |
| ATOM | 6645 | CE | MET | A | 944 | 25.308 | 43.136 | 14.519 | 1.00193.82 | C |
| ATOM | 6646 | N | MET | A | 945 | 27.740 | 46.299 | 9.015 | 1.00 88.94 | N |
| ATOM | 6647 | CA | MET | A | 945 | 27.547 | 46.689 | 7.599 | 1.00 88.94 | C |
| ATOM | 6648 | C | MET | A | 945 | 27.751 | 45.509 | 6.643 | 1.00 88.94 | C |
| ATOM | 6649 | O | MET | A | 945 | 26.802 | 44.984 | 6.031 | 1.00 88.94 | O |
| ATOM | 6650 | CB | MET | A | 945 | 28.556 | 47.773 | 7.207 | 1.00116.95 | C |
| ATOM | 6651 | CG | MET | A | 945 | 28.845 | 47.838 | 5.695 | 1.00116.95 | C |
| ATOM | 6652 | SD | MET | A | 945 | 30.571 | 47.499 | 5.225 | 1.00116.95 | S |
| ATOM | 6653 | CE | MET | A | 945 | 31.091 | 49.093 | 4.499 | 1.00116.95 | C |
| ATOM | 6654 | N | TYR | A | 946 | 29.013 | 45.113 | 6.511 | 1.00 70.12 | N |
| ATOM | 6655 | CA | TYR | A | 946 | 29.352 | 44.007 | 5.626 | 1.00 70.12 | C |
| ATOM | 6656 | C | TYR | A | 946 | 28.596 | 42.736 | 5.973 | 1.00 70.12 | C |
| ATOM | 6657 | O | TYR | A | 946 | 27.975 | 42.142 | 5.106 | 1.00 70.12 | O |
| ATOM | 6658 | CB | TYR | A | 946 | 30.863 | 43.724 | 5.649 | 1.00125.59 | C |
| ATOM | 6659 | CG | TYR | A | 946 | 31.380 | 42.753 | 6.717 | 1.00125.59 | C |
| ATOM | 6660 | CD1 | TYR | A | 946 | 31.938 | 43.218 | 7.915 | 1.00125.59 | C |
| ATOM | 6661 | CD2 | TYR | A | 946 | 31.411 | 41.376 | 6.477 | 1.00125.59 | C |
| ATOM | 6662 | CE1 | TYR | A | 946 | 32.528 | 42.336 | 8.834 | 1.00125.59 | C |
| ATOM | 6663 | CE2 | TYR | A | 946 | 31.992 | 40.488 | 7.393 | 1.00125.59 | C |
| ATOM | 6664 | CZ | TYR | A | 946 | 32.555 | 40.975 | 8.564 | 1.00125.59 | C |
| ATOM | 6665 | OH | TYR | A | 946 | 33.176 | 40.111 | 9.443 | 1.00125.59 | O |
| ATOM | 6666 | N | PHE | A | 947 | 28.668 | 42.306 | 7.233 | 1.00143.95 | N |
| ATOM | 6667 | CA | PHE | A | 947 | 27.983 | 41.091 | 7.660 | 1.00143.95 | C |
| ATOM | 6668 | C | PHE | A | 947 | 26.623 | 41.084 | 7.008 | 1.00143.95 | C |
| ATOM | 6669 | O | PHE | A | 947 | 26.305 | 40.200 | 6.200 | 1.00143.95 | O |
| ATOM | 6670 | CB | PHE | A | 947 | 27.802 | 41.062 | 9.183 | 1.00207.38 | C |
| ATOM | 6671 | CG | PHE | A | 947 | 29.056 | 40.740 | 9.946 | 1.00207.38 | C |
| ATOM | 6672 | CD1 | PHE | A | 947 | 29.667 | 41.702 | 10.742 | 1.00207.38 | C |
| ATOM | 6673 | CD2 | PHE | A | 947 | 29.610 | 39.466 | 9.891 | 1.00207.38 | C |
| ATOM | 6674 | CE1 | PHE | A | 947 | 30.811 | 41.399 | 11.474 | 1.00207.38 | C |
| ATOM | 6675 | CE2 | PHE | A | 947 | 30.752 | 39.153 | 10.617 | 1.00207.38 | C |
| ATOM | 6676 | CZ | PHE | A | 947 | 31.354 | 40.122 | 11.412 | 1.00207.38 | C |
| ATOM | 6677 | N | SER | A | 948 | 25.838 | 42.098 | 7.367 | 1.00134.70 | N |
| ATOM | 6678 | CA | SER | A | 948 | 24.493 | 42.288 | 6.845 | 1.00134.70 | C |
| ATOM | 6679 | C | SER | A | 948 | 24.467 | 42.016 | 5.350 | 1.00134.70 | C |
| ATOM | 6680 | O | SER | A | 948 | 24.046 | 40.942 | 4.919 | 1.00134.70 | O |
| ATOM | 6681 | CB | SER | A | 948 | 24.020 | 43.720 | 7.118 | 1.00207.38 | C |
| ATOM | 6682 | OG | SER | A | 948 | 24.055 | 44.018 | 8.503 | 1.00207.38 | O |
| ATOM | 6683 | N | TYR | A | 949 | 24.923 | 42.985 | 4.558 | 1.00112.52 | N |
| ATOM | 6684 | CA | TYR | A | 949 | 24.938 | 42.822 | 3.100 | 1.00112.52 | C |
| ATOM | 6685 | C | TYR | A | 949 | 25.270 | 41.409 | 2.637 | 1.00112.52 | C |
| ATOM | 6686 | O | TYR | A | 949 | 24.410 | 40.691 | 2.140 | 1.00112.52 | O |
| ATOM | 6687 | CB | TYR | A | 949 | 25.931 | 43.798 | 2.467 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6688 | CG | TYR | A | 949 | 25.399 | 45.201 | 2.303 | 1.00207.38 | C |
| ATOM | 6689 | CD1 | TYR | A | 949 | 24.959 | 45.937 | 3.402 | 1.00207.38 | C |
| ATOM | 6690 | CD2 | TYR | A | 949 | 25.339 | 45.796 | 1.044 | 1.00207.38 | C |
| ATOM | 6691 | CE1 | TYR | A | 949 | 24.474 | 47.232 | 3.250 | 1.00207.38 | C |
| ATOM | 6692 | CE2 | TYR | A | 949 | 24.856 | 47.087 | 0.882 | 1.00207.38 | C |
| ATOM | 6693 | CZ | TYR | A | 949 | 24.426 | 47.799 | 1.988 | 1.00207.38 | C |
| ATOM | 6694 | OH | TYR | A | 949 | 23.947 | 49.078 | 1.830 | 1.00207.38 | O |
| ATOM | 6695 | N | ALA | A | 950 | 26.535 | 41.037 | 2.792 | 1.00138.85 | N |
| ATOM | 6696 | CA | ALA | A | 950 | 27.047 | 39.723 | 2.429 | 1.00138.85 | C |
| ATOM | 6697 | C | ALA | A | 950 | 26.044 | 38.593 | 2.647 | 1.00138.85 | C |
| ATOM | 6698 | O | ALA | A | 950 | 25.491 | 38.027 | 1.695 | 1.00138.85 | O |
| ATOM | 6699 | CB | ALA | A | 950 | 28.341 | 39.427 | 3.204 | 1.00 71.33 | C |
| ATOM | 6700 | N | ALA | A | 951 | 25.834 | 38.250 | 3.911 | 1.00121.63 | N |
| ATOM | 6701 | CA | ALA | A | 951 | 24.892 | 37.194 | 4.239 | 1.00121.63 | C |
| ATOM | 6702 | C | ALA | A | 951 | 23.660 | 37.348 | 3.357 | 1.00121.63 | C |
| ATOM | 6703 | O | ALA | A | 951 | 23.248 | 36.407 | 2.695 | 1.00121.63 | O |
| ATOM | 6704 | CB | ALA | A | 951 | 24.502 | 37.279 | 5.709 | 1.00194.61 | C |
| ATOM | 6705 | N | ALA | A | 952 | 23.089 | 38.547 | 3.342 | 1.00125.49 | N |
| ATOM | 6706 | CA | ALA | A | 952 | 21.907 | 38.828 | 2.537 | 1.00125.49 | C |
| ATOM | 6707 | C | ALA | A | 952 | 22.024 | 38.329 | 1.097 | 1.00125.49 | C |
| ATOM | 6708 | O | ALA | A | 952 | 21.448 | 37.294 | 0.743 | 1.00125.49 | O |
| ATOM | 6709 | CB | ALA | A | 952 | 21.622 | 40.324 | 2.549 | 1.00178.51 | C |
| ATOM | 6710 | N | PHE | A | 953 | 22.762 | 39.068 | 0.270 | 1.00149.22 | N |
| ATOM | 6711 | CA | PHE | A | 953 | 22.937 | 38.707 | -1.134 | 1.00149.22 | C |
| ATOM | 6712 | C | PHE | A | 953 | 23.312 | 37.255 | -1.336 | 1.00149.22 | C |
| ATOM | 6713 | O | PHE | A | 953 | 22.821 | 36.591 | -2.250 | 1.00149.22 | O |
| ATOM | 6714 | CB | PHE | A | 953 | 23.951 | 39.653 | -1.784 | 1.00144.25 | C |
| ATOM | 6715 | CG | PHE | A | 953 | 23.396 | 41.022 | -2.033 | 1.00144.25 | C |
| ATOM | 6716 | CD1 | PHE | A | 953 | 22.870 | 41.354 | -3.276 | 1.00144.25 | C |
| ATOM | 6717 | CD2 | PHE | A | 953 | 23.321 | 41.952 | -1.002 | 1.00144.25 | C |
| ATOM | 6718 | CE1 | PHE | A | 953 | 22.275 | 42.585 | -3.485 | 1.00144.25 | C |
| ATOM | 6719 | CE2 | PHE | A | 953 | 22.726 | 43.187 | -1.204 | 1.00144.25 | C |
| ATOM | 6720 | CZ | PHE | A | 953 | 22.202 | 43.503 | -2.446 | 1.00144.25 | C |
| ATOM | 6721 | N | ARG | A | 954 | 24.158 | 36.748 | -0.459 | 1.00183.84 | N |
| ATOM | 6722 | CA | ARG | A | 954 | 24.568 | 35.359 | -0.538 | 1.00183.84 | C |
| ATOM | 6723 | C | ARG | A | 954 | 23.327 | 34.436 | -0.393 | 1.00183.84 | C |
| ATOM | 6724 | O | ARG | A | 954 | 22.910 | 33.757 | -1.348 | 1.00183.84 | O |
| ATOM | 6725 | CB | ARG | A | 954 | 25.571 | 35.071 | 0.583 | 1.00207.38 | C |
| ATOM | 6726 | CG | ARG | A | 954 | 26.730 | 34.170 | 0.196 | 1.00207.38 | C |
| ATOM | 6727 | CD | ARG | A | 954 | 26.246 | 32.797 | -0.208 | 1.00207.38 | C |
| ATOM | 6728 | NE | ARG | A | 954 | 25.202 | 32.314 | 0.691 | 1.00207.38 | N |
| ATOM | 6729 | CZ | ARG | A | 954 | 25.311 | 32.280 | 2.016 | 1.00207.38 | C |
| ATOM | 6730 | NH1 | ARG | A | 954 | 26.421 | 32.704 | 2.609 | 1.00207.38 | N |
| ATOM | 6731 | NH2 | ARG | A | 954 | 24.307 | 31.822 | 2.751 | 1.00207.38 | N |
| ATOM | 6732 | N | PHE | A | 955 | 22.741 | 34.440 | 0.806 | 1.00174.76 | N |
| ATOM | 6733 | CA | PHE | A | 955 | 21.567 | 33.624 | 1.130 | 1.00174.76 | C |
| ATOM | 6734 | C | PHE | A | 955 | 20.542 | 33.767 | 0.039 | 1.00174.76 | C |
| ATOM | 6735 | O | PHE | A | 955 | 20.048 | 32.783 | -0.485 | 1.00174.76 | O |
| ATOM | 6736 | CB | PHE | A | 955 | 20.944 | 34.066 | 2.465 | 1.00141.08 | C |
| ATOM | 6737 | CG | PHE | A | 955 | 19.888 | 33.119 | 3.008 | 1.00141.08 | C |
| ATOM | 6738 | CD1 | PHE | A | 955 | 18.778 | 33.616 | 3.696 | 1.00141.08 | C |
| ATOM | 6739 | CD2 | PHE | A | 955 | 20.026 | 31.738 | 2.879 | 1.00141.08 | C |
| ATOM | 6740 | CE1 | PHE | A | 955 | 17.829 | 32.755 | 4.248 | 1.00141.08 | C |
| ATOM | 6741 | CE2 | PHE | A | 955 | 19.082 | 30.868 | 3.429 | 1.00141.08 | C |
| ATOM | 6742 | CZ | PHE | A | 955 | 17.983 | 31.377 | 4.114 | 1.00141.08 | C |
| ATOM | 6743 | N | GLY | A | 956 | 20.204 | 35.000 | -0.296 | 1.00177.13 | N |
| ATOM | 6744 | CA | GLY | A | 956 | 19.225 | 35.183 | -1.341 | 1.00177.13 | C |
| ATOM | 6745 | C | GLY | A | 956 | 19.577 | 34.295 | -2.514 | 1.00177.13 | C |
| ATOM | 6746 | O | GLY | A | 956 | 18.899 | 33.291 | -2.771 | 1.00177.13 | O |
| ATOM | 6747 | N | ALA | A | 957 | 20.657 | 34.659 | -3.204 | 1.00141.01 | N |
| ATOM | 6748 | CA | ALA | A | 957 | 21.124 | 33.921 | -4.371 | 1.00141.01 | C |
| ATOM | 6749 | C | ALA | A | 957 | 20.850 | 32.443 | -4.211 | 1.00141.01 | C |
| ATOM | 6750 | O | ALA | A | 957 | 20.456 | 31.748 | -5.147 | 1.00141.01 | O |
| ATOM | 6751 | CB | ALA | A | 957 | 22.621 | 34.162 | -4.580 | 1.00125.32 | C |
| ATOM | 6752 | N | TYR | A | 958 | 21.053 | 31.972 | -2.995 | 1.00147.78 | N |
| ATOM | 6753 | CA | TYR | A | 958 | 20.858 | 30.568 | -2.707 | 1.00147.78 | C |
| ATOM | 6754 | C | TYR | A | 958 | 20.032 | 29.772 | -3.694 | 1.00147.78 | C |
| ATOM | 6755 | O | TYR | A | 958 | 18.833 | 29.988 | -3.772 | 1.00147.78 | O |
| ATOM | 6756 | CB | TYR | A | 958 | 20.236 | 30.338 | -1.329 | 1.00205.33 | C |
| ATOM | 6757 | CG | TYR | A | 958 | 20.027 | 28.857 | -1.065 | 1.00205.33 | C |
| ATOM | 6758 | CD1 | TYR | A | 958 | 21.085 | 28.053 | -0.640 | 1.00205.33 | C |
| ATOM | 6759 | CD2 | TYR | A | 958 | 18.814 | 28.233 | -1.375 | 1.00205.33 | C |
| ATOM | 6760 | CE1 | TYR | A | 958 | 20.952 | 26.675 | -0.542 | 1.00205.33 | C |
| ATOM | 6761 | CE2 | TYR | A | 958 | 18.672 | 26.842 | -1.280 | 1.00205.33 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 6762 | CZ | TYR | A | 958 | 19.750 | 26.074 | -0.867 | 1.00205.33 | C |
| ATOM | 6763 | OH | TYR | A | 958 | 19.651 | 24.702 | -0.814 | 1.00205.33 | O |
| ATOM | 6764 | N | LEU | A | 959 | 20.687 | 28.836 | -4.389 | 1.00154.04 | N |
| ATOM | 6765 | CA | LEU | A | 959 | 20.102 | 27.853 | -5.335 | 1.00154.04 | C |
| ATOM | 6766 | C | LEU | A | 959 | 19.597 | 28.286 | -6.690 | 1.00154.04 | C |
| ATOM | 6767 | O | LEU | A | 959 | 18.414 | 28.488 | -6.933 | 1.00154.04 | O |
| ATOM | 6768 | CB | LEU | A | 959 | 19.010 | 27.033 | -4.623 | 1.00131.86 | C |
| ATOM | 6769 | CG | LEU | A | 959 | 18.938 | 25.535 | -4.984 | 1.00131.86 | C |
| ATOM | 6770 | CD1 | LEU | A | 959 | 17.801 | 24.853 | -4.240 | 1.00131.86 | C |
| ATOM | 6771 | CD2 | LEU | A | 959 | 18.738 | 25.370 | -6.484 | 1.00131.86 | C |
| ATOM | 6772 | N | VAL | A | 960 | 20.526 | 28.367 | -7.603 | 1.00133.11 | N |
| ATOM | 6773 | CA | VAL | A | 960 | 20.164 | 28.750 | -8.925 | 1.00133.11 | C |
| ATOM | 6774 | C | VAL | A | 960 | 20.634 | 27.646 | -9.860 | 1.00133.11 | C |
| ATOM | 6775 | O | VAL | A | 960 | 21.158 | 27.913 | -10.941 | 1.00133.11 | O |
| ATOM | 6776 | CB | VAL | A | 960 | 20.815 | 30.095 | -9.290 | 1.00111.71 | C |
| ATOM | 6777 | CG1 | VAL | A | 960 | 20.218 | 31.209 | -8.443 | 1.00111.71 | C |
| ATOM | 6778 | CG2 | VAL | A | 960 | 22.320 | 30.019 | -9.064 | 1.00111.71 | C |
| ATOM | 6779 | N | THR | A | 961 | 20.427 | 26.404 | -9.416 | 1.00207.38 | N |
| ATOM | 6780 | CA | THR | A | 961 | 20.800 | 25.191 | -10.157 | 1.00207.38 | C |
| ATOM | 6781 | C | THR | A | 961 | 19.756 | 24.787 | -11.204 | 1.00207.38 | C |
| ATOM | 6782 | O | THR | A | 961 | 18.862 | 23.993 | -10.893 | 1.00207.38 | O |
| ATOM | 6783 | CB | THR | A | 961 | 20.971 | 23.992 | -9.194 | 1.00199.12 | C |
| ATOM | 6784 | OG1 | THR | A | 961 | 22.066 | 24.235 | -8.304 | 1.00199.12 | O |
| ATOM | 6785 | CG2 | THR | A | 961 | 21.219 | 22.714 | -9.972 | 1.00199.12 | C |
| ATOM | 6786 | N | GLN | A | 962 | 19.866 | 25.319 | -12.427 | 1.00207.38 | N |
| ATOM | 6787 | CA | GLN | A | 962 | 18.924 | 24.993 | -13.510 | 1.00207.38 | C |
| ATOM | 6788 | C | GLN | A | 962 | 17.727 | 25.972 | -13.586 | 1.00207.38 | C |
| ATOM | 6789 | O | GLN | A | 962 | 16.773 | 25.738 | -14.334 | 1.00207.38 | O |
| ATOM | 6790 | CB | GLN | A | 962 | 18.418 | 23.553 | -13.310 | 1.00202.52 | C |
| ATOM | 6791 | CG | GLN | A | 962 | 17.488 | 23.007 | -14.382 | 1.00202.52 | C |
| ATOM | 6792 | CD | GLN | A | 962 | 17.068 | 21.567 | -14.104 | 1.00202.52 | C |
| ATOM | 6793 | OE1 | GLN | A | 962 | 16.571 | 21.254 | -13.023 | 1.00202.52 | O |
| ATOM | 6794 | NE2 | GLN | A | 962 | 17.264 | 20.688 | -15.084 | 1.00202.52 | N |
| ATOM | 6795 | N | GLN | A | 963 | 17.799 | 27.068 | -12.820 | 1.00207.38 | N |
| ATOM | 6796 | CA | GLN | A | 963 | 16.757 | 28.112 | -12.767 | 1.00207.38 | C |
| ATOM | 6797 | C | GLN | A | 963 | 15.610 | 27.791 | -11.772 | 1.00207.38 | C |
| ATOM | 6798 | O | GLN | A | 963 | 14.557 | 27.288 | -12.168 | 1.00207.38 | O |
| ATOM | 6799 | CB | GLN | A | 963 | 16.201 | 28.321 | -14.185 | 1.00204.63 | C |
| ATOM | 6800 | CG | GLN | A | 963 | 17.290 | 28.643 | -15.224 | 1.00204.63 | C |
| ATOM | 6801 | CD | GLN | A | 963 | 16.822 | 28.485 | -16.666 | 1.00204.63 | C |
| ATOM | 6802 | OE1 | GLN | A | 963 | 17.619 | 28.577 | -17.600 | 1.00204.63 | O |
| ATOM | 6803 | NE2 | GLN | A | 963 | 15.529 | 28.247 | -16.852 | 1.00204.63 | N |
| ATOM | 6804 | N | LEU | A | 964 | 15.841 | 28.097 | -10.486 | 1.00207.38 | N |
| ATOM | 6805 | CA | LEU | A | 964 | 14.886 | 27.868 | -9.376 | 1.00207.38 | C |
| ATOM | 6806 | C | LEU | A | 964 | 14.427 | 29.192 | -8.730 | 1.00207.38 | C |
| ATOM | 6807 | O | LEU | A | 964 | 14.907 | 30.254 | -9.118 | 1.00207.38 | O |
| ATOM | 6808 | CB | LEU | A | 964 | 15.544 | 26.968 | -8.316 | 1.00110.39 | C |
| ATOM | 6809 | CG | LEU | A | 964 | 14.967 | 26.757 | -6.906 | 1.00110.39 | C |
| ATOM | 6810 | CD1 | LEU | A | 964 | 15.149 | 28.014 | -6.082 | 1.00110.39 | C |
| ATOM | 6811 | CD2 | LEU | A | 964 | 13.506 | 26.371 | -6.976 | 1.00110.39 | C |
| ATOM | 6812 | N | MET | A | 965 | 13.520 | 29.109 | -7.743 | 1.00113.11 | N |
| ATOM | 6813 | CA | MET | A | 965 | 12.937 | 30.268 | -7.013 | 1.00113.11 | C |
| ATOM | 6814 | C | MET | A | 965 | 13.872 | 31.386 | -6.587 | 1.00113.11 | C |
| ATOM | 6815 | O | MET | A | 965 | 13.489 | 32.321 | -5.875 | 1.00113.11 | O |
| ATOM | 6816 | CB | MET | A | 965 | 12.147 | 29.776 | -5.793 | 1.00207.38 | C |
| ATOM | 6817 | CG | MET | A | 965 | 10.698 | 29.383 | -6.090 | 1.00207.38 | C |
| ATOM | 6818 | SD | MET | A | 965 | 9.573 | 30.797 | -6.226 | 1.00207.38 | S |
| ATOM | 6819 | CE | MET | A | 965 | 9.697 | 31.206 | -7.966 | 1.00207.38 | C |
| ATOM | 6820 | N | THR | A | 966 | 15.092 | 31.278 | -7.082 | 1.00165.82 | N |
| ATOM | 6821 | CA | THR | A | 966 | 16.151 | 32.220 | -6.837 | 1.00165.82 | C |
| ATOM | 6822 | C | THR | A | 966 | 16.483 | 33.001 | -8.102 | 1.00165.82 | C |
| ATOM | 6823 | O | THR | A | 966 | 17.099 | 32.460 | -9.007 | 1.00165.82 | O |
| ATOM | 6824 | CB | THR | A | 966 | 17.380 | 31.468 | -6.333 | 1.00123.08 | C |
| ATOM | 6825 | OG1 | THR | A | 966 | 17.808 | 30.565 | -7.355 | 1.00123.08 | O |
| ATOM | 6826 | CG2 | THR | A | 966 | 17.038 | 30.647 | -5.071 | 1.00123.08 | C |
| ATOM | 6827 | N | PHE | A | 967 | 16.076 | 34.267 | -8.167 | 1.00188.19 | N |
| ATOM | 6828 | CA | PHE | A | 967 | 16.343 | 35.109 | -9.343 | 1.00188.19 | C |
| ATOM | 6829 | C | PHE | A | 967 | 16.206 | 36.589 | -8.972 | 1.00188.19 | C |
| ATOM | 6830 | O | PHE | A | 967 | 16.589 | 36.993 | -7.890 | 1.00188.19 | O |
| ATOM | 6831 | CB | PHE | A | 967 | 15.304 | 34.806 | -10.411 | 1.00134.97 | C |
| ATOM | 6832 | CG | PHE | A | 967 | 13.921 | 35.228 | -10.011 | 1.00134.97 | C |
| ATOM | 6833 | CD1 | PHE | A | 967 | 13.244 | 36.222 | -10.710 | 1.00134.97 | C |
| ATOM | 6834 | CD2 | PHE | A | 967 | 13.332 | 34.687 | -8.874 | 1.00134.97 | C |
| ATOM | 6835 | CE1 | PHE | A | 967 | 12.007 | 36.672 | -10.272 | 1.00134.97 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 6836 | CE2 | PHE | A | 967 | 12.102 | 35.128 | -8.431 | 1.00134.97 | C |
| ATOM | 6837 | CZ | PHE | A | 967 | 11.436 | 36.122 | -9.127 | 1.00134.97 | C |
| ATOM | 6838 | N | GLU | A | 968 | 15.636 | 37.390 | -9.869 | 1.00126.47 | N |
| ATOM | 6839 | CA | GLU | A | 968 | 15.432 | 38.837 | -9.651 | 1.00126.47 | C |
| ATOM | 6840 | C | GLU | A | 968 | 14.876 | 39.326 | -8.302 | 1.00126.47 | C |
| ATOM | 6841 | O | GLU | A | 968 | 15.397 | 40.299 | -7.743 | 1.00126.47 | O |
| ATOM | 6842 | CB | GLU | A | 968 | 14.537 | 39.384 | -10.767 | 1.00206.91 | C |
| ATOM | 6843 | CG | GLU | A | 968 | 13.980 | 40.787 | -10.522 | 1.00206.91 | C |
| ATOM | 6844 | CD | GLU | A | 968 | 12.970 | 40.845 | -9.380 | 1.00206.91 | C |
| ATOM | 6845 | OE1 | GLU | A | 968 | 11.966 | 40.104 | -9.426 | 1.00206.91 | O |
| ATOM | 6846 | OE2 | GLU | A | 968 | 13.178 | 41.636 | -8.434 | 1.00206.91 | O |
| ATOM | 6847 | N | ASN | A | 969 | 13.806 | 38.681 | -7.814 | 1.00142.35 | N |
| ATOM | 6848 | CA | ASN | A | 969 | 13.133 | 39.060 | -6.561 | 1.00142.35 | C |
| ATOM | 6849 | C | ASN | A | 969 | 14.065 | 39.681 | -5.533 | 1.00142.35 | C |
| ATOM | 6850 | O | ASN | A | 969 | 13.668 | 40.547 | -4.747 | 1.00142.35 | O |
| ATOM | 6851 | CB | ASN | A | 969 | 12.385 | 37.870 | -5.943 | 1.00207.38 | C |
| ATOM | 6852 | CG | ASN | A | 969 | 13.275 | 36.670 | -5.693 | 1.00207.38 | C |
| ATOM | 6853 | OD1 | ASN | A | 969 | 12.985 | 35.847 | -4.825 | 1.00207.38 | O |
| ATOM | 6854 | ND2 | ASN | A | 969 | 14.349 | 36.549 | -6.464 | 1.00207.38 | N |
| ATOM | 6855 | N | VAL | A | 970 | 15.314 | 39.247 | -5.543 | 1.00132.34 | N |
| ATOM | 6856 | CA | VAL | A | 970 | 16.295 | 39.793 | -4.625 | 1.00132.34 | C |
| ATOM | 6857 | C | VAL | A | 970 | 16.218 | 41.305 | -4.655 | 1.00132.34 | C |
| ATOM | 6858 | O | VAL | A | 970 | 16.569 | 41.965 | -3.686 | 1.00132.34 | O |
| ATOM | 6859 | CB | VAL | A | 970 | 17.729 | 39.376 | -5.009 | 1.00145.96 | C |
| ATOM | 6860 | CG1 | VAL | A | 970 | 17.905 | 37.884 | -4.835 | 1.00145.96 | C |
| ATOM | 6861 | CG2 | VAL | A | 970 | 18.011 | 39.763 | -6.444 | 1.00145.96 | C |
| ATOM | 6862 | N | LEU | A | 971 | 15.758 | 41.863 | -5.766 | 1.00136.62 | N |
| ATOM | 6863 | CA | LEU | A | 971 | 15.655 | 43.304 | -5.838 | 1.00136.62 | C |
| ATOM | 6864 | C | LEU | A | 971 | 14.570 | 43.828 | -4.905 | 1.00136.62 | C |
| ATOM | 6865 | O | LEU | A | 971 | 14.665 | 44.955 | -4.380 | 1.00136.62 | O |
| ATOM | 6866 | CB | LEU | A | 971 | 15.445 | 43.758 | -7.283 | 1.00194.41 | C |
| ATOM | 6867 | CG | LEU | A | 971 | 16.801 | 43.869 | -7.988 | 1.00194.41 | C |
| ATOM | 6868 | CD1 | LEU | A | 971 | 17.625 | 44.949 | -7.295 | 1.00194.41 | C |
| ATOM | 6869 | CD2 | LEU | A | 971 | 17.541 | 42.533 | -7.937 | 1.00194.41 | C |
| ATOM | 6870 | N | LEU | A | 972 | 13.537 | 43.025 | -4.685 | 1.00 89.76 | N |
| ATOM | 6871 | CA | LEU | A | 972 | 12.544 | 43.455 | -3.731 | 1.00 89.76 | C |
| ATOM | 6872 | C | LEU | A | 972 | 13.172 | 43.231 | -2.368 | 1.00 89.76 | C |
| ATOM | 6873 | O | LEU | A | 972 | 12.798 | 43.868 | -1.390 | 1.00 89.76 | O |
| ATOM | 6874 | CB | LEU | A | 972 | 11.240 | 42.683 | -3.902 | 1.00138.03 | C |
| ATOM | 6875 | CG | LEU | A | 972 | 10.325 | 43.534 | -4.792 | 1.00138.03 | C |
| ATOM | 6876 | CD1 | LEU | A | 972 | 11.041 | 43.836 | -6.104 | 1.00138.03 | C |
| ATOM | 6877 | CD2 | LEU | A | 972 | 9.008 | 42.837 | -5.043 | 1.00138.03 | C |
| ATOM | 6878 | N | VAL | A | 973 | 14.145 | 42.338 | -2.276 | 1.00 66.47 | N |
| ATOM | 6879 | CA | VAL | A | 973 | 14.809 | 42.202 | -0.981 | 1.00 66.47 | C |
| ATOM | 6880 | C | VAL | A | 973 | 15.473 | 43.571 | -0.664 | 1.00 66.47 | C |
| ATOM | 6881 | O | VAL | A | 973 | 15.347 | 44.099 | 0.453 | 1.00 66.47 | O |
| ATOM | 6882 | CB | VAL | A | 973 | 15.884 | 41.097 | -1.008 | 1.00207.38 | C |
| ATOM | 6883 | CG1 | VAL | A | 973 | 16.543 | 40.987 | 0.354 | 1.00207.38 | C |
| ATOM | 6884 | CG2 | VAL | A | 973 | 15.253 | 39.766 | -1.396 | 1.00207.38 | C |
| ATOM | 6885 | N | PHE | A | 974 | 16.168 | 44.147 | -1.648 | 1.00 82.04 | N |
| ATOM | 6886 | CA | PHE | A | 974 | 16.783 | 45.460 | -1.474 | 1.00 82.04 | C |
| ATOM | 6887 | C | PHE | A | 974 | 15.667 | 46.380 | -1.018 | 1.00 82.04 | C |
| ATOM | 6888 | O | PHE | A | 974 | 15.856 | 47.267 | -0.197 | 1.00 82.04 | O |
| ATOM | 6889 | CB | PHE | A | 974 | 17.371 | 45.985 | -2.785 | 1.00193.64 | C |
| ATOM | 6890 | CG | PHE | A | 974 | 17.782 | 47.433 | -2.724 | 1.00193.64 | C |
| ATOM | 6891 | CD1 | PHE | A | 974 | 16.824 | 48.442 | -2.664 | 1.00193.64 | C |
| ATOM | 6892 | CD2 | PHE | A | 974 | 19.128 | 47.788 | -2.699 | 1.00193.64 | C |
| ATOM | 6893 | CE1 | PHE | A | 974 | 17.202 | 49.781 | -2.577 | 1.00193.64 | C |
| ATOM | 6894 | CE2 | PHE | A | 974 | 19.515 | 49.123 | -2.611 | 1.00193.64 | C |
| ATOM | 6895 | CZ | PHE | A | 974 | 18.550 | 50.121 | -2.549 | 1.00193.64 | C |
| ATOM | 6896 | N | SER | A | 975 | 14.489 | 46.184 | -1.573 | 1.00 89.88 | N |
| ATOM | 6897 | CA | SER | A | 975 | 13.360 | 46.991 | -1.152 | 1.00 89.88 | C |
| ATOM | 6898 | C | SER | A | 975 | 13.097 | 46.959 | 0.383 | 1.00 89.88 | C |
| ATOM | 6899 | O | SER | A | 975 | 12.915 | 48.017 | 0.958 | 1.00 89.88 | O |
| ATOM | 6900 | CB | SER | A | 975 | 12.105 | 46.557 | -1.908 | 1.00202.91 | C |
| ATOM | 6901 | OG | SER | A | 975 | 12.292 | 46.700 | -3.306 | 1.00202.91 | O |
| ATOM | 6902 | N | ALA | A | 976 | 13.084 | 45.788 | 1.047 | 1.00 51.48 | N |
| ATOM | 6903 | CA | ALA | A | 976 | 12.837 | 45.737 | 2.518 | 1.00 51.48 | C |
| ATOM | 6904 | C | ALA | A | 976 | 14.018 | 46.177 | 3.411 | 1.00 51.48 | C |
| ATOM | 6905 | O | ALA | A | 976 | 13.826 | 46.617 | 4.562 | 1.00 51.48 | O |
| ATOM | 6906 | CB | ALA | A | 976 | 12.400 | 44.331 | 2.903 | 1.00 32.74 | C |
| ATOM | 6907 | N | ILE | A | 977 | 15.235 | 46.049 | 2.866 | 1.00 74.37 | N |
| ATOM | 6908 | CA | ILE | A | 977 | 16.486 | 46.439 | 3.553 | 1.00 74.37 | C |
| ATOM | 6909 | C | ILE | A | 977 | 16.450 | 47.959 | 3.559 | 1.00 74.37 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 6910 | O | ILE | A | 977 | 16.595 | 48.613 | 4.596 | 1.00 | 74.37 | O |
| ATOM | 6911 | CB | ILE | A | 977 | 17.754 | 46.014 | 2.754 | 1.00 | 112.51 | C |
| ATOM | 6912 | CG1 | ILE | A | 977 | 17.670 | 44.544 | 2.334 | 1.00 | 112.51 | C |
| ATOM | 6913 | CG2 | ILE | A | 977 | 19.004 | 46.236 | 3.600 | 1.00 | 112.51 | C |
| ATOM | 6914 | CD1 | ILE | A | 977 | 18.762 | 44.132 | 1.350 | 1.00 | 112.51 | C |
| ATOM | 6915 | N | VAL | A | 978 | 16.253 | 48.493 | 2.358 | 1.00 | 47.83 | N |
| ATOM | 6916 | CA | VAL | A | 978 | 16.150 | 49.913 | 2.109 | 1.00 | 47.83 | C |
| ATOM | 6917 | C | VAL | A | 978 | 14.885 | 50.399 | 2.888 | 1.00 | 47.83 | C |
| ATOM | 6918 | O | VAL | A | 978 | 14.732 | 51.583 | 3.217 | 1.00 | 47.83 | O |
| ATOM | 6919 | CB | VAL | A | 978 | 16.065 | 50.172 | 0.573 | 1.00 | 114.99 | C |
| ATOM | 6920 | CG1 | VAL | A | 978 | 14.665 | 49.882 | 0.053 | 1.00 | 114.99 | C |
| ATOM | 6921 | CG2 | VAL | A | 978 | 16.533 | 51.579 | 0.251 | 1.00 | 114.99 | C |
| ATOM | 6922 | N | PHE | A | 979 | 13.985 | 49.475 | 3.222 | 1.00 | 136.58 | N |
| ATOM | 6923 | CA | PHE | A | 979 | 12.793 | 49.870 | 3.986 | 1.00 | 136.58 | C |
| ATOM | 6924 | C | PHE | A | 979 | 13.272 | 50.304 | 5.374 | 1.00 | 136.58 | C |
| ATOM | 6925 | O | PHE | A | 979 | 13.062 | 51.448 | 5.817 | 1.00 | 136.58 | O |
| ATOM | 6926 | CB | PHE | A | 979 | 11.794 | 48.713 | 4.150 | 1.00 | 192.07 | C |
| ATOM | 6927 | CG | PHE | A | 979 | 11.058 | 48.340 | 2.888 | 1.00 | 192.07 | C |
| ATOM | 6928 | CD1 | PHE | A | 979 | 10.875 | 49.262 | 1.861 | 1.00 | 192.07 | C |
| ATOM | 6929 | CD2 | PHE | A | 979 | 10.504 | 47.070 | 2.751 | 1.00 | 192.07 | C |
| ATOM | 6930 | CE1 | PHE | A | 979 | 10.148 | 48.923 | 0.714 | 1.00 | 192.07 | C |
| ATOM | 6931 | CE2 | PHE | A | 979 | 9.775 | 46.722 | 1.611 | 1.00 | 192.07 | C |
| ATOM | 6932 | CZ | PHE | A | 979 | 9.597 | 47.650 | 0.591 | 1.00 | 192.07 | C |
| ATOM | 6933 | N | GLY | A | 980 | 13.915 | 49.358 | 6.054 | 1.00 | 81.79 | N |
| ATOM | 6934 | CA | GLY | A | 980 | 14.421 | 49.641 | 7.377 | 1.00 | 81.79 | C |
| ATOM | 6935 | C | GLY | A | 980 | 15.134 | 50.970 | 7.320 | 1.00 | 81.79 | C |
| ATOM | 6936 | O | GLY | A | 980 | 14.895 | 51.846 | 8.152 | 1.00 | 81.79 | O |
| ATOM | 6937 | N | ALA | A | 981 | 15.998 | 51.133 | 6.317 | 1.00 | 116.53 | N |
| ATOM | 6938 | CA | ALA | A | 981 | 16.755 | 52.381 | 6.183 | 1.00 | 116.53 | C |
| ATOM | 6939 | C | ALA | A | 981 | 15.830 | 53.599 | 5.998 | 1.00 | 116.53 | C |
| ATOM | 6940 | O | ALA | A | 981 | 16.166 | 54.719 | 6.397 | 1.00 | 116.53 | O |
| ATOM | 6941 | CB | ALA | A | 981 | 17.695 | 52.283 | 5.023 | 1.00 | 30.34 | C |
| ATOM | 6942 | N | MET | A | 982 | 14.651 | 53.376 | 5.425 | 1.00 | 66.75 | N |
| ATOM | 6943 | CA | MET | A | 982 | 13.682 | 54.458 | 5.199 | 1.00 | 66.75 | C |
| ATOM | 6944 | C | MET | A | 982 | 13.193 | 55.018 | 6.534 | 1.00 | 66.75 | C |
| ATOM | 6945 | O | MET | A | 982 | 13.211 | 56.250 | 6.784 | 1.00 | 66.75 | O |
| ATOM | 6946 | CB | MET | A | 982 | 12.483 | 53.941 | 4.387 | 1.00 | 112.35 | C |
| ATOM | 6947 | CG | MET | A | 982 | 11.275 | 53.498 | 5.224 | 1.00 | 112.35 | C |
| ATOM | 6948 | SD | MET | A | 982 | 10.257 | 52.206 | 4.462 | 1.00 | 112.35 | S |
| ATOM | 6949 | CE | MET | A | 982 | 8.947 | 53.196 | 3.666 | 1.00 | 112.35 | C |
| ATOM | 6950 | N | ALA | A | 983 | 12.746 | 54.089 | 7.385 | 1.00 | 79.77 | N |
| ATOM | 6951 | CA | ALA | A | 983 | 12.253 | 54.427 | 8.717 | 1.00 | 79.77 | C |
| ATOM | 6952 | C | ALA | A | 983 | 13.398 | 55.115 | 9.454 | 1.00 | 79.77 | C |
| ATOM | 6953 | O | ALA | A | 983 | 13.191 | 56.016 | 10.267 | 1.00 | 79.77 | O |
| ATOM | 6954 | CB | ALA | A | 983 | 11.836 | 53.169 | 9.456 | 1.00 | 191.09 | C |
| ATOM | 6955 | N | VAL | A | 984 | 14.618 | 54.688 | 9.161 | 1.00 | 146.59 | N |
| ATOM | 6956 | CA | VAL | A | 984 | 15.774 | 55.315 | 9.787 | 1.00 | 146.59 | C |
| ATOM | 6957 | C | VAL | A | 984 | 15.715 | 56.828 | 9.482 | 1.00 | 146.59 | C |
| ATOM | 6958 | O | VAL | A | 984 | 15.852 | 57.653 | 10.396 | 1.00 | 146.59 | O |
| ATOM | 6959 | CB | VAL | A | 984 | 17.094 | 54.698 | 9.260 | 1.00 | 207.38 | C |
| ATOM | 6960 | CG1 | VAL | A | 984 | 18.235 | 55.697 | 9.375 | 1.00 | 207.38 | C |
| ATOM | 6961 | CG2 | VAL | A | 984 | 17.428 | 53.450 | 10.067 | 1.00 | 207.38 | C |
| ATOM | 6962 | N | GLY | A | 985 | 15.494 | 57.182 | 8.210 | 1.00 | 98.83 | N |
| ATOM | 6963 | CA | GLY | A | 985 | 15.403 | 58.588 | 7.831 | 1.00 | 98.83 | C |
| ATOM | 6964 | C | GLY | A | 985 | 14.450 | 59.289 | 8.772 | 1.00 | 98.83 | C |
| ATOM | 6965 | O | GLY | A | 985 | 14.769 | 60.365 | 9.304 | 1.00 | 98.83 | O |
| ATOM | 6966 | N | GLN | A | 986 | 13.291 | 58.655 | 9.001 | 1.00 | 117.67 | N |
| ATOM | 6967 | CA | GLN | A | 986 | 12.252 | 59.194 | 9.927 | 1.00 | 117.67 | C |
| ATOM | 6968 | C | GLN | A | 986 | 12.663 | 59.454 | 11.411 | 1.00 | 117.67 | C |
| ATOM | 6969 | O | GLN | A | 986 | 12.454 | 60.554 | 11.955 | 1.00 | 117.67 | O |
| ATOM | 6970 | CB | GLN | A | 986 | 11.019 | 58.276 | 9.928 | 1.00 | 176.25 | C |
| ATOM | 6971 | CG | GLN | A | 986 | 9.949 | 58.639 | 8.905 | 1.00 | 176.25 | C |
| ATOM | 6972 | CD | GLN | A | 986 | 10.080 | 57.869 | 7.606 | 1.00 | 176.25 | C |
| ATOM | 6973 | OE1 | GLN | A | 986 | 9.722 | 56.695 | 7.528 | 1.00 | 176.25 | O |
| ATOM | 6974 | NE2 | GLN | A | 986 | 10.602 | 58.527 | 6.580 | 1.00 | 176.25 | N |
| ATOM | 6975 | N | VAL | A | 987 | 13.231 | 58.438 | 12.052 | 1.00 | 206.12 | N |
| ATOM | 6976 | CA | VAL | A | 987 | 13.658 | 58.583 | 13.436 | 1.00 | 206.12 | C |
| ATOM | 6977 | C | VAL | A | 987 | 14.669 | 59.718 | 13.526 | 1.00 | 206.12 | C |
| ATOM | 6978 | O | VAL | A | 987 | 14.560 | 60.595 | 14.384 | 1.00 | 206.12 | O |
| ATOM | 6979 | CB | VAL | A | 987 | 14.313 | 57.289 | 13.966 | 1.00 | 149.73 | C |
| ATOM | 6980 | CG1 | VAL | A | 987 | 15.518 | 56.926 | 13.113 | 1.00 | 149.73 | C |
| ATOM | 6981 | CG2 | VAL | A | 987 | 14.726 | 57.474 | 15.419 | 1.00 | 149.73 | C |
| ATOM | 6982 | N | SER | A | 988 | 15.647 | 59.700 | 12.625 | 1.00 | 122.25 | N |
| ATOM | 6983 | CA | SER | A | 988 | 16.681 | 60.726 | 12.607 | 1.00 | 122.25 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 6984 | C | SER | A | 988 | 16.257 | 61.985 | 11.857 | 1.00122.25 | C |
| ATOM | 6985 | O | SER | A | 988 | 17.104 | 62.743 | 11.383 | 1.00122.25 | O |
| ATOM | 6986 | CB | SER | A | 988 | 17.966 | 60.169 | 11.988 | 1.00207.38 | C |
| ATOM | 6987 | OG | SER | A | 988 | 18.517 | 59.143 | 12.795 | 1.00207.38 | O |
| ATOM | 6988 | N | SER | A | 989 | 14.951 | 62.210 | 11.745 | 1.00102.88 | N |
| ATOM | 6989 | CA | SER | A | 989 | 14.460 | 63.400 | 11.057 | 1.00102.88 | C |
| ATOM | 6990 | C | SER | A | 989 | 13.153 | 63.964 | 11.615 | 1.00102.88 | C |
| ATOM | 6991 | O | SER | A | 989 | 12.546 | 63.391 | 12.521 | 1.00102.88 | O |
| ATOM | 6992 | CB | SER | A | 989 | 14.298 | 63.105 | 9.564 | 1.00207.38 | C |
| ATOM | 6993 | OG | SER | A | 989 | 15.545 | 62.781 | 8.973 | 1.00207.38 | O |
| ATOM | 6994 | N | PHE | A | 990 | 12.736 | 65.099 | 11.059 | 1.00207.38 | N |
| ATOM | 6995 | CA | PHE | A | 990 | 11.512 | 65.786 | 11.464 | 1.00207.38 | C |
| ATOM | 6996 | C | PHE | A | 990 | 11.554 | 66.267 | 12.918 | 1.00207.38 | C |
| ATOM | 6997 | O | PHE | A | 990 | 12.621 | 66.592 | 13.438 | 1.00207.38 | O |
| ATOM | 6998 | CB | PHE | A | 990 | 10.296 | 64.879 | 11.228 | 1.00190.30 | C |
| ATOM | 6999 | CG | PHE | A | 990 | 9.361 | 65.380 | 10.153 | 1.00190.30 | C |
| ATOM | 7000 | CD1 | PHE | A | 990 | 9.789 | 66.312 | 9.208 | 1.00190.30 | C |
| ATOM | 7001 | CD2 | PHE | A | 990 | 8.054 | 64.908 | 10.076 | 1.00190.30 | C |
| ATOM | 7002 | CE1 | PHE | A | 990 | 8.930 | 66.765 | 8.207 | 1.00190.30 | C |
| ATOM | 7003 | CE2 | PHE | A | 990 | 7.187 | 65.355 | 9.077 | 1.00190.30 | C |
| ATOM | 7004 | CZ | PHE | A | 990 | 7.627 | 66.285 | 8.142 | 1.00190.30 | C |
| ATOM | 7005 | N | ALA | A | 991 | 10.392 | 66.318 | 13.563 | 1.00 72.55 | N |
| ATOM | 7006 | CA | ALA | A | 991 | 10.276 | 66.781 | 14.947 | 1.00 72.55 | C |
| ATOM | 7007 | C | ALA | A | 991 | 11.323 | 66.211 | 15.906 | 1.00 72.55 | C |
| ATOM | 7008 | O | ALA | A | 991 | 12.048 | 65.275 | 15.568 | 1.00 72.55 | O |
| ATOM | 7009 | CB | ALA | A | 991 | 8.877 | 66.478 | 15.472 | 1.00 82.87 | C |
| ATOM | 7010 | N | PRO | A | 992 | 11.407 | 66.776 | 17.126 | 1.00101.74 | N |
| ATOM | 7011 | CA | PRO | A | 992 | 12.362 | 66.325 | 18.136 | 1.00101.74 | C |
| ATOM | 7012 | C | PRO | A | 992 | 12.102 | 64.873 | 18.417 | 1.00101.74 | C |
| ATOM | 7013 | O | PRO | A | 992 | 10.948 | 64.472 | 18.422 | 1.00101.74 | O |
| ATOM | 7014 | CB | PRO | A | 992 | 12.054 | 67.226 | 19.330 | 1.00135.40 | C |
| ATOM | 7015 | CG | PRO | A | 992 | 10.595 | 67.487 | 19.176 | 1.00135.40 | C |
| ATOM | 7016 | CD | PRO | A | 992 | 10.474 | 67.762 | 17.695 | 1.00135.40 | C |
| ATOM | 7017 | N | ASP | A | 993 | 13.169 | 64.091 | 18.603 | 1.00207.38 | N |
| ATOM | 7018 | CA | ASP | A | 993 | 13.037 | 62.658 | 18.882 | 1.00207.38 | C |
| ATOM | 7019 | C | ASP | A | 993 | 11.967 | 62.427 | 19.978 | 1.00207.38 | C |
| ATOM | 7020 | O | ASP | A | 993 | 12.256 | 61.741 | 20.967 | 1.00207.38 | O |
| ATOM | 7021 | CB | ASP | A | 993 | 14.383 | 62.071 | 19.343 | 1.00199.91 | C |
| ATOM | 7022 | CG | ASP | A | 993 | 14.949 | 61.050 | 18.363 | 1.00199.91 | C |
| ATOM | 7023 | OD1 | ASP | A | 993 | 14.243 | 60.075 | 18.029 | 1.00199.91 | O |
| ATOM | 7024 | OD2 | ASP | A | 993 | 16.108 | 61.220 | 17.929 | 1.00199.91 | O |
| ATOM | 7025 | N | TYR | A | 994 | 10.760 | 63.008 | 19.814 | 1.00 70.68 | N |
| ATOM | 7026 | CA | TYR | A | 994 | 9.668 | 62.849 | 20.760 | 1.00 70.68 | C |
| ATOM | 7027 | C | TYR | A | 994 | 10.617 | 63.264 | 21.868 | 1.00 70.68 | C |
| ATOM | 7028 | O | TYR | A | 994 | 11.340 | 64.241 | 21.730 | 1.00 70.68 | O |
| ATOM | 7029 | CB | TYR | A | 994 | 9.337 | 61.363 | 20.844 | 1.00188.88 | C |
| ATOM | 7030 | CG | TYR | A | 994 | 7.924 | 61.024 | 21.215 | 1.00188.88 | C |
| ATOM | 7031 | CD1 | TYR | A | 994 | 7.642 | 60.401 | 22.424 | 1.00188.88 | C |
| ATOM | 7032 | CD2 | TYR | A | 994 | 6.869 | 61.283 | 20.339 | 1.00188.88 | C |
| ATOM | 7033 | CE1 | TYR | A | 994 | 6.347 | 60.037 | 22.756 | 1.00188.88 | C |
| ATOM | 7034 | CE2 | TYR | A | 994 | 5.568 | 60.924 | 20.661 | 1.00188.88 | C |
| ATOM | 7035 | CZ | TYR | A | 994 | 5.317 | 60.299 | 21.871 | 1.00188.88 | C |
| ATOM | 7036 | OH | TYR | A | 994 | 4.040 | 59.910 | 22.189 | 1.00188.88 | O |
| ATOM | 7037 | N | ALA | A | 995 | 10.614 | 62.497 | 22.961 | 1.00111.17 | N |
| ATOM | 7038 | CA | ALA | A | 995 | 11.475 | 62.709 | 24.105 | 1.00111.17 | C |
| ATOM | 7039 | C | ALA | A | 995 | 11.253 | 64.182 | 24.484 | 1.00111.17 | C |
| ATOM | 7040 | O | ALA | A | 995 | 10.199 | 64.650 | 24.657 | 1.00111.17 | O |
| ATOM | 7041 | CB | ALA | A | 995 | 12.931 | 62.441 | 23.721 | 1.00 82.80 | C |
| ATOM | 7042 | N | LYS | A | 996 | 12.351 | 64.881 | 24.670 | 1.00 93.33 | N |
| ATOM | 7043 | CA | LYS | A | 996 | 12.371 | 66.308 | 25.028 | 1.00 93.33 | C |
| ATOM | 7044 | C | LYS | A | 996 | 11.009 | 66.941 | 24.718 | 1.00 93.33 | C |
| ATOM | 7045 | O | LYS | A | 996 | 10.596 | 67.832 | 25.441 | 1.00 93.33 | O |
| ATOM | 7046 | CB | LYS | A | 996 | 13.513 | 67.062 | 24.333 | 1.00129.60 | C |
| ATOM | 7047 | CG | LYS | A | 996 | 13.870 | 66.592 | 22.978 | 1.00129.60 | C |
| ATOM | 7048 | CD | LYS | A | 996 | 14.577 | 65.244 | 23.036 | 1.00129.60 | C |
| ATOM | 7049 | CE | LYS | A | 996 | 14.529 | 64.599 | 21.672 | 1.00129.60 | C |
| ATOM | 7050 | NZ | LYS | A | 996 | 13.147 | 64.708 | 21.123 | 1.00129.60 | N |
| ATOM | 7051 | N | ALA | A | 997 | 10.350 | 66.561 | 23.618 | 1.00 73.77 | N |
| ATOM | 7052 | CA | ALA | A | 997 | 8.994 | 67.081 | 23.322 | 1.00 73.77 | C |
| ATOM | 7053 | C | ALA | A | 997 | 7.961 | 66.473 | 24.362 | 1.00 73.77 | C |
| ATOM | 7054 | O | ALA | A | 997 | 7.196 | 67.196 | 25.006 | 1.00 73.77 | O |
| ATOM | 7055 | CB | ALA | A | 997 | 8.566 | 66.695 | 21.867 | 1.00 34.16 | C |
| ATOM | 7056 | N | THR | A | 998 | 7.938 | 65.150 | 24.527 | 1.00 71.54 | N |
| ATOM | 7057 | CA | THR | A | 998 | 7.042 | 64.520 | 25.510 | 1.00 71.54 | C |

| | | | | | | | | | | | |
|------|------|-----|-----|-------|-----|--------|--------|--------|------|--------|---|
| ATOM | 7058 | C | THR | A | 998 | 7.352 | 65.125 | 26.873 | 1.00 | 71.54 | C |
| ATOM | 7059 | O | THR | A | 998 | 6.469 | 65.496 | 27.607 | 1.00 | 71.54 | O |
| ATOM | 7060 | CB | THR | A | 998 | 7.318 | 63.009 | 25.628 | 1.00 | 149.45 | C |
| ATOM | 7061 | OG1 | THR | A | 998 | 7.617 | 62.465 | 24.338 | 1.00 | 149.45 | O |
| ATOM | 7062 | CG2 | THR | A | 998 | 6.116 | 62.299 | 26.194 | 1.00 | 149.45 | C |
| ATOM | 7063 | N | VAL | A | 999 | 8.628 | 65.206 | 27.219 | 1.00 | 54.03 | N |
| ATOM | 7064 | CA | VAL | A | 999 | 8.986 | 65.768 | 28.502 | 1.00 | 54.03 | C |
| ATOM | 7065 | C | VAL | A | 999 | 8.361 | 67.118 | 28.578 | 1.00 | 54.03 | C |
| ATOM | 7066 | O | VAL | A | 999 | 7.595 | 67.391 | 29.500 | 1.00 | 54.03 | O |
| ATOM | 7067 | CB | VAL | A | 999 | 10.519 | 65.889 | 28.686 | 1.00 | 92.48 | C |
| ATOM | 7068 | CG1 | VAL | A | 999 | 10.847 | 67.096 | 29.550 | 1.00 | 92.48 | C |
| ATOM | 7069 | CG2 | VAL | A | 999 | 11.054 | 64.635 | 29.365 | 1.00 | 92.48 | C |
| ATOM | 7070 | N | SER | A1000 | | 8.688 | 67.962 | 27.613 | 1.00 | 54.61 | N |
| ATOM | 7071 | CA | SER | A1000 | | 8.127 | 69.296 | 27.589 | 1.00 | 54.61 | C |
| ATOM | 7072 | C | SER | A1000 | | 6.604 | 69.283 | 27.662 | 1.00 | 54.61 | C |
| ATOM | 7073 | O | SER | A1000 | | 6.000 | 70.137 | 28.292 | 1.00 | 54.61 | O |
| ATOM | 7074 | CB | SER | A1000 | | 8.586 | 70.036 | 26.333 | 1.00 | 37.55 | C |
| ATOM | 7075 | OG | SER | A1000 | | 9.988 | 70.265 | 26.349 | 1.00 | 37.55 | O |
| ATOM | 7076 | N | ALA | A1001 | | 5.969 | 68.313 | 27.022 | 1.00 | 63.20 | N |
| ATOM | 7077 | CA | ALA | A1001 | | 4.510 | 68.228 | 27.074 | 1.00 | 63.20 | C |
| ATOM | 7078 | C | ALA | A1001 | | 4.048 | 67.986 | 28.510 | 1.00 | 63.20 | C |
| ATOM | 7079 | O | ALA | A1001 | | 3.258 | 68.749 | 29.067 | 1.00 | 63.20 | O |
| ATOM | 7080 | CB | ALA | A1001 | | 4.023 | 67.106 | 26.168 | 1.00 | 24.60 | C |
| ATOM | 7081 | N | SER | A1002 | | 4.551 | 66.908 | 29.095 | 1.00 | 76.98 | N |
| ATOM | 7082 | CA | SER | A1002 | | 4.209 | 66.562 | 30.451 | 1.00 | 76.98 | C |
| ATOM | 7083 | C | SER | A1002 | | 4.299 | 67.803 | 31.253 | 1.00 | 76.98 | C |
| ATOM | 7084 | O | SER | A1002 | | 3.354 | 68.157 | 31.935 | 1.00 | 76.98 | O |
| ATOM | 7085 | CB | SER | A1002 | | 5.179 | 65.504 | 30.998 | 1.00 | 88.75 | C |
| ATOM | 7086 | OG | SER | A1002 | | 5.091 | 64.272 | 30.298 | 1.00 | 88.75 | O |
| ATOM | 7087 | N | HIS | A1003 | | 5.445 | 68.465 | 31.168 | 1.00 | 56.30 | N |
| ATOM | 7088 | CA | HIS | A1003 | | 5.657 | 69.687 | 31.907 | 1.00 | 56.30 | C |
| ATOM | 7089 | C | HIS | A1003 | | 4.567 | 70.718 | 31.785 | 1.00 | 56.30 | C |
| ATOM | 7090 | O | HIS | A1003 | | 3.886 | 71.039 | 32.766 | 1.00 | 56.30 | O |
| ATOM | 7091 | CB | HIS | A1003 | | 6.986 | 70.321 | 31.486 | 1.00 | 97.77 | C |
| ATOM | 7092 | CG | HIS | A1003 | | 8.095 | 70.065 | 32.449 | 1.00 | 97.77 | C |
| ATOM | 7093 | ND1 | HIS | A1003 | | 8.026 | 70.456 | 33.768 | 1.00 | 97.77 | N |
| ATOM | 7094 | CD2 | HIS | A1003 | | 9.264 | 69.398 | 32.312 | 1.00 | 97.77 | C |
| ATOM | 7095 | CE1 | HIS | A1003 | | 9.102 | 70.033 | 34.405 | 1.00 | 97.77 | C |
| ATOM | 7096 | NE2 | HIS | A1003 | | 9.869 | 69.388 | 33.544 | 1.00 | 97.77 | N |
| ATOM | 7097 | N | ILE | A1004 | | 4.401 | 71.246 | 30.575 | 1.00 | 97.82 | N |
| ATOM | 7098 | CA | ILE | A1004 | | 3.413 | 72.288 | 30.308 | 1.00 | 97.82 | C |
| ATOM | 7099 | C | ILE | A1004 | | 1.990 | 71.829 | 30.631 | 1.00 | 97.82 | C |
| ATOM | 7100 | O | ILE | A1004 | | 1.080 | 72.633 | 30.837 | 1.00 | 97.82 | O |
| ATOM | 7101 | CB | ILE | A1004 | | 3.532 | 72.794 | 28.829 | 1.00 | 88.51 | C |
| ATOM | 7102 | CG1 | ILE | A1004 | | 2.262 | 73.534 | 28.409 | 1.00 | 88.51 | C |
| ATOM | 7103 | CG2 | ILE | A1004 | | 3.887 | 71.635 | 27.913 | 1.00 | 88.51 | C |
| ATOM | 7104 | CD1 | ILE | A1004 | | 1.096 | 72.632 | 28.211 | 1.00 | 88.51 | C |
| ATOM | 7105 | N | ILE | A1005 | | 1.808 | 70.522 | 30.697 | 1.00 | 93.25 | N |
| ATOM | 7106 | CA | ILE | A1005 | | 0.521 | 69.963 | 31.063 | 1.00 | 93.25 | C |
| ATOM | 7107 | C | ILE | A1005 | | 0.290 | 70.047 | 32.583 | 1.00 | 93.25 | C |
| ATOM | 7108 | O | ILE | A1005 | | -0.764 | 70.490 | 33.038 | 1.00 | 93.25 | O |
| ATOM | 7109 | CB | ILE | A1005 | | 0.409 | 68.498 | 30.610 | 1.00 | 125.34 | C |
| ATOM | 7110 | CG1 | ILE | A1005 | | 0.187 | 68.460 | 29.097 | 1.00 | 125.34 | C |
| ATOM | 7111 | CG2 | ILE | A1005 | | -0.693 | 67.790 | 31.385 | 1.00 | 125.34 | C |
| ATOM | 7112 | CD1 | ILE | A1005 | | -0.345 | 67.148 | 28.575 | 1.00 | 125.34 | C |
| ATOM | 7113 | N | ARG | A1006 | | 1.268 | 69.611 | 33.367 | 1.00 | 91.95 | N |
| ATOM | 7114 | CA | ARG | A1006 | | 1.140 | 69.676 | 34.808 | 1.00 | 91.95 | C |
| ATOM | 7115 | C | ARG | A1006 | | 0.827 | 71.126 | 35.137 | 1.00 | 91.95 | C |
| ATOM | 7116 | O | ARG | A1006 | | -0.036 | 71.400 | 35.963 | 1.00 | 91.95 | O |
| ATOM | 7117 | CB | ARG | A1006 | | 2.453 | 69.253 | 35.456 | 1.00 | 142.53 | C |
| ATOM | 7118 | CG | ARG | A1006 | | 2.308 | 68.679 | 36.843 | 1.00 | 142.53 | C |
| ATOM | 7119 | CD | ARG | A1006 | | 3.586 | 67.997 | 37.258 | 1.00 | 142.53 | C |
| ATOM | 7120 | NE | ARG | A1006 | | 4.098 | 67.158 | 36.182 | 1.00 | 142.53 | N |
| ATOM | 7121 | CZ | ARG | A1006 | | 5.248 | 66.497 | 36.233 | 1.00 | 142.53 | C |
| ATOM | 7122 | NH1 | ARG | A1006 | | 6.016 | 66.574 | 37.314 | 1.00 | 142.53 | N |
| ATOM | 7123 | NH2 | ARG | A1006 | | 5.629 | 65.758 | 35.201 | 1.00 | 142.53 | N |
| ATOM | 7124 | N | ILE | A1007 | | 1.507 | 72.055 | 34.462 | 1.00 | 90.25 | N |
| ATOM | 7125 | CA | ILE | A1007 | | 1.309 | 73.500 | 34.697 | 1.00 | 90.25 | C |
| ATOM | 7126 | C | ILE | A1007 | | -0.041 | 74.071 | 34.291 | 1.00 | 90.25 | C |
| ATOM | 7127 | O | ILE | A1007 | | -0.546 | 75.017 | 34.900 | 1.00 | 90.25 | O |
| ATOM | 7128 | CB | ILE | A1007 | | 2.411 | 74.336 | 33.984 | 1.00 | 105.91 | C |
| ATOM | 7129 | CG1 | ILE | A1007 | | 3.702 | 74.321 | 34.806 | 1.00 | 105.91 | C |
| ATOM | 7130 | CG2 | ILE | A1007 | | 1.939 | 75.755 | 33.775 | 1.00 | 105.91 | C |
| ATOM | 7131 | CD1 | ILE | A1007 | | 4.300 | 72.952 | 34.969 | 1.00 | 105.91 | C |

| | | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------|--------|---|
| ATOM | 7132 | N | ILE | A1008 | -0.611 | 73.506 | 33.241 | 1.00 | 67.06 | N |
| ATOM | 7133 | CA | ILE | A1008 | -1.889 | 73.980 | 32.758 | 1.00 | 67.06 | C |
| ATOM | 7134 | C | ILE | A1008 | -3.023 | 73.371 | 33.569 | 1.00 | 67.06 | C |
| ATOM | 7135 | O | ILE | A1008 | -4.132 | 73.887 | 33.593 | 1.00 | 67.06 | O |
| ATOM | 7136 | CB | ILE | A1008 | -2.039 | 73.654 | 31.248 | 1.00 | 98.50 | C |
| ATOM | 7137 | CG1 | ILE | A1008 | -3.435 | 74.031 | 30.754 | 1.00 | 98.50 | C |
| ATOM | 7138 | CG2 | ILE | A1008 | -1.705 | 72.193 | 30.998 | 1.00 | 98.50 | C |
| ATOM | 7139 | CD1 | ILE | A1008 | -3.577 | 73.929 | 29.246 | 1.00 | 98.50 | C |
| ATOM | 7140 | N | GLU | A1009 | -2.731 | 72.277 | 34.254 | 1.00 | 128.70 | N |
| ATOM | 7141 | CA | GLU | A1009 | -3.744 | 71.630 | 35.063 | 1.00 | 128.70 | C |
| ATOM | 7142 | C | GLU | A1009 | -4.037 | 72.483 | 36.282 | 1.00 | 128.70 | C |
| ATOM | 7143 | O | GLU | A1009 | -5.143 | 72.995 | 36.425 | 1.00 | 128.70 | O |
| ATOM | 7144 | CB | GLU | A1009 | -3.267 | 70.239 | 35.483 | 1.00 | 141.75 | C |
| ATOM | 7145 | CG | GLU | A1009 | -3.079 | 69.299 | 34.308 | 1.00 | 141.75 | C |
| ATOM | 7146 | CD | GLU | A1009 | -4.374 | 69.051 | 33.559 | 1.00 | 141.75 | C |
| ATOM | 7147 | OE1 | GLU | A1009 | -5.190 | 69.992 | 33.447 | 1.00 | 141.75 | O |
| ATOM | 7148 | OE2 | GLU | A1009 | -4.574 | 67.919 | 33.071 | 1.00 | 141.75 | O |
| ATOM | 7149 | N | LYS | A1010 | -3.036 | 72.625 | 37.150 | 1.00 | 158.84 | N |
| ATOM | 7150 | CA | LYS | A1010 | -3.103 | 73.422 | 38.379 | 1.00 | 158.84 | C |
| ATOM | 7151 | C | LYS | A1010 | -4.377 | 73.451 | 39.261 | 1.00 | 158.84 | C |
| ATOM | 7152 | O | LYS | A1010 | -5.165 | 72.505 | 39.278 | 1.00 | 158.84 | O |
| ATOM | 7153 | CB | LYS | A1010 | -2.655 | 74.859 | 38.077 | 1.00 | 150.53 | C |
| ATOM | 7154 | CG | LYS | A1010 | -3.182 | 75.466 | 36.783 | 1.00 | 150.53 | C |
| ATOM | 7155 | CD | LYS | A1010 | -4.640 | 75.877 | 36.893 | 1.00 | 150.53 | C |
| ATOM | 7156 | CE | LYS | A1010 | -5.057 | 76.735 | 35.705 | 1.00 | 150.53 | C |
| ATOM | 7157 | NZ | LYS | A1010 | -4.893 | 76.034 | 34.401 | 1.00 | 150.53 | N |
| ATOM | 7158 | N | THR | A1011 | -4.537 | 74.540 | 40.017 | 1.00 | 60.16 | N |
| ATOM | 7159 | CA | THR | A1011 | -5.662 | 74.745 | 40.955 | 1.00 | 60.16 | C |
| ATOM | 7160 | C | THR | A1011 | -5.991 | 76.232 | 41.139 | 1.00 | 60.16 | C |
| ATOM | 7161 | O | THR | A1011 | -5.612 | 76.813 | 42.178 | 1.00 | 60.16 | O |
| ATOM | 7162 | CB | THR | A1011 | -5.361 | 74.185 | 42.356 | 1.00 | 105.12 | C |
| ATOM | 7163 | OG1 | THR | A1011 | -6.464 | 74.472 | 43.229 | 1.00 | 105.12 | O |
| ATOM | 7164 | CG2 | THR | A1011 | -4.098 | 74.826 | 42.925 | 1.00 | 105.12 | C |
| ATOM | 7165 | N | PRO | A1012 | -6.736 | 76.846 | 40.163 | 1.00 | 207.38 | N |
| ATOM | 7166 | CA | PRO | A1012 | -7.135 | 78.264 | 40.182 | 1.00 | 207.38 | C |
| ATOM | 7167 | C | PRO | A1012 | -7.020 | 78.875 | 41.569 | 1.00 | 207.38 | C |
| ATOM | 7168 | O | PRO | A1012 | -6.528 | 79.995 | 41.721 | 1.00 | 207.38 | O |
| ATOM | 7169 | CB | PRO | A1012 | -8.559 | 78.200 | 39.658 | 1.00 | 127.30 | C |
| ATOM | 7170 | CG | PRO | A1012 | -8.376 | 77.221 | 38.529 | 1.00 | 127.30 | C |
| ATOM | 7171 | CD | PRO | A1012 | -7.495 | 76.122 | 39.125 | 1.00 | 127.30 | C |
| ATOM | 7172 | N | GLU | A1013 | -7.477 | 78.131 | 42.572 | 1.00 | 206.88 | N |
| ATOM | 7173 | CA | GLU | A1013 | -7.370 | 78.544 | 43.967 | 1.00 | 206.88 | C |
| ATOM | 7174 | C | GLU | A1013 | -8.145 | 79.851 | 44.318 | 1.00 | 206.88 | C |
| ATOM | 7175 | O | GLU | A1013 | -8.532 | 80.037 | 45.475 | 1.00 | 206.88 | O |
| ATOM | 7176 | CB | GLU | A1013 | -5.892 | 78.733 | 44.300 | 1.00 | 93.57 | C |
| ATOM | 7177 | CG | GLU | A1013 | -5.501 | 78.036 | 45.565 | 1.00 | 93.57 | C |
| ATOM | 7178 | CD | GLU | A1013 | -6.280 | 78.571 | 46.750 | 1.00 | 93.57 | C |
| ATOM | 7179 | OE1 | GLU | A1013 | -6.704 | 77.780 | 47.623 | 1.00 | 93.57 | O |
| ATOM | 7180 | OE2 | GLU | A1013 | -6.461 | 79.805 | 46.808 | 1.00 | 93.57 | O |
| ATOM | 7181 | N | ILE | A1014 | -8.401 | 80.714 | 43.320 | 1.00 | 64.49 | N |
| ATOM | 7182 | CA | ILE | A1014 | -9.086 | 82.002 | 43.503 | 1.00 | 64.49 | C |
| ATOM | 7183 | C | ILE | A1014 | -9.394 | 82.912 | 42.227 | 1.00 | 64.49 | C |
| ATOM | 7184 | O | ILE | A1014 | -8.835 | 84.009 | 41.966 | 1.00 | 64.49 | O |
| ATOM | 7185 | CB | ILE | A1014 | -8.347 | 82.798 | 44.603 | 1.00 | 162.34 | C |
| ATOM | 7186 | CG1 | ILE | A1014 | -6.868 | 82.383 | 44.630 | 1.00 | 162.34 | C |
| ATOM | 7187 | CG2 | ILE | A1014 | -8.993 | 82.520 | 45.967 | 1.00 | 162.34 | C |
| ATOM | 7188 | CD1 | ILE | A1014 | -6.188 | 82.499 | 45.989 | 1.00 | 162.34 | C |
| ATOM | 7189 | N | ASP | A1015 | -10.356 | 82.401 | 41.460 | 1.00 | 145.50 | N |
| ATOM | 7190 | CA | ASP | A1015 | -10.853 | 83.041 | 40.250 | 1.00 | 145.50 | C |
| ATOM | 7191 | C | ASP | A1015 | -12.074 | 83.840 | 40.674 | 1.00 | 145.50 | C |
| ATOM | 7192 | O | ASP | A1015 | -11.911 | 85.002 | 41.029 | 1.00 | 145.50 | O |
| ATOM | 7193 | CB | ASP | A1015 | -11.246 | 81.990 | 39.215 | 1.00 | 173.37 | C |
| ATOM | 7194 | CG | ASP | A1015 | -11.378 | 82.571 | 37.824 | 1.00 | 173.37 | C |
| ATOM | 7195 | OD1 | ASP | A1015 | -10.347 | 83.007 | 37.271 | 1.00 | 173.37 | O |
| ATOM | 7196 | OD2 | ASP | A1015 | -12.507 | 82.598 | 37.287 | 1.00 | 173.37 | O |
| ATOM | 7197 | N | SER | A1016 | -13.281 | 83.247 | 40.608 | 1.00 | 188.43 | N |
| ATOM | 7198 | CA | SER | A1016 | -14.540 | 83.903 | 41.081 | 1.00 | 188.43 | C |
| ATOM | 7199 | C | SER | A1016 | -14.901 | 83.210 | 42.370 | 1.00 | 188.43 | C |
| ATOM | 7200 | O | SER | A1016 | -14.045 | 82.494 | 42.942 | 1.00 | 188.43 | O |
| ATOM | 7201 | CB | SER | A1016 | -15.652 | 83.717 | 40.074 | 1.00 | 86.40 | C |
| ATOM | 7202 | OG | SER | A1016 | -16.863 | 84.170 | 40.638 | 1.00 | 86.40 | O |
| ATOM | 7203 | N | TYR | A1017 | -16.146 | 83.391 | 42.813 | 1.00 | 146.85 | N |
| ATOM | 7204 | CA | TYR | A1017 | -16.594 | 82.819 | 44.074 | 1.00 | 146.85 | C |
| ATOM | 7205 | C | TYR | A1017 | -17.581 | 83.927 | 44.505 | 1.00 | 146.85 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------------|---|
| ATOM | 7206 | O | TYR | A1017 | -17.733 | 84.991 | 43.828 | 1.00146.85 | O |
| ATOM | 7207 | CB | TYR | A1017 | -15.479 | 82.809 | 45.117 | 1.00157.46 | C |
| ATOM | 7208 | CG | TYR | A1017 | -14.281 | 81.892 | 44.878 | 1.00157.46 | C |
| ATOM | 7209 | CD1 | TYR | A1017 | -14.336 | 80.841 | 43.963 | 1.00157.46 | C |
| ATOM | 7210 | CD2 | TYR | A1017 | -13.123 | 82.014 | 45.661 | 1.00157.46 | C |
| ATOM | 7211 | CE1 | TYR | A1017 | -13.294 | 79.929 | 43.836 | 1.00157.46 | C |
| ATOM | 7212 | CE2 | TYR | A1017 | -12.067 | 81.097 | 45.540 | 1.00157.46 | C |
| ATOM | 7213 | CZ | TYR | A1017 | -12.162 | 80.055 | 44.634 | 1.00157.46 | C |
| ATOM | 7214 | OH | TYR | A1017 | -11.146 | 79.115 | 44.589 | 1.00157.46 | O |
| ATOM | 7215 | N | SER | A1018 | -18.313 | 83.663 | 45.577 | 1.00148.19 | N |
| ATOM | 7216 | CA | SER | A1018 | -19.257 | 84.621 | 46.160 | 1.00148.19 | C |
| ATOM | 7217 | C | SER | A1018 | -18.726 | 85.064 | 47.564 | 1.00148.19 | C |
| ATOM | 7218 | O | SER | A1018 | -18.522 | 86.262 | 47.840 | 1.00148.19 | O |
| ATOM | 7219 | CB | SER | A1018 | -20.631 | 83.948 | 46.301 | 1.00111.81 | C |
| ATOM | 7220 | OG | SER | A1018 | -21.507 | 84.725 | 47.100 | 1.00111.81 | O |
| ATOM | 7221 | N | THR | A1019 | -18.551 | 84.050 | 48.431 | 1.00138.22 | N |
| ATOM | 7222 | CA | THR | A1019 | -18.092 | 84.163 | 49.832 | 1.00138.22 | C |
| ATOM | 7223 | C | THR | A1019 | -18.361 | 85.517 | 50.390 | 1.00138.22 | C |
| ATOM | 7224 | O | THR | A1019 | -17.556 | 86.079 | 51.124 | 1.00138.22 | O |
| ATOM | 7225 | CB | THR | A1019 | -16.590 | 83.831 | 49.946 | 1.00207.34 | C |
| ATOM | 7226 | OG1 | THR | A1019 | -15.920 | 84.197 | 48.731 | 1.00207.34 | O |
| ATOM | 7227 | CG2 | THR | A1019 | -16.401 | 82.344 | 50.219 | 1.00207.34 | C |
| ATOM | 7228 | N | GLN | A1020 | -19.541 | 85.993 | 50.006 | 1.00145.44 | N |
| ATOM | 7229 | CA | GLN | A1020 | -20.108 | 87.275 | 50.355 | 1.00145.44 | C |
| ATOM | 7230 | C | GLN | A1020 | -20.731 | 87.786 | 49.073 | 1.00145.44 | C |
| ATOM | 7231 | O | GLN | A1020 | -20.616 | 87.158 | 48.018 | 1.00145.44 | O |
| ATOM | 7232 | CB | GLN | A1020 | -19.010 | 88.216 | 50.853 | 1.00180.41 | C |
| ATOM | 7233 | CG | GLN | A1020 | -17.927 | 88.543 | 49.831 | 1.00180.41 | C |
| ATOM | 7234 | CD | GLN | A1020 | -18.402 | 89.507 | 48.757 | 1.00180.41 | C |
| ATOM | 7235 | OE1 | GLN | A1020 | -19.037 | 89.111 | 47.777 | 1.00180.41 | O |
| ATOM | 7236 | NE2 | GLN | A1020 | -18.104 | 90.788 | 48.946 | 1.00180.41 | N |
| ATOM | 7237 | N | GLY | A1021 | -21.396 | 88.926 | 49.165 | 1.00182.10 | N |
| ATOM | 7238 | CA | GLY | A1021 | -22.002 | 89.517 | 47.996 | 1.00182.10 | C |
| ATOM | 7239 | C | GLY | A1021 | -21.755 | 91.005 | 48.017 | 1.00182.10 | C |
| ATOM | 7240 | O | GLY | A1021 | -22.571 | 91.756 | 47.503 | 1.00182.10 | O |
| ATOM | 7241 | N | LEU | A1022 | -20.624 | 91.410 | 48.596 | 1.00172.13 | N |
| ATOM | 7242 | CA | LEU | A1022 | -20.209 | 92.819 | 48.684 | 1.00172.13 | C |
| ATOM | 7243 | C | LEU | A1022 | -21.391 | 93.516 | 49.419 | 1.00172.13 | C |
| ATOM | 7244 | O | LEU | A1022 | -21.605 | 94.714 | 49.302 | 1.00172.13 | O |
| ATOM | 7245 | CB | LEU | A1022 | -20.082 | 93.526 | 47.338 | 1.00173.92 | C |
| ATOM | 7246 | CG | LEU | A1022 | -19.647 | 95.013 | 47.281 | 1.00173.92 | C |
| ATOM | 7247 | CD1 | LEU | A1022 | -19.467 | 95.416 | 45.816 | 1.00173.92 | C |
| ATOM | 7248 | CD2 | LEU | A1022 | -20.649 | 95.942 | 48.009 | 1.00173.92 | C |
| ATOM | 7249 | N | LYS | A1023 | -22.093 | 92.861 | 50.335 | 1.00207.38 | N |
| ATOM | 7250 | CA | LYS | A1023 | -23.177 | 93.608 | 51.028 | 1.00207.38 | C |
| ATOM | 7251 | C | LYS | A1023 | -22.957 | 95.179 | 51.131 | 1.00207.38 | C |
| ATOM | 7252 | O | LYS | A1023 | -21.834 | 95.668 | 51.473 | 1.00207.38 | O |
| ATOM | 7253 | CB | LYS | A1023 | -23.373 | 92.999 | 52.430 | 1.00191.41 | C |
| ATOM | 7254 | CG | LYS | A1023 | -24.078 | 91.636 | 52.419 | 1.00191.41 | C |
| ATOM | 7255 | CD | LYS | A1023 | -23.417 | 90.628 | 51.478 | 1.00191.41 | C |
| ATOM | 7256 | CE | LYS | A1023 | -24.250 | 89.353 | 51.398 | 1.00191.41 | C |
| ATOM | 7257 | NZ | LYS | A1023 | -25.661 | 89.665 | 51.066 | 1.00191.41 | N |
| ATOM | 7258 | N | PRO | A1024 | -23.997 | 95.978 | 50.768 | 1.00207.38 | N |
| ATOM | 7259 | CA | PRO | A1024 | -23.888 | 97.450 | 50.849 | 1.00207.38 | C |
| ATOM | 7260 | C | PRO | A1024 | -23.790 | 98.001 | 52.296 | 1.00207.38 | C |
| ATOM | 7261 | O | PRO | A1024 | -24.423 | 99.011 | 52.656 | 1.00207.38 | O |
| ATOM | 7262 | CB | PRO | A1024 | -25.161 | 97.919 | 50.151 | 1.00171.65 | C |
| ATOM | 7263 | CG | PRO | A1024 | -25.378 | 96.851 | 49.138 | 1.00171.65 | C |
| ATOM | 7264 | CD | PRO | A1024 | -25.140 | 95.588 | 49.929 | 1.00171.65 | C |
| ATOM | 7265 | N | ASN | A1025 | -22.996 | 97.299 | 53.102 | 1.00207.38 | N |
| ATOM | 7266 | CA | ASN | A1025 | -22.733 | 97.631 | 54.500 | 1.00207.38 | C |
| ATOM | 7267 | C | ASN | A1025 | -21.359 | 97.083 | 54.935 | 1.00207.38 | C |
| ATOM | 7268 | O | ASN | A1025 | -20.798 | 97.531 | 55.934 | 1.00207.38 | O |
| ATOM | 7269 | CB | ASN | A1025 | -23.831 | 97.083 | 55.426 | 1.00185.36 | C |
| ATOM | 7270 | CG | ASN | A1025 | -23.802 | 95.574 | 55.550 | 1.00185.36 | C |
| ATOM | 7271 | OD1 | ASN | A1025 | -24.468 | 94.863 | 54.799 | 1.00185.36 | O |
| ATOM | 7272 | ND2 | ASN | A1025 | -23.020 | 95.076 | 56.502 | 1.00185.36 | N |
| ATOM | 7273 | N | MET | A1026 | -20.819 | 96.121 | 54.183 | 1.00133.87 | N |
| ATOM | 7274 | CA | MET | A1026 | -19.506 | 95.538 | 54.481 | 1.00133.87 | C |
| ATOM | 7275 | C | MET | A1026 | -18.435 | 96.629 | 54.371 | 1.00133.87 | C |
| ATOM | 7276 | O | MET | A1026 | -17.241 | 96.338 | 54.246 | 1.00133.87 | O |
| ATOM | 7277 | CB | MET | A1026 | -19.158 | 94.426 | 53.478 | 1.00206.66 | C |
| ATOM | 7278 | CG | MET | A1026 | -20.105 | 93.234 | 53.449 | 1.00206.66 | C |
| ATOM | 7279 | SD | MET | A1026 | -19.624 | 92.002 | 52.199 | 1.00206.66 | S |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 7280 | CE | MET | A1026 | -18.958 | 90.667 | 53.197 | 1.00206.66 | C |
| ATOM | 7281 | N | LEU | A1027 | -18.863 | 97.886 | 54.395 | 1.00148.65 | N |
| ATOM | 7282 | CA | LEU | A1027 | -17.920 | 98.985 | 54.280 | 1.00148.65 | C |
| ATOM | 7283 | C | LEU | A1027 | -17.256 | 99.351 | 55.597 | 1.00148.65 | C |
| ATOM | 7284 | O | LEU | A1027 | -16.269 | 100.079 | 55.585 | 1.00148.65 | O |
| ATOM | 7285 | CB | LEU | A1027 | -18.596 | 100.235 | 53.698 | 1.00111.41 | C |
| ATOM | 7286 | CG | LEU | A1027 | -18.972 | 100.272 | 52.212 | 1.00111.41 | C |
| ATOM | 7287 | CD1 | LEU | A1027 | -20.254 | 99.498 | 51.990 | 1.00111.41 | C |
| ATOM | 7288 | CD2 | LEU | A1027 | -19.165 | 101.713 | 51.768 | 1.00111.41 | C |
| ATOM | 7289 | N | GLU | A1028 | -17.759 | 98.866 | 56.731 | 1.00115.33 | N |
| ATOM | 7290 | CA | GLU | A1028 | -17.101 | 99.254 | 57.974 | 1.00115.33 | C |
| ATOM | 7291 | C | GLU | A1028 | -15.581 | 99.089 | 57.816 | 1.00115.33 | C |
| ATOM | 7292 | O | GLU | A1028 | -14.855 | 100.073 | 57.646 | 1.00115.33 | O |
| ATOM | 7293 | CB | GLU | A1028 | -17.607 | 98.447 | 59.182 | 1.00160.51 | C |
| ATOM | 7294 | CG | GLU | A1028 | -18.719 | 99.133 | 60.013 | 1.00160.51 | C |
| ATOM | 7295 | CD | GLU | A1028 | -18.217 | 100.251 | 60.930 | 1.00160.51 | C |
| ATOM | 7296 | OE1 | GLU | A1028 | -17.389 | 99.970 | 61.822 | 1.00160.51 | O |
| ATOM | 7297 | OE2 | GLU | A1028 | -18.657 | 101.410 | 60.762 | 1.00160.51 | O |
| ATOM | 7298 | N | GLY | A1029 | -15.083 | 97.865 | 57.853 | 1.00124.53 | N |
| ATOM | 7299 | CA | GLY | A1029 | -13.652 | 97.706 | 57.683 | 1.00124.53 | C |
| ATOM | 7300 | C | GLY | A1029 | -12.900 | 97.471 | 58.970 | 1.00124.53 | C |
| ATOM | 7301 | O | GLY | A1029 | -11.791 | 97.979 | 59.138 | 1.00124.53 | O |
| ATOM | 7302 | N | ASN | A1030 | -13.515 | 96.716 | 59.879 | 1.00 86.64 | N |
| ATOM | 7303 | CA | ASN | A1030 | -12.895 | 96.371 | 61.154 | 1.00 86.64 | C |
| ATOM | 7304 | C | ASN | A1030 | -12.220 | 95.031 | 60.921 | 1.00 86.64 | C |
| ATOM | 7305 | O | ASN | A1030 | -12.913 | 94.061 | 60.629 | 1.00 86.64 | O |
| ATOM | 7306 | CB | ASN | A1030 | -13.947 | 96.222 | 62.256 | 1.00136.48 | C |
| ATOM | 7307 | CG | ASN | A1030 | -14.188 | 97.512 | 63.020 | 1.00136.48 | C |
| ATOM | 7308 | OD1 | ASN | A1030 | -14.650 | 98.506 | 62.460 | 1.00136.48 | O |
| ATOM | 7309 | ND2 | ASN | A1030 | -13.872 | 97.501 | 64.310 | 1.00136.48 | N |
| ATOM | 7310 | N | VAL | A1031 | -10.889 | 94.980 | 61.046 | 1.00 56.67 | N |
| ATOM | 7311 | CA | VAL | A1031 | -10.126 | 93.738 | 60.825 | 1.00 56.67 | C |
| ATOM | 7312 | C | VAL | A1031 | -9.893 | 92.805 | 62.038 | 1.00 56.67 | C |
| ATOM | 7313 | O | VAL | A1031 | -9.437 | 93.197 | 63.116 | 1.00 56.67 | O |
| ATOM | 7314 | CB | VAL | A1031 | -8.753 | 94.040 | 60.182 | 1.00141.64 | C |
| ATOM | 7315 | CG1 | VAL | A1031 | -7.988 | 92.740 | 59.941 | 1.00141.64 | C |
| ATOM | 7316 | CG2 | VAL | A1031 | -8.951 | 94.783 | 58.873 | 1.00141.64 | C |
| ATOM | 7317 | N | GLN | A1032 | -10.181 | 91.537 | 61.827 | 1.00124.02 | N |
| ATOM | 7318 | CA | GLN | A1032 | -10.068 | 90.568 | 62.891 | 1.00124.02 | C |
| ATOM | 7319 | C | GLN | A1032 | -9.040 | 89.495 | 62.699 | 1.00124.02 | C |
| ATOM | 7320 | O | GLN | A1032 | -9.109 | 88.724 | 61.751 | 1.00124.02 | O |
| ATOM | 7321 | CB | GLN | A1032 | -11.428 | 89.901 | 63.114 | 1.00202.64 | C |
| ATOM | 7322 | CG | GLN | A1032 | -12.222 | 90.488 | 64.248 | 1.00202.64 | C |
| ATOM | 7323 | CD | GLN | A1032 | -11.454 | 90.423 | 65.544 | 1.00202.64 | C |
| ATOM | 7324 | OE1 | GLN | A1032 | -11.027 | 89.350 | 65.969 | 1.00202.64 | O |
| ATOM | 7325 | NE2 | GLN | A1032 | -11.266 | 91.572 | 66.179 | 1.00202.64 | N |
| ATOM | 7326 | N | PHE | A1033 | -8.091 | 89.408 | 63.609 | 1.00117.07 | N |
| ATOM | 7327 | CA | PHE | A1033 | -7.128 | 88.344 | 63.459 | 1.00117.07 | C |
| ATOM | 7328 | C | PHE | A1033 | -7.145 | 87.487 | 64.704 | 1.00117.07 | C |
| ATOM | 7329 | O | PHE | A1033 | -6.752 | 87.935 | 65.788 | 1.00117.07 | O |
| ATOM | 7330 | CB | PHE | A1033 | -5.725 | 88.902 | 63.248 | 1.00 97.79 | C |
| ATOM | 7331 | CG | PHE | A1033 | -5.217 | 88.730 | 61.852 | 1.00 97.79 | C |
| ATOM | 7332 | CD1 | PHE | A1033 | -5.637 | 87.649 | 61.080 | 1.00 97.79 | C |
| ATOM | 7333 | CD2 | PHE | A1033 | -4.299 | 89.623 | 61.314 | 1.00 97.79 | C |
| ATOM | 7334 | CE1 | PHE | A1033 | -5.155 | 87.452 | 59.787 | 1.00 97.79 | C |
| ATOM | 7335 | CE2 | PHE | A1033 | -3.802 | 89.441 | 60.019 | 1.00 97.79 | C |
| ATOM | 7336 | CZ | PHE | A1033 | -4.233 | 88.348 | 59.251 | 1.00 97.79 | C |
| ATOM | 7337 | N | SER | A1034 | -7.605 | 86.252 | 64.564 | 1.00122.37 | N |
| ATOM | 7338 | CA | SER | A1034 | -7.641 | 85.384 | 65.726 | 1.00122.37 | C |
| ATOM | 7339 | C | SER | A1034 | -6.934 | 84.060 | 65.514 | 1.00122.37 | C |
| ATOM | 7340 | O | SER | A1034 | -7.074 | 83.423 | 64.470 | 1.00122.37 | O |
| ATOM | 7341 | CB | SER | A1034 | -9.087 | 85.126 | 66.156 | 1.00207.38 | C |
| ATOM | 7342 | OG | SER | A1034 | -9.131 | 84.393 | 67.370 | 1.00207.38 | O |
| ATOM | 7343 | N | GLY | A1035 | -6.169 | 83.663 | 66.527 | 1.00156.42 | N |
| ATOM | 7344 | CA | GLY | A1035 | -5.433 | 82.418 | 66.474 | 1.00156.42 | C |
| ATOM | 7345 | C | GLY | A1035 | -4.262 | 82.564 | 65.540 | 1.00156.42 | C |
| ATOM | 7346 | O | GLY | A1035 | -3.127 | 82.268 | 65.900 | 1.00156.42 | O |
| ATOM | 7347 | N | VAL | A1036 | -4.560 | 83.037 | 64.337 | 1.00110.13 | N |
| ATOM | 7348 | CA | VAL | A1036 | -3.573 | 83.256 | 63.301 | 1.00110.13 | C |
| ATOM | 7349 | C | VAL | A1036 | -2.241 | 82.570 | 63.543 | 1.00110.13 | C |
| ATOM | 7350 | O | VAL | A1036 | -1.371 | 83.133 | 64.212 | 1.00110.13 | O |
| ATOM | 7351 | CB | VAL | A1036 | -3.313 | 84.769 | 63.132 | 1.00177.64 | C |
| ATOM | 7352 | CG1 | VAL | A1036 | -2.289 | 85.005 | 62.041 | 1.00177.64 | C |
| ATOM | 7353 | CG2 | VAL | A1036 | -4.617 | 85.491 | 62.820 | 1.00177.64 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 7354 | N | VAL | A1037 | -2.087 | 81.354 | 63.024 | 1.00207.38 | N |
| ATOM | 7355 | CA | VAL | A1037 | -0.833 | 80.604 | 63.149 | 1.00207.38 | C |
| ATOM | 7356 | C | VAL | A1037 | -0.465 | 80.251 | 61.709 | 1.00207.38 | C |
| ATOM | 7357 | O | VAL | A1037 | -1.334 | 79.769 | 60.951 | 1.00207.38 | O |
| ATOM | 7358 | CB | VAL | A1037 | -1.003 | 79.307 | 63.990 | 1.00135.17 | C |
| ATOM | 7359 | CG1 | VAL | A1037 | -1.985 | 79.556 | 65.129 | 1.00135.17 | C |
| ATOM | 7360 | CG2 | VAL | A1037 | -1.445 | 78.145 | 63.112 | 1.00135.17 | C |
| ATOM | 7361 | N | PHE | A1038 | 0.805 | 80.475 | 61.341 | 1.00 74.28 | N |
| ATOM | 7362 | CA | PHE | A1038 | 1.239 | 80.252 | 59.956 | 1.00 74.28 | C |
| ATOM | 7363 | C | PHE | A1038 | 2.706 | 80.431 | 59.549 | 1.00 74.28 | C |
| ATOM | 7364 | O | PHE | A1038 | 3.441 | 81.268 | 60.100 | 1.00 74.28 | O |
| ATOM | 7365 | CB | PHE | A1038 | 0.372 | 81.141 | 59.058 | 1.00108.43 | C |
| ATOM | 7366 | CG | PHE | A1038 | 0.986 | 81.449 | 57.739 | 1.00108.43 | C |
| ATOM | 7367 | CD1 | PHE | A1038 | 0.849 | 80.571 | 56.676 | 1.00108.43 | C |
| ATOM | 7368 | CD2 | PHE | A1038 | 1.733 | 82.604 | 57.568 | 1.00108.43 | C |
| ATOM | 7369 | CE1 | PHE | A1038 | 1.451 | 80.835 | 55.447 | 1.00108.43 | C |
| ATOM | 7370 | CE2 | PHE | A1038 | 2.341 | 82.882 | 56.349 | 1.00108.43 | C |
| ATOM | 7371 | CZ | PHE | A1038 | 2.201 | 81.993 | 55.282 | 1.00108.43 | C |
| ATOM | 7372 | N | ASN | A1039 | 3.098 | 79.608 | 58.575 | 1.00127.39 | N |
| ATOM | 7373 | CA | ASN | A1039 | 4.422 | 79.657 | 57.967 | 1.00127.39 | C |
| ATOM | 7374 | C | ASN | A1039 | 4.416 | 79.398 | 56.465 | 1.00127.39 | C |
| ATOM | 7375 | O | ASN | A1039 | 4.126 | 78.285 | 56.039 | 1.00127.39 | O |
| ATOM | 7376 | CB | ASN | A1039 | 5.423 | 78.713 | 58.610 | 1.00187.73 | C |
| ATOM | 7377 | CG | ASN | A1039 | 6.816 | 78.921 | 58.056 | 1.00187.73 | C |
| ATOM | 7378 | OD1 | ASN | A1039 | 7.085 | 78.637 | 56.882 | 1.00187.73 | O |
| ATOM | 7379 | ND2 | ASN | A1039 | 7.708 | 79.444 | 58.891 | 1.00187.73 | N |
| ATOM | 7380 | N | TYR | A1040 | 4.794 | 80.395 | 55.664 | 1.00 98.80 | N |
| ATOM | 7381 | CA | TYR | A1040 | 4.785 | 80.217 | 54.221 | 1.00 98.80 | C |
| ATOM | 7382 | C | TYR | A1040 | 5.402 | 78.860 | 53.848 | 1.00 98.80 | C |
| ATOM | 7383 | O | TYR | A1040 | 6.529 | 78.590 | 54.218 | 1.00 98.80 | O |
| ATOM | 7384 | CB | TYR | A1040 | 5.533 | 81.376 | 53.535 | 1.00207.38 | C |
| ATOM | 7385 | CG | TYR | A1040 | 6.957 | 81.620 | 53.997 | 1.00207.38 | C |
| ATOM | 7386 | CD1 | TYR | A1040 | 7.245 | 81.960 | 55.322 | 1.00207.38 | C |
| ATOM | 7387 | CD2 | TYR | A1040 | 8.015 | 81.531 | 53.098 | 1.00207.38 | C |
| ATOM | 7388 | CE1 | TYR | A1040 | 8.557 | 82.202 | 55.733 | 1.00207.38 | C |
| ATOM | 7389 | CE2 | TYR | A1040 | 9.322 | 81.771 | 53.497 | 1.00207.38 | C |
| ATOM | 7390 | CZ | TYR | A1040 | 9.586 | 82.103 | 54.814 | 1.00207.38 | C |
| ATOM | 7391 | OH | TYR | A1040 | 10.881 | 82.315 | 55.216 | 1.00207.38 | O |
| ATOM | 7392 | N | PRO | A1041 | 4.647 | 77.979 | 53.144 | 1.00116.62 | N |
| ATOM | 7393 | CA | PRO | A1041 | 5.107 | 76.651 | 52.720 | 1.00116.62 | C |
| ATOM | 7394 | C | PRO | A1041 | 6.615 | 76.547 | 52.652 | 1.00116.62 | C |
| ATOM | 7395 | O | PRO | A1041 | 7.276 | 77.017 | 51.706 | 1.00116.62 | O |
| ATOM | 7396 | CB | PRO | A1041 | 4.419 | 76.481 | 51.377 | 1.00203.33 | C |
| ATOM | 7397 | CG | PRO | A1041 | 3.054 | 77.031 | 51.685 | 1.00203.33 | C |
| ATOM | 7398 | CD | PRO | A1041 | 3.361 | 78.301 | 52.493 | 1.00203.33 | C |
| ATOM | 7399 | N | THR | A1042 | 7.121 | 75.911 | 53.704 | 1.00113.60 | N |
| ATOM | 7400 | CA | THR | A1042 | 8.536 | 75.709 | 53.964 | 1.00113.60 | C |
| ATOM | 7401 | C | THR | A1042 | 8.430 | 75.512 | 55.471 | 1.00113.60 | C |
| ATOM | 7402 | O | THR | A1042 | 9.419 | 75.503 | 56.198 | 1.00113.60 | O |
| ATOM | 7403 | CB | THR | A1042 | 9.347 | 76.982 | 53.617 | 1.00207.38 | C |
| ATOM | 7404 | OG1 | THR | A1042 | 10.731 | 76.645 | 53.470 | 1.00207.38 | O |
| ATOM | 7405 | CG2 | THR | A1042 | 9.186 | 78.046 | 54.703 | 1.00207.38 | C |
| ATOM | 7406 | N | ARG | A1043 | 7.173 | 75.337 | 55.887 | 1.00147.67 | N |
| ATOM | 7407 | CA | ARG | A1043 | 6.737 | 75.147 | 57.273 | 1.00147.67 | C |
| ATOM | 7408 | C | ARG | A1043 | 7.767 | 74.566 | 58.208 | 1.00147.67 | C |
| ATOM | 7409 | O | ARG | A1043 | 7.726 | 74.829 | 59.401 | 1.00147.67 | O |
| ATOM | 7410 | CB | ARG | A1043 | 5.460 | 74.291 | 57.301 | 1.00207.38 | C |
| ATOM | 7411 | CG | ARG | A1043 | 4.774 | 74.224 | 58.667 | 1.00207.38 | C |
| ATOM | 7412 | CD | ARG | A1043 | 3.482 | 73.412 | 58.645 | 1.00207.38 | C |
| ATOM | 7413 | NE | ARG | A1043 | 2.447 | 74.028 | 57.820 | 1.00207.38 | N |
| ATOM | 7414 | CZ | ARG | A1043 | 1.235 | 73.515 | 57.633 | 1.00207.38 | C |
| ATOM | 7415 | NH1 | ARG | A1043 | 0.898 | 72.370 | 58.213 | 1.00207.38 | N |
| ATOM | 7416 | NH2 | ARG | A1043 | 0.359 | 74.147 | 56.864 | 1.00207.38 | N |
| ATOM | 7417 | N | PRO | A1044 | 8.663 | 73.715 | 57.699 | 1.00168.62 | N |
| ATOM | 7418 | CA | PRO | A1044 | 9.688 | 73.149 | 58.576 | 1.00168.62 | C |
| ATOM | 7419 | C | PRO | A1044 | 10.402 | 74.219 | 59.418 | 1.00168.62 | C |
| ATOM | 7420 | O | PRO | A1044 | 10.761 | 73.965 | 60.571 | 1.00168.62 | O |
| ATOM | 7421 | CB | PRO | A1044 | 10.628 | 72.417 | 57.602 | 1.00145.44 | C |
| ATOM | 7422 | CG | PRO | A1044 | 10.071 | 72.724 | 56.184 | 1.00145.44 | C |
| ATOM | 7423 | CD | PRO | A1044 | 8.624 | 73.003 | 56.413 | 1.00145.44 | C |
| ATOM | 7424 | N | SER | A1045 | 10.632 | 75.401 | 58.844 | 1.00206.56 | N |
| ATOM | 7425 | CA | SER | A1045 | 11.250 | 76.487 | 59.607 | 1.00206.56 | C |
| ATOM | 7426 | C | SER | A1045 | 10.154 | 77.072 | 60.527 | 1.00206.56 | C |
| ATOM | 7427 | O | SER | A1045 | 10.133 | 78.291 | 60.755 | 1.00206.56 | O |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------------|---|
| ATOM | 7428 | CB | SER | A1045 | 11.805 | 77.564 | 58.664 | 1.00165.70 | C |
| ATOM | 7429 | OG | SER | A1045 | 10.771 | 78.164 | 57.907 | 1.00165.70 | O |
| ATOM | 7430 | N | ILE | A1046 | 9.255 | 76.193 | 61.026 | 1.00126.01 | N |
| ATOM | 7431 | CA | ILE | A1046 | 8.112 | 76.535 | 61.911 | 1.00126.01 | C |
| ATOM | 7432 | C | ILE | A1046 | 7.533 | 77.796 | 61.335 | 1.00126.01 | C |
| ATOM | 7433 | O | ILE | A1046 | 8.065 | 78.268 | 60.362 | 1.00126.01 | O |
| ATOM | 7434 | CB | ILE | A1046 | 8.591 | 76.754 | 63.362 | 1.00194.80 | C |
| ATOM | 7435 | CG1 | ILE | A1046 | 8.994 | 75.408 | 63.970 | 1.00194.80 | C |
| ATOM | 7436 | CG2 | ILE | A1046 | 7.513 | 77.455 | 64.164 | 1.00194.80 | C |
| ATOM | 7437 | CD1 | ILE | A1046 | 7.909 | 74.371 | 63.828 | 1.00194.80 | C |
| ATOM | 7438 | N | PRO | A1047 | 6.408 | 78.315 | 61.861 | 1.00172.87 | N |
| ATOM | 7439 | CA | PRO | A1047 | 5.824 | 79.559 | 61.324 | 1.00172.87 | C |
| ATOM | 7440 | C | PRO | A1047 | 6.326 | 80.848 | 62.018 | 1.00172.87 | C |
| ATOM | 7441 | O | PRO | A1047 | 6.956 | 80.804 | 63.083 | 1.00172.87 | O |
| ATOM | 7442 | CB | PRO | A1047 | 4.325 | 79.340 | 61.512 | 1.00107.13 | C |
| ATOM | 7443 | CG | PRO | A1047 | 4.205 | 77.854 | 61.407 | 1.00107.13 | C |
| ATOM | 7444 | CD | PRO | A1047 | 5.330 | 77.416 | 62.302 | 1.00107.13 | C |
| ATOM | 7445 | N | VAL | A1048 | 6.094 | 81.986 | 61.370 | 1.00192.68 | N |
| ATOM | 7446 | CA | VAL | A1048 | 6.477 | 83.263 | 61.940 | 1.00192.68 | C |
| ATOM | 7447 | C | VAL | A1048 | 5.237 | 83.840 | 62.611 | 1.00192.68 | C |
| ATOM | 7448 | O | VAL | A1048 | 5.270 | 84.947 | 63.143 | 1.00192.68 | O |
| ATOM | 7449 | CB | VAL | A1048 | 6.990 | 84.245 | 60.863 | 1.00203.98 | C |
| ATOM | 7450 | CG1 | VAL | A1048 | 8.275 | 83.710 | 60.241 | 1.00203.98 | C |
| ATOM | 7451 | CG2 | VAL | A1048 | 5.928 | 84.460 | 59.800 | 1.00203.98 | C |
| ATOM | 7452 | N | LEU | A1049 | 4.129 | 83.103 | 62.557 | 1.00126.67 | N |
| ATOM | 7453 | CA | LEU | A1049 | 2.908 | 83.546 | 63.233 | 1.00126.67 | C |
| ATOM | 7454 | C | LEU | A1049 | 2.484 | 82.353 | 64.056 | 1.00126.67 | C |
| ATOM | 7455 | O | LEU | A1049 | 1.949 | 81.390 | 63.517 | 1.00126.67 | O |
| ATOM | 7456 | CB | LEU | A1049 | 1.796 | 83.880 | 62.230 | 1.00178.89 | C |
| ATOM | 7457 | CG | LEU | A1049 | 1.977 | 85.017 | 61.221 | 1.00178.89 | C |
| ATOM | 7458 | CD1 | LEU | A1049 | 2.577 | 86.232 | 61.915 | 1.00178.89 | C |
| ATOM | 7459 | CD2 | LEU | A1049 | 2.874 | 84.558 | 60.088 | 1.00178.89 | C |
| ATOM | 7460 | N | GLN | A1050 | 2.735 | 82.393 | 65.355 | 1.00173.08 | N |
| ATOM | 7461 | CA | GLN | A1050 | 2.365 | 81.263 | 66.186 | 1.00173.08 | C |
| ATOM | 7462 | C | GLN | A1050 | 1.398 | 81.643 | 67.284 | 1.00173.08 | C |
| ATOM | 7463 | O | GLN | A1050 | 1.797 | 81.898 | 68.419 | 1.00173.08 | O |
| ATOM | 7464 | CB | GLN | A1050 | 3.625 | 80.648 | 66.783 | 1.00119.48 | C |
| ATOM | 7465 | CG | GLN | A1050 | 4.560 | 81.673 | 67.375 | 1.00119.48 | C |
| ATOM | 7466 | CD | GLN | A1050 | 5.784 | 81.041 | 67.986 | 1.00119.48 | C |
| ATOM | 7467 | OE1 | GLN | A1050 | 5.676 | 80.180 | 68.856 | 1.00119.48 | O |
| ATOM | 7468 | NE2 | GLN | A1050 | 6.959 | 81.463 | 67.536 | 1.00119.48 | N |
| ATOM | 7469 | N | GLY | A1051 | 0.117 | 81.674 | 66.933 | 1.00140.58 | N |
| ATOM | 7470 | CA | GLY | A1051 | -0.910 | 82.007 | 67.897 | 1.00140.58 | C |
| ATOM | 7471 | C | GLY | A1051 | -1.085 | 83.497 | 68.006 | 1.00140.58 | C |
| ATOM | 7472 | O | GLY | A1051 | -1.102 | 84.052 | 69.105 | 1.00140.58 | O |
| ATOM | 7473 | N | LEU | A1052 | -1.218 | 84.148 | 66.858 | 1.00183.65 | N |
| ATOM | 7474 | CA | LEU | A1052 | -1.379 | 85.588 | 66.833 | 1.00183.65 | C |
| ATOM | 7475 | C | LEU | A1052 | -2.831 | 86.025 | 66.794 | 1.00183.65 | C |
| ATOM | 7476 | O | LEU | A1052 | -3.688 | 85.354 | 66.192 | 1.00183.65 | O |
| ATOM | 7477 | CB | LEU | A1052 | -0.638 | 86.195 | 65.643 | 1.00121.98 | C |
| ATOM | 7478 | CG | LEU | A1052 | -0.656 | 87.725 | 65.651 | 1.00121.98 | C |
| ATOM | 7479 | CD1 | LEU | A1052 | 0.025 | 88.228 | 66.918 | 1.00121.98 | C |
| ATOM | 7480 | CD2 | LEU | A1052 | 0.043 | 88.263 | 64.419 | 1.00121.98 | C |
| ATOM | 7481 | N | SER | A1053 | -3.083 | 87.165 | 67.436 | 1.00142.83 | N |
| ATOM | 7482 | CA | SER | A1053 | -4.410 | 87.755 | 67.521 | 1.00142.83 | C |
| ATOM | 7483 | C | SER | A1053 | -4.400 | 89.262 | 67.838 | 1.00142.83 | C |
| ATOM | 7484 | O | SER | A1053 | -3.961 | 89.679 | 68.913 | 1.00142.83 | O |
| ATOM | 7485 | CB | SER | A1053 | -5.244 | 87.024 | 68.577 | 1.00198.26 | C |
| ATOM | 7486 | OG | SER | A1053 | -5.435 | 85.664 | 68.232 | 1.00198.26 | O |
| ATOM | 7487 | N | LEU | A1054 | -4.886 | 90.067 | 66.891 | 1.00 86.20 | N |
| ATOM | 7488 | CA | LEU | A1054 | -4.987 | 91.522 | 67.037 | 1.00 86.20 | C |
| ATOM | 7489 | C | LEU | A1054 | -6.270 | 91.879 | 66.344 | 1.00 86.20 | C |
| ATOM | 7490 | O | LEU | A1054 | -7.094 | 91.017 | 66.017 | 1.00 86.20 | O |
| ATOM | 7491 | CB | LEU | A1054 | -3.864 | 92.272 | 66.318 | 1.00 86.08 | C |
| ATOM | 7492 | CG | LEU | A1054 | -2.440 | 91.743 | 66.323 | 1.00 86.08 | C |
| ATOM | 7493 | CD1 | LEU | A1054 | -2.060 | 91.361 | 67.727 | 1.00 86.08 | C |
| ATOM | 7494 | CD2 | LEU | A1054 | -2.344 | 90.542 | 65.419 | 1.00 86.08 | C |
| ATOM | 7495 | N | GLU | A1055 | -6.417 | 93.157 | 66.054 | 1.00 87.27 | N |
| ATOM | 7496 | CA | GLU | A1055 | -7.613 | 93.628 | 65.378 | 1.00 87.27 | C |
| ATOM | 7497 | C | GLU | A1055 | -7.465 | 95.123 | 65.182 | 1.00 87.27 | C |
| ATOM | 7498 | O | GLU | A1055 | -6.530 | 95.740 | 65.682 | 1.00 87.27 | O |
| ATOM | 7499 | CB | GLU | A1055 | -8.830 | 93.271 | 66.246 | 1.00159.37 | C |
| ATOM | 7500 | CG | GLU | A1055 | -10.003 | 94.234 | 66.217 | 1.00159.37 | C |
| ATOM | 7501 | CD | GLU | A1055 | -10.104 | 95.038 | 67.502 | 1.00159.37 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 7502 | OE1 | GLU | A1055 | -11.157 | 95.667 | 67.748 | 1.00159.37 | 0 |
| ATOM | 7503 | OE2 | GLU | A1055 | -9.118 | 95.040 | 68.268 | 1.00159.37 | 0 |
| ATOM | 7504 | N | VAL | A1056 | -8.371 | 95.705 | 64.424 | 1.00 75.47 | N |
| ATOM | 7505 | CA | VAL | A1056 | -8.291 | 97.118 | 64.182 | 1.00 75.47 | C |
| ATOM | 7506 | C | VAL | A1056 | -9.701 | 97.675 | 63.943 | 1.00 75.47 | C |
| ATOM | 7507 | O | VAL | A1056 | -10.437 | 97.185 | 63.072 | 1.00 75.47 | O |
| ATOM | 7508 | CB | VAL | A1056 | -7.390 | 97.398 | 62.956 | 1.00 71.64 | C |
| ATOM | 7509 | CG1 | VAL | A1056 | -8.080 | 96.921 | 61.678 | 1.00 71.64 | C |
| ATOM | 7510 | CG2 | VAL | A1056 | -7.033 | 98.876 | 62.888 | 1.00 71.64 | C |
| ATOM | 7511 | N | LYS | A1057 | -10.071 | 98.679 | 64.745 | 1.00 87.45 | N |
| ATOM | 7512 | CA | LYS | A1057 | -11.364 | 99.366 | 64.657 | 1.00 87.45 | C |
| ATOM | 7513 | C | LYS | A1057 | -11.604 | 99.873 | 63.235 | 1.00 87.45 | C |
| ATOM | 7514 | O | LYS | A1057 | -10.992 | 99.401 | 62.284 | 1.00 87.45 | O |
| ATOM | 7515 | CB | LYS | A1057 | -11.387 | 100.564 | 65.615 | 1.00128.61 | C |
| ATOM | 7516 | CG | LYS | A1057 | -11.305 | 100.222 | 67.099 | 1.00128.61 | C |
| ATOM | 7517 | CD | LYS | A1057 | -9.982 | 99.584 | 67.489 | 1.00128.61 | C |
| ATOM | 7518 | CE | LYS | A1057 | -10.022 | 99.153 | 68.947 | 1.00128.61 | C |
| ATOM | 7519 | NZ | LYS | A1057 | -8.864 | 98.308 | 69.344 | 1.00128.61 | N |
| ATOM | 7520 | N | LYS | A1058 | -12.487 | 100.849 | 63.083 | 1.00137.78 | N |
| ATOM | 7521 | CA | LYS | A1058 | -12.745 | 101.353 | 61.744 | 1.00137.78 | C |
| ATOM | 7522 | C | LYS | A1058 | -12.226 | 102.764 | 61.553 | 1.00137.78 | C |
| ATOM | 7523 | O | LYS | A1058 | -11.836 | 103.425 | 62.507 | 1.00137.78 | O |
| ATOM | 7524 | CB | LYS | A1058 | -14.239 | 101.295 | 61.371 | 1.00105.89 | C |
| ATOM | 7525 | CG | LYS | A1058 | -15.071 | 102.493 | 61.798 | 1.00105.89 | C |
| ATOM | 7526 | CD | LYS | A1058 | -16.172 | 102.820 | 60.775 | 1.00105.89 | C |
| ATOM | 7527 | CE | LYS | A1058 | -15.646 | 103.674 | 59.617 | 1.00105.89 | C |
| ATOM | 7528 | NZ | LYS | A1058 | -16.733 | 104.197 | 58.733 | 1.00105.89 | N |
| ATOM | 7529 | N | GLY | A1059 | -12.228 | 103.196 | 60.294 | 1.00205.85 | N |
| ATOM | 7530 | CA | GLY | A1059 | -11.769 | 104.520 | 59.930 | 1.00205.85 | C |
| ATOM | 7531 | C | GLY | A1059 | -10.596 | 104.997 | 60.749 | 1.00205.85 | C |
| ATOM | 7532 | O | GLY | A1059 | -10.444 | 106.203 | 60.931 | 1.00205.85 | O |
| ATOM | 7533 | N | GLN | A1060 | -9.768 | 104.073 | 61.242 | 1.00130.69 | N |
| ATOM | 7534 | CA | GLN | A1060 | -8.621 | 104.476 | 62.047 | 1.00130.69 | C |
| ATOM | 7535 | C | GLN | A1060 | -7.201 | 104.012 | 61.688 | 1.00130.69 | C |
| ATOM | 7536 | O | GLN | A1060 | -6.816 | 104.012 | 60.503 | 1.00130.69 | O |
| ATOM | 7537 | CB | GLN | A1060 | -8.945 | 104.286 | 63.532 | 1.00 95.60 | C |
| ATOM | 7538 | CG | GLN | A1060 | -9.702 | 103.032 | 63.829 | 1.00 95.60 | C |
| ATOM | 7539 | CD | GLN | A1060 | -8.870 | 101.792 | 63.582 | 1.00 95.60 | C |
| ATOM | 7540 | OE1 | GLN | A1060 | -8.522 | 101.471 | 62.440 | 1.00 95.60 | O |
| ATOM | 7541 | NE2 | GLN | A1060 | -8.539 | 101.088 | 64.657 | 1.00 95.60 | N |
| ATOM | 7542 | N | THR | A1061 | -6.413 | 103.620 | 62.687 | 1.00 64.22 | N |
| ATOM | 7543 | CA | THR | A1061 | -5.036 | 103.286 | 62.368 | 1.00 64.22 | C |
| ATOM | 7544 | C | THR | A1061 | -4.320 | 102.297 | 63.243 | 1.00 64.22 | C |
| ATOM | 7545 | O | THR | A1061 | -3.839 | 102.661 | 64.321 | 1.00 64.22 | O |
| ATOM | 7546 | CB | THR | A1061 | -4.160 | 104.560 | 62.362 | 1.00 71.70 | C |
| ATOM | 7547 | OG1 | THR | A1061 | -4.588 | 105.432 | 61.318 | 1.00 71.70 | O |
| ATOM | 7548 | CG2 | THR | A1061 | -2.705 | 104.218 | 62.126 | 1.00 71.70 | C |
| ATOM | 7549 | N | LEU | A1062 | -4.203 | 101.069 | 62.743 | 1.00109.57 | N |
| ATOM | 7550 | CA | LEU | A1062 | -3.512 | 99.992 | 63.443 | 1.00109.57 | C |
| ATOM | 7551 | C | LEU | A1062 | -2.016 | 100.153 | 63.259 | 1.00109.57 | C |
| ATOM | 7552 | O | LEU | A1062 | -1.499 | 99.980 | 62.158 | 1.00109.57 | O |
| ATOM | 7553 | CB | LEU | A1062 | -3.952 | 98.630 | 62.900 | 1.00 78.43 | C |
| ATOM | 7554 | CG | LEU | A1062 | -3.423 | 97.395 | 63.639 | 1.00 78.43 | C |
| ATOM | 7555 | CD1 | LEU | A1062 | -1.882 | 97.416 | 63.689 | 1.00 78.43 | C |
| ATOM | 7556 | CD2 | LEU | A1062 | -4.028 | 97.365 | 65.046 | 1.00 78.43 | C |
| ATOM | 7557 | N | ALA | A1063 | -1.326 | 100.436 | 64.358 | 1.00 99.48 | N |
| ATOM | 7558 | CA | ALA | A1063 | 0.124 | 100.628 | 64.359 | 1.00 99.48 | C |
| ATOM | 7559 | C | ALA | A1063 | 0.895 | 99.357 | 64.570 | 1.00 99.48 | C |
| ATOM | 7560 | O | ALA | A1063 | 0.730 | 98.647 | 65.561 | 1.00 99.48 | O |
| ATOM | 7561 | CB | ALA | A1063 | 0.500 | 101.660 | 65.426 | 1.00207.38 | C |
| ATOM | 7562 | N | LEU | A1064 | 1.779 | 99.082 | 63.639 | 1.00128.56 | N |
| ATOM | 7563 | CA | LEU | A1064 | 2.508 | 97.874 | 63.794 | 1.00128.56 | C |
| ATOM | 7564 | C | LEU | A1064 | 3.994 | 98.083 | 63.947 | 1.00128.56 | C |
| ATOM | 7565 | O | LEU | A1064 | 4.656 | 98.723 | 63.105 | 1.00128.56 | O |
| ATOM | 7566 | CB | LEU | A1064 | 2.247 | 96.941 | 62.612 | 1.00126.13 | C |
| ATOM | 7567 | CG | LEU | A1064 | 2.193 | 95.460 | 62.991 | 1.00126.13 | C |
| ATOM | 7568 | CD1 | LEU | A1064 | 3.530 | 95.053 | 63.602 | 1.00126.13 | C |
| ATOM | 7569 | CD2 | LEU | A1064 | 1.045 | 95.218 | 63.980 | 1.00126.13 | C |
| ATOM | 7570 | N | VAL | A1065 | 4.503 | 97.542 | 65.051 | 1.00106.06 | N |
| ATOM | 7571 | CA | VAL | A1065 | 5.924 | 97.586 | 65.361 | 1.00106.06 | C |
| ATOM | 7572 | C | VAL | A1065 | 6.401 | 96.189 | 65.746 | 1.00106.06 | C |
| ATOM | 7573 | O | VAL | A1065 | 6.097 | 95.682 | 66.825 | 1.00106.06 | O |
| ATOM | 7574 | CB | VAL | A1065 | 6.231 | 98.567 | 66.516 | 1.00151.80 | C |
| ATOM | 7575 | CG1 | VAL | A1065 | 5.321 | 98.298 | 67.698 | 1.00151.80 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 7576 | CG2 | VAL | A1065 | 7.689 | 98.430 | 66.935 | 1.00151.80 | C |
| ATOM | 7577 | N | GLY | A1066 | 7.141 | 95.556 | 64.852 | 1.00142.48 | N |
| ATOM | 7578 | CA | GLY | A1066 | 7.634 | 94.232 | 65.154 | 1.00142.48 | C |
| ATOM | 7579 | C | GLY | A1066 | 9.134 | 94.245 | 65.330 | 1.00142.48 | C |
| ATOM | 7580 | O | GLY | A1066 | 9.728 | 95.305 | 65.571 | 1.00142.48 | O |
| ATOM | 7581 | N | SER | A1067 | 9.737 | 93.059 | 65.210 | 1.00207.38 | N |
| ATOM | 7582 | CA | SER | A1067 | 11.184 | 92.883 | 65.340 | 1.00207.38 | C |
| ATOM | 7583 | C | SER | A1067 | 11.864 | 93.358 | 64.076 | 1.00207.38 | C |
| ATOM | 7584 | O | SER | A1067 | 12.508 | 94.402 | 64.060 | 1.00207.38 | O |
| ATOM | 7585 | CB | SER | A1067 | 11.511 | 91.405 | 65.569 | 1.00112.19 | C |
| ATOM | 7586 | OG | SER | A1067 | 11.337 | 90.665 | 64.376 | 1.00112.19 | O |
| ATOM | 7587 | N | SER | A1068 | 11.710 | 92.581 | 63.011 | 1.00207.38 | N |
| ATOM | 7588 | CA | SER | A1068 | 12.335 | 92.909 | 61.738 | 1.00207.38 | C |
| ATOM | 7589 | C | SER | A1068 | 11.896 | 91.900 | 60.649 | 1.00207.38 | C |
| ATOM | 7590 | O | SER | A1068 | 11.532 | 90.749 | 60.952 | 1.00207.38 | O |
| ATOM | 7591 | CB | SER | A1068 | 13.856 | 92.870 | 61.907 | 1.00114.38 | C |
| ATOM | 7592 | OG | SER | A1068 | 14.513 | 93.483 | 60.816 | 1.00114.38 | O |
| ATOM | 7593 | N | GLY | A1069 | 11.912 | 92.358 | 59.394 | 1.00207.38 | N |
| ATOM | 7594 | CA | GLY | A1069 | 11.532 | 91.537 | 58.252 | 1.00207.38 | C |
| ATOM | 7595 | C | GLY | A1069 | 10.167 | 90.879 | 58.348 | 1.00207.38 | C |
| ATOM | 7596 | O | GLY | A1069 | 9.128 | 91.542 | 58.370 | 1.00207.38 | O |
| ATOM | 7597 | N | CYS | A1070 | 10.177 | 89.555 | 58.404 | 1.00147.20 | N |
| ATOM | 7598 | CA | CYS | A1070 | 8.956 | 88.772 | 58.494 | 1.00147.20 | C |
| ATOM | 7599 | C | CYS | A1070 | 8.030 | 89.304 | 59.593 | 1.00147.20 | C |
| ATOM | 7600 | O | CYS | A1070 | 8.415 | 90.143 | 60.411 | 1.00147.20 | O |
| ATOM | 7601 | CB | CYS | A1070 | 9.297 | 87.307 | 58.771 | 1.00147.20 | C |
| ATOM | 7602 | SG | CYS | A1070 | 10.151 | 86.388 | 57.446 | 1.00147.20 | S |
| ATOM | 7603 | N | GLY | A1071 | 6.796 | 88.824 | 59.596 | 1.00 92.38 | N |
| ATOM | 7604 | CA | GLY | A1071 | 5.868 | 89.251 | 60.625 | 1.00 92.38 | C |
| ATOM | 7605 | C | GLY | A1071 | 4.948 | 90.316 | 60.124 | 1.00 92.38 | C |
| ATOM | 7606 | O | GLY | A1071 | 3.763 | 90.088 | 59.900 | 1.00 92.38 | O |
| ATOM | 7607 | N | LYS | A1072 | 5.506 | 91.492 | 59.943 | 1.00112.31 | N |
| ATOM | 7608 | CA | LYS | A1072 | 4.728 | 92.605 | 59.451 | 1.00112.31 | C |
| ATOM | 7609 | C | LYS | A1072 | 4.218 | 92.255 | 58.041 | 1.00112.31 | C |
| ATOM | 7610 | O | LYS | A1072 | 3.031 | 92.460 | 57.707 | 1.00112.31 | O |
| ATOM | 7611 | CB | LYS | A1072 | 5.631 | 93.840 | 59.448 | 1.00117.65 | C |
| ATOM | 7612 | CG | LYS | A1072 | 6.423 | 93.943 | 60.755 | 1.00117.65 | C |
| ATOM | 7613 | CD | LYS | A1072 | 7.546 | 94.963 | 60.731 | 1.00117.65 | C |
| ATOM | 7614 | CE | LYS | A1072 | 8.366 | 94.855 | 62.013 | 1.00117.65 | C |
| ATOM | 7615 | NZ | LYS | A1072 | 9.558 | 95.742 | 62.026 | 1.00117.65 | N |
| ATOM | 7616 | N | SER | A1073 | 5.108 | 91.688 | 57.228 | 1.00150.02 | N |
| ATOM | 7617 | CA | SER | A1073 | 4.771 | 91.300 | 55.860 | 1.00150.02 | C |
| ATOM | 7618 | C | SER | A1073 | 3.678 | 90.241 | 55.844 | 1.00150.02 | C |
| ATOM | 7619 | O | SER | A1073 | 2.622 | 90.459 | 55.243 | 1.00150.02 | O |
| ATOM | 7620 | CB | SER | A1073 | 6.021 | 90.766 | 55.155 | 1.00147.27 | C |
| ATOM | 7621 | OG | SER | A1073 | 6.607 | 89.707 | 55.893 | 1.00147.27 | O |
| ATOM | 7622 | N | THR | A1074 | 3.948 | 89.106 | 56.505 | 1.00132.85 | N |
| ATOM | 7623 | CA | THR | A1074 | 3.015 | 87.970 | 56.602 | 1.00132.85 | C |
| ATOM | 7624 | C | THR | A1074 | 1.615 | 88.410 | 57.019 | 1.00132.85 | C |
| ATOM | 7625 | O | THR | A1074 | 0.618 | 87.970 | 56.449 | 1.00132.85 | O |
| ATOM | 7626 | CB | THR | A1074 | 3.511 | 86.932 | 57.629 | 1.00 93.66 | C |
| ATOM | 7627 | OG1 | THR | A1074 | 3.761 | 87.576 | 58.886 | 1.00 93.66 | O |
| ATOM | 7628 | CG2 | THR | A1074 | 4.779 | 86.275 | 57.142 | 1.00 93.66 | C |
| ATOM | 7629 | N | VAL | A1075 | 1.545 | 89.246 | 58.045 | 1.00 92.68 | N |
| ATOM | 7630 | CA | VAL | A1075 | 0.270 | 89.805 | 58.486 | 1.00 92.68 | C |
| ATOM | 7631 | C | VAL | A1075 | -0.434 | 90.404 | 57.254 | 1.00 92.68 | C |
| ATOM | 7632 | O | VAL | A1075 | -1.465 | 89.900 | 56.780 | 1.00 92.68 | O |
| ATOM | 7633 | CB | VAL | A1075 | 0.505 | 90.940 | 59.509 | 1.00147.91 | C |
| ATOM | 7634 | CG1 | VAL | A1075 | -0.769 | 91.728 | 59.719 | 1.00147.91 | C |
| ATOM | 7635 | CG2 | VAL | A1075 | 1.000 | 90.363 | 60.823 | 1.00147.91 | C |
| ATOM | 7636 | N | VAL | A1076 | 0.144 | 91.491 | 56.747 | 1.00116.26 | N |
| ATOM | 7637 | CA | VAL | A1076 | -0.400 | 92.141 | 55.569 | 1.00116.26 | C |
| ATOM | 7638 | C | VAL | A1076 | -0.915 | 91.090 | 54.596 | 1.00116.26 | C |
| ATOM | 7639 | O | VAL | A1076 | -2.121 | 90.979 | 54.348 | 1.00116.26 | O |
| ATOM | 7640 | CB | VAL | A1076 | 0.686 | 92.953 | 54.836 | 1.00128.16 | C |
| ATOM | 7641 | CG1 | VAL | A1076 | 0.048 | 93.814 | 53.749 | 1.00128.16 | C |
| ATOM | 7642 | CG2 | VAL | A1076 | 1.473 | 93.789 | 55.829 | 1.00128.16 | C |
| ATOM | 7643 | N | GLN | A1077 | 0.023 | 90.330 | 54.035 | 1.00119.26 | N |
| ATOM | 7644 | CA | GLN | A1077 | -0.301 | 89.266 | 53.091 | 1.00119.26 | C |
| ATOM | 7645 | C | GLN | A1077 | -1.569 | 88.584 | 53.542 | 1.00119.26 | C |
| ATOM | 7646 | O | GLN | A1077 | -2.586 | 88.634 | 52.867 | 1.00119.26 | O |
| ATOM | 7647 | CB | GLN | A1077 | 0.813 | 88.219 | 53.052 | 1.00135.46 | C |
| ATOM | 7648 | CG | GLN | A1077 | 1.848 | 88.409 | 51.966 | 1.00135.46 | C |
| ATOM | 7649 | CD | GLN | A1077 | 3.256 | 88.461 | 52.518 | 1.00135.46 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------------|---|
| ATOM | 7650 | OE1 | GLN | A1077 | 3.693 | 89.490 | 53.033 | 1.00135.46 | O |
| ATOM | 7651 | NE2 | GLN | A1077 | 3.970 | 87.346 | 52.428 | 1.00135.46 | N |
| ATOM | 7652 | N | LEU | A1078 | -1.498 | 87.958 | 54.707 | 1.00 62.31 | N |
| ATOM | 7653 | CA | LEU | A1078 | -2.629 | 87.245 | 55.230 | 1.00 62.31 | C |
| ATOM | 7654 | C | LEU | A1078 | -3.941 | 87.937 | 54.996 | 1.00 62.31 | C |
| ATOM | 7655 | O | LEU | A1078 | -4.904 | 87.265 | 54.636 | 1.00 62.31 | O |
| ATOM | 7656 | CB | LEU | A1078 | -2.416 | 86.959 | 56.709 | 1.00 97.91 | C |
| ATOM | 7657 | CG | LEU | A1078 | -1.474 | 85.756 | 56.798 | 1.00 97.91 | C |
| ATOM | 7658 | CD1 | LEU | A1078 | -0.856 | 85.640 | 58.170 | 1.00 97.91 | C |
| ATOM | 7659 | CD2 | LEU | A1078 | -2.251 | 84.499 | 56.423 | 1.00 97.91 | C |
| ATOM | 7660 | N | LEU | A1079 | -3.990 | 89.260 | 55.194 | 1.00 68.46 | N |
| ATOM | 7661 | CA | LEU | A1079 | -5.228 | 90.033 | 54.964 | 1.00 68.46 | C |
| ATOM | 7662 | C | LEU | A1079 | -5.564 | 89.987 | 53.492 | 1.00 68.46 | C |
| ATOM | 7663 | O | LEU | A1079 | -6.726 | 89.933 | 53.082 | 1.00 68.46 | O |
| ATOM | 7664 | CB | LEU | A1079 | -5.058 | 91.497 | 55.361 | 1.00 95.03 | C |
| ATOM | 7665 | CG | LEU | A1079 | -6.098 | 92.331 | 54.597 | 1.00 95.03 | C |
| ATOM | 7666 | CD1 | LEU | A1079 | -7.502 | 91.915 | 55.041 | 1.00 95.03 | C |
| ATOM | 7667 | CD2 | LEU | A1079 | -5.866 | 93.814 | 54.803 | 1.00 95.03 | C |
| ATOM | 7668 | N | GLU | A1080 | -4.501 | 90.075 | 52.714 | 1.00 98.19 | N |
| ATOM | 7669 | CA | GLU | A1080 | -4.569 | 89.991 | 51.276 | 1.00 98.19 | C |
| ATOM | 7670 | C | GLU | A1080 | -4.841 | 88.517 | 50.929 | 1.00 98.19 | C |
| ATOM | 7671 | O | GLU | A1080 | -4.894 | 88.131 | 49.756 | 1.00 98.19 | O |
| ATOM | 7672 | CB | GLU | A1080 | -3.237 | 90.425 | 50.675 | 1.00113.57 | C |
| ATOM | 7673 | CG | GLU | A1080 | -3.097 | 91.915 | 50.566 | 1.00113.57 | C |
| ATOM | 7674 | CD | GLU | A1080 | -3.974 | 92.468 | 49.471 | 1.00113.57 | C |
| ATOM | 7675 | OE1 | GLU | A1080 | -5.172 | 92.111 | 49.438 | 1.00113.57 | O |
| ATOM | 7676 | OE2 | GLU | A1080 | -3.467 | 93.255 | 48.645 | 1.00113.57 | O |
| ATOM | 7677 | N | ARG | A1081 | -5.005 | 87.707 | 51.975 | 1.00 90.16 | N |
| ATOM | 7678 | CA | ARG | A1081 | -5.266 | 86.279 | 51.848 | 1.00 90.16 | C |
| ATOM | 7679 | C | ARG | A1081 | -4.480 | 85.710 | 50.692 | 1.00 90.16 | C |
| ATOM | 7680 | O | ARG | A1081 | -5.044 | 85.160 | 49.764 | 1.00 90.16 | O |
| ATOM | 7681 | CB | ARG | A1081 | -6.759 | 86.057 | 51.643 | 1.00145.96 | C |
| ATOM | 7682 | CG | ARG | A1081 | -7.156 | 84.617 | 51.471 | 1.00145.96 | C |
| ATOM | 7683 | CD | ARG | A1081 | -8.662 | 84.484 | 51.469 | 1.00145.96 | C |
| ATOM | 7684 | NE | ARG | A1081 | -9.102 | 83.150 | 51.075 | 1.00145.96 | N |
| ATOM | 7685 | CZ | ARG | A1081 | -10.339 | 82.696 | 51.249 | 1.00145.96 | C |
| ATOM | 7686 | NH1 | ARG | A1081 | -11.256 | 83.472 | 51.815 | 1.00145.96 | N |
| ATOM | 7687 | NH2 | ARG | A1081 | -10.663 | 81.468 | 50.863 | 1.00145.96 | N |
| ATOM | 7688 | N | PHE | A1082 | -3.170 | 85.884 | 50.732 | 1.00 66.67 | N |
| ATOM | 7689 | CA | PHE | A1082 | -2.330 | 85.347 | 49.690 | 1.00 66.67 | C |
| ATOM | 7690 | C | PHE | A1082 | -2.110 | 83.954 | 50.113 | 1.00 66.67 | C |
| ATOM | 7691 | O | PHE | A1082 | -2.314 | 83.043 | 49.329 | 1.00 66.67 | O |
| ATOM | 7692 | CB | PHE | A1082 | -0.997 | 86.079 | 49.606 | 1.00 92.93 | C |
| ATOM | 7693 | CG | PHE | A1082 | -1.089 | 87.408 | 48.933 | 1.00 92.93 | C |
| ATOM | 7694 | CD1 | PHE | A1082 | -2.130 | 87.672 | 48.048 | 1.00 92.93 | C |
| ATOM | 7695 | CD2 | PHE | A1082 | -0.133 | 88.391 | 49.163 | 1.00 92.93 | C |
| ATOM | 7696 | CE1 | PHE | A1082 | -2.220 | 88.888 | 47.405 | 1.00 92.93 | C |
| ATOM | 7697 | CE2 | PHE | A1082 | -0.214 | 89.615 | 48.521 | 1.00 92.93 | C |
| ATOM | 7698 | CZ | PHE | A1082 | -1.262 | 89.864 | 47.639 | 1.00 92.93 | C |
| ATOM | 7699 | N | TYR | A1083 | -1.705 | 83.800 | 51.371 | 1.00135.41 | N |
| ATOM | 7700 | CA | TYR | A1083 | -1.467 | 82.496 | 51.983 | 1.00135.41 | C |
| ATOM | 7701 | C | TYR | A1083 | -2.527 | 82.416 | 53.085 | 1.00135.41 | C |
| ATOM | 7702 | O | TYR | A1083 | -2.772 | 83.406 | 53.781 | 1.00135.41 | O |
| ATOM | 7703 | CB | TYR | A1083 | -0.074 | 82.435 | 52.622 | 1.00148.88 | C |
| ATOM | 7704 | CG | TYR | A1083 | 1.023 | 83.051 | 51.784 | 1.00148.88 | C |
| ATOM | 7705 | CD1 | TYR | A1083 | 0.945 | 84.380 | 51.377 | 1.00148.88 | C |
| ATOM | 7706 | CD2 | TYR | A1083 | 2.145 | 82.312 | 51.406 | 1.00148.88 | C |
| ATOM | 7707 | CE1 | TYR | A1083 | 1.952 | 84.965 | 50.611 | 1.00148.88 | C |
| ATOM | 7708 | CE2 | TYR | A1083 | 3.168 | 82.890 | 50.637 | 1.00148.88 | C |
| ATOM | 7709 | CZ | TYR | A1083 | 3.061 | 84.218 | 50.242 | 1.00148.88 | C |
| ATOM | 7710 | OH | TYR | A1083 | 4.049 | 84.800 | 49.476 | 1.00148.88 | O |
| ATOM | 7711 | N | ASP | A1084 | -3.179 | 81.267 | 53.235 | 1.00160.63 | N |
| ATOM | 7712 | CA | ASP | A1084 | -4.191 | 81.156 | 54.275 | 1.00160.63 | C |
| ATOM | 7713 | C | ASP | A1084 | -3.599 | 80.614 | 55.561 | 1.00160.63 | C |
| ATOM | 7714 | O | ASP | A1084 | -2.898 | 79.594 | 55.568 | 1.00160.63 | O |
| ATOM | 7715 | CB | ASP | A1084 | -5.368 | 80.291 | 53.818 | 1.00195.44 | C |
| ATOM | 7716 | CG | ASP | A1084 | -6.658 | 81.090 | 53.695 | 1.00195.44 | C |
| ATOM | 7717 | OD1 | ASP | A1084 | -6.996 | 81.822 | 54.650 | 1.00195.44 | O |
| ATOM | 7718 | OD2 | ASP | A1084 | -7.334 | 80.983 | 52.649 | 1.00195.44 | O |
| ATOM | 7719 | N | PRO | A1085 | -3.888 | 81.301 | 56.675 | 1.00118.15 | N |
| ATOM | 7720 | CA | PRO | A1085 | -3.395 | 80.926 | 57.999 | 1.00118.15 | C |
| ATOM | 7721 | C | PRO | A1085 | -3.506 | 79.442 | 58.215 | 1.00118.15 | C |
| ATOM | 7722 | O | PRO | A1085 | -4.504 | 78.849 | 57.840 | 1.00118.15 | O |
| ATOM | 7723 | CB | PRO | A1085 | -4.283 | 81.737 | 58.944 | 1.00111.89 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------------|---|
| ATOM | 7724 | CG | PRO | A1085 | -5.537 | 81.953 | 58.144 | 1.00111.89 | C |
| ATOM | 7725 | CD | PRO | A1085 | -4.973 | 82.290 | 56.797 | 1.00111.89 | C |
| ATOM | 7726 | N | MET | A1086 | -2.481 | 78.839 | 58.800 | 1.00106.34 | N |
| ATOM | 7727 | CA | MET | A1086 | -2.520 | 77.413 | 59.060 | 1.00106.34 | C |
| ATOM | 7728 | C | MET | A1086 | -3.510 | 77.080 | 60.180 | 1.00106.34 | C |
| ATOM | 7729 | O | MET | A1086 | -3.900 | 75.923 | 60.350 | 1.00106.34 | O |
| ATOM | 7730 | CB | MET | A1086 | -1.126 | 76.917 | 59.432 | 1.00111.92 | C |
| ATOM | 7731 | CG | MET | A1086 | -0.158 | 76.879 | 58.264 | 1.00111.92 | C |
| ATOM | 7732 | SD | MET | A1086 | 1.548 | 76.779 | 58.802 | 1.00111.92 | S |
| ATOM | 7733 | CE | MET | A1086 | 1.392 | 75.539 | 60.104 | 1.00111.92 | C |
| ATOM | 7734 | N | ALA | A1087 | -3.906 | 78.085 | 60.954 | 1.00146.29 | N |
| ATOM | 7735 | CA | ALA | A1087 | -4.899 | 77.857 | 62.008 | 1.00146.29 | C |
| ATOM | 7736 | C | ALA | A1087 | -5.440 | 79.176 | 62.532 | 1.00146.29 | C |
| ATOM | 7737 | O | ALA | A1087 | -4.700 | 80.149 | 62.671 | 1.00146.29 | O |
| ATOM | 7738 | CB | ALA | A1087 | -4.267 | 77.059 | 63.153 | 1.00 24.95 | C |
| ATOM | 7739 | N | GLY | A1088 | -6.733 | 79.213 | 62.819 | 1.00107.79 | N |
| ATOM | 7740 | CA | GLY | A1088 | -7.323 | 80.451 | 63.300 | 1.00107.79 | C |
| ATOM | 7741 | C | GLY | A1088 | -8.052 | 81.111 | 62.145 | 1.00107.79 | C |
| ATOM | 7742 | O | GLY | A1088 | -8.223 | 80.444 | 61.127 | 1.00107.79 | O |
| ATOM | 7743 | N | SER | A1089 | -8.483 | 82.377 | 62.270 | 1.00 68.41 | N |
| ATOM | 7744 | CA | SER | A1089 | -9.192 | 83.033 | 61.162 | 1.00 68.41 | C |
| ATOM | 7745 | C | SER | A1089 | -9.186 | 84.578 | 61.141 | 1.00 68.41 | C |
| ATOM | 7746 | O | SER | A1089 | -8.544 | 85.242 | 61.953 | 1.00 68.41 | O |
| ATOM | 7747 | CB | SER | A1089 | -10.633 | 82.529 | 61.120 | 1.00107.43 | C |
| ATOM | 7748 | OG | SER | A1089 | -11.133 | 82.533 | 59.794 | 1.00107.43 | O |
| ATOM | 7749 | N | VAL | A1090 | -9.891 | 85.174 | 60.195 | 1.00150.97 | N |
| ATOM | 7750 | CA | VAL | A1090 | -9.867 | 86.633 | 60.180 | 1.00150.97 | C |
| ATOM | 7751 | C | VAL | A1090 | -11.181 | 87.185 | 59.675 | 1.00150.97 | C |
| ATOM | 7752 | O | VAL | A1090 | -11.881 | 86.442 | 59.022 | 1.00150.97 | O |
| ATOM | 7753 | CB | VAL | A1090 | -8.766 | 87.134 | 59.215 | 1.00 82.71 | C |
| ATOM | 7754 | CG1 | VAL | A1090 | -8.392 | 86.025 | 58.241 | 1.00 82.71 | C |
| ATOM | 7755 | CG2 | VAL | A1090 | -9.273 | 88.354 | 58.417 | 1.00 82.71 | C |
| ATOM | 7756 | N | PHE | A1091 | -11.505 | 88.464 | 59.946 | 1.00104.14 | N |
| ATOM | 7757 | CA | PHE | A1091 | -12.780 | 89.100 | 59.493 | 1.00104.14 | C |
| ATOM | 7758 | C | PHE | A1091 | -12.531 | 90.550 | 59.170 | 1.00104.14 | C |
| ATOM | 7759 | O | PHE | A1091 | -12.449 | 91.368 | 60.086 | 1.00104.14 | O |
| ATOM | 7760 | CB | PHE | A1091 | -13.860 | 89.037 | 60.578 | 1.00182.43 | C |
| ATOM | 7761 | CG | PHE | A1091 | -14.297 | 87.649 | 60.931 | 1.00182.43 | C |
| ATOM | 7762 | CD1 | PHE | A1091 | -14.002 | 86.566 | 60.090 | 1.00182.43 | C |
| ATOM | 7763 | CD2 | PHE | A1091 | -15.006 | 87.425 | 62.113 | 1.00182.43 | C |
| ATOM | 7764 | CE1 | PHE | A1091 | -14.402 | 85.282 | 60.423 | 1.00182.43 | C |
| ATOM | 7765 | CE2 | PHE | A1091 | -15.413 | 86.151 | 62.462 | 1.00182.43 | C |
| ATOM | 7766 | CZ | PHE | A1091 | -15.113 | 85.072 | 61.619 | 1.00182.43 | C |
| ATOM | 7767 | N | LEU | A1092 | -12.436 | 90.878 | 57.886 | 1.00145.51 | N |
| ATOM | 7768 | CA | LEU | A1092 | -12.187 | 92.249 | 57.458 | 1.00145.51 | C |
| ATOM | 7769 | C | LEU | A1092 | -13.294 | 93.125 | 57.957 | 1.00145.51 | C |
| ATOM | 7770 | O | LEU | A1092 | -13.274 | 94.336 | 57.746 | 1.00145.51 | O |
| ATOM | 7771 | CB | LEU | A1092 | -12.189 | 92.331 | 55.933 | 1.00128.84 | C |
| ATOM | 7772 | CG | LEU | A1092 | -13.605 | 92.651 | 55.423 | 1.00128.84 | C |
| ATOM | 7773 | CD1 | LEU | A1092 | -13.604 | 92.843 | 53.928 | 1.00128.84 | C |
| ATOM | 7774 | CD2 | LEU | A1092 | -14.569 | 91.543 | 55.828 | 1.00128.84 | C |
| ATOM | 7775 | N | ASP | A1093 | -14.280 | 92.518 | 58.593 | 1.00168.45 | N |
| ATOM | 7776 | CA | ASP | A1093 | -15.385 | 93.314 | 59.042 | 1.00168.45 | C |
| ATOM | 7777 | C | ASP | A1093 | -16.368 | 92.369 | 59.647 | 1.00168.45 | C |
| ATOM | 7778 | O | ASP | A1093 | -16.696 | 92.414 | 60.831 | 1.00168.45 | O |
| ATOM | 7779 | CB | ASP | A1093 | -15.978 | 94.013 | 57.810 | 1.00116.61 | C |
| ATOM | 7780 | CG | ASP | A1093 | -17.211 | 94.818 | 58.118 | 1.00116.61 | C |
| ATOM | 7781 | OD1 | ASP | A1093 | -17.061 | 95.940 | 58.635 | 1.00116.61 | O |
| ATOM | 7782 | OD2 | ASP | A1093 | -18.329 | 94.334 | 57.837 | 1.00116.61 | O |
| ATOM | 7783 | N | GLY | A1094 | -16.834 | 91.445 | 58.855 | 1.00 98.67 | N |
| ATOM | 7784 | CA | GLY | A1094 | -17.790 | 90.621 | 59.508 | 1.00 98.67 | C |
| ATOM | 7785 | C | GLY | A1094 | -17.800 | 89.124 | 59.383 | 1.00 98.67 | C |
| ATOM | 7786 | O | GLY | A1094 | -18.681 | 88.539 | 59.950 | 1.00 98.67 | O |
| ATOM | 7787 | N | LYS | A1095 | -16.915 | 88.511 | 58.609 | 1.00135.57 | N |
| ATOM | 7788 | CA | LYS | A1095 | -16.959 | 87.059 | 58.508 | 1.00135.57 | C |
| ATOM | 7789 | C | LYS | A1095 | -15.821 | 86.428 | 57.731 | 1.00135.57 | C |
| ATOM | 7790 | O | LYS | A1095 | -15.511 | 86.803 | 56.601 | 1.00135.57 | O |
| ATOM | 7791 | CB | LYS | A1095 | -18.296 | 86.591 | 57.919 | 1.00200.09 | C |
| ATOM | 7792 | CG | LYS | A1095 | -19.316 | 87.688 | 57.674 | 1.00200.09 | C |
| ATOM | 7793 | CD | LYS | A1095 | -19.113 | 88.326 | 56.314 | 1.00200.09 | C |
| ATOM | 7794 | CE | LYS | A1095 | -20.088 | 89.465 | 56.093 | 1.00200.09 | C |
| ATOM | 7795 | NZ | LYS | A1095 | -19.865 | 90.561 | 57.073 | 1.00200.09 | N |
| ATOM | 7796 | N | GLU | A1096 | -15.224 | 85.443 | 58.377 | 1.00131.16 | N |
| ATOM | 7797 | CA | GLU | A1096 | -14.104 | 84.678 | 57.873 | 1.00131.16 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|--------|--------|------------|---|
| ATOM | 7798 | C | GLU | A1096 | -13.370 | 85.019 | 56.571 | 1.00131.16 | C |
| ATOM | 7799 | O | GLU | A1096 | -13.725 | 84.588 | 55.452 | 1.00131.16 | O |
| ATOM | 7800 | CB | GLU | A1096 | -14.464 | 83.189 | 57.904 | 1.00164.57 | C |
| ATOM | 7801 | CG | GLU | A1096 | -14.764 | 82.707 | 59.327 | 1.00164.57 | C |
| ATOM | 7802 | CD | GLU | A1096 | -14.555 | 81.219 | 59.526 | 1.00164.57 | C |
| ATOM | 7803 | OE1 | GLU | A1096 | -13.430 | 80.737 | 59.276 | 1.00164.57 | O |
| ATOM | 7804 | OE2 | GLU | A1096 | -15.512 | 80.533 | 59.943 | 1.00164.57 | O |
| ATOM | 7805 | N | ILE | A1097 | -12.359 | 85.851 | 56.769 | 1.00144.24 | N |
| ATOM | 7806 | CA | ILE | A1097 | -11.387 | 86.235 | 55.771 | 1.00144.24 | C |
| ATOM | 7807 | C | ILE | A1097 | -10.652 | 84.958 | 56.115 | 1.00144.24 | C |
| ATOM | 7808 | O | ILE | A1097 | -9.747 | 84.890 | 56.976 | 1.00144.24 | O |
| ATOM | 7809 | CB | ILE | A1097 | -10.567 | 87.468 | 56.182 | 1.00123.16 | C |
| ATOM | 7810 | CG1 | ILE | A1097 | -11.407 | 88.732 | 55.979 | 1.00123.16 | C |
| ATOM | 7811 | CG2 | ILE | A1097 | -9.284 | 87.536 | 55.368 | 1.00123.16 | C |
| ATOM | 7812 | CD1 | ILE | A1097 | -12.012 | 88.853 | 54.585 | 1.00123.16 | C |
| ATOM | 7813 | N | LYS | A1098 | -11.267 | 83.948 | 55.530 | 1.00198.24 | N |
| ATOM | 7814 | CA | LYS | A1098 | -10.983 | 82.530 | 55.564 | 1.00198.24 | C |
| ATOM | 7815 | C | LYS | A1098 | -11.863 | 82.349 | 54.335 | 1.00198.24 | C |
| ATOM | 7816 | O | LYS | A1098 | -11.383 | 82.057 | 53.228 | 1.00198.24 | O |
| ATOM | 7817 | CB | LYS | A1098 | -11.634 | 81.910 | 56.807 | 1.00206.41 | C |
| ATOM | 7818 | CG | LYS | A1098 | -11.952 | 80.421 | 56.722 | 1.00206.41 | C |
| ATOM | 7819 | CD | LYS | A1098 | -10.752 | 79.537 | 57.019 | 1.00206.41 | C |
| ATOM | 7820 | CE | LYS | A1098 | -11.200 | 78.104 | 57.296 | 1.00206.41 | C |
| ATOM | 7821 | NZ | LYS | A1098 | -10.060 | 77.162 | 57.482 | 1.00206.41 | N |
| ATOM | 7822 | N | GLN | A1099 | -13.149 | 82.608 | 54.546 | 1.00 84.71 | N |
| ATOM | 7823 | CA | GLN | A1099 | -14.131 | 82.539 | 53.483 | 1.00 84.71 | C |
| ATOM | 7824 | C | GLN | A1099 | -14.900 | 83.849 | 53.292 | 1.00 84.71 | C |
| ATOM | 7825 | O | GLN | A1099 | -15.886 | 84.135 | 53.972 | 1.00 84.71 | O |
| ATOM | 7826 | CB | GLN | A1099 | -15.094 | 81.365 | 53.717 | 1.00179.17 | C |
| ATOM | 7827 | CG | GLN | A1099 | -16.565 | 81.734 | 53.768 | 1.00179.17 | C |
| ATOM | 7828 | CD | GLN | A1099 | -17.008 | 82.133 | 55.157 | 1.00179.17 | C |
| ATOM | 7829 | OE1 | GLN | A1099 | -18.128 | 82.605 | 55.353 | 1.00179.17 | O |
| ATOM | 7830 | NE2 | GLN | A1099 | -16.132 | 81.934 | 56.134 | 1.00179.17 | N |
| ATOM | 7831 | N | LEU | A1100 | -14.377 | 84.643 | 52.370 | 1.00138.81 | N |
| ATOM | 7832 | CA | LEU | A1100 | -14.940 | 85.917 | 51.908 | 1.00138.81 | C |
| ATOM | 7833 | C | LEU | A1100 | -14.511 | 85.898 | 50.441 | 1.00138.81 | C |
| ATOM | 7834 | O | LEU | A1100 | -13.432 | 85.383 | 50.144 | 1.00138.81 | O |
| ATOM | 7835 | CB | LEU | A1100 | -14.299 | 87.113 | 52.609 | 1.00203.59 | C |
| ATOM | 7836 | CG | LEU | A1100 | -14.877 | 88.436 | 52.094 | 1.00203.59 | C |
| ATOM | 7837 | CD1 | LEU | A1100 | -16.337 | 88.542 | 52.513 | 1.00203.59 | C |
| ATOM | 7838 | CD2 | LEU | A1100 | -14.081 | 89.608 | 52.632 | 1.00203.59 | C |
| ATOM | 7839 | N | ASN | A1101 | -15.294 | 86.449 | 49.513 | 1.00114.50 | N |
| ATOM | 7840 | CA | ASN | A1101 | -14.834 | 86.332 | 48.120 | 1.00114.50 | C |
| ATOM | 7841 | C | ASN | A1101 | -13.549 | 87.088 | 47.855 | 1.00114.50 | C |
| ATOM | 7842 | O | ASN | A1101 | -13.549 | 88.310 | 47.729 | 1.00114.50 | O |
| ATOM | 7843 | CB | ASN | A1101 | -15.874 | 86.835 | 47.121 | 1.00153.29 | C |
| ATOM | 7844 | CG | ASN | A1101 | -15.308 | 86.916 | 45.708 | 1.00153.29 | C |
| ATOM | 7845 | OD1 | ASN | A1101 | -14.345 | 87.640 | 45.464 | 1.00153.29 | O |
| ATOM | 7846 | ND2 | ASN | A1101 | -15.889 | 86.162 | 44.780 | 1.00153.29 | N |
| ATOM | 7847 | N | VAL | A1102 | -12.462 | 86.349 | 47.729 | 1.00129.66 | N |
| ATOM | 7848 | CA | VAL | A1102 | -11.146 | 86.915 | 47.492 | 1.00129.66 | C |
| ATOM | 7849 | C | VAL | A1102 | -11.055 | 88.168 | 46.607 | 1.00129.66 | C |
| ATOM | 7850 | O | VAL | A1102 | -10.526 | 89.193 | 47.034 | 1.00129.66 | O |
| ATOM | 7851 | CB | VAL | A1102 | -10.212 | 85.818 | 46.914 | 1.00 79.69 | C |
| ATOM | 7852 | CG1 | VAL | A1102 | -11.019 | 84.900 | 46.016 | 1.00 79.69 | C |
| ATOM | 7853 | CG2 | VAL | A1102 | -9.062 | 86.432 | 46.126 | 1.00 79.69 | C |
| ATOM | 7854 | N | GLN | A1103 | -11.565 | 88.080 | 45.380 | 1.00105.93 | N |
| ATOM | 7855 | CA | GLN | A1103 | -11.505 | 89.198 | 44.436 | 1.00105.93 | C |
| ATOM | 7856 | C | GLN | A1103 | -12.031 | 90.455 | 45.066 | 1.00105.93 | C |
| ATOM | 7857 | O | GLN | A1103 | -11.501 | 91.531 | 44.852 | 1.00105.93 | O |
| ATOM | 7858 | CB | GLN | A1103 | -12.277 | 88.860 | 43.156 | 1.00165.77 | C |
| ATOM | 7859 | CG | GLN | A1103 | -11.792 | 89.609 | 41.922 | 1.00165.77 | C |
| ATOM | 7860 | CD | GLN | A1103 | -10.328 | 89.350 | 41.631 | 1.00165.77 | C |
| ATOM | 7861 | OE1 | GLN | A1103 | -9.446 | 89.858 | 42.322 | 1.00165.77 | O |
| ATOM | 7862 | NE2 | GLN | A1103 | -10.062 | 88.544 | 40.612 | 1.00165.77 | N |
| ATOM | 7863 | N | TRP | A1104 | -13.091 | 90.310 | 45.843 | 1.00125.21 | N |
| ATOM | 7864 | CA | TRP | A1104 | -13.675 | 91.440 | 46.536 | 1.00125.21 | C |
| ATOM | 7865 | C | TRP | A1104 | -12.783 | 91.767 | 47.743 | 1.00125.21 | C |
| ATOM | 7866 | O | TRP | A1104 | -12.375 | 92.930 | 47.951 | 1.00125.21 | O |
| ATOM | 7867 | CB | TRP | A1104 | -15.081 | 91.085 | 47.003 | 1.00105.09 | C |
| ATOM | 7868 | CG | TRP | A1104 | -15.745 | 92.222 | 47.637 | 1.00105.09 | C |
| ATOM | 7869 | CD1 | TRP | A1104 | -16.446 | 93.219 | 47.015 | 1.00105.09 | C |
| ATOM | 7870 | CD2 | TRP | A1104 | -15.706 | 92.561 | 49.026 | 1.00105.09 | C |
| ATOM | 7871 | NE1 | TRP | A1104 | -16.839 | 94.160 | 47.936 | 1.00105.09 | N |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 7872 | CE2 | TRP | A1104 | -16.395 | 93.783 | 49.177 | 1.00105.09 | C |
| ATOM | 7873 | CE3 | TRP | A1104 | -15.143 | 91.955 | 50.157 | 1.00105.09 | C |
| ATOM | 7874 | CZ2 | TRP | A1104 | -16.545 | 94.409 | 50.421 | 1.00105.09 | C |
| ATOM | 7875 | CZ3 | TRP | A1104 | -15.291 | 92.576 | 51.387 | 1.00105.09 | C |
| ATOM | 7876 | CH2 | TRP | A1104 | -15.984 | 93.792 | 51.509 | 1.00105.09 | C |
| ATOM | 7877 | N | LEU | A1105 | -12.486 | 90.745 | 48.545 | 1.00107.39 | N |
| ATOM | 7878 | CA | LEU | A1105 | -11.621 | 90.952 | 49.689 | 1.00107.39 | C |
| ATOM | 7879 | C | LEU | A1105 | -10.496 | 91.852 | 49.199 | 1.00107.39 | C |
| ATOM | 7880 | O | LEU | A1105 | -10.198 | 92.853 | 49.823 | 1.00107.39 | O |
| ATOM | 7881 | CB | LEU | A1105 | -11.028 | 89.642 | 50.217 | 1.00 59.41 | C |
| ATOM | 7882 | CG | LEU | A1105 | -9.957 | 89.814 | 51.309 | 1.00 59.41 | C |
| ATOM | 7883 | CD1 | LEU | A1105 | -10.540 | 90.603 | 52.482 | 1.00 59.41 | C |
| ATOM | 7884 | CD2 | LEU | A1105 | -9.436 | 88.446 | 51.760 | 1.00 59.41 | C |
| ATOM | 7885 | N | ARG | A1106 | -9.880 | 91.525 | 48.069 | 1.00 79.36 | N |
| ATOM | 7886 | CA | ARG | A1106 | -8.793 | 92.361 | 47.586 | 1.00 79.36 | C |
| ATOM | 7887 | C | ARG | A1106 | -9.319 | 93.591 | 46.868 | 1.00 79.36 | C |
| ATOM | 7888 | O | ARG | A1106 | -8.552 | 94.434 | 46.421 | 1.00 79.36 | O |
| ATOM | 7889 | CB | ARG | A1106 | -7.868 | 91.554 | 46.674 | 1.00 80.49 | C |
| ATOM | 7890 | CG | ARG | A1106 | -7.177 | 90.409 | 47.393 | 1.00 80.49 | C |
| ATOM | 7891 | CD | ARG | A1106 | -6.401 | 89.536 | 46.438 | 1.00 80.49 | C |
| ATOM | 7892 | NE | ARG | A1106 | -6.239 | 88.182 | 46.959 | 1.00 80.49 | N |
| ATOM | 7893 | CZ | ARG | A1106 | -5.693 | 87.187 | 46.271 | 1.00 80.49 | C |
| ATOM | 7894 | NH1 | ARG | A1106 | -5.258 | 87.404 | 45.039 | 1.00 80.49 | N |
| ATOM | 7895 | NH2 | ARG | A1106 | -5.594 | 85.977 | 46.806 | 1.00 80.49 | N |
| ATOM | 7896 | N | ALA | A1107 | -10.634 | 93.697 | 46.743 | 1.00180.28 | N |
| ATOM | 7897 | CA | ALA | A1107 | -11.196 | 94.886 | 46.128 | 1.00180.28 | C |
| ATOM | 7898 | C | ALA | A1107 | -10.677 | 95.980 | 47.048 | 1.00180.28 | C |
| ATOM | 7899 | O | ALA | A1107 | -10.154 | 97.004 | 46.598 | 1.00180.28 | O |
| ATOM | 7900 | CB | ALA | A1107 | -12.716 | 94.829 | 46.161 | 1.00101.95 | C |
| ATOM | 7901 | N | GLN | A1108 | -10.801 | 95.738 | 48.352 | 1.00119.75 | N |
| ATOM | 7902 | CA | GLN | A1108 | -10.319 | 96.723 | 49.338 | 1.00119.75 | C |
| ATOM | 7903 | C | GLN | A1108 | -8.932 | 96.408 | 49.898 | 1.00119.75 | C |
| ATOM | 7904 | O | GLN | A1108 | -8.743 | 95.456 | 50.648 | 1.00119.75 | O |
| ATOM | 7905 | CB | GLN | A1108 | -11.302 | 96.832 | 50.507 | 1.00 86.68 | C |
| ATOM | 7906 | CG | GLN | A1108 | -12.684 | 97.362 | 50.155 | 1.00 86.68 | C |
| ATOM | 7907 | CD | GLN | A1108 | -13.662 | 96.257 | 49.797 | 1.00 86.68 | C |
| ATOM | 7908 | OE1 | GLN | A1108 | -14.863 | 96.488 | 49.675 | 1.00 86.68 | O |
| ATOM | 7909 | NE2 | GLN | A1108 | -13.149 | 95.049 | 49.632 | 1.00 86.68 | N |
| ATOM | 7910 | N | LEU | A1109 | -7.956 | 97.232 | 49.568 | 1.00104.08 | N |
| ATOM | 7911 | CA | LEU | A1109 | -6.611 | 96.962 | 50.036 | 1.00104.08 | C |
| ATOM | 7912 | C | LEU | A1109 | -5.703 | 98.124 | 49.674 | 1.00104.08 | C |
| ATOM | 7913 | O | LEU | A1109 | -5.089 | 98.144 | 48.612 | 1.00104.08 | O |
| ATOM | 7914 | CB | LEU | A1109 | -6.091 | 95.676 | 49.385 | 1.00207.38 | C |
| ATOM | 7915 | CG | LEU | A1109 | -5.818 | 95.679 | 47.874 | 1.00207.38 | C |
| ATOM | 7916 | CD1 | LEU | A1109 | -5.729 | 94.245 | 47.380 | 1.00207.38 | C |
| ATOM | 7917 | CD2 | LEU | A1109 | -6.926 | 96.403 | 47.131 | 1.00207.38 | C |
| ATOM | 7918 | N | GLY | A1110 | -5.620 | 99.112 | 50.543 | 1.00100.62 | N |
| ATOM | 7919 | CA | GLY | A1110 | -4.756 | 100.222 | 50.220 | 1.00100.62 | C |
| ATOM | 7920 | C | GLY | A1110 | -3.362 | 99.755 | 50.529 | 1.00100.62 | C |
| ATOM | 7921 | O | GLY | A1110 | -2.810 | 100.088 | 51.569 | 1.00100.62 | O |
| ATOM | 7922 | N | ILE | A1111 | -2.803 | 98.967 | 49.623 | 1.00134.31 | N |
| ATOM | 7923 | CA | ILE | A1111 | -1.464 | 98.425 | 49.781 | 1.00134.31 | C |
| ATOM | 7924 | C | ILE | A1111 | -0.428 | 99.287 | 49.072 | 1.00134.31 | C |
| ATOM | 7925 | O | ILE | A1111 | -0.675 | 99.808 | 47.977 | 1.00134.31 | O |
| ATOM | 7926 | CB | ILE | A1111 | -1.394 | 96.996 | 49.190 | 1.00105.86 | C |
| ATOM | 7927 | CG1 | ILE | A1111 | 0.049 | 96.490 | 49.181 | 1.00105.86 | C |
| ATOM | 7928 | CG2 | ILE | A1111 | -1.947 | 96.994 | 47.767 | 1.00105.86 | C |
| ATOM | 7929 | CD1 | ILE | A1111 | 0.621 | 96.205 | 50.561 | 1.00105.86 | C |
| ATOM | 7930 | N | VAL | A1112 | 0.716 | 99.452 | 49.729 | 1.00 89.06 | N |
| ATOM | 7931 | CA | VAL | A1112 | 1.858 | 100.188 | 49.182 | 1.00 89.06 | C |
| ATOM | 7932 | C | VAL | A1112 | 3.027 | 99.734 | 50.039 | 1.00 89.06 | C |
| ATOM | 7933 | O | VAL | A1112 | 2.980 | 99.818 | 51.274 | 1.00 89.06 | O |
| ATOM | 7934 | CB | VAL | A1112 | 1.706 | 101.719 | 49.282 | 1.00 97.02 | C |
| ATOM | 7935 | CG1 | VAL | A1112 | 2.943 | 102.396 | 48.701 | 1.00 97.02 | C |
| ATOM | 7936 | CG2 | VAL | A1112 | 0.490 | 102.172 | 48.509 | 1.00 97.02 | C |
| ATOM | 7937 | N | SER | A1113 | 4.067 | 99.239 | 49.380 | 1.00100.83 | N |
| ATOM | 7938 | CA | SER | A1113 | 5.212 | 98.718 | 50.097 | 1.00100.83 | C |
| ATOM | 7939 | C | SER | A1113 | 6.555 | 99.324 | 49.744 | 1.00100.83 | C |
| ATOM | 7940 | O | SER | A1113 | 6.650 | 100.197 | 48.891 | 1.00100.83 | O |
| ATOM | 7941 | CB | SER | A1113 | 5.279 | 97.198 | 49.914 | 1.00166.47 | C |
| ATOM | 7942 | OG | SER | A1113 | 6.356 | 96.637 | 50.646 | 1.00166.47 | O |
| ATOM | 7943 | N | GLN | A1114 | 7.580 | 98.845 | 50.444 | 1.00166.18 | N |
| ATOM | 7944 | CA | GLN | A1114 | 8.964 | 99.264 | 50.264 | 1.00166.18 | C |
| ATOM | 7945 | C | GLN | A1114 | 9.201 | 99.646 | 48.818 | 1.00166.18 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 7946 | O | GLN | A1114 | 9.121 | 100.810 | 48.433 | 1.00166.18 | O |
| ATOM | 7947 | CB | GLN | A1114 | 9.890 | 98.096 | 50.600 | 1.00155.92 | C |
| ATOM | 7948 | CG | GLN | A1114 | 9.746 | 97.562 | 52.002 | 1.00155.92 | C |
| ATOM | 7949 | CD | GLN | A1114 | 10.664 | 98.261 | 52.978 | 1.00155.92 | C |
| ATOM | 7950 | OE1 | GLN | A1114 | 10.541 | 98.097 | 54.192 | 1.00155.92 | O |
| ATOM | 7951 | NE2 | GLN | A1114 | 11.604 | 99.039 | 52.451 | 1.00155.92 | N |
| ATOM | 7952 | N | GLU | A1115 | 9.497 | 98.621 | 48.028 | 1.00146.68 | N |
| ATOM | 7953 | CA | GLU | A1115 | 9.770 | 98.752 | 46.610 | 1.00146.68 | C |
| ATOM | 7954 | C | GLU | A1115 | 8.455 | 98.811 | 45.854 | 1.00146.68 | C |
| ATOM | 7955 | O | GLU | A1115 | 7.781 | 97.797 | 45.682 | 1.00146.68 | O |
| ATOM | 7956 | CB | GLU | A1115 | 10.590 | 97.545 | 46.146 | 1.00206.48 | C |
| ATOM | 7957 | CG | GLU | A1115 | 11.040 | 97.578 | 44.695 | 1.00206.48 | C |
| ATOM | 7958 | CD | GLU | A1115 | 11.908 | 98.778 | 44.385 | 1.00206.48 | C |
| ATOM | 7959 | OE1 | GLU | A1115 | 12.791 | 99.099 | 45.209 | 1.00206.48 | O |
| ATOM | 7960 | OE2 | GLU | A1115 | 11.717 | 99.396 | 43.317 | 1.00206.48 | O |
| ATOM | 7961 | N | PRO | A1116 | 8.063 | 100.009 | 45.406 | 1.00124.42 | N |
| ATOM | 7962 | CA | PRO | A1116 | 6.811 | 100.147 | 44.667 | 1.00124.42 | C |
| ATOM | 7963 | C | PRO | A1116 | 7.031 | 99.470 | 43.346 | 1.00124.42 | C |
| ATOM | 7964 | O | PRO | A1116 | 7.679 | 98.428 | 43.299 | 1.00124.42 | O |
| ATOM | 7965 | CB | PRO | A1116 | 6.668 | 101.657 | 44.536 | 1.00123.69 | C |
| ATOM | 7966 | CG | PRO | A1116 | 8.095 | 102.090 | 44.347 | 1.00123.69 | C |
| ATOM | 7967 | CD | PRO | A1116 | 8.802 | 101.285 | 45.429 | 1.00123.69 | C |
| ATOM | 7968 | N | ILE | A1117 | 6.514 | 100.075 | 42.278 | 1.00100.79 | N |
| ATOM | 7969 | CA | ILE | A1117 | 6.657 | 99.537 | 40.923 | 1.00100.79 | C |
| ATOM | 7970 | C | ILE | A1117 | 5.455 | 99.792 | 40.058 | 1.00100.79 | C |
| ATOM | 7971 | O | ILE | A1117 | 4.349 | 99.951 | 40.540 | 1.00100.79 | O |
| ATOM | 7972 | CB | ILE | A1117 | 6.896 | 98.019 | 40.912 | 1.00181.71 | C |
| ATOM | 7973 | CG1 | ILE | A1117 | 7.088 | 97.540 | 39.471 | 1.00181.71 | C |
| ATOM | 7974 | CG2 | ILE | A1117 | 5.697 | 97.293 | 41.508 | 1.00181.71 | C |
| ATOM | 7975 | CD1 | ILE | A1117 | 8.119 | 98.329 | 38.680 | 1.00181.71 | C |
| ATOM | 7976 | N | LEU | A1118 | 5.672 | 99.798 | 38.760 | 1.00195.46 | N |
| ATOM | 7977 | CA | LEU | A1118 | 4.589 | 100.040 | 37.843 | 1.00195.46 | C |
| ATOM | 7978 | C | LEU | A1118 | 5.020 | 99.474 | 36.509 | 1.00195.46 | C |
| ATOM | 7979 | O | LEU | A1118 | 6.178 | 99.658 | 36.122 | 1.00195.46 | O |
| ATOM | 7980 | CB | LEU | A1118 | 4.354 | 101.545 | 37.707 | 1.00115.15 | C |
| ATOM | 7981 | CG | LEU | A1118 | 5.179 | 102.469 | 38.612 | 1.00115.15 | C |
| ATOM | 7982 | CD1 | LEU | A1118 | 6.665 | 102.249 | 38.380 | 1.00115.15 | C |
| ATOM | 7983 | CD2 | LEU | A1118 | 4.812 | 103.913 | 38.325 | 1.00115.15 | C |
| ATOM | 7984 | N | PHE | A1119 | 4.130 | 98.754 | 35.818 | 1.00123.32 | N |
| ATOM | 7985 | CA | PHE | A1119 | 4.512 | 98.250 | 34.507 | 1.00123.32 | C |
| ATOM | 7986 | C | PHE | A1119 | 4.319 | 99.432 | 33.580 | 1.00123.32 | C |
| ATOM | 7987 | O | PHE | A1119 | 3.446 | 100.270 | 33.807 | 1.00123.32 | O |
| ATOM | 7988 | CB | PHE | A1119 | 3.684 | 97.049 | 34.039 | 1.00163.64 | C |
| ATOM | 7989 | CG | PHE | A1119 | 4.298 | 96.343 | 32.854 | 1.00163.64 | C |
| ATOM | 7990 | CD1 | PHE | A1119 | 5.682 | 96.333 | 32.692 | 1.00163.64 | C |
| ATOM | 7991 | CD2 | PHE | A1119 | 3.512 | 95.692 | 31.911 | 1.00163.64 | C |
| ATOM | 7992 | CE1 | PHE | A1119 | 6.269 | 95.693 | 31.615 | 1.00163.64 | C |
| ATOM | 7993 | CE2 | PHE | A1119 | 4.097 | 95.044 | 30.824 | 1.00163.64 | C |
| ATOM | 7994 | CZ | PHE | A1119 | 5.474 | 95.045 | 30.677 | 1.00163.64 | C |
| ATOM | 7995 | N | ASP | A1120 | 5.134 | 99.480 | 32.536 | 1.00 66.63 | N |
| ATOM | 7996 | CA | ASP | A1120 | 5.167 | 100.593 | 31.588 | 1.00 66.63 | C |
| ATOM | 7997 | C | ASP | A1120 | 3.971 | 101.152 | 30.792 | 1.00 66.63 | C |
| ATOM | 7998 | O | ASP | A1120 | 4.002 | 101.232 | 29.552 | 1.00 66.63 | O |
| ATOM | 7999 | CB | ASP | A1120 | 6.344 | 100.381 | 30.625 | 1.00117.19 | C |
| ATOM | 8000 | CG | ASP | A1120 | 6.708 | 98.922 | 30.462 | 1.00117.19 | C |
| ATOM | 8001 | OD1 | ASP | A1120 | 6.097 | 98.246 | 29.609 | 1.00117.19 | O |
| ATOM | 8002 | OD2 | ASP | A1120 | 7.599 | 98.451 | 31.200 | 1.00117.19 | O |
| ATOM | 8003 | N | CYS | A1121 | 2.913 | 101.545 | 31.495 | 1.00147.20 | N |
| ATOM | 8004 | CA | CYS | A1121 | 1.825 | 102.226 | 30.805 | 1.00147.20 | C |
| ATOM | 8005 | C | CYS | A1121 | 2.180 | 103.623 | 31.199 | 1.00147.20 | C |
| ATOM | 8006 | O | CYS | A1121 | 3.079 | 103.845 | 32.012 | 1.00147.20 | O |
| ATOM | 8007 | CB | CYS | A1121 | 0.447 | 101.914 | 31.381 | 1.00147.20 | C |
| ATOM | 8008 | SG | CYS | A1121 | -0.189 | 100.356 | 30.846 | 1.00147.20 | S |
| ATOM | 8009 | N | SER | A1122 | 1.495 | 104.578 | 30.605 | 1.00187.53 | N |
| ATOM | 8010 | CA | SER | A1122 | 1.741 | 105.952 | 30.975 | 1.00187.53 | C |
| ATOM | 8011 | C | SER | A1122 | 1.319 | 105.964 | 32.435 | 1.00187.53 | C |
| ATOM | 8012 | O | SER | A1122 | 0.533 | 105.113 | 32.851 | 1.00187.53 | O |
| ATOM | 8013 | CB | SER | A1122 | 0.850 | 106.889 | 30.161 | 1.00131.02 | C |
| ATOM | 8014 | OG | SER | A1122 | -0.519 | 106.560 | 30.330 | 1.00131.02 | O |
| ATOM | 8015 | N | ILE | A1123 | 1.834 | 106.898 | 33.224 | 1.00207.38 | N |
| ATOM | 8016 | CA | ILE | A1123 | 1.427 | 106.931 | 34.619 | 1.00207.38 | C |
| ATOM | 8017 | C | ILE | A1123 | -0.091 | 107.150 | 34.732 | 1.00207.38 | C |
| ATOM | 8018 | O | ILE | A1123 | -0.708 | 106.699 | 35.694 | 1.00207.38 | O |
| ATOM | 8019 | CB | ILE | A1123 | 2.202 | 108.015 | 35.417 | 1.00176.99 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 8020 | CG1 | ILE | A1123 | 2.041 | 109.388 | 34.765 | 1.00176.99 | C |
| ATOM | 8021 | CG2 | ILE | A1123 | 3.665 | 107.635 | 35.506 | 1.00176.99 | C |
| ATOM | 8022 | CD1 | ILE | A1123 | 0.747 | 110.077 | 35.112 | 1.00176.99 | C |
| ATOM | 8023 | N | ALA | A1124 | -0.697 | 107.816 | 33.748 | 1.00141.51 | N |
| ATOM | 8024 | CA | ALA | A1124 | -2.151 | 108.038 | 33.776 | 1.00141.51 | C |
| ATOM | 8025 | C | ALA | A1124 | -2.887 | 106.697 | 33.865 | 1.00141.51 | C |
| ATOM | 8026 | O | ALA | A1124 | -3.899 | 106.567 | 34.559 | 1.00141.51 | O |
| ATOM | 8027 | CB | ALA | A1124 | -2.584 | 108.795 | 32.526 | 1.00164.16 | C |
| ATOM | 8028 | N | GLU | A1125 | -2.364 | 105.708 | 33.145 | 1.00134.65 | N |
| ATOM | 8029 | CA | GLU | A1125 | -2.912 | 104.350 | 33.124 | 1.00134.65 | C |
| ATOM | 8030 | C | GLU | A1125 | -2.555 | 103.627 | 34.430 | 1.00134.65 | C |
| ATOM | 8031 | O | GLU | A1125 | -3.405 | 102.998 | 35.072 | 1.00134.65 | O |
| ATOM | 8032 | CB | GLU | A1125 | -2.322 | 103.563 | 31.958 | 1.00164.05 | C |
| ATOM | 8033 | CG | GLU | A1125 | -2.729 | 104.066 | 30.593 | 1.00164.05 | C |
| ATOM | 8034 | CD | GLU | A1125 | -4.235 | 104.116 | 30.423 | 1.00164.05 | C |
| ATOM | 8035 | OE1 | GLU | A1125 | -4.852 | 105.097 | 30.885 | 1.00164.05 | O |
| ATOM | 8036 | OE2 | GLU | A1125 | -4.803 | 103.170 | 29.838 | 1.00164.05 | O |
| ATOM | 8037 | N | ASN | A1126 | -1.274 | 103.698 | 34.791 | 1.00 84.82 | N |
| ATOM | 8038 | CA | ASN | A1126 | -0.790 | 103.085 | 36.023 | 1.00 84.82 | C |
| ATOM | 8039 | C | ASN | A1126 | -1.772 | 103.613 | 37.049 | 1.00 84.82 | C |
| ATOM | 8040 | O | ASN | A1126 | -2.590 | 102.863 | 37.550 | 1.00 84.82 | O |
| ATOM | 8041 | CB | ASN | A1126 | 0.629 | 103.567 | 36.359 | 1.00133.36 | C |
| ATOM | 8042 | CG | ASN | A1126 | 1.711 | 102.709 | 35.723 | 1.00133.36 | C |
| ATOM | 8043 | OD1 | ASN | A1126 | 2.899 | 103.014 | 35.827 | 1.00133.36 | O |
| ATOM | 8044 | ND2 | ASN | A1126 | 1.306 | 101.628 | 35.069 | 1.00133.36 | N |
| ATOM | 8045 | N | ILE | A1127 | -1.697 | 104.913 | 37.330 | 1.00137.55 | N |
| ATOM | 8046 | CA | ILE | A1127 | -2.618 | 105.543 | 38.267 | 1.00137.55 | C |
| ATOM | 8047 | C | ILE | A1127 | -3.887 | 104.714 | 38.132 | 1.00137.55 | C |
| ATOM | 8048 | O | ILE | A1127 | -4.354 | 104.106 | 39.101 | 1.00137.55 | O |
| ATOM | 8049 | CB | ILE | A1127 | -2.974 | 106.991 | 37.845 | 1.00 91.12 | C |
| ATOM | 8050 | CG1 | ILE | A1127 | -1.729 | 107.878 | 37.837 | 1.00 91.12 | C |
| ATOM | 8051 | CG2 | ILE | A1127 | -4.020 | 107.556 | 38.787 | 1.00 91.12 | C |
| ATOM | 8052 | CD1 | ILE | A1127 | -1.961 | 109.263 | 37.235 | 1.00 91.12 | C |
| ATOM | 8053 | N | ALA | A1128 | -4.383 | 104.648 | 36.888 | 1.00 87.01 | N |
| ATOM | 8054 | CA | ALA | A1128 | -5.625 | 103.953 | 36.551 | 1.00 87.01 | C |
| ATOM | 8055 | C | ALA | A1128 | -5.561 | 102.483 | 36.778 | 1.00 87.01 | C |
| ATOM | 8056 | O | ALA | A1128 | -6.394 | 101.760 | 36.277 | 1.00 87.01 | O |
| ATOM | 8057 | CB | ALA | A1128 | -5.993 | 104.243 | 35.104 | 1.00107.04 | C |
| ATOM | 8058 | N | TYR | A1129 | -4.585 | 102.054 | 37.560 | 1.00147.19 | N |
| ATOM | 8059 | CA | TYR | A1129 | -4.418 | 100.653 | 37.846 | 1.00147.19 | C |
| ATOM | 8060 | C | TYR | A1129 | -5.718 | 99.920 | 37.732 | 1.00147.19 | C |
| ATOM | 8061 | O | TYR | A1129 | -6.559 | 99.996 | 38.622 | 1.00147.19 | O |
| ATOM | 8062 | CB | TYR | A1129 | -3.780 | 100.454 | 39.218 | 1.00194.71 | C |
| ATOM | 8063 | CG | TYR | A1129 | -2.282 | 100.540 | 39.115 | 1.00194.71 | C |
| ATOM | 8064 | CD1 | TYR | A1129 | -1.583 | 99.648 | 38.305 | 1.00194.71 | C |
| ATOM | 8065 | CD2 | TYR | A1129 | -1.569 | 101.546 | 39.760 | 1.00194.71 | C |
| ATOM | 8066 | CE1 | TYR | A1129 | -0.220 | 99.756 | 38.132 | 1.00194.71 | C |
| ATOM | 8067 | CE2 | TYR | A1129 | -0.196 | 101.665 | 39.595 | 1.00194.71 | C |
| ATOM | 8068 | CZ | TYR | A1129 | 0.470 | 100.766 | 38.777 | 1.00194.71 | C |
| ATOM | 8069 | OH | TYR | A1129 | 1.826 | 100.879 | 38.596 | 1.00194.71 | O |
| ATOM | 8070 | N | GLY | A1130 | -5.854 | 99.239 | 36.589 | 1.00206.22 | N |
| ATOM | 8071 | CA | GLY | A1130 | -7.031 | 98.460 | 36.232 | 1.00206.22 | C |
| ATOM | 8072 | C | GLY | A1130 | -7.483 | 97.446 | 37.259 | 1.00206.22 | C |
| ATOM | 8073 | O | GLY | A1130 | -7.681 | 96.261 | 36.973 | 1.00206.22 | O |
| ATOM | 8074 | N | ASP | A1131 | -7.636 | 97.938 | 38.474 | 1.00207.38 | N |
| ATOM | 8075 | CA | ASP | A1131 | -8.084 | 97.156 | 39.599 | 1.00207.38 | C |
| ATOM | 8076 | C | ASP | A1131 | -9.150 | 96.181 | 39.123 | 1.00207.38 | C |
| ATOM | 8077 | O | ASP | A1131 | -9.239 | 95.055 | 39.605 | 1.00207.38 | O |
| ATOM | 8078 | CB | ASP | A1131 | -8.641 | 98.126 | 40.631 | 1.00153.63 | C |
| ATOM | 8079 | CG | ASP | A1131 | -8.571 | 99.570 | 40.147 | 1.00153.63 | C |
| ATOM | 8080 | OD1 | ASP | A1131 | -9.366 | 99.942 | 39.256 | 1.00153.63 | O |
| ATOM | 8081 | OD2 | ASP | A1131 | -7.703 | 100.324 | 40.636 | 1.00153.63 | O |
| ATOM | 8082 | N | ASN | A1132 | -9.937 | 96.622 | 38.148 | 1.00125.64 | N |
| ATOM | 8083 | CA | ASN | A1132 | -11.015 | 95.811 | 37.603 | 1.00125.64 | C |
| ATOM | 8084 | C | ASN | A1132 | -11.791 | 96.663 | 36.609 | 1.00125.64 | C |
| ATOM | 8085 | O | ASN | A1132 | -11.231 | 97.594 | 36.027 | 1.00125.64 | O |
| ATOM | 8086 | CB | ASN | A1132 | -11.942 | 95.362 | 38.732 | 1.00161.03 | C |
| ATOM | 8087 | CG | ASN | A1132 | -12.458 | 96.528 | 39.556 | 1.00161.03 | C |
| ATOM | 8088 | OD1 | ASN | A1132 | -13.167 | 97.397 | 39.048 | 1.00161.03 | O |
| ATOM | 8089 | ND2 | ASN | A1132 | -12.097 | 96.555 | 40.834 | 1.00161.03 | N |
| ATOM | 8090 | N | SER | A1133 | -13.074 | 96.348 | 36.429 | 1.00105.28 | N |
| ATOM | 8091 | CA | SER | A1133 | -13.953 | 97.090 | 35.519 | 1.00105.28 | C |
| ATOM | 8092 | C | SER | A1133 | -13.711 | 98.595 | 35.647 | 1.00105.28 | C |
| ATOM | 8093 | O | SER | A1133 | -13.942 | 99.366 | 34.702 | 1.00105.28 | O |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 8094 | CB | SER | A1133 | -15.418 | 96.769 | 35.824 | 1.00207.38 | C |
| ATOM | 8095 | OG | SER | A1133 | -15.739 | 97.089 | 37.166 | 1.00207.38 | O |
| ATOM | 8096 | N | ARG | A1134 | -13.243 | 98.999 | 36.828 | 1.00207.38 | N |
| ATOM | 8097 | CA | ARG | A1134 | -12.939 | 100.394 | 37.100 | 1.00207.38 | C |
| ATOM | 8098 | C | ARG | A1134 | -12.330 | 100.986 | 35.839 | 1.00207.38 | C |
| ATOM | 8099 | O | ARG | A1134 | -11.201 | 100.660 | 35.466 | 1.00207.38 | O |
| ATOM | 8100 | CB | ARG | A1134 | -11.933 | 100.507 | 38.250 | 1.00206.50 | C |
| ATOM | 8101 | CG | ARG | A1134 | -12.458 | 100.097 | 39.622 | 1.00206.50 | C |
| ATOM | 8102 | CD | ARG | A1134 | -13.601 | 100.998 | 40.065 | 1.00206.50 | C |
| ATOM | 8103 | NE | ARG | A1134 | -13.396 | 102.382 | 39.640 | 1.00206.50 | N |
| ATOM | 8104 | CZ | ARG | A1134 | -14.210 | 103.391 | 39.937 | 1.00206.50 | C |
| ATOM | 8105 | NH1 | ARG | A1134 | -15.296 | 103.183 | 40.672 | 1.00206.50 | N |
| ATOM | 8106 | NH2 | ARG | A1134 | -13.948 | 104.611 | 39.484 | 1.00206.50 | N |
| ATOM | 8107 | N | VAL | A1135 | -13.108 | 101.829 | 35.172 | 1.00132.72 | N |
| ATOM | 8108 | CA | VAL | A1135 | -12.672 | 102.489 | 33.958 | 1.00132.72 | C |
| ATOM | 8109 | C | VAL | A1135 | -11.688 | 103.629 | 34.305 | 1.00132.72 | C |
| ATOM | 8110 | O | VAL | A1135 | -11.680 | 104.152 | 35.435 | 1.00132.72 | O |
| ATOM | 8111 | CB | VAL | A1135 | -13.894 | 103.046 | 33.187 | 1.00110.28 | C |
| ATOM | 8112 | CG1 | VAL | A1135 | -14.675 | 104.005 | 34.076 | 1.00110.28 | C |
| ATOM | 8113 | CG2 | VAL | A1135 | -13.444 | 103.719 | 31.898 | 1.00110.28 | C |
| ATOM | 8114 | N | VAL | A1136 | -10.844 | 103.981 | 33.331 | 1.00207.38 | N |
| ATOM | 8115 | CA | VAL | A1136 | -9.830 | 105.029 | 33.486 | 1.00207.38 | C |
| ATOM | 8116 | C | VAL | A1136 | -10.503 | 106.370 | 33.789 | 1.00207.38 | C |
| ATOM | 8117 | O | VAL | A1136 | -10.368 | 107.335 | 33.037 | 1.00207.38 | O |
| ATOM | 8118 | CB | VAL | A1136 | -8.968 | 105.176 | 32.209 | 1.00137.36 | C |
| ATOM | 8119 | CG1 | VAL | A1136 | -7.770 | 106.079 | 32.491 | 1.00137.36 | C |
| ATOM | 8120 | CG2 | VAL | A1136 | -8.510 | 103.808 | 31.732 | 1.00137.36 | C |
| ATOM | 8121 | N | SER | A1137 | -11.240 | 106.420 | 34.893 | 1.00124.72 | N |
| ATOM | 8122 | CA | SER | A1137 | -11.928 | 107.640 | 35.289 | 1.00124.72 | C |
| ATOM | 8123 | C | SER | A1137 | -10.917 | 108.787 | 35.375 | 1.00124.72 | C |
| ATOM | 8124 | O | SER | A1137 | -10.211 | 108.925 | 36.375 | 1.00124.72 | O |
| ATOM | 8125 | CB | SER | A1137 | -12.595 | 107.431 | 36.652 | 1.00132.55 | C |
| ATOM | 8126 | OG | SER | A1137 | -13.188 | 108.624 | 37.135 | 1.00132.55 | O |
| ATOM | 8127 | N | TYR | A1138 | -10.847 | 109.608 | 34.326 | 1.00136.18 | N |
| ATOM | 8128 | CA | TYR | A1138 | -9.885 | 110.710 | 34.297 | 1.00136.18 | C |
| ATOM | 8129 | C | TYR | A1138 | -9.846 | 111.491 | 35.606 | 1.00136.18 | C |
| ATOM | 8130 | O | TYR | A1138 | -8.961 | 111.273 | 36.428 | 1.00136.18 | O |
| ATOM | 8131 | CB | TYR | A1138 | -10.190 | 111.658 | 33.136 | 1.00187.78 | C |
| ATOM | 8132 | CG | TYR | A1138 | -9.047 | 112.599 | 32.817 | 1.00187.78 | C |
| ATOM | 8133 | CD1 | TYR | A1138 | -8.679 | 113.612 | 33.704 | 1.00187.78 | C |
| ATOM | 8134 | CD2 | TYR | A1138 | -8.313 | 112.459 | 31.640 | 1.00187.78 | C |
| ATOM | 8135 | CE1 | TYR | A1138 | -7.606 | 114.464 | 33.425 | 1.00187.78 | C |
| ATOM | 8136 | CE2 | TYR | A1138 | -7.236 | 113.306 | 31.350 | 1.00187.78 | C |
| ATOM | 8137 | CZ | TYR | A1138 | -6.889 | 114.306 | 32.247 | 1.00187.78 | C |
| ATOM | 8138 | OH | TYR | A1138 | -5.832 | 115.144 | 31.964 | 1.00187.78 | O |
| ATOM | 8139 | N | GLU | A1139 | -10.801 | 112.399 | 35.801 | 1.00207.38 | N |
| ATOM | 8140 | CA | GLU | A1139 | -10.842 | 113.196 | 37.026 | 1.00207.38 | C |
| ATOM | 8141 | C | GLU | A1139 | -10.547 | 112.309 | 38.229 | 1.00207.38 | C |
| ATOM | 8142 | O | GLU | A1139 | -10.034 | 112.779 | 39.246 | 1.00207.38 | O |
| ATOM | 8143 | CB | GLU | A1139 | -12.205 | 113.885 | 37.190 | 1.00207.38 | C |
| ATOM | 8144 | CG | GLU | A1139 | -13.402 | 112.994 | 36.944 | 1.00207.38 | C |
| ATOM | 8145 | CD | GLU | A1139 | -13.597 | 112.677 | 35.475 | 1.00207.38 | C |
| ATOM | 8146 | OE1 | GLU | A1139 | -13.911 | 113.602 | 34.694 | 1.00207.38 | O |
| ATOM | 8147 | OE2 | GLU | A1139 | -13.434 | 111.499 | 35.101 | 1.00207.38 | O |
| ATOM | 8148 | N | GLU | A1140 | -10.856 | 111.020 | 38.106 | 1.00132.96 | N |
| ATOM | 8149 | CA | GLU | A1140 | -10.587 | 110.098 | 39.194 | 1.00132.96 | C |
| ATOM | 8150 | C | GLU | A1140 | -9.066 | 110.021 | 39.282 | 1.00132.96 | C |
| ATOM | 8151 | O | GLU | A1140 | -8.496 | 110.378 | 40.313 | 1.00132.96 | O |
| ATOM | 8152 | CB | GLU | A1140 | -11.178 | 108.721 | 38.884 | 1.00183.77 | C |
| ATOM | 8153 | CG | GLU | A1140 | -11.835 | 107.998 | 40.063 | 1.00183.77 | C |
| ATOM | 8154 | CD | GLU | A1140 | -10.845 | 107.289 | 40.976 | 1.00183.77 | C |
| ATOM | 8155 | OE1 | GLU | A1140 | -10.086 | 107.975 | 41.695 | 1.00183.77 | O |
| ATOM | 8156 | OE2 | GLU | A1140 | -10.830 | 106.038 | 40.971 | 1.00183.77 | O |
| ATOM | 8157 | N | ILE | A1141 | -8.415 | 109.584 | 38.197 | 1.00 97.04 | N |
| ATOM | 8158 | CA | ILE | A1141 | -6.952 | 109.469 | 38.159 | 1.00 97.04 | C |
| ATOM | 8159 | C | ILE | A1141 | -6.334 | 110.787 | 38.621 | 1.00 97.04 | C |
| ATOM | 8160 | O | ILE | A1141 | -5.192 | 110.818 | 39.090 | 1.00 97.04 | O |
| ATOM | 8161 | CB | ILE | A1141 | -6.453 | 109.188 | 36.734 | 1.00122.52 | C |
| ATOM | 8162 | CG1 | ILE | A1141 | -6.575 | 110.458 | 35.886 | 1.00122.52 | C |
| ATOM | 8163 | CG2 | ILE | A1141 | -7.262 | 108.057 | 36.116 | 1.00122.52 | C |
| ATOM | 8164 | CD1 | ILE | A1141 | -6.188 | 110.276 | 34.434 | 1.00122.52 | C |
| ATOM | 8165 | N | VAL | A1142 | -7.109 | 111.867 | 38.472 | 1.00106.78 | N |
| ATOM | 8166 | CA | VAL | A1142 | -6.717 | 113.221 | 38.880 | 1.00106.78 | C |
| ATOM | 8167 | C | VAL | A1142 | -6.868 | 113.351 | 40.391 | 1.00106.78 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 8168 | O | VAL | A1142 | -6.013 | 113.925 | 41.069 | 1.00106.78 | O |
| ATOM | 8169 | CB | VAL | A1142 | -7.599 | 114.278 | 38.180 | 1.00151.79 | C |
| ATOM | 8170 | CG1 | VAL | A1142 | -7.308 | 115.652 | 38.734 | 1.00151.79 | C |
| ATOM | 8171 | CG2 | VAL | A1142 | -7.340 | 114.252 | 36.676 | 1.00151.79 | C |
| ATOM | 8172 | N | ARG | A1143 | -7.961 | 112.800 | 40.910 | 1.00202.50 | N |
| ATOM | 8173 | CA | ARG | A1143 | -8.214 | 112.816 | 42.342 | 1.00202.50 | C |
| ATOM | 8174 | C | ARG | A1143 | -6.991 | 112.182 | 42.987 | 1.00202.50 | C |
| ATOM | 8175 | O | ARG | A1143 | -6.426 | 112.719 | 43.944 | 1.00202.50 | O |
| ATOM | 8176 | CB | ARG | A1143 | -9.478 | 112.014 | 42.666 | 1.00184.06 | C |
| ATOM | 8177 | CG | ARG | A1143 | -9.944 | 112.108 | 44.112 | 1.00184.06 | C |
| ATOM | 8178 | CD | ARG | A1143 | -10.051 | 113.553 | 44.580 | 1.00184.06 | C |
| ATOM | 8179 | NE | ARG | A1143 | -10.538 | 114.453 | 43.537 | 1.00184.06 | N |
| ATOM | 8180 | CZ | ARG | A1143 | -11.684 | 114.300 | 42.882 | 1.00184.06 | C |
| ATOM | 8181 | NH1 | ARG | A1143 | -12.478 | 113.274 | 43.154 | 1.00184.06 | N |
| ATOM | 8182 | NH2 | ARG | A1143 | -12.040 | 115.182 | 41.957 | 1.00184.06 | N |
| ATOM | 8183 | N | ALA | A1144 | -6.584 | 111.035 | 42.449 | 1.00121.05 | N |
| ATOM | 8184 | CA | ALA | A1144 | -5.405 | 110.341 | 42.941 | 1.00121.05 | C |
| ATOM | 8185 | C | ALA | A1144 | -4.231 | 111.293 | 42.867 | 1.00121.05 | C |
| ATOM | 8186 | O | ALA | A1144 | -3.778 | 111.781 | 43.887 | 1.00121.05 | O |
| ATOM | 8187 | CB | ALA | A1144 | -5.139 | 109.088 | 42.088 | 1.00 31.14 | C |
| ATOM | 8188 | N | ALA | A1145 | -3.753 | 111.565 | 41.654 | 1.00207.38 | N |
| ATOM | 8189 | CA | ALA | A1145 | -2.624 | 112.473 | 41.466 | 1.00207.38 | C |
| ATOM | 8190 | C | ALA | A1145 | -2.713 | 113.623 | 42.459 | 1.00207.38 | C |
| ATOM | 8191 | O | ALA | A1145 | -1.690 | 114.105 | 42.953 | 1.00207.38 | O |
| ATOM | 8192 | CB | ALA | A1145 | -2.621 | 113.009 | 40.038 | 1.00171.07 | C |
| ATOM | 8193 | N | LYS | A1146 | -3.938 | 114.061 | 42.745 | 1.00135.70 | N |
| ATOM | 8194 | CA | LYS | A1146 | -4.138 | 115.131 | 43.701 | 1.00135.70 | C |
| ATOM | 8195 | C | LYS | A1146 | -3.615 | 114.697 | 45.063 | 1.00135.70 | C |
| ATOM | 8196 | O | LYS | A1146 | -2.481 | 115.009 | 45.408 | 1.00135.70 | O |
| ATOM | 8197 | CB | LYS | A1146 | -5.621 | 115.501 | 43.793 | 1.00143.37 | C |
| ATOM | 8198 | CG | LYS | A1146 | -6.092 | 116.455 | 42.706 | 1.00143.37 | C |
| ATOM | 8199 | CD | LYS | A1146 | -5.411 | 117.813 | 42.851 | 1.00143.37 | C |
| ATOM | 8200 | CE | LYS | A1146 | -5.812 | 118.762 | 41.738 | 1.00143.37 | C |
| ATOM | 8201 | NZ | LYS | A1146 | -7.288 | 118.906 | 41.665 | 1.00143.37 | N |
| ATOM | 8202 | N | GLU | A1147 | -4.405 | 113.952 | 45.832 | 1.00109.38 | N |
| ATOM | 8203 | CA | GLU | A1147 | -3.947 | 113.548 | 47.167 | 1.00109.38 | C |
| ATOM | 8204 | C | GLU | A1147 | -2.673 | 112.714 | 47.104 | 1.00109.38 | C |
| ATOM | 8205 | O | GLU | A1147 | -1.969 | 112.524 | 48.096 | 1.00109.38 | O |
| ATOM | 8206 | CB | GLU | A1147 | -5.044 | 112.789 | 47.923 | 1.00174.66 | C |
| ATOM | 8207 | CG | GLU | A1147 | -4.703 | 112.535 | 49.390 | 1.00174.66 | C |
| ATOM | 8208 | CD | GLU | A1147 | -4.550 | 113.818 | 50.199 | 1.00174.66 | C |
| ATOM | 8209 | OE1 | GLU | A1147 | -3.911 | 113.771 | 51.272 | 1.00174.66 | O |
| ATOM | 8210 | OE2 | GLU | A1147 | -5.074 | 114.869 | 49.770 | 1.00174.66 | O |
| ATOM | 8211 | N | ALA | A1148 | -2.372 | 112.228 | 45.915 | 1.00131.47 | N |
| ATOM | 8212 | CA | ALA | A1148 | -1.184 | 111.435 | 45.717 | 1.00131.47 | C |
| ATOM | 8213 | C | ALA | A1148 | -0.046 | 112.400 | 45.907 | 1.00131.47 | C |
| ATOM | 8214 | O | ALA | A1148 | 0.945 | 112.094 | 46.565 | 1.00131.47 | O |
| ATOM | 8215 | CB | ALA | A1148 | -1.164 | 110.854 | 44.313 | 1.00164.66 | C |
| ATOM | 8216 | N | ASN | A1149 | -0.219 | 113.584 | 45.341 | 1.00 93.82 | N |
| ATOM | 8217 | CA | ASN | A1149 | 0.792 | 114.621 | 45.414 | 1.00 93.82 | C |
| ATOM | 8218 | C | ASN | A1149 | 1.865 | 114.288 | 44.398 | 1.00 93.82 | C |
| ATOM | 8219 | O | ASN | A1149 | 3.018 | 114.694 | 44.540 | 1.00 93.82 | O |
| ATOM | 8220 | CB | ASN | A1149 | 1.407 | 114.663 | 46.820 | 1.00111.76 | C |
| ATOM | 8221 | CG | ASN | A1149 | 0.431 | 115.146 | 47.873 | 1.00111.76 | C |
| ATOM | 8222 | OD1 | ASN | A1149 | 0.655 | 114.968 | 49.069 | 1.00111.76 | O |
| ATOM | 8223 | ND2 | ASN | A1149 | -0.653 | 115.773 | 47.433 | 1.00111.76 | N |
| ATOM | 8224 | N | ILE | A1150 | 1.485 | 113.517 | 43.389 | 1.00198.70 | N |
| ATOM | 8225 | CA | ILE | A1150 | 2.416 | 113.168 | 42.333 | 1.00198.70 | C |
| ATOM | 8226 | C | ILE | A1150 | 2.083 | 114.186 | 41.262 | 1.00198.70 | C |
| ATOM | 8227 | O | ILE | A1150 | 2.775 | 114.340 | 40.243 | 1.00198.70 | O |
| ATOM | 8228 | CB | ILE | A1150 | 2.172 | 111.740 | 41.807 | 1.00201.53 | C |
| ATOM | 8229 | CG1 | ILE | A1150 | 3.124 | 111.449 | 40.645 | 1.00201.53 | C |
| ATOM | 8230 | CG2 | ILE | A1150 | 0.724 | 111.576 | 41.392 | 1.00201.53 | C |
| ATOM | 8231 | CD1 | ILE | A1150 | 4.587 | 111.611 | 41.001 | 1.00201.53 | C |
| ATOM | 8232 | N | HIS | A1151 | 1.001 | 114.899 | 41.540 | 1.00159.78 | N |
| ATOM | 8233 | CA | HIS | A1151 | 0.519 | 115.931 | 40.661 | 1.00159.78 | C |
| ATOM | 8234 | C | HIS | A1151 | 1.614 | 116.966 | 40.387 | 1.00159.78 | C |
| ATOM | 8235 | O | HIS | A1151 | 1.634 | 117.587 | 39.332 | 1.00159.78 | O |
| ATOM | 8236 | CB | HIS | A1151 | -0.695 | 116.622 | 41.282 | 1.00125.21 | C |
| ATOM | 8237 | CG | HIS | A1151 | -1.715 | 117.050 | 40.276 | 1.00125.21 | C |
| ATOM | 8238 | ND1 | HIS | A1151 | -1.375 | 117.669 | 39.093 | 1.00125.21 | N |
| ATOM | 8239 | CD2 | HIS | A1151 | -3.063 | 116.928 | 40.265 | 1.00125.21 | C |
| ATOM | 8240 | CE1 | HIS | A1151 | -2.470 | 117.909 | 38.395 | 1.00125.21 | C |
| ATOM | 8241 | NE2 | HIS | A1151 | -3.508 | 117.469 | 39.083 | 1.00125.21 | N |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8242 | N | GLN | A1152 | 2.525 | 117.147 | 41.340 | 1.00169.60 | N |
| ATOM | 8243 | CA | GLN | A1152 | 3.637 | 118.096 | 41.193 | 1.00169.60 | C |
| ATOM | 8244 | C | GLN | A1152 | 4.411 | 117.786 | 39.897 | 1.00169.60 | C |
| ATOM | 8245 | O | GLN | A1152 | 5.012 | 118.673 | 39.277 | 1.00169.60 | O |
| ATOM | 8246 | CB | GLN | A1152 | 4.568 | 117.975 | 42.406 | 1.00160.71 | C |
| ATOM | 8247 | CG | GLN | A1152 | 3.848 | 118.081 | 43.751 | 1.00160.71 | C |
| ATOM | 8248 | CD | GLN | A1152 | 4.694 | 117.601 | 44.921 | 1.00160.71 | C |
| ATOM | 8249 | OE1 | GLN | A1152 | 5.212 | 116.485 | 44.908 | 1.00160.71 | O |
| ATOM | 8250 | NE2 | GLN | A1152 | 4.825 | 118.438 | 45.944 | 1.00160.71 | N |
| ATOM | 8251 | N | PHE | A1153 | 4.391 | 116.510 | 39.516 | 1.00101.90 | N |
| ATOM | 8252 | CA | PHE | A1153 | 5.028 | 116.046 | 38.307 | 1.00101.90 | C |
| ATOM | 8253 | C | PHE | A1153 | 3.990 | 116.079 | 37.227 | 1.00101.90 | C |
| ATOM | 8254 | O | PHE | A1153 | 4.321 | 116.278 | 36.068 | 1.00101.90 | O |
| ATOM | 8255 | CB | PHE | A1153 | 5.533 | 114.620 | 38.468 | 1.00124.77 | C |
| ATOM | 8256 | CG | PHE | A1153 | 6.827 | 114.530 | 39.194 | 1.00124.77 | C |
| ATOM | 8257 | CD1 | PHE | A1153 | 6.911 | 114.913 | 40.526 | 1.00124.77 | C |
| ATOM | 8258 | CD2 | PHE | A1153 | 7.976 | 114.113 | 38.534 | 1.00124.77 | C |
| ATOM | 8259 | CE1 | PHE | A1153 | 8.124 | 114.891 | 41.197 | 1.00124.77 | C |
| ATOM | 8260 | CE2 | PHE | A1153 | 9.195 | 114.084 | 39.189 | 1.00124.77 | C |
| ATOM | 8261 | CZ | PHE | A1153 | 9.272 | 114.476 | 40.526 | 1.00124.77 | C |
| ATOM | 8262 | N | ILE | A1154 | 2.729 | 115.887 | 37.608 | 1.00207.32 | N |
| ATOM | 8263 | CA | ILE | A1154 | 1.614 | 115.899 | 36.654 | 1.00207.32 | C |
| ATOM | 8264 | C | ILE | A1154 | 1.302 | 117.279 | 36.061 | 1.00207.32 | C |
| ATOM | 8265 | O | ILE | A1154 | 0.956 | 117.391 | 34.886 | 1.00207.32 | O |
| ATOM | 8266 | CB | ILE | A1154 | 0.319 | 115.335 | 37.302 | 1.00154.42 | C |
| ATOM | 8267 | CG1 | ILE | A1154 | 0.378 | 113.806 | 37.329 | 1.00154.42 | C |
| ATOM | 8268 | CG2 | ILE | A1154 | -0.908 | 115.798 | 36.530 | 1.00154.42 | C |
| ATOM | 8269 | CD1 | ILE | A1154 | 1.607 | 113.238 | 38.013 | 1.00154.42 | C |
| ATOM | 8270 | N | ASP | A1155 | 1.421 | 118.320 | 36.878 | 1.00207.38 | N |
| ATOM | 8271 | CA | ASP | A1155 | 1.155 | 119.691 | 36.450 | 1.00207.38 | C |
| ATOM | 8272 | C | ASP | A1155 | 1.893 | 120.068 | 35.160 | 1.00207.38 | C |
| ATOM | 8273 | O | ASP | A1155 | 1.276 | 120.490 | 34.174 | 1.00207.38 | O |
| ATOM | 8274 | CB | ASP | A1155 | 1.554 | 120.673 | 37.556 | 1.00207.38 | C |
| ATOM | 8275 | CG | ASP | A1155 | 0.919 | 120.339 | 38.890 | 1.00207.38 | C |
| ATOM | 8276 | OD1 | ASP | A1155 | -0.324 | 120.241 | 38.953 | 1.00207.38 | O |
| ATOM | 8277 | OD2 | ASP | A1155 | 1.663 | 120.177 | 39.879 | 1.00207.38 | O |
| ATOM | 8278 | N | SER | A1156 | 3.216 | 119.909 | 35.174 | 1.00111.20 | N |
| ATOM | 8279 | CA | SER | A1156 | 4.053 | 120.256 | 34.028 | 1.00111.20 | C |
| ATOM | 8280 | C | SER | A1156 | 4.718 | 119.067 | 33.352 | 1.00111.20 | C |
| ATOM | 8281 | O | SER | A1156 | 4.226 | 118.587 | 32.328 | 1.00111.20 | O |
| ATOM | 8282 | CB | SER | A1156 | 5.113 | 121.265 | 34.471 | 1.00128.12 | C |
| ATOM | 8283 | OG | SER | A1156 | 5.680 | 120.885 | 35.715 | 1.00128.12 | O |
| ATOM | 8284 | N | LEU | A1157 | 5.830 | 118.609 | 33.946 | 1.00206.71 | N |
| ATOM | 8285 | CA | LEU | A1157 | 6.646 | 117.492 | 33.440 | 1.00206.71 | C |
| ATOM | 8286 | C | LEU | A1157 | 6.118 | 116.976 | 32.106 | 1.00206.71 | C |
| ATOM | 8287 | O | LEU | A1157 | 5.053 | 116.356 | 32.036 | 1.00206.71 | O |
| ATOM | 8288 | CB | LEU | A1157 | 6.711 | 116.349 | 34.468 | 1.00137.40 | C |
| ATOM | 8289 | CG | LEU | A1157 | 7.648 | 116.426 | 35.690 | 1.00137.40 | C |
| ATOM | 8290 | CD1 | LEU | A1157 | 9.085 | 116.645 | 35.243 | 1.00137.40 | C |
| ATOM | 8291 | CD2 | LEU | A1157 | 7.215 | 117.538 | 36.617 | 1.00137.40 | C |
| ATOM | 8292 | N | PRO | A1158 | 6.878 | 117.224 | 31.027 | 1.00135.57 | N |
| ATOM | 8293 | CA | PRO | A1158 | 6.546 | 116.829 | 29.659 | 1.00135.57 | C |
| ATOM | 8294 | C | PRO | A1158 | 5.456 | 115.774 | 29.532 | 1.00135.57 | C |
| ATOM | 8295 | O | PRO | A1158 | 5.396 | 114.817 | 30.294 | 1.00135.57 | O |
| ATOM | 8296 | CB | PRO | A1158 | 7.889 | 116.371 | 29.117 | 1.00159.64 | C |
| ATOM | 8297 | CG | PRO | A1158 | 8.797 | 117.416 | 29.683 | 1.00159.64 | C |
| ATOM | 8298 | CD | PRO | A1158 | 8.318 | 117.540 | 31.129 | 1.00159.64 | C |
| ATOM | 8299 | N | ASP | A1159 | 4.580 | 115.980 | 28.562 | 1.00188.63 | N |
| ATOM | 8300 | CA | ASP | A1159 | 3.479 | 115.067 | 28.310 | 1.00188.63 | C |
| ATOM | 8301 | C | ASP | A1159 | 2.611 | 114.760 | 29.522 | 1.00188.63 | C |
| ATOM | 8302 | O | ASP | A1159 | 1.684 | 113.957 | 29.431 | 1.00188.63 | O |
| ATOM | 8303 | CB | ASP | A1159 | 3.998 | 113.765 | 27.691 | 1.00156.91 | C |
| ATOM | 8304 | CG | ASP | A1159 | 3.749 | 113.700 | 26.192 | 1.00156.91 | C |
| ATOM | 8305 | OD1 | ASP | A1159 | 4.303 | 112.798 | 25.528 | 1.00156.91 | O |
| ATOM | 8306 | OD2 | ASP | A1159 | 2.989 | 114.551 | 25.677 | 1.00156.91 | O |
| ATOM | 8307 | N | LYS | A1160 | 2.901 | 115.391 | 30.653 | 1.00207.01 | N |
| ATOM | 8308 | CA | LYS | A1160 | 2.083 | 115.192 | 31.844 | 1.00207.01 | C |
| ATOM | 8309 | C | LYS | A1160 | 1.676 | 113.718 | 32.016 | 1.00207.01 | C |
| ATOM | 8310 | O | LYS | A1160 | 2.469 | 112.810 | 31.753 | 1.00207.01 | O |
| ATOM | 8311 | CB | LYS | A1160 | 0.834 | 116.077 | 31.740 | 1.00177.10 | C |
| ATOM | 8312 | CG | LYS | A1160 | 1.150 | 117.534 | 31.390 | 1.00177.10 | C |
| ATOM | 8313 | CD | LYS | A1160 | 0.028 | 118.190 | 30.584 | 1.00177.10 | C |
| ATOM | 8314 | CE | LYS | A1160 | -1.184 | 118.546 | 31.434 | 1.00177.10 | C |
| ATOM | 8315 | NZ | LYS | A1160 | -0.911 | 119.686 | 32.356 | 1.00177.10 | N |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8316 | N | TYR | A1161 | 0.435 | 113.499 | 32.450 | 1.00198.41 | N |
| ATOM | 8317 | CA | TYR | A1161 | -0.111 | 112.160 | 32.668 | 1.00198.41 | C |
| ATOM | 8318 | C | TYR | A1161 | 0.259 | 111.160 | 31.583 | 1.00198.41 | C |
| ATOM | 8319 | O | TYR | A1161 | 0.471 | 109.975 | 31.863 | 1.00198.41 | O |
| ATOM | 8320 | CB | TYR | A1161 | -1.639 | 112.220 | 32.737 | 1.00188.51 | C |
| ATOM | 8321 | CG | TYR | A1161 | -2.213 | 112.742 | 34.032 | 1.00188.51 | C |
| ATOM | 8322 | CD1 | TYR | A1161 | -3.272 | 113.647 | 34.025 | 1.00188.51 | C |
| ATOM | 8323 | CD2 | TYR | A1161 | -1.731 | 112.301 | 35.264 | 1.00188.51 | C |
| ATOM | 8324 | CE1 | TYR | A1161 | -3.840 | 114.102 | 35.212 | 1.00188.51 | C |
| ATOM | 8325 | CE2 | TYR | A1161 | -2.293 | 112.748 | 36.460 | 1.00188.51 | C |
| ATOM | 8326 | CZ | TYR | A1161 | -3.348 | 113.647 | 36.425 | 1.00188.51 | C |
| ATOM | 8327 | OH | TYR | A1161 | -3.924 | 114.080 | 37.596 | 1.00188.51 | O |
| ATOM | 8328 | N | ASN | A1162 | 0.303 | 111.646 | 30.346 | 1.00178.04 | N |
| ATOM | 8329 | CA | ASN | A1162 | 0.614 | 110.820 | 29.184 | 1.00178.04 | C |
| ATOM | 8330 | C | ASN | A1162 | 2.000 | 110.182 | 29.234 | 1.00178.04 | C |
| ATOM | 8331 | O | ASN | A1162 | 2.240 | 109.153 | 28.605 | 1.00178.04 | O |
| ATOM | 8332 | CB | ASN | A1162 | 0.495 | 111.653 | 27.904 | 1.00197.82 | C |
| ATOM | 8333 | CG | ASN | A1162 | -0.874 | 112.285 | 27.742 | 1.00197.82 | C |
| ATOM | 8334 | OD1 | ASN | A1162 | -1.886 | 111.589 | 27.659 | 1.00197.82 | O |
| ATOM | 8335 | ND2 | ASN | A1162 | -0.912 | 113.612 | 27.695 | 1.00197.82 | N |
| ATOM | 8336 | N | THR | A1163 | 2.914 | 110.794 | 29.974 | 1.00201.98 | N |
| ATOM | 8337 | CA | THR | A1163 | 4.264 | 110.266 | 30.076 | 1.00201.98 | C |
| ATOM | 8338 | C | THR | A1163 | 4.274 | 108.827 | 30.565 | 1.00201.98 | C |
| ATOM | 8339 | O | THR | A1163 | 3.908 | 108.538 | 31.707 | 1.00201.98 | O |
| ATOM | 8340 | CB | THR | A1163 | 5.104 | 111.117 | 31.050 | 1.00 70.60 | C |
| ATOM | 8341 | OG1 | THR | A1163 | 4.862 | 112.509 | 30.811 | 1.00 70.60 | O |
| ATOM | 8342 | CG2 | THR | A1163 | 6.568 | 110.838 | 30.855 | 1.00 70.60 | C |
| ATOM | 8343 | N | ARG | A1164 | 4.684 | 107.923 | 29.689 | 1.00127.35 | N |
| ATOM | 8344 | CA | ARG | A1164 | 4.763 | 106.511 | 30.034 | 1.00127.35 | C |
| ATOM | 8345 | C | ARG | A1164 | 5.766 | 106.429 | 31.160 | 1.00127.35 | C |
| ATOM | 8346 | O | ARG | A1164 | 6.579 | 107.338 | 31.324 | 1.00127.35 | O |
| ATOM | 8347 | CB | ARG | A1164 | 5.240 | 105.739 | 28.808 | 1.00182.01 | C |
| ATOM | 8348 | CG | ARG | A1164 | 5.533 | 104.273 | 29.010 | 1.00182.01 | C |
| ATOM | 8349 | CD | ARG | A1164 | 5.606 | 103.613 | 27.645 | 1.00182.01 | C |
| ATOM | 8350 | NE | ARG | A1164 | 6.269 | 102.314 | 27.651 | 1.00182.01 | N |
| ATOM | 8351 | CZ | ARG | A1164 | 6.331 | 101.519 | 26.589 | 1.00182.01 | C |
| ATOM | 8352 | NH1 | ARG | A1164 | 5.768 | 101.894 | 25.448 | 1.00182.01 | N |
| ATOM | 8353 | NH2 | ARG | A1164 | 6.964 | 100.356 | 26.658 | 1.00182.01 | N |
| ATOM | 8354 | N | VAL | A1165 | 5.714 | 105.372 | 31.957 | 1.00136.86 | N |
| ATOM | 8355 | CA | VAL | A1165 | 6.686 | 105.273 | 33.032 | 1.00136.86 | C |
| ATOM | 8356 | C | VAL | A1165 | 8.062 | 105.381 | 32.392 | 1.00136.86 | C |
| ATOM | 8357 | O | VAL | A1165 | 9.069 | 105.521 | 33.081 | 1.00136.86 | O |
| ATOM | 8358 | CB | VAL | A1165 | 6.590 | 103.911 | 33.759 | 1.00115.91 | C |
| ATOM | 8359 | CG1 | VAL | A1165 | 5.131 | 103.506 | 33.914 | 1.00115.91 | C |
| ATOM | 8360 | CG2 | VAL | A1165 | 7.360 | 102.848 | 32.994 | 1.00115.91 | C |
| ATOM | 8361 | N | GLY | A1166 | 8.085 | 105.283 | 31.065 | 1.00156.60 | N |
| ATOM | 8362 | CA | GLY | A1166 | 9.315 | 105.405 | 30.299 | 1.00156.60 | C |
| ATOM | 8363 | C | GLY | A1166 | 10.448 | 104.463 | 30.640 | 1.00156.60 | C |
| ATOM | 8364 | O | GLY | A1166 | 11.214 | 104.722 | 31.560 | 1.00156.60 | O |
| ATOM | 8365 | N | ASP | A1167 | 10.557 | 103.378 | 29.882 | 1.00177.18 | N |
| ATOM | 8366 | CA | ASP | A1167 | 11.605 | 102.385 | 30.082 | 1.00177.18 | C |
| ATOM | 8367 | C | ASP | A1167 | 11.354 | 101.518 | 31.312 | 1.00177.18 | C |
| ATOM | 8368 | O | ASP | A1167 | 12.295 | 101.079 | 31.976 | 1.00177.18 | O |
| ATOM | 8369 | CB | ASP | A1167 | 12.967 | 103.077 | 30.198 | 1.00207.38 | C |
| ATOM | 8370 | CG | ASP | A1167 | 14.119 | 102.092 | 30.269 | 1.00207.38 | C |
| ATOM | 8371 | OD1 | ASP | A1167 | 14.236 | 101.246 | 29.358 | 1.00207.38 | O |
| ATOM | 8372 | OD2 | ASP | A1167 | 14.910 | 102.166 | 31.233 | 1.00207.38 | O |
| ATOM | 8373 | N | LYS | A1168 | 10.080 | 101.266 | 31.606 | 1.00162.39 | N |
| ATOM | 8374 | CA | LYS | A1168 | 9.684 | 100.427 | 32.747 | 1.00162.39 | C |
| ATOM | 8375 | C | LYS | A1168 | 9.818 | 101.101 | 34.127 | 1.00162.39 | C |
| ATOM | 8376 | O | LYS | A1168 | 9.575 | 100.477 | 35.173 | 1.00162.39 | O |
| ATOM | 8377 | CB | LYS | A1168 | 10.473 | 99.108 | 32.716 | 1.00 92.74 | C |
| ATOM | 8378 | CG | LYS | A1168 | 10.279 | 98.319 | 31.420 | 1.00 92.74 | C |
| ATOM | 8379 | CD | LYS | A1168 | 11.214 | 98.797 | 30.317 | 1.00 92.74 | C |
| ATOM | 8380 | CE | LYS | A1168 | 10.607 | 98.589 | 28.938 | 1.00 92.74 | C |
| ATOM | 8381 | NZ | LYS | A1168 | 9.489 | 99.545 | 28.677 | 1.00 92.74 | N |
| ATOM | 8382 | N | GLY | A1169 | 10.198 | 102.377 | 34.121 | 1.00207.38 | N |
| ATOM | 8383 | CA | GLY | A1169 | 10.346 | 103.109 | 35.370 | 1.00207.38 | C |
| ATOM | 8384 | C | GLY | A1169 | 11.475 | 104.138 | 35.470 | 1.00207.38 | C |
| ATOM | 8385 | O | GLY | A1169 | 11.214 | 105.347 | 35.490 | 1.00207.38 | O |
| ATOM | 8386 | N | THR | A1170 | 12.724 | 103.663 | 35.542 | 1.00205.81 | N |
| ATOM | 8387 | CA | THR | A1170 | 13.909 | 104.530 | 35.672 | 1.00205.81 | C |
| ATOM | 8388 | C | THR | A1170 | 13.835 | 105.880 | 34.989 | 1.00205.81 | C |
| ATOM | 8389 | O | THR | A1170 | 14.194 | 106.035 | 33.821 | 1.00205.81 | O |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8390 | CB | THR | A1170 | 15.193 | 103.825 | 35.173 | 1.00150.88 | C |
| ATOM | 8391 | OG1 | THR | A1170 | 15.542 | 102.769 | 36.074 | 1.00150.88 | O |
| ATOM | 8392 | CG2 | THR | A1170 | 16.349 | 104.813 | 35.101 | 1.00150.88 | C |
| ATOM | 8393 | N | GLN | A1171 | 13.382 | 106.860 | 35.750 | 1.00207.38 | N |
| ATOM | 8394 | CA | GLN | A1171 | 13.264 | 108.214 | 35.266 | 1.00207.38 | C |
| ATOM | 8395 | C | GLN | A1171 | 12.543 | 109.031 | 36.325 | 1.00207.38 | C |
| ATOM | 8396 | O | GLN | A1171 | 12.126 | 110.161 | 36.086 | 1.00207.38 | O |
| ATOM | 8397 | CB | GLN | A1171 | 12.532 | 108.281 | 33.914 | 1.00106.24 | C |
| ATOM | 8398 | CG | GLN | A1171 | 11.139 | 107.692 | 33.869 | 1.00106.24 | C |
| ATOM | 8399 | CD | GLN | A1171 | 10.533 | 107.780 | 32.476 | 1.00106.24 | C |
| ATOM | 8400 | OE1 | GLN | A1171 | 11.080 | 107.236 | 31.516 | 1.00106.24 | O |
| ATOM | 8401 | NE2 | GLN | A1171 | 9.402 | 108.469 | 32.360 | 1.00106.24 | N |
| ATOM | 8402 | N | LEU | A1172 | 12.418 | 108.449 | 37.512 | 1.00207.38 | N |
| ATOM | 8403 | CA | LEU | A1172 | 11.763 | 109.122 | 38.623 | 1.00207.38 | C |
| ATOM | 8404 | C | LEU | A1172 | 12.091 | 108.502 | 39.976 | 1.00207.38 | C |
| ATOM | 8405 | O | LEU | A1172 | 12.062 | 107.283 | 40.151 | 1.00207.38 | O |
| ATOM | 8406 | CB | LEU | A1172 | 10.243 | 109.138 | 38.428 | 1.00137.61 | C |
| ATOM | 8407 | CG | LEU | A1172 | 9.698 | 110.265 | 37.545 | 1.00137.61 | C |
| ATOM | 8408 | CD1 | LEU | A1172 | 8.177 | 110.242 | 37.553 | 1.00137.61 | C |
| ATOM | 8409 | CD2 | LEU | A1172 | 10.200 | 111.608 | 38.064 | 1.00137.61 | C |
| ATOM | 8410 | N | SER | A1173 | 12.405 | 109.360 | 40.935 | 1.00170.03 | N |
| ATOM | 8411 | CA | SER | A1173 | 12.735 | 108.919 | 42.277 | 1.00170.03 | C |
| ATOM | 8412 | C | SER | A1173 | 11.596 | 108.106 | 42.907 | 1.00170.03 | C |
| ATOM | 8413 | O | SER | A1173 | 10.421 | 108.301 | 42.583 | 1.00170.03 | O |
| ATOM | 8414 | CB | SER | A1173 | 13.038 | 110.140 | 43.152 | 1.00158.84 | C |
| ATOM | 8415 | OG | SER | A1173 | 13.177 | 109.789 | 44.518 | 1.00158.84 | O |
| ATOM | 8416 | N | GLY | A1174 | 11.955 | 107.182 | 43.794 | 1.00147.51 | N |
| ATOM | 8417 | CA | GLY | A1174 | 10.956 | 106.369 | 44.462 | 1.00147.51 | C |
| ATOM | 8418 | C | GLY | A1174 | 9.924 | 107.229 | 45.172 | 1.00147.51 | C |
| ATOM | 8419 | O | GLY | A1174 | 8.773 | 106.812 | 45.331 | 1.00147.51 | O |
| ATOM | 8420 | N | GLY | A1175 | 10.340 | 108.422 | 45.606 | 1.00124.51 | N |
| ATOM | 8421 | CA | GLY | A1175 | 9.435 | 109.338 | 46.279 | 1.00124.51 | C |
| ATOM | 8422 | C | GLY | A1175 | 8.226 | 109.572 | 45.398 | 1.00124.51 | C |
| ATOM | 8423 | O | GLY | A1175 | 7.087 | 109.320 | 45.788 | 1.00124.51 | O |
| ATOM | 8424 | N | GLN | A1176 | 8.468 | 110.053 | 44.189 | 1.00109.16 | N |
| ATOM | 8425 | CA | GLN | A1176 | 7.365 | 110.279 | 43.264 | 1.00109.16 | C |
| ATOM | 8426 | C | GLN | A1176 | 6.635 | 108.946 | 43.059 | 1.00109.16 | C |
| ATOM | 8427 | O | GLN | A1176 | 5.401 | 108.882 | 43.055 | 1.00109.16 | O |
| ATOM | 8428 | CB | GLN | A1176 | 7.872 | 110.770 | 41.900 | 1.00116.66 | C |
| ATOM | 8429 | CG | GLN | A1176 | 8.841 | 111.936 | 41.931 | 1.00116.66 | C |
| ATOM | 8430 | CD | GLN | A1176 | 10.274 | 111.500 | 42.164 | 1.00116.66 | C |
| ATOM | 8431 | OE1 | GLN | A1176 | 10.649 | 111.121 | 43.274 | 1.00116.66 | O |
| ATOM | 8432 | NE2 | GLN | A1176 | 11.084 | 111.541 | 41.109 | 1.00116.66 | N |
| ATOM | 8433 | N | LYS | A1177 | 7.416 | 107.886 | 42.876 | 1.00104.57 | N |
| ATOM | 8434 | CA | LYS | A1177 | 6.851 | 106.571 | 42.663 | 1.00104.57 | C |
| ATOM | 8435 | C | LYS | A1177 | 5.808 | 106.295 | 43.720 | 1.00104.57 | C |
| ATOM | 8436 | O | LYS | A1177 | 4.654 | 106.016 | 43.403 | 1.00104.57 | O |
| ATOM | 8437 | CB | LYS | A1177 | 7.935 | 105.498 | 42.719 | 1.00146.77 | C |
| ATOM | 8438 | CG | LYS | A1177 | 8.823 | 105.480 | 41.498 | 1.00146.77 | C |
| ATOM | 8439 | CD | LYS | A1177 | 9.448 | 104.116 | 41.305 | 1.00146.77 | C |
| ATOM | 8440 | CE | LYS | A1177 | 9.971 | 103.951 | 39.892 | 1.00146.77 | C |
| ATOM | 8441 | NZ | LYS | A1177 | 10.426 | 102.557 | 39.641 | 1.00146.77 | N |
| ATOM | 8442 | N | GLN | A1178 | 6.214 | 106.371 | 44.981 | 1.00 76.39 | N |
| ATOM | 8443 | CA | GLN | A1178 | 5.273 | 106.134 | 46.070 | 1.00 76.39 | C |
| ATOM | 8444 | C | GLN | A1178 | 4.049 | 107.046 | 45.949 | 1.00 76.39 | C |
| ATOM | 8445 | O | GLN | A1178 | 2.935 | 106.670 | 46.304 | 1.00 76.39 | O |
| ATOM | 8446 | CB | GLN | A1178 | 5.954 | 106.351 | 47.421 | 1.00125.49 | C |
| ATOM | 8447 | CG | GLN | A1178 | 6.893 | 105.225 | 47.807 | 1.00125.49 | C |
| ATOM | 8448 | CD | GLN | A1178 | 6.223 | 103.864 | 47.723 | 1.00125.49 | C |
| ATOM | 8449 | OE1 | GLN | A1178 | 5.958 | 103.353 | 46.634 | 1.00125.49 | O |
| ATOM | 8450 | NE2 | GLN | A1178 | 5.933 | 103.276 | 48.875 | 1.00125.49 | N |
| ATOM | 8451 | N | ARG | A1179 | 4.266 | 108.251 | 45.450 | 1.00 96.27 | N |
| ATOM | 8452 | CA | ARG | A1179 | 3.161 | 109.155 | 45.266 | 1.00 96.27 | C |
| ATOM | 8453 | C | ARG | A1179 | 2.159 | 108.455 | 44.337 | 1.00 96.27 | C |
| ATOM | 8454 | O | ARG | A1179 | 0.957 | 108.435 | 44.592 | 1.00 96.27 | O |
| ATOM | 8455 | CB | ARG | A1179 | 3.624 | 110.450 | 44.607 | 1.00179.82 | C |
| ATOM | 8456 | CG | ARG | A1179 | 4.444 | 111.365 | 45.488 | 1.00179.82 | C |
| ATOM | 8457 | CD | ARG | A1179 | 4.751 | 112.642 | 44.725 | 1.00179.82 | C |
| ATOM | 8458 | NE | ARG | A1179 | 5.174 | 113.746 | 45.581 | 1.00179.82 | N |
| ATOM | 8459 | CZ | ARG | A1179 | 6.336 | 113.809 | 46.221 | 1.00179.82 | C |
| ATOM | 8460 | NH1 | ARG | A1179 | 7.218 | 112.824 | 46.112 | 1.00179.82 | N |
| ATOM | 8461 | NH2 | ARG | A1179 | 6.619 | 114.866 | 46.973 | 1.00179.82 | N |
| ATOM | 8462 | N | ILE | A1180 | 2.658 | 107.867 | 43.257 | 1.00 91.90 | N |
| ATOM | 8463 | CA | ILE | A1180 | 1.789 | 107.174 | 42.296 | 1.00 91.90 | C |

| | | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------|--------|---|
| ATOM | 8464 | C | ILE | A1180 | 1.089 | 105.943 | 42.938 | 1.00 | 91.90 | C |
| ATOM | 8465 | O | ILE | A1180 | -0.137 | 105.797 | 42.869 | 1.00 | 91.90 | O |
| ATOM | 8466 | CB | ILE | A1180 | 2.601 | 106.683 | 41.068 | 1.00 | 106.27 | C |
| ATOM | 8467 | CG1 | ILE | A1180 | 3.877 | 107.516 | 40.912 | 1.00 | 106.27 | C |
| ATOM | 8468 | CG2 | ILE | A1180 | 1.770 | 106.830 | 39.801 | 1.00 | 106.27 | C |
| ATOM | 8469 | CD1 | ILE | A1180 | 4.815 | 107.034 | 39.811 | 1.00 | 106.27 | C |
| ATOM | 8470 | N | ALA | A1181 | 1.896 | 105.068 | 43.549 | 1.00 | 104.37 | N |
| ATOM | 8471 | CA | ALA | A1181 | 1.417 | 103.853 | 44.197 | 1.00 | 104.37 | C |
| ATOM | 8472 | C | ALA | A1181 | 0.218 | 104.224 | 45.007 | 1.00 | 104.37 | C |
| ATOM | 8473 | O | ALA | A1181 | -0.831 | 103.620 | 44.869 | 1.00 | 104.37 | O |
| ATOM | 8474 | CB | ALA | A1181 | 2.514 | 103.269 | 45.092 | 1.00 | 75.61 | C |
| ATOM | 8475 | N | ILE | A1182 | 0.404 | 105.232 | 45.855 | 1.00 | 123.35 | N |
| ATOM | 8476 | CA | ILE | A1182 | -0.641 | 105.766 | 46.731 | 1.00 | 123.35 | C |
| ATOM | 8477 | C | ILE | A1182 | -1.849 | 106.178 | 45.919 | 1.00 | 123.35 | C |
| ATOM | 8478 | O | ILE | A1182 | -3.006 | 105.968 | 46.323 | 1.00 | 123.35 | O |
| ATOM | 8479 | CB | ILE | A1182 | -0.128 | 107.004 | 47.506 | 1.00 | 96.37 | C |
| ATOM | 8480 | CG1 | ILE | A1182 | 0.528 | 106.557 | 48.812 | 1.00 | 96.37 | C |
| ATOM | 8481 | CG2 | ILE | A1182 | -1.269 | 107.977 | 47.781 | 1.00 | 96.37 | C |
| ATOM | 8482 | CD1 | ILE | A1182 | 1.580 | 105.483 | 48.637 | 1.00 | 96.37 | C |
| ATOM | 8483 | N | ALA | A1183 | -1.563 | 106.804 | 44.785 | 1.00 | 55.68 | N |
| ATOM | 8484 | CA | ALA | A1183 | -2.624 | 107.221 | 43.900 | 1.00 | 55.68 | C |
| ATOM | 8485 | C | ALA | A1183 | -3.359 | 105.902 | 43.718 | 1.00 | 55.68 | C |
| ATOM | 8486 | O | ALA | A1183 | -4.370 | 105.618 | 44.395 | 1.00 | 55.68 | O |
| ATOM | 8487 | CB | ALA | A1183 | -2.062 | 107.701 | 42.578 | 1.00 | 169.80 | C |
| ATOM | 8488 | N | ARG | A1184 | -2.800 | 105.096 | 42.819 | 1.00 | 119.62 | N |
| ATOM | 8489 | CA | ARG | A1184 | -3.305 | 103.773 | 42.517 | 1.00 | 119.62 | C |
| ATOM | 8490 | C | ARG | A1184 | -4.289 | 103.414 | 43.621 | 1.00 | 119.62 | C |
| ATOM | 8491 | O | ARG | A1184 | -5.481 | 103.252 | 43.384 | 1.00 | 119.62 | O |
| ATOM | 8492 | CB | ARG | A1184 | -2.113 | 102.803 | 42.496 | 1.00 | 143.94 | C |
| ATOM | 8493 | CG | ARG | A1184 | -2.424 | 101.341 | 42.748 | 1.00 | 143.94 | C |
| ATOM | 8494 | CD | ARG | A1184 | -1.174 | 100.596 | 43.224 | 1.00 | 143.94 | C |
| ATOM | 8495 | NE | ARG | A1184 | -0.187 | 100.388 | 42.168 | 1.00 | 143.94 | N |
| ATOM | 8496 | CZ | ARG | A1184 | 0.991 | 99.800 | 42.357 | 1.00 | 143.94 | C |
| ATOM | 8497 | NH1 | ARG | A1184 | 1.329 | 99.367 | 43.563 | 1.00 | 143.94 | N |
| ATOM | 8498 | NH2 | ARG | A1184 | 1.825 | 99.634 | 41.340 | 1.00 | 143.94 | N |
| ATOM | 8499 | N | ALA | A1185 | -3.781 | 103.367 | 44.845 | 1.00 | 69.41 | N |
| ATOM | 8500 | CA | ALA | A1185 | -4.579 | 103.021 | 46.001 | 1.00 | 69.41 | C |
| ATOM | 8501 | C | ALA | A1185 | -5.736 | 103.941 | 46.217 | 1.00 | 69.41 | C |
| ATOM | 8502 | O | ALA | A1185 | -6.882 | 103.572 | 45.959 | 1.00 | 69.41 | O |
| ATOM | 8503 | CB | ALA | A1185 | -3.688 | 102.991 | 47.254 | 1.00 | 74.34 | C |
| ATOM | 8504 | N | LEU | A1186 | -5.474 | 105.142 | 46.692 | 1.00 | 122.22 | N |
| ATOM | 8505 | CA | LEU | A1186 | -6.607 | 105.991 | 46.924 | 1.00 | 122.22 | C |
| ATOM | 8506 | C | LEU | A1186 | -7.466 | 106.171 | 45.649 | 1.00 | 122.22 | C |
| ATOM | 8507 | O | LEU | A1186 | -8.522 | 106.804 | 45.668 | 1.00 | 122.22 | O |
| ATOM | 8508 | CB | LEU | A1186 | -6.204 | 107.338 | 47.541 | 1.00 | 116.15 | C |
| ATOM | 8509 | CG | LEU | A1186 | -5.217 | 108.292 | 46.886 | 1.00 | 116.15 | C |
| ATOM | 8510 | CD1 | LEU | A1186 | -5.856 | 108.908 | 45.660 | 1.00 | 116.15 | C |
| ATOM | 8511 | CD2 | LEU | A1186 | -4.834 | 109.376 | 47.887 | 1.00 | 116.15 | C |
| ATOM | 8512 | N | VAL | A1187 | -7.040 | 105.577 | 44.541 | 1.00 | 70.22 | N |
| ATOM | 8513 | CA | VAL | A1187 | -7.845 | 105.659 | 43.325 | 1.00 | 70.22 | C |
| ATOM | 8514 | C | VAL | A1187 | -8.860 | 104.549 | 43.450 | 1.00 | 70.22 | C |
| ATOM | 8515 | O | VAL | A1187 | -9.969 | 104.660 | 42.947 | 1.00 | 70.22 | O |
| ATOM | 8516 | CB | VAL | A1187 | -7.019 | 105.372 | 42.057 | 1.00 | 207.38 | C |
| ATOM | 8517 | CG1 | VAL | A1187 | -7.913 | 105.483 | 40.827 | 1.00 | 207.38 | C |
| ATOM | 8518 | CG2 | VAL | A1187 | -5.841 | 106.321 | 41.963 | 1.00 | 207.38 | C |
| ATOM | 8519 | N | ARG | A1188 | -8.427 | 103.467 | 44.104 | 1.00 | 159.63 | N |
| ATOM | 8520 | CA | ARG | A1188 | -9.238 | 102.272 | 44.350 | 1.00 | 159.63 | C |
| ATOM | 8521 | C | ARG | A1188 | -10.282 | 102.639 | 45.407 | 1.00 | 159.63 | C |
| ATOM | 8522 | O | ARG | A1188 | -11.321 | 101.981 | 45.517 | 1.00 | 159.63 | O |
| ATOM | 8523 | CB | ARG | A1188 | -8.326 | 101.104 | 44.800 | 1.00 | 158.12 | C |
| ATOM | 8524 | CG | ARG | A1188 | -8.911 | 99.684 | 44.637 | 1.00 | 158.12 | C |
| ATOM | 8525 | CD | ARG | A1188 | -7.835 | 98.586 | 44.484 | 1.00 | 158.12 | C |
| ATOM | 8526 | NE | ARG | A1188 | -7.173 | 98.621 | 43.177 | 1.00 | 158.12 | N |
| ATOM | 8527 | CZ | ARG | A1188 | -6.251 | 97.752 | 42.761 | 1.00 | 158.12 | C |
| ATOM | 8528 | NH1 | ARG | A1188 | -5.855 | 96.754 | 43.545 | 1.00 | 158.12 | N |
| ATOM | 8529 | NH2 | ARG | A1188 | -5.725 | 97.883 | 41.548 | 1.00 | 158.12 | N |
| ATOM | 8530 | N | GLN | A1189 | -10.015 | 103.708 | 46.165 | 1.00 | 81.56 | N |
| ATOM | 8531 | CA | GLN | A1189 | -10.957 | 104.151 | 47.213 | 1.00 | 81.56 | C |
| ATOM | 8532 | C | GLN | A1189 | -11.234 | 102.996 | 48.175 | 1.00 | 81.56 | C |
| ATOM | 8533 | O | GLN | A1189 | -12.376 | 102.548 | 48.339 | 1.00 | 81.56 | O |
| ATOM | 8534 | CB | GLN | A1189 | -12.281 | 104.590 | 46.582 | 1.00 | 161.37 | C |
| ATOM | 8535 | CG | GLN | A1189 | -12.216 | 105.880 | 45.783 | 1.00 | 161.37 | C |
| ATOM | 8536 | CD | GLN | A1189 | -11.976 | 107.097 | 46.654 | 1.00 | 161.37 | C |
| ATOM | 8537 | OE1 | GLN | A1189 | -11.913 | 106.997 | 47.881 | 1.00 | 161.37 | O |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 8538 | NE2 | GLN | A1189 | -11.844 | 108.257 | 46.022 | 1.00161.37 | N |
| ATOM | 8539 | N | PRO | A1190 | -10.182 | 102.489 | 48.822 | 1.00117.70 | N |
| ATOM | 8540 | CA | PRO | A1190 | -10.345 | 101.378 | 49.754 | 1.00117.70 | C |
| ATOM | 8541 | C | PRO | A1190 | -11.194 | 101.686 | 50.969 | 1.00117.70 | C |
| ATOM | 8542 | O | PRO | A1190 | -12.170 | 102.429 | 50.909 | 1.00117.70 | O |
| ATOM | 8543 | CB | PRO | A1190 | -8.905 | 101.035 | 50.135 | 1.00172.35 | C |
| ATOM | 8544 | CG | PRO | A1190 | -8.119 | 101.457 | 48.929 | 1.00172.35 | C |
| ATOM | 8545 | CD | PRO | A1190 | -8.756 | 102.774 | 48.592 | 1.00172.35 | C |
| ATOM | 8546 | N | HIS | A1191 | -10.788 | 101.076 | 52.070 | 1.00124.86 | N |
| ATOM | 8547 | CA | HIS | A1191 | -11.436 | 101.230 | 53.346 | 1.00124.86 | C |
| ATOM | 8548 | C | HIS | A1191 | -10.388 | 100.842 | 54.376 | 1.00124.86 | C |
| ATOM | 8549 | O | HIS | A1191 | -10.346 | 101.331 | 55.508 | 1.00124.86 | O |
| ATOM | 8550 | CB | HIS | A1191 | -12.648 | 100.296 | 53.465 | 1.00132.10 | C |
| ATOM | 8551 | CG | HIS | A1191 | -13.924 | 100.877 | 52.937 | 1.00132.10 | C |
| ATOM | 8552 | ND1 | HIS | A1191 | -14.105 | 101.198 | 51.609 | 1.00132.10 | N |
| ATOM | 8553 | CD2 | HIS | A1191 | -15.084 | 101.194 | 53.561 | 1.00132.10 | C |
| ATOM | 8554 | CE1 | HIS | A1191 | -15.319 | 101.688 | 51.437 | 1.00132.10 | C |
| ATOM | 8555 | NE2 | HIS | A1191 | -15.934 | 101.697 | 52.606 | 1.00132.10 | N |
| ATOM | 8556 | N | ILE | A1192 | -9.517 | 99.954 | 53.967 | 1.00 79.57 | N |
| ATOM | 8557 | CA | ILE | A1192 | -8.490 | 99.521 | 54.862 | 1.00 79.57 | C |
| ATOM | 8558 | C | ILE | A1192 | -7.223 | 99.871 | 54.090 | 1.00 79.57 | C |
| ATOM | 8559 | O | ILE | A1192 | -7.332 | 100.140 | 52.899 | 1.00 79.57 | O |
| ATOM | 8560 | CB | ILE | A1192 | -8.633 | 97.990 | 55.089 | 1.00186.92 | C |
| ATOM | 8561 | CG1 | ILE | A1192 | -7.944 | 97.563 | 56.388 | 1.00186.92 | C |
| ATOM | 8562 | CG2 | ILE | A1192 | -8.110 | 97.238 | 53.872 | 1.00186.92 | C |
| ATOM | 8563 | CD1 | ILE | A1192 | -6.453 | 97.650 | 56.359 | 1.00186.92 | C |
| ATOM | 8564 | N | LEU | A1193 | -6.050 | 99.932 | 54.746 | 1.00174.34 | N |
| ATOM | 8565 | CA | LEU | A1193 | -4.751 | 100.203 | 54.072 | 1.00174.34 | C |
| ATOM | 8566 | C | LEU | A1193 | -3.595 | 99.424 | 54.670 | 1.00174.34 | C |
| ATOM | 8567 | O | LEU | A1193 | -3.453 | 99.317 | 55.887 | 1.00174.34 | O |
| ATOM | 8568 | CB | LEU | A1193 | -4.377 | 101.688 | 54.186 | 1.00 65.58 | C |
| ATOM | 8569 | CG | LEU | A1193 | -5.052 | 102.877 | 53.503 | 1.00 65.58 | C |
| ATOM | 8570 | CD1 | LEU | A1193 | -3.970 | 103.946 | 53.298 | 1.00 65.58 | C |
| ATOM | 8571 | CD2 | LEU | A1193 | -5.654 | 102.482 | 52.168 | 1.00 65.58 | C |
| ATOM | 8572 | N | LEU | A1194 | -2.743 | 98.920 | 53.794 | 1.00132.64 | N |
| ATOM | 8573 | CA | LEU | A1194 | -1.575 | 98.180 | 54.203 | 1.00132.64 | C |
| ATOM | 8574 | C | LEU | A1194 | -0.365 | 99.007 | 53.809 | 1.00132.64 | C |
| ATOM | 8575 | O | LEU | A1194 | 0.112 | 98.940 | 52.669 | 1.00132.64 | O |
| ATOM | 8576 | CB | LEU | A1194 | -1.565 | 96.826 | 53.504 | 1.00121.42 | C |
| ATOM | 8577 | CG | LEU | A1194 | -2.877 | 96.085 | 53.781 | 1.00121.42 | C |
| ATOM | 8578 | CD1 | LEU | A1194 | -2.984 | 94.840 | 52.926 | 1.00121.42 | C |
| ATOM | 8579 | CD2 | LEU | A1194 | -2.955 | 95.744 | 55.261 | 1.00121.42 | C |
| ATOM | 8580 | N | LEU | A1195 | 0.101 | 99.817 | 54.757 | 1.00164.69 | N |
| ATOM | 8581 | CA | LEU | A1195 | 1.258 | 100.675 | 54.535 | 1.00164.69 | C |
| ATOM | 8582 | C | LEU | A1195 | 2.473 | 99.939 | 55.087 | 1.00164.69 | C |
| ATOM | 8583 | O | LEU | A1195 | 2.898 | 100.155 | 56.226 | 1.00164.69 | O |
| ATOM | 8584 | CB | LEU | A1195 | 1.062 | 102.021 | 55.244 | 1.00107.98 | C |
| ATOM | 8585 | CG | LEU | A1195 | -0.069 | 102.951 | 54.775 | 1.00107.98 | C |
| ATOM | 8586 | CD1 | LEU | A1195 | -0.965 | 102.277 | 53.735 | 1.00107.98 | C |
| ATOM | 8587 | CD2 | LEU | A1195 | -0.872 | 103.379 | 55.997 | 1.00107.98 | C |
| ATOM | 8588 | N | ASP | A1196 | 3.010 | 99.053 | 54.248 | 1.00207.38 | N |
| ATOM | 8589 | CA | ASP | A1196 | 4.161 | 98.206 | 54.585 | 1.00207.38 | C |
| ATOM | 8590 | C | ASP | A1196 | 5.473 | 98.975 | 54.528 | 1.00207.38 | C |
| ATOM | 8591 | O | ASP | A1196 | 6.150 | 98.988 | 53.499 | 1.00207.38 | O |
| ATOM | 8592 | CB | ASP | A1196 | 4.223 | 97.019 | 53.612 | 1.00128.95 | C |
| ATOM | 8593 | CG | ASP | A1196 | 5.275 | 95.990 | 53.995 | 1.00128.95 | C |
| ATOM | 8594 | OD1 | ASP | A1196 | 6.426 | 96.380 | 54.273 | 1.00128.95 | O |
| ATOM | 8595 | OD2 | ASP | A1196 | 4.949 | 94.783 | 53.999 | 1.00128.95 | O |
| ATOM | 8596 | N | GLU | A1197 | 5.826 | 99.624 | 55.632 | 1.00127.79 | N |
| ATOM | 8597 | CA | GLU | A1197 | 7.080 | 100.367 | 55.701 | 1.00127.79 | C |
| ATOM | 8598 | C | GLU | A1197 | 7.305 | 101.198 | 54.458 | 1.00127.79 | C |
| ATOM | 8599 | O | GLU | A1197 | 8.444 | 101.555 | 54.156 | 1.00127.79 | O |
| ATOM | 8600 | CB | GLU | A1197 | 8.261 | 99.413 | 55.885 | 1.00128.87 | C |
| ATOM | 8601 | CG | GLU | A1197 | 8.213 | 98.582 | 57.149 | 1.00128.87 | C |
| ATOM | 8602 | CD | GLU | A1197 | 9.499 | 97.807 | 57.372 | 1.00128.87 | C |
| ATOM | 8603 | OE1 | GLU | A1197 | 9.868 | 96.974 | 56.513 | 1.00128.87 | O |
| ATOM | 8604 | OE2 | GLU | A1197 | 10.150 | 98.035 | 58.409 | 1.00128.87 | O |
| ATOM | 8605 | N | ALA | A1198 | 6.220 | 101.491 | 53.746 | 1.00140.44 | N |
| ATOM | 8606 | CA | ALA | A1198 | 6.285 | 102.264 | 52.517 | 1.00140.44 | C |
| ATOM | 8607 | C | ALA | A1198 | 7.598 | 103.043 | 52.442 | 1.00140.44 | C |
| ATOM | 8608 | O | ALA | A1198 | 8.595 | 102.511 | 51.941 | 1.00140.44 | O |
| ATOM | 8609 | CB | ALA | A1198 | 5.100 | 103.233 | 52.440 | 1.00 81.77 | C |
| ATOM | 8610 | N | THR | A1199 | 7.613 | 104.282 | 52.942 | 1.00 92.12 | N |
| ATOM | 8611 | CA | THR | A1199 | 8.836 | 105.084 | 52.931 | 1.00 92.12 | C |

| | | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------|--------|---|
| ATOM | 8612 | C | THR | A1199 | 9.779 | 104.566 | 54.001 | 1.00 | 92.12 | C |
| ATOM | 8613 | O | THR | A1199 | 9.636 | 104.863 | 55.188 | 1.00 | 92.12 | O |
| ATOM | 8614 | CB | THR | A1199 | 8.561 | 106.579 | 53.217 | 1.00 | 166.27 | C |
| ATOM | 8615 | OG1 | THR | A1199 | 7.894 | 106.718 | 54.477 | 1.00 | 166.27 | O |
| ATOM | 8616 | CG2 | THR | A1199 | 7.705 | 107.177 | 52.126 | 1.00 | 166.27 | C |
| ATOM | 8617 | N | SER | A1200 | 10.730 | 103.764 | 53.550 | 1.00 | 157.75 | N |
| ATOM | 8618 | CA | SER | A1200 | 11.733 | 103.179 | 54.411 | 1.00 | 157.75 | C |
| ATOM | 8619 | C | SER | A1200 | 13.027 | 103.249 | 53.595 | 1.00 | 157.75 | C |
| ATOM | 8620 | O | SER | A1200 | 13.975 | 102.488 | 53.795 | 1.00 | 157.75 | O |
| ATOM | 8621 | CB | SER | A1200 | 11.379 | 101.724 | 54.737 | 1.00 | 174.94 | C |
| ATOM | 8622 | OG | SER | A1200 | 11.982 | 101.306 | 55.951 | 1.00 | 174.94 | O |
| ATOM | 8623 | N | ALA | A1201 | 13.022 | 104.189 | 52.657 | 1.00 | 111.95 | N |
| ATOM | 8624 | CA | ALA | A1201 | 14.137 | 104.467 | 51.764 | 1.00 | 111.95 | C |
| ATOM | 8625 | C | ALA | A1201 | 13.695 | 105.698 | 50.968 | 1.00 | 111.95 | C |
| ATOM | 8626 | O | ALA | A1201 | 13.000 | 105.605 | 49.946 | 1.00 | 111.95 | O |
| ATOM | 8627 | CB | ALA | A1201 | 14.367 | 103.289 | 50.825 | 1.00 | 119.57 | C |
| ATOM | 8628 | N | LEU | A1202 | 14.088 | 106.860 | 51.479 | 1.00 | 207.38 | N |
| ATOM | 8629 | CA | LEU | A1202 | 13.729 | 108.127 | 50.866 | 1.00 | 207.38 | C |
| ATOM | 8630 | C | LEU | A1202 | 14.547 | 109.252 | 51.516 | 1.00 | 207.38 | C |
| ATOM | 8631 | O | LEU | A1202 | 15.720 | 109.069 | 51.853 | 1.00 | 207.38 | O |
| ATOM | 8632 | CB | LEU | A1202 | 12.232 | 108.373 | 51.070 | 1.00 | 148.29 | C |
| ATOM | 8633 | CG | LEU | A1202 | 11.445 | 109.046 | 49.947 | 1.00 | 148.29 | C |
| ATOM | 8634 | CD1 | LEU | A1202 | 11.605 | 108.253 | 48.662 | 1.00 | 148.29 | C |
| ATOM | 8635 | CD2 | LEU | A1202 | 9.980 | 109.120 | 50.342 | 1.00 | 148.29 | C |
| ATOM | 8636 | N | ASP | A1203 | 13.923 | 110.420 | 51.674 | 1.00 | 189.80 | N |
| ATOM | 8637 | CA | ASP | A1203 | 14.554 | 111.577 | 52.320 | 1.00 | 189.80 | C |
| ATOM | 8638 | C | ASP | A1203 | 13.577 | 112.753 | 52.519 | 1.00 | 189.80 | C |
| ATOM | 8639 | O | ASP | A1203 | 12.390 | 112.612 | 52.245 | 1.00 | 189.80 | O |
| ATOM | 8640 | CB | ASP | A1203 | 15.789 | 112.024 | 51.530 | 1.00 | 192.35 | C |
| ATOM | 8641 | CG | ASP | A1203 | 15.526 | 112.139 | 50.044 | 1.00 | 192.35 | C |
| ATOM | 8642 | OD1 | ASP | A1203 | 16.224 | 111.449 | 49.272 | 1.00 | 192.35 | O |
| ATOM | 8643 | OD2 | ASP | A1203 | 14.632 | 112.914 | 49.644 | 1.00 | 192.35 | O |
| ATOM | 8644 | N | THR | A1204 | 14.085 | 113.879 | 53.026 | 1.00 | 207.15 | N |
| ATOM | 8645 | CA | THR | A1204 | 13.305 | 115.100 | 53.314 | 1.00 | 207.15 | C |
| ATOM | 8646 | C | THR | A1204 | 11.764 | 115.321 | 53.094 | 1.00 | 207.15 | C |
| ATOM | 8647 | O | THR | A1204 | 10.941 | 114.942 | 53.910 | 1.00 | 207.15 | O |
| ATOM | 8648 | CB | THR | A1204 | 14.040 | 116.348 | 52.741 | 1.00 | 194.45 | C |
| ATOM | 8649 | OG1 | THR | A1204 | 13.089 | 117.397 | 52.524 | 1.00 | 194.45 | O |
| ATOM | 8650 | CG2 | THR | A1204 | 14.756 | 116.014 | 51.440 | 1.00 | 194.45 | C |
| ATOM | 8651 | N | GLU | A1205 | 11.425 | 115.974 | 51.978 | 1.00 | 187.99 | N |
| ATOM | 8652 | CA | GLU | A1205 | 10.065 | 116.406 | 51.561 | 1.00 | 187.99 | C |
| ATOM | 8653 | C | GLU | A1205 | 9.326 | 115.195 | 50.851 | 1.00 | 187.99 | C |
| ATOM | 8654 | O | GLU | A1205 | 8.133 | 115.174 | 50.514 | 1.00 | 187.99 | O |
| ATOM | 8655 | CB | GLU | A1205 | 10.160 | 117.536 | 50.569 | 1.00 | 207.38 | C |
| ATOM | 8656 | CG | GLU | A1205 | 9.618 | 118.887 | 51.097 | 1.00 | 207.38 | C |
| ATOM | 8657 | CD | GLU | A1205 | 8.942 | 119.682 | 50.014 | 1.00 | 207.38 | C |
| ATOM | 8658 | OE1 | GLU | A1205 | 7.817 | 119.310 | 49.630 | 1.00 | 207.38 | O |
| ATOM | 8659 | OE2 | GLU | A1205 | 9.552 | 120.651 | 49.522 | 1.00 | 207.38 | O |
| ATOM | 8660 | N | SER | A1206 | 10.017 | 114.082 | 50.773 | 1.00 | 153.27 | N |
| ATOM | 8661 | CA | SER | A1206 | 9.474 | 112.952 | 50.098 | 1.00 | 153.27 | C |
| ATOM | 8662 | C | SER | A1206 | 8.891 | 112.317 | 51.247 | 1.00 | 153.27 | C |
| ATOM | 8663 | O | SER | A1206 | 7.684 | 112.216 | 51.314 | 1.00 | 153.27 | O |
| ATOM | 8664 | CB | SER | A1206 | 10.567 | 112.111 | 49.500 | 1.00 | 175.25 | C |
| ATOM | 8665 | OG | SER | A1206 | 11.387 | 112.937 | 48.691 | 1.00 | 175.25 | O |
| ATOM | 8666 | N | GLU | A1207 | 9.771 | 112.019 | 52.187 | 1.00 | 154.53 | N |
| ATOM | 8667 | CA | GLU | A1207 | 9.306 | 111.401 | 53.364 | 1.00 | 154.53 | C |
| ATOM | 8668 | C | GLU | A1207 | 8.119 | 112.223 | 53.812 | 1.00 | 154.53 | C |
| ATOM | 8669 | O | GLU | A1207 | 6.957 | 111.848 | 53.621 | 1.00 | 154.53 | O |
| ATOM | 8670 | CB | GLU | A1207 | 10.366 | 111.466 | 54.460 | 1.00 | 168.06 | C |
| ATOM | 8671 | CG | GLU | A1207 | 11.713 | 110.855 | 54.133 | 1.00 | 168.06 | C |
| ATOM | 8672 | CD | GLU | A1207 | 12.796 | 111.369 | 55.054 | 1.00 | 168.06 | C |
| ATOM | 8673 | OE1 | GLU | A1207 | 13.130 | 112.566 | 54.939 | 1.00 | 168.06 | O |
| ATOM | 8674 | OE2 | GLU | A1207 | 13.302 | 110.588 | 55.888 | 1.00 | 168.06 | O |
| ATOM | 8675 | N | LYS | A1208 | 8.434 | 113.366 | 54.402 | 1.00 | 147.51 | N |
| ATOM | 8676 | CA | LYS | A1208 | 7.406 | 114.230 | 54.921 | 1.00 | 147.51 | C |
| ATOM | 8677 | C | LYS | A1208 | 6.169 | 114.356 | 54.043 | 1.00 | 147.51 | C |
| ATOM | 8678 | O | LYS | A1208 | 5.123 | 113.868 | 54.391 | 1.00 | 147.51 | O |
| ATOM | 8679 | CB | LYS | A1208 | 7.974 | 115.623 | 55.217 | 1.00 | 205.30 | C |
| ATOM | 8680 | CG | LYS | A1208 | 6.912 | 116.640 | 55.603 | 1.00 | 205.30 | C |
| ATOM | 8681 | CD | LYS | A1208 | 6.618 | 117.575 | 54.441 | 1.00 | 205.30 | C |
| ATOM | 8682 | CE | LYS | A1208 | 5.255 | 118.233 | 54.566 | 1.00 | 205.30 | C |
| ATOM | 8683 | NZ | LYS | A1208 | 4.155 | 117.285 | 54.228 | 1.00 | 205.30 | N |
| ATOM | 8684 | N | VAL | A1209 | 6.267 | 114.980 | 52.889 | 1.00 | 128.68 | N |
| ATOM | 8685 | CA | VAL | A1209 | 5.061 | 115.174 | 52.075 | 1.00 | 128.68 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8686 | C | VAL | A1209 | 4.188 | 113.925 | 51.983 | 1.00128.68 | C |
| ATOM | 8687 | O | VAL | A1209 | 2.958 | 114.004 | 52.024 | 1.00128.68 | O |
| ATOM | 8688 | CB | VAL | A1209 | 5.428 | 115.583 | 50.633 | 1.00187.21 | C |
| ATOM | 8689 | CG1 | VAL | A1209 | 6.225 | 114.459 | 49.954 | 1.00187.21 | C |
| ATOM | 8690 | CG2 | VAL | A1209 | 4.157 | 115.895 | 49.858 | 1.00187.21 | C |
| ATOM | 8691 | N | VAL | A1210 | 4.852 | 112.777 | 51.871 | 1.00178.51 | N |
| ATOM | 8692 | CA | VAL | A1210 | 4.188 | 111.490 | 51.754 | 1.00178.51 | C |
| ATOM | 8693 | C | VAL | A1210 | 3.430 | 111.104 | 53.014 | 1.00178.51 | C |
| ATOM | 8694 | O | VAL | A1210 | 2.377 | 110.454 | 52.940 | 1.00178.51 | O |
| ATOM | 8695 | CB | VAL | A1210 | 5.206 | 110.378 | 51.411 | 1.00120.31 | C |
| ATOM | 8696 | CG1 | VAL | A1210 | 4.510 | 109.015 | 51.419 | 1.00120.31 | C |
| ATOM | 8697 | CG2 | VAL | A1210 | 5.835 | 110.658 | 50.051 | 1.00120.31 | C |
| ATOM | 8698 | N | GLN | A1211 | 3.989 | 111.482 | 54.163 | 1.00114.13 | N |
| ATOM | 8699 | CA | GLN | A1211 | 3.358 | 111.226 | 55.464 | 1.00114.13 | C |
| ATOM | 8700 | C | GLN | A1211 | 2.096 | 112.084 | 55.525 | 1.00114.13 | C |
| ATOM | 8701 | O | GLN | A1211 | 1.151 | 111.799 | 56.284 | 1.00114.13 | O |
| ATOM | 8702 | CB | GLN | A1211 | 4.288 | 111.646 | 56.604 | 1.00148.25 | C |
| ATOM | 8703 | CG | GLN | A1211 | 5.383 | 110.656 | 56.954 | 1.00148.25 | C |
| ATOM | 8704 | CD | GLN | A1211 | 4.830 | 109.335 | 57.450 | 1.00148.25 | C |
| ATOM | 8705 | OE1 | GLN | A1211 | 4.398 | 108.494 | 56.661 | 1.00148.25 | O |
| ATOM | 8706 | NE2 | GLN | A1211 | 4.829 | 109.150 | 58.767 | 1.00148.25 | N |
| ATOM | 8707 | N | GLU | A1212 | 2.129 | 113.154 | 54.724 | 1.00171.47 | N |
| ATOM | 8708 | CA | GLU | A1212 | 1.033 | 114.116 | 54.600 | 1.00171.47 | C |
| ATOM | 8709 | C | GLU | A1212 | -0.016 | 113.451 | 53.711 | 1.00171.47 | C |
| ATOM | 8710 | O | GLU | A1212 | -1.229 | 113.556 | 53.927 | 1.00171.47 | O |
| ATOM | 8711 | CB | GLU | A1212 | 1.566 | 115.414 | 53.985 | 1.00156.14 | C |
| ATOM | 8712 | CG | GLU | A1212 | 0.563 | 116.534 | 53.930 | 1.00156.14 | C |
| ATOM | 8713 | CD | GLU | A1212 | -0.106 | 116.639 | 52.579 | 1.00156.14 | C |
| ATOM | 8714 | OE1 | GLU | A1212 | 0.549 | 117.090 | 51.614 | 1.00156.14 | O |
| ATOM | 8715 | OE2 | GLU | A1212 | -1.290 | 116.262 | 52.480 | 1.00156.14 | O |
| ATOM | 8716 | N | ALA | A1213 | 0.480 | 112.753 | 52.702 | 1.00167.06 | N |
| ATOM | 8717 | CA | ALA | A1213 | -0.387 | 112.024 | 51.809 | 1.00167.06 | C |
| ATOM | 8718 | C | ALA | A1213 | -0.998 | 110.949 | 52.711 | 1.00167.06 | C |
| ATOM | 8719 | O | ALA | A1213 | -2.143 | 111.088 | 53.162 | 1.00167.06 | O |
| ATOM | 8720 | CB | ALA | A1213 | 0.412 | 111.381 | 50.691 | 1.00159.82 | C |
| ATOM | 8721 | N | LEU | A1214 | -0.205 | 109.906 | 52.985 | 1.00148.53 | N |
| ATOM | 8722 | CA | LEU | A1214 | -0.605 | 108.788 | 53.840 | 1.00148.53 | C |
| ATOM | 8723 | C | LEU | A1214 | -1.474 | 109.313 | 54.986 | 1.00148.53 | C |
| ATOM | 8724 | O | LEU | A1214 | -2.365 | 108.618 | 55.489 | 1.00148.53 | O |
| ATOM | 8725 | CB | LEU | A1214 | 0.643 | 108.106 | 54.411 | 1.00153.39 | C |
| ATOM | 8726 | CG | LEU | A1214 | 0.538 | 106.886 | 55.329 | 1.00153.39 | C |
| ATOM | 8727 | CD1 | LEU | A1214 | 1.944 | 106.398 | 55.667 | 1.00153.39 | C |
| ATOM | 8728 | CD2 | LEU | A1214 | -0.221 | 107.245 | 56.592 | 1.00153.39 | C |
| ATOM | 8729 | N | ASP | A1215 | -1.196 | 110.551 | 55.386 | 1.00207.38 | N |
| ATOM | 8730 | CA | ASP | A1215 | -1.930 | 111.220 | 56.448 | 1.00207.38 | C |
| ATOM | 8731 | C | ASP | A1215 | -3.387 | 111.380 | 55.998 | 1.00207.38 | C |
| ATOM | 8732 | O | ASP | A1215 | -4.239 | 110.566 | 56.352 | 1.00207.38 | O |
| ATOM | 8733 | CB | ASP | A1215 | -1.294 | 112.587 | 56.725 | 1.00171.25 | C |
| ATOM | 8734 | CG | ASP | A1215 | -1.715 | 113.175 | 58.058 | 1.00171.25 | C |
| ATOM | 8735 | OD1 | ASP | A1215 | -1.582 | 112.477 | 59.084 | 1.00171.25 | O |
| ATOM | 8736 | OD2 | ASP | A1215 | -2.166 | 114.340 | 58.081 | 1.00171.25 | O |
| ATOM | 8737 | N | LYS | A1216 | -3.670 | 112.407 | 55.198 | 1.00140.75 | N |
| ATOM | 8738 | CA | LYS | A1216 | -5.041 | 112.651 | 54.727 | 1.00140.75 | C |
| ATOM | 8739 | C | LYS | A1216 | -5.580 | 111.421 | 53.994 | 1.00140.75 | C |
| ATOM | 8740 | O | LYS | A1216 | -6.783 | 111.278 | 53.737 | 1.00140.75 | O |
| ATOM | 8741 | CB | LYS | A1216 | -5.087 | 113.879 | 53.811 | 1.00207.38 | C |
| ATOM | 8742 | CG | LYS | A1216 | -4.932 | 115.212 | 54.541 | 1.00207.38 | C |
| ATOM | 8743 | CD | LYS | A1216 | -6.272 | 115.917 | 54.740 | 1.00207.38 | C |
| ATOM | 8744 | CE | LYS | A1216 | -6.626 | 116.087 | 56.213 | 1.00207.38 | C |
| ATOM | 8745 | NZ | LYS | A1216 | -6.957 | 114.798 | 56.880 | 1.00207.38 | N |
| ATOM | 8746 | N | ALA | A1217 | -4.661 | 110.533 | 53.661 | 1.00159.32 | N |
| ATOM | 8747 | CA | ALA | A1217 | -5.025 | 109.316 | 52.992 | 1.00159.32 | C |
| ATOM | 8748 | C | ALA | A1217 | -5.733 | 108.446 | 54.011 | 1.00159.32 | C |
| ATOM | 8749 | O | ALA | A1217 | -6.612 | 107.686 | 53.651 | 1.00159.32 | O |
| ATOM | 8750 | CB | ALA | A1217 | -3.769 | 108.608 | 52.457 | 1.00 93.40 | C |
| ATOM | 8751 | N | ARG | A1218 | -5.352 | 108.544 | 55.282 | 1.00133.25 | N |
| ATOM | 8752 | CA | ARG | A1218 | -6.004 | 107.740 | 56.322 | 1.00133.25 | C |
| ATOM | 8753 | C | ARG | A1218 | -7.081 | 108.526 | 57.055 | 1.00133.25 | C |
| ATOM | 8754 | O | ARG | A1218 | -7.547 | 109.579 | 56.570 | 1.00133.25 | O |
| ATOM | 8755 | CB | ARG | A1218 | -4.980 | 107.179 | 57.311 | 1.00116.47 | C |
| ATOM | 8756 | CG | ARG | A1218 | -4.776 | 108.017 | 58.555 | 1.00116.47 | C |
| ATOM | 8757 | CD | ARG | A1218 | -3.381 | 108.638 | 58.592 | 1.00116.47 | C |
| ATOM | 8758 | NE | ARG | A1218 | -3.018 | 109.119 | 59.926 | 1.00116.47 | N |
| ATOM | 8759 | CZ | ARG | A1218 | -1.767 | 109.354 | 60.322 | 1.00116.47 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|---------|---------|--------|------------|---|
| ATOM | 8760 | NH1 | ARG | A1218 | -0.752 | 109.153 | 59.490 | 1.00116.47 | N |
| ATOM | 8761 | NH2 | ARG | A1218 | -1.524 | 109.780 | 61.557 | 1.00116.47 | N |
| ATOM | 8762 | N | GLU | A1219 | -7.511 | 108.007 | 58.204 | 1.00207.38 | N |
| ATOM | 8763 | CA | GLU | A1219 | -8.528 | 108.672 | 59.068 | 1.00207.38 | C |
| ATOM | 8764 | C | GLU | A1219 | -9.841 | 108.686 | 58.330 | 1.00207.38 | C |
| ATOM | 8765 | O | GLU | A1219 | -10.915 | 108.712 | 58.909 | 1.00207.38 | O |
| ATOM | 8766 | CB | GLU | A1219 | -8.175 | 110.088 | 59.444 | 1.00184.41 | C |
| ATOM | 8767 | CG | GLU | A1219 | -9.218 | 110.753 | 60.367 | 1.00184.41 | C |
| ATOM | 8768 | CD | GLU | A1219 | -9.271 | 110.091 | 61.734 | 1.00184.41 | C |
| ATOM | 8769 | OE1 | GLU | A1219 | -8.194 | 109.934 | 62.356 | 1.00184.41 | O |
| ATOM | 8770 | OE2 | GLU | A1219 | -10.378 | 109.728 | 62.187 | 1.00184.41 | O |
| ATOM | 8771 | N | GLY | A1220 | -9.771 | 108.577 | 57.021 | 1.00 99.29 | N |
| ATOM | 8772 | CA | GLY | A1220 | -10.986 | 108.494 | 56.262 | 1.00 99.29 | C |
| ATOM | 8773 | C | GLY | A1220 | -11.279 | 107.001 | 56.220 | 1.00 99.29 | C |
| ATOM | 8774 | O | GLY | A1220 | -12.396 | 106.576 | 55.896 | 1.00 99.29 | O |
| ATOM | 8775 | N | ARG | A1221 | -10.255 | 106.205 | 56.533 | 1.00140.28 | N |
| ATOM | 8776 | CA | ARG | A1221 | -10.365 | 104.763 | 56.504 | 1.00140.28 | C |
| ATOM | 8777 | C | ARG | A1221 | -9.368 | 104.069 | 57.397 | 1.00140.28 | C |
| ATOM | 8778 | O | ARG | A1221 | -8.330 | 104.632 | 57.777 | 1.00140.28 | O |
| ATOM | 8779 | CB | ARG | A1221 | -10.159 | 104.247 | 55.076 | 1.00118.60 | C |
| ATOM | 8780 | CG | ARG | A1221 | -8.700 | 104.277 | 54.583 | 1.00118.60 | C |
| ATOM | 8781 | CD | ARG | A1221 | -8.215 | 105.695 | 54.333 | 1.00118.60 | C |
| ATOM | 8782 | NE | ARG | A1221 | -8.901 | 106.297 | 53.194 | 1.00118.60 | N |
| ATOM | 8783 | CZ | ARG | A1221 | -8.554 | 106.120 | 51.923 | 1.00118.60 | C |
| ATOM | 8784 | NH1 | ARG | A1221 | -7.515 | 105.358 | 51.612 | 1.00118.60 | N |
| ATOM | 8785 | NH2 | ARG | A1221 | -9.255 | 106.705 | 50.960 | 1.00118.60 | N |
| ATOM | 8786 | N | THR | A1222 | -9.690 | 102.816 | 57.700 | 1.00105.67 | N |
| ATOM | 8787 | CA | THR | A1222 | -8.829 | 102.000 | 58.542 | 1.00105.67 | C |
| ATOM | 8788 | C | THR | A1222 | -7.557 | 101.673 | 57.804 | 1.00105.67 | C |
| ATOM | 8789 | O | THR | A1222 | -7.606 | 101.425 | 56.590 | 1.00105.67 | O |
| ATOM | 8790 | CB | THR | A1222 | -9.490 | 100.663 | 58.940 | 1.00190.84 | C |
| ATOM | 8791 | OG1 | THR | A1222 | -10.560 | 100.907 | 59.863 | 1.00190.84 | O |
| ATOM | 8792 | CG2 | THR | A1222 | -8.457 | 99.734 | 59.587 | 1.00190.84 | C |
| ATOM | 8793 | N | CYS | A1223 | -6.432 | 101.671 | 58.513 | 1.00147.20 | N |
| ATOM | 8794 | CA | CYS | A1223 | -5.213 | 101.357 | 57.832 | 1.00147.20 | C |
| ATOM | 8795 | C | CYS | A1223 | -4.088 | 100.872 | 58.779 | 1.00147.20 | C |
| ATOM | 8796 | O | CYS | A1223 | -3.807 | 101.481 | 59.811 | 1.00147.20 | O |
| ATOM | 8797 | CB | CYS | A1223 | -4.782 | 102.494 | 56.906 | 1.00147.20 | C |
| ATOM | 8798 | SG | CYS | A1223 | -4.142 | 104.194 | 57.434 | 1.00147.20 | S |
| ATOM | 8799 | N | ILE | A1224 | -3.518 | 99.717 | 58.465 | 1.00149.06 | N |
| ATOM | 8800 | CA | ILE | A1224 | -2.459 | 99.218 | 59.290 | 1.00149.06 | C |
| ATOM | 8801 | C | ILE | A1224 | -1.217 | 99.754 | 58.681 | 1.00149.06 | C |
| ATOM | 8802 | O | ILE | A1224 | -0.756 | 99.314 | 57.624 | 1.00149.06 | O |
| ATOM | 8803 | CB | ILE | A1224 | -2.419 | 97.692 | 59.323 | 1.00 42.65 | C |
| ATOM | 8804 | CG1 | ILE | A1224 | -3.842 | 97.135 | 59.383 | 1.00 42.65 | C |
| ATOM | 8805 | CG2 | ILE | A1224 | -1.630 | 97.236 | 60.542 | 1.00 42.65 | C |
| ATOM | 8806 | CD1 | ILE | A1224 | -3.895 | 95.630 | 59.493 | 1.00 42.65 | C |
| ATOM | 8807 | N | VAL | A1225 | -0.722 | 100.778 | 59.349 | 1.00163.60 | N |
| ATOM | 8808 | CA | VAL | A1225 | 0.499 | 101.431 | 58.966 | 1.00163.60 | C |
| ATOM | 8809 | C | VAL | A1225 | 1.490 | 100.679 | 59.827 | 1.00163.60 | C |
| ATOM | 8810 | O | VAL | A1225 | 1.467 | 100.735 | 61.060 | 1.00163.60 | O |
| ATOM | 8811 | CB | VAL | A1225 | 0.444 | 102.942 | 59.296 | 1.00 63.79 | C |
| ATOM | 8812 | CG1 | VAL | A1225 | 0.133 | 103.153 | 60.753 | 1.00 63.79 | C |
| ATOM | 8813 | CG2 | VAL | A1225 | 1.745 | 103.613 | 58.948 | 1.00 63.79 | C |
| ATOM | 8814 | N | ILE | A1226 | 2.315 | 99.894 | 59.166 | 1.00155.05 | N |
| ATOM | 8815 | CA | ILE | A1226 | 3.302 | 99.122 | 59.882 | 1.00155.05 | C |
| ATOM | 8816 | C | ILE | A1226 | 4.603 | 99.665 | 59.401 | 1.00155.05 | C |
| ATOM | 8817 | O | ILE | A1226 | 4.706 | 100.051 | 58.232 | 1.00155.05 | O |
| ATOM | 8818 | CB | ILE | A1226 | 3.193 | 97.615 | 59.552 | 1.00115.28 | C |
| ATOM | 8819 | CG1 | ILE | A1226 | 3.820 | 97.315 | 58.191 | 1.00115.28 | C |
| ATOM | 8820 | CG2 | ILE | A1226 | 1.731 | 97.190 | 59.530 | 1.00115.28 | C |
| ATOM | 8821 | CD1 | ILE | A1226 | 5.300 | 96.960 | 58.275 | 1.00115.28 | C |
| ATOM | 8822 | N | ALA | A1227 | 5.600 | 99.710 | 60.280 | 1.00107.98 | N |
| ATOM | 8823 | CA | ALA | A1227 | 6.879 | 100.253 | 59.834 | 1.00107.98 | C |
| ATOM | 8824 | C | ALA | A1227 | 8.013 | 100.085 | 60.806 | 1.00107.98 | C |
| ATOM | 8825 | O | ALA | A1227 | 7.835 | 99.558 | 61.904 | 1.00107.98 | O |
| ATOM | 8826 | CB | ALA | A1227 | 6.712 | 101.715 | 59.484 | 1.00168.35 | C |
| ATOM | 8827 | N | HIS | A1228 | 9.186 | 100.526 | 60.358 | 1.00113.77 | N |
| ATOM | 8828 | CA | HIS | A1228 | 10.397 | 100.497 | 61.157 | 1.00113.77 | C |
| ATOM | 8829 | C | HIS | A1228 | 10.773 | 101.950 | 61.457 | 1.00113.77 | C |
| ATOM | 8830 | O | HIS | A1228 | 11.885 | 102.259 | 61.902 | 1.00113.77 | O |
| ATOM | 8831 | CB | HIS | A1228 | 11.538 | 99.787 | 60.427 | 1.00175.99 | C |
| ATOM | 8832 | CG | HIS | A1228 | 12.702 | 99.473 | 61.314 | 1.00175.99 | C |
| ATOM | 8833 | ND1 | HIS | A1228 | 12.548 | 98.923 | 62.568 | 1.00175.99 | N |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8834 | CD2 | HIS | A1228 | 14.033 | 99.637 | 61.135 | 1.00175.99 | C |
| ATOM | 8835 | CE1 | HIS | A1228 | 13.734 | 98.764 | 63.125 | 1.00175.99 | C |
| ATOM | 8836 | NE2 | HIS | A1228 | 14.653 | 99.189 | 62.277 | 1.00175.99 | N |
| ATOM | 8837 | N | ARG | A1229 | 9.813 | 102.832 | 61.189 | 1.00145.67 | N |
| ATOM | 8838 | CA | ARG | A1229 | 9.950 | 104.253 | 61.466 | 1.00145.67 | C |
| ATOM | 8839 | C | ARG | A1229 | 9.447 | 104.429 | 62.899 | 1.00145.67 | C |
| ATOM | 8840 | O | ARG | A1229 | 8.446 | 105.120 | 63.170 | 1.00145.67 | O |
| ATOM | 8841 | CB | ARG | A1229 | 9.120 | 105.089 | 60.484 | 1.00194.44 | C |
| ATOM | 8842 | CG | ARG | A1229 | 9.915 | 105.590 | 59.279 | 1.00194.44 | C |
| ATOM | 8843 | CD | ARG | A1229 | 10.975 | 106.595 | 59.717 | 1.00194.44 | C |
| ATOM | 8844 | NE | ARG | A1229 | 11.952 | 106.890 | 58.672 | 1.00194.44 | N |
| ATOM | 8845 | CZ | ARG | A1229 | 11.679 | 107.530 | 57.539 | 1.00194.44 | C |
| ATOM | 8846 | NH1 | ARG | A1229 | 10.448 | 107.952 | 57.289 | 1.00194.44 | N |
| ATOM | 8847 | NH2 | ARG | A1229 | 12.643 | 107.752 | 56.655 | 1.00194.44 | N |
| ATOM | 8848 | N | LEU | A1230 | 10.167 | 103.754 | 63.796 | 1.00137.20 | N |
| ATOM | 8849 | CA | LEU | A1230 | 9.908 | 103.735 | 65.231 | 1.00137.20 | C |
| ATOM | 8850 | C | LEU | A1230 | 9.575 | 105.137 | 65.719 | 1.00137.20 | C |
| ATOM | 8851 | O | LEU | A1230 | 8.883 | 105.313 | 66.721 | 1.00137.20 | O |
| ATOM | 8852 | CB | LEU | A1230 | 11.147 | 103.209 | 65.967 | 1.00110.06 | C |
| ATOM | 8853 | CG | LEU | A1230 | 12.380 | 102.895 | 65.106 | 1.00110.06 | C |
| ATOM | 8854 | CD1 | LEU | A1230 | 13.638 | 102.993 | 65.960 | 1.00110.06 | C |
| ATOM | 8855 | CD2 | LEU | A1230 | 12.242 | 101.510 | 64.470 | 1.00110.06 | C |
| ATOM | 8856 | N | SER | A1231 | 10.070 | 106.124 | 64.978 | 1.00138.43 | N |
| ATOM | 8857 | CA | SER | A1231 | 9.871 | 107.533 | 65.284 | 1.00138.43 | C |
| ATOM | 8858 | C | SER | A1231 | 8.505 | 108.093 | 64.887 | 1.00138.43 | C |
| ATOM | 8859 | O | SER | A1231 | 7.682 | 108.408 | 65.738 | 1.00138.43 | O |
| ATOM | 8860 | CB | SER | A1231 | 10.970 | 108.365 | 64.622 | 1.00190.17 | C |
| ATOM | 8861 | OG | SER | A1231 | 10.994 | 108.150 | 63.222 | 1.00190.17 | O |
| ATOM | 8862 | N | THR | A1232 | 8.267 | 108.217 | 63.589 | 1.00115.29 | N |
| ATOM | 8863 | CA | THR | A1232 | 7.018 | 108.773 | 63.109 | 1.00115.29 | C |
| ATOM | 8864 | C | THR | A1232 | 5.826 | 107.871 | 63.315 | 1.00115.29 | C |
| ATOM | 8865 | O | THR | A1232 | 4.748 | 108.167 | 62.813 | 1.00115.29 | O |
| ATOM | 8866 | CB | THR | A1232 | 7.106 | 109.116 | 61.608 | 1.00203.90 | C |
| ATOM | 8867 | OG1 | THR | A1232 | 7.417 | 107.934 | 60.859 | 1.00203.90 | O |
| ATOM | 8868 | CG2 | THR | A1232 | 8.183 | 110.157 | 61.369 | 1.00203.90 | C |
| ATOM | 8869 | N | ILE | A1233 | 6.007 | 106.774 | 64.044 | 1.00151.37 | N |
| ATOM | 8870 | CA | ILE | A1233 | 4.896 | 105.856 | 64.313 | 1.00151.37 | C |
| ATOM | 8871 | C | ILE | A1233 | 3.983 | 106.380 | 65.440 | 1.00151.37 | C |
| ATOM | 8872 | O | ILE | A1233 | 2.866 | 105.904 | 65.618 | 1.00151.37 | O |
| ATOM | 8873 | CB | ILE | A1233 | 5.439 | 104.460 | 64.712 | 1.00 96.76 | C |
| ATOM | 8874 | CG1 | ILE | A1233 | 4.283 | 103.493 | 64.972 | 1.00 96.76 | C |
| ATOM | 8875 | CG2 | ILE | A1233 | 6.320 | 104.579 | 65.941 | 1.00 96.76 | C |
| ATOM | 8876 | CD1 | ILE | A1233 | 3.685 | 102.900 | 63.703 | 1.00 96.76 | C |
| ATOM | 8877 | N | GLN | A1234 | 4.466 | 107.369 | 66.184 | 1.00 77.65 | N |
| ATOM | 8878 | CA | GLN | A1234 | 3.732 | 107.960 | 67.299 | 1.00 77.65 | C |
| ATOM | 8879 | C | GLN | A1234 | 2.283 | 108.326 | 67.047 | 1.00 77.65 | C |
| ATOM | 8880 | O | GLN | A1234 | 1.458 | 108.218 | 67.948 | 1.00 77.65 | O |
| ATOM | 8881 | CB | GLN | A1234 | 4.453 | 109.218 | 67.790 | 1.00207.38 | C |
| ATOM | 8882 | CG | GLN | A1234 | 5.723 | 108.981 | 68.589 | 1.00207.38 | C |
| ATOM | 8883 | CD | GLN | A1234 | 6.284 | 110.268 | 69.163 | 1.00207.38 | C |
| ATOM | 8884 | OE1 | GLN | A1234 | 6.800 | 111.114 | 68.434 | 1.00207.38 | O |
| ATOM | 8885 | NE2 | GLN | A1234 | 6.172 | 110.427 | 70.477 | 1.00207.38 | N |
| ATOM | 8886 | N | ASN | A1235 | 1.973 | 108.795 | 65.847 | 1.00207.38 | N |
| ATOM | 8887 | CA | ASN | A1235 | 0.601 | 109.174 | 65.531 | 1.00207.38 | C |
| ATOM | 8888 | C | ASN | A1235 | -0.260 | 107.934 | 65.274 | 1.00207.38 | C |
| ATOM | 8889 | O | ASN | A1235 | -0.996 | 107.882 | 64.288 | 1.00207.38 | O |
| ATOM | 8890 | CB | ASN | A1235 | 0.583 | 110.095 | 64.307 | 1.00167.63 | C |
| ATOM | 8891 | CG | ASN | A1235 | 1.615 | 109.704 | 63.268 | 1.00167.63 | C |
| ATOM | 8892 | OD1 | ASN | A1235 | 2.819 | 109.744 | 63.524 | 1.00167.63 | O |
| ATOM | 8893 | ND2 | ASN | A1235 | 1.148 | 109.325 | 62.085 | 1.00167.63 | N |
| ATOM | 8894 | N | ALA | A1236 | -0.190 | 106.949 | 66.172 | 1.00140.89 | N |
| ATOM | 8895 | CA | ALA | A1236 | -0.937 | 105.702 | 65.994 | 1.00140.89 | C |
| ATOM | 8896 | C | ALA | A1236 | -2.096 | 105.548 | 66.926 | 1.00140.89 | C |
| ATOM | 8897 | O | ALA | A1236 | -2.050 | 106.051 | 68.040 | 1.00140.89 | O |
| ATOM | 8898 | CB | ALA | A1236 | 0.026 | 104.499 | 66.135 | 1.00 49.98 | C |
| ATOM | 8899 | N | ASP | A1237 | -3.125 | 104.828 | 66.481 | 1.00156.75 | N |
| ATOM | 8900 | CA | ASP | A1237 | -4.285 | 104.625 | 67.335 | 1.00156.75 | C |
| ATOM | 8901 | C | ASP | A1237 | -3.958 | 103.528 | 68.338 | 1.00156.75 | C |
| ATOM | 8902 | O | ASP | A1237 | -3.933 | 103.763 | 69.544 | 1.00156.75 | O |
| ATOM | 8903 | CB | ASP | A1237 | -5.513 | 104.228 | 66.506 | 1.00 79.28 | C |
| ATOM | 8904 | CG | ASP | A1237 | -6.010 | 105.358 | 65.620 | 1.00 79.28 | C |
| ATOM | 8905 | OD1 | ASP | A1237 | -7.136 | 105.254 | 65.087 | 1.00 79.28 | O |
| ATOM | 8906 | OD2 | ASP | A1237 | -5.273 | 106.351 | 65.454 | 1.00 79.28 | O |
| ATOM | 8907 | N | LEU | A1238 | -3.720 | 102.322 | 67.838 | 1.00 96.84 | N |

| | | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------|--------|---|
| ATOM | 8908 | CA | LEU | A1238 | -3.357 | 101.219 | 68.706 | 1.00 | 96.84 | C |
| ATOM | 8909 | C | LEU | A1238 | -2.047 | 100.675 | 68.197 | 1.00 | 96.84 | C |
| ATOM | 8910 | O | LEU | A1238 | -2.005 | 100.041 | 67.147 | 1.00 | 96.84 | O |
| ATOM | 8911 | CB | LEU | A1238 | -4.411 | 100.109 | 68.692 | 1.00 | 136.86 | C |
| ATOM | 8912 | CG | LEU | A1238 | -4.006 | 98.843 | 69.464 | 1.00 | 136.86 | C |
| ATOM | 8913 | CD1 | LEU | A1238 | -3.738 | 99.187 | 70.921 | 1.00 | 136.86 | C |
| ATOM | 8914 | CD2 | LEU | A1238 | -5.100 | 97.797 | 69.358 | 1.00 | 136.86 | C |
| ATOM | 8915 | N | ILE | A1239 | -0.981 | 100.919 | 68.949 | 1.00 | 90.06 | N |
| ATOM | 8916 | CA | ILE | A1239 | 0.346 | 100.454 | 68.573 | 1.00 | 90.06 | C |
| ATOM | 8917 | C | ILE | A1239 | 0.644 | 99.113 | 69.209 | 1.00 | 90.06 | C |
| ATOM | 8918 | O | ILE | A1239 | 0.762 | 99.012 | 70.439 | 1.00 | 90.06 | O |
| ATOM | 8919 | CB | ILE | A1239 | 1.420 | 101.464 | 69.023 | 1.00 | 143.34 | C |
| ATOM | 8920 | CG1 | ILE | A1239 | 1.135 | 102.833 | 68.402 | 1.00 | 143.34 | C |
| ATOM | 8921 | CG2 | ILE | A1239 | 2.800 | 100.957 | 68.657 | 1.00 | 143.34 | C |
| ATOM | 8922 | CD1 | ILE | A1239 | -0.194 | 103.422 | 68.823 | 1.00 | 143.34 | C |
| ATOM | 8923 | N | VAL | A1240 | 0.742 | 98.084 | 68.370 | 1.00 | 139.20 | N |
| ATOM | 8924 | CA | VAL | A1240 | 1.025 | 96.751 | 68.866 | 1.00 | 139.20 | C |
| ATOM | 8925 | C | VAL | A1240 | 2.427 | 96.355 | 68.584 | 1.00 | 139.20 | C |
| ATOM | 8926 | O | VAL | A1240 | 2.921 | 96.515 | 67.463 | 1.00 | 139.20 | O |
| ATOM | 8927 | CB | VAL | A1240 | 0.122 | 95.679 | 68.226 | 1.00 | 118.04 | C |
| ATOM | 8928 | CG1 | VAL | A1240 | 0.508 | 94.310 | 68.752 | 1.00 | 118.04 | C |
| ATOM | 8929 | CG2 | VAL | A1240 | -1.332 | 95.955 | 68.535 | 1.00 | 118.04 | C |
| ATOM | 8930 | N | VAL | A1241 | 3.051 | 95.809 | 69.615 | 1.00 | 86.93 | N |
| ATOM | 8931 | CA | VAL | A1241 | 4.428 | 95.378 | 69.533 | 1.00 | 86.93 | C |
| ATOM | 8932 | C | VAL | A1241 | 4.387 | 93.890 | 69.472 | 1.00 | 86.93 | C |
| ATOM | 8933 | O | VAL | A1241 | 4.116 | 93.201 | 70.463 | 1.00 | 86.93 | O |
| ATOM | 8934 | CB | VAL | A1241 | 5.251 | 95.813 | 70.763 | 1.00 | 206.43 | C |
| ATOM | 8935 | CG1 | VAL | A1241 | 6.710 | 95.426 | 70.573 | 1.00 | 206.43 | C |
| ATOM | 8936 | CG2 | VAL | A1241 | 5.130 | 97.311 | 70.965 | 1.00 | 206.43 | C |
| ATOM | 8937 | N | ILE | A1242 | 4.637 | 93.399 | 68.278 | 1.00 | 96.33 | N |
| ATOM | 8938 | CA | ILE | A1242 | 4.636 | 91.983 | 68.062 | 1.00 | 96.33 | C |
| ATOM | 8939 | C | ILE | A1242 | 6.089 | 91.455 | 68.051 | 1.00 | 96.33 | C |
| ATOM | 8940 | O | ILE | A1242 | 7.031 | 92.109 | 67.579 | 1.00 | 96.33 | O |
| ATOM | 8941 | CB | ILE | A1242 | 3.839 | 91.649 | 66.751 | 1.00 | 100.74 | C |
| ATOM | 8942 | CG1 | ILE | A1242 | 4.243 | 90.281 | 66.200 | 1.00 | 100.74 | C |
| ATOM | 8943 | CG2 | ILE | A1242 | 3.984 | 92.782 | 65.754 | 1.00 | 100.74 | C |
| ATOM | 8944 | CD1 | ILE | A1242 | 3.727 | 89.116 | 67.013 | 1.00 | 100.74 | C |
| ATOM | 8945 | N | GLN | A1243 | 6.268 | 90.294 | 68.663 | 1.00 | 112.41 | N |
| ATOM | 8946 | CA | GLN | A1243 | 7.574 | 89.672 | 68.720 | 1.00 | 112.41 | C |
| ATOM | 8947 | C | GLN | A1243 | 7.452 | 88.432 | 67.874 | 1.00 | 112.41 | C |
| ATOM | 8948 | O | GLN | A1243 | 7.088 | 87.369 | 68.391 | 1.00 | 112.41 | O |
| ATOM | 8949 | CB | GLN | A1243 | 7.946 | 89.306 | 70.159 | 1.00 | 150.10 | C |
| ATOM | 8950 | CG | GLN | A1243 | 9.409 | 88.938 | 70.336 | 1.00 | 150.10 | C |
| ATOM | 8951 | CD | GLN | A1243 | 10.319 | 90.133 | 70.166 | 1.00 | 150.10 | C |
| ATOM | 8952 | OE1 | GLN | A1243 | 10.258 | 90.835 | 69.158 | 1.00 | 150.10 | O |
| ATOM | 8953 | NE2 | GLN | A1243 | 11.168 | 90.374 | 71.157 | 1.00 | 150.10 | N |
| ATOM | 8954 | N | ASN | A1244 | 7.757 | 88.589 | 66.581 | 1.00 | 207.38 | N |
| ATOM | 8955 | CA | ASN | A1244 | 7.675 | 87.525 | 65.571 | 1.00 | 207.38 | C |
| ATOM | 8956 | C | ASN | A1244 | 6.973 | 86.256 | 66.097 | 1.00 | 207.38 | C |
| ATOM | 8957 | O | ASN | A1244 | 7.566 | 85.465 | 66.852 | 1.00 | 207.38 | O |
| ATOM | 8958 | CB | ASN | A1244 | 9.065 | 87.175 | 65.019 | 1.00 | 157.08 | C |
| ATOM | 8959 | CG | ASN | A1244 | 9.328 | 87.809 | 63.656 | 1.00 | 157.08 | C |
| ATOM | 8960 | OD1 | ASN | A1244 | 8.520 | 87.683 | 62.732 | 1.00 | 157.08 | O |
| ATOM | 8961 | ND2 | ASN | A1244 | 10.462 | 88.484 | 63.525 | 1.00 | 157.08 | N |
| ATOM | 8962 | N | GLY | A1245 | 5.697 | 86.105 | 65.710 | 1.00 | 129.36 | N |
| ATOM | 8963 | CA | GLY | A1245 | 4.878 | 84.958 | 66.097 | 1.00 | 129.36 | C |
| ATOM | 8964 | C | GLY | A1245 | 3.918 | 85.218 | 67.240 | 1.00 | 129.36 | C |
| ATOM | 8965 | O | GLY | A1245 | 2.803 | 84.696 | 67.267 | 1.00 | 129.36 | O |
| ATOM | 8966 | N | LYS | A1246 | 4.358 | 86.048 | 68.178 | 1.00 | 157.96 | N |
| ATOM | 8967 | CA | LYS | A1246 | 3.559 | 86.349 | 69.353 | 1.00 | 157.96 | C |
| ATOM | 8968 | C | LYS | A1246 | 3.536 | 87.823 | 69.739 | 1.00 | 157.96 | C |
| ATOM | 8969 | O | LYS | A1246 | 4.587 | 88.477 | 69.828 | 1.00 | 157.96 | O |
| ATOM | 8970 | CB | LYS | A1246 | 4.094 | 85.543 | 70.547 | 1.00 | 126.51 | C |
| ATOM | 8971 | CG | LYS | A1246 | 5.394 | 84.748 | 70.289 | 1.00 | 126.51 | C |
| ATOM | 8972 | CD | LYS | A1246 | 6.638 | 85.631 | 70.199 | 1.00 | 126.51 | C |
| ATOM | 8973 | CE | LYS | A1246 | 7.888 | 84.802 | 69.868 | 1.00 | 126.51 | C |
| ATOM | 8974 | NZ | LYS | A1246 | 9.149 | 85.590 | 69.697 | 1.00 | 126.51 | N |
| ATOM | 8975 | N | VAL | A1247 | 2.331 | 88.336 | 69.981 | 1.00 | 103.29 | N |
| ATOM | 8976 | CA | VAL | A1247 | 2.161 | 89.730 | 70.377 | 1.00 | 103.29 | C |
| ATOM | 8977 | C | VAL | A1247 | 2.388 | 89.909 | 71.895 | 1.00 | 103.29 | C |
| ATOM | 8978 | O | VAL | A1247 | 1.709 | 89.306 | 72.725 | 1.00 | 103.29 | O |
| ATOM | 8979 | CB | VAL | A1247 | 0.765 | 90.258 | 69.927 | 1.00 | 135.09 | C |
| ATOM | 8980 | CG1 | VAL | A1247 | -0.317 | 89.252 | 70.267 | 1.00 | 135.09 | C |
| ATOM | 8981 | CG2 | VAL | A1247 | 0.487 | 91.607 | 70.564 | 1.00 | 135.09 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 8982 | N | LYS | A1248 | 3.362 | 90.746 | 72.243 | 1.00102.20 | N |
| ATOM | 8983 | CA | LYS | A1248 | 3.701 | 90.956 | 73.643 | 1.00102.20 | C |
| ATOM | 8984 | C | LYS | A1248 | 3.331 | 92.307 | 74.258 | 1.00102.20 | C |
| ATOM | 8985 | O | LYS | A1248 | 3.067 | 92.394 | 75.448 | 1.00102.20 | O |
| ATOM | 8986 | CB | LYS | A1248 | 5.202 | 90.722 | 73.834 | 1.00128.92 | C |
| ATOM | 8987 | CG | LYS | A1248 | 5.680 | 90.823 | 75.273 | 1.00128.92 | C |
| ATOM | 8988 | CD | LYS | A1248 | 6.376 | 89.543 | 75.709 | 1.00128.92 | C |
| ATOM | 8989 | CE | LYS | A1248 | 5.439 | 88.350 | 75.601 | 1.00128.92 | C |
| ATOM | 8990 | NZ | LYS | A1248 | 6.086 | 87.081 | 76.032 | 1.00128.92 | N |
| ATOM | 8991 | N | GLU | A1249 | 3.345 | 93.377 | 73.485 | 1.00164.08 | N |
| ATOM | 8992 | CA | GLU | A1249 | 2.969 | 94.648 | 74.088 | 1.00164.08 | C |
| ATOM | 8993 | C | GLU | A1249 | 1.941 | 95.313 | 73.204 | 1.00164.08 | C |
| ATOM | 8994 | O | GLU | A1249 | 1.657 | 94.823 | 72.108 | 1.00164.08 | O |
| ATOM | 8995 | CB | GLU | A1249 | 4.180 | 95.581 | 74.221 | 1.00140.44 | C |
| ATOM | 8996 | CG | GLU | A1249 | 5.220 | 95.157 | 75.242 | 1.00140.44 | C |
| ATOM | 8997 | CD | GLU | A1249 | 6.194 | 96.278 | 75.565 | 1.00140.44 | C |
| ATOM | 8998 | OE1 | GLU | A1249 | 7.180 | 96.027 | 76.292 | 1.00140.44 | O |
| ATOM | 8999 | OE2 | GLU | A1249 | 5.966 | 97.414 | 75.097 | 1.00140.44 | O |
| ATOM | 9000 | N | HIS | A1250 | 1.375 | 96.417 | 73.687 | 1.00124.19 | N |
| ATOM | 9001 | CA | HIS | A1250 | 0.396 | 97.181 | 72.918 | 1.00124.19 | C |
| ATOM | 9002 | C | HIS | A1250 | -0.340 | 98.212 | 73.742 | 1.00124.19 | C |
| ATOM | 9003 | O | HIS | A1250 | -0.410 | 98.116 | 74.971 | 1.00124.19 | O |
| ATOM | 9004 | CB | HIS | A1250 | -0.617 | 96.242 | 72.250 | 1.00129.90 | C |
| ATOM | 9005 | CG | HIS | A1250 | -1.751 | 95.845 | 73.139 | 1.00129.90 | C |
| ATOM | 9006 | ND1 | HIS | A1250 | -2.669 | 96.755 | 73.618 | 1.00129.90 | N |
| ATOM | 9007 | CD2 | HIS | A1250 | -2.113 | 94.642 | 73.641 | 1.00129.90 | C |
| ATOM | 9008 | CE1 | HIS | A1250 | -3.548 | 96.128 | 74.379 | 1.00129.90 | C |
| ATOM | 9009 | NE2 | HIS | A1250 | -3.233 | 94.845 | 74.409 | 1.00129.90 | N |
| ATOM | 9010 | N | GLY | A1251 | -0.890 | 99.194 | 73.032 | 1.00174.55 | N |
| ATOM | 9011 | CA | GLY | A1251 | -1.635 | 100.270 | 73.669 | 1.00174.55 | C |
| ATOM | 9012 | C | GLY | A1251 | -1.237 | 101.593 | 73.043 | 1.00174.55 | C |
| ATOM | 9013 | O | GLY | A1251 | -0.845 | 101.624 | 71.874 | 1.00174.55 | O |
| ATOM | 9014 | N | THR | A1252 | -1.339 | 102.688 | 73.794 | 1.00207.38 | N |
| ATOM | 9015 | CA | THR | A1252 | -0.938 | 103.986 | 73.256 | 1.00207.38 | C |
| ATOM | 9016 | C | THR | A1252 | 0.550 | 104.250 | 73.529 | 1.00207.38 | C |
| ATOM | 9017 | O | THR | A1252 | 1.143 | 103.625 | 74.412 | 1.00207.38 | O |
| ATOM | 9018 | CB | THR | A1252 | -1.787 | 105.148 | 73.833 | 1.00147.06 | C |
| ATOM | 9019 | OG1 | THR | A1252 | -1.144 | 106.400 | 73.551 | 1.00147.06 | O |
| ATOM | 9020 | CG2 | THR | A1252 | -1.991 | 104.979 | 75.324 | 1.00147.06 | C |
| ATOM | 9021 | N | HIS | A1253 | 1.148 | 105.175 | 72.778 | 1.00103.17 | N |
| ATOM | 9022 | CA | HIS | A1253 | 2.581 | 105.466 | 72.920 | 1.00103.17 | C |
| ATOM | 9023 | C | HIS | A1253 | 3.082 | 105.612 | 74.356 | 1.00103.17 | C |
| ATOM | 9024 | O | HIS | A1253 | 3.793 | 104.741 | 74.859 | 1.00103.17 | O |
| ATOM | 9025 | CB | HIS | A1253 | 2.960 | 106.711 | 72.114 | 1.00120.42 | C |
| ATOM | 9026 | CG | HIS | A1253 | 4.387 | 106.719 | 71.654 | 1.00120.42 | C |
| ATOM | 9027 | ND1 | HIS | A1253 | 5.455 | 106.717 | 72.526 | 1.00120.42 | N |
| ATOM | 9028 | CD2 | HIS | A1253 | 4.921 | 106.723 | 70.409 | 1.00120.42 | C |
| ATOM | 9029 | CE1 | HIS | A1253 | 6.584 | 106.720 | 71.839 | 1.00120.42 | C |
| ATOM | 9030 | NE2 | HIS | A1253 | 6.288 | 106.724 | 70.552 | 1.00120.42 | N |
| ATOM | 9031 | N | GLN | A1254 | 2.719 | 106.709 | 75.014 | 1.00207.38 | N |
| ATOM | 9032 | CA | GLN | A1254 | 3.169 | 106.942 | 76.381 | 1.00207.38 | C |
| ATOM | 9033 | C | GLN | A1254 | 2.784 | 105.780 | 77.303 | 1.00207.38 | C |
| ATOM | 9034 | O | GLN | A1254 | 3.489 | 105.479 | 78.269 | 1.00207.38 | O |
| ATOM | 9035 | CB | GLN | A1254 | 2.603 | 108.264 | 76.926 | 1.00159.53 | C |
| ATOM | 9036 | CG | GLN | A1254 | 1.139 | 108.240 | 77.344 | 1.00159.53 | C |
| ATOM | 9037 | CD | GLN | A1254 | 0.199 | 107.897 | 76.207 | 1.00159.53 | C |
| ATOM | 9038 | OE1 | GLN | A1254 | 0.210 | 106.778 | 75.698 | 1.00159.53 | O |
| ATOM | 9039 | NE2 | GLN | A1254 | -0.622 | 108.861 | 75.803 | 1.00159.53 | N |
| ATOM | 9040 | N | GLN | A1255 | 1.678 | 105.116 | 76.978 | 1.00139.21 | N |
| ATOM | 9041 | CA | GLN | A1255 | 1.183 | 103.988 | 77.760 | 1.00139.21 | C |
| ATOM | 9042 | C | GLN | A1255 | 2.168 | 102.852 | 77.578 | 1.00139.21 | C |
| ATOM | 9043 | O | GLN | A1255 | 2.444 | 102.094 | 78.502 | 1.00139.21 | O |
| ATOM | 9044 | CB | GLN | A1255 | -0.187 | 103.591 | 77.224 | 1.00138.05 | C |
| ATOM | 9045 | CG | GLN | A1255 | -1.054 | 102.829 | 78.181 | 1.00138.05 | C |
| ATOM | 9046 | CD | GLN | A1255 | -2.365 | 102.436 | 77.545 | 1.00138.05 | C |
| ATOM | 9047 | OE1 | GLN | A1255 | -3.090 | 103.284 | 77.027 | 1.00138.05 | O |
| ATOM | 9048 | NE2 | GLN | A1255 | -2.679 | 101.147 | 77.576 | 1.00138.05 | N |
| ATOM | 9049 | N | LEU | A1256 | 2.692 | 102.749 | 76.363 | 1.00157.79 | N |
| ATOM | 9050 | CA | LEU | A1256 | 3.667 | 101.732 | 76.022 | 1.00157.79 | C |
| ATOM | 9051 | C | LEU | A1256 | 4.968 | 102.024 | 76.746 | 1.00157.79 | C |
| ATOM | 9052 | O | LEU | A1256 | 5.589 | 101.115 | 77.291 | 1.00157.79 | O |
| ATOM | 9053 | CB | LEU | A1256 | 3.937 | 101.722 | 74.515 | 1.00111.65 | C |
| ATOM | 9054 | CG | LEU | A1256 | 2.922 | 101.039 | 73.597 | 1.00111.65 | C |
| ATOM | 9055 | CD1 | LEU | A1256 | 3.341 | 101.217 | 72.149 | 1.00111.65 | C |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 9056 | CD2 | LEU | A1256 | 2.835 | 99.560 | 73.941 | 1.00111.65 | C |
| ATOM | 9057 | N | LEU | A1257 | 5.389 | 103.288 | 76.737 | 1.00148.08 | N |
| ATOM | 9058 | CA | LEU | A1257 | 6.623 | 103.661 | 77.411 | 1.00148.08 | C |
| ATOM | 9059 | C | LEU | A1257 | 6.380 | 103.373 | 78.869 | 1.00148.08 | C |
| ATOM | 9060 | O | LEU | A1257 | 7.263 | 102.901 | 79.584 | 1.00148.08 | O |
| ATOM | 9061 | CB | LEU | A1257 | 6.930 | 105.146 | 77.228 | 1.00141.30 | C |
| ATOM | 9062 | CG | LEU | A1257 | 8.291 | 105.531 | 77.819 | 1.00141.30 | C |
| ATOM | 9063 | CD1 | LEU | A1257 | 9.393 | 104.806 | 77.046 | 1.00141.30 | C |
| ATOM | 9064 | CD2 | LEU | A1257 | 8.491 | 107.040 | 77.770 | 1.00141.30 | C |
| ATOM | 9065 | N | ALA | A1258 | 5.163 | 103.674 | 79.304 | 1.00138.92 | N |
| ATOM | 9066 | CA | ALA | A1258 | 4.782 | 103.409 | 80.677 | 1.00138.92 | C |
| ATOM | 9067 | C | ALA | A1258 | 5.194 | 101.963 | 80.942 | 1.00138.92 | C |
| ATOM | 9068 | O | ALA | A1258 | 5.754 | 101.640 | 81.990 | 1.00138.92 | O |
| ATOM | 9069 | CB | ALA | A1258 | 3.281 | 103.572 | 80.851 | 1.00207.38 | C |
| ATOM | 9070 | N | GLN | A1259 | 4.898 | 101.095 | 79.978 | 1.00170.55 | N |
| ATOM | 9071 | CA | GLN | A1259 | 5.262 | 99.689 | 80.090 | 1.00170.55 | C |
| ATOM | 9072 | C | GLN | A1259 | 6.740 | 99.592 | 79.740 | 1.00170.55 | C |
| ATOM | 9073 | O | GLN | A1259 | 7.116 | 98.947 | 78.761 | 1.00170.55 | O |
| ATOM | 9074 | CB | GLN | A1259 | 4.438 | 98.827 | 79.124 | 1.00144.73 | C |
| ATOM | 9075 | CG | GLN | A1259 | 3.180 | 98.200 | 79.722 | 1.00144.73 | C |
| ATOM | 9076 | CD | GLN | A1259 | 1.929 | 99.032 | 79.500 | 1.00144.73 | C |
| ATOM | 9077 | OE1 | GLN | A1259 | 1.772 | 100.108 | 80.074 | 1.00144.73 | O |
| ATOM | 9078 | NE2 | GLN | A1259 | 1.031 | 98.533 | 78.656 | 1.00144.73 | N |
| ATOM | 9079 | N | LYS | A1260 | 7.573 | 100.253 | 80.538 | 1.00167.00 | N |
| ATOM | 9080 | CA | LYS | A1260 | 9.008 | 100.241 | 80.299 | 1.00167.00 | C |
| ATOM | 9081 | C | LYS | A1260 | 9.475 | 98.817 | 80.073 | 1.00167.00 | C |
| ATOM | 9082 | O | LYS | A1260 | 9.243 | 97.940 | 80.902 | 1.00167.00 | O |
| ATOM | 9083 | CB | LYS | A1260 | 9.774 | 100.834 | 81.489 | 1.00207.38 | C |
| ATOM | 9084 | CG | LYS | A1260 | 9.353 | 102.233 | 81.896 | 1.00207.38 | C |
| ATOM | 9085 | CD | LYS | A1260 | 8.123 | 102.200 | 82.781 | 1.00207.38 | C |
| ATOM | 9086 | CE | LYS | A1260 | 7.660 | 103.602 | 83.118 | 1.00207.38 | C |
| ATOM | 9087 | NZ | LYS | A1260 | 7.302 | 104.357 | 81.886 | 1.00207.38 | N |
| ATOM | 9088 | N | GLY | A1261 | 10.126 | 98.592 | 78.941 | 1.00133.20 | N |
| ATOM | 9089 | CA | GLY | A1261 | 10.622 | 97.268 | 78.643 | 1.00133.20 | C |
| ATOM | 9090 | C | GLY | A1261 | 10.942 | 97.115 | 77.180 | 1.00133.20 | C |
| ATOM | 9091 | O | GLY | A1261 | 11.811 | 97.791 | 76.634 | 1.00133.20 | O |
| ATOM | 9092 | N | ILE | A1262 | 10.220 | 96.223 | 76.530 | 1.00156.91 | N |
| ATOM | 9093 | CA | ILE | A1262 | 10.462 | 95.992 | 75.131 | 1.00156.91 | C |
| ATOM | 9094 | C | ILE | A1262 | 10.321 | 97.278 | 74.298 | 1.00156.91 | C |
| ATOM | 9095 | O | ILE | A1262 | 11.336 | 97.885 | 73.949 | 1.00156.91 | O |
| ATOM | 9096 | CB | ILE | A1262 | 9.533 | 94.878 | 74.590 | 1.00131.65 | C |
| ATOM | 9097 | CG1 | ILE | A1262 | 9.731 | 93.592 | 75.405 | 1.00131.65 | C |
| ATOM | 9098 | CG2 | ILE | A1262 | 9.859 | 94.585 | 73.136 | 1.00131.65 | C |
| ATOM | 9099 | CD1 | ILE | A1262 | 9.179 | 93.650 | 76.816 | 1.00131.65 | C |
| ATOM | 9100 | N | TYR | A1263 | 9.095 | 97.717 | 74.005 | 1.00 90.80 | N |
| ATOM | 9101 | CA | TYR | A1263 | 8.900 | 98.915 | 73.184 | 1.00 90.80 | C |
| ATOM | 9102 | C | TYR | A1263 | 9.796 | 100.038 | 73.615 | 1.00 90.80 | C |
| ATOM | 9103 | O | TYR | A1263 | 10.230 | 100.846 | 72.801 | 1.00 90.80 | O |
| ATOM | 9104 | CB | TYR | A1263 | 7.453 | 99.396 | 73.257 | 1.00 81.61 | C |
| ATOM | 9105 | CG | TYR | A1263 | 7.170 | 100.638 | 72.432 | 1.00 81.61 | C |
| ATOM | 9106 | CD1 | TYR | A1263 | 6.875 | 100.547 | 71.068 | 1.00 81.61 | C |
| ATOM | 9107 | CD2 | TYR | A1263 | 7.162 | 101.901 | 73.025 | 1.00 81.61 | C |
| ATOM | 9108 | CE1 | TYR | A1263 | 6.570 | 101.679 | 70.321 | 1.00 81.61 | C |
| ATOM | 9109 | CE2 | TYR | A1263 | 6.859 | 103.043 | 72.284 | 1.00 81.61 | C |
| ATOM | 9110 | CZ | TYR | A1263 | 6.558 | 102.922 | 70.934 | 1.00 81.61 | C |
| ATOM | 9111 | OH | TYR | A1263 | 6.192 | 104.029 | 70.206 | 1.00 81.61 | O |
| ATOM | 9112 | N | PHE | A1264 | 10.043 | 100.096 | 74.917 | 1.00169.76 | N |
| ATOM | 9113 | CA | PHE | A1264 | 10.902 | 101.114 | 75.504 | 1.00169.76 | C |
| ATOM | 9114 | C | PHE | A1264 | 12.281 | 100.968 | 74.866 | 1.00169.76 | C |
| ATOM | 9115 | O | PHE | A1264 | 12.755 | 101.861 | 74.160 | 1.00169.76 | O |
| ATOM | 9116 | CB | PHE | A1264 | 10.988 | 100.885 | 77.018 | 1.00183.88 | C |
| ATOM | 9117 | CG | PHE | A1264 | 11.666 | 101.995 | 77.778 | 1.00183.88 | C |
| ATOM | 9118 | CD1 | PHE | A1264 | 12.977 | 102.361 | 77.495 | 1.00183.88 | C |
| ATOM | 9119 | CD2 | PHE | A1264 | 10.998 | 102.650 | 78.810 | 1.00183.88 | C |
| ATOM | 9120 | CE1 | PHE | A1264 | 13.615 | 103.361 | 78.232 | 1.00183.88 | C |
| ATOM | 9121 | CE2 | PHE | A1264 | 11.627 | 103.650 | 79.552 | 1.00183.88 | C |
| ATOM | 9122 | CZ | PHE | A1264 | 12.936 | 104.005 | 79.263 | 1.00183.88 | C |
| ATOM | 9123 | N | SER | A1265 | 12.907 | 99.822 | 75.114 | 1.00173.11 | N |
| ATOM | 9124 | CA | SER | A1265 | 14.226 | 99.548 | 74.576 | 1.00173.11 | C |
| ATOM | 9125 | C | SER | A1265 | 14.260 | 99.930 | 73.107 | 1.00173.11 | C |
| ATOM | 9126 | O | SER | A1265 | 15.253 | 100.458 | 72.626 | 1.00173.11 | O |
| ATOM | 9127 | CB | SER | A1265 | 14.572 | 98.069 | 74.743 | 1.00139.40 | C |
| ATOM | 9128 | OG | SER | A1265 | 15.933 | 97.832 | 74.425 | 1.00139.40 | O |
| ATOM | 9129 | N | MET | A1266 | 13.172 | 99.675 | 72.391 | 1.00118.28 | N |

| | | | | | | | | | |
|------|------|-----|-----|-------|--------|---------|--------|------------|---|
| ATOM | 9130 | CA | MET | A1266 | 13.133 | 100.023 | 70.982 | 1.00118.28 | C |
| ATOM | 9131 | C | MET | A1266 | 13.299 | 101.538 | 70.822 | 1.00118.28 | C |
| ATOM | 9132 | O | MET | A1266 | 14.022 | 101.991 | 69.930 | 1.00118.28 | O |
| ATOM | 9133 | CB | MET | A1266 | 11.788 | 99.610 | 70.376 | 1.00113.58 | C |
| ATOM | 9134 | CG | MET | A1266 | 11.534 | 98.112 | 70.302 | 1.00113.58 | C |
| ATOM | 9135 | SD | MET | A1266 | 11.925 | 97.414 | 68.678 | 1.00113.58 | S |
| ATOM | 9136 | CE | MET | A1266 | 13.578 | 96.864 | 68.894 | 1.00113.58 | C |
| ATOM | 9137 | N | VAL | A1267 | 12.641 | 102.319 | 71.684 | 1.00145.31 | N |
| ATOM | 9138 | CA | VAL | A1267 | 12.724 | 103.782 | 71.599 | 1.00145.31 | C |
| ATOM | 9139 | C | VAL | A1267 | 14.033 | 104.289 | 72.192 | 1.00145.31 | C |
| ATOM | 9140 | O | VAL | A1267 | 14.582 | 105.325 | 71.762 | 1.00145.31 | O |
| ATOM | 9141 | CB | VAL | A1267 | 11.560 | 104.461 | 72.354 | 1.00 58.22 | C |
| ATOM | 9142 | CG1 | VAL | A1267 | 11.008 | 105.602 | 71.518 | 1.00 58.22 | C |
| ATOM | 9143 | CG2 | VAL | A1267 | 10.470 | 103.460 | 72.677 | 1.00 58.22 | C |
| ATOM | 9144 | N | SER | A1268 | 14.526 | 103.548 | 73.182 | 1.00156.08 | N |
| ATOM | 9145 | CA | SER | A1268 | 15.778 | 103.888 | 73.849 | 1.00156.08 | C |
| ATOM | 9146 | C | SER | A1268 | 16.990 | 103.565 | 72.971 | 1.00156.08 | C |
| ATOM | 9147 | O | SER | A1268 | 18.086 | 104.073 | 73.192 | 1.00156.08 | O |
| ATOM | 9148 | CB | SER | A1268 | 15.881 | 103.145 | 75.188 | 1.00178.60 | C |
| ATOM | 9149 | OG | SER | A1268 | 15.661 | 101.756 | 75.030 | 1.00178.60 | O |
| ATOM | 9150 | N | VAL | A1269 | 16.795 | 102.710 | 71.976 | 1.00120.99 | N |
| ATOM | 9151 | CA | VAL | A1269 | 17.877 | 102.377 | 71.056 | 1.00120.99 | C |
| ATOM | 9152 | C | VAL | A1269 | 17.752 | 103.380 | 69.928 | 1.00120.99 | C |
| ATOM | 9153 | O | VAL | A1269 | 18.743 | 103.801 | 69.335 | 1.00120.99 | O |
| ATOM | 9154 | CB | VAL | A1269 | 17.740 | 100.950 | 70.483 | 1.00155.80 | C |
| ATOM | 9155 | CG1 | VAL | A1269 | 16.508 | 100.854 | 69.605 | 1.00155.80 | C |
| ATOM | 9156 | CG2 | VAL | A1269 | 18.993 | 100.584 | 69.691 | 1.00155.80 | C |
| ATOM | 9157 | N | GLN | A1270 | 16.508 | 103.750 | 69.644 | 1.00193.76 | N |
| ATOM | 9158 | CA | GLN | A1270 | 16.196 | 104.732 | 68.616 | 1.00193.76 | C |
| ATOM | 9159 | C | GLN | A1270 | 16.940 | 106.019 | 68.935 | 1.00193.76 | C |
| ATOM | 9160 | O | GLN | A1270 | 17.378 | 106.732 | 68.034 | 1.00193.76 | O |
| ATOM | 9161 | CB | GLN | A1270 | 14.688 | 104.999 | 68.612 | 1.00135.31 | C |
| ATOM | 9162 | CG | GLN | A1270 | 14.271 | 106.324 | 67.992 | 1.00135.31 | C |
| ATOM | 9163 | CD | GLN | A1270 | 12.810 | 106.648 | 68.243 | 1.00135.31 | C |
| ATOM | 9164 | OE1 | GLN | A1270 | 12.382 | 106.789 | 69.390 | 1.00135.31 | O |
| ATOM | 9165 | NE2 | GLN | A1270 | 12.037 | 106.769 | 67.170 | 1.00135.31 | N |
| ATOM | 9166 | N | ALA | A1271 | 17.076 | 106.306 | 70.227 | 1.00207.38 | N |
| ATOM | 9167 | CA | ALA | A1271 | 17.754 | 107.519 | 70.684 | 1.00207.38 | C |
| ATOM | 9168 | C | ALA | A1271 | 17.063 | 108.727 | 70.068 | 1.00207.38 | C |
| ATOM | 9169 | O | ALA | A1271 | 17.775 | 109.635 | 69.578 | 1.00207.38 | O |
| ATOM | 9170 | CB | ALA | A1271 | 19.213 | 107.477 | 70.274 | 1.00126.36 | C |
| TER | 9171 | | ALA | A1271 | | | | | |
| ATOM | 9172 | N | VAL | B 33 | 48.597 | 62.231 | 87.873 | 1.00205.91 | N |
| ATOM | 9173 | CA | VAL | B 33 | 49.527 | 62.957 | 86.960 | 1.00205.91 | C |
| ATOM | 9174 | C | VAL | B 33 | 49.937 | 62.081 | 85.758 | 1.00205.91 | C |
| ATOM | 9175 | O | VAL | B 33 | 49.351 | 61.011 | 85.536 | 1.00205.91 | O |
| ATOM | 9176 | CB | VAL | B 33 | 50.777 | 63.440 | 87.727 | 1.00165.77 | C |
| ATOM | 9177 | CG1 | VAL | B 33 | 50.424 | 64.654 | 88.568 | 1.00165.77 | C |
| ATOM | 9178 | CG2 | VAL | B 33 | 51.288 | 62.334 | 88.633 | 1.00165.77 | C |
| ATOM | 9179 | N | SER | B 34 | 50.920 | 62.555 | 84.988 | 1.00158.12 | N |
| ATOM | 9180 | CA | SER | B 34 | 51.434 | 61.860 | 83.798 | 1.00158.12 | C |
| ATOM | 9181 | C | SER | B 34 | 50.751 | 60.526 | 83.458 | 1.00158.12 | C |
| ATOM | 9182 | O | SER | B 34 | 50.114 | 60.404 | 82.415 | 1.00158.12 | O |
| ATOM | 9183 | CB | SER | B 34 | 52.944 | 61.629 | 83.931 | 1.00207.38 | C |
| ATOM | 9184 | OG | SER | B 34 | 53.241 | 60.744 | 84.997 | 1.00207.38 | O |
| ATOM | 9185 | N | VAL | B 35 | 50.890 | 59.526 | 84.322 | 1.00189.55 | N |
| ATOM | 9186 | CA | VAL | B 35 | 50.249 | 58.253 | 84.063 | 1.00189.55 | C |
| ATOM | 9187 | C | VAL | B 35 | 48.791 | 58.523 | 83.750 | 1.00189.55 | C |
| ATOM | 9188 | O | VAL | B 35 | 48.386 | 58.526 | 82.590 | 1.00189.55 | O |
| ATOM | 9189 | CB | VAL | B 35 | 50.333 | 57.307 | 85.284 | 1.00 90.10 | C |
| ATOM | 9190 | CG1 | VAL | B 35 | 51.797 | 57.070 | 85.673 | 1.00 90.10 | C |
| ATOM | 9191 | CG2 | VAL | B 35 | 49.524 | 57.886 | 86.448 | 1.00 90.10 | C |
| ATOM | 9192 | N | LEU | B 36 | 48.035 | 58.810 | 84.804 | 1.00136.42 | N |
| ATOM | 9193 | CA | LEU | B 36 | 46.607 | 59.058 | 84.746 | 1.00136.42 | C |
| ATOM | 9194 | C | LEU | B 36 | 46.214 | 60.408 | 84.204 | 1.00136.42 | C |
| ATOM | 9195 | O | LEU | B 36 | 45.287 | 60.496 | 83.415 | 1.00136.42 | O |
| ATOM | 9196 | CB | LEU | B 36 | 46.055 | 58.904 | 86.154 | 1.00 99.14 | C |
| ATOM | 9197 | CG | LEU | B 36 | 46.824 | 59.948 | 86.966 | 1.00 99.14 | C |
| ATOM | 9198 | CD1 | LEU | B 36 | 45.901 | 61.103 | 87.314 | 1.00 99.14 | C |
| ATOM | 9199 | CD2 | LEU | B 36 | 47.434 | 59.325 | 88.200 | 1.00 99.14 | C |
| ATOM | 9200 | N | THR | B 37 | 46.885 | 61.468 | 84.636 | 1.00124.47 | N |
| ATOM | 9201 | CA | THR | B 37 | 46.534 | 62.789 | 84.132 | 1.00124.47 | C |
| ATOM | 9202 | C | THR | B 37 | 47.014 | 63.012 | 82.695 | 1.00124.47 | C |
| ATOM | 9203 | O | THR | B 37 | 46.199 | 63.348 | 81.829 | 1.00124.47 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|----|--------|--------|--------|------------|---|
| ATOM | 9204 | CB | THR | B | 37 | 47.073 | 63.914 | 85.043 | 1.00169.56 | C |
| ATOM | 9205 | OG1 | THR | B | 37 | 46.389 | 63.880 | 86.304 | 1.00169.56 | O |
| ATOM | 9206 | CG2 | THR | B | 37 | 46.853 | 65.273 | 84.392 | 1.00169.56 | C |
| ATOM | 9207 | N | MET | B | 38 | 48.308 | 62.833 | 82.409 | 1.00100.83 | N |
| ATOM | 9208 | CA | MET | B | 38 | 48.751 | 63.052 | 81.019 | 1.00100.83 | C |
| ATOM | 9209 | C | MET | B | 38 | 47.804 | 62.160 | 80.265 | 1.00100.83 | C |
| ATOM | 9210 | O | MET | B | 38 | 47.127 | 62.580 | 79.320 | 1.00100.83 | O |
| ATOM | 9211 | CB | MET | B | 38 | 50.205 | 62.611 | 80.787 | 1.00144.98 | C |
| ATOM | 9212 | CG | MET | B | 38 | 51.121 | 63.664 | 80.105 | 1.00144.98 | C |
| ATOM | 9213 | SD | MET | B | 38 | 50.882 | 64.056 | 78.341 | 1.00144.98 | S |
| ATOM | 9214 | CE | MET | B | 38 | 50.684 | 65.894 | 78.399 | 1.00144.98 | C |
| ATOM | 9215 | N | PHE | B | 39 | 47.725 | 60.926 | 80.732 | 1.00111.05 | N |
| ATOM | 9216 | CA | PHE | B | 39 | 46.823 | 60.024 | 80.101 | 1.00111.05 | C |
| ATOM | 9217 | C | PHE | B | 39 | 45.529 | 60.784 | 79.801 | 1.00111.05 | C |
| ATOM | 9218 | O | PHE | B | 39 | 45.014 | 60.671 | 78.706 | 1.00111.05 | O |
| ATOM | 9219 | CB | PHE | B | 39 | 46.541 | 58.828 | 80.992 | 1.00156.66 | C |
| ATOM | 9220 | CG | PHE | B | 39 | 45.966 | 57.697 | 80.248 | 1.00156.66 | C |
| ATOM | 9221 | CD1 | PHE | B | 39 | 44.601 | 57.463 | 80.261 | 1.00156.66 | C |
| ATOM | 9222 | CD2 | PHE | B | 39 | 46.775 | 56.947 | 79.408 | 1.00156.66 | C |
| ATOM | 9223 | CE1 | PHE | B | 39 | 44.044 | 56.500 | 79.435 | 1.00156.66 | C |
| ATOM | 9224 | CE2 | PHE | B | 39 | 46.236 | 55.984 | 78.579 | 1.00156.66 | C |
| ATOM | 9225 | CZ | PHE | B | 39 | 44.868 | 55.757 | 78.586 | 1.00156.66 | C |
| ATOM | 9226 | N | ARG | B | 40 | 45.018 | 61.571 | 80.755 | 1.00151.00 | N |
| ATOM | 9227 | CA | ARG | B | 40 | 43.777 | 62.348 | 80.560 | 1.00151.00 | C |
| ATOM | 9228 | C | ARG | B | 40 | 44.009 | 63.876 | 80.501 | 1.00151.00 | C |
| ATOM | 9229 | O | ARG | B | 40 | 43.528 | 64.630 | 81.345 | 1.00151.00 | O |
| ATOM | 9230 | CB | ARG | B | 40 | 42.783 | 62.050 | 81.708 | 1.00139.57 | C |
| ATOM | 9231 | CG | ARG | B | 40 | 41.563 | 61.181 | 81.349 | 1.00139.57 | C |
| ATOM | 9232 | CD | ARG | B | 40 | 40.652 | 60.937 | 82.543 | 1.00139.57 | C |
| ATOM | 9233 | NE | ARG | B | 40 | 40.138 | 62.187 | 83.092 | 1.00139.57 | N |
| ATOM | 9234 | CZ | ARG | B | 40 | 39.495 | 62.287 | 84.251 | 1.00139.57 | C |
| ATOM | 9235 | NH1 | ARG | B | 40 | 39.280 | 61.201 | 84.991 | 1.00139.57 | N |
| ATOM | 9236 | NH2 | ARG | B | 40 | 39.081 | 63.476 | 84.676 | 1.00139.57 | N |
| ATOM | 9237 | N | TYR | B | 41 | 44.751 | 64.337 | 79.505 | 1.00109.25 | N |
| ATOM | 9238 | CA | TYR | B | 41 | 44.997 | 65.759 | 79.379 | 1.00109.25 | C |
| ATOM | 9239 | C | TYR | B | 41 | 44.089 | 66.262 | 78.280 | 1.00109.25 | C |
| ATOM | 9240 | O | TYR | B | 41 | 43.082 | 65.642 | 77.957 | 1.00109.25 | O |
| ATOM | 9241 | CB | TYR | B | 41 | 46.444 | 66.008 | 78.951 | 1.00127.62 | C |
| ATOM | 9242 | CG | TYR | B | 41 | 46.688 | 65.846 | 77.458 | 1.00127.62 | C |
| ATOM | 9243 | CD1 | TYR | B | 41 | 46.350 | 64.664 | 76.794 | 1.00127.62 | C |
| ATOM | 9244 | CD2 | TYR | B | 41 | 47.268 | 66.874 | 76.715 | 1.00127.62 | C |
| ATOM | 9245 | CE1 | TYR | B | 41 | 46.588 | 64.511 | 75.428 | 1.00127.62 | C |
| ATOM | 9246 | CE2 | TYR | B | 41 | 47.511 | 66.731 | 75.351 | 1.00127.62 | C |
| ATOM | 9247 | CZ | TYR | B | 41 | 47.171 | 65.549 | 74.718 | 1.00127.62 | C |
| ATOM | 9248 | OH | TYR | B | 41 | 47.435 | 65.405 | 73.380 | 1.00127.62 | O |
| ATOM | 9249 | N | ALA | B | 42 | 44.470 | 67.392 | 77.704 | 1.00162.16 | N |
| ATOM | 9250 | CA | ALA | B | 42 | 43.763 | 68.006 | 76.589 | 1.00162.16 | C |
| ATOM | 9251 | C | ALA | B | 42 | 42.226 | 68.017 | 76.606 | 1.00162.16 | C |
| ATOM | 9252 | O | ALA | B | 42 | 41.588 | 67.043 | 76.192 | 1.00162.16 | O |
| ATOM | 9253 | CB | ALA | B | 42 | 44.240 | 67.389 | 75.283 | 1.00 74.17 | C |
| ATOM | 9254 | N | GLY | B | 43 | 41.635 | 69.124 | 77.066 | 1.00146.25 | N |
| ATOM | 9255 | CA | GLY | B | 43 | 40.184 | 69.221 | 77.065 | 1.00146.25 | C |
| ATOM | 9256 | C | GLY | B | 43 | 39.405 | 70.244 | 77.892 | 1.00146.25 | C |
| ATOM | 9257 | O | GLY | B | 43 | 39.163 | 70.010 | 79.070 | 1.00146.25 | O |
| ATOM | 9258 | N | TRP | B | 44 | 38.985 | 71.357 | 77.285 | 1.00109.89 | N |
| ATOM | 9259 | CA | TRP | B | 44 | 38.172 | 72.375 | 77.975 | 1.00109.89 | C |
| ATOM | 9260 | C | TRP | B | 44 | 36.746 | 71.806 | 77.961 | 1.00109.89 | C |
| ATOM | 9261 | O | TRP | B | 44 | 36.367 | 71.031 | 78.838 | 1.00109.89 | O |
| ATOM | 9262 | CB | TRP | B | 44 | 38.229 | 73.719 | 77.216 | 1.00207.35 | C |
| ATOM | 9263 | CG | TRP | B | 44 | 37.382 | 74.846 | 77.803 | 1.00207.35 | C |
| ATOM | 9264 | CD1 | TRP | B | 44 | 36.075 | 74.768 | 78.199 | 1.00207.35 | C |
| ATOM | 9265 | CD2 | TRP | B | 44 | 37.772 | 76.214 | 77.993 | 1.00207.35 | C |
| ATOM | 9266 | NE1 | TRP | B | 44 | 35.627 | 75.997 | 78.620 | 1.00207.35 | N |
| ATOM | 9267 | CE2 | TRP | B | 44 | 36.647 | 76.903 | 78.504 | 1.00207.35 | C |
| ATOM | 9268 | CE3 | TRP | B | 44 | 38.961 | 76.924 | 77.780 | 1.00207.35 | C |
| ATOM | 9269 | CZ2 | TRP | B | 44 | 36.677 | 78.265 | 78.805 | 1.00207.35 | C |
| ATOM | 9270 | CZ3 | TRP | B | 44 | 38.989 | 78.280 | 78.080 | 1.00207.35 | C |
| ATOM | 9271 | CH2 | TRP | B | 44 | 37.853 | 78.935 | 78.588 | 1.00207.35 | C |
| ATOM | 9272 | N | LEU | B | 45 | 35.968 | 72.161 | 76.941 | 1.00127.60 | N |
| ATOM | 9273 | CA | LEU | B | 45 | 34.590 | 71.679 | 76.814 | 1.00127.60 | C |
| ATOM | 9274 | C | LEU | B | 45 | 34.564 | 70.139 | 76.729 | 1.00127.60 | C |
| ATOM | 9275 | O | LEU | B | 45 | 33.496 | 69.491 | 76.685 | 1.00127.60 | O |
| ATOM | 9276 | CB | LEU | B | 45 | 33.915 | 72.322 | 75.589 | 1.00207.34 | C |
| ATOM | 9277 | CG | LEU | B | 45 | 33.831 | 73.861 | 75.496 | 1.00207.34 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|----|--------|--------|--------|------------|---|
| ATOM | 9278 | CD1 | LEU | B | 45 | 33.222 | 74.444 | 76.763 | 1.00207.34 | C |
| ATOM | 9279 | CD2 | LEU | B | 45 | 35.214 | 74.444 | 75.264 | 1.00207.34 | C |
| ATOM | 9280 | N | ASP | B | 46 | 35.773 | 69.579 | 76.742 | 1.00 95.01 | N |
| ATOM | 9281 | CA | ASP | B | 46 | 36.002 | 68.132 | 76.737 | 1.00 95.01 | C |
| ATOM | 9282 | C | ASP | B | 46 | 35.744 | 67.727 | 78.189 | 1.00 95.01 | C |
| ATOM | 9283 | O | ASP | B | 46 | 34.691 | 67.173 | 78.528 | 1.00 95.01 | O |
| ATOM | 9284 | CB | ASP | B | 46 | 37.456 | 67.814 | 76.375 | 1.00139.21 | C |
| ATOM | 9285 | CG | ASP | B | 46 | 37.633 | 67.423 | 74.917 | 1.00139.21 | C |
| ATOM | 9286 | OD1 | ASP | B | 46 | 38.796 | 67.238 | 74.496 | 1.00139.21 | O |
| ATOM | 9287 | OD2 | ASP | B | 46 | 36.621 | 67.290 | 74.198 | 1.00139.21 | O |
| ATOM | 9288 | N | ARG | B | 47 | 36.726 | 68.041 | 79.036 | 1.00 85.86 | N |
| ATOM | 9289 | CA | ARG | B | 47 | 36.708 | 67.798 | 80.499 | 1.00 85.86 | C |
| ATOM | 9290 | C | ARG | B | 47 | 35.319 | 68.069 | 81.103 | 1.00 85.86 | C |
| ATOM | 9291 | O | ARG | B | 47 | 34.839 | 67.346 | 81.976 | 1.00 85.86 | O |
| ATOM | 9292 | CB | ARG | B | 47 | 37.789 | 68.712 | 81.118 | 1.00185.75 | C |
| ATOM | 9293 | CG | ARG | B | 47 | 38.081 | 68.587 | 82.606 | 1.00185.75 | C |
| ATOM | 9294 | CD | ARG | B | 47 | 39.605 | 68.602 | 82.864 | 1.00185.75 | C |
| ATOM | 9295 | NE | ARG | B | 47 | 40.319 | 69.617 | 82.083 | 1.00185.75 | N |
| ATOM | 9296 | CZ | ARG | B | 47 | 41.626 | 69.576 | 81.825 | 1.00185.75 | C |
| ATOM | 9297 | NH1 | ARG | B | 47 | 42.363 | 68.573 | 82.283 | 1.00185.75 | N |
| ATOM | 9298 | NH2 | ARG | B | 47 | 42.201 | 70.530 | 81.101 | 1.00185.75 | N |
| ATOM | 9299 | N | LEU | B | 48 | 34.684 | 69.131 | 80.623 | 1.00 97.42 | N |
| ATOM | 9300 | CA | LEU | B | 48 | 33.365 | 69.463 | 81.111 | 1.00 97.42 | C |
| ATOM | 9301 | C | LEU | B | 48 | 32.374 | 68.463 | 80.583 | 1.00 97.42 | C |
| ATOM | 9302 | O | LEU | B | 48 | 31.645 | 67.873 | 81.387 | 1.00 97.42 | O |
| ATOM | 9303 | CB | LEU | B | 48 | 32.970 | 70.886 | 80.705 | 1.00177.67 | C |
| ATOM | 9304 | CG | LEU | B | 48 | 33.662 | 72.035 | 81.448 | 1.00177.67 | C |
| ATOM | 9305 | CD1 | LEU | B | 48 | 33.023 | 73.354 | 81.040 | 1.00177.67 | C |
| ATOM | 9306 | CD2 | LEU | B | 48 | 33.538 | 71.837 | 82.956 | 1.00177.67 | C |
| ATOM | 9307 | N | TYR | B | 49 | 32.325 | 68.231 | 79.266 | 1.00 94.75 | N |
| ATOM | 9308 | CA | TYR | B | 49 | 31.347 | 67.247 | 78.858 | 1.00 94.75 | C |
| ATOM | 9309 | C | TYR | B | 49 | 31.627 | 65.959 | 79.609 | 1.00 94.75 | C |
| ATOM | 9310 | O | TYR | B | 49 | 30.711 | 65.195 | 79.931 | 1.00 94.75 | O |
| ATOM | 9311 | CB | TYR | B | 49 | 31.314 | 66.911 | 77.368 | 1.00119.92 | C |
| ATOM | 9312 | CG | TYR | B | 49 | 30.109 | 66.021 | 77.105 | 1.00119.92 | C |
| ATOM | 9313 | CD1 | TYR | B | 49 | 28.819 | 66.545 | 77.173 | 1.00119.92 | C |
| ATOM | 9314 | CD2 | TYR | B | 49 | 30.247 | 64.644 | 76.906 | 1.00119.92 | C |
| ATOM | 9315 | CE1 | TYR | B | 49 | 27.699 | 65.731 | 77.057 | 1.00119.92 | C |
| ATOM | 9316 | CE2 | TYR | B | 49 | 29.126 | 63.816 | 76.790 | 1.00119.92 | C |
| ATOM | 9317 | CZ | TYR | B | 49 | 27.860 | 64.371 | 76.867 | 1.00119.92 | C |
| ATOM | 9318 | OH | TYR | B | 49 | 26.751 | 63.571 | 76.758 | 1.00119.92 | O |
| ATOM | 9319 | N | MET | B | 50 | 32.896 | 65.732 | 79.916 | 1.00 73.32 | N |
| ATOM | 9320 | CA | MET | B | 50 | 33.297 | 64.523 | 80.617 | 1.00 73.32 | C |
| ATOM | 9321 | C | MET | B | 50 | 32.656 | 64.363 | 81.974 | 1.00 73.32 | C |
| ATOM | 9322 | O | MET | B | 50 | 31.875 | 63.447 | 82.187 | 1.00 73.32 | O |
| ATOM | 9323 | CB | MET | B | 50 | 34.817 | 64.499 | 80.743 | 1.00104.85 | C |
| ATOM | 9324 | CG | MET | B | 50 | 35.363 | 63.269 | 81.421 | 1.00104.85 | C |
| ATOM | 9325 | SD | MET | B | 50 | 37.127 | 63.123 | 81.131 | 1.00104.85 | S |
| ATOM | 9326 | CE | MET | B | 50 | 37.180 | 61.592 | 80.235 | 1.00104.85 | C |
| ATOM | 9327 | N | LEU | B | 51 | 32.991 | 65.256 | 82.895 | 1.00124.94 | N |
| ATOM | 9328 | CA | LEU | B | 51 | 32.444 | 65.177 | 84.240 | 1.00124.94 | C |
| ATOM | 9329 | C | LEU | B | 51 | 30.931 | 65.059 | 84.171 | 1.00124.94 | C |
| ATOM | 9330 | O | LEU | B | 51 | 30.309 | 64.364 | 84.984 | 1.00124.94 | O |
| ATOM | 9331 | CB | LEU | B | 51 | 32.895 | 66.394 | 85.043 | 1.00119.58 | C |
| ATOM | 9332 | CG | LEU | B | 51 | 34.428 | 66.488 | 85.075 | 1.00119.58 | C |
| ATOM | 9333 | CD1 | LEU | B | 51 | 34.863 | 67.784 | 85.723 | 1.00119.58 | C |
| ATOM | 9334 | CD2 | LEU | B | 51 | 34.998 | 65.289 | 85.820 | 1.00119.58 | C |
| ATOM | 9335 | N | VAL | B | 52 | 30.344 | 65.714 | 83.176 | 1.00 90.45 | N |
| ATOM | 9336 | CA | VAL | B | 52 | 28.898 | 65.645 | 82.985 | 1.00 90.45 | C |
| ATOM | 9337 | C | VAL | B | 52 | 28.484 | 64.180 | 82.854 | 1.00 90.45 | C |
| ATOM | 9338 | O | VAL | B | 52 | 27.830 | 63.602 | 83.746 | 1.00 90.45 | O |
| ATOM | 9339 | CB | VAL | B | 52 | 28.483 | 66.414 | 81.708 | 1.00 65.72 | C |
| ATOM | 9340 | CG1 | VAL | B | 52 | 27.140 | 65.934 | 81.207 | 1.00 65.72 | C |
| ATOM | 9341 | CG2 | VAL | B | 52 | 28.416 | 67.902 | 82.005 | 1.00 65.72 | C |
| ATOM | 9342 | N | GLY | B | 53 | 28.881 | 63.584 | 81.736 | 1.00 83.06 | N |
| ATOM | 9343 | CA | GLY | B | 53 | 28.560 | 62.194 | 81.492 | 1.00 83.06 | C |
| ATOM | 9344 | C | GLY | B | 53 | 28.851 | 61.291 | 82.682 | 1.00 83.06 | C |
| ATOM | 9345 | O | GLY | B | 53 | 28.149 | 60.293 | 82.882 | 1.00 83.06 | O |
| ATOM | 9346 | N | THR | B | 54 | 29.874 | 61.615 | 83.476 | 1.00 83.70 | N |
| ATOM | 9347 | CA | THR | B | 54 | 30.197 | 60.785 | 84.640 | 1.00 83.70 | C |
| ATOM | 9348 | C | THR | B | 54 | 28.947 | 60.811 | 85.478 | 1.00 83.70 | C |
| ATOM | 9349 | O | THR | B | 54 | 28.317 | 59.780 | 85.747 | 1.00 83.70 | O |
| ATOM | 9350 | CB | THR | B | 54 | 31.352 | 61.356 | 85.486 | 1.00 49.59 | C |
| ATOM | 9351 | OG1 | THR | B | 54 | 32.443 | 61.721 | 84.629 | 1.00 49.59 | O |

| | | | | | | | | | | | |
|------|------|-----|-----|---|----|--------|--------|--------|------|--------|---|
| ATOM | 9352 | CG2 | THR | B | 54 | 31.817 | 60.306 | 86.514 | 1.00 | 49.59 | C |
| ATOM | 9353 | N | LEU | B | 55 | 28.581 | 62.017 | 85.878 | 1.00 | 93.21 | N |
| ATOM | 9354 | CA | LEU | B | 55 | 27.389 | 62.183 | 86.677 | 1.00 | 93.21 | C |
| ATOM | 9355 | C | LEU | B | 55 | 26.253 | 61.267 | 86.180 | 1.00 | 93.21 | C |
| ATOM | 9356 | O | LEU | B | 55 | 25.760 | 60.408 | 86.939 | 1.00 | 93.21 | O |
| ATOM | 9357 | CB | LEU | B | 55 | 26.931 | 63.642 | 86.634 | 1.00 | 145.88 | C |
| ATOM | 9358 | CG | LEU | B | 55 | 25.728 | 64.005 | 87.505 | 1.00 | 145.88 | C |
| ATOM | 9359 | CD1 | LEU | B | 55 | 26.137 | 65.034 | 88.553 | 1.00 | 145.88 | C |
| ATOM | 9360 | CD2 | LEU | B | 55 | 24.614 | 64.544 | 86.623 | 1.00 | 145.88 | C |
| ATOM | 9361 | N | ALA | B | 56 | 25.849 | 61.429 | 84.913 | 1.00 | 139.56 | N |
| ATOM | 9362 | CA | ALA | B | 56 | 24.747 | 60.605 | 84.371 | 1.00 | 139.56 | C |
| ATOM | 9363 | C | ALA | B | 56 | 24.945 | 59.140 | 84.720 | 1.00 | 139.56 | C |
| ATOM | 9364 | O | ALA | B | 56 | 23.994 | 58.431 | 85.064 | 1.00 | 139.56 | O |
| ATOM | 9365 | CB | ALA | B | 56 | 24.676 | 60.783 | 82.865 | 1.00 | 45.22 | C |
| ATOM | 9366 | N | ALA | B | 57 | 26.192 | 58.697 | 84.628 | 1.00 | 121.98 | N |
| ATOM | 9367 | CA | ALA | B | 57 | 26.523 | 57.321 | 84.949 | 1.00 | 121.98 | C |
| ATOM | 9368 | C | ALA | B | 57 | 26.052 | 57.051 | 86.365 | 1.00 | 121.98 | C |
| ATOM | 9369 | O | ALA | B | 57 | 25.294 | 56.105 | 86.626 | 1.00 | 121.98 | O |
| ATOM | 9370 | CB | ALA | B | 57 | 28.032 | 57.100 | 84.840 | 1.00 | 179.58 | C |
| ATOM | 9371 | N | ILE | B | 58 | 26.509 | 57.897 | 87.279 | 1.00 | 103.24 | N |
| ATOM | 9372 | CA | ILE | B | 58 | 26.138 | 57.785 | 88.682 | 1.00 | 103.24 | C |
| ATOM | 9373 | C | ILE | B | 58 | 24.634 | 57.529 | 88.859 | 1.00 | 103.24 | C |
| ATOM | 9374 | O | ILE | B | 58 | 24.182 | 56.400 | 89.185 | 1.00 | 103.24 | O |
| ATOM | 9375 | CB | ILE | B | 58 | 26.535 | 59.074 | 89.441 | 1.00 | 118.30 | C |
| ATOM | 9376 | CG1 | ILE | B | 58 | 28.051 | 59.099 | 89.656 | 1.00 | 118.30 | C |
| ATOM | 9377 | CG2 | ILE | B | 58 | 25.787 | 59.162 | 90.762 | 1.00 | 118.30 | C |
| ATOM | 9378 | CD1 | ILE | B | 58 | 28.858 | 58.883 | 88.384 | 1.00 | 118.30 | C |
| ATOM | 9379 | N | ILE | B | 59 | 23.865 | 58.590 | 88.632 | 1.00 | 94.28 | N |
| ATOM | 9380 | CA | ILE | B | 59 | 22.428 | 58.510 | 88.780 | 1.00 | 94.28 | C |
| ATOM | 9381 | C | ILE | B | 59 | 21.895 | 57.235 | 88.156 | 1.00 | 94.28 | C |
| ATOM | 9382 | O | ILE | B | 59 | 21.008 | 56.624 | 88.700 | 1.00 | 94.28 | O |
| ATOM | 9383 | CB | ILE | B | 59 | 21.734 | 59.754 | 88.169 | 1.00 | 70.05 | C |
| ATOM | 9384 | CG1 | ILE | B | 59 | 21.099 | 59.416 | 86.820 | 1.00 | 70.05 | C |
| ATOM | 9385 | CG2 | ILE | B | 59 | 22.755 | 60.866 | 87.975 | 1.00 | 70.05 | C |
| ATOM | 9386 | CD1 | ILE | B | 59 | 20.309 | 60.555 | 86.205 | 1.00 | 70.05 | C |
| ATOM | 9387 | N | HIS | B | 60 | 22.452 | 56.820 | 87.028 | 1.00 | 80.87 | N |
| ATOM | 9388 | CA | HIS | B | 60 | 22.020 | 55.602 | 86.339 | 1.00 | 80.87 | C |
| ATOM | 9389 | C | HIS | B | 60 | 22.107 | 54.340 | 87.262 | 1.00 | 80.87 | C |
| ATOM | 9390 | O | HIS | B | 60 | 21.102 | 53.604 | 87.514 | 1.00 | 80.87 | O |
| ATOM | 9391 | CB | HIS | B | 60 | 22.905 | 55.461 | 85.089 | 1.00 | 71.18 | C |
| ATOM | 9392 | CG | HIS | B | 60 | 22.550 | 54.320 | 84.186 | 1.00 | 71.18 | C |
| ATOM | 9393 | ND1 | HIS | B | 60 | 21.251 | 53.944 | 83.920 | 1.00 | 71.18 | N |
| ATOM | 9394 | CD2 | HIS | B | 60 | 23.335 | 53.527 | 83.418 | 1.00 | 71.18 | C |
| ATOM | 9395 | CE1 | HIS | B | 60 | 21.252 | 52.970 | 83.026 | 1.00 | 71.18 | C |
| ATOM | 9396 | NE2 | HIS | B | 60 | 22.504 | 52.699 | 82.705 | 1.00 | 71.18 | N |
| ATOM | 9397 | N | GLY | B | 61 | 23.299 | 54.089 | 87.792 | 1.00 | 120.72 | N |
| ATOM | 9398 | CA | GLY | B | 61 | 23.449 | 52.920 | 88.647 | 1.00 | 120.72 | C |
| ATOM | 9399 | C | GLY | B | 61 | 22.435 | 52.945 | 89.770 | 1.00 | 120.72 | C |
| ATOM | 9400 | O | GLY | B | 61 | 21.706 | 51.950 | 90.100 | 1.00 | 120.72 | O |
| ATOM | 9401 | N | VAL | B | 62 | 22.383 | 54.127 | 90.366 | 1.00 | 66.85 | N |
| ATOM | 9402 | CA | VAL | B | 62 | 21.454 | 54.341 | 91.452 | 1.00 | 66.85 | C |
| ATOM | 9403 | C | VAL | B | 62 | 20.061 | 53.914 | 90.940 | 1.00 | 66.85 | C |
| ATOM | 9404 | O | VAL | B | 62 | 19.206 | 53.472 | 91.718 | 1.00 | 66.85 | O |
| ATOM | 9405 | CB | VAL | B | 62 | 21.423 | 55.828 | 91.865 | 1.00 | 207.38 | C |
| ATOM | 9406 | CG1 | VAL | B | 62 | 20.811 | 55.973 | 93.252 | 1.00 | 207.38 | C |
| ATOM | 9407 | CG2 | VAL | B | 62 | 22.827 | 56.405 | 91.833 | 1.00 | 207.38 | C |
| ATOM | 9408 | N | ALA | B | 63 | 19.849 | 54.005 | 89.622 | 1.00 | 69.14 | N |
| ATOM | 9409 | CA | ALA | B | 63 | 18.544 | 53.677 | 89.041 | 1.00 | 69.14 | C |
| ATOM | 9410 | C | ALA | B | 63 | 18.224 | 52.271 | 89.326 | 1.00 | 69.14 | C |
| ATOM | 9411 | O | ALA | B | 63 | 17.164 | 51.995 | 89.880 | 1.00 | 69.14 | O |
| ATOM | 9412 | CB | ALA | B | 63 | 18.583 | 53.928 | 87.536 | 1.00 | 194.38 | C |
| ATOM | 9413 | N | LEU | B | 64 | 19.149 | 51.385 | 88.957 | 1.00 | 79.62 | N |
| ATOM | 9414 | CA | LEU | B | 64 | 18.947 | 49.936 | 89.206 | 1.00 | 79.62 | C |
| ATOM | 9415 | C | LEU | B | 64 | 18.535 | 49.529 | 90.630 | 1.00 | 79.62 | C |
| ATOM | 9416 | O | LEU | B | 64 | 17.598 | 48.710 | 90.800 | 1.00 | 79.62 | O |
| ATOM | 9417 | CB | LEU | B | 64 | 20.188 | 49.151 | 88.792 | 1.00 | 172.62 | C |
| ATOM | 9418 | CG | LEU | B | 64 | 19.865 | 48.295 | 87.569 | 1.00 | 172.62 | C |
| ATOM | 9419 | CD1 | LEU | B | 64 | 18.733 | 47.330 | 87.905 | 1.00 | 172.62 | C |
| ATOM | 9420 | CD2 | LEU | B | 64 | 19.447 | 49.197 | 86.418 | 1.00 | 172.62 | C |
| ATOM | 9421 | N | PRO | B | 65 | 19.248 | 50.048 | 91.672 | 1.00 | 51.81 | N |
| ATOM | 9422 | CA | PRO | B | 65 | 18.695 | 49.563 | 92.953 | 1.00 | 51.81 | C |
| ATOM | 9423 | C | PRO | B | 65 | 17.409 | 50.264 | 93.432 | 1.00 | 51.81 | C |
| ATOM | 9424 | O | PRO | B | 65 | 16.640 | 49.675 | 94.196 | 1.00 | 51.81 | O |
| ATOM | 9425 | CB | PRO | B | 65 | 19.871 | 49.730 | 93.919 | 1.00 | 111.97 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|----|--------|--------|--------|------------|---|
| ATOM | 9426 | CG | PRO | B | 65 | 20.654 | 50.866 | 93.314 | 1.00111.97 | C |
| ATOM | 9427 | CD | PRO | B | 65 | 20.613 | 50.570 | 91.839 | 1.00111.97 | C |
| ATOM | 9428 | N | LEU | B | 66 | 17.165 | 51.509 | 93.000 | 1.00 58.90 | N |
| ATOM | 9429 | CA | LEU | B | 66 | 15.925 | 52.217 | 93.383 | 1.00 58.90 | C |
| ATOM | 9430 | C | LEU | B | 66 | 14.834 | 51.324 | 92.901 | 1.00 58.90 | C |
| ATOM | 9431 | O | LEU | B | 66 | 13.887 | 51.048 | 93.614 | 1.00 58.90 | O |
| ATOM | 9432 | CB | LEU | B | 66 | 15.810 | 53.566 | 92.677 | 1.00 99.91 | C |
| ATOM | 9433 | CG | LEU | B | 66 | 16.609 | 54.741 | 93.224 | 1.00 99.91 | C |
| ATOM | 9434 | CD1 | LEU | B | 66 | 15.963 | 56.030 | 92.746 | 1.00 99.91 | C |
| ATOM | 9435 | CD2 | LEU | B | 66 | 16.605 | 54.699 | 94.737 | 1.00 99.91 | C |
| ATOM | 9436 | N | MET | B | 67 | 15.003 | 50.890 | 91.656 | 1.00101.36 | N |
| ATOM | 9437 | CA | MET | B | 67 | 14.091 | 49.987 | 90.973 | 1.00101.36 | C |
| ATOM | 9438 | C | MET | B | 67 | 13.834 | 48.792 | 91.868 | 1.00101.36 | C |
| ATOM | 9439 | O | MET | B | 67 | 12.702 | 48.312 | 91.964 | 1.00101.36 | O |
| ATOM | 9440 | CB | MET | B | 67 | 14.700 | 49.523 | 89.650 | 1.00135.91 | C |
| ATOM | 9441 | CG | MET | B | 67 | 13.728 | 48.763 | 88.778 | 1.00135.91 | C |
| ATOM | 9442 | SD | MET | B | 67 | 12.291 | 49.779 | 88.375 | 1.00135.91 | S |
| ATOM | 9443 | CE | MET | B | 67 | 12.498 | 49.979 | 86.621 | 1.00135.91 | C |
| ATOM | 9444 | N | MET | B | 68 | 14.884 | 48.278 | 92.503 | 1.00 80.31 | N |
| ATOM | 9445 | CA | MET | B | 68 | 14.646 | 47.161 | 93.413 | 1.00 80.31 | C |
| ATOM | 9446 | C | MET | B | 68 | 13.630 | 47.576 | 94.475 | 1.00 80.31 | C |
| ATOM | 9447 | O | MET | B | 68 | 12.520 | 47.039 | 94.529 | 1.00 80.31 | O |
| ATOM | 9448 | CB | MET | B | 68 | 15.945 | 46.710 | 94.091 | 1.00135.58 | C |
| ATOM | 9449 | CG | MET | B | 68 | 16.723 | 45.669 | 93.300 | 1.00135.58 | C |
| ATOM | 9450 | SD | MET | B | 68 | 15.690 | 44.245 | 92.870 | 1.00135.58 | S |
| ATOM | 9451 | CE | MET | B | 68 | 14.931 | 44.815 | 91.360 | 1.00135.58 | C |
| ATOM | 9452 | N | LEU | B | 69 | 14.010 | 48.545 | 95.308 | 1.00 99.15 | N |
| ATOM | 9453 | CA | LEU | B | 69 | 13.142 | 49.040 | 96.387 | 1.00 99.15 | C |
| ATOM | 9454 | C | LEU | B | 69 | 11.670 | 49.127 | 95.995 | 1.00 99.15 | C |
| ATOM | 9455 | O | LEU | B | 69 | 10.806 | 48.550 | 96.652 | 1.00 99.15 | O |
| ATOM | 9456 | CB | LEU | B | 69 | 13.619 | 50.414 | 96.866 | 1.00 94.28 | C |
| ATOM | 9457 | CG | LEU | B | 69 | 12.729 | 51.027 | 97.950 | 1.00 94.28 | C |
| ATOM | 9458 | CD1 | LEU | B | 69 | 12.515 | 50.022 | 99.075 | 1.00 94.28 | C |
| ATOM | 9459 | CD2 | LEU | B | 69 | 13.371 | 52.299 | 98.474 | 1.00 94.28 | C |
| ATOM | 9460 | N | ILE | B | 70 | 11.396 | 49.869 | 94.925 | 1.00 49.95 | N |
| ATOM | 9461 | CA | ILE | B | 70 | 10.044 | 50.019 | 94.438 | 1.00 49.95 | C |
| ATOM | 9462 | C | ILE | B | 70 | 9.481 | 48.658 | 94.248 | 1.00 49.95 | C |
| ATOM | 9463 | O | ILE | B | 70 | 8.389 | 48.407 | 94.706 | 1.00 49.95 | O |
| ATOM | 9464 | CB | ILE | B | 70 | 9.976 | 50.799 | 93.110 | 1.00157.91 | C |
| ATOM | 9465 | CG1 | ILE | B | 70 | 10.088 | 52.298 | 93.398 | 1.00157.91 | C |
| ATOM | 9466 | CG2 | ILE | B | 70 | 8.671 | 50.479 | 92.374 | 1.00157.91 | C |
| ATOM | 9467 | CD1 | ILE | B | 70 | 9.941 | 53.164 | 92.174 | 1.00157.91 | C |
| ATOM | 9468 | N | PHE | B | 71 | 10.205 | 47.761 | 93.589 | 1.00109.99 | N |
| ATOM | 9469 | CA | PHE | B | 71 | 9.656 | 46.419 | 93.440 | 1.00109.99 | C |
| ATOM | 9470 | C | PHE | B | 71 | 9.161 | 45.956 | 94.804 | 1.00109.99 | C |
| ATOM | 9471 | O | PHE | B | 71 | 8.165 | 45.232 | 94.924 | 1.00109.99 | O |
| ATOM | 9472 | CB | PHE | B | 71 | 10.701 | 45.420 | 92.937 | 1.00 95.32 | C |
| ATOM | 9473 | CG | PHE | B | 71 | 10.277 | 43.973 | 93.100 | 1.00 95.32 | C |
| ATOM | 9474 | CD1 | PHE | B | 71 | 10.893 | 43.146 | 94.041 | 1.00 95.32 | C |
| ATOM | 9475 | CD2 | PHE | B | 71 | 9.239 | 43.448 | 92.331 | 1.00 95.32 | C |
| ATOM | 9476 | CE1 | PHE | B | 71 | 10.484 | 41.819 | 94.215 | 1.00 95.32 | C |
| ATOM | 9477 | CE2 | PHE | B | 71 | 8.822 | 42.124 | 92.497 | 1.00 95.32 | C |
| ATOM | 9478 | CZ | PHE | B | 71 | 9.448 | 41.307 | 93.442 | 1.00 95.32 | C |
| ATOM | 9479 | N | GLY | B | 72 | 9.868 | 46.382 | 95.840 | 1.00 83.19 | N |
| ATOM | 9480 | CA | GLY | B | 72 | 9.475 | 45.991 | 97.178 | 1.00 83.19 | C |
| ATOM | 9481 | C | GLY | B | 72 | 8.140 | 46.540 | 97.636 | 1.00 83.19 | C |
| ATOM | 9482 | O | GLY | B | 72 | 7.200 | 45.786 | 97.879 | 1.00 83.19 | O |
| ATOM | 9483 | N | ASP | B | 73 | 8.057 | 47.859 | 97.751 | 1.00103.79 | N |
| ATOM | 9484 | CA | ASP | B | 73 | 6.831 | 48.492 | 98.209 | 1.00103.79 | C |
| ATOM | 9485 | C | ASP | B | 73 | 5.591 | 48.043 | 97.436 | 1.00103.79 | C |
| ATOM | 9486 | O | ASP | B | 73 | 4.484 | 47.953 | 98.003 | 1.00103.79 | O |
| ATOM | 9487 | CB | ASP | B | 73 | 6.974 | 50.012 | 98.176 | 1.00135.05 | C |
| ATOM | 9488 | CG | ASP | B | 73 | 8.031 | 50.517 | 99.153 | 1.00135.05 | C |
| ATOM | 9489 | OD1 | ASP | B | 73 | 8.068 | 51.737 | 99.420 | 1.00135.05 | O |
| ATOM | 9490 | OD2 | ASP | B | 73 | 8.830 | 49.693 | 99.650 | 1.00135.05 | O |
| ATOM | 9491 | N | MET | B | 74 | 5.772 | 47.748 | 96.150 | 1.00207.38 | N |
| ATOM | 9492 | CA | MET | B | 74 | 4.651 | 47.269 | 95.349 | 1.00207.38 | C |
| ATOM | 9493 | C | MET | B | 74 | 4.329 | 45.888 | 95.896 | 1.00207.38 | C |
| ATOM | 9494 | O | MET | B | 74 | 3.168 | 45.545 | 96.134 | 1.00207.38 | O |
| ATOM | 9495 | CB | MET | B | 74 | 5.026 | 47.180 | 93.863 | 1.00139.94 | C |
| ATOM | 9496 | CG | MET | B | 74 | 6.073 | 46.129 | 93.508 | 1.00139.94 | C |
| ATOM | 9497 | SD | MET | B | 74 | 6.347 | 45.978 | 91.718 | 1.00139.94 | S |
| ATOM | 9498 | CE | MET | B | 74 | 7.381 | 47.398 | 91.383 | 1.00139.94 | C |
| ATOM | 9499 | N | THR | B | 75 | 5.376 | 45.100 | 96.114 | 1.00113.31 | N |

| | | | | | | | | | | |
|------|------|-----|-----|---|----|--------|--------|---------|------------|---|
| ATOM | 9500 | CA | THR | B | 75 | 5.192 | 43.764 | 96.643 | 1.00113.31 | C |
| ATOM | 9501 | C | THR | B | 75 | 4.548 | 43.784 | 98.032 | 1.00113.31 | C |
| ATOM | 9502 | O | THR | B | 75 | 3.675 | 42.960 | 98.313 | 1.00113.31 | O |
| ATOM | 9503 | CB | THR | B | 75 | 6.535 | 43.011 | 96.716 | 1.00207.38 | C |
| ATOM | 9504 | OG1 | THR | B | 75 | 7.148 | 43.002 | 95.420 | 1.00207.38 | O |
| ATOM | 9505 | CG2 | THR | B | 75 | 6.315 | 41.576 | 97.165 | 1.00207.38 | C |
| ATOM | 9506 | N | ASP | B | 76 | 4.957 | 44.713 | 98.900 | 1.00107.39 | N |
| ATOM | 9507 | CA | ASP | B | 76 | 4.354 | 44.749 | 100.218 | 1.00107.39 | C |
| ATOM | 9508 | C | ASP | B | 76 | 2.869 | 44.995 | 100.076 | 1.00107.39 | C |
| ATOM | 9509 | O | ASP | B | 76 | 2.066 | 44.167 | 100.527 | 1.00107.39 | O |
| ATOM | 9510 | CB | ASP | B | 76 | 5.004 | 45.806 | 101.113 | 1.00183.34 | C |
| ATOM | 9511 | CG | ASP | B | 76 | 5.803 | 45.185 | 102.248 | 1.00183.34 | C |
| ATOM | 9512 | OD1 | ASP | B | 76 | 5.309 | 44.205 | 102.850 | 1.00183.34 | O |
| ATOM | 9513 | OD2 | ASP | B | 76 | 6.914 | 45.676 | 102.543 | 1.00183.34 | O |
| ATOM | 9514 | N | SER | B | 77 | 2.473 | 46.097 | 99.439 | 1.00135.21 | N |
| ATOM | 9515 | CA | SER | B | 77 | 1.035 | 46.323 | 99.290 | 1.00135.21 | C |
| ATOM | 9516 | C | SER | B | 77 | 0.394 | 45.002 | 98.808 | 1.00135.21 | C |
| ATOM | 9517 | O | SER | B | 77 | -0.704 | 44.610 | 99.239 | 1.00135.21 | O |
| ATOM | 9518 | CB | SER | B | 77 | 0.768 | 47.447 | 98.289 | 1.00130.35 | C |
| ATOM | 9519 | OG | SER | B | 77 | 1.152 | 48.694 | 98.839 | 1.00130.35 | O |
| ATOM | 9520 | N | PHE | B | 78 | 1.135 | 44.294 | 97.963 | 1.00110.14 | N |
| ATOM | 9521 | CA | PHE | B | 78 | 0.708 | 43.022 | 97.396 | 1.00110.14 | C |
| ATOM | 9522 | C | PHE | B | 78 | 0.465 | 41.923 | 98.449 | 1.00110.14 | C |
| ATOM | 9523 | O | PHE | B | 78 | -0.400 | 41.037 | 98.283 | 1.00110.14 | O |
| ATOM | 9524 | CB | PHE | B | 78 | 1.771 | 42.553 | 96.411 | 1.00171.19 | C |
| ATOM | 9525 | CG | PHE | B | 78 | 1.223 | 41.794 | 95.252 | 1.00171.19 | C |
| ATOM | 9526 | CD1 | PHE | B | 78 | 0.308 | 42.390 | 94.391 | 1.00171.19 | C |
| ATOM | 9527 | CD2 | PHE | B | 78 | 1.610 | 40.482 | 95.020 | 1.00171.19 | C |
| ATOM | 9528 | CE1 | PHE | B | 78 | -0.217 | 41.688 | 93.310 | 1.00171.19 | C |
| ATOM | 9529 | CE2 | PHE | B | 78 | 1.093 | 39.770 | 93.943 | 1.00171.19 | C |
| ATOM | 9530 | CZ | PHE | B | 78 | 0.175 | 40.375 | 93.085 | 1.00171.19 | C |
| ATOM | 9531 | N | ALA | B | 79 | 1.237 | 41.972 | 99.530 | 1.00116.21 | N |
| ATOM | 9532 | CA | ALA | B | 79 | 1.098 | 41.003 | 100.617 | 1.00116.21 | C |
| ATOM | 9533 | C | ALA | B | 79 | -0.138 | 41.334 | 101.438 | 1.00116.21 | C |
| ATOM | 9534 | O | ALA | B | 79 | -0.951 | 40.456 | 101.721 | 1.00116.21 | O |
| ATOM | 9535 | CB | ALA | B | 79 | 2.343 | 41.030 | 101.497 | 1.00181.50 | C |
| ATOM | 9536 | N | SER | B | 80 | -0.273 | 42.602 | 101.820 | 1.00 69.79 | N |
| ATOM | 9537 | CA | SER | B | 80 | -1.423 | 43.028 | 102.597 | 1.00 69.79 | C |
| ATOM | 9538 | C | SER | B | 80 | -2.723 | 42.635 | 101.956 | 1.00 69.79 | C |
| ATOM | 9539 | O | SER | B | 80 | -3.615 | 42.166 | 102.661 | 1.00 69.79 | O |
| ATOM | 9540 | CB | SER | B | 80 | -1.368 | 44.541 | 102.831 | 1.00150.20 | C |
| ATOM | 9541 | OG | SER | B | 80 | -0.295 | 44.890 | 103.699 | 1.00150.20 | O |
| ATOM | 9542 | N | VAL | B | 81 | -2.828 | 42.814 | 100.635 | 1.00122.65 | N |
| ATOM | 9543 | CA | VAL | B | 81 | -4.038 | 42.418 | 99.879 | 1.00122.65 | C |
| ATOM | 9544 | C | VAL | B | 81 | -4.206 | 40.885 | 99.798 | 1.00122.65 | C |
| ATOM | 9545 | O | VAL | B | 81 | -5.332 | 40.370 | 99.758 | 1.00122.65 | O |
| ATOM | 9546 | CB | VAL | B | 81 | -4.009 | 42.942 | 98.425 | 1.00193.79 | C |
| ATOM | 9547 | CG1 | VAL | B | 81 | -5.221 | 42.414 | 97.666 | 1.00193.79 | C |
| ATOM | 9548 | CG2 | VAL | B | 81 | -3.993 | 44.459 | 98.407 | 1.00193.79 | C |
| ATOM | 9549 | N | GLY | B | 82 | -3.092 | 40.157 | 99.728 | 1.00108.35 | N |
| ATOM | 9550 | CA | GLY | B | 82 | -3.204 | 38.708 | 99.685 | 1.00108.35 | C |
| ATOM | 9551 | C | GLY | B | 82 | -3.499 | 38.176 | 101.076 | 1.00108.35 | C |
| ATOM | 9552 | O | GLY | B | 82 | -4.126 | 37.129 | 101.241 | 1.00108.35 | O |
| ATOM | 9553 | N | ASN | B | 83 | -3.042 | 38.917 | 102.080 | 1.00155.71 | N |
| ATOM | 9554 | CA | ASN | B | 83 | -3.241 | 38.543 | 103.471 | 1.00155.71 | C |
| ATOM | 9555 | C | ASN | B | 83 | -4.727 | 38.571 | 103.773 | 1.00155.71 | C |
| ATOM | 9556 | O | ASN | B | 83 | -5.300 | 37.575 | 104.229 | 1.00155.71 | O |
| ATOM | 9557 | CB | ASN | B | 83 | -2.500 | 39.516 | 104.391 | 1.00207.38 | C |
| ATOM | 9558 | CG | ASN | B | 83 | -1.940 | 38.837 | 105.628 | 1.00207.38 | C |
| ATOM | 9559 | OD1 | ASN | B | 83 | -1.495 | 39.499 | 106.566 | 1.00207.38 | O |
| ATOM | 9560 | ND2 | ASN | B | 83 | -1.949 | 37.507 | 105.631 | 1.00207.38 | N |
| ATOM | 9561 | N | VAL | B | 84 | -5.357 | 39.715 | 103.522 | 1.00175.00 | N |
| ATOM | 9562 | CA | VAL | B | 84 | -6.787 | 39.801 | 103.780 | 1.00175.00 | C |
| ATOM | 9563 | C | VAL | B | 84 | -7.527 | 38.872 | 102.810 | 1.00175.00 | C |
| ATOM | 9564 | O | VAL | B | 84 | -8.651 | 38.438 | 103.090 | 1.00175.00 | O |
| ATOM | 9565 | CB | VAL | B | 84 | -7.303 | 41.245 | 103.622 | 1.00207.38 | C |
| ATOM | 9566 | CG1 | VAL | B | 84 | -8.731 | 41.344 | 104.137 | 1.00207.38 | C |
| ATOM | 9567 | CG2 | VAL | B | 84 | -6.404 | 42.203 | 104.385 | 1.00207.38 | C |
| ATOM | 9568 | N | SER | B | 85 | -6.895 | 38.574 | 101.672 | 1.00159.85 | N |
| ATOM | 9569 | CA | SER | B | 85 | -7.486 | 37.662 | 100.695 | 1.00159.85 | C |
| ATOM | 9570 | C | SER | B | 85 | -7.543 | 36.315 | 101.418 | 1.00159.85 | C |
| ATOM | 9571 | O | SER | B | 85 | -8.524 | 35.568 | 101.313 | 1.00159.85 | O |
| ATOM | 9572 | CB | SER | B | 85 | -6.603 | 37.530 | 99.455 | 1.00136.40 | C |
| ATOM | 9573 | OG | SER | B | 85 | -6.641 | 38.710 | 98.676 | 1.00136.40 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|----|---------|--------|---------|------------|---|
| ATOM | 9574 | N | LYS | B | 86 | -6.473 | 36.039 | 102.166 | 1.00207.38 | N |
| ATOM | 9575 | CA | LYS | B | 86 | -6.330 | 34.807 | 102.942 | 1.00207.38 | C |
| ATOM | 9576 | C | LYS | B | 86 | -7.412 | 34.742 | 103.996 | 1.00207.38 | C |
| ATOM | 9577 | O | LYS | B | 86 | -8.027 | 33.697 | 104.205 | 1.00207.38 | O |
| ATOM | 9578 | CB | LYS | B | 86 | -4.950 | 34.719 | 103.604 | 1.00191.22 | C |
| ATOM | 9579 | CG | LYS | B | 86 | -4.647 | 33.340 | 104.181 | 1.00191.22 | C |
| ATOM | 9580 | CD | LYS | B | 86 | -4.612 | 32.294 | 103.072 | 1.00191.22 | C |
| ATOM | 9581 | CE | LYS | B | 86 | -4.710 | 30.880 | 103.618 | 1.00191.22 | C |
| ATOM | 9582 | NZ | LYS | B | 86 | -4.806 | 29.876 | 102.519 | 1.00191.22 | N |
| ATOM | 9583 | N | ASN | B | 87 | -7.623 | 35.861 | 104.677 | 1.00207.38 | N |
| ATOM | 9584 | CA | ASN | B | 87 | -8.666 | 35.935 | 105.686 | 1.00207.38 | C |
| ATOM | 9585 | C | ASN | B | 87 | -10.010 | 35.620 | 105.008 | 1.00207.38 | C |
| ATOM | 9586 | O | ASN | B | 87 | -10.662 | 34.624 | 105.354 | 1.00207.38 | O |
| ATOM | 9587 | CB | ASN | B | 87 | -8.734 | 37.339 | 106.289 | 1.00206.98 | C |
| ATOM | 9588 | CG | ASN | B | 87 | -9.872 | 37.492 | 107.284 | 1.00206.98 | C |
| ATOM | 9589 | OD1 | ASN | B | 87 | -10.437 | 38.575 | 107.434 | 1.00206.98 | O |
| ATOM | 9590 | ND2 | ASN | B | 87 | -10.208 | 36.407 | 107.975 | 1.00206.98 | N |
| ATOM | 9591 | N | SER | B | 88 | -10.398 | 36.463 | 104.037 | 1.00207.38 | N |
| ATOM | 9592 | CA | SER | B | 88 | -11.664 | 36.336 | 103.282 | 1.00207.38 | C |
| ATOM | 9593 | C | SER | B | 88 | -12.749 | 35.730 | 104.194 | 1.00207.38 | C |
| ATOM | 9594 | O | SER | B | 88 | -12.880 | 36.141 | 105.355 | 1.00207.38 | O |
| ATOM | 9595 | CB | SER | B | 88 | -11.447 | 35.452 | 102.054 | 1.00158.94 | C |
| ATOM | 9596 | OG | SER | B | 88 | -12.491 | 35.648 | 101.119 | 1.00158.94 | O |
| ATOM | 9597 | N | THR | B | 89 | -13.523 | 34.772 | 103.684 | 1.00156.80 | N |
| ATOM | 9598 | CA | THR | B | 89 | -14.561 | 34.119 | 104.481 | 1.00156.80 | C |
| ATOM | 9599 | C | THR | B | 89 | -15.437 | 35.109 | 105.252 | 1.00156.80 | C |
| ATOM | 9600 | O | THR | B | 89 | -16.245 | 34.709 | 106.092 | 1.00156.80 | O |
| ATOM | 9601 | CB | THR | B | 89 | -13.949 | 33.114 | 105.477 | 1.00176.74 | C |
| ATOM | 9602 | OG1 | THR | B | 89 | -13.200 | 33.821 | 106.471 | 1.00176.74 | O |
| ATOM | 9603 | CG2 | THR | B | 89 | -13.018 | 32.142 | 104.753 | 1.00176.74 | C |
| ATOM | 9604 | N | ASN | B | 90 | -15.275 | 36.397 | 104.957 | 1.00207.38 | N |
| ATOM | 9605 | CA | ASN | B | 90 | -16.036 | 37.453 | 105.620 | 1.00207.38 | C |
| ATOM | 9606 | C | ASN | B | 90 | -16.578 | 38.473 | 104.625 | 1.00207.38 | C |
| ATOM | 9607 | O | ASN | B | 90 | -16.774 | 38.172 | 103.445 | 1.00207.38 | O |
| ATOM | 9608 | CB | ASN | B | 90 | -15.171 | 38.186 | 106.655 | 1.00206.34 | C |
| ATOM | 9609 | CG | ASN | B | 90 | -14.850 | 37.332 | 107.865 | 1.00206.34 | C |
| ATOM | 9610 | OD1 | ASN | B | 90 | -15.725 | 36.668 | 108.423 | 1.00206.34 | O |
| ATOM | 9611 | ND2 | ASN | B | 90 | -13.592 | 37.362 | 108.292 | 1.00206.34 | N |
| ATOM | 9612 | N | MET | B | 91 | -16.800 | 39.687 | 105.122 | 1.00172.28 | N |
| ATOM | 9613 | CA | MET | B | 91 | -17.342 | 40.774 | 104.322 | 1.00172.28 | C |
| ATOM | 9614 | C | MET | B | 91 | -16.782 | 40.856 | 102.909 | 1.00172.28 | C |
| ATOM | 9615 | O | MET | B | 91 | -15.718 | 41.430 | 102.676 | 1.00172.28 | O |
| ATOM | 9616 | CB | MET | B | 91 | -17.165 | 42.112 | 105.051 | 1.00188.63 | C |
| ATOM | 9617 | CG | MET | B | 91 | -16.246 | 42.079 | 106.265 | 1.00188.63 | C |
| ATOM | 9618 | SD | MET | B | 91 | -14.498 | 42.187 | 105.846 | 1.00188.63 | S |
| ATOM | 9619 | CE | MET | B | 91 | -13.808 | 40.936 | 106.935 | 1.00188.63 | C |
| ATOM | 9620 | N | SER | B | 92 | -17.531 | 40.276 | 101.975 | 1.00199.63 | N |
| ATOM | 9621 | CA | SER | B | 92 | -17.170 | 40.241 | 100.564 | 1.00199.63 | C |
| ATOM | 9622 | C | SER | B | 92 | -16.985 | 41.653 | 99.989 | 1.00199.63 | C |
| ATOM | 9623 | O | SER | B | 92 | -15.913 | 42.001 | 99.473 | 1.00199.63 | O |
| ATOM | 9624 | CB | SER | B | 92 | -18.256 | 39.496 | 99.782 | 1.00201.25 | C |
| ATOM | 9625 | OG | SER | B | 92 | -17.870 | 39.293 | 98.436 | 1.00201.25 | O |
| ATOM | 9626 | N | GLU | B | 93 | -18.025 | 42.472 | 100.094 | 1.00152.80 | N |
| ATOM | 9627 | CA | GLU | B | 93 | -17.973 | 43.830 | 99.567 | 1.00152.80 | C |
| ATOM | 9628 | C | GLU | B | 93 | -16.754 | 44.643 | 100.024 | 1.00152.80 | C |
| ATOM | 9629 | O | GLU | B | 93 | -16.203 | 45.415 | 99.235 | 1.00152.80 | O |
| ATOM | 9630 | CB | GLU | B | 93 | -19.265 | 44.588 | 99.917 | 1.00207.38 | C |
| ATOM | 9631 | CG | GLU | B | 93 | -19.389 | 45.065 | 101.364 | 1.00207.38 | C |
| ATOM | 9632 | CD | GLU | B | 93 | -19.703 | 43.951 | 102.345 | 1.00207.38 | C |
| ATOM | 9633 | OE1 | GLU | B | 93 | -20.773 | 43.318 | 102.214 | 1.00207.38 | O |
| ATOM | 9634 | OE2 | GLU | B | 93 | -18.880 | 43.713 | 103.252 | 1.00207.38 | O |
| ATOM | 9635 | N | ALA | B | 94 | -16.329 | 44.470 | 101.280 | 1.00192.24 | N |
| ATOM | 9636 | CA | ALA | B | 94 | -15.170 | 45.195 | 101.825 | 1.00192.24 | C |
| ATOM | 9637 | C | ALA | B | 94 | -13.852 | 44.659 | 101.242 | 1.00192.24 | C |
| ATOM | 9638 | O | ALA | B | 94 | -12.772 | 45.230 | 101.444 | 1.00192.24 | O |
| ATOM | 9639 | CB | ALA | B | 94 | -15.146 | 45.075 | 103.346 | 1.00101.45 | C |
| ATOM | 9640 | N | ASP | B | 95 | -13.969 | 43.547 | 100.521 | 1.00199.02 | N |
| ATOM | 9641 | CA | ASP | B | 95 | -12.842 | 42.927 | 99.846 | 1.00199.02 | C |
| ATOM | 9642 | C | ASP | B | 95 | -12.791 | 43.527 | 98.444 | 1.00199.02 | C |
| ATOM | 9643 | O | ASP | B | 95 | -11.710 | 43.802 | 97.928 | 1.00199.02 | O |
| ATOM | 9644 | CB | ASP | B | 95 | -13.035 | 41.413 | 99.763 | 1.00184.70 | C |
| ATOM | 9645 | CG | ASP | B | 95 | -13.145 | 40.765 | 101.126 | 1.00184.70 | C |
| ATOM | 9646 | OD1 | ASP | B | 95 | -12.255 | 41.002 | 101.970 | 1.00184.70 | O |
| ATOM | 9647 | OD2 | ASP | B | 95 | -14.117 | 40.012 | 101.346 | 1.00184.70 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|---------|--------|---------|------------|---|
| ATOM | 9648 | N | LYS | B | 96 | -13.957 | 43.724 | 97.822 | 1.00158.79 | N |
| ATOM | 9649 | CA | LYS | B | 96 | -14.002 | 44.337 | 96.481 | 1.00158.79 | C |
| ATOM | 9650 | C | LYS | B | 96 | -13.427 | 45.750 | 96.608 | 1.00158.79 | C |
| ATOM | 9651 | O | LYS | B | 96 | -12.771 | 46.246 | 95.684 | 1.00158.79 | O |
| ATOM | 9652 | CB | LYS | B | 96 | -15.455 | 44.439 | 95.986 | 1.00176.57 | C |
| ATOM | 9653 | CG | LYS | B | 96 | -16.298 | 43.162 | 96.060 | 1.00176.57 | C |
| ATOM | 9654 | CD | LYS | B | 96 | -17.709 | 43.428 | 95.532 | 1.00176.57 | C |
| ATOM | 9655 | CE | LYS | B | 96 | -18.643 | 42.243 | 95.749 | 1.00176.57 | C |
| ATOM | 9656 | NZ | LYS | B | 96 | -19.017 | 42.046 | 97.179 | 1.00176.57 | N |
| ATOM | 9657 | N | ARG | B | 97 | -13.688 | 46.381 | 97.762 | 1.00207.38 | N |
| ATOM | 9658 | CA | ARG | B | 97 | -13.225 | 47.745 | 98.059 | 1.00207.38 | C |
| ATOM | 9659 | C | ARG | B | 97 | -11.759 | 47.794 | 98.465 | 1.00207.38 | C |
| ATOM | 9660 | O | ARG | B | 97 | -10.989 | 48.560 | 97.890 | 1.00207.38 | O |
| ATOM | 9661 | CB | ARG | B | 97 | -14.098 | 48.380 | 99.150 | 1.00207.38 | C |
| ATOM | 9662 | CG | ARG | B | 97 | -15.574 | 48.491 | 98.775 | 1.00207.38 | C |
| ATOM | 9663 | CD | ARG | B | 97 | -16.322 | 49.476 | 99.676 | 1.00207.38 | C |
| ATOM | 9664 | NE | ARG | B | 97 | -16.225 | 49.156 | 101.100 | 1.00207.38 | N |
| ATOM | 9665 | CZ | ARG | B | 97 | -16.851 | 49.828 | 102.065 | 1.00207.38 | C |
| ATOM | 9666 | NH1 | ARG | B | 97 | -17.628 | 50.863 | 101.768 | 1.00207.38 | N |
| ATOM | 9667 | NH2 | ARG | B | 97 | -16.694 | 49.469 | 103.333 | 1.00207.38 | N |
| ATOM | 9668 | N | ALA | B | 98 | -11.378 | 46.985 | 99.452 | 1.00179.48 | N |
| ATOM | 9669 | CA | ALA | B | 98 | -9.991 | 46.939 | 99.910 | 1.00179.48 | C |
| ATOM | 9670 | C | ALA | B | 98 | -9.082 | 46.611 | 98.720 | 1.00179.48 | C |
| ATOM | 9671 | O | ALA | B | 98 | -7.994 | 47.190 | 98.547 | 1.00179.48 | O |
| ATOM | 9672 | CB | ALA | B | 98 | -9.833 | 45.889 | 100.992 | 1.00142.21 | C |
| ATOM | 9673 | N | MET | B | 99 | -9.557 | 45.696 | 97.882 | 1.00207.38 | N |
| ATOM | 9674 | CA | MET | B | 99 | -8.801 | 45.267 | 96.718 | 1.00207.38 | C |
| ATOM | 9675 | C | MET | B | 99 | -8.717 | 46.263 | 95.565 | 1.00207.38 | C |
| ATOM | 9676 | O | MET | B | 99 | -7.611 | 46.680 | 95.221 | 1.00207.38 | O |
| ATOM | 9677 | CB | MET | B | 99 | -9.319 | 43.915 | 96.234 | 1.00189.23 | C |
| ATOM | 9678 | CG | MET | B | 99 | -8.857 | 42.761 | 97.115 | 1.00189.23 | C |
| ATOM | 9679 | SD | MET | B | 99 | -9.217 | 43.019 | 98.872 | 1.00189.23 | S |
| ATOM | 9680 | CE | MET | B | 99 | -7.689 | 43.815 | 99.434 | 1.00189.23 | C |
| ATOM | 9681 | N | PHE | B | 100 | -9.834 | 46.668 | 94.958 | 1.00133.82 | N |
| ATOM | 9682 | CA | PHE | B | 100 | -9.697 | 47.642 | 93.856 | 1.00133.82 | C |
| ATOM | 9683 | C | PHE | B | 100 | -8.944 | 48.852 | 94.413 | 1.00133.82 | C |
| ATOM | 9684 | O | PHE | B | 100 | -8.356 | 49.634 | 93.674 | 1.00133.82 | O |
| ATOM | 9685 | CB | PHE | B | 100 | -11.060 | 48.075 | 93.283 | 1.00207.38 | C |
| ATOM | 9686 | CG | PHE | B | 100 | -11.105 | 48.128 | 91.756 | 1.00207.38 | C |
| ATOM | 9687 | CD1 | PHE | B | 100 | -9.948 | 48.345 | 91.003 | 1.00207.38 | C |
| ATOM | 9688 | CD2 | PHE | B | 100 | -12.314 | 47.977 | 91.075 | 1.00207.38 | C |
| ATOM | 9689 | CE1 | PHE | B | 100 | -10.002 | 48.409 | 89.605 | 1.00207.38 | C |
| ATOM | 9690 | CE2 | PHE | B | 100 | -12.371 | 48.042 | 89.681 | 1.00207.38 | C |
| ATOM | 9691 | CZ | PHE | B | 100 | -11.216 | 48.257 | 88.949 | 1.00207.38 | C |
| ATOM | 9692 | N | ALA | B | 101 | -8.960 | 48.976 | 95.733 | 1.00123.92 | N |
| ATOM | 9693 | CA | ALA | B | 101 | -8.256 | 50.047 | 96.401 | 1.00123.92 | C |
| ATOM | 9694 | C | ALA | B | 101 | -6.770 | 49.890 | 96.135 | 1.00123.92 | C |
| ATOM | 9695 | O | ALA | B | 101 | -6.212 | 50.669 | 95.376 | 1.00123.92 | O |
| ATOM | 9696 | CB | ALA | B | 101 | -8.538 | 49.999 | 97.903 | 1.00207.38 | C |
| ATOM | 9697 | N | LYS | B | 102 | -6.124 | 48.894 | 96.748 | 1.00173.76 | N |
| ATOM | 9698 | CA | LYS | B | 102 | -4.685 | 48.710 | 96.519 | 1.00173.76 | C |
| ATOM | 9699 | C | LYS | B | 102 | -4.340 | 48.378 | 95.085 | 1.00173.76 | C |
| ATOM | 9700 | O | LYS | B | 102 | -3.191 | 48.545 | 94.693 | 1.00173.76 | O |
| ATOM | 9701 | CB | LYS | B | 102 | -4.143 | 47.599 | 97.427 | 1.00188.84 | C |
| ATOM | 9702 | CG | LYS | B | 102 | -4.048 | 47.943 | 98.914 | 1.00188.84 | C |
| ATOM | 9703 | CD | LYS | B | 102 | -3.254 | 49.226 | 99.164 | 1.00188.84 | C |
| ATOM | 9704 | CE | LYS | B | 102 | -4.129 | 50.464 | 99.024 | 1.00188.84 | C |
| ATOM | 9705 | NZ | LYS | B | 102 | -5.242 | 50.429 | 100.012 | 1.00188.84 | N |
| ATOM | 9706 | N | LEU | B | 103 | -5.321 | 47.895 | 94.314 | 1.00123.12 | N |
| ATOM | 9707 | CA | LEU | B | 103 | -5.127 | 47.549 | 92.891 | 1.00123.12 | C |
| ATOM | 9708 | C | LEU | B | 103 | -4.875 | 48.789 | 92.031 | 1.00123.12 | C |
| ATOM | 9709 | O | LEU | B | 103 | -3.784 | 48.990 | 91.497 | 1.00123.12 | O |
| ATOM | 9710 | CB | LEU | B | 103 | -6.345 | 46.795 | 92.346 | 1.00207.38 | C |
| ATOM | 9711 | CG | LEU | B | 103 | -6.451 | 46.711 | 90.817 | 1.00207.38 | C |
| ATOM | 9712 | CD1 | LEU | B | 103 | -5.135 | 46.217 | 90.223 | 1.00207.38 | C |
| ATOM | 9713 | CD2 | LEU | B | 103 | -7.608 | 45.796 | 90.437 | 1.00207.38 | C |
| ATOM | 9714 | N | GLU | B | 104 | -5.901 | 49.607 | 91.872 | 1.00160.91 | N |
| ATOM | 9715 | CA | GLU | B | 104 | -5.734 | 50.826 | 91.110 | 1.00160.91 | C |
| ATOM | 9716 | C | GLU | B | 104 | -4.608 | 51.668 | 91.766 | 1.00160.91 | C |
| ATOM | 9717 | O | GLU | B | 104 | -3.786 | 52.258 | 91.061 | 1.00160.91 | O |
| ATOM | 9718 | CB | GLU | B | 104 | -7.045 | 51.622 | 91.108 | 1.00207.38 | C |
| ATOM | 9719 | CG | GLU | B | 104 | -7.531 | 52.026 | 92.501 | 1.00207.38 | C |
| ATOM | 9720 | CD | GLU | B | 104 | -8.989 | 52.468 | 92.524 | 1.00207.38 | C |
| ATOM | 9721 | OE1 | GLU | B | 104 | -9.331 | 53.477 | 91.871 | 1.00207.38 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 9722 | OE2 | GLU | B | 104 | -9.799 | 51.800 | 93.200 | 1.00207.38 | O |
| ATOM | 9723 | N | GLU | B | 105 | -4.571 | 51.701 | 93.106 | 1.00153.31 | N |
| ATOM | 9724 | CA | GLU | B | 105 | -3.576 | 52.468 | 93.891 | 1.00153.31 | C |
| ATOM | 9725 | C | GLU | B | 105 | -2.107 | 52.203 | 93.525 | 1.00153.31 | C |
| ATOM | 9726 | O | GLU | B | 105 | -1.397 | 53.103 | 93.057 | 1.00153.31 | O |
| ATOM | 9727 | CB | GLU | B | 105 | -3.773 | 52.182 | 95.388 | 1.00179.34 | C |
| ATOM | 9728 | CG | GLU | B | 105 | -2.678 | 52.740 | 96.296 | 1.00179.34 | C |
| ATOM | 9729 | CD | GLU | B | 105 | -1.768 | 51.656 | 96.851 | 1.00179.34 | C |
| ATOM | 9730 | OE1 | GLU | B | 105 | -0.729 | 51.996 | 97.460 | 1.00179.34 | O |
| ATOM | 9731 | OE2 | GLU | B | 105 | -2.097 | 50.462 | 96.685 | 1.00179.34 | O |
| ATOM | 9732 | N | GLU | B | 106 | -1.633 | 50.983 | 93.752 | 1.00119.12 | N |
| ATOM | 9733 | CA | GLU | B | 106 | -0.257 | 50.674 | 93.390 | 1.00119.12 | C |
| ATOM | 9734 | C | GLU | B | 106 | -0.155 | 50.701 | 91.879 | 1.00119.12 | C |
| ATOM | 9735 | O | GLU | B | 106 | 0.941 | 50.676 | 91.346 | 1.00119.12 | O |
| ATOM | 9736 | CB | GLU | B | 106 | 0.167 | 49.301 | 93.930 | 1.00157.60 | C |
| ATOM | 9737 | CG | GLU | B | 106 | 1.513 | 48.777 | 93.396 | 1.00157.60 | C |
| ATOM | 9738 | CD | GLU | B | 106 | 2.699 | 49.663 | 93.760 | 1.00157.60 | C |
| ATOM | 9739 | OE1 | GLU | B | 106 | 2.923 | 49.888 | 94.967 | 1.00157.60 | O |
| ATOM | 9740 | OE2 | GLU | B | 106 | 3.413 | 50.129 | 92.842 | 1.00157.60 | O |
| ATOM | 9741 | N | MET | B | 107 | -1.300 | 50.746 | 91.193 | 1.00120.12 | N |
| ATOM | 9742 | CA | MET | B | 107 | -1.324 | 50.799 | 89.724 | 1.00120.12 | C |
| ATOM | 9743 | C | MET | B | 107 | -0.839 | 52.175 | 89.313 | 1.00120.12 | C |
| ATOM | 9744 | O | MET | B | 107 | -0.163 | 52.353 | 88.301 | 1.00120.12 | O |
| ATOM | 9745 | CB | MET | B | 107 | -2.739 | 50.552 | 89.202 | 1.00206.72 | C |
| ATOM | 9746 | CG | MET | B | 107 | -2.782 | 50.062 | 87.770 | 1.00206.72 | C |
| ATOM | 9747 | SD | MET | B | 107 | -3.790 | 48.583 | 87.601 | 1.00206.72 | S |
| ATOM | 9748 | CE | MET | B | 107 | -2.529 | 47.308 | 87.883 | 1.00206.72 | C |
| ATOM | 9749 | N | THR | B | 108 | -1.202 | 53.150 | 90.127 | 1.00118.74 | N |
| ATOM | 9750 | CA | THR | B | 108 | -0.756 | 54.508 | 89.922 | 1.00118.74 | C |
| ATOM | 9751 | C | THR | B | 108 | 0.732 | 54.435 | 90.256 | 1.00118.74 | C |
| ATOM | 9752 | O | THR | B | 108 | 1.565 | 54.917 | 89.497 | 1.00118.74 | O |
| ATOM | 9753 | CB | THR | B | 108 | -1.444 | 55.489 | 90.896 | 1.00207.00 | C |
| ATOM | 9754 | OG1 | THR | B | 108 | -2.794 | 55.719 | 90.474 | 1.00207.00 | O |
| ATOM | 9755 | CG2 | THR | B | 108 | -0.687 | 56.810 | 90.950 | 1.00207.00 | C |
| ATOM | 9756 | N | THR | B | 109 | 1.064 | 53.812 | 91.386 | 1.00129.89 | N |
| ATOM | 9757 | CA | THR | B | 109 | 2.465 | 53.697 | 91.812 | 1.00129.89 | C |
| ATOM | 9758 | C | THR | B | 109 | 3.387 | 53.031 | 90.749 | 1.00129.89 | C |
| ATOM | 9759 | O | THR | B | 109 | 4.523 | 53.476 | 90.528 | 1.00129.89 | O |
| ATOM | 9760 | CB | THR | B | 109 | 2.558 | 52.926 | 93.144 | 1.00207.38 | C |
| ATOM | 9761 | OG1 | THR | B | 109 | 1.749 | 53.588 | 94.123 | 1.00207.38 | O |
| ATOM | 9762 | CG2 | THR | B | 109 | 3.993 | 52.886 | 93.651 | 1.00207.38 | C |
| ATOM | 9763 | N | TYR | B | 110 | 2.887 | 51.974 | 90.103 | 1.00 89.39 | N |
| ATOM | 9764 | CA | TYR | B | 110 | 3.617 | 51.275 | 89.054 | 1.00 89.39 | C |
| ATOM | 9765 | C | TYR | B | 110 | 3.845 | 52.317 | 87.958 | 1.00 89.39 | C |
| ATOM | 9766 | O | TYR | B | 110 | 4.974 | 52.521 | 87.528 | 1.00 89.39 | O |
| ATOM | 9767 | CB | TYR | B | 110 | 2.794 | 50.103 | 88.482 | 1.00207.38 | C |
| ATOM | 9768 | CG | TYR | B | 110 | 2.521 | 48.916 | 89.407 | 1.00207.38 | C |
| ATOM | 9769 | CD1 | TYR | B | 110 | 3.552 | 48.281 | 90.106 | 1.00207.38 | C |
| ATOM | 9770 | CD2 | TYR | B | 110 | 1.236 | 48.376 | 89.508 | 1.00207.38 | C |
| ATOM | 9771 | CE1 | TYR | B | 110 | 3.306 | 47.136 | 90.875 | 1.00207.38 | C |
| ATOM | 9772 | CE2 | TYR | B | 110 | 0.984 | 47.238 | 90.270 | 1.00207.38 | C |
| ATOM | 9773 | CZ | TYR | B | 110 | 2.021 | 46.623 | 90.948 | 1.00207.38 | C |
| ATOM | 9774 | OH | TYR | B | 110 | 1.773 | 45.490 | 91.689 | 1.00207.38 | O |
| ATOM | 9775 | N | ALA | B | 111 | 2.784 | 52.991 | 87.510 | 1.00124.16 | N |
| ATOM | 9776 | CA | ALA | B | 111 | 2.962 | 54.030 | 86.475 | 1.00124.16 | C |
| ATOM | 9777 | C | ALA | B | 111 | 4.139 | 54.938 | 86.805 | 1.00124.16 | C |
| ATOM | 9778 | O | ALA | B | 111 | 5.113 | 55.003 | 86.071 | 1.00124.16 | O |
| ATOM | 9779 | CB | ALA | B | 111 | 1.687 | 54.819 | 86.354 | 1.00 39.74 | C |
| ATOM | 9780 | N | TYR | B | 112 | 4.039 | 55.646 | 87.923 | 1.00206.94 | N |
| ATOM | 9781 | CA | TYR | B | 112 | 5.082 | 56.582 | 88.317 | 1.00206.94 | C |
| ATOM | 9782 | C | TYR | B | 112 | 6.447 | 55.937 | 88.487 | 1.00206.94 | C |
| ATOM | 9783 | O | TYR | B | 112 | 7.469 | 56.621 | 88.475 | 1.00206.94 | O |
| ATOM | 9784 | CB | TYR | B | 112 | 4.639 | 57.330 | 89.582 | 1.00207.38 | C |
| ATOM | 9785 | CG | TYR | B | 112 | 3.348 | 58.112 | 89.372 | 1.00207.38 | C |
| ATOM | 9786 | CD1 | TYR | B | 112 | 2.620 | 58.612 | 90.452 | 1.00207.38 | C |
| ATOM | 9787 | CD2 | TYR | B | 112 | 2.848 | 58.334 | 88.086 | 1.00207.38 | C |
| ATOM | 9788 | CE1 | TYR | B | 112 | 1.426 | 59.305 | 90.256 | 1.00207.38 | C |
| ATOM | 9789 | CE2 | TYR | B | 112 | 1.662 | 59.024 | 87.882 | 1.00207.38 | C |
| ATOM | 9790 | CZ | TYR | B | 112 | 0.955 | 59.504 | 88.969 | 1.00207.38 | C |
| ATOM | 9791 | OH | TYR | B | 112 | -0.231 | 60.170 | 88.765 | 1.00207.38 | O |
| ATOM | 9792 | N | TYR | B | 113 | 6.465 | 54.617 | 88.600 | 1.00128.40 | N |
| ATOM | 9793 | CA | TYR | B | 113 | 7.718 | 53.896 | 88.758 | 1.00128.40 | C |
| ATOM | 9794 | C | TYR | B | 113 | 8.434 | 53.629 | 87.420 | 1.00128.40 | C |
| ATOM | 9795 | O | TYR | B | 113 | 9.587 | 54.051 | 87.227 | 1.00128.40 | O |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 9796 | CB | TYR | B | 113 | 7.437 | 52.633 | 89.580 | 1.00144.47 | C |
| ATOM | 9797 | CG | TYR | B | 113 | 7.778 | 51.288 | 88.982 | 1.00144.47 | C |
| ATOM | 9798 | CD1 | TYR | B | 113 | 8.831 | 50.534 | 89.497 | 1.00144.47 | C |
| ATOM | 9799 | CD2 | TYR | B | 113 | 6.963 | 50.701 | 88.013 | 1.00144.47 | C |
| ATOM | 9800 | CE1 | TYR | B | 113 | 9.057 | 49.223 | 89.080 | 1.00144.47 | C |
| ATOM | 9801 | CE2 | TYR | B | 113 | 7.183 | 49.387 | 87.581 | 1.00144.47 | C |
| ATOM | 9802 | CZ | TYR | B | 113 | 8.228 | 48.650 | 88.125 | 1.00144.47 | C |
| ATOM | 9803 | OH | TYR | B | 113 | 8.421 | 47.336 | 87.747 | 1.00144.47 | O |
| ATOM | 9804 | N | TYR | B | 114 | 7.768 | 52.957 | 86.487 | 1.00 74.87 | N |
| ATOM | 9805 | CA | TYR | B | 114 | 8.393 | 52.710 | 85.196 | 1.00 74.87 | C |
| ATOM | 9806 | C | TYR | B | 114 | 8.744 | 54.081 | 84.667 | 1.00 74.87 | C |
| ATOM | 9807 | O | TYR | B | 114 | 9.745 | 54.263 | 84.006 | 1.00 74.87 | O |
| ATOM | 9808 | CB | TYR | B | 114 | 7.412 | 52.055 | 84.226 | 1.00178.55 | C |
| ATOM | 9809 | CG | TYR | B | 114 | 6.461 | 53.029 | 83.555 | 1.00178.55 | C |
| ATOM | 9810 | CD1 | TYR | B | 114 | 5.174 | 53.234 | 84.048 | 1.00178.55 | C |
| ATOM | 9811 | CD2 | TYR | B | 114 | 6.860 | 53.758 | 82.432 | 1.00178.55 | C |
| ATOM | 9812 | CE1 | TYR | B | 114 | 4.305 | 54.139 | 83.437 | 1.00178.55 | C |
| ATOM | 9813 | CE2 | TYR | B | 114 | 6.002 | 54.666 | 81.818 | 1.00178.55 | C |
| ATOM | 9814 | CZ | TYR | B | 114 | 4.727 | 54.849 | 82.324 | 1.00178.55 | C |
| ATOM | 9815 | OH | TYR | B | 114 | 3.869 | 55.730 | 81.708 | 1.00178.55 | O |
| ATOM | 9816 | N | THR | B | 115 | 7.877 | 55.041 | 84.958 | 1.00161.05 | N |
| ATOM | 9817 | CA | THR | B | 115 | 8.085 | 56.407 | 84.519 | 1.00161.05 | C |
| ATOM | 9818 | C | THR | B | 115 | 9.422 | 56.878 | 85.076 | 1.00161.05 | C |
| ATOM | 9819 | O | THR | B | 115 | 10.478 | 56.635 | 84.471 | 1.00161.05 | O |
| ATOM | 9820 | CB | THR | B | 115 | 6.967 | 57.344 | 85.024 | 1.00207.38 | C |
| ATOM | 9821 | OG1 | THR | B | 115 | 5.698 | 56.890 | 84.534 | 1.00207.38 | O |
| ATOM | 9822 | CG2 | THR | B | 115 | 7.208 | 58.766 | 84.538 | 1.00207.38 | C |
| ATOM | 9823 | N | GLY | B | 116 | 9.358 | 57.532 | 86.238 | 1.00175.32 | N |
| ATOM | 9824 | CA | GLY | B | 116 | 10.548 | 58.066 | 86.879 | 1.00175.32 | C |
| ATOM | 9825 | C | GLY | B | 116 | 11.800 | 57.375 | 86.405 | 1.00175.32 | C |
| ATOM | 9826 | O | GLY | B | 116 | 12.696 | 57.985 | 85.808 | 1.00175.32 | O |
| ATOM | 9827 | N | ILE | B | 117 | 11.842 | 56.073 | 86.637 | 1.00148.45 | N |
| ATOM | 9828 | CA | ILE | B | 117 | 12.997 | 55.311 | 86.244 | 1.00148.45 | C |
| ATOM | 9829 | C | ILE | B | 117 | 13.189 | 55.288 | 84.729 | 1.00148.45 | C |
| ATOM | 9830 | O | ILE | B | 117 | 14.132 | 55.874 | 84.198 | 1.00148.45 | O |
| ATOM | 9831 | CB | ILE | B | 117 | 12.905 | 53.860 | 86.771 | 1.00 67.50 | C |
| ATOM | 9832 | CG1 | ILE | B | 117 | 12.750 | 53.874 | 88.295 | 1.00 67.50 | C |
| ATOM | 9833 | CG2 | ILE | B | 117 | 14.154 | 53.070 | 86.365 | 1.00 67.50 | C |
| ATOM | 9834 | CD1 | ILE | B | 117 | 13.945 | 54.438 | 89.030 | 1.00 67.50 | C |
| ATOM | 9835 | N | GLY | B | 118 | 12.287 | 54.613 | 84.036 | 1.00 66.70 | N |
| ATOM | 9836 | CA | GLY | B | 118 | 12.397 | 54.509 | 82.592 | 1.00 66.70 | C |
| ATOM | 9837 | C | GLY | B | 118 | 12.898 | 55.718 | 81.850 | 1.00 66.70 | C |
| ATOM | 9838 | O | GLY | B | 118 | 13.979 | 55.707 | 81.256 | 1.00 66.70 | O |
| ATOM | 9839 | N | ALA | B | 119 | 12.087 | 56.763 | 81.866 | 1.00120.90 | N |
| ATOM | 9840 | CA | ALA | B | 119 | 12.473 | 57.988 | 81.203 | 1.00120.90 | C |
| ATOM | 9841 | C | ALA | B | 119 | 13.878 | 58.213 | 81.712 | 1.00120.90 | C |
| ATOM | 9842 | O | ALA | B | 119 | 14.818 | 58.363 | 80.929 | 1.00120.90 | O |
| ATOM | 9843 | CB | ALA | B | 119 | 11.568 | 59.126 | 81.624 | 1.00207.38 | C |
| ATOM | 9844 | N | GLY | B | 120 | 14.005 | 58.185 | 83.039 | 1.00108.57 | N |
| ATOM | 9845 | CA | GLY | B | 120 | 15.290 | 58.385 | 83.671 | 1.00108.57 | C |
| ATOM | 9846 | C | GLY | B | 120 | 16.419 | 57.737 | 82.903 | 1.00108.57 | C |
| ATOM | 9847 | O | GLY | B | 120 | 17.243 | 58.442 | 82.323 | 1.00108.57 | O |
| ATOM | 9848 | N | VAL | B | 121 | 16.455 | 56.405 | 82.864 | 1.00 96.73 | N |
| ATOM | 9849 | CA | VAL | B | 121 | 17.545 | 55.723 | 82.175 | 1.00 96.73 | C |
| ATOM | 9850 | C | VAL | B | 121 | 17.725 | 56.192 | 80.748 | 1.00 96.73 | C |
| ATOM | 9851 | O | VAL | B | 121 | 18.797 | 56.649 | 80.382 | 1.00 96.73 | O |
| ATOM | 9852 | CB | VAL | B | 121 | 17.358 | 54.181 | 82.171 | 1.00 85.65 | C |
| ATOM | 9853 | CG1 | VAL | B | 121 | 16.835 | 53.715 | 83.520 | 1.00 85.65 | C |
| ATOM | 9854 | CG2 | VAL | B | 121 | 16.435 | 53.759 | 81.044 | 1.00 85.65 | C |
| ATOM | 9855 | N | LEU | B | 122 | 16.677 | 56.100 | 79.945 | 1.00120.11 | N |
| ATOM | 9856 | CA | LEU | B | 122 | 16.795 | 56.515 | 78.569 | 1.00120.11 | C |
| ATOM | 9857 | C | LEU | B | 122 | 17.630 | 57.803 | 78.453 | 1.00120.11 | C |
| ATOM | 9858 | O | LEU | B | 122 | 18.686 | 57.812 | 77.800 | 1.00120.11 | O |
| ATOM | 9859 | CB | LEU | B | 122 | 15.411 | 56.732 | 77.956 | 1.00100.96 | C |
| ATOM | 9860 | CG | LEU | B | 122 | 15.364 | 56.885 | 76.432 | 1.00100.96 | C |
| ATOM | 9861 | CD1 | LEU | B | 122 | 16.110 | 55.726 | 75.771 | 1.00100.96 | C |
| ATOM | 9862 | CD2 | LEU | B | 122 | 13.912 | 56.939 | 75.969 | 1.00100.96 | C |
| ATOM | 9863 | N | ILE | B | 123 | 17.182 | 58.869 | 79.114 | 1.00 80.88 | N |
| ATOM | 9864 | CA | ILE | B | 123 | 17.874 | 60.168 | 79.093 | 1.00 80.88 | C |
| ATOM | 9865 | C | ILE | B | 123 | 19.340 | 60.078 | 79.535 | 1.00 80.88 | C |
| ATOM | 9866 | O | ILE | B | 123 | 20.255 | 60.545 | 78.832 | 1.00 80.88 | O |
| ATOM | 9867 | CB | ILE | B | 123 | 17.188 | 61.181 | 80.046 | 1.00111.89 | C |
| ATOM | 9868 | CG1 | ILE | B | 123 | 15.762 | 61.485 | 79.577 | 1.00111.89 | C |
| ATOM | 9869 | CG2 | ILE | B | 123 | 18.018 | 62.462 | 80.134 | 1.00111.89 | C |

| | | | | | | | | | | |
|------|------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 9870 | CD1 | ILE | B | 123 | 15.663 | 62.527 | 78.464 | 1.00111.89 | C |
| ATOM | 9871 | N | VAL | B | 124 | 19.571 | 59.472 | 80.697 | 1.00 69.62 | N |
| ATOM | 9872 | CA | VAL | B | 124 | 20.924 | 59.371 | 81.216 | 1.00 69.62 | C |
| ATOM | 9873 | C | VAL | B | 124 | 21.846 | 58.317 | 80.609 | 1.00 69.62 | C |
| ATOM | 9874 | O | VAL | B | 124 | 23.069 | 58.469 | 80.669 | 1.00 69.62 | O |
| ATOM | 9875 | CB | VAL | B | 124 | 20.891 | 59.175 | 82.746 | 1.00112.69 | C |
| ATOM | 9876 | CG1 | VAL | B | 124 | 20.119 | 60.328 | 83.392 | 1.00112.69 | C |
| ATOM | 9877 | CG2 | VAL | B | 124 | 20.262 | 57.829 | 83.089 | 1.00112.69 | C |
| ATOM | 9878 | N | ALA | B | 125 | 21.289 | 57.245 | 80.047 | 1.00 69.95 | N |
| ATOM | 9879 | CA | ALA | B | 125 | 22.113 | 56.230 | 79.387 | 1.00 69.95 | C |
| ATOM | 9880 | C | ALA | B | 125 | 22.697 | 56.930 | 78.176 | 1.00 69.95 | C |
| ATOM | 9881 | O | ALA | B | 125 | 23.917 | 57.001 | 78.025 | 1.00 69.95 | O |
| ATOM | 9882 | CB | ALA | B | 125 | 21.242 | 55.035 | 78.955 | 1.00133.23 | C |
| ATOM | 9883 | N | TYR | B | 126 | 21.816 | 57.460 | 77.326 | 1.00 95.74 | N |
| ATOM | 9884 | CA | TYR | B | 126 | 22.258 | 58.213 | 76.155 | 1.00 95.74 | C |
| ATOM | 9885 | C | TYR | B | 126 | 23.312 | 59.241 | 76.552 | 1.00 95.74 | C |
| ATOM | 9886 | O | TYR | B | 126 | 24.267 | 59.481 | 75.806 | 1.00 95.74 | O |
| ATOM | 9887 | CB | TYR | B | 126 | 21.083 | 58.947 | 75.521 | 1.00129.39 | C |
| ATOM | 9888 | CG | TYR | B | 126 | 21.482 | 59.853 | 74.378 | 1.00129.39 | C |
| ATOM | 9889 | CD1 | TYR | B | 126 | 22.045 | 59.330 | 73.216 | 1.00129.39 | C |
| ATOM | 9890 | CD2 | TYR | B | 126 | 21.278 | 61.232 | 74.449 | 1.00129.39 | C |
| ATOM | 9891 | CE1 | TYR | B | 126 | 22.391 | 60.154 | 72.146 | 1.00129.39 | C |
| ATOM | 9892 | CE2 | TYR | B | 126 | 21.620 | 62.066 | 73.382 | 1.00129.39 | C |
| ATOM | 9893 | CZ | TYR | B | 126 | 22.172 | 61.518 | 72.234 | 1.00129.39 | C |
| ATOM | 9894 | OH | TYR | B | 126 | 22.472 | 62.326 | 71.159 | 1.00129.39 | O |
| ATOM | 9895 | N | ILE | B | 127 | 23.136 | 59.875 | 77.709 | 1.00 99.90 | N |
| ATOM | 9896 | CA | ILE | B | 127 | 24.132 | 60.844 | 78.166 | 1.00 99.90 | C |
| ATOM | 9897 | C | ILE | B | 127 | 25.539 | 60.269 | 78.471 | 1.00 99.90 | C |
| ATOM | 9898 | O | ILE | B | 127 | 26.549 | 60.799 | 77.984 | 1.00 99.90 | O |
| ATOM | 9899 | CB | ILE | B | 127 | 23.623 | 61.591 | 79.418 | 1.00103.53 | C |
| ATOM | 9900 | CG1 | ILE | B | 127 | 22.394 | 62.430 | 79.055 | 1.00103.53 | C |
| ATOM | 9901 | CG2 | ILE | B | 127 | 24.724 | 62.468 | 79.989 | 1.00103.53 | C |
| ATOM | 9902 | CD1 | ILE | B | 127 | 22.610 | 63.363 | 77.863 | 1.00103.53 | C |
| ATOM | 9903 | N | GLN | B | 128 | 25.626 | 59.204 | 79.268 | 1.00 69.01 | N |
| ATOM | 9904 | CA | GLN | B | 128 | 26.937 | 58.627 | 79.575 | 1.00 69.01 | C |
| ATOM | 9905 | C | GLN | B | 128 | 27.653 | 58.037 | 78.339 | 1.00 69.01 | C |
| ATOM | 9906 | O | GLN | B | 128 | 28.890 | 57.867 | 78.339 | 1.00 69.01 | O |
| ATOM | 9907 | CB | GLN | B | 128 | 26.810 | 57.571 | 80.675 | 1.00107.98 | C |
| ATOM | 9908 | CG | GLN | B | 128 | 26.222 | 56.253 | 80.241 | 1.00107.98 | C |
| ATOM | 9909 | CD | GLN | B | 128 | 26.171 | 55.260 | 81.384 | 1.00107.98 | C |
| ATOM | 9910 | OE1 | GLN | B | 128 | 25.250 | 55.277 | 82.199 | 1.00107.98 | O |
| ATOM | 9911 | NE2 | GLN | B | 128 | 27.178 | 54.400 | 81.461 | 1.00107.98 | N |
| ATOM | 9912 | N | VAL | B | 129 | 26.900 | 57.719 | 77.283 | 1.00111.46 | N |
| ATOM | 9913 | CA | VAL | B | 129 | 27.566 | 57.204 | 76.089 | 1.00111.46 | C |
| ATOM | 9914 | C | VAL | B | 129 | 28.122 | 58.412 | 75.342 | 1.00111.46 | C |
| ATOM | 9915 | O | VAL | B | 129 | 29.210 | 58.338 | 74.726 | 1.00111.46 | O |
| ATOM | 9916 | CB | VAL | B | 129 | 26.603 | 56.409 | 75.185 | 1.00156.86 | C |
| ATOM | 9917 | CG1 | VAL | B | 129 | 27.385 | 55.342 | 74.429 | 1.00156.86 | C |
| ATOM | 9918 | CG2 | VAL | B | 129 | 25.503 | 55.767 | 76.019 | 1.00156.86 | C |
| ATOM | 9919 | N | SER | B | 130 | 27.389 | 59.530 | 75.404 | 1.00 55.84 | N |
| ATOM | 9920 | CA | SER | B | 130 | 27.871 | 60.783 | 74.792 | 1.00 55.84 | C |
| ATOM | 9921 | C | SER | B | 130 | 29.203 | 61.124 | 75.487 | 1.00 55.84 | C |
| ATOM | 9922 | O | SER | B | 130 | 30.096 | 61.737 | 74.909 | 1.00 55.84 | O |
| ATOM | 9923 | CB | SER | B | 130 | 26.842 | 61.892 | 74.998 | 1.00186.58 | C |
| ATOM | 9924 | OG | SER | B | 130 | 25.627 | 61.575 | 74.342 | 1.00186.58 | O |
| ATOM | 9925 | N | PHE | B | 131 | 29.325 | 60.687 | 76.732 | 1.00 79.72 | N |
| ATOM | 9926 | CA | PHE | B | 131 | 30.573 | 60.807 | 77.494 | 1.00 79.72 | C |
| ATOM | 9927 | C | PHE | B | 131 | 31.587 | 60.066 | 76.635 | 1.00 79.72 | C |
| ATOM | 9928 | O | PHE | B | 131 | 32.503 | 60.665 | 76.052 | 1.00 79.72 | O |
| ATOM | 9929 | CB | PHE | B | 131 | 30.420 | 60.093 | 78.848 | 1.00 91.72 | C |
| ATOM | 9930 | CG | PHE | B | 131 | 31.719 | 59.918 | 79.638 | 1.00 91.72 | C |
| ATOM | 9931 | CD1 | PHE | B | 131 | 31.668 | 59.769 | 81.030 | 1.00 91.72 | C |
| ATOM | 9932 | CD2 | PHE | B | 131 | 32.970 | 59.861 | 79.011 | 1.00 91.72 | C |
| ATOM | 9933 | CE1 | PHE | B | 131 | 32.836 | 59.567 | 81.793 | 1.00 91.72 | C |
| ATOM | 9934 | CE2 | PHE | B | 131 | 34.151 | 59.658 | 79.768 | 1.00 91.72 | C |
| ATOM | 9935 | CZ | PHE | B | 131 | 34.076 | 59.511 | 81.162 | 1.00 91.72 | C |
| ATOM | 9936 | N | TRP | B | 132 | 31.395 | 58.744 | 76.569 | 1.00207.38 | N |
| ATOM | 9937 | CA | TRP | B | 132 | 32.325 | 57.904 | 75.824 | 1.00207.38 | C |
| ATOM | 9938 | C | TRP | B | 132 | 32.979 | 58.651 | 74.700 | 1.00207.38 | C |
| ATOM | 9939 | O | TRP | B | 132 | 34.131 | 59.116 | 74.780 | 1.00207.38 | O |
| ATOM | 9940 | CB | TRP | B | 132 | 31.690 | 56.646 | 75.180 | 1.00 81.41 | C |
| ATOM | 9941 | CG | TRP | B | 132 | 32.688 | 55.933 | 74.281 | 1.00 81.41 | C |
| ATOM | 9942 | CD1 | TRP | B | 132 | 33.554 | 56.523 | 73.381 | 1.00 81.41 | C |
| ATOM | 9943 | CD2 | TRP | B | 132 | 32.985 | 54.528 | 74.246 | 1.00 81.41 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 9944 | NE1 | TRP | B | 132 | 34.374 | 55.570 | 72.801 | 1.00 | 81.41 | N |
| ATOM | 9945 | CE2 | TRP | B | 132 | 34.046 | 54.340 | 73.307 | 1.00 | 81.41 | C |
| ATOM | 9946 | CE3 | TRP | B | 132 | 32.467 | 53.409 | 74.911 | 1.00 | 81.41 | C |
| ATOM | 9947 | CZ2 | TRP | B | 132 | 34.588 | 53.077 | 73.025 | 1.00 | 81.41 | C |
| ATOM | 9948 | CZ3 | TRP | B | 132 | 33.010 | 52.161 | 74.629 | 1.00 | 81.41 | C |
| ATOM | 9949 | CH2 | TRP | B | 132 | 34.059 | 52.007 | 73.692 | 1.00 | 81.41 | C |
| ATOM | 9950 | N | CYS | B | 133 | 32.202 | 58.743 | 73.628 | 1.00 | 147.20 | N |
| ATOM | 9951 | CA | CYS | B | 133 | 32.749 | 59.304 | 72.433 | 1.00 | 147.20 | C |
| ATOM | 9952 | C | CYS | B | 133 | 33.192 | 60.692 | 72.386 | 1.00 | 147.20 | C |
| ATOM | 9953 | O | CYS | B | 133 | 34.355 | 60.939 | 72.091 | 1.00 | 147.20 | O |
| ATOM | 9954 | CB | CYS | B | 133 | 31.810 | 59.037 | 71.250 | 1.00 | 147.20 | C |
| ATOM | 9955 | SG | CYS | B | 133 | 32.398 | 57.773 | 70.072 | 1.00 | 147.20 | S |
| ATOM | 9956 | N | LEU | B | 134 | 32.280 | 61.620 | 72.611 | 1.00 | 97.07 | N |
| ATOM | 9957 | CA | LEU | B | 134 | 32.738 | 62.976 | 72.513 | 1.00 | 97.07 | C |
| ATOM | 9958 | C | LEU | B | 134 | 34.139 | 63.004 | 73.136 | 1.00 | 97.07 | C |
| ATOM | 9959 | O | LEU | B | 134 | 35.115 | 63.393 | 72.487 | 1.00 | 97.07 | O |
| ATOM | 9960 | CB | LEU | B | 134 | 31.819 | 63.938 | 73.264 | 1.00 | 102.60 | C |
| ATOM | 9961 | CG | LEU | B | 134 | 31.266 | 65.104 | 72.434 | 1.00 | 102.60 | C |
| ATOM | 9962 | CD1 | LEU | B | 134 | 31.301 | 66.365 | 73.268 | 1.00 | 102.60 | C |
| ATOM | 9963 | CD2 | LEU | B | 134 | 32.094 | 65.315 | 71.172 | 1.00 | 102.60 | C |
| ATOM | 9964 | N | ALA | B | 135 | 34.241 | 62.527 | 74.372 | 1.00 | 105.53 | N |
| ATOM | 9965 | CA | ALA | B | 135 | 35.510 | 62.504 | 75.077 | 1.00 | 105.53 | C |
| ATOM | 9966 | C | ALA | B | 135 | 36.569 | 61.818 | 74.249 | 1.00 | 105.53 | C |
| ATOM | 9967 | O | ALA | B | 135 | 37.168 | 62.418 | 73.359 | 1.00 | 105.53 | O |
| ATOM | 9968 | CB | ALA | B | 135 | 35.343 | 61.797 | 76.432 | 1.00 | 172.61 | C |
| ATOM | 9969 | N | ALA | B | 136 | 36.805 | 60.553 | 74.559 | 1.00 | 84.14 | N |
| ATOM | 9970 | CA | ALA | B | 136 | 37.798 | 59.763 | 73.848 | 1.00 | 84.14 | C |
| ATOM | 9971 | C | ALA | B | 136 | 38.011 | 60.266 | 72.410 | 1.00 | 84.14 | C |
| ATOM | 9972 | O | ALA | B | 136 | 39.148 | 60.365 | 71.912 | 1.00 | 84.14 | O |
| ATOM | 9973 | CB | ALA | B | 136 | 37.386 | 58.300 | 73.828 | 1.00 | 207.38 | C |
| ATOM | 9974 | N | GLY | B | 137 | 36.899 | 60.567 | 71.745 | 1.00 | 123.15 | N |
| ATOM | 9975 | CA | GLY | B | 137 | 36.962 | 61.046 | 70.380 | 1.00 | 123.15 | C |
| ATOM | 9976 | C | GLY | B | 137 | 38.004 | 62.128 | 70.255 | 1.00 | 123.15 | C |
| ATOM | 9977 | O | GLY | B | 137 | 39.131 | 61.870 | 69.840 | 1.00 | 123.15 | O |
| ATOM | 9978 | N | ARG | B | 138 | 37.634 | 63.337 | 70.656 | 1.00 | 76.59 | N |
| ATOM | 9979 | CA | ARG | B | 138 | 38.548 | 64.479 | 70.555 | 1.00 | 76.59 | C |
| ATOM | 9980 | C | ARG | B | 138 | 39.897 | 64.188 | 71.166 | 1.00 | 76.59 | C |
| ATOM | 9981 | O | ARG | B | 138 | 40.942 | 64.544 | 70.629 | 1.00 | 76.59 | O |
| ATOM | 9982 | CB | ARG | B | 138 | 37.943 | 65.714 | 71.227 | 1.00 | 207.38 | C |
| ATOM | 9983 | CG | ARG | B | 138 | 36.433 | 65.678 | 71.379 | 1.00 | 207.38 | C |
| ATOM | 9984 | CD | ARG | B | 138 | 35.841 | 67.076 | 71.307 | 1.00 | 207.38 | C |
| ATOM | 9985 | NE | ARG | B | 138 | 35.623 | 67.495 | 69.925 | 1.00 | 207.38 | N |
| ATOM | 9986 | CZ | ARG | B | 138 | 35.103 | 68.666 | 69.568 | 1.00 | 207.38 | C |
| ATOM | 9987 | NH1 | ARG | B | 138 | 34.746 | 69.548 | 70.492 | 1.00 | 207.38 | N |
| ATOM | 9988 | NH2 | ARG | B | 138 | 34.923 | 68.949 | 68.285 | 1.00 | 207.38 | N |
| ATOM | 9989 | N | GLN | B | 139 | 39.855 | 63.554 | 72.316 | 1.00 | 76.38 | N |
| ATOM | 9990 | CA | GLN | B | 139 | 41.064 | 63.187 | 73.017 | 1.00 | 76.38 | C |
| ATOM | 9991 | C | GLN | B | 139 | 42.031 | 62.419 | 72.098 | 1.00 | 76.38 | C |
| ATOM | 9992 | O | GLN | B | 139 | 43.231 | 62.706 | 72.044 | 1.00 | 76.38 | O |
| ATOM | 9993 | CB | GLN | B | 139 | 40.708 | 62.274 | 74.180 | 1.00 | 91.33 | C |
| ATOM | 9994 | CG | GLN | B | 139 | 39.924 | 62.931 | 75.283 | 1.00 | 91.33 | C |
| ATOM | 9995 | CD | GLN | B | 139 | 40.821 | 63.385 | 76.411 | 1.00 | 91.33 | C |
| ATOM | 9996 | OE1 | GLN | B | 139 | 41.746 | 64.171 | 76.205 | 1.00 | 91.33 | O |
| ATOM | 9997 | NE2 | GLN | B | 139 | 40.558 | 62.885 | 77.615 | 1.00 | 91.33 | N |
| ATOM | 9998 | N | ILE | B | 140 | 41.508 | 61.410 | 71.411 | 1.00 | 99.80 | N |
| ATOM | 9999 | CA | ILE | B | 140 | 42.341 | 60.631 | 70.535 | 1.00 | 99.80 | C |
| ATOM | 10000 | C | ILE | B | 140 | 42.801 | 61.481 | 69.366 | 1.00 | 99.80 | C |
| ATOM | 10001 | O | ILE | B | 140 | 43.999 | 61.536 | 69.097 | 1.00 | 99.80 | O |
| ATOM | 10002 | CB | ILE | B | 140 | 41.609 | 59.365 | 70.048 | 1.00 | 112.88 | C |
| ATOM | 10003 | CG1 | ILE | B | 140 | 41.476 | 58.386 | 71.217 | 1.00 | 112.88 | C |
| ATOM | 10004 | CG2 | ILE | B | 140 | 42.363 | 58.727 | 68.889 | 1.00 | 112.88 | C |
| ATOM | 10005 | CD1 | ILE | B | 140 | 42.789 | 58.110 | 71.928 | 1.00 | 112.88 | C |
| ATOM | 10006 | N | HIS | B | 141 | 41.869 | 62.166 | 68.696 | 1.00 | 66.95 | N |
| ATOM | 10007 | CA | HIS | B | 141 | 42.202 | 63.022 | 67.553 | 1.00 | 66.95 | C |
| ATOM | 10008 | C | HIS | B | 141 | 43.493 | 63.751 | 67.842 | 1.00 | 66.95 | C |
| ATOM | 10009 | O | HIS | B | 141 | 44.449 | 63.722 | 67.051 | 1.00 | 66.95 | O |
| ATOM | 10010 | CB | HIS | B | 141 | 41.085 | 64.032 | 67.293 | 1.00 | 97.78 | C |
| ATOM | 10011 | CG | HIS | B | 141 | 40.917 | 64.364 | 65.846 | 1.00 | 97.78 | C |
| ATOM | 10012 | ND1 | HIS | B | 141 | 40.538 | 63.424 | 64.912 | 1.00 | 97.78 | N |
| ATOM | 10013 | CD2 | HIS | B | 141 | 41.135 | 65.511 | 65.160 | 1.00 | 97.78 | C |
| ATOM | 10014 | CE1 | HIS | B | 141 | 40.533 | 63.977 | 63.713 | 1.00 | 97.78 | C |
| ATOM | 10015 | NE2 | HIS | B | 141 | 40.893 | 65.242 | 63.835 | 1.00 | 97.78 | N |
| ATOM | 10016 | N | LYS | B | 142 | 43.500 | 64.390 | 69.010 | 1.00 | 50.06 | N |
| ATOM | 10017 | CA | LYS | B | 142 | 44.655 | 65.123 | 69.535 | 1.00 | 50.06 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 10018 | C | LYS | B | 142 | 45.824 | 64.145 | 69.533 | 1.00 | 50.06 | C |
| ATOM | 10019 | O | LYS | B | 142 | 46.830 | 64.338 | 68.851 | 1.00 | 50.06 | O |
| ATOM | 10020 | CB | LYS | B | 142 | 44.374 | 65.577 | 70.972 | 1.00 | 147.34 | C |
| ATOM | 10021 | CG | LYS | B | 142 | 44.803 | 66.998 | 71.288 | 1.00 | 147.34 | C |
| ATOM | 10022 | CD | LYS | B | 142 | 43.743 | 68.014 | 70.885 | 1.00 | 147.34 | C |
| ATOM | 10023 | CE | LYS | B | 142 | 42.510 | 67.885 | 71.764 | 1.00 | 147.34 | C |
| ATOM | 10024 | NZ | LYS | B | 142 | 41.559 | 69.012 | 71.567 | 1.00 | 147.34 | N |
| ATOM | 10025 | N | ILE | B | 143 | 45.670 | 63.081 | 70.311 | 1.00 | 79.75 | N |
| ATOM | 10026 | CA | ILE | B | 143 | 46.702 | 62.070 | 70.398 | 1.00 | 79.75 | C |
| ATOM | 10027 | C | ILE | B | 143 | 47.184 | 61.789 | 68.999 | 1.00 | 79.75 | C |
| ATOM | 10028 | O | ILE | B | 143 | 48.264 | 62.213 | 68.627 | 1.00 | 79.75 | O |
| ATOM | 10029 | CB | ILE | B | 143 | 46.182 | 60.743 | 70.995 | 1.00 | 125.10 | C |
| ATOM | 10030 | CG1 | ILE | B | 143 | 45.809 | 60.931 | 72.465 | 1.00 | 125.10 | C |
| ATOM | 10031 | CG2 | ILE | B | 143 | 47.254 | 59.656 | 70.862 | 1.00 | 125.10 | C |
| ATOM | 10032 | CD1 | ILE | B | 143 | 46.998 | 61.079 | 73.398 | 1.00 | 125.10 | C |
| ATOM | 10033 | N | ARG | B | 144 | 46.364 | 61.082 | 68.231 | 1.00 | 76.10 | N |
| ATOM | 10034 | CA | ARG | B | 144 | 46.668 | 60.709 | 66.856 | 1.00 | 76.10 | C |
| ATOM | 10035 | C | ARG | B | 144 | 47.597 | 61.672 | 66.117 | 1.00 | 76.10 | C |
| ATOM | 10036 | O | ARG | B | 144 | 48.690 | 61.290 | 65.707 | 1.00 | 76.10 | O |
| ATOM | 10037 | CB | ARG | B | 144 | 45.386 | 60.595 | 66.041 | 1.00 | 171.95 | C |
| ATOM | 10038 | CG | ARG | B | 144 | 45.606 | 60.039 | 64.646 | 1.00 | 171.95 | C |
| ATOM | 10039 | CD | ARG | B | 144 | 45.224 | 58.577 | 64.630 | 1.00 | 171.95 | C |
| ATOM | 10040 | NE | ARG | B | 144 | 43.828 | 58.427 | 65.032 | 1.00 | 171.95 | N |
| ATOM | 10041 | CZ | ARG | B | 144 | 43.318 | 57.344 | 65.611 | 1.00 | 171.95 | C |
| ATOM | 10042 | NH1 | ARG | B | 144 | 44.089 | 56.294 | 65.865 | 1.00 | 171.95 | N |
| ATOM | 10043 | NH2 | ARG | B | 144 | 42.035 | 57.313 | 65.948 | 1.00 | 171.95 | N |
| ATOM | 10044 | N | GLN | B | 145 | 47.186 | 62.917 | 65.922 | 1.00 | 83.89 | N |
| ATOM | 10045 | CA | GLN | B | 145 | 48.076 | 63.841 | 65.217 | 1.00 | 83.89 | C |
| ATOM | 10046 | C | GLN | B | 145 | 49.439 | 64.071 | 65.914 | 1.00 | 83.89 | C |
| ATOM | 10047 | O | GLN | B | 145 | 50.481 | 64.036 | 65.255 | 1.00 | 83.89 | O |
| ATOM | 10048 | CB | GLN | B | 145 | 47.349 | 65.166 | 64.983 | 1.00 | 142.71 | C |
| ATOM | 10049 | CG | GLN | B | 145 | 46.174 | 65.015 | 64.026 | 1.00 | 142.71 | C |
| ATOM | 10050 | CD | GLN | B | 145 | 45.377 | 66.289 | 63.853 | 1.00 | 142.71 | C |
| ATOM | 10051 | OE1 | GLN | B | 145 | 45.923 | 67.333 | 63.506 | 1.00 | 142.71 | O |
| ATOM | 10052 | NE2 | GLN | B | 145 | 44.072 | 66.207 | 64.085 | 1.00 | 142.71 | N |
| ATOM | 10053 | N | LYS | B | 146 | 49.438 | 64.296 | 67.232 | 1.00 | 97.14 | N |
| ATOM | 10054 | CA | LYS | B | 146 | 50.692 | 64.495 | 67.962 | 1.00 | 97.14 | C |
| ATOM | 10055 | C | LYS | B | 146 | 51.650 | 63.342 | 67.697 | 1.00 | 97.14 | C |
| ATOM | 10056 | O | LYS | B | 146 | 52.753 | 63.553 | 67.231 | 1.00 | 97.14 | O |
| ATOM | 10057 | CB | LYS | B | 146 | 50.428 | 64.627 | 69.466 | 1.00 | 109.94 | C |
| ATOM | 10058 | CG | LYS | B | 146 | 49.556 | 65.817 | 69.837 | 1.00 | 109.94 | C |
| ATOM | 10059 | CD | LYS | B | 146 | 50.162 | 67.131 | 69.357 | 1.00 | 109.94 | C |
| ATOM | 10060 | CE | LYS | B | 146 | 51.375 | 67.550 | 70.180 | 1.00 | 109.94 | C |
| ATOM | 10061 | NZ | LYS | B | 146 | 51.857 | 68.907 | 69.783 | 1.00 | 109.94 | N |
| ATOM | 10062 | N | PHE | B | 147 | 51.237 | 62.124 | 67.999 | 1.00 | 71.68 | N |
| ATOM | 10063 | CA | PHE | B | 147 | 52.076 | 60.974 | 67.733 | 1.00 | 71.68 | C |
| ATOM | 10064 | C | PHE | B | 147 | 52.587 | 60.891 | 66.269 | 1.00 | 71.68 | C |
| ATOM | 10065 | O | PHE | B | 147 | 53.784 | 60.660 | 66.049 | 1.00 | 71.68 | O |
| ATOM | 10066 | CB | PHE | B | 147 | 51.299 | 59.697 | 68.028 | 1.00 | 64.12 | C |
| ATOM | 10067 | CG | PHE | B | 147 | 52.168 | 58.513 | 68.274 | 1.00 | 64.12 | C |
| ATOM | 10068 | CD1 | PHE | B | 147 | 51.635 | 57.232 | 68.273 | 1.00 | 64.12 | C |
| ATOM | 10069 | CD2 | PHE | B | 147 | 53.524 | 58.681 | 68.530 | 1.00 | 64.12 | C |
| ATOM | 10070 | CE1 | PHE | B | 147 | 52.440 | 56.141 | 68.522 | 1.00 | 64.12 | C |
| ATOM | 10071 | CE2 | PHE | B | 147 | 54.345 | 57.596 | 68.782 | 1.00 | 64.12 | C |
| ATOM | 10072 | CZ | PHE | B | 147 | 53.806 | 56.323 | 68.780 | 1.00 | 64.12 | C |
| ATOM | 10073 | N | PHE | B | 148 | 51.677 | 61.044 | 65.287 | 1.00 | 84.40 | N |
| ATOM | 10074 | CA | PHE | B | 148 | 51.991 | 60.999 | 63.832 | 1.00 | 84.40 | C |
| ATOM | 10075 | C | PHE | B | 148 | 53.225 | 61.867 | 63.657 | 1.00 | 84.40 | C |
| ATOM | 10076 | O | PHE | B | 148 | 54.283 | 61.382 | 63.263 | 1.00 | 84.40 | O |
| ATOM | 10077 | CB | PHE | B | 148 | 50.817 | 61.593 | 63.021 | 1.00 | 141.27 | C |
| ATOM | 10078 | CG | PHE | B | 148 | 49.974 | 60.572 | 62.247 | 1.00 | 141.27 | C |
| ATOM | 10079 | CD1 | PHE | B | 148 | 49.924 | 59.225 | 62.609 | 1.00 | 141.27 | C |
| ATOM | 10080 | CD2 | PHE | B | 148 | 49.171 | 60.998 | 61.182 | 1.00 | 141.27 | C |
| ATOM | 10081 | CE1 | PHE | B | 148 | 49.083 | 58.326 | 61.923 | 1.00 | 141.27 | C |
| ATOM | 10082 | CE2 | PHE | B | 148 | 48.335 | 60.110 | 60.500 | 1.00 | 141.27 | C |
| ATOM | 10083 | CZ | PHE | B | 148 | 48.292 | 58.777 | 60.871 | 1.00 | 141.27 | C |
| ATOM | 10084 | N | HIS | B | 149 | 53.071 | 63.148 | 64.001 | 1.00 | 86.99 | N |
| ATOM | 10085 | CA | HIS | B | 149 | 54.122 | 64.179 | 63.929 | 1.00 | 86.99 | C |
| ATOM | 10086 | C | HIS | B | 149 | 55.292 | 63.849 | 64.854 | 1.00 | 86.99 | C |
| ATOM | 10087 | O | HIS | B | 149 | 56.458 | 64.165 | 64.587 | 1.00 | 86.99 | O |
| ATOM | 10088 | CB | HIS | B | 149 | 53.502 | 65.530 | 64.323 | 1.00 | 131.14 | C |
| ATOM | 10089 | CG | HIS | B | 149 | 54.500 | 66.608 | 64.610 | 1.00 | 131.14 | C |
| ATOM | 10090 | ND1 | HIS | B | 149 | 54.828 | 67.584 | 63.693 | 1.00 | 131.14 | N |
| ATOM | 10091 | CD2 | HIS | B | 149 | 55.228 | 66.874 | 65.720 | 1.00 | 131.14 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10092 | CE1 | HIS | B | 149 | 55.714 | 68.405 | 64.228 | 1.00131.14 | C |
| ATOM | 10093 | NE2 | HIS | B | 149 | 55.973 | 67.997 | 65.457 | 1.00131.14 | N |
| ATOM | 10094 | N | ALA | B | 150 | 54.957 | 63.194 | 65.948 | 1.00 63.93 | N |
| ATOM | 10095 | CA | ALA | B | 150 | 55.937 | 62.777 | 66.910 | 1.00 63.93 | C |
| ATOM | 10096 | C | ALA | B | 150 | 56.873 | 61.814 | 66.218 | 1.00 63.93 | C |
| ATOM | 10097 | O | ALA | B | 150 | 58.067 | 62.074 | 66.130 | 1.00 63.93 | O |
| ATOM | 10098 | CB | ALA | B | 150 | 55.260 | 62.099 | 68.092 | 1.00207.38 | C |
| ATOM | 10099 | N | ILE | B | 151 | 56.351 | 60.691 | 65.743 | 1.00141.69 | N |
| ATOM | 10100 | CA | ILE | B | 151 | 57.186 | 59.723 | 65.042 | 1.00141.69 | C |
| ATOM | 10101 | C | ILE | B | 151 | 58.084 | 60.451 | 64.052 | 1.00141.69 | C |
| ATOM | 10102 | O | ILE | B | 151 | 59.321 | 60.409 | 64.141 | 1.00141.69 | O |
| ATOM | 10103 | CB | ILE | B | 151 | 56.311 | 58.745 | 64.226 | 1.00 77.29 | C |
| ATOM | 10104 | CG1 | ILE | B | 151 | 55.438 | 57.894 | 65.150 | 1.00 77.29 | C |
| ATOM | 10105 | CG2 | ILE | B | 151 | 57.192 | 57.887 | 63.337 | 1.00 77.29 | C |
| ATOM | 10106 | CD1 | ILE | B | 151 | 56.187 | 56.790 | 65.864 | 1.00 77.29 | C |
| ATOM | 10107 | N | MET | B | 152 | 57.433 | 61.118 | 63.102 | 1.00 92.61 | N |
| ATOM | 10108 | CA | MET | B | 152 | 58.139 | 61.861 | 62.069 | 1.00 92.61 | C |
| ATOM | 10109 | C | MET | B | 152 | 59.143 | 62.842 | 62.578 | 1.00 92.61 | C |
| ATOM | 10110 | O | MET | B | 152 | 59.778 | 63.504 | 61.806 | 1.00 92.61 | O |
| ATOM | 10111 | CB | MET | B | 152 | 57.110 | 62.600 | 61.221 | 1.00 85.60 | C |
| ATOM | 10112 | CG | MET | B | 152 | 56.275 | 61.675 | 60.365 | 1.00 85.60 | C |
| ATOM | 10113 | SD | MET | B | 152 | 57.393 | 60.824 | 59.245 | 1.00 85.60 | S |
| ATOM | 10114 | CE | MET | B | 152 | 57.680 | 62.105 | 58.067 | 1.00 85.60 | C |
| ATOM | 10115 | N | ASN | B | 153 | 59.282 | 62.980 | 63.875 | 1.00 91.46 | N |
| ATOM | 10116 | CA | ASN | B | 153 | 60.277 | 63.904 | 64.335 | 1.00 91.46 | C |
| ATOM | 10117 | C | ASN | B | 153 | 61.386 | 63.189 | 65.093 | 1.00 91.46 | C |
| ATOM | 10118 | O | ASN | B | 153 | 62.488 | 63.740 | 65.154 | 1.00 91.46 | O |
| ATOM | 10119 | CB | ASN | B | 153 | 59.636 | 64.964 | 65.229 | 1.00125.65 | C |
| ATOM | 10120 | CG | ASN | B | 153 | 60.482 | 66.210 | 65.349 | 1.00125.65 | C |
| ATOM | 10121 | OD1 | ASN | B | 153 | 60.847 | 66.626 | 66.451 | 1.00125.65 | O |
| ATOM | 10122 | ND2 | ASN | B | 153 | 60.788 | 66.825 | 64.214 | 1.00125.65 | N |
| ATOM | 10123 | N | GLN | B | 154 | 61.103 | 62.003 | 65.665 | 1.00146.00 | N |
| ATOM | 10124 | CA | GLN | B | 154 | 62.091 | 61.230 | 66.435 | 1.00146.00 | C |
| ATOM | 10125 | C | GLN | B | 154 | 63.447 | 61.140 | 65.708 | 1.00146.00 | C |
| ATOM | 10126 | O | GLN | B | 154 | 64.512 | 60.934 | 66.287 | 1.00146.00 | O |
| ATOM | 10127 | CB | GLN | B | 154 | 61.620 | 59.789 | 66.727 | 1.00 76.63 | C |
| ATOM | 10128 | CG | GLN | B | 154 | 62.179 | 59.243 | 68.046 | 1.00 76.63 | C |
| ATOM | 10129 | CD | GLN | B | 154 | 62.462 | 57.752 | 67.977 | 1.00 76.63 | C |
| ATOM | 10130 | OE1 | GLN | B | 154 | 61.635 | 56.975 | 67.498 | 1.00 76.63 | O |
| ATOM | 10131 | NE2 | GLN | B | 154 | 63.634 | 57.347 | 68.449 | 1.00 76.63 | N |
| ATOM | 10132 | N | GLU | B | 155 | 63.391 | 61.341 | 64.413 | 1.00 86.01 | N |
| ATOM | 10133 | CA | GLU | B | 155 | 64.580 | 61.268 | 63.572 | 1.00 86.01 | C |
| ATOM | 10134 | C | GLU | B | 155 | 65.547 | 60.093 | 63.566 | 1.00 86.01 | C |
| ATOM | 10135 | O | GLU | B | 155 | 65.175 | 58.965 | 63.788 | 1.00 86.01 | O |
| ATOM | 10136 | CB | GLU | B | 155 | 65.325 | 62.600 | 63.682 | 1.00200.95 | C |
| ATOM | 10137 | CG | GLU | B | 155 | 64.751 | 63.635 | 62.716 | 1.00200.95 | C |
| ATOM | 10138 | CD | GLU | B | 155 | 63.241 | 63.681 | 62.771 | 1.00200.95 | C |
| ATOM | 10139 | OE1 | GLU | B | 155 | 62.610 | 62.654 | 62.440 | 1.00200.95 | O |
| ATOM | 10140 | OE2 | GLU | B | 155 | 62.688 | 64.732 | 63.155 | 1.00200.95 | O |
| ATOM | 10141 | N | ILE | B | 156 | 66.801 | 60.337 | 63.259 | 1.00 70.44 | N |
| ATOM | 10142 | CA | ILE | B | 156 | 67.753 | 59.225 | 63.065 | 1.00 70.44 | C |
| ATOM | 10143 | C | ILE | B | 156 | 67.614 | 58.026 | 63.986 | 1.00 70.44 | C |
| ATOM | 10144 | O | ILE | B | 156 | 67.863 | 56.861 | 63.601 | 1.00 70.44 | O |
| ATOM | 10145 | CB | ILE | B | 156 | 69.180 | 59.779 | 63.142 | 1.00110.13 | C |
| ATOM | 10146 | CG1 | ILE | B | 156 | 69.207 | 61.194 | 62.553 | 1.00110.13 | C |
| ATOM | 10147 | CG2 | ILE | B | 156 | 70.140 | 58.843 | 62.446 | 1.00110.13 | C |
| ATOM | 10148 | CD1 | ILE | B | 156 | 68.348 | 62.189 | 63.335 | 1.00110.13 | C |
| ATOM | 10149 | N | GLY | B | 157 | 67.118 | 58.335 | 65.184 | 1.00161.15 | N |
| ATOM | 10150 | CA | GLY | B | 157 | 66.892 | 57.317 | 66.191 | 1.00161.15 | C |
| ATOM | 10151 | C | GLY | B | 157 | 65.939 | 56.281 | 65.673 | 1.00161.15 | C |
| ATOM | 10152 | O | GLY | B | 157 | 66.108 | 55.090 | 65.904 | 1.00161.15 | O |
| ATOM | 10153 | N | TRP | B | 158 | 64.939 | 56.784 | 64.958 | 1.00143.15 | N |
| ATOM | 10154 | CA | TRP | B | 158 | 63.885 | 55.999 | 64.335 | 1.00143.15 | C |
| ATOM | 10155 | C | TRP | B | 158 | 64.507 | 55.032 | 63.330 | 1.00143.15 | C |
| ATOM | 10156 | O | TRP | B | 158 | 63.822 | 54.314 | 62.607 | 1.00143.15 | O |
| ATOM | 10157 | CB | TRP | B | 158 | 62.862 | 56.990 | 63.704 | 1.00 92.91 | C |
| ATOM | 10158 | CG | TRP | B | 158 | 62.492 | 56.907 | 62.214 | 1.00 92.91 | C |
| ATOM | 10159 | CD1 | TRP | B | 158 | 62.161 | 55.784 | 61.501 | 1.00 92.91 | C |
| ATOM | 10160 | CD2 | TRP | B | 158 | 62.311 | 58.016 | 61.308 | 1.00 92.91 | C |
| ATOM | 10161 | NE1 | TRP | B | 158 | 61.786 | 56.126 | 60.219 | 1.00 92.91 | N |
| ATOM | 10162 | CE2 | TRP | B | 158 | 61.870 | 57.485 | 60.073 | 1.00 92.91 | C |
| ATOM | 10163 | CE3 | TRP | B | 158 | 62.478 | 59.405 | 61.424 | 1.00 92.91 | C |
| ATOM | 10164 | CZ2 | TRP | B | 158 | 61.595 | 58.294 | 58.962 | 1.00 92.91 | C |
| ATOM | 10165 | CZ3 | TRP | B | 158 | 62.204 | 60.204 | 60.324 | 1.00 92.91 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 10166 | CH2 | TRP | B | 158 | 61.768 | 59.647 | 59.108 | 1.00 | 92.91 | C |
| ATOM | 10167 | N | PHE | B | 159 | 65.831 | 55.012 | 63.309 | 1.00 | 114.88 | N |
| ATOM | 10168 | CA | PHE | B | 159 | 66.570 | 54.110 | 62.444 | 1.00 | 114.88 | C |
| ATOM | 10169 | C | PHE | B | 159 | 67.550 | 53.477 | 63.391 | 1.00 | 114.88 | C |
| ATOM | 10170 | O | PHE | B | 159 | 67.874 | 52.289 | 63.314 | 1.00 | 114.88 | O |
| ATOM | 10171 | CB | PHE | B | 159 | 67.324 | 54.882 | 61.359 | 1.00 | 206.17 | C |
| ATOM | 10172 | CG | PHE | B | 159 | 68.251 | 54.024 | 60.539 | 1.00 | 206.17 | C |
| ATOM | 10173 | CD1 | PHE | B | 159 | 67.748 | 53.018 | 59.722 | 1.00 | 206.17 | C |
| ATOM | 10174 | CD2 | PHE | B | 159 | 69.629 | 54.218 | 60.589 | 1.00 | 206.17 | C |
| ATOM | 10175 | CE1 | PHE | B | 159 | 68.602 | 52.218 | 58.968 | 1.00 | 206.17 | C |
| ATOM | 10176 | CE2 | PHE | B | 159 | 70.493 | 53.420 | 59.836 | 1.00 | 206.17 | C |
| ATOM | 10177 | CZ | PHE | B | 159 | 69.977 | 52.419 | 59.026 | 1.00 | 206.17 | C |
| ATOM | 10178 | N | ASP | B | 160 | 68.008 | 54.318 | 64.301 | 1.00 | 149.20 | N |
| ATOM | 10179 | CA | ASP | B | 160 | 68.952 | 53.926 | 65.321 | 1.00 | 149.20 | C |
| ATOM | 10180 | C | ASP | B | 160 | 68.476 | 52.648 | 66.004 | 1.00 | 149.20 | C |
| ATOM | 10181 | O | ASP | B | 160 | 69.253 | 51.745 | 66.294 | 1.00 | 149.20 | O |
| ATOM | 10182 | CB | ASP | B | 160 | 69.133 | 55.066 | 66.322 | 1.00 | 95.17 | C |
| ATOM | 10183 | CG | ASP | B | 160 | 69.557 | 56.360 | 65.648 | 1.00 | 95.17 | C |
| ATOM | 10184 | OD1 | ASP | B | 160 | 69.795 | 56.339 | 64.421 | 1.00 | 95.17 | O |
| ATOM | 10185 | OD2 | ASP | B | 160 | 69.650 | 57.395 | 66.338 | 1.00 | 95.17 | O |
| ATOM | 10186 | N | VAL | B | 161 | 67.180 | 52.577 | 66.247 | 1.00 | 158.67 | N |
| ATOM | 10187 | CA | VAL | B | 161 | 66.595 | 51.411 | 66.872 | 1.00 | 158.67 | C |
| ATOM | 10188 | C | VAL | B | 161 | 65.149 | 51.337 | 66.359 | 1.00 | 158.67 | C |
| ATOM | 10189 | O | VAL | B | 161 | 64.881 | 51.702 | 65.207 | 1.00 | 158.67 | O |
| ATOM | 10190 | CB | VAL | B | 161 | 66.652 | 51.513 | 68.415 | 1.00 | 137.85 | C |
| ATOM | 10191 | CG1 | VAL | B | 161 | 68.106 | 51.562 | 68.873 | 1.00 | 137.85 | C |
| ATOM | 10192 | CG2 | VAL | B | 161 | 65.906 | 52.745 | 68.891 | 1.00 | 137.85 | C |
| ATOM | 10193 | N | HIS | B | 162 | 64.229 | 50.866 | 67.196 | 1.00 | 116.32 | N |
| ATOM | 10194 | CA | HIS | B | 162 | 62.822 | 50.756 | 66.821 | 1.00 | 116.32 | C |
| ATOM | 10195 | C | HIS | B | 162 | 62.637 | 49.876 | 65.576 | 1.00 | 116.32 | C |
| ATOM | 10196 | O | HIS | B | 162 | 63.135 | 50.217 | 64.505 | 1.00 | 116.32 | O |
| ATOM | 10197 | CB | HIS | B | 162 | 62.228 | 52.145 | 66.547 | 1.00 | 144.81 | C |
| ATOM | 10198 | CG | HIS | B | 162 | 62.566 | 53.174 | 67.585 | 1.00 | 144.81 | C |
| ATOM | 10199 | ND1 | HIS | B | 162 | 62.593 | 52.896 | 68.935 | 1.00 | 144.81 | N |
| ATOM | 10200 | CD2 | HIS | B | 162 | 62.844 | 54.495 | 67.470 | 1.00 | 144.81 | C |
| ATOM | 10201 | CE1 | HIS | B | 162 | 62.873 | 53.999 | 69.607 | 1.00 | 144.81 | C |
| ATOM | 10202 | NE2 | HIS | B | 162 | 63.030 | 54.985 | 68.741 | 1.00 | 144.81 | N |
| ATOM | 10203 | N | ASP | B | 163 | 61.921 | 48.754 | 65.728 | 1.00 | 127.09 | N |
| ATOM | 10204 | CA | ASP | B | 163 | 61.635 | 47.797 | 64.626 | 1.00 | 127.09 | C |
| ATOM | 10205 | C | ASP | B | 163 | 61.041 | 48.520 | 63.445 | 1.00 | 127.09 | C |
| ATOM | 10206 | O | ASP | B | 163 | 60.891 | 47.952 | 62.357 | 1.00 | 127.09 | O |
| ATOM | 10207 | CB | ASP | B | 163 | 60.567 | 46.770 | 65.033 | 1.00 | 207.38 | C |
| ATOM | 10208 | CG | ASP | B | 163 | 61.073 | 45.718 | 65.986 | 1.00 | 207.38 | C |
| ATOM | 10209 | OD1 | ASP | B | 163 | 61.248 | 46.031 | 67.179 | 1.00 | 207.38 | O |
| ATOM | 10210 | OD2 | ASP | B | 163 | 61.287 | 44.570 | 65.541 | 1.00 | 207.38 | O |
| ATOM | 10211 | N | VAL | B | 164 | 60.667 | 49.766 | 63.690 | 1.00 | 93.51 | N |
| ATOM | 10212 | CA | VAL | B | 164 | 60.020 | 50.563 | 62.680 | 1.00 | 93.51 | C |
| ATOM | 10213 | C | VAL | B | 164 | 58.819 | 49.876 | 62.058 | 1.00 | 93.51 | C |
| ATOM | 10214 | O | VAL | B | 164 | 57.985 | 50.509 | 61.399 | 1.00 | 93.51 | O |
| ATOM | 10215 | CB | VAL | B | 164 | 60.903 | 50.711 | 61.409 | 1.00 | 129.49 | C |
| ATOM | 10216 | CG1 | VAL | B | 164 | 60.112 | 51.384 | 60.292 | 1.00 | 129.49 | C |
| ATOM | 10217 | CG2 | VAL | B | 164 | 62.193 | 51.456 | 61.746 | 1.00 | 129.49 | C |
| ATOM | 10218 | N | GLY | B | 165 | 58.737 | 48.583 | 62.301 | 1.00 | 106.16 | N |
| ATOM | 10219 | CA | GLY | B | 165 | 57.612 | 47.850 | 61.804 | 1.00 | 106.16 | C |
| ATOM | 10220 | C | GLY | B | 165 | 56.816 | 47.841 | 63.072 | 1.00 | 106.16 | C |
| ATOM | 10221 | O | GLY | B | 165 | 55.707 | 48.400 | 63.179 | 1.00 | 106.16 | O |
| ATOM | 10222 | N | GLU | B | 166 | 57.431 | 47.212 | 64.062 | 1.00 | 138.28 | N |
| ATOM | 10223 | CA | GLU | B | 166 | 56.824 | 47.099 | 65.362 | 1.00 | 138.28 | C |
| ATOM | 10224 | C | GLU | B | 166 | 56.253 | 48.478 | 65.699 | 1.00 | 138.28 | C |
| ATOM | 10225 | O | GLU | B | 166 | 55.268 | 48.589 | 66.436 | 1.00 | 138.28 | O |
| ATOM | 10226 | CB | GLU | B | 166 | 57.892 | 46.646 | 66.364 | 1.00 | 206.87 | C |
| ATOM | 10227 | CG | GLU | B | 166 | 57.501 | 46.725 | 67.817 | 1.00 | 206.87 | C |
| ATOM | 10228 | CD | GLU | B | 166 | 57.814 | 48.078 | 68.402 | 1.00 | 206.87 | C |
| ATOM | 10229 | OE1 | GLU | B | 166 | 57.555 | 48.287 | 69.605 | 1.00 | 206.87 | O |
| ATOM | 10230 | OE2 | GLU | B | 166 | 58.326 | 48.935 | 67.650 | 1.00 | 206.87 | O |
| ATOM | 10231 | N | LEU | B | 167 | 56.831 | 49.522 | 65.104 | 1.00 | 85.07 | N |
| ATOM | 10232 | CA | LEU | B | 167 | 56.337 | 50.852 | 65.374 | 1.00 | 85.07 | C |
| ATOM | 10233 | C | LEU | B | 167 | 55.020 | 51.103 | 64.731 | 1.00 | 85.07 | C |
| ATOM | 10234 | O | LEU | B | 167 | 54.003 | 51.089 | 65.414 | 1.00 | 85.07 | O |
| ATOM | 10235 | CB | LEU | B | 167 | 57.319 | 51.941 | 64.920 | 1.00 | 66.03 | C |
| ATOM | 10236 | CG | LEU | B | 167 | 56.782 | 53.370 | 65.156 | 1.00 | 66.03 | C |
| ATOM | 10237 | CD1 | LEU | B | 167 | 57.906 | 54.261 | 65.628 | 1.00 | 66.03 | C |
| ATOM | 10238 | CD2 | LEU | B | 167 | 56.132 | 53.944 | 63.899 | 1.00 | 66.03 | C |
| ATOM | 10239 | N | ASN | B | 168 | 54.997 | 51.329 | 63.414 | 1.00 | 132.58 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10240 | CA | ASN | B | 168 | 53.631 | 51.675 | 62.919 | 1.00132.58 | C |
| ATOM | 10241 | C | ASN | B | 168 | 52.520 | 50.803 | 63.558 | 1.00132.58 | C |
| ATOM | 10242 | O | ASN | B | 168 | 51.413 | 51.285 | 63.940 | 1.00132.58 | O |
| ATOM | 10243 | CB | ASN | B | 168 | 53.562 | 51.554 | 61.395 | 1.00160.89 | C |
| ATOM | 10244 | CG | ASN | B | 168 | 54.069 | 50.228 | 60.896 | 1.00160.89 | C |
| ATOM | 10245 | OD1 | ASN | B | 168 | 55.263 | 50.061 | 60.648 | 1.00160.89 | O |
| ATOM | 10246 | ND2 | ASN | B | 168 | 53.166 | 49.265 | 60.757 | 1.00160.89 | N |
| ATOM | 10247 | N | THR | B | 169 | 52.837 | 49.512 | 63.658 | 1.00116.51 | N |
| ATOM | 10248 | CA | THR | B | 169 | 51.927 | 48.551 | 64.258 | 1.00116.51 | C |
| ATOM | 10249 | C | THR | B | 169 | 51.452 | 49.200 | 65.567 | 1.00116.51 | C |
| ATOM | 10250 | O | THR | B | 169 | 50.253 | 49.414 | 65.753 | 1.00116.51 | O |
| ATOM | 10251 | CB | THR | B | 169 | 52.639 | 47.211 | 64.536 | 1.00114.14 | C |
| ATOM | 10252 | OG1 | THR | B | 169 | 53.044 | 46.629 | 63.290 | 1.00114.14 | O |
| ATOM | 10253 | CG2 | THR | B | 169 | 51.714 | 46.245 | 65.278 | 1.00114.14 | C |
| ATOM | 10254 | N | ARG | B | 170 | 52.385 | 49.569 | 66.448 | 1.00111.16 | N |
| ATOM | 10255 | CA | ARG | B | 170 | 51.983 | 50.181 | 67.713 | 1.00111.16 | C |
| ATOM | 10256 | C | ARG | B | 170 | 51.247 | 51.499 | 67.553 | 1.00111.16 | C |
| ATOM | 10257 | O | ARG | B | 170 | 50.411 | 51.833 | 68.383 | 1.00111.16 | O |
| ATOM | 10258 | CB | ARG | B | 170 | 53.183 | 50.357 | 68.662 | 1.00113.28 | C |
| ATOM | 10259 | CG | ARG | B | 170 | 53.943 | 51.665 | 68.526 | 1.00113.28 | C |
| ATOM | 10260 | CD | ARG | B | 170 | 54.658 | 52.058 | 69.821 | 1.00113.28 | C |
| ATOM | 10261 | NE | ARG | B | 170 | 55.501 | 50.996 | 70.365 | 1.00113.28 | N |
| ATOM | 10262 | CZ | ARG | B | 170 | 55.104 | 50.106 | 71.270 | 1.00113.28 | C |
| ATOM | 10263 | NH1 | ARG | B | 170 | 53.866 | 50.142 | 71.745 | 1.00113.28 | N |
| ATOM | 10264 | NH2 | ARG | B | 170 | 55.950 | 49.183 | 71.705 | 1.00113.28 | N |
| ATOM | 10265 | N | LEU | B | 171 | 51.548 | 52.262 | 66.512 | 1.00119.78 | N |
| ATOM | 10266 | CA | LEU | B | 171 | 50.833 | 53.515 | 66.326 | 1.00119.78 | C |
| ATOM | 10267 | C | LEU | B | 171 | 49.350 | 53.206 | 66.445 | 1.00119.78 | C |
| ATOM | 10268 | O | LEU | B | 171 | 48.654 | 53.711 | 67.343 | 1.00119.78 | O |
| ATOM | 10269 | CB | LEU | B | 171 | 51.119 | 54.089 | 64.928 | 1.00 70.69 | C |
| ATOM | 10270 | CG | LEU | B | 171 | 50.370 | 55.330 | 64.412 | 1.00 70.69 | C |
| ATOM | 10271 | CD1 | LEU | B | 171 | 48.873 | 55.046 | 64.314 | 1.00 70.69 | C |
| ATOM | 10272 | CD2 | LEU | B | 171 | 50.634 | 56.511 | 65.335 | 1.00 70.69 | C |
| ATOM | 10273 | N | THR | B | 172 | 48.862 | 52.349 | 65.552 | 1.00181.28 | N |
| ATOM | 10274 | CA | THR | B | 172 | 47.436 | 52.029 | 65.582 | 1.00181.28 | C |
| ATOM | 10275 | C | THR | B | 172 | 46.983 | 51.224 | 66.794 | 1.00181.28 | C |
| ATOM | 10276 | O | THR | B | 172 | 46.112 | 51.668 | 67.541 | 1.00181.28 | O |
| ATOM | 10277 | CB | THR | B | 172 | 47.009 | 51.278 | 64.305 | 1.00154.09 | C |
| ATOM | 10278 | OG1 | THR | B | 172 | 47.469 | 51.994 | 63.152 | 1.00154.09 | O |
| ATOM | 10279 | CG2 | THR | B | 172 | 45.493 | 51.170 | 64.242 | 1.00154.09 | C |
| ATOM | 10280 | N | ASP | B | 173 | 47.562 | 50.042 | 66.986 | 1.00164.32 | N |
| ATOM | 10281 | CA | ASP | B | 173 | 47.194 | 49.206 | 68.126 | 1.00164.32 | C |
| ATOM | 10282 | C | ASP | B | 173 | 47.007 | 50.027 | 69.396 | 1.00164.32 | C |
| ATOM | 10283 | O | ASP | B | 173 | 45.911 | 50.092 | 69.970 | 1.00164.32 | O |
| ATOM | 10284 | CB | ASP | B | 173 | 48.276 | 48.152 | 68.382 | 1.00207.38 | C |
| ATOM | 10285 | CG | ASP | B | 173 | 47.988 | 46.836 | 67.692 | 1.00207.38 | C |
| ATOM | 10286 | OD1 | ASP | B | 173 | 47.851 | 46.829 | 66.452 | 1.00207.38 | O |
| ATOM | 10287 | OD2 | ASP | B | 173 | 47.899 | 45.807 | 68.395 | 1.00207.38 | O |
| ATOM | 10288 | N | ASP | B | 174 | 48.084 | 50.675 | 69.820 | 1.00 80.70 | N |
| ATOM | 10289 | CA | ASP | B | 174 | 48.050 | 51.438 | 71.047 | 1.00 80.70 | C |
| ATOM | 10290 | C | ASP | B | 174 | 47.044 | 52.547 | 71.017 | 1.00 80.70 | C |
| ATOM | 10291 | O | ASP | B | 174 | 46.170 | 52.582 | 71.882 | 1.00 80.70 | O |
| ATOM | 10292 | CB | ASP | B | 174 | 49.452 | 51.967 | 71.370 | 1.00152.80 | C |
| ATOM | 10293 | CG | ASP | B | 174 | 50.470 | 50.844 | 71.534 | 1.00152.80 | C |
| ATOM | 10294 | OD1 | ASP | B | 174 | 51.572 | 51.098 | 72.067 | 1.00152.80 | O |
| ATOM | 10295 | OD2 | ASP | B | 174 | 50.162 | 49.702 | 71.123 | 1.00152.80 | O |
| ATOM | 10296 | N | VAL | B | 175 | 47.138 | 53.420 | 70.015 | 1.00 86.74 | N |
| ATOM | 10297 | CA | VAL | B | 175 | 46.210 | 54.545 | 69.902 | 1.00 86.74 | C |
| ATOM | 10298 | C | VAL | B | 175 | 44.788 | 54.091 | 70.269 | 1.00 86.74 | C |
| ATOM | 10299 | O | VAL | B | 175 | 44.081 | 54.673 | 71.147 | 1.00 86.74 | O |
| ATOM | 10300 | CB | VAL | B | 175 | 46.231 | 55.135 | 68.468 | 1.00100.37 | C |
| ATOM | 10301 | CG1 | VAL | B | 175 | 45.569 | 54.183 | 67.495 | 1.00100.37 | C |
| ATOM | 10302 | CG2 | VAL | B | 175 | 45.557 | 56.503 | 68.455 | 1.00100.37 | C |
| ATOM | 10303 | N | SER | B | 176 | 44.392 | 53.009 | 69.618 | 1.00138.78 | N |
| ATOM | 10304 | CA | SER | B | 176 | 43.080 | 52.447 | 69.832 | 1.00138.78 | C |
| ATOM | 10305 | C | SER | B | 176 | 42.853 | 52.018 | 71.287 | 1.00138.78 | C |
| ATOM | 10306 | O | SER | B | 176 | 41.849 | 52.415 | 71.914 | 1.00138.78 | O |
| ATOM | 10307 | CB | SER | B | 176 | 42.861 | 51.268 | 68.885 | 1.00157.73 | C |
| ATOM | 10308 | OG | SER | B | 176 | 42.993 | 51.689 | 67.538 | 1.00157.73 | O |
| ATOM | 10309 | N | LYS | B | 177 | 43.779 | 51.234 | 71.840 | 1.00156.21 | N |
| ATOM | 10310 | CA | LYS | B | 177 | 43.609 | 50.780 | 73.220 | 1.00156.21 | C |
| ATOM | 10311 | C | LYS | B | 177 | 43.338 | 51.954 | 74.162 | 1.00156.21 | C |
| ATOM | 10312 | O | LYS | B | 177 | 42.608 | 51.837 | 75.154 | 1.00156.21 | O |
| ATOM | 10313 | CB | LYS | B | 177 | 44.811 | 49.941 | 73.674 | 1.00136.58 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10314 | CG | LYS | B | 177 | 44.468 | 48.447 | 73.735 | 1.00136.58 | C |
| ATOM | 10315 | CD | LYS | B | 177 | 45.591 | 47.554 | 73.232 | 1.00136.58 | C |
| ATOM | 10316 | CE | LYS | B | 177 | 45.083 | 46.131 | 73.021 | 1.00136.58 | C |
| ATOM | 10317 | NZ | LYS | B | 177 | 46.066 | 45.265 | 72.315 | 1.00136.58 | N |
| ATOM | 10318 | N | ILE | B | 178 | 43.898 | 53.100 | 73.816 | 1.00102.11 | N |
| ATOM | 10319 | CA | ILE | B | 178 | 43.684 | 54.293 | 74.597 | 1.00102.11 | C |
| ATOM | 10320 | C | ILE | B | 178 | 42.186 | 54.508 | 74.528 | 1.00102.11 | C |
| ATOM | 10321 | O | ILE | B | 178 | 41.493 | 54.521 | 75.561 | 1.00102.11 | O |
| ATOM | 10322 | CB | ILE | B | 178 | 44.414 | 55.495 | 73.966 | 1.00122.59 | C |
| ATOM | 10323 | CG1 | ILE | B | 178 | 45.756 | 55.033 | 73.386 | 1.00122.59 | C |
| ATOM | 10324 | CG2 | ILE | B | 178 | 44.597 | 56.597 | 74.996 | 1.00122.59 | C |
| ATOM | 10325 | CD1 | ILE | B | 178 | 46.497 | 54.042 | 74.260 | 1.00122.59 | C |
| ATOM | 10326 | N | ASN | B | 179 | 41.683 | 54.643 | 73.302 | 1.00 84.93 | N |
| ATOM | 10327 | CA | ASN | B | 179 | 40.243 | 54.880 | 73.108 | 1.00 84.93 | C |
| ATOM | 10328 | C | ASN | B | 179 | 39.274 | 54.023 | 73.967 | 1.00 84.93 | C |
| ATOM | 10329 | O | ASN | B | 179 | 38.321 | 54.538 | 74.655 | 1.00 84.93 | O |
| ATOM | 10330 | CB | ASN | B | 179 | 39.905 | 54.706 | 71.627 | 1.00107.78 | C |
| ATOM | 10331 | CG | ASN | B | 179 | 38.782 | 55.617 | 71.178 | 1.00107.78 | C |
| ATOM | 10332 | OD1 | ASN | B | 179 | 37.617 | 55.393 | 71.500 | 1.00107.78 | O |
| ATOM | 10333 | ND2 | ASN | B | 179 | 39.133 | 56.666 | 70.439 | 1.00107.78 | N |
| ATOM | 10334 | N | GLU | B | 180 | 39.489 | 52.711 | 73.907 | 1.00157.13 | N |
| ATOM | 10335 | CA | GLU | B | 180 | 38.655 | 51.806 | 74.684 | 1.00157.13 | C |
| ATOM | 10336 | C | GLU | B | 180 | 38.771 | 52.204 | 76.148 | 1.00157.13 | C |
| ATOM | 10337 | O | GLU | B | 180 | 37.765 | 52.240 | 76.878 | 1.00157.13 | O |
| ATOM | 10338 | CB | GLU | B | 180 | 39.117 | 50.364 | 74.511 | 1.00197.29 | C |
| ATOM | 10339 | CG | GLU | B | 180 | 38.961 | 49.832 | 73.108 | 1.00197.29 | C |
| ATOM | 10340 | CD | GLU | B | 180 | 39.353 | 48.377 | 73.006 | 1.00197.29 | C |
| ATOM | 10341 | OE1 | GLU | B | 180 | 39.336 | 47.832 | 71.884 | 1.00197.29 | O |
| ATOM | 10342 | OE2 | GLU | B | 180 | 39.677 | 47.777 | 74.053 | 1.00197.29 | O |
| ATOM | 10343 | N | GLY | B | 181 | 39.998 | 52.514 | 76.567 | 1.00 89.96 | N |
| ATOM | 10344 | CA | GLY | B | 181 | 40.236 | 52.917 | 77.946 | 1.00 89.96 | C |
| ATOM | 10345 | C | GLY | B | 181 | 39.325 | 54.029 | 78.433 | 1.00 89.96 | C |
| ATOM | 10346 | O | GLY | B | 181 | 38.796 | 53.966 | 79.546 | 1.00 89.96 | O |
| ATOM | 10347 | N | ILE | B | 182 | 39.106 | 55.034 | 77.593 | 1.00137.37 | N |
| ATOM | 10348 | CA | ILE | B | 182 | 38.247 | 56.161 | 77.981 | 1.00137.37 | C |
| ATOM | 10349 | C | ILE | B | 182 | 36.680 | 55.905 | 78.043 | 1.00137.37 | C |
| ATOM | 10350 | O | ILE | B | 182 | 36.047 | 56.096 | 79.125 | 1.00137.37 | O |
| ATOM | 10351 | CB | ILE | B | 182 | 38.557 | 57.379 | 77.087 | 1.00 31.31 | C |
| ATOM | 10352 | CG1 | ILE | B | 182 | 40.063 | 57.413 | 76.818 | 1.00 31.31 | C |
| ATOM | 10353 | CG2 | ILE | B | 182 | 38.163 | 58.690 | 77.784 | 1.00 31.31 | C |
| ATOM | 10354 | CD1 | ILE | B | 182 | 40.938 | 57.338 | 78.114 | 1.00 31.31 | C |
| ATOM | 10355 | N | GLY | B | 183 | 36.049 | 55.456 | 76.941 | 1.00 80.07 | N |
| ATOM | 10356 | CA | GLY | B | 183 | 34.581 | 55.206 | 76.988 | 1.00 80.07 | C |
| ATOM | 10357 | C | GLY | B | 183 | 34.056 | 54.050 | 77.875 | 1.00 80.07 | C |
| ATOM | 10358 | O | GLY | B | 183 | 32.897 | 53.998 | 78.356 | 1.00 80.07 | O |
| ATOM | 10359 | N | ASP | B | 184 | 34.930 | 53.072 | 78.078 | 1.00100.91 | N |
| ATOM | 10360 | CA | ASP | B | 184 | 34.588 | 51.965 | 78.950 | 1.00100.91 | C |
| ATOM | 10361 | C | ASP | B | 184 | 34.729 | 52.494 | 80.385 | 1.00100.91 | C |
| ATOM | 10362 | O | ASP | B | 184 | 33.859 | 52.246 | 81.206 | 1.00100.91 | O |
| ATOM | 10363 | CB | ASP | B | 184 | 35.537 | 50.783 | 78.742 | 1.00148.63 | C |
| ATOM | 10364 | CG | ASP | B | 184 | 35.222 | 49.991 | 77.488 | 1.00148.63 | C |
| ATOM | 10365 | OD1 | ASP | B | 184 | 34.046 | 49.616 | 77.295 | 1.00148.63 | O |
| ATOM | 10366 | OD2 | ASP | B | 184 | 36.153 | 49.728 | 76.700 | 1.00148.63 | O |
| ATOM | 10367 | N | LYS | B | 185 | 35.818 | 53.219 | 80.696 | 1.00107.50 | N |
| ATOM | 10368 | CA | LYS | B | 185 | 35.987 | 53.753 | 82.072 | 1.00107.50 | C |
| ATOM | 10369 | C | LYS | B | 185 | 34.688 | 54.362 | 82.506 | 1.00107.50 | C |
| ATOM | 10370 | O | LYS | B | 185 | 34.275 | 54.272 | 83.672 | 1.00107.50 | O |
| ATOM | 10371 | CB | LYS | B | 185 | 37.063 | 54.840 | 82.111 | 1.00119.44 | C |
| ATOM | 10372 | CG | LYS | B | 185 | 36.953 | 55.732 | 83.347 | 1.00119.44 | C |
| ATOM | 10373 | CD | LYS | B | 185 | 37.301 | 57.178 | 83.048 | 1.00119.44 | C |
| ATOM | 10374 | CE | LYS | B | 185 | 36.432 | 57.707 | 81.920 | 1.00119.44 | C |
| ATOM | 10375 | NZ | LYS | B | 185 | 34.979 | 57.458 | 82.163 | 1.00119.44 | N |
| ATOM | 10376 | N | ILE | B | 186 | 34.063 | 55.039 | 81.556 | 1.00 80.82 | N |
| ATOM | 10377 | CA | ILE | B | 186 | 32.780 | 55.627 | 81.889 | 1.00 80.82 | C |
| ATOM | 10378 | C | ILE | B | 186 | 31.908 | 54.453 | 82.362 | 1.00 80.82 | C |
| ATOM | 10379 | O | ILE | B | 186 | 31.415 | 54.437 | 83.509 | 1.00 80.82 | O |
| ATOM | 10380 | CB | ILE | B | 186 | 32.154 | 56.355 | 80.655 | 1.00207.38 | C |
| ATOM | 10381 | CG1 | ILE | B | 186 | 31.057 | 55.509 | 80.007 | 1.00207.38 | C |
| ATOM | 10382 | CG2 | ILE | B | 186 | 33.236 | 56.650 | 79.625 | 1.00207.38 | C |
| ATOM | 10383 | CD1 | ILE | B | 186 | 29.719 | 55.614 | 80.701 | 1.00207.38 | C |
| ATOM | 10384 | N | GLY | B | 187 | 31.736 | 53.460 | 81.483 | 1.00167.34 | N |
| ATOM | 10385 | CA | GLY | B | 187 | 30.925 | 52.320 | 81.896 | 1.00167.34 | C |
| ATOM | 10386 | C | GLY | B | 187 | 31.090 | 51.986 | 83.381 | 1.00167.34 | C |
| ATOM | 10387 | O | GLY | B | 187 | 30.115 | 51.947 | 84.137 | 1.00167.34 | O |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 10388 | N | MET | B | 188 | 32.337 | 51.767 | 83.800 | 1.00 | 89.87 | N |
| ATOM | 10389 | CA | MET | B | 188 | 32.670 | 51.424 | 85.192 | 1.00 | 89.87 | C |
| ATOM | 10390 | C | MET | B | 188 | 32.006 | 52.385 | 86.118 | 1.00 | 89.87 | C |
| ATOM | 10391 | O | MET | B | 188 | 31.064 | 52.043 | 86.819 | 1.00 | 89.87 | O |
| ATOM | 10392 | CB | MET | B | 188 | 34.193 | 51.488 | 85.413 | 1.00 | 72.62 | C |
| ATOM | 10393 | CG | MET | B | 188 | 34.688 | 51.224 | 86.857 | 1.00 | 72.62 | C |
| ATOM | 10394 | SD | MET | B | 188 | 34.695 | 52.633 | 88.013 | 1.00 | 72.62 | S |
| ATOM | 10395 | CE | MET | B | 188 | 36.324 | 53.400 | 87.604 | 1.00 | 72.62 | C |
| ATOM | 10396 | N | PHE | B | 189 | 32.532 | 53.601 | 86.106 | 1.00 | 67.32 | N |
| ATOM | 10397 | CA | PHE | B | 189 | 32.029 | 54.663 | 86.957 | 1.00 | 67.32 | C |
| ATOM | 10398 | C | PHE | B | 189 | 30.598 | 54.334 | 87.252 | 1.00 | 67.32 | C |
| ATOM | 10399 | O | PHE | B | 189 | 30.206 | 54.069 | 88.381 | 1.00 | 67.32 | O |
| ATOM | 10400 | CB | PHE | B | 189 | 32.124 | 56.009 | 86.247 | 1.00 | 115.99 | C |
| ATOM | 10401 | CG | PHE | B | 189 | 32.841 | 57.037 | 87.043 | 1.00 | 115.99 | C |
| ATOM | 10402 | CD1 | PHE | B | 189 | 32.322 | 57.466 | 88.256 | 1.00 | 115.99 | C |
| ATOM | 10403 | CD2 | PHE | B | 189 | 34.067 | 57.531 | 86.619 | 1.00 | 115.99 | C |
| ATOM | 10404 | CE1 | PHE | B | 189 | 33.012 | 58.372 | 89.046 | 1.00 | 115.99 | C |
| ATOM | 10405 | CE2 | PHE | B | 189 | 34.774 | 58.440 | 87.399 | 1.00 | 115.99 | C |
| ATOM | 10406 | CZ | PHE | B | 189 | 34.246 | 58.863 | 88.619 | 1.00 | 115.99 | C |
| ATOM | 10407 | N | PHE | B | 190 | 29.833 | 54.316 | 86.180 | 1.00 | 123.89 | N |
| ATOM | 10408 | CA | PHE | B | 190 | 28.429 | 54.008 | 86.271 | 1.00 | 123.89 | C |
| ATOM | 10409 | C | PHE | B | 190 | 28.247 | 52.822 | 87.228 | 1.00 | 123.89 | C |
| ATOM | 10410 | O | PHE | B | 190 | 27.759 | 52.992 | 88.351 | 1.00 | 123.89 | O |
| ATOM | 10411 | CB | PHE | B | 190 | 27.921 | 53.773 | 84.837 | 1.00 | 136.57 | C |
| ATOM | 10412 | CG | PHE | B | 190 | 26.838 | 52.744 | 84.698 | 1.00 | 136.57 | C |
| ATOM | 10413 | CD1 | PHE | B | 190 | 25.781 | 52.666 | 85.600 | 1.00 | 136.57 | C |
| ATOM | 10414 | CD2 | PHE | B | 190 | 26.845 | 51.888 | 83.599 | 1.00 | 136.57 | C |
| ATOM | 10415 | CE1 | PHE | B | 190 | 24.740 | 51.747 | 85.403 | 1.00 | 136.57 | C |
| ATOM | 10416 | CE2 | PHE | B | 190 | 25.815 | 50.970 | 83.391 | 1.00 | 136.57 | C |
| ATOM | 10417 | CZ | PHE | B | 190 | 24.759 | 50.898 | 84.294 | 1.00 | 136.57 | C |
| ATOM | 10418 | N | GLN | B | 191 | 28.695 | 51.641 | 86.826 | 1.00 | 89.30 | N |
| ATOM | 10419 | CA | GLN | B | 191 | 28.519 | 50.474 | 87.676 | 1.00 | 89.30 | C |
| ATOM | 10420 | C | GLN | B | 191 | 29.150 | 50.602 | 89.050 | 1.00 | 89.30 | C |
| ATOM | 10421 | O | GLN | B | 191 | 28.598 | 50.129 | 90.028 | 1.00 | 89.30 | O |
| ATOM | 10422 | CB | GLN | B | 191 | 29.031 | 49.206 | 86.980 | 1.00 | 207.38 | C |
| ATOM | 10423 | CG | GLN | B | 191 | 28.046 | 48.572 | 85.985 | 1.00 | 207.38 | C |
| ATOM | 10424 | CD | GLN | B | 191 | 26.893 | 47.837 | 86.659 | 1.00 | 207.38 | C |
| ATOM | 10425 | OE1 | GLN | B | 191 | 26.074 | 48.440 | 87.353 | 1.00 | 207.38 | O |
| ATOM | 10426 | NE2 | GLN | B | 191 | 26.830 | 46.525 | 86.454 | 1.00 | 207.38 | N |
| ATOM | 10427 | N | ALA | B | 192 | 30.301 | 51.236 | 89.144 | 1.00 | 80.08 | N |
| ATOM | 10428 | CA | ALA | B | 192 | 30.920 | 51.387 | 90.451 | 1.00 | 80.08 | C |
| ATOM | 10429 | C | ALA | B | 192 | 29.902 | 52.000 | 91.393 | 1.00 | 80.08 | C |
| ATOM | 10430 | O | ALA | B | 192 | 29.892 | 51.720 | 92.580 | 1.00 | 80.08 | O |
| ATOM | 10431 | CB | ALA | B | 192 | 32.154 | 52.274 | 90.344 | 1.00 | 171.66 | C |
| ATOM | 10432 | N | MET | B | 193 | 29.036 | 52.846 | 90.853 | 1.00 | 127.33 | N |
| ATOM | 10433 | CA | MET | B | 193 | 28.046 | 53.509 | 91.680 | 1.00 | 127.33 | C |
| ATOM | 10434 | C | MET | B | 193 | 26.733 | 52.761 | 91.826 | 1.00 | 127.33 | C |
| ATOM | 10435 | O | MET | B | 193 | 26.047 | 52.966 | 92.809 | 1.00 | 127.33 | O |
| ATOM | 10436 | CB | MET | B | 193 | 27.789 | 54.930 | 91.157 | 1.00 | 207.38 | C |
| ATOM | 10437 | CG | MET | B | 193 | 29.038 | 55.827 | 91.091 | 1.00 | 207.38 | C |
| ATOM | 10438 | SD | MET | B | 193 | 29.776 | 56.239 | 92.694 | 1.00 | 207.38 | S |
| ATOM | 10439 | CE | MET | B | 193 | 29.345 | 57.994 | 92.844 | 1.00 | 207.38 | C |
| ATOM | 10440 | N | ALA | B | 194 | 26.359 | 51.915 | 90.865 | 1.00 | 146.15 | N |
| ATOM | 10441 | CA | ALA | B | 194 | 25.109 | 51.151 | 91.016 | 1.00 | 146.15 | C |
| ATOM | 10442 | C | ALA | B | 194 | 25.358 | 50.155 | 92.134 | 1.00 | 146.15 | C |
| ATOM | 10443 | O | ALA | B | 194 | 24.459 | 49.821 | 92.908 | 1.00 | 146.15 | O |
| ATOM | 10444 | CB | ALA | B | 194 | 24.787 | 50.430 | 89.712 | 1.00 | 153.57 | C |
| ATOM | 10445 | N | THR | B | 195 | 26.596 | 49.681 | 92.209 | 1.00 | 120.55 | N |
| ATOM | 10446 | CA | THR | B | 195 | 26.986 | 48.747 | 93.253 | 1.00 | 120.55 | C |
| ATOM | 10447 | C | THR | B | 195 | 27.167 | 49.467 | 94.572 | 1.00 | 120.55 | C |
| ATOM | 10448 | O | THR | B | 195 | 26.601 | 49.066 | 95.583 | 1.00 | 120.55 | O |
| ATOM | 10449 | CB | THR | B | 195 | 28.322 | 48.052 | 92.950 | 1.00 | 207.38 | C |
| ATOM | 10450 | OG1 | THR | B | 195 | 28.873 | 47.538 | 94.171 | 1.00 | 207.38 | O |
| ATOM | 10451 | CG2 | THR | B | 195 | 29.306 | 49.028 | 92.329 | 1.00 | 207.38 | C |
| ATOM | 10452 | N | PHE | B | 196 | 27.972 | 50.525 | 94.558 | 1.00 | 128.42 | N |
| ATOM | 10453 | CA | PHE | B | 196 | 28.233 | 51.298 | 95.761 | 1.00 | 128.42 | C |
| ATOM | 10454 | C | PHE | B | 196 | 26.967 | 51.779 | 96.457 | 1.00 | 128.42 | C |
| ATOM | 10455 | O | PHE | B | 196 | 26.662 | 51.370 | 97.575 | 1.00 | 128.42 | O |
| ATOM | 10456 | CB | PHE | B | 196 | 29.115 | 52.506 | 95.444 | 1.00 | 124.05 | C |
| ATOM | 10457 | CG | PHE | B | 196 | 29.849 | 53.019 | 96.631 | 1.00 | 124.05 | C |
| ATOM | 10458 | CD1 | PHE | B | 196 | 29.858 | 54.372 | 96.940 | 1.00 | 124.05 | C |
| ATOM | 10459 | CD2 | PHE | B | 196 | 30.519 | 52.132 | 97.462 | 1.00 | 124.05 | C |
| ATOM | 10460 | CE1 | PHE | B | 196 | 30.523 | 54.828 | 98.066 | 1.00 | 124.05 | C |
| ATOM | 10461 | CE2 | PHE | B | 196 | 31.181 | 52.577 | 98.580 | 1.00 | 124.05 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 10462 | CZ | PHE | B | 196 | 31.186 | 53.925 | 98.887 | 1.00124.05 | C |
| ATOM | 10463 | N | PHE | B | 197 | 26.237 | 52.670 | 95.801 | 1.00132.83 | N |
| ATOM | 10464 | CA | PHE | B | 197 | 24.986 | 53.171 | 96.363 | 1.00132.83 | C |
| ATOM | 10465 | C | PHE | B | 197 | 23.888 | 52.090 | 96.523 | 1.00132.83 | C |
| ATOM | 10466 | O | PHE | B | 197 | 23.110 | 52.159 | 97.459 | 1.00132.83 | O |
| ATOM | 10467 | CB | PHE | B | 197 | 24.440 | 54.332 | 95.522 | 1.00207.38 | C |
| ATOM | 10468 | CG | PHE | B | 197 | 25.142 | 55.645 | 95.761 | 1.00207.38 | C |
| ATOM | 10469 | CD1 | PHE | B | 197 | 25.443 | 56.066 | 97.054 | 1.00207.38 | C |
| ATOM | 10470 | CD2 | PHE | B | 197 | 25.467 | 56.480 | 94.697 | 1.00207.38 | C |
| ATOM | 10471 | CE1 | PHE | B | 197 | 26.056 | 57.300 | 97.283 | 1.00207.38 | C |
| ATOM | 10472 | CE2 | PHE | B | 197 | 26.081 | 57.719 | 94.917 | 1.00207.38 | C |
| ATOM | 10473 | CZ | PHE | B | 197 | 26.374 | 58.127 | 96.212 | 1.00207.38 | C |
| ATOM | 10474 | N | GLY | B | 198 | 23.797 | 51.115 | 95.616 | 1.00116.82 | N |
| ATOM | 10475 | CA | GLY | B | 198 | 22.792 | 50.071 | 95.778 | 1.00116.82 | C |
| ATOM | 10476 | C | GLY | B | 198 | 23.067 | 49.409 | 97.114 | 1.00116.82 | C |
| ATOM | 10477 | O | GLY | B | 198 | 22.344 | 49.646 | 98.085 | 1.00116.82 | O |
| ATOM | 10478 | N | GLY | B | 199 | 24.131 | 48.604 | 97.166 | 1.00153.73 | N |
| ATOM | 10479 | CA | GLY | B | 199 | 24.533 | 47.937 | 98.397 | 1.00153.73 | C |
| ATOM | 10480 | C | GLY | B | 199 | 24.497 | 48.864 | 99.603 | 1.00153.73 | C |
| ATOM | 10481 | O | GLY | B | 199 | 24.459 | 48.397 | 100.735 | 1.00153.73 | O |
| ATOM | 10482 | N | PHE | B | 200 | 24.521 | 50.176 | 99.361 | 1.00168.40 | N |
| ATOM | 10483 | CA | PHE | B | 200 | 24.441 | 51.170 | 100.434 | 1.00168.40 | C |
| ATOM | 10484 | C | PHE | B | 200 | 22.979 | 51.548 | 100.626 | 1.00168.40 | C |
| ATOM | 10485 | O | PHE | B | 200 | 22.297 | 50.950 | 101.446 | 1.00168.40 | O |
| ATOM | 10486 | CB | PHE | B | 200 | 25.254 | 52.418 | 100.091 | 1.00189.96 | C |
| ATOM | 10487 | CG | PHE | B | 200 | 25.269 | 53.438 | 101.188 | 1.00189.96 | C |
| ATOM | 10488 | CD1 | PHE | B | 200 | 25.493 | 53.047 | 102.502 | 1.00189.96 | C |
| ATOM | 10489 | CD2 | PHE | B | 200 | 25.063 | 54.786 | 100.916 | 1.00189.96 | C |
| ATOM | 10490 | CE1 | PHE | B | 200 | 25.512 | 53.978 | 103.532 | 1.00189.96 | C |
| ATOM | 10491 | CE2 | PHE | B | 200 | 25.081 | 55.731 | 101.945 | 1.00189.96 | C |
| ATOM | 10492 | CZ | PHE | B | 200 | 25.306 | 55.323 | 103.254 | 1.00189.96 | C |
| ATOM | 10493 | N | ILE | B | 201 | 22.514 | 52.550 | 99.879 | 1.00140.10 | N |
| ATOM | 10494 | CA | ILE | B | 201 | 21.115 | 52.980 | 99.928 | 1.00140.10 | C |
| ATOM | 10495 | C | ILE | B | 201 | 20.285 | 51.862 | 100.565 | 1.00140.10 | C |
| ATOM | 10496 | O | ILE | B | 201 | 19.817 | 52.002 | 101.687 | 1.00140.10 | O |
| ATOM | 10497 | CB | ILE | B | 201 | 20.573 | 53.310 | 98.506 | 1.00162.03 | C |
| ATOM | 10498 | CG1 | ILE | B | 201 | 20.583 | 54.825 | 98.273 | 1.00162.03 | C |
| ATOM | 10499 | CG2 | ILE | B | 201 | 19.147 | 52.812 | 98.350 | 1.00162.03 | C |
| ATOM | 10500 | CD1 | ILE | B | 201 | 21.940 | 55.479 | 98.411 | 1.00162.03 | C |
| ATOM | 10501 | N | ILE | B | 202 | 20.130 | 50.731 | 99.886 | 1.00126.49 | N |
| ATOM | 10502 | CA | ILE | B | 202 | 19.350 | 49.663 | 100.489 | 1.00126.49 | C |
| ATOM | 10503 | C | ILE | B | 202 | 20.134 | 48.8 | | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 10536 | CG | ARG | B | 206 | 14.211 | 49.392 | 103.371 | 1.00139.61 | C |
| ATOM | 10537 | CD | ARG | B | 206 | 14.185 | 50.893 | 103.686 | 1.00139.61 | C |
| ATOM | 10538 | NE | ARG | B | 206 | 12.843 | 51.337 | 104.062 | 1.00139.61 | N |
| ATOM | 10539 | CZ | ARG | B | 206 | 12.542 | 52.560 | 104.490 | 1.00139.61 | C |
| ATOM | 10540 | NH1 | ARG | B | 206 | 13.487 | 53.486 | 104.600 | 1.00139.61 | N |
| ATOM | 10541 | NH2 | ARG | B | 206 | 11.291 | 52.852 | 104.823 | 1.00139.61 | N |
| ATOM | 10542 | N | GLY | B | 207 | 16.407 | 48.156 | 106.880 | 1.00181.88 | N |
| ATOM | 10543 | CA | GLY | B | 207 | 16.762 | 47.101 | 107.802 | 1.00181.88 | C |
| ATOM | 10544 | C | GLY | B | 207 | 17.285 | 47.675 | 109.106 | 1.00181.88 | C |
| ATOM | 10545 | O | GLY | B | 207 | 17.000 | 47.132 | 110.177 | 1.00181.88 | O |
| ATOM | 10546 | N | TRP | B | 208 | 18.019 | 48.787 | 109.025 | 1.00207.38 | N |
| ATOM | 10547 | CA | TRP | B | 208 | 18.574 | 49.440 | 110.243 | 1.00207.38 | C |
| ATOM | 10548 | C | TRP | B | 208 | 19.505 | 48.638 | 111.141 | 1.00207.38 | C |
| ATOM | 10549 | O | TRP | B | 208 | 20.360 | 49.183 | 111.842 | 1.00207.38 | O |
| ATOM | 10550 | CB | TRP | B | 208 | 17.449 | 49.875 | 111.180 | 1.00207.38 | C |
| ATOM | 10551 | CG | TRP | B | 208 | 16.795 | 51.167 | 110.914 | 1.00207.38 | C |
| ATOM | 10552 | CD1 | TRP | B | 208 | 17.394 | 52.350 | 110.597 | 1.00207.38 | C |
| ATOM | 10553 | CD2 | TRP | B | 208 | 15.401 | 51.445 | 111.044 | 1.00207.38 | C |
| ATOM | 10554 | NE1 | TRP | B | 208 | 16.455 | 53.351 | 110.524 | 1.00207.38 | N |
| ATOM | 10555 | CE2 | TRP | B | 208 | 15.221 | 52.818 | 110.795 | 1.00207.38 | C |
| ATOM | 10556 | CE3 | TRP | B | 208 | 14.283 | 50.656 | 111.352 | 1.00207.38 | C |
| ATOM | 10557 | CZ2 | TRP | B | 208 | 13.964 | 53.429 | 110.842 | 1.00207.38 | C |
| ATOM | 10558 | CZ3 | TRP | B | 208 | 13.033 | 51.261 | 111.400 | 1.00207.38 | C |
| ATOM | 10559 | CH2 | TRP | B | 208 | 12.885 | 52.634 | 111.146 | 1.00207.38 | C |
| ATOM | 10560 | N | LYS | B | 209 | 19.272 | 47.341 | 111.144 | 1.00198.52 | N |
| ATOM | 10561 | CA | LYS | B | 209 | 19.950 | 46.368 | 111.993 | 1.00198.52 | C |
| ATOM | 10562 | C | LYS | B | 209 | 19.527 | 45.032 | 111.345 | 1.00198.52 | C |
| ATOM | 10563 | O | LYS | B | 209 | 20.170 | 43.993 | 111.521 | 1.00198.52 | O |
| ATOM | 10564 | CB | LYS | B | 209 | 19.421 | 46.477 | 113.422 | 1.00113.92 | C |
| ATOM | 10565 | CG | LYS | B | 209 | 19.977 | 47.683 | 114.232 | 1.00113.92 | C |
| ATOM | 10566 | CD | LYS | B | 209 | 21.513 | 47.843 | 114.139 | 1.00113.92 | C |
| ATOM | 10567 | CE | LYS | B | 209 | 21.863 | 49.181 | 113.487 | 1.00113.92 | C |
| ATOM | 10568 | NZ | LYS | B | 209 | 21.172 | 50.316 | 114.167 | 1.00113.92 | N |
| ATOM | 10569 | N | LEU | B | 210 | 18.438 | 45.097 | 110.575 | 1.00199.02 | N |
| ATOM | 10570 | CA | LEU | B | 210 | 17.872 | 43.962 | 109.832 | 1.00199.02 | C |
| ATOM | 10571 | C | LEU | B | 210 | 18.638 | 44.010 | 108.526 | 1.00199.02 | C |
| ATOM | 10572 | O | LEU | B | 210 | 18.985 | 42.988 | 107.925 | 1.00199.02 | O |
| ATOM | 10573 | CB | LEU | B | 210 | 16.373 | 44.200 | 109.606 | 1.00137.97 | C |
| ATOM | 10574 | CG | LEU | B | 210 | 15.561 | 43.394 | 108.583 | 1.00137.97 | C |
| ATOM | 10575 | CD1 | LEU | B | 210 | 15.984 | 43.795 | 107.175 | 1.00137.97 | C |
| ATOM | 10576 | CD2 | LEU | B | 210 | 15.732 | 41.897 | 108.817 | 1.00137.97 | C |
| ATOM | 10577 | N | THR | B | 211 | 18.887 | 45.246 | 108.112 | 1.00118.12 | N |
| ATOM | 10578 | CA | THR | B | 211 | 19.666 | 45.541 | 106.930 | 1.00118.12 | C |
| ATOM | 10579 | C | THR | B | 211 | 21.040 | 45.082 | 107.364 | 1.00118.12 | C |
| ATOM | 10580 | O | THR | B | 211 | 21.984 | 44.979 | 106.569 | 1.00118.12 | O |
| ATOM | 10581 | CB | THR | B | 211 | 19.757 | 47.050 | 106.662 | 1.00207.38 | C |
| ATOM | 10582 | OG1 | THR | B | 211 | 20.505 | 47.282 | 105.460 | 1.00207.38 | O |
| ATOM | 10583 | CG2 | THR | B | 211 | 20.463 | 47.746 | 107.819 | 1.00207.38 | C |
| ATOM | 10584 | N | LEU | B | 212 | 21.137 | 44.885 | 108.674 | 1.00207.38 | N |
| ATOM | 10585 | CA | LEU | B | 212 | 22.351 | 44.412 | 109.289 | 1.00207.38 | C |
| ATOM | 10586 | C | LEU | B | 212 | 22.217 | 42.901 | 109.291 | 1.00207.38 | C |
| ATOM | 10587 | O | LEU | B | 212 | 23.229 | 42.208 | 109.247 | 1.00207.38 | O |
| ATOM | 10588 | CB | LEU | B | 212 | 22.476 | 44.939 | 110.723 | 1.00207.38 | C |
| ATOM | 10589 | CG | LEU | B | 212 | 23.635 | 44.420 | 111.587 | 1.00207.38 | C |
| ATOM | 10590 | CD1 | LEU | B | 212 | 24.966 | 44.612 | 110.885 | 1.00207.38 | C |
| ATOM | 10591 | CD2 | LEU | B | 212 | 23.641 | 45.163 | 112.904 | 1.00207.38 | C |
| ATOM | 10592 | N | VAL | B | 213 | 20.983 | 42.382 | 109.347 | 1.00207.38 | N |
| ATOM | 10593 | CA | VAL | B | 213 | 20.819 | 40.929 | 109.278 | 1.00207.38 | C |
| ATOM | 10594 | C | VAL | B | 213 | 21.564 | 40.712 | 107.972 | 1.00207.38 | C |
| ATOM | 10595 | O | VAL | B | 213 | 22.418 | 39.822 | 107.839 | 1.00207.38 | O |
| ATOM | 10596 | CB | VAL | B | 213 | 19.342 | 40.514 | 109.141 | 1.00174.23 | C |
| ATOM | 10597 | CG1 | VAL | B | 213 | 19.254 | 39.003 | 108.979 | 1.00174.23 | C |
| ATOM | 10598 | CG2 | VAL | B | 213 | 18.556 | 40.956 | 110.374 | 1.00174.23 | C |
| ATOM | 10599 | N | ILE | B | 214 | 21.255 | 41.589 | 107.025 | 1.00103.31 | N |
| ATOM | 10600 | CA | ILE | B | 214 | 21.942 | 41.591 | 105.750 | 1.00103.31 | C |
| ATOM | 10601 | C | ILE | B | 214 | 23.460 | 41.611 | 106.025 | 1.00103.31 | C |
| ATOM | 10602 | O | ILE | B | 214 | 24.135 | 40.576 | 106.020 | 1.00103.31 | O |
| ATOM | 10603 | CB | ILE | B | 214 | 21.610 | 42.870 | 104.968 | 1.00 85.43 | C |
| ATOM | 10604 | CG1 | ILE | B | 214 | 20.101 | 42.962 | 104.774 | 1.00 85.43 | C |
| ATOM | 10605 | CG2 | ILE | B | 214 | 22.367 | 42.901 | 103.648 | 1.00 85.43 | C |
| ATOM | 10606 | CD1 | ILE | B | 214 | 19.655 | 44.195 | 104.036 | 1.00 85.43 | C |
| ATOM | 10607 | N | LEU | B | 215 | 23.968 | 42.816 | 106.275 | 1.00207.38 | N |
| ATOM | 10608 | CA | LEU | B | 215 | 25.376 | 43.036 | 106.575 | 1.00207.38 | C |
| ATOM | 10609 | C | LEU | B | 215 | 25.986 | 41.767 | 107.170 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 10610 | O | LEU | B | 215 | 26.964 | 41.228 | 106.648 | 1.00207.38 | O |
| ATOM | 10611 | CB | LEU | B | 215 | 25.535 | 44.210 | 107.548 | 1.00199.60 | C |
| ATOM | 10612 | CG | LEU | B | 215 | 24.891 | 45.535 | 107.123 | 1.00199.60 | C |
| ATOM | 10613 | CD1 | LEU | B | 215 | 25.216 | 46.615 | 108.148 | 1.00199.60 | C |
| ATOM | 10614 | CD2 | LEU | B | 215 | 25.396 | 45.939 | 105.744 | 1.00199.60 | C |
| ATOM | 10615 | N | ALA | B | 216 | 25.381 | 41.279 | 108.247 | 1.00204.07 | N |
| ATOM | 10616 | CA | ALA | B | 216 | 25.836 | 40.068 | 108.915 | 1.00204.07 | C |
| ATOM | 10617 | C | ALA | B | 216 | 25.885 | 38.905 | 107.953 | 1.00204.07 | C |
| ATOM | 10618 | O | ALA | B | 216 | 26.805 | 38.812 | 107.138 | 1.00204.07 | O |
| ATOM | 10619 | CB | ALA | B | 216 | 24.911 | 39.755 | 110.096 | 1.00164.16 | C |
| ATOM | 10620 | N | ILE | B | 217 | 24.885 | 38.026 | 108.039 | 1.00207.38 | N |
| ATOM | 10621 | CA | ILE | B | 217 | 24.858 | 36.846 | 107.179 | 1.00207.38 | C |
| ATOM | 10622 | C | ILE | B | 217 | 25.391 | 37.113 | 105.763 | 1.00207.38 | C |
| ATOM | 10623 | O | ILE | B | 217 | 26.386 | 36.508 | 105.338 | 1.00207.38 | O |
| ATOM | 10624 | CB | ILE | B | 217 | 23.440 | 36.205 | 107.101 | 1.00181.07 | C |
| ATOM | 10625 | CG1 | ILE | B | 217 | 22.355 | 37.280 | 107.100 | 1.00181.07 | C |
| ATOM | 10626 | CG2 | ILE | B | 217 | 23.251 | 35.240 | 108.254 | 1.00181.07 | C |
| ATOM | 10627 | CD1 | ILE | B | 217 | 22.189 | 37.991 | 105.781 | 1.00181.07 | C |
| ATOM | 10628 | N | SER | B | 218 | 24.762 | 38.038 | 105.046 | 1.00120.74 | N |
| ATOM | 10629 | CA | SER | B | 218 | 25.198 | 38.333 | 103.696 | 1.00120.74 | C |
| ATOM | 10630 | C | SER | B | 218 | 26.721 | 38.600 | 103.644 | 1.00120.74 | C |
| ATOM | 10631 | O | SER | B | 218 | 27.499 | 37.671 | 103.407 | 1.00120.74 | O |
| ATOM | 10632 | CB | SER | B | 218 | 24.412 | 39.509 | 103.129 | 1.00 93.85 | C |
| ATOM | 10633 | OG | SER | B | 218 | 23.058 | 39.128 | 102.973 | 1.00 93.85 | O |
| ATOM | 10634 | N | PRO | B | 219 | 27.171 | 39.841 | 103.900 | 1.00179.35 | N |
| ATOM | 10635 | CA | PRO | B | 219 | 28.619 | 40.006 | 103.824 | 1.00179.35 | C |
| ATOM | 10636 | C | PRO | B | 219 | 29.506 | 38.892 | 104.357 | 1.00179.35 | C |
| ATOM | 10637 | O | PRO | B | 219 | 30.623 | 38.744 | 103.870 | 1.00179.35 | O |
| ATOM | 10638 | CB | PRO | B | 219 | 28.829 | 41.336 | 104.529 | 1.00122.00 | C |
| ATOM | 10639 | CG | PRO | B | 219 | 27.667 | 42.134 | 103.985 | 1.00122.00 | C |
| ATOM | 10640 | CD | PRO | B | 219 | 26.503 | 41.145 | 104.076 | 1.00122.00 | C |
| ATOM | 10641 | N | VAL | B | 220 | 29.030 | 38.107 | 105.326 | 1.00167.66 | N |
| ATOM | 10642 | CA | VAL | B | 220 | 29.841 | 37.008 | 105.875 | 1.00167.66 | C |
| ATOM | 10643 | C | VAL | B | 220 | 29.946 | 35.849 | 104.874 | 1.00167.66 | C |
| ATOM | 10644 | O | VAL | B | 220 | 31.045 | 35.308 | 104.605 | 1.00167.66 | O |
| ATOM | 10645 | CB | VAL | B | 220 | 29.248 | 36.480 | 107.199 | 1.00124.21 | C |
| ATOM | 10646 | CG1 | VAL | B | 220 | 30.113 | 35.357 | 107.737 | 1.00124.21 | C |
| ATOM | 10647 | CG2 | VAL | B | 220 | 29.162 | 37.603 | 108.220 | 1.00124.21 | C |
| ATOM | 10648 | N | LEU | B | 221 | 28.798 | 35.462 | 104.326 | 1.00207.38 | N |
| ATOM | 10649 | CA | LEU | B | 221 | 28.778 | 34.399 | 103.338 | 1.00207.38 | C |
| ATOM | 10650 | C | LEU | B | 221 | 29.697 | 34.919 | 102.241 | 1.00207.38 | C |
| ATOM | 10651 | O | LEU | B | 221 | 30.661 | 34.256 | 101.852 | 1.00207.38 | O |
| ATOM | 10652 | CB | LEU | B | 221 | 27.361 | 34.175 | 102.801 | 1.00194.90 | C |
| ATOM | 10653 | CG | LEU | B | 221 | 26.289 | 33.737 | 103.805 | 1.00194.90 | C |
| ATOM | 10654 | CD1 | LEU | B | 221 | 24.992 | 33.456 | 103.058 | 1.00194.90 | C |
| ATOM | 10655 | CD2 | LEU | B | 221 | 26.750 | 32.494 | 104.556 | 1.00194.90 | C |
| ATOM | 10656 | N | GLY | B | 222 | 29.405 | 36.133 | 101.778 | 1.00162.33 | N |
| ATOM | 10657 | CA | GLY | B | 222 | 30.216 | 36.753 | 100.747 | 1.00162.33 | C |
| ATOM | 10658 | C | GLY | B | 222 | 31.698 | 36.596 | 101.035 | 1.00162.33 | C |
| ATOM | 10659 | O | GLY | B | 222 | 32.512 | 36.461 | 100.117 | 1.00162.33 | O |
| ATOM | 10660 | N | LEU | B | 223 | 32.052 | 36.602 | 102.317 | 1.00130.58 | N |
| ATOM | 10661 | CA | LEU | B | 223 | 33.445 | 36.450 | 102.705 | 1.00130.58 | C |
| ATOM | 10662 | C | LEU | B | 223 | 33.946 | 35.055 | 102.366 | 1.00130.58 | C |
| ATOM | 10663 | O | LEU | B | 223 | 34.940 | 34.911 | 101.653 | 1.00130.58 | O |
| ATOM | 10664 | CB | LEU | B | 223 | 33.628 | 36.738 | 104.199 | 1.00180.76 | C |
| ATOM | 10665 | CG | LEU | B | 223 | 33.339 | 38.168 | 104.673 | 1.00180.76 | C |
| ATOM | 10666 | CD1 | LEU | B | 223 | 33.769 | 38.311 | 106.125 | 1.00180.76 | C |
| ATOM | 10667 | CD2 | LEU | B | 223 | 34.085 | 39.172 | 103.807 | 1.00180.76 | C |
| ATOM | 10668 | N | SER | B | 224 | 33.270 | 34.018 | 102.848 | 1.00169.07 | N |
| ATOM | 10669 | CA | SER | B | 224 | 33.747 | 32.677 | 102.513 | 1.00169.07 | C |
| ATOM | 10670 | C | SER | B | 224 | 33.860 | 32.501 | 100.992 | 1.00169.07 | C |
| ATOM | 10671 | O | SER | B | 224 | 34.792 | 31.856 | 100.504 | 1.00169.07 | O |
| ATOM | 10672 | CB | SER | B | 224 | 32.812 | 31.613 | 103.105 | 1.00107.79 | C |
| ATOM | 10673 | OG | SER | B | 224 | 31.486 | 31.754 | 102.629 | 1.00107.79 | O |
| ATOM | 10674 | N | ALA | B | 225 | 32.928 | 33.091 | 100.245 | 1.00128.44 | N |
| ATOM | 10675 | CA | ALA | B | 225 | 32.948 | 32.991 | 98.793 | 1.00128.44 | C |
| ATOM | 10676 | C | ALA | B | 225 | 34.223 | 33.596 | 98.279 | 1.00128.44 | C |
| ATOM | 10677 | O | ALA | B | 225 | 35.047 | 32.902 | 97.687 | 1.00128.44 | O |
| ATOM | 10678 | CB | ALA | B | 225 | 31.720 | 33.720 | 98.201 | 1.00 35.66 | C |
| ATOM | 10679 | N | GLY | B | 226 | 34.375 | 34.897 | 98.502 | 1.00114.76 | N |
| ATOM | 10680 | CA | GLY | B | 226 | 35.573 | 35.586 | 98.058 | 1.00114.76 | C |
| ATOM | 10681 | C | GLY | B | 226 | 36.863 | 34.814 | 98.327 | 1.00114.76 | C |
| ATOM | 10682 | O | GLY | B | 226 | 37.668 | 34.584 | 97.417 | 1.00114.76 | O |
| ATOM | 10683 | N | ILE | B | 227 | 37.064 | 34.400 | 99.574 | 1.00172.10 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 10684 | CA | ILE | B | 227 | 38.264 | 33.654 | 99.941 | 1.00172.10 | C |
| ATOM | 10685 | C | ILE | B | 227 | 38.432 | 32.317 | 99.229 | 1.00172.10 | C |
| ATOM | 10686 | O | ILE | B | 227 | 39.235 | 32.207 | 98.308 | 1.00172.10 | O |
| ATOM | 10687 | CB | ILE | B | 227 | 38.291 | 33.335 | 101.446 | 1.00133.56 | C |
| ATOM | 10688 | CG1 | ILE | B | 227 | 38.148 | 34.615 | 102.262 | 1.00133.56 | C |
| ATOM | 10689 | CG2 | ILE | B | 227 | 39.585 | 32.613 | 101.792 | 1.00133.56 | C |
| ATOM | 10690 | CD1 | ILE | B | 227 | 37.885 | 34.362 | 103.725 | 1.00133.56 | C |
| ATOM | 10691 | N | TRP | B | 228 | 37.682 | 31.302 | 99.663 | 1.00184.38 | N |
| ATOM | 10692 | CA | TRP | B | 228 | 37.812 | 29.965 | 99.076 | 1.00184.38 | C |
| ATOM | 10693 | C | TRP | B | 228 | 37.893 | 29.998 | 97.564 | 1.00184.38 | C |
| ATOM | 10694 | O | TRP | B | 228 | 38.840 | 29.472 | 96.969 | 1.00184.38 | O |
| ATOM | 10695 | CB | TRP | B | 228 | 36.662 | 29.044 | 99.501 | 1.00207.38 | C |
| ATOM | 10696 | CG | TRP | B | 228 | 37.141 | 27.690 | 99.975 | 1.00207.38 | C |
| ATOM | 10697 | CD1 | TRP | B | 228 | 37.549 | 27.366 | 101.238 | 1.00207.38 | C |
| ATOM | 10698 | CD2 | TRP | B | 228 | 37.323 | 26.504 | 99.181 | 1.00207.38 | C |
| ATOM | 10699 | NE1 | TRP | B | 228 | 37.976 | 26.060 | 101.281 | 1.00207.38 | N |
| ATOM | 10700 | CE2 | TRP | B | 228 | 37.851 | 25.507 | 100.035 | 1.00207.38 | C |
| ATOM | 10701 | CE3 | TRP | B | 228 | 37.098 | 26.188 | 97.833 | 1.00207.38 | C |
| ATOM | 10702 | CZ2 | TRP | B | 228 | 38.156 | 24.214 | 99.586 | 1.00207.38 | C |
| ATOM | 10703 | CZ3 | TRP | B | 228 | 37.403 | 24.898 | 97.387 | 1.00207.38 | C |
| ATOM | 10704 | CH2 | TRP | B | 228 | 37.928 | 23.931 | 98.264 | 1.00207.38 | C |
| ATOM | 10705 | N | ALA | B | 229 | 36.894 | 30.608 | 96.939 | 1.00163.05 | N |
| ATOM | 10706 | CA | ALA | B | 229 | 36.900 | 30.689 | 95.497 | 1.00163.05 | C |
| ATOM | 10707 | C | ALA | B | 229 | 38.258 | 31.232 | 95.063 | 1.00163.05 | C |
| ATOM | 10708 | O | ALA | B | 229 | 39.073 | 30.487 | 94.517 | 1.00163.05 | O |
| ATOM | 10709 | CB | ALA | B | 229 | 35.784 | 31.617 | 95.016 | 1.00140.69 | C |
| ATOM | 10710 | N | LYS | B | 230 | 38.525 | 32.508 | 95.341 | 1.00125.82 | N |
| ATOM | 10711 | CA | LYS | B | 230 | 39.795 | 33.092 | 94.924 | 1.00125.82 | C |
| ATOM | 10712 | C | LYS | B | 230 | 40.982 | 32.249 | 95.345 | 1.00125.82 | C |
| ATOM | 10713 | O | LYS | B | 230 | 42.000 | 32.241 | 94.662 | 1.00125.82 | O |
| ATOM | 10714 | CB | LYS | B | 230 | 39.929 | 34.524 | 95.450 | 1.00187.32 | C |
| ATOM | 10715 | CG | LYS | B | 230 | 38.943 | 35.486 | 94.799 | 1.00187.32 | C |
| ATOM | 10716 | CD | LYS | B | 230 | 38.955 | 35.342 | 93.278 | 1.00187.32 | C |
| ATOM | 10717 | CE | LYS | B | 230 | 37.685 | 35.908 | 92.661 | 1.00187.32 | C |
| ATOM | 10718 | NZ | LYS | B | 230 | 37.591 | 35.613 | 91.205 | 1.00187.32 | N |
| ATOM | 10719 | N | ILE | B | 231 | 40.852 | 31.523 | 96.449 | 1.00127.94 | N |
| ATOM | 10720 | CA | ILE | B | 231 | 41.937 | 30.673 | 96.908 | 1.00127.94 | C |
| ATOM | 10721 | C | ILE | B | 231 | 42.269 | 29.715 | 95.777 | 1.00127.94 | C |
| ATOM | 10722 | O | ILE | B | 231 | 43.376 | 29.731 | 95.213 | 1.00127.94 | O |
| ATOM | 10723 | CB | ILE | B | 231 | 41.541 | 29.857 | 98.163 | 1.00199.81 | C |
| ATOM | 10724 | CG1 | ILE | B | 231 | 41.485 | 30.776 | 99.386 | 1.00199.81 | C |
| ATOM | 10725 | CG2 | ILE | B | 231 | 42.533 | 28.719 | 98.383 | 1.00199.81 | C |
| ATOM | 10726 | CD1 | ILE | B | 231 | 41.220 | 30.050 | 100.691 | 1.00199.81 | C |
| ATOM | 10727 | N | LEU | B | 232 | 41.301 | 28.881 | 95.432 | 1.00198.28 | N |
| ATOM | 10728 | CA | LEU | B | 232 | 41.512 | 27.930 | 94.361 | 1.00198.28 | C |
| ATOM | 10729 | C | LEU | B | 232 | 41.915 | 28.618 | 93.058 | 1.00198.28 | C |
| ATOM | 10730 | O | LEU | B | 232 | 42.743 | 28.093 | 92.322 | 1.00198.28 | O |
| ATOM | 10731 | CB | LEU | B | 232 | 40.248 | 27.095 | 94.140 | 1.00173.04 | C |
| ATOM | 10732 | CG | LEU | B | 232 | 39.982 | 25.981 | 95.158 | 1.00173.04 | C |
| ATOM | 10733 | CD1 | LEU | B | 232 | 40.974 | 24.847 | 94.945 | 1.00173.04 | C |
| ATOM | 10734 | CD2 | LEU | B | 232 | 40.094 | 26.534 | 96.576 | 1.00173.04 | C |
| ATOM | 10735 | N | SER | B | 233 | 41.347 | 29.789 | 92.770 | 1.00152.10 | N |
| ATOM | 10736 | CA | SER | B | 233 | 41.686 | 30.501 | 91.535 | 1.00152.10 | C |
| ATOM | 10737 | C | SER | B | 233 | 43.195 | 30.698 | 91.376 | 1.00152.10 | C |
| ATOM | 10738 | O | SER | B | 233 | 43.747 | 30.493 | 90.284 | 1.00152.10 | O |
| ATOM | 10739 | CB | SER | B | 233 | 40.973 | 31.855 | 91.485 | 1.00156.10 | C |
| ATOM | 10740 | OG | SER | B | 233 | 39.592 | 31.691 | 91.211 | 1.00156.10 | O |
| ATOM | 10741 | N | SER | B | 234 | 43.862 | 31.102 | 92.459 | 1.00123.07 | N |
| ATOM | 10742 | CA | SER | B | 234 | 45.310 | 31.282 | 92.400 | 1.00123.07 | C |
| ATOM | 10743 | C | SER | B | 234 | 45.791 | 29.887 | 92.109 | 1.00123.07 | C |
| ATOM | 10744 | O | SER | B | 234 | 46.577 | 29.689 | 91.189 | 1.00123.07 | O |
| ATOM | 10745 | CB | SER | B | 234 | 45.857 | 31.766 | 93.744 | 1.00186.73 | C |
| ATOM | 10746 | OG | SER | B | 234 | 45.859 | 30.723 | 94.703 | 1.00186.73 | O |
| ATOM | 10747 | N | PHE | B | 235 | 45.279 | 28.923 | 92.881 | 1.00134.05 | N |
| ATOM | 10748 | CA | PHE | B | 235 | 45.625 | 27.501 | 92.725 | 1.00134.05 | C |
| ATOM | 10749 | C | PHE | B | 235 | 45.546 | 27.042 | 91.241 | 1.00134.05 | C |
| ATOM | 10750 | O | PHE | B | 235 | 46.381 | 26.252 | 90.745 | 1.00134.05 | O |
| ATOM | 10751 | CB | PHE | B | 235 | 44.659 | 26.662 | 93.570 | 1.00167.36 | C |
| ATOM | 10752 | CG | PHE | B | 235 | 45.114 | 25.258 | 93.805 | 1.00167.36 | C |
| ATOM | 10753 | CD1 | PHE | B | 235 | 46.045 | 24.968 | 94.797 | 1.00167.36 | C |
| ATOM | 10754 | CD2 | PHE | B | 235 | 44.610 | 24.222 | 93.034 | 1.00167.36 | C |
| ATOM | 10755 | CE1 | PHE | B | 235 | 46.465 | 23.658 | 95.016 | 1.00167.36 | C |
| ATOM | 10756 | CE2 | PHE | B | 235 | 45.022 | 22.914 | 93.243 | 1.00167.36 | C |
| ATOM | 10757 | CZ | PHE | B | 235 | 45.952 | 22.630 | 94.238 | 1.00167.36 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10758 | N | THR | B | 236 | 44.539 | 27.557 | 90.538 | 1.00141.11 | N |
| ATOM | 10759 | CA | THR | B | 236 | 44.325 | 27.261 | 89.126 | 1.00141.11 | C |
| ATOM | 10760 | C | THR | B | 236 | 45.477 | 27.803 | 88.328 | 1.00141.11 | C |
| ATOM | 10761 | O | THR | B | 236 | 46.109 | 27.069 | 87.575 | 1.00141.11 | O |
| ATOM | 10762 | CB | THR | B | 236 | 43.016 | 27.906 | 88.599 | 1.00 96.44 | C |
| ATOM | 10763 | OG1 | THR | B | 236 | 41.930 | 26.979 | 88.733 | 1.00 96.44 | O |
| ATOM | 10764 | CG2 | THR | B | 236 | 43.170 | 28.334 | 87.145 | 1.00 96.44 | C |
| ATOM | 10765 | N | ASP | B | 237 | 45.737 | 29.096 | 88.484 | 1.00190.48 | N |
| ATOM | 10766 | CA | ASP | B | 237 | 46.835 | 29.727 | 87.770 | 1.00190.48 | C |
| ATOM | 10767 | C | ASP | B | 237 | 48.128 | 28.921 | 87.895 | 1.00190.48 | C |
| ATOM | 10768 | O | ASP | B | 237 | 48.724 | 28.538 | 86.887 | 1.00190.48 | O |
| ATOM | 10769 | CB | ASP | B | 237 | 47.060 | 31.153 | 88.275 | 1.00207.38 | C |
| ATOM | 10770 | CG | ASP | B | 237 | 46.525 | 32.200 | 87.316 | 1.00207.38 | C |
| ATOM | 10771 | OD1 | ASP | B | 237 | 46.615 | 33.405 | 87.632 | 1.00207.38 | O |
| ATOM | 10772 | OD2 | ASP | B | 237 | 46.016 | 31.818 | 86.240 | 1.00207.38 | O |
| ATOM | 10773 | N | LYS | B | 238 | 48.568 | 28.664 | 89.124 | 1.00179.48 | N |
| ATOM | 10774 | CA | LYS | B | 238 | 49.784 | 27.883 | 89.328 | 1.00179.48 | C |
| ATOM | 10775 | C | LYS | B | 238 | 49.672 | 26.665 | 88.393 | 1.00179.48 | C |
| ATOM | 10776 | O | LYS | B | 238 | 50.592 | 26.373 | 87.605 | 1.00179.48 | O |
| ATOM | 10777 | CB | LYS | B | 238 | 49.862 | 27.449 | 90.795 | 1.00167.71 | C |
| ATOM | 10778 | CG | LYS | B | 238 | 51.228 | 27.006 | 91.293 | 1.00167.71 | C |
| ATOM | 10779 | CD | LYS | B | 238 | 51.540 | 25.556 | 90.956 | 1.00167.71 | C |
| ATOM | 10780 | CE | LYS | B | 238 | 52.200 | 25.427 | 89.601 | 1.00167.71 | C |
| ATOM | 10781 | NZ | LYS | B | 238 | 52.503 | 24.004 | 89.293 | 1.00167.71 | N |
| ATOM | 10782 | N | GLU | B | 239 | 48.531 | 25.981 | 88.445 | 1.00183.71 | N |
| ATOM | 10783 | CA | GLU | B | 239 | 48.340 | 24.837 | 87.563 | 1.00183.71 | C |
| ATOM | 10784 | C | GLU | B | 239 | 48.672 | 25.161 | 86.108 | 1.00183.71 | C |
| ATOM | 10785 | O | GLU | B | 239 | 49.448 | 24.441 | 85.472 | 1.00183.71 | O |
| ATOM | 10786 | CB | GLU | B | 239 | 46.898 | 24.343 | 87.669 | 1.00146.89 | C |
| ATOM | 10787 | CG | GLU | B | 239 | 46.589 | 23.745 | 89.021 | 1.00146.89 | C |
| ATOM | 10788 | CD | GLU | B | 239 | 47.648 | 22.746 | 89.445 | 1.00146.89 | C |
| ATOM | 10789 | OE1 | GLU | B | 239 | 48.818 | 23.152 | 89.626 | 1.00146.89 | O |
| ATOM | 10790 | OE2 | GLU | B | 239 | 47.317 | 21.552 | 89.587 | 1.00146.89 | O |
| ATOM | 10791 | N | LEU | B | 240 | 48.097 | 26.241 | 85.580 | 1.00152.52 | N |
| ATOM | 10792 | CA | LEU | B | 240 | 48.356 | 26.638 | 84.191 | 1.00152.52 | C |
| ATOM | 10793 | C | LEU | B | 240 | 49.825 | 26.903 | 83.879 | 1.00152.52 | C |
| ATOM | 10794 | O | LEU | B | 240 | 50.273 | 26.603 | 82.767 | 1.00152.52 | O |
| ATOM | 10795 | CB | LEU | B | 240 | 47.552 | 27.895 | 83.844 | 1.00112.83 | C |
| ATOM | 10796 | CG | LEU | B | 240 | 46.068 | 27.729 | 83.511 | 1.00112.83 | C |
| ATOM | 10797 | CD1 | LEU | B | 240 | 45.484 | 29.085 | 83.147 | 1.00112.83 | C |
| ATOM | 10798 | CD2 | LEU | B | 240 | 45.899 | 26.760 | 82.347 | 1.00112.83 | C |
| ATOM | 10799 | N | HIS | B | 241 | 50.562 | 27.476 | 84.839 | 1.00129.80 | N |
| ATOM | 10800 | CA | HIS | B | 241 | 51.977 | 27.784 | 84.640 | 1.00129.80 | C |
| ATOM | 10801 | C | HIS | B | 241 | 52.747 | 26.483 | 84.440 | 1.00129.80 | C |
| ATOM | 10802 | O | HIS | B | 241 | 53.467 | 26.317 | 83.433 | 1.00129.80 | O |
| ATOM | 10803 | CB | HIS | B | 241 | 52.532 | 28.565 | 85.834 | 1.00207.38 | C |
| ATOM | 10804 | CG | HIS | B | 241 | 52.146 | 30.016 | 85.844 | 1.00207.38 | C |
| ATOM | 10805 | ND1 | HIS | B | 241 | 50.835 | 30.441 | 85.812 | 1.00207.38 | N |
| ATOM | 10806 | CD2 | HIS | B | 241 | 52.901 | 31.140 | 85.902 | 1.00207.38 | C |
| ATOM | 10807 | CE1 | HIS | B | 241 | 50.798 | 31.761 | 85.851 | 1.00207.38 | C |
| ATOM | 10808 | NE2 | HIS | B | 241 | 52.039 | 32.210 | 85.906 | 1.00207.38 | N |
| ATOM | 10809 | N | ALA | B | 242 | 52.595 | 25.543 | 85.372 | 1.00104.69 | N |
| ATOM | 10810 | CA | ALA | B | 242 | 53.291 | 24.258 | 85.211 | 1.00104.69 | C |
| ATOM | 10811 | C | ALA | B | 242 | 52.955 | 23.700 | 83.820 | 1.00104.69 | C |
| ATOM | 10812 | O | ALA | B | 242 | 53.820 | 23.143 | 83.115 | 1.00104.69 | O |
| ATOM | 10813 | CB | ALA | B | 242 | 52.839 | 23.275 | 86.302 | 1.00 37.58 | C |
| ATOM | 10814 | N | TYR | B | 243 | 51.686 | 23.857 | 83.439 | 1.00151.94 | N |
| ATOM | 10815 | CA | TYR | B | 243 | 51.214 | 23.425 | 82.128 | 1.00151.94 | C |
| ATOM | 10816 | C | TYR | B | 243 | 52.214 | 24.004 | 81.131 | 1.00151.94 | C |
| ATOM | 10817 | O | TYR | B | 243 | 52.965 | 23.256 | 80.509 | 1.00151.94 | O |
| ATOM | 10818 | CB | TYR | B | 243 | 49.799 | 23.979 | 81.865 | 1.00145.27 | C |
| ATOM | 10819 | CG | TYR | B | 243 | 49.265 | 23.872 | 80.444 | 1.00145.27 | C |
| ATOM | 10820 | CD1 | TYR | B | 243 | 48.066 | 24.499 | 80.094 | 1.00145.27 | C |
| ATOM | 10821 | CD2 | TYR | B | 243 | 49.957 | 23.179 | 79.450 | 1.00145.27 | C |
| ATOM | 10822 | CE1 | TYR | B | 243 | 47.573 | 24.443 | 78.793 | 1.00145.27 | C |
| ATOM | 10823 | CE2 | TYR | B | 243 | 49.471 | 23.121 | 78.140 | 1.00145.27 | C |
| ATOM | 10824 | CZ | TYR | B | 243 | 48.282 | 23.757 | 77.825 | 1.00145.27 | C |
| ATOM | 10825 | OH | TYR | B | 243 | 47.811 | 23.724 | 76.538 | 1.00145.27 | O |
| ATOM | 10826 | N | ALA | B | 244 | 52.249 | 25.333 | 81.012 | 1.00110.95 | N |
| ATOM | 10827 | CA | ALA | B | 244 | 53.161 | 26.012 | 80.086 | 1.00110.95 | C |
| ATOM | 10828 | C | ALA | B | 244 | 54.552 | 25.370 | 79.969 | 1.00110.95 | C |
| ATOM | 10829 | O | ALA | B | 244 | 55.037 | 25.128 | 78.847 | 1.00110.95 | O |
| ATOM | 10830 | CB | ALA | B | 244 | 53.302 | 27.475 | 80.492 | 1.00118.81 | C |
| ATOM | 10831 | N | LYS | B | 245 | 55.194 | 25.088 | 81.103 | 1.00137.68 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10832 | CA | LYS | B | 245 | 56.531 | 24.472 | 81.060 | 1.00137.68 | C |
| ATOM | 10833 | C | LYS | B | 245 | 56.450 | 23.177 | 80.239 | 1.00137.68 | C |
| ATOM | 10834 | O | LYS | B | 245 | 57.218 | 22.935 | 79.271 | 1.00137.68 | O |
| ATOM | 10835 | CB | LYS | B | 245 | 57.017 | 24.179 | 82.482 | 1.00163.13 | C |
| ATOM | 10836 | CG | LYS | B | 245 | 58.492 | 24.487 | 82.742 | 1.00163.13 | C |
| ATOM | 10837 | CD | LYS | B | 245 | 58.707 | 25.877 | 83.344 | 1.00163.13 | C |
| ATOM | 10838 | CE | LYS | B | 245 | 58.848 | 26.966 | 82.286 | 1.00163.13 | C |
| ATOM | 10839 | NZ | LYS | B | 245 | 57.602 | 27.219 | 81.514 | 1.00163.13 | N |
| ATOM | 10840 | N | ALA | B | 246 | 55.497 | 22.342 | 80.621 | 1.00 92.68 | N |
| ATOM | 10841 | CA | ALA | B | 246 | 55.279 | 21.086 | 79.906 | 1.00 92.68 | C |
| ATOM | 10842 | C | ALA | B | 246 | 55.057 | 21.267 | 78.366 | 1.00 92.68 | C |
| ATOM | 10843 | O | ALA | B | 246 | 55.459 | 20.404 | 77.557 | 1.00 92.68 | O |
| ATOM | 10844 | CB | ALA | B | 246 | 54.093 | 20.340 | 80.503 | 1.00191.67 | C |
| ATOM | 10845 | N | GLY | B | 247 | 54.421 | 22.395 | 77.998 | 1.00101.50 | N |
| ATOM | 10846 | CA | GLY | B | 247 | 54.095 | 22.754 | 76.616 | 1.00101.50 | C |
| ATOM | 10847 | C | GLY | B | 247 | 55.300 | 23.080 | 75.768 | 1.00101.50 | C |
| ATOM | 10848 | O | GLY | B | 247 | 55.315 | 22.817 | 74.558 | 1.00101.50 | O |
| ATOM | 10849 | N | ALA | B | 248 | 56.324 | 23.654 | 76.390 | 1.00 84.99 | N |
| ATOM | 10850 | CA | ALA | B | 248 | 57.575 | 23.958 | 75.672 | 1.00 84.99 | C |
| ATOM | 10851 | C | ALA | B | 248 | 58.380 | 22.649 | 75.402 | 1.00 84.99 | C |
| ATOM | 10852 | O | ALA | B | 248 | 58.977 | 22.429 | 74.270 | 1.00 84.99 | O |
| ATOM | 10853 | CB | ALA | B | 248 | 58.423 | 24.927 | 76.487 | 1.00186.06 | C |
| ATOM | 10854 | N | VAL | B | 249 | 58.410 | 21.792 | 76.437 | 1.00 84.95 | N |
| ATOM | 10855 | CA | VAL | B | 249 | 59.051 | 20.469 | 76.301 | 1.00 84.95 | C |
| ATOM | 10856 | C | VAL | B | 249 | 58.065 | 19.613 | 75.454 | 1.00 84.95 | C |
| ATOM | 10857 | O | VAL | B | 249 | 58.192 | 18.400 | 75.254 | 1.00 84.95 | O |
| ATOM | 10858 | CB | VAL | B | 249 | 59.286 | 19.826 | 77.682 | 1.00131.54 | C |
| ATOM | 10859 | CG1 | VAL | B | 249 | 59.991 | 18.502 | 77.519 | 1.00131.54 | C |
| ATOM | 10860 | CG2 | VAL | B | 249 | 60.126 | 20.757 | 78.555 | 1.00131.54 | C |
| ATOM | 10861 | N | ALA | B | 250 | 57.048 | 20.295 | 74.967 | 1.00207.38 | N |
| ATOM | 10862 | CA | ALA | B | 250 | 56.084 | 19.665 | 74.101 | 1.00207.38 | C |
| ATOM | 10863 | C | ALA | B | 250 | 56.407 | 20.208 | 72.694 | 1.00207.38 | C |
| ATOM | 10864 | O | ALA | B | 250 | 55.763 | 19.830 | 71.714 | 1.00207.38 | O |
| ATOM | 10865 | CB | ALA | B | 250 | 54.668 | 20.059 | 74.503 | 1.00207.38 | C |
| ATOM | 10866 | N | GLU | B | 251 | 57.405 | 21.102 | 72.617 | 1.00 90.77 | N |
| ATOM | 10867 | CA | GLU | B | 251 | 57.876 | 21.711 | 71.340 | 1.00 90.77 | C |
| ATOM | 10868 | C | GLU | B | 251 | 59.159 | 21.141 | 70.641 | 1.00 90.77 | C |
| ATOM | 10869 | O | GLU | B | 251 | 59.140 | 20.481 | 69.563 | 1.00 90.77 | O |
| ATOM | 10870 | CB | GLU | B | 251 | 58.084 | 23.223 | 71.536 | 1.00175.09 | C |
| ATOM | 10871 | CG | GLU | B | 251 | 56.838 | 24.095 | 71.416 | 1.00175.09 | C |
| ATOM | 10872 | CD | GLU | B | 251 | 56.772 | 24.858 | 70.098 | 1.00175.09 | C |
| ATOM | 10873 | OE1 | GLU | B | 251 | 57.793 | 24.916 | 69.377 | 1.00175.09 | O |
| ATOM | 10874 | OE2 | GLU | B | 251 | 55.698 | 25.413 | 69.788 | 1.00175.09 | O |
| ATOM | 10875 | N | GLU | B | 252 | 60.300 | 21.412 | 71.249 | 1.00132.44 | N |
| ATOM | 10876 | CA | GLU | B | 252 | 61.520 | 20.947 | 70.566 | 1.00132.44 | C |
| ATOM | 10877 | C | GLU | B | 252 | 61.602 | 21.535 | 69.160 | 1.00132.44 | C |
| ATOM | 10878 | O | GLU | B | 252 | 60.682 | 22.218 | 68.745 | 1.00132.44 | O |
| ATOM | 10879 | CB | GLU | B | 252 | 61.513 | 19.405 | 70.472 | 1.00207.38 | C |
| ATOM | 10880 | CG | GLU | B | 252 | 61.574 | 18.683 | 71.795 | 1.00207.38 | C |
| ATOM | 10881 | CD | GLU | B | 252 | 60.520 | 19.164 | 72.758 | 1.00207.38 | C |
| ATOM | 10882 | OE1 | GLU | B | 252 | 60.649 | 20.307 | 73.244 | 1.00207.38 | O |
| ATOM | 10883 | OE2 | GLU | B | 252 | 59.565 | 18.401 | 73.022 | 1.00207.38 | O |
| ATOM | 10884 | N | VAL | B | 253 | 62.666 | 21.216 | 68.409 | 1.00207.38 | N |
| ATOM | 10885 | CA | VAL | B | 253 | 62.848 | 21.808 | 67.057 | 1.00207.38 | C |
| ATOM | 10886 | C | VAL | B | 253 | 61.781 | 21.277 | 66.163 | 1.00207.38 | C |
| ATOM | 10887 | O | VAL | B | 253 | 61.176 | 20.281 | 66.510 | 1.00207.38 | O |
| ATOM | 10888 | CB | VAL | B | 253 | 64.219 | 21.462 | 66.421 | 1.00104.35 | C |
| ATOM | 10889 | CG1 | VAL | B | 253 | 64.169 | 21.665 | 64.917 | 1.00104.35 | C |
| ATOM | 10890 | CG2 | VAL | B | 253 | 65.295 | 22.362 | 66.994 | 1.00104.35 | C |
| ATOM | 10891 | N | LEU | B | 254 | 61.558 | 21.943 | 65.028 | 1.00112.76 | N |
| ATOM | 10892 | CA | LEU | B | 254 | 60.525 | 21.552 | 64.061 | 1.00112.76 | C |
| ATOM | 10893 | C | LEU | B | 254 | 60.879 | 22.168 | 62.699 | 1.00112.76 | C |
| ATOM | 10894 | O | LEU | B | 254 | 60.058 | 22.203 | 61.768 | 1.00112.76 | O |
| ATOM | 10895 | CB | LEU | B | 254 | 59.160 | 22.086 | 64.532 | 1.00123.16 | C |
| ATOM | 10896 | CG | LEU | B | 254 | 58.928 | 22.403 | 66.023 | 1.00123.16 | C |
| ATOM | 10897 | CD1 | LEU | B | 254 | 58.987 | 21.151 | 66.853 | 1.00123.16 | C |
| ATOM | 10898 | CD2 | LEU | B | 254 | 59.959 | 23.394 | 66.505 | 1.00123.16 | C |
| ATOM | 10899 | N | ALA | B | 255 | 62.107 | 22.698 | 62.658 | 1.00117.80 | N |
| ATOM | 10900 | CA | ALA | B | 255 | 62.715 | 23.347 | 61.498 | 1.00117.80 | C |
| ATOM | 10901 | C | ALA | B | 255 | 63.836 | 22.461 | 61.116 | 1.00117.80 | C |
| ATOM | 10902 | O | ALA | B | 255 | 63.963 | 21.363 | 61.637 | 1.00117.80 | O |
| ATOM | 10903 | CB | ALA | B | 255 | 63.199 | 24.735 | 61.900 | 1.00 44.01 | C |
| ATOM | 10904 | N | ALA | B | 256 | 64.692 | 22.988 | 60.253 | 1.00 94.95 | N |
| ATOM | 10905 | CA | ALA | B | 256 | 65.802 | 22.220 | 59.728 | 1.00 94.95 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 10906 | C | ALA | B | 256 | 65.177 | 21.071 | 58.908 | 1.00 | 94.95 | C |
| ATOM | 10907 | O | ALA | B | 256 | 65.872 | 20.189 | 58.374 | 1.00 | 94.95 | O |
| ATOM | 10908 | CB | ALA | B | 256 | 66.653 | 21.648 | 60.873 | 1.00 | 120.43 | C |
| ATOM | 10909 | N | ILE | B | 257 | 63.848 | 21.124 | 58.799 | 1.00 | 114.64 | N |
| ATOM | 10910 | CA | ILE | B | 257 | 63.068 | 20.136 | 58.073 | 1.00 | 114.64 | C |
| ATOM | 10911 | C | ILE | B | 257 | 63.659 | 19.630 | 56.752 | 1.00 | 114.64 | C |
| ATOM | 10912 | O | ILE | B | 257 | 63.594 | 18.451 | 56.494 | 1.00 | 114.64 | O |
| ATOM | 10913 | CB | ILE | B | 257 | 61.598 | 20.582 | 57.847 | 1.00 | 51.48 | C |
| ATOM | 10914 | CG1 | ILE | B | 257 | 60.842 | 19.489 | 57.079 | 1.00 | 51.48 | C |
| ATOM | 10915 | CG2 | ILE | B | 257 | 61.549 | 21.930 | 57.156 | 1.00 | 51.48 | C |
| ATOM | 10916 | CD1 | ILE | B | 257 | 61.042 | 18.099 | 57.593 | 1.00 | 51.48 | C |
| ATOM | 10917 | N | ARG | B | 258 | 64.234 | 20.495 | 55.921 | 1.00 | 105.06 | N |
| ATOM | 10918 | CA | ARG | B | 258 | 64.827 | 20.045 | 54.663 | 1.00 | 105.06 | C |
| ATOM | 10919 | C | ARG | B | 258 | 65.723 | 18.871 | 55.028 | 1.00 | 105.06 | C |
| ATOM | 10920 | O | ARG | B | 258 | 65.582 | 17.765 | 54.497 | 1.00 | 105.06 | O |
| ATOM | 10921 | CB | ARG | B | 258 | 65.660 | 21.167 | 54.022 | 1.00 | 159.92 | C |
| ATOM | 10922 | CG | ARG | B | 258 | 65.295 | 21.462 | 52.566 | 1.00 | 159.92 | C |
| ATOM | 10923 | CD | ARG | B | 258 | 66.245 | 22.458 | 51.919 | 1.00 | 159.92 | C |
| ATOM | 10924 | NE | ARG | B | 258 | 67.609 | 21.945 | 51.857 | 1.00 | 159.92 | N |
| ATOM | 10925 | CZ | ARG | B | 258 | 68.614 | 22.565 | 51.249 | 1.00 | 159.92 | C |
| ATOM | 10926 | NH1 | ARG | B | 258 | 68.412 | 23.729 | 50.644 | 1.00 | 159.92 | N |
| ATOM | 10927 | NH2 | ARG | B | 258 | 69.825 | 22.023 | 51.255 | 1.00 | 159.92 | N |
| ATOM | 10928 | N | THR | B | 259 | 66.622 | 19.114 | 55.973 | 1.00 | 85.06 | N |
| ATOM | 10929 | CA | THR | B | 259 | 67.540 | 18.080 | 56.433 | 1.00 | 85.06 | C |
| ATOM | 10930 | C | THR | B | 259 | 66.727 | 16.923 | 56.967 | 1.00 | 85.06 | C |
| ATOM | 10931 | O | THR | B | 259 | 67.026 | 15.737 | 56.750 | 1.00 | 85.06 | O |
| ATOM | 10932 | CB | THR | B | 259 | 68.455 | 18.607 | 57.557 | 1.00 | 106.47 | C |
| ATOM | 10933 | OG1 | THR | B | 259 | 69.088 | 19.824 | 57.139 | 1.00 | 106.47 | O |
| ATOM | 10934 | CG2 | THR | B | 259 | 69.521 | 17.581 | 57.887 | 1.00 | 106.47 | C |
| ATOM | 10935 | N | VAL | B | 260 | 65.660 | 17.268 | 57.652 | 1.00 | 89.07 | N |
| ATOM | 10936 | CA | VAL | B | 260 | 64.859 | 16.223 | 58.187 | 1.00 | 89.07 | C |
| ATOM | 10937 | C | VAL | B | 260 | 63.947 | 15.564 | 57.165 | 1.00 | 89.07 | C |
| ATOM | 10938 | O | VAL | B | 260 | 63.409 | 14.537 | 57.452 | 1.00 | 89.07 | O |
| ATOM | 10939 | CB | VAL | B | 260 | 64.065 | 16.718 | 59.408 | 1.00 | 113.00 | C |
| ATOM | 10940 | CG1 | VAL | B | 260 | 63.406 | 15.533 | 60.116 | 1.00 | 113.00 | C |
| ATOM | 10941 | CG2 | VAL | B | 260 | 65.008 | 17.473 | 60.363 | 1.00 | 113.00 | C |
| ATOM | 10942 | N | ILE | B | 261 | 63.766 | 16.104 | 55.971 | 1.00 | 71.67 | N |
| ATOM | 10943 | CA | ILE | B | 261 | 62.925 | 15.420 | 54.985 | 1.00 | 71.67 | C |
| ATOM | 10944 | C | ILE | B | 261 | 63.849 | 14.361 | 54.344 | 1.00 | 71.67 | C |
| ATOM | 10945 | O | ILE | B | 261 | 63.435 | 13.246 | 54.018 | 1.00 | 71.67 | O |
| ATOM | 10946 | CB | ILE | B | 261 | 62.360 | 16.395 | 53.913 | 1.00 | 89.78 | C |
| ATOM | 10947 | CG1 | ILE | B | 261 | 60.918 | 16.760 | 54.275 | 1.00 | 89.78 | C |
| ATOM | 10948 | CG2 | ILE | B | 261 | 62.429 | 15.772 | 52.516 | 1.00 | 89.78 | C |
| ATOM | 10949 | CD1 | ILE | B | 261 | 59.973 | 15.570 | 54.302 | 1.00 | 89.78 | C |
| ATOM | 10950 | N | ALA | B | 262 | 65.117 | 14.716 | 54.192 | 1.00 | 99.69 | N |
| ATOM | 10951 | CA | ALA | B | 262 | 66.067 | 13.774 | 53.640 | 1.00 | 99.69 | C |
| ATOM | 10952 | C | ALA | B | 262 | 66.452 | 12.840 | 54.774 | 1.00 | 99.69 | C |
| ATOM | 10953 | O | ALA | B | 262 | 67.372 | 12.033 | 54.673 | 1.00 | 99.69 | O |
| ATOM | 10954 | CB | ALA | B | 262 | 67.310 | 14.515 | 53.111 | 1.00 | 123.22 | C |
| ATOM | 10955 | N | PHE | B | 263 | 65.746 | 12.977 | 55.879 | 1.00 | 105.69 | N |
| ATOM | 10956 | CA | PHE | B | 263 | 65.986 | 12.131 | 57.041 | 1.00 | 105.69 | C |
| ATOM | 10957 | C | PHE | B | 263 | 64.856 | 11.065 | 57.156 | 1.00 | 105.69 | C |
| ATOM | 10958 | O | PHE | B | 263 | 65.137 | 9.897 | 57.356 | 1.00 | 105.69 | O |
| ATOM | 10959 | CB | PHE | B | 263 | 66.031 | 13.045 | 58.283 | 1.00 | 202.62 | C |
| ATOM | 10960 | CG | PHE | B | 263 | 66.589 | 12.404 | 59.546 | 1.00 | 202.62 | C |
| ATOM | 10961 | CD1 | PHE | B | 263 | 67.626 | 11.469 | 59.509 | 1.00 | 202.62 | C |
| ATOM | 10962 | CD2 | PHE | B | 263 | 66.119 | 12.820 | 60.794 | 1.00 | 202.62 | C |
| ATOM | 10963 | CE1 | PHE | B | 263 | 68.184 | 10.966 | 60.706 | 1.00 | 202.62 | C |
| ATOM | 10964 | CE2 | PHE | B | 263 | 66.667 | 12.328 | 61.982 | 1.00 | 202.62 | C |
| ATOM | 10965 | CZ | PHE | B | 263 | 67.699 | 11.401 | 61.940 | 1.00 | 202.62 | C |
| ATOM | 10966 | N | GLY | B | 264 | 63.592 | 11.455 | 57.000 | 1.00 | 117.85 | N |
| ATOM | 10967 | CA | GLY | B | 264 | 62.488 | 10.509 | 57.134 | 1.00 | 117.85 | C |
| ATOM | 10968 | C | GLY | B | 264 | 61.331 | 11.151 | 57.894 | 1.00 | 117.85 | C |
| ATOM | 10969 | O | GLY | B | 264 | 60.379 | 11.679 | 57.287 | 1.00 | 117.85 | O |
| ATOM | 10970 | N | GLY | B | 265 | 61.403 | 11.124 | 59.222 | 1.00 | 61.74 | N |
| ATOM | 10971 | CA | GLY | B | 265 | 60.356 | 11.744 | 60.005 | 1.00 | 61.74 | C |
| ATOM | 10972 | C | GLY | B | 265 | 60.568 | 11.324 | 61.427 | 1.00 | 61.74 | C |
| ATOM | 10973 | O | GLY | B | 265 | 60.346 | 10.152 | 61.686 | 1.00 | 61.74 | O |
| ATOM | 10974 | N | GLN | B | 266 | 60.962 | 12.236 | 62.311 | 1.00 | 182.37 | N |
| ATOM | 10975 | CA | GLN | B | 266 | 61.269 | 11.889 | 63.694 | 1.00 | 182.37 | C |
| ATOM | 10976 | C | GLN | B | 266 | 59.981 | 11.174 | 64.089 | 1.00 | 182.37 | C |
| ATOM | 10977 | O | GLN | B | 266 | 59.959 | 9.951 | 64.229 | 1.00 | 182.37 | O |
| ATOM | 10978 | CB | GLN | B | 266 | 61.624 | 13.144 | 64.463 | 1.00 | 106.44 | C |
| ATOM | 10979 | CG | GLN | B | 266 | 62.947 | 13.781 | 63.943 | 1.00 | 106.44 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 10980 | CD | GLN | B | 266 | 64.162 | 12.781 | 63.847 | 1.00106.44 | C |
| ATOM | 10981 | OE1 | GLN | B | 266 | 64.062 | 11.619 | 64.247 | 1.00106.44 | O |
| ATOM | 10982 | NE2 | GLN | B | 266 | 65.299 | 13.256 | 63.317 | 1.00106.44 | N |
| ATOM | 10983 | N | LYS | B | 267 | 58.909 | 11.940 | 64.269 | 1.00109.48 | N |
| ATOM | 10984 | CA | LYS | B | 267 | 57.624 | 11.234 | 64.314 | 1.00109.48 | C |
| ATOM | 10985 | C | LYS | B | 267 | 57.139 | 10.693 | 65.640 | 1.00109.48 | C |
| ATOM | 10986 | O | LYS | B | 267 | 55.935 | 10.587 | 65.875 | 1.00109.48 | O |
| ATOM | 10987 | CB | LYS | B | 267 | 57.623 | 10.002 | 63.403 | 1.00 92.90 | C |
| ATOM | 10988 | CG | LYS | B | 267 | 57.794 | 10.222 | 61.918 | 1.00 92.90 | C |
| ATOM | 10989 | CD | LYS | B | 267 | 58.128 | 8.850 | 61.273 | 1.00 92.90 | C |
| ATOM | 10990 | CE | LYS | B | 267 | 58.715 | 7.788 | 62.244 | 1.00 92.90 | C |
| ATOM | 10991 | NZ | LYS | B | 267 | 59.995 | 8.195 | 62.882 | 1.00 92.90 | N |
| ATOM | 10992 | N | LYS | B | 268 | 58.080 | 10.345 | 66.512 | 1.00101.55 | N |
| ATOM | 10993 | CA | LYS | B | 268 | 57.710 | 9.787 | 67.807 | 1.00101.55 | C |
| ATOM | 10994 | C | LYS | B | 268 | 58.240 | 10.646 | 68.950 | 1.00101.55 | C |
| ATOM | 10995 | O | LYS | B | 268 | 57.503 | 10.990 | 69.874 | 1.00101.55 | O |
| ATOM | 10996 | CB | LYS | B | 268 | 58.244 | 8.364 | 67.955 | 1.00119.89 | C |
| ATOM | 10997 | CG | LYS | B | 268 | 57.397 | 7.501 | 68.874 | 1.00119.89 | C |
| ATOM | 10998 | CD | LYS | B | 268 | 57.123 | 8.202 | 70.198 | 1.00119.89 | C |
| ATOM | 10999 | CE | LYS | B | 268 | 56.091 | 7.449 | 71.018 | 1.00119.89 | C |
| ATOM | 11000 | NZ | LYS | B | 268 | 55.905 | 8.060 | 72.362 | 1.00119.89 | N |
| ATOM | 11001 | N | GLU | B | 269 | 59.522 | 10.990 | 68.880 | 1.00101.16 | N |
| ATOM | 11002 | CA | GLU | B | 269 | 60.136 | 11.878 | 69.871 | 1.00101.16 | C |
| ATOM | 11003 | C | GLU | B | 269 | 59.102 | 12.972 | 70.188 | 1.00101.16 | C |
| ATOM | 11004 | O | GLU | B | 269 | 58.719 | 13.225 | 71.360 | 1.00101.16 | O |
| ATOM | 11005 | CB | GLU | B | 269 | 61.415 | 12.519 | 69.321 | 1.00207.38 | C |
| ATOM | 11006 | CG | GLU | B | 269 | 62.621 | 11.593 | 69.293 | 1.00207.38 | C |
| ATOM | 11007 | CD | GLU | B | 269 | 63.928 | 12.347 | 69.124 | 1.00207.38 | C |
| ATOM | 11008 | OE1 | GLU | B | 269 | 64.107 | 13.000 | 68.074 | 1.00207.38 | O |
| ATOM | 11009 | OE2 | GLU | B | 269 | 64.775 | 12.291 | 70.042 | 1.00207.38 | O |
| ATOM | 11010 | N | LEU | B | 270 | 58.636 | 13.587 | 69.106 | 1.00 99.99 | N |
| ATOM | 11011 | CA | LEU | B | 270 | 57.603 | 14.618 | 69.154 | 1.00 99.99 | C |
| ATOM | 11012 | C | LEU | B | 270 | 56.395 | 14.086 | 69.871 | 1.00 99.99 | C |
| ATOM | 11013 | O | LEU | B | 270 | 56.057 | 14.584 | 70.937 | 1.00 99.99 | O |
| ATOM | 11014 | CB | LEU | B | 270 | 57.214 | 15.073 | 67.739 | 1.00115.43 | C |
| ATOM | 11015 | CG | LEU | B | 270 | 57.293 | 14.017 | 66.635 | 1.00115.43 | C |
| ATOM | 11016 | CD1 | LEU | B | 270 | 56.425 | 14.401 | 65.439 | 1.00115.43 | C |
| ATOM | 11017 | CD2 | LEU | B | 270 | 58.752 | 13.868 | 66.232 | 1.00115.43 | C |
| ATOM | 11018 | N | GLU | B | 271 | 55.725 | 13.069 | 69.307 | 1.00108.29 | N |
| ATOM | 11019 | CA | GLU | B | 271 | 54.548 | 12.630 | 70.084 | 1.00108.29 | C |
| ATOM | 11020 | C | GLU | B | 271 | 54.831 | 12.360 | 71.597 | 1.00108.29 | C |
| ATOM | 11021 | O | GLU | B | 271 | 54.113 | 12.844 | 72.488 | 1.00108.29 | O |
| ATOM | 11022 | CB | GLU | B | 271 | 53.959 | 11.371 | 69.434 | 1.00186.69 | C |
| ATOM | 11023 | CG | GLU | B | 271 | 52.589 | 10.952 | 69.954 | 1.00186.69 | C |
| ATOM | 11024 | CD | GLU | B | 271 | 52.666 | 9.830 | 70.968 | 1.00186.69 | C |
| ATOM | 11025 | OE1 | GLU | B | 271 | 51.612 | 9.232 | 71.277 | 1.00186.69 | O |
| ATOM | 11026 | OE2 | GLU | B | 271 | 53.779 | 9.548 | 71.457 | 1.00186.69 | O |
| ATOM | 11027 | N | ARG | B | 272 | 55.881 | 11.581 | 71.859 | 1.00115.23 | N |
| ATOM | 11028 | CA | ARG | B | 272 | 56.280 | 11.188 | 73.203 | 1.00115.23 | C |
| ATOM | 11029 | C | ARG | B | 272 | 56.210 | 12.336 | 74.217 | 1.00115.23 | C |
| ATOM | 11030 | O | ARG | B | 272 | 55.328 | 12.340 | 75.080 | 1.00115.23 | O |
| ATOM | 11031 | CB | ARG | B | 272 | 57.692 | 10.588 | 73.169 | 1.00207.38 | C |
| ATOM | 11032 | CG | ARG | B | 272 | 58.234 | 10.150 | 74.521 | 1.00207.38 | C |
| ATOM | 11033 | CD | ARG | B | 272 | 57.278 | 9.239 | 75.270 | 1.00207.38 | C |
| ATOM | 11034 | NE | ARG | B | 272 | 57.749 | 9.016 | 76.633 | 1.00207.38 | N |
| ATOM | 11035 | CZ | ARG | B | 272 | 57.065 | 8.367 | 77.569 | 1.00207.38 | C |
| ATOM | 11036 | NH1 | ARG | B | 272 | 55.866 | 7.869 | 77.294 | 1.00207.38 | N |
| ATOM | 11037 | NH2 | ARG | B | 272 | 57.579 | 8.224 | 78.783 | 1.00207.38 | N |
| ATOM | 11038 | N | TYR | B | 273 | 57.095 | 13.327 | 74.111 | 1.00 85.47 | N |
| ATOM | 11039 | CA | TYR | B | 273 | 57.049 | 14.408 | 75.105 | 1.00 85.47 | C |
| ATOM | 11040 | C | TYR | B | 273 | 55.738 | 15.150 | 75.061 | 1.00 85.47 | C |
| ATOM | 11041 | O | TYR | B | 273 | 55.217 | 15.534 | 76.113 | 1.00 85.47 | O |
| ATOM | 11042 | CB | TYR | B | 273 | 58.236 | 15.354 | 74.903 | 1.00172.78 | C |
| ATOM | 11043 | CG | TYR | B | 273 | 59.564 | 14.671 | 75.155 | 1.00172.78 | C |
| ATOM | 11044 | CD1 | TYR | B | 273 | 60.772 | 15.298 | 74.847 | 1.00172.78 | C |
| ATOM | 11045 | CD2 | TYR | B | 273 | 59.608 | 13.378 | 75.675 | 1.00172.78 | C |
| ATOM | 11046 | CE1 | TYR | B | 273 | 61.983 | 14.650 | 75.046 | 1.00172.78 | C |
| ATOM | 11047 | CE2 | TYR | B | 273 | 60.806 | 12.726 | 75.877 | 1.00172.78 | C |
| ATOM | 11048 | CZ | TYR | B | 273 | 61.990 | 13.363 | 75.558 | 1.00172.78 | C |
| ATOM | 11049 | OH | TYR | B | 273 | 63.180 | 12.702 | 75.728 | 1.00172.78 | O |
| ATOM | 11050 | N | ASN | B | 274 | 55.203 | 15.318 | 73.845 | 1.00154.68 | N |
| ATOM | 11051 | CA | ASN | B | 274 | 53.920 | 16.001 | 73.656 | 1.00154.68 | C |
| ATOM | 11052 | C | ASN | B | 274 | 52.884 | 15.411 | 74.630 | 1.00154.68 | C |
| ATOM | 11053 | O | ASN | B | 274 | 52.680 | 15.940 | 75.727 | 1.00154.68 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11054 | CB | ASN | B | 274 | 53.418 | 15.853 | 72.217 | 1.00207.38 | C |
| ATOM | 11055 | CG | ASN | B | 274 | 54.185 | 16.723 | 71.227 | 1.00207.38 | C |
| ATOM | 11056 | OD1 | ASN | B | 274 | 53.690 | 17.006 | 70.135 | 1.00207.38 | O |
| ATOM | 11057 | ND2 | ASN | B | 274 | 55.393 | 17.139 | 71.595 | 1.00207.38 | N |
| ATOM | 11058 | N | ASN | B | 275 | 52.241 | 14.313 | 74.245 | 1.00136.35 | N |
| ATOM | 11059 | CA | ASN | B | 275 | 51.232 | 13.677 | 75.103 | 1.00136.35 | C |
| ATOM | 11060 | C | ASN | B | 275 | 51.693 | 13.406 | 76.546 | 1.00136.35 | C |
| ATOM | 11061 | O | ASN | B | 275 | 50.873 | 13.294 | 77.461 | 1.00136.35 | O |
| ATOM | 11062 | CB | ASN | B | 275 | 50.737 | 12.375 | 74.463 | 1.00145.08 | C |
| ATOM | 11063 | CG | ASN | B | 275 | 49.398 | 12.546 | 73.759 | 1.00145.08 | C |
| ATOM | 11064 | OD1 | ASN | B | 275 | 49.229 | 13.441 | 72.930 | 1.00145.08 | O |
| ATOM | 11065 | ND2 | ASN | B | 275 | 48.440 | 11.688 | 74.090 | 1.00145.08 | N |
| ATOM | 11066 | N | ASN | B | 276 | 52.999 | 13.302 | 76.754 | 1.00140.65 | N |
| ATOM | 11067 | CA | ASN | B | 276 | 53.522 | 13.074 | 78.098 | 1.00140.65 | C |
| ATOM | 11068 | C | ASN | B | 276 | 53.041 | 14.205 | 79.026 | 1.00140.65 | C |
| ATOM | 11069 | O | ASN | B | 276 | 52.028 | 14.071 | 79.747 | 1.00140.65 | O |
| ATOM | 11070 | CB | ASN | B | 276 | 55.056 | 13.044 | 78.048 | 1.00207.38 | C |
| ATOM | 11071 | CG | ASN | B | 276 | 55.686 | 12.705 | 79.390 | 1.00207.38 | C |
| ATOM | 11072 | OD1 | ASN | B | 276 | 55.515 | 13.428 | 80.372 | 1.00207.38 | O |
| ATOM | 11073 | ND2 | ASN | B | 276 | 56.421 | 11.598 | 79.434 | 1.00207.38 | N |
| ATOM | 11074 | N | LEU | B | 277 | 53.771 | 15.323 | 78.977 | 1.00137.91 | N |
| ATOM | 11075 | CA | LEU | B | 277 | 53.471 | 16.490 | 79.815 | 1.00137.91 | C |
| ATOM | 11076 | C | LEU | B | 277 | 52.048 | 17.034 | 79.632 | 1.00137.91 | C |
| ATOM | 11077 | O | LEU | B | 277 | 51.427 | 17.472 | 80.605 | 1.00137.91 | O |
| ATOM | 11078 | CB | LEU | B | 277 | 54.479 | 17.617 | 79.541 | 1.00153.30 | C |
| ATOM | 11079 | CG | LEU | B | 277 | 55.885 | 17.579 | 80.160 | 1.00153.30 | C |
| ATOM | 11080 | CD1 | LEU | B | 277 | 55.764 | 17.487 | 81.673 | 1.00153.30 | C |
| ATOM | 11081 | CD2 | LEU | B | 277 | 56.685 | 16.404 | 79.619 | 1.00153.30 | C |
| ATOM | 11082 | N | GLU | B | 278 | 51.538 | 17.007 | 78.394 | 1.00105.22 | N |
| ATOM | 11083 | CA | GLU | B | 278 | 50.182 | 17.493 | 78.119 | 1.00105.22 | C |
| ATOM | 11084 | C | GLU | B | 278 | 49.197 | 16.703 | 78.951 | 1.00105.22 | C |
| ATOM | 11085 | O | GLU | B | 278 | 48.560 | 17.266 | 79.821 | 1.00105.22 | O |
| ATOM | 11086 | CB | GLU | B | 278 | 49.828 | 17.394 | 76.626 | 1.00207.38 | C |
| ATOM | 11087 | CG | GLU | B | 278 | 50.469 | 18.481 | 75.752 | 1.00207.38 | C |
| ATOM | 11088 | CD | GLU | B | 278 | 49.599 | 18.888 | 74.564 | 1.00207.38 | C |
| ATOM | 11089 | OE1 | GLU | B | 278 | 49.154 | 17.999 | 73.809 | 1.00207.38 | O |
| ATOM | 11090 | OE2 | GLU | B | 278 | 49.364 | 20.103 | 74.382 | 1.00207.38 | O |
| ATOM | 11091 | N | GLU | B | 279 | 49.065 | 15.402 | 78.701 | 1.00122.93 | N |
| ATOM | 11092 | CA | GLU | B | 279 | 48.158 | 14.584 | 79.515 | 1.00122.93 | C |
| ATOM | 11093 | C | GLU | B | 279 | 48.323 | 14.996 | 80.975 | 1.00122.93 | C |
| ATOM | 11094 | O | GLU | B | 279 | 47.355 | 15.397 | 81.631 | 1.00122.93 | O |
| ATOM | 11095 | CB | GLU | B | 279 | 48.487 | 13.089 | 79.403 | 1.00206.50 | C |
| ATOM | 11096 | CG | GLU | B | 279 | 47.937 | 12.368 | 78.183 | 1.00206.50 | C |
| ATOM | 11097 | CD | GLU | B | 279 | 47.834 | 10.866 | 78.407 | 1.00206.50 | C |
| ATOM | 11098 | OE1 | GLU | B | 279 | 47.034 | 10.451 | 79.273 | 1.00206.50 | O |
| ATOM | 11099 | OE2 | GLU | B | 279 | 48.551 | 10.102 | 77.727 | 1.00206.50 | O |
| ATOM | 11100 | N | ALA | B | 280 | 49.561 | 14.880 | 81.468 | 1.00139.56 | N |
| ATOM | 11101 | CA | ALA | B | 280 | 49.887 | 15.235 | 82.851 | 1.00139.56 | C |
| ATOM | 11102 | C | ALA | B | 280 | 49.076 | 16.451 | 83.329 | 1.00139.56 | C |
| ATOM | 11103 | O | ALA | B | 280 | 48.013 | 16.285 | 83.922 | 1.00139.56 | O |
| ATOM | 11104 | CB | ALA | B | 280 | 51.372 | 15.523 | 82.974 | 1.00200.92 | C |
| ATOM | 11105 | N | LYS | B | 281 | 49.567 | 17.665 | 83.071 | 1.00 92.19 | N |
| ATOM | 11106 | CA | LYS | B | 281 | 48.850 | 18.882 | 83.482 | 1.00 92.19 | C |
| ATOM | 11107 | C | LYS | B | 281 | 47.490 | 18.965 | 82.783 | 1.00 92.19 | C |
| ATOM | 11108 | O | LYS | B | 281 | 46.722 | 19.884 | 83.029 | 1.00 92.19 | O |
| ATOM | 11109 | CB | LYS | B | 281 | 49.658 | 20.142 | 83.135 | 1.00158.07 | C |
| ATOM | 11110 | CG | LYS | B | 281 | 50.967 | 20.315 | 83.894 | 1.00158.07 | C |
| ATOM | 11111 | CD | LYS | B | 281 | 52.059 | 19.402 | 83.360 | 1.00158.07 | C |
| ATOM | 11112 | CE | LYS | B | 281 | 53.389 | 19.631 | 84.072 | 1.00158.07 | C |
| ATOM | 11113 | NZ | LYS | B | 281 | 53.972 | 20.979 | 83.809 | 1.00158.07 | N |
| ATOM | 11114 | N | ARG | B | 282 | 47.201 | 18.033 | 81.876 | 1.00 94.15 | N |
| ATOM | 11115 | CA | ARG | B | 282 | 45.904 | 18.071 | 81.216 | 1.00 94.15 | C |
| ATOM | 11116 | C | ARG | B | 282 | 45.011 | 17.835 | 82.393 | 1.00 94.15 | C |
| ATOM | 11117 | O | ARG | B | 282 | 44.643 | 18.775 | 83.074 | 1.00 94.15 | O |
| ATOM | 11118 | CB | ARG | B | 282 | 45.719 | 16.939 | 80.198 | 1.00206.18 | C |
| ATOM | 11119 | CG | ARG | B | 282 | 46.412 | 17.154 | 78.866 | 1.00206.18 | C |
| ATOM | 11120 | CD | ARG | B | 282 | 46.117 | 18.523 | 78.267 | 1.00206.18 | C |
| ATOM | 11121 | NE | ARG | B | 282 | 47.361 | 19.172 | 77.869 | 1.00206.18 | N |
| ATOM | 11122 | CZ | ARG | B | 282 | 48.239 | 19.678 | 78.728 | 1.00206.18 | C |
| ATOM | 11123 | NH1 | ARG | B | 282 | 48.001 | 19.621 | 80.032 | 1.00206.18 | N |
| ATOM | 11124 | NH2 | ARG | B | 282 | 49.369 | 20.212 | 78.287 | 1.00206.18 | N |
| ATOM | 11125 | N | LEU | B | 283 | 44.711 | 16.567 | 82.650 | 1.00 95.42 | N |
| ATOM | 11126 | CA | LEU | B | 283 | 43.883 | 16.208 | 83.781 | 1.00 95.42 | C |
| ATOM | 11127 | C | LEU | B | 283 | 44.345 | 16.986 | 85.022 | 1.00 95.42 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 11128 | O | LEU | B | 283 | 43.547 | 17.318 | 85.887 | 1.00 | 95.42 | O |
| ATOM | 11129 | CB | LEU | B | 283 | 43.945 | 14.694 | 84.024 | 1.00 | 207.38 | C |
| ATOM | 11130 | CG | LEU | B | 283 | 45.282 | 13.959 | 83.880 | 1.00 | 207.38 | C |
| ATOM | 11131 | CD1 | LEU | B | 283 | 46.208 | 14.315 | 85.031 | 1.00 | 207.38 | C |
| ATOM | 11132 | CD2 | LEU | B | 283 | 45.026 | 12.458 | 83.853 | 1.00 | 207.38 | C |
| ATOM | 11133 | N | GLY | B | 284 | 45.632 | 17.302 | 85.102 | 1.00 | 130.70 | N |
| ATOM | 11134 | CA | GLY | B | 284 | 46.121 | 18.046 | 86.251 | 1.00 | 130.70 | C |
| ATOM | 11135 | C | GLY | B | 284 | 45.545 | 19.452 | 86.337 | 1.00 | 130.70 | C |
| ATOM | 11136 | O | GLY | B | 284 | 44.726 | 19.744 | 87.211 | 1.00 | 130.70 | O |
| ATOM | 11137 | N | ILE | B | 285 | 45.974 | 20.338 | 85.437 | 1.00 | 122.08 | N |
| ATOM | 11138 | CA | ILE | B | 285 | 45.470 | 21.711 | 85.422 | 1.00 | 122.08 | C |
| ATOM | 11139 | C | ILE | B | 285 | 44.016 | 21.508 | 85.136 | 1.00 | 122.08 | C |
| ATOM | 11140 | O | ILE | B | 285 | 43.247 | 22.446 | 85.059 | 1.00 | 122.08 | O |
| ATOM | 11141 | CB | ILE | B | 285 | 46.085 | 22.555 | 84.276 | 1.00 | 206.83 | C |
| ATOM | 11142 | CG1 | ILE | B | 285 | 46.041 | 24.047 | 84.637 | 1.00 | 206.83 | C |
| ATOM | 11143 | CG2 | ILE | B | 285 | 45.301 | 22.335 | 82.977 | 1.00 | 206.83 | C |
| ATOM | 11144 | CD1 | ILE | B | 285 | 44.639 | 24.638 | 84.747 | 1.00 | 206.83 | C |
| ATOM | 11145 | N | LYS | B | 286 | 43.669 | 20.252 | 84.929 | 1.00 | 95.35 | N |
| ATOM | 11146 | CA | LYS | B | 286 | 42.313 | 19.904 | 84.682 | 1.00 | 95.35 | C |
| ATOM | 11147 | C | LYS | B | 286 | 41.631 | 19.526 | 85.989 | 1.00 | 95.35 | C |
| ATOM | 11148 | O | LYS | B | 286 | 40.421 | 19.340 | 86.002 | 1.00 | 95.35 | O |
| ATOM | 11149 | CB | LYS | B | 286 | 42.225 | 18.774 | 83.654 | 1.00 | 125.08 | C |
| ATOM | 11150 | CG | LYS | B | 286 | 41.939 | 19.241 | 82.222 | 1.00 | 125.08 | C |
| ATOM | 11151 | CD | LYS | B | 286 | 43.106 | 19.976 | 81.566 | 1.00 | 125.08 | C |
| ATOM | 11152 | CE | LYS | B | 286 | 42.865 | 20.117 | 80.065 | 1.00 | 125.08 | C |
| ATOM | 11153 | NZ | LYS | B | 286 | 44.068 | 20.524 | 79.286 | 1.00 | 125.08 | N |
| ATOM | 11154 | N | LYS | B | 287 | 42.396 | 19.372 | 87.076 | 1.00 | 137.46 | N |
| ATOM | 11155 | CA | LYS | B | 287 | 41.786 | 19.097 | 88.392 | 1.00 | 137.46 | C |
| ATOM | 11156 | C | LYS | B | 287 | 41.539 | 20.511 | 88.838 | 1.00 | 137.46 | C |
| ATOM | 11157 | O | LYS | B | 287 | 40.530 | 20.817 | 89.451 | 1.00 | 137.46 | O |
| ATOM | 11158 | CB | LYS | B | 287 | 42.749 | 18.439 | 89.384 | 1.00 | 141.90 | C |
| ATOM | 11159 | CG | LYS | B | 287 | 42.229 | 18.522 | 90.834 | 1.00 | 141.90 | C |
| ATOM | 11160 | CD | LYS | B | 287 | 43.247 | 18.051 | 91.868 | 1.00 | 141.90 | C |
| ATOM | 11161 | CE | LYS | B | 287 | 43.009 | 18.680 | 93.254 | 1.00 | 141.90 | C |
| ATOM | 11162 | NZ | LYS | B | 287 | 41.744 | 18.264 | 93.926 | 1.00 | 141.90 | N |
| ATOM | 11163 | N | ALA | B | 288 | 42.502 | 21.369 | 88.534 | 1.00 | 200.35 | N |
| ATOM | 11164 | CA | ALA | B | 288 | 42.334 | 22.763 | 88.842 | 1.00 | 200.35 | C |
| ATOM | 11165 | C | ALA | B | 288 | 41.312 | 23.203 | 87.793 | 1.00 | 200.35 | C |
| ATOM | 11166 | O | ALA | B | 288 | 40.609 | 24.179 | 87.997 | 1.00 | 200.35 | O |
| ATOM | 11167 | CB | ALA | B | 288 | 43.654 | 23.509 | 88.649 | 1.00 | 196.12 | C |
| ATOM | 11168 | N | ILE | B | 289 | 41.238 | 22.478 | 86.669 | 1.00 | 167.23 | N |
| ATOM | 11169 | CA | ILE | B | 289 | 40.266 | 22.785 | 85.602 | 1.00 | 167.23 | C |
| ATOM | 11170 | C | ILE | B | 289 | 38.948 | 22.452 | 86.275 | 1.00 | 167.23 | C |
| ATOM | 11171 | O | ILE | B | 289 | 38.148 | 23.320 | 86.615 | 1.00 | 167.23 | O |
| ATOM | 11172 | CB | ILE | B | 289 | 40.453 | 21.859 | 84.365 | 1.00 | 145.63 | C |
| ATOM | 11173 | CG1 | ILE | B | 289 | 41.471 | 22.465 | 83.391 | 1.00 | 145.63 | C |
| ATOM | 11174 | CG2 | ILE | B | 289 | 39.113 | 21.605 | 83.688 | 1.00 | 145.63 | C |
| ATOM | 11175 | CD1 | ILE | B | 289 | 41.068 | 23.833 | 82.824 | 1.00 | 145.63 | C |
| ATOM | 11176 | N | THR | B | 290 | 38.761 | 21.161 | 86.485 | 1.00 | 193.59 | N |
| ATOM | 11177 | CA | THR | B | 290 | 37.591 | 20.632 | 87.130 | 1.00 | 193.59 | C |
| ATOM | 11178 | C | THR | B | 290 | 37.541 | 21.272 | 88.513 | 1.00 | 193.59 | C |
| ATOM | 11179 | O | THR | B | 290 | 36.694 | 20.939 | 89.334 | 1.00 | 193.59 | O |
| ATOM | 11180 | CB | THR | B | 290 | 37.680 | 19.100 | 87.222 | 1.00 | 100.86 | C |
| ATOM | 11181 | OG1 | THR | B | 290 | 38.894 | 18.727 | 87.884 | 1.00 | 100.86 | O |
| ATOM | 11182 | CG2 | THR | B | 290 | 37.675 | 18.493 | 85.820 | 1.00 | 100.86 | C |
| ATOM | 11183 | N | ALA | B | 291 | 38.466 | 22.200 | 88.748 | 1.00 | 150.04 | N |
| ATOM | 11184 | CA | ALA | B | 291 | 38.528 | 22.926 | 90.001 | 1.00 | 150.04 | C |
| ATOM | 11185 | C | ALA | B | 291 | 38.090 | 24.350 | 89.735 | 1.00 | 150.04 | C |
| ATOM | 11186 | O | ALA | B | 291 | 37.696 | 25.054 | 90.648 | 1.00 | 150.04 | O |
| ATOM | 11187 | CB | ALA | B | 291 | 39.960 | 22.897 | 90.547 | 1.00 | 158.72 | C |
| ATOM | 11188 | N | ASN | B | 292 | 38.213 | 24.792 | 88.490 | 1.00 | 184.37 | N |
| ATOM | 11189 | CA | ASN | B | 292 | 37.764 | 26.124 | 88.119 | 1.00 | 184.37 | C |
| ATOM | 11190 | C | ASN | B | 292 | 36.323 | 25.710 | 88.156 | 1.00 | 184.37 | C |
| ATOM | 11191 | O | ASN | B | 292 | 35.439 | 26.419 | 88.627 | 1.00 | 184.37 | O |
| ATOM | 11192 | CB | ASN | B | 292 | 38.218 | 26.461 | 86.696 | 1.00 | 207.18 | C |
| ATOM | 11193 | CG | ASN | B | 292 | 37.801 | 27.852 | 86.261 | 1.00 | 207.18 | C |
| ATOM | 11194 | OD1 | ASN | B | 292 | 36.738 | 28.040 | 85.668 | 1.00 | 207.18 | O |
| ATOM | 11195 | ND2 | ASN | B | 292 | 38.638 | 28.840 | 86.563 | 1.00 | 207.18 | N |
| ATOM | 11196 | N | ILE | B | 293 | 36.140 | 24.489 | 87.677 | 1.00 | 196.40 | N |
| ATOM | 11197 | CA | ILE | B | 293 | 34.865 | 23.827 | 87.646 | 1.00 | 196.40 | C |
| ATOM | 11198 | C | ILE | B | 293 | 34.486 | 23.752 | 89.110 | 1.00 | 196.40 | C |
| ATOM | 11199 | O | ILE | B | 293 | 33.543 | 24.406 | 89.549 | 1.00 | 196.40 | O |
| ATOM | 11200 | CB | ILE | B | 293 | 35.021 | 22.414 | 87.032 | 1.00 | 102.97 | C |
| ATOM | 11201 | CG1 | ILE | B | 293 | 35.322 | 22.533 | 85.531 | 1.00 | 102.97 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11202 | CG2 | ILE | B | 293 | 33.798 | 21.576 | 87.327 | 1.00102.97 | C |
| ATOM | 11203 | CD1 | ILE | B | 293 | 34.320 | 23.361 | 84.767 | 1.00102.97 | C |
| ATOM | 11204 | N | SER | B | 294 | 35.250 | 22.984 | 89.874 | 1.00139.41 | N |
| ATOM | 11205 | CA | SER | B | 294 | 34.983 | 22.861 | 91.294 | 1.00139.41 | C |
| ATOM | 11206 | C | SER | B | 294 | 34.811 | 24.274 | 91.873 | 1.00139.41 | C |
| ATOM | 11207 | O | SER | B | 294 | 34.222 | 24.456 | 92.938 | 1.00139.41 | O |
| ATOM | 11208 | CB | SER | B | 294 | 36.134 | 22.147 | 92.001 | 1.00 94.55 | C |
| ATOM | 11209 | OG | SER | B | 294 | 36.210 | 20.796 | 91.590 | 1.00 94.55 | O |
| ATOM | 11210 | N | MET | B | 295 | 35.297 | 25.277 | 91.150 | 1.00176.08 | N |
| ATOM | 11211 | CA | MET | B | 295 | 35.197 | 26.650 | 91.609 | 1.00176.08 | C |
| ATOM | 11212 | C | MET | B | 295 | 33.860 | 27.227 | 91.271 | 1.00176.08 | C |
| ATOM | 11213 | O | MET | B | 295 | 33.274 | 27.942 | 92.079 | 1.00176.08 | O |
| ATOM | 11214 | CB | MET | B | 295 | 36.328 | 27.495 | 91.022 | 1.00144.60 | C |
| ATOM | 11215 | CG | MET | B | 295 | 37.574 | 27.503 | 91.895 | 1.00144.60 | C |
| ATOM | 11216 | SD | MET | B | 295 | 37.506 | 26.206 | 93.159 | 1.00144.60 | S |
| ATOM | 11217 | CE | MET | B | 295 | 37.020 | 27.141 | 94.611 | 1.00144.60 | C |
| ATOM | 11218 | N | GLY | B | 296 | 33.366 | 26.939 | 90.076 | 1.00149.68 | N |
| ATOM | 11219 | CA | GLY | B | 296 | 32.046 | 27.432 | 89.766 | 1.00149.68 | C |
| ATOM | 11220 | C | GLY | B | 296 | 31.237 | 26.897 | 90.941 | 1.00149.68 | C |
| ATOM | 11221 | O | GLY | B | 296 | 30.403 | 27.598 | 91.533 | 1.00149.68 | O |
| ATOM | 11222 | N | ALA | B | 297 | 31.538 | 25.645 | 91.300 | 1.00124.18 | N |
| ATOM | 11223 | CA | ALA | B | 297 | 30.887 | 24.945 | 92.410 | 1.00124.18 | C |
| ATOM | 11224 | C | ALA | B | 297 | 31.069 | 25.737 | 93.664 | 1.00124.18 | C |
| ATOM | 11225 | O | ALA | B | 297 | 30.200 | 25.749 | 94.513 | 1.00124.18 | O |
| ATOM | 11226 | CB | ALA | B | 297 | 31.488 | 23.548 | 92.557 | 1.00 66.02 | C |
| ATOM | 11227 | N | ALA | B | 298 | 32.227 | 26.365 | 93.797 | 1.00150.17 | N |
| ATOM | 11228 | CA | ALA | B | 298 | 32.478 | 27.182 | 94.962 | 1.00150.17 | C |
| ATOM | 11229 | C | ALA | B | 298 | 31.483 | 28.318 | 94.888 | 1.00150.17 | C |
| ATOM | 11230 | O | ALA | B | 298 | 30.356 | 28.178 | 95.344 | 1.00150.17 | O |
| ATOM | 11231 | CB | ALA | B | 298 | 33.914 | 27.711 | 94.927 | 1.00 79.60 | C |
| ATOM | 11232 | N | PHE | B | 299 | 31.897 | 29.436 | 94.297 | 1.00206.89 | N |
| ATOM | 11233 | CA | PHE | B | 299 | 31.033 | 30.619 | 94.172 | 1.00206.89 | C |
| ATOM | 11234 | C | PHE | B | 299 | 29.529 | 30.253 | 94.129 | 1.00206.89 | C |
| ATOM | 11235 | O | PHE | B | 299 | 28.721 | 30.852 | 94.846 | 1.00206.89 | O |
| ATOM | 11236 | CB | PHE | B | 299 | 31.387 | 31.432 | 92.906 | 1.00207.38 | C |
| ATOM | 11237 | CG | PHE | B | 299 | 32.321 | 32.621 | 93.144 | 1.00207.38 | C |
| ATOM | 11238 | CD1 | PHE | B | 299 | 32.096 | 33.531 | 94.181 | 1.00207.38 | C |
| ATOM | 11239 | CD2 | PHE | B | 299 | 33.373 | 32.881 | 92.260 | 1.00207.38 | C |
| ATOM | 11240 | CE1 | PHE | B | 299 | 32.901 | 34.679 | 94.325 | 1.00207.38 | C |
| ATOM | 11241 | CE2 | PHE | B | 299 | 34.178 | 34.023 | 92.399 | 1.00207.38 | C |
| ATOM | 11242 | CZ | PHE | B | 299 | 33.939 | 34.921 | 93.430 | 1.00207.38 | C |
| ATOM | 11243 | N | LEU | B | 300 | 29.165 | 29.270 | 93.303 | 1.00206.39 | N |
| ATOM | 11244 | CA | LEU | B | 300 | 27.765 | 28.866 | 93.160 | 1.00206.39 | C |
| ATOM | 11245 | C | LEU | B | 300 | 27.193 | 28.104 | 94.378 | 1.00206.39 | C |
| ATOM | 11246 | O | LEU | B | 300 | 26.104 | 28.426 | 94.860 | 1.00206.39 | O |
| ATOM | 11247 | CB | LEU | B | 300 | 27.558 | 28.069 | 91.863 | 1.00 95.93 | C |
| ATOM | 11248 | CG | LEU | B | 300 | 27.770 | 28.855 | 90.558 | 1.00 95.93 | C |
| ATOM | 11249 | CD1 | LEU | B | 300 | 27.395 | 27.982 | 89.361 | 1.00 95.93 | C |
| ATOM | 11250 | CD2 | LEU | B | 300 | 26.931 | 30.135 | 90.576 | 1.00 95.93 | C |
| ATOM | 11251 | N | LEU | B | 301 | 27.913 | 27.099 | 94.869 | 1.00 77.47 | N |
| ATOM | 11252 | CA | LEU | B | 301 | 27.492 | 26.349 | 96.052 | 1.00 77.47 | C |
| ATOM | 11253 | C | LEU | B | 301 | 27.230 | 27.411 | 97.115 | 1.00 77.47 | C |
| ATOM | 11254 | O | LEU | B | 301 | 26.172 | 27.510 | 97.738 | 1.00 77.47 | O |
| ATOM | 11255 | CB | LEU | B | 301 | 28.639 | 25.444 | 96.503 | 1.00 90.76 | C |
| ATOM | 11256 | CG | LEU | B | 301 | 28.497 | 24.741 | 97.850 | 1.00 90.76 | C |
| ATOM | 11257 | CD1 | LEU | B | 301 | 27.563 | 23.550 | 97.699 | 1.00 90.76 | C |
| ATOM | 11258 | CD2 | LEU | B | 301 | 29.865 | 24.286 | 98.334 | 1.00 90.76 | C |
| ATOM | 11259 | N | ILE | B | 302 | 28.236 | 28.232 | 97.291 | 1.00104.37 | N |
| ATOM | 11260 | CA | ILE | B | 302 | 28.172 | 29.292 | 98.244 | 1.00104.37 | C |
| ATOM | 11261 | C | ILE | B | 302 | 27.180 | 30.364 | 97.780 | 1.00104.37 | C |
| ATOM | 11262 | O | ILE | B | 302 | 26.724 | 31.179 | 98.583 | 1.00104.37 | O |
| ATOM | 11263 | CB | ILE | B | 302 | 29.603 | 29.834 | 98.487 | 1.00 83.24 | C |
| ATOM | 11264 | CG1 | ILE | B | 302 | 30.282 | 28.975 | 99.564 | 1.00 83.24 | C |
| ATOM | 11265 | CG2 | ILE | B | 302 | 29.577 | 31.296 | 98.868 | 1.00 83.24 | C |
| ATOM | 11266 | CD1 | ILE | B | 302 | 30.146 | 27.464 | 99.343 | 1.00 83.24 | C |
| ATOM | 11267 | N | TYR | B | 303 | 26.823 | 30.356 | 96.500 | 1.00161.77 | N |
| ATOM | 11268 | CA | TYR | B | 303 | 25.833 | 31.311 | 96.008 | 1.00161.77 | C |
| ATOM | 11269 | C | TYR | B | 303 | 24.572 | 30.898 | 96.761 | 1.00161.77 | C |
| ATOM | 11270 | O | TYR | B | 303 | 24.082 | 31.616 | 97.634 | 1.00161.77 | O |
| ATOM | 11271 | CB | TYR | B | 303 | 25.618 | 31.134 | 94.493 | 1.00207.38 | C |
| ATOM | 11272 | CG | TYR | B | 303 | 24.353 | 31.757 | 93.898 | 1.00207.38 | C |
| ATOM | 11273 | CD1 | TYR | B | 303 | 23.657 | 31.108 | 92.872 | 1.00207.38 | C |
| ATOM | 11274 | CD2 | TYR | B | 303 | 23.865 | 32.991 | 94.338 | 1.00207.38 | C |
| ATOM | 11275 | CE1 | TYR | B | 303 | 22.512 | 31.665 | 92.304 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 11276 | CE2 | TYR | B | 303 | 22.713 | 33.558 | 93.767 | 1.00207.38 | C |
| ATOM | 11277 | CZ | TYR | B | 303 | 22.046 | 32.886 | 92.754 | 1.00207.38 | C |
| ATOM | 11278 | OH | TYR | B | 303 | 20.913 | 33.426 | 92.189 | 1.00207.38 | O |
| ATOM | 11279 | N | ALA | B | 304 | 24.066 | 29.712 | 96.458 | 1.00203.10 | N |
| ATOM | 11280 | CA | ALA | B | 304 | 22.865 | 29.241 | 97.127 | 1.00203.10 | C |
| ATOM | 11281 | C | ALA | B | 304 | 22.973 | 29.295 | 98.662 | 1.00203.10 | C |
| ATOM | 11282 | O | ALA | B | 304 | 21.949 | 29.274 | 99.354 | 1.00203.10 | O |
| ATOM | 11283 | CB | ALA | B | 304 | 22.545 | 27.795 | 96.683 | 1.00 11.57 | C |
| ATOM | 11284 | N | SER | B | 305 | 24.203 | 29.345 | 99.188 | 1.00152.28 | N |
| ATOM | 11285 | CA | SER | B | 305 | 24.419 | 29.476 | 100.640 | 1.00152.28 | C |
| ATOM | 11286 | C | SER | B | 305 | 23.860 | 30.845 | 101.021 | 1.00152.28 | C |
| ATOM | 11287 | O | SER | B | 305 | 23.195 | 31.028 | 102.061 | 1.00152.28 | O |
| ATOM | 11288 | CB | SER | B | 305 | 25.908 | 29.461 | 100.980 | 1.00 91.68 | C |
| ATOM | 11289 | OG | SER | B | 305 | 26.190 | 30.409 | 102.005 | 1.00 91.68 | O |
| ATOM | 11290 | N | TYR | B | 306 | 24.216 | 31.815 | 100.182 | 1.00123.07 | N |
| ATOM | 11291 | CA | TYR | B | 306 | 23.711 | 33.169 | 100.305 | 1.00123.07 | C |
| ATOM | 11292 | C | TYR | B | 306 | 22.223 | 32.893 | 100.518 | 1.00123.07 | C |
| ATOM | 11293 | O | TYR | B | 306 | 21.691 | 33.176 | 101.581 | 1.00123.07 | O |
| ATOM | 11294 | CB | TYR | B | 306 | 23.917 | 33.941 | 98.988 | 1.00207.38 | C |
| ATOM | 11295 | CG | TYR | B | 306 | 22.661 | 34.154 | 98.126 | 1.00207.38 | C |
| ATOM | 11296 | CD1 | TYR | B | 306 | 21.859 | 35.291 | 98.281 | 1.00207.38 | C |
| ATOM | 11297 | CD2 | TYR | B | 306 | 22.289 | 33.227 | 97.146 | 1.00207.38 | C |
| ATOM | 11298 | CE1 | TYR | B | 306 | 20.721 | 35.502 | 97.477 | 1.00207.38 | C |
| ATOM | 11299 | CE2 | TYR | B | 306 | 21.155 | 33.425 | 96.347 | 1.00207.38 | C |
| ATOM | 11300 | CZ | TYR | B | 306 | 20.374 | 34.564 | 96.517 | 1.00207.38 | C |
| ATOM | 11301 | OH | TYR | B | 306 | 19.235 | 34.749 | 95.755 | 1.00207.38 | O |
| ATOM | 11302 | N | ALA | B | 307 | 21.588 | 32.275 | 99.512 | 1.00144.95 | N |
| ATOM | 11303 | CA | ALA | B | 307 | 20.152 | 31.969 | 99.542 | 1.00144.95 | C |
| ATOM | 11304 | C | ALA | B | 307 | 19.760 | 31.471 | 100.913 | 1.00144.95 | C |
| ATOM | 11305 | O | ALA | B | 307 | 18.771 | 31.917 | 101.494 | 1.00144.95 | O |
| ATOM | 11306 | CB | ALA | B | 307 | 19.825 | 30.921 | 98.488 | 1.00143.35 | C |
| ATOM | 11307 | N | LEU | B | 308 | 20.558 | 30.542 | 101.420 | 1.00 85.55 | N |
| ATOM | 11308 | CA | LEU | B | 308 | 20.346 | 29.969 | 102.734 | 1.00 85.55 | C |
| ATOM | 11309 | C | LEU | B | 308 | 20.142 | 31.089 | 103.736 | 1.00 85.55 | C |
| ATOM | 11310 | O | LEU | B | 308 | 19.028 | 31.587 | 103.887 | 1.00 85.55 | O |
| ATOM | 11311 | CB | LEU | B | 308 | 21.566 | 29.130 | 103.125 | 1.00200.09 | C |
| ATOM | 11312 | CG | LEU | B | 308 | 21.650 | 28.624 | 104.566 | 1.00200.09 | C |
| ATOM | 11313 | CD1 | LEU | B | 308 | 21.555 | 27.110 | 104.598 | 1.00200.09 | C |
| ATOM | 11314 | CD2 | LEU | B | 308 | 22.960 | 29.078 | 105.181 | 1.00200.09 | C |
| ATOM | 11315 | N | ALA | B | 309 | 21.209 | 31.503 | 104.411 | 1.00 71.26 | N |
| ATOM | 11316 | CA | ALA | B | 309 | 21.065 | 32.571 | 105.396 | 1.00 71.26 | C |
| ATOM | 11317 | C | ALA | B | 309 | 20.178 | 33.694 | 104.840 | 1.00 71.26 | C |
| ATOM | 11318 | O | ALA | B | 309 | 19.508 | 34.379 | 105.600 | 1.00 71.26 | O |
| ATOM | 11319 | CB | ALA | B | 309 | 22.438 | 33.126 | 105.765 | 1.00113.38 | C |
| ATOM | 11320 | N | PHE | B | 310 | 20.163 | 33.860 | 103.514 | 1.00 96.28 | N |
| ATOM | 11321 | CA | PHE | B | 310 | 19.357 | 34.888 | 102.829 | 1.00 96.28 | C |
| ATOM | 11322 | C | PHE | B | 310 | 17.959 | 34.706 | 103.369 | 1.00 96.28 | C |
| ATOM | 11323 | O | PHE | B | 310 | 17.569 | 35.307 | 104.369 | 1.00 96.28 | O |
| ATOM | 11324 | CB | PHE | B | 310 | 19.374 | 34.638 | 101.304 | 1.00146.46 | C |
| ATOM | 11325 | CG | PHE | B | 310 | 19.305 | 35.893 | 100.447 | 1.00146.46 | C |
| ATOM | 11326 | CD1 | PHE | B | 310 | 18.303 | 36.045 | 99.485 | 1.00146.46 | C |
| ATOM | 11327 | CD2 | PHE | B | 310 | 20.295 | 36.872 | 100.531 | 1.00146.46 | C |
| ATOM | 11328 | CE1 | PHE | B | 310 | 18.298 | 37.149 | 98.617 | 1.00146.46 | C |
| ATOM | 11329 | CE2 | PHE | B | 310 | 20.294 | 37.972 | 99.671 | 1.00146.46 | C |
| ATOM | 11330 | CZ | PHE | B | 310 | 19.296 | 38.107 | 98.713 | 1.00146.46 | C |
| ATOM | 11331 | N | TRP | B | 311 | 17.218 | 33.836 | 102.706 | 1.00120.69 | N |
| ATOM | 11332 | CA | TRP | B | 311 | 15.856 | 33.536 | 103.094 | 1.00120.69 | C |
| ATOM | 11333 | C | TRP | B | 311 | 15.663 | 33.130 | 104.559 | 1.00120.69 | C |
| ATOM | 11334 | O | TRP | B | 311 | 14.723 | 33.588 | 105.210 | 1.00120.69 | O |
| ATOM | 11335 | CB | TRP | B | 311 | 15.322 | 32.446 | 102.174 | 1.00176.20 | C |
| ATOM | 11336 | CG | TRP | B | 311 | 15.337 | 32.904 | 100.761 | 1.00176.20 | C |
| ATOM | 11337 | CD1 | TRP | B | 311 | 15.723 | 32.193 | 99.662 | 1.00176.20 | C |
| ATOM | 11338 | CD2 | TRP | B | 311 | 14.960 | 34.202 | 100.291 | 1.00176.20 | C |
| ATOM | 11339 | NE1 | TRP | B | 311 | 15.609 | 32.972 | 98.533 | 1.00176.20 | N |
| ATOM | 11340 | CE2 | TRP | B | 311 | 15.139 | 34.209 | 98.892 | 1.00176.20 | C |
| ATOM | 11341 | CE3 | TRP | B | 311 | 14.479 | 35.359 | 100.919 | 1.00176.20 | C |
| ATOM | 11342 | CZ2 | TRP | B | 311 | 14.864 | 35.339 | 98.106 | 1.00176.20 | C |
| ATOM | 11343 | CZ3 | TRP | B | 311 | 14.203 | 36.484 | 100.136 | 1.00176.20 | C |
| ATOM | 11344 | CH2 | TRP | B | 311 | 14.394 | 36.461 | 98.744 | 1.00176.20 | C |
| ATOM | 11345 | N | TYR | B | 312 | 16.528 | 32.264 | 105.076 | 1.00 94.77 | N |
| ATOM | 11346 | CA | TYR | B | 312 | 16.414 | 31.861 | 106.468 | 1.00 94.77 | C |
| ATOM | 11347 | C | TYR | B | 312 | 16.257 | 33.112 | 107.365 | 1.00 94.77 | C |
| ATOM | 11348 | O | TYR | B | 312 | 15.124 | 33.549 | 107.642 | 1.00 94.77 | O |
| ATOM | 11349 | CB | TYR | B | 312 | 17.663 | 31.083 | 106.871 | 1.00167.73 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 11350 | CG | TYR | B | 312 | 17.461 | 30.190 | 108.071 | 1.00167.73 | C |
| ATOM | 11351 | CD1 | TYR | B | 312 | 16.458 | 29.223 | 108.078 | 1.00167.73 | C |
| ATOM | 11352 | CD2 | TYR | B | 312 | 18.284 | 30.294 | 109.190 | 1.00167.73 | C |
| ATOM | 11353 | CE1 | TYR | B | 312 | 16.278 | 28.375 | 109.174 | 1.00167.73 | C |
| ATOM | 11354 | CE2 | TYR | B | 312 | 18.115 | 29.453 | 110.291 | 1.00167.73 | C |
| ATOM | 11355 | CZ | TYR | B | 312 | 17.110 | 28.494 | 110.277 | 1.00167.73 | C |
| ATOM | 11356 | OH | TYR | B | 312 | 16.945 | 27.651 | 111.356 | 1.00167.73 | O |
| ATOM | 11357 | N | GLY | B | 313 | 17.398 | 33.685 | 107.783 | 1.00119.89 | N |
| ATOM | 11358 | CA | GLY | B | 313 | 17.432 | 34.870 | 108.646 | 1.00119.89 | C |
| ATOM | 11359 | C | GLY | B | 313 | 16.379 | 35.878 | 108.265 | 1.00119.89 | C |
| ATOM | 11360 | O | GLY | B | 313 | 15.928 | 36.679 | 109.081 | 1.00119.89 | O |
| ATOM | 11361 | N | THR | B | 314 | 15.999 | 35.823 | 106.995 | 1.00 72.15 | N |
| ATOM | 11362 | CA | THR | B | 314 | 14.967 | 36.678 | 106.444 | 1.00 72.15 | C |
| ATOM | 11363 | C | THR | B | 314 | 13.650 | 36.247 | 107.024 | 1.00 72.15 | C |
| ATOM | 11364 | O | THR | B | 314 | 13.018 | 36.969 | 107.786 | 1.00 72.15 | O |
| ATOM | 11365 | CB | THR | B | 314 | 14.903 | 36.530 | 104.902 | 1.00207.38 | C |
| ATOM | 11366 | OG1 | THR | B | 314 | 15.816 | 37.447 | 104.289 | 1.00207.38 | O |
| ATOM | 11367 | CG2 | THR | B | 314 | 13.496 | 36.779 | 104.391 | 1.00207.38 | C |
| ATOM | 11368 | N | SER | B | 315 | 13.253 | 35.052 | 106.644 | 1.00109.63 | N |
| ATOM | 11369 | CA | SER | B | 315 | 12.028 | 34.490 | 107.100 | 1.00109.63 | C |
| ATOM | 11370 | C | SER | B | 315 | 11.866 | 34.686 | 108.588 | 1.00109.63 | C |
| ATOM | 11371 | O | SER | B | 315 | 10.868 | 35.253 | 109.023 | 1.00109.63 | O |
| ATOM | 11372 | CB | SER | B | 315 | 12.003 | 33.008 | 106.719 | 1.00111.67 | C |
| ATOM | 11373 | OG | SER | B | 315 | 12.455 | 32.821 | 105.384 | 1.00111.67 | O |
| ATOM | 11374 | N | LEU | B | 316 | 12.830 | 34.245 | 109.388 | 1.00 98.88 | N |
| ATOM | 11375 | CA | LEU | B | 316 | 12.680 | 34.427 | 110.827 | 1.00 98.88 | C |
| ATOM | 11376 | C | LEU | B | 316 | 12.393 | 35.905 | 111.120 | 1.00 98.88 | C |
| ATOM | 11377 | O | LEU | B | 316 | 11.376 | 36.246 | 111.766 | 1.00 98.88 | O |
| ATOM | 11378 | CB | LEU | B | 316 | 13.947 | 33.954 | 111.550 | 1.00200.33 | C |
| ATOM | 11379 | CG | LEU | B | 316 | 13.790 | 33.502 | 113.008 | 1.00200.33 | C |
| ATOM | 11380 | CD1 | LEU | B | 316 | 14.676 | 32.289 | 113.266 | 1.00200.33 | C |
| ATOM | 11381 | CD2 | LEU | B | 316 | 14.126 | 34.645 | 113.955 | 1.00200.33 | C |
| ATOM | 11382 | N | VAL | B | 317 | 13.248 | 36.790 | 110.606 | 1.00120.85 | N |
| ATOM | 11383 | CA | VAL | B | 317 | 13.049 | 38.214 | 110.851 | 1.00120.85 | C |
| ATOM | 11384 | C | VAL | B | 317 | 11.908 | 38.803 | 110.046 | 1.00120.85 | C |
| ATOM | 11385 | O | VAL | B | 317 | 11.868 | 40.000 | 109.819 | 1.00120.85 | O |
| ATOM | 11386 | CB | VAL | B | 317 | 14.315 | 39.038 | 110.535 | 1.00 97.83 | C |
| ATOM | 11387 | CG1 | VAL | B | 317 | 14.179 | 40.440 | 111.126 | 1.00 97.83 | C |
| ATOM | 11388 | CG2 | VAL | B | 317 | 15.545 | 38.340 | 111.080 | 1.00 97.83 | C |
| ATOM | 11389 | N | ILE | B | 318 | 10.980 | 37.966 | 109.608 | 1.00110.26 | N |
| ATOM | 11390 | CA | ILE | B | 318 | 9.848 | 38.454 | 108.838 | 1.00110.26 | C |
| ATOM | 11391 | C | ILE | B | 318 | 8.571 | 37.863 | 109.392 | 1.00110.26 | C |
| ATOM | 11392 | O | ILE | B | 318 | 7.486 | 38.195 | 108.940 | 1.00110.26 | O |
| ATOM | 11393 | CB | ILE | B | 318 | 9.969 | 38.082 | 107.335 | 1.00106.94 | C |
| ATOM | 11394 | CG1 | ILE | B | 318 | 9.113 | 39.027 | 106.479 | 1.00106.94 | C |
| ATOM | 11395 | CG2 | ILE | B | 318 | 9.518 | 36.639 | 107.115 | 1.00106.94 | C |
| ATOM | 11396 | CD1 | ILE | B | 318 | 7.615 | 38.776 | 106.558 | 1.00106.94 | C |
| ATOM | 11397 | N | SER | B | 319 | 8.697 | 36.952 | 110.349 | 1.00120.29 | N |
| ATOM | 11398 | CA | SER | B | 319 | 7.511 | 36.364 | 110.970 | 1.00120.29 | C |
| ATOM | 11399 | C | SER | B | 319 | 7.457 | 36.974 | 112.359 | 1.00120.29 | C |
| ATOM | 11400 | O | SER | B | 319 | 6.399 | 37.108 | 112.967 | 1.00120.29 | O |
| ATOM | 11401 | CB | SER | B | 319 | 7.636 | 34.845 | 111.064 | 1.00146.17 | C |
| ATOM | 11402 | OG | SER | B | 319 | 7.372 | 34.243 | 109.810 | 1.00146.17 | O |
| ATOM | 11403 | N | LYS | B | 320 | 8.618 | 37.351 | 112.865 | 1.00 78.02 | N |
| ATOM | 11404 | CA | LYS | B | 320 | 8.619 | 37.973 | 114.160 | 1.00 78.02 | C |
| ATOM | 11405 | C | LYS | B | 320 | 8.576 | 39.466 | 113.893 | 1.00 78.02 | C |
| ATOM | 11406 | O | LYS | B | 320 | 7.517 | 40.024 | 113.562 | 1.00 78.02 | O |
| ATOM | 11407 | CB | LYS | B | 320 | 9.892 | 37.601 | 114.930 | 1.00126.59 | C |
| ATOM | 11408 | CG | LYS | B | 320 | 10.091 | 36.100 | 115.156 | 1.00126.59 | C |
| ATOM | 11409 | CD | LYS | B | 320 | 11.377 | 35.797 | 115.916 | 1.00126.59 | C |
| ATOM | 11410 | CE | LYS | B | 320 | 11.543 | 34.299 | 116.115 | 1.00126.59 | C |
| ATOM | 11411 | NZ | LYS | B | 320 | 12.758 | 33.955 | 116.904 | 1.00126.59 | N |
| ATOM | 11412 | N | GLU | B | 321 | 9.739 | 40.104 | 114.023 | 1.00177.05 | N |
| ATOM | 11413 | CA | GLU | B | 321 | 9.882 | 41.539 | 113.808 | 1.00177.05 | C |
| ATOM | 11414 | C | GLU | B | 321 | 10.066 | 41.797 | 112.333 | 1.00177.05 | C |
| ATOM | 11415 | O | GLU | B | 321 | 10.107 | 40.852 | 111.551 | 1.00177.05 | O |
| ATOM | 11416 | CB | GLU | B | 321 | 11.080 | 42.088 | 114.593 | 1.00145.17 | C |
| ATOM | 11417 | CG | GLU | B | 321 | 12.437 | 41.781 | 113.980 | 1.00145.17 | C |
| ATOM | 11418 | CD | GLU | B | 321 | 13.584 | 42.337 | 114.798 | 1.00145.17 | C |
| ATOM | 11419 | OE1 | GLU | B | 321 | 13.831 | 41.809 | 115.902 | 1.00145.17 | O |
| ATOM | 11420 | OE2 | GLU | B | 321 | 14.231 | 43.304 | 114.338 | 1.00145.17 | O |
| ATOM | 11421 | N | TYR | B | 322 | 10.214 | 43.071 | 111.968 | 1.00153.06 | N |
| ATOM | 11422 | CA | TYR | B | 322 | 10.356 | 43.497 | 110.570 | 1.00153.06 | C |
| ATOM | 11423 | C | TYR | B | 322 | 9.636 | 42.494 | 109.678 | 1.00153.06 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 11424 | O | TYR | B | 322 | 10.122 | 42.098 | 108.622 | 1.00153.06 | O |
| ATOM | 11425 | CB | TYR | B | 322 | 11.826 | 43.631 | 110.147 | 1.00154.46 | C |
| ATOM | 11426 | CG | TYR | B | 322 | 12.002 | 44.339 | 108.810 | 1.00154.46 | C |
| ATOM | 11427 | CD1 | TYR | B | 322 | 11.558 | 45.653 | 108.623 | 1.00154.46 | C |
| ATOM | 11428 | CD2 | TYR | B | 322 | 12.592 | 43.689 | 107.728 | 1.00154.46 | C |
| ATOM | 11429 | CE1 | TYR | B | 322 | 11.697 | 46.297 | 107.389 | 1.00154.46 | C |
| ATOM | 11430 | CE2 | TYR | B | 322 | 12.737 | 44.325 | 106.491 | 1.00154.46 | C |
| ATOM | 11431 | CZ | TYR | B | 322 | 12.285 | 45.627 | 106.330 | 1.00154.46 | C |
| ATOM | 11432 | OH | TYR | B | 322 | 12.403 | 46.255 | 105.110 | 1.00154.46 | O |
| ATOM | 11433 | N | SER | B | 323 | 8.464 | 42.078 | 110.140 | 1.00207.38 | N |
| ATOM | 11434 | CA | SER | B | 323 | 7.635 | 41.126 | 109.417 | 1.00207.38 | C |
| ATOM | 11435 | C | SER | B | 323 | 7.045 | 41.788 | 108.156 | 1.00207.38 | C |
| ATOM | 11436 | O | SER | B | 323 | 5.973 | 42.396 | 108.245 | 1.00207.38 | O |
| ATOM | 11437 | CB | SER | B | 323 | 6.495 | 40.623 | 110.307 | 1.00153.63 | C |
| ATOM | 11438 | OG | SER | B | 323 | 6.998 | 40.042 | 111.493 | 1.00153.63 | O |
| ATOM | 11439 | N | ILE | B | 324 | 7.718 | 41.672 | 106.999 | 1.00172.60 | N |
| ATOM | 11440 | CA | ILE | B | 324 | 7.229 | 42.288 | 105.740 | 1.00172.60 | C |
| ATOM | 11441 | C | ILE | B | 324 | 7.215 | 41.456 | 104.450 | 1.00172.60 | C |
| ATOM | 11442 | O | ILE | B | 324 | 6.540 | 41.825 | 103.487 | 1.00172.60 | O |
| ATOM | 11443 | CB | ILE | B | 324 | 8.004 | 43.589 | 105.401 | 1.00141.94 | C |
| ATOM | 11444 | CG1 | ILE | B | 324 | 9.408 | 43.540 | 106.009 | 1.00141.94 | C |
| ATOM | 11445 | CG2 | ILE | B | 324 | 7.213 | 44.799 | 105.858 | 1.00141.94 | C |
| ATOM | 11446 | CD1 | ILE | B | 324 | 10.232 | 42.349 | 105.557 | 1.00141.94 | C |
| ATOM | 11447 | N | GLY | B | 325 | 7.950 | 40.353 | 104.410 | 1.00 76.01 | N |
| ATOM | 11448 | CA | GLY | B | 325 | 7.984 | 39.574 | 103.189 | 1.00 76.01 | C |
| ATOM | 11449 | C | GLY | B | 325 | 8.534 | 40.568 | 102.196 | 1.00 76.01 | C |
| ATOM | 11450 | O | GLY | B | 325 | 8.260 | 40.499 | 101.001 | 1.00 76.01 | O |
| ATOM | 11451 | N | GLN | B | 326 | 9.296 | 41.523 | 102.745 | 1.00 94.50 | N |
| ATOM | 11452 | CA | GLN | B | 326 | 9.955 | 42.606 | 102.004 | 1.00 94.50 | C |
| ATOM | 11453 | C | GLN | B | 326 | 11.435 | 42.772 | 102.308 | 1.00 94.50 | C |
| ATOM | 11454 | O | GLN | B | 326 | 12.024 | 43.799 | 101.993 | 1.00 94.50 | O |
| ATOM | 11455 | CB | GLN | B | 326 | 9.252 | 43.932 | 102.271 | 1.00166.40 | C |
| ATOM | 11456 | CG | GLN | B | 326 | 9.143 | 44.718 | 101.007 | 1.00166.40 | C |
| ATOM | 11457 | CD | GLN | B | 326 | 8.677 | 43.810 | 99.896 | 1.00166.40 | C |
| ATOM | 11458 | OE1 | GLN | B | 326 | 7.570 | 43.278 | 99.953 | 1.00166.40 | O |
| ATOM | 11459 | NE2 | GLN | B | 326 | 9.529 | 43.593 | 98.899 | 1.00166.40 | N |
| ATOM | 11460 | N | VAL | B | 327 | 12.007 | 41.770 | 102.970 | 1.00153.41 | N |
| ATOM | 11461 | CA | VAL | B | 327 | 13.432 | 41.743 | 103.285 | 1.00153.41 | C |
| ATOM | 11462 | C | VAL | B | 327 | 13.911 | 41.486 | 101.888 | 1.00153.41 | C |
| ATOM | 11463 | O | VAL | B | 327 | 15.060 | 41.715 | 101.535 | 1.00153.41 | O |
| ATOM | 11464 | CB | VAL | B | 327 | 13.814 | 40.522 | 104.149 | 1.00125.89 | C |
| ATOM | 11465 | CG1 | VAL | B | 327 | 14.365 | 40.980 | 105.477 | 1.00125.89 | C |
| ATOM | 11466 | CG2 | VAL | B | 327 | 12.600 | 39.614 | 104.346 | 1.00125.89 | C |
| ATOM | 11467 | N | LEU | B | 328 | 12.976 | 40.970 | 101.106 | 1.00146.81 | N |
| ATOM | 11468 | CA | LEU | B | 328 | 13.206 | 40.687 | 99.719 | 1.00146.81 | C |
| ATOM | 11469 | C | LEU | B | 328 | 14.015 | 41.873 | 99.210 | 1.00146.81 | C |
| ATOM | 11470 | O | LEU | B | 328 | 15.248 | 41.829 | 99.164 | 1.00146.81 | O |
| ATOM | 11471 | CB | LEU | B | 328 | 11.866 | 40.614 | 98.987 | 1.00 60.54 | C |
| ATOM | 11472 | CG | LEU | B | 328 | 11.844 | 40.179 | 97.523 | 1.00 60.54 | C |
| ATOM | 11473 | CD1 | LEU | B | 328 | 12.345 | 38.744 | 97.415 | 1.00 60.54 | C |
| ATOM | 11474 | CD2 | LEU | B | 328 | 10.426 | 40.300 | 96.976 | 1.00 60.54 | C |
| ATOM | 11475 | N | THR | B | 329 | 13.312 | 42.945 | 98.868 | 1.00135.08 | N |
| ATOM | 11476 | CA | THR | B | 329 | 13.955 | 44.141 | 98.352 | 1.00135.08 | C |
| ATOM | 11477 | C | THR | B | 329 | 15.372 | 44.288 | 98.802 | 1.00135.08 | C |
| ATOM | 11478 | O | THR | B | 329 | 16.281 | 44.358 | 98.000 | 1.00135.08 | O |
| ATOM | 11479 | CB | THR | B | 329 | 13.214 | 45.428 | 98.780 | 1.00 81.43 | C |
| ATOM | 11480 | OG1 | THR | B | 329 | 11.889 | 45.443 | 98.228 | 1.00 81.43 | O |
| ATOM | 11481 | CG2 | THR | B | 329 | 13.997 | 46.660 | 98.325 | 1.00 81.43 | C |
| ATOM | 11482 | N | VAL | B | 330 | 15.562 | 44.346 | 100.101 | 1.00105.75 | N |
| ATOM | 11483 | CA | VAL | B | 330 | 16.892 | 44.524 | 100.627 | 1.00105.75 | C |
| ATOM | 11484 | C | VAL | B | 330 | 17.888 | 43.463 | 100.182 | 1.00105.75 | C |
| ATOM | 11485 | O | VAL | B | 330 | 18.624 | 43.644 | 99.209 | 1.00105.75 | O |
| ATOM | 11486 | CB | VAL | B | 330 | 16.855 | 44.548 | 102.169 | 1.00 85.88 | C |
| ATOM | 11487 | CG1 | VAL | B | 330 | 17.639 | 45.727 | 102.696 | 1.00 85.88 | C |
| ATOM | 11488 | CG2 | VAL | B | 330 | 15.404 | 44.613 | 102.650 | 1.00 85.88 | C |
| ATOM | 11489 | N | PHE | B | 331 | 17.913 | 42.351 | 100.898 | 1.00 99.54 | N |
| ATOM | 11490 | CA | PHE | B | 331 | 18.853 | 41.283 | 100.596 | 1.00 99.54 | C |
| ATOM | 11491 | C | PHE | B | 331 | 19.006 | 41.128 | 99.075 | 1.00 99.54 | C |
| ATOM | 11492 | O | PHE | B | 331 | 20.075 | 41.363 | 98.521 | 1.00 99.54 | O |
| ATOM | 11493 | CB | PHE | B | 331 | 18.416 | 39.988 | 101.294 | 1.00141.38 | C |
| ATOM | 11494 | CG | PHE | B | 331 | 18.451 | 40.067 | 102.824 | 1.00141.38 | C |
| ATOM | 11495 | CD1 | PHE | B | 331 | 17.479 | 40.782 | 103.533 | 1.00141.38 | C |
| ATOM | 11496 | CD2 | PHE | B | 331 | 19.459 | 39.421 | 103.552 | 1.00141.38 | C |
| ATOM | 11497 | CE1 | PHE | B | 331 | 17.513 | 40.847 | 104.941 | 1.00141.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 11498 | CE2 | PHE | B | 331 | 19.503 | 39.480 | 104.957 | 1.00141.38 | C |
| ATOM | 11499 | CZ | PHE | B | 331 | 18.528 | 40.194 | 105.651 | 1.00141.38 | C |
| ATOM | 11500 | N | PHE | B | 332 | 17.934 | 40.766 | 98.404 | 1.00 98.29 | N |
| ATOM | 11501 | CA | PHE | B | 332 | 17.936 | 40.646 | 96.961 | 1.00 98.29 | C |
| ATOM | 11502 | C | PHE | B | 332 | 18.773 | 41.760 | 96.308 | 1.00 98.29 | C |
| ATOM | 11503 | O | PHE | B | 332 | 19.623 | 41.518 | 95.438 | 1.00 98.29 | O |
| ATOM | 11504 | CB | PHE | B | 332 | 16.483 | 40.784 | 96.521 | 1.00113.10 | C |
| ATOM | 11505 | CG | PHE | B | 332 | 16.232 | 40.413 | 95.114 | 1.00113.10 | C |
| ATOM | 11506 | CD1 | PHE | B | 332 | 15.582 | 41.295 | 94.264 | 1.00113.10 | C |
| ATOM | 11507 | CD2 | PHE | B | 332 | 16.598 | 39.164 | 94.645 | 1.00113.10 | C |
| ATOM | 11508 | CE1 | PHE | B | 332 | 15.299 | 40.932 | 92.961 | 1.00113.10 | C |
| ATOM | 11509 | CE2 | PHE | B | 332 | 16.323 | 38.785 | 93.348 | 1.00113.10 | C |
| ATOM | 11510 | CZ | PHE | B | 332 | 15.671 | 39.667 | 92.499 | 1.00113.10 | C |
| ATOM | 11511 | N | SER | B | 333 | 18.522 | 42.994 | 96.733 | 1.00102.17 | N |
| ATOM | 11512 | CA | SER | B | 333 | 19.218 | 44.168 | 96.209 | 1.00102.17 | C |
| ATOM | 11513 | C | SER | B | 333 | 20.697 | 44.171 | 96.516 | 1.00102.17 | C |
| ATOM | 11514 | O | SER | B | 333 | 21.499 | 44.477 | 95.635 | 1.00102.17 | O |
| ATOM | 11515 | CB | SER | B | 333 | 18.583 | 45.442 | 96.759 | 1.00 93.86 | C |
| ATOM | 11516 | OG | SER | B | 333 | 19.244 | 46.592 | 96.270 | 1.00 93.86 | O |
| ATOM | 11517 | N | VAL | B | 334 | 21.082 | 43.849 | 97.747 | 1.00120.33 | N |
| ATOM | 11518 | CA | VAL | B | 334 | 22.508 | 43.850 | 98.037 | 1.00120.33 | C |
| ATOM | 11519 | C | VAL | B | 334 | 23.168 | 42.920 | 97.034 | 1.00120.33 | C |
| ATOM | 11520 | O | VAL | B | 334 | 24.290 | 43.189 | 96.564 | 1.00120.33 | O |
| ATOM | 11521 | CB | VAL | B | 334 | 22.836 | 43.336 | 99.451 | 1.00118.20 | C |
| ATOM | 11522 | CG1 | VAL | B | 334 | 22.565 | 41.842 | 99.560 | 1.00118.20 | C |
| ATOM | 11523 | CG2 | VAL | B | 334 | 24.300 | 43.622 | 99.762 | 1.00118.20 | C |
| ATOM | 11524 | N | LEU | B | 335 | 22.466 | 41.829 | 96.713 | 1.00111.85 | N |
| ATOM | 11525 | CA | LEU | B | 335 | 22.946 | 40.839 | 95.745 | 1.00111.85 | C |
| ATOM | 11526 | C | LEU | B | 335 | 23.258 | 41.561 | 94.432 | 1.00111.85 | C |
| ATOM | 11527 | O | LEU | B | 335 | 24.285 | 41.286 | 93.755 | 1.00111.85 | O |
| ATOM | 11528 | CB | LEU | B | 335 | 21.886 | 39.763 | 95.519 | 1.00207.38 | C |
| ATOM | 11529 | CG | LEU | B | 335 | 22.277 | 38.654 | 94.543 | 1.00207.38 | C |
| ATOM | 11530 | CD1 | LEU | B | 335 | 21.896 | 37.306 | 95.123 | 1.00207.38 | C |
| ATOM | 11531 | CD2 | LEU | B | 335 | 21.600 | 38.886 | 93.205 | 1.00207.38 | C |
| ATOM | 11532 | N | ILE | B | 336 | 22.362 | 42.484 | 94.076 | 1.00107.53 | N |
| ATOM | 11533 | CA | ILE | B | 336 | 22.577 | 43.318 | 92.894 | 1.00107.53 | C |
| ATOM | 11534 | C | ILE | B | 336 | 23.931 | 44.001 | 93.026 | 1.00107.53 | C |
| ATOM | 11535 | O | ILE | B | 336 | 24.685 | 44.111 | 92.049 | 1.00107.53 | O |
| ATOM | 11536 | CB | ILE | B | 336 | 21.488 | 44.403 | 92.755 | 1.00 99.58 | C |
| ATOM | 11537 | CG1 | ILE | B | 336 | 20.153 | 43.749 | 92.401 | 1.00 99.58 | C |
| ATOM | 11538 | CG2 | ILE | B | 336 | 21.915 | 45.443 | 91.727 | 1.00 99.58 | C |
| ATOM | 11539 | CD1 | ILE | B | 336 | 20.236 | 42.830 | 91.218 | 1.00 99.58 | C |
| ATOM | 11540 | N | GLY | B | 337 | 24.225 | 44.480 | 94.235 | 1.00 85.61 | N |
| ATOM | 11541 | CA | GLY | B | 337 | 25.522 | 45.091 | 94.506 | 1.00 85.61 | C |
| ATOM | 11542 | C | GLY | B | 337 | 26.696 | 44.179 | 94.101 | 1.00 85.61 | C |
| ATOM | 11543 | O | GLY | B | 337 | 27.578 | 44.574 | 93.325 | 1.00 85.61 | O |
| ATOM | 11544 | N | ALA | B | 338 | 26.733 | 42.952 | 94.614 | 1.00 96.40 | N |
| ATOM | 11545 | CA | ALA | B | 338 | 27.820 | 42.039 | 94.228 | 1.00 96.40 | C |
| ATOM | 11546 | C | ALA | B | 338 | 27.986 | 42.049 | 92.706 | 1.00 96.40 | C |
| ATOM | 11547 | O | ALA | B | 338 | 28.995 | 42.551 | 92.157 | 1.00 96.40 | O |
| ATOM | 11548 | CB | ALA | B | 338 | 27.508 | 40.643 | 94.718 | 1.00 91.23 | C |
| ATOM | 11549 | N | PHE | B | 339 | 26.991 | 41.507 | 92.013 | 1.00118.32 | N |
| ATOM | 11550 | CA | PHE | B | 339 | 27.090 | 41.470 | 90.555 | 1.00118.32 | C |
| ATOM | 11551 | C | PHE | B | 339 | 27.757 | 42.722 | 89.951 | 1.00118.32 | C |
| ATOM | 11552 | O | PHE | B | 339 | 28.696 | 42.625 | 89.117 | 1.00118.32 | O |
| ATOM | 11553 | CB | PHE | B | 339 | 25.702 | 41.256 | 89.944 | 1.00191.79 | C |
| ATOM | 11554 | CG | PHE | B | 339 | 25.140 | 39.878 | 90.186 | 1.00191.79 | C |
| ATOM | 11555 | CD1 | PHE | B | 339 | 23.922 | 39.502 | 89.634 | 1.00191.79 | C |
| ATOM | 11556 | CD2 | PHE | B | 339 | 25.839 | 38.950 | 90.960 | 1.00191.79 | C |
| ATOM | 11557 | CE1 | PHE | B | 339 | 23.409 | 38.221 | 89.849 | 1.00191.79 | C |
| ATOM | 11558 | CE2 | PHE | B | 339 | 25.334 | 37.671 | 91.179 | 1.00191.79 | C |
| ATOM | 11559 | CZ | PHE | B | 339 | 24.119 | 37.306 | 90.622 | 1.00191.79 | C |
| ATOM | 11560 | N | SER | B | 340 | 27.300 | 43.898 | 90.382 | 1.00137.10 | N |
| ATOM | 11561 | CA | SER | B | 340 | 27.881 | 45.143 | 89.871 | 1.00137.10 | C |
| ATOM | 11562 | C | SER | B | 340 | 29.385 | 45.350 | 90.171 | 1.00137.10 | C |
| ATOM | 11563 | O | SER | B | 340 | 30.092 | 45.948 | 89.358 | 1.00137.10 | O |
| ATOM | 11564 | CB | SER | B | 340 | 27.068 | 46.349 | 90.362 | 1.00198.78 | C |
| ATOM | 11565 | OG | SER | B | 340 | 26.621 | 46.174 | 91.693 | 1.00198.78 | O |
| ATOM | 11566 | N | VAL | B | 341 | 29.886 | 44.878 | 91.314 | 1.00 91.46 | N |
| ATOM | 11567 | CA | VAL | B | 341 | 31.324 | 45.036 | 91.577 | 1.00 91.46 | C |
| ATOM | 11568 | C | VAL | B | 341 | 32.000 | 44.255 | 90.481 | 1.00 91.46 | C |
| ATOM | 11569 | O | VAL | B | 341 | 33.112 | 44.590 | 90.063 | 1.00 91.46 | O |
| ATOM | 11570 | CB | VAL | B | 341 | 31.771 | 44.420 | 92.919 | 1.00 71.87 | C |
| ATOM | 11571 | CG1 | VAL | B | 341 | 33.279 | 44.563 | 93.069 | 1.00 71.87 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 11572 | CG2 | VAL | B | 341 | 31.051 | 45.094 | 94.082 | 1.00 | 71.87 | C |
| ATOM | 11573 | N | GLY | B | 342 | 31.325 | 43.197 | 90.027 | 1.00 | 150.46 | N |
| ATOM | 11574 | CA | GLY | B | 342 | 31.889 | 42.378 | 88.960 | 1.00 | 150.46 | C |
| ATOM | 11575 | C | GLY | B | 342 | 32.109 | 43.160 | 87.674 | 1.00 | 150.46 | C |
| ATOM | 11576 | O | GLY | B | 342 | 33.257 | 43.344 | 87.190 | 1.00 | 150.46 | O |
| ATOM | 11577 | N | GLN | B | 343 | 31.003 | 43.633 | 87.107 | 1.00 | 130.05 | N |
| ATOM | 11578 | CA | GLN | B | 343 | 31.102 | 44.421 | 85.872 | 1.00 | 130.05 | C |
| ATOM | 11579 | C | GLN | B | 343 | 32.123 | 45.568 | 86.025 | 1.00 | 130.05 | C |
| ATOM | 11580 | O | GLN | B | 343 | 32.905 | 45.889 | 85.092 | 1.00 | 130.05 | O |
| ATOM | 11581 | CB | GLN | B | 343 | 29.724 | 44.974 | 85.497 | 1.00 | 186.58 | C |
| ATOM | 11582 | CG | GLN | B | 343 | 28.628 | 43.921 | 85.507 | 1.00 | 186.58 | C |
| ATOM | 11583 | CD | GLN | B | 343 | 29.025 | 42.670 | 84.752 | 1.00 | 186.58 | C |
| ATOM | 11584 | OE1 | GLN | B | 343 | 30.030 | 42.033 | 85.070 | 1.00 | 186.58 | O |
| ATOM | 11585 | NE2 | GLN | B | 343 | 28.237 | 42.309 | 83.745 | 1.00 | 186.58 | N |
| ATOM | 11586 | N | ALA | B | 344 | 32.119 | 46.172 | 87.214 | 1.00 | 86.95 | N |
| ATOM | 11587 | CA | ALA | B | 344 | 33.030 | 47.266 | 87.551 | 1.00 | 86.95 | C |
| ATOM | 11588 | C | ALA | B | 344 | 34.466 | 46.830 | 87.325 | 1.00 | 86.95 | C |
| ATOM | 11589 | O | ALA | B | 344 | 35.252 | 47.595 | 86.790 | 1.00 | 86.95 | O |
| ATOM | 11590 | CB | ALA | B | 344 | 32.830 | 47.684 | 89.004 | 1.00 | 182.06 | C |
| ATOM | 11591 | N | SER | B | 345 | 34.800 | 45.602 | 87.730 | 1.00 | 131.72 | N |
| ATOM | 11592 | CA | SER | B | 345 | 36.152 | 45.049 | 87.533 | 1.00 | 131.72 | C |
| ATOM | 11593 | C | SER | B | 345 | 36.597 | 44.934 | 86.045 | 1.00 | 131.72 | C |
| ATOM | 11594 | O | SER | B | 345 | 37.699 | 45.403 | 85.687 | 1.00 | 131.72 | O |
| ATOM | 11595 | CB | SER | B | 345 | 36.256 | 43.673 | 88.196 | 1.00 | 207.38 | C |
| ATOM | 11596 | OG | SER | B | 345 | 37.569 | 43.153 | 88.075 | 1.00 | 207.38 | O |
| ATOM | 11597 | N | PRO | B | 346 | 35.794 | 44.260 | 85.174 | 1.00 | 119.36 | N |
| ATOM | 11598 | CA | PRO | B | 346 | 36.399 | 44.295 | 83.829 | 1.00 | 119.36 | C |
| ATOM | 11599 | C | PRO | B | 346 | 36.619 | 45.700 | 83.294 | 1.00 | 119.36 | C |
| ATOM | 11600 | O | PRO | B | 346 | 37.675 | 45.981 | 82.729 | 1.00 | 119.36 | O |
| ATOM | 11601 | CB | PRO | B | 346 | 35.400 | 43.499 | 83.003 | 1.00 | 137.28 | C |
| ATOM | 11602 | CG | PRO | B | 346 | 35.023 | 42.410 | 83.973 | 1.00 | 137.28 | C |
| ATOM | 11603 | CD | PRO | B | 346 | 34.817 | 43.162 | 85.282 | 1.00 | 137.28 | C |
| ATOM | 11604 | N | ASN | B | 347 | 35.628 | 46.579 | 83.470 | 1.00 | 106.14 | N |
| ATOM | 11605 | CA | ASN | B | 347 | 35.769 | 47.967 | 82.992 | 1.00 | 106.14 | C |
| ATOM | 11606 | C | ASN | B | 347 | 37.069 | 48.622 | 83.485 | 1.00 | 106.14 | C |
| ATOM | 11607 | O | ASN | B | 347 | 37.763 | 49.313 | 82.725 | 1.00 | 106.14 | O |
| ATOM | 11608 | CB | ASN | B | 347 | 34.574 | 48.795 | 83.455 | 1.00 | 96.55 | C |
| ATOM | 11609 | CG | ASN | B | 347 | 33.338 | 48.578 | 82.600 | 1.00 | 96.55 | C |
| ATOM | 11610 | OD1 | ASN | B | 347 | 32.212 | 48.640 | 83.096 | 1.00 | 96.55 | O |
| ATOM | 11611 | ND2 | ASN | B | 347 | 33.540 | 48.352 | 81.307 | 1.00 | 96.55 | N |
| ATOM | 11612 | N | ILE | B | 348 | 37.393 | 48.408 | 84.762 | 1.00 | 112.14 | N |
| ATOM | 11613 | CA | ILE | B | 348 | 38.605 | 48.978 | 85.356 | 1.00 | 112.14 | C |
| ATOM | 11614 | C | ILE | B | 348 | 39.788 | 48.427 | 84.639 | 1.00 | 112.14 | C |
| ATOM | 11615 | O | ILE | B | 348 | 40.700 | 49.173 | 84.291 | 1.00 | 112.14 | O |
| ATOM | 11616 | CB | ILE | B | 348 | 38.772 | 48.600 | 86.849 | 1.00 | 115.83 | C |
| ATOM | 11617 | CG1 | ILE | B | 348 | 37.833 | 49.441 | 87.714 | 1.00 | 115.83 | C |
| ATOM | 11618 | CG2 | ILE | B | 348 | 40.233 | 48.803 | 87.282 | 1.00 | 115.83 | C |
| ATOM | 11619 | CD1 | ILE | B | 348 | 38.208 | 50.911 | 87.770 | 1.00 | 115.83 | C |
| ATOM | 11620 | N | GLU | B | 349 | 39.781 | 47.109 | 84.453 | 1.00 | 102.53 | N |
| ATOM | 11621 | CA | GLU | B | 349 | 40.867 | 46.472 | 83.739 | 1.00 | 102.53 | C |
| ATOM | 11622 | C | GLU | B | 349 | 41.133 | 47.263 | 82.460 | 1.00 | 102.53 | C |
| ATOM | 11623 | O | GLU | B | 349 | 42.229 | 47.779 | 82.253 | 1.00 | 102.53 | O |
| ATOM | 11624 | CB | GLU | B | 349 | 40.540 | 45.027 | 83.376 | 1.00 | 207.38 | C |
| ATOM | 11625 | CG | GLU | B | 349 | 41.523 | 44.455 | 82.371 | 1.00 | 207.38 | C |
| ATOM | 11626 | CD | GLU | B | 349 | 41.463 | 42.951 | 82.281 | 1.00 | 207.38 | C |
| ATOM | 11627 | OE1 | GLU | B | 349 | 40.359 | 42.403 | 82.079 | 1.00 | 207.38 | O |
| ATOM | 11628 | OE2 | GLU | B | 349 | 42.529 | 42.318 | 82.413 | 1.00 | 207.38 | O |
| ATOM | 11629 | N | ALA | B | 350 | 40.121 | 47.362 | 81.606 | 1.00 | 102.43 | N |
| ATOM | 11630 | CA | ALA | B | 350 | 40.248 | 48.115 | 80.360 | 1.00 | 102.43 | C |
| ATOM | 11631 | C | ALA | B | 350 | 40.980 | 49.433 | 80.594 | 1.00 | 102.43 | C |
| ATOM | 11632 | O | ALA | B | 350 | 41.981 | 49.712 | 79.938 | 1.00 | 102.43 | O |
| ATOM | 11633 | CB | ALA | B | 350 | 38.866 | 48.380 | 79.770 | 1.00 | 98.51 | C |
| ATOM | 11634 | N | PHE | B | 351 | 40.481 | 50.241 | 81.528 | 1.00 | 89.31 | N |
| ATOM | 11635 | CA | PHE | B | 351 | 41.128 | 51.516 | 81.826 | 1.00 | 89.31 | C |
| ATOM | 11636 | C | PHE | B | 351 | 42.632 | 51.311 | 82.006 | 1.00 | 89.31 | C |
| ATOM | 11637 | O | PHE | B | 351 | 43.416 | 51.770 | 81.188 | 1.00 | 89.31 | O |
| ATOM | 11638 | CB | PHE | B | 351 | 40.549 | 52.131 | 83.107 | 1.00 | 72.13 | C |
| ATOM | 11639 | CG | PHE | B | 351 | 41.128 | 53.493 | 83.459 | 1.00 | 72.13 | C |
| ATOM | 11640 | CD1 | PHE | B | 351 | 42.438 | 53.835 | 83.110 | 1.00 | 72.13 | C |
| ATOM | 11641 | CD2 | PHE | B | 351 | 40.371 | 54.416 | 84.180 | 1.00 | 72.13 | C |
| ATOM | 11642 | CE1 | PHE | B | 351 | 42.980 | 55.072 | 83.475 | 1.00 | 72.13 | C |
| ATOM | 11643 | CE2 | PHE | B | 351 | 40.905 | 55.660 | 84.554 | 1.00 | 72.13 | C |
| ATOM | 11644 | CZ | PHE | B | 351 | 42.208 | 55.988 | 84.202 | 1.00 | 72.13 | C |
| ATOM | 11645 | N | ALA | B | 352 | 43.033 | 50.635 | 83.082 | 1.00 | 127.72 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11646 | CA | ALA | B | 352 | 44.453 | 50.406 | 83.376 | 1.00127.72 | C |
| ATOM | 11647 | C | ALA | B | 352 | 45.289 | 49.982 | 82.174 | 1.00127.72 | C |
| ATOM | 11648 | O | ALA | B | 352 | 46.376 | 50.504 | 81.964 | 1.00127.72 | O |
| ATOM | 11649 | CB | ALA | B | 352 | 44.581 | 49.368 | 84.489 | 1.00123.76 | C |
| ATOM | 11650 | N | ASN | B | 353 | 44.790 | 49.035 | 81.388 | 1.00 88.80 | N |
| ATOM | 11651 | CA | ASN | B | 353 | 45.518 | 48.573 | 80.215 | 1.00 88.80 | C |
| ATOM | 11652 | C | ASN | B | 353 | 45.818 | 49.695 | 79.250 | 1.00 88.80 | C |
| ATOM | 11653 | O | ASN | B | 353 | 46.976 | 49.884 | 78.882 | 1.00 88.80 | O |
| ATOM | 11654 | CB | ASN | B | 353 | 44.725 | 47.502 | 79.463 | 1.00132.07 | C |
| ATOM | 11655 | CG | ASN | B | 353 | 44.528 | 46.246 | 80.273 | 1.00132.07 | C |
| ATOM | 11656 | OD1 | ASN | B | 353 | 43.553 | 46.115 | 81.012 | 1.00132.07 | O |
| ATOM | 11657 | ND2 | ASN | B | 353 | 45.460 | 45.310 | 80.145 | 1.00132.07 | N |
| ATOM | 11658 | N | ALA | B | 354 | 44.767 | 50.413 | 78.826 | 1.00131.29 | N |
| ATOM | 11659 | CA | ALA | B | 354 | 44.896 | 51.538 | 77.874 | 1.00131.29 | C |
| ATOM | 11660 | C | ALA | B | 354 | 45.843 | 52.577 | 78.430 | 1.00131.29 | C |
| ATOM | 11661 | O | ALA | B | 354 | 46.560 | 53.250 | 77.685 | 1.00131.29 | O |
| ATOM | 11662 | CB | ALA | B | 354 | 43.527 | 52.147 | 77.617 | 1.00119.00 | C |
| ATOM | 11663 | N | ARG | B | 355 | 45.823 | 52.705 | 79.752 | 1.00105.04 | N |
| ATOM | 11664 | CA | ARG | B | 355 | 46.691 | 53.641 | 80.432 | 1.00105.04 | C |
| ATOM | 11665 | C | ARG | B | 355 | 48.110 | 53.160 | 80.202 | 1.00105.04 | C |
| ATOM | 11666 | O | ARG | B | 355 | 48.864 | 53.798 | 79.489 | 1.00105.04 | O |
| ATOM | 11667 | CB | ARG | B | 355 | 46.368 | 53.685 | 81.925 | 1.00124.28 | C |
| ATOM | 11668 | CG | ARG | B | 355 | 47.275 | 54.601 | 82.716 | 1.00124.28 | C |
| ATOM | 11669 | CD | ARG | B | 355 | 46.503 | 55.344 | 83.789 | 1.00124.28 | C |
| ATOM | 11670 | NE | ARG | B | 355 | 47.335 | 55.622 | 84.954 | 1.00124.28 | N |
| ATOM | 11671 | CZ | ARG | B | 355 | 47.630 | 54.720 | 85.883 | 1.00124.28 | C |
| ATOM | 11672 | NH1 | ARG | B | 355 | 47.153 | 53.485 | 85.783 | 1.00124.28 | N |
| ATOM | 11673 | NH2 | ARG | B | 355 | 48.406 | 55.047 | 86.908 | 1.00124.28 | N |
| ATOM | 11674 | N | GLY | B | 356 | 48.469 | 52.019 | 80.772 | 1.00113.17 | N |
| ATOM | 11675 | CA | GLY | B | 356 | 49.814 | 51.501 | 80.578 | 1.00113.17 | C |
| ATOM | 11676 | C | GLY | B | 356 | 50.305 | 51.687 | 79.152 | 1.00113.17 | C |
| ATOM | 11677 | O | GLY | B | 356 | 51.356 | 52.292 | 78.929 | 1.00113.17 | O |
| ATOM | 11678 | N | ALA | B | 357 | 49.540 | 51.170 | 78.192 | 1.00118.17 | N |
| ATOM | 11679 | CA | ALA | B | 357 | 49.873 | 51.276 | 76.776 | 1.00118.17 | C |
| ATOM | 11680 | C | ALA | B | 357 | 50.225 | 52.712 | 76.425 | 1.00118.17 | C |
| ATOM | 11681 | O | ALA | B | 357 | 51.396 | 53.050 | 76.321 | 1.00118.17 | O |
| ATOM | 11682 | CB | ALA | B | 357 | 48.692 | 50.796 | 75.922 | 1.00127.24 | C |
| ATOM | 11683 | N | ALA | B | 358 | 49.220 | 53.560 | 76.237 | 1.00 69.20 | N |
| ATOM | 11684 | CA | ALA | B | 358 | 49.493 | 54.958 | 75.926 | 1.00 69.20 | C |
| ATOM | 11685 | C | ALA | B | 358 | 50.536 | 55.497 | 76.908 | 1.00 69.20 | C |
| ATOM | 11686 | O | ALA | B | 358 | 51.728 | 55.352 | 76.674 | 1.00 69.20 | O |
| ATOM | 11687 | CB | ALA | B | 358 | 48.208 | 55.767 | 76.018 | 1.00199.44 | C |
| ATOM | 11688 | N | TYR | B | 359 | 50.079 | 56.081 | 78.021 | 1.00207.38 | N |
| ATOM | 11689 | CA | TYR | B | 359 | 50.962 | 56.676 | 79.039 | 1.00207.38 | C |
| ATOM | 11690 | C | TYR | B | 359 | 52.460 | 56.252 | 78.986 | 1.00207.38 | C |
| ATOM | 11691 | O | TYR | B | 359 | 53.319 | 57.128 | 78.818 | 1.00207.38 | O |
| ATOM | 11692 | CB | TYR | B | 359 | 50.306 | 56.518 | 80.423 | 1.00106.93 | C |
| ATOM | 11693 | CG | TYR | B | 359 | 51.106 | 55.816 | 81.488 | 1.00106.93 | C |
| ATOM | 11694 | CD1 | TYR | B | 359 | 51.025 | 54.437 | 81.641 | 1.00106.93 | C |
| ATOM | 11695 | CD2 | TYR | B | 359 | 51.905 | 56.533 | 82.384 | 1.00106.93 | C |
| ATOM | 11696 | CE1 | TYR | B | 359 | 51.715 | 53.777 | 82.666 | 1.00106.93 | C |
| ATOM | 11697 | CE2 | TYR | B | 359 | 52.605 | 55.883 | 83.413 | 1.00106.93 | C |
| ATOM | 11698 | CZ | TYR | B | 359 | 52.507 | 54.503 | 83.549 | 1.00106.93 | C |
| ATOM | 11699 | OH | TYR | B | 359 | 53.224 | 53.840 | 84.533 | 1.00106.93 | O |
| ATOM | 11700 | N | GLU | B | 360 | 52.801 | 54.960 | 79.069 | 1.00141.66 | N |
| ATOM | 11701 | CA | GLU | B | 360 | 54.222 | 54.578 | 78.997 | 1.00141.66 | C |
| ATOM | 11702 | C | GLU | B | 360 | 54.757 | 54.834 | 77.576 | 1.00141.66 | C |
| ATOM | 11703 | O | GLU | B | 360 | 55.644 | 55.690 | 77.367 | 1.00141.66 | O |
| ATOM | 11704 | CB | GLU | B | 360 | 54.386 | 53.113 | 79.447 | 1.00144.48 | C |
| ATOM | 11705 | CG | GLU | B | 360 | 54.672 | 52.977 | 80.960 | 1.00144.48 | C |
| ATOM | 11706 | CD | GLU | B | 360 | 54.193 | 51.665 | 81.570 | 1.00144.48 | C |
| ATOM | 11707 | OE1 | GLU | B | 360 | 52.966 | 51.428 | 81.585 | 1.00144.48 | O |
| ATOM | 11708 | OE2 | GLU | B | 360 | 55.042 | 50.877 | 82.040 | 1.00144.48 | O |
| ATOM | 11709 | N | VAL | B | 361 | 54.207 | 54.139 | 76.583 | 1.00 96.75 | N |
| ATOM | 11710 | CA | VAL | B | 361 | 54.662 | 54.365 | 75.208 | 1.00 96.75 | C |
| ATOM | 11711 | C | VAL | B | 361 | 54.038 | 55.647 | 74.626 | 1.00 96.75 | C |
| ATOM | 11712 | O | VAL | B | 361 | 53.937 | 55.815 | 73.416 | 1.00 96.75 | O |
| ATOM | 11713 | CB | VAL | B | 361 | 54.327 | 53.159 | 74.298 | 1.00178.06 | C |
| ATOM | 11714 | CG1 | VAL | B | 361 | 54.877 | 51.885 | 74.917 | 1.00178.06 | C |
| ATOM | 11715 | CG2 | VAL | B | 361 | 52.829 | 53.050 | 74.088 | 1.00178.06 | C |
| ATOM | 11716 | N | PHE | B | 362 | 53.664 | 56.533 | 75.551 | 1.00 59.89 | N |
| ATOM | 11717 | CA | PHE | B | 362 | 53.050 | 57.858 | 75.356 | 1.00 59.89 | C |
| ATOM | 11718 | C | PHE | B | 362 | 54.188 | 58.822 | 75.627 | 1.00 59.89 | C |
| ATOM | 11719 | O | PHE | B | 362 | 54.287 | 59.886 | 75.022 | 1.00 59.89 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11720 | CB | PHE | B | 362 | 51.931 | 58.032 | 76.380 | 1.00106.13 | C |
| ATOM | 11721 | CG | PHE | B | 362 | 51.314 | 59.397 | 76.399 | 1.00106.13 | C |
| ATOM | 11722 | CD1 | PHE | B | 362 | 52.049 | 60.511 | 76.795 | 1.00106.13 | C |
| ATOM | 11723 | CD2 | PHE | B | 362 | 49.980 | 59.565 | 76.045 | 1.00106.13 | C |
| ATOM | 11724 | CE1 | PHE | B | 362 | 51.461 | 61.782 | 76.841 | 1.00106.13 | C |
| ATOM | 11725 | CE2 | PHE | B | 362 | 49.377 | 60.829 | 76.086 | 1.00106.13 | C |
| ATOM | 11726 | CZ | PHE | B | 362 | 50.119 | 61.943 | 76.485 | 1.00106.13 | C |
| ATOM | 11727 | N | LYS | B | 363 | 55.008 | 58.434 | 76.606 | 1.00157.37 | N |
| ATOM | 11728 | CA | LYS | B | 363 | 56.211 | 59.176 | 76.958 | 1.00157.37 | C |
| ATOM | 11729 | C | LYS | B | 363 | 57.070 | 58.796 | 75.760 | 1.00157.37 | C |
| ATOM | 11730 | O | LYS | B | 363 | 58.098 | 59.403 | 75.494 | 1.00157.37 | O |
| ATOM | 11731 | CB | LYS | B | 363 | 56.868 | 58.634 | 78.227 | 1.00118.93 | C |
| ATOM | 11732 | CG | LYS | B | 363 | 56.223 | 59.066 | 79.533 | 1.00118.93 | C |
| ATOM | 11733 | CD | LYS | B | 363 | 56.828 | 58.286 | 80.688 | 1.00118.93 | C |
| ATOM | 11734 | CE | LYS | B | 363 | 56.674 | 56.789 | 80.436 | 1.00118.93 | C |
| ATOM | 11735 | NZ | LYS | B | 363 | 57.434 | 55.932 | 81.379 | 1.00118.93 | N |
| ATOM | 11736 | N | ILE | B | 364 | 56.653 | 57.730 | 75.078 | 1.00120.90 | N |
| ATOM | 11737 | CA | ILE | B | 364 | 57.315 | 57.317 | 73.830 | 1.00120.90 | C |
| ATOM | 11738 | C | ILE | B | 364 | 56.620 | 58.135 | 72.719 | 1.00120.90 | C |
| ATOM | 11739 | O | ILE | B | 364 | 57.182 | 58.458 | 71.651 | 1.00120.90 | O |
| ATOM | 11740 | CB | ILE | B | 364 | 57.095 | 55.813 | 73.520 | 1.00207.38 | C |
| ATOM | 11741 | CG1 | ILE | B | 364 | 57.941 | 54.943 | 74.453 | 1.00207.38 | C |
| ATOM | 11742 | CG2 | ILE | B | 364 | 57.437 | 55.530 | 72.062 | 1.00207.38 | C |
| ATOM | 11743 | CD1 | ILE | B | 364 | 57.879 | 53.457 | 74.126 | 1.00207.38 | C |
| ATOM | 11744 | N | ILE | B | 365 | 55.367 | 58.456 | 73.017 | 1.00119.49 | N |
| ATOM | 11745 | CA | ILE | B | 365 | 54.501 | 59.214 | 72.135 | 1.00119.49 | C |
| ATOM | 11746 | C | ILE | B | 365 | 54.802 | 60.717 | 72.213 | 1.00119.49 | C |
| ATOM | 11747 | O | ILE | B | 365 | 55.720 | 61.214 | 71.556 | 1.00119.49 | O |
| ATOM | 11748 | CB | ILE | B | 365 | 53.030 | 58.907 | 72.489 | 1.00 56.02 | C |
| ATOM | 11749 | CG1 | ILE | B | 365 | 52.738 | 57.436 | 72.161 | 1.00 56.02 | C |
| ATOM | 11750 | CG2 | ILE | B | 365 | 52.086 | 59.835 | 71.727 | 1.00 56.02 | C |
| ATOM | 11751 | CD1 | ILE | B | 365 | 51.473 | 56.891 | 72.804 | 1.00 56.02 | C |
| ATOM | 11752 | N | ASP | B | 366 | 54.015 | 61.426 | 73.011 | 1.00117.21 | N |
| ATOM | 11753 | CA | ASP | B | 366 | 54.195 | 62.854 | 73.209 | 1.00117.21 | C |
| ATOM | 11754 | C | ASP | B | 366 | 55.683 | 63.171 | 73.085 | 1.00117.21 | C |
| ATOM | 11755 | O | ASP | B | 366 | 56.157 | 63.532 | 72.010 | 1.00117.21 | O |
| ATOM | 11756 | CB | ASP | B | 366 | 53.695 | 63.275 | 74.599 | 1.00207.38 | C |
| ATOM | 11757 | CG | ASP | B | 366 | 52.251 | 63.774 | 74.590 | 1.00207.38 | C |
| ATOM | 11758 | OD1 | ASP | B | 366 | 51.360 | 63.073 | 74.059 | 1.00207.38 | O |
| ATOM | 11759 | OD2 | ASP | B | 366 | 52.010 | 64.875 | 75.133 | 1.00207.38 | O |
| ATOM | 11760 | N | ASN | B | 367 | 56.389 | 63.024 | 74.204 | 1.00146.86 | N |
| ATOM | 11761 | CA | ASN | B | 367 | 57.816 | 63.277 | 74.301 | 1.00146.86 | C |
| ATOM | 11762 | C | ASN | B | 367 | 58.458 | 63.788 | 73.011 | 1.00146.86 | C |
| ATOM | 11763 | O | ASN | B | 367 | 58.194 | 63.284 | 71.915 | 1.00146.86 | O |
| ATOM | 11764 | CB | ASN | B | 367 | 58.528 | 61.996 | 74.730 | 1.00155.77 | C |
| ATOM | 11765 | CG | ASN | B | 367 | 58.491 | 60.928 | 73.655 | 1.00155.77 | C |
| ATOM | 11766 | OD1 | ASN | B | 367 | 57.438 | 60.646 | 73.084 | 1.00155.77 | O |
| ATOM | 11767 | ND2 | ASN | B | 367 | 59.642 | 60.323 | 73.376 | 1.00155.77 | N |
| ATOM | 11768 | N | LYS | B | 368 | 59.325 | 64.784 | 73.160 | 1.00157.40 | N |
| ATOM | 11769 | CA | LYS | B | 368 | 60.029 | 65.377 | 72.028 | 1.00157.40 | C |
| ATOM | 11770 | C | LYS | B | 368 | 61.533 | 65.187 | 72.179 | 1.00157.40 | C |
| ATOM | 11771 | O | LYS | B | 368 | 62.295 | 66.141 | 72.037 | 1.00157.40 | O |
| ATOM | 11772 | CB | LYS | B | 368 | 59.734 | 66.876 | 71.956 | 1.00207.38 | C |
| ATOM | 11773 | CG | LYS | B | 368 | 58.301 | 67.233 | 71.609 | 1.00207.38 | C |
| ATOM | 11774 | CD | LYS | B | 368 | 58.021 | 67.013 | 70.134 | 1.00207.38 | C |
| ATOM | 11775 | CE | LYS | B | 368 | 56.646 | 67.536 | 69.746 | 1.00207.38 | C |
| ATOM | 11776 | NZ | LYS | B | 368 | 56.380 | 67.352 | 68.292 | 1.00207.38 | N |
| ATOM | 11777 | N | PRO | B | 369 | 61.981 | 63.958 | 72.491 | 1.00199.97 | N |
| ATOM | 11778 | CA | PRO | B | 369 | 63.417 | 63.739 | 72.638 | 1.00199.97 | C |
| ATOM | 11779 | C | PRO | B | 369 | 64.216 | 64.523 | 71.562 | 1.00199.97 | C |
| ATOM | 11780 | O | PRO | B | 369 | 65.291 | 65.064 | 71.833 | 1.00199.97 | O |
| ATOM | 11781 | CB | PRO | B | 369 | 63.537 | 62.231 | 72.515 | 1.00 64.15 | C |
| ATOM | 11782 | CG | PRO | B | 369 | 62.309 | 61.790 | 73.266 | 1.00 64.15 | C |
| ATOM | 11783 | CD | PRO | B | 369 | 61.237 | 62.709 | 72.720 | 1.00 64.15 | C |
| ATOM | 11784 | N | SER | B | 370 | 63.642 | 64.605 | 70.363 | 1.00 86.46 | N |
| ATOM | 11785 | CA | SER | B | 370 | 64.182 | 65.319 | 69.201 | 1.00 86.46 | C |
| ATOM | 11786 | C | SER | B | 370 | 65.638 | 65.737 | 69.184 | 1.00 86.46 | C |
| ATOM | 11787 | O | SER | B | 370 | 66.494 | 64.932 | 68.881 | 1.00 86.46 | O |
| ATOM | 11788 | CB | SER | B | 370 | 63.323 | 66.555 | 68.920 | 1.00129.09 | C |
| ATOM | 11789 | OG | SER | B | 370 | 63.921 | 67.373 | 67.929 | 1.00129.09 | O |
| ATOM | 11790 | N | ILE | B | 371 | 65.880 | 67.022 | 69.467 | 1.00141.77 | N |
| ATOM | 11791 | CA | ILE | B | 371 | 67.194 | 67.698 | 69.514 | 1.00141.77 | C |
| ATOM | 11792 | C | ILE | B | 371 | 68.448 | 67.118 | 68.844 | 1.00141.77 | C |
| ATOM | 11793 | O | ILE | B | 371 | 69.220 | 67.870 | 68.250 | 1.00141.77 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11794 | CB | ILE | B | 371 | 67.560 | 68.062 | 70.978 | 1.00183.85 | C |
| ATOM | 11795 | CG1 | ILE | B | 371 | 66.571 | 69.105 | 71.510 | 1.00183.85 | C |
| ATOM | 11796 | CG2 | ILE | B | 371 | 68.984 | 68.608 | 71.050 | 1.00183.85 | C |
| ATOM | 11797 | CD1 | ILE | B | 371 | 66.519 | 70.384 | 70.689 | 1.00183.85 | C |
| ATOM | 11798 | N | ASP | B | 372 | 68.683 | 65.813 | 68.950 | 1.00157.19 | N |
| ATOM | 11799 | CA | ASP | B | 372 | 69.858 | 65.232 | 68.310 | 1.00157.19 | C |
| ATOM | 11800 | C | ASP | B | 372 | 69.764 | 65.517 | 66.821 | 1.00157.19 | C |
| ATOM | 11801 | O | ASP | B | 372 | 70.515 | 64.946 | 66.024 | 1.00157.19 | O |
| ATOM | 11802 | CB | ASP | B | 372 | 69.946 | 63.718 | 68.564 | 1.00167.43 | C |
| ATOM | 11803 | CG | ASP | B | 372 | 69.061 | 62.902 | 67.634 | 1.00167.43 | C |
| ATOM | 11804 | OD1 | ASP | B | 372 | 69.247 | 61.665 | 67.584 | 1.00167.43 | O |
| ATOM | 11805 | OD2 | ASP | B | 372 | 68.183 | 63.484 | 66.962 | 1.00167.43 | O |
| ATOM | 11806 | N | SER | B | 373 | 68.833 | 66.398 | 66.452 | 1.00 76.55 | N |
| ATOM | 11807 | CA | SER | B | 373 | 68.627 | 66.777 | 65.056 | 1.00 76.55 | C |
| ATOM | 11808 | C | SER | B | 373 | 67.620 | 67.933 | 64.904 | 1.00 76.55 | C |
| ATOM | 11809 | O | SER | B | 373 | 67.890 | 68.994 | 64.294 | 1.00 76.55 | O |
| ATOM | 11810 | CB | SER | B | 373 | 68.133 | 65.575 | 64.257 | 1.00197.75 | C |
| ATOM | 11811 | OG | SER | B | 373 | 66.825 | 65.219 | 64.664 | 1.00197.75 | O |
| ATOM | 11812 | N | PHE | B | 374 | 66.438 | 67.692 | 65.467 | 1.00140.79 | N |
| ATOM | 11813 | CA | PHE | B | 374 | 65.304 | 68.601 | 65.387 | 1.00140.79 | C |
| ATOM | 11814 | C | PHE | B | 374 | 65.058 | 68.802 | 63.905 | 1.00140.79 | C |
| ATOM | 11815 | O | PHE | B | 374 | 65.833 | 68.330 | 63.091 | 1.00140.79 | O |
| ATOM | 11816 | CB | PHE | B | 374 | 65.623 | 69.927 | 66.096 | 1.00187.98 | C |
| ATOM | 11817 | CG | PHE | B | 374 | 64.409 | 70.636 | 66.635 | 1.00187.98 | C |
| ATOM | 11818 | CD1 | PHE | B | 374 | 63.427 | 71.145 | 65.784 | 1.00187.98 | C |
| ATOM | 11819 | CD2 | PHE | B | 374 | 64.244 | 70.785 | 68.007 | 1.00187.98 | C |
| ATOM | 11820 | CE1 | PHE | B | 374 | 62.306 | 71.788 | 66.304 | 1.00187.98 | C |
| ATOM | 11821 | CE2 | PHE | B | 374 | 63.123 | 71.427 | 68.532 | 1.00187.98 | C |
| ATOM | 11822 | CZ | PHE | B | 374 | 62.155 | 71.929 | 67.674 | 1.00187.98 | C |
| ATOM | 11823 | N | SER | B | 375 | 64.051 | 69.570 | 63.542 | 1.00102.41 | N |
| ATOM | 11824 | CA | SER | B | 375 | 63.833 | 69.767 | 62.128 | 1.00102.41 | C |
| ATOM | 11825 | C | SER | B | 375 | 63.024 | 71.028 | 62.008 | 1.00102.41 | C |
| ATOM | 11826 | O | SER | B | 375 | 62.128 | 71.120 | 61.150 | 1.00102.41 | O |
| ATOM | 11827 | CB | SER | B | 375 | 63.031 | 68.602 | 61.520 | 1.00104.95 | C |
| ATOM | 11828 | OG | SER | B | 375 | 63.828 | 67.465 | 61.274 | 1.00104.95 | O |
| ATOM | 11829 | N | LYS | B | 376 | 63.305 | 72.006 | 62.865 | 1.00 94.64 | N |
| ATOM | 11830 | CA | LYS | B | 376 | 62.522 | 73.241 | 62.851 | 1.00 94.64 | C |
| ATOM | 11831 | C | LYS | B | 376 | 63.153 | 74.582 | 63.319 | 1.00 94.64 | C |
| ATOM | 11832 | O | LYS | B | 376 | 63.162 | 74.919 | 64.503 | 1.00 94.64 | O |
| ATOM | 11833 | CB | LYS | B | 376 | 61.198 | 72.958 | 63.582 | 1.00 92.10 | C |
| ATOM | 11834 | CG | LYS | B | 376 | 60.354 | 71.780 | 62.980 | 1.00 92.10 | C |
| ATOM | 11835 | CD | LYS | B | 376 | 60.918 | 70.368 | 63.288 | 1.00 92.10 | C |
| ATOM | 11836 | CE | LYS | B | 376 | 60.058 | 69.237 | 62.662 | 1.00 92.10 | C |
| ATOM | 11837 | NZ | LYS | B | 376 | 60.233 | 69.074 | 61.187 | 1.00 92.10 | N |
| ATOM | 11838 | N | SER | B | 377 | 63.677 | 75.316 | 62.338 | 1.00 78.74 | N |
| ATOM | 11839 | CA | SER | B | 377 | 64.297 | 76.658 | 62.464 | 1.00 78.74 | C |
| ATOM | 11840 | C | SER | B | 377 | 65.581 | 77.098 | 63.237 | 1.00 78.74 | C |
| ATOM | 11841 | O | SER | B | 377 | 65.545 | 77.376 | 64.434 | 1.00 78.74 | O |
| ATOM | 11842 | CB | SER | B | 377 | 63.202 | 77.675 | 62.806 | 1.00 51.91 | C |
| ATOM | 11843 | OG | SER | B | 377 | 62.936 | 78.522 | 61.694 | 1.00 51.91 | O |
| ATOM | 11844 | N | GLY | B | 378 | 66.684 | 77.238 | 62.486 | 1.00120.96 | N |
| ATOM | 11845 | CA | GLY | B | 378 | 67.981 | 77.646 | 63.022 | 1.00120.96 | C |
| ATOM | 11846 | C | GLY | B | 378 | 68.736 | 78.756 | 62.268 | 1.00120.96 | C |
| ATOM | 11847 | O | GLY | B | 378 | 68.193 | 79.840 | 62.099 | 1.00120.96 | O |
| ATOM | 11848 | N | HIS | B | 379 | 69.967 | 78.489 | 61.800 | 1.00162.95 | N |
| ATOM | 11849 | CA | HIS | B | 379 | 70.838 | 79.486 | 61.106 | 1.00162.95 | C |
| ATOM | 11850 | C | HIS | B | 379 | 70.381 | 80.041 | 59.759 | 1.00162.95 | C |
| ATOM | 11851 | O | HIS | B | 379 | 69.452 | 79.537 | 59.122 | 1.00162.95 | O |
| ATOM | 11852 | CB | HIS | B | 379 | 72.262 | 78.923 | 60.957 | 1.00160.01 | C |
| ATOM | 11853 | CG | HIS | B | 379 | 73.337 | 79.971 | 60.928 | 1.00160.01 | C |
| ATOM | 11854 | ND1 | HIS | B | 379 | 74.640 | 79.690 | 60.574 | 1.00160.01 | N |
| ATOM | 11855 | CD2 | HIS | B | 379 | 73.317 | 81.285 | 61.259 | 1.00160.01 | C |
| ATOM | 11856 | CE1 | HIS | B | 379 | 75.375 | 80.782 | 60.690 | 1.00160.01 | C |
| ATOM | 11857 | NE2 | HIS | B | 379 | 74.596 | 81.764 | 61.104 | 1.00160.01 | N |
| ATOM | 11858 | N | LYS | B | 380 | 71.108 | 81.085 | 59.351 | 1.00207.38 | N |
| ATOM | 11859 | CA | LYS | B | 380 | 70.909 | 81.861 | 58.121 | 1.00207.38 | C |
| ATOM | 11860 | C | LYS | B | 380 | 71.940 | 81.480 | 57.031 | 1.00207.38 | C |
| ATOM | 11861 | O | LYS | B | 380 | 73.101 | 81.890 | 57.117 | 1.00207.38 | O |
| ATOM | 11862 | CB | LYS | B | 380 | 71.070 | 83.356 | 58.433 | 1.00204.19 | C |
| ATOM | 11863 | CG | LYS | B | 380 | 70.480 | 83.819 | 59.769 | 1.00204.19 | C |
| ATOM | 11864 | CD | LYS | B | 380 | 71.122 | 85.135 | 60.224 | 1.00204.19 | C |
| ATOM | 11865 | CE | LYS | B | 380 | 70.427 | 85.749 | 61.439 | 1.00204.19 | C |
| ATOM | 11866 | NZ | LYS | B | 380 | 69.117 | 86.372 | 61.090 | 1.00204.19 | N |
| ATOM | 11867 | N | PRO | B | 381 | 71.539 | 80.698 | 56.003 | 1.00124.20 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11868 | CA | PRO | B | 381 | 72.556 | 80.363 | 54.988 | 1.00124.20 | C |
| ATOM | 11869 | C | PRO | B | 381 | 72.451 | 81.121 | 53.656 | 1.00124.20 | C |
| ATOM | 11870 | O | PRO | B | 381 | 72.056 | 80.568 | 52.642 | 1.00124.20 | O |
| ATOM | 11871 | CB | PRO | B | 381 | 72.361 | 78.855 | 54.789 | 1.00176.76 | C |
| ATOM | 11872 | CG | PRO | B | 381 | 71.517 | 78.416 | 55.986 | 1.00176.76 | C |
| ATOM | 11873 | CD | PRO | B | 381 | 70.597 | 79.581 | 56.153 | 1.00176.76 | C |
| ATOM | 11874 | N | ASP | B | 382 | 72.839 | 82.388 | 53.659 | 1.00207.38 | N |
| ATOM | 11875 | CA | ASP | B | 382 | 72.763 | 83.204 | 52.451 | 1.00207.38 | C |
| ATOM | 11876 | C | ASP | B | 382 | 73.978 | 83.153 | 51.508 | 1.00207.38 | C |
| ATOM | 11877 | O | ASP | B | 382 | 73.923 | 83.730 | 50.417 | 1.00207.38 | O |
| ATOM | 11878 | CB | ASP | B | 382 | 72.450 | 84.664 | 52.819 | 1.00207.38 | C |
| ATOM | 11879 | CG | ASP | B | 382 | 73.338 | 85.204 | 53.934 | 1.00207.38 | C |
| ATOM | 11880 | OD1 | ASP | B | 382 | 73.306 | 84.648 | 55.055 | 1.00207.38 | O |
| ATOM | 11881 | OD2 | ASP | B | 382 | 74.064 | 86.193 | 53.691 | 1.00207.38 | O |
| ATOM | 11882 | N | ASN | B | 383 | 75.045 | 82.447 | 51.907 | 1.00206.26 | N |
| ATOM | 11883 | CA | ASN | B | 383 | 76.296 | 82.353 | 51.118 | 1.00206.26 | C |
| ATOM | 11884 | C | ASN | B | 383 | 76.230 | 81.656 | 49.762 | 1.00206.26 | C |
| ATOM | 11885 | O | ASN | B | 383 | 77.137 | 81.801 | 48.941 | 1.00206.26 | O |
| ATOM | 11886 | CB | ASN | B | 383 | 77.398 | 81.659 | 51.932 | 1.00160.64 | C |
| ATOM | 11887 | CG | ASN | B | 383 | 77.612 | 82.284 | 53.292 | 1.00160.64 | C |
| ATOM | 11888 | OD1 | ASN | B | 383 | 77.025 | 81.852 | 54.285 | 1.00160.64 | O |
| ATOM | 11889 | ND2 | ASN | B | 383 | 78.453 | 83.312 | 53.345 | 1.00160.64 | N |
| ATOM | 11890 | N | ILE | B | 384 | 75.181 | 80.882 | 49.530 | 1.00184.80 | N |
| ATOM | 11891 | CA | ILE | B | 384 | 75.056 | 80.188 | 48.264 | 1.00184.80 | C |
| ATOM | 11892 | C | ILE | B | 384 | 76.219 | 79.195 | 48.141 | 1.00184.80 | C |
| ATOM | 11893 | O | ILE | B | 384 | 76.473 | 78.420 | 49.056 | 1.00184.80 | O |
| ATOM | 11894 | CB | ILE | B | 384 | 75.057 | 81.201 | 47.099 | 1.00144.87 | C |
| ATOM | 11895 | CG1 | ILE | B | 384 | 74.212 | 82.422 | 47.488 | 1.00144.87 | C |
| ATOM | 11896 | CG2 | ILE | B | 384 | 74.499 | 80.557 | 45.840 | 1.00144.87 | C |
| ATOM | 11897 | CD1 | ILE | B | 384 | 72.864 | 82.077 | 48.105 | 1.00144.87 | C |
| ATOM | 11898 | N | GLN | B | 385 | 76.937 | 79.229 | 47.028 | 1.00125.11 | N |
| ATOM | 11899 | CA | GLN | B | 385 | 78.045 | 78.299 | 46.792 | 1.00125.11 | C |
| ATOM | 11900 | C | GLN | B | 385 | 79.016 | 78.114 | 47.971 | 1.00125.11 | C |
| ATOM | 11901 | O | GLN | B | 385 | 78.988 | 78.903 | 48.917 | 1.00125.11 | O |
| ATOM | 11902 | CB | GLN | B | 385 | 78.818 | 78.744 | 45.548 | 1.00206.86 | C |
| ATOM | 11903 | CG | GLN | B | 385 | 80.073 | 77.939 | 45.241 | 1.00206.86 | C |
| ATOM | 11904 | CD | GLN | B | 385 | 79.888 | 76.449 | 45.444 | 1.00206.86 | C |
| ATOM | 11905 | OE1 | GLN | B | 385 | 78.870 | 75.874 | 45.057 | 1.00206.86 | O |
| ATOM | 11906 | NE2 | GLN | B | 385 | 80.883 | 75.813 | 46.048 | 1.00206.86 | N |
| ATOM | 11907 | N | GLY | B | 386 | 79.867 | 77.078 | 47.908 | 1.00 75.18 | N |
| ATOM | 11908 | CA | GLY | B | 386 | 80.815 | 76.796 | 48.988 | 1.00 75.18 | C |
| ATOM | 11909 | C | GLY | B | 386 | 81.566 | 75.466 | 48.900 | 1.00 75.18 | C |
| ATOM | 11910 | O | GLY | B | 386 | 81.210 | 74.610 | 48.087 | 1.00 75.18 | O |
| ATOM | 11911 | N | ASN | B | 387 | 82.577 | 75.244 | 49.747 | 1.00 79.77 | N |
| ATOM | 11912 | CA | ASN | B | 387 | 83.331 | 74.005 | 49.557 | 1.00 79.77 | C |
| ATOM | 11913 | C | ASN | B | 387 | 83.100 | 73.127 | 50.709 | 1.00 79.77 | C |
| ATOM | 11914 | O | ASN | B | 387 | 82.946 | 73.646 | 51.785 | 1.00 79.77 | O |
| ATOM | 11915 | CB | ASN | B | 387 | 84.835 | 74.270 | 49.473 | 1.00 81.39 | C |
| ATOM | 11916 | CG | ASN | B | 387 | 85.190 | 75.379 | 48.504 | 1.00 81.39 | C |
| ATOM | 11917 | OD1 | ASN | B | 387 | 84.935 | 76.554 | 48.766 | 1.00 81.39 | O |
| ATOM | 11918 | ND2 | ASN | B | 387 | 85.793 | 75.011 | 47.381 | 1.00 81.39 | N |
| ATOM | 11919 | N | LEU | B | 388 | 83.090 | 71.814 | 50.530 | 1.00 80.31 | N |
| ATOM | 11920 | CA | LEU | B | 388 | 82.890 | 70.971 | 51.703 | 1.00 80.31 | C |
| ATOM | 11921 | C | LEU | B | 388 | 84.217 | 70.862 | 52.452 | 1.00 80.31 | C |
| ATOM | 11922 | O | LEU | B | 388 | 85.284 | 70.855 | 51.839 | 1.00 80.31 | O |
| ATOM | 11923 | CB | LEU | B | 388 | 82.448 | 69.566 | 51.290 | 1.00143.99 | C |
| ATOM | 11924 | CG | LEU | B | 388 | 81.009 | 69.358 | 50.812 | 1.00143.99 | C |
| ATOM | 11925 | CD1 | LEU | B | 388 | 80.646 | 70.372 | 49.740 | 1.00143.99 | C |
| ATOM | 11926 | CD2 | LEU | B | 388 | 80.859 | 67.947 | 50.278 | 1.00143.99 | C |
| ATOM | 11927 | N | GLU | B | 389 | 84.154 | 70.761 | 53.774 | 1.00141.18 | N |
| ATOM | 11928 | CA | GLU | B | 389 | 85.368 | 70.668 | 54.567 | 1.00141.18 | C |
| ATOM | 11929 | C | GLU | B | 389 | 85.245 | 69.621 | 55.660 | 1.00141.18 | C |
| ATOM | 11930 | O | GLU | B | 389 | 84.753 | 69.935 | 56.738 | 1.00141.18 | O |
| ATOM | 11931 | CB | GLU | B | 389 | 85.655 | 72.009 | 55.251 | 1.00202.69 | C |
| ATOM | 11932 | CG | GLU | B | 389 | 85.437 | 73.257 | 54.411 | 1.00202.69 | C |
| ATOM | 11933 | CD | GLU | B | 389 | 86.618 | 73.587 | 53.525 | 1.00202.69 | C |
| ATOM | 11934 | OE1 | GLU | B | 389 | 86.789 | 72.920 | 52.485 | 1.00202.69 | O |
| ATOM | 11935 | OE2 | GLU | B | 389 | 87.383 | 74.513 | 53.875 | 1.00202.69 | O |
| ATOM | 11936 | N | PHE | B | 390 | 85.667 | 68.387 | 55.401 | 1.00109.71 | N |
| ATOM | 11937 | CA | PHE | B | 390 | 85.630 | 67.357 | 56.442 | 1.00109.71 | C |
| ATOM | 11938 | C | PHE | B | 390 | 86.892 | 67.524 | 57.294 | 1.00109.71 | C |
| ATOM | 11939 | O | PHE | B | 390 | 87.979 | 67.116 | 56.891 | 1.00109.71 | O |
| ATOM | 11940 | CB | PHE | B | 390 | 85.624 | 65.949 | 55.842 | 1.00117.81 | C |
| ATOM | 11941 | CG | PHE | B | 390 | 84.288 | 65.510 | 55.317 | 1.00117.81 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 11942 | CD1 | PHE | B | 390 | 83.982 | 64.154 | 55.228 | 1.00117.81 | C |
| ATOM | 11943 | CD2 | PHE | B | 390 | 83.339 | 66.439 | 54.904 | 1.00117.81 | C |
| ATOM | 11944 | CE1 | PHE | B | 390 | 82.751 | 63.725 | 54.738 | 1.00117.81 | C |
| ATOM | 11945 | CE2 | PHE | B | 390 | 82.100 | 66.023 | 54.409 | 1.00117.81 | C |
| ATOM | 11946 | CZ | PHE | B | 390 | 81.805 | 64.660 | 54.327 | 1.00117.81 | C |
| ATOM | 11947 | N | LYS | B | 391 | 86.758 | 68.120 | 58.471 | 1.00189.55 | N |
| ATOM | 11948 | CA | LYS | B | 391 | 87.930 | 68.320 | 59.302 | 1.00189.55 | C |
| ATOM | 11949 | C | LYS | B | 391 | 87.993 | 67.498 | 60.577 | 1.00189.55 | C |
| ATOM | 11950 | O | LYS | B | 391 | 87.172 | 67.658 | 61.483 | 1.00189.55 | O |
| ATOM | 11951 | CB | LYS | B | 391 | 88.082 | 69.807 | 59.627 | 1.00140.90 | C |
| ATOM | 11952 | CG | LYS | B | 391 | 88.515 | 70.648 | 58.432 | 1.00140.90 | C |
| ATOM | 11953 | CD | LYS | B | 391 | 88.582 | 72.124 | 58.779 | 1.00140.90 | C |
| ATOM | 11954 | CE | LYS | B | 391 | 89.495 | 72.360 | 59.968 | 1.00140.90 | C |
| ATOM | 11955 | NZ | LYS | B | 391 | 89.552 | 73.798 | 60.333 | 1.00140.90 | N |
| ATOM | 11956 | N | ASN | B | 392 | 88.988 | 66.610 | 60.619 | 1.00193.40 | N |
| ATOM | 11957 | CA | ASN | B | 392 | 89.253 | 65.733 | 61.759 | 1.00193.40 | C |
| ATOM | 11958 | C | ASN | B | 392 | 88.001 | 65.214 | 62.455 | 1.00193.40 | C |
| ATOM | 11959 | O | ASN | B | 392 | 87.739 | 65.577 | 63.593 | 1.00193.40 | O |
| ATOM | 11960 | CB | ASN | B | 392 | 90.144 | 66.476 | 62.764 | 1.00175.26 | C |
| ATOM | 11961 | CG | ASN | B | 392 | 90.298 | 65.735 | 64.077 | 1.00175.26 | C |
| ATOM | 11962 | OD1 | ASN | B | 392 | 90.670 | 64.562 | 64.104 | 1.00175.26 | O |
| ATOM | 11963 | ND2 | ASN | B | 392 | 90.023 | 66.425 | 65.178 | 1.00175.26 | N |
| ATOM | 11964 | N | ILE | B | 393 | 87.223 | 64.371 | 61.779 | 1.00121.02 | N |
| ATOM | 11965 | CA | ILE | B | 393 | 86.014 | 63.824 | 62.401 | 1.00121.02 | C |
| ATOM | 11966 | C | ILE | B | 393 | 86.060 | 62.337 | 62.649 | 1.00121.02 | C |
| ATOM | 11967 | O | ILE | B | 393 | 86.279 | 61.530 | 61.734 | 1.00121.02 | O |
| ATOM | 11968 | CB | ILE | B | 393 | 84.714 | 64.094 | 61.585 | 1.00155.91 | C |
| ATOM | 11969 | CG1 | ILE | B | 393 | 84.830 | 63.496 | 60.180 | 1.00155.91 | C |
| ATOM | 11970 | CG2 | ILE | B | 393 | 84.398 | 65.580 | 61.577 | 1.00155.91 | C |
| ATOM | 11971 | CD1 | ILE | B | 393 | 85.644 | 64.318 | 59.219 | 1.00155.91 | C |
| ATOM | 11972 | N | HIS | B | 394 | 85.856 | 61.994 | 63.914 | 1.00171.40 | N |
| ATOM | 11973 | CA | HIS | B | 394 | 85.820 | 60.614 | 64.355 | 1.00171.40 | C |
| ATOM | 11974 | C | HIS | B | 394 | 84.328 | 60.369 | 64.475 | 1.00171.40 | C |
| ATOM | 11975 | O | HIS | B | 394 | 83.572 | 61.312 | 64.705 | 1.00171.40 | O |
| ATOM | 11976 | CB | HIS | B | 394 | 86.477 | 60.463 | 65.729 | 1.00164.61 | C |
| ATOM | 11977 | CG | HIS | B | 394 | 87.908 | 60.909 | 65.777 | 1.00164.61 | C |
| ATOM | 11978 | ND1 | HIS | B | 394 | 88.306 | 62.178 | 65.417 | 1.00164.61 | N |
| ATOM | 11979 | CD2 | HIS | B | 394 | 89.030 | 60.262 | 66.174 | 1.00164.61 | C |
| ATOM | 11980 | CE1 | HIS | B | 394 | 89.610 | 62.295 | 65.592 | 1.00164.61 | C |
| ATOM | 11981 | NE2 | HIS | B | 394 | 90.074 | 61.147 | 66.051 | 1.00164.61 | N |
| ATOM | 11982 | N | PHE | B | 395 | 83.894 | 59.125 | 64.310 | 1.00102.33 | N |
| ATOM | 11983 | CA | PHE | B | 395 | 82.471 | 58.825 | 64.416 | 1.00102.33 | C |
| ATOM | 11984 | C | PHE | B | 395 | 82.146 | 57.359 | 64.336 | 1.00102.33 | C |
| ATOM | 11985 | O | PHE | B | 395 | 82.639 | 56.649 | 63.451 | 1.00102.33 | O |
| ATOM | 11986 | CB | PHE | B | 395 | 81.685 | 59.534 | 63.315 | 1.00126.51 | C |
| ATOM | 11987 | CG | PHE | B | 395 | 80.304 | 58.977 | 63.117 | 1.00126.51 | C |
| ATOM | 11988 | CD1 | PHE | B | 395 | 79.270 | 59.318 | 63.982 | 1.00126.51 | C |
| ATOM | 11989 | CD2 | PHE | B | 395 | 80.053 | 58.056 | 62.107 | 1.00126.51 | C |
| ATOM | 11990 | CE1 | PHE | B | 395 | 78.002 | 58.745 | 63.847 | 1.00126.51 | C |
| ATOM | 11991 | CE2 | PHE | B | 395 | 78.792 | 57.478 | 61.965 | 1.00126.51 | C |
| ATOM | 11992 | CZ | PHE | B | 395 | 77.765 | 57.822 | 62.837 | 1.00126.51 | C |
| ATOM | 11993 | N | SER | B | 396 | 81.273 | 56.928 | 65.241 | 1.00112.95 | N |
| ATOM | 11994 | CA | SER | B | 396 | 80.837 | 55.547 | 65.288 | 1.00112.95 | C |
| ATOM | 11995 | C | SER | B | 396 | 79.337 | 55.552 | 65.079 | 1.00112.95 | C |
| ATOM | 11996 | O | SER | B | 396 | 78.666 | 56.467 | 65.550 | 1.00112.95 | O |
| ATOM | 11997 | CB | SER | B | 396 | 81.176 | 54.917 | 66.642 | 1.00207.38 | C |
| ATOM | 11998 | OG | SER | B | 396 | 80.841 | 53.538 | 66.665 | 1.00207.38 | O |
| ATOM | 11999 | N | TYR | B | 397 | 78.819 | 54.541 | 64.374 | 1.00 96.43 | N |
| ATOM | 12000 | CA | TYR | B | 397 | 77.396 | 54.452 | 64.097 | 1.00 96.43 | C |
| ATOM | 12001 | C | TYR | B | 397 | 76.622 | 54.669 | 65.364 | 1.00 96.43 | C |
| ATOM | 12002 | O | TYR | B | 397 | 77.188 | 54.646 | 66.454 | 1.00 96.43 | O |
| ATOM | 12003 | CB | TYR | B | 397 | 77.056 | 53.110 | 63.458 | 1.00150.64 | C |
| ATOM | 12004 | CG | TYR | B | 397 | 76.878 | 53.244 | 61.968 | 1.00150.64 | C |
| ATOM | 12005 | CD1 | TYR | B | 397 | 77.035 | 52.153 | 61.122 | 1.00150.64 | C |
| ATOM | 12006 | CD2 | TYR | B | 397 | 76.549 | 54.477 | 61.401 | 1.00150.64 | C |
| ATOM | 12007 | CE1 | TYR | B | 397 | 76.870 | 52.283 | 59.745 | 1.00150.64 | C |
| ATOM | 12008 | CE2 | TYR | B | 397 | 76.382 | 54.621 | 60.030 | 1.00150.64 | C |
| ATOM | 12009 | CZ | TYR | B | 397 | 76.544 | 53.521 | 59.207 | 1.00150.64 | C |
| ATOM | 12010 | OH | TYR | B | 397 | 76.385 | 53.667 | 57.848 | 1.00150.64 | O |
| ATOM | 12011 | N | PRO | B | 398 | 75.309 | 54.889 | 65.248 | 1.00207.38 | N |
| ATOM | 12012 | CA | PRO | B | 398 | 74.472 | 55.123 | 66.428 | 1.00207.38 | C |
| ATOM | 12013 | C | PRO | B | 398 | 74.610 | 54.021 | 67.477 | 1.00207.38 | C |
| ATOM | 12014 | O | PRO | B | 398 | 74.483 | 54.252 | 68.685 | 1.00207.38 | O |
| ATOM | 12015 | CB | PRO | B | 398 | 73.067 | 55.175 | 65.844 | 1.00125.01 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12016 | CG | PRO | B | 398 | 73.154 | 54.217 | 64.703 | 1.00125.01 | C |
| ATOM | 12017 | CD | PRO | B | 398 | 74.468 | 54.602 | 64.071 | 1.00125.01 | C |
| ATOM | 12018 | N | SER | B | 399 | 74.884 | 52.819 | 66.987 | 1.00171.80 | N |
| ATOM | 12019 | CA | SER | B | 399 | 75.039 | 51.654 | 67.831 | 1.00171.80 | C |
| ATOM | 12020 | C | SER | B | 399 | 76.280 | 51.770 | 68.724 | 1.00171.80 | C |
| ATOM | 12021 | O | SER | B | 399 | 77.290 | 51.101 | 68.514 | 1.00171.80 | O |
| ATOM | 12022 | CB | SER | B | 399 | 75.136 | 50.406 | 66.957 | 1.00109.41 | C |
| ATOM | 12023 | OG | SER | B | 399 | 74.083 | 50.382 | 66.010 | 1.00109.41 | O |
| ATOM | 12024 | N | ARG | B | 400 | 76.165 | 52.658 | 69.707 | 1.00155.74 | N |
| ATOM | 12025 | CA | ARG | B | 400 | 77.162 | 52.960 | 70.735 | 1.00155.74 | C |
| ATOM | 12026 | C | ARG | B | 400 | 78.568 | 52.308 | 70.763 | 1.00155.74 | C |
| ATOM | 12027 | O | ARG | B | 400 | 79.506 | 52.945 | 71.237 | 1.00155.74 | O |
| ATOM | 12028 | CB | ARG | B | 400 | 76.500 | 52.755 | 72.109 | 1.00207.38 | C |
| ATOM | 12029 | CG | ARG | B | 400 | 77.247 | 53.317 | 73.320 | 1.00207.38 | C |
| ATOM | 12030 | CD | ARG | B | 400 | 77.055 | 54.822 | 73.493 | 1.00207.38 | C |
| ATOM | 12031 | NE | ARG | B | 400 | 77.508 | 55.267 | 74.811 | 1.00207.38 | N |
| ATOM | 12032 | CZ | ARG | B | 400 | 77.496 | 56.530 | 75.227 | 1.00207.38 | C |
| ATOM | 12033 | NH1 | ARG | B | 400 | 77.053 | 57.493 | 74.429 | 1.00207.38 | N |
| ATOM | 12034 | NH2 | ARG | B | 400 | 77.928 | 56.831 | 76.445 | 1.00207.38 | N |
| ATOM | 12035 | N | LYS | B | 401 | 78.753 | 51.078 | 70.279 | 1.00155.34 | N |
| ATOM | 12036 | CA | LYS | B | 401 | 80.090 | 50.464 | 70.368 | 1.00155.34 | C |
| ATOM | 12037 | C | LYS | B | 401 | 80.863 | 50.058 | 69.108 | 1.00155.34 | C |
| ATOM | 12038 | O | LYS | B | 401 | 82.066 | 49.790 | 69.201 | 1.00155.34 | O |
| ATOM | 12039 | CB | LYS | B | 401 | 80.029 | 49.255 | 71.320 | 1.00146.99 | C |
| ATOM | 12040 | CG | LYS | B | 401 | 79.208 | 48.073 | 70.814 | 1.00146.99 | C |
| ATOM | 12041 | CD | LYS | B | 401 | 77.714 | 48.329 | 70.889 | 1.00146.99 | C |
| ATOM | 12042 | CE | LYS | B | 401 | 77.105 | 47.738 | 72.155 | 1.00146.99 | C |
| ATOM | 12043 | NZ | LYS | B | 401 | 77.572 | 48.380 | 73.415 | 1.00146.99 | N |
| ATOM | 12044 | N | GLU | B | 402 | 80.207 | 49.990 | 67.947 | 1.00177.85 | N |
| ATOM | 12045 | CA | GLU | B | 402 | 80.925 | 49.618 | 66.718 | 1.00177.85 | C |
| ATOM | 12046 | C | GLU | B | 402 | 82.118 | 50.562 | 66.575 | 1.00177.85 | C |
| ATOM | 12047 | O | GLU | B | 402 | 82.110 | 51.666 | 67.113 | 1.00177.85 | O |
| ATOM | 12048 | CB | GLU | B | 402 | 80.016 | 49.749 | 65.488 | 1.00126.92 | C |
| ATOM | 12049 | CG | GLU | B | 402 | 79.052 | 48.579 | 65.264 | 1.00126.92 | C |
| ATOM | 12050 | CD | GLU | B | 402 | 77.718 | 48.760 | 65.963 | 1.00126.92 | C |
| ATOM | 12051 | OE1 | GLU | B | 402 | 76.863 | 47.856 | 65.857 | 1.00126.92 | O |
| ATOM | 12052 | OE2 | GLU | B | 402 | 77.522 | 49.806 | 66.613 | 1.00126.92 | O |
| ATOM | 12053 | N | VAL | B | 403 | 83.148 | 50.128 | 65.859 | 1.00144.47 | N |
| ATOM | 12054 | CA | VAL | B | 403 | 84.338 | 50.960 | 65.676 | 1.00144.47 | C |
| ATOM | 12055 | C | VAL | B | 403 | 83.926 | 52.297 | 65.116 | 1.00144.47 | C |
| ATOM | 12056 | O | VAL | B | 403 | 82.955 | 52.391 | 64.368 | 1.00144.47 | O |
| ATOM | 12057 | CB | VAL | B | 403 | 85.361 | 50.317 | 64 | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12090 | CG | LYS | B | 407 | 90.061 | 55.592 | 61.381 | 1.00200.35 | C |
| ATOM | 12091 | CD | LYS | B | 407 | 90.217 | 54.215 | 60.756 | 1.00200.35 | C |
| ATOM | 12092 | CE | LYS | B | 407 | 91.014 | 54.300 | 59.462 | 1.00200.35 | C |
| ATOM | 12093 | NZ | LYS | B | 407 | 90.471 | 55.329 | 58.529 | 1.00200.35 | N |
| ATOM | 12094 | N | GLY | B | 408 | 88.889 | 59.201 | 62.702 | 1.00124.92 | N |
| ATOM | 12095 | CA | GLY | B | 408 | 89.706 | 60.394 | 62.710 | 1.00124.92 | C |
| ATOM | 12096 | C | GLY | B | 408 | 89.987 | 60.660 | 61.252 | 1.00124.92 | C |
| ATOM | 12097 | O | GLY | B | 408 | 90.968 | 60.168 | 60.705 | 1.00124.92 | O |
| ATOM | 12098 | N | LEU | B | 409 | 89.114 | 61.421 | 60.607 | 1.00185.32 | N |
| ATOM | 12099 | CA | LEU | B | 409 | 89.315 | 61.693 | 59.194 | 1.00185.32 | C |
| ATOM | 12100 | C | LEU | B | 409 | 89.327 | 63.161 | 58.821 | 1.00185.32 | C |
| ATOM | 12101 | O | LEU | B | 409 | 88.577 | 63.964 | 59.362 | 1.00185.32 | O |
| ATOM | 12102 | CB | LEU | B | 409 | 88.245 | 60.944 | 58.381 | 1.00123.64 | C |
| ATOM | 12103 | CG | LEU | B | 409 | 87.966 | 61.234 | 56.898 | 1.00123.64 | C |
| ATOM | 12104 | CD1 | LEU | B | 409 | 86.962 | 62.365 | 56.772 | 1.00123.64 | C |
| ATOM | 12105 | CD2 | LEU | B | 409 | 89.259 | 61.554 | 56.167 | 1.00123.64 | C |
| ATOM | 12106 | N | ASN | B | 410 | 90.211 | 63.504 | 57.898 | 1.00103.22 | N |
| ATOM | 12107 | CA | ASN | B | 410 | 90.299 | 64.859 | 57.396 | 1.00103.22 | C |
| ATOM | 12108 | C | ASN | B | 410 | 90.127 | 64.782 | 55.876 | 1.00103.22 | C |
| ATOM | 12109 | O | ASN | B | 410 | 90.545 | 63.808 | 55.237 | 1.00103.22 | O |
| ATOM | 12110 | CB | ASN | B | 410 | 91.665 | 65.461 | 57.735 | 1.00132.53 | C |
| ATOM | 12111 | CG | ASN | B | 410 | 91.770 | 65.892 | 59.180 | 1.00132.53 | C |
| ATOM | 12112 | OD1 | ASN | B | 410 | 91.414 | 67.019 | 59.530 | 1.00132.53 | O |
| ATOM | 12113 | ND2 | ASN | B | 410 | 92.253 | 64.995 | 60.033 | 1.00132.53 | N |
| ATOM | 12114 | N | LEU | B | 411 | 89.512 | 65.808 | 55.304 | 1.00184.16 | N |
| ATOM | 12115 | CA | LEU | B | 411 | 89.281 | 65.879 | 53.870 | 1.00184.16 | C |
| ATOM | 12116 | C | LEU | B | 411 | 88.648 | 67.216 | 53.542 | 1.00184.16 | C |
| ATOM | 12117 | O | LEU | B | 411 | 87.926 | 67.776 | 54.354 | 1.00184.16 | O |
| ATOM | 12118 | CB | LEU | B | 411 | 88.362 | 64.742 | 53.416 | 1.00 74.76 | C |
| ATOM | 12119 | CG | LEU | B | 411 | 88.205 | 64.537 | 51.903 | 1.00 74.76 | C |
| ATOM | 12120 | CD1 | LEU | B | 411 | 87.361 | 63.281 | 51.664 | 1.00 74.76 | C |
| ATOM | 12121 | CD2 | LEU | B | 411 | 87.585 | 65.782 | 51.244 | 1.00 74.76 | C |
| ATOM | 12122 | N | LYS | B | 412 | 88.924 | 67.715 | 52.342 | 1.00128.80 | N |
| ATOM | 12123 | CA | LYS | B | 412 | 88.381 | 68.977 | 51.867 | 1.00128.80 | C |
| ATOM | 12124 | C | LYS | B | 412 | 88.053 | 68.763 | 50.408 | 1.00128.80 | C |
| ATOM | 12125 | O | LYS | B | 412 | 88.628 | 67.903 | 49.754 | 1.00128.80 | O |
| ATOM | 12126 | CB | LYS | B | 412 | 89.419 | 70.099 | 52.022 | 1.00141.95 | C |
| ATOM | 12127 | CG | LYS | B | 412 | 90.858 | 69.605 | 52.217 | 1.00141.95 | C |
| ATOM | 12128 | CD | LYS | B | 412 | 91.903 | 70.679 | 51.906 | 1.00141.95 | C |
| ATOM | 12129 | CE | LYS | B | 412 | 91.835 | 71.864 | 52.857 | 1.00141.95 | C |
| ATOM | 12130 | NZ | LYS | B | 412 | 92.843 | 72.904 | 52.498 | 1.00141.95 | N |
| ATOM | 12131 | N | VAL | B | 413 | 87.125 | 69.534 | 49.883 | 1.00 98.74 | N |
| ATOM | 12132 | CA | VAL | B | 413 | 86.802 | 69.359 | 48.488 | 1.00 98.74 | C |
| ATOM | 12133 | C | VAL | B | 413 | 86.238 | 70.681 | 47.932 | 1.00 98.74 | C |
| ATOM | 12134 | O | VAL | B | 413 | 85.224 | 71.195 | 48.425 | 1.00 98.74 | O |
| ATOM | 12135 | CB | VAL | B | 413 | 85.828 | 68.155 | 48.312 | 1.00 40.51 | C |
| ATOM | 12136 | CG1 | VAL | B | 413 | 84.413 | 68.544 | 48.742 | 1.00 40.51 | C |
| ATOM | 12137 | CG2 | VAL | B | 413 | 85.922 | 67.598 | 46.877 | 1.00 40.51 | C |
| ATOM | 12138 | N | LYS | B | 414 | 86.948 | 71.244 | 46.940 | 1.00 96.44 | N |
| ATOM | 12139 | CA | LYS | B | 414 | 86.614 | 72.536 | 46.299 | 1.00 96.44 | C |
| ATOM | 12140 | C | LYS | B | 414 | 85.236 | 72.618 | 45.655 | 1.00 96.44 | C |
| ATOM | 12141 | O | LYS | B | 414 | 84.546 | 71.611 | 45.507 | 1.00 96.44 | O |
| ATOM | 12142 | CB | LYS | B | 414 | 87.649 | 72.895 | 45.228 | 1.00116.37 | C |
| ATOM | 12143 | CG | LYS | B | 414 | 89.066 | 73.040 | 45.728 | 1.00116.37 | C |
| ATOM | 12144 | CD | LYS | B | 414 | 89.669 | 71.686 | 46.043 | 1.00116.37 | C |
| ATOM | 12145 | CE | LYS | B | 414 | 91.113 | 71.808 | 46.483 | 1.00116.37 | C |
| ATOM | 12146 | NZ | LYS | B | 414 | 91.687 | 70.468 | 46.778 | 1.00116.37 | N |
| ATOM | 12147 | N | SER | B | 415 | 84.852 | 73.824 | 45.243 | 1.00 66.81 | N |
| ATOM | 12148 | CA | SER | B | 415 | 83.533 | 74.037 | 44.636 | 1.00 66.81 | C |
| ATOM | 12149 | C | SER | B | 415 | 83.480 | 73.466 | 43.246 | 1.00 66.81 | C |
| ATOM | 12150 | O | SER | B | 415 | 84.471 | 72.984 | 42.775 | 1.00 66.81 | O |
| ATOM | 12151 | CB | SER | B | 415 | 83.224 | 75.533 | 44.568 | 1.00131.89 | C |
| ATOM | 12152 | OG | SER | B | 415 | 84.052 | 76.183 | 43.620 | 1.00131.89 | O |
| ATOM | 12153 | N | GLY | B | 416 | 82.330 | 73.520 | 42.588 | 1.00107.78 | N |
| ATOM | 12154 | CA | GLY | B | 416 | 82.217 | 72.998 | 41.227 | 1.00107.78 | C |
| ATOM | 12155 | C | GLY | B | 416 | 82.886 | 71.674 | 40.852 | 1.00107.78 | C |
| ATOM | 12156 | O | GLY | B | 416 | 82.663 | 71.148 | 39.757 | 1.00107.78 | O |
| ATOM | 12157 | N | GLN | B | 417 | 83.708 | 71.128 | 41.743 | 1.00124.82 | N |
| ATOM | 12158 | CA | GLN | B | 417 | 84.386 | 69.871 | 41.465 | 1.00124.82 | C |
| ATOM | 12159 | C | GLN | B | 417 | 83.441 | 68.752 | 41.696 | 1.00124.82 | C |
| ATOM | 12160 | O | GLN | B | 417 | 82.245 | 68.936 | 41.888 | 1.00124.82 | O |
| ATOM | 12161 | CB | GLN | B | 417 | 85.577 | 69.661 | 42.398 | 1.00134.21 | C |
| ATOM | 12162 | CG | GLN | B | 417 | 86.747 | 70.605 | 42.234 | 1.00134.21 | C |
| ATOM | 12163 | CD | GLN | B | 417 | 88.002 | 70.028 | 42.855 | 1.00134.21 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12164 | OE1 | GLN | B | 417 | 88.005 | 69.640 | 44.026 | 1.00134.21 | O |
| ATOM | 12165 | NE2 | GLN | B | 417 | 89.074 | 69.957 | 42.072 | 1.00134.21 | N |
| ATOM | 12166 | N | THR | B | 418 | 84.011 | 67.567 | 41.688 | 1.00 59.96 | N |
| ATOM | 12167 | CA | THR | B | 418 | 83.252 | 66.384 | 41.942 | 1.00 59.96 | C |
| ATOM | 12168 | C | THR | B | 418 | 84.313 | 65.380 | 42.405 | 1.00 59.96 | C |
| ATOM | 12169 | O | THR | B | 418 | 85.302 | 65.134 | 41.725 | 1.00 59.96 | O |
| ATOM | 12170 | CB | THR | B | 418 | 82.491 | 65.911 | 40.669 | 1.00 87.41 | C |
| ATOM | 12171 | OG1 | THR | B | 418 | 83.212 | 64.865 | 40.000 | 1.00 87.41 | O |
| ATOM | 12172 | CG2 | THR | B | 418 | 82.287 | 67.088 | 39.733 | 1.00 87.41 | C |
| ATOM | 12173 | N | VAL | B | 419 | 84.129 | 64.842 | 43.602 | 1.00 84.90 | N |
| ATOM | 12174 | CA | VAL | B | 419 | 85.101 | 63.930 | 44.174 | 1.00 84.90 | C |
| ATOM | 12175 | C | VAL | B | 419 | 84.614 | 62.519 | 44.259 | 1.00 84.90 | C |
| ATOM | 12176 | O | VAL | B | 419 | 83.493 | 62.263 | 44.692 | 1.00 84.90 | O |
| ATOM | 12177 | CB | VAL | B | 419 | 85.495 | 64.367 | 45.600 | 1.00 73.44 | C |
| ATOM | 12178 | CG1 | VAL | B | 419 | 84.236 | 64.538 | 46.453 | 1.00 73.44 | C |
| ATOM | 12179 | CG2 | VAL | B | 419 | 86.443 | 63.338 | 46.223 | 1.00 73.44 | C |
| ATOM | 12180 | N | ALA | B | 420 | 85.482 | 61.598 | 43.876 | 1.00 69.38 | N |
| ATOM | 12181 | CA | ALA | B | 420 | 85.146 | 60.192 | 43.923 | 1.00 69.38 | C |
| ATOM | 12182 | C | ALA | B | 420 | 85.704 | 59.494 | 45.159 | 1.00 69.38 | C |
| ATOM | 12183 | O | ALA | B | 420 | 86.897 | 59.583 | 45.445 | 1.00 69.38 | O |
| ATOM | 12184 | CB | ALA | B | 420 | 85.647 | 59.493 | 42.655 | 1.00140.71 | C |
| ATOM | 12185 | N | LEU | B | 421 | 84.838 | 58.803 | 45.895 | 1.00 89.36 | N |
| ATOM | 12186 | CA | LEU | B | 421 | 85.274 | 58.052 | 47.063 | 1.00 89.36 | C |
| ATOM | 12187 | C | LEU | B | 421 | 85.334 | 56.585 | 46.681 | 1.00 89.36 | C |
| ATOM | 12188 | O | LEU | B | 421 | 84.367 | 55.994 | 46.127 | 1.00 89.36 | O |
| ATOM | 12189 | CB | LEU | B | 421 | 84.328 | 58.287 | 48.237 | 1.00 75.90 | C |
| ATOM | 12190 | CG | LEU | B | 421 | 84.667 | 59.569 | 49.007 | 1.00 75.90 | C |
| ATOM | 12191 | CD1 | LEU | B | 421 | 84.670 | 60.756 | 48.055 | 1.00 75.90 | C |
| ATOM | 12192 | CD2 | LEU | B | 421 | 83.676 | 59.779 | 50.132 | 1.00 75.90 | C |
| ATOM | 12193 | N | VAL | B | 422 | 86.489 | 56.000 | 46.959 | 1.00130.72 | N |
| ATOM | 12194 | CA | VAL | B | 422 | 86.706 | 54.619 | 46.602 | 1.00130.72 | C |
| ATOM | 12195 | C | VAL | B | 422 | 86.968 | 53.708 | 47.763 | 1.00130.72 | C |
| ATOM | 12196 | O | VAL | B | 422 | 88.032 | 53.767 | 48.385 | 1.00130.72 | O |
| ATOM | 12197 | CB | VAL | B | 422 | 87.885 | 54.499 | 45.622 | 1.00110.29 | C |
| ATOM | 12198 | CG1 | VAL | B | 422 | 87.541 | 55.179 | 44.301 | 1.00110.29 | C |
| ATOM | 12199 | CG2 | VAL | B | 422 | 89.127 | 55.128 | 46.232 | 1.00110.29 | C |
| ATOM | 12200 | N | GLY | B | 423 | 85.996 | 52.848 | 48.038 | 1.00156.17 | N |
| ATOM | 12201 | CA | GLY | B | 423 | 86.139 | 51.912 | 49.128 | 1.00156.17 | C |
| ATOM | 12202 | C | GLY | B | 423 | 85.549 | 50.582 | 48.740 | 1.00156.17 | C |
| ATOM | 12203 | O | GLY | B | 423 | 85.113 | 50.405 | 47.598 | 1.00156.17 | O |
| ATOM | 12204 | N | ASN | B | 424 | 85.533 | 49.647 | 49.687 | 1.00207.38 | N |
| ATOM | 12205 | CA | ASN | B | 424 | 84.976 | 48.334 | 49.417 | 1.00207.38 | C |
| ATOM | 12206 | C | ASN | B | 424 | 84.474 | 47.553 | 50.634 | 1.00207.38 | C |
| ATOM | 12207 | O | ASN | B | 424 | 83.337 | 47.063 | 50.630 | 1.00207.38 | O |
| ATOM | 12208 | CB | ASN | B | 424 | 85.998 | 47.488 | 48.652 | 1.00207.38 | C |
| ATOM | 12209 | CG | ASN | B | 424 | 85.382 | 46.753 | 47.487 | 1.00207.38 | C |
| ATOM | 12210 | OD1 | ASN | B | 424 | 84.773 | 47.365 | 46.607 | 1.00207.38 | O |
| ATOM | 12211 | ND2 | ASN | B | 424 | 85.541 | 45.434 | 47.467 | 1.00207.38 | N |
| ATOM | 12212 | N | SER | B | 425 | 85.302 | 47.443 | 51.673 | 1.00207.38 | N |
| ATOM | 12213 | CA | SER | B | 425 | 84.918 | 46.677 | 52.866 | 1.00207.38 | C |
| ATOM | 12214 | C | SER | B | 425 | 83.810 | 47.245 | 53.782 | 1.00207.38 | C |
| ATOM | 12215 | O | SER | B | 425 | 83.781 | 46.967 | 54.991 | 1.00207.38 | O |
| ATOM | 12216 | CB | SER | B | 425 | 86.160 | 46.340 | 53.705 | 1.00195.23 | C |
| ATOM | 12217 | OG | SER | B | 425 | 86.883 | 47.499 | 54.065 | 1.00195.23 | O |
| ATOM | 12218 | N | GLY | B | 426 | 82.895 | 48.026 | 53.208 | 1.00141.35 | N |
| ATOM | 12219 | CA | GLY | B | 426 | 81.792 | 48.549 | 53.992 | 1.00141.35 | C |
| ATOM | 12220 | C | GLY | B | 426 | 81.841 | 49.968 | 54.508 | 1.00141.35 | C |
| ATOM | 12221 | O | GLY | B | 426 | 82.640 | 50.800 | 54.064 | 1.00141.35 | O |
| ATOM | 12222 | N | CYS | B | 427 | 80.973 | 50.214 | 55.483 | 1.00207.38 | N |
| ATOM | 12223 | CA | CYS | B | 427 | 80.856 | 51.507 | 56.124 | 1.00207.38 | C |
| ATOM | 12224 | C | CYS | B | 427 | 82.168 | 52.262 | 56.146 | 1.00207.38 | C |
| ATOM | 12225 | O | CYS | B | 427 | 83.247 | 51.694 | 56.350 | 1.00207.38 | O |
| ATOM | 12226 | CB | CYS | B | 427 | 80.334 | 51.343 | 57.551 | 1.00109.50 | C |
| ATOM | 12227 | SG | CYS | B | 427 | 78.576 | 50.947 | 57.655 | 1.00109.50 | S |
| ATOM | 12228 | N | GLY | B | 428 | 82.057 | 53.560 | 55.919 | 1.00141.37 | N |
| ATOM | 12229 | CA | GLY | B | 428 | 83.231 | 54.419 | 55.922 | 1.00141.37 | C |
| ATOM | 12230 | C | GLY | B | 428 | 83.046 | 55.594 | 54.967 | 1.00141.37 | C |
| ATOM | 12231 | O | GLY | B | 428 | 82.655 | 56.683 | 55.399 | 1.00141.37 | O |
| ATOM | 12232 | N | LYS | B | 429 | 83.344 | 55.379 | 53.681 | 1.00 80.82 | N |
| ATOM | 12233 | CA | LYS | B | 429 | 83.183 | 56.392 | 52.640 | 1.00 80.82 | C |
| ATOM | 12234 | C | LYS | B | 429 | 81.707 | 56.801 | 52.598 | 1.00 80.82 | C |
| ATOM | 12235 | O | LYS | B | 429 | 81.349 | 57.995 | 52.611 | 1.00 80.82 | O |
| ATOM | 12236 | CB | LYS | B | 429 | 83.615 | 55.818 | 51.283 | 1.00113.46 | C |
| ATOM | 12237 | CG | LYS | B | 429 | 83.787 | 54.291 | 51.242 | 1.00113.46 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12238 | CD | LYS | B | 429 | 82.471 | 53.544 | 51.427 | 1.00113.46 | C |
| ATOM | 12239 | CE | LYS | B | 429 | 82.685 | 52.034 | 51.418 | 1.00113.46 | C |
| ATOM | 12240 | NZ | LYS | B | 429 | 81.424 | 51.280 | 51.666 | 1.00113.46 | N |
| ATOM | 12241 | N | SER | B | 430 | 80.846 | 55.795 | 52.558 | 1.00 58.81 | N |
| ATOM | 12242 | CA | SER | B | 430 | 79.415 | 56.032 | 52.558 | 1.00 58.81 | C |
| ATOM | 12243 | C | SER | B | 430 | 79.037 | 56.765 | 53.862 | 1.00 58.81 | C |
| ATOM | 12244 | O | SER | B | 430 | 78.168 | 57.660 | 53.898 | 1.00 58.81 | O |
| ATOM | 12245 | CB | SER | B | 430 | 78.658 | 54.707 | 52.444 | 1.00144.24 | C |
| ATOM | 12246 | OG | SER | B | 430 | 79.320 | 53.678 | 53.153 | 1.00144.24 | O |
| ATOM | 12247 | N | THR | B | 431 | 79.709 | 56.388 | 54.936 | 1.00 78.23 | N |
| ATOM | 12248 | CA | THR | B | 431 | 79.478 | 57.019 | 56.218 | 1.00 78.23 | C |
| ATOM | 12249 | C | THR | B | 431 | 79.576 | 58.542 | 56.022 | 1.00 78.23 | C |
| ATOM | 12250 | O | THR | B | 431 | 78.618 | 59.287 | 56.254 | 1.00 78.23 | O |
| ATOM | 12251 | CB | THR | B | 431 | 80.537 | 56.554 | 57.235 | 1.00127.95 | C |
| ATOM | 12252 | OG1 | THR | B | 431 | 80.596 | 55.122 | 57.236 | 1.00127.95 | O |
| ATOM | 12253 | CG2 | THR | B | 431 | 80.188 | 57.030 | 58.628 | 1.00127.95 | C |
| ATOM | 12254 | N | THR | B | 432 | 80.739 | 58.998 | 55.581 | 1.00 71.77 | N |
| ATOM | 12255 | CA | THR | B | 432 | 80.942 | 60.410 | 55.344 | 1.00 71.77 | C |
| ATOM | 12256 | C | THR | B | 432 | 79.718 | 60.934 | 54.643 | 1.00 71.77 | C |
| ATOM | 12257 | O | THR | B | 432 | 79.136 | 61.933 | 55.081 | 1.00 71.77 | O |
| ATOM | 12258 | CB | THR | B | 432 | 82.145 | 60.660 | 54.422 | 1.00 70.03 | C |
| ATOM | 12259 | OG1 | THR | B | 432 | 81.815 | 60.247 | 53.090 | 1.00 70.03 | O |
| ATOM | 12260 | CG2 | THR | B | 432 | 83.357 | 59.877 | 54.891 | 1.00 70.03 | C |
| ATOM | 12261 | N | VAL | B | 433 | 79.330 | 60.264 | 53.551 | 1.00 65.27 | N |
| ATOM | 12262 | CA | VAL | B | 433 | 78.139 | 60.695 | 52.790 | 1.00 65.27 | C |
| ATOM | 12263 | C | VAL | B | 433 | 77.059 | 61.175 | 53.735 | 1.00 65.27 | C |
| ATOM | 12264 | O | VAL | B | 433 | 76.649 | 62.338 | 53.691 | 1.00 65.27 | O |
| ATOM | 12265 | CB | VAL | B | 433 | 77.535 | 59.546 | 51.950 | 1.00 52.47 | C |
| ATOM | 12266 | CG1 | VAL | B | 433 | 76.178 | 59.957 | 51.409 | 1.00 52.47 | C |
| ATOM | 12267 | CG2 | VAL | B | 433 | 78.466 | 59.193 | 50.803 | 1.00 52.47 | C |
| ATOM | 12268 | N | GLN | B | 434 | 76.620 | 60.257 | 54.594 | 1.00125.54 | N |
| ATOM | 12269 | CA | GLN | B | 434 | 75.594 | 60.551 | 55.587 | 1.00125.54 | C |
| ATOM | 12270 | C | GLN | B | 434 | 75.925 | 61.823 | 56.366 | 1.00125.54 | C |
| ATOM | 12271 | O | GLN | B | 434 | 75.181 | 62.794 | 56.303 | 1.00125.54 | O |
| ATOM | 12272 | CB | GLN | B | 434 | 75.478 | 59.394 | 56.577 | 1.00163.40 | C |
| ATOM | 12273 | CG | GLN | B | 434 | 75.352 | 58.032 | 55.933 | 1.00163.40 | C |
| ATOM | 12274 | CD | GLN | B | 434 | 75.710 | 56.916 | 56.889 | 1.00163.40 | C |
| ATOM | 12275 | OE1 | GLN | B | 434 | 76.521 | 56.047 | 56.570 | 1.00163.40 | O |
| ATOM | 12276 | NE2 | GLN | B | 434 | 75.109 | 56.934 | 58.072 | 1.00163.40 | N |
| ATOM | 12277 | N | LEU | B | 435 | 77.038 | 61.824 | 57.098 | 1.00 78.45 | N |
| ATOM | 12278 | CA | LEU | B | 435 | 77.411 | 63.002 | 57.884 | 1.00 78.45 | C |
| ATOM | 12279 | C | LEU | B | 435 | 77.321 | 64.300 | 57.174 | 1.00 78.45 | C |
| ATOM | 12280 | O | LEU | B | 435 | 77.380 | 65.335 | 57.828 | 1.00 78.45 | O |
| ATOM | 12281 | CB | LEU | B | 435 | 78.830 | 62.882 | 58.424 | 1.00 69.85 | C |
| ATOM | 12282 | CG | LEU | B | 435 | 79.000 | 61.690 | 59.344 | 1.00 69.85 | C |
| ATOM | 12283 | CD1 | LEU | B | 435 | 77.709 | 61.480 | 60.129 | 1.00 69.85 | C |
| ATOM | 12284 | CD2 | LEU | B | 435 | 79.278 | 60.469 | 58.513 | 1.00 69.85 | C |
| ATOM | 12285 | N | MET | B | 436 | 77.249 | 64.249 | 55.843 | 1.00 81.42 | N |
| ATOM | 12286 | CA | MET | B | 436 | 77.173 | 65.458 | 55.040 | 1.00 81.42 | C |
| ATOM | 12287 | C | MET | B | 436 | 75.760 | 66.024 | 54.957 | 1.00 81.42 | C |
| ATOM | 12288 | O | MET | B | 436 | 75.550 | 67.104 | 54.405 | 1.00 81.42 | O |
| ATOM | 12289 | CB | MET | B | 436 | 77.695 | 65.191 | 53.623 | 1.00107.89 | C |
| ATOM | 12290 | CG | MET | B | 436 | 77.721 | 66.423 | 52.714 | 1.00107.89 | C |
| ATOM | 12291 | SD | MET | B | 436 | 78.987 | 67.622 | 53.190 | 1.00107.89 | S |
| ATOM | 12292 | CE | MET | B | 436 | 78.177 | 68.489 | 54.532 | 1.00107.89 | C |
| ATOM | 12293 | N | GLN | B | 437 | 74.792 | 65.282 | 55.496 | 1.00123.85 | N |
| ATOM | 12294 | CA | GLN | B | 437 | 73.382 | 65.691 | 55.524 | 1.00123.85 | C |
| ATOM | 12295 | C | GLN | B | 437 | 73.000 | 65.803 | 56.987 | 1.00123.85 | C |
| ATOM | 12296 | O | GLN | B | 437 | 71.825 | 65.775 | 57.336 | 1.00123.85 | O |
| ATOM | 12297 | CB | GLN | B | 437 | 72.496 | 64.614 | 54.900 | 1.00127.45 | C |
| ATOM | 12298 | CG | GLN | B | 437 | 72.655 | 64.386 | 53.416 | 1.00127.45 | C |
| ATOM | 12299 | CD | GLN | B | 437 | 71.851 | 63.184 | 52.956 | 1.00127.45 | C |
| ATOM | 12300 | OE1 | GLN | B | 437 | 72.225 | 62.042 | 53.218 | 1.00127.45 | O |
| ATOM | 12301 | NE2 | GLN | B | 437 | 70.730 | 63.434 | 52.288 | 1.00127.45 | N |
| ATOM | 12302 | N | ARG | B | 438 | 74.006 | 65.873 | 57.846 | 1.00175.19 | N |
| ATOM | 12303 | CA | ARG | B | 438 | 73.779 | 65.984 | 59.275 | 1.00175.19 | C |
| ATOM | 12304 | C | ARG | B | 438 | 72.928 | 64.837 | 59.793 | 1.00175.19 | C |
| ATOM | 12305 | O | ARG | B | 438 | 72.501 | 64.840 | 60.949 | 1.00175.19 | O |
| ATOM | 12306 | CB | ARG | B | 438 | 73.119 | 67.329 | 59.576 | 1.00137.63 | C |
| ATOM | 12307 | CG | ARG | B | 438 | 73.487 | 67.928 | 60.918 | 1.00137.63 | C |
| ATOM | 12308 | CD | ARG | B | 438 | 72.558 | 67.464 | 62.020 | 1.00137.63 | C |
| ATOM | 12309 | NE | ARG | B | 438 | 72.898 | 68.109 | 63.282 | 1.00137.63 | N |
| ATOM | 12310 | CZ | ARG | B | 438 | 73.107 | 69.414 | 63.413 | 1.00137.63 | C |
| ATOM | 12311 | NH1 | ARG | B | 438 | 73.010 | 70.208 | 62.356 | 1.00137.63 | N |

| | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|
| ATOM | 12312 | NH2 | ARG | B | 438 | 73.415 | 69.924 | 64.596 | 1.00137.63 |
| ATOM | 12313 | N | LEU | B | 439 | 72.678 | 63.868 | 58.917 | 1.00136.55 |
| ATOM | 12314 | CA | LEU | B | 439 | 71.919 | 62.676 | 59.261 | 1.00136.55 |
| ATOM | 12315 | C | LEU | B | 439 | 72.312 | 62.288 | 60.690 | 1.00136.55 |
| ATOM | 12316 | O | LEU | B | 439 | 71.469 | 61.940 | 61.506 | 1.00136.55 |
| ATOM | 12317 | CB | LEU | B | 439 | 72.278 | 61.540 | 58.306 | 1.00142.10 |
| ATOM | 12318 | CG | LEU | B | 439 | 71.101 | 60.761 | 57.720 | 1.00142.10 |
| ATOM | 12319 | CD1 | LEU | B | 439 | 70.381 | 60.005 | 58.824 | 1.00142.10 |
| ATOM | 12320 | CD2 | LEU | B | 439 | 70.153 | 61.730 | 57.019 | 1.00142.10 |
| ATOM | 12321 | N | TYR | B | 440 | 73.611 | 62.339 | 60.974 | 1.00156.81 |
| ATOM | 12322 | CA | TYR | B | 440 | 74.131 | 62.053 | 62.307 | 1.00156.81 |
| ATOM | 12323 | C | TYR | B | 440 | 75.185 | 63.113 | 62.549 | 1.00156.81 |
| ATOM | 12324 | O | TYR | B | 440 | 75.984 | 63.423 | 61.662 | 1.00156.81 |
| ATOM | 12325 | CB | TYR | B | 440 | 74.847 | 60.700 | 62.386 | 1.00124.40 |
| ATOM | 12326 | CG | TYR | B | 440 | 74.065 | 59.465 | 62.004 | 1.00124.40 |
| ATOM | 12327 | CD1 | TYR | B | 440 | 73.668 | 59.246 | 60.687 | 1.00124.40 |
| ATOM | 12328 | CD2 | TYR | B | 440 | 73.818 | 58.461 | 62.944 | 1.00124.40 |
| ATOM | 12329 | CE1 | TYR | B | 440 | 73.057 | 58.054 | 60.310 | 1.00124.40 |
| ATOM | 12330 | CE2 | TYR | B | 440 | 73.208 | 57.266 | 62.578 | 1.00124.40 |
| ATOM | 12331 | CZ | TYR | B | 440 | 72.835 | 57.068 | 61.259 | 1.00124.40 |
| ATOM | 12332 | OH | TYR | B | 440 | 72.273 | 55.871 | 60.881 | 1.00124.40 |
| ATOM | 12333 | N | ASP | B | 441 | 75.187 | 63.669 | 63.750 | 1.00 86.01 |
| ATOM | 12334 | CA | ASP | B | 441 | 76.163 | 64.675 | 64.079 | 1.00 86.01 |
| ATOM | 12335 | C | ASP | B | 441 | 77.478 | 63.942 | 64.190 | 1.00 86.01 |
| ATOM | 12336 | O | ASP | B | 441 | 77.512 | 62.741 | 64.451 | 1.00 86.01 |
| ATOM | 12337 | CB | ASP | B | 441 | 75.806 | 65.362 | 65.394 | 1.00129.88 |
| ATOM | 12338 | CG | ASP | B | 441 | 75.615 | 66.860 | 65.231 | 1.00129.88 |
| ATOM | 12339 | OD1 | ASP | B | 441 | 74.921 | 67.271 | 64.275 | 1.00129.88 |
| ATOM | 12340 | OD2 | ASP | B | 441 | 76.152 | 67.627 | 66.058 | 1.00129.88 |
| ATOM | 12341 | N | PRO | B | 442 | 78.585 | 64.656 | 63.969 | 1.00113.95 |
| ATOM | 12342 | CA | PRO | B | 442 | 79.917 | 64.064 | 64.042 | 1.00113.95 |
| ATOM | 12343 | C | PRO | B | 442 | 80.265 | 63.690 | 65.456 | 1.00113.95 |
| ATOM | 12344 | O | PRO | B | 442 | 80.110 | 64.506 | 66.364 | 1.00113.95 |
| ATOM | 12345 | CB | PRO | B | 442 | 80.809 | 65.171 | 63.492 | 1.00175.78 |
| ATOM | 12346 | CG | PRO | B | 442 | 80.116 | 66.405 | 63.975 | 1.00175.78 |
| ATOM | 12347 | CD | PRO | B | 442 | 78.670 | 66.095 | 63.660 | 1.00175.78 |
| ATOM | 12348 | N | LEU | B | 443 | 80.735 | 62.458 | 65.644 | 1.00144.13 |
| ATOM | 12349 | CA | LEU | B | 443 | 81.113 | 61.994 | 66.975 | 1.00144.13 |
| ATOM | 12350 | C | LEU | B | 443 | 82.161 | 62.979 | 67.512 | 1.00144.13 |
| ATOM | 12351 | O | LEU | B | 443 | 82.048 | 63.453 | 68.641 | 1.00144.13 |
| ATOM | 12352 | CB | LEU | B | 443 | 81.679 | 60.568 | 66.908 | 1.00112.07 |
| ATOM | 12353 | CG | LEU | B | 443 | 81.216 | 59.560 | 67.974 | 1.00112.07 |
| ATOM | 12354 | CD1 | LEU | B | 443 | 81.621 | 58.145 | 67.570 | 1.00112.07 |
| ATOM | 12355 | CD2 | LEU | B | 443 | 81.804 | 59.928 | 69.329 | 1.00112.07 |
| ATOM | 12356 | N | ASP | B | 444 | 83.151 | 63.317 | 66.684 | 1.00123.47 |
| ATOM | 12357 | CA | ASP | B | 444 | 84.203 | 64.259 | 67.073 | 1.00123.47 |
| ATOM | 12358 | C | ASP | B | 444 | 84.731 | 65.025 | 65.849 | 1.00123.47 |
| ATOM | 12359 | O | ASP | B | 444 | 84.560 | 64.588 | 64.706 | 1.00123.47 |
| ATOM | 12360 | CB | ASP | B | 444 | 85.340 | 63.499 | 67.770 | 1.00156.17 |
| ATOM | 12361 | CG | ASP | B | 444 | 86.314 | 64.420 | 68.482 | 1.00156.17 |
| ATOM | 12362 | OD1 | ASP | B | 444 | 85.855 | 65.350 | 69.179 | 1.00156.17 |
| ATOM | 12363 | OD2 | ASP | B | 444 | 87.539 | 64.205 | 68.359 | 1.00156.17 |
| ATOM | 12364 | N | GLY | B | 445 | 85.370 | 66.167 | 66.094 | 1.00107.68 |
| ATOM | 12365 | CA | GLY | B | 445 | 85.909 | 66.963 | 65.004 | 1.00107.68 |
| ATOM | 12366 | C | GLY | B | 445 | 84.756 | 67.740 | 64.445 | 1.00107.68 |
| ATOM | 12367 | O | GLY | B | 445 | 83.941 | 68.210 | 65.226 | 1.00107.68 |
| ATOM | 12368 | N | MET | B | 446 | 84.673 | 67.879 | 63.123 | 1.00164.31 |
| ATOM | 12369 | CA | MET | B | 446 | 83.559 | 68.601 | 62.502 | 1.00164.31 |
| ATOM | 12370 | C | MET | B | 446 | 83.636 | 68.690 | 60.988 | 1.00164.31 |
| ATOM | 12371 | O | MET | B | 446 | 84.592 | 68.234 | 60.365 | 1.00164.31 |
| ATOM | 12372 | CB | MET | B | 446 | 83.461 | 70.018 | 63.083 | 1.00182.80 |
| ATOM | 12373 | CG | MET | B | 446 | 84.560 | 70.966 | 62.623 | 1.00182.80 |
| ATOM | 12374 | SD | MET | B | 446 | 84.417 | 72.613 | 63.339 | 1.00182.80 |
| ATOM | 12375 | CE | MET | B | 446 | 85.231 | 72.351 | 64.923 | 1.00182.80 |
| ATOM | 12376 | N | VAL | B | 447 | 82.600 | 69.286 | 60.411 | 1.00117.51 |
| ATOM | 12377 | CA | VAL | B | 447 | 82.512 | 69.492 | 58.976 | 1.00117.51 |
| ATOM | 12378 | C | VAL | B | 447 | 82.003 | 70.907 | 58.719 | 1.00117.51 |
| ATOM | 12379 | O | VAL | B | 447 | 81.357 | 71.522 | 59.560 | 1.00117.51 |
| ATOM | 12380 | CB | VAL | B | 447 | 81.572 | 68.453 | 58.288 | 1.00105.09 |
| ATOM | 12381 | CG1 | VAL | B | 447 | 80.871 | 67.604 | 59.331 | 1.00105.09 |
| ATOM | 12382 | CG2 | VAL | B | 447 | 80.555 | 69.163 | 57.395 | 1.00105.09 |
| ATOM | 12383 | N | SER | B | 448 | 82.310 | 71.427 | 57.549 | 1.00 94.61 |
| ATOM | 12384 | CA | SER | B | 448 | 81.893 | 72.758 | 57.207 | 1.00 94.61 |
| ATOM | 12385 | C | SER | B | 448 | 81.443 | 72.809 | 55.778 | 1.00 94.61 |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 12386 | O | SER | B | 448 | 82.059 | 72.209 | 54.912 | 1.00 | 94.61 | O |
| ATOM | 12387 | CB | SER | B | 448 | 83.040 | 73.752 | 57.386 | 1.00 | 124.19 | C |
| ATOM | 12388 | OG | SER | B | 448 | 82.907 | 74.850 | 56.490 | 1.00 | 124.19 | O |
| ATOM | 12389 | N | ILE | B | 449 | 80.361 | 73.528 | 55.531 | 1.00 | 75.70 | N |
| ATOM | 12390 | CA | ILE | B | 449 | 79.853 | 73.692 | 54.182 | 1.00 | 75.70 | C |
| ATOM | 12391 | C | ILE | B | 449 | 80.349 | 75.068 | 53.826 | 1.00 | 75.70 | C |
| ATOM | 12392 | O | ILE | B | 449 | 80.544 | 75.896 | 54.695 | 1.00 | 75.70 | O |
| ATOM | 12393 | CB | ILE | B | 449 | 78.310 | 73.744 | 54.117 | 1.00 | 96.79 | C |
| ATOM | 12394 | CG1 | ILE | B | 449 | 77.818 | 73.099 | 52.824 | 1.00 | 96.79 | C |
| ATOM | 12395 | CG2 | ILE | B | 449 | 77.821 | 75.206 | 54.102 | 1.00 | 96.79 | C |
| ATOM | 12396 | CD1 | ILE | B | 449 | 78.120 | 71.622 | 52.736 | 1.00 | 96.79 | C |
| ATOM | 12397 | N | ASP | B | 450 | 80.546 | 75.333 | 52.542 | 1.00 | 164.43 | N |
| ATOM | 12398 | CA | ASP | B | 450 | 81.043 | 76.643 | 52.154 | 1.00 | 164.43 | C |
| ATOM | 12399 | C | ASP | B | 450 | 82.206 | 76.583 | 53.129 | 1.00 | 164.43 | C |
| ATOM | 12400 | O | ASP | B | 450 | 83.010 | 75.706 | 53.045 | 1.00 | 164.43 | O |
| ATOM | 12401 | CB | ASP | B | 450 | 80.043 | 77.748 | 52.563 | 1.00 | 152.30 | C |
| ATOM | 12402 | CG | ASP | B | 450 | 80.667 | 79.133 | 52.511 | 1.00 | 152.30 | C |
| ATOM | 12403 | OD1 | ASP | B | 450 | 80.051 | 80.109 | 52.991 | 1.00 | 152.30 | O |
| ATOM | 12404 | OD2 | ASP | B | 450 | 81.802 | 79.237 | 51.986 | 1.00 | 152.30 | O |
| ATOM | 12405 | N | GLY | B | 451 | 82.315 | 77.573 | 53.993 | 1.00 | 129.81 | N |
| ATOM | 12406 | CA | GLY | B | 451 | 83.300 | 77.613 | 55.037 | 1.00 | 129.81 | C |
| ATOM | 12407 | C | GLY | B | 451 | 82.700 | 77.765 | 56.426 | 1.00 | 129.81 | C |
| ATOM | 12408 | O | GLY | B | 451 | 83.412 | 78.174 | 57.337 | 1.00 | 129.81 | O |
| ATOM | 12409 | N | GLN | B | 452 | 81.397 | 77.535 | 56.597 | 1.00 | 135.45 | N |
| ATOM | 12410 | CA | GLN | B | 452 | 80.805 | 77.608 | 57.953 | 1.00 | 135.45 | C |
| ATOM | 12411 | C | GLN | B | 452 | 80.644 | 76.149 | 58.380 | 1.00 | 135.45 | C |
| ATOM | 12412 | O | GLN | B | 452 | 80.732 | 75.280 | 57.525 | 1.00 | 135.45 | O |
| ATOM | 12413 | CB | GLN | B | 452 | 79.408 | 78.223 | 57.899 | 1.00 | 165.90 | C |
| ATOM | 12414 | CG | GLN | B | 452 | 79.275 | 79.503 | 57.133 | 1.00 | 165.90 | C |
| ATOM | 12415 | CD | GLN | B | 452 | 77.817 | 79.888 | 56.987 | 1.00 | 165.90 | C |
| ATOM | 12416 | OE1 | GLN | B | 452 | 77.025 | 79.140 | 56.415 | 1.00 | 165.90 | O |
| ATOM | 12417 | NE2 | GLN | B | 452 | 77.450 | 81.049 | 57.518 | 1.00 | 165.90 | N |
| ATOM | 12418 | N | ASP | B | 453 | 80.400 | 75.855 | 59.662 | 1.00 | 109.06 | N |
| ATOM | 12419 | CA | ASP | B | 453 | 80.232 | 74.448 | 60.085 | 1.00 | 109.06 | C |
| ATOM | 12420 | C | ASP | B | 453 | 78.817 | 73.914 | 59.879 | 1.00 | 109.06 | C |
| ATOM | 12421 | O | ASP | B | 453 | 77.862 | 74.455 | 60.423 | 1.00 | 109.06 | O |
| ATOM | 12422 | CB | ASP | B | 453 | 80.614 | 74.270 | 61.555 | 1.00 | 124.36 | C |
| ATOM | 12423 | CG | ASP | B | 453 | 80.116 | 72.955 | 62.124 | 1.00 | 124.36 | C |
| ATOM | 12424 | OD1 | ASP | B | 453 | 78.890 | 72.818 | 62.320 | 1.00 | 124.36 | O |
| ATOM | 12425 | OD2 | ASP | B | 453 | 80.946 | 72.056 | 62.369 | 1.00 | 124.36 | O |
| ATOM | 12426 | N | ILE | B | 454 | 78.693 | 72.837 | 59.111 | 1.00 | 105.86 | N |
| ATOM | 12427 | CA | ILE | B | 454 | 77.393 | 72.252 | 58.831 | 1.00 | 105.86 | C |
| ATOM | 12428 | C | ILE | B | 454 | 76.435 | 72.381 | 59.994 | 1.00 | 105.86 | C |
| ATOM | 12429 | O | ILE | B | 454 | 75.464 | 73.118 | 59.903 | 1.00 | 105.86 | O |
| ATOM | 12430 | CB | ILE | B | 454 | 77.497 | 70.751 | 58.505 | 1.00 | 102.54 | C |
| ATOM | 12431 | CG1 | ILE | B | 454 | 76.092 | 70.136 | 58.485 | 1.00 | 102.54 | C |
| ATOM | 12432 | CG2 | ILE | B | 454 | 78.402 | 70.056 | 59.520 | 1.00 | 102.54 | C |
| ATOM | 12433 | CD1 | ILE | B | 454 | 76.073 | 68.643 | 58.269 | 1.00 | 102.54 | C |
| ATOM | 12434 | N | ARG | B | 455 | 76.709 | 71.657 | 61.077 | 1.00 | 115.32 | N |
| ATOM | 12435 | CA | ARG | B | 455 | 75.876 | 71.663 | 62.274 | 1.00 | 115.32 | C |
| ATOM | 12436 | C | ARG | B | 455 | 75.276 | 73.036 | 62.586 | 1.00 | 115.32 | C |
| ATOM | 12437 | O | ARG | B | 455 | 74.094 | 73.144 | 62.932 | 1.00 | 115.32 | O |
| ATOM | 12438 | CB | ARG | B | 455 | 76.715 | 71.188 | 63.459 | 1.00 | 207.38 | C |
| ATOM | 12439 | CG | ARG | B | 455 | 77.483 | 69.922 | 63.152 | 1.00 | 207.38 | C |
| ATOM | 12440 | CD | ARG | B | 455 | 78.727 | 69.781 | 64.004 | 1.00 | 207.38 | C |
| ATOM | 12441 | NE | ARG | B | 455 | 78.427 | 69.473 | 65.397 | 1.00 | 207.38 | N |
| ATOM | 12442 | CZ | ARG | B | 455 | 79.326 | 69.007 | 66.258 | 1.00 | 207.38 | C |
| ATOM | 12443 | NH1 | ARG | B | 455 | 80.575 | 68.797 | 65.863 | 1.00 | 207.38 | N |
| ATOM | 12444 | NH2 | ARG | B | 455 | 78.977 | 68.744 | 67.510 | 1.00 | 207.38 | N |
| ATOM | 12445 | N | THR | B | 456 | 76.073 | 74.090 | 62.437 | 1.00 | 83.31 | N |
| ATOM | 12446 | CA | THR | B | 456 | 75.578 | 75.418 | 62.755 | 1.00 | 83.31 | C |
| ATOM | 12447 | C | THR | B | 456 | 74.407 | 75.881 | 61.920 | 1.00 | 83.31 | C |
| ATOM | 12448 | O | THR | B | 456 | 73.522 | 76.494 | 62.467 | 1.00 | 83.31 | O |
| ATOM | 12449 | CB | THR | B | 456 | 76.694 | 76.493 | 62.681 | 1.00 | 152.45 | C |
| ATOM | 12450 | OG1 | THR | B | 456 | 76.637 | 77.165 | 61.418 | 1.00 | 152.45 | O |
| ATOM | 12451 | CG2 | THR | B | 456 | 78.067 | 75.857 | 62.851 | 1.00 | 152.45 | C |
| ATOM | 12452 | N | ILE | B | 457 | 74.365 | 75.599 | 60.618 | 1.00 | 169.32 | N |
| ATOM | 12453 | CA | ILE | B | 457 | 73.230 | 76.062 | 59.804 | 1.00 | 169.32 | C |
| ATOM | 12454 | C | ILE | B | 457 | 71.955 | 75.250 | 60.010 | 1.00 | 169.32 | C |
| ATOM | 12455 | O | ILE | B | 457 | 71.980 | 74.136 | 60.550 | 1.00 | 169.32 | O |
| ATOM | 12456 | CB | ILE | B | 457 | 73.562 | 76.055 | 58.293 | 1.00 | 143.23 | C |
| ATOM | 12457 | CG1 | ILE | B | 457 | 73.842 | 74.627 | 57.820 | 1.00 | 143.23 | C |
| ATOM | 12458 | CG2 | ILE | B | 457 | 74.747 | 76.970 | 58.019 | 1.00 | 143.23 | C |
| ATOM | 12459 | CD1 | ILE | B | 457 | 74.072 | 74.521 | 56.321 | 1.00 | 143.23 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12460 | N | ASN | B | 458 | 70.837 | 75.813 | 59.568 | 1.00108.27 | N |
| ATOM | 12461 | CA | ASN | B | 458 | 69.577 | 75.130 | 59.730 | 1.00108.27 | C |
| ATOM | 12462 | C | ASN | B | 458 | 69.354 | 73.973 | 58.794 | 1.00108.27 | C |
| ATOM | 12463 | O | ASN | B | 458 | 69.585 | 74.066 | 57.589 | 1.00108.27 | O |
| ATOM | 12464 | CB | ASN | B | 458 | 68.391 | 76.074 | 59.573 | 1.00 80.89 | C |
| ATOM | 12465 | CG | ASN | B | 458 | 67.088 | 75.318 | 59.450 | 1.00 80.89 | C |
| ATOM | 12466 | OD1 | ASN | B | 458 | 66.445 | 75.323 | 58.399 | 1.00 80.89 | O |
| ATOM | 12467 | ND2 | ASN | B | 458 | 66.704 | 74.637 | 60.522 | 1.00 80.89 | N |
| ATOM | 12468 | N | VAL | B | 459 | 68.830 | 72.901 | 59.370 | 1.00 84.47 | N |
| ATOM | 12469 | CA | VAL | B | 459 | 68.556 | 71.676 | 58.647 | 1.00 84.47 | C |
| ATOM | 12470 | C | VAL | B | 459 | 67.716 | 71.814 | 57.402 | 1.00 84.47 | C |
| ATOM | 12471 | O | VAL | B | 459 | 68.268 | 71.816 | 56.320 | 1.00 84.47 | O |
| ATOM | 12472 | CB | VAL | B | 459 | 67.857 | 70.624 | 59.536 | 1.00 51.78 | C |
| ATOM | 12473 | CG1 | VAL | B | 459 | 68.256 | 69.213 | 59.099 | 1.00 51.78 | C |
| ATOM | 12474 | CG2 | VAL | B | 459 | 68.193 | 70.867 | 60.984 | 1.00 51.78 | C |
| ATOM | 12475 | N | ARG | B | 460 | 66.391 | 71.910 | 57.548 | 1.00112.85 | N |
| ATOM | 12476 | CA | ARG | B | 460 | 65.528 | 72.016 | 56.380 | 1.00112.85 | C |
| ATOM | 12477 | C | ARG | B | 460 | 66.317 | 72.727 | 55.308 | 1.00112.85 | C |
| ATOM | 12478 | O | ARG | B | 460 | 66.278 | 72.349 | 54.130 | 1.00112.85 | O |
| ATOM | 12479 | CB | ARG | B | 460 | 64.248 | 72.805 | 56.654 | 1.00177.33 | C |
| ATOM | 12480 | CG | ARG | B | 460 | 63.453 | 73.027 | 55.367 | 1.00177.33 | C |
| ATOM | 12481 | CD | ARG | B | 460 | 62.135 | 73.738 | 55.577 | 1.00177.33 | C |
| ATOM | 12482 | NE | ARG | B | 460 | 61.211 | 72.953 | 56.385 | 1.00177.33 | N |
| ATOM | 12483 | CZ | ARG | B | 460 | 59.904 | 73.176 | 56.443 | 1.00177.33 | C |
| ATOM | 12484 | NH1 | ARG | B | 460 | 59.364 | 74.159 | 55.735 | 1.00177.33 | N |
| ATOM | 12485 | NH2 | ARG | B | 460 | 59.137 | 72.421 | 57.215 | 1.00177.33 | N |
| ATOM | 12486 | N | TYR | B | 461 | 67.068 | 73.744 | 55.714 | 1.00 91.53 | N |
| ATOM | 12487 | CA | TYR | B | 461 | 67.860 | 74.454 | 54.740 | 1.00 91.53 | C |
| ATOM | 12488 | C | TYR | B | 461 | 68.932 | 73.501 | 54.227 | 1.00 91.53 | C |
| ATOM | 12489 | O | TYR | B | 461 | 68.975 | 73.182 | 53.037 | 1.00 91.53 | O |
| ATOM | 12490 | CB | TYR | B | 461 | 68.480 | 75.701 | 55.361 | 1.00132.48 | C |
| ATOM | 12491 | CG | TYR | B | 461 | 68.874 | 76.760 | 54.348 | 1.00132.48 | C |
| ATOM | 12492 | CD1 | TYR | B | 461 | 70.067 | 76.666 | 53.629 | 1.00132.48 | C |
| ATOM | 12493 | CD2 | TYR | B | 461 | 68.073 | 77.884 | 54.145 | 1.00132.48 | C |
| ATOM | 12494 | CE1 | TYR | B | 461 | 70.457 | 77.672 | 52.739 | 1.00132.48 | C |
| ATOM | 12495 | CE2 | TYR | B | 461 | 68.450 | 78.892 | 53.262 | 1.00132.48 | C |
| ATOM | 12496 | CZ | TYR | B | 461 | 69.645 | 78.784 | 52.562 | 1.00132.48 | C |
| ATOM | 12497 | OH | TYR | B | 461 | 70.037 | 79.791 | 51.705 | 1.00132.48 | O |
| ATOM | 12498 | N | LEU | B | 462 | 69.780 | 73.006 | 55.116 | 1.00 94.21 | N |
| ATOM | 12499 | CA | LEU | B | 462 | 70.836 | 72.088 | 54.679 | 1.00 94.21 | C |
| ATOM | 12500 | C | LEU | B | 462 | 70.287 | 71.078 | 53.685 | 1.00 94.21 | C |
| ATOM | 12501 | O | LEU | B | 462 | 70.551 | 71.130 | 52.482 | 1.00 94.21 | O |
| ATOM | 12502 | CB | LEU | B | 462 | 71.435 | 71.325 | 55.863 | 1.00108.16 | C |
| ATOM | 12503 | CG | LEU | B | 462 | 72.615 | 70.413 | 55.506 | 1.00108.16 | C |
| ATOM | 12504 | CD1 | LEU | B | 462 | 73.917 | 71.141 | 55.822 | 1.00108.16 | C |
| ATOM | 12505 | CD2 | LEU | B | 462 | 72.531 | 69.104 | 56.285 | 1.00108.16 | C |
| ATOM | 12506 | N | ARG | B | 463 | 69.520 | 70.153 | 54.237 | 1.00 84.50 | N |
| ATOM | 12507 | CA | ARG | B | 463 | 68.895 | 69.085 | 53.491 | 1.00 84.50 | C |
| ATOM | 12508 | C | ARG | B | 463 | 68.422 | 69.567 | 52.114 | 1.00 84.50 | C |
| ATOM | 12509 | O | ARG | B | 463 | 68.481 | 68.813 | 51.142 | 1.00 84.50 | O |
| ATOM | 12510 | CB | ARG | B | 463 | 67.712 | 68.522 | 54.289 | 1.00111.50 | C |
| ATOM | 12511 | CG | ARG | B | 463 | 68.033 | 68.099 | 55.737 | 1.00111.50 | C |
| ATOM | 12512 | CD | ARG | B | 463 | 68.878 | 66.824 | 55.819 | 1.00111.50 | C |
| ATOM | 12513 | NE | ARG | B | 463 | 69.091 | 66.356 | 57.195 | 1.00111.50 | N |
| ATOM | 12514 | CZ | ARG | B | 463 | 68.134 | 65.926 | 58.015 | 1.00111.50 | C |
| ATOM | 12515 | NH1 | ARG | B | 463 | 66.873 | 65.899 | 57.616 | 1.00111.50 | N |
| ATOM | 12516 | NH2 | ARG | B | 463 | 68.444 | 65.507 | 59.236 | 1.00111.50 | N |
| ATOM | 12517 | N | GLU | B | 464 | 67.947 | 70.807 | 52.023 | 1.00101.39 | N |
| ATOM | 12518 | CA | GLU | B | 464 | 67.517 | 71.307 | 50.725 | 1.00101.39 | C |
| ATOM | 12519 | C | GLU | B | 464 | 68.721 | 71.499 | 49.835 | 1.00101.39 | C |
| ATOM | 12520 | O | GLU | B | 464 | 68.842 | 70.877 | 48.788 | 1.00101.39 | O |
| ATOM | 12521 | CB | GLU | B | 464 | 66.787 | 72.641 | 50.872 | 1.00135.74 | C |
| ATOM | 12522 | CG | GLU | B | 464 | 65.326 | 72.532 | 51.249 | 1.00135.74 | C |
| ATOM | 12523 | CD | GLU | B | 464 | 64.602 | 73.847 | 51.087 | 1.00135.74 | C |
| ATOM | 12524 | OE1 | GLU | B | 464 | 64.950 | 74.811 | 51.802 | 1.00135.74 | O |
| ATOM | 12525 | OE2 | GLU | B | 464 | 63.691 | 73.915 | 50.236 | 1.00135.74 | O |
| ATOM | 12526 | N | ILE | B | 465 | 69.613 | 72.371 | 50.275 | 1.00 81.35 | N |
| ATOM | 12527 | CA | ILE | B | 465 | 70.839 | 72.704 | 49.565 | 1.00 81.35 | C |
| ATOM | 12528 | C | ILE | B | 465 | 71.758 | 71.518 | 49.268 | 1.00 81.35 | C |
| ATOM | 12529 | O | ILE | B | 465 | 72.825 | 71.694 | 48.722 | 1.00 81.35 | O |
| ATOM | 12530 | CB | ILE | B | 465 | 71.615 | 73.769 | 50.369 | 1.00141.15 | C |
| ATOM | 12531 | CG1 | ILE | B | 465 | 70.662 | 74.912 | 50.737 | 1.00141.15 | C |
| ATOM | 12532 | CG2 | ILE | B | 465 | 72.815 | 74.261 | 49.582 | 1.00141.15 | C |
| ATOM | 12533 | CD1 | ILE | B | 465 | 69.801 | 75.386 | 49.587 | 1.00141.15 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12534 | N | ILE | B | 466 | 71.340 | 70.309 | 49.604 | 1.00115.33 | N |
| ATOM | 12535 | CA | ILE | B | 466 | 72.186 | 69.152 | 49.375 | 1.00115.33 | C |
| ATOM | 12536 | C | ILE | B | 466 | 71.458 | 68.079 | 48.595 | 1.00115.33 | C |
| ATOM | 12537 | O | ILE | B | 466 | 70.835 | 67.202 | 49.185 | 1.00115.33 | O |
| ATOM | 12538 | CB | ILE | B | 466 | 72.666 | 68.569 | 50.720 | 1.00163.52 | C |
| ATOM | 12539 | CG1 | ILE | B | 466 | 73.425 | 69.646 | 51.501 | 1.00163.52 | C |
| ATOM | 12540 | CG2 | ILE | B | 466 | 73.533 | 67.345 | 50.482 | 1.00163.52 | C |
| ATOM | 12541 | CD1 | ILE | B | 466 | 73.945 | 69.185 | 52.849 | 1.00163.52 | C |
| ATOM | 12542 | N | GLY | B | 467 | 71.533 | 68.143 | 47.270 | 1.00163.06 | N |
| ATOM | 12543 | CA | GLY | B | 467 | 70.862 | 67.148 | 46.453 | 1.00163.06 | C |
| ATOM | 12544 | C | GLY | B | 467 | 71.440 | 65.776 | 46.717 | 1.00163.06 | C |
| ATOM | 12545 | O | GLY | B | 467 | 72.664 | 65.627 | 46.801 | 1.00163.06 | O |
| ATOM | 12546 | N | VAL | B | 468 | 70.581 | 64.771 | 46.854 | 1.00 83.15 | N |
| ATOM | 12547 | CA | VAL | B | 468 | 71.086 | 63.438 | 47.123 | 1.00 83.15 | C |
| ATOM | 12548 | C | VAL | B | 468 | 70.349 | 62.309 | 46.456 | 1.00 83.15 | C |
| ATOM | 12549 | O | VAL | B | 468 | 69.113 | 62.277 | 46.467 | 1.00 83.15 | O |
| ATOM | 12550 | CB | VAL | B | 468 | 71.110 | 63.139 | 48.638 | 1.00 76.42 | C |
| ATOM | 12551 | CG1 | VAL | B | 468 | 71.472 | 61.681 | 48.874 | 1.00 76.42 | C |
| ATOM | 12552 | CG2 | VAL | B | 468 | 72.120 | 64.025 | 49.333 | 1.00 76.42 | C |
| ATOM | 12553 | N | VAL | B | 469 | 71.130 | 61.382 | 45.892 | 1.00102.53 | N |
| ATOM | 12554 | CA | VAL | B | 469 | 70.579 | 60.217 | 45.217 | 1.00102.53 | C |
| ATOM | 12555 | C | VAL | B | 469 | 71.382 | 58.984 | 45.530 | 1.00102.53 | C |
| ATOM | 12556 | O | VAL | B | 469 | 72.532 | 58.819 | 45.075 | 1.00102.53 | O |
| ATOM | 12557 | CB | VAL | B | 469 | 70.571 | 60.378 | 43.681 | 1.00 82.64 | C |
| ATOM | 12558 | CG1 | VAL | B | 469 | 69.424 | 59.571 | 43.086 | 1.00 82.64 | C |
| ATOM | 12559 | CG2 | VAL | B | 469 | 70.484 | 61.850 | 43.301 | 1.00 82.64 | C |
| ATOM | 12560 | N | SER | B | 470 | 70.755 | 58.118 | 46.312 | 1.00140.61 | N |
| ATOM | 12561 | CA | SER | B | 470 | 71.345 | 56.859 | 46.711 | 1.00140.61 | C |
| ATOM | 12562 | C | SER | B | 470 | 70.790 | 55.717 | 45.851 | 1.00140.61 | C |
| ATOM | 12563 | O | SER | B | 470 | 70.016 | 55.947 | 44.915 | 1.00140.61 | O |
| ATOM | 12564 | CB | SER | B | 470 | 71.038 | 56.605 | 48.193 | 1.00110.70 | C |
| ATOM | 12565 | OG | SER | B | 470 | 69.754 | 57.096 | 48.544 | 1.00110.70 | O |
| ATOM | 12566 | N | GLN | B | 471 | 71.195 | 54.492 | 46.174 | 1.00102.83 | N |
| ATOM | 12567 | CA | GLN | B | 471 | 70.784 | 53.332 | 45.405 | 1.00102.83 | C |
| ATOM | 12568 | C | GLN | B | 471 | 69.287 | 53.250 | 45.314 | 1.00102.83 | C |
| ATOM | 12569 | O | GLN | B | 471 | 68.665 | 54.031 | 44.595 | 1.00102.83 | O |
| ATOM | 12570 | CB | GLN | B | 471 | 71.370 | 52.040 | 45.998 | 1.00205.77 | C |
| ATOM | 12571 | CG | GLN | B | 471 | 70.904 | 51.663 | 47.401 | 1.00205.77 | C |
| ATOM | 12572 | CD | GLN | B | 471 | 71.391 | 52.620 | 48.471 | 1.00205.77 | C |
| ATOM | 12573 | OE1 | GLN | B | 471 | 70.905 | 53.745 | 48.580 | 1.00205.77 | O |
| ATOM | 12574 | NE2 | GLN | B | 471 | 72.361 | 52.178 | 49.264 | 1.00205.77 | N |
| ATOM | 12575 | N | GLU | B | 472 | 68.705 | 52.312 | 46.043 | 1.00 82.59 | N |
| ATOM | 12576 | CA | GLU | B | 472 | 67.274 | 52.159 | 46.011 | 1.00 82.59 | C |
| ATOM | 12577 | C | GLU | B | 472 | 66.575 | 53.464 | 45.669 | 1.00 82.59 | C |
| ATOM | 12578 | O | GLU | B | 472 | 66.468 | 54.388 | 46.477 | 1.00 82.59 | O |
| ATOM | 12579 | CB | GLU | B | 472 | 66.731 | 51.634 | 47.349 | 1.00207.38 | C |
| ATOM | 12580 | CG | GLU | B | 472 | 65.324 | 52.156 | 47.722 | 1.00207.38 | C |
| ATOM | 12581 | CD | GLU | B | 472 | 64.235 | 51.741 | 46.746 | 1.00207.38 | C |
| ATOM | 12582 | OE1 | GLU | B | 472 | 64.458 | 51.829 | 45.520 | 1.00207.38 | O |
| ATOM | 12583 | OE2 | GLU | B | 472 | 63.146 | 51.339 | 47.210 | 1.00207.38 | O |
| ATOM | 12584 | N | PRO | B | 473 | 66.124 | 53.572 | 44.434 | 1.00140.38 | N |
| ATOM | 12585 | CA | PRO | B | 473 | 65.432 | 54.800 | 44.073 | 1.00140.38 | C |
| ATOM | 12586 | C | PRO | B | 473 | 63.978 | 54.508 | 44.449 | 1.00140.38 | C |
| ATOM | 12587 | O | PRO | B | 473 | 63.335 | 53.647 | 43.849 | 1.00140.38 | O |
| ATOM | 12588 | CB | PRO | B | 473 | 65.639 | 54.879 | 42.567 | 1.00 89.07 | C |
| ATOM | 12589 | CG | PRO | B | 473 | 65.599 | 53.442 | 42.155 | 1.00 89.07 | C |
| ATOM | 12590 | CD | PRO | B | 473 | 66.412 | 52.753 | 43.241 | 1.00 89.07 | C |
| ATOM | 12591 | N | VAL | B | 474 | 63.462 | 55.187 | 45.462 | 1.00 79.11 | N |
| ATOM | 12592 | CA | VAL | B | 474 | 62.097 | 54.914 | 45.872 | 1.00 79.11 | C |
| ATOM | 12593 | C | VAL | B | 474 | 61.083 | 55.925 | 45.357 | 1.00 79.11 | C |
| ATOM | 12594 | O | VAL | B | 474 | 61.335 | 57.128 | 45.383 | 1.00 79.11 | O |
| ATOM | 12595 | CB | VAL | B | 474 | 61.988 | 54.872 | 47.409 | 1.00164.10 | C |
| ATOM | 12596 | CG1 | VAL | B | 474 | 62.332 | 56.238 | 47.984 | 1.00164.10 | C |
| ATOM | 12597 | CG2 | VAL | B | 474 | 60.586 | 54.446 | 47.828 | 1.00164.10 | C |
| ATOM | 12598 | N | LEU | B | 475 | 59.935 | 55.433 | 44.898 | 1.00132.94 | N |
| ATOM | 12599 | CA | LEU | B | 475 | 58.888 | 56.307 | 44.385 | 1.00132.94 | C |
| ATOM | 12600 | C | LEU | B | 475 | 57.558 | 55.943 | 45.001 | 1.00132.94 | C |
| ATOM | 12601 | O | LEU | B | 475 | 57.170 | 54.775 | 44.992 | 1.00132.94 | O |
| ATOM | 12602 | CB | LEU | B | 475 | 58.821 | 56.177 | 42.867 | 1.00 74.85 | C |
| ATOM | 12603 | CG | LEU | B | 475 | 60.094 | 56.668 | 42.172 | 1.00 74.85 | C |
| ATOM | 12604 | CD1 | LEU | B | 475 | 60.038 | 56.383 | 40.681 | 1.00 74.85 | C |
| ATOM | 12605 | CD2 | LEU | B | 475 | 60.256 | 58.160 | 42.440 | 1.00 74.85 | C |
| ATOM | 12606 | N | PHE | B | 476 | 56.865 | 56.950 | 45.529 | 1.00120.32 | N |
| ATOM | 12607 | CA | PHE | B | 476 | 55.574 | 56.754 | 46.179 | 1.00120.32 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12608 | C | PHE | B | 476 | 54.501 | 56.388 | 45.159 | 1.00120.32 | C |
| ATOM | 12609 | O | PHE | B | 476 | 54.656 | 56.637 | 43.968 | 1.00120.32 | O |
| ATOM | 12610 | CB | PHE | B | 476 | 55.189 | 58.020 | 46.940 | 1.00 81.03 | C |
| ATOM | 12611 | CG | PHE | B | 476 | 56.330 | 58.620 | 47.717 | 1.00 81.03 | C |
| ATOM | 12612 | CD1 | PHE | B | 476 | 57.383 | 59.241 | 47.049 | 1.00 81.03 | C |
| ATOM | 12613 | CD2 | PHE | B | 476 | 56.372 | 58.532 | 49.107 | 1.00 81.03 | C |
| ATOM | 12614 | CE1 | PHE | B | 476 | 58.465 | 59.767 | 47.750 | 1.00 81.03 | C |
| ATOM | 12615 | CE2 | PHE | B | 476 | 57.451 | 59.054 | 49.827 | 1.00 81.03 | C |
| ATOM | 12616 | CZ | PHE | B | 476 | 58.501 | 59.673 | 49.145 | 1.00 81.03 | C |
| ATOM | 12617 | N | ALA | B | 477 | 53.421 | 55.774 | 45.625 | 1.00113.47 | N |
| ATOM | 12618 | CA | ALA | B | 477 | 52.350 | 55.366 | 44.735 | 1.00113.47 | C |
| ATOM | 12619 | C | ALA | B | 477 | 51.635 | 56.597 | 44.225 | 1.00113.47 | C |
| ATOM | 12620 | O | ALA | B | 477 | 50.706 | 57.089 | 44.863 | 1.00113.47 | O |
| ATOM | 12621 | CB | ALA | B | 477 | 51.366 | 54.450 | 45.474 | 1.00 96.13 | C |
| ATOM | 12622 | N | THR | B | 478 | 52.073 | 57.095 | 43.073 | 1.00165.79 | N |
| ATOM | 12623 | CA | THR | B | 478 | 51.472 | 58.288 | 42.492 | 1.00165.79 | C |
| ATOM | 12624 | C | THR | B | 478 | 51.826 | 58.536 | 41.067 | 1.00165.79 | C |
| ATOM | 12625 | O | THR | B | 478 | 52.393 | 57.690 | 40.387 | 1.00165.79 | O |
| ATOM | 12626 | CB | THR | B | 478 | 51.921 | 59.565 | 43.241 | 1.00 55.01 | C |
| ATOM | 12627 | OG1 | THR | B | 478 | 51.970 | 59.323 | 44.653 | 1.00 55.01 | O |
| ATOM | 12628 | CG2 | THR | B | 478 | 50.974 | 60.708 | 42.923 | 1.00 55.01 | C |
| ATOM | 12629 | N | THR | B | 479 | 51.511 | 59.749 | 40.637 | 1.00 69.57 | N |
| ATOM | 12630 | CA | THR | B | 479 | 51.813 | 60.146 | 39.295 | 1.00 69.57 | C |
| ATOM | 12631 | C | THR | B | 479 | 53.292 | 60.460 | 39.255 | 1.00 69.57 | C |
| ATOM | 12632 | O | THR | B | 479 | 53.928 | 60.715 | 40.300 | 1.00 69.57 | O |
| ATOM | 12633 | CB | THR | B | 479 | 51.018 | 61.400 | 38.877 | 1.00159.52 | C |
| ATOM | 12634 | OG1 | THR | B | 479 | 51.285 | 62.467 | 39.797 | 1.00159.52 | O |
| ATOM | 12635 | CG2 | THR | B | 479 | 49.526 | 61.101 | 38.854 | 1.00159.52 | C |
| ATOM | 12636 | N | ILE | B | 480 | 53.839 | 60.407 | 38.044 | 1.00 99.50 | N |
| ATOM | 12637 | CA | ILE | B | 480 | 55.236 | 60.719 | 37.847 | 1.00 99.50 | C |
| ATOM | 12638 | C | ILE | B | 480 | 55.345 | 62.130 | 38.382 | 1.00 99.50 | C |
| ATOM | 12639 | O | ILE | B | 480 | 56.149 | 62.422 | 39.280 | 1.00 99.50 | O |
| ATOM | 12640 | CB | ILE | B | 480 | 55.609 | 60.703 | 36.350 | 1.00142.48 | C |
| ATOM | 12641 | CG1 | ILE | B | 480 | 55.401 | 59.295 | 35.786 | 1.00142.48 | C |
| ATOM | 12642 | CG2 | ILE | B | 480 | 57.049 | 61.173 | 36.160 | 1.00142.48 | C |
| ATOM | 12643 | CD1 | ILE | B | 480 | 56.190 | 58.222 | 36.505 | 1.00142.48 | C |
| ATOM | 12644 | N | ALA | B | 481 | 54.482 | 62.985 | 37.834 | 1.00100.42 | N |
| ATOM | 12645 | CA | ALA | B | 481 | 54.403 | 64.395 | 38.199 | 1.00100.42 | C |
| ATOM | 12646 | C | ALA | B | 481 | 54.539 | 64.583 | 39.668 | 1.00100.42 | C |
| ATOM | 12647 | O | ALA | B | 481 | 55.484 | 65.205 | 40.142 | 1.00100.42 | O |
| ATOM | 12648 | CB | ALA | B | 481 | 53.062 | 64.992 | 37.688 | 1.00 64.39 | C |
| ATOM | 12649 | N | GLU | B | 482 | 53.554 | 64.049 | 40.376 | 1.00 69.03 | N |
| ATOM | 12650 | CA | GLU | B | 482 | 53.506 | 64.137 | 41.822 | 1.00 69.03 | C |
| ATOM | 12651 | C | GLU | B | 482 | 54.801 | 63.735 | 42.501 | 1.00 69.03 | C |
| ATOM | 12652 | O | GLU | B | 482 | 55.157 | 64.319 | 43.523 | 1.00 69.03 | O |
| ATOM | 12653 | CB | GLU | B | 482 | 52.341 | 63.317 | 42.381 | 1.00144.42 | C |
| ATOM | 12654 | CG | GLU | B | 482 | 50.994 | 64.041 | 42.342 | 1.00144.42 | C |
| ATOM | 12655 | CD | GLU | B | 482 | 50.973 | 65.300 | 43.198 | 1.00144.42 | C |
| ATOM | 12656 | OE1 | GLU | B | 482 | 51.220 | 65.198 | 44.419 | 1.00144.42 | O |
| ATOM | 12657 | OE2 | GLU | B | 482 | 50.707 | 66.392 | 42.650 | 1.00144.42 | O |
| ATOM | 12658 | N | ASN | B | 483 | 55.512 | 62.744 | 41.977 | 1.00 74.26 | N |
| ATOM | 12659 | CA | ASN | B | 483 | 56.780 | 62.419 | 42.608 | 1.00 74.26 | C |
| ATOM | 12660 | C | ASN | B | 483 | 57.753 | 63.602 | 42.428 | 1.00 74.26 | C |
| ATOM | 12661 | O | ASN | B | 483 | 58.382 | 64.084 | 43.388 | 1.00 74.26 | O |
| ATOM | 12662 | CB | ASN | B | 483 | 57.369 | 61.148 | 41.996 | 1.00 84.50 | C |
| ATOM | 12663 | CG | ASN | B | 483 | 56.847 | 59.897 | 42.658 | 1.00 84.50 | C |
| ATOM | 12664 | OD1 | ASN | B | 483 | 57.244 | 59.568 | 43.774 | 1.00 84.50 | O |
| ATOM | 12665 | ND2 | ASN | B | 483 | 55.946 | 59.196 | 41.983 | 1.00 84.50 | N |
| ATOM | 12666 | N | ILE | B | 484 | 57.887 | 64.079 | 41.197 | 1.00118.26 | N |
| ATOM | 12667 | CA | ILE | B | 484 | 58.763 | 65.214 | 40.981 | 1.00118.26 | C |
| ATOM | 12668 | C | ILE | B | 484 | 58.291 | 66.275 | 41.970 | 1.00118.26 | C |
| ATOM | 12669 | O | ILE | B | 484 | 59.084 | 66.832 | 42.743 | 1.00118.26 | O |
| ATOM | 12670 | CB | ILE | B | 484 | 58.676 | 65.750 | 39.524 | 1.00 98.39 | C |
| ATOM | 12671 | CG1 | ILE | B | 484 | 59.763 | 65.095 | 38.664 | 1.00 98.39 | C |
| ATOM | 12672 | CG2 | ILE | B | 484 | 58.838 | 67.274 | 39.499 | 1.00 98.39 | C |
| ATOM | 12673 | CD1 | ILE | B | 484 | 59.759 | 63.581 | 38.668 | 1.00 98.39 | C |
| ATOM | 12674 | N | ARG | B | 485 | 56.986 | 66.526 | 41.981 | 1.00122.36 | N |
| ATOM | 12675 | CA | ARG | B | 485 | 56.436 | 67.518 | 42.899 | 1.00122.36 | C |
| ATOM | 12676 | C | ARG | B | 485 | 56.923 | 67.249 | 44.318 | 1.00122.36 | C |
| ATOM | 12677 | O | ARG | B | 485 | 57.193 | 68.191 | 45.055 | 1.00122.36 | O |
| ATOM | 12678 | CB | ARG | B | 485 | 54.908 | 67.497 | 42.870 | 1.00 87.40 | C |
| ATOM | 12679 | CG | ARG | B | 485 | 54.277 | 68.815 | 43.288 | 1.00 87.40 | C |
| ATOM | 12680 | CD | ARG | B | 485 | 53.693 | 69.542 | 42.099 | 1.00 87.40 | C |
| ATOM | 12681 | NE | ARG | B | 485 | 52.525 | 68.834 | 41.589 | 1.00 87.40 | N |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 12682 | CZ | ARG | B | 485 | 51.945 | 69.083 | 40.421 | 1.00 | 87.40 | C |
| ATOM | 12683 | NH1 | ARG | B | 485 | 52.427 | 70.030 | 39.623 | 1.00 | 87.40 | N |
| ATOM | 12684 | NH2 | ARG | B | 485 | 50.879 | 68.384 | 40.051 | 1.00 | 87.40 | N |
| ATOM | 12685 | N | TYR | B | 486 | 57.033 | 65.984 | 44.722 | 1.00 | 88.91 | N |
| ATOM | 12686 | CA | TYR | B | 486 | 57.516 | 65.726 | 46.072 | 1.00 | 88.91 | C |
| ATOM | 12687 | C | TYR | B | 486 | 58.849 | 66.383 | 46.191 | 1.00 | 88.91 | C |
| ATOM | 12688 | O | TYR | B | 486 | 59.175 | 66.954 | 47.225 | 1.00 | 88.91 | O |
| ATOM | 12689 | CB | TYR | B | 486 | 57.672 | 64.241 | 46.336 | 1.00 | 75.12 | C |
| ATOM | 12690 | CG | TYR | B | 486 | 56.444 | 63.679 | 46.975 | 1.00 | 75.12 | C |
| ATOM | 12691 | CD1 | TYR | B | 486 | 56.445 | 62.422 | 47.567 | 1.00 | 75.12 | C |
| ATOM | 12692 | CD2 | TYR | B | 486 | 55.259 | 64.407 | 46.965 | 1.00 | 75.12 | C |
| ATOM | 12693 | CE1 | TYR | B | 486 | 55.283 | 61.898 | 48.134 | 1.00 | 75.12 | C |
| ATOM | 12694 | CE2 | TYR | B | 486 | 54.095 | 63.904 | 47.525 | 1.00 | 75.12 | C |
| ATOM | 12695 | CZ | TYR | B | 486 | 54.108 | 62.646 | 48.109 | 1.00 | 75.12 | C |
| ATOM | 12696 | OH | TYR | B | 486 | 52.954 | 62.131 | 48.655 | 1.00 | 75.12 | O |
| ATOM | 12697 | N | GLY | B | 487 | 59.628 | 66.291 | 45.122 | 1.00 | 99.49 | N |
| ATOM | 12698 | CA | GLY | B | 487 | 60.919 | 66.945 | 45.129 | 1.00 | 99.49 | C |
| ATOM | 12699 | C | GLY | B | 487 | 60.702 | 68.395 | 45.530 | 1.00 | 99.49 | C |
| ATOM | 12700 | O | GLY | B | 487 | 61.445 | 68.936 | 46.341 | 1.00 | 99.49 | O |
| ATOM | 12701 | N | ARG | B | 488 | 59.677 | 69.030 | 44.974 | 1.00 | 107.89 | N |
| ATOM | 12702 | CA | ARG | B | 488 | 59.403 | 70.426 | 45.333 | 1.00 | 107.89 | C |
| ATOM | 12703 | C | ARG | B | 488 | 57.902 | 70.762 | 45.273 | 1.00 | 107.89 | C |
| ATOM | 12704 | O | ARG | B | 488 | 57.312 | 70.821 | 44.196 | 1.00 | 107.89 | O |
| ATOM | 12705 | CB | ARG | B | 488 | 60.169 | 71.358 | 44.406 | 1.00 | 87.05 | C |
| ATOM | 12706 | CG | ARG | B | 488 | 60.627 | 72.621 | 45.085 | 1.00 | 87.05 | C |
| ATOM | 12707 | CD | ARG | B | 488 | 61.505 | 73.419 | 44.154 | 1.00 | 87.05 | C |
| ATOM | 12708 | NE | ARG | B | 488 | 60.738 | 74.125 | 43.133 | 1.00 | 87.05 | N |
| ATOM | 12709 | CZ | ARG | B | 488 | 61.209 | 74.453 | 41.934 | 1.00 | 87.05 | C |
| ATOM | 12710 | NH1 | ARG | B | 488 | 62.451 | 74.133 | 41.591 | 1.00 | 87.05 | N |
| ATOM | 12711 | NH2 | ARG | B | 488 | 60.440 | 75.115 | 41.080 | 1.00 | 87.05 | N |
| ATOM | 12712 | N | GLU | B | 489 | 57.288 | 70.984 | 46.433 | 1.00 | 87.16 | N |
| ATOM | 12713 | CA | GLU | B | 489 | 55.859 | 71.261 | 46.510 | 1.00 | 87.16 | C |
| ATOM | 12714 | C | GLU | B | 489 | 55.416 | 72.155 | 45.381 | 1.00 | 87.16 | C |
| ATOM | 12715 | O | GLU | B | 489 | 54.981 | 71.666 | 44.347 | 1.00 | 87.16 | O |
| ATOM | 12716 | CB | GLU | B | 489 | 55.502 | 71.926 | 47.840 | 1.00 | 160.64 | C |
| ATOM | 12717 | CG | GLU | B | 489 | 56.104 | 71.266 | 49.069 | 1.00 | 160.64 | C |
| ATOM | 12718 | CD | GLU | B | 489 | 57.547 | 71.678 | 49.289 | 1.00 | 160.64 | C |
| ATOM | 12719 | OE1 | GLU | B | 489 | 58.154 | 71.228 | 50.283 | 1.00 | 160.64 | O |
| ATOM | 12720 | OE2 | GLU | B | 489 | 58.074 | 72.457 | 48.466 | 1.00 | 160.64 | O |
| ATOM | 12721 | N | ASP | B | 490 | 55.524 | 73.463 | 45.573 | 1.00 | 159.09 | N |
| ATOM | 12722 | CA | ASP | B | 490 | 55.125 | 74.394 | 44.529 | 1.00 | 159.09 | C |
| ATOM | 12723 | C | ASP | B | 490 | 56.115 | 74.223 | 43.386 | 1.00 | 159.09 | C |
| ATOM | 12724 | O | ASP | B | 490 | 57.314 | 74.145 | 43.623 | 1.00 | 159.09 | O |
| ATOM | 12725 | CB | ASP | B | 490 | 55.118 | 75.838 | 45.059 | 1.00 | 143.82 | C |
| ATOM | 12726 | CG | ASP | B | 490 | 56.382 | 76.599 | 44.719 | 1.00 | 143.82 | C |
| ATOM | 12727 | OD1 | ASP | B | 490 | 56.578 | 76.916 | 43.529 | 1.00 | 143.82 | O |
| ATOM | 12728 | OD2 | ASP | B | 490 | 57.179 | 76.883 | 45.639 | 1.00 | 143.82 | O |
| ATOM | 12729 | N | VAL | B | 491 | 55.608 | 74.148 | 42.156 | 1.00 | 171.93 | N |
| ATOM | 12730 | CA | VAL | B | 491 | 56.438 | 73.946 | 40.969 | 1.00 | 171.93 | C |
| ATOM | 12731 | C | VAL | B | 491 | 55.518 | 73.612 | 39.804 | 1.00 | 171.93 | C |
| ATOM | 12732 | O | VAL | B | 491 | 54.631 | 72.769 | 39.950 | 1.00 | 171.93 | O |
| ATOM | 12733 | CB | VAL | B | 491 | 57.416 | 72.770 | 41.159 | 1.00 | 61.58 | C |
| ATOM | 12734 | CG1 | VAL | B | 491 | 56.625 | 71.503 | 41.434 | 1.00 | 61.58 | C |
| ATOM | 12735 | CG2 | VAL | B | 491 | 58.306 | 72.597 | 39.927 | 1.00 | 61.58 | C |
| ATOM | 12736 | N | THR | B | 492 | 55.726 | 74.235 | 38.646 | 1.00 | 94.79 | N |
| ATOM | 12737 | CA | THR | B | 492 | 54.833 | 73.958 | 37.516 | 1.00 | 94.79 | C |
| ATOM | 12738 | C | THR | B | 492 | 55.393 | 72.951 | 36.518 | 1.00 | 94.79 | C |
| ATOM | 12739 | O | THR | B | 492 | 56.581 | 72.980 | 36.206 | 1.00 | 94.79 | O |
| ATOM | 12740 | CB | THR | B | 492 | 54.438 | 75.248 | 36.767 | 1.00 | 207.38 | C |
| ATOM | 12741 | OG1 | THR | B | 492 | 53.780 | 76.140 | 37.676 | 1.00 | 207.38 | O |
| ATOM | 12742 | CG2 | THR | B | 492 | 53.488 | 74.929 | 35.613 | 1.00 | 207.38 | C |
| ATOM | 12743 | N | MET | B | 493 | 54.507 | 72.066 | 36.035 | 1.00 | 131.95 | N |
| ATOM | 12744 | CA | MET | B | 493 | 54.846 | 71.012 | 35.080 | 1.00 | 131.95 | C |
| ATOM | 12745 | C | MET | B | 493 | 55.738 | 71.535 | 33.978 | 1.00 | 131.95 | C |
| ATOM | 12746 | O | MET | B | 493 | 56.305 | 70.746 | 33.232 | 1.00 | 131.95 | O |
| ATOM | 12747 | CB | MET | B | 493 | 53.567 | 70.390 | 34.483 | 1.00 | 154.85 | C |
| ATOM | 12748 | CG | MET | B | 493 | 52.760 | 71.277 | 33.537 | 1.00 | 154.85 | C |
| ATOM | 12749 | SD | MET | B | 493 | 53.353 | 71.268 | 31.831 | 1.00 | 154.85 | S |
| ATOM | 12750 | CE | MET | B | 493 | 52.320 | 72.561 | 31.104 | 1.00 | 154.85 | C |
| ATOM | 12751 | N | ASP | B | 494 | 55.857 | 72.863 | 33.872 | 1.00 | 58.84 | N |
| ATOM | 12752 | CA | ASP | B | 494 | 56.726 | 73.477 | 32.869 | 1.00 | 58.84 | C |
| ATOM | 12753 | C | ASP | B | 494 | 58.117 | 73.298 | 33.453 | 1.00 | 58.84 | C |
| ATOM | 12754 | O | ASP | B | 494 | 59.083 | 73.016 | 32.746 | 1.00 | 58.84 | O |
| ATOM | 12755 | CB | ASP | B | 494 | 56.406 | 74.969 | 32.669 | 1.00 | 116.39 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12756 | CG | ASP | B | 494 | 55.370 | 75.207 | 31.574 | 1.00116.39 | C |
| ATOM | 12757 | OD1 | ASP | B | 494 | 55.556 | 74.678 | 30.455 | 1.00116.39 | O |
| ATOM | 12758 | OD2 | ASP | B | 494 | 54.378 | 75.925 | 31.829 | 1.00116.39 | O |
| ATOM | 12759 | N | GLU | B | 495 | 58.223 | 73.455 | 34.761 | 1.00 64.96 | N |
| ATOM | 12760 | CA | GLU | B | 495 | 59.505 | 73.227 | 35.384 | 1.00 64.96 | C |
| ATOM | 12761 | C | GLU | B | 495 | 59.722 | 71.717 | 35.425 | 1.00 64.96 | C |
| ATOM | 12762 | O | GLU | B | 495 | 60.796 | 71.267 | 35.086 | 1.00 64.96 | O |
| ATOM | 12763 | CB | GLU | B | 495 | 59.558 | 73.776 | 36.808 | 1.00120.63 | C |
| ATOM | 12764 | CG | GLU | B | 495 | 59.340 | 75.268 | 36.904 | 1.00120.63 | C |
| ATOM | 12765 | CD | GLU | B | 495 | 58.012 | 75.609 | 37.543 | 1.00120.63 | C |
| ATOM | 12766 | OE1 | GLU | B | 495 | 58.001 | 75.935 | 38.746 | 1.00120.63 | O |
| ATOM | 12767 | OE2 | GLU | B | 495 | 56.976 | 75.539 | 36.850 | 1.00120.63 | O |
| ATOM | 12768 | N | ILE | B | 496 | 58.727 | 70.918 | 35.816 | 1.00 60.65 | N |
| ATOM | 12769 | CA | ILE | B | 496 | 58.968 | 69.474 | 35.840 | 1.00 60.65 | C |
| ATOM | 12770 | C | ILE | B | 496 | 59.402 | 69.112 | 34.447 | 1.00 60.65 | C |
| ATOM | 12771 | O | ILE | B | 496 | 60.446 | 68.502 | 34.263 | 1.00 60.65 | O |
| ATOM | 12772 | CB | ILE | B | 496 | 57.723 | 68.602 | 36.151 | 1.00 98.81 | C |
| ATOM | 12773 | CG1 | ILE | B | 496 | 57.106 | 68.970 | 37.497 | 1.00 98.81 | C |
| ATOM | 12774 | CG2 | ILE | B | 496 | 58.137 | 67.132 | 36.182 | 1.00 98.81 | C |
| ATOM | 12775 | CD1 | ILE | B | 496 | 56.429 | 70.304 | 37.511 | 1.00 98.81 | C |
| ATOM | 12776 | N | GLU | B | 497 | 58.595 | 69.490 | 33.459 | 1.00 98.60 | N |
| ATOM | 12777 | CA | GLU | B | 497 | 58.913 | 69.178 | 32.069 | 1.00 98.60 | C |
| ATOM | 12778 | C | GLU | B | 497 | 60.406 | 69.408 | 31.907 | 1.00 98.60 | C |
| ATOM | 12779 | O | GLU | B | 497 | 61.160 | 68.494 | 31.562 | 1.00 98.60 | O |
| ATOM | 12780 | CB | GLU | B | 497 | 58.114 | 70.080 | 31.108 | 1.00207.19 | C |
| ATOM | 12781 | CG | GLU | B | 497 | 58.220 | 69.685 | 29.627 | 1.00207.19 | C |
| ATOM | 12782 | CD | GLU | B | 497 | 57.285 | 70.478 | 28.716 | 1.00207.19 | C |
| ATOM | 12783 | OE1 | GLU | B | 497 | 57.389 | 71.723 | 28.683 | 1.00207.19 | O |
| ATOM | 12784 | OE2 | GLU | B | 497 | 56.449 | 69.852 | 28.028 | 1.00207.19 | O |
| ATOM | 12785 | N | LYS | B | 498 | 60.834 | 70.624 | 32.218 | 1.00 47.83 | N |
| ATOM | 12786 | CA | LYS | B | 498 | 62.222 | 70.968 | 32.081 | 1.00 47.83 | C |
| ATOM | 12787 | C | LYS | B | 498 | 63.034 | 69.983 | 32.906 | 1.00 47.83 | C |
| ATOM | 12788 | O | LYS | B | 498 | 63.998 | 69.431 | 32.418 | 1.00 47.83 | O |
| ATOM | 12789 | CB | LYS | B | 498 | 62.466 | 72.404 | 32.557 | 1.00135.17 | C |
| ATOM | 12790 | CG | LYS | B | 498 | 63.713 | 73.072 | 31.984 | 1.00135.17 | C |
| ATOM | 12791 | CD | LYS | B | 498 | 64.917 | 72.927 | 32.898 | 1.00135.17 | C |
| ATOM | 12792 | CE | LYS | B | 498 | 65.569 | 71.563 | 32.776 | 1.00135.17 | C |
| ATOM | 12793 | NZ | LYS | B | 498 | 66.633 | 71.396 | 33.802 | 1.00135.17 | N |
| ATOM | 12794 | N | ALA | B | 499 | 62.632 | 69.721 | 34.141 | 1.00 77.32 | N |
| ATOM | 12795 | CA | ALA | B | 499 | 63.376 | 68.797 | 35.013 | 1.00 77.32 | C |
| ATOM | 12796 | C | ALA | B | 499 | 63.614 | 67.439 | 34.383 | 1.00 77.32 | C |
| ATOM | 12797 | O | ALA | B | 499 | 64.757 | 67.029 | 34.177 | 1.00 77.32 | O |
| ATOM | 12798 | CB | ALA | B | 499 | 62.636 | 68.639 | 36.337 | 1.00134.93 | C |
| ATOM | 12799 | N | VAL | B | 500 | 62.525 | 66.731 | 34.102 | 1.00 63.31 | N |
| ATOM | 12800 | CA | VAL | B | 500 | 62.628 | 65.426 | 33.494 | 1.00 63.31 | C |
| ATOM | 12801 | C | VAL | B | 500 | 63.589 | 65.535 | 32.306 | 1.00 63.31 | C |
| ATOM | 12802 | O | VAL | B | 500 | 64.692 | 64.989 | 32.359 | 1.00 63.31 | O |
| ATOM | 12803 | CB | VAL | B | 500 | 61.253 | 64.891 | 33.026 | 1.00 56.01 | C |
| ATOM | 12804 | CG1 | VAL | B | 500 | 60.655 | 63.985 | 34.097 | 1.00 56.01 | C |
| ATOM | 12805 | CG2 | VAL | B | 500 | 60.312 | 66.047 | 32.725 | 1.00 56.01 | C |
| ATOM | 12806 | N | LYS | B | 501 | 63.191 | 66.272 | 31.265 | 1.00 92.85 | N |
| ATOM | 12807 | CA | LYS | B | 501 | 64.015 | 66.417 | 30.065 | 1.00 92.85 | C |
| ATOM | 12808 | C | LYS | B | 501 | 65.477 | 66.602 | 30.406 | 1.00 92.85 | C |
| ATOM | 12809 | O | LYS | B | 501 | 66.355 | 66.085 | 29.721 | 1.00 92.85 | O |
| ATOM | 12810 | CB | LYS | B | 501 | 63.510 | 67.597 | 29.223 | 1.00 93.17 | C |
| ATOM | 12811 | CG | LYS | B | 501 | 63.120 | 67.225 | 27.790 | 1.00 93.17 | C |
| ATOM | 12812 | CD | LYS | B | 501 | 62.647 | 68.426 | 26.978 | 1.00 93.17 | C |
| ATOM | 12813 | CE | LYS | B | 501 | 61.345 | 69.003 | 27.517 | 1.00 93.17 | C |
| ATOM | 12814 | NZ | LYS | B | 501 | 60.150 | 68.163 | 27.214 | 1.00 93.17 | N |
| ATOM | 12815 | N | GLU | B | 502 | 65.739 | 67.338 | 31.472 | 1.00 75.40 | N |
| ATOM | 12816 | CA | GLU | B | 502 | 67.102 | 67.570 | 31.890 | 1.00 75.40 | C |
| ATOM | 12817 | C | GLU | B | 502 | 67.679 | 66.261 | 32.422 | 1.00 75.40 | C |
| ATOM | 12818 | O | GLU | B | 502 | 68.856 | 65.976 | 32.257 | 1.00 75.40 | O |
| ATOM | 12819 | CB | GLU | B | 502 | 67.156 | 68.633 | 32.988 | 1.00196.62 | C |
| ATOM | 12820 | CG | GLU | B | 502 | 68.401 | 69.501 | 32.948 | 1.00196.62 | C |
| ATOM | 12821 | CD | GLU | B | 502 | 68.939 | 69.800 | 34.327 | 1.00196.62 | C |
| ATOM | 12822 | OE1 | GLU | B | 502 | 69.551 | 68.895 | 34.937 | 1.00196.62 | O |
| ATOM | 12823 | OE2 | GLU | B | 502 | 68.741 | 70.937 | 34.802 | 1.00196.62 | O |
| ATOM | 12824 | N | ALA | B | 503 | 66.851 | 65.458 | 33.072 | 1.00 54.02 | N |
| ATOM | 12825 | CA | ALA | B | 503 | 67.316 | 64.200 | 33.613 | 1.00 54.02 | C |
| ATOM | 12826 | C | ALA | B | 503 | 66.926 | 63.109 | 32.641 | 1.00 54.02 | C |
| ATOM | 12827 | O | ALA | B | 503 | 66.505 | 62.028 | 33.031 | 1.00 54.02 | O |
| ATOM | 12828 | CB | ALA | B | 503 | 66.680 | 63.942 | 34.981 | 1.00 87.36 | C |
| ATOM | 12829 | N | ASN | B | 504 | 67.059 | 63.396 | 31.359 | 1.00 97.56 | N |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 12830 | CA | ASN | B | 504 | 66.713 | 62.421 | 30.342 | 1.00 | 97.56 | C |
| ATOM | 12831 | C | ASN | B | 504 | 65.592 | 61.471 | 30.804 | 1.00 | 97.56 | C |
| ATOM | 12832 | O | ASN | B | 504 | 65.754 | 60.261 | 30.841 | 1.00 | 97.56 | O |
| ATOM | 12833 | CB | ASN | B | 504 | 67.944 | 61.600 | 29.955 | 1.00 | 207.38 | C |
| ATOM | 12834 | CG | ASN | B | 504 | 68.223 | 60.469 | 30.931 | 1.00 | 207.38 | C |
| ATOM | 12835 | OD1 | ASN | B | 504 | 68.307 | 60.680 | 32.140 | 1.00 | 207.38 | O |
| ATOM | 12836 | ND2 | ASN | B | 504 | 68.370 | 59.259 | 30.405 | 1.00 | 207.38 | N |
| ATOM | 12837 | N | ALA | B | 505 | 64.452 | 62.012 | 31.182 | 1.00 | 71.30 | N |
| ATOM | 12838 | CA | ALA | B | 505 | 63.362 | 61.152 | 31.591 | 1.00 | 71.30 | C |
| ATOM | 12839 | C | ALA | B | 505 | 62.226 | 61.417 | 30.637 | 1.00 | 71.30 | C |
| ATOM | 12840 | O | ALA | B | 505 | 61.281 | 60.651 | 30.579 | 1.00 | 71.30 | O |
| ATOM | 12841 | CB | ALA | B | 505 | 62.946 | 61.474 | 33.021 | 1.00 | 150.40 | C |
| ATOM | 12842 | N | TYR | B | 506 | 62.350 | 62.500 | 29.872 | 1.00 | 110.40 | N |
| ATOM | 12843 | CA | TYR | B | 506 | 61.313 | 62.927 | 28.948 | 1.00 | 110.40 | C |
| ATOM | 12844 | C | TYR | B | 506 | 60.865 | 61.962 | 27.898 | 1.00 | 110.40 | C |
| ATOM | 12845 | O | TYR | B | 506 | 59.749 | 62.062 | 27.414 | 1.00 | 110.40 | O |
| ATOM | 12846 | CB | TYR | B | 506 | 61.687 | 64.240 | 28.268 | 1.00 | 96.90 | C |
| ATOM | 12847 | CG | TYR | B | 506 | 60.496 | 64.855 | 27.573 | 1.00 | 96.90 | C |
| ATOM | 12848 | CD1 | TYR | B | 506 | 59.332 | 65.125 | 28.287 | 1.00 | 96.90 | C |
| ATOM | 12849 | CD2 | TYR | B | 506 | 60.515 | 65.145 | 26.208 | 1.00 | 96.90 | C |
| ATOM | 12850 | CE1 | TYR | B | 506 | 58.212 | 65.668 | 27.669 | 1.00 | 96.90 | C |
| ATOM | 12851 | CE2 | TYR | B | 506 | 59.390 | 65.694 | 25.572 | 1.00 | 96.90 | C |
| ATOM | 12852 | CZ | TYR | B | 506 | 58.244 | 65.952 | 26.313 | 1.00 | 96.90 | C |
| ATOM | 12853 | OH | TYR | B | 506 | 57.136 | 66.504 | 25.709 | 1.00 | 96.90 | O |
| ATOM | 12854 | N | ASP | B | 507 | 61.714 | 61.035 | 27.507 | 1.00 | 98.10 | N |
| ATOM | 12855 | CA | ASP | B | 507 | 61.269 | 60.103 | 26.490 | 1.00 | 98.10 | C |
| ATOM | 12856 | C | ASP | B | 507 | 60.312 | 59.025 | 27.017 | 1.00 | 98.10 | C |
| ATOM | 12857 | O | ASP | B | 507 | 59.177 | 58.933 | 26.561 | 1.00 | 98.10 | O |
| ATOM | 12858 | CB | ASP | B | 507 | 62.477 | 59.451 | 25.807 | 1.00 | 201.42 | C |
| ATOM | 12859 | CG | ASP | B | 507 | 63.432 | 58.813 | 26.792 | 1.00 | 201.42 | C |
| ATOM | 12860 | OD1 | ASP | B | 507 | 63.067 | 57.780 | 27.389 | 1.00 | 201.42 | O |
| ATOM | 12861 | OD2 | ASP | B | 507 | 64.547 | 59.349 | 26.975 | 1.00 | 201.42 | O |
| ATOM | 12862 | N | PHE | B | 508 | 60.745 | 58.231 | 27.994 | 1.00 | 74.67 | N |
| ATOM | 12863 | CA | PHE | B | 508 | 59.890 | 57.158 | 28.487 | 1.00 | 74.67 | C |
| ATOM | 12864 | C | PHE | B | 508 | 58.615 | 57.623 | 29.142 | 1.00 | 74.67 | C |
| ATOM | 12865 | O | PHE | B | 508 | 57.587 | 56.949 | 29.059 | 1.00 | 74.67 | O |
| ATOM | 12866 | CB | PHE | B | 508 | 60.673 | 56.228 | 29.418 | 1.00 | 97.18 | C |
| ATOM | 12867 | CG | PHE | B | 508 | 61.075 | 56.854 | 30.716 | 1.00 | 97.18 | C |
| ATOM | 12868 | CD1 | PHE | B | 508 | 60.122 | 57.155 | 31.685 | 1.00 | 97.18 | C |
| ATOM | 12869 | CD2 | PHE | B | 508 | 62.413 | 57.127 | 30.977 | 1.00 | 97.18 | C |
| ATOM | 12870 | CE1 | PHE | B | 508 | 60.498 | 57.723 | 32.905 | 1.00 | 97.18 | C |
| ATOM | 12871 | CE2 | PHE | B | 508 | 62.807 | 57.694 | 32.187 | 1.00 | 97.18 | C |
| ATOM | 12872 | CZ | PHE | B | 508 | 61.847 | 57.995 | 33.158 | 1.00 | 97.18 | C |
| ATOM | 12873 | N | ILE | B | 509 | 58.680 | 58.771 | 29.805 | 1.00 | 114.46 | N |
| ATOM | 12874 | CA | ILE | B | 509 | 57.499 | 59.312 | 30.461 | 1.00 | 114.46 | C |
| ATOM | 12875 | C | ILE | B | 509 | 56.517 | 59.672 | 29.358 | 1.00 | 114.46 | C |
| ATOM | 12876 | O | ILE | B | 509 | 55.305 | 59.690 | 29.567 | 1.00 | 114.46 | O |
| ATOM | 12877 | CB | ILE | B | 509 | 57.831 | 60.565 | 31.324 | 1.00 | 151.96 | C |
| ATOM | 12878 | CG1 | ILE | B | 509 | 58.600 | 61.603 | 30.502 | 1.00 | 151.96 | C |
| ATOM | 12879 | CG2 | ILE | B | 509 | 58.630 | 60.154 | 32.551 | 1.00 | 151.96 | C |
| ATOM | 12880 | CD1 | ILE | B | 509 | 57.738 | 62.441 | 29.585 | 1.00 | 151.96 | C |
| ATOM | 12881 | N | MET | B | 510 | 57.053 | 59.941 | 28.173 | 1.00 | 82.71 | N |
| ATOM | 12882 | CA | MET | B | 510 | 56.206 | 60.296 | 27.055 | 1.00 | 82.71 | C |
| ATOM | 12883 | C | MET | B | 510 | 55.611 | 59.064 | 26.369 | 1.00 | 82.71 | C |
| ATOM | 12884 | O | MET | B | 510 | 54.408 | 59.045 | 26.106 | 1.00 | 82.71 | O |
| ATOM | 12885 | CB | MET | B | 510 | 56.976 | 61.131 | 26.027 | 1.00 | 100.43 | C |
| ATOM | 12886 | CG | MET | B | 510 | 57.239 | 62.571 | 26.442 | 1.00 | 100.43 | C |
| ATOM | 12887 | SD | MET | B | 510 | 55.757 | 63.456 | 27.014 | 1.00 | 100.43 | S |
| ATOM | 12888 | CE | MET | B | 510 | 54.613 | 63.172 | 25.673 | 1.00 | 100.43 | C |
| ATOM | 12889 | N | LYS | B | 511 | 56.422 | 58.046 | 26.061 | 1.00 | 92.54 | N |
| ATOM | 12890 | CA | LYS | B | 511 | 55.874 | 56.853 | 25.409 | 1.00 | 92.54 | C |
| ATOM | 12891 | C | LYS | B | 511 | 55.059 | 56.063 | 26.437 | 1.00 | 92.54 | C |
| ATOM | 12892 | O | LYS | B | 511 | 53.990 | 55.542 | 26.137 | 1.00 | 92.54 | O |
| ATOM | 12893 | CB | LYS | B | 511 | 56.962 | 55.949 | 24.789 | 1.00 | 148.64 | C |
| ATOM | 12894 | CG | LYS | B | 511 | 56.463 | 54.566 | 24.259 | 1.00 | 148.64 | C |
| ATOM | 12895 | CD | LYS | B | 511 | 55.287 | 54.634 | 23.268 | 1.00 | 148.64 | C |
| ATOM | 12896 | CE | LYS | B | 511 | 54.817 | 53.224 | 22.871 | 1.00 | 148.64 | C |
| ATOM | 12897 | NZ | LYS | B | 511 | 53.522 | 53.195 | 22.125 | 1.00 | 148.64 | N |
| ATOM | 12898 | N | LEU | B | 512 | 55.546 | 55.975 | 27.660 | 1.00 | 81.90 | N |
| ATOM | 12899 | CA | LEU | B | 512 | 54.781 | 55.275 | 28.666 | 1.00 | 81.90 | C |
| ATOM | 12900 | C | LEU | B | 512 | 53.371 | 55.910 | 28.606 | 1.00 | 81.90 | C |
| ATOM | 12901 | O | LEU | B | 512 | 53.249 | 57.129 | 28.501 | 1.00 | 81.90 | O |
| ATOM | 12902 | CB | LEU | B | 512 | 55.427 | 55.488 | 30.034 | 1.00 | 83.53 | C |
| ATOM | 12903 | CG | LEU | B | 512 | 54.613 | 56.157 | 31.139 | 1.00 | 83.53 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 12904 | CD1 | LEU | B | 512 | 53.566 | 55.179 | 31.644 | 1.00 | 83.53 | C |
| ATOM | 12905 | CD2 | LEU | B | 512 | 55.538 | 56.593 | 32.268 | 1.00 | 83.53 | C |
| ATOM | 12906 | N | PRO | B | 513 | 52.295 | 55.096 | 28.661 | 1.00 | 76.79 | N |
| ATOM | 12907 | CA | PRO | B | 513 | 50.892 | 55.559 | 28.608 | 1.00 | 76.79 | C |
| ATOM | 12908 | C | PRO | B | 513 | 50.609 | 56.711 | 29.543 | 1.00 | 76.79 | C |
| ATOM | 12909 | O | PRO | B | 513 | 51.468 | 57.093 | 30.312 | 1.00 | 76.79 | O |
| ATOM | 12910 | CB | PRO | B | 513 | 50.112 | 54.306 | 28.990 | 1.00 | 110.42 | C |
| ATOM | 12911 | CG | PRO | B | 513 | 51.060 | 53.599 | 29.929 | 1.00 | 110.42 | C |
| ATOM | 12912 | CD | PRO | B | 513 | 52.355 | 53.710 | 29.161 | 1.00 | 110.42 | C |
| ATOM | 12913 | N | HIS | B | 514 | 49.410 | 57.269 | 29.473 | 1.00 | 127.95 | N |
| ATOM | 12914 | CA | HIS | B | 514 | 49.003 | 58.350 | 30.381 | 1.00 | 127.95 | C |
| ATOM | 12915 | C | HIS | B | 514 | 49.859 | 59.627 | 30.541 | 1.00 | 127.95 | C |
| ATOM | 12916 | O | HIS | B | 514 | 49.358 | 60.626 | 31.075 | 1.00 | 127.95 | O |
| ATOM | 12917 | CB | HIS | B | 514 | 48.811 | 57.785 | 31.794 | 1.00 | 123.44 | C |
| ATOM | 12918 | CG | HIS | B | 514 | 47.861 | 56.632 | 31.875 | 1.00 | 123.44 | C |
| ATOM | 12919 | ND1 | HIS | B | 514 | 46.503 | 56.770 | 31.694 | 1.00 | 123.44 | N |
| ATOM | 12920 | CD2 | HIS | B | 514 | 48.074 | 55.324 | 32.149 | 1.00 | 123.44 | C |
| ATOM | 12921 | CE1 | HIS | B | 514 | 45.918 | 55.597 | 31.855 | 1.00 | 123.44 | C |
| ATOM | 12922 | NE2 | HIS | B | 514 | 46.850 | 54.702 | 32.132 | 1.00 | 123.44 | N |
| ATOM | 12923 | N | GLN | B | 515 | 51.131 | 59.603 | 30.143 | 1.00 | 133.80 | N |
| ATOM | 12924 | CA | GLN | B | 515 | 52.001 | 60.781 | 30.290 | 1.00 | 133.80 | C |
| ATOM | 12925 | C | GLN | B | 515 | 52.575 | 60.923 | 31.706 | 1.00 | 133.80 | C |
| ATOM | 12926 | O | GLN | B | 515 | 52.949 | 59.942 | 32.332 | 1.00 | 133.80 | O |
| ATOM | 12927 | CB | GLN | B | 515 | 51.210 | 62.047 | 29.958 | 1.00 | 103.58 | C |
| ATOM | 12928 | CG | GLN | B | 515 | 50.600 | 62.043 | 28.573 | 1.00 | 103.58 | C |
| ATOM | 12929 | CD | GLN | B | 515 | 51.650 | 62.053 | 27.480 | 1.00 | 103.58 | C |
| ATOM | 12930 | OE1 | GLN | B | 515 | 52.037 | 63.111 | 26.982 | 1.00 | 103.58 | O |
| ATOM | 12931 | NE2 | GLN | B | 515 | 52.131 | 60.870 | 27.112 | 1.00 | 103.58 | N |
| ATOM | 12932 | N | PHE | B | 516 | 52.644 | 62.155 | 32.201 | 1.00 | 110.09 | N |
| ATOM | 12933 | CA | PHE | B | 516 | 53.168 | 62.447 | 33.541 | 1.00 | 110.09 | C |
| ATOM | 12934 | C | PHE | B | 516 | 52.165 | 62.081 | 34.621 | 1.00 | 110.09 | C |
| ATOM | 12935 | O | PHE | B | 516 | 52.522 | 61.918 | 35.800 | 1.00 | 110.09 | O |
| ATOM | 12936 | CB | PHE | B | 516 | 53.488 | 63.940 | 33.684 | 1.00 | 133.25 | C |
| ATOM | 12937 | CG | PHE | B | 516 | 54.758 | 64.362 | 33.017 | 1.00 | 133.25 | C |
| ATOM | 12938 | CD1 | PHE | B | 516 | 55.964 | 63.767 | 33.359 | 1.00 | 133.25 | C |
| ATOM | 12939 | CD2 | PHE | B | 516 | 54.755 | 65.380 | 32.069 | 1.00 | 133.25 | C |
| ATOM | 12940 | CE1 | PHE | B | 516 | 57.150 | 64.179 | 32.769 | 1.00 | 133.25 | C |
| ATOM | 12941 | CE2 | PHE | B | 516 | 55.935 | 65.798 | 31.475 | 1.00 | 133.25 | C |
| ATOM | 12942 | CZ | PHE | B | 516 | 57.134 | 65.196 | 31.825 | 1.00 | 133.25 | C |
| ATOM | 12943 | N | ASP | B | 517 | 50.904 | 61.991 | 34.204 | 1.00 | 102.99 | N |
| ATOM | 12944 | CA | ASP | B | 517 | 49.811 | 61.669 | 35.097 | 1.00 | 102.99 | C |
| ATOM | 12945 | C | ASP | B | 517 | 49.768 | 60.172 | 35.274 | 1.00 | 102.99 | C |
| ATOM | 12946 | O | ASP | B | 517 | 48.992 | 59.655 | 36.061 | 1.00 | 102.99 | O |
| ATOM | 12947 | CB | ASP | B | 517 | 48.490 | 62.177 | 34.518 | 1.00 | 190.16 | C |
| ATOM | 12948 | CG | ASP | B | 517 | 48.471 | 63.687 | 34.351 | 1.00 | 190.16 | C |
| ATOM | 12949 | OD1 | ASP | B | 517 | 48.572 | 64.401 | 35.371 | 1.00 | 190.16 | O |
| ATOM | 12950 | OD2 | ASP | B | 517 | 48.355 | 64.159 | 33.201 | 1.00 | 190.16 | O |
| ATOM | 12951 | N | THR | B | 518 | 50.608 | 59.467 | 34.534 | 1.00 | 105.78 | N |
| ATOM | 12952 | CA | THR | B | 518 | 50.652 | 58.028 | 34.682 | 1.00 | 105.78 | C |
| ATOM | 12953 | C | THR | B | 518 | 50.975 | 57.819 | 36.140 | 1.00 | 105.78 | C |
| ATOM | 12954 | O | THR | B | 518 | 51.685 | 58.644 | 36.733 | 1.00 | 105.78 | O |
| ATOM | 12955 | CB | THR | B | 518 | 51.787 | 57.396 | 33.857 | 1.00 | 91.27 | C |
| ATOM | 12956 | OG1 | THR | B | 518 | 51.764 | 57.910 | 32.519 | 1.00 | 91.27 | O |
| ATOM | 12957 | CG2 | THR | B | 518 | 51.633 | 55.874 | 33.834 | 1.00 | 91.27 | C |
| ATOM | 12958 | N | LEU | B | 519 | 50.475 | 56.723 | 36.711 | 1.00 | 98.73 | N |
| ATOM | 12959 | CA | LEU | B | 519 | 50.715 | 56.407 | 38.121 | 1.00 | 98.73 | C |
| ATOM | 12960 | C | LEU | B | 519 | 51.951 | 55.536 | 38.400 | 1.00 | 98.73 | C |
| ATOM | 12961 | O | LEU | B | 519 | 52.901 | 55.487 | 37.608 | 1.00 | 98.73 | O |
| ATOM | 12962 | CB | LEU | B | 519 | 49.461 | 55.774 | 38.747 | 1.00 | 93.13 | C |
| ATOM | 12963 | CG | LEU | B | 519 | 48.605 | 54.750 | 37.993 | 1.00 | 93.13 | C |
| ATOM | 12964 | CD1 | LEU | B | 519 | 48.044 | 55.385 | 36.731 | 1.00 | 93.13 | C |
| ATOM | 12965 | CD2 | LEU | B | 519 | 49.421 | 53.512 | 37.677 | 1.00 | 93.13 | C |
| ATOM | 12966 | N | VAL | B | 520 | 51.935 | 54.879 | 39.556 | 1.00 | 207.38 | N |
| ATOM | 12967 | CA | VAL | B | 520 | 53.027 | 54.013 | 39.999 | 1.00 | 207.38 | C |
| ATOM | 12968 | C | VAL | B | 520 | 52.404 | 52.835 | 40.788 | 1.00 | 207.38 | C |
| ATOM | 12969 | O | VAL | B | 520 | 52.551 | 52.738 | 42.010 | 1.00 | 207.38 | O |
| ATOM | 12970 | CB | VAL | B | 520 | 54.036 | 54.823 | 40.855 | 1.00 | 87.00 | C |
| ATOM | 12971 | CG1 | VAL | B | 520 | 55.028 | 53.901 | 41.522 | 1.00 | 87.00 | C |
| ATOM | 12972 | CG2 | VAL | B | 520 | 54.775 | 55.816 | 39.951 | 1.00 | 87.00 | C |
| ATOM | 12973 | N | GLY | B | 521 | 51.698 | 51.964 | 40.049 | 1.00 | 207.38 | N |
| ATOM | 12974 | CA | GLY | B | 521 | 51.018 | 50.788 | 40.592 | 1.00 | 207.38 | C |
| ATOM | 12975 | C | GLY | B | 521 | 51.450 | 50.259 | 41.947 | 1.00 | 207.38 | C |
| ATOM | 12976 | O | GLY | B | 521 | 52.097 | 49.210 | 42.048 | 1.00 | 207.38 | O |
| ATOM | 12977 | N | GLU | B | 522 | 51.063 | 50.995 | 42.987 | 1.00 | 207.38 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 12978 | CA | GLU | B | 522 | 51.369 | 50.676 | 44.382 | 1.00207.38 | C |
| ATOM | 12979 | C | GLU | B | 522 | 52.858 | 50.512 | 44.690 | 1.00207.38 | C |
| ATOM | 12980 | O | GLU | B | 522 | 53.468 | 49.488 | 44.370 | 1.00207.38 | O |
| ATOM | 12981 | CB | GLU | B | 522 | 50.590 | 49.430 | 44.821 | 1.00207.38 | C |
| ATOM | 12982 | CG | GLU | B | 522 | 49.068 | 49.612 | 44.841 | 1.00207.38 | C |
| ATOM | 12983 | CD | GLU | B | 522 | 48.600 | 50.603 | 45.894 | 1.00207.38 | C |
| ATOM | 12984 | OE1 | GLU | B | 522 | 48.908 | 50.394 | 47.087 | 1.00207.38 | O |
| ATOM | 12985 | OE2 | GLU | B | 522 | 47.920 | 51.586 | 45.530 | 1.00207.38 | O |
| ATOM | 12986 | N | ARG | B | 523 | 53.420 | 51.538 | 45.329 | 1.00201.04 | N |
| ATOM | 12987 | CA | ARG | B | 523 | 54.833 | 51.579 | 45.696 | 1.00201.04 | C |
| ATOM | 12988 | C | ARG | B | 523 | 55.629 | 51.778 | 44.407 | 1.00201.04 | C |
| ATOM | 12989 | O | ARG | B | 523 | 55.037 | 51.866 | 43.338 | 1.00201.04 | O |
| ATOM | 12990 | CB | ARG | B | 523 | 55.247 | 50.270 | 46.380 | 1.00176.36 | C |
| ATOM | 12991 | CG | ARG | B | 523 | 56.377 | 50.405 | 47.398 | 1.00176.36 | C |
| ATOM | 12992 | CD | ARG | B | 523 | 57.687 | 50.852 | 46.768 | 1.00176.36 | C |
| ATOM | 12993 | NE | ARG | B | 523 | 58.791 | 50.782 | 47.724 | 1.00176.36 | N |
| ATOM | 12994 | CZ | ARG | B | 523 | 60.055 | 51.076 | 47.436 | 1.00176.36 | C |
| ATOM | 12995 | NH1 | ARG | B | 523 | 60.387 | 51.464 | 46.213 | 1.00176.36 | N |
| ATOM | 12996 | NH2 | ARG | B | 523 | 60.991 | 50.978 | 48.371 | 1.00176.36 | N |
| ATOM | 12997 | N | GLY | B | 524 | 56.955 | 51.869 | 44.504 | 1.00188.66 | N |
| ATOM | 12998 | CA | GLY | B | 524 | 57.773 | 52.034 | 43.315 | 1.00188.66 | C |
| ATOM | 12999 | C | GLY | B | 524 | 57.843 | 50.755 | 42.484 | 1.00188.66 | C |
| ATOM | 13000 | O | GLY | B | 524 | 58.925 | 50.376 | 42.014 | 1.00188.66 | O |
| ATOM | 13001 | N | ALA | B | 525 | 56.681 | 50.105 | 42.300 | 1.00207.38 | N |
| ATOM | 13002 | CA | ALA | B | 525 | 56.520 | 48.838 | 41.542 | 1.00207.38 | C |
| ATOM | 13003 | C | ALA | B | 525 | 55.701 | 48.955 | 40.238 | 1.00207.38 | C |
| ATOM | 13004 | O | ALA | B | 525 | 54.472 | 48.802 | 40.259 | 1.00207.38 | O |
| ATOM | 13005 | CB | ALA | B | 525 | 55.913 | 47.792 | 42.443 | 1.00139.96 | C |
| ATOM | 13006 | N | GLN | B | 526 | 56.379 | 49.192 | 39.112 | 1.00141.79 | N |
| ATOM | 13007 | CA | GLN | B | 526 | 55.703 | 49.325 | 37.827 | 1.00141.79 | C |
| ATOM | 13008 | C | GLN | B | 526 | 56.702 | 49.475 | 36.682 | 1.00141.79 | C |
| ATOM | 13009 | O | GLN | B | 526 | 56.487 | 48.939 | 35.593 | 1.00141.79 | O |
| ATOM | 13010 | CB | GLN | B | 526 | 54.755 | 50.528 | 37.866 | 1.00150.26 | C |
| ATOM | 13011 | CG | GLN | B | 526 | 53.742 | 50.569 | 36.737 | 1.00150.26 | C |
| ATOM | 13012 | CD | GLN | B | 526 | 52.343 | 50.886 | 37.234 | 1.00150.26 | C |
| ATOM | 13013 | OE1 | GLN | B | 526 | 51.806 | 50.183 | 38.089 | 1.00150.26 | O |
| ATOM | 13014 | NE2 | GLN | B | 526 | 51.744 | 51.944 | 36.697 | 1.00150.26 | N |
| ATOM | 13015 | N | LEU | B | 527 | 57.796 | 50.193 | 36.937 | 1.00120.97 | N |
| ATOM | 13016 | CA | LEU | B | 527 | 58.821 | 50.424 | 35.918 | 1.00120.97 | C |
| ATOM | 13017 | C | LEU | B | 527 | 60.247 | 50.047 | 36.358 | 1.00120.97 | C |
| ATOM | 13018 | O | LEU | B | 527 | 60.497 | 49.785 | 37.536 | 1.00120.97 | O |
| ATOM | 13019 | CB | LEU | B | 527 | 58.761 | 51.881 | 35.433 | 1.00 85.58 | C |
| ATOM | 13020 | CG | LEU | B | 527 | 58.854 | 53.107 | 36.346 | 1.00 85.58 | C |
| ATOM | 13021 | CD1 | LEU | B | 527 | 58.438 | 54.328 | 35.521 | 1.00 85.58 | C |
| ATOM | 13022 | CD2 | LEU | B | 527 | 57.949 | 52.958 | 37.561 | 1.00 85.58 | C |
| ATOM | 13023 | N | SER | B | 528 | 61.160 | 50.012 | 35.387 | 1.00 64.98 | N |
| ATOM | 13024 | CA | SER | B | 528 | 62.562 | 49.635 | 35.580 | 1.00 64.98 | C |
| ATOM | 13025 | C | SER | B | 528 | 63.386 | 50.500 | 36.515 | 1.00 64.98 | C |
| ATOM | 13026 | O | SER | B | 528 | 63.448 | 51.709 | 36.350 | 1.00 64.98 | O |
| ATOM | 13027 | CB | SER | B | 528 | 63.276 | 49.591 | 34.229 | 1.00136.68 | C |
| ATOM | 13028 | OG | SER | B | 528 | 63.619 | 50.897 | 33.801 | 1.00136.68 | O |
| ATOM | 13029 | N | GLY | B | 529 | 64.058 | 49.868 | 37.474 | 1.00 99.92 | N |
| ATOM | 13030 | CA | GLY | B | 529 | 64.879 | 50.614 | 38.410 | 1.00 99.92 | C |
| ATOM | 13031 | C | GLY | B | 529 | 65.630 | 51.678 | 37.651 | 1.00 99.92 | C |
| ATOM | 13032 | O | GLY | B | 529 | 65.940 | 52.741 | 38.182 | 1.00 99.92 | O |
| ATOM | 13033 | N | GLY | B | 530 | 65.914 | 51.376 | 36.390 | 1.00 83.75 | N |
| ATOM | 13034 | CA | GLY | B | 530 | 66.606 | 52.330 | 35.558 | 1.00 83.75 | C |
| ATOM | 13035 | C | GLY | B | 530 | 65.871 | 53.651 | 35.596 | 1.00 83.75 | C |
| ATOM | 13036 | O | GLY | B | 530 | 66.387 | 54.642 | 36.108 | 1.00 83.75 | O |
| ATOM | 13037 | N | GLN | B | 531 | 64.656 | 53.672 | 35.063 | 1.00104.90 | N |
| ATOM | 13038 | CA | GLN | B | 531 | 63.867 | 54.896 | 35.053 | 1.00104.90 | C |
| ATOM | 13039 | C | GLN | B | 531 | 63.573 | 55.371 | 36.472 | 1.00104.90 | C |
| ATOM | 13040 | O | GLN | B | 531 | 63.641 | 56.570 | 36.749 | 1.00104.90 | O |
| ATOM | 13041 | CB | GLN | B | 531 | 62.564 | 54.652 | 34.298 | 1.00130.05 | C |
| ATOM | 13042 | CG | GLN | B | 531 | 62.788 | 54.191 | 32.874 | 1.00130.05 | C |
| ATOM | 13043 | CD | GLN | B | 531 | 61.678 | 53.294 | 32.383 | 1.00130.05 | C |
| ATOM | 13044 | OE1 | GLN | B | 531 | 61.320 | 52.325 | 33.048 | 1.00130.05 | O |
| ATOM | 13045 | NE2 | GLN | B | 531 | 61.131 | 53.605 | 31.213 | 1.00130.05 | N |
| ATOM | 13046 | N | LYS | B | 532 | 63.245 | 54.442 | 37.369 | 1.00 85.92 | N |
| ATOM | 13047 | CA | LYS | B | 532 | 62.965 | 54.824 | 38.737 | 1.00 85.92 | C |
| ATOM | 13048 | C | LYS | B | 532 | 64.086 | 55.802 | 39.093 | 1.00 85.92 | C |
| ATOM | 13049 | O | LYS | B | 532 | 63.857 | 57.001 | 39.287 | 1.00 85.92 | O |
| ATOM | 13050 | CB | LYS | B | 532 | 63.011 | 53.613 | 39.682 | 1.00 99.83 | C |
| ATOM | 13051 | CG | LYS | B | 532 | 61.922 | 52.573 | 39.455 | 1.00 99.83 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 13052 | CD | LYS | B | 532 | 61.919 | 51.468 | 40.517 | 1.00 | 99.83 | C |
| ATOM | 13053 | CE | LYS | B | 532 | 61.424 | 51.973 | 41.868 | 1.00 | 99.83 | C |
| ATOM | 13054 | NZ | LYS | B | 532 | 61.290 | 50.875 | 42.872 | 1.00 | 99.83 | N |
| ATOM | 13055 | N | GLN | B | 533 | 65.310 | 55.285 | 39.132 | 1.00 | 58.24 | N |
| ATOM | 13056 | CA | GLN | B | 533 | 66.476 | 56.089 | 39.461 | 1.00 | 58.24 | C |
| ATOM | 13057 | C | GLN | B | 533 | 66.446 | 57.411 | 38.713 | 1.00 | 58.24 | C |
| ATOM | 13058 | O | GLN | B | 533 | 66.706 | 58.452 | 39.303 | 1.00 | 58.24 | O |
| ATOM | 13059 | CB | GLN | B | 533 | 67.740 | 55.308 | 39.094 | 1.00 | 121.47 | C |
| ATOM | 13060 | CG | GLN | B | 533 | 69.044 | 56.016 | 39.421 | 1.00 | 121.47 | C |
| ATOM | 13061 | CD | GLN | B | 533 | 69.081 | 56.543 | 40.844 | 1.00 | 121.47 | C |
| ATOM | 13062 | OE1 | GLN | B | 533 | 68.520 | 57.598 | 41.144 | 1.00 | 121.47 | O |
| ATOM | 13063 | NE2 | GLN | B | 533 | 69.732 | 55.801 | 41.731 | 1.00 | 121.47 | N |
| ATOM | 13064 | N | ARG | B | 534 | 66.108 | 57.366 | 37.421 | 1.00 | 91.02 | N |
| ATOM | 13065 | CA | ARG | B | 534 | 66.053 | 58.567 | 36.585 | 1.00 | 91.02 | C |
| ATOM | 13066 | C | ARG | B | 534 | 65.044 | 59.531 | 37.157 | 1.00 | 91.02 | C |
| ATOM | 13067 | O | ARG | B | 534 | 65.379 | 60.680 | 37.435 | 1.00 | 91.02 | O |
| ATOM | 13068 | CB | ARG | B | 534 | 65.687 | 58.186 | 35.148 | 1.00 | 122.99 | C |
| ATOM | 13069 | CG | ARG | B | 534 | 66.417 | 58.989 | 34.076 | 1.00 | 122.99 | C |
| ATOM | 13070 | CD | ARG | B | 534 | 66.216 | 58.374 | 32.714 | 1.00 | 122.99 | C |
| ATOM | 13071 | NE | ARG | B | 534 | 66.574 | 56.962 | 32.738 | 1.00 | 122.99 | N |
| ATOM | 13072 | CZ | ARG | B | 534 | 66.303 | 56.109 | 31.758 | 1.00 | 122.99 | C |
| ATOM | 13073 | NH1 | ARG | B | 534 | 65.670 | 56.531 | 30.671 | 1.00 | 122.99 | N |
| ATOM | 13074 | NH2 | ARG | B | 534 | 66.655 | 54.834 | 31.870 | 1.00 | 122.99 | N |
| ATOM | 13075 | N | ILE | B | 535 | 63.810 | 59.077 | 37.343 | 1.00 | 57.65 | N |
| ATOM | 13076 | CA | ILE | B | 535 | 62.787 | 59.949 | 37.927 | 1.00 | 57.65 | C |
| ATOM | 13077 | C | ILE | B | 535 | 63.324 | 60.639 | 39.201 | 1.00 | 57.65 | C |
| ATOM | 13078 | O | ILE | B | 535 | 63.201 | 61.856 | 39.363 | 1.00 | 57.65 | O |
| ATOM | 13079 | CB | ILE | B | 535 | 61.493 | 59.171 | 38.290 | 1.00 | 35.50 | C |
| ATOM | 13080 | CG1 | ILE | B | 535 | 60.759 | 58.769 | 37.010 | 1.00 | 35.50 | C |
| ATOM | 13081 | CG2 | ILE | B | 535 | 60.582 | 60.030 | 39.176 | 1.00 | 35.50 | C |
| ATOM | 13082 | CD1 | ILE | B | 535 | 59.511 | 57.946 | 37.256 | 1.00 | 35.50 | C |
| ATOM | 13083 | N | ALA | B | 536 | 63.913 | 59.856 | 40.097 | 1.00 | 51.53 | N |
| ATOM | 13084 | CA | ALA | B | 536 | 64.500 | 60.404 | 41.307 | 1.00 | 51.53 | C |
| ATOM | 13085 | C | ALA | B | 536 | 65.387 | 61.616 | 40.939 | 1.00 | 51.53 | C |
| ATOM | 13086 | O | ALA | B | 536 | 65.184 | 62.749 | 41.386 | 1.00 | 51.53 | O |
| ATOM | 13087 | CB | ALA | B | 536 | 65.333 | 59.343 | 42.021 | 1.00 | 131.38 | C |
| ATOM | 13088 | N | ILE | B | 537 | 66.387 | 61.359 | 40.114 | 1.00 | 94.58 | N |
| ATOM | 13089 | CA | ILE | B | 537 | 67.289 | 62.406 | 39.670 | 1.00 | 94.58 | C |
| ATOM | 13090 | C | ILE | B | 537 | 66.531 | 63.654 | 39.250 | 1.00 | 94.58 | C |
| ATOM | 13091 | O | ILE | B | 537 | 66.986 | 64.773 | 39.456 | 1.00 | 94.58 | O |
| ATOM | 13092 | CB | ILE | B | 537 | 68.136 | 61.903 | 38.502 | 1.00 | 46.55 | C |
| ATOM | 13093 | CG1 | ILE | B | 537 | 69.093 | 60.834 | 39.021 | 1.00 | 46.55 | C |
| ATOM | 13094 | CG2 | ILE | B | 537 | 68.871 | 63.060 | 37.838 | 1.00 | 46.55 | C |
| ATOM | 13095 | CD1 | ILE | B | 537 | 69.571 | 59.865 | 37.961 | 1.00 | 46.55 | C |
| ATOM | 13096 | N | ALA | B | 538 | 65.374 | 63.459 | 38.645 | 1.00 | 101.13 | N |
| ATOM | 13097 | CA | ALA | B | 538 | 64.582 | 64.598 | 38.237 | 1.00 | 101.13 | C |
| ATOM | 13098 | C | ALA | B | 538 | 64.072 | 65.285 | 39.500 | 1.00 | 101.13 | C |
| ATOM | 13099 | O | ALA | B | 538 | 64.127 | 66.508 | 39.625 | 1.00 | 101.13 | O |
| ATOM | 13100 | CB | ALA | B | 538 | 63.407 | 64.142 | 37.371 | 1.00 | 192.81 | C |
| ATOM | 13101 | N | ARG | B | 539 | 63.566 | 64.486 | 40.433 | 1.00 | 95.15 | N |
| ATOM | 13102 | CA | ARG | B | 539 | 63.046 | 65.004 | 41.697 | 1.00 | 95.15 | C |
| ATOM | 13103 | C | ARG | B | 539 | 64.157 | 65.850 | 42.313 | 1.00 | 95.15 | C |
| ATOM | 13104 | O | ARG | B | 539 | 64.039 | 67.084 | 42.446 | 1.00 | 95.15 | O |
| ATOM | 13105 | CB | ARG | B | 539 | 62.699 | 63.796 | 42.594 | 1.00 | 90.19 | C |
| ATOM | 13106 | CG | ARG | B | 539 | 61.987 | 64.069 | 43.919 | 1.00 | 90.19 | C |
| ATOM | 13107 | CD | ARG | B | 539 | 61.373 | 62.793 | 44.502 | 1.00 | 90.19 | C |
| ATOM | 13108 | NE | ARG | B | 539 | 62.368 | 61.764 | 44.795 | 1.00 | 90.19 | N |
| ATOM | 13109 | CZ | ARG | B | 539 | 62.085 | 60.481 | 45.000 | 1.00 | 90.19 | C |
| ATOM | 13110 | NH1 | ARG | B | 539 | 60.830 | 60.058 | 44.942 | 1.00 | 90.19 | N |
| ATOM | 13111 | NH2 | ARG | B | 539 | 63.063 | 59.622 | 45.263 | 1.00 | 90.19 | N |
| ATOM | 13112 | N | ALA | B | 540 | 65.259 | 65.195 | 42.650 | 1.00 | 83.29 | N |
| ATOM | 13113 | CA | ALA | B | 540 | 66.357 | 65.909 | 43.256 | 1.00 | 83.29 | C |
| ATOM | 13114 | C | ALA | B | 540 | 66.752 | 67.096 | 42.376 | 1.00 | 83.29 | C |
| ATOM | 13115 | O | ALA | B | 540 | 67.137 | 68.159 | 42.885 | 1.00 | 83.29 | O |
| ATOM | 13116 | CB | ALA | B | 540 | 67.561 | 64.977 | 43.438 | 1.00 | 49.97 | C |
| ATOM | 13117 | N | LEU | B | 541 | 66.610 | 66.925 | 41.060 | 1.00 | 84.80 | N |
| ATOM | 13118 | CA | LEU | B | 541 | 66.959 | 67.962 | 40.069 | 1.00 | 84.80 | C |
| ATOM | 13119 | C | LEU | B | 541 | 66.228 | 69.305 | 40.257 | 1.00 | 84.80 | C |
| ATOM | 13120 | O | LEU | B | 541 | 66.776 | 70.379 | 39.980 | 1.00 | 84.80 | O |
| ATOM | 13121 | CB | LEU | B | 541 | 66.685 | 67.437 | 38.661 | 1.00 | 148.32 | C |
| ATOM | 13122 | CG | LEU | B | 541 | 67.717 | 67.855 | 37.614 | 1.00 | 148.32 | C |
| ATOM | 13123 | CD1 | LEU | B | 541 | 67.774 | 69.369 | 37.511 | 1.00 | 148.32 | C |
| ATOM | 13124 | CD2 | LEU | B | 541 | 69.077 | 67.300 | 38.006 | 1.00 | 148.32 | C |
| ATOM | 13125 | N | VAL | B | 542 | 64.982 | 69.210 | 40.715 | 1.00 | 57.27 | N |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 13126 | CA | VAL | B | 542 | 64.120 | 70.358 | 40.955 | 1.00 | 57.27 | C |
| ATOM | 13127 | C | VAL | B | 542 | 64.537 | 70.915 | 42.278 | 1.00 | 57.27 | C |
| ATOM | 13128 | O | VAL | B | 542 | 64.384 | 72.103 | 42.544 | 1.00 | 57.27 | O |
| ATOM | 13129 | CB | VAL | B | 542 | 62.643 | 69.930 | 41.060 | 1.00 | 70.23 | C |
| ATOM | 13130 | CG1 | VAL | B | 542 | 61.734 | 71.117 | 40.825 | 1.00 | 70.23 | C |
| ATOM | 13131 | CG2 | VAL | B | 542 | 62.353 | 68.818 | 40.071 | 1.00 | 70.23 | C |
| ATOM | 13132 | N | ARG | B | 543 | 65.043 | 70.025 | 43.125 | 1.00 | 67.65 | N |
| ATOM | 13133 | CA | ARG | B | 543 | 65.510 | 70.457 | 44.435 | 1.00 | 67.65 | C |
| ATOM | 13134 | C | ARG | B | 543 | 66.546 | 71.507 | 44.138 | 1.00 | 67.65 | C |
| ATOM | 13135 | O | ARG | B | 543 | 66.585 | 72.528 | 44.799 | 1.00 | 67.65 | O |
| ATOM | 13136 | CB | ARG | B | 543 | 66.162 | 69.301 | 45.200 | 1.00 | 80.61 | C |
| ATOM | 13137 | CG | ARG | B | 543 | 65.887 | 69.312 | 46.681 | 1.00 | 80.61 | C |
| ATOM | 13138 | CD | ARG | B | 543 | 64.554 | 68.659 | 46.968 | 1.00 | 80.61 | C |
| ATOM | 13139 | NE | ARG | B | 543 | 64.074 | 68.886 | 48.327 | 1.00 | 80.61 | N |
| ATOM | 13140 | CZ | ARG | B | 543 | 64.807 | 68.694 | 49.420 | 1.00 | 80.61 | C |
| ATOM | 13141 | NH1 | ARG | B | 543 | 66.068 | 68.281 | 49.323 | 1.00 | 80.61 | N |
| ATOM | 13142 | NH2 | ARG | B | 543 | 64.272 | 68.885 | 50.616 | 1.00 | 80.61 | N |
| ATOM | 13143 | N | ASN | B | 544 | 67.343 | 71.216 | 43.098 | 1.00 | 58.32 | N |
| ATOM | 13144 | CA | ASN | B | 544 | 68.493 | 71.991 | 42.551 | 1.00 | 58.32 | C |
| ATOM | 13145 | C | ASN | B | 544 | 69.489 | 72.587 | 43.532 | 1.00 | 58.32 | C |
| ATOM | 13146 | O | ASN | B | 544 | 69.687 | 73.779 | 43.587 | 1.00 | 58.32 | O |
| ATOM | 13147 | CB | ASN | B | 544 | 67.996 | 73.048 | 41.541 | 1.00 | 98.54 | C |
| ATOM | 13148 | CG | ASN | B | 544 | 67.573 | 74.340 | 42.187 | 1.00 | 98.54 | C |
| ATOM | 13149 | OD1 | ASN | B | 544 | 66.746 | 74.357 | 43.098 | 1.00 | 98.54 | O |
| ATOM | 13150 | ND2 | ASN | B | 544 | 68.130 | 75.446 | 41.702 | 1.00 | 98.54 | N |
| ATOM | 13151 | N | PRO | B | 545 | 70.193 | 71.722 | 44.260 | 1.00 | 98.93 | N |
| ATOM | 13152 | CA | PRO | B | 545 | 71.195 | 72.054 | 45.269 | 1.00 | 98.93 | C |
| ATOM | 13153 | C | PRO | B | 545 | 72.470 | 72.712 | 44.741 | 1.00 | 98.93 | C |
| ATOM | 13154 | O | PRO | B | 545 | 72.486 | 73.286 | 43.643 | 1.00 | 98.93 | O |
| ATOM | 13155 | CB | PRO | B | 545 | 71.489 | 70.702 | 45.902 | 1.00 | 95.40 | C |
| ATOM | 13156 | CG | PRO | B | 545 | 71.463 | 69.808 | 44.709 | 1.00 | 95.40 | C |
| ATOM | 13157 | CD | PRO | B | 545 | 70.199 | 70.269 | 44.000 | 1.00 | 95.40 | C |
| ATOM | 13158 | N | LYS | B | 546 | 73.521 | 72.617 | 45.571 | 1.00 | 108.98 | N |
| ATOM | 13159 | CA | LYS | B | 546 | 74.880 | 73.114 | 45.310 | 1.00 | 108.98 | C |
| ATOM | 13160 | C | LYS | B | 546 | 75.850 | 71.973 | 45.659 | 1.00 | 108.98 | C |
| ATOM | 13161 | O | LYS | B | 546 | 77.033 | 72.033 | 45.336 | 1.00 | 108.98 | O |
| ATOM | 13162 | CB | LYS | B | 546 | 75.185 | 74.333 | 46.188 | 1.00 | 138.43 | C |
| ATOM | 13163 | CG | LYS | B | 546 | 74.122 | 75.425 | 46.170 | 1.00 | 138.43 | C |
| ATOM | 13164 | CD | LYS | B | 546 | 73.725 | 75.808 | 44.754 | 1.00 | 138.43 | C |
| ATOM | 13165 | CE | LYS | B | 546 | 72.825 | 77.031 | 44.755 | 1.00 | 138.43 | C |
| ATOM | 13166 | NZ | LYS | B | 546 | 71.708 | 76.883 | 45.723 | 1.00 | 138.43 | N |
| ATOM | 13167 | N | ILE | B | 547 | 75.322 | 70.948 | 46.339 | 1.00 | 104.98 | N |
| ATOM | 13168 | CA | ILE | B | 547 | 76.065 | 69.745 | 46.742 | 1.00 | 104.98 | C |
| ATOM | 13169 | C | ILE | B | 547 | 75.236 | 68.581 | 46.234 | 1.00 | 104.98 | C |
| ATOM | 13170 | O | ILE | B | 547 | 74.013 | 68.558 | 46.395 | 1.00 | 104.98 | O |
| ATOM | 13171 | CB | ILE | B | 547 | 76.139 | 69.549 | 48.279 | 1.00 | 85.60 | C |
| ATOM | 13172 | CG1 | ILE | B | 547 | 76.310 | 70.887 | 49.005 | 1.00 | 85.60 | C |
| ATOM | 13173 | CG2 | ILE | B | 547 | 77.276 | 68.574 | 48.605 | 1.00 | 85.60 | C |
| ATOM | 13174 | CD1 | ILE | B | 547 | 77.749 | 71.323 | 49.169 | 1.00 | 85.60 | C |
| ATOM | 13175 | N | LEU | B | 548 | 75.904 | 67.601 | 45.650 | 1.00 | 92.14 | N |
| ATOM | 13176 | CA | LEU | B | 548 | 75.206 | 66.447 | 45.116 | 1.00 | 92.14 | C |
| ATOM | 13177 | C | LEU | B | 548 | 75.978 | 65.215 | 45.526 | 1.00 | 92.14 | C |
| ATOM | 13178 | O | LEU | B | 548 | 77.153 | 65.103 | 45.223 | 1.00 | 92.14 | O |
| ATOM | 13179 | CB | LEU | B | 548 | 75.144 | 66.547 | 43.590 | 1.00 | 113.46 | C |
| ATOM | 13180 | CG | LEU | B | 548 | 74.104 | 65.738 | 42.810 | 1.00 | 113.46 | C |
| ATOM | 13181 | CD1 | LEU | B | 548 | 74.278 | 66.026 | 41.328 | 1.00 | 113.46 | C |
| ATOM | 13182 | CD2 | LEU | B | 548 | 74.260 | 64.256 | 43.078 | 1.00 | 113.46 | C |
| ATOM | 13183 | N | LEU | B | 549 | 75.334 | 64.292 | 46.220 | 1.00 | 78.17 | N |
| ATOM | 13184 | CA | LEU | B | 549 | 76.029 | 63.079 | 46.629 | 1.00 | 78.17 | C |
| ATOM | 13185 | C | LEU | B | 549 | 75.443 | 61.908 | 45.877 | 1.00 | 78.17 | C |
| ATOM | 13186 | O | LEU | B | 549 | 74.222 | 61.777 | 45.767 | 1.00 | 78.17 | O |
| ATOM | 13187 | CB | LEU | B | 549 | 75.859 | 62.848 | 48.129 | 1.00 | 103.19 | C |
| ATOM | 13188 | CG | LEU | B | 549 | 76.339 | 63.948 | 49.075 | 1.00 | 103.19 | C |
| ATOM | 13189 | CD1 | LEU | B | 549 | 75.568 | 65.232 | 48.811 | 1.00 | 103.19 | C |
| ATOM | 13190 | CD2 | LEU | B | 549 | 76.146 | 63.496 | 50.511 | 1.00 | 103.19 | C |
| ATOM | 13191 | N | LEU | B | 550 | 76.290 | 61.052 | 45.335 | 1.00 | 102.73 | N |
| ATOM | 13192 | CA | LEU | B | 550 | 75.744 | 59.906 | 44.620 | 1.00 | 102.73 | C |
| ATOM | 13193 | C | LEU | B | 550 | 76.267 | 58.652 | 45.283 | 1.00 | 102.73 | C |
| ATOM | 13194 | O | LEU | B | 550 | 77.445 | 58.294 | 45.154 | 1.00 | 102.73 | O |
| ATOM | 13195 | CB | LEU | B | 550 | 76.155 | 59.938 | 43.142 | 1.00 | 71.97 | C |
| ATOM | 13196 | CG | LEU | B | 550 | 75.678 | 61.162 | 42.351 | 1.00 | 71.97 | C |
| ATOM | 13197 | CD1 | LEU | B | 550 | 76.568 | 62.362 | 42.686 | 1.00 | 71.97 | C |
| ATOM | 13198 | CD2 | LEU | B | 550 | 75.707 | 60.864 | 40.850 | 1.00 | 71.97 | C |
| ATOM | 13199 | N | ASP | B | 551 | 75.375 | 57.987 | 46.005 | 1.00 | 123.75 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13200 | CA | ASP | B | 551 | 75.745 | 56.785 | 46.747 | 1.00123.75 | C |
| ATOM | 13201 | C | ASP | B | 551 | 75.640 | 55.541 | 45.867 | 1.00123.75 | C |
| ATOM | 13202 | O | ASP | B | 551 | 74.677 | 54.784 | 45.960 | 1.00123.75 | O |
| ATOM | 13203 | CB | ASP | B | 551 | 74.833 | 56.643 | 47.971 | 1.00207.38 | C |
| ATOM | 13204 | CG | ASP | B | 551 | 75.502 | 55.916 | 49.124 | 1.00207.38 | C |
| ATOM | 13205 | OD1 | ASP | B | 551 | 74.861 | 55.782 | 50.187 | 1.00207.38 | O |
| ATOM | 13206 | OD2 | ASP | B | 551 | 76.663 | 55.483 | 48.974 | 1.00207.38 | O |
| ATOM | 13207 | N | GLU | B | 552 | 76.630 | 55.329 | 45.007 | 1.00207.38 | N |
| ATOM | 13208 | CA | GLU | B | 552 | 76.603 | 54.165 | 44.130 | 1.00207.38 | C |
| ATOM | 13209 | C | GLU | B | 552 | 75.411 | 54.271 | 43.204 | 1.00207.38 | C |
| ATOM | 13210 | O | GLU | B | 552 | 75.177 | 53.377 | 42.396 | 1.00207.38 | O |
| ATOM | 13211 | CB | GLU | B | 552 | 76.454 | 52.889 | 44.951 | 1.00207.38 | C |
| ATOM | 13212 | CG | GLU | B | 552 | 77.540 | 52.644 | 45.965 | 1.00207.38 | C |
| ATOM | 13213 | CD | GLU | B | 552 | 77.050 | 51.775 | 47.102 | 1.00207.38 | C |
| ATOM | 13214 | OE1 | GLU | B | 552 | 76.024 | 51.081 | 46.924 | 1.00207.38 | O |
| ATOM | 13215 | OE2 | GLU | B | 552 | 77.688 | 51.780 | 48.174 | 1.00207.38 | O |
| ATOM | 13216 | N | ALA | B | 553 | 74.654 | 55.357 | 43.351 | 1.00150.77 | N |
| ATOM | 13217 | CA | ALA | B | 553 | 73.465 | 55.603 | 42.543 | 1.00150.77 | C |
| ATOM | 13218 | C | ALA | B | 553 | 73.343 | 54.533 | 41.452 | 1.00150.77 | C |
| ATOM | 13219 | O | ALA | B | 553 | 72.849 | 53.434 | 41.699 | 1.00150.77 | O |
| ATOM | 13220 | CB | ALA | B | 553 | 73.536 | 56.972 | 41.911 | 1.00 65.39 | C |
| ATOM | 13221 | N | THR | B | 554 | 73.841 | 54.849 | 40.265 | 1.00122.64 | N |
| ATOM | 13222 | CA | THR | B | 554 | 73.802 | 53.946 | 39.130 | 1.00122.64 | C |
| ATOM | 13223 | C | THR | B | 554 | 73.860 | 52.467 | 39.470 | 1.00122.64 | C |
| ATOM | 13224 | O | THR | B | 554 | 73.117 | 51.689 | 38.899 | 1.00122.64 | O |
| ATOM | 13225 | CB | THR | B | 554 | 74.949 | 54.239 | 38.142 | 1.00157.75 | C |
| ATOM | 13226 | OG1 | THR | B | 554 | 74.833 | 53.379 | 36.999 | 1.00157.75 | O |
| ATOM | 13227 | CG2 | THR | B | 554 | 76.298 | 54.015 | 38.816 | 1.00157.75 | C |
| ATOM | 13228 | N | SER | B | 555 | 74.741 | 52.080 | 40.387 | 1.00182.61 | N |
| ATOM | 13229 | CA | SER | B | 555 | 74.898 | 50.679 | 40.781 | 1.00182.61 | C |
| ATOM | 13230 | C | SER | B | 555 | 73.631 | 49.839 | 40.812 | 1.00182.61 | C |
| ATOM | 13231 | O | SER | B | 555 | 72.528 | 50.362 | 40.692 | 1.00182.61 | O |
| ATOM | 13232 | CB | SER | B | 555 | 75.585 | 50.588 | 42.150 | 1.00141.61 | C |
| ATOM | 13233 | OG | SER | B | 555 | 76.983 | 50.801 | 42.054 | 1.00141.61 | O |
| ATOM | 13234 | N | ALA | B | 556 | 73.799 | 48.529 | 40.988 | 1.00140.48 | N |
| ATOM | 13235 | CA | ALA | B | 556 | 72.664 | 47.598 | 41.052 | 1.00140.48 | C |
| ATOM | 13236 | C | ALA | B | 556 | 71.628 | 47.946 | 39.990 | 1.00140.48 | C |
| ATOM | 13237 | O | ALA | B | 556 | 70.443 | 48.115 | 40.280 | 1.00140.48 | O |
| ATOM | 13238 | CB | ALA | B | 556 | 72.032 | 47.643 | 42.435 | 1.00197.78 | C |
| ATOM | 13239 | N | LEU | B | 557 | 72.096 | 48.032 | 38.755 | 1.00154.97 | N |
| ATOM | 13240 | CA | LEU | B | 557 | 71.251 | 48.401 | 37.639 | 1.00154.97 | C |
| ATOM | 13241 | C | LEU | B | 557 | 71.859 | 47.789 | 36.393 | 1.00154.97 | C |
| ATOM | 13242 | O | LEU | B | 557 | 73.071 | 47.594 | 36.350 | 1.00154.97 | O |
| ATOM | 13243 | CB | LEU | B | 557 | 71.245 | 49.923 | 37.524 | 1.00115.73 | C |
| ATOM | 13244 | CG | LEU | B | 557 | 70.378 | 50.629 | 36.488 | 1.00115.73 | C |
| ATOM | 13245 | CD1 | LEU | B | 557 | 68.919 | 50.364 | 36.786 | 1.00115.73 | C |
| ATOM | 13246 | CD2 | LEU | B | 557 | 70.655 | 52.120 | 36.528 | 1.00115.73 | C |
| ATOM | 13247 | N | ASP | B | 558 | 71.042 | 47.494 | 35.382 | 1.00140.45 | N |
| ATOM | 13248 | CA | ASP | B | 558 | 71.567 | 46.903 | 34.149 | 1.00140.45 | C |
| ATOM | 13249 | C | ASP | B | 558 | 72.682 | 47.775 | 33.545 | 1.00140.45 | C |
| ATOM | 13250 | O | ASP | B | 558 | 72.675 | 48.999 | 33.687 | 1.00140.45 | O |
| ATOM | 13251 | CB | ASP | B | 558 | 70.443 | 46.701 | 33.123 | 1.00139.42 | C |
| ATOM | 13252 | CG | ASP | B | 558 | 70.275 | 47.888 | 32.192 | 1.00139.42 | C |
| ATOM | 13253 | OD1 | ASP | B | 558 | 71.194 | 48.135 | 31.382 | 1.00139.42 | O |
| ATOM | 13254 | OD2 | ASP | B | 558 | 69.231 | 48.572 | 32.270 | 1.00139.42 | O |
| ATOM | 13255 | N | THR | B | 559 | 73.639 | 47.139 | 32.873 | 1.00163.01 | N |
| ATOM | 13256 | CA | THR | B | 559 | 74.764 | 47.852 | 32.273 | 1.00163.01 | C |
| ATOM | 13257 | C | THR | B | 559 | 74.363 | 49.046 | 31.408 | 1.00163.01 | C |
| ATOM | 13258 | O | THR | B | 559 | 74.619 | 50.196 | 31.764 | 1.00163.01 | O |
| ATOM | 13259 | CB | THR | B | 559 | 75.638 | 46.899 | 31.430 | 1.00184.43 | C |
| ATOM | 13260 | OG1 | THR | B | 559 | 74.798 | 46.059 | 30.628 | 1.00184.43 | O |
| ATOM | 13261 | CG2 | THR | B | 559 | 76.500 | 46.036 | 32.331 | 1.00184.43 | C |
| ATOM | 13262 | N | GLU | B | 560 | 73.732 | 48.771 | 30.275 | 1.00196.24 | N |
| ATOM | 13263 | CA | GLU | B | 560 | 73.318 | 49.825 | 29.361 | 1.00196.24 | C |
| ATOM | 13264 | C | GLU | B | 560 | 72.691 | 51.042 | 30.073 | 1.00196.24 | C |
| ATOM | 13265 | O | GLU | B | 560 | 73.084 | 52.200 | 29.834 | 1.00196.24 | O |
| ATOM | 13266 | CB | GLU | B | 560 | 72.345 | 49.245 | 28.329 | 1.00207.38 | C |
| ATOM | 13267 | CG | GLU | B | 560 | 72.005 | 50.194 | 27.204 | 1.00207.38 | C |
| ATOM | 13268 | CD | GLU | B | 560 | 71.127 | 51.328 | 27.670 | 1.00207.38 | C |
| ATOM | 13269 | OE1 | GLU | B | 560 | 71.035 | 52.345 | 26.952 | 1.00207.38 | O |
| ATOM | 13270 | OE2 | GLU | B | 560 | 70.520 | 51.197 | 28.754 | 1.00207.38 | O |
| ATOM | 13271 | N | SER | B | 561 | 71.713 | 50.794 | 30.941 | 1.00148.00 | N |
| ATOM | 13272 | CA | SER | B | 561 | 71.082 | 51.890 | 31.664 | 1.00148.00 | C |
| ATOM | 13273 | C | SER | B | 561 | 72.179 | 52.604 | 32.436 | 1.00148.00 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13274 | O | SER | B | 561 | 72.288 | 53.821 | 32.353 | 1.00148.00 | O |
| ATOM | 13275 | CB | SER | B | 561 | 70.035 | 51.341 | 32.636 | 1.00207.38 | C |
| ATOM | 13276 | OG | SER | B | 561 | 70.625 | 50.467 | 33.586 | 1.00207.38 | O |
| ATOM | 13277 | N | GLU | B | 562 | 72.991 | 51.832 | 33.171 | 1.00190.39 | N |
| ATOM | 13278 | CA | GLU | B | 562 | 74.110 | 52.369 | 33.960 | 1.00190.39 | C |
| ATOM | 13279 | C | GLU | B | 562 | 74.768 | 53.464 | 33.150 | 1.00190.39 | C |
| ATOM | 13280 | O | GLU | B | 562 | 75.161 | 54.501 | 33.675 | 1.00190.39 | O |
| ATOM | 13281 | CB | GLU | B | 562 | 75.154 | 51.285 | 34.255 | 1.00179.38 | C |
| ATOM | 13282 | CG | GLU | B | 562 | 76.343 | 51.794 | 35.078 | 1.00179.38 | C |
| ATOM | 13283 | CD | GLU | B | 562 | 77.505 | 50.812 | 35.137 | 1.00179.38 | C |
| ATOM | 13284 | OE1 | GLU | B | 562 | 77.263 | 49.618 | 35.403 | 1.00179.38 | O |
| ATOM | 13285 | OE2 | GLU | B | 562 | 78.663 | 51.237 | 34.927 | 1.00179.38 | O |
| ATOM | 13286 | N | ALA | B | 563 | 74.911 | 53.215 | 31.859 | 1.00143.84 | N |
| ATOM | 13287 | CA | ALA | B | 563 | 75.482 | 54.220 | 30.992 | 1.00143.84 | C |
| ATOM | 13288 | C | ALA | B | 563 | 74.530 | 55.412 | 31.075 | 1.00143.84 | C |
| ATOM | 13289 | O | ALA | B | 563 | 74.853 | 56.437 | 31.687 | 1.00143.84 | O |
| ATOM | 13290 | CB | ALA | B | 563 | 75.565 | 53.700 | 29.561 | 1.00187.62 | C |
| ATOM | 13291 | N | VAL | B | 564 | 73.342 | 55.246 | 30.489 | 1.00133.25 | N |
| ATOM | 13292 | CA | VAL | B | 564 | 72.324 | 56.307 | 30.454 | 1.00133.25 | C |
| ATOM | 13293 | C | VAL | B | 564 | 72.176 | 57.074 | 31.762 | 1.00133.25 | C |
| ATOM | 13294 | O | VAL | B | 564 | 72.157 | 58.307 | 31.793 | 1.00133.25 | O |
| ATOM | 13295 | CB | VAL | B | 564 | 70.937 | 55.730 | 30.094 | 1.00126.90 | C |
| ATOM | 13296 | CG1 | VAL | B | 564 | 70.071 | 56.820 | 29.485 | 1.00126.90 | C |
| ATOM | 13297 | CG2 | VAL | B | 564 | 71.085 | 54.549 | 29.148 | 1.00126.90 | C |
| ATOM | 13298 | N | VAL | B | 565 | 72.047 | 56.320 | 32.841 | 1.00138.69 | N |
| ATOM | 13299 | CA | VAL | B | 565 | 71.897 | 56.878 | 34.170 | 1.00138.69 | C |
| ATOM | 13300 | C | VAL | B | 565 | 73.077 | 57.779 | 34.557 | 1.00138.69 | C |
| ATOM | 13301 | O | VAL | B | 565 | 72.868 | 58.905 | 35.003 | 1.00138.69 | O |
| ATOM | 13302 | CB | VAL | B | 565 | 71.748 | 55.746 | 35.214 | 1.00148.27 | C |
| ATOM | 13303 | CG1 | VAL | B | 565 | 71.834 | 56.305 | 36.624 | 1.00148.27 | C |
| ATOM | 13304 | CG2 | VAL | B | 565 | 70.421 | 55.043 | 35.015 | 1.00148.27 | C |
| ATOM | 13305 | N | GLN | B | 566 | 74.307 | 57.290 | 34.386 | 1.00108.23 | N |
| ATOM | 13306 | CA | GLN | B | 566 | 75.490 | 58.071 | 34.730 | 1.00108.23 | C |
| ATOM | 13307 | C | GLN | B | 566 | 75.541 | 59.256 | 33.795 | 1.00108.23 | C |
| ATOM | 13308 | O | GLN | B | 566 | 76.114 | 60.289 | 34.131 | 1.00108.23 | O |
| ATOM | 13309 | CB | GLN | B | 566 | 76.768 | 57.231 | 34.597 | 1.00105.11 | C |
| ATOM | 13310 | CG | GLN | B | 566 | 78.078 | 57.955 | 34.960 | 1.00105.11 | C |
| ATOM | 13311 | CD | GLN | B | 566 | 78.489 | 57.759 | 36.412 | 1.00105.11 | C |
| ATOM | 13312 | OE1 | GLN | B | 566 | 78.638 | 56.631 | 36.872 | 1.00105.11 | O |
| ATOM | 13313 | NE2 | GLN | B | 566 | 78.681 | 58.858 | 37.135 | 1.00105.11 | N |
| ATOM | 13314 | N | ALA | B | 567 | 74.932 | 59.104 | 32.621 | 1.00124.33 | N |
| ATOM | 13315 | CA | ALA | B | 567 | 74.871 | 60.180 | 31.630 | 1.00124.33 | C |
| ATOM | 13316 | C | ALA | B | 567 | 74.089 | 61.371 | 32.184 | 1.00124.33 | C |
| ATOM | 13317 | O | ALA | B | 567 | 74.562 | 62.511 | 32.136 | 1.00124.33 | O |
| ATOM | 13318 | CB | ALA | B | 567 | 74.218 | 59.668 | 30.348 | 1.00174.98 | C |
| ATOM | 13319 | N | ALA | B | 568 | 72.887 | 61.096 | 32.694 | 1.00115.78 | N |
| ATOM | 13320 | CA | ALA | B | 568 | 72.024 | 62.121 | 33.289 | 1.00115.78 | C |
| ATOM | 13321 | C | ALA | B | 568 | 72.695 | 62.708 | 34.525 | 1.00115.78 | C |
| ATOM | 13322 | O | ALA | B | 568 | 72.591 | 63.907 | 34.782 | 1.00115.78 | O |
| ATOM | 13323 | CB | ALA | B | 568 | 70.669 | 61.511 | 33.660 | 1.00157.35 | C |
| ATOM | 13324 | N | LEU | B | 569 | 73.364 | 61.845 | 35.290 | 1.00142.52 | N |
| ATOM | 13325 | CA | LEU | B | 569 | 74.102 | 62.255 | 36.479 | 1.00142.52 | C |
| ATOM | 13326 | C | LEU | B | 569 | 75.099 | 63.314 | 36.036 | 1.00142.52 | C |
| ATOM | 13327 | O | LEU | B | 569 | 75.117 | 64.424 | 36.559 | 1.00142.52 | O |
| ATOM | 13328 | CB | LEU | B | 569 | 74.833 | 61.058 | 37.082 | 1.00137.47 | C |
| ATOM | 13329 | CG | LEU | B | 569 | 73.893 | 60.004 | 37.666 | 1.00137.47 | C |
| ATOM | 13330 | CD1 | LEU | B | 569 | 74.684 | 58.821 | 38.195 | 1.00137.47 | C |
| ATOM | 13331 | CD2 | LEU | B | 569 | 73.071 | 60.642 | 38.775 | 1.00137.47 | C |
| ATOM | 13332 | N | ASP | B | 570 | 75.933 | 62.963 | 35.063 | 1.00 89.60 | N |
| ATOM | 13333 | CA | ASP | B | 570 | 76.914 | 63.896 | 34.519 | 1.00 89.60 | C |
| ATOM | 13334 | C | ASP | B | 570 | 76.283 | 65.243 | 34.146 | 1.00 89.60 | C |
| ATOM | 13335 | O | ASP | B | 570 | 76.659 | 66.284 | 34.686 | 1.00 89.60 | O |
| ATOM | 13336 | CB | ASP | B | 570 | 77.606 | 63.282 | 33.304 | 1.00151.30 | C |
| ATOM | 13337 | CG | ASP | B | 570 | 78.570 | 62.176 | 33.683 | 1.00151.30 | C |
| ATOM | 13338 | OD1 | ASP | B | 570 | 78.196 | 61.307 | 34.500 | 1.00151.30 | O |
| ATOM | 13339 | OD2 | ASP | B | 570 | 79.701 | 62.174 | 33.156 | 1.00151.30 | O |
| ATOM | 13340 | N | LYS | B | 571 | 75.326 | 65.231 | 33.226 | 1.00175.97 | N |
| ATOM | 13341 | CA | LYS | B | 571 | 74.681 | 66.479 | 32.844 | 1.00175.97 | C |
| ATOM | 13342 | C | LYS | B | 571 | 74.148 | 67.166 | 34.098 | 1.00175.97 | C |
| ATOM | 13343 | O | LYS | B | 571 | 73.771 | 68.340 | 34.075 | 1.00175.97 | O |
| ATOM | 13344 | CB | LYS | B | 571 | 73.531 | 66.223 | 31.869 | 1.00199.24 | C |
| ATOM | 13345 | CG | LYS | B | 571 | 73.970 | 65.827 | 30.470 | 1.00199.24 | C |
| ATOM | 13346 | CD | LYS | B | 571 | 72.770 | 65.599 | 29.568 | 1.00199.24 | C |
| ATOM | 13347 | CE | LYS | B | 571 | 71.887 | 64.489 | 30.113 | 1.00199.24 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13348 | NZ | LYS | B | 571 | 70.663 | 64.287 | 29.294 | 1.00199.24 | N |
| ATOM | 13349 | N | ALA | B | 572 | 74.125 | 66.426 | 35.199 | 1.00161.24 | N |
| ATOM | 13350 | CA | ALA | B | 572 | 73.646 | 66.970 | 36.455 | 1.00161.24 | C |
| ATOM | 13351 | C | ALA | B | 572 | 74.756 | 67.638 | 37.253 | 1.00161.24 | C |
| ATOM | 13352 | O | ALA | B | 572 | 74.612 | 68.780 | 37.677 | 1.00161.24 | O |
| ATOM | 13353 | CB | ALA | B | 572 | 72.996 | 65.859 | 37.287 | 1.00 74.06 | C |
| ATOM | 13354 | N | ARG | B | 573 | 75.860 | 66.931 | 37.461 | 1.00107.24 | N |
| ATOM | 13355 | CA | ARG | B | 573 | 76.968 | 67.490 | 38.227 | 1.00107.24 | C |
| ATOM | 13356 | C | ARG | B | 573 | 77.627 | 68.706 | 37.571 | 1.00107.24 | C |
| ATOM | 13357 | O | ARG | B | 573 | 77.006 | 69.484 | 36.842 | 1.00107.24 | O |
| ATOM | 13358 | CB | ARG | B | 573 | 78.057 | 66.441 | 38.444 | 1.00106.98 | C |
| ATOM | 13359 | CG | ARG | B | 573 | 77.610 | 65.104 | 38.974 | 1.00106.98 | C |
| ATOM | 13360 | CD | ARG | B | 573 | 78.827 | 64.217 | 39.105 | 1.00106.98 | C |
| ATOM | 13361 | NE | ARG | B | 573 | 79.701 | 64.385 | 37.948 | 1.00106.98 | N |
| ATOM | 13362 | CZ | ARG | B | 573 | 80.003 | 63.423 | 37.084 | 1.00106.98 | C |
| ATOM | 13363 | NH1 | ARG | B | 573 | 79.504 | 62.205 | 37.241 | 1.00106.98 | N |
| ATOM | 13364 | NH2 | ARG | B | 573 | 80.802 | 63.685 | 36.058 | 1.00106.98 | N |
| ATOM | 13365 | N | GLU | B | 574 | 78.916 | 68.833 | 37.852 | 1.00186.50 | N |
| ATOM | 13366 | CA | GLU | B | 574 | 79.758 | 69.910 | 37.348 | 1.00186.50 | C |
| ATOM | 13367 | C | GLU | B | 574 | 79.212 | 71.322 | 37.518 | 1.00186.50 | C |
| ATOM | 13368 | O | GLU | B | 574 | 79.979 | 72.285 | 37.535 | 1.00186.50 | O |
| ATOM | 13369 | CB | GLU | B | 574 | 80.060 | 69.672 | 35.866 | 1.00207.38 | C |
| ATOM | 13370 | CG | GLU | B | 574 | 81.178 | 70.537 | 35.315 | 1.00207.38 | C |
| ATOM | 13371 | CD | GLU | B | 574 | 82.541 | 70.102 | 35.812 | 1.00207.38 | C |
| ATOM | 13372 | OE1 | GLU | B | 574 | 82.715 | 69.972 | 37.042 | 1.00207.38 | O |
| ATOM | 13373 | OE2 | GLU | B | 574 | 83.441 | 69.892 | 34.972 | 1.00207.38 | O |
| ATOM | 13374 | N | GLY | B | 575 | 77.894 | 71.446 | 37.561 | 1.00121.56 | N |
| ATOM | 13375 | CA | GLY | B | 575 | 77.324 | 72.746 | 37.805 | 1.00121.56 | C |
| ATOM | 13376 | C | GLY | B | 575 | 77.345 | 72.817 | 39.334 | 1.00121.56 | C |
| ATOM | 13377 | O | GLY | B | 575 | 77.430 | 73.890 | 39.948 | 1.00121.56 | O |
| ATOM | 13378 | N | ARG | B | 576 | 77.291 | 71.637 | 39.950 | 1.00104.92 | N |
| ATOM | 13379 | CA | ARG | B | 576 | 77.242 | 71.487 | 41.400 | 1.00104.92 | C |
| ATOM | 13380 | C | ARG | B | 576 | 78.456 | 70.775 | 41.939 | 1.00104.92 | C |
| ATOM | 13381 | O | ARG | B | 576 | 79.009 | 69.885 | 41.296 | 1.00104.92 | O |
| ATOM | 13382 | CB | ARG | B | 576 | 75.980 | 70.714 | 41.797 | 1.00161.30 | C |
| ATOM | 13383 | CG | ARG | B | 576 | 74.701 | 71.273 | 41.198 | 1.00161.30 | C |
| ATOM | 13384 | CD | ARG | B | 576 | 73.474 | 70.473 | 41.604 | 1.00161.30 | C |
| ATOM | 13385 | NE | ARG | B | 576 | 72.262 | 71.067 | 41.051 | 1.00161.30 | N |
| ATOM | 13386 | CZ | ARG | B | 576 | 71.970 | 71.101 | 39.754 | 1.00161.30 | C |
| ATOM | 13387 | NH1 | ARG | B | 576 | 72.801 | 70.564 | 38.869 | 1.00161.30 | N |
| ATOM | 13388 | NH2 | ARG | B | 576 | 70.856 | 71.690 | 39.342 | 1.00161.30 | N |
| ATOM | 13389 | N | THR | B | 577 | 78.861 | 71.167 | 43.137 | 1.00 85.41 | N |
| ATOM | 13390 | CA | THR | B | 577 | 80.000 | 70.545 | 43.771 | 1.00 85.41 | C |
| ATOM | 13391 | C | THR | B | 577 | 79.449 | 69.201 | 44.249 | 1.00 85.41 | C |
| ATOM | 13392 | O | THR | B | 577 | 78.466 | 69.161 | 44.985 | 1.00 85.41 | O |
| ATOM | 13393 | CB | THR | B | 577 | 80.529 | 71.397 | 44.960 | 1.00 70.50 | C |
| ATOM | 13394 | OG1 | THR | B | 577 | 80.504 | 70.628 | 46.174 | 1.00 70.50 | O |
| ATOM | 13395 | CG2 | THR | B | 577 | 79.713 | 72.674 | 45.100 | 1.00 70.50 | C |
| ATOM | 13396 | N | THR | B | 578 | 80.055 | 68.097 | 43.817 | 1.00 46.99 | N |
| ATOM | 13397 | CA | THR | B | 578 | 79.538 | 66.780 | 44.183 | 1.00 46.99 | C |
| ATOM | 13398 | C | THR | B | 578 | 80.433 | 65.630 | 44.666 | 1.00 46.99 | C |
| ATOM | 13399 | O | THR | B | 578 | 81.379 | 65.228 | 44.008 | 1.00 46.99 | O |
| ATOM | 13400 | CB | THR | B | 578 | 78.737 | 66.182 | 43.012 | 1.00 75.82 | C |
| ATOM | 13401 | OG1 | THR | B | 578 | 78.691 | 64.751 | 43.135 | 1.00 75.82 | O |
| ATOM | 13402 | CG2 | THR | B | 578 | 79.391 | 66.552 | 41.694 | 1.00 75.82 | C |
| ATOM | 13403 | N | ILE | B | 579 | 80.059 | 65.046 | 45.793 | 1.00 98.64 | N |
| ATOM | 13404 | CA | ILE | B | 579 | 80.787 | 63.944 | 46.403 | 1.00 98.64 | C |
| ATOM | 13405 | C | ILE | B | 579 | 80.152 | 62.610 | 45.935 | 1.00 98.64 | C |
| ATOM | 13406 | O | ILE | B | 579 | 78.972 | 62.344 | 46.230 | 1.00 98.64 | O |
| ATOM | 13407 | CB | ILE | B | 579 | 80.740 | 64.094 | 47.957 | 1.00 77.45 | C |
| ATOM | 13408 | CG1 | ILE | B | 579 | 81.939 | 63.399 | 48.595 | 1.00 77.45 | C |
| ATOM | 13409 | CG2 | ILE | B | 579 | 79.416 | 63.571 | 48.499 | 1.00 77.45 | C |
| ATOM | 13410 | CD1 | ILE | B | 579 | 81.954 | 61.906 | 48.391 | 1.00 77.45 | C |
| ATOM | 13411 | N | VAL | B | 580 | 80.894 | 61.798 | 45.163 | 1.00 81.50 | N |
| ATOM | 13412 | CA | VAL | B | 580 | 80.364 | 60.486 | 44.699 | 1.00 81.50 | C |
| ATOM | 13413 | C | VAL | B | 580 | 81.181 | 59.311 | 45.173 | 1.00 81.50 | C |
| ATOM | 13414 | O | VAL | B | 580 | 82.412 | 59.301 | 45.087 | 1.00 81.50 | O |
| ATOM | 13415 | CB | VAL | B | 580 | 80.319 | 60.337 | 43.169 | 1.00 55.18 | C |
| ATOM | 13416 | CG1 | VAL | B | 580 | 81.742 | 60.208 | 42.592 | 1.00 55.18 | C |
| ATOM | 13417 | CG2 | VAL | B | 580 | 79.514 | 59.094 | 42.825 | 1.00 55.18 | C |
| ATOM | 13418 | N | ILE | B | 581 | 80.461 | 58.304 | 45.637 | 1.00102.90 | N |
| ATOM | 13419 | CA | ILE | B | 581 | 81.075 | 57.102 | 46.138 | 1.00102.90 | C |
| ATOM | 13420 | C | ILE | B | 581 | 80.572 | 55.985 | 45.243 | 1.00102.90 | C |
| ATOM | 13421 | O | ILE | B | 581 | 79.372 | 55.924 | 44.947 | 1.00102.90 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13422 | CB | ILE | B | 581 | 80.653 | 56.862 | 47.615 | 1.00127.79 | C |
| ATOM | 13423 | CG1 | ILE | B | 581 | 81.210 | 55.530 | 48.125 | 1.00127.79 | C |
| ATOM | 13424 | CG2 | ILE | B | 581 | 79.131 | 56.930 | 47.735 | 1.00127.79 | C |
| ATOM | 13425 | CD1 | ILE | B | 581 | 80.442 | 54.317 | 47.657 | 1.00127.79 | C |
| ATOM | 13426 | N | ALA | B | 582 | 81.482 | 55.124 | 44.773 | 1.00112.18 | N |
| ATOM | 13427 | CA | ALA | B | 582 | 81.024 | 54.012 | 43.914 | 1.00112.18 | C |
| ATOM | 13428 | C | ALA | B | 582 | 82.060 | 52.965 | 43.531 | 1.00112.18 | C |
| ATOM | 13429 | O | ALA | B | 582 | 83.250 | 53.087 | 43.870 | 1.00112.18 | O |
| ATOM | 13430 | CB | ALA | B | 582 | 80.387 | 54.588 | 42.655 | 1.00 84.60 | C |
| ATOM | 13431 | N | HIS | B | 583 | 81.580 | 51.938 | 42.822 | 1.00125.92 | N |
| ATOM | 13432 | CA | HIS | B | 583 | 82.403 | 50.802 | 42.411 | 1.00125.92 | C |
| ATOM | 13433 | C | HIS | B | 583 | 82.815 | 50.739 | 40.951 | 1.00125.92 | C |
| ATOM | 13434 | O | HIS | B | 583 | 83.712 | 49.968 | 40.595 | 1.00125.92 | O |
| ATOM | 13435 | CB | HIS | B | 583 | 81.694 | 49.496 | 42.779 | 1.00196.43 | C |
| ATOM | 13436 | CG | HIS | B | 583 | 81.421 | 49.350 | 44.243 | 1.00196.43 | C |
| ATOM | 13437 | ND1 | HIS | B | 583 | 82.424 | 49.294 | 45.186 | 1.00196.43 | N |
| ATOM | 13438 | CD2 | HIS | B | 583 | 80.256 | 49.255 | 44.927 | 1.00196.43 | C |
| ATOM | 13439 | CE1 | HIS | B | 583 | 81.890 | 49.171 | 46.388 | 1.00196.43 | C |
| ATOM | 13440 | NE2 | HIS | B | 583 | 80.576 | 49.145 | 46.258 | 1.00196.43 | N |
| ATOM | 13441 | N | ARG | B | 584 | 82.162 | 51.531 | 40.106 | 1.00119.91 | N |
| ATOM | 13442 | CA | ARG | B | 584 | 82.477 | 51.560 | 38.670 | 1.00119.91 | C |
| ATOM | 13443 | C | ARG | B | 584 | 83.727 | 52.398 | 38.364 | 1.00119.91 | C |
| ATOM | 13444 | O | ARG | B | 584 | 83.624 | 53.531 | 37.898 | 1.00119.91 | O |
| ATOM | 13445 | CB | ARG | B | 584 | 81.289 | 52.121 | 37.884 | 1.00207.16 | C |
| ATOM | 13446 | CG | ARG | B | 584 | 80.013 | 51.301 | 37.998 | 1.00207.16 | C |
| ATOM | 13447 | CD | ARG | B | 584 | 80.130 | 49.961 | 37.286 | 1.00207.16 | C |
| ATOM | 13448 | NE | ARG | B | 584 | 81.172 | 49.116 | 37.862 | 1.00207.16 | N |
| ATOM | 13449 | CZ | ARG | B | 584 | 81.127 | 48.607 | 39.088 | 1.00207.16 | C |
| ATOM | 13450 | NH1 | ARG | B | 584 | 80.088 | 48.854 | 39.876 | 1.00207.16 | N |
| ATOM | 13451 | NH2 | ARG | B | 584 | 82.124 | 47.849 | 39.527 | 1.00207.16 | N |
| ATOM | 13452 | N | LEU | B | 585 | 84.907 | 51.841 | 38.616 | 1.00127.25 | N |
| ATOM | 13453 | CA | LEU | B | 585 | 86.141 | 52.577 | 38.365 | 1.00127.25 | C |
| ATOM | 13454 | C | LEU | B | 585 | 86.096 | 53.213 | 36.987 | 1.00127.25 | C |
| ATOM | 13455 | O | LEU | B | 585 | 86.765 | 54.218 | 36.719 | 1.00127.25 | O |
| ATOM | 13456 | CB | LEU | B | 585 | 87.355 | 51.648 | 38.498 | 1.00174.91 | C |
| ATOM | 13457 | CG | LEU | B | 585 | 87.738 | 51.211 | 39.920 | 1.00174.91 | C |
| ATOM | 13458 | CD1 | LEU | B | 585 | 88.049 | 52.440 | 40.768 | 1.00174.91 | C |
| ATOM | 13459 | CD2 | LEU | B | 585 | 86.609 | 50.401 | 40.539 | 1.00174.91 | C |
| ATOM | 13460 | N | SER | B | 586 | 85.277 | 52.624 | 36.126 | 1.00 87.93 | N |
| ATOM | 13461 | CA | SER | B | 586 | 85.097 | 53.133 | 34.783 | 1.00 87.93 | C |
| ATOM | 13462 | C | SER | B | 586 | 84.412 | 54.488 | 34.851 | 1.00 87.93 | C |
| ATOM | 13463 | O | SER | B | 586 | 84.692 | 55.347 | 34.032 | 1.00 87.93 | O |
| ATOM | 13464 | CB | SER | B | 586 | 84.217 | 52.191 | 33.960 | 1.00102.27 | C |
| ATOM | 13465 | OG | SER | B | 586 | 82.930 | 52.757 | 33.755 | 1.00102.27 | O |
| ATOM | 13466 | N | THR | B | 587 | 83.492 | 54.681 | 35.796 | 1.00107.90 | N |
| ATOM | 13467 | CA | THR | B | 587 | 82.827 | 55.981 | 35.912 | 1.00107.90 | C |
| ATOM | 13468 | C | THR | B | 587 | 83.463 | 56.774 | 37.035 | 1.00107.90 | C |
| ATOM | 13469 | O | THR | B | 587 | 82.922 | 57.779 | 37.489 | 1.00107.90 | O |
| ATOM | 13470 | CB | THR | B | 587 | 81.308 | 55.846 | 36.178 | 1.00 87.71 | C |
| ATOM | 13471 | OG1 | THR | B | 587 | 81.087 | 55.453 | 37.538 | 1.00 87.71 | O |
| ATOM | 13472 | CG2 | THR | B | 587 | 80.690 | 54.814 | 35.232 | 1.00 87.71 | C |
| ATOM | 13473 | N | VAL | B | 588 | 84.619 | 56.291 | 37.476 | 1.00 83.94 | N |
| ATOM | 13474 | CA | VAL | B | 588 | 85.394 | 56.949 | 38.505 | 1.00 83.94 | C |
| ATOM | 13475 | C | VAL | B | 588 | 86.364 | 57.844 | 37.786 | 1.00 83.94 | C |
| ATOM | 13476 | O | VAL | B | 588 | 86.428 | 59.034 | 38.069 | 1.00 83.94 | O |
| ATOM | 13477 | CB | VAL | B | 588 | 86.221 | 55.947 | 39.332 | 1.00 67.24 | C |
| ATOM | 13478 | CG1 | VAL | B | 588 | 87.145 | 56.704 | 40.274 | 1.00 67.24 | C |
| ATOM | 13479 | CG2 | VAL | B | 588 | 85.302 | 54.997 | 40.098 | 1.00 67.24 | C |
| ATOM | 13480 | N | ARG | B | 589 | 87.122 | 57.261 | 36.861 | 1.00157.21 | N |
| ATOM | 13481 | CA | ARG | B | 589 | 88.106 | 58.014 | 36.090 | 1.00157.21 | C |
| ATOM | 13482 | C | ARG | B | 589 | 87.912 | 59.535 | 36.102 | 1.00157.21 | C |
| ATOM | 13483 | O | ARG | B | 589 | 88.745 | 60.259 | 36.658 | 1.00157.21 | O |
| ATOM | 13484 | CB | ARG | B | 589 | 88.122 | 57.529 | 34.638 | 1.00206.53 | C |
| ATOM | 13485 | CG | ARG | B | 589 | 89.058 | 58.316 | 33.723 | 1.00206.53 | C |
| ATOM | 13486 | CD | ARG | B | 589 | 90.482 | 58.305 | 34.254 | 1.00206.53 | C |
| ATOM | 13487 | NE | ARG | B | 589 | 90.963 | 56.945 | 34.471 | 1.00206.53 | N |
| ATOM | 13488 | CZ | ARG | B | 589 | 91.173 | 56.062 | 33.501 | 1.00206.53 | C |
| ATOM | 13489 | NH1 | ARG | B | 589 | 90.949 | 56.393 | 32.236 | 1.00206.53 | N |
| ATOM | 13490 | NH2 | ARG | B | 589 | 91.601 | 54.843 | 33.799 | 1.00206.53 | N |
| ATOM | 13491 | N | ASN | B | 590 | 86.820 | 60.013 | 35.497 | 1.00 74.05 | N |
| ATOM | 13492 | CA | ASN | B | 590 | 86.542 | 61.452 | 35.427 | 1.00 74.05 | C |
| ATOM | 13493 | C | ASN | B | 590 | 86.310 | 62.152 | 36.772 | 1.00 74.05 | C |
| ATOM | 13494 | O | ASN | B | 590 | 85.516 | 63.079 | 36.845 | 1.00 74.05 | O |
| ATOM | 13495 | CB | ASN | B | 590 | 85.355 | 61.720 | 34.489 | 1.00157.21 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13496 | CG | ASN | B | 590 | 84.045 | 61.201 | 35.037 | 1.00157.21 | C |
| ATOM | 13497 | OD1 | ASN | B | 590 | 83.901 | 60.011 | 35.316 | 1.00157.21 | O |
| ATOM | 13498 | ND2 | ASN | B | 590 | 83.077 | 62.096 | 35.191 | 1.00157.21 | N |
| ATOM | 13499 | N | ALA | B | 591 | 87.023 | 61.717 | 37.813 | 1.00107.50 | N |
| ATOM | 13500 | CA | ALA | B | 591 | 86.932 | 62.305 | 39.150 | 1.00107.50 | C |
| ATOM | 13501 | C | ALA | B | 591 | 87.961 | 63.418 | 39.282 | 1.00107.50 | C |
| ATOM | 13502 | O | ALA | B | 591 | 89.146 | 63.171 | 39.072 | 1.00107.50 | O |
| ATOM | 13503 | CB | ALA | B | 591 | 87.167 | 61.229 | 40.207 | 1.00 79.51 | C |
| ATOM | 13504 | N | ASP | B | 592 | 87.520 | 64.628 | 39.637 | 1.00 86.53 | N |
| ATOM | 13505 | CA | ASP | B | 592 | 88.441 | 65.750 | 39.788 | 1.00 86.53 | C |
| ATOM | 13506 | C | ASP | B | 592 | 89.454 | 65.317 | 40.828 | 1.00 86.53 | C |
| ATOM | 13507 | O | ASP | B | 592 | 90.602 | 65.766 | 40.830 | 1.00 86.53 | O |
| ATOM | 13508 | CB | ASP | B | 592 | 87.697 | 67.005 | 40.257 | 1.00195.71 | C |
| ATOM | 13509 | CG | ASP | B | 592 | 86.971 | 67.713 | 39.123 | 1.00195.71 | C |
| ATOM | 13510 | OD1 | ASP | B | 592 | 86.278 | 68.717 | 39.394 | 1.00195.71 | O |
| ATOM | 13511 | OD2 | ASP | B | 592 | 87.098 | 67.271 | 37.961 | 1.00195.71 | O |
| ATOM | 13512 | N | VAL | B | 593 | 89.011 | 64.439 | 41.717 | 1.00 73.32 | N |
| ATOM | 13513 | CA | VAL | B | 593 | 89.879 | 63.891 | 42.732 | 1.00 73.32 | C |
| ATOM | 13514 | C | VAL | B | 593 | 89.238 | 62.651 | 43.307 | 1.00 73.32 | C |
| ATOM | 13515 | O | VAL | B | 593 | 88.016 | 62.490 | 43.263 | 1.00 73.32 | O |
| ATOM | 13516 | CB | VAL | B | 593 | 90.198 | 64.928 | 43.845 | 1.00 88.86 | C |
| ATOM | 13517 | CG1 | VAL | B | 593 | 88.937 | 65.653 | 44.282 | 1.00 88.86 | C |
| ATOM | 13518 | CG2 | VAL | B | 593 | 90.873 | 64.230 | 45.021 | 1.00 88.86 | C |
| ATOM | 13519 | N | ILE | B | 594 | 90.098 | 61.763 | 43.799 | 1.00121.58 | N |
| ATOM | 13520 | CA | ILE | B | 594 | 89.714 | 60.487 | 44.374 | 1.00121.58 | C |
| ATOM | 13521 | C | ILE | B | 594 | 90.299 | 60.373 | 45.782 | 1.00121.58 | C |
| ATOM | 13522 | O | ILE | B | 594 | 91.265 | 61.056 | 46.108 | 1.00121.58 | O |
| ATOM | 13523 | CB | ILE | B | 594 | 90.259 | 59.310 | 43.521 | 1.00 88.31 | C |
| ATOM | 13524 | CG1 | ILE | B | 594 | 89.711 | 59.392 | 42.094 | 1.00 88.31 | C |
| ATOM | 13525 | CG2 | ILE | B | 594 | 89.896 | 57.987 | 44.159 | 1.00 88.31 | C |
| ATOM | 13526 | CD1 | ILE | B | 594 | 90.353 | 60.483 | 41.247 | 1.00 88.31 | C |
| ATOM | 13527 | N | ALA | B | 595 | 89.712 | 59.517 | 46.614 | 1.00102.08 | N |
| ATOM | 13528 | CA | ALA | B | 595 | 90.207 | 59.317 | 47.976 | 1.00102.08 | C |
| ATOM | 13529 | C | ALA | B | 595 | 90.108 | 57.853 | 48.342 | 1.00102.08 | C |
| ATOM | 13530 | O | ALA | B | 595 | 89.152 | 57.160 | 47.962 | 1.00102.08 | O |
| ATOM | 13531 | CB | ALA | B | 595 | 89.391 | 60.168 | 48.952 | 1.00197.89 | C |
| ATOM | 13532 | N | GLY | B | 596 | 91.085 | 57.401 | 49.116 | 1.00116.16 | N |
| ATOM | 13533 | CA | GLY | B | 596 | 91.139 | 56.006 | 49.503 | 1.00116.16 | C |
| ATOM | 13534 | C | GLY | B | 596 | 90.440 | 55.501 | 50.750 | 1.00116.16 | C |
| ATOM | 13535 | O | GLY | B | 596 | 90.831 | 55.779 | 51.882 | 1.00116.16 | O |
| ATOM | 13536 | N | PHE | B | 597 | 89.400 | 54.722 | 50.521 | 1.00169.10 | N |
| ATOM | 13537 | CA | PHE | B | 597 | 88.650 | 54.121 | 51.599 | 1.00169.10 | C |
| ATOM | 13538 | C | PHE | B | 597 | 88.552 | 52.632 | 51.282 | 1.00169.10 | C |
| ATOM | 13539 | O | PHE | B | 597 | 89.109 | 52.158 | 50.281 | 1.00169.10 | O |
| ATOM | 13540 | CB | PHE | B | 597 | 87.244 | 54.714 | 51.673 | 1.00152.16 | C |
| ATOM | 13541 | CG | PHE | B | 597 | 87.193 | 56.079 | 52.281 | 1.00152.16 | C |
| ATOM | 13542 | CD1 | PHE | B | 597 | 87.595 | 56.282 | 53.597 | 1.00152.16 | C |
| ATOM | 13543 | CD2 | PHE | B | 597 | 86.739 | 57.165 | 51.542 | 1.00152.16 | C |
| ATOM | 13544 | CE1 | PHE | B | 597 | 87.546 | 57.552 | 54.175 | 1.00152.16 | C |
| ATOM | 13545 | CE2 | PHE | B | 597 | 86.685 | 58.439 | 52.107 | 1.00152.16 | C |
| ATOM | 13546 | CZ | PHE | B | 597 | 87.091 | 58.633 | 53.429 | 1.00152.16 | C |
| ATOM | 13547 | N | ASP | B | 598 | 87.827 | 51.917 | 52.140 | 1.00170.09 | N |
| ATOM | 13548 | CA | ASP | B | 598 | 87.595 | 50.482 | 52.024 | 1.00170.09 | C |
| ATOM | 13549 | C | ASP | B | 598 | 87.318 | 49.972 | 53.425 | 1.00170.09 | C |
| ATOM | 13550 | O | ASP | B | 598 | 88.156 | 49.290 | 54.024 | 1.00170.09 | O |
| ATOM | 13551 | CB | ASP | B | 598 | 88.829 | 49.784 | 51.452 | 1.00158.31 | C |
| ATOM | 13552 | CG | ASP | B | 598 | 88.484 | 48.510 | 50.723 | 1.00158.31 | C |
| ATOM | 13553 | OD1 | ASP | B | 598 | 87.918 | 48.609 | 49.617 | 1.00158.31 | O |
| ATOM | 13554 | OD2 | ASP | B | 598 | 88.768 | 47.417 | 51.253 | 1.00158.31 | O |
| ATOM | 13555 | N | GLY | B | 599 | 86.145 | 50.325 | 53.946 | 1.00206.34 | N |
| ATOM | 13556 | CA | GLY | B | 599 | 85.759 | 49.924 | 55.287 | 1.00206.34 | C |
| ATOM | 13557 | C | GLY | B | 599 | 86.384 | 50.815 | 56.349 | 1.00206.34 | C |
| ATOM | 13558 | O | GLY | B | 599 | 86.967 | 50.324 | 57.317 | 1.00206.34 | O |
| ATOM | 13559 | N | GLY | B | 600 | 86.258 | 52.129 | 56.178 | 1.00189.64 | N |
| ATOM | 13560 | CA | GLY | B | 600 | 86.843 | 53.063 | 57.134 | 1.00189.64 | C |
| ATOM | 13561 | C | GLY | B | 600 | 88.370 | 53.167 | 57.205 | 1.00189.64 | C |
| ATOM | 13562 | O | GLY | B | 600 | 88.977 | 52.759 | 58.200 | 1.00189.64 | O |
| ATOM | 13563 | N | VAL | B | 601 | 88.996 | 53.717 | 56.163 | 1.00207.38 | N |
| ATOM | 13564 | CA | VAL | B | 601 | 90.451 | 53.890 | 56.129 | 1.00207.38 | C |
| ATOM | 13565 | C | VAL | B | 601 | 90.900 | 54.846 | 55.002 | 1.00207.38 | C |
| ATOM | 13566 | O | VAL | B | 601 | 91.091 | 54.438 | 53.856 | 1.00207.38 | O |
| ATOM | 13567 | CB | VAL | B | 601 | 91.181 | 52.521 | 56.011 | 1.00116.14 | C |
| ATOM | 13568 | CG1 | VAL | B | 601 | 90.808 | 51.845 | 54.705 | 1.00116.14 | C |
| ATOM | 13569 | CG2 | VAL | B | 601 | 92.690 | 52.713 | 56.140 | 1.00116.14 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13570 | N | ILE | B | 602 | 91.048 | 56.126 | 55.352 | 1.00179.95 | N |
| ATOM | 13571 | CA | ILE | B | 602 | 91.463 | 57.190 | 54.422 | 1.00179.95 | C |
| ATOM | 13572 | C | ILE | B | 602 | 92.953 | 57.104 | 54.128 | 1.00179.95 | C |
| ATOM | 13573 | O | ILE | B | 602 | 93.748 | 56.920 | 55.044 | 1.00179.95 | O |
| ATOM | 13574 | CB | ILE | B | 602 | 91.132 | 58.571 | 55.022 | 1.00 90.12 | C |
| ATOM | 13575 | CG1 | ILE | B | 602 | 91.846 | 59.673 | 54.243 | 1.00 90.12 | C |
| ATOM | 13576 | CG2 | ILE | B | 602 | 91.547 | 58.621 | 56.486 | 1.00 90.12 | C |
| ATOM | 13577 | CD1 | ILE | B | 602 | 91.320 | 59.881 | 52.836 | 1.00 90.12 | C |
| ATOM | 13578 | N | VAL | B | 603 | 93.344 | 57.235 | 52.864 | 1.00130.64 | N |
| ATOM | 13579 | CA | VAL | B | 603 | 94.766 | 57.167 | 52.545 | 1.00130.64 | C |
| ATOM | 13580 | C | VAL | B | 603 | 95.249 | 58.027 | 51.388 | 1.00130.64 | C |
| ATOM | 13581 | O | VAL | B | 603 | 95.694 | 59.160 | 51.583 | 1.00130.64 | O |
| ATOM | 13582 | CB | VAL | B | 603 | 95.214 | 55.709 | 52.282 | 1.00104.13 | C |
| ATOM | 13583 | CG1 | VAL | B | 603 | 94.947 | 54.845 | 53.515 | 1.00104.13 | C |
| ATOM | 13584 | CG2 | VAL | B | 603 | 94.498 | 55.155 | 51.070 | 1.00104.13 | C |
| ATOM | 13585 | N | GLU | B | 604 | 95.149 | 57.463 | 50.190 | 1.00180.21 | N |
| ATOM | 13586 | CA | GLU | B | 604 | 95.588 | 58.074 | 48.947 | 1.00180.21 | C |
| ATOM | 13587 | C | GLU | B | 604 | 94.587 | 59.035 | 48.319 | 1.00180.21 | C |
| ATOM | 13588 | O | GLU | B | 604 | 93.521 | 58.631 | 47.859 | 1.00180.21 | O |
| ATOM | 13589 | CB | GLU | B | 604 | 95.927 | 56.959 | 47.968 | 1.00166.21 | C |
| ATOM | 13590 | CG | GLU | B | 604 | 96.841 | 55.914 | 48.577 | 1.00166.21 | C |
| ATOM | 13591 | CD | GLU | B | 604 | 96.626 | 54.534 | 47.997 | 1.00166.21 | C |
| ATOM | 13592 | OE1 | GLU | B | 604 | 97.519 | 53.679 | 48.166 | 1.00166.21 | O |
| ATOM | 13593 | OE2 | GLU | B | 604 | 95.563 | 54.299 | 47.384 | 1.00166.21 | O |
| ATOM | 13594 | N | GLN | B | 605 | 94.951 | 60.311 | 48.300 | 1.00163.24 | N |
| ATOM | 13595 | CA | GLN | B | 605 | 94.109 | 61.352 | 47.735 | 1.00163.24 | C |
| ATOM | 13596 | C | GLN | B | 605 | 94.775 | 61.918 | 46.498 | 1.00163.24 | C |
| ATOM | 13597 | O | GLN | B | 605 | 95.988 | 62.093 | 46.458 | 1.00163.24 | O |
| ATOM | 13598 | CB | GLN | B | 605 | 93.883 | 62.466 | 48.759 | 1.00153.73 | C |
| ATOM | 13599 | CG | GLN | B | 605 | 93.083 | 63.643 | 48.222 | 1.00153.73 | C |
| ATOM | 13600 | CD | GLN | B | 605 | 92.737 | 64.657 | 49.296 | 1.00153.73 | C |
| ATOM | 13601 | OE1 | GLN | B | 605 | 92.054 | 65.646 | 49.033 | 1.00153.73 | O |
| ATOM | 13602 | NE2 | GLN | B | 605 | 93.207 | 64.414 | 50.513 | 1.00153.73 | N |
| ATOM | 13603 | N | GLY | B | 606 | 93.976 | 62.203 | 45.484 | 1.00115.35 | N |
| ATOM | 13604 | CA | GLY | B | 606 | 94.541 | 62.752 | 44.273 | 1.00115.35 | C |
| ATOM | 13605 | C | GLY | B | 606 | 93.907 | 62.241 | 42.998 | 1.00115.35 | C |
| ATOM | 13606 | O | GLY | B | 606 | 92.945 | 61.470 | 43.014 | 1.00115.35 | O |
| ATOM | 13607 | N | ASN | B | 607 | 94.473 | 62.679 | 41.881 | 1.00124.98 | N |
| ATOM | 13608 | CA | ASN | B | 607 | 93.989 | 62.304 | 40.571 | 1.00124.98 | C |
| ATOM | 13609 | C | ASN | B | 607 | 94.269 | 60.857 | 40.183 | 1.00124.98 | C |
| ATOM | 13610 | O | ASN | B | 607 | 95.195 | 60.230 | 40.690 | 1.00124.98 | O |
| ATOM | 13611 | CB | ASN | B | 607 | 94.595 | 63.223 | 39.512 | 1.00128.00 | C |
| ATOM | 13612 | CG | ASN | B | 607 | 94.296 | 62.758 | 38.104 | 1.00128.00 | C |
| ATOM | 13613 | OD1 | ASN | B | 607 | 93.148 | 62.780 | 37.661 | 1.00128.00 | O |
| ATOM | 13614 | ND2 | ASN | B | 607 | 95.331 | 62.324 | 37.393 | 1.00128.00 | N |
| ATOM | 13615 | N | HIS | B | 608 | 93.458 | 60.348 | 39.260 | 1.00112.67 | N |
| ATOM | 13616 | CA | HIS | B | 608 | 93.567 | 58.984 | 38.763 | 1.00112.67 | C |
| ATOM | 13617 | C | HIS | B | 608 | 94.997 | 58.485 | 38.605 | 1.00112.67 | C |
| ATOM | 13618 | O | HIS | B | 608 | 95.514 | 57.755 | 39.448 | 1.00112.67 | O |
| ATOM | 13619 | CB | HIS | B | 608 | 92.854 | 58.857 | 37.416 | 1.00136.66 | C |
| ATOM | 13620 | CG | HIS | B | 608 | 93.117 | 57.556 | 36.726 | 1.00136.66 | C |
| ATOM | 13621 | ND1 | HIS | B | 608 | 92.681 | 56.349 | 37.229 | 1.00136.66 | N |
| ATOM | 13622 | CD2 | HIS | B | 608 | 93.823 | 57.266 | 35.608 | 1.00136.66 | C |
| ATOM | 13623 | CE1 | HIS | B | 608 | 93.110 | 55.371 | 36.452 | 1.00136.66 | C |
| ATOM | 13624 | NE2 | HIS | B | 608 | 93.806 | 55.900 | 35.461 | 1.00136.66 | N |
| ATOM | 13625 | N | ASP | B | 609 | 95.627 | 58.883 | 37.507 | 1.00113.18 | N |
| ATOM | 13626 | CA | ASP | B | 609 | 96.994 | 58.483 | 37.198 | 1.00113.18 | C |
| ATOM | 13627 | C | ASP | B | 609 | 97.920 | 58.640 | 38.388 | 1.00113.18 | C |
| ATOM | 13628 | O | ASP | B | 609 | 98.986 | 58.038 | 38.435 | 1.00113.18 | O |
| ATOM | 13629 | CB | ASP | B | 609 | 97.527 | 59.320 | 36.033 | 1.00158.22 | C |
| ATOM | 13630 | CG | ASP | B | 609 | 96.494 | 59.530 | 34.949 | 1.00158.22 | C |
| ATOM | 13631 | OD1 | ASP | B | 609 | 95.472 | 60.193 | 35.227 | 1.00158.22 | O |
| ATOM | 13632 | OD2 | ASP | B | 609 | 96.702 | 59.032 | 33.823 | 1.00158.22 | O |
| ATOM | 13633 | N | GLU | B | 610 | 97.513 | 59.454 | 39.351 | 1.00 79.90 | N |
| ATOM | 13634 | CA | GLU | B | 610 | 98.341 | 59.688 | 40.515 | 1.00 79.90 | C |
| ATOM | 13635 | C | GLU | B | 610 | 98.232 | 58.519 | 41.468 | 1.00 79.90 | C |
| ATOM | 13636 | O | GLU | B | 610 | 99.247 | 58.019 | 41.955 | 1.00 79.90 | O |
| ATOM | 13637 | CB | GLU | B | 610 | 97.910 | 60.983 | 41.202 | 1.00179.06 | C |
| ATOM | 13638 | CG | GLU | B | 610 | 97.626 | 62.107 | 40.220 | 1.00179.06 | C |
| ATOM | 13639 | CD | GLU | B | 610 | 97.751 | 63.479 | 40.843 | 1.00179.06 | C |
| ATOM | 13640 | OE1 | GLU | B | 610 | 98.883 | 63.863 | 41.206 | 1.00179.06 | O |
| ATOM | 13641 | OE2 | GLU | B | 610 | 96.722 | 64.174 | 40.971 | 1.00179.06 | O |
| ATOM | 13642 | N | LEU | B | 611 | 96.996 | 58.089 | 41.729 | 1.00207.38 | N |
| ATOM | 13643 | CA | LEU | B | 611 | 96.739 | 56.967 | 42.628 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|---------|--------|--------|------------|---|
| ATOM | 13644 | C | LEU | B | 611 | 97.135 | 55.649 | 41.956 | 1.00207.38 | C |
| ATOM | 13645 | O | LEU | B | 611 | 97.328 | 54.628 | 42.619 | 1.00207.38 | O |
| ATOM | 13646 | CB | LEU | B | 611 | 95.267 | 56.938 | 43.065 | 1.00169.55 | C |
| ATOM | 13647 | CG | LEU | B | 611 | 94.921 | 57.732 | 44.335 | 1.00169.55 | C |
| ATOM | 13648 | CD1 | LEU | B | 611 | 95.164 | 59.219 | 44.116 | 1.00169.55 | C |
| ATOM | 13649 | CD2 | LEU | B | 611 | 93.468 | 57.481 | 44.712 | 1.00169.55 | C |
| ATOM | 13650 | N | MET | B | 612 | 97.251 | 55.676 | 40.634 | 1.00117.65 | N |
| ATOM | 13651 | CA | MET | B | 612 | 97.695 | 54.502 | 39.896 | 1.00117.65 | C |
| ATOM | 13652 | C | MET | B | 612 | 99.226 | 54.579 | 39.985 | 1.00117.65 | C |
| ATOM | 13653 | O | MET | B | 612 | 99.913 | 53.584 | 40.251 | 1.00117.65 | O |
| ATOM | 13654 | CB | MET | B | 612 | 97.248 | 54.590 | 38.435 | 1.00108.83 | C |
| ATOM | 13655 | CG | MET | B | 612 | 95.778 | 54.292 | 38.204 | 1.00108.83 | C |
| ATOM | 13656 | SD | MET | B | 612 | 95.479 | 52.546 | 37.875 | 1.00108.83 | S |
| ATOM | 13657 | CE | MET | B | 612 | 95.248 | 52.586 | 36.096 | 1.00108.83 | C |
| ATOM | 13658 | N | ARG | B | 613 | 99.735 | 55.792 | 39.773 | 1.00100.39 | N |
| ATOM | 13659 | CA | ARG | B | 613 | 101.159 | 56.094 | 39.833 | 1.00100.39 | C |
| ATOM | 13660 | C | ARG | B | 613 | 101.676 | 55.710 | 41.205 | 1.00100.39 | C |
| ATOM | 13661 | O | ARG | B | 613 | 102.862 | 55.444 | 41.397 | 1.00100.39 | O |
| ATOM | 13662 | CB | ARG | B | 613 | 101.357 | 57.594 | 39.602 | 1.00188.44 | C |
| ATOM | 13663 | CG | ARG | B | 613 | 101.993 | 57.971 | 38.275 | 1.00188.44 | C |
| ATOM | 13664 | CD | ARG | B | 613 | 103.500 | 57.864 | 38.375 | 1.00188.44 | C |
| ATOM | 13665 | NE | ARG | B | 613 | 103.978 | 58.469 | 39.615 | 1.00188.44 | N |
| ATOM | 13666 | CZ | ARG | B | 613 | 105.259 | 58.605 | 39.941 | 1.00188.44 | C |
| ATOM | 13667 | NH1 | ARG | B | 613 | 106.206 | 58.181 | 39.117 | 1.00188.44 | N |
| ATOM | 13668 | NH2 | ARG | B | 613 | 105.592 | 59.159 | 41.099 | 1.00188.44 | N |
| ATOM | 13669 | N | GLU | B | 614 | 100.769 | 55.695 | 42.171 | 1.00130.10 | N |
| ATOM | 13670 | CA | GLU | B | 614 | 101.139 | 55.337 | 43.524 | 1.00130.10 | C |
| ATOM | 13671 | C | GLU | B | 614 | 101.250 | 53.838 | 43.600 | 1.00130.10 | C |
| ATOM | 13672 | O | GLU | B | 614 | 102.088 | 53.305 | 44.318 | 1.00130.10 | O |
| ATOM | 13673 | CB | GLU | B | 614 | 100.083 | 55.806 | 44.518 | 1.00166.68 | C |
| ATOM | 13674 | CG | GLU | B | 614 | 100.562 | 55.685 | 45.936 | 1.00166.68 | C |
| ATOM | 13675 | CD | GLU | B | 614 | 101.843 | 56.462 | 46.145 | 1.00166.68 | C |
| ATOM | 13676 | OE1 | GLU | B | 614 | 101.788 | 57.709 | 46.136 | 1.00166.68 | O |
| ATOM | 13677 | OE2 | GLU | B | 614 | 102.909 | 55.828 | 46.299 | 1.00166.68 | O |
| ATOM | 13678 | N | LYS | B | 615 | 100.395 | 53.166 | 42.842 | 1.00177.85 | N |
| ATOM | 13679 | CA | LYS | B | 615 | 100.374 | 51.721 | 42.832 | 1.00177.85 | C |
| ATOM | 13680 | C | LYS | B | 615 | 99.828 | 51.275 | 44.181 | 1.00177.85 | C |
| ATOM | 13681 | O | LYS | B | 615 | 100.105 | 50.161 | 44.632 | 1.00177.85 | O |
| ATOM | 13682 | CB | LYS | B | 615 | 101.789 | 51.161 | 42.657 | 1.00122.11 | C |
| ATOM | 13683 | CG | LYS | B | 615 | 102.586 | 51.705 | 41.477 | 1.00122.11 | C |
| ATOM | 13684 | CD | LYS | B | 615 | 103.984 | 51.098 | 41.480 | 1.00122.11 | C |
| ATOM | 13685 | CE | LYS | B | 615 | 104.818 | 51.547 | 40.299 | 1.00122.11 | C |
| ATOM | 13686 | NZ | LYS | B | 615 | 106.188 | 50.967 | 40.389 | 1.00122.11 | N |
| ATOM | 13687 | N | GLY | B | 616 | 99.053 | 52.154 | 44.818 | 1.00175.97 | N |
| ATOM | 13688 | CA | GLY | B | 616 | 98.486 | 51.860 | 46.127 | 1.00175.97 | C |
| ATOM | 13689 | C | GLY | B | 616 | 97.097 | 51.236 | 46.160 | 1.00175.97 | C |
| ATOM | 13690 | O | GLY | B | 616 | 96.810 | 50.296 | 45.426 | 1.00175.97 | O |
| ATOM | 13691 | N | ILE | B | 617 | 96.236 | 51.760 | 47.026 | 1.00130.63 | N |
| ATOM | 13692 | CA | ILE | B | 617 | 94.880 | 51.254 | 47.171 | 1.00130.63 | C |
| ATOM | 13693 | C | ILE | B | 617 | 94.086 | 51.388 | 45.889 | 1.00130.63 | C |
| ATOM | 13694 | O | ILE | B | 617 | 93.626 | 50.398 | 45.334 | 1.00130.63 | O |
| ATOM | 13695 | CB | ILE | B | 617 | 94.116 | 52.001 | 48.290 | 1.00143.35 | C |
| ATOM | 13696 | CG1 | ILE | B | 617 | 94.832 | 51.824 | 49.632 | 1.00143.35 | C |
| ATOM | 13697 | CG2 | ILE | B | 617 | 92.689 | 51.484 | 48.374 | 1.00143.35 | C |
| ATOM | 13698 | CD1 | ILE | B | 617 | 94.892 | 50.397 | 50.116 | 1.00143.35 | C |
| ATOM | 13699 | N | TYR | B | 618 | 93.908 | 52.618 | 45.425 | 1.00120.04 | N |
| ATOM | 13700 | CA | TYR | B | 618 | 93.154 | 52.836 | 44.199 | 1.00120.04 | C |
| ATOM | 13701 | C | TYR | B | 618 | 93.654 | 51.850 | 43.157 | 1.00120.04 | C |
| ATOM | 13702 | O | TYR | B | 618 | 92.938 | 50.924 | 42.788 | 1.00120.04 | O |
| ATOM | 13703 | CB | TYR | B | 618 | 93.325 | 54.272 | 43.699 | 1.00 84.81 | C |
| ATOM | 13704 | CG | TYR | B | 618 | 92.489 | 54.589 | 42.478 | 1.00 84.81 | C |
| ATOM | 13705 | CD1 | TYR | B | 618 | 91.129 | 54.274 | 42.441 | 1.00 84.81 | C |
| ATOM | 13706 | CD2 | TYR | B | 618 | 93.054 | 55.197 | 41.359 | 1.00 84.81 | C |
| ATOM | 13707 | CE1 | TYR | B | 618 | 90.353 | 54.555 | 41.318 | 1.00 84.81 | C |
| ATOM | 13708 | CE2 | TYR | B | 618 | 92.285 | 55.484 | 40.228 | 1.00 84.81 | C |
| ATOM | 13709 | CZ | TYR | B | 618 | 90.936 | 55.158 | 40.215 | 1.00 84.81 | C |
| ATOM | 13710 | OH | TYR | B | 618 | 90.175 | 55.428 | 39.102 | 1.00 84.81 | O |
| ATOM | 13711 | N | PHE | B | 619 | 94.891 | 52.046 | 42.705 | 1.00133.59 | N |
| ATOM | 13712 | CA | PHE | B | 619 | 95.518 | 51.171 | 41.716 | 1.00133.59 | C |
| ATOM | 13713 | C | PHE | B | 619 | 95.187 | 49.729 | 42.079 | 1.00133.59 | C |
| ATOM | 13714 | O | PHE | B | 619 | 94.655 | 48.969 | 41.262 | 1.00133.59 | O |
| ATOM | 13715 | CB | PHE | B | 619 | 97.037 | 51.373 | 41.738 | 1.00157.67 | C |
| ATOM | 13716 | CG | PHE | B | 619 | 97.806 | 50.354 | 40.938 | 1.00157.67 | C |
| ATOM | 13717 | CD1 | PHE | B | 619 | 97.876 | 50.436 | 39.550 | 1.00157.67 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13718 | CD2 | PHE | B | 619 | 98.469 | 49.311 | 41.578 | 1.00157.67 | C |
| ATOM | 13719 | CE1 | PHE | B | 619 | 98.599 | 49.492 | 38.814 | 1.00157.67 | C |
| ATOM | 13720 | CE2 | PHE | B | 619 | 99.192 | 48.366 | 40.852 | 1.00157.67 | C |
| ATOM | 13721 | CZ | PHE | B | 619 | 99.257 | 48.458 | 39.468 | 1.00157.67 | C |
| ATOM | 13722 | N | LYS | B | 620 | 95.495 | 49.371 | 43.323 | 1.00109.62 | N |
| ATOM | 13723 | CA | LYS | B | 620 | 95.243 | 48.029 | 43.811 | 1.00109.62 | C |
| ATOM | 13724 | C | LYS | B | 620 | 93.814 | 47.641 | 43.426 | 1.00109.62 | C |
| ATOM | 13725 | O | LYS | B | 620 | 93.605 | 46.911 | 42.460 | 1.00109.62 | O |
| ATOM | 13726 | CB | LYS | B | 620 | 95.440 | 47.975 | 45.329 | 1.00193.77 | C |
| ATOM | 13727 | CG | LYS | B | 620 | 95.914 | 46.621 | 45.833 | 1.00193.77 | C |
| ATOM | 13728 | CD | LYS | B | 620 | 94.773 | 45.619 | 45.926 | 1.00193.77 | C |
| ATOM | 13729 | CE | LYS | B | 620 | 95.277 | 44.184 | 45.844 | 1.00193.77 | C |
| ATOM | 13730 | NZ | LYS | B | 620 | 95.681 | 43.832 | 44.453 | 1.00193.77 | N |
| ATOM | 13731 | N | LEU | B | 621 | 92.831 | 48.161 | 44.153 | 1.00151.34 | N |
| ATOM | 13732 | CA | LEU | B | 621 | 91.432 | 47.846 | 43.879 | 1.00151.34 | C |
| ATOM | 13733 | C | LEU | B | 621 | 91.058 | 47.994 | 42.404 | 1.00151.34 | C |
| ATOM | 13734 | O | LEU | B | 621 | 90.181 | 47.286 | 41.897 | 1.00151.34 | O |
| ATOM | 13735 | CB | LEU | B | 621 | 90.511 | 48.719 | 44.740 | 1.00185.99 | C |
| ATOM | 13736 | CG | LEU | B | 621 | 90.502 | 48.442 | 46.248 | 1.00185.99 | C |
| ATOM | 13737 | CD1 | LEU | B | 621 | 90.064 | 47.006 | 46.492 | 1.00185.99 | C |
| ATOM | 13738 | CD2 | LEU | B | 621 | 91.881 | 48.686 | 46.840 | 1.00185.99 | C |
| ATOM | 13739 | N | VAL | B | 622 | 91.735 | 48.908 | 41.718 | 1.00123.23 | N |
| ATOM | 13740 | CA | VAL | B | 622 | 91.482 | 49.156 | 40.305 | 1.00123.23 | C |
| ATOM | 13741 | C | VAL | B | 622 | 91.816 | 47.924 | 39.480 | 1.00123.23 | C |
| ATOM | 13742 | O | VAL | B | 622 | 91.016 | 47.468 | 38.654 | 1.00123.23 | O |
| ATOM | 13743 | CB | VAL | B | 622 | 92.321 | 50.349 | 39.790 | 1.00133.81 | C |
| ATOM | 13744 | CG1 | VAL | B | 622 | 92.277 | 50.409 | 38.266 | 1.00133.81 | C |
| ATOM | 13745 | CG2 | VAL | B | 622 | 91.789 | 51.644 | 40.390 | 1.00133.81 | C |
| ATOM | 13746 | N | MET | B | 623 | 93.006 | 47.385 | 39.715 | 1.00170.50 | N |
| ATOM | 13747 | CA | MET | B | 623 | 93.443 | 46.205 | 38.994 | 1.00170.50 | C |
| ATOM | 13748 | C | MET | B | 623 | 92.757 | 44.961 | 39.508 | 1.00170.50 | C |
| ATOM | 13749 | O | MET | B | 623 | 92.522 | 44.023 | 38.751 | 1.00170.50 | O |
| ATOM | 13750 | CB | MET | B | 623 | 94.963 | 46.058 | 39.073 | 1.00207.38 | C |
| ATOM | 13751 | CG | MET | B | 623 | 95.689 | 47.182 | 38.365 | 1.00207.38 | C |
| ATOM | 13752 | SD | MET | B | 623 | 94.710 | 47.822 | 36.986 | 1.00207.38 | S |
| ATOM | 13753 | CE | MET | B | 623 | 95.148 | 46.677 | 35.683 | 1.00207.38 | C |
| ATOM | 13754 | N | THR | B | 624 | 92.428 | 44.950 | 40.795 | 1.00169.62 | N |
| ATOM | 13755 | CA | THR | B | 624 | 91.754 | 43.793 | 41.355 | 1.00169.62 | C |
| ATOM | 13756 | C | THR | B | 624 | 90.444 | 43.663 | 40.570 | 1.00169.62 | C |
| ATOM | 13757 | O | THR | B | 624 | 89.992 | 42.552 | 40.276 | 1.00169.62 | O |
| ATOM | 13758 | CB | THR | B | 624 | 91.465 | 43.976 | 42.856 | 1.00150.30 | C |
| ATOM | 13759 | OG1 | THR | B | 624 | 92.609 | 44.562 | 43.494 | 1.00150.30 | O |
| ATOM | 13760 | CG2 | THR | B | 624 | 91.183 | 42.624 | 43.507 | 1.00150.30 | C |
| ATOM | 13761 | N | GLN | B | 625 | 89.850 | 44.803 | 40.210 | 1.00173.79 | N |
| ATOM | 13762 | CA | GLN | B | 625 | 88.604 | 44.796 | 39.443 | 1.00173.79 | C |
| ATOM | 13763 | C | GLN | B | 625 | 88.892 | 44.654 | 37.949 | 1.00173.79 | C |
| ATOM | 13764 | O | GLN | B | 625 | 87.965 | 44.486 | 37.152 | 1.00173.79 | O |
| ATOM | 13765 | CB | GLN | B | 625 | 87.795 | 46.083 | 39.669 | 1.00130.76 | C |
| ATOM | 13766 | CG | GLN | B | 625 | 87.196 | 46.250 | 41.064 | 1.00130.76 | C |
| ATOM | 13767 | CD | GLN | B | 625 | 85.984 | 47.174 | 41.074 | 1.00130.76 | C |
| ATOM | 13768 | OE1 | GLN | B | 625 | 85.532 | 47.615 | 42.132 | 1.00130.76 | O |
| ATOM | 13769 | NE2 | GLN | B | 625 | 85.444 | 47.454 | 39.893 | 1.00130.76 | N |
| ATOM | 13770 | N | THR | B | 626 | 90.178 | 44.733 | 37.589 | 1.00206.67 | N |
| ATOM | 13771 | CA | THR | B | 626 | 90.665 | 44.616 | 36.203 | 1.00206.67 | C |
| ATOM | 13772 | C | THR | B | 626 | 90.765 | 45.974 | 35.519 | 1.00206.67 | C |
| ATOM | 13773 | O | THR | B | 626 | 91.764 | 46.681 | 35.670 | 1.00206.67 | O |
| ATOM | 13774 | CB | THR | B | 626 | 89.764 | 43.691 | 35.351 | 1.00164.26 | C |
| ATOM | 13775 | OG1 | THR | B | 626 | 89.833 | 42.352 | 35.858 | 1.00164.26 | O |
| ATOM | 13776 | CG2 | THR | B | 626 | 90.217 | 43.698 | 33.904 | 1.00164.26 | C |
| ATOM | 13777 | N | LEU | B | 684 | 50.340 | 38.481 | 59.458 | 1.00207.38 | N |
| ATOM | 13778 | CA | LEU | B | 684 | 51.276 | 37.371 | 59.343 | 1.00207.38 | C |
| ATOM | 13779 | C | LEU | B | 684 | 50.481 | 36.121 | 59.770 | 1.00207.38 | C |
| ATOM | 13780 | O | LEU | B | 684 | 50.989 | 35.223 | 60.461 | 1.00207.38 | O |
| ATOM | 13781 | CB | LEU | B | 684 | 52.527 | 37.590 | 60.212 | 1.00119.34 | C |
| ATOM | 13782 | CG | LEU | B | 684 | 52.556 | 37.801 | 61.724 | 1.00119.34 | C |
| ATOM | 13783 | CD1 | LEU | B | 684 | 52.858 | 36.492 | 62.407 | 1.00119.34 | C |
| ATOM | 13784 | CD2 | LEU | B | 684 | 53.665 | 38.776 | 62.065 | 1.00119.34 | C |
| ATOM | 13785 | N | ASP | B | 685 | 49.210 | 36.114 | 59.345 | 1.00207.38 | N |
| ATOM | 13786 | CA | ASP | B | 685 | 48.248 | 35.030 | 59.587 | 1.00207.38 | C |
| ATOM | 13787 | C | ASP | B | 685 | 47.539 | 34.677 | 58.262 | 1.00207.38 | C |
| ATOM | 13788 | O | ASP | B | 685 | 48.128 | 34.832 | 57.184 | 1.00207.38 | O |
| ATOM | 13789 | CB | ASP | B | 685 | 47.217 | 35.421 | 60.659 | 1.00197.83 | C |
| ATOM | 13790 | CG | ASP | B | 685 | 46.166 | 36.389 | 60.148 | 1.00197.83 | C |
| ATOM | 13791 | OD1 | ASP | B | 685 | 46.486 | 37.579 | 59.951 | 1.00197.83 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13792 | OD2 | ASP | B | 685 | 45.013 | 35.953 | 59.945 | 1.00197.83 | O |
| ATOM | 13793 | N | GLU | B | 686 | 46.289 | 34.214 | 58.333 | 1.00207.38 | N |
| ATOM | 13794 | CA | GLU | B | 686 | 45.554 | 33.833 | 57.125 | 1.00207.38 | C |
| ATOM | 13795 | C | GLU | B | 686 | 44.125 | 34.362 | 56.987 | 1.00207.38 | C |
| ATOM | 13796 | O | GLU | B | 686 | 43.210 | 33.924 | 57.691 | 1.00207.38 | O |
| ATOM | 13797 | CB | GLU | B | 686 | 45.543 | 32.304 | 56.992 | 1.00207.38 | C |
| ATOM | 13798 | CG | GLU | B | 686 | 46.839 | 31.712 | 56.442 | 1.00207.38 | C |
| ATOM | 13799 | CD | GLU | B | 686 | 46.871 | 30.193 | 56.512 | 1.00207.38 | C |
| ATOM | 13800 | OE1 | GLU | B | 686 | 47.023 | 29.651 | 57.627 | 1.00207.38 | O |
| ATOM | 13801 | OE2 | GLU | B | 686 | 46.740 | 29.540 | 55.455 | 1.00207.38 | O |
| ATOM | 13802 | N | ASP | B | 687 | 43.946 | 35.305 | 56.064 | 1.00170.18 | N |
| ATOM | 13803 | CA | ASP | B | 687 | 42.635 | 35.881 | 55.785 | 1.00170.18 | C |
| ATOM | 13804 | C | ASP | B | 687 | 41.926 | 34.738 | 55.080 | 1.00170.18 | C |
| ATOM | 13805 | O | ASP | B | 687 | 42.033 | 34.589 | 53.861 | 1.00170.18 | O |
| ATOM | 13806 | CB | ASP | B | 687 | 42.760 | 37.079 | 54.840 | 1.00207.38 | C |
| ATOM | 13807 | CG | ASP | B | 687 | 43.795 | 38.087 | 55.308 | 1.00207.38 | C |
| ATOM | 13808 | OD1 | ASP | B | 687 | 43.654 | 38.610 | 56.434 | 1.00207.38 | O |
| ATOM | 13809 | OD2 | ASP | B | 687 | 44.752 | 38.357 | 54.550 | 1.00207.38 | O |
| ATOM | 13810 | N | VAL | B | 688 | 41.199 | 33.934 | 55.847 | 1.00169.29 | N |
| ATOM | 13811 | CA | VAL | B | 688 | 40.550 | 32.760 | 55.286 | 1.00169.29 | C |
| ATOM | 13812 | C | VAL | B | 688 | 39.042 | 32.638 | 55.450 | 1.00169.29 | C |
| ATOM | 13813 | O | VAL | B | 688 | 38.564 | 32.519 | 56.578 | 1.00169.29 | O |
| ATOM | 13814 | CB | VAL | B | 688 | 41.182 | 31.488 | 55.875 | 1.00148.39 | C |
| ATOM | 13815 | CG1 | VAL | B | 688 | 42.668 | 31.452 | 55.554 | 1.00148.39 | C |
| ATOM | 13816 | CG2 | VAL | B | 688 | 40.980 | 31.459 | 57.377 | 1.00148.39 | C |
| ATOM | 13817 | N | PRO | B | 689 | 38.274 | 32.633 | 54.321 | 1.00207.38 | N |
| ATOM | 13818 | CA | PRO | B | 689 | 36.799 | 32.516 | 54.341 | 1.00207.38 | C |
| ATOM | 13819 | C | PRO | B | 689 | 36.101 | 31.141 | 54.592 | 1.00207.38 | C |
| ATOM | 13820 | O | PRO | B | 689 | 35.046 | 31.093 | 55.239 | 1.00207.38 | O |
| ATOM | 13821 | CB | PRO | B | 689 | 36.398 | 33.129 | 53.003 | 1.00143.68 | C |
| ATOM | 13822 | CG | PRO | B | 689 | 37.545 | 32.767 | 52.135 | 1.00143.68 | C |
| ATOM | 13823 | CD | PRO | B | 689 | 38.743 | 33.051 | 52.989 | 1.00143.68 | C |
| ATOM | 13824 | N | PRO | B | 690 | 36.679 | 30.019 | 54.098 | 1.00148.00 | N |
| ATOM | 13825 | CA | PRO | B | 690 | 36.092 | 28.680 | 54.271 | 1.00148.00 | C |
| ATOM | 13826 | C | PRO | B | 690 | 35.403 | 28.330 | 55.574 | 1.00148.00 | C |
| ATOM | 13827 | O | PRO | B | 690 | 34.268 | 27.878 | 55.555 | 1.00148.00 | O |
| ATOM | 13828 | CB | PRO | B | 690 | 37.257 | 27.732 | 53.932 | 1.00207.38 | C |
| ATOM | 13829 | CG | PRO | B | 690 | 38.487 | 28.637 | 53.838 | 1.00207.38 | C |
| ATOM | 13830 | CD | PRO | B | 690 | 37.943 | 29.935 | 53.352 | 1.00207.38 | C |
| ATOM | 13831 | N | ALA | B | 691 | 36.058 | 28.533 | 56.706 | 1.00125.24 | N |
| ATOM | 13832 | CA | ALA | B | 691 | 35.411 | 28.180 | 57.966 | 1.00125.24 | C |
| ATOM | 13833 | C | ALA | B | 691 | 34.939 | 26.717 | 57.840 | 1.00125.24 | C |
| ATOM | 13834 | O | ALA | B | 691 | 35.561 | 25.969 | 57.095 | 1.00125.24 | O |
| ATOM | 13835 | CB | ALA | B | 691 | 34.220 | 29.098 | 58.225 | 1.00 92.43 | C |
| ATOM | 13836 | N | SER | B | 692 | 33.863 | 26.328 | 58.550 | 1.00143.42 | N |
| ATOM | 13837 | CA | SER | B | 692 | 33.291 | 24.945 | 58.534 | 1.00143.42 | C |
| ATOM | 13838 | C | SER | B | 692 | 32.400 | 24.605 | 59.769 | 1.00143.42 | C |
| ATOM | 13839 | O | SER | B | 692 | 32.745 | 23.729 | 60.564 | 1.00143.42 | O |
| ATOM | 13840 | CB | SER | B | 692 | 34.405 | 23.902 | 58.442 | 1.00166.86 | C |
| ATOM | 13841 | OG | SER | B | 692 | 34.778 | 23.656 | 57.097 | 1.00166.86 | O |
| ATOM | 13842 | N | PHE | B | 693 | 31.270 | 25.292 | 59.903 | 1.00207.38 | N |
| ATOM | 13843 | CA | PHE | B | 693 | 30.441 | 25.176 | 61.101 | 1.00207.38 | C |
| ATOM | 13844 | C | PHE | B | 693 | 29.955 | 23.972 | 61.910 | 1.00207.38 | C |
| ATOM | 13845 | O | PHE | B | 693 | 30.213 | 23.872 | 63.109 | 1.00207.38 | O |
| ATOM | 13846 | CB | PHE | B | 693 | 29.211 | 25.992 | 60.738 | 1.00206.07 | C |
| ATOM | 13847 | CG | PHE | B | 693 | 28.516 | 25.491 | 59.486 | 1.00206.07 | C |
| ATOM | 13848 | CD1 | PHE | B | 693 | 27.533 | 26.255 | 58.873 | 1.00206.07 | C |
| ATOM | 13849 | CD2 | PHE | B | 693 | 28.956 | 24.326 | 58.834 | 1.00206.07 | C |
| ATOM | 13850 | CE1 | PHE | B | 693 | 27.010 | 25.898 | 57.628 | 1.00206.07 | C |
| ATOM | 13851 | CE2 | PHE | B | 693 | 28.431 | 23.952 | 57.569 | 1.00206.07 | C |
| ATOM | 13852 | CZ | PHE | B | 693 | 27.458 | 24.752 | 56.970 | 1.00206.07 | C |
| ATOM | 13853 | N | TRP | B | 694 | 29.256 | 23.061 | 61.246 | 1.00121.96 | N |
| ATOM | 13854 | CA | TRP | B | 694 | 28.682 | 22.005 | 62.056 | 1.00121.96 | C |
| ATOM | 13855 | C | TRP | B | 694 | 29.830 | 21.014 | 61.903 | 1.00121.96 | C |
| ATOM | 13856 | O | TRP | B | 694 | 30.248 | 20.334 | 62.830 | 1.00121.96 | O |
| ATOM | 13857 | CB | TRP | B | 694 | 27.396 | 21.443 | 61.407 | 1.00207.38 | C |
| ATOM | 13858 | CG | TRP | B | 694 | 26.036 | 21.862 | 62.000 | 1.00207.38 | C |
| ATOM | 13859 | CD1 | TRP | B | 694 | 24.909 | 21.087 | 62.039 | 1.00207.38 | C |
| ATOM | 13860 | CD2 | TRP | B | 694 | 25.659 | 23.130 | 62.576 | 1.00207.38 | C |
| ATOM | 13861 | NE1 | TRP | B | 694 | 23.862 | 21.779 | 62.598 | 1.00207.38 | N |
| ATOM | 13862 | CE2 | TRP | B | 694 | 24.291 | 23.033 | 62.939 | 1.00207.38 | C |
| ATOM | 13863 | CE3 | TRP | B | 694 | 26.339 | 24.332 | 62.823 | 1.00207.38 | C |
| ATOM | 13864 | CZ2 | TRP | B | 694 | 23.592 | 24.092 | 63.531 | 1.00207.38 | C |
| ATOM | 13865 | CZ3 | TRP | B | 694 | 25.639 | 25.386 | 63.414 | 1.00207.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13866 | CH2 | TRP | B | 694 | 24.282 | 25.254 | 63.762 | 1.00207.38 | C |
| ATOM | 13867 | N | ARG | B | 695 | 30.389 | 21.025 | 60.701 | 1.00 99.35 | N |
| ATOM | 13868 | CA | ARG | B | 695 | 31.476 | 20.156 | 60.326 | 1.00 99.35 | C |
| ATOM | 13869 | C | ARG | B | 695 | 32.355 | 19.731 | 61.467 | 1.00 99.35 | C |
| ATOM | 13870 | O | ARG | B | 695 | 32.443 | 18.543 | 61.747 | 1.00 99.35 | O |
| ATOM | 13871 | CB | ARG | B | 695 | 32.317 | 20.807 | 59.227 | 1.00169.81 | C |
| ATOM | 13872 | CG | ARG | B | 695 | 33.492 | 19.954 | 58.747 | 1.00169.81 | C |
| ATOM | 13873 | CD | ARG | B | 695 | 34.071 | 20.540 | 57.471 | 1.00169.81 | C |
| ATOM | 13874 | NE | ARG | B | 695 | 35.457 | 20.139 | 57.262 | 1.00169.81 | N |
| ATOM | 13875 | CZ | ARG | B | 695 | 36.259 | 20.696 | 56.362 | 1.00169.81 | C |
| ATOM | 13876 | NH1 | ARG | B | 695 | 37.511 | 20.281 | 56.232 | 1.00169.81 | N |
| ATOM | 13877 | NH2 | ARG | B | 695 | 35.806 | 21.673 | 55.589 | 1.00169.81 | N |
| ATOM | 13878 | N | ILE | B | 696 | 33.007 | 20.691 | 62.122 | 1.00114.12 | N |
| ATOM | 13879 | CA | ILE | B | 696 | 33.899 | 20.364 | 63.233 | 1.00114.12 | C |
| ATOM | 13880 | C | ILE | B | 696 | 33.115 | 19.748 | 64.363 | 1.00114.12 | C |
| ATOM | 13881 | O | ILE | B | 696 | 33.698 | 19.366 | 65.357 | 1.00114.12 | O |
| ATOM | 13882 | CB | ILE | B | 696 | 34.643 | 21.620 | 63.757 | 1.00124.23 | C |
| ATOM | 13883 | CG1 | ILE | B | 696 | 33.656 | 22.606 | 64.389 | 1.00124.23 | C |
| ATOM | 13884 | CG2 | ILE | B | 696 | 35.416 | 22.269 | 62.614 | 1.00124.23 | C |
| ATOM | 13885 | CD1 | ILE | B | 696 | 34.267 | 23.964 | 64.709 | 1.00124.23 | C |
| ATOM | 13886 | N | LEU | B | 697 | 31.789 | 19.704 | 64.209 | 1.00116.31 | N |
| ATOM | 13887 | CA | LEU | B | 697 | 30.891 | 19.098 | 65.193 | 1.00116.31 | C |
| ATOM | 13888 | C | LEU | B | 697 | 30.960 | 17.661 | 64.780 | 1.00116.31 | C |
| ATOM | 13889 | O | LEU | B | 697 | 31.190 | 16.779 | 65.592 | 1.00116.31 | O |
| ATOM | 13890 | CB | LEU | B | 697 | 29.445 | 19.606 | 65.047 | 1.00207.38 | C |
| ATOM | 13891 | CG | LEU | B | 697 | 28.440 | 19.079 | 64.005 | 1.00207.38 | C |
| ATOM | 13892 | CD1 | LEU | B | 697 | 28.134 | 17.593 | 64.218 | 1.00207.38 | C |
| ATOM | 13893 | CD2 | LEU | B | 697 | 27.154 | 19.895 | 64.134 | 1.00207.38 | C |
| ATOM | 13894 | N | LYS | B | 698 | 30.737 | 17.441 | 63.489 | 1.00207.38 | N |
| ATOM | 13895 | CA | LYS | B | 698 | 30.774 | 16.108 | 62.914 | 1.00207.38 | C |
| ATOM | 13896 | C | LYS | B | 698 | 32.144 | 15.572 | 63.292 | 1.00207.38 | C |
| ATOM | 13897 | O | LYS | B | 698 | 32.290 | 14.604 | 64.058 | 1.00207.38 | O |
| ATOM | 13898 | CB | LYS | B | 698 | 30.641 | 16.179 | 61.390 | 1.00151.72 | C |
| ATOM | 13899 | CG | LYS | B | 698 | 29.409 | 16.927 | 60.911 | 1.00151.72 | C |
| ATOM | 13900 | CD | LYS | B | 698 | 29.232 | 16.798 | 59.406 | 1.00151.72 | C |
| ATOM | 13901 | CE | LYS | B | 698 | 27.868 | 17.308 | 58.963 | 1.00151.72 | C |
| ATOM | 13902 | NZ | LYS | B | 698 | 27.615 | 17.043 | 57.519 | 1.00151.72 | N |
| ATOM | 13903 | N | LEU | B | 699 | 33.157 | 16.234 | 62.750 | 1.00158.03 | N |
| ATOM | 13904 | CA | LEU | B | 699 | 34.517 | 15.855 | 63.038 | 1.00158.03 | C |
| ATOM | 13905 | C | LEU | B | 699 | 34.623 | 15.938 | 64.574 | 1.00158.03 | C |
| ATOM | 13906 | O | LEU | B | 699 | 35.307 | 15.133 | 65.188 | 1.00158.03 | O |
| ATOM | 13907 | CB | LEU | B | 699 | 35.499 | 16.787 | 62.307 | 1.00110.73 | C |
| ATOM | 13908 | CG | LEU | B | 699 | 35.614 | 16.518 | 60.792 | 1.00110.73 | C |
| ATOM | 13909 | CD1 | LEU | B | 699 | 36.237 | 17.701 | 60.074 | 1.00110.73 | C |
| ATOM | 13910 | CD2 | LEU | B | 699 | 36.452 | 15.273 | 60.558 | 1.00110.73 | C |
| ATOM | 13911 | N | ASN | B | 700 | 33.892 | 16.856 | 65.204 | 1.00117.18 | N |
| ATOM | 13912 | CA | ASN | B | 700 | 33.940 | 16.947 | 66.671 | 1.00117.18 | C |
| ATOM | 13913 | C | ASN | B | 700 | 33.936 | 15.510 | 67.185 | 1.00117.18 | C |
| ATOM | 13914 | O | ASN | B | 700 | 34.980 | 14.920 | 67.485 | 1.00117.18 | O |
| ATOM | 13915 | CB | ASN | B | 700 | 32.689 | 17.687 | 67.173 | 1.00150.71 | C |
| ATOM | 13916 | CG | ASN | B | 700 | 33.012 | 18.997 | 67.855 | 1.00150.71 | C |
| ATOM | 13917 | OD1 | ASN | B | 700 | 34.130 | 19.500 | 67.762 | 1.00150.71 | O |
| ATOM | 13918 | ND2 | ASN | B | 700 | 32.024 | 19.564 | 68.543 | 1.00150.71 | N |
| ATOM | 13919 | N | SER | B | 701 | 32.730 | 14.959 | 67.263 | 1.00207.15 | N |
| ATOM | 13920 | CA | SER | B | 701 | 32.528 | 13.600 | 67.724 | 1.00207.15 | C |
| ATOM | 13921 | C | SER | B | 701 | 33.620 | 12.693 | 67.168 | 1.00207.15 | C |
| ATOM | 13922 | O | SER | B | 701 | 34.034 | 11.749 | 67.839 | 1.00207.15 | O |
| ATOM | 13923 | CB | SER | B | 701 | 31.153 | 13.095 | 67.287 | 1.00176.74 | C |
| ATOM | 13924 | OG | SER | B | 701 | 30.127 | 13.886 | 67.859 | 1.00176.74 | O |
| ATOM | 13925 | N | THR | B | 702 | 34.093 | 12.958 | 65.949 | 1.00170.26 | N |
| ATOM | 13926 | CA | THR | B | 702 | 35.165 | 12.112 | 65.433 | 1.00170.26 | C |
| ATOM | 13927 | C | THR | B | 702 | 36.268 | 12.259 | 66.478 | 1.00170.26 | C |
| ATOM | 13928 | O | THR | B | 702 | 36.762 | 11.265 | 67.012 | 1.00170.26 | O |
| ATOM | 13929 | CB | THR | B | 702 | 35.680 | 12.585 | 64.062 | 1.00207.22 | C |
| ATOM | 13930 | OG1 | THR | B | 702 | 34.608 | 12.559 | 63.111 | 1.00207.22 | O |
| ATOM | 13931 | CG2 | THR | B | 702 | 36.799 | 11.671 | 63.574 | 1.00207.22 | C |
| ATOM | 13932 | N | GLU | B | 703 | 36.635 | 13.506 | 66.778 | 1.00183.36 | N |
| ATOM | 13933 | CA | GLU | B | 703 | 37.641 | 13.794 | 67.801 | 1.00183.36 | C |
| ATOM | 13934 | C | GLU | B | 703 | 36.959 | 13.471 | 69.112 | 1.00183.36 | C |
| ATOM | 13935 | O | GLU | B | 703 | 37.102 | 14.225 | 70.079 | 1.00183.36 | O |
| ATOM | 13936 | CB | GLU | B | 703 | 38.016 | 15.286 | 67.876 | 1.00121.27 | C |
| ATOM | 13937 | CG | GLU | B | 703 | 38.695 | 15.913 | 66.677 | 1.00121.27 | C |
| ATOM | 13938 | CD | GLU | B | 703 | 37.733 | 16.217 | 65.556 | 1.00121.27 | C |
| ATOM | 13939 | OE1 | GLU | B | 703 | 37.309 | 15.277 | 64.850 | 1.00121.27 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 13940 | OE2 | GLU | B | 703 | 37.392 | 17.404 | 65.390 | 1.00121.27 | O |
| ATOM | 13941 | N | TRP | B | 704 | 36.215 | 12.372 | 69.159 | 1.00101.67 | N |
| ATOM | 13942 | CA | TRP | B | 704 | 35.489 | 12.052 | 70.372 | 1.00101.67 | C |
| ATOM | 13943 | C | TRP | B | 704 | 35.195 | 10.583 | 70.526 | 1.00101.67 | C |
| ATOM | 13944 | O | TRP | B | 704 | 34.969 | 9.879 | 69.558 | 1.00101.67 | O |
| ATOM | 13945 | CB | TRP | B | 704 | 34.156 | 12.842 | 70.372 | 1.00207.38 | C |
| ATOM | 13946 | CG | TRP | B | 704 | 33.395 | 13.023 | 71.702 | 1.00207.38 | C |
| ATOM | 13947 | CD1 | TRP | B | 704 | 33.821 | 13.711 | 72.808 | 1.00207.38 | C |
| ATOM | 13948 | CD2 | TRP | B | 704 | 32.040 | 12.616 | 71.990 | 1.00207.38 | C |
| ATOM | 13949 | NE1 | TRP | B | 704 | 32.819 | 13.765 | 73.754 | 1.00207.38 | N |
| ATOM | 13950 | CE2 | TRP | B | 704 | 31.718 | 13.102 | 73.280 | 1.00207.38 | C |
| ATOM | 13951 | CE3 | TRP | B | 704 | 31.068 | 11.892 | 71.282 | 1.00207.38 | C |
| ATOM | 13952 | CZ2 | TRP | B | 704 | 30.464 | 12.888 | 73.877 | 1.00207.38 | C |
| ATOM | 13953 | CZ3 | TRP | B | 704 | 29.819 | 11.679 | 71.879 | 1.00207.38 | C |
| ATOM | 13954 | CH2 | TRP | B | 704 | 29.533 | 12.177 | 73.162 | 1.00207.38 | C |
| ATOM | 13955 | N | PRO | B | 705 | 35.284 | 10.099 | 71.761 | 1.00144.36 | N |
| ATOM | 13956 | CA | PRO | B | 705 | 35.000 | 8.716 | 72.120 | 1.00144.36 | C |
| ATOM | 13957 | C | PRO | B | 705 | 33.511 | 8.675 | 72.603 | 1.00144.36 | C |
| ATOM | 13958 | O | PRO | B | 705 | 32.690 | 7.976 | 72.017 | 1.00144.36 | O |
| ATOM | 13959 | CB | PRO | B | 705 | 35.998 | 8.426 | 73.240 | 1.00167.53 | C |
| ATOM | 13960 | CG | PRO | B | 705 | 36.222 | 9.747 | 73.857 | 1.00167.53 | C |
| ATOM | 13961 | CD | PRO | B | 705 | 36.292 | 10.669 | 72.677 | 1.00167.53 | C |
| ATOM | 13962 | N | TYR | B | 706 | 33.160 | 9.448 | 73.634 | 1.00110.52 | N |
| ATOM | 13963 | CA | TYR | B | 706 | 31.785 | 9.506 | 74.167 | 1.00110.52 | C |
| ATOM | 13964 | C | TYR | B | 706 | 31.809 | 10.104 | 75.582 | 1.00110.52 | C |
| ATOM | 13965 | O | TYR | B | 706 | 32.766 | 9.886 | 76.310 | 1.00110.52 | O |
| ATOM | 13966 | CB | TYR | B | 706 | 31.184 | 8.099 | 74.245 | 1.00187.64 | C |
| ATOM | 13967 | CG | TYR | B | 706 | 31.711 | 7.307 | 75.417 | 1.00187.64 | C |
| ATOM | 13968 | CD1 | TYR | B | 706 | 31.353 | 7.644 | 76.723 | 1.00187.64 | C |
| ATOM | 13969 | CD2 | TYR | B | 706 | 32.636 | 6.282 | 75.231 | 1.00187.64 | C |
| ATOM | 13970 | CE1 | TYR | B | 706 | 31.911 | 6.991 | 77.811 | 1.00187.64 | C |
| ATOM | 13971 | CE2 | TYR | B | 706 | 33.198 | 5.620 | 76.314 | 1.00187.64 | C |
| ATOM | 13972 | CZ | TYR | B | 706 | 32.835 | 5.983 | 77.598 | 1.00187.64 | C |
| ATOM | 13973 | OH | TYR | B | 706 | 33.423 | 5.351 | 78.666 | 1.00187.64 | O |
| ATOM | 13974 | N | PHE | B | 707 | 30.759 | 10.843 | 75.956 | 1.00167.73 | N |
| ATOM | 13975 | CA | PHE | B | 707 | 30.602 | 11.481 | 77.282 | 1.00167.73 | C |
| ATOM | 13976 | C | PHE | B | 707 | 29.183 | 12.120 | 77.373 | 1.00167.73 | C |
| ATOM | 13977 | O | PHE | B | 707 | 28.950 | 13.327 | 77.678 | 1.00167.73 | O |
| ATOM | 13978 | CB | PHE | B | 707 | 31.729 | 12.507 | 77.534 | 1.00 92.79 | C |
| ATOM | 13979 | CG | PHE | B | 707 | 33.046 | 11.885 | 78.008 | 1.00 92.79 | C |
| ATOM | 13980 | CD1 | PHE | B | 707 | 34.253 | 12.563 | 77.822 | 1.00 92.79 | C |
| ATOM | 13981 | CD2 | PHE | B | 707 | 33.075 | 10.641 | 78.657 | 1.00 92.79 | C |
| ATOM | 13982 | CE1 | PHE | B | 707 | 35.468 | 12.023 | 78.269 | 1.00 92.79 | C |
| ATOM | 13983 | CE2 | PHE | B | 707 | 34.286 | 10.086 | 79.112 | 1.00 92.79 | C |
| ATOM | 13984 | CZ | PHE | B | 707 | 35.486 | 10.782 | 78.915 | 1.00 92.79 | C |
| ATOM | 13985 | N | VAL | B | 708 | 28.225 | 11.253 | 77.082 | 1.00151.17 | N |
| ATOM | 13986 | CA | VAL | B | 708 | 26.825 | 11.602 | 77.145 | 1.00151.17 | C |
| ATOM | 13987 | C | VAL | B | 708 | 26.591 | 11.968 | 78.590 | 1.00151.17 | C |
| ATOM | 13988 | O | VAL | B | 708 | 25.715 | 12.760 | 78.914 | 1.00151.17 | O |
| ATOM | 13989 | CB | VAL | B | 708 | 25.933 | 10.394 | 76.824 | 1.00162.65 | C |
| ATOM | 13990 | CG1 | VAL | B | 708 | 26.335 | 9.206 | 77.695 | 1.00162.65 | C |
| ATOM | 13991 | CG2 | VAL | B | 708 | 24.475 | 10.746 | 77.076 | 1.00162.65 | C |
| ATOM | 13992 | N | VAL | B | 709 | 27.371 | 11.342 | 79.458 | 1.00183.71 | N |
| ATOM | 13993 | CA | VAL | B | 709 | 27.304 | 11.581 | 80.890 | 1.00183.71 | C |
| ATOM | 13994 | C | VAL | B | 709 | 27.426 | 13.083 | 81.137 | 1.00183.71 | C |
| ATOM | 13995 | O | VAL | B | 709 | 26.580 | 13.695 | 81.807 | 1.00183.71 | O |
| ATOM | 13996 | CB | VAL | B | 709 | 28.459 | 10.823 | 81.595 | 1.00107.43 | C |
| ATOM | 13997 | CG1 | VAL | B | 709 | 29.491 | 10.371 | 80.564 | 1.00107.43 | C |
| ATOM | 13998 | CG2 | VAL | B | 709 | 29.129 | 11.714 | 82.624 | 1.00107.43 | C |
| ATOM | 13999 | N | GLY | B | 710 | 28.494 | 13.666 | 80.595 | 1.00161.31 | N |
| ATOM | 14000 | CA | GLY | B | 710 | 28.702 | 15.089 | 80.729 | 1.00161.31 | C |
| ATOM | 14001 | C | GLY | B | 710 | 27.406 | 15.736 | 80.296 | 1.00161.31 | C |
| ATOM | 14002 | O | GLY | B | 710 | 26.674 | 16.275 | 81.133 | 1.00161.31 | O |
| ATOM | 14003 | N | ILE | B | 711 | 27.074 | 15.656 | 79.009 | 1.00163.36 | N |
| ATOM | 14004 | CA | ILE | B | 711 | 25.809 | 16.293 | 78.613 | 1.00163.36 | C |
| ATOM | 14005 | C | ILE | B | 711 | 24.618 | 15.963 | 79.530 | 1.00163.36 | C |
| ATOM | 14006 | O | ILE | B | 711 | 23.681 | 16.757 | 79.673 | 1.00163.36 | O |
| ATOM | 14007 | CB | ILE | B | 711 | 25.355 | 15.913 | 77.193 | 1.00128.45 | C |
| ATOM | 14008 | CG1 | ILE | B | 711 | 23.846 | 16.192 | 77.073 | 1.00128.45 | C |
| ATOM | 14009 | CG2 | ILE | B | 711 | 25.708 | 14.463 | 76.886 | 1.00128.45 | C |
| ATOM | 14010 | CD1 | ILE | B | 711 | 23.155 | 15.558 | 75.892 | 1.00128.45 | C |
| ATOM | 14011 | N | PHE | B | 712 | 24.649 | 14.776 | 80.122 | 1.00128.19 | N |
| ATOM | 14012 | CA | PHE | B | 712 | 23.594 | 14.306 | 81.011 | 1.00128.19 | C |
| ATOM | 14013 | C | PHE | B | 712 | 23.383 | 15.329 | 82.131 | 1.00128.19 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 14014 | O | PHE | B | 712 | 22.334 | 16.025 | 82.221 | 1.00128.19 | O |
| ATOM | 14015 | CB | PHE | B | 712 | 24.012 | 12.952 | 81.588 | 1.00174.76 | C |
| ATOM | 14016 | CG | PHE | B | 712 | 22.868 | 12.046 | 81.910 | 1.00174.76 | C |
| ATOM | 14017 | CD1 | PHE | B | 712 | 22.295 | 12.046 | 83.175 | 1.00174.76 | C |
| ATOM | 14018 | CD2 | PHE | B | 712 | 22.359 | 11.187 | 80.944 | 1.00174.76 | C |
| ATOM | 14019 | CE1 | PHE | B | 712 | 21.228 | 11.198 | 83.472 | 1.00174.76 | C |
| ATOM | 14020 | CE2 | PHE | B | 712 | 21.294 | 10.338 | 81.233 | 1.00174.76 | C |
| ATOM | 14021 | CZ | PHE | B | 712 | 20.729 | 10.344 | 82.500 | 1.00174.76 | C |
| ATOM | 14022 | N | CYS | B | 713 | 24.383 | 15.447 | 82.993 | 1.00147.20 | N |
| ATOM | 14023 | CA | CYS | B | 713 | 24.224 | 16.406 | 84.064 | 1.00147.20 | C |
| ATOM | 14024 | C | CYS | B | 713 | 23.954 | 17.805 | 83.477 | 1.00147.20 | C |
| ATOM | 14025 | O | CYS | B | 713 | 23.217 | 18.596 | 84.073 | 1.00147.20 | O |
| ATOM | 14026 | CB | CYS | B | 713 | 25.423 | 16.367 | 85.022 | 1.00147.20 | C |
| ATOM | 14027 | SG | CYS | B | 713 | 27.053 | 16.802 | 84.398 | 1.00147.20 | S |
| ATOM | 14028 | N | ALA | B | 714 | 24.487 | 18.097 | 82.287 | 1.00133.25 | N |
| ATOM | 14029 | CA | ALA | B | 714 | 24.251 | 19.420 | 81.680 | 1.00133.25 | C |
| ATOM | 14030 | C | ALA | B | 714 | 22.734 | 19.693 | 81.756 | 1.00133.25 | C |
| ATOM | 14031 | O | ALA | B | 714 | 22.274 | 20.722 | 82.272 | 1.00133.25 | O |
| ATOM | 14032 | CB | ALA | B | 714 | 24.693 | 19.423 | 80.252 | 1.00 25.93 | C |
| ATOM | 14033 | N | ILE | B | 715 | 21.965 | 18.721 | 81.291 | 1.00 95.75 | N |
| ATOM | 14034 | CA | ILE | B | 715 | 20.530 | 18.847 | 81.309 | 1.00 95.75 | C |
| ATOM | 14035 | C | ILE | B | 715 | 20.129 | 19.178 | 82.729 | 1.00 95.75 | C |
| ATOM | 14036 | O | ILE | B | 715 | 19.420 | 20.158 | 82.981 | 1.00 95.75 | O |
| ATOM | 14037 | CB | ILE | B | 715 | 19.840 | 17.524 | 80.898 | 1.00 92.63 | C |
| ATOM | 14038 | CG1 | ILE | B | 715 | 20.783 | 16.683 | 80.027 | 1.00 92.63 | C |
| ATOM | 14039 | CG2 | ILE | B | 715 | 18.540 | 17.823 | 80.151 | 1.00 92.63 | C |
| ATOM | 14040 | CD1 | ILE | B | 715 | 21.204 | 17.338 | 78.731 | 1.00 92.63 | C |
| ATOM | 14041 | N | ILE | B | 716 | 20.619 | 18.379 | 83.672 | 1.00104.31 | N |
| ATOM | 14042 | CA | ILE | B | 716 | 20.208 | 18.630 | 85.057 | 1.00104.31 | C |
| ATOM | 14043 | C | ILE | B | 716 | 20.555 | 20.018 | 85.565 | 1.00104.31 | C |
| ATOM | 14044 | O | ILE | B | 716 | 19.732 | 20.684 | 86.182 | 1.00104.31 | O |
| ATOM | 14045 | CB | ILE | B | 716 | 20.770 | 17.554 | 86.046 | 1.00137.59 | C |
| ATOM | 14046 | CG1 | ILE | B | 716 | 22.168 | 17.932 | 86.538 | 1.00137.59 | C |
| ATOM | 14047 | CG2 | ILE | B | 716 | 20.780 | 16.190 | 85.383 | 1.00137.59 | C |
| ATOM | 14048 | CD1 | ILE | B | 716 | 22.155 | 18.861 | 87.743 | 1.00137.59 | C |
| ATOM | 14049 | N | ASN | B | 717 | 21.781 | 20.447 | 85.309 | 1.00134.31 | N |
| ATOM | 14050 | CA | ASN | B | 717 | 22.240 | 21.752 | 85.748 | 1.00134.31 | C |
| ATOM | 14051 | C | ASN | B | 717 | 21.165 | 22.725 | 85.306 | 1.00134.31 | C |
| ATOM | 14052 | O | ASN | B | 717 | 20.668 | 23.543 | 86.086 | 1.00134.31 | O |
| ATOM | 14053 | CB | ASN | B | 717 | 23.565 | 22.088 | 85.055 | 1.00182.81 | C |
| ATOM | 14054 | CG | ASN | B | 717 | 24.290 | 23.252 | 85.701 | 1.00182.81 | C |
| ATOM | 14055 | OD1 | ASN | B | 717 | 23.694 | 24.288 | 85.992 | 1.00182.81 | O |
| ATOM | 14056 | ND2 | ASN | B | 717 | 25.592 | 23.091 | 85.916 | 1.00182.81 | N |
| ATOM | 14057 | N | GLY | B | 718 | 20.789 | 22.609 | 84.042 | 1.00132.87 | N |
| ATOM | 14058 | CA | GLY | B | 718 | 19.782 | 23.498 | 83.517 | 1.00132.87 | C |
| ATOM | 14059 | C | GLY | B | 718 | 18.515 | 23.527 | 84.343 | 1.00132.87 | C |
| ATOM | 14060 | O | GLY | B | 718 | 18.049 | 24.590 | 84.819 | 1.00132.87 | O |
| ATOM | 14061 | N | GLY | B | 719 | 17.933 | 22.348 | 84.510 | 1.00123.11 | N |
| ATOM | 14062 | CA | GLY | B | 719 | 16.724 | 22.275 | 85.302 | 1.00123.11 | C |
| ATOM | 14063 | C | GLY | B | 719 | 16.987 | 22.931 | 86.643 | 1.00123.11 | C |
| ATOM | 14064 | O | GLY | B | 719 | 16.193 | 23.741 | 87.128 | 1.00123.11 | O |
| ATOM | 14065 | N | LEU | B | 720 | 18.129 | 22.578 | 87.228 | 1.00141.11 | N |
| ATOM | 14066 | CA | LEU | B | 720 | 18.551 | 23.104 | 88.520 | 1.00141.11 | C |
| ATOM | 14067 | C | LEU | B | 720 | 18.213 | 24.592 | 88.616 | 1.00141.11 | C |
| ATOM | 14068 | O | LEU | B | 720 | 17.610 | 25.052 | 89.593 | 1.00141.11 | O |
| ATOM | 14069 | CB | LEU | B | 720 | 20.059 | 22.892 | 88.688 | 1.00129.49 | C |
| ATOM | 14070 | CG | LEU | B | 720 | 20.713 | 23.245 | 90.024 | 1.00129.49 | C |
| ATOM | 14071 | CD1 | LEU | B | 720 | 20.021 | 22.507 | 91.160 | 1.00129.49 | C |
| ATOM | 14072 | CD2 | LEU | B | 720 | 22.184 | 22.867 | 89.967 | 1.00129.49 | C |
| ATOM | 14073 | N | GLN | B | 721 | 18.588 | 25.337 | 87.582 | 1.00118.20 | N |
| ATOM | 14074 | CA | GLN | B | 721 | 18.312 | 26.775 | 87.543 | 1.00118.20 | C |
| ATOM | 14075 | C | GLN | B | 721 | 16.805 | 27.088 | 87.527 | 1.00118.20 | C |
| ATOM | 14076 | O | GLN | B | 721 | 16.260 | 27.692 | 88.471 | 1.00118.20 | O |
| ATOM | 14077 | CB | GLN | B | 721 | 18.968 | 27.398 | 86.304 | 1.00200.70 | C |
| ATOM | 14078 | CG | GLN | B | 721 | 18.755 | 28.903 | 86.156 | 1.00200.70 | C |
| ATOM | 14079 | CD | GLN | B | 721 | 19.724 | 29.735 | 86.983 | 1.00200.70 | C |
| ATOM | 14080 | OE1 | GLN | B | 721 | 19.604 | 30.958 | 87.050 | 1.00200.70 | O |
| ATOM | 14081 | NE2 | GLN | B | 721 | 20.695 | 29.075 | 87.606 | 1.00200.70 | N |
| ATOM | 14082 | N | PRO | B | 722 | 16.103 | 26.701 | 86.453 | 1.00 72.01 | N |
| ATOM | 14083 | CA | PRO | B | 722 | 14.712 | 27.102 | 86.667 | 1.00 72.01 | C |
| ATOM | 14084 | C | PRO | B | 722 | 14.118 | 26.621 | 88.004 | 1.00 72.01 | C |
| ATOM | 14085 | O | PRO | B | 722 | 13.222 | 27.262 | 88.581 | 1.00 72.01 | O |
| ATOM | 14086 | CB | PRO | B | 722 | 14.012 | 26.512 | 85.455 | 1.00191.61 | C |
| ATOM | 14087 | CG | PRO | B | 722 | 15.041 | 26.747 | 84.371 | 1.00191.61 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 14088 | CD | PRO | B | 722 | 16.347 | 26.350 | 85.042 | 1.00191.61 | C |
| ATOM | 14089 | N | ALA | B | 723 | 14.639 | 25.497 | 88.492 | 1.00 96.73 | N |
| ATOM | 14090 | CA | ALA | B | 723 | 14.192 | 24.913 | 89.752 | 1.00 96.73 | C |
| ATOM | 14091 | C | ALA | B | 723 | 14.249 | 25.989 | 90.810 | 1.00 96.73 | C |
| ATOM | 14092 | O | ALA | B | 723 | 13.297 | 26.189 | 91.562 | 1.00 96.73 | O |
| ATOM | 14093 | CB | ALA | B | 723 | 15.094 | 23.740 | 90.136 | 1.00167.30 | C |
| ATOM | 14094 | N | PHE | B | 724 | 15.377 | 26.683 | 90.872 | 1.00135.07 | N |
| ATOM | 14095 | CA | PHE | B | 724 | 15.499 | 27.763 | 91.834 | 1.00135.07 | C |
| ATOM | 14096 | C | PHE | B | 724 | 14.400 | 28.780 | 91.605 | 1.00135.07 | C |
| ATOM | 14097 | O | PHE | B | 724 | 13.765 | 29.243 | 92.552 | 1.00135.07 | O |
| ATOM | 14098 | CB | PHE | B | 724 | 16.824 | 28.501 | 91.690 | 1.00132.88 | C |
| ATOM | 14099 | CG | PHE | B | 724 | 16.799 | 29.871 | 92.309 | 1.00132.88 | C |
| ATOM | 14100 | CD1 | PHE | B | 724 | 16.798 | 30.018 | 93.693 | 1.00132.88 | C |
| ATOM | 14101 | CD2 | PHE | B | 724 | 16.672 | 31.005 | 91.515 | 1.00132.88 | C |
| ATOM | 14102 | CE1 | PHE | B | 724 | 16.665 | 31.274 | 94.284 | 1.00132.88 | C |
| ATOM | 14103 | CE2 | PHE | B | 724 | 16.537 | 32.268 | 92.089 | 1.00132.88 | C |
| ATOM | 14104 | CZ | PHE | B | 724 | 16.532 | 32.405 | 93.481 | 1.00132.88 | C |
| ATOM | 14105 | N | SER | B | 725 | 14.213 | 29.160 | 90.346 | 1.00132.62 | N |
| ATOM | 14106 | CA | SER | B | 725 | 13.181 | 30.136 | 90.027 | 1.00132.62 | C |
| ATOM | 14107 | C | SER | B | 725 | 11.899 | 29.813 | 90.808 | 1.00132.62 | C |
| ATOM | 14108 | O | SER | B | 725 | 11.325 | 30.703 | 91.454 | 1.00132.62 | O |
| ATOM | 14109 | CB | SER | B | 725 | 12.900 | 30.130 | 88.527 | 1.00112.47 | C |
| ATOM | 14110 | OG | SER | B | 725 | 14.070 | 30.446 | 87.794 | 1.00112.47 | O |
| ATOM | 14111 | N | VAL | B | 726 | 11.480 | 28.539 | 90.784 | 1.00 74.15 | N |
| ATOM | 14112 | CA | VAL | B | 726 | 10.257 | 28.104 | 91.500 | 1.00 74.15 | C |
| ATOM | 14113 | C | VAL | B | 726 | 10.343 | 27.879 | 92.982 | 1.00 74.15 | C |
| ATOM | 14114 | O | VAL | B | 726 | 9.397 | 28.182 | 93.686 | 1.00 74.15 | O |
| ATOM | 14115 | CB | VAL | B | 726 | 9.664 | 26.797 | 90.926 | 1.00116.93 | C |
| ATOM | 14116 | CG1 | VAL | B | 726 | 8.373 | 26.453 | 91.671 | 1.00116.93 | C |
| ATOM | 14117 | CG2 | VAL | B | 726 | 9.408 | 26.941 | 89.430 | 1.00116.93 | C |
| ATOM | 14118 | N | ILE | B | 727 | 11.439 | 27.304 | 93.452 | 1.00 69.61 | N |
| ATOM | 14119 | CA | ILE | B | 727 | 11.588 | 27.071 | 94.882 | 1.00 69.61 | C |
| ATOM | 14120 | C | ILE | B | 727 | 11.446 | 28.416 | 95.624 | 1.00 69.61 | C |
| ATOM | 14121 | O | ILE | B | 727 | 10.733 | 28.518 | 96.639 | 1.00 69.61 | O |
| ATOM | 14122 | CB | ILE | B | 727 | 12.964 | 26.412 | 95.177 | 1.00 78.92 | C |
| ATOM | 14123 | CG1 | ILE | B | 727 | 12.907 | 25.632 | 96.496 | 1.00 78.92 | C |
| ATOM | 14124 | CG2 | ILE | B | 727 | 14.065 | 27.467 | 95.200 | 1.00 78.92 | C |
| ATOM | 14125 | CD1 | ILE | B | 727 | 12.781 | 26.492 | 97.743 | 1.00 78.92 | C |
| ATOM | 14126 | N | PHE | B | 728 | 12.120 | 29.443 | 95.105 | 1.00 86.77 | N |
| ATOM | 14127 | CA | PHE | B | 728 | 12.045 | 30.792 | 95.662 | 1.00 86.77 | C |
| ATOM | 14128 | C | PHE | B | 728 | 10.586 | 31.243 | 95.492 | 1.00 86.77 | C |
| ATOM | 14129 | O | PHE | B | 728 | 9.863 | 31.430 | 96.495 | 1.00 86.77 | O |
| ATOM | 14130 | CB | PHE | B | 728 | 13.011 | 31.716 | 94.899 | 1.00134.61 | C |
| ATOM | 14131 | CG | PHE | B | 728 | 12.617 | 33.174 | 94.896 | 1.00134.61 | C |
| ATOM | 14132 | CD1 | PHE | B | 728 | 11.992 | 33.729 | 93.784 | 1.00134.61 | C |
| ATOM | 14133 | CD2 | PHE | B | 728 | 12.905 | 33.998 | 95.984 | 1.00134.61 | C |
| ATOM | 14134 | CE1 | PHE | B | 728 | 11.662 | 35.079 | 93.750 | 1.00134.61 | C |
| ATOM | 14135 | CE2 | PHE | B | 728 | 12.576 | 35.357 | 95.959 | 1.00134.61 | C |
| ATOM | 14136 | CZ | PHE | B | 728 | 11.955 | 35.895 | 94.840 | 1.00134.61 | C |
| ATOM | 14137 | N | SER | B | 729 | 10.136 | 31.368 | 94.235 | 1.00 84.17 | N |
| ATOM | 14138 | CA | SER | B | 729 | 8.759 | 31.811 | 93.983 | 1.00 84.17 | C |
| ATOM | 14139 | C | SER | B | 729 | 7.809 | 31.114 | 94.944 | 1.00 84.17 | C |
| ATOM | 14140 | O | SER | B | 729 | 6.851 | 31.709 | 95.452 | 1.00 84.17 | O |
| ATOM | 14141 | CB | SER | B | 729 | 8.355 | 31.565 | 92.519 | 1.00 77.08 | C |
| ATOM | 14142 | OG | SER | B | 729 | 8.584 | 30.229 | 92.124 | 1.00 77.08 | O |
| ATOM | 14143 | N | LYS | B | 730 | 8.088 | 29.852 | 95.224 | 1.00156.95 | N |
| ATOM | 14144 | CA | LYS | B | 730 | 7.240 | 29.152 | 96.144 | 1.00156.95 | C |
| ATOM | 14145 | C | LYS | B | 730 | 7.357 | 29.840 | 97.490 | 1.00156.95 | C |
| ATOM | 14146 | O | LYS | B | 730 | 6.363 | 30.352 | 97.981 | 1.00156.95 | O |
| ATOM | 14147 | CB | LYS | B | 730 | 7.646 | 27.690 | 96.268 | 1.00134.66 | C |
| ATOM | 14148 | CG | LYS | B | 730 | 6.739 | 26.916 | 97.185 | 1.00134.66 | C |
| ATOM | 14149 | CD | LYS | B | 730 | 6.919 | 25.436 | 97.038 | 1.00134.66 | C |
| ATOM | 14150 | CE | LYS | B | 730 | 6.067 | 24.723 | 98.051 | 1.00134.66 | C |
| ATOM | 14151 | NZ | LYS | B | 730 | 6.197 | 23.263 | 97.890 | 1.00134.66 | N |
| ATOM | 14152 | N | VAL | B | 731 | 8.554 | 29.878 | 98.080 | 1.00 86.42 | N |
| ATOM | 14153 | CA | VAL | B | 731 | 8.732 | 30.550 | 99.381 | 1.00 86.42 | C |
| ATOM | 14154 | C | VAL | B | 731 | 7.908 | 31.818 | 99.526 | 1.00 86.42 | C |
| ATOM | 14155 | O | VAL | B | 731 | 6.892 | 31.863 | 100.235 | 1.00 86.42 | O |
| ATOM | 14156 | CB | VAL | B | 731 | 10.201 | 30.968 | 99.611 | 1.00 74.23 | C |
| ATOM | 14157 | CG1 | VAL | B | 731 | 10.302 | 31.765 | 100.891 | 1.00 74.23 | C |
| ATOM | 14158 | CG2 | VAL | B | 731 | 11.113 | 29.753 | 99.671 | 1.00 74.23 | C |
| ATOM | 14159 | N | VAL | B | 732 | 8.370 | 32.871 | 98.875 | 1.00109.48 | N |
| ATOM | 14160 | CA | VAL | B | 732 | 7.632 | 34.108 | 98.956 | 1.00109.48 | C |
| ATOM | 14161 | C | VAL | B | 732 | 6.155 | 33.768 | 98.796 | 1.00109.48 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 14162 | O | VAL | B | 732 | 5.378 | 34.047 | 99.689 | 1.00109.48 | O |
| ATOM | 14163 | CB | VAL | B | 732 | 8.069 | 35.083 | 97.848 | 1.00114.59 | C |
| ATOM | 14164 | CG1 | VAL | B | 732 | 9.516 | 35.520 | 98.081 | 1.00114.59 | C |
| ATOM | 14165 | CG2 | VAL | B | 732 | 7.926 | 34.417 | 96.486 | 1.00114.59 | C |
| ATOM | 14166 | N | GLY | B | 733 | 5.772 | 33.127 | 97.690 | 1.00126.59 | N |
| ATOM | 14167 | CA | GLY | B | 733 | 4.372 | 32.773 | 97.477 | 1.00126.59 | C |
| ATOM | 14168 | C | GLY | B | 733 | 3.683 | 32.188 | 98.703 | 1.00126.59 | C |
| ATOM | 14169 | O | GLY | B | 733 | 2.807 | 32.813 | 99.333 | 1.00126.59 | O |
| ATOM | 14170 | N | VAL | B | 734 | 4.092 | 30.975 | 99.046 | 1.00186.95 | N |
| ATOM | 14171 | CA | VAL | B | 734 | 3.546 | 30.261 | 100.189 | 1.00186.95 | C |
| ATOM | 14172 | C | VAL | B | 734 | 3.862 | 30.947 | 101.524 | 1.00186.95 | C |
| ATOM | 14173 | O | VAL | B | 734 | 3.896 | 30.301 | 102.571 | 1.00186.95 | O |
| ATOM | 14174 | CB | VAL | B | 734 | 4.085 | 28.813 | 100.235 | 1.00207.38 | C |
| ATOM | 14175 | CG1 | VAL | B | 734 | 5.572 | 28.817 | 100.567 | 1.00207.38 | C |
| ATOM | 14176 | CG2 | VAL | B | 734 | 3.303 | 27.997 | 101.247 | 1.00207.38 | C |
| ATOM | 14177 | N | PHE | B | 735 | 4.112 | 32.251 | 101.492 | 1.00 69.03 | N |
| ATOM | 14178 | CA | PHE | B | 735 | 4.380 | 32.989 | 102.731 | 1.00 69.03 | C |
| ATOM | 14179 | C | PHE | B | 735 | 3.881 | 34.462 | 102.598 | 1.00 69.03 | C |
| ATOM | 14180 | O | PHE | B | 735 | 3.835 | 35.255 | 103.560 | 1.00 69.03 | O |
| ATOM | 14181 | CB | PHE | B | 735 | 5.885 | 32.945 | 103.018 | 1.00 97.95 | C |
| ATOM | 14182 | CG | PHE | B | 735 | 6.291 | 33.679 | 104.255 | 1.00 97.95 | C |
| ATOM | 14183 | CD1 | PHE | B | 735 | 6.300 | 35.066 | 104.271 | 1.00 97.95 | C |
| ATOM | 14184 | CD2 | PHE | B | 735 | 6.677 | 32.984 | 105.402 | 1.00 97.95 | C |
| ATOM | 14185 | CE1 | PHE | B | 735 | 6.686 | 35.758 | 105.398 | 1.00 97.95 | C |
| ATOM | 14186 | CE2 | PHE | B | 735 | 7.072 | 33.671 | 106.560 | 1.00 97.95 | C |
| ATOM | 14187 | CZ | PHE | B | 735 | 7.076 | 35.059 | 106.556 | 1.00 97.95 | C |
| ATOM | 14188 | N | THR | B | 736 | 3.497 | 34.810 | 101.376 | 1.00123.97 | N |
| ATOM | 14189 | CA | THR | B | 736 | 2.980 | 36.131 | 101.080 | 1.00123.97 | C |
| ATOM | 14190 | C | THR | B | 736 | 1.480 | 35.970 | 101.078 | 1.00123.97 | C |
| ATOM | 14191 | O | THR | B | 736 | 0.751 | 36.959 | 101.052 | 1.00123.97 | O |
| ATOM | 14192 | CB | THR | B | 736 | 3.448 | 36.621 | 99.698 | 1.00204.91 | C |
| ATOM | 14193 | OG1 | THR | B | 736 | 3.237 | 35.589 | 98.727 | 1.00204.91 | O |
| ATOM | 14194 | CG2 | THR | B | 736 | 4.925 | 36.989 | 99.736 | 1.00204.91 | C |
| ATOM | 14195 | N | ASN | B | 737 | 1.038 | 34.705 | 101.089 | 1.00191.73 | N |
| ATOM | 14196 | CA | ASN | B | 737 | -0.389 | 34.352 | 101.137 | 1.00191.73 | C |
| ATOM | 14197 | C | ASN | B | 737 | -0.650 | 32.869 | 101.441 | 1.00191.73 | C |
| ATOM | 14198 | O | ASN | B | 737 | -0.465 | 32.008 | 100.580 | 1.00191.73 | O |
| ATOM | 14199 | CB | ASN | B | 737 | -1.090 | 34.741 | 99.828 | 1.00132.91 | C |
| ATOM | 14200 | CG | ASN | B | 737 | -0.310 | 34.325 | 98.600 | 1.00132.91 | C |
| ATOM | 14201 | OD1 | ASN | B | 737 | 0.527 | 35.076 | 98.100 | 1.00132.91 | O |
| ATOM | 14202 | ND2 | ASN | B | 737 | -0.577 | 33.120 | 98.108 | 1.00132.91 | N |
| ATOM | 14203 | N | GLY | B | 738 | -1.085 | 32.573 | 102.665 | 1.00205.67 | N |
| ATOM | 14204 | CA | GLY | B | 738 | -1.345 | 31.188 | 103.024 | 1.00205.67 | C |
| ATOM | 14205 | C | GLY | B | 738 | -1.768 | 30.941 | 104.463 | 1.00205.67 | C |
| ATOM | 14206 | O | GLY | B | 738 | -2.083 | 31.887 | 105.192 | 1.00205.67 | O |
| ATOM | 14207 | N | GLY | B | 739 | -1.773 | 29.663 | 104.861 | 1.00205.62 | N |
| ATOM | 14208 | CA | GLY | B | 739 | -2.166 | 29.261 | 106.208 | 1.00205.62 | C |
| ATOM | 14209 | C | GLY | B | 739 | -1.083 | 29.520 | 107.237 | 1.00205.62 | C |
| ATOM | 14210 | O | GLY | B | 739 | 0.036 | 29.043 | 107.072 | 1.00205.62 | O |
| ATOM | 14211 | N | PRO | B | 740 | -1.396 | 30.253 | 108.324 | 1.00130.72 | N |
| ATOM | 14212 | CA | PRO | B | 740 | -0.525 | 30.650 | 109.448 | 1.00130.72 | C |
| ATOM | 14213 | C | PRO | B | 740 | 0.413 | 29.628 | 110.127 | 1.00130.72 | C |
| ATOM | 14214 | O | PRO | B | 740 | 1.638 | 29.809 | 110.154 | 1.00130.72 | O |
| ATOM | 14215 | CB | PRO | B | 740 | -1.502 | 31.305 | 110.438 | 1.00 85.67 | C |
| ATOM | 14216 | CG | PRO | B | 740 | -2.834 | 30.719 | 110.073 | 1.00 85.67 | C |
| ATOM | 14217 | CD | PRO | B | 740 | -2.773 | 30.712 | 108.569 | 1.00 85.67 | C |
| ATOM | 14218 | N | PRO | B | 741 | -0.137 | 28.555 | 110.707 | 1.00206.27 | N |
| ATOM | 14219 | CA | PRO | B | 741 | 0.824 | 27.639 | 111.320 | 1.00206.27 | C |
| ATOM | 14220 | C | PRO | B | 741 | 1.480 | 26.926 | 110.160 | 1.00206.27 | C |
| ATOM | 14221 | O | PRO | B | 741 | 0.963 | 26.959 | 109.048 | 1.00206.27 | O |
| ATOM | 14222 | CB | PRO | B | 741 | -0.072 | 26.716 | 112.123 | 1.00207.38 | C |
| ATOM | 14223 | CG | PRO | B | 741 | -1.254 | 26.563 | 111.200 | 1.00207.38 | C |
| ATOM | 14224 | CD | PRO | B | 741 | -1.499 | 27.990 | 110.728 | 1.00207.38 | C |
| ATOM | 14225 | N | GLU | B | 742 | 2.610 | 26.288 | 110.402 | 1.00167.72 | N |
| ATOM | 14226 | CA | GLU | B | 742 | 3.284 | 25.560 | 109.334 | 1.00167.72 | C |
| ATOM | 14227 | C | GLU | B | 742 | 4.049 | 26.490 | 108.395 | 1.00167.72 | C |
| ATOM | 14228 | O | GLU | B | 742 | 4.885 | 26.031 | 107.614 | 1.00167.72 | O |
| ATOM | 14229 | CB | GLU | B | 742 | 2.272 | 24.747 | 108.512 | 1.00201.84 | C |
| ATOM | 14230 | CG | GLU | B | 742 | 1.454 | 23.714 | 109.288 | 1.00201.84 | C |
| ATOM | 14231 | CD | GLU | B | 742 | 2.271 | 22.526 | 109.776 | 1.00201.84 | C |
| ATOM | 14232 | OE1 | GLU | B | 742 | 1.659 | 21.558 | 110.280 | 1.00201.84 | O |
| ATOM | 14233 | OE2 | GLU | B | 742 | 3.515 | 22.558 | 109.664 | 1.00201.84 | O |
| ATOM | 14234 | N | THR | B | 743 | 3.768 | 27.788 | 108.446 | 1.00190.86 | N |
| ATOM | 14235 | CA | THR | B | 743 | 4.498 | 28.709 | 107.582 | 1.00190.86 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 14236 | C | THR | B | 743 | 5.996 | 28.610 | 107.905 | 1.00190.86 | C |
| ATOM | 14237 | O | THR | B | 743 | 6.850 | 28.869 | 107.061 | 1.00190.86 | O |
| ATOM | 14238 | CB | THR | B | 743 | 4.012 | 30.162 | 107.765 | 1.00165.44 | C |
| ATOM | 14239 | OG1 | THR | B | 743 | 3.800 | 30.430 | 109.156 | 1.00165.44 | O |
| ATOM | 14240 | CG2 | THR | B | 743 | 2.721 | 30.389 | 106.999 | 1.00165.44 | C |
| ATOM | 14241 | N | GLN | B | 744 | 6.303 | 28.228 | 109.137 | 1.00109.40 | N |
| ATOM | 14242 | CA | GLN | B | 744 | 7.677 | 28.043 | 109.573 | 1.00109.40 | C |
| ATOM | 14243 | C | GLN | B | 744 | 8.256 | 26.809 | 108.855 | 1.00109.40 | C |
| ATOM | 14244 | O | GLN | B | 744 | 9.336 | 26.881 | 108.280 | 1.00109.40 | O |
| ATOM | 14245 | CB | GLN | B | 744 | 7.714 | 27.819 | 111.088 | 1.00122.34 | C |
| ATOM | 14246 | CG | GLN | B | 744 | 9.101 | 27.583 | 111.675 | 1.00122.34 | C |
| ATOM | 14247 | CD | GLN | B | 744 | 9.839 | 28.869 | 111.991 | 1.00122.34 | C |
| ATOM | 14248 | OE1 | GLN | B | 744 | 9.919 | 29.774 | 111.165 | 1.00122.34 | O |
| ATOM | 14249 | NE2 | GLN | B | 744 | 10.391 | 28.950 | 113.195 | 1.00122.34 | N |
| ATOM | 14250 | N | ARG | B | 745 | 7.545 | 25.679 | 108.898 | 1.00113.00 | N |
| ATOM | 14251 | CA | ARG | B | 745 | 7.981 | 24.444 | 108.224 | 1.00113.00 | C |
| ATOM | 14252 | C | ARG | B | 745 | 8.009 | 24.701 | 106.724 | 1.00113.00 | C |
| ATOM | 14253 | O | ARG | B | 745 | 8.927 | 24.263 | 106.037 | 1.00113.00 | O |
| ATOM | 14254 | CB | ARG | B | 745 | 7.011 | 23.300 | 108.527 | 1.00185.12 | C |
| ATOM | 14255 | CG | ARG | B | 745 | 7.270 | 22.022 | 107.734 | 1.00185.12 | C |
| ATOM | 14256 | CD | ARG | B | 745 | 8.588 | 21.362 | 108.117 | 1.00185.12 | C |
| ATOM | 14257 | NE | ARG | B | 745 | 8.850 | 20.156 | 107.334 | 1.00185.12 | N |
| ATOM | 14258 | CZ | ARG | B | 745 | 9.938 | 19.402 | 107.462 | 1.00185.12 | C |
| ATOM | 14259 | NH1 | ARG | B | 745 | 10.873 | 19.727 | 108.346 | 1.00185.12 | N |
| ATOM | 14260 | NH2 | ARG | B | 745 | 10.093 | 18.322 | 106.705 | 1.00185.12 | N |
| ATOM | 14261 | N | GLN | B | 746 | 6.989 | 25.399 | 106.224 | 1.00159.64 | N |
| ATOM | 14262 | CA | GLN | B | 746 | 6.911 | 25.754 | 104.809 | 1.00159.64 | C |
| ATOM | 14263 | C | GLN | B | 746 | 8.175 | 26.564 | 104.490 | 1.00159.64 | C |
| ATOM | 14264 | O | GLN | B | 746 | 8.856 | 26.328 | 103.484 | 1.00159.64 | O |
| ATOM | 14265 | CB | GLN | B | 746 | 5.670 | 26.612 | 104.541 | 1.00156.77 | C |
| ATOM | 14266 | CG | GLN | B | 746 | 4.354 | 25.912 | 104.823 | 1.00156.77 | C |
| ATOM | 14267 | CD | GLN | B | 746 | 4.055 | 24.808 | 103.826 | 1.00156.77 | C |
| ATOM | 14268 | OE1 | GLN | B | 746 | 3.708 | 25.073 | 102.675 | 1.00156.77 | O |
| ATOM | 14269 | NE2 | GLN | B | 746 | 4.197 | 23.561 | 104.262 | 1.00156.77 | N |
| ATOM | 14270 | N | ASN | B | 747 | 8.469 | 27.524 | 105.365 | 1.00152.68 | N |
| ATOM | 14271 | CA | ASN | B | 747 | 9.646 | 28.372 | 105.241 | 1.00152.68 | C |
| ATOM | 14272 | C | ASN | B | 747 | 10.807 | 27.426 | 105.314 | 1.00152.68 | C |
| ATOM | 14273 | O | ASN | B | 747 | 11.267 | 26.900 | 104.311 | 1.00152.68 | O |
| ATOM | 14274 | CB | ASN | B | 747 | 9.708 | 29.346 | 106.415 | 1.00133.11 | C |
| ATOM | 14275 | CG | ASN | B | 747 | 9.973 | 30.765 | 105.984 | 1.00133.11 | C |
| ATOM | 14276 | OD1 | ASN | B | 747 | 10.833 | 31.022 | 105.145 | 1.00133.11 | O |
| ATOM | 14277 | ND2 | ASN | B | 747 | 9.245 | 3 | | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|---------|------------|---|
| ATOM | 14310 | CZ | PHE | B | 751 | 18.070 | 26.465 | 106.464 | 1.00197.36 | C |
| ATOM | 14311 | N | SER | B | 752 | 15.780 | 25.343 | 103.325 | 1.00111.16 | N |
| ATOM | 14312 | CA | SER | B | 752 | 16.727 | 24.268 | 103.152 | 1.00111.16 | C |
| ATOM | 14313 | C | SER | B | 752 | 16.590 | 23.763 | 101.726 | 1.00111.16 | C |
| ATOM | 14314 | O | SER | B | 752 | 17.580 | 23.539 | 101.042 | 1.00111.16 | O |
| ATOM | 14315 | CB | SER | B | 752 | 16.426 | 23.132 | 104.130 | 1.00113.88 | C |
| ATOM | 14316 | OG | SER | B | 752 | 17.236 | 22.000 | 103.858 | 1.00113.88 | O |
| ATOM | 14317 | N | LEU | B | 753 | 15.358 | 23.607 | 101.263 | 1.00103.86 | N |
| ATOM | 14318 | CA | LEU | B | 753 | 15.138 | 23.110 | 99.915 | 1.00103.86 | C |
| ATOM | 14319 | C | LEU | B | 753 | 16.011 | 23.891 | 98.955 | 1.00103.86 | C |
| ATOM | 14320 | O | LEU | B | 753 | 16.770 | 23.302 | 98.191 | 1.00103.86 | O |
| ATOM | 14321 | CB | LEU | B | 753 | 13.661 | 23.246 | 99.540 | 1.00121.90 | C |
| ATOM | 14322 | CG | LEU | B | 753 | 13.218 | 22.585 | 98.232 | 1.00121.90 | C |
| ATOM | 14323 | CD1 | LEU | B | 753 | 13.774 | 21.172 | 98.134 | 1.00121.90 | C |
| ATOM | 14324 | CD2 | LEU | B | 753 | 11.704 | 22.562 | 98.180 | 1.00121.90 | C |
| ATOM | 14325 | N | LEU | B | 754 | 15.914 | 25.218 | 99.024 | 1.00205.12 | N |
| ATOM | 14326 | CA | LEU | B | 754 | 16.699 | 26.114 | 98.174 | 1.00205.12 | C |
| ATOM | 14327 | C | LEU | B | 754 | 18.171 | 25.749 | 98.262 | 1.00205.12 | C |
| ATOM | 14328 | O | LEU | B | 754 | 18.837 | 25.589 | 97.236 | 1.00205.12 | O |
| ATOM | 14329 | CB | LEU | B | 754 | 16.462 | 27.564 | 98.596 | 1.00146.01 | C |
| ATOM | 14330 | CG | LEU | B | 754 | 15.629 | 28.381 | 97.604 | 1.00146.01 | C |
| ATOM | 14331 | CD1 | LEU | B | 754 | 14.909 | 29.513 | 98.318 | 1.00146.01 | C |
| ATOM | 14332 | CD2 | LEU | B | 754 | 16.542 | 28.909 | 96.503 | 1.00146.01 | C |
| ATOM | 14333 | N | PHE | B | 755 | 18.673 | 25.616 | 99.487 | 1.00 86.81 | N |
| ATOM | 14334 | CA | PHE | B | 755 | 20.073 | 25.225 | 99.700 | 1.00 86.81 | C |
| ATOM | 14335 | C | PHE | B | 755 | 20.447 | 23.819 | 99.194 | 1.00 86.81 | C |
| ATOM | 14336 | O | PHE | B | 755 | 21.019 | 23.674 | 98.121 | 1.00 86.81 | O |
| ATOM | 14337 | CB | PHE | B | 755 | 20.443 | 25.285 | 101.178 | 1.00163.30 | C |
| ATOM | 14338 | CG | PHE | B | 755 | 21.744 | 24.591 | 101.489 | 1.00163.30 | C |
| ATOM | 14339 | CD1 | PHE | B | 755 | 21.851 | 23.722 | 102.571 | 1.00163.30 | C |
| ATOM | 14340 | CD2 | PHE | B | 755 | 22.851 | 24.773 | 100.663 | 1.00163.30 | C |
| ATOM | 14341 | CE1 | PHE | B | 755 | 23.043 | 23.035 | 102.828 | 1.00163.30 | C |
| ATOM | 14342 | CE2 | PHE | B | 755 | 24.047 | 24.098 | 100.905 | 1.00163.30 | C |
| ATOM | 14343 | CZ | PHE | B | 755 | 24.147 | 23.223 | 101.990 | 1.00163.30 | C |
| ATOM | 14344 | N | LEU | B | 756 | 20.164 | 22.796 | 99.996 | 1.00133.74 | N |
| ATOM | 14345 | CA | LEU | B | 756 | 20.465 | 21.418 | 99.622 | 1.00133.74 | C |
| ATOM | 14346 | C | LEU | B | 756 | 20.338 | 21.263 | 98.115 | 1.00133.74 | C |
| ATOM | 14347 | O | LEU | B | 756 | 21.251 | 20.778 | 97.454 | 1.00133.74 | O |
| ATOM | 14348 | CB | LEU | B | 756 | 19.511 | 20.452 | 100.338 | 1.00140.83 | C |
| ATOM | 14349 | CG | LEU | B | 756 | 18.041 | 20.388 | 99.911 | 1.00140.83 | C |
| ATOM | 14350 | CD1 | LEU | B | 756 | 17.898 | 19.536 | 98.657 | 1.00140.83 | C |
| ATOM | 14351 | CD2 | LEU | B | 756 | 17.215 | 19.786 | 101.036 | 1.00140.83 | C |
| ATOM | 14352 | N | ILE | B | 757 | 19.208 | 21.697 | 97.570 | 1.00 77.96 | N |
| ATOM | 14353 | CA | ILE | B | 757 | 18.986 | 21.610 | 96.134 | 1.00 77.96 | C |
| ATOM | 14354 | C | ILE | B | 757 | 20.061 | 22.343 | 95.323 | 1.00 77.96 | C |
| ATOM | 14355 | O | ILE | B | 757 | 21.000 | 21.711 | 94.832 | 1.00 77.96 | O |
| ATOM | 14356 | CB | ILE | B | 757 | 17.598 | 22.185 | 95.743 | 1.00207.38 | C |
| ATOM | 14357 | CG1 | ILE | B | 757 | 16.479 | 21.266 | 96.250 | 1.00207.38 | C |
| ATOM | 14358 | CG2 | ILE | B | 757 | 17.507 | 22.348 | 94.230 | 1.00207.38 | C |
| ATOM | 14359 | CD1 | ILE | B | 757 | 16.428 | 19.900 | 95.580 | 1.00207.38 | C |
| ATOM | 14360 | N | LEU | B | 758 | 19.928 | 23.660 | 95.161 | 1.00107.97 | N |
| ATOM | 14361 | CA | LEU | B | 758 | 20.941 | 24.365 | 94.387 | 1.00107.97 | C |
| ATOM | 14362 | C | LEU | B | 758 | 22.313 | 23.910 | 94.901 | 1.00107.97 | C |
| ATOM | 14363 | O | LEU | B | 758 | 22.931 | 23.037 | 94.300 | 1.00107.97 | O |
| ATOM | 14364 | CB | LEU | B | 758 | 20.806 | 25.887 | 94.512 | 1.00120.76 | C |
| ATOM | 14365 | CG | LEU | B | 758 | 21.509 | 26.714 | 93.422 | 1.00120.76 | C |
| ATOM | 14366 | CD1 | LEU | B | 758 | 20.597 | 27.860 | 92.978 | 1.00120.76 | C |
| ATOM | 14367 | CD2 | LEU | B | 758 | 22.850 | 27.229 | 93.936 | 1.00120.76 | C |
| ATOM | 14368 | N | GLY | B | 759 | 22.766 | 24.472 | 96.020 | 1.00153.28 | N |
| ATOM | 14369 | CA | GLY | B | 759 | 24.061 | 24.118 | 96.589 | 1.00153.28 | C |
| ATOM | 14370 | C | GLY | B | 759 | 24.676 | 22.774 | 96.218 | 1.00153.28 | C |
| ATOM | 14371 | O | GLY | B | 759 | 25.677 | 22.710 | 95.489 | 1.00153.28 | O |
| ATOM | 14372 | N | ILE | B | 760 | 24.088 | 21.694 | 96.722 | 1.00136.03 | N |
| ATOM | 14373 | CA | ILE | B | 760 | 24.597 | 20.353 | 96.439 | 1.00136.03 | C |
| ATOM | 14374 | C | ILE | B | 760 | 24.519 | 20.006 | 94.961 | 1.00136.03 | C |
| ATOM | 14375 | O | ILE | B | 760 | 25.548 | 19.965 | 94.290 | 1.00136.03 | O |
| ATOM | 14376 | CB | ILE | B | 760 | 23.827 | 19.297 | 97.264 | 1.00155.48 | C |
| ATOM | 14377 | CG1 | ILE | B | 760 | 24.290 | 19.345 | 98.722 | 1.00155.48 | C |
| ATOM | 14378 | CG2 | ILE | B | 760 | 24.029 | 17.915 | 96.676 | 1.00155.48 | C |
| ATOM | 14379 | CD1 | ILE | B | 760 | 24.141 | 20.701 | 99.369 | 1.00155.48 | C |
| ATOM | 14380 | N | ILE | B | 761 | 23.303 | 19.763 | 94.466 | 1.00107.07 | N |
| ATOM | 14381 | CA | ILE | B | 761 | 23.085 | 19.426 | 93.059 | 1.00107.07 | C |
| ATOM | 14382 | C | ILE | B | 761 | 24.162 | 20.029 | 92.154 | 1.00107.07 | C |
| ATOM | 14383 | O | ILE | B | 761 | 24.851 | 19.314 | 91.435 | 1.00107.07 | O |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14384 | CB | ILE | B | 761 | 21.703 | 19.912 | 92.542 | 1.00 | 84.98 | C |
| ATOM | 14385 | CG1 | ILE | B | 761 | 20.585 | 19.033 | 93.110 | 1.00 | 84.98 | C |
| ATOM | 14386 | CG2 | ILE | B | 761 | 21.673 | 19.873 | 91.012 | 1.00 | 84.98 | C |
| ATOM | 14387 | CD1 | ILE | B | 761 | 19.225 | 19.255 | 92.448 | 1.00 | 84.98 | C |
| ATOM | 14388 | N | SER | B | 762 | 24.310 | 21.348 | 92.191 | 1.00 | 84.85 | N |
| ATOM | 14389 | CA | SER | B | 762 | 25.305 | 22.017 | 91.357 | 1.00 | 84.85 | C |
| ATOM | 14390 | C | SER | B | 762 | 26.721 | 21.585 | 91.698 | 1.00 | 84.85 | C |
| ATOM | 14391 | O | SER | B | 762 | 27.426 | 21.053 | 90.839 | 1.00 | 84.85 | O |
| ATOM | 14392 | CB | SER | B | 762 | 25.176 | 23.537 | 91.490 | 1.00 | 128.46 | C |
| ATOM | 14393 | OG | SER | B | 762 | 25.919 | 24.202 | 90.484 | 1.00 | 128.46 | O |
| ATOM | 14394 | N | PHE | B | 763 | 27.136 | 21.813 | 92.948 | 1.00 | 101.59 | N |
| ATOM | 14395 | CA | PHE | B | 763 | 28.478 | 21.424 | 93.371 | 1.00 | 101.59 | C |
| ATOM | 14396 | C | PHE | B | 763 | 28.782 | 20.152 | 92.626 | 1.00 | 101.59 | C |
| ATOM | 14397 | O | PHE | B | 763 | 29.824 | 19.982 | 91.983 | 1.00 | 101.59 | O |
| ATOM | 14398 | CB | PHE | B | 763 | 28.527 | 21.140 | 94.868 | 1.00 | 112.55 | C |
| ATOM | 14399 | CG | PHE | B | 763 | 29.858 | 20.632 | 95.327 | 1.00 | 112.55 | C |
| ATOM | 14400 | CD1 | PHE | B | 763 | 29.989 | 19.958 | 96.533 | 1.00 | 112.55 | C |
| ATOM | 14401 | CD2 | PHE | B | 763 | 30.990 | 20.831 | 94.540 | 1.00 | 112.55 | C |
| ATOM | 14402 | CE1 | PHE | B | 763 | 31.233 | 19.487 | 96.948 | 1.00 | 112.55 | C |
| ATOM | 14403 | CE2 | PHE | B | 763 | 32.231 | 20.369 | 94.941 | 1.00 | 112.55 | C |
| ATOM | 14404 | CZ | PHE | B | 763 | 32.357 | 19.695 | 96.148 | 1.00 | 112.55 | C |
| ATOM | 14405 | N | ILE | B | 764 | 27.826 | 19.250 | 92.734 | 1.00 | 106.56 | N |
| ATOM | 14406 | CA | ILE | B | 764 | 27.918 | 17.994 | 92.054 | 1.00 | 106.56 | C |
| ATOM | 14407 | C | ILE | B | 764 | 28.048 | 18.340 | 90.577 | 1.00 | 106.56 | C |
| ATOM | 14408 | O | ILE | B | 764 | 29.153 | 18.270 | 90.025 | 1.00 | 106.56 | O |
| ATOM | 14409 | CB | ILE | B | 764 | 26.653 | 17.133 | 92.282 | 1.00 | 114.70 | C |
| ATOM | 14410 | CG1 | ILE | B | 764 | 26.760 | 16.400 | 93.619 | 1.00 | 114.70 | C |
| ATOM | 14411 | CG2 | ILE | B | 764 | 26.467 | 16.138 | 91.140 | 1.00 | 114.70 | C |
| ATOM | 14412 | CD1 | ILE | B | 764 | 27.888 | 15.381 | 93.675 | 1.00 | 114.70 | C |
| ATOM | 14413 | N | THR | B | 765 | 26.929 | 18.766 | 89.974 | 1.00 | 88.38 | N |
| ATOM | 14414 | CA | THR | B | 765 | 26.839 | 19.063 | 88.543 | 1.00 | 88.38 | C |
| ATOM | 14415 | C | THR | B | 765 | 28.176 | 19.396 | 87.959 | 1.00 | 88.38 | C |
| ATOM | 14416 | O | THR | B | 765 | 28.620 | 18.743 | 87.011 | 1.00 | 88.38 | O |
| ATOM | 14417 | CB | THR | B | 765 | 25.850 | 20.212 | 88.230 | 1.00 | 107.20 | C |
| ATOM | 14418 | OG1 | THR | B | 765 | 25.474 | 20.149 | 86.844 | 1.00 | 107.20 | O |
| ATOM | 14419 | CG2 | THR | B | 765 | 26.482 | 21.567 | 88.528 | 1.00 | 107.20 | C |
| ATOM | 14420 | N | PHE | B | 766 | 28.824 | 20.391 | 88.546 | 1.00 | 170.34 | N |
| ATOM | 14421 | CA | PHE | B | 766 | 30.138 | 20.810 | 88.112 | 1.00 | 170.34 | C |
| ATOM | 14422 | C | PHE | B | 766 | 31.151 | 19.695 | 88.244 | 1.00 | 170.34 | C |
| ATOM | 14423 | O | PHE | B | 766 | 31.601 | 19.121 | 87.249 | 1.00 | 170.34 | O |
| ATOM | 14424 | CB | PHE | B | 766 | 30.636 | 21.969 | 88.959 | 1.00 | 101.23 | C |
| ATOM | 14425 | CG | PHE | B | 766 | 30.114 | 23.291 | 88.533 | 1.00 | 101.23 | C |
| ATOM | 14426 | CD1 | PHE | B | 766 | 28.747 | 23.504 | 88.407 | 1.00 | 101.23 | C |
| ATOM | 14427 | CD2 | PHE | B | 766 | 30.986 | 24.323 | 88.237 | 1.00 | 101.23 | C |
| ATOM | 14428 | CE1 | PHE | B | 766 | 28.246 | 24.734 | 87.987 | 1.00 | 101.23 | C |
| ATOM | 14429 | CE2 | PHE | B | 766 | 30.506 | 25.552 | 87.818 | 1.00 | 101.23 | C |
| ATOM | 14430 | CZ | PHE | B | 766 | 29.125 | 25.763 | 87.690 | 1.00 | 101.23 | C |
| ATOM | 14431 | N | PHE | B | 767 | 31.530 | 19.414 | 89.485 | 1.00 | 97.56 | N |
| ATOM | 14432 | CA | PHE | B | 767 | 32.498 | 18.362 | 89.746 | 1.00 | 97.56 | C |
| ATOM | 14433 | C | PHE | B | 767 | 32.472 | 17.324 | 88.633 | 1.00 | 97.56 | C |
| ATOM | 14434 | O | PHE | B | 767 | 33.443 | 17.153 | 87.897 | 1.00 | 97.56 | O |
| ATOM | 14435 | CB | PHE | B | 767 | 32.173 | 17.714 | 91.088 | 1.00 | 154.23 | C |
| ATOM | 14436 | CG | PHE | B | 767 | 33.133 | 16.646 | 91.491 | 1.00 | 154.23 | C |
| ATOM | 14437 | CD1 | PHE | B | 767 | 34.493 | 16.800 | 91.260 | 1.00 | 154.23 | C |
| ATOM | 14438 | CD2 | PHE | B | 767 | 32.686 | 15.493 | 92.125 | 1.00 | 154.23 | C |
| ATOM | 14439 | CE1 | PHE | B | 767 | 35.396 | 15.823 | 91.654 | 1.00 | 154.23 | C |
| ATOM | 14440 | CE2 | PHE | B | 767 | 33.584 | 14.507 | 92.525 | 1.00 | 154.23 | C |
| ATOM | 14441 | CZ | PHE | B | 767 | 34.943 | 14.674 | 92.288 | 1.00 | 154.23 | C |
| ATOM | 14442 | N | LEU | B | 768 | 31.327 | 16.665 | 88.502 | 1.00 | 113.21 | N |
| ATOM | 14443 | CA | LEU | B | 768 | 31.165 | 15.647 | 87.491 | 1.00 | 113.21 | C |
| ATOM | 14444 | C | LEU | B | 768 | 31.421 | 16.199 | 86.095 | 1.00 | 113.21 | C |
| ATOM | 14445 | O | LEU | B | 768 | 32.467 | 15.921 | 85.499 | 1.00 | 113.21 | O |
| ATOM | 14446 | CB | LEU | B | 768 | 29.766 | 15.026 | 87.596 | 1.00 | 201.11 | C |
| ATOM | 14447 | CG | LEU | B | 768 | 28.688 | 15.299 | 86.546 | 1.00 | 201.11 | C |
| ATOM | 14448 | CD1 | LEU | B | 768 | 29.046 | 14.605 | 85.239 | 1.00 | 201.11 | C |
| ATOM | 14449 | CD2 | LEU | B | 768 | 27.351 | 14.784 | 87.060 | 1.00 | 201.11 | C |
| ATOM | 14450 | N | GLN | B | 769 | 30.502 | 17.003 | 85.576 | 1.00 | 138.23 | N |
| ATOM | 14451 | CA | GLN | B | 769 | 30.669 | 17.521 | 84.227 | 1.00 | 138.23 | C |
| ATOM | 14452 | C | GLN | B | 769 | 32.058 | 18.056 | 83.912 | 1.00 | 138.23 | C |
| ATOM | 14453 | O | GLN | B | 769 | 32.616 | 17.752 | 82.865 | 1.00 | 138.23 | O |
| ATOM | 14454 | CB | GLN | B | 769 | 29.571 | 18.581 | 83.933 | 1.00 | 73.83 | C |
| ATOM | 14455 | CG | GLN | B | 769 | 29.773 | 20.025 | 84.471 | 1.00 | 73.83 | C |
| ATOM | 14456 | CD | GLN | B | 769 | 28.468 | 20.744 | 84.813 | 1.00 | 73.83 | C |
| ATOM | 14457 | OE1 | GLN | B | 769 | 28.171 | 21.822 | 84.288 | 1.00 | 73.83 | O |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14458 | NE2 | GLN | B | 769 | 27.690 | 20.148 | 85.710 | 1.00 | 73.83 | N |
| ATOM | 14459 | N | GLY | B | 770 | 32.631 | 18.828 | 84.823 | 1.00 | 123.37 | N |
| ATOM | 14460 | CA | GLY | B | 770 | 33.952 | 19.364 | 84.574 | 1.00 | 123.37 | C |
| ATOM | 14461 | C | GLY | B | 770 | 34.939 | 18.230 | 84.420 | 1.00 | 123.37 | C |
| ATOM | 14462 | O | GLY | B | 770 | 35.910 | 18.317 | 83.652 | 1.00 | 123.37 | O |
| ATOM | 14463 | N | PHE | B | 771 | 34.675 | 17.154 | 85.153 | 1.00 | 125.47 | N |
| ATOM | 14464 | CA | PHE | B | 771 | 35.532 | 15.987 | 85.119 | 1.00 | 125.47 | C |
| ATOM | 14465 | C | PHE | B | 771 | 35.518 | 15.431 | 83.724 | 1.00 | 125.47 | C |
| ATOM | 14466 | O | PHE | B | 771 | 36.531 | 15.455 | 83.021 | 1.00 | 125.47 | O |
| ATOM | 14467 | CB | PHE | B | 771 | 35.044 | 14.938 | 86.118 | 1.00 | 164.74 | C |
| ATOM | 14468 | CG | PHE | B | 771 | 36.040 | 13.850 | 86.386 | 1.00 | 164.74 | C |
| ATOM | 14469 | CD1 | PHE | B | 771 | 35.833 | 12.942 | 87.417 | 1.00 | 164.74 | C |
| ATOM | 14470 | CD2 | PHE | B | 771 | 37.197 | 13.744 | 85.620 | 1.00 | 164.74 | C |
| ATOM | 14471 | CE1 | PHE | B | 771 | 36.766 | 11.946 | 87.684 | 1.00 | 164.74 | C |
| ATOM | 14472 | CE2 | PHE | B | 771 | 38.136 | 12.753 | 85.877 | 1.00 | 164.74 | C |
| ATOM | 14473 | CZ | PHE | B | 771 | 37.922 | 11.851 | 86.911 | 1.00 | 164.74 | C |
| ATOM | 14474 | N | THR | B | 772 | 34.356 | 14.949 | 83.317 | 1.00 | 61.95 | N |
| ATOM | 14475 | CA | THR | B | 772 | 34.200 | 14.391 | 81.977 | 1.00 | 61.95 | C |
| ATOM | 14476 | C | THR | B | 772 | 34.544 | 15.292 | 80.751 | 1.00 | 61.95 | C |
| ATOM | 14477 | O | THR | B | 772 | 35.504 | 15.006 | 80.002 | 1.00 | 61.95 | O |
| ATOM | 14478 | CB | THR | B | 772 | 32.772 | 13.853 | 81.790 | 1.00 | 112.64 | C |
| ATOM | 14479 | OG1 | THR | B | 772 | 31.857 | 14.950 | 81.722 | 1.00 | 112.64 | O |
| ATOM | 14480 | CG2 | THR | B | 772 | 32.373 | 12.965 | 82.967 | 1.00 | 112.64 | C |
| ATOM | 14481 | N | PHE | B | 773 | 33.768 | 16.362 | 80.527 | 1.00 | 97.64 | N |
| ATOM | 14482 | CA | PHE | B | 773 | 34.003 | 17.282 | 79.389 | 1.00 | 97.64 | C |
| ATOM | 14483 | C | PHE | B | 773 | 35.416 | 17.885 | 79.372 | 1.00 | 97.64 | C |
| ATOM | 14484 | O | PHE | B | 773 | 36.005 | 18.118 | 78.309 | 1.00 | 97.64 | O |
| ATOM | 14485 | CB | PHE | B | 773 | 32.941 | 18.401 | 79.372 | 1.00 | 168.07 | C |
| ATOM | 14486 | CG | PHE | B | 773 | 33.264 | 19.607 | 80.242 | 1.00 | 168.07 | C |
| ATOM | 14487 | CD1 | PHE | B | 773 | 34.343 | 20.442 | 79.945 | 1.00 | 168.07 | C |
| ATOM | 14488 | CD2 | PHE | B | 773 | 32.436 | 19.949 | 81.311 | 1.00 | 168.07 | C |
| ATOM | 14489 | CE1 | PHE | B | 773 | 34.586 | 21.599 | 80.694 | 1.00 | 168.07 | C |
| ATOM | 14490 | CE2 | PHE | B | 773 | 32.672 | 21.103 | 82.065 | 1.00 | 168.07 | C |
| ATOM | 14491 | CZ | PHE | B | 773 | 33.749 | 21.929 | 81.753 | 1.00 | 168.07 | C |
| ATOM | 14492 | N | GLY | B | 774 | 35.952 | 18.156 | 80.560 | 1.00 | 129.27 | N |
| ATOM | 14493 | CA | GLY | B | 774 | 37.290 | 18.702 | 80.627 | 1.00 | 129.27 | C |
| ATOM | 14494 | C | GLY | B | 774 | 38.221 | 17.682 | 80.007 | 1.00 | 129.27 | C |
| ATOM | 14495 | O | GLY | B | 774 | 39.016 | 18.009 | 79.121 | 1.00 | 129.27 | O |
| ATOM | 14496 | N | LYS | B | 775 | 38.097 | 16.433 | 80.462 | 1.00 | 73.71 | N |
| ATOM | 14497 | CA | LYS | B | 775 | 38.940 | 15.350 | 79.958 | 1.00 | 73.71 | C |
| ATOM | 14498 | C | LYS | B | 775 | 38.812 | 15.214 | 78.442 | 1.00 | 73.71 | C |
| ATOM | 14499 | O | LYS | B | 775 | 39.737 | 14.702 | 77.787 | 1.00 | 73.71 | O |
| ATOM | 14500 | CB | LYS | B | 775 | 38.564 | 14.029 | 80.653 | 1.00 | 130.21 | C |
| ATOM | 14501 | CG | LYS | B | 775 | 39.665 | 12.962 | 80.638 | 1.00 | 130.21 | C |
| ATOM | 14502 | CD | LYS | B | 775 | 39.376 | 11.775 | 81.565 | 1.00 | 130.21 | C |
| ATOM | 14503 | CE | LYS | B | 775 | 38.267 | 10.867 | 81.040 | 1.00 | 130.21 | C |
| ATOM | 14504 | NZ | LYS | B | 775 | 36.908 | 11.450 | 81.187 | 1.00 | 130.21 | N |
| ATOM | 14505 | N | ALA | B | 776 | 37.673 | 15.664 | 77.893 | 1.00 | 73.74 | N |
| ATOM | 14506 | CA | ALA | B | 776 | 37.439 | 15.641 | 76.428 | 1.00 | 73.74 | C |
| ATOM | 14507 | C | ALA | B | 776 | 38.317 | 16.715 | 75.816 | 1.00 | 73.74 | C |
| ATOM | 14508 | O | ALA | B | 776 | 38.757 | 16.604 | 74.665 | 1.00 | 73.74 | O |
| ATOM | 14509 | CB | ALA | B | 776 | 35.971 | 15.908 | 76.147 | 1.00 | 61.49 | C |
| ATOM | 14510 | N | GLY | B | 777 | 38.527 | 17.769 | 76.611 | 1.00 | 154.55 | N |
| ATOM | 14511 | CA | GLY | B | 777 | 39.360 | 18.888 | 76.206 | 1.00 | 154.55 | C |
| ATOM | 14512 | C | GLY | B | 777 | 40.806 | 18.447 | 76.219 | 1.00 | 154.55 | C |
| ATOM | 14513 | O | GLY | B | 777 | 41.574 | 18.730 | 75.296 | 1.00 | 154.55 | O |
| ATOM | 14514 | N | GLU | B | 778 | 41.179 | 17.756 | 77.288 | 1.00 | 93.61 | N |
| ATOM | 14515 | CA | GLU | B | 778 | 42.524 | 17.222 | 77.406 | 1.00 | 93.61 | C |
| ATOM | 14516 | C | GLU | B | 778 | 42.811 | 16.429 | 76.124 | 1.00 | 93.61 | C |
| ATOM | 14517 | O | GLU | B | 778 | 43.483 | 16.930 | 75.209 | 1.00 | 93.61 | O |
| ATOM | 14518 | CB | GLU | B | 778 | 42.620 | 16.284 | 78.617 | 1.00 | 204.24 | C |
| ATOM | 14519 | CG | GLU | B | 778 | 42.350 | 16.934 | 79.969 | 1.00 | 204.24 | C |
| ATOM | 14520 | CD | GLU | B | 778 | 42.447 | 15.945 | 81.120 | 1.00 | 204.24 | C |
| ATOM | 14521 | OE1 | GLU | B | 778 | 43.438 | 15.187 | 81.172 | 1.00 | 204.24 | O |
| ATOM | 14522 | OE2 | GLU | B | 778 | 41.538 | 15.934 | 81.978 | 1.00 | 204.24 | O |
| ATOM | 14523 | N | ILE | B | 779 | 42.284 | 15.196 | 76.065 | 1.00 | 84.17 | N |
| ATOM | 14524 | CA | ILE | B | 779 | 42.470 | 14.316 | 74.900 | 1.00 | 84.17 | C |
| ATOM | 14525 | C | ILE | B | 779 | 42.364 | 15.055 | 73.561 | 1.00 | 84.17 | C |
| ATOM | 14526 | O | ILE | B | 779 | 43.331 | 15.146 | 72.810 | 1.00 | 84.17 | O |
| ATOM | 14527 | CB | ILE | B | 779 | 41.452 | 13.141 | 74.871 | 1.00 | 125.82 | C |
| ATOM | 14528 | CG1 | ILE | B | 779 | 40.042 | 13.668 | 74.595 | 1.00 | 125.82 | C |
| ATOM | 14529 | CG2 | ILE | B | 779 | 41.489 | 12.377 | 76.189 | 1.00 | 125.82 | C |
| ATOM | 14530 | CD1 | ILE | B | 779 | 39.142 | 12.661 | 73.892 | 1.00 | 125.82 | C |
| ATOM | 14531 | N | LEU | B | 780 | 41.182 | 15.584 | 73.275 | 1.00 | 74.77 | N |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14532 | CA | LEU | B | 780 | 40.958 | 16.287 | 72.034 | 1.00 | 74.77 | C |
| ATOM | 14533 | C | LEU | B | 780 | 42.184 | 17.072 | 71.641 | 1.00 | 74.77 | C |
| ATOM | 14534 | O | LEU | B | 780 | 42.680 | 16.922 | 70.536 | 1.00 | 74.77 | O |
| ATOM | 14535 | CB | LEU | B | 780 | 39.745 | 17.201 | 72.171 | 1.00 | 118.86 | C |
| ATOM | 14536 | CG | LEU | B | 780 | 38.621 | 16.757 | 71.235 | 1.00 | 118.86 | C |
| ATOM | 14537 | CD1 | LEU | B | 780 | 37.287 | 16.828 | 71.935 | 1.00 | 118.86 | C |
| ATOM | 14538 | CD2 | LEU | B | 780 | 38.631 | 17.619 | 69.992 | 1.00 | 118.86 | C |
| ATOM | 14539 | N | THR | B | 781 | 42.684 | 17.884 | 72.571 | 1.00 | 119.57 | N |
| ATOM | 14540 | CA | THR | B | 781 | 43.865 | 18.721 | 72.348 | 1.00 | 119.57 | C |
| ATOM | 14541 | C | THR | B | 781 | 45.131 | 17.920 | 72.042 | 1.00 | 119.57 | C |
| ATOM | 14542 | O | THR | B | 781 | 45.886 | 18.258 | 71.133 | 1.00 | 119.57 | O |
| ATOM | 14543 | CB | THR | B | 781 | 44.129 | 19.630 | 73.578 | 1.00 | 83.34 | C |
| ATOM | 14544 | OG1 | THR | B | 781 | 43.470 | 20.885 | 73.377 | 1.00 | 83.34 | O |
| ATOM | 14545 | CG2 | THR | B | 781 | 45.627 | 19.850 | 73.808 | 1.00 | 83.34 | C |
| ATOM | 14546 | N | LYS | B | 782 | 45.359 | 16.862 | 72.808 | 1.00 | 100.49 | N |
| ATOM | 14547 | CA | LYS | B | 782 | 46.544 | 16.030 | 72.617 | 1.00 | 100.49 | C |
| ATOM | 14548 | C | LYS | B | 782 | 46.501 | 15.241 | 71.314 | 1.00 | 100.49 | C |
| ATOM | 14549 | O | LYS | B | 782 | 47.289 | 15.485 | 70.401 | 1.00 | 100.49 | O |
| ATOM | 14550 | CB | LYS | B | 782 | 46.704 | 15.097 | 73.817 | 1.00 | 144.86 | C |
| ATOM | 14551 | CG | LYS | B | 782 | 46.986 | 15.848 | 75.115 | 1.00 | 144.86 | C |
| ATOM | 14552 | CD | LYS | B | 782 | 46.939 | 14.936 | 76.329 | 1.00 | 144.86 | C |
| ATOM | 14553 | CE | LYS | B | 782 | 45.524 | 14.454 | 76.622 | 1.00 | 144.86 | C |
| ATOM | 14554 | NZ | LYS | B | 782 | 45.467 | 13.631 | 77.863 | 1.00 | 144.86 | N |
| ATOM | 14555 | N | ARG | B | 783 | 45.587 | 14.286 | 71.231 | 1.00 | 111.49 | N |
| ATOM | 14556 | CA | ARG | B | 783 | 45.439 | 13.500 | 70.024 | 1.00 | 111.49 | C |
| ATOM | 14557 | C | ARG | B | 783 | 45.341 | 14.493 | 68.854 | 1.00 | 111.49 | C |
| ATOM | 14558 | O | ARG | B | 783 | 45.585 | 14.142 | 67.705 | 1.00 | 111.49 | O |
| ATOM | 14559 | CB | ARG | B | 783 | 44.164 | 12.645 | 70.148 | 1.00 | 152.98 | C |
| ATOM | 14560 | CG | ARG | B | 783 | 43.549 | 12.131 | 68.852 | 1.00 | 152.98 | C |
| ATOM | 14561 | CD | ARG | B | 783 | 42.681 | 10.892 | 69.101 | 1.00 | 152.98 | C |
| ATOM | 14562 | NE | ARG | B | 783 | 41.645 | 11.080 | 70.118 | 1.00 | 152.98 | N |
| ATOM | 14563 | CZ | ARG | B | 783 | 40.397 | 11.469 | 69.864 | 1.00 | 152.98 | C |
| ATOM | 14564 | NH1 | ARG | B | 783 | 40.012 | 11.720 | 68.617 | 1.00 | 152.98 | N |
| ATOM | 14565 | NH2 | ARG | B | 783 | 39.524 | 11.593 | 70.859 | 1.00 | 152.98 | N |
| ATOM | 14566 | N | LEU | B | 784 | 45.032 | 15.753 | 69.145 | 1.00 | 63.44 | N |
| ATOM | 14567 | CA | LEU | B | 784 | 44.942 | 16.754 | 68.081 | 1.00 | 63.44 | C |
| ATOM | 14568 | C | LEU | B | 784 | 46.311 | 17.295 | 67.700 | 1.00 | 63.44 | C |
| ATOM | 14569 | O | LEU | B | 784 | 46.647 | 17.285 | 66.514 | 1.00 | 63.44 | O |
| ATOM | 14570 | CB | LEU | B | 784 | 44.049 | 17.919 | 68.527 | 1.00 | 97.70 | C |
| ATOM | 14571 | CG | LEU | B | 784 | 42.922 | 18.419 | 67.611 | 1.00 | 97.70 | C |
| ATOM | 14572 | CD1 | LEU | B | 784 | 43.226 | 18.134 | 66.144 | 1.00 | 97.70 | C |
| ATOM | 14573 | CD2 | LEU | B | 784 | 41.637 | 17.727 | 68.004 | 1.00 | 97.70 | C |
| ATOM | 14574 | N | ARG | B | 785 | 47.076 | 17.796 | 68.691 | 1.00 | 207.38 | N |
| ATOM | 14575 | CA | ARG | B | 785 | 48.438 | 18.350 | 68.461 | 1.00 | 207.38 | C |
| ATOM | 14576 | C | ARG | B | 785 | 49.192 | 17.333 | 67.590 | 1.00 | 207.38 | C |
| ATOM | 14577 | O | ARG | B | 785 | 49.889 | 17.685 | 66.626 | 1.00 | 207.38 | O |
| ATOM | 14578 | CB | ARG | B | 785 | 49.228 | 18.569 | 69.783 | 1.00 | 154.50 | C |
| ATOM | 14579 | CG | ARG | B | 785 | 48.939 | 19.876 | 70.585 | 1.00 | 154.50 | C |
| ATOM | 14580 | CD | ARG | B | 785 | 50.251 | 20.600 | 71.062 | 1.00 | 154.50 | C |
| ATOM | 14581 | NE | ARG | B | 785 | 50.102 | 21.391 | 72.296 | 1.00 | 154.50 | N |
| ATOM | 14582 | CZ | ARG | B | 785 | 51.018 | 22.230 | 72.789 | 1.00 | 154.50 | C |
| ATOM | 14583 | NH1 | ARG | B | 785 | 52.172 | 22.414 | 72.163 | 1.00 | 154.50 | N |
| ATOM | 14584 | NH2 | ARG | B | 785 | 50.784 | 22.882 | 73.923 | 1.00 | 154.50 | N |
| ATOM | 14585 | N | TYR | B | 786 | 49.025 | 16.066 | 67.956 | 1.00 | 90.49 | N |
| ATOM | 14586 | CA | TYR | B | 786 | 49.628 | 14.953 | 67.254 | 1.00 | 90.49 | C |
| ATOM | 14587 | C | TYR | B | 786 | 49.116 | 14.995 | 65.793 | 1.00 | 90.49 | C |
| ATOM | 14588 | O | TYR | B | 786 | 49.891 | 15.363 | 64.903 | 1.00 | 90.49 | O |
| ATOM | 14589 | CB | TYR | B | 786 | 49.220 | 13.647 | 67.951 | 1.00 | 203.36 | C |
| ATOM | 14590 | CG | TYR | B | 786 | 50.009 | 12.407 | 67.574 | 1.00 | 203.36 | C |
| ATOM | 14591 | CD1 | TYR | B | 786 | 49.711 | 11.175 | 68.158 | 1.00 | 203.36 | C |
| ATOM | 14592 | CD2 | TYR | B | 786 | 51.024 | 12.452 | 66.617 | 1.00 | 203.36 | C |
| ATOM | 14593 | CE1 | TYR | B | 786 | 50.396 | 10.018 | 67.796 | 1.00 | 203.36 | C |
| ATOM | 14594 | CE2 | TYR | B | 786 | 51.717 | 11.298 | 66.248 | 1.00 | 203.36 | C |
| ATOM | 14595 | CZ | TYR | B | 786 | 51.395 | 10.086 | 66.838 | 1.00 | 203.36 | C |
| ATOM | 14596 | OH | TYR | B | 786 | 52.053 | 8.941 | 66.453 | 1.00 | 203.36 | O |
| ATOM | 14597 | N | MET | B | 787 | 47.825 | 14.669 | 65.557 | 1.00 | 76.88 | N |
| ATOM | 14598 | CA | MET | B | 787 | 47.207 | 14.647 | 64.202 | 1.00 | 76.88 | C |
| ATOM | 14599 | C | MET | B | 787 | 47.703 | 15.727 | 63.303 | 1.00 | 76.88 | C |
| ATOM | 14600 | O | MET | B | 787 | 48.065 | 15.459 | 62.177 | 1.00 | 76.88 | O |
| ATOM | 14601 | CB | MET | B | 787 | 45.686 | 14.739 | 64.304 | 1.00 | 114.45 | C |
| ATOM | 14602 | CG | MET | B | 787 | 45.011 | 13.456 | 64.748 | 1.00 | 114.45 | C |
| ATOM | 14603 | SD | MET | B | 787 | 43.410 | 13.257 | 63.950 | 1.00 | 114.45 | S |
| ATOM | 14604 | CE | MET | B | 787 | 43.850 | 12.205 | 62.574 | 1.00 | 114.45 | C |
| ATOM | 14605 | N | VAL | B | 788 | 47.719 | 16.953 | 63.816 | 1.00 | 91.85 | N |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14606 | CA | VAL | B | 788 | 48.207 | 18.125 | 63.089 | 1.00 | 91.85 | C |
| ATOM | 14607 | C | VAL | B | 788 | 49.690 | 18.123 | 62.805 | 1.00 | 91.85 | C |
| ATOM | 14608 | O | VAL | B | 788 | 50.118 | 18.395 | 61.683 | 1.00 | 91.85 | O |
| ATOM | 14609 | CB | VAL | B | 788 | 47.945 | 19.432 | 63.871 | 1.00 | 60.33 | C |
| ATOM | 14610 | CG1 | VAL | B | 788 | 48.584 | 20.610 | 63.143 | 1.00 | 60.33 | C |
| ATOM | 14611 | CG2 | VAL | B | 788 | 46.450 | 19.640 | 64.063 | 1.00 | 60.33 | C |
| ATOM | 14612 | N | PHE | B | 789 | 50.489 | 17.891 | 63.836 | 1.00 | 71.86 | N |
| ATOM | 14613 | CA | PHE | B | 789 | 51.921 | 17.853 | 63.606 | 1.00 | 71.86 | C |
| ATOM | 14614 | C | PHE | B | 789 | 52.250 | 16.892 | 62.463 | 1.00 | 71.86 | C |
| ATOM | 14615 | O | PHE | B | 789 | 52.816 | 17.322 | 61.461 | 1.00 | 71.86 | O |
| ATOM | 14616 | CB | PHE | B | 789 | 52.657 | 17.433 | 64.866 | 1.00 | 80.60 | C |
| ATOM | 14617 | CG | PHE | B | 789 | 54.142 | 17.613 | 64.769 | 1.00 | 80.60 | C |
| ATOM | 14618 | CD1 | PHE | B | 789 | 54.912 | 17.825 | 65.910 | 1.00 | 80.60 | C |
| ATOM | 14619 | CD2 | PHE | B | 789 | 54.775 | 17.590 | 63.526 | 1.00 | 80.60 | C |
| ATOM | 14620 | CE1 | PHE | B | 789 | 56.304 | 18.020 | 65.815 | 1.00 | 80.60 | C |
| ATOM | 14621 | CE2 | PHE | B | 789 | 56.156 | 17.780 | 63.410 | 1.00 | 80.60 | C |
| ATOM | 14622 | CZ | PHE | B | 789 | 56.928 | 17.998 | 64.558 | 1.00 | 80.60 | C |
| ATOM | 14623 | N | LYS | B | 790 | 51.895 | 15.608 | 62.603 | 1.00 | 106.07 | N |
| ATOM | 14624 | CA | LYS | B | 790 | 52.177 | 14.616 | 61.555 | 1.00 | 106.07 | C |
| ATOM | 14625 | C | LYS | B | 790 | 51.601 | 15.049 | 60.222 | 1.00 | 106.07 | C |
| ATOM | 14626 | O | LYS | B | 790 | 52.146 | 14.716 | 59.182 | 1.00 | 106.07 | O |
| ATOM | 14627 | CB | LYS | B | 790 | 51.625 | 13.244 | 61.951 | 1.00 | 132.36 | C |
| ATOM | 14628 | CG | LYS | B | 790 | 52.236 | 12.669 | 63.225 | 1.00 | 132.36 | C |
| ATOM | 14629 | CD | LYS | B | 790 | 53.760 | 12.685 | 63.181 | 1.00 | 132.36 | C |
| ATOM | 14630 | CE | LYS | B | 790 | 54.346 | 12.110 | 64.453 | 1.00 | 132.36 | C |
| ATOM | 14631 | NZ | LYS | B | 790 | 53.866 | 10.720 | 64.672 | 1.00 | 132.36 | N |
| ATOM | 14632 | N | SER | B | 791 | 50.493 | 15.784 | 60.251 | 1.00 | 86.77 | N |
| ATOM | 14633 | CA | SER | B | 791 | 49.915 | 16.307 | 59.013 | 1.00 | 86.77 | C |
| ATOM | 14634 | C | SER | B | 791 | 50.980 | 17.147 | 58.348 | 1.00 | 86.77 | C |
| ATOM | 14635 | O | SER | B | 791 | 51.101 | 17.087 | 57.137 | 1.00 | 86.77 | O |
| ATOM | 14636 | CB | SER | B | 791 | 48.711 | 17.209 | 59.314 | 1.00 | 178.40 | C |
| ATOM | 14637 | OG | SER | B | 791 | 47.650 | 16.506 | 59.934 | 1.00 | 178.40 | O |
| ATOM | 14638 | N | MET | B | 792 | 51.717 | 17.938 | 59.150 | 1.00 | 102.39 | N |
| ATOM | 14639 | CA | MET | B | 792 | 52.803 | 18.834 | 58.685 | 1.00 | 102.39 | C |
| ATOM | 14640 | C | MET | B | 792 | 54.026 | 18.065 | 58.230 | 1.00 | 102.39 | C |
| ATOM | 14641 | O | MET | B | 792 | 54.536 | 18.273 | 57.133 | 1.00 | 102.39 | O |
| ATOM | 14642 | CB | MET | B | 792 | 53.243 | 19.765 | 59.820 | 1.00 | 73.98 | C |
| ATOM | 14643 | CG | MET | B | 792 | 52.194 | 20.702 | 60.371 | 1.00 | 73.98 | C |
| ATOM | 14644 | SD | MET | B | 792 | 52.719 | 21.322 | 61.980 | 1.00 | 73.98 | S |
| ATOM | 14645 | CE | MET | B | 792 | 53.254 | 22.986 | 61.529 | 1.00 | 73.98 | C |
| ATOM | 14646 | N | LEU | B | 793 | 54.518 | 17.201 | 59.111 | 1.00 | 137.04 | N |
| ATOM | 14647 | CA | LEU | B | 793 | 55.684 | 16.376 | 58.823 | 1.00 | 137.04 | C |
| ATOM | 14648 | C | LEU | B | 793 | 55.437 | 15.751 | 57.446 | 1.00 | 137.04 | C |
| ATOM | 14649 | O | LEU | B | 793 | 56.221 | 15.924 | 56.499 | 1.00 | 137.04 | O |
| ATOM | 14650 | CB | LEU | B | 793 | 55.819 | 15.286 | 59.888 | 1.00 | 102.12 | C |
| ATOM | 14651 | CG | LEU | B | 793 | 57.221 | 14.763 | 60.210 | 1.00 | 102.12 | C |
| ATOM | 14652 | CD1 | LEU | B | 793 | 57.718 | 13.876 | 59.089 | 1.00 | 102.12 | C |
| ATOM | 14653 | CD2 | LEU | B | 793 | 58.164 | 15.936 | 60.442 | 1.00 | 102.12 | C |
| ATOM | 14654 | N | ARG | B | 794 | 54.320 | 15.044 | 57.336 | 1.00 | 157.17 | N |
| ATOM | 14655 | CA | ARG | B | 794 | 53.949 | 14.418 | 56.078 | 1.00 | 157.17 | C |
| ATOM | 14656 | C | ARG | B | 794 | 53.794 | 15.495 | 54.992 | 1.00 | 157.17 | C |
| ATOM | 14657 | O | ARG | B | 794 | 54.308 | 15.331 | 53.897 | 1.00 | 157.17 | O |
| ATOM | 14658 | CB | ARG | B | 794 | 52.673 | 13.595 | 56.275 | 1.00 | 169.49 | C |
| ATOM | 14659 | CG | ARG | B | 794 | 52.950 | 12.332 | 57.093 | 1.00 | 169.49 | C |
| ATOM | 14660 | CD | ARG | B | 794 | 51.690 | 11.717 | 57.672 | 1.00 | 169.49 | C |
| ATOM | 14661 | NE | ARG | B | 794 | 51.084 | 12.577 | 58.684 | 1.00 | 169.49 | N |
| ATOM | 14662 | CZ | ARG | B | 794 | 50.014 | 12.248 | 59.399 | 1.00 | 169.49 | C |
| ATOM | 14663 | NH1 | ARG | B | 794 | 49.432 | 11.073 | 59.214 | 1.00 | 169.49 | N |
| ATOM | 14664 | NH2 | ARG | B | 794 | 49.524 | 13.093 | 60.293 | 1.00 | 169.49 | N |
| ATOM | 14665 | N | GLN | B | 795 | 53.121 | 16.607 | 55.286 | 1.00 | 147.14 | N |
| ATOM | 14666 | CA | GLN | B | 795 | 52.970 | 17.740 | 54.300 | 1.00 | 147.14 | C |
| ATOM | 14667 | C | GLN | B | 795 | 54.409 | 18.225 | 53.888 | 1.00 | 147.14 | C |
| ATOM | 14668 | O | GLN | B | 795 | 55.313 | 17.578 | 54.339 | 1.00 | 147.14 | O |
| ATOM | 14669 | CB | GLN | B | 795 | 52.262 | 18.894 | 55.005 | 1.00 | 127.73 | C |
| ATOM | 14670 | CG | GLN | B | 795 | 50.784 | 18.971 | 54.768 | 1.00 | 127.73 | C |
| ATOM | 14671 | CD | GLN | B | 795 | 50.465 | 19.731 | 53.509 | 1.00 | 127.73 | C |
| ATOM | 14672 | OE1 | GLN | B | 795 | 49.303 | 19.842 | 53.110 | 1.00 | 127.73 | O |
| ATOM | 14673 | NE2 | GLN | B | 795 | 51.500 | 20.272 | 52.873 | 1.00 | 127.73 | N |
| ATOM | 14674 | N | ASP | B | 796 | 54.631 | 19.299 | 53.156 | 1.00 | 122.90 | N |
| ATOM | 14675 | CA | ASP | B | 796 | 56.033 | 19.616 | 52.917 | 1.00 | 122.90 | C |
| ATOM | 14676 | C | ASP | B | 796 | 56.337 | 20.362 | 51.640 | 1.00 | 122.90 | C |
| ATOM | 14677 | O | ASP | B | 796 | 57.071 | 21.346 | 51.667 | 1.00 | 122.90 | O |
| ATOM | 14678 | CB | ASP | B | 796 | 56.883 | 18.337 | 52.957 | 1.00 | 207.38 | C |
| ATOM | 14679 | CG | ASP | B | 796 | 56.355 | 17.254 | 52.032 | 1.00 | 207.38 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 14680 | OD1 | ASP | B | 796 | 56.963 | 16.163 | 51.982 | 1.00207.38 | O |
| ATOM | 14681 | OD2 | ASP | B | 796 | 55.331 | 17.490 | 51.358 | 1.00207.38 | O |
| ATOM | 14682 | N | VAL | B | 797 | 55.783 | 19.891 | 50.531 | 1.00119.89 | N |
| ATOM | 14683 | CA | VAL | B | 797 | 55.995 | 20.517 | 49.219 | 1.00119.89 | C |
| ATOM | 14684 | C | VAL | B | 797 | 56.075 | 22.040 | 49.407 | 1.00119.89 | C |
| ATOM | 14685 | O | VAL | B | 797 | 56.411 | 22.511 | 50.497 | 1.00119.89 | O |
| ATOM | 14686 | CB | VAL | B | 797 | 54.827 | 20.205 | 48.260 | 1.00105.10 | C |
| ATOM | 14687 | CG1 | VAL | B | 797 | 55.193 | 20.591 | 46.837 | 1.00105.10 | C |
| ATOM | 14688 | CG2 | VAL | B | 797 | 54.460 | 18.734 | 48.350 | 1.00105.10 | C |
| ATOM | 14689 | N | SER | B | 798 | 55.793 | 22.818 | 48.355 | 1.00149.78 | N |
| ATOM | 14690 | CA | SER | B | 798 | 55.797 | 24.269 | 48.537 | 1.00149.78 | C |
| ATOM | 14691 | C | SER | B | 798 | 55.224 | 24.808 | 49.849 | 1.00149.78 | C |
| ATOM | 14692 | O | SER | B | 798 | 55.085 | 26.015 | 49.990 | 1.00149.78 | O |
| ATOM | 14693 | CB | SER | B | 798 | 55.089 | 24.943 | 47.356 | 1.00143.95 | C |
| ATOM | 14694 | OG | SER | B | 798 | 55.900 | 24.917 | 46.194 | 1.00143.95 | O |
| ATOM | 14695 | N | TRP | B | 799 | 54.876 | 23.939 | 50.797 | 1.00136.58 | N |
| ATOM | 14696 | CA | TRP | B | 799 | 54.367 | 24.397 | 52.090 | 1.00136.58 | C |
| ATOM | 14697 | C | TRP | B | 799 | 55.525 | 25.244 | 52.557 | 1.00136.58 | C |
| ATOM | 14698 | O | TRP | B | 799 | 55.485 | 26.462 | 52.403 | 1.00136.58 | O |
| ATOM | 14699 | CB | TRP | B | 799 | 54.175 | 23.215 | 53.039 | 1.00108.00 | C |
| ATOM | 14700 | CG | TRP | B | 799 | 53.253 | 23.495 | 54.195 | 1.00108.00 | C |
| ATOM | 14701 | CD1 | TRP | B | 799 | 53.411 | 23.079 | 55.484 | 1.00108.00 | C |
| ATOM | 14702 | CD2 | TRP | B | 799 | 51.988 | 24.167 | 54.143 | 1.00108.00 | C |
| ATOM | 14703 | NE1 | TRP | B | 799 | 52.324 | 23.441 | 56.238 | 1.00108.00 | N |
| ATOM | 14704 | CE2 | TRP | B | 799 | 51.434 | 24.110 | 55.441 | 1.00108.00 | C |
| ATOM | 14705 | CE3 | TRP | B | 799 | 51.267 | 24.807 | 53.128 | 1.00108.00 | C |
| ATOM | 14706 | CZ2 | TRP | B | 799 | 50.187 | 24.666 | 55.752 | 1.00108.00 | C |
| ATOM | 14707 | CZ3 | TRP | B | 799 | 50.021 | 25.362 | 53.438 | 1.00108.00 | C |
| ATOM | 14708 | CH2 | TRP | B | 799 | 49.498 | 25.285 | 54.741 | 1.00108.00 | C |
| ATOM | 14709 | N | PHE | B | 800 | 56.571 | 24.614 | 53.101 | 1.00 89.23 | N |
| ATOM | 14710 | CA | PHE | B | 800 | 57.728 | 25.395 | 53.514 | 1.00 89.23 | C |
| ATOM | 14711 | C | PHE | B | 800 | 58.571 | 25.549 | 52.297 | 1.00 89.23 | C |
| ATOM | 14712 | O | PHE | B | 800 | 59.431 | 26.428 | 52.263 | 1.00 89.23 | O |
| ATOM | 14713 | CB | PHE | B | 800 | 58.631 | 24.758 | 54.583 | 1.00 75.21 | C |
| ATOM | 14714 | CG | PHE | B | 800 | 58.064 | 23.564 | 55.263 | 1.00 75.21 | C |
| ATOM | 14715 | CD1 | PHE | B | 800 | 56.772 | 23.574 | 55.760 | 1.00 75.21 | C |
| ATOM | 14716 | CD2 | PHE | B | 800 | 58.871 | 22.454 | 55.493 | 1.00 75.21 | C |
| ATOM | 14717 | CE1 | PHE | B | 800 | 56.285 | 22.498 | 56.486 | 1.00 75.21 | C |
| ATOM | 14718 | CE2 | PHE | B | 800 | 58.399 | 21.374 | 56.217 | 1.00 75.21 | C |
| ATOM | 14719 | CZ | PHE | B | 800 | 57.102 | 21.394 | 56.718 | 1.00 75.21 | C |
| ATOM | 14720 | N | ASP | B | 801 | 58.344 | 24.693 | 51.299 | 1.00144.95 | N |
| ATOM | 14721 | CA | ASP | B | 801 | 59.147 | 24.742 | 50.078 | 1.00144.95 | C |
| ATOM | 14722 | C | ASP | B | 801 | 59.060 | 26.091 | 49.391 | 1.00144.95 | C |
| ATOM | 14723 | O | ASP | B | 801 | 59.942 | 26.463 | 48.611 | 1.00144.95 | O |
| ATOM | 14724 | CB | ASP | B | 801 | 58.791 | 23.588 | 49.131 | 1.00 99.59 | C |
| ATOM | 14725 | CG | ASP | B | 801 | 59.297 | 22.245 | 49.631 | 1.00 99.59 | C |
| ATOM | 14726 | OD1 | ASP | B | 801 | 58.698 | 21.692 | 50.585 | 1.00 99.59 | O |
| ATOM | 14727 | OD2 | ASP | B | 801 | 60.297 | 21.760 | 49.058 | 1.00 99.59 | O |
| ATOM | 14728 | N | ASP | B | 802 | 57.988 | 26.815 | 49.709 | 1.00207.38 | N |
| ATOM | 14729 | CA | ASP | B | 802 | 57.722 | 28.186 | 49.239 | 1.00207.38 | C |
| ATOM | 14730 | C | ASP | B | 802 | 56.507 | 28.614 | 50.082 | 1.00207.38 | C |
| ATOM | 14731 | O | ASP | B | 802 | 55.351 | 28.553 | 49.636 | 1.00207.38 | O |
| ATOM | 14732 | CB | ASP | B | 802 | 57.392 | 28.238 | 47.743 | 1.00207.38 | C |
| ATOM | 14733 | CG | ASP | B | 802 | 57.572 | 29.641 | 47.154 | 1.00207.38 | C |
| ATOM | 14734 | OD1 | ASP | B | 802 | 58.725 | 30.127 | 47.098 | 1.00207.38 | O |
| ATOM | 14735 | OD2 | ASP | B | 802 | 56.566 | 30.268 | 46.756 | 1.00207.38 | O |
| ATOM | 14736 | N | PRO | B | 803 | 56.767 | 29.021 | 51.338 | 1.00173.36 | N |
| ATOM | 14737 | CA | PRO | B | 803 | 55.746 | 29.455 | 52.284 | 1.00173.36 | C |
| ATOM | 14738 | C | PRO | B | 803 | 55.521 | 30.941 | 52.493 | 1.00173.36 | C |
| ATOM | 14739 | O | PRO | B | 803 | 55.772 | 31.796 | 51.647 | 1.00173.36 | O |
| ATOM | 14740 | CB | PRO | B | 803 | 56.201 | 28.781 | 53.563 | 1.00127.73 | C |
| ATOM | 14741 | CG | PRO | B | 803 | 57.682 | 29.054 | 53.506 | 1.00127.73 | C |
| ATOM | 14742 | CD | PRO | B | 803 | 58.035 | 28.754 | 52.046 | 1.00127.73 | C |
| ATOM | 14743 | N | LYS | B | 804 | 55.043 | 31.194 | 53.697 | 1.00147.61 | N |
| ATOM | 14744 | CA | LYS | B | 804 | 54.693 | 32.487 | 54.216 | 1.00147.61 | C |
| ATOM | 14745 | C | LYS | B | 804 | 54.021 | 32.006 | 55.496 | 1.00147.61 | C |
| ATOM | 14746 | O | LYS | B | 804 | 53.163 | 32.679 | 56.058 | 1.00147.61 | O |
| ATOM | 14747 | CB | LYS | B | 804 | 53.678 | 33.171 | 53.294 | 1.00100.96 | C |
| ATOM | 14748 | CG | LYS | B | 804 | 52.648 | 32.226 | 52.665 | 1.00100.96 | C |
| ATOM | 14749 | CD | LYS | B | 804 | 52.975 | 31.930 | 51.205 | 1.00100.96 | C |
| ATOM | 14750 | CE | LYS | B | 804 | 52.094 | 30.825 | 50.635 | 1.00100.96 | C |
| ATOM | 14751 | NZ | LYS | B | 804 | 52.531 | 29.458 | 51.047 | 1.00100.96 | N |
| ATOM | 14752 | N | ASN | B | 805 | 54.416 | 30.794 | 55.906 | 1.00 98.80 | N |
| ATOM | 14753 | CA | ASN | B | 805 | 53.932 | 30.123 | 57.112 | 1.00 98.80 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14754 | C | ASN | B | 805 | 55.164 | 29.877 | 57.951 | 1.00 | 98.80 | C |
| ATOM | 14755 | O | ASN | B | 805 | 55.583 | 28.740 | 58.115 | 1.00 | 98.80 | O |
| ATOM | 14756 | CB | ASN | B | 805 | 53.308 | 28.760 | 56.791 | 1.00 | 162.43 | C |
| ATOM | 14757 | CG | ASN | B | 805 | 52.211 | 28.839 | 55.758 | 1.00 | 162.43 | C |
| ATOM | 14758 | OD1 | ASN | B | 805 | 51.260 | 29.605 | 55.900 | 1.00 | 162.43 | O |
| ATOM | 14759 | ND2 | ASN | B | 805 | 52.329 | 28.030 | 54.712 | 1.00 | 162.43 | N |
| ATOM | 14760 | N | THR | B | 806 | 55.752 | 30.950 | 58.458 | 1.00 | 71.37 | N |
| ATOM | 14761 | CA | THR | B | 806 | 56.940 | 30.878 | 59.287 | 1.00 | 71.37 | C |
| ATOM | 14762 | C | THR | B | 806 | 56.881 | 29.845 | 60.406 | 1.00 | 71.37 | C |
| ATOM | 14763 | O | THR | B | 806 | 55.808 | 29.356 | 60.784 | 1.00 | 71.37 | O |
| ATOM | 14764 | CB | THR | B | 806 | 57.225 | 32.251 | 59.928 | 1.00 | 122.85 | C |
| ATOM | 14765 | OG1 | THR | B | 806 | 58.035 | 32.087 | 61.098 | 1.00 | 122.85 | O |
| ATOM | 14766 | CG2 | THR | B | 806 | 55.929 | 32.919 | 60.317 | 1.00 | 122.85 | C |
| ATOM | 14767 | N | THR | B | 807 | 58.050 | 29.528 | 60.944 | 1.00 | 120.30 | N |
| ATOM | 14768 | CA | THR | B | 807 | 58.162 | 28.571 | 62.043 | 1.00 | 120.30 | C |
| ATOM | 14769 | C | THR | B | 807 | 57.136 | 28.885 | 63.167 | 1.00 | 120.30 | C |
| ATOM | 14770 | O | THR | B | 807 | 56.367 | 28.022 | 63.619 | 1.00 | 120.30 | O |
| ATOM | 14771 | CB | THR | B | 807 | 59.583 | 28.603 | 62.640 | 1.00 | 134.15 | C |
| ATOM | 14772 | OG1 | THR | B | 807 | 60.540 | 28.402 | 61.593 | 1.00 | 134.15 | O |
| ATOM | 14773 | CG2 | THR | B | 807 | 59.757 | 27.512 | 63.682 | 1.00 | 134.15 | C |
| ATOM | 14774 | N | GLY | B | 808 | 57.137 | 30.132 | 63.621 | 1.00 | 100.44 | N |
| ATOM | 14775 | CA | GLY | B | 808 | 56.209 | 30.534 | 64.658 | 1.00 | 100.44 | C |
| ATOM | 14776 | C | GLY | B | 808 | 54.806 | 30.188 | 64.219 | 1.00 | 100.44 | C |
| ATOM | 14777 | O | GLY | B | 808 | 54.196 | 29.297 | 64.787 | 1.00 | 100.44 | O |
| ATOM | 14778 | N | ALA | B | 809 | 54.314 | 30.888 | 63.197 | 1.00 | 186.92 | N |
| ATOM | 14779 | CA | ALA | B | 809 | 52.979 | 30.659 | 62.669 | 1.00 | 186.92 | C |
| ATOM | 14780 | C | ALA | B | 809 | 52.621 | 29.206 | 62.885 | 1.00 | 186.92 | C |
| ATOM | 14781 | O | ALA | B | 809 | 51.475 | 28.876 | 63.200 | 1.00 | 186.92 | O |
| ATOM | 14782 | CB | ALA | B | 809 | 52.938 | 30.998 | 61.188 | 1.00 | 146.22 | C |
| ATOM | 14783 | N | LEU | B | 810 | 53.619 | 28.337 | 62.743 | 1.00 | 110.80 | N |
| ATOM | 14784 | CA | LEU | B | 810 | 53.375 | 26.914 | 62.921 | 1.00 | 110.80 | C |
| ATOM | 14785 | C | LEU | B | 810 | 53.356 | 26.447 | 64.366 | 1.00 | 110.80 | C |
| ATOM | 14786 | O | LEU | B | 810 | 52.399 | 25.788 | 64.789 | 1.00 | 110.80 | O |
| ATOM | 14787 | CB | LEU | B | 810 | 54.387 | 26.132 | 62.096 | 1.00 | 63.70 | C |
| ATOM | 14788 | CG | LEU | B | 810 | 54.135 | 26.412 | 60.609 | 1.00 | 63.70 | C |
| ATOM | 14789 | CD1 | LEU | B | 810 | 55.240 | 25.855 | 59.748 | 1.00 | 63.70 | C |
| ATOM | 14790 | CD2 | LEU | B | 810 | 52.788 | 25.818 | 60.215 | 1.00 | 63.70 | C |
| ATOM | 14791 | N | THR | B | 811 | 54.394 | 26.771 | 65.129 | 1.00 | 107.65 | N |
| ATOM | 14792 | CA | THR | B | 811 | 54.407 | 26.383 | 66.534 | 1.00 | 107.65 | C |
| ATOM | 14793 | C | THR | B | 811 | 53.064 | 26.904 | 67.083 | 1.00 | 107.65 | C |
| ATOM | 14794 | O | THR | B | 811 | 52.300 | 26.187 | 67.764 | 1.00 | 107.65 | O |
| ATOM | 14795 | CB | THR | B | 811 | 55.571 | 27.066 | 67.269 | 1.00 | 111.45 | C |
| ATOM | 14796 | OG1 | THR | B | 811 | 55.233 | 28.432 | 67.541 | 1.00 | 111.45 | O |
| ATOM | 14797 | CG2 | THR | B | 811 | 56.829 | 27.035 | 66.402 | 1.00 | 111.45 | C |
| ATOM | 14798 | N | THR | B | 812 | 52.785 | 28.159 | 66.728 | 1.00 | 169.10 | N |
| ATOM | 14799 | CA | THR | B | 812 | 51.555 | 28.856 | 67.094 | 1.00 | 169.10 | C |
| ATOM | 14800 | C | THR | B | 812 | 50.414 | 27.892 | 66.863 | 1.00 | 169.10 | C |
| ATOM | 14801 | O | THR | B | 812 | 49.812 | 27.350 | 67.805 | 1.00 | 169.10 | O |
| ATOM | 14802 | CB | THR | B | 812 | 51.323 | 30.089 | 66.192 | 1.00 | 198.44 | C |
| ATOM | 14803 | OG1 | THR | B | 812 | 52.312 | 31.088 | 66.470 | 1.00 | 198.44 | O |
| ATOM | 14804 | CG2 | THR | B | 812 | 49.932 | 30.662 | 66.418 | 1.00 | 198.44 | C |
| ATOM | 14805 | N | ARG | B | 813 | 50.131 | 27.698 | 65.581 | 1.00 | 159.05 | N |
| ATOM | 14806 | CA | ARG | B | 813 | 49.082 | 26.811 | 65.154 | 1.00 | 159.05 | C |
| ATOM | 14807 | C | ARG | B | 813 | 48.971 | 25.658 | 66.125 | 1.00 | 159.05 | C |
| ATOM | 14808 | O | ARG | B | 813 | 47.941 | 25.490 | 66.773 | 1.00 | 159.05 | O |
| ATOM | 14809 | CB | ARG | B | 813 | 49.380 | 26.289 | 63.749 | 1.00 | 133.36 | C |
| ATOM | 14810 | CG | ARG | B | 813 | 48.945 | 27.223 | 62.628 | 1.00 | 133.36 | C |
| ATOM | 14811 | CD | ARG | B | 813 | 47.534 | 26.896 | 62.167 | 1.00 | 133.36 | C |
| ATOM | 14812 | NE | ARG | B | 813 | 47.051 | 27.807 | 61.133 | 1.00 | 133.36 | N |
| ATOM | 14813 | CZ | ARG | B | 813 | 46.762 | 29.087 | 61.342 | 1.00 | 133.36 | C |
| ATOM | 14814 | NH1 | ARG | B | 813 | 46.904 | 29.613 | 62.551 | 1.00 | 133.36 | N |
| ATOM | 14815 | NH2 | ARG | B | 813 | 46.334 | 29.845 | 60.343 | 1.00 | 133.36 | N |
| ATOM | 14816 | N | LEU | B | 814 | 50.035 | 24.879 | 66.261 | 1.00 | 178.15 | N |
| ATOM | 14817 | CA | LEU | B | 814 | 49.976 | 23.743 | 67.165 | 1.00 | 178.15 | C |
| ATOM | 14818 | C | LEU | B | 814 | 49.313 | 24.082 | 68.509 | 1.00 | 178.15 | C |
| ATOM | 14819 | O | LEU | B | 814 | 48.129 | 23.755 | 68.748 | 1.00 | 178.15 | O |
| ATOM | 14820 | CB | LEU | B | 814 | 51.380 | 23.161 | 67.390 | 1.00 | 92.26 | C |
| ATOM | 14821 | CG | LEU | B | 814 | 51.932 | 22.182 | 66.340 | 1.00 | 92.26 | C |
| ATOM | 14822 | CD1 | LEU | B | 814 | 51.396 | 20.783 | 66.605 | 1.00 | 92.26 | C |
| ATOM | 14823 | CD2 | LEU | B | 814 | 51.570 | 22.654 | 64.934 | 1.00 | 92.26 | C |
| ATOM | 14824 | N | ALA | B | 815 | 50.044 | 24.767 | 69.375 | 1.00 | 175.76 | N |
| ATOM | 14825 | CA | ALA | B | 815 | 49.488 | 25.092 | 70.686 | 1.00 | 175.76 | C |
| ATOM | 14826 | C | ALA | B | 815 | 48.092 | 25.744 | 70.695 | 1.00 | 175.76 | C |
| ATOM | 14827 | O | ALA | B | 815 | 47.054 | 25.090 | 71.002 | 1.00 | 175.76 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 14828 | CB | ALA | B | 815 | 50.470 | 25.977 | 71.450 | 1.00162.02 | C |
| ATOM | 14829 | N | ASN | B | 816 | 48.059 | 27.028 | 70.351 | 1.00136.64 | N |
| ATOM | 14830 | CA | ASN | B | 816 | 46.805 | 27.743 | 70.393 | 1.00136.64 | C |
| ATOM | 14831 | C | ASN | B | 816 | 45.660 | 26.919 | 69.826 | 1.00136.64 | C |
| ATOM | 14832 | O | ASN | B | 816 | 44.702 | 26.639 | 70.538 | 1.00136.64 | O |
| ATOM | 14833 | CB | ASN | B | 816 | 46.919 | 29.080 | 69.648 | 1.00137.11 | C |
| ATOM | 14834 | CG | ASN | B | 816 | 46.598 | 28.958 | 68.172 | 1.00137.11 | C |
| ATOM | 14835 | OD1 | ASN | B | 816 | 45.459 | 28.680 | 67.797 | 1.00137.11 | O |
| ATOM | 14836 | ND2 | ASN | B | 816 | 47.603 | 29.159 | 67.325 | 1.00137.11 | N |
| ATOM | 14837 | N | ASP | B | 817 | 45.769 | 26.485 | 68.576 | 1.00116.19 | N |
| ATOM | 14838 | CA | ASP | B | 817 | 44.682 | 25.742 | 67.959 | 1.00116.19 | C |
| ATOM | 14839 | C | ASP | B | 817 | 44.151 | 24.523 | 68.678 | 1.00116.19 | C |
| ATOM | 14840 | O | ASP | B | 817 | 42.924 | 24.419 | 68.875 | 1.00116.19 | O |
| ATOM | 14841 | CB | ASP | B | 817 | 45.055 | 25.381 | 66.524 | 1.00201.07 | C |
| ATOM | 14842 | CG | ASP | B | 817 | 45.204 | 26.607 | 65.648 | 1.00201.07 | C |
| ATOM | 14843 | OD1 | ASP | B | 817 | 44.335 | 27.501 | 65.739 | 1.00201.07 | O |
| ATOM | 14844 | OD2 | ASP | B | 817 | 46.178 | 26.680 | 64.871 | 1.00201.07 | O |
| ATOM | 14845 | N | ALA | B | 818 | 45.017 | 23.593 | 69.075 | 1.00136.62 | N |
| ATOM | 14846 | CA | ALA | B | 818 | 44.476 | 22.431 | 69.781 | 1.00136.62 | C |
| ATOM | 14847 | C | ALA | B | 818 | 43.538 | 22.981 | 70.868 | 1.00136.62 | C |
| ATOM | 14848 | O | ALA | B | 818 | 42.348 | 22.585 | 70.988 | 1.00136.62 | O |
| ATOM | 14849 | CB | ALA | B | 818 | 45.610 | 21.629 | 70.416 | 1.00176.34 | C |
| ATOM | 14850 | N | ALA | B | 819 | 44.066 | 23.933 | 71.635 | 1.00128.39 | N |
| ATOM | 14851 | CA | ALA | B | 819 | 43.247 | 24.520 | 72.688 | 1.00128.39 | C |
| ATOM | 14852 | C | ALA | B | 819 | 41.862 | 24.905 | 72.145 | 1.00128.39 | C |
| ATOM | 14853 | O | ALA | B | 819 | 40.823 | 24.289 | 72.448 | 1.00128.39 | O |
| ATOM | 14854 | CB | ALA | B | 819 | 43.942 | 25.745 | 73.268 | 1.00165.65 | C |
| ATOM | 14855 | N | GLN | B | 820 | 41.864 | 25.934 | 71.323 | 1.00107.60 | N |
| ATOM | 14856 | CA | GLN | B | 820 | 40.648 | 26.446 | 70.741 | 1.00107.60 | C |
| ATOM | 14857 | C | GLN | B | 820 | 39.580 | 25.381 | 70.440 | 1.00107.60 | C |
| ATOM | 14858 | O | GLN | B | 820 | 38.430 | 25.451 | 70.948 | 1.00107.60 | O |
| ATOM | 14859 | CB | GLN | B | 820 | 40.989 | 27.179 | 69.442 | 1.00181.46 | C |
| ATOM | 14860 | CG | GLN | B | 820 | 42.403 | 27.757 | 69.395 | 1.00181.46 | C |
| ATOM | 14861 | CD | GLN | B | 820 | 42.518 | 29.127 | 70.038 | 1.00181.46 | C |
| ATOM | 14862 | OE1 | GLN | B | 820 | 42.025 | 30.119 | 69.500 | 1.00181.46 | O |
| ATOM | 14863 | NE2 | GLN | B | 820 | 43.174 | 29.189 | 71.193 | 1.00181.46 | N |
| ATOM | 14864 | N | VAL | B | 821 | 39.945 | 24.400 | 69.610 | 1.00111.19 | N |
| ATOM | 14865 | CA | VAL | B | 821 | 38.982 | 23.361 | 69.214 | 1.00111.19 | C |
| ATOM | 14866 | C | VAL | B | 821 | 38.324 | 22.672 | 70.413 | 1.00111.19 | C |
| ATOM | 14867 | O | VAL | B | 821 | 37.077 | 22.473 | 70.454 | 1.00111.19 | O |
| ATOM | 14868 | CB | VAL | B | 821 | 39.657 | 22.317 | 68.300 | 1.00125.26 | C |
| ATOM | 14869 | CG1 | VAL | B | 821 | 40.278 | 23.013 | 67.098 | 1.00125.26 | C |
| ATOM | 14870 | CG2 | VAL | B | 821 | 40.719 | 21.564 | 69.066 | 1.00125.26 | C |
| ATOM | 14871 | N | LYS | B | 822 | 39.165 | 22.312 | 71.386 | 1.00170.36 | N |
| ATOM | 14872 | CA | LYS | B | 822 | 38.654 | 21.719 | 72.619 | 1.00170.36 | C |
| ATOM | 14873 | C | LYS | B | 822 | 37.437 | 22.600 | 72.965 | 1.00170.36 | C |
| ATOM | 14874 | O | LYS | B | 822 | 36.374 | 22.120 | 73.409 | 1.00170.36 | O |
| ATOM | 14875 | CB | LYS | B | 822 | 39.738 | 21.830 | 73.692 | 1.00206.60 | C |
| ATOM | 14876 | CG | LYS | B | 822 | 39.259 | 21.850 | 75.126 | 1.00206.60 | C |
| ATOM | 14877 | CD | LYS | B | 822 | 40.455 | 22.052 | 76.047 | 1.00206.60 | C |
| ATOM | 14878 | CE | LYS | B | 822 | 40.056 | 22.132 | 77.509 | 1.00206.60 | C |
| ATOM | 14879 | NZ | LYS | B | 822 | 41.254 | 22.268 | 78.388 | 1.00206.60 | N |
| ATOM | 14880 | N | GLY | B | 823 | 37.602 | 23.898 | 72.705 | 1.00 98.94 | N |
| ATOM | 14881 | CA | GLY | B | 823 | 36.535 | 24.856 | 72.968 | 1.00 98.94 | C |
| ATOM | 14882 | C | GLY | B | 823 | 35.268 | 24.636 | 72.164 | 1.00 98.94 | C |
| ATOM | 14883 | O | GLY | B | 823 | 34.152 | 24.713 | 72.697 | 1.00 98.94 | O |
| ATOM | 14884 | N | ALA | B | 824 | 35.422 | 24.382 | 70.873 | 1.00 73.69 | N |
| ATOM | 14885 | CA | ALA | B | 824 | 34.238 | 24.144 | 70.056 | 1.00 73.69 | C |
| ATOM | 14886 | C | ALA | B | 824 | 33.362 | 22.969 | 70.581 | 1.00 73.69 | C |
| ATOM | 14887 | O | ALA | B | 824 | 32.111 | 22.996 | 70.468 | 1.00 73.69 | O |
| ATOM | 14888 | CB | ALA | B | 824 | 34.654 | 23.874 | 68.603 | 1.00144.90 | C |
| ATOM | 14889 | N | THR | B | 825 | 34.004 | 21.938 | 71.159 | 1.00 88.69 | N |
| ATOM | 14890 | CA | THR | B | 825 | 33.272 | 20.742 | 71.698 | 1.00 88.69 | C |
| ATOM | 14891 | C | THR | B | 825 | 32.576 | 20.974 | 73.056 | 1.00 88.69 | C |
| ATOM | 14892 | O | THR | B | 825 | 31.390 | 20.636 | 73.260 | 1.00 88.69 | O |
| ATOM | 14893 | CB | THR | B | 825 | 34.223 | 19.533 | 71.852 | 1.00141.76 | C |
| ATOM | 14894 | OG1 | THR | B | 825 | 34.676 | 19.116 | 70.558 | 1.00141.76 | O |
| ATOM | 14895 | CG2 | THR | B | 825 | 33.517 | 18.373 | 72.547 | 1.00141.76 | C |
| ATOM | 14896 | N | GLY | B | 826 | 33.333 | 21.541 | 73.992 | 1.00119.57 | N |
| ATOM | 14897 | CA | GLY | B | 826 | 32.758 | 21.830 | 75.295 | 1.00119.57 | C |
| ATOM | 14898 | C | GLY | B | 826 | 31.586 | 22.772 | 75.111 | 1.00119.57 | C |
| ATOM | 14899 | O | GLY | B | 826 | 30.660 | 22.839 | 75.931 | 1.00119.57 | O |
| ATOM | 14900 | N | SER | B | 827 | 31.656 | 23.518 | 74.012 | 1.00 84.59 | N |
| ATOM | 14901 | CA | SER | B | 827 | 30.619 | 24.463 | 73.631 | 1.00 84.59 | C |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 14902 | C | SER | B | 827 | 29.352 | 23.713 | 73.229 | 1.00 | 84.59 | C |
| ATOM | 14903 | O | SER | B | 827 | 28.267 | 24.028 | 73.705 | 1.00 | 84.59 | O |
| ATOM | 14904 | CB | SER | B | 827 | 31.090 | 25.318 | 72.449 | 1.00 | 151.55 | C |
| ATOM | 14905 | OG | SER | B | 827 | 29.996 | 25.962 | 71.815 | 1.00 | 151.55 | O |
| ATOM | 14906 | N | ARG | B | 828 | 29.470 | 22.729 | 72.343 | 1.00 | 155.83 | N |
| ATOM | 14907 | CA | ARG | B | 828 | 28.259 | 21.969 | 71.994 | 1.00 | 155.83 | C |
| ATOM | 14908 | C | ARG | B | 828 | 27.589 | 21.508 | 73.314 | 1.00 | 155.83 | C |
| ATOM | 14909 | O | ARG | B | 828 | 26.339 | 21.422 | 73.434 | 1.00 | 155.83 | O |
| ATOM | 14910 | CB | ARG | B | 828 | 28.634 | 20.749 | 71.144 | 1.00 | 164.29 | C |
| ATOM | 14911 | CG | ARG | B | 828 | 29.444 | 21.067 | 69.883 | 1.00 | 164.29 | C |
| ATOM | 14912 | CD | ARG | B | 828 | 28.609 | 21.761 | 68.813 | 1.00 | 164.29 | C |
| ATOM | 14913 | NE | ARG | B | 828 | 29.375 | 21.987 | 67.588 | 1.00 | 164.29 | N |
| ATOM | 14914 | CZ | ARG | B | 828 | 28.859 | 22.458 | 66.456 | 1.00 | 164.29 | C |
| ATOM | 14915 | NH1 | ARG | B | 828 | 27.568 | 22.753 | 66.386 | 1.00 | 164.29 | N |
| ATOM | 14916 | NH2 | ARG | B | 828 | 29.633 | 22.638 | 65.394 | 1.00 | 164.29 | N |
| ATOM | 14917 | N | LEU | B | 829 | 28.439 | 21.229 | 74.305 | 1.00 | 118.77 | N |
| ATOM | 14918 | CA | LEU | B | 829 | 27.971 | 20.793 | 75.623 | 1.00 | 118.77 | C |
| ATOM | 14919 | C | LEU | B | 829 | 27.095 | 21.874 | 76.331 | 1.00 | 118.77 | C |
| ATOM | 14920 | O | LEU | B | 829 | 25.898 | 21.637 | 76.611 | 1.00 | 118.77 | O |
| ATOM | 14921 | CB | LEU | B | 829 | 29.161 | 20.403 | 76.521 | 1.00 | 87.18 | C |
| ATOM | 14922 | CG | LEU | B | 829 | 29.932 | 19.093 | 76.267 | 1.00 | 87.18 | C |
| ATOM | 14923 | CD1 | LEU | B | 829 | 31.393 | 19.250 | 76.686 | 1.00 | 87.18 | C |
| ATOM | 14924 | CD2 | LEU | B | 829 | 29.272 | 17.944 | 77.028 | 1.00 | 87.18 | C |
| ATOM | 14925 | N | ALA | B | 830 | 27.677 | 23.049 | 76.607 | 1.00 | 88.61 | N |
| ATOM | 14926 | CA | ALA | B | 830 | 26.952 | 24.162 | 77.266 | 1.00 | 88.61 | C |
| ATOM | 14927 | C | ALA | B | 830 | 25.747 | 24.613 | 76.460 | 1.00 | 88.61 | C |
| ATOM | 14928 | O | ALA | B | 830 | 24.973 | 25.481 | 76.882 | 1.00 | 88.61 | O |
| ATOM | 14929 | CB | ALA | B | 830 | 27.923 | 25.342 | 77.495 | 1.00 | 128.46 | C |
| ATOM | 14930 | N | VAL | B | 831 | 25.625 | 24.025 | 75.277 | 1.00 | 129.90 | N |
| ATOM | 14931 | CA | VAL | B | 831 | 24.510 | 24.287 | 74.379 | 1.00 | 129.90 | C |
| ATOM | 14932 | C | VAL | B | 831 | 23.307 | 23.415 | 74.786 | 1.00 | 129.90 | C |
| ATOM | 14933 | O | VAL | B | 831 | 22.273 | 23.949 | 75.218 | 1.00 | 129.90 | O |
| ATOM | 14934 | CB | VAL | B | 831 | 24.887 | 23.963 | 72.916 | 1.00 | 173.33 | C |
| ATOM | 14935 | CG1 | VAL | B | 831 | 23.638 | 23.925 | 72.045 | 1.00 | 173.33 | C |
| ATOM | 14936 | CG2 | VAL | B | 831 | 25.861 | 25.003 | 72.390 | 1.00 | 173.33 | C |
| ATOM | 14937 | N | ILE | B | 832 | 23.428 | 22.083 | 74.652 | 1.00 | 207.38 | N |
| ATOM | 14938 | CA | ILE | B | 832 | 22.282 | 21.222 | 75.041 | 1.00 | 207.38 | C |
| ATOM | 14939 | C | ILE | B | 832 | 21.839 | 21.670 | 76.441 | 1.00 | 207.38 | C |
| ATOM | 14940 | O | ILE | B | 832 | 20.646 | 21.892 | 76.705 | 1.00 | 207.38 | O |
| ATOM | 14941 | CB | ILE | B | 832 | 22.647 | 19.714 | 75.008 | 1.00 | 83.68 | C |
| ATOM | 14942 | CG1 | ILE | B | 832 | 21.715 | 19.002 | 74.019 | 1.00 | 83.68 | C |
| ATOM | 14943 | CG2 | ILE | B | 832 | 22.468 | 19.079 | 76.380 | 1.00 | 83.68 | C |
| ATOM | 14944 | CD1 | ILE | B | 832 | 22.110 | 17.556 | 73.680 | 1.00 | 83.68 | C |
| ATOM | 14945 | N | PHE | B | 833 | 22.817 | 21.842 | 77.322 | 1.00 | 115.50 | N |
| ATOM | 14946 | CA | PHE | B | 833 | 22.526 | 22.290 | 78.676 | 1.00 | 115.50 | C |
| ATOM | 14947 | C | PHE | B | 833 | 21.680 | 23.577 | 78.792 | 1.00 | 115.50 | C |
| ATOM | 14948 | O | PHE | B | 833 | 20.455 | 23.484 | 79.011 | 1.00 | 115.50 | O |
| ATOM | 14949 | CB | PHE | B | 833 | 23.841 | 22.451 | 79.451 | 1.00 | 207.38 | C |
| ATOM | 14950 | CG | PHE | B | 833 | 23.774 | 23.447 | 80.579 | 1.00 | 207.38 | C |
| ATOM | 14951 | CD1 | PHE | B | 833 | 22.741 | 23.407 | 81.511 | 1.00 | 207.38 | C |
| ATOM | 14952 | CD2 | PHE | B | 833 | 24.756 | 24.424 | 80.712 | 1.00 | 207.38 | C |
| ATOM | 14953 | CE1 | PHE | B | 833 | 22.689 | 24.328 | 82.559 | 1.00 | 207.38 | C |
| ATOM | 14954 | CE2 | PHE | B | 833 | 24.712 | 25.348 | 81.757 | 1.00 | 207.38 | C |
| ATOM | 14955 | CZ | PHE | B | 833 | 23.675 | 25.299 | 82.681 | 1.00 | 207.38 | C |
| ATOM | 14956 | N | GLN | B | 834 | 22.313 | 24.759 | 78.647 | 1.00 | 115.57 | N |
| ATOM | 14957 | CA | GLN | B | 834 | 21.573 | 26.018 | 78.831 | 1.00 | 115.57 | C |
| ATOM | 14958 | C | GLN | B | 834 | 20.230 | 25.899 | 78.159 | 1.00 | 115.57 | C |
| ATOM | 14959 | O | GLN | B | 834 | 19.207 | 26.309 | 78.708 | 1.00 | 115.57 | O |
| ATOM | 14960 | CB | GLN | B | 834 | 22.352 | 27.203 | 78.249 | 1.00 | 174.36 | C |
| ATOM | 14961 | CG | GLN | B | 834 | 22.383 | 27.256 | 76.735 | 1.00 | 174.36 | C |
| ATOM | 14962 | CD | GLN | B | 834 | 22.263 | 28.673 | 76.200 | 1.00 | 174.36 | C |
| ATOM | 14963 | OE1 | GLN | B | 834 | 22.297 | 28.894 | 74.989 | 1.00 | 174.36 | O |
| ATOM | 14964 | NE2 | GLN | B | 834 | 22.113 | 29.641 | 77.102 | 1.00 | 174.36 | N |
| ATOM | 14965 | N | ASN | B | 835 | 20.237 | 25.302 | 76.972 | 1.00 | 108.72 | N |
| ATOM | 14966 | CA | ASN | B | 835 | 19.013 | 25.105 | 76.198 | 1.00 | 108.72 | C |
| ATOM | 14967 | C | ASN | B | 835 | 17.838 | 24.563 | 77.025 | 1.00 | 108.72 | C |
| ATOM | 14968 | O | ASN | B | 835 | 16.860 | 25.272 | 77.341 | 1.00 | 108.72 | O |
| ATOM | 14969 | CB | ASN | B | 835 | 19.304 | 24.170 | 75.010 | 1.00 | 113.87 | C |
| ATOM | 14970 | CG | ASN | B | 835 | 18.073 | 23.417 | 74.544 | 1.00 | 113.87 | C |
| ATOM | 14971 | OD1 | ASN | B | 835 | 16.976 | 23.974 | 74.488 | 1.00 | 113.87 | O |
| ATOM | 14972 | ND2 | ASN | B | 835 | 18.247 | 22.145 | 74.208 | 1.00 | 113.87 | N |
| ATOM | 14973 | N | ILE | B | 836 | 17.947 | 23.285 | 77.355 | 1.00 | 135.67 | N |
| ATOM | 14974 | CA | ILE | B | 836 | 16.916 | 22.646 | 78.141 | 1.00 | 135.67 | C |
| ATOM | 14975 | C | ILE | B | 836 | 16.568 | 23.580 | 79.292 | 1.00 | 135.67 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|----------|------------|---|
| ATOM | 14976 | O | ILE | B | 836 | 15.464 | 24.105 | 79.351 | 1.00135.67 | O |
| ATOM | 14977 | CB | ILE | B | 836 | 17.407 | 21.291 | 78.711 | 1.00207.38 | C |
| ATOM | 14978 | CG1 | ILE | B | 836 | 17.606 | 20.280 | 77.576 | 1.00207.38 | C |
| ATOM | 14979 | CG2 | ILE | B | 836 | 16.414 | 20.764 | 79.737 | 1.00207.38 | C |
| ATOM | 14980 | CD1 | ILE | B | 836 | 16.330 | 19.861 | 76.873 | 1.00207.38 | C |
| ATOM | 14981 | N | ALA | B | 837 | 17.530 | 23.803 | 80.182 | 1.00121.84 | N |
| ATOM | 14982 | CA | ALA | B | 837 | 17.307 | 24.669 | 81.341 | 1.00121.84 | C |
| ATOM | 14983 | C | ALA | B | 837 | 16.296 | 25.756 | 81.050 | 1.00121.84 | C |
| ATOM | 14984 | O | ALA | B | 837 | 15.087 | 25.596 | 81.244 | 1.00121.84 | O |
| ATOM | 14985 | CB | ALA | B | 837 | 18.636 | 25.277 | 81.795 | 1.00207.38 | C |
| ATOM | 14986 | N | ASN | B | 838 | 16.840 | 26.867 | 80.576 | 1.00131.84 | N |
| ATOM | 14987 | CA | ASN | B | 838 | 16.085 | 28.057 | 80.221 | 1.00131.84 | C |
| ATOM | 14988 | C | ASN | B | 838 | 14.760 | 27.744 | 79.557 | 1.00131.84 | C |
| ATOM | 14989 | O | ASN | B | 838 | 13.690 | 27.893 | 80.159 | 1.00131.84 | O |
| ATOM | 14990 | CB | ASN | B | 838 | 16.954 | 28.938 | 79.312 | 1.00171.79 | C |
| ATOM | 14991 | CG | ASN | B | 838 | 16.177 | 30.059 | 78.645 | 1.00171.79 | C |
| ATOM | 14992 | OD1 | ASN | B | 838 | 16.765 | 31.036 | 78.176 | 1.00171.79 | O |
| ATOM | 14993 | ND2 | ASN | B | 838 | 14.859 | 29.918 | 78.580 | 1.00171.79 | N |
| ATOM | 14994 | N | LEU | B | 839 | 14.834 | 27.323 | 78.304 | 1.00118.06 | N |
| ATOM | 14995 | CA | LEU | B | 839 | 13.614 | 27.044 | 77.589 | 1.00118.06 | C |
| ATOM | 14996 | C | LEU | B | 839 | 12.854 | 25.919 | 78.295 | 1.00118.06 | C |
| ATOM | 14997 | O | LEU | B | 839 | 12.049 | 26.193 | 79.184 | 1.00118.06 | O |
| ATOM | 14998 | CB | LEU | B | 839 | 13.918 | 26.668 | 76.132 | 1.00197.79 | C |
| ATOM | 14999 | CG | LEU | B | 839 | 12.773 | 26.705 | 75.109 | 1.00197.79 | C |
| ATOM | 15000 | CD1 | LEU | B | 839 | 12.078 | 28.059 | 75.137 | 1.00197.79 | C |
| ATOM | 15001 | CD2 | LEU | B | 839 | 13.338 | 26.434 | 73.721 | 1.00197.79 | C |
| ATOM | 15002 | N | GLY | B | 840 | 13.140 | 24.669 | 77.916 | 1.00111.16 | N |
| ATOM | 15003 | CA | GLY | B | 840 | 12.482 | 23.486 | 78.472 | 1.00111.16 | C |
| ATOM | 15004 | C | GLY | B | 840 | 11.744 | 23.633 | 79.785 | 1.00111.16 | C |
| ATOM | 15005 | O | GLY | B | 840 | 10.523 | 23.555 | 79.857 | 1.00111.16 | O |
| ATOM | 15006 | N | THR | B | 841 | 12.508 | 23.840 | 80.839 | 1.00 75.49 | N |
| ATOM | 15007 | CA | THR | B | 841 | 11.943 | 24.017 | 82.167 | 1.00 75.49 | C |
| ATOM | 15008 | C | THR | B | 841 | 11.075 | 25.266 | 82.236 | 1.00 75.49 | C |
| ATOM | 15009 | O | THR | B | 841 | 10.000 | 25.249 | 82.818 | 1.00 75.49 | O |
| ATOM | 15010 | CB | THR | B | 841 | 13.066 | 24.160 | 83.210 | 1.00162.24 | C |
| ATOM | 15011 | OG1 | THR | B | 841 | 14.087 | 23.191 | 82.942 | 1.00162.24 | O |
| ATOM | 15012 | CG2 | THR | B | 841 | 12.527 | 23.946 | 84.615 | 1.00162.24 | C |
| ATOM | 15013 | N | GLY | B | 842 | 11.573 | 26.351 | 81.647 | 1.00132.89 | N |
| ATOM | 15014 | CA | GLY | B | 842 | 10.846 | 27.605 | 81.631 | 1.00132.89 | C |
| ATOM | 15015 | C | GLY | B | 842 | 9.517 | 27.480 | 80.919 | 1.00132.89 | C |
| ATOM | 15016 | O | GLY | B | 842 | 8.506 | 27.950 | 81.421 | 1.00132.89 | O |
| ATOM | 15017 | N | ILE | B | 843 | 9.521 | 26.834 | 79.756</ | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15050 | O | LEU | B | 847 | 0.711 | 27.511 | 81.797 | 1.00180.30 | O |
| ATOM | 15051 | CB | LEU | B | 847 | 2.443 | 24.744 | 80.667 | 1.00165.98 | C |
| ATOM | 15052 | CG | LEU | B | 847 | 2.356 | 24.101 | 79.281 | 1.00165.98 | C |
| ATOM | 15053 | CD1 | LEU | B | 847 | 3.605 | 24.431 | 78.483 | 1.00165.98 | C |
| ATOM | 15054 | CD2 | LEU | B | 847 | 2.193 | 22.596 | 79.421 | 1.00165.98 | C |
| ATOM | 15055 | N | ILE | B | 848 | 2.169 | 26.395 | 83.093 | 1.00161.09 | N |
| ATOM | 15056 | CA | ILE | B | 848 | 1.460 | 26.884 | 84.281 | 1.00161.09 | C |
| ATOM | 15057 | C | ILE | B | 848 | 1.346 | 28.414 | 84.225 | 1.00161.09 | C |
| ATOM | 15058 | O | ILE | B | 848 | 0.558 | 29.016 | 84.962 | 1.00161.09 | O |
| ATOM | 15059 | CB | ILE | B | 848 | 2.164 | 26.430 | 85.609 | 1.00136.91 | C |
| ATOM | 15060 | CG1 | ILE | B | 848 | 2.578 | 27.639 | 86.454 | 1.00136.91 | C |
| ATOM | 15061 | CG2 | ILE | B | 848 | 3.348 | 25.540 | 85.296 | 1.00136.91 | C |
| ATOM | 15062 | CD1 | ILE | B | 848 | 1.452 | 28.191 | 87.313 | 1.00136.91 | C |
| ATOM | 15063 | N | TYR | B | 849 | 2.140 | 29.050 | 83.362 | 1.00188.00 | N |
| ATOM | 15064 | CA | TYR | B | 849 | 2.038 | 30.501 | 83.216 | 1.00188.00 | C |
| ATOM | 15065 | C | TYR | B | 849 | 0.700 | 30.681 | 82.528 | 1.00188.00 | C |
| ATOM | 15066 | O | TYR | B | 849 | 0.329 | 29.904 | 81.648 | 1.00188.00 | O |
| ATOM | 15067 | CB | TYR | B | 849 | 3.094 | 31.082 | 82.275 | 1.00173.67 | C |
| ATOM | 15068 | CG | TYR | B | 849 | 4.419 | 31.480 | 82.875 | 1.00173.67 | C |
| ATOM | 15069 | CD1 | TYR | B | 849 | 5.180 | 32.490 | 82.285 | 1.00173.67 | C |
| ATOM | 15070 | CD2 | TYR | B | 849 | 4.965 | 30.788 | 83.951 | 1.00173.67 | C |
| ATOM | 15071 | CE1 | TYR | B | 849 | 6.461 | 32.796 | 82.745 | 1.00173.67 | C |
| ATOM | 15072 | CE2 | TYR | B | 849 | 6.252 | 31.081 | 84.420 | 1.00173.67 | C |
| ATOM | 15073 | CZ | TYR | B | 849 | 6.994 | 32.085 | 83.807 | 1.00173.67 | C |
| ATOM | 15074 | OH | TYR | B | 849 | 8.279 | 32.357 | 84.222 | 1.00173.67 | O |
| ATOM | 15075 | N | GLY | B | 850 | -0.024 | 31.712 | 82.912 | 1.00129.66 | N |
| ATOM | 15076 | CA | GLY | B | 850 | -1.306 | 31.916 | 82.289 | 1.00129.66 | C |
| ATOM | 15077 | C | GLY | B | 850 | -1.223 | 32.919 | 81.176 | 1.00129.66 | C |
| ATOM | 15078 | O | GLY | B | 850 | -1.837 | 33.966 | 81.295 | 1.00129.66 | O |
| ATOM | 15079 | N | TRP | B | 851 | -0.482 | 32.609 | 80.118 | 1.00124.37 | N |
| ATOM | 15080 | CA | TRP | B | 851 | -0.412 | 33.438 | 78.964 | 1.00124.37 | C |
| ATOM | 15081 | C | TRP | B | 851 | -0.510 | 34.987 | 79.121 | 1.00124.37 | C |
| ATOM | 15082 | O | TRP | B | 851 | -0.083 | 35.749 | 78.253 | 1.00124.37 | O |
| ATOM | 15083 | CB | TRP | B | 851 | -1.515 | 33.084 | 77.980 | 1.00168.59 | C |
| ATOM | 15084 | CG | TRP | B | 851 | -2.489 | 32.087 | 78.461 | 1.00168.59 | C |
| ATOM | 15085 | CD1 | TRP | B | 851 | -3.098 | 31.988 | 79.691 | 1.00168.59 | C |
| ATOM | 15086 | CD2 | TRP | B | 851 | -2.890 | 30.972 | 77.718 | 1.00168.59 | C |
| ATOM | 15087 | NE1 | TRP | B | 851 | -3.856 | 30.833 | 79.737 | 1.00168.59 | N |
| ATOM | 15088 | CE2 | TRP | B | 851 | -3.737 | 30.192 | 78.528 | 1.00168.59 | C |
| ATOM | 15089 | CE3 | TRP | B | 851 | -2.605 | 30.546 | 76.420 | 1.00168.59 | C |
| ATOM | 15090 | CZ2 | TRP | B | 851 | -4.294 | 28.997 | 78.070 | 1.00168.59 | C |
| ATOM | 15091 | CZ3 | TRP | B | 851 | -3.145 | 29.383 | 75.967 | 1.00168.59 | C |
| ATOM | 15092 | CH2 | TRP | B | 851 | -3.981 | 28.610 | 76.784 | 1.00168.59 | C |
| ATOM | 15093 | N | GLN | B | 852 | -1.072 | 35.415 | 80.246 | 1.00207.38 | N |
| ATOM | 15094 | CA | GLN | B | 852 | -1.226 | 36.798 | 80.550 | 1.00207.38 | C |
| ATOM | 15095 | C | GLN | B | 852 | 0.188 | 37.292 | 80.857 | 1.00207.38 | C |
| ATOM | 15096 | O | GLN | B | 852 | 0.610 | 38.375 | 80.451 | 1.00207.38 | O |
| ATOM | 15097 | CB | GLN | B | 852 | -2.083 | 36.965 | 81.799 | 1.00116.81 | C |
| ATOM | 15098 | CG | GLN | B | 852 | -2.050 | 38.358 | 82.408 | 1.00116.81 | C |
| ATOM | 15099 | CD | GLN | B | 852 | -2.641 | 38.403 | 83.801 | 1.00116.81 | C |
| ATOM | 15100 | OE1 | GLN | B | 852 | -3.165 | 39.431 | 84.234 | 1.00116.81 | O |
| ATOM | 15101 | NE2 | GLN | B | 852 | -2.553 | 37.290 | 84.515 | 1.00116.81 | N |
| ATOM | 15102 | N | LEU | B | 853 | 0.919 | 36.460 | 81.592 | 1.00148.02 | N |
| ATOM | 15103 | CA | LEU | B | 853 | 2.321 | 36.687 | 81.823 | 1.00148.02 | C |
| ATOM | 15104 | C | LEU | B | 853 | 2.990 | 35.822 | 80.773 | 1.00148.02 | C |
| ATOM | 15105 | O | LEU | B | 853 | 3.669 | 36.343 | 79.898 | 1.00148.02 | O |
| ATOM | 15106 | CB | LEU | B | 853 | 2.713 | 36.288 | 83.250 | 1.00168.76 | C |
| ATOM | 15107 | CG | LEU | B | 853 | 2.198 | 37.239 | 84.344 | 1.00168.76 | C |
| ATOM | 15108 | CD1 | LEU | B | 853 | 2.624 | 38.662 | 84.005 | 1.00168.76 | C |
| ATOM | 15109 | CD2 | LEU | B | 853 | 0.679 | 37.168 | 84.452 | 1.00168.76 | C |
| ATOM | 15110 | N | THR | B | 854 | 2.741 | 34.519 | 80.804 | 1.00123.05 | N |
| ATOM | 15111 | CA | THR | B | 854 | 3.351 | 33.625 | 79.827 | 1.00123.05 | C |
| ATOM | 15112 | C | THR | B | 854 | 3.589 | 34.359 | 78.520 | 1.00123.05 | C |
| ATOM | 15113 | O | THR | B | 854 | 4.724 | 34.600 | 78.108 | 1.00123.05 | O |
| ATOM | 15114 | CB | THR | B | 854 | 2.420 | 32.434 | 79.534 | 1.00155.98 | C |
| ATOM | 15115 | OG1 | THR | B | 854 | 1.605 | 32.160 | 80.682 | 1.00155.98 | O |
| ATOM | 15116 | CG2 | THR | B | 854 | 3.227 | 31.210 | 79.181 | 1.00155.98 | C |
| ATOM | 15117 | N | LEU | B | 855 | 2.492 | 34.707 | 77.866 | 1.00112.53 | N |
| ATOM | 15118 | CA | LEU | B | 855 | 2.535 | 35.443 | 76.602 | 1.00112.53 | C |
| ATOM | 15119 | C | LEU | B | 855 | 3.303 | 36.755 | 76.706 | 1.00112.53 | C |
| ATOM | 15120 | O | LEU | B | 855 | 4.263 | 36.963 | 75.966 | 1.00112.53 | O |
| ATOM | 15121 | CB | LEU | B | 855 | 1.103 | 35.774 | 76.162 | 1.00183.21 | C |
| ATOM | 15122 | CG | LEU | B | 855 | 0.922 | 37.124 | 75.445 | 1.00183.21 | C |
| ATOM | 15123 | CD1 | LEU | B | 855 | 1.433 | 37.038 | 74.012 | 1.00183.21 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15124 | CD2 | LEU | B | 855 | -0.540 | 37.528 | 75.455 | 1.00183.21 | C |
| ATOM | 15125 | N | LEU | B | 856 | 2.865 | 37.650 | 77.597 | 1.00130.60 | N |
| ATOM | 15126 | CA | LEU | B | 856 | 3.541 | 38.941 | 77.730 | 1.00130.60 | C |
| ATOM | 15127 | C | LEU | B | 856 | 5.027 | 38.684 | 77.698 | 1.00130.60 | C |
| ATOM | 15128 | O | LEU | B | 856 | 5.703 | 39.042 | 76.743 | 1.00130.60 | O |
| ATOM | 15129 | CB | LEU | B | 856 | 3.155 | 39.630 | 79.046 | 1.00144.92 | C |
| ATOM | 15130 | CG | LEU | B | 856 | 3.748 | 41.025 | 79.298 | 1.00144.92 | C |
| ATOM | 15131 | CD1 | LEU | B | 856 | 3.248 | 42.003 | 78.240 | 1.00144.92 | C |
| ATOM | 15132 | CD2 | LEU | B | 856 | 3.363 | 41.510 | 80.690 | 1.00144.92 | C |
| ATOM | 15133 | N | LEU | B | 857 | 5.521 | 38.038 | 78.745 | 1.00121.31 | N |
| ATOM | 15134 | CA | LEU | B | 857 | 6.925 | 37.724 | 78.848 | 1.00121.31 | C |
| ATOM | 15135 | C | LEU | B | 857 | 7.508 | 37.230 | 77.535 | 1.00121.31 | C |
| ATOM | 15136 | O | LEU | B | 857 | 8.371 | 37.897 | 76.963 | 1.00121.31 | O |
| ATOM | 15137 | CB | LEU | B | 857 | 7.135 | 36.671 | 79.938 | 1.00184.51 | C |
| ATOM | 15138 | CG | LEU | B | 857 | 8.292 | 35.693 | 79.727 | 1.00184.51 | C |
| ATOM | 15139 | CD1 | LEU | B | 857 | 9.052 | 35.482 | 81.023 | 1.00184.51 | C |
| ATOM | 15140 | CD2 | LEU | B | 857 | 7.743 | 34.380 | 79.185 | 1.00184.51 | C |
| ATOM | 15141 | N | LEU | B | 858 | 7.046 | 36.079 | 77.048 | 1.00100.14 | N |
| ATOM | 15142 | CA | LEU | B | 858 | 7.583 | 35.546 | 75.806 | 1.00100.14 | C |
| ATOM | 15143 | C | LEU | B | 858 | 7.652 | 36.645 | 74.731 | 1.00100.14 | C |
| ATOM | 15144 | O | LEU | B | 858 | 8.575 | 36.683 | 73.907 | 1.00100.14 | O |
| ATOM | 15145 | CB | LEU | B | 858 | 6.740 | 34.363 | 75.329 | 1.00160.54 | C |
| ATOM | 15146 | CG | LEU | B | 858 | 5.287 | 34.634 | 74.952 | 1.00160.54 | C |
| ATOM | 15147 | CD1 | LEU | B | 858 | 5.249 | 35.363 | 73.621 | 1.00160.54 | C |
| ATOM | 15148 | CD2 | LEU | B | 858 | 4.525 | 33.321 | 74.865 | 1.00160.54 | C |
| ATOM | 15149 | N | ALA | B | 859 | 6.696 | 37.563 | 74.734 | 1.00 95.81 | N |
| ATOM | 15150 | CA | ALA | B | 859 | 6.764 | 38.642 | 73.759 | 1.00 95.81 | C |
| ATOM | 15151 | C | ALA | B | 859 | 8.021 | 39.454 | 74.110 | 1.00 95.81 | C |
| ATOM | 15152 | O | ALA | B | 859 | 8.951 | 39.589 | 73.305 | 1.00 95.81 | O |
| ATOM | 15153 | CB | ALA | B | 859 | 5.527 | 39.520 | 73.857 | 1.00156.62 | C |
| ATOM | 15154 | N | ILE | B | 860 | 8.050 | 39.955 | 75.342 | 1.00156.46 | N |
| ATOM | 15155 | CA | ILE | B | 860 | 9.163 | 40.752 | 75.831 | 1.00156.46 | C |
| ATOM | 15156 | C | ILE | B | 860 | 10.513 | 40.094 | 75.610 | 1.00156.46 | C |
| ATOM | 15157 | O | ILE | B | 860 | 11.351 | 40.662 | 74.922 | 1.00156.46 | O |
| ATOM | 15158 | CB | ILE | B | 860 | 9.003 | 41.075 | 77.332 | 1.00178.92 | C |
| ATOM | 15159 | CG1 | ILE | B | 860 | 7.668 | 41.787 | 77.569 | 1.00178.92 | C |
| ATOM | 15160 | CG2 | ILE | B | 860 | 10.154 | 41.959 | 77.803 | 1.00178.92 | C |
| ATOM | 15161 | CD1 | ILE | B | 860 | 7.528 | 43.098 | 76.813 | 1.00178.92 | C |
| ATOM | 15162 | N | VAL | B | 861 | 10.746 | 38.916 | 76.185 | 1.00101.02 | N |
| ATOM | 15163 | CA | VAL | B | 861 | 12.033 | 38.265 | 75.976 | 1.00101.02 | C |
| ATOM | 15164 | C | VAL | B | 861 | 12.402 | 38.317 | 74.482 | 1.00101.02 | C |
| ATOM | 15165 | O | VAL | B | 861 | 13.442 | 38.887 | 74.123 | 1.00101.02 | O |
| ATOM | 15166 | CB | VAL | B | 861 | 12.019 | 36.806 | 76.481 | 1.00198.64 | C |
| ATOM | 15167 | CG1 | VAL | B | 861 | 13.267 | 36.080 | 76.016 | 1.00198.64 | C |
| ATOM | 15168 | CG2 | VAL | B | 861 | 11.969 | 36.792 | 78.000 | 1.00198.64 | C |
| ATOM | 15169 | N | PRO | B | 862 | 11.594 | 37.700 | 73.594 | 1.00100.92 | N |
| ATOM | 15170 | CA | PRO | B | 862 | 12.103 | 37.885 | 72.237 | 1.00100.92 | C |
| ATOM | 15171 | C | PRO | B | 862 | 12.548 | 39.326 | 71.847 | 1.00100.92 | C |
| ATOM | 15172 | O | PRO | B | 862 | 13.660 | 39.515 | 71.334 | 1.00100.92 | O |
| ATOM | 15173 | CB | PRO | B | 862 | 10.970 | 37.330 | 71.395 | 1.00133.75 | C |
| ATOM | 15174 | CG | PRO | B | 862 | 10.649 | 36.057 | 72.188 | 1.00133.75 | C |
| ATOM | 15175 | CD | PRO | B | 862 | 10.756 | 36.487 | 73.666 | 1.00133.75 | C |
| ATOM | 15176 | N | ILE | B | 863 | 11.724 | 40.344 | 72.111 | 1.00206.69 | N |
| ATOM | 15177 | CA | ILE | B | 863 | 12.147 | 41.706 | 71.737 | 1.00206.69 | C |
| ATOM | 15178 | C | ILE | B | 863 | 13.469 | 42.120 | 72.396 | 1.00206.69 | C |
| ATOM | 15179 | O | ILE | B | 863 | 14.389 | 42.536 | 71.697 | 1.00206.69 | O |
| ATOM | 15180 | CB | ILE | B | 863 | 11.070 | 42.789 | 72.041 | 1.00 95.35 | C |
| ATOM | 15181 | CG1 | ILE | B | 863 | 9.846 | 42.619 | 71.135 | 1.00 95.35 | C |
| ATOM | 15182 | CG2 | ILE | B | 863 | 11.645 | 44.175 | 71.756 | 1.00 95.35 | C |
| ATOM | 15183 | CD1 | ILE | B | 863 | 9.159 | 41.303 | 71.224 | 1.00 95.35 | C |
| ATOM | 15184 | N | ILE | B | 864 | 13.578 | 41.998 | 73.721 | 1.00112.77 | N |
| ATOM | 15185 | CA | ILE | B | 864 | 14.802 | 42.404 | 74.425 | 1.00112.77 | C |
| ATOM | 15186 | C | ILE | B | 864 | 15.988 | 41.555 | 74.023 | 1.00112.77 | C |
| ATOM | 15187 | O | ILE | B | 864 | 17.116 | 42.043 | 73.932 | 1.00112.77 | O |
| ATOM | 15188 | CB | ILE | B | 864 | 14.654 | 42.319 | 75.963 | 1.00205.94 | C |
| ATOM | 15189 | CG1 | ILE | B | 864 | 14.088 | 40.956 | 76.366 | 1.00205.94 | C |
| ATOM | 15190 | CG2 | ILE | B | 864 | 13.798 | 43.465 | 76.465 | 1.00205.94 | C |
| ATOM | 15191 | CD1 | ILE | B | 864 | 13.989 | 40.755 | 77.863 | 1.00205.94 | C |
| ATOM | 15192 | N | ALA | B | 865 | 15.746 | 40.275 | 73.803 | 1.00134.02 | N |
| ATOM | 15193 | CA | ALA | B | 865 | 16.818 | 39.409 | 73.376 | 1.00134.02 | C |
| ATOM | 15194 | C | ALA | B | 865 | 17.268 | 39.969 | 72.008 | 1.00134.02 | C |
| ATOM | 15195 | O | ALA | B | 865 | 18.468 | 40.260 | 71.787 | 1.00134.02 | O |
| ATOM | 15196 | CB | ALA | B | 865 | 16.324 | 37.968 | 73.211 | 1.00 80.21 | C |
| ATOM | 15197 | N | ILE | B | 866 | 16.283 | 40.142 | 71.117 | 1.00162.62 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15198 | CA | ILE | B | 866 | 16.489 | 40.688 | 69.770 | 1.00162.62 | C |
| ATOM | 15199 | C | ILE | B | 866 | 17.341 | 41.947 | 69.854 | 1.00162.62 | C |
| ATOM | 15200 | O | ILE | B | 866 | 18.140 | 42.238 | 68.966 | 1.00162.62 | O |
| ATOM | 15201 | CB | ILE | B | 866 | 15.140 | 41.042 | 69.098 | 1.00207.38 | C |
| ATOM | 15202 | CG1 | ILE | B | 866 | 14.423 | 39.762 | 68.659 | 1.00207.38 | C |
| ATOM | 15203 | CG2 | ILE | B | 866 | 15.371 | 41.968 | 67.913 | 1.00207.38 | C |
| ATOM | 15204 | CD1 | ILE | B | 866 | 13.027 | 39.992 | 68.114 | 1.00207.38 | C |
| ATOM | 15205 | N | ALA | B | 867 | 17.156 | 42.703 | 70.926 | 1.00162.19 | N |
| ATOM | 15206 | CA | ALA | B | 867 | 17.940 | 43.901 | 71.116 | 1.00162.19 | C |
| ATOM | 15207 | C | ALA | B | 867 | 19.374 | 43.434 | 71.302 | 1.00162.19 | C |
| ATOM | 15208 | O | ALA | B | 867 | 20.227 | 43.763 | 70.483 | 1.00162.19 | O |
| ATOM | 15209 | CB | ALA | B | 867 | 17.460 | 44.655 | 72.357 | 1.00161.67 | C |
| ATOM | 15210 | N | GLY | B | 868 | 19.633 | 42.659 | 72.359 | 1.00153.18 | N |
| ATOM | 15211 | CA | GLY | B | 868 | 20.982 | 42.166 | 72.596 | 1.00153.18 | C |
| ATOM | 15212 | C | GLY | B | 868 | 21.698 | 42.008 | 71.266 | 1.00153.18 | C |
| ATOM | 15213 | O | GLY | B | 868 | 22.769 | 42.616 | 71.015 | 1.00153.18 | O |
| ATOM | 15214 | N | VAL | B | 869 | 21.067 | 41.222 | 70.388 | 1.00207.38 | N |
| ATOM | 15215 | CA | VAL | B | 869 | 21.601 | 40.959 | 69.043 | 1.00207.38 | C |
| ATOM | 15216 | C | VAL | B | 869 | 21.773 | 42.204 | 68.178 | 1.00207.38 | C |
| ATOM | 15217 | O | VAL | B | 869 | 22.892 | 42.629 | 67.925 | 1.00207.38 | O |
| ATOM | 15218 | CB | VAL | B | 869 | 20.709 | 39.957 | 68.265 | 1.00111.64 | C |
| ATOM | 15219 | CG1 | VAL | B | 869 | 20.952 | 40.084 | 66.771 | 1.00111.64 | C |
| ATOM | 15220 | CG2 | VAL | B | 869 | 21.023 | 38.537 | 68.705 | 1.00111.64 | C |
| ATOM | 15221 | N | VAL | B | 870 | 20.668 | 42.775 | 67.714 | 1.00184.34 | N |
| ATOM | 15222 | CA | VAL | B | 870 | 20.725 | 43.955 | 66.860 | 1.00184.34 | C |
| ATOM | 15223 | C | VAL | B | 870 | 21.725 | 45.014 | 67.347 | 1.00184.34 | C |
| ATOM | 15224 | O | VAL | B | 870 | 22.497 | 45.560 | 66.540 | 1.00184.34 | O |
| ATOM | 15225 | CB | VAL | B | 870 | 19.324 | 44.596 | 66.722 | 1.00155.81 | C |
| ATOM | 15226 | CG1 | VAL | B | 870 | 18.821 | 45.059 | 68.080 | 1.00155.81 | C |
| ATOM | 15227 | CG2 | VAL | B | 870 | 19.373 | 45.750 | 65.743 | 1.00155.81 | C |
| ATOM | 15228 | N | GLU | B | 871 | 21.727 | 45.301 | 68.651 | 1.00187.66 | N |
| ATOM | 15229 | CA | GLU | B | 871 | 22.659 | 46.287 | 69.205 | 1.00187.66 | C |
| ATOM | 15230 | C | GLU | B | 871 | 24.104 | 45.901 | 68.898 | 1.00187.66 | C |
| ATOM | 15231 | O | GLU | B | 871 | 24.822 | 46.656 | 68.226 | 1.00187.66 | O |
| ATOM | 15232 | CB | GLU | B | 871 | 22.517 | 46.402 | 70.723 | 1.00194.61 | C |
| ATOM | 15233 | CG | GLU | B | 871 | 23.659 | 47.194 | 71.348 | 1.00194.61 | C |
| ATOM | 15234 | CD | GLU | B | 871 | 24.161 | 46.587 | 72.640 | 1.00194.61 | C |
| ATOM | 15235 | OE1 | GLU | B | 871 | 23.556 | 46.844 | 73.702 | 1.00194.61 | O |
| ATOM | 15236 | OE2 | GLU | B | 871 | 25.162 | 45.841 | 72.588 | 1.00194.61 | O |
| ATOM | 15237 | N | MET | B | 872 | 24.539 | 44.737 | 69.398 | 1.00207.38 | N |
| ATOM | 15238 | CA | MET | B | 872 | 25.918 | 44.289 | 69.132 | 1.00207.38 | C |
| ATOM | 15239 | C | MET | B | 872 | 26.285 | 44.328 | 67.628 | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15272 | C | SER | B | 876 | 30.468 | 46.726 | 63.663 | 1.00207.38 | C |
| ATOM | 15273 | O | SER | B | 876 | 31.575 | 47.161 | 63.319 | 1.00207.38 | O |
| ATOM | 15274 | CB | SER | B | 876 | 29.985 | 44.480 | 64.650 | 1.00166.34 | C |
| ATOM | 15275 | OG | SER | B | 876 | 29.964 | 43.699 | 65.830 | 1.00166.34 | O |
| ATOM | 15276 | N | GLY | B | 877 | 29.362 | 46.900 | 62.946 | 1.00165.50 | N |
| ATOM | 15277 | CA | GLY | B | 877 | 29.408 | 47.625 | 61.690 | 1.00165.50 | C |
| ATOM | 15278 | C | GLY | B | 877 | 30.224 | 48.902 | 61.774 | 1.00165.50 | C |
| ATOM | 15279 | O | GLY | B | 877 | 31.152 | 49.110 | 60.985 | 1.00165.50 | O |
| ATOM | 15280 | N | GLN | B | 878 | 29.879 | 49.758 | 62.732 | 1.00174.80 | N |
| ATOM | 15281 | CA | GLN | B | 878 | 30.591 | 51.022 | 62.903 | 1.00174.80 | C |
| ATOM | 15282 | C | GLN | B | 878 | 32.053 | 50.788 | 63.261 | 1.00174.80 | C |
| ATOM | 15283 | O | GLN | B | 878 | 32.943 | 51.474 | 62.739 | 1.00174.80 | O |
| ATOM | 15284 | CB | GLN | B | 878 | 29.911 | 51.868 | 63.983 | 1.00155.87 | C |
| ATOM | 15285 | CG | GLN | B | 878 | 28.493 | 52.314 | 63.618 | 1.00155.87 | C |
| ATOM | 15286 | CD | GLN | B | 878 | 28.465 | 53.393 | 62.546 | 1.00155.87 | C |
| ATOM | 15287 | OE1 | GLN | B | 878 | 27.436 | 53.624 | 61.911 | 1.00155.87 | O |
| ATOM | 15288 | NE2 | GLN | B | 878 | 29.593 | 54.070 | 62.351 | 1.00155.87 | N |
| ATOM | 15289 | N | ALA | B | 879 | 32.311 | 49.821 | 64.141 | 1.00207.38 | N |
| ATOM | 15290 | CA | ALA | B | 879 | 33.694 | 49.528 | 64.513 | 1.00207.38 | C |
| ATOM | 15291 | C | ALA | B | 879 | 34.549 | 49.188 | 63.270 | 1.00207.38 | C |
| ATOM | 15292 | O | ALA | B | 879 | 35.568 | 49.851 | 63.007 | 1.00207.38 | O |
| ATOM | 15293 | CB | ALA | B | 879 | 33.729 | 48.375 | 65.492 | 1.00109.74 | C |
| ATOM | 15294 | N | LEU | B | 880 | 34.133 | 48.183 | 62.494 | 1.00207.38 | N |
| ATOM | 15295 | CA | LEU | B | 880 | 34.885 | 47.791 | 61.299 | 1.00207.38 | C |
| ATOM | 15296 | C | LEU | B | 880 | 35.011 | 48.902 | 60.246 | 1.00207.38 | C |
| ATOM | 15297 | O | LEU | B | 880 | 36.125 | 49.227 | 59.822 | 1.00207.38 | O |
| ATOM | 15298 | CB | LEU | B | 880 | 34.263 | 46.552 | 60.648 | 1.00207.38 | C |
| ATOM | 15299 | CG | LEU | B | 880 | 34.944 | 46.081 | 59.356 | 1.00207.38 | C |
| ATOM | 15300 | CD1 | LEU | B | 880 | 36.420 | 45.807 | 59.611 | 1.00207.38 | C |
| ATOM | 15301 | CD2 | LEU | B | 880 | 34.251 | 44.833 | 58.840 | 1.00207.38 | C |
| ATOM | 15302 | N | LYS | B | 881 | 33.890 | 49.483 | 59.819 | 1.00182.08 | N |
| ATOM | 15303 | CA | LYS | B | 881 | 33.946 | 50.554 | 58.823 | 1.00182.08 | C |
| ATOM | 15304 | C | LYS | B | 881 | 34.989 | 51.622 | 59.207 | 1.00182.08 | C |
| ATOM | 15305 | O | LYS | B | 881 | 35.809 | 52.041 | 58.373 | 1.00182.08 | O |
| ATOM | 15306 | CB | LYS | B | 881 | 32.576 | 51.226 | 58.644 | 1.00206.17 | C |
| ATOM | 15307 | CG | LYS | B | 881 | 32.000 | 51.873 | 59.896 | 1.00206.17 | C |
| ATOM | 15308 | CD | LYS | B | 881 | 30.840 | 52.807 | 59.560 | 1.00206.17 | C |
| ATOM | 15309 | CE | LYS | B | 881 | 31.326 | 54.137 | 58.990 | 1.00206.17 | C |
| ATOM | 15310 | NZ | LYS | B | 881 | 32.060 | 53.993 | 57.703 | 1.00206.17 | N |
| ATOM | 15311 | N | ASP | B | 882 | 34.973 | 52.063 | 60.465 | 1.00197.47 | N |
| ATOM | 15312 | CA | ASP | B | 882 | 35.950 | 53.067 | 60.865 | 1.00197.47 | C |
| ATOM | 15313 | C | ASP | B | 882 | 37.323 | 52.473 | 60.621 | 1.00197.47 | C |
| ATOM | 15314 | O | ASP | B | 882 | 38.188 | 53.124 | 60.033 | 1.00197.47 | O |
| ATOM | 15315 | CB | ASP | B | 882 | 35.774 | 53.453 | 62.335 | 1.00207.38 | C |
| ATOM | 15316 | CG | ASP | B | 882 | 35.568 | 54.947 | 62.517 | 1.00207.38 | C |
| ATOM | 15317 | OD1 | ASP | B | 882 | 34.597 | 55.487 | 61.944 | 1.00207.38 | O |
| ATOM | 15318 | OD2 | ASP | B | 882 | 36.376 | 55.583 | 63.226 | 1.00207.38 | O |
| ATOM | 15319 | N | LYS | B | 883 | 37.511 | 51.227 | 61.049 | 1.00179.61 | N |
| ATOM | 15320 | CA | LYS | B | 883 | 38.790 | 50.571 | 60.835 | 1.00179.61 | C |
| ATOM | 15321 | C | LYS | B | 883 | 39.169 | 50.781 | 59.384 | 1.00179.61 | C |
| ATOM | 15322 | O | LYS | B | 883 | 40.345 | 50.827 | 59.049 | 1.00179.61 | O |
| ATOM | 15323 | CB | LYS | B | 883 | 38.689 | 49.066 | 61.117 | 1.00207.38 | C |
| ATOM | 15324 | CG | LYS | B | 883 | 38.192 | 48.687 | 62.507 | 1.00207.38 | C |
| ATOM | 15325 | CD | LYS | B | 883 | 39.016 | 49.334 | 63.605 | 1.00207.38 | C |
| ATOM | 15326 | CE | LYS | B | 883 | 38.672 | 48.741 | 64.959 | 1.00207.38 | C |
| ATOM | 15327 | NZ | LYS | B | 883 | 37.206 | 48.753 | 65.223 | 1.00207.38 | N |
| ATOM | 15328 | N | LYS | B | 884 | 38.171 | 50.922 | 58.520 | 1.00173.72 | N |
| ATOM | 15329 | CA | LYS | B | 884 | 38.447 | 51.122 | 57.106 | 1.00173.72 | C |
| ATOM | 15330 | C | LYS | B | 884 | 38.932 | 52.534 | 56.802 | 1.00173.72 | C |
| ATOM | 15331 | O | LYS | B | 884 | 40.044 | 52.721 | 56.304 | 1.00173.72 | O |
| ATOM | 15332 | CB | LYS | B | 884 | 37.202 | 50.802 | 56.271 | 1.00207.38 | C |
| ATOM | 15333 | CG | LYS | B | 884 | 36.764 | 49.334 | 56.318 | 1.00207.38 | C |
| ATOM | 15334 | CD | LYS | B | 884 | 37.773 | 48.405 | 55.646 | 1.00207.38 | C |
| ATOM | 15335 | CE | LYS | B | 884 | 37.865 | 48.659 | 54.146 | 1.00207.38 | C |
| ATOM | 15336 | NZ | LYS | B | 884 | 38.782 | 47.701 | 53.463 | 1.00207.38 | N |
| ATOM | 15337 | N | GLU | B | 885 | 38.114 | 53.533 | 57.091 | 1.00153.54 | N |
| ATOM | 15338 | CA | GLU | B | 885 | 38.527 | 54.908 | 56.826 | 1.00153.54 | C |
| ATOM | 15339 | C | GLU | B | 885 | 39.958 | 55.129 | 57.352 | 1.00153.54 | C |
| ATOM | 15340 | O | GLU | B | 885 | 40.916 | 55.494 | 56.610 | 1.00153.54 | O |
| ATOM | 15341 | CB | GLU | B | 885 | 37.558 | 55.866 | 57.513 | 1.00156.71 | C |
| ATOM | 15342 | CG | GLU | B | 885 | 36.115 | 55.634 | 57.118 | 1.00156.71 | C |
| ATOM | 15343 | CD | GLU | B | 885 | 35.141 | 55.957 | 58.231 | 1.00156.71 | C |
| ATOM | 15344 | OE1 | GLU | B | 885 | 33.917 | 55.875 | 57.992 | 1.00156.71 | O |
| ATOM | 15345 | OE2 | GLU | B | 885 | 35.596 | 56.285 | 59.346 | 1.00156.71 | O |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15346 | N | LEU | B | 886 | 40.097 | 54.890 | 58.650 | 1.00172.56 | N |
| ATOM | 15347 | CA | LEU | B | 886 | 41.377 | 55.033 | 59.313 | 1.00172.56 | C |
| ATOM | 15348 | C | LEU | B | 886 | 42.452 | 54.251 | 58.548 | 1.00172.56 | C |
| ATOM | 15349 | O | LEU | B | 886 | 43.600 | 54.690 | 58.460 | 1.00172.56 | O |
| ATOM | 15350 | CB | LEU | B | 886 | 41.282 | 54.549 | 60.765 | 1.00207.38 | C |
| ATOM | 15351 | CG | LEU | B | 886 | 40.899 | 53.098 | 61.072 | 1.00207.38 | C |
| ATOM | 15352 | CD1 | LEU | B | 886 | 42.120 | 52.207 | 60.929 | 1.00207.38 | C |
| ATOM | 15353 | CD2 | LEU | B | 886 | 40.353 | 52.999 | 62.489 | 1.00207.38 | C |
| ATOM | 15354 | N | GLU | B | 887 | 42.077 | 53.103 | 57.982 | 1.00207.38 | N |
| ATOM | 15355 | CA | GLU | B | 887 | 43.034 | 52.293 | 57.229 | 1.00207.38 | C |
| ATOM | 15356 | C | GLU | B | 887 | 43.586 | 53.095 | 56.063 | 1.00207.38 | C |
| ATOM | 15357 | O | GLU | B | 887 | 44.778 | 53.014 | 55.779 | 1.00207.38 | O |
| ATOM | 15358 | CB | GLU | B | 887 | 42.374 | 51.013 | 56.703 | 1.00190.28 | C |
| ATOM | 15359 | CG | GLU | B | 887 | 42.047 | 51.050 | 55.213 | 1.00190.28 | C |
| ATOM | 15360 | CD | GLU | B | 887 | 41.544 | 49.721 | 54.683 | 1.00190.28 | C |
| ATOM | 15361 | OE1 | GLU | B | 887 | 41.144 | 49.664 | 53.501 | 1.00190.28 | O |
| ATOM | 15362 | OE2 | GLU | B | 887 | 41.550 | 48.732 | 55.445 | 1.00190.28 | O |
| ATOM | 15363 | N | GLY | B | 888 | 42.721 | 53.850 | 55.381 | 1.00101.01 | N |
| ATOM | 15364 | CA | GLY | B | 888 | 43.188 | 54.658 | 54.265 | 1.00101.01 | C |
| ATOM | 15365 | C | GLY | B | 888 | 44.318 | 55.502 | 54.817 | 1.00101.01 | C |
| ATOM | 15366 | O | GLY | B | 888 | 45.499 | 55.460 | 54.365 | 1.00101.01 | O |
| ATOM | 15367 | N | SER | B | 889 | 43.955 | 56.249 | 55.852 | 1.00 94.98 | N |
| ATOM | 15368 | CA | SER | B | 889 | 44.936 | 57.095 | 56.507 | 1.00 94.98 | C |
| ATOM | 15369 | C | SER | B | 889 | 46.184 | 56.324 | 56.973 | 1.00 94.98 | C |
| ATOM | 15370 | O | SER | B | 889 | 47.249 | 56.447 | 56.381 | 1.00 94.98 | O |
| ATOM | 15371 | CB | SER | B | 889 | 44.281 | 57.798 | 57.700 | 1.00 65.50 | C |
| ATOM | 15372 | OG | SER | B | 889 | 43.071 | 58.436 | 57.332 | 1.00 65.50 | O |
| ATOM | 15373 | N | GLY | B | 890 | 46.052 | 55.535 | 58.040 | 1.00168.56 | N |
| ATOM | 15374 | CA | GLY | B | 890 | 47.179 | 54.774 | 58.569 | 1.00168.56 | C |
| ATOM | 15375 | C | GLY | B | 890 | 48.052 | 54.099 | 57.525 | 1.00168.56 | C |
| ATOM | 15376 | O | GLY | B | 890 | 49.280 | 54.086 | 57.635 | 1.00168.56 | O |
| ATOM | 15377 | N | LYS | B | 891 | 47.416 | 53.519 | 56.514 | 1.00157.00 | N |
| ATOM | 15378 | CA | LYS | B | 891 | 48.150 | 52.860 | 55.445 | 1.00157.00 | C |
| ATOM | 15379 | C | LYS | B | 891 | 49.179 | 53.827 | 54.871 | 1.00157.00 | C |
| ATOM | 15380 | O | LYS | B | 891 | 50.390 | 53.540 | 54.837 | 1.00157.00 | O |
| ATOM | 15381 | CB | LYS | B | 891 | 47.201 | 52.400 | 54.320 | 1.00122.25 | C |
| ATOM | 15382 | CG | LYS | B | 891 | 46.724 | 50.934 | 54.372 | 1.00122.25 | C |
| ATOM | 15383 | CD | LYS | B | 891 | 46.015 | 50.553 | 53.065 | 1.00122.25 | C |
| ATOM | 15384 | CE | LYS | B | 891 | 45.813 | 49.049 | 52.938 | 1.00122.25 | C |
| ATOM | 15385 | NZ | LYS | B | 891 | 45.225 | 48.670 | 51.621 | 1.00122.25 | N |
| ATOM | 15386 | N | ILE | B | 892 | 48.699 | 54.984 | 54.426 | 1.00105.99 | N |
| ATOM | 15387 | CA | ILE | B | 892 | 49.621 | 55.953 | 53.852 | 1.00105.99 | C |
| ATOM | 15388 | C | ILE | B | 892 | 50.635 | 56.531 | 54.854 | 1.00105.99 | C |
| ATOM | 15389 | O | ILE | B | 892 | 51.760 | 56.886 | 54.481 | 1.00105.99 | O |
| ATOM | 15390 | CB | ILE | B | 892 | 48.823 | 57.067 | 53.151 | 1.00149.42 | C |
| ATOM | 15391 | CG1 | ILE | B | 892 | 47.670 | 57.529 | 54.045 | 1.00149.42 | C |
| ATOM | 15392 | CG2 | ILE | B | 892 | 48.270 | 56.544 | 51.821 | 1.00149.42 | C |
| ATOM | 15393 | CD1 | ILE | B | 892 | 46.698 | 58.471 | 53.360 | 1.00149.42 | C |
| ATOM | 15394 | N | ALA | B | 893 | 50.259 | 56.579 | 56.128 | 1.00 69.70 | N |
| ATOM | 15395 | CA | ALA | B | 893 | 51.144 | 57.105 | 57.168 | 1.00 69.70 | C |
| ATOM | 15396 | C | ALA | B | 893 | 52.321 | 56.165 | 57.332 | 1.00 69.70 | C |
| ATOM | 15397 | O | ALA | B | 893 | 53.428 | 56.556 | 57.785 | 1.00 69.70 | O |
| ATOM | 15398 | CB | ALA | B | 893 | 50.385 | 57.234 | 58.478 | 1.00207.38 | C |
| ATOM | 15399 | N | THR | B | 894 | 52.067 | 54.913 | 56.966 | 1.00104.97 | N |
| ATOM | 15400 | CA | THR | B | 894 | 53.093 | 53.907 | 57.031 | 1.00104.97 | C |
| ATOM | 15401 | C | THR | B | 894 | 53.960 | 54.164 | 55.808 | 1.00104.97 | C |
| ATOM | 15402 | O | THR | B | 894 | 55.189 | 54.130 | 55.890 | 1.00104.97 | O |
| ATOM | 15403 | CB | THR | B | 894 | 52.495 | 52.491 | 56.984 | 1.00151.58 | C |
| ATOM | 15404 | OG1 | THR | B | 894 | 51.507 | 52.360 | 58.014 | 1.00151.58 | O |
| ATOM | 15405 | CG2 | THR | B | 894 | 53.581 | 51.448 | 57.216 | 1.00151.58 | C |
| ATOM | 15406 | N | GLU | B | 895 | 53.319 | 54.466 | 54.681 | 1.00 61.43 | N |
| ATOM | 15407 | CA | GLU | B | 895 | 54.083 | 54.751 | 53.471 | 1.00 61.43 | C |
| ATOM | 15408 | C | GLU | B | 895 | 55.228 | 55.656 | 53.835 | 1.00 61.43 | C |
| ATOM | 15409 | O | GLU | B | 895 | 56.363 | 55.343 | 53.544 | 1.00 61.43 | O |
| ATOM | 15410 | CB | GLU | B | 895 | 53.242 | 55.442 | 52.397 | 1.00131.48 | C |
| ATOM | 15411 | CG | GLU | B | 895 | 54.050 | 55.712 | 51.132 | 1.00131.48 | C |
| ATOM | 15412 | CD | GLU | B | 895 | 53.340 | 56.594 | 50.134 | 1.00131.48 | C |
| ATOM | 15413 | OE1 | GLU | B | 895 | 53.099 | 57.777 | 50.455 | 1.00131.48 | O |
| ATOM | 15414 | OE2 | GLU | B | 895 | 53.032 | 56.102 | 49.027 | 1.00131.48 | O |
| ATOM | 15415 | N | ALA | B | 896 | 54.940 | 56.758 | 54.515 | 1.00127.29 | N |
| ATOM | 15416 | CA | ALA | B | 896 | 56.002 | 57.703 | 54.886 | 1.00127.29 | C |
| ATOM | 15417 | C | ALA | B | 896 | 56.997 | 57.266 | 55.967 | 1.00127.29 | C |
| ATOM | 15418 | O | ALA | B | 896 | 58.236 | 57.203 | 55.735 | 1.00127.29 | O |
| ATOM | 15419 | CB | ALA | B | 896 | 55.364 | 59.049 | 55.282 | 1.00 17.91 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15420 | N | ILE | B | 897 | 56.471 | 57.003 | 57.162 | 1.00175.99 | N |
| ATOM | 15421 | CA | ILE | B | 897 | 57.347 | 56.604 | 58.253 | 1.00175.99 | C |
| ATOM | 15422 | C | ILE | B | 897 | 58.176 | 55.404 | 57.802 | 1.00175.99 | C |
| ATOM | 15423 | O | ILE | B | 897 | 59.376 | 55.327 | 58.067 | 1.00175.99 | O |
| ATOM | 15424 | CB | ILE | B | 897 | 56.526 | 56.280 | 59.532 | 1.00134.60 | C |
| ATOM | 15425 | CG1 | ILE | B | 897 | 55.581 | 55.102 | 59.292 | 1.00134.60 | C |
| ATOM | 15426 | CG2 | ILE | B | 897 | 55.726 | 57.503 | 59.944 | 1.00134.60 | C |
| ATOM | 15427 | CD1 | ILE | B | 897 | 56.221 | 53.755 | 59.526 | 1.00134.60 | C |
| ATOM | 15428 | N | GLU | B | 898 | 57.532 | 54.492 | 57.081 | 1.00118.83 | N |
| ATOM | 15429 | CA | GLU | B | 898 | 58.191 | 53.299 | 56.572 | 1.00118.83 | C |
| ATOM | 15430 | C | GLU | B | 898 | 59.239 | 53.644 | 55.512 | 1.00118.83 | C |
| ATOM | 15431 | O | GLU | B | 898 | 60.119 | 52.832 | 55.231 | 1.00118.83 | O |
| ATOM | 15432 | CB | GLU | B | 898 | 57.137 | 52.370 | 55.970 | 1.00154.90 | C |
| ATOM | 15433 | CG | GLU | B | 898 | 57.684 | 51.131 | 55.304 | 1.00154.90 | C |
| ATOM | 15434 | CD | GLU | B | 898 | 56.650 | 50.459 | 54.428 | 1.00154.90 | C |
| ATOM | 15435 | OE1 | GLU | B | 898 | 56.953 | 49.397 | 53.843 | 1.00154.90 | O |
| ATOM | 15436 | OE2 | GLU | B | 898 | 55.531 | 51.002 | 54.323 | 1.00154.90 | O |
| ATOM | 15437 | N | ASN | B | 899 | 59.147 | 54.841 | 54.924 | 1.00114.86 | N |
| ATOM | 15438 | CA | ASN | B | 899 | 60.110 | 55.260 | 53.898 | 1.00114.86 | C |
| ATOM | 15439 | C | ASN | B | 899 | 61.046 | 56.425 | 54.197 | 1.00114.86 | C |
| ATOM | 15440 | O | ASN | B | 899 | 61.401 | 57.128 | 53.262 | 1.00114.86 | O |
| ATOM | 15441 | CB | ASN | B | 899 | 59.380 | 55.587 | 52.596 | 1.00 75.50 | C |
| ATOM | 15442 | CG | ASN | B | 899 | 58.908 | 54.355 | 51.855 | 1.00 75.50 | C |
| ATOM | 15443 | OD1 | ASN | B | 899 | 59.625 | 53.361 | 51.749 | 1.00 75.50 | O |
| ATOM | 15444 | ND2 | ASN | B | 899 | 57.700 | 54.427 | 51.307 | 1.00 75.50 | N |
| ATOM | 15445 | N | PHE | B | 900 | 61.412 | 56.662 | 55.458 | 1.00 89.26 | N |
| ATOM | 15446 | CA | PHE | B | 900 | 62.369 | 57.747 | 55.838 | 1.00 89.26 | C |
| ATOM | 15447 | C | PHE | B | 900 | 63.162 | 58.491 | 54.724 | 1.00 89.26 | C |
| ATOM | 15448 | O | PHE | B | 900 | 63.572 | 59.661 | 54.909 | 1.00 89.26 | O |
| ATOM | 15449 | CB | PHE | B | 900 | 63.380 | 57.196 | 56.851 | 1.00121.03 | C |
| ATOM | 15450 | CG | PHE | B | 900 | 64.768 | 56.964 | 56.284 | 1.00121.03 | C |
| ATOM | 15451 | CD1 | PHE | B | 900 | 65.551 | 58.034 | 55.851 | 1.00121.03 | C |
| ATOM | 15452 | CD2 | PHE | B | 900 | 65.296 | 55.677 | 56.200 | 1.00121.03 | C |
| ATOM | 15453 | CE1 | PHE | B | 900 | 66.838 | 57.829 | 55.346 | 1.00121.03 | C |
| ATOM | 15454 | CE2 | PHE | B | 900 | 66.586 | 55.457 | 55.694 | 1.00121.03 | C |
| ATOM | 15455 | CZ | PHE | B | 900 | 67.358 | 56.538 | 55.266 | 1.00121.03 | C |
| ATOM | 15456 | N | ARG | B | 901 | 63.425 | 57.774 | 53.621 | 1.00 94.02 | N |
| ATOM | 15457 | CA | ARG | B | 901 | 64.132 | 58.247 | 52.411 | 1.00 94.02 | C |
| ATOM | 15458 | C | ARG | B | 901 | 63.408 | 59.464 | 51.894 | 1.00 94.02 | C |
| ATOM | 15459 | O | ARG | B | 901 | 63.356 | 59.749 | 50.693 | 1.00 94.02 | O |
| ATOM | 15460 | CB | ARG | B | 901 | 64.115 | 57.148 | 51.341 | 1.00164.16 | C |
| ATOM | 15461 | CG | ARG | B | 901 | 64.697 | 55.804 | 51.791 | 1.00164.16 | C |
| ATOM | 15462 | CD | ARG | B | 901 | 63.866 | 55.151 | 52.892 | 1.00164.16 | C |
| ATOM | 15463 | NE | ARG | B | 901 | 63.052 | 54.039 | 52.405 | 1.00164.16 | N |
| ATOM | 15464 | CZ | ARG | B | 901 | 62.393 | 53.193 | 53.192 | 1.00164.16 | C |
| ATOM | 15465 | NH1 | ARG | B | 901 | 62.448 | 53.328 | 54.509 | 1.00164.16 | N |
| ATOM | 15466 | NH2 | ARG | B | 901 | 61.681 | 52.210 | 52.662 | 1.00164.16 | N |
| ATOM | 15467 | N | THR | B | 902 | 62.841 | 60.150 | 52.871 | 1.00 98.78 | N |
| ATOM | 15468 | CA | THR | B | 902 | 62.068 | 61.338 | 52.710 | 1.00 98.78 | C |
| ATOM | 15469 | C | THR | B | 902 | 62.714 | 62.475 | 53.481 | 1.00 98.78 | C |
| ATOM | 15470 | O | THR | B | 902 | 62.889 | 63.566 | 52.945 | 1.00 98.78 | O |
| ATOM | 15471 | CB | THR | B | 902 | 60.633 | 61.148 | 53.252 | 1.00 96.06 | C |
| ATOM | 15472 | OG1 | THR | B | 902 | 60.162 | 62.383 | 53.815 | 1.00 96.06 | O |
| ATOM | 15473 | CG2 | THR | B | 902 | 60.603 | 60.039 | 54.289 | 1.00 96.06 | C |
| ATOM | 15474 | N | VAL | B | 903 | 63.078 | 62.228 | 54.734 | 1.00116.36 | N |
| ATOM | 15475 | CA | VAL | B | 903 | 63.697 | 63.279 | 55.533 | 1.00116.36 | C |
| ATOM | 15476 | C | VAL | B | 903 | 64.898 | 63.763 | 54.730 | 1.00116.36 | C |
| ATOM | 15477 | O | VAL | B | 903 | 65.506 | 64.807 | 55.013 | 1.00116.36 | O |
| ATOM | 15478 | CB | VAL | B | 903 | 64.148 | 62.729 | 56.907 | 1.00103.44 | C |
| ATOM | 15479 | CG1 | VAL | B | 903 | 65.244 | 61.702 | 56.731 | 1.00103.44 | C |
| ATOM | 15480 | CG2 | VAL | B | 903 | 64.616 | 63.859 | 57.785 | 1.00103.44 | C |
| ATOM | 15481 | N | VAL | B | 904 | 65.198 | 62.968 | 53.705 | 1.00101.16 | N |
| ATOM | 15482 | CA | VAL | B | 904 | 66.272 | 63.207 | 52.757 | 1.00101.16 | C |
| ATOM | 15483 | C | VAL | B | 904 | 66.073 | 64.582 | 52.174 | 1.00101.16 | C |
| ATOM | 15484 | O | VAL | B | 904 | 67.013 | 65.349 | 52.033 | 1.00101.16 | O |
| ATOM | 15485 | CB | VAL | B | 904 | 66.233 | 62.173 | 51.614 | 1.00107.41 | C |
| ATOM | 15486 | CG1 | VAL | B | 904 | 64.871 | 62.210 | 50.939 | 1.00107.41 | C |
| ATOM | 15487 | CG2 | VAL | B | 904 | 67.340 | 62.454 | 50.606 | 1.00107.41 | C |
| ATOM | 15488 | N | SER | B | 905 | 64.828 | 64.874 | 51.825 | 1.00 86.36 | N |
| ATOM | 15489 | CA | SER | B | 905 | 64.457 | 66.172 | 51.281 | 1.00 86.36 | C |
| ATOM | 15490 | C | SER | B | 905 | 63.644 | 66.939 | 52.349 | 1.00 86.36 | C |
| ATOM | 15491 | O | SER | B | 905 | 63.762 | 68.163 | 52.486 | 1.00 86.36 | O |
| ATOM | 15492 | CB | SER | B | 905 | 63.605 | 66.003 | 50.020 | 1.00 40.79 | C |
| ATOM | 15493 | OG | SER | B | 905 | 63.518 | 64.637 | 49.656 | 1.00 40.79 | O |

| | | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------|--------|---|
| ATOM | 15494 | N | LEU | B | 906 | 62.844 | 66.197 | 53.120 | 1.00 | 87.87 | N |
| ATOM | 15495 | CA | LEU | B | 906 | 61.994 | 66.757 | 54.172 | 1.00 | 87.87 | C |
| ATOM | 15496 | C | LEU | B | 906 | 60.974 | 67.694 | 53.549 | 1.00 | 87.87 | C |
| ATOM | 15497 | O | LEU | B | 906 | 60.230 | 68.369 | 54.251 | 1.00 | 87.87 | O |
| ATOM | 15498 | CB | LEU | B | 906 | 62.844 | 67.496 | 55.215 | 1.00 | 147.39 | C |
| ATOM | 15499 | CG | LEU | B | 906 | 62.156 | 68.030 | 56.480 | 1.00 | 147.39 | C |
| ATOM | 15500 | CD1 | LEU | B | 906 | 62.993 | 67.693 | 57.703 | 1.00 | 147.39 | C |
| ATOM | 15501 | CD2 | LEU | B | 906 | 61.955 | 69.532 | 56.371 | 1.00 | 147.39 | C |
| ATOM | 15502 | N | THR | B | 907 | 60.951 | 67.717 | 52.217 | 1.00 | 75.85 | N |
| ATOM | 15503 | CA | THR | B | 907 | 60.032 | 68.549 | 51.430 | 1.00 | 75.85 | C |
| ATOM | 15504 | C | THR | B | 907 | 58.698 | 67.837 | 51.274 | 1.00 | 75.85 | C |
| ATOM | 15505 | O | THR | B | 907 | 58.264 | 67.513 | 50.174 | 1.00 | 75.85 | O |
| ATOM | 15506 | CB | THR | B | 907 | 60.605 | 68.898 | 50.034 | 1.00 | 157.05 | C |
| ATOM | 15507 | OG1 | THR | B | 907 | 61.203 | 67.737 | 49.448 | 1.00 | 157.05 | O |
| ATOM | 15508 | CG2 | THR | B | 907 | 61.637 | 70.011 | 50.147 | 1.00 | 157.05 | C |
| ATOM | 15509 | N | ARG | B | 908 | 58.068 | 67.618 | 52.425 | 1.00 | 207.38 | N |
| ATOM | 15510 | CA | ARG | B | 908 | 56.777 | 66.952 | 52.522 | 1.00 | 207.38 | C |
| ATOM | 15511 | C | ARG | B | 908 | 56.323 | 66.910 | 53.986 | 1.00 | 207.38 | C |
| ATOM | 15512 | O | ARG | B | 908 | 55.167 | 67.165 | 54.289 | 1.00 | 207.38 | O |
| ATOM | 15513 | CB | ARG | B | 908 | 56.878 | 65.517 | 51.976 | 1.00 | 189.88 | C |
| ATOM | 15514 | CG | ARG | B | 908 | 57.466 | 64.482 | 52.947 | 1.00 | 189.88 | C |
| ATOM | 15515 | CD | ARG | B | 908 | 58.664 | 65.035 | 53.701 | 1.00 | 189.88 | C |
| ATOM | 15516 | NE | ARG | B | 908 | 59.618 | 65.693 | 52.814 | 1.00 | 189.88 | N |
| ATOM | 15517 | CZ | ARG | B | 908 | 60.429 | 65.069 | 51.966 | 1.00 | 189.88 | C |
| ATOM | 15518 | NH1 | ARG | B | 908 | 61.252 | 65.776 | 51.208 | 1.00 | 189.88 | N |
| ATOM | 15519 | NH2 | ARG | B | 908 | 60.432 | 63.746 | 51.880 | 1.00 | 189.88 | N |
| ATOM | 15520 | N | GLU | B | 909 | 57.245 | 66.583 | 54.885 | 1.00 | 116.06 | N |
| ATOM | 15521 | CA | GLU | B | 909 | 56.962 | 66.506 | 56.292 | 1.00 | 116.06 | C |
| ATOM | 15522 | C | GLU | B | 909 | 55.541 | 66.738 | 56.676 | 1.00 | 116.06 | C |
| ATOM | 15523 | O | GLU | B | 909 | 54.687 | 65.855 | 56.519 | 1.00 | 116.06 | O |
| ATOM | 15524 | CB | GLU | B | 909 | 57.839 | 67.493 | 57.059 | 1.00 | 89.41 | C |
| ATOM | 15525 | CG | GLU | B | 909 | 58.783 | 66.816 | 58.010 | 1.00 | 89.41 | C |
| ATOM | 15526 | CD | GLU | B | 909 | 59.379 | 65.576 | 57.383 | 1.00 | 89.41 | C |
| ATOM | 15527 | OE1 | GLU | B | 909 | 60.545 | 65.260 | 57.673 | 1.00 | 89.41 | O |
| ATOM | 15528 | OE2 | GLU | B | 909 | 58.675 | 64.909 | 56.590 | 1.00 | 89.41 | O |
| ATOM | 15529 | N | GLN | B | 910 | 55.274 | 67.928 | 57.203 | 1.00 | 154.61 | N |
| ATOM | 15530 | CA | GLN | B | 910 | 53.921 | 68.217 | 57.600 | 1.00 | 154.61 | C |
| ATOM | 15531 | C | GLN | B | 910 | 53.096 | 67.935 | 56.357 | 1.00 | 154.61 | C |
| ATOM | 15532 | O | GLN | B | 910 | 52.263 | 67.037 | 56.386 | 1.00 | 154.61 | O |
| ATOM | 15533 | CB | GLN | B | 910 | 53.757 | 69.660 | 58.067 | 1.00 | 196.60 | C |
| ATOM | 15534 | CG | GLN | B | 910 | 52.675 | 69.766 | 59.122 | 1.00 | 196.60 | C |
| ATOM | 15535 | CD | GLN | B | 910 | 52.839 | 68.710 | 60.208 | 1.00 | 196.60 | C |
| ATOM | 15536 | OE1 | GLN | B | 910 | 53.640 | 68.865 | 61.129 | 1.00 | 196.60 | O |
| ATOM | 15537 | NE2 | GLN | B | 910 | 52.092 | 67.620 | 60.087 | 1.00 | 196.60 | N |
| ATOM | 15538 | N | LYS | B | 911 | 53.372 | 68.658 | 55.264 | 1.00 | 207.38 | N |
| ATOM | 15539 | CA | LYS | B | 911 | 52.673 | 68.473 | 53.979 | 1.00 | 207.38 | C |
| ATOM | 15540 | C | LYS | B | 911 | 52.168 | 67.022 | 53.935 | 1.00 | 207.38 | C |
| ATOM | 15541 | O | LYS | B | 911 | 51.021 | 66.751 | 53.581 | 1.00 | 207.38 | O |
| ATOM | 15542 | CB | LYS | B | 911 | 53.652 | 68.730 | 52.817 | 1.00 | 152.55 | C |
| ATOM | 15543 | CG | LYS | B | 911 | 53.093 | 68.580 | 51.394 | 1.00 | 152.55 | C |
| ATOM | 15544 | CD | LYS | B | 911 | 53.054 | 67.122 | 50.938 | 1.00 | 152.55 | C |
| ATOM | 15545 | CE | LYS | B | 911 | 52.880 | 66.988 | 49.422 | 1.00 | 152.55 | C |
| ATOM | 15546 | NZ | LYS | B | 911 | 51.618 | 67.583 | 48.893 | 1.00 | 152.55 | N |
| ATOM | 15547 | N | PHE | B | 912 | 53.032 | 66.102 | 54.347 | 1.00 | 140.24 | N |
| ATOM | 15548 | CA | PHE | B | 912 | 52.717 | 64.687 | 54.394 | 1.00 | 140.24 | C |
| ATOM | 15549 | C | PHE | B | 912 | 51.619 | 64.401 | 55.404 | 1.00 | 140.24 | C |
| ATOM | 15550 | O | PHE | B | 912 | 50.400 | 64.350 | 55.089 | 1.00 | 140.24 | O |
| ATOM | 15551 | CB | PHE | B | 912 | 53.966 | 63.912 | 54.823 | 1.00 | 116.31 | C |
| ATOM | 15552 | CG | PHE | B | 912 | 54.434 | 62.900 | 53.831 | 1.00 | 116.31 | C |
| ATOM | 15553 | CD1 | PHE | B | 912 | 55.433 | 62.000 | 54.177 | 1.00 | 116.31 | C |
| ATOM | 15554 | CD2 | PHE | B | 912 | 53.897 | 62.850 | 52.548 | 1.00 | 116.31 | C |
| ATOM | 15555 | CE1 | PHE | B | 912 | 55.894 | 61.063 | 53.260 | 1.00 | 116.31 | C |
| ATOM | 15556 | CE2 | PHE | B | 912 | 54.350 | 61.918 | 51.622 | 1.00 | 116.31 | C |
| ATOM | 15557 | CZ | PHE | B | 912 | 55.351 | 61.021 | 51.978 | 1.00 | 116.31 | C |
| ATOM | 15558 | N | GLU | B | 913 | 52.082 | 64.220 | 56.638 | 1.00 | 126.85 | N |
| ATOM | 15559 | CA | GLU | B | 913 | 51.192 | 63.879 | 57.720 | 1.00 | 126.85 | C |
| ATOM | 15560 | C | GLU | B | 913 | 49.944 | 64.732 | 57.542 | 1.00 | 126.85 | C |
| ATOM | 15561 | O | GLU | B | 913 | 48.844 | 64.367 | 57.973 | 1.00 | 126.85 | O |
| ATOM | 15562 | CB | GLU | B | 913 | 51.883 | 64.028 | 59.094 | 1.00 | 115.39 | C |
| ATOM | 15563 | CG | GLU | B | 913 | 53.073 | 63.057 | 59.322 | 1.00 | 115.39 | C |
| ATOM | 15564 | CD | GLU | B | 913 | 52.677 | 61.630 | 59.677 | 1.00 | 115.39 | C |
| ATOM | 15565 | OE1 | GLU | B | 913 | 53.592 | 60.784 | 59.798 | 1.00 | 115.39 | O |
| ATOM | 15566 | OE2 | GLU | B | 913 | 51.469 | 61.359 | 59.837 | 1.00 | 115.39 | O |
| ATOM | 15567 | N | THR | B | 914 | 50.134 | 65.825 | 56.809 | 1.00 | 129.17 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15568 | CA | THR | B | 914 | 49.104 | 66.799 | 56.477 | 1.00129.17 | C |
| ATOM | 15569 | C | THR | B | 914 | 48.015 | 66.217 | 55.612 | 1.00129.17 | C |
| ATOM | 15570 | O | THR | B | 914 | 46.829 | 66.319 | 55.928 | 1.00129.17 | O |
| ATOM | 15571 | CB | THR | B | 914 | 49.694 | 68.015 | 55.719 | 1.00 82.89 | C |
| ATOM | 15572 | OG1 | THR | B | 914 | 50.216 | 68.958 | 56.663 | 1.00 82.89 | O |
| ATOM | 15573 | CG2 | THR | B | 914 | 48.627 | 68.677 | 54.822 | 1.00 82.89 | C |
| ATOM | 15574 | N | MET | B | 915 | 48.422 | 65.655 | 54.485 | 1.00142.33 | N |
| ATOM | 15575 | CA | MET | B | 915 | 47.476 | 65.046 | 53.564 | 1.00142.33 | C |
| ATOM | 15576 | C | MET | B | 915 | 46.628 | 64.142 | 54.453 | 1.00142.33 | C |
| ATOM | 15577 | O | MET | B | 915 | 45.388 | 63.983 | 54.286 | 1.00142.33 | O |
| ATOM | 15578 | CB | MET | B | 915 | 48.244 | 64.221 | 52.520 | 1.00186.99 | C |
| ATOM | 15579 | CG | MET | B | 915 | 49.479 | 64.935 | 51.936 | 1.00186.99 | C |
| ATOM | 15580 | SD | MET | B | 915 | 50.589 | 63.900 | 50.938 | 1.00186.99 | S |
| ATOM | 15581 | CE | MET | B | 915 | 50.361 | 64.607 | 49.279 | 1.00186.99 | C |
| ATOM | 15582 | N | TYR | B | 916 | 47.319 | 63.578 | 55.439 | 1.00158.45 | N |
| ATOM | 15583 | CA | TYR | B | 916 | 46.649 | 62.676 | 56.351 | 1.00158.45 | C |
| ATOM | 15584 | C | TYR | B | 916 | 45.797 | 63.420 | 57.357 | 1.00158.45 | C |
| ATOM | 15585 | O | TYR | B | 916 | 44.865 | 62.867 | 57.940 | 1.00158.45 | O |
| ATOM | 15586 | CB | TYR | B | 916 | 47.683 | 61.762 | 56.997 | 1.00196.23 | C |
| ATOM | 15587 | CG | TYR | B | 916 | 48.462 | 61.035 | 55.921 | 1.00196.23 | C |
| ATOM | 15588 | CD1 | TYR | B | 916 | 48.171 | 61.255 | 54.570 | 1.00196.23 | C |
| ATOM | 15589 | CD2 | TYR | B | 916 | 49.480 | 60.142 | 56.235 | 1.00196.23 | C |
| ATOM | 15590 | CE1 | TYR | B | 916 | 48.868 | 60.613 | 53.564 | 1.00196.23 | C |
| ATOM | 15591 | CE2 | TYR | B | 916 | 50.191 | 59.484 | 55.225 | 1.00196.23 | C |
| ATOM | 15592 | CZ | TYR | B | 916 | 49.878 | 59.729 | 53.893 | 1.00196.23 | C |
| ATOM | 15593 | OH | TYR | B | 916 | 50.585 | 59.107 | 52.888 | 1.00196.23 | O |
| ATOM | 15594 | N | ALA | B | 917 | 46.098 | 64.696 | 57.536 | 1.00127.09 | N |
| ATOM | 15595 | CA | ALA | B | 917 | 45.307 | 65.514 | 58.430 | 1.00127.09 | C |
| ATOM | 15596 | C | ALA | B | 917 | 43.939 | 65.592 | 57.782 | 1.00127.09 | C |
| ATOM | 15597 | O | ALA | B | 917 | 42.911 | 65.630 | 58.452 | 1.00127.09 | O |
| ATOM | 15598 | CB | ALA | B | 917 | 45.925 | 66.909 | 58.560 | 1.00 66.08 | C |
| ATOM | 15599 | N | GLN | B | 918 | 43.939 | 65.616 | 56.457 | 1.00126.51 | N |
| ATOM | 15600 | CA | GLN | B | 918 | 42.699 | 65.695 | 55.702 | 1.00126.51 | C |
| ATOM | 15601 | C | GLN | B | 918 | 41.887 | 64.416 | 55.888 | 1.00126.51 | C |
| ATOM | 15602 | O | GLN | B | 918 | 40.743 | 64.424 | 56.418 | 1.00126.51 | O |
| ATOM | 15603 | CB | GLN | B | 918 | 43.001 | 65.889 | 54.215 | 1.00207.38 | C |
| ATOM | 15604 | CG | GLN | B | 918 | 43.982 | 67.008 | 53.917 | 1.00207.38 | C |
| ATOM | 15605 | CD | GLN | B | 918 | 43.552 | 68.333 | 54.512 | 1.00207.38 | C |
| ATOM | 15606 | OE1 | GLN | B | 918 | 43.572 | 68.516 | 55.729 | 1.00207.38 | O |
| ATOM | 15607 | NE2 | GLN | B | 918 | 43.153 | 69.263 | 53.654 | 1.00207.38 | N |
| ATOM | 15608 | N | SER | B | 919 | 42.481 | 63.319 | 55.422 | 1.00120.74 | N |
| ATOM | 15609 | CA | SER | B | 919 | 41.826 | 62.023 | 55.533 | 1.00120.74 | C |
| ATOM | 15610 | C | SER | B | 919 | 41.143 | 61.957 | 56.898 | 1.00120.74 | C |
| ATOM | 15611 | O | SER | B | 919 | 39.899 | 61.802 | 57.010 | 1.00120.74 | O |
| ATOM | 15612 | CB | SER | B | 919 | 42.886 | 60.930 | 55.411 | 1.00106.78 | C |
| ATOM | 15613 | OG | SER | B | 919 | 44.151 | 61.409 | 55.839 | 1.00106.78 | O |
| ATOM | 15614 | N | LEU | B | 920 | 41.969 | 62.091 | 57.936 | 1.00133.83 | N |
| ATOM | 15615 | CA | LEU | B | 920 | 41.487 | 62.092 | 59.309 | 1.00133.83 | C |
| ATOM | 15616 | C | LEU | B | 920 | 40.204 | 62.897 | 59.314 | 1.00133.83 | C |
| ATOM | 15617 | O | LEU | B | 920 | 39.109 | 62.357 | 59.493 | 1.00133.83 | O |
| ATOM | 15618 | CB | LEU | B | 920 | 42.493 | 62.767 | 60.241 | 1.00109.73 | C |
| ATOM | 15619 | CG | LEU | B | 920 | 43.417 | 61.853 | 61.041 | 1.00109.73 | C |
| ATOM | 15620 | CD1 | LEU | B | 920 | 42.608 | 61.125 | 62.098 | 1.00109.73 | C |
| ATOM | 15621 | CD2 | LEU | B | 920 | 44.098 | 60.868 | 60.113 | 1.00109.73 | C |
| ATOM | 15622 | N | GLN | B | 921 | 40.372 | 64.198 | 59.095 | 1.00119.88 | N |
| ATOM | 15623 | CA | GLN | B | 921 | 39.285 | 65.161 | 59.053 | 1.00119.88 | C |
| ATOM | 15624 | C | GLN | B | 921 | 37.939 | 64.491 | 58.767 | 1.00119.88 | C |
| ATOM | 15625 | O | GLN | B | 921 | 36.980 | 64.575 | 59.569 | 1.00119.88 | O |
| ATOM | 15626 | CB | GLN | B | 921 | 39.627 | 66.220 | 57.997 | 1.00132.88 | C |
| ATOM | 15627 | CG | GLN | B | 921 | 38.545 | 66.575 | 57.005 | 1.00132.88 | C |
| ATOM | 15628 | CD | GLN | B | 921 | 39.127 | 67.235 | 55.769 | 1.00132.88 | C |
| ATOM | 15629 | OE1 | GLN | B | 921 | 39.878 | 68.205 | 55.868 | 1.00132.88 | O |
| ATOM | 15630 | NE2 | GLN | B | 921 | 38.790 | 66.708 | 54.598 | 1.00132.88 | N |
| ATOM | 15631 | N | ILE | B | 922 | 37.856 | 63.786 | 57.648 | 1.00108.05 | N |
| ATOM | 15632 | CA | ILE | B | 922 | 36.580 | 63.128 | 57.366 | 1.00108.05 | C |
| ATOM | 15633 | C | ILE | B | 922 | 36.226 | 62.061 | 58.414 | 1.00108.05 | C |
| ATOM | 15634 | O | ILE | B | 922 | 35.200 | 62.186 | 59.125 | 1.00108.05 | O |
| ATOM | 15635 | CB | ILE | B | 922 | 36.576 | 62.501 | 55.954 | 1.00169.62 | C |
| ATOM | 15636 | CG1 | ILE | B | 922 | 36.499 | 63.612 | 54.902 | 1.00169.62 | C |
| ATOM | 15637 | CG2 | ILE | B | 922 | 35.404 | 61.544 | 55.802 | 1.00169.62 | C |
| ATOM | 15638 | CD1 | ILE | B | 922 | 35.323 | 64.569 | 55.095 | 1.00169.62 | C |
| ATOM | 15639 | N | PRO | B | 923 | 37.062 | 61.001 | 58.535 | 1.00106.31 | N |
| ATOM | 15640 | CA | PRO | B | 923 | 36.634 | 60.041 | 59.560 | 1.00106.31 | C |
| ATOM | 15641 | C | PRO | B | 923 | 36.356 | 60.628 | 60.941 | 1.00106.31 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15642 | O | PRO | B | 923 | 35.775 | 59.970 | 61.796 | 1.00106.31 | O |
| ATOM | 15643 | CB | PRO | B | 923 | 37.772 | 59.032 | 59.558 | 1.00157.14 | C |
| ATOM | 15644 | CG | PRO | B | 923 | 38.070 | 58.933 | 58.080 | 1.00157.14 | C |
| ATOM | 15645 | CD | PRO | B | 923 | 38.060 | 60.392 | 57.634 | 1.00157.14 | C |
| ATOM | 15646 | N | TYR | B | 924 | 36.760 | 61.873 | 61.147 | 1.00138.51 | N |
| ATOM | 15647 | CA | TYR | B | 924 | 36.556 | 62.550 | 62.419 | 1.00138.51 | C |
| ATOM | 15648 | C | TYR | B | 924 | 35.117 | 63.039 | 62.524 | 1.00138.51 | C |
| ATOM | 15649 | O | TYR | B | 924 | 34.419 | 62.698 | 63.488 | 1.00138.51 | O |
| ATOM | 15650 | CB | TYR | B | 924 | 37.520 | 63.735 | 62.529 | 1.00180.50 | C |
| ATOM | 15651 | CG | TYR | B | 924 | 37.460 | 64.506 | 63.833 | 1.00180.50 | C |
| ATOM | 15652 | CD1 | TYR | B | 924 | 37.412 | 65.900 | 63.832 | 1.00180.50 | C |
| ATOM | 15653 | CD2 | TYR | B | 924 | 37.479 | 63.850 | 65.065 | 1.00180.50 | C |
| ATOM | 15654 | CE1 | TYR | B | 924 | 37.384 | 66.621 | 65.019 | 1.00180.50 | C |
| ATOM | 15655 | CE2 | TYR | B | 924 | 37.454 | 64.566 | 66.266 | 1.00180.50 | C |
| ATOM | 15656 | CZ | TYR | B | 924 | 37.407 | 65.950 | 66.232 | 1.00180.50 | C |
| ATOM | 15657 | OH | TYR | B | 924 | 37.389 | 66.666 | 67.408 | 1.00180.50 | O |
| ATOM | 15658 | N | ARG | B | 925 | 34.658 | 63.834 | 61.556 | 1.00118.90 | N |
| ATOM | 15659 | CA | ARG | B | 925 | 33.271 | 64.290 | 61.652 | 1.00118.90 | C |
| ATOM | 15660 | C | ARG | B | 925 | 32.393 | 63.033 | 61.792 | 1.00118.90 | C |
| ATOM | 15661 | O | ARG | B | 925 | 31.541 | 62.899 | 62.718 | 1.00118.90 | O |
| ATOM | 15662 | CB | ARG | B | 925 | 32.899 | 65.121 | 60.405 | 1.00114.78 | C |
| ATOM | 15663 | CG | ARG | B | 925 | 33.733 | 66.414 | 60.237 | 1.00114.78 | C |
| ATOM | 15664 | CD | ARG | B | 925 | 33.077 | 67.445 | 59.312 | 1.00114.78 | C |
| ATOM | 15665 | NE | ARG | B | 925 | 33.410 | 67.265 | 57.900 | 1.00114.78 | N |
| ATOM | 15666 | CZ | ARG | B | 925 | 34.569 | 67.606 | 57.344 | 1.00114.78 | C |
| ATOM | 15667 | NH1 | ARG | B | 925 | 35.532 | 68.146 | 58.078 | 1.00114.78 | N |
| ATOM | 15668 | NH2 | ARG | B | 925 | 34.749 | 67.435 | 56.041 | 1.00114.78 | N |
| ATOM | 15669 | N | ASN | B | 926 | 32.634 | 62.084 | 60.895 | 1.00206.17 | N |
| ATOM | 15670 | CA | ASN | B | 926 | 31.880 | 60.837 | 60.932 | 1.00206.17 | C |
| ATOM | 15671 | C | ASN | B | 926 | 31.911 | 60.231 | 62.347 | 1.00206.17 | C |
| ATOM | 15672 | O | ASN | B | 926 | 30.914 | 59.647 | 62.824 | 1.00206.17 | O |
| ATOM | 15673 | CB | ASN | B | 926 | 32.458 | 59.868 | 59.891 | 1.00207.38 | C |
| ATOM | 15674 | CG | ASN | B | 926 | 32.311 | 58.412 | 60.288 | 1.00207.38 | C |
| ATOM | 15675 | OD1 | ASN | B | 926 | 33.181 | 57.848 | 60.955 | 1.00207.38 | O |
| ATOM | 15676 | ND2 | ASN | B | 926 | 31.206 | 57.795 | 59.885 | 1.00207.38 | N |
| ATOM | 15677 | N | ALA | B | 927 | 33.045 | 60.406 | 63.028 | 1.00201.08 | N |
| ATOM | 15678 | CA | ALA | B | 927 | 33.222 | 59.883 | 64.383 | 1.00201.08 | C |
| ATOM | 15679 | C | ALA | B | 927 | 32.243 | 60.502 | 65.371 | 1.00201.08 | C |
| ATOM | 15680 | O | ALA | B | 927 | 31.622 | 59.792 | 66.157 | 1.00201.08 | O |
| ATOM | 15681 | CB | ALA | B | 927 | 34.653 | 60.126 | 64.845 | 1.00207.38 | C |
| ATOM | 15682 | N | MET | B | 928 | 32.105 | 61.822 | 65.342 | 1.00126.97 | N |
| ATOM | 15683 | CA | MET | B | 928 | 31.166 | 62.480 | 66.255 | 1.00126.97 | C |
| ATOM | 15684 | C | MET | B | 928 | 29.758 | 61.901 | 66.088 | 1.00126.97 | C |
| ATOM | 15685 | O | MET | B | 928 | 29.048 | 61.598 | 67.079 | 1.00126.97 | O |
| ATOM | 15686 | CB | MET | B | 928 | 31.164 | 63.993 | 66.005 | 1.00207.38 | C |
| ATOM | 15687 | CG | MET | B | 928 | 32.569 | 64.590 | 65.889 | 1.00207.38 | C |
| ATOM | 15688 | SD | MET | B | 928 | 32.663 | 66.356 | 66.230 | 1.00207.38 | S |
| ATOM | 15689 | CE | MET | B | 928 | 33.533 | 66.334 | 67.815 | 1.00207.38 | C |
| ATOM | 15690 | N | LYS | B | 929 | 29.337 | 61.745 | 64.835 | 1.00101.24 | N |
| ATOM | 15691 | CA | LYS | B | 929 | 28.011 | 61.146 | 64.620 | 1.00101.24 | C |
| ATOM | 15692 | C | LYS | B | 929 | 27.921 | 59.776 | 65.339 | 1.00101.24 | C |
| ATOM | 15693 | O | LYS | B | 929 | 27.201 | 59.643 | 66.330 | 1.00101.24 | O |
| ATOM | 15694 | CB | LYS | B | 929 | 27.754 | 60.940 | 63.126 | 1.00154.00 | C |
| ATOM | 15695 | CG | LYS | B | 929 | 26.387 | 60.353 | 62.804 | 1.00154.00 | C |
| ATOM | 15696 | CD | LYS | B | 929 | 26.375 | 59.716 | 61.422 | 1.00154.00 | C |
| ATOM | 15697 | CE | LYS | B | 929 | 25.002 | 59.185 | 61.045 | 1.00154.00 | C |
| ATOM | 15698 | NZ | LYS | B | 929 | 24.039 | 60.284 | 60.768 | 1.00154.00 | N |
| ATOM | 15699 | N | LYS | B | 930 | 28.669 | 58.776 | 64.854 | 1.00105.72 | N |
| ATOM | 15700 | CA | LYS | B | 930 | 28.654 | 57.423 | 65.457 | 1.00105.72 | C |
| ATOM | 15701 | C | LYS | B | 930 | 28.709 | 57.451 | 66.987 | 1.00105.72 | C |
| ATOM | 15702 | O | LYS | B | 930 | 28.309 | 56.499 | 67.670 | 1.00105.72 | O |
| ATOM | 15703 | CB | LYS | B | 930 | 29.814 | 56.569 | 64.925 | 1.00138.61 | C |
| ATOM | 15704 | CG | LYS | B | 930 | 31.186 | 56.935 | 65.468 | 1.00138.61 | C |
| ATOM | 15705 | CD | LYS | B | 930 | 32.224 | 55.893 | 65.065 | 1.00138.61 | C |
| ATOM | 15706 | CE | LYS | B | 930 | 33.639 | 56.336 | 65.422 | 1.00138.61 | C |
| ATOM | 15707 | NZ | LYS | B | 930 | 33.786 | 56.641 | 66.871 | 1.00138.61 | N |
| ATOM | 15708 | N | ALA | B | 931 | 29.239 | 58.542 | 67.518 | 1.00104.98 | N |
| ATOM | 15709 | CA | ALA | B | 931 | 29.313 | 58.716 | 68.953 | 1.00104.98 | C |
| ATOM | 15710 | C | ALA | B | 931 | 27.872 | 58.651 | 69.313 | 1.00104.98 | C |
| ATOM | 15711 | O | ALA | B | 931 | 27.372 | 57.666 | 69.887 | 1.00104.98 | O |
| ATOM | 15712 | CB | ALA | B | 931 | 29.917 | 60.077 | 69.297 | 1.00 23.24 | C |
| ATOM | 15713 | N | HIS | B | 932 | 27.215 | 59.744 | 68.940 | 1.00133.97 | N |
| ATOM | 15714 | CA | HIS | B | 932 | 25.797 | 59.883 | 69.179 | 1.00133.97 | C |
| ATOM | 15715 | C | HIS | B | 932 | 25.139 | 58.509 | 69.016 | 1.00133.97 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15716 | O | HIS | B | 932 | 24.452 | 58.028 | 69.925 | 1.00133.97 | O |
| ATOM | 15717 | CB | HIS | B | 932 | 25.211 | 60.873 | 68.170 | 1.00169.29 | C |
| ATOM | 15718 | CG | HIS | B | 932 | 23.722 | 61.022 | 68.251 | 1.00169.29 | C |
| ATOM | 15719 | ND1 | HIS | B | 932 | 22.861 | 59.949 | 68.173 | 1.00169.29 | N |
| ATOM | 15720 | CD2 | HIS | B | 932 | 22.941 | 62.122 | 68.366 | 1.00169.29 | C |
| ATOM | 15721 | CE1 | HIS | B | 932 | 21.614 | 60.381 | 68.235 | 1.00169.29 | C |
| ATOM | 15722 | NE2 | HIS | B | 932 | 21.634 | 61.697 | 68.352 | 1.00169.29 | N |
| ATOM | 15723 | N | VAL | B | 933 | 25.373 | 57.877 | 67.864 | 1.00 89.93 | N |
| ATOM | 15724 | CA | VAL | B | 933 | 24.809 | 56.564 | 67.557 | 1.00 89.93 | C |
| ATOM | 15725 | C | VAL | B | 933 | 24.937 | 55.598 | 68.711 | 1.00 89.93 | C |
| ATOM | 15726 | O | VAL | B | 933 | 23.945 | 55.057 | 69.202 | 1.00 89.93 | O |
| ATOM | 15727 | CB | VAL | B | 933 | 25.508 | 55.926 | 66.338 | 1.00118.97 | C |
| ATOM | 15728 | CG1 | VAL | B | 933 | 24.910 | 54.565 | 66.060 | 1.00118.97 | C |
| ATOM | 15729 | CG2 | VAL | B | 933 | 25.365 | 56.814 | 65.119 | 1.00118.97 | C |
| ATOM | 15730 | N | PHE | B | 934 | 26.168 | 55.359 | 69.129 | 1.00107.85 | N |
| ATOM | 15731 | CA | PHE | B | 934 | 26.374 | 54.461 | 70.232 | 1.00107.85 | C |
| ATOM | 15732 | C | PHE | B | 934 | 25.437 | 54.853 | 71.361 | 1.00107.85 | C |
| ATOM | 15733 | O | PHE | B | 934 | 24.852 | 53.994 | 72.047 | 1.00107.85 | O |
| ATOM | 15734 | CB | PHE | B | 934 | 27.838 | 54.488 | 70.688 | 1.00127.02 | C |
| ATOM | 15735 | CG | PHE | B | 934 | 28.717 | 53.538 | 69.931 | 1.00127.02 | C |
| ATOM | 15736 | CD1 | PHE | B | 934 | 28.906 | 53.682 | 68.560 | 1.00127.02 | C |
| ATOM | 15737 | CD2 | PHE | B | 934 | 29.315 | 52.467 | 70.580 | 1.00127.02 | C |
| ATOM | 15738 | CE1 | PHE | B | 934 | 29.672 | 52.768 | 67.855 | 1.00127.02 | C |
| ATOM | 15739 | CE2 | PHE | B | 934 | 30.078 | 51.558 | 69.880 | 1.00127.02 | C |
| ATOM | 15740 | CZ | PHE | B | 934 | 30.255 | 51.708 | 68.518 | 1.00127.02 | C |
| ATOM | 15741 | N | GLY | B | 935 | 25.271 | 56.160 | 71.533 | 1.00 77.19 | N |
| ATOM | 15742 | CA | GLY | B | 935 | 24.408 | 56.645 | 72.597 | 1.00 77.19 | C |
| ATOM | 15743 | C | GLY | B | 935 | 22.992 | 56.123 | 72.498 | 1.00 77.19 | C |
| ATOM | 15744 | O | GLY | B | 935 | 22.576 | 55.189 | 73.210 | 1.00 77.19 | O |
| ATOM | 15745 | N | ILE | B | 936 | 22.251 | 56.748 | 71.596 | 1.00129.53 | N |
| ATOM | 15746 | CA | ILE | B | 936 | 20.878 | 56.377 | 71.363 | 1.00129.53 | C |
| ATOM | 15747 | C | ILE | B | 936 | 20.716 | 54.853 | 71.461 | 1.00129.53 | C |
| ATOM | 15748 | O | ILE | B | 936 | 19.917 | 54.372 | 72.257 | 1.00129.53 | O |
| ATOM | 15749 | CB | ILE | B | 936 | 20.418 | 56.894 | 69.974 | 1.00123.47 | C |
| ATOM | 15750 | CG1 | ILE | B | 936 | 19.061 | 56.298 | 69.602 | 1.00123.47 | C |
| ATOM | 15751 | CG2 | ILE | B | 936 | 21.490 | 56.603 | 68.931 | 1.00123.47 | C |
| ATOM | 15752 | CD1 | ILE | B | 936 | 18.584 | 56.717 | 68.224 | 1.00123.47 | C |
| ATOM | 15753 | N | THR | B | 937 | 21.480 | 54.084 | 70.692 | 1.00 90.19 | N |
| ATOM | 15754 | CA | THR | B | 937 | 21.349 | 52.631 | 70.776 | 1.00 90.19 | C |
| ATOM | 15755 | C | THR | B | 937 | 21.346 | 52.141 | 72.247 | 1.00 90.19 | C |
| ATOM | 15756 | O | THR | B | 937 | 20.304 | 51.748 | 72.788 | 1.00 90.19 | O |
| ATOM | 15757 | CB | THR | B | 937 | 22.479 | 51.936 | 69.988 | 1.00153.16 | C |
| ATOM | 15758 | OG1 | THR | B | 937 | 23.739 | 52.542 | 70.310 | 1.00153.16 | O |
| ATOM | 15759 | CG2 | THR | B | 937 | 22.218 | 52.051 | 68.487 | 1.00153.16 | C |
| ATOM | 15760 | N | PHE | B | 938 | 22.505 | 52.189 | 72.893 | 1.00107.62 | N |
| ATOM | 15761 | CA | PHE | B | 938 | 22.654 | 51.756 | 74.288 | 1.00107.62 | C |
| ATOM | 15762 | C | PHE | B | 938 | 21.414 | 52.071 | 75.132 | 1.00107.62 | C |
| ATOM | 15763 | O | PHE | B | 938 | 20.783 | 51.194 | 75.782 | 1.00107.62 | O |
| ATOM | 15764 | CB | PHE | B | 938 | 23.888 | 52.462 | 74.864 | 1.00166.69 | C |
| ATOM | 15765 | CG | PHE | B | 938 | 24.084 | 52.273 | 76.341 | 1.00166.69 | C |
| ATOM | 15766 | CD1 | PHE | B | 938 | 24.987 | 53.076 | 77.028 | 1.00166.69 | C |
| ATOM | 15767 | CD2 | PHE | B | 938 | 23.390 | 51.294 | 77.043 | 1.00166.69 | C |
| ATOM | 15768 | CE1 | PHE | B | 938 | 25.201 | 52.910 | 78.394 | 1.00166.69 | C |
| ATOM | 15769 | CE2 | PHE | B | 938 | 23.596 | 51.118 | 78.411 | 1.00166.69 | C |
| ATOM | 15770 | CZ | PHE | B | 938 | 24.505 | 51.929 | 79.088 | 1.00166.69 | C |
| ATOM | 15771 | N | SER | B | 939 | 21.089 | 53.354 | 75.121 | 1.00124.44 | N |
| ATOM | 15772 | CA | SER | B | 939 | 19.954 | 53.858 | 75.862 | 1.00124.44 | C |
| ATOM | 15773 | C | SER | B | 939 | 18.734 | 53.010 | 75.554 | 1.00124.44 | C |
| ATOM | 15774 | O | SER | B | 939 | 18.277 | 52.254 | 76.401 | 1.00124.44 | O |
| ATOM | 15775 | CB | SER | B | 939 | 19.652 | 55.296 | 75.437 | 1.00 84.51 | C |
| ATOM | 15776 | OG | SER | B | 939 | 19.250 | 55.355 | 74.076 | 1.00 84.51 | O |
| ATOM | 15777 | N | PHE | B | 940 | 18.213 | 53.154 | 74.341 | 1.00150.54 | N |
| ATOM | 15778 | CA | PHE | B | 940 | 17.051 | 52.402 | 73.868 | 1.00150.54 | C |
| ATOM | 15779 | C | PHE | B | 940 | 17.016 | 50.983 | 74.469 | 1.00150.54 | C |
| ATOM | 15780 | O | PHE | B | 940 | 15.933 | 50.443 | 74.758 | 1.00150.54 | O |
| ATOM | 15781 | CB | PHE | B | 940 | 17.119 | 52.367 | 72.335 | 1.00168.31 | C |
| ATOM | 15782 | CG | PHE | B | 940 | 16.122 | 51.455 | 71.677 | 1.00168.31 | C |
| ATOM | 15783 | CD1 | PHE | B | 940 | 16.227 | 50.076 | 71.808 | 1.00168.31 | C |
| ATOM | 15784 | CD2 | PHE | B | 940 | 15.121 | 51.975 | 70.860 | 1.00168.31 | C |
| ATOM | 15785 | CE1 | PHE | B | 940 | 15.354 | 49.224 | 71.130 | 1.00168.31 | C |
| ATOM | 15786 | CE2 | PHE | B | 940 | 14.240 | 51.130 | 70.176 | 1.00168.31 | C |
| ATOM | 15787 | CZ | PHE | B | 940 | 14.358 | 49.753 | 70.311 | 1.00168.31 | C |
| ATOM | 15788 | N | THR | B | 941 | 18.188 | 50.376 | 74.673 | 1.00127.29 | N |
| ATOM | 15789 | CA | THR | B | 941 | 18.209 | 49.035 | 75.265 | 1.00127.29 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15790 | C | THR | B | 941 | 17.773 | 49.109 | 76.716 | 1.00127.29 | C |
| ATOM | 15791 | O | THR | B | 941 | 16.951 | 48.308 | 77.183 | 1.00127.29 | O |
| ATOM | 15792 | CB | THR | B | 941 | 19.614 | 48.405 | 75.208 | 1.00 92.26 | C |
| ATOM | 15793 | OG1 | THR | B | 941 | 20.116 | 48.459 | 73.866 | 1.00 92.26 | O |
| ATOM | 15794 | CG2 | THR | B | 941 | 19.555 | 46.953 | 75.671 | 1.00 92.26 | C |
| ATOM | 15795 | N | GLN | B | 942 | 18.313 | 50.078 | 77.443 | 1.00 95.73 | N |
| ATOM | 15796 | CA | GLN | B | 942 | 17.912 | 50.208 | 78.846 | 1.00 95.73 | C |
| ATOM | 15797 | C | GLN | B | 942 | 16.436 | 50.641 | 79.016 | 1.00 95.73 | C |
| ATOM | 15798 | O | GLN | B | 942 | 15.721 | 50.233 | 79.953 | 1.00 95.73 | O |
| ATOM | 15799 | CB | GLN | B | 942 | 18.863 | 51.174 | 79.552 | 1.00191.07 | C |
| ATOM | 15800 | CG | GLN | B | 942 | 20.335 | 50.869 | 79.255 | 1.00191.07 | C |
| ATOM | 15801 | CD | GLN | B | 942 | 20.615 | 49.377 | 79.116 | 1.00191.07 | C |
| ATOM | 15802 | OE1 | GLN | B | 942 | 20.168 | 48.734 | 78.164 | 1.00191.07 | O |
| ATOM | 15803 | NE2 | GLN | B | 942 | 21.353 | 48.821 | 80.070 | 1.00191.07 | N |
| ATOM | 15804 | N | ALA | B | 943 | 15.959 | 51.470 | 78.106 | 1.00130.38 | N |
| ATOM | 15805 | CA | ALA | B | 943 | 14.560 | 51.850 | 78.181 | 1.00130.38 | C |
| ATOM | 15806 | C | ALA | B | 943 | 13.782 | 50.514 | 78.120 | 1.00130.38 | C |
| ATOM | 15807 | O | ALA | B | 943 | 12.821 | 50.293 | 78.868 | 1.00130.38 | O |
| ATOM | 15808 | CB | ALA | B | 943 | 14.182 | 52.728 | 77.001 | 1.00207.38 | C |
| ATOM | 15809 | N | MET | B | 944 | 14.214 | 49.620 | 77.231 | 1.00 86.34 | N |
| ATOM | 15810 | CA | MET | B | 944 | 13.562 | 48.327 | 77.125 | 1.00 86.34 | C |
| ATOM | 15811 | C | MET | B | 944 | 13.564 | 47.749 | 78.509 | 1.00 86.34 | C |
| ATOM | 15812 | O | MET | B | 944 | 12.632 | 47.073 | 78.884 | 1.00 86.34 | O |
| ATOM | 15813 | CB | MET | B | 944 | 14.322 | 47.425 | 76.156 | 1.00207.35 | C |
| ATOM | 15814 | CG | MET | B | 944 | 14.235 | 47.916 | 74.726 | 1.00207.35 | C |
| ATOM | 15815 | SD | MET | B | 944 | 12.520 | 48.272 | 74.283 | 1.00207.35 | S |
| ATOM | 15816 | CE | MET | B | 944 | 12.263 | 47.126 | 72.963 | 1.00207.35 | C |
| ATOM | 15817 | N | MET | B | 945 | 14.619 | 48.020 | 79.270 | 1.00136.80 | N |
| ATOM | 15818 | CA | MET | B | 945 | 14.674 | 47.534 | 80.655 | 1.00136.80 | C |
| ATOM | 15819 | C | MET | B | 945 | 13.394 | 47.871 | 81.404 | 1.00136.80 | C |
| ATOM | 15820 | O | MET | B | 945 | 12.626 | 46.980 | 81.803 | 1.00136.80 | O |
| ATOM | 15821 | CB | MET | B | 945 | 15.841 | 48.193 | 81.411 | 1.00166.21 | C |
| ATOM | 15822 | CG | MET | B | 945 | 15.699 | 48.213 | 82.952 | 1.00166.21 | C |
| ATOM | 15823 | SD | MET | B | 945 | 15.394 | 49.851 | 83.699 | 1.00166.21 | S |
| ATOM | 15824 | CE | MET | B | 945 | 16.960 | 50.136 | 84.634 | 1.00166.21 | C |
| ATOM | 15825 | N | TYR | B | 946 | 13.169 | 49.167 | 81.606 | 1.00 85.67 | N |
| ATOM | 15826 | CA | TYR | B | 946 | 11.978 | 49.572 | 82.353 | 1.00 85.67 | C |
| ATOM | 15827 | C | TYR | B | 946 | 10.708 | 49.105 | 81.694 | 1.00 85.67 | C |
| ATOM | 15828 | O | TYR | B | 946 | 9.932 | 48.390 | 82.319 | 1.00 85.67 | O |
| ATOM | 15829 | CB | TYR | B | 946 | 11.935 | 51.085 | 82.571 | 1.00126.04 | C |
| ATOM | 15830 | CG | TYR | B | 946 | 11.294 | 51.918 | 81.466 | 1.00126.04 | C |
| ATOM | 15831 | CD1 | TYR | B | 946 | 12.069 | 52.495 | 80.460 | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 15864 | CZ | TYR | B | 949 | 14.039 | 43.533 | 85.715 | 1.00207.38 | C |
| ATOM | 15865 | OH | TYR | B | 949 | 15.153 | 42.783 | 86.008 | 1.00207.38 | O |
| ATOM | 15866 | N | ALA | B | 950 | 8.085 | 47.065 | 84.170 | 1.00201.09 | N |
| ATOM | 15867 | CA | ALA | B | 950 | 6.791 | 47.669 | 84.443 | 1.00201.09 | C |
| ATOM | 15868 | C | ALA | B | 950 | 5.629 | 46.951 | 83.770 | 1.00201.09 | C |
| ATOM | 15869 | O | ALA | B | 950 | 4.815 | 46.328 | 84.451 | 1.00201.09 | O |
| ATOM | 15870 | CB | ALA | B | 950 | 6.807 | 49.144 | 84.014 | 1.0017.63 | C |
| ATOM | 15871 | N | ALA | B | 951 | 5.546 | 47.028 | 82.446 | 1.00152.17 | N |
| ATOM | 15872 | CA | ALA | B | 951 | 4.466 | 46.361 | 81.743 | 1.00152.17 | C |
| ATOM | 15873 | C | ALA | B | 951 | 4.236 | 45.007 | 82.403 | 1.00152.17 | C |
| ATOM | 15874 | O | ALA | B | 951 | 3.119 | 44.693 | 82.799 | 1.00152.17 | O |
| ATOM | 15875 | CB | ALA | B | 951 | 4.831 | 46.173 | 80.268 | 1.00108.75 | C |
| ATOM | 15876 | N | ALA | B | 952 | 5.303 | 44.224 | 82.549 | 1.00176.54 | N |
| ATOM | 15877 | CA | ALA | B | 952 | 5.207 | 42.909 | 83.168 | 1.00176.54 | C |
| ATOM | 15878 | C | ALA | B | 952 | 4.511 | 42.925 | 84.515 | 1.00176.54 | C |
| ATOM | 15879 | O | ALA | B | 952 | 3.380 | 42.499 | 84.610 | 1.00176.54 | O |
| ATOM | 15880 | CB | ALA | B | 952 | 6.619 | 42.304 | 83.306 | 1.00198.52 | C |
| ATOM | 15881 | N | PHE | B | 953 | 5.166 | 43.402 | 85.564 | 1.00144.51 | N |
| ATOM | 15882 | CA | PHE | B | 953 | 4.528 | 43.416 | 86.876 | 1.00144.51 | C |
| ATOM | 15883 | C | PHE | B | 953 | 3.131 | 44.043 | 86.885 | 1.00144.51 | C |
| ATOM | 15884 | O | PHE | B | 953 | 2.230 | 43.601 | 87.617 | 1.00144.51 | O |
| ATOM | 15885 | CB | PHE | B | 953 | 5.448 | 44.111 | 87.874 | 1.00206.97 | C |
| ATOM | 15886 | CG | PHE | B | 953 | 6.635 | 43.282 | 88.249 | 1.00206.97 | C |
| ATOM | 15887 | CD1 | PHE | B | 953 | 6.598 | 42.460 | 89.370 | 1.00206.97 | C |
| ATOM | 15888 | CD2 | PHE | B | 953 | 7.760 | 43.255 | 87.436 | 1.00206.97 | C |
| ATOM | 15889 | CE1 | PHE | B | 953 | 7.663 | 41.617 | 89.673 | 1.00206.97 | C |
| ATOM | 15890 | CE2 | PHE | B | 953 | 8.829 | 42.417 | 87.728 | 1.00206.97 | C |
| ATOM | 15891 | CZ | PHE | B | 953 | 8.779 | 41.594 | 88.851 | 1.00206.97 | C |
| ATOM | 15892 | N | ARG | B | 954 | 2.935 | 45.054 | 86.053 | 1.00123.98 | N |
| ATOM | 15893 | CA | ARG | B | 954 | 1.641 | 45.716 | 85.988 | 1.00123.98 | C |
| ATOM | 15894 | C | ARG | B | 954 | 0.578 | 44.735 | 85.470 | 1.00123.98 | C |
| ATOM | 15895 | O | ARG | B | 954 | -0.363 | 44.379 | 86.196 | 1.00123.98 | O |
| ATOM | 15896 | CB | ARG | B | 954 | 1.737 | 46.935 | 85.067 | 1.00206.88 | C |
| ATOM | 15897 | CG | ARG | B | 954 | 0.941 | 48.152 | 85.524 | 1.00206.88 | C |
| ATOM | 15898 | CD | ARG | B | 954 | -0.543 | 47.858 | 85.595 | 1.00206.88 | C |
| ATOM | 15899 | NE | ARG | B | 954 | -0.990 | 47.068 | 84.453 | 1.00206.88 | N |
| ATOM | 15900 | CZ | ARG | B | 954 | -0.756 | 47.391 | 83.184 | 1.00206.88 | C |
| ATOM | 15901 | NH1 | ARG | B | 954 | -0.076 | 48.493 | 82.888 | 1.00206.88 | N |
| ATOM | 15902 | NH2 | ARG | B | 954 | -1.201 | 46.608 | 82.210 | 1.00206.88 | N |
| ATOM | 15903 | N | PHE | B | 955 | 0.744 | 44.296 | 84.221 | 1.00137.56 | N |
| ATOM | 15904 | CA | PHE | B | 955 | -0.176 | 43.353 | 83.574 | 1.00137.56 | C |
| ATOM | 15905 | C | PHE | B | 955 | -0.461 | 42.154 | 84.467 | 1.00137.56 | C |
| ATOM | 15906 | O | PHE | | | | | | | |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|---------|--------|--------|------------|---|
| ATOM | 15938 | O | LEU | B | 959 | -7.291 | 40.042 | 89.894 | 1.00194.80 | O |
| ATOM | 15939 | CB | LEU | B | 959 | -8.215 | 41.187 | 87.590 | 1.00170.79 | C |
| ATOM | 15940 | CG | LEU | B | 959 | -9.700 | 41.563 | 87.660 | 1.00170.79 | C |
| ATOM | 15941 | CD1 | LEU | B | 959 | -10.482 | 40.764 | 86.642 | 1.00170.79 | C |
| ATOM | 15942 | CD2 | LEU | B | 959 | -10.226 | 41.299 | 89.063 | 1.00170.79 | C |
| ATOM | 15943 | N | VAL | B | 960 | -7.241 | 42.071 | 90.943 | 1.00202.71 | N |
| ATOM | 15944 | CA | VAL | B | 960 | -7.160 | 41.592 | 92.325 | 1.00202.71 | C |
| ATOM | 15945 | C | VAL | B | 960 | -8.246 | 42.345 | 93.065 | 1.00202.71 | C |
| ATOM | 15946 | O | VAL | B | 960 | -8.410 | 42.204 | 94.270 | 1.00202.71 | O |
| ATOM | 15947 | CB | VAL | B | 960 | -5.788 | 41.910 | 92.963 | 1.00207.38 | C |
| ATOM | 15948 | CG1 | VAL | B | 960 | -4.692 | 41.176 | 92.228 | 1.00207.38 | C |
| ATOM | 15949 | CG2 | VAL | B | 960 | -5.534 | 43.399 | 92.922 | 1.00207.38 | C |
| ATOM | 15950 | N | THR | B | 961 | -8.972 | 43.165 | 92.311 | 1.00206.22 | N |
| ATOM | 15951 | CA | THR | B | 961 | -10.087 | 43.948 | 92.840 | 1.00206.22 | C |
| ATOM | 15952 | C | THR | B | 961 | -11.008 | 43.068 | 93.664 | 1.00206.22 | C |
| ATOM | 15953 | O | THR | B | 961 | -11.511 | 43.473 | 94.716 | 1.00206.22 | O |
| ATOM | 15954 | CB | THR | B | 961 | -10.941 | 44.534 | 91.691 | 1.00130.76 | C |
| ATOM | 15955 | OG1 | THR | B | 961 | -10.228 | 45.593 | 91.042 | 1.00130.76 | O |
| ATOM | 15956 | CG2 | THR | B | 961 | -12.260 | 45.054 | 92.219 | 1.00130.76 | C |
| ATOM | 15957 | N | GLN | B | 962 | -11.246 | 41.871 | 93.132 | 1.00207.38 | N |
| ATOM | 15958 | CA | GLN | B | 962 | -12.103 | 40.864 | 93.749 | 1.00207.38 | C |
| ATOM | 15959 | C | GLN | B | 962 | -11.370 | 39.500 | 93.769 | 1.00207.38 | C |
| ATOM | 15960 | O | GLN | B | 962 | -11.951 | 38.472 | 94.145 | 1.00207.38 | O |
| ATOM | 15961 | CB | GLN | B | 962 | -13.418 | 40.741 | 92.968 | 1.00207.38 | C |
| ATOM | 15962 | CG | GLN | B | 962 | -14.439 | 39.802 | 93.592 | 1.00207.38 | C |
| ATOM | 15963 | CD | GLN | B | 962 | -15.747 | 39.775 | 92.819 | 1.00207.38 | C |
| ATOM | 15964 | OE1 | GLN | B | 962 | -15.762 | 39.522 | 91.614 | 1.00207.38 | O |
| ATOM | 15965 | NE2 | GLN | B | 962 | -16.853 | 40.033 | 93.512 | 1.00207.38 | N |
| ATOM | 15966 | N | GLN | B | 963 | -10.092 | 39.519 | 93.367 | 1.00207.38 | N |
| ATOM | 15967 | CA | GLN | B | 963 | -9.225 | 38.336 | 93.330 | 1.00207.38 | C |
| ATOM | 15968 | C | GLN | B | 963 | -9.381 | 37.495 | 92.032 | 1.00207.38 | C |
| ATOM | 15969 | O | GLN | B | 963 | -10.166 | 36.543 | 91.988 | 1.00207.38 | O |
| ATOM | 15970 | CB | GLN | B | 963 | -9.515 | 37.478 | 94.573 | 1.00207.38 | C |
| ATOM | 15971 | CG | GLN | B | 963 | -9.393 | 38.266 | 95.885 | 1.00207.38 | C |
| ATOM | 15972 | CD | GLN | B | 963 | -10.100 | 37.608 | 97.065 | 1.00207.38 | C |
| ATOM | 15973 | OE1 | GLN | B | 963 | -10.201 | 38.191 | 98.147 | 1.00207.38 | O |
| ATOM | 15974 | NE2 | GLN | B | 963 | -10.590 | 36.393 | 96.861 | 1.00207.38 | N |
| ATOM | 15975 | N | LEU | B | 964 | -8.631 | 37.857 | 90.985 | 1.00187.75 | N |
| ATOM | 15976 | CA | LEU | B | 964 | -8.669 | 37.155 | 89.692 | 1.00187.75 | C |
| ATOM | 15977 | C | LEU | B | 964 | -7.331 | 36.495 | 89.354 | 1.00187.75 | C |
| ATOM | 15978 | O | LEU | B | 964 | -6.359 | 36.679 | 90.080 | 1.00187.75 | O |
| ATOM | 15979 | CB | LEU | B | 964 | -9.082 | 38.146 | 88.589 | 1.00127.88 | C |
| ATOM | 15980 | CG | LEU | B | 964 | -8.929 | 37.841 | 87.093 | 1.00127.88 | C |
| ATOM | 15981 | CD1 | LEU | B | 964 | -7.474 | 37.989 | 86.683 | 1.00127.88 | C |
| ATOM | 15982 | CD2 | LEU | B | 964 | -9.441 | 36.445 | 86.784 | 1.00127.88 | C |
| ATOM | 15983 | N | MET | B | 965 | -7.295 | 35.728 | 88.260 | 1.00141.00 | N |
| ATOM | 15984 | CA | MET | B | 965 | -6.099 | 35.009 | 87.801 | 1.00141.00 | C |
| ATOM | 15985 | C | MET | B | 965 | -4.765 | 35.730 | 87.993 | 1.00141.00 | C |
| ATOM | 15986 | O | MET | B | 965 | -3.708 | 35.237 | 87.611 | 1.00141.00 | O |
| ATOM | 15987 | CB | MET | B | 965 | -6.258 | 34.630 | 86.325 | 1.00167.72 | C |
| ATOM | 15988 | CG | MET | B | 965 | -7.005 | 33.330 | 86.096 | 1.00167.72 | C |
| ATOM | 15989 | SD | MET | B | 965 | -5.944 | 31.882 | 86.323 | 1.00167.72 | S |
| ATOM | 15990 | CE | MET | B | 965 | -5.878 | 31.753 | 88.097 | 1.00167.72 | C |
| ATOM | 15991 | N | THR | B | 966 | -4.815 | 36.887 | 88.621 | 1.00160.63 | N |
| ATOM | 15992 | CA | THR | B | 966 | -3.633 | 37.690 | 88.843 | 1.00160.63 | C |
| ATOM | 15993 | C | THR | B | 966 | -3.259 | 37.723 | 90.335 | 1.00160.63 | C |
| ATOM | 15994 | O | THR | B | 966 | -3.928 | 38.338 | 91.171 | 1.00160.63 | O |
| ATOM | 15995 | CB | THR | B | 966 | -3.958 | 39.096 | 88.354 | 1.00 84.11 | C |
| ATOM | 15996 | OG1 | THR | B | 966 | -5.127 | 39.586 | 89.024 | 1.00 84.11 | O |
| ATOM | 15997 | CG2 | THR | B | 966 | -4.306 | 39.034 | 86.924 | 1.00 84.11 | C |
| ATOM | 15998 | N | PHE | B | 967 | -2.147 | 37.064 | 90.635 | 1.00207.38 | N |
| ATOM | 15999 | CA | PHE | B | 967 | -1.672 | 36.934 | 91.999 | 1.00207.38 | C |
| ATOM | 16000 | C | PHE | B | 967 | -0.179 | 36.558 | 92.025 | 1.00207.38 | C |
| ATOM | 16001 | O | PHE | B | 967 | 0.614 | 37.051 | 91.227 | 1.00207.38 | O |
| ATOM | 16002 | CB | PHE | B | 967 | -2.460 | 35.830 | 92.684 | 1.00160.90 | C |
| ATOM | 16003 | CG | PHE | B | 967 | -2.187 | 34.477 | 92.104 | 1.00160.90 | C |
| ATOM | 16004 | CD1 | PHE | B | 967 | -1.514 | 33.517 | 92.842 | 1.00160.90 | C |
| ATOM | 16005 | CD2 | PHE | B | 967 | -2.518 | 34.196 | 90.781 | 1.00160.90 | C |
| ATOM | 16006 | CE1 | PHE | B | 967 | -1.167 | 32.298 | 92.270 | 1.00160.90 | C |
| ATOM | 16007 | CE2 | PHE | B | 967 | -2.175 | 32.981 | 90.199 | 1.00160.90 | C |
| ATOM | 16008 | CZ | PHE | B | 967 | -1.496 | 32.029 | 90.945 | 1.00160.90 | C |
| ATOM | 16009 | N | GLU | B | 968 | 0.189 | 35.675 | 92.948 | 1.00132.36 | N |
| ATOM | 16010 | CA | GLU | B | 968 | 1.561 | 35.206 | 93.105 | 1.00132.36 | C |
| ATOM | 16011 | C | GLU | B | 968 | 2.329 | 34.792 | 91.844 | 1.00132.36 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 16012 | O | GLU | B | 968 | 3.473 | 35.202 | 91.685 | 1.00132.36 | O |
| ATOM | 16013 | CB | GLU | B | 968 | 1.587 | 34.024 | 94.080 | 1.00174.12 | C |
| ATOM | 16014 | CG | GLU | B | 968 | 2.869 | 33.182 | 94.051 | 1.00174.12 | C |
| ATOM | 16015 | CD | GLU | B | 968 | 3.068 | 32.455 | 92.731 | 1.00174.12 | C |
| ATOM | 16016 | OE1 | GLU | B | 968 | 2.155 | 31.703 | 92.325 | 1.00174.12 | O |
| ATOM | 16017 | OE2 | GLU | B | 968 | 4.131 | 32.638 | 92.098 | 1.00174.12 | O |
| ATOM | 16018 | N | ASN | B | 969 | 1.744 | 33.953 | 90.981 | 1.00109.25 | N |
| ATOM | 16019 | CA | ASN | B | 969 | 2.418 | 33.476 | 89.751 | 1.00109.25 | C |
| ATOM | 16020 | C | ASN | B | 969 | 3.472 | 34.435 | 89.149 | 1.00109.25 | C |
| ATOM | 16021 | O | ASN | B | 969 | 4.466 | 34.019 | 88.526 | 1.00109.25 | O |
| ATOM | 16022 | CB | ASN | B | 969 | 1.388 | 33.136 | 88.673 | 1.00121.09 | C |
| ATOM | 16023 | CG | ASN | B | 969 | 0.495 | 34.311 | 88.319 | 1.00121.09 | C |
| ATOM | 16024 | OD1 | ASN | B | 969 | -0.077 | 34.357 | 87.231 | 1.00121.09 | O |
| ATOM | 16025 | ND2 | ASN | B | 969 | 0.354 | 35.256 | 89.241 | 1.00121.09 | N |
| ATOM | 16026 | N | VAL | B | 970 | 3.245 | 35.726 | 89.333 | 1.00202.34 | N |
| ATOM | 16027 | CA | VAL | B | 970 | 4.183 | 36.710 | 88.836 | 1.00202.34 | C |
| ATOM | 16028 | C | VAL | B | 970 | 5.583 | 36.288 | 89.257 | 1.00202.34 | C |
| ATOM | 16029 | O | VAL | B | 970 | 6.562 | 36.630 | 88.605 | 1.00202.34 | O |
| ATOM | 16030 | CB | VAL | B | 970 | 3.880 | 38.113 | 89.404 | 1.00207.38 | C |
| ATOM | 16031 | CG1 | VAL | B | 970 | 2.543 | 38.610 | 88.873 | 1.00207.38 | C |
| ATOM | 16032 | CG2 | VAL | B | 970 | 3.861 | 38.065 | 90.921 | 1.00207.38 | C |
| ATOM | 16033 | N | LEU | B | 971 | 5.684 | 35.533 | 90.343 | 1.00130.79 | N |
| ATOM | 16034 | CA | LEU | B | 971 | 6.992 | 35.108 | 90.781 | 1.00130.79 | C |
| ATOM | 16035 | C | LEU | B | 971 | 7.546 | 34.103 | 89.807 | 1.00130.79 | C |
| ATOM | 16036 | O | LEU | B | 971 | 8.755 | 34.020 | 89.607 | 1.00130.79 | O |
| ATOM | 16037 | CB | LEU | B | 971 | 6.962 | 34.567 | 92.214 | 1.00100.24 | C |
| ATOM | 16038 | CG | LEU | B | 971 | 7.096 | 35.708 | 93.228 | 1.00100.24 | C |
| ATOM | 16039 | CD1 | LEU | B | 971 | 8.456 | 36.373 | 93.059 | 1.00100.24 | C |
| ATOM | 16040 | CD2 | LEU | B | 971 | 5.989 | 36.730 | 93.007 | 1.00100.24 | C |
| ATOM | 16041 | N | LEU | B | 972 | 6.694 | 33.326 | 89.173 | 1.00 80.61 | N |
| ATOM | 16042 | CA | LEU | B | 972 | 7.273 | 32.468 | 88.174 | 1.00 80.61 | C |
| ATOM | 16043 | C | LEU | B | 972 | 7.645 | 33.364 | 86.983 | 1.00 80.61 | C |
| ATOM | 16044 | O | LEU | B | 972 | 8.563 | 33.061 | 86.216 | 1.00 80.61 | O |
| ATOM | 16045 | CB | LEU | B | 972 | 6.318 | 31.346 | 87.788 | 1.00148.83 | C |
| ATOM | 16046 | CG | LEU | B | 972 | 6.716 | 30.154 | 88.669 | 1.00148.83 | C |
| ATOM | 16047 | CD1 | LEU | B | 972 | 6.696 | 30.573 | 90.143 | 1.00148.83 | C |
| ATOM | 16048 | CD2 | LEU | B | 972 | 5.802 | 28.977 | 88.425 | 1.00148.83 | C |
| ATOM | 16049 | N | VAL | B | 973 | 6.969 | 34.494 | 86.835 | 1.00121.77 | N |
| ATOM | 16050 | CA | VAL | B | 973 | 7.362 | 35.391 | 85.752 | 1.00121.77 | C |
| ATOM | 16051 | C | VAL | B | 973 | 8.813 | 35.820 | 85.990 | 1.00121.77 | C |
| ATOM | 16052 | O | VAL | B | 973 | 9.600 | 35.878 | 85.051 | 1.00121.77 | O |
| ATOM | 16053 | CB | VAL | B | 973 | 6.476 | 36.650 | 85.704 | 1.00207.38 | C |
| ATOM | 16054 | CG1 | VAL | B | 973 | 6.906 | 37.534 | 84.553 | 1.00207.38 | C |
| ATOM | 16055 | CG2 | VAL | B | 973 | 5.014 | 36.261 | 85.547 | 1.00207.38 | C |
| ATOM | 16056 | N | PHE | B | 974 | 9.169 | 36.132 | 87.235 | 1.00193.78 | N |
| ATOM | 16057 | CA | PHE | B | 974 | 10.554 | 36.497 | 87.546 | 1.00193.78 | C |
| ATOM | 16058 | C | PHE | B | 974 | 11.409 | 35.294 | 87.140 | 1.00193.78 | C |
| ATOM | 16059 | O | PHE | B | 974 | 12.561 | 35.442 | 86.721 | 1.00193.78 | O |
| ATOM | 16060 | CB | PHE | B | 974 | 10.739 | 36.771 | 89.042 | 1.00207.38 | C |
| ATOM | 16061 | CG | PHE | B | 974 | 12.188 | 36.866 | 89.474 | 1.00207.38 | C |
| ATOM | 16062 | CD1 | PHE | B | 974 | 12.990 | 35.728 | 89.529 | 1.00207.38 | C |
| ATOM | 16063 | CD2 | PHE | B | 974 | 12.750 | 38.092 | 89.828 | 1.00207.38 | C |
| ATOM | 16064 | CE1 | PHE | B | 974 | 14.326 | 35.810 | 89.931 | 1.00207.38 | C |
| ATOM | 16065 | CE2 | PHE | B | 974 | 14.091 | 38.181 | 90.231 | 1.00207.38 | C |
| ATOM | 16066 | CZ | PHE | B | 974 | 14.875 | 37.038 | 90.282 | 1.00207.38 | C |
| ATOM | 16067 | N | SER | B | 975 | 10.838 | 34.099 | 87.273 | 1.00 74.23 | N |
| ATOM | 16068 | CA | SER | B | 975 | 11.555 | 32.885 | 86.906 | 1.00 74.23 | C |
| ATOM | 16069 | C | SER | B | 975 | 12.000 | 32.898 | 85.446 | 1.00 74.23 | C |
| ATOM | 16070 | O | SER | B | 975 | 13.147 | 32.579 | 85.196 | 1.00 74.23 | O |
| ATOM | 16071 | CB | SER | B | 975 | 10.687 | 31.658 | 87.186 | 1.00183.74 | C |
| ATOM | 16072 | OG | SER | B | 975 | 10.477 | 31.502 | 88.581 | 1.00183.74 | O |
| ATOM | 16073 | N | ALA | B | 976 | 11.130 | 33.277 | 84.493 | 1.00151.82 | N |
| ATOM | 16074 | CA | ALA | B | 976 | 11.535 | 33.343 | 83.060 | 1.00151.82 | C |
| ATOM | 16075 | C | ALA | B | 976 | 12.374 | 34.572 | 82.643 | 1.00151.82 | C |
| ATOM | 16076 | O | ALA | B | 976 | 13.142 | 34.510 | 81.678 | 1.00151.82 | O |
| ATOM | 16077 | CB | ALA | B | 976 | 10.289 | 33.251 | 82.194 | 1.00 26.96 | C |
| ATOM | 16078 | N | ILE | B | 977 | 12.211 | 35.685 | 83.354 | 1.00 89.28 | N |
| ATOM | 16079 | CA | ILE | B | 977 | 13.001 | 36.888 | 83.106 | 1.00 89.28 | C |
| ATOM | 16080 | C | ILE | B | 977 | 14.413 | 36.501 | 83.583 | 1.00 89.28 | C |
| ATOM | 16081 | O | ILE | B | 977 | 15.428 | 36.676 | 82.887 | 1.00 89.28 | O |
| ATOM | 16082 | CB | ILE | B | 977 | 12.540 | 38.066 | 83.993 | 1.00206.58 | C |
| ATOM | 16083 | CG1 | ILE | B | 977 | 11.020 | 38.216 | 83.935 | 1.00206.58 | C |
| ATOM | 16084 | CG2 | ILE | B | 977 | 13.227 | 39.351 | 83.549 | 1.00206.58 | C |
| ATOM | 16085 | CD1 | ILE | B | 977 | 10.469 | 39.158 | 84.987 | 1.00206.58 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 16086 | N | VAL | B | 978 | 14.470 | 35.970 | 84.795 | 1.00108.47 | N |
| ATOM | 16087 | CA | VAL | B | 978 | 15.729 | 35.543 | 85.358 | 1.00108.47 | C |
| ATOM | 16088 | C | VAL | B | 978 | 16.245 | 34.363 | 84.509 | 1.00108.47 | C |
| ATOM | 16089 | O | VAL | B | 978 | 17.415 | 33.996 | 84.606 | 1.00108.47 | O |
| ATOM | 16090 | CB | VAL | B | 978 | 15.557 | 35.130 | 86.844 | 1.00169.70 | C |
| ATOM | 16091 | CG1 | VAL | B | 978 | 14.914 | 33.760 | 86.943 | 1.00169.70 | C |
| ATOM | 16092 | CG2 | VAL | B | 978 | 16.896 | 35.173 | 87.555 | 1.00169.70 | C |
| ATOM | 16093 | N | PHE | B | 979 | 15.377 | 33.776 | 83.676 | 1.00125.14 | N |
| ATOM | 16094 | CA | PHE | B | 979 | 15.787 | 32.674 | 82.791 | 1.00125.14 | C |
| ATOM | 16095 | C | PHE | B | 979 | 16.674 | 33.276 | 81.698 | 1.00125.14 | C |
| ATOM | 16096 | O | PHE | B | 979 | 17.850 | 32.919 | 81.558 | 1.00125.14 | O |
| ATOM | 16097 | CB | PHE | B | 979 | 14.598 | 31.992 | 82.102 | 1.00180.49 | C |
| ATOM | 16098 | CG | PHE | B | 979 | 13.752 | 31.136 | 83.010 | 1.00180.49 | C |
| ATOM | 16099 | CD1 | PHE | B | 979 | 14.270 | 30.598 | 84.187 | 1.00180.49 | C |
| ATOM | 16100 | CD2 | PHE | B | 979 | 12.441 | 30.829 | 82.660 | 1.00180.49 | C |
| ATOM | 16101 | CE1 | PHE | B | 979 | 13.491 | 29.765 | 85.002 | 1.00180.49 | C |
| ATOM | 16102 | CE2 | PHE | B | 979 | 11.657 | 30.000 | 83.464 | 1.00180.49 | C |
| ATOM | 16103 | CZ | PHE | B | 979 | 12.184 | 29.467 | 84.638 | 1.00180.49 | C |
| ATOM | 16104 | N | GLY | B | 980 | 16.098 | 34.175 | 80.905 | 1.00 84.10 | N |
| ATOM | 16105 | CA | GLY | B | 980 | 16.885 | 34.814 | 79.867 | 1.00 84.10 | C |
| ATOM | 16106 | C | GLY | B | 980 | 18.218 | 35.256 | 80.460 | 1.00 84.10 | C |
| ATOM | 16107 | O | GLY | B | 980 | 19.285 | 34.994 | 79.895 | 1.00 84.10 | O |
| ATOM | 16108 | N | ALA | B | 981 | 18.173 | 35.908 | 81.618 | 1.00125.41 | N |
| ATOM | 16109 | CA | ALA | B | 981 | 19.406 | 36.367 | 82.251 | 1.00125.41 | C |
| ATOM | 16110 | C | ALA | B | 981 | 20.375 | 35.187 | 82.546 | 1.00125.41 | C |
| ATOM | 16111 | O | ALA | B | 981 | 21.604 | 35.352 | 82.537 | 1.00125.41 | O |
| ATOM | 16112 | CB | ALA | B | 981 | 19.103 | 37.089 | 83.543 | 1.00 57.33 | C |
| ATOM | 16113 | N | MET | B | 982 | 19.819 | 33.995 | 82.769 | 1.00 86.01 | N |
| ATOM | 16114 | CA | MET | B | 982 | 20.615 | 32.801 | 83.048 | 1.00 86.01 | C |
| ATOM | 16115 | C | MET | B | 982 | 21.420 | 32.439 | 81.797 | 1.00 86.01 | C |
| ATOM | 16116 | O | MET | B | 982 | 22.660 | 32.285 | 81.829 | 1.00 86.01 | O |
| ATOM | 16117 | CB | MET | B | 982 | 19.695 | 31.630 | 83.447 | 1.00196.17 | C |
| ATOM | 16118 | CG | MET | B | 982 | 19.347 | 30.645 | 82.317 | 1.00196.17 | C |
| ATOM | 16119 | SD | MET | B | 982 | 17.777 | 29.751 | 82.543 | 1.00196.17 | S |
| ATOM | 16120 | CE | MET | B | 982 | 18.334 | 28.102 | 83.124 | 1.00196.17 | C |
| ATOM | 16121 | N | ALA | B | 983 | 20.727 | 32.310 | 80.676 | 1.00105.39 | N |
| ATOM | 16122 | CA | ALA | B | 983 | 21.436 | 31.959 | 79.466 | 1.00105.39 | C |
| ATOM | 16123 | C | ALA | B | 983 | 22.463 | 33.050 | 79.202 | 1.00105.39 | C |
| ATOM | 16124 | O | ALA | B | 983 | 23.488 | 32.804 | 78.578 | 1.00105.39 | O |
| ATOM | 16125 | CB | ALA | B | 983 | 20.453 | 31.862 | 78.278 | 1.00 18.97 | C |
| ATOM | 16126 | N | VAL | B | 984 | 22.196 | 34.257 | 79.692 | 1.00196.79 | N |
| ATOM | 16127 | CA | VAL | B | 984 | 23.141 | 35.358 | 79.535 | 1.00196.79 | C |
| ATOM | 16128 | C | VAL | B | 984 | 24.461 | 34.937 | 80.204 | 1.00196.79 | C |
| ATOM | 16129 | O | VAL | B | 984 | 25.538 | 35.028 | 79.595 | 1.00196.79 | O |
| ATOM | 16130 | CB | VAL | B | 984 | 22.594 | 36.652 | 80.187 | 1.00167.38 | C |
| ATOM | 16131 | CG1 | VAL | B | 984 | 23.740 | 37.545 | 80.645 | 1.00167.38 | C |
| ATOM | 16132 | CG2 | VAL | B | 984 | 21.724 | 37.398 | 79.186 | 1.00167.38 | C |
| ATOM | 16133 | N | GLY | B | 985 | 24.366 | 34.471 | 81.453 | 1.00139.13 | N |
| ATOM | 16134 | CA | GLY | B | 985 | 25.550 | 34.005 | 82.162 | 1.00139.13 | C |
| ATOM | 16135 | C | GLY | B | 985 | 26.353 | 33.065 | 81.273 | 1.00139.13 | C |
| ATOM | 16136 | O | GLY | B | 985 | 27.580 | 33.173 | 81.190 | 1.00139.13 | O |
| ATOM | 16137 | N | GLN | B | 986 | 25.656 | 32.144 | 80.601 | 1.00 87.77 | N |
| ATOM | 16138 | CA | GLN | B | 986 | 26.318 | 31.187 | 79.680 | 1.00 87.77 | C |
| ATOM | 16139 | C | GLN | B | 986 | 27.067 | 31.820 | 78.483 | 1.00 87.77 | C |
| ATOM | 16140 | O | GLN | B | 986 | 28.230 | 31.519 | 78.239 | 1.00 87.77 | O |
| ATOM | 16141 | CB | GLN | B | 986 | 25.302 | 30.180 | 79.121 | 1.00191.44 | C |
| ATOM | 16142 | CG | GLN | B | 986 | 25.145 | 28.910 | 79.941 | 1.00191.44 | C |
| ATOM | 16143 | CD | GLN | B | 986 | 24.019 | 28.989 | 80.948 | 1.00191.44 | C |
| ATOM | 16144 | OE1 | GLN | B | 986 | 22.842 | 28.964 | 80.584 | 1.00191.44 | O |
| ATOM | 16145 | NE2 | GLN | B | 986 | 24.373 | 29.088 | 82.224 | 1.00191.44 | N |
| ATOM | 16146 | N | VAL | B | 987 | 26.389 | 32.692 | 77.746 | 1.00199.21 | N |
| ATOM | 16147 | CA | VAL | B | 987 | 27.027 | 33.334 | 76.603 | 1.00199.21 | C |
| ATOM | 16148 | C | VAL | B | 987 | 28.290 | 34.066 | 77.048 | 1.00199.21 | C |
| ATOM | 16149 | O | VAL | B | 987 | 29.352 | 33.909 | 76.445 | 1.00199.21 | O |
| ATOM | 16150 | CB | VAL | B | 987 | 26.078 | 34.343 | 75.919 | 1.00187.38 | C |
| ATOM | 16151 | CG1 | VAL | B | 987 | 25.654 | 35.416 | 76.909 | 1.00187.38 | C |
| ATOM | 16152 | CG2 | VAL | B | 987 | 26.766 | 34.969 | 74.715 | 1.00187.38 | C |
| ATOM | 16153 | N | SER | B | 988 | 28.171 | 34.858 | 78.110 | 1.00122.83 | N |
| ATOM | 16154 | CA | SER | B | 988 | 29.308 | 35.616 | 78.625 | 1.00122.83 | C |
| ATOM | 16155 | C | SER | B | 988 | 30.167 | 34.816 | 79.601 | 1.00122.83 | C |
| ATOM | 16156 | O | SER | B | 988 | 30.617 | 35.345 | 80.617 | 1.00122.83 | O |
| ATOM | 16157 | CB | SER | B | 988 | 28.820 | 36.897 | 79.307 | 1.00207.38 | C |
| ATOM | 16158 | OG | SER | B | 988 | 28.183 | 37.760 | 78.382 | 1.00207.38 | O |
| ATOM | 16159 | N | SER | B | 989 | 30.397 | 33.546 | 79.289 | 1.00110.71 | N |

| | | | | | | | | | | |
|------|-------|-----|-----|---|-----|--------|--------|--------|------------|---|
| ATOM | 16160 | CA | SER | B | 989 | 31.206 | 32.685 | 80.145 | 1.00110.71 | C |
| ATOM | 16161 | C | SER | B | 989 | 31.541 | 31.383 | 79.432 | 1.00110.71 | C |
| ATOM | 16162 | O | SER | B | 989 | 31.351 | 31.264 | 78.221 | 1.00110.71 | O |
| ATOM | 16163 | CB | SER | B | 989 | 30.459 | 32.382 | 81.446 | 1.00203.83 | C |
| ATOM | 16164 | OG | SER | B | 989 | 30.183 | 33.571 | 82.166 | 1.00203.83 | O |
| ATOM | 16165 | N | PHE | B | 990 | 32.036 | 30.405 | 80.184 | 1.00207.38 | N |
| ATOM | 16166 | CA | PHE | B | 990 | 32.389 | 29.120 | 79.598 | 1.00207.38 | C |
| ATOM | 16167 | C | PHE | B | 990 | 33.581 | 29.311 | 78.672 | 1.00207.38 | C |
| ATOM | 16168 | O | PHE | B | 990 | 34.349 | 30.261 | 78.821 | 1.00207.38 | O |
| ATOM | 16169 | CB | PHE | B | 990 | 31.200 | 28.570 | 78.802 | 1.00144.97 | C |
| ATOM | 16170 | CG | PHE | B | 990 | 30.592 | 27.324 | 79.385 | 1.00144.97 | C |
| ATOM | 16171 | CD1 | PHE | B | 990 | 30.884 | 26.924 | 80.687 | 1.00144.97 | C |
| ATOM | 16172 | CD2 | PHE | B | 990 | 29.709 | 26.556 | 78.633 | 1.00144.97 | C |
| ATOM | 16173 | CE1 | PHE | B | 990 | 30.305 | 25.779 | 81.229 | 1.00144.97 | C |
| ATOM | 16174 | CE2 | PHE | B | 990 | 29.125 | 25.410 | 79.165 | 1.00144.97 | C |
| ATOM | 16175 | CZ | PHE | B | 990 | 29.423 | 25.021 | 80.465 | 1.00144.97 | C |
| ATOM | 16176 | N | ALA | B | 991 | 33.731 | 28.404 | 77.714 | 1.00154.43 | N |
| ATOM | 16177 | CA | ALA | B | 991 | 34.825 | 28.488 | 76.762 | 1.00154.43 | C |
| ATOM | 16178 | C | ALA | B | 991 | 34.702 | 29.777 | 75.954 | 1.00154.43 | C |
| ATOM | 16179 | O | ALA | B | 991 | 33.808 | 30.590 | 76.194 | 1.00154.43 | O |
| ATOM | 16180 | CB | ALA | B | 991 | 34.804 | 27.282 | 75.834 | 1.00146.48 | C |
| ATOM | 16181 | N | PRO | B | 992 | 35.602 | 29.975 | 74.982 | 1.00136.63 | N |
| ATOM | 16182 | CA | PRO | B | 992 | 35.606 | 31.163 | 74.122 | 1.00136.63 | C |
| ATOM | 16183 | C | PRO | B | 992 | 34.309 | 31.292 | 73.329 | 1.00136.63 | C |
| ATOM | 16184 | O | PRO | B | 992 | 33.727 | 30.283 | 72.932 | 1.00136.63 | O |
| ATOM | 16185 | CB | PRO | B | 992 | 36.839 | 30.935 | 73.254 | 1.00207.38 | C |
| ATOM | 16186 | CG | PRO | B | 992 | 36.805 | 29.438 | 73.061 | 1.00207.38 | C |
| ATOM | 16187 | CD | PRO | B | 992 | 36.554 | 28.966 | 74.482 | 1.00207.38 | C |
| ATOM | 16188 | N | ASP | B | 993 | 33.867 | 32.525 | 73.105 | 1.00207.38 | N |
| ATOM | 16189 | CA | ASP | B | 993 | 32.600 | 32.773 | 72.428 | 1.00207.38 | C |
| ATOM | 16190 | C | ASP | B | 993 | 32.419 | 32.026 | 71.103 | 1.00207.38 | C |
| ATOM | 16191 | O | ASP | B | 993 | 32.000 | 32.621 | 70.108 | 1.00207.38 | O |
| ATOM | 16192 | CB | ASP | B | 993 | 32.390 | 34.278 | 72.210 | 1.00158.71 | C |
| ATOM | 16193 | CG | ASP | B | 993 | 31.201 | 34.822 | 72.997 | 1.00158.71 | C |
| ATOM | 16194 | OD1 | ASP | B | 993 | 30.076 | 34.303 | 72.820 | 1.00158.71 | O |
| ATOM | 16195 | OD2 | ASP | B | 993 | 31.388 | 35.765 | 73.795 | 1.00158.71 | O |
| ATOM | 16196 | N | TYR | B | 994 | 32.747 | 30.731 | 71.106 | 1.00159.44 | N |
| ATOM | 16197 | CA | TYR | B | 994 | 32.559 | 29.840 | 69.971 | 1.00159.44 | C |
| ATOM | 16198 | C | TYR | B | 994 | 33.041 | 30.444 | 68.667 | 1.00159.44 | C |
| ATOM | 16199 | O | TYR | B | 994 | 32.908 | 29.818 | 67.636 | 1.00159.44 | O |
| ATOM | 16200 | CB | TYR | B | 994 | 31.067 | 29.492 | 69.884 | 1.00158.08 | C |
| ATOM | 16201 | CG | TYR | B | 994 | 30.706 | 28.384 | 68.928 | 1.00158.08 | C |
| ATOM | 16202 | CD1 | TYR | B | 994 | 30.554 | 28.633 | 67.568 | 1.00158.08 | C |
| ATOM | 16203 | CD2 | TYR | B | 994 | 30.498 | 27.083 | 69.390 | 1.00158.08 | C |
| ATOM | 16204 | CE1 | TYR | B | 994 | 30.201 | 27.610 | 66.682 | 1.00158.08 | C |
| ATOM | 16205 | CE2 | TYR | B | 994 | 30.146 | 26.050 | 68.514 | 1.00158.08 | C |
| ATOM | 16206 | CZ | TYR | B | 994 | 30.001 | 26.320 | 67.162 | 1.00158.08 | C |
| ATOM | 16207 | OH | TYR | B | 994 | 29.681 | 25.297 | 66.296 | 1.00158.08 | O |
| ATOM | 16208 | N | ALA | B | 995 | 33.616 | 31.640 | 68.685 | 1.00138.24 | N |
| ATOM | 16209 | CA | ALA | B | 995 | 34.039 | 32.228 | 67.419 | 1.00138.24 | C |
| ATOM | 16210 | C | ALA | B | 995 | 35.466 | 31.855 | 67.152 | 1.00138.24 | C |
| ATOM | 16211 | O | ALA | B | 995 | 35.751 | 30.890 | 66.451 | 1.00138.24 | O |
| ATOM | 16212 | CB | ALA | B | 995 | 33.886 | 33.744 | 67.475 | 1.00207.38 | C |
| ATOM | 16213 | N | LYS | B | 996 | 36.359 | 32.637 | 67.737 | 1.00148.71 | N |
| ATOM | 16214 | CA | LYS | B | 996 | 37.780 | 32.423 | 67.597 | 1.00148.71 | C |
| ATOM | 16215 | C | LYS | B | 996 | 38.082 | 30.933 | 67.707 | 1.00148.71 | C |
| ATOM | 16216 | O | LYS | B | 996 | 39.078 | 30.456 | 67.161 | 1.00148.71 | O |
| ATOM | 16217 | CB | LYS | B | 996 | 38.559 | 33.220 | 68.657 | 1.00142.75 | C |
| ATOM | 16218 | CG | LYS | B | 996 | 37.814 | 33.424 | 69.958 | 1.00142.75 | C |
| ATOM | 16219 | CD | LYS | B | 996 | 36.558 | 34.259 | 69.737 | 1.00142.75 | C |
| ATOM | 16220 | CE | LYS | B | 996 | 35.475 | 33.897 | 70.732 | 1.00142.75 | C |
| ATOM | 16221 | NZ | LYS | B | 996 | 35.174 | 32.446 | 70.631 | 1.00142.75 | N |
| ATOM | 16222 | N | ALA | B | 997 | 37.203 | 30.196 | 68.380 | 1.00130.22 | N |
| ATOM | 16223 | CA | ALA | B | 997 | 37.395 | 28.764 | 68.515 | 1.00130.22 | C |
| ATOM | 16224 | C | ALA | B | 997 | 37.039 | 28.081 | 67.193 | 1.00130.22 | C |
| ATOM | 16225 | O | ALA | B | 997 | 37.826 | 27.309 | 66.643 | 1.00130.22 | O |
| ATOM | 16226 | CB | ALA | B | 997 | 36.517 | 28.221 | 69.636 | 1.00181.30 | C |
| ATOM | 16227 | N | THR | B | 998 | 35.859 | 28.376 | 66.668 | 1.00140.72 | N |
| ATOM | 16228 | CA | THR | B | 998 | 35.443 | 27.771 | 65.410 | 1.00140.72 | C |
| ATOM | 16229 | C | THR | B | 998 | 36.474 | 28.101 | 64.366 | 1.00140.72 | C |
| ATOM | 16230 | O | THR | B | 998 | 36.881 | 27.235 | 63.592 | 1.00140.72 | O |
| ATOM | 16231 | CB | THR | B | 998 | 34.083 | 28.321 | 64.936 | 1.00184.36 | C |
| ATOM | 16232 | OG1 | THR | B | 998 | 33.176 | 28.415 | 66.046 | 1.00184.36 | O |
| ATOM | 16233 | CG2 | THR | B | 998 | 33.498 | 27.402 | 63.869 | 1.00184.36 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|-----|--------|--------|--------|------------|---|
| ATOM | 16234 | N | VAL | B | 999 | 36.870 | 29.372 | 64.337 | 1.00160.43 | N |
| ATOM | 16235 | CA | VAL | B | 999 | 37.870 | 29.848 | 63.395 | 1.00160.43 | C |
| ATOM | 16236 | C | VAL | B | 999 | 39.089 | 28.968 | 63.552 | 1.00160.43 | C |
| ATOM | 16237 | O | VAL | B | 999 | 39.508 | 28.300 | 62.609 | 1.00160.43 | O |
| ATOM | 16238 | CB | VAL | B | 999 | 38.265 | 31.317 | 63.682 | 1.00126.23 | C |
| ATOM | 16239 | CG1 | VAL | B | 999 | 39.719 | 31.568 | 63.296 | 1.00126.23 | C |
| ATOM | 16240 | CG2 | VAL | B | 999 | 37.364 | 32.248 | 62.895 | 1.00126.23 | C |
| ATOM | 16241 | N | SER | B1000 | | 39.657 | 28.970 | 64.751 | 1.00 64.37 | N |
| ATOM | 16242 | CA | SER | B1000 | | 40.815 | 28.133 | 65.003 | 1.00 64.37 | C |
| ATOM | 16243 | C | SER | B1000 | | 40.547 | 26.688 | 64.583 | 1.00 64.37 | C |
| ATOM | 16244 | O | SER | B1000 | | 41.409 | 26.079 | 63.986 | 1.00 64.37 | O |
| ATOM | 16245 | CB | SER | B1000 | | 41.196 | 28.192 | 66.482 | 1.00176.86 | C |
| ATOM | 16246 | OG | SER | B1000 | | 41.688 | 29.475 | 66.830 | 1.00176.86 | O |
| ATOM | 16247 | N | ALA | B1001 | | 39.367 | 26.140 | 64.869 | 1.00111.54 | N |
| ATOM | 16248 | CA | ALA | B1001 | | 39.052 | 24.763 | 64.461 | 1.00111.54 | C |
| ATOM | 16249 | C | ALA | B1001 | | 39.152 | 24.605 | 62.933 | 1.00111.54 | C |
| ATOM | 16250 | O | ALA | B1001 | | 39.888 | 23.757 | 62.432 | 1.00111.54 | O |
| ATOM | 16251 | CB | ALA | B1001 | | 37.652 | 24.393 | 64.937 | 1.00178.16 | C |
| ATOM | 16252 | N | SER | B1002 | | 38.400 | 25.413 | 62.195 | 1.00124.68 | N |
| ATOM | 16253 | CA | SER | B1002 | | 38.453 | 25.349 | 60.748 | 1.00124.68 | C |
| ATOM | 16254 | C | SER | B1002 | | 39.910 | 25.314 | 60.310 | 1.00124.68 | C |
| ATOM | 16255 | O | SER | B1002 | | 40.300 | 24.461 | 59.512 | 1.00124.68 | O |
| ATOM | 16256 | CB | SER | B1002 | | 37.739 | 26.561 | 60.138 | 1.00167.63 | C |
| ATOM | 16257 | OG | SER | B1002 | | 36.375 | 26.606 | 60.526 | 1.00167.63 | O |
| ATOM | 16258 | N | HIS | B1003 | | 40.708 | 26.235 | 60.856 | 1.00152.21 | N |
| ATOM | 16259 | CA | HIS | B1003 | | 42.143 | 26.353 | 60.544 | 1.00152.21 | C |
| ATOM | 16260 | C | HIS | B1003 | | 42.891 | 25.044 | 60.692 | 1.00152.21 | C |
| ATOM | 16261 | O | HIS | B1003 | | 43.330 | 24.442 | 59.712 | 1.00152.21 | O |
| ATOM | 16262 | CB | HIS | B1003 | | 42.801 | 27.392 | 61.450 | 1.00143.11 | C |
| ATOM | 16263 | CG | HIS | B1003 | | 43.025 | 28.714 | 60.791 | 1.00143.11 | C |
| ATOM | 16264 | ND1 | HIS | B1003 | | 43.775 | 28.855 | 59.643 | 1.00143.11 | N |
| ATOM | 16265 | CD2 | HIS | B1003 | | 42.616 | 29.959 | 61.129 | 1.00143.11 | C |
| ATOM | 16266 | CE1 | HIS | B1003 | | 43.819 | 30.130 | 59.303 | 1.00143.11 | C |
| ATOM | 16267 | NE2 | HIS | B1003 | | 43.124 | 30.822 | 60.188 | 1.00143.11 | N |
| ATOM | 16268 | N | ILE | B1004 | | 43.043 | 24.621 | 61.938 | 1.00 95.56 | N |
| ATOM | 16269 | CA | ILE | B1004 | | 43.758 | 23.400 | 62.247 | 1.00 95.56 | C |
| ATOM | 16270 | C | ILE | B1004 | | 43.156 | 22.235 | 61.475 | 1.00 95.56 | C |
| ATOM | 16271 | O | ILE | B1004 | | 43.812 | 21.211 | 61.278 | 1.00 95.56 | O |
| ATOM | 16272 | CB | ILE | B1004 | | 43.764 | 23.148 | 63.793 | 1.00121.91 | C |
| ATOM | 16273 | CG1 | ILE | B1004 | | 44.210 | 21.718 | 64.105 | 1.00121.91 | C |
| ATOM | 16274 | CG2 | ILE | B1004 | | 42.403 | 23.502 | 64.389 | 1.00121.91 | C |
| ATOM | 16275 | CD1 | ILE | B1004 | | 43.133 | 20.687 | 63.927 | 1.00121.91 | C |
| ATOM | 16276 | N | ILE | B1005 | | 41.924 | 22.395 | 60.999 | 1.00 83.57 | N |
| ATOM | 16277 | CA | ILE | B1005 | | 41.303 | 21.319 | 60.244 | 1.00 83.57 | C |
| ATOM | 16278 | C | ILE | B1005 | | 41.793 | 21.327 | 58.826 | 1.00 83.57 | C |
| ATOM | 16279 | O | ILE | B1005 | | 42.131 | 20.288 | 58.284 | 1.00 83.57 | O |
| ATOM | 16280 | CB | ILE | B1005 | | 39.767 | 21.410 | 60.249 | 1.00109.48 | C |
| ATOM | 16281 | CG1 | ILE | B1005 | | 39.240 | 20.940 | 61.607 | 1.00109.48 | C |
| ATOM | 16282 | CG2 | ILE | B1005 | | 39.188 | 20.572 | 59.109 | 1.00109.48 | C |
| ATOM | 16283 | CD1 | ILE | B1005 | | 37.779 | 20.558 | 61.613 | 1.00109.48 | C |
| ATOM | 16284 | N | ARG | B1006 | | 41.831 | 22.503 | 58.222 | 1.00145.28 | N |
| ATOM | 16285 | CA | ARG | B1006 | | 42.317 | 22.597 | 56.865 | 1.00145.28 | C |
| ATOM | 16286 | C | ARG | B1006 | | 43.732 | 22.034 | 56.869 | 1.00145.28 | C |
| ATOM | 16287 | O | ARG | B1006 | | 44.103 | 21.338 | 55.938 | 1.00145.28 | O |
| ATOM | 16288 | CB | ARG | B1006 | | 42.324 | 24.052 | 56.412 | 1.00188.97 | C |
| ATOM | 16289 | CG | ARG | B1006 | | 42.217 | 24.238 | 54.914 | 1.00188.97 | C |
| ATOM | 16290 | CD | ARG | B1006 | | 41.887 | 25.678 | 54.608 | 1.00188.97 | C |
| ATOM | 16291 | NE | ARG | B1006 | | 40.840 | 26.157 | 55.505 | 1.00188.97 | N |
| ATOM | 16292 | CZ | ARG | B1006 | | 40.434 | 27.419 | 55.583 | 1.00188.97 | C |
| ATOM | 16293 | NH1 | ARG | B1006 | | 40.984 | 28.349 | 54.813 | 1.00188.97 | N |
| ATOM | 16294 | NH2 | ARG | B1006 | | 39.483 | 27.752 | 56.446 | 1.00188.97 | N |
| ATOM | 16295 | N | ILE | B1007 | | 44.501 | 22.317 | 57.927 | 1.00 91.53 | N |
| ATOM | 16296 | CA | ILE | B1007 | | 45.896 | 21.850 | 58.071 | 1.00 91.53 | C |
| ATOM | 16297 | C | ILE | B1007 | | 46.093 | 20.344 | 58.353 | 1.00 91.53 | C |
| ATOM | 16298 | O | ILE | B1007 | | 47.102 | 19.742 | 57.941 | 1.00 91.53 | O |
| ATOM | 16299 | CB | ILE | B1007 | | 46.633 | 22.636 | 59.189 | 1.00170.76 | C |
| ATOM | 16300 | CG1 | ILE | B1007 | | 47.049 | 24.015 | 58.676 | 1.00170.76 | C |
| ATOM | 16301 | CG2 | ILE | B1007 | | 47.865 | 21.864 | 59.665 | 1.00170.76 | C |
| ATOM | 16302 | CD1 | ILE | B1007 | | 45.896 | 24.923 | 58.324 | 1.00170.76 | C |
| ATOM | 16303 | N | ILE | B1008 | | 45.153 | 19.745 | 59.080 | 1.00111.15 | N |
| ATOM | 16304 | CA | ILE | B1008 | | 45.221 | 18.321 | 59.385 | 1.00111.15 | C |
| ATOM | 16305 | C | ILE | B1008 | | 44.749 | 17.542 | 58.164 | 1.00111.15 | C |
| ATOM | 16306 | O | ILE | B1008 | | 44.980 | 16.336 | 58.051 | 1.00111.15 | O |
| ATOM | 16307 | CB | ILE | B1008 | | 44.344 | 17.970 | 60.594 | 1.00 83.10 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------|--------|---|
| ATOM | 16308 | CG1 | ILE | B1008 | 44.369 | 16.459 | 60.812 | 1.00 | 83.10 | C |
| ATOM | 16309 | CG2 | ILE | B1008 | 42.935 | 18.506 | 60.388 | 1.00 | 83.10 | C |
| ATOM | 16310 | CD1 | ILE | B1008 | 43.816 | 16.028 | 62.150 | 1.00 | 83.10 | C |
| ATOM | 16311 | N | GLU | B1009 | 44.041 | 18.248 | 57.281 | 1.00 | 122.82 | N |
| ATOM | 16312 | CA | GLU | B1009 | 43.609 | 17.708 | 55.994 | 1.00 | 122.82 | C |
| ATOM | 16313 | C | GLU | B1009 | 44.871 | 18.153 | 55.283 | 1.00 | 122.82 | C |
| ATOM | 16314 | O | GLU | B1009 | 45.148 | 19.346 | 55.181 | 1.00 | 122.82 | O |
| ATOM | 16315 | CB | GLU | B1009 | 42.361 | 18.451 | 55.531 | 1.00 | 154.58 | C |
| ATOM | 16316 | CG | GLU | B1009 | 41.276 | 18.454 | 56.589 | 1.00 | 154.58 | C |
| ATOM | 16317 | CD | GLU | B1009 | 39.943 | 17.968 | 56.063 | 1.00 | 154.58 | C |
| ATOM | 16318 | OE1 | GLU | B1009 | 39.315 | 18.647 | 55.220 | 1.00 | 154.58 | O |
| ATOM | 16319 | OE2 | GLU | B1009 | 39.524 | 16.882 | 56.498 | 1.00 | 154.58 | O |
| ATOM | 16320 | N | LYS | B1010 | 45.687 | 17.206 | 54.857 | 1.00 | 195.48 | N |
| ATOM | 16321 | CA | LYS | B1010 | 46.929 | 17.586 | 54.227 | 1.00 | 195.48 | C |
| ATOM | 16322 | C | LYS | B1010 | 46.524 | 17.512 | 52.798 | 1.00 | 195.48 | C |
| ATOM | 16323 | O | LYS | B1010 | 45.536 | 18.130 | 52.417 | 1.00 | 195.48 | O |
| ATOM | 16324 | CB | LYS | B1010 | 47.970 | 16.507 | 54.565 | 1.00 | 106.54 | C |
| ATOM | 16325 | CG | LYS | B1010 | 47.707 | 15.753 | 55.899 | 1.00 | 106.54 | C |
| ATOM | 16326 | CD | LYS | B1010 | 46.593 | 14.705 | 55.770 | 1.00 | 106.54 | C |
| ATOM | 16327 | CE | LYS | B1010 | 46.282 | 14.022 | 57.108 | 1.00 | 106.54 | C |
| ATOM | 16328 | NZ | LYS | B1010 | 45.317 | 12.881 | 56.994 | 1.00 | 106.54 | N |
| ATOM | 16329 | N | THR | B1011 | 47.228 | 16.695 | 52.015 | 1.00 | 176.10 | N |
| ATOM | 16330 | CA | THR | B1011 | 46.903 | 16.582 | 50.601 | 1.00 | 176.10 | C |
| ATOM | 16331 | C | THR | B1011 | 48.124 | 16.055 | 49.878 | 1.00 | 176.10 | C |
| ATOM | 16332 | O | THR | B1011 | 48.057 | 15.075 | 49.126 | 1.00 | 176.10 | O |
| ATOM | 16333 | CB | THR | B1011 | 46.571 | 17.953 | 49.966 | 1.00 | 141.39 | C |
| ATOM | 16334 | OG1 | THR | B1011 | 47.306 | 18.989 | 50.640 | 1.00 | 141.39 | O |
| ATOM | 16335 | CG2 | THR | B1011 | 45.092 | 18.228 | 50.028 | 1.00 | 141.39 | C |
| ATOM | 16336 | N | PRO | B1012 | 49.263 | 16.713 | 50.093 | 1.00 | 186.60 | N |
| ATOM | 16337 | CA | PRO | B1012 | 50.527 | 16.359 | 49.467 | 1.00 | 186.60 | C |
| ATOM | 16338 | C | PRO | B1012 | 51.177 | 14.973 | 49.432 | 1.00 | 186.60 | C |
| ATOM | 16339 | O | PRO | B1012 | 50.594 | 13.925 | 49.707 | 1.00 | 186.60 | O |
| ATOM | 16340 | CB | PRO | B1012 | 51.490 | 17.417 | 50.021 | 1.00 | 103.27 | C |
| ATOM | 16341 | CG | PRO | B1012 | 50.872 | 17.804 | 51.315 | 1.00 | 103.27 | C |
| ATOM | 16342 | CD | PRO | B1012 | 49.426 | 17.885 | 50.969 | 1.00 | 103.27 | C |
| ATOM | 16343 | N | GLU | B1013 | 52.418 | 15.076 | 48.974 | 1.00 | 150.52 | N |
| ATOM | 16344 | CA | GLU | B1013 | 53.440 | 14.073 | 48.715 | 1.00 | 150.52 | C |
| ATOM | 16345 | C | GLU | B1013 | 54.048 | 13.109 | 49.694 | 1.00 | 150.52 | C |
| ATOM | 16346 | O | GLU | B1013 | 53.523 | 12.848 | 50.774 | 1.00 | 150.52 | O |
| ATOM | 16347 | CB | GLU | B1013 | 54.599 | 14.797 | 48.019 | 1.00 | 74.26 | C |
| ATOM | 16348 | CG | GLU | B1013 | 54.143 | 15.958 | 47.162 | 1.00 | 74.26 | C |
| ATOM | 16349 | CD | GLU | B1013 | 53.059 | 15.553 | 46.193 | 1.00 | 74.26 | C |
| ATOM | 16350 | OE1 | GLU | B1013 | 52.774 | 14.342 | 46.106 | 1.00 | 74.26 | O |
| ATOM | 16351 | OE2 | GLU | B1013 | 52.494 | 16.437 | 45.519 | 1.00 | 74.26 | O |
| ATOM | 16352 | N | ILE | B1014 | 55.194 | 12.582 | 49.255 | 1.00 | 97.82 | N |
| ATOM | 16353 | CA | ILE | B1014 | 55.959 | 11.610 | 49.980 | 1.00 | 97.82 | C |
| ATOM | 16354 | C | ILE | B1014 | 55.460 | 10.467 | 50.842 | 1.00 | 97.82 | C |
| ATOM | 16355 | O | ILE | B1014 | 55.359 | 10.538 | 52.107 | 1.00 | 97.82 | O |
| ATOM | 16356 | CB | ILE | B1014 | 57.064 | 12.336 | 50.835 | 1.00 | 83.52 | C |
| ATOM | 16357 | CG1 | ILE | B1014 | 57.624 | 11.407 | 51.931 | 1.00 | 83.52 | C |
| ATOM | 16358 | CG2 | ILE | B1014 | 56.507 | 13.606 | 51.424 | 1.00 | 83.52 | C |
| ATOM | 16359 | CD1 | ILE | B1014 | 58.572 | 12.082 | 52.914 | 1.00 | 83.52 | C |
| ATOM | 16360 | N | ASP | B1015 | 55.307 | 9.356 | 50.147 | 1.00 | 123.72 | N |
| ATOM | 16361 | CA | ASP | B1015 | 54.965 | 8.184 | 50.871 | 1.00 | 123.72 | C |
| ATOM | 16362 | C | ASP | B1015 | 54.281 | 6.990 | 50.187 | 1.00 | 123.72 | C |
| ATOM | 16363 | O | ASP | B1015 | 53.108 | 7.043 | 49.809 | 1.00 | 123.72 | O |
| ATOM | 16364 | CB | ASP | B1015 | 54.117 | 8.586 | 52.089 | 1.00 | 101.85 | C |
| ATOM | 16365 | CG | ASP | B1015 | 54.052 | 7.489 | 53.132 | 1.00 | 101.85 | C |
| ATOM | 16366 | OD1 | ASP | B1015 | 54.593 | 6.384 | 52.883 | 1.00 | 101.85 | O |
| ATOM | 16367 | OD2 | ASP | B1015 | 53.458 | 7.718 | 54.203 | 1.00 | 101.85 | O |
| ATOM | 16368 | N | SER | B1016 | 55.033 | 5.896 | 50.079 | 1.00 | 167.18 | N |
| ATOM | 16369 | CA | SER | B1016 | 54.535 | 4.653 | 49.493 | 1.00 | 167.18 | C |
| ATOM | 16370 | C | SER | B1016 | 53.697 | 4.929 | 48.277 | 1.00 | 167.18 | C |
| ATOM | 16371 | O | SER | B1016 | 52.521 | 5.251 | 48.405 | 1.00 | 167.18 | O |
| ATOM | 16372 | CB | SER | B1016 | 53.706 | 3.874 | 50.519 | 1.00 | 90.53 | C |
| ATOM | 16373 | OG | SER | B1016 | 53.088 | 2.748 | 49.922 | 1.00 | 90.53 | O |
| ATOM | 16374 | N | TYR | B1017 | 54.300 | 4.809 | 47.103 | 1.00 | 162.08 | N |
| ATOM | 16375 | CA | TYR | B1017 | 53.576 | 5.045 | 45.865 | 1.00 | 162.08 | C |
| ATOM | 16376 | C | TYR | B1017 | 53.896 | 4.006 | 44.800 | 1.00 | 162.08 | C |
| ATOM | 16377 | O | TYR | B1017 | 53.062 | 3.140 | 44.528 | 1.00 | 162.08 | O |
| ATOM | 16378 | CB | TYR | B1017 | 53.861 | 6.455 | 45.314 | 1.00 | 207.38 | C |
| ATOM | 16379 | CG | TYR | B1017 | 53.454 | 7.586 | 46.232 | 1.00 | 207.38 | C |
| ATOM | 16380 | CD1 | TYR | B1017 | 54.365 | 8.140 | 47.126 | 1.00 | 207.38 | C |
| ATOM | 16381 | CD2 | TYR | B1017 | 52.146 | 8.080 | 46.229 | 1.00 | 207.38 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16382 | CE1 | TYR | B1017 | 53.991 | 9.151 | 47.991 | 1.00207.38 | C |
| ATOM | 16383 | CE2 | TYR | B1017 | 51.762 | 9.090 | 47.096 | 1.00207.38 | C |
| ATOM | 16384 | CZ | TYR | B1017 | 52.688 | 9.617 | 47.971 | 1.00207.38 | C |
| ATOM | 16385 | OH | TYR | B1017 | 52.301 | 10.612 | 48.829 | 1.00207.38 | O |
| ATOM | 16386 | N | SER | B1018 | 55.102 | 4.082 | 44.212 | 1.00133.96 | N |
| ATOM | 16387 | CA | SER | B1018 | 55.528 | 3.168 | 43.132 | 1.00133.96 | C |
| ATOM | 16388 | C | SER | B1018 | 57.001 | 3.277 | 42.696 | 1.00133.96 | C |
| ATOM | 16389 | O | SER | B1018 | 57.733 | 4.176 | 43.106 | 1.00133.96 | O |
| ATOM | 16390 | CB | SER | B1018 | 54.615 | 3.402 | 41.917 | 1.00207.38 | C |
| ATOM | 16391 | OG | SER | B1018 | 55.004 | 2.634 | 40.793 | 1.00207.38 | O |
| ATOM | 16392 | N | THR | B1019 | 57.447 | 2.336 | 41.866 | 1.00123.16 | N |
| ATOM | 16393 | CA | THR | B1019 | 58.832 | 2.360 | 41.311 | 1.00123.16 | C |
| ATOM | 16394 | C | THR | B1019 | 59.946 | 2.232 | 42.279 | 1.00123.16 | C |
| ATOM | 16395 | O | THR | B1019 | 60.718 | 3.139 | 42.487 | 1.00123.16 | O |
| ATOM | 16396 | CB | THR | B1019 | 59.031 | 3.651 | 40.480 | 1.00176.94 | C |
| ATOM | 16397 | OG1 | THR | B1019 | 57.922 | 3.795 | 39.586 | 1.00176.94 | O |
| ATOM | 16398 | CG2 | THR | B1019 | 60.304 | 3.581 | 39.664 | 1.00176.94 | C |
| ATOM | 16399 | N | GLN | B1020 | 60.049 | 1.121 | 42.983 | 1.00136.05 | N |
| ATOM | 16400 | CA | GLN | B1020 | 61.013 | 1.148 | 44.074 | 1.00136.05 | C |
| ATOM | 16401 | C | GLN | B1020 | 62.379 | 0.497 | 44.237 | 1.00136.05 | C |
| ATOM | 16402 | O | GLN | B1020 | 63.422 | 1.162 | 44.222 | 1.00136.05 | O |
| ATOM | 16403 | CB | GLN | B1020 | 60.235 | 0.822 | 45.345 | 1.00138.24 | C |
| ATOM | 16404 | CG | GLN | B1020 | 59.553 | -0.537 | 45.276 | 1.00138.24 | C |
| ATOM | 16405 | CD | GLN | B1020 | 58.860 | -0.778 | 43.943 | 1.00138.24 | C |
| ATOM | 16406 | OE1 | GLN | B1020 | 57.880 | -0.112 | 43.603 | 1.00138.24 | O |
| ATOM | 16407 | NE2 | GLN | B1020 | 59.376 | -1.732 | 43.177 | 1.00138.24 | N |
| ATOM | 16408 | N | GLY | B1021 | 62.332 | -0.813 | 44.394 | 1.00163.45 | N |
| ATOM | 16409 | CA | GLY | B1021 | 63.496 | -1.632 | 44.764 | 1.00163.45 | C |
| ATOM | 16410 | C | GLY | B1021 | 64.997 | -1.360 | 44.560 | 1.00163.45 | C |
| ATOM | 16411 | O | GLY | B1021 | 65.475 | -0.390 | 43.944 | 1.00163.45 | O |
| ATOM | 16412 | N | LEU | B1022 | 65.750 | -2.287 | 45.160 | 1.00207.38 | N |
| ATOM | 16413 | CA | LEU | B1022 | 67.229 | -2.341 | 45.093 | 1.00207.38 | C |
| ATOM | 16414 | C | LEU | B1022 | 67.486 | -3.447 | 44.076 | 1.00207.38 | C |
| ATOM | 16415 | O | LEU | B1022 | 68.619 | -3.909 | 43.932 | 1.00207.38 | O |
| ATOM | 16416 | CB | LEU | B1022 | 67.860 | -2.706 | 46.453 | 1.00106.55 | C |
| ATOM | 16417 | CG | LEU | B1022 | 69.386 | -2.564 | 46.600 | 1.00106.55 | C |
| ATOM | 16418 | CD1 | LEU | B1022 | 69.682 | -1.845 | 47.903 | 1.00106.55 | C |
| ATOM | 16419 | CD2 | LEU | B1022 | 70.065 | -3.928 | 46.598 | 1.00106.55 | C |
| ATOM | 16420 | N | LYS | B1023 | 66.417 | -3.849 | 43.378 | 1.00206.59 | N |
| ATOM | 16421 | CA | LYS | B1023 | 66.474 | -4.910 | 42.371 | 1.00206.59 | C |
| ATOM | 16422 | C | LYS | B1023 | 67.949 | -5.194 | 42.085 | 1.00206.59 | C |
| ATOM | 16423 | O | LYS | B1023 | 68.661 | -4.327 | 41.571 | 1.00206.59 | O |
| ATOM | 16424 | CB | LYS | B1023 | 65.745 | -4.485 | 41.084 | 1.00174.85 | C |
| ATOM | 16425 | CG | LYS | B1023 | 65.508 | -5.627 | 40.081 | 1.00174.85 | C |
| ATOM | 16426 | CD | LYS | B1023 | 64.601 | -5.188 | 38.927 | 1.00174.85 | C |
| ATOM | 16427 | CE | LYS | B1023 | 64.444 | -6.273 | 37.855 | 1.00174.85 | C |
| ATOM | 16428 | NZ | LYS | B1023 | 63.699 | -7.475 | 38.324 | 1.00174.85 | N |
| ATOM | 16429 | N | PRO | B1024 | 68.430 | -6.406 | 42.447 | 1.00207.38 | N |
| ATOM | 16430 | CA | PRO | B1024 | 69.816 | -6.855 | 42.265 | 1.00207.38 | C |
| ATOM | 16431 | C | PRO | B1024 | 70.724 | -6.064 | 41.304 | 1.00207.38 | C |
| ATOM | 16432 | O | PRO | B1024 | 71.896 | -5.820 | 41.618 | 1.00207.38 | O |
| ATOM | 16433 | CB | PRO | B1024 | 69.635 | -8.303 | 41.854 | 1.00147.45 | C |
| ATOM | 16434 | CG | PRO | B1024 | 68.541 | -8.724 | 42.782 | 1.00147.45 | C |
| ATOM | 16435 | CD | PRO | B1024 | 67.559 | -7.563 | 42.737 | 1.00147.45 | C |
| ATOM | 16436 | N | ASN | B1025 | 70.184 | -5.666 | 40.149 | 1.00207.38 | N |
| ATOM | 16437 | CA | ASN | B1025 | 70.938 | -4.907 | 39.140 | 1.00207.38 | C |
| ATOM | 16438 | C | ASN | B1025 | 70.690 | -3.389 | 39.138 | 1.00207.38 | C |
| ATOM | 16439 | O | ASN | B1025 | 71.611 | -2.600 | 38.902 | 1.00207.38 | O |
| ATOM | 16440 | CB | ASN | B1025 | 70.666 | -5.473 | 37.738 | 1.00196.50 | C |
| ATOM | 16441 | CG | ASN | B1025 | 69.185 | -5.642 | 37.448 | 1.00196.50 | C |
| ATOM | 16442 | OD1 | ASN | B1025 | 68.518 | -6.495 | 38.034 | 1.00196.50 | O |
| ATOM | 16443 | ND2 | ASN | B1025 | 68.664 | -4.826 | 36.538 | 1.00196.50 | N |
| ATOM | 16444 | N | MET | B1026 | 69.449 | -2.992 | 39.409 | 1.00158.79 | N |
| ATOM | 16445 | CA | MET | B1026 | 69.069 | -1.589 | 39.422 | 1.00158.79 | C |
| ATOM | 16446 | C | MET | B1026 | 69.923 | -0.729 | 40.330 | 1.00158.79 | C |
| ATOM | 16447 | O | MET | B1026 | 69.764 | 0.488 | 40.334 | 1.00158.79 | O |
| ATOM | 16448 | CB | MET | B1026 | 67.581 | -1.429 | 39.787 | 1.00176.69 | C |
| ATOM | 16449 | CG | MET | B1026 | 67.234 | -1.622 | 41.261 | 1.00176.69 | C |
| ATOM | 16450 | SD | MET | B1026 | 65.470 | -1.373 | 41.602 | 1.00176.69 | S |
| ATOM | 16451 | CE | MET | B1026 | 65.338 | 0.435 | 41.545 | 1.00176.69 | C |
| ATOM | 16452 | N | LEU | B1027 | 70.819 | -1.341 | 41.100 | 1.00108.64 | N |
| ATOM | 16453 | CA | LEU | B1027 | 71.678 | -0.543 | 41.962 | 1.00108.64 | C |
| ATOM | 16454 | C | LEU | B1027 | 72.444 | 0.569 | 41.173 | 1.00108.64 | C |
| ATOM | 16455 | O | LEU | B1027 | 72.043 | 1.721 | 41.258 | 1.00108.64 | O |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16456 | CB | LEU | B1027 | 72.661 | -1.421 | 42.755 | 1.00152.65 | C |
| ATOM | 16457 | CG | LEU | B1027 | 73.740 | -2.286 | 42.106 | 1.00152.65 | C |
| ATOM | 16458 | CD1 | LEU | B1027 | 74.488 | -3.012 | 43.218 | 1.00152.65 | C |
| ATOM | 16459 | CD2 | LEU | B1027 | 73.127 | -3.289 | 41.147 | 1.00152.65 | C |
| ATOM | 16460 | N | GLU | B1028 | 73.508 | 0.223 | 40.414 | 1.00187.59 | N |
| ATOM | 16461 | CA | GLU | B1028 | 74.338 | 1.143 | 39.535 | 1.00187.59 | C |
| ATOM | 16462 | C | GLU | B1028 | 73.883 | 2.647 | 39.622 | 1.00187.59 | C |
| ATOM | 16463 | O | GLU | B1028 | 72.859 | 2.975 | 39.050 | 1.00187.59 | O |
| ATOM | 16464 | CB | GLU | B1028 | 74.188 | 0.908 | 38.053 | 1.00172.46 | C |
| ATOM | 16465 | CG | GLU | B1028 | 74.387 | -0.488 | 37.462 | 1.00172.46 | C |
| ATOM | 16466 | CD | GLU | B1028 | 73.910 | -0.477 | 36.029 | 1.00172.46 | C |
| ATOM | 16467 | OE1 | GLU | B1028 | 73.224 | 0.510 | 35.668 | 1.00172.46 | O |
| ATOM | 16468 | OE2 | GLU | B1028 | 74.273 | -1.370 | 35.242 | 1.00172.46 | O |
| ATOM | 16469 | N | GLY | B1029 | 74.555 | 3.606 | 40.259 | 1.00158.58 | N |
| ATOM | 16470 | CA | GLY | B1029 | 73.915 | 4.933 | 40.251 | 1.00158.58 | C |
| ATOM | 16471 | C | GLY | B1029 | 74.166 | 6.088 | 39.290 | 1.00158.58 | C |
| ATOM | 16472 | O | GLY | B1029 | 74.502 | 7.157 | 39.771 | 1.00158.58 | O |
| ATOM | 16473 | N | ASN | B1030 | 74.039 | 5.916 | 37.973 | 1.00160.88 | N |
| ATOM | 16474 | CA | ASN | B1030 | 74.289 | 7.037 | 37.035 | 1.00160.88 | C |
| ATOM | 16475 | C | ASN | B1030 | 73.079 | 7.980 | 37.014 | 1.00160.88 | C |
| ATOM | 16476 | O | ASN | B1030 | 71.943 | 7.518 | 36.851 | 1.00160.88 | O |
| ATOM | 16477 | CB | ASN | B1030 | 74.530 | 6.491 | 35.625 | 1.00118.38 | C |
| ATOM | 16478 | CG | ASN | B1030 | 75.729 | 5.563 | 35.550 | 1.00118.38 | C |
| ATOM | 16479 | OD1 | ASN | B1030 | 76.876 | 6.007 | 35.528 | 1.00118.38 | O |
| ATOM | 16480 | ND2 | ASN | B1030 | 75.465 | 4.266 | 35.513 | 1.00118.38 | N |
| ATOM | 16481 | N | VAL | B1031 | 73.320 | 9.284 | 37.188 | 1.00137.58 | N |
| ATOM | 16482 | CA | VAL | B1031 | 72.237 | 10.279 | 37.230 | 1.00137.58 | C |
| ATOM | 16483 | C | VAL | B1031 | 71.949 | 10.964 | 35.902 | 1.00137.58 | C |
| ATOM | 16484 | O | VAL | B1031 | 72.867 | 11.332 | 35.163 | 1.00137.58 | O |
| ATOM | 16485 | CB | VAL | B1031 | 72.522 | 11.370 | 38.285 | 1.00116.15 | C |
| ATOM | 16486 | CG1 | VAL | B1031 | 71.404 | 12.399 | 38.289 | 1.00116.15 | C |
| ATOM | 16487 | CG2 | VAL | B1031 | 72.647 | 10.741 | 39.658 | 1.00116.15 | C |
| ATOM | 16488 | N | GLN | B1032 | 70.662 | 11.156 | 35.628 | 1.00129.96 | N |
| ATOM | 16489 | CA | GLN | B1032 | 70.211 | 11.734 | 34.374 | 1.00129.96 | C |
| ATOM | 16490 | C | GLN | B1032 | 69.419 | 13.000 | 34.525 | 1.00129.96 | C |
| ATOM | 16491 | O | GLN | B1032 | 68.391 | 13.006 | 35.187 | 1.00129.96 | O |
| ATOM | 16492 | CB | GLN | B1032 | 69.342 | 10.707 | 33.658 | 1.00163.59 | C |
| ATOM | 16493 | CG | GLN | B1032 | 70.065 | 9.965 | 32.576 | 1.00163.59 | C |
| ATOM | 16494 | CD | GLN | B1032 | 70.638 | 10.903 | 31.535 | 1.00163.59 | C |
| ATOM | 16495 | OE1 | GLN | B1032 | 69.911 | 11.675 | 30.904 | 1.00163.59 | O |
| ATOM | 16496 | NE2 | GLN | B1032 | 71.951 | 10.843 | 31.349 | 1.00163.59 | N |
| ATOM | 16497 | N | PHE | B1033 | 69.890 | 14.075 | 33.911 | 1.00 82.17 | N |
| ATOM | 16498 | CA | PHE | B1033 | 69.133 | 15.314 | 33.952 | 1.00 82.17 | C |
| ATOM | 16499 | C | PHE | B1033 | 68.858 | 15.786 | 32.546 | 1.00 82.17 | C |
| ATOM | 16500 | O | PHE | B1033 | 69.763 | 16.233 | 31.854 | 1.00 82.17 | O |
| ATOM | 16501 | CB | PHE | B1033 | 69.875 | 16.403 | 34.725 | 1.00 89.52 | C |
| ATOM | 16502 | CG | PHE | B1033 | 69.258 | 16.717 | 36.068 | 1.00 89.52 | C |
| ATOM | 16503 | CD1 | PHE | B1033 | 67.888 | 16.550 | 36.277 | 1.00 89.52 | C |
| ATOM | 16504 | CD2 | PHE | B1033 | 70.037 | 17.194 | 37.116 | 1.00 89.52 | C |
| ATOM | 16505 | CE1 | PHE | B1033 | 67.307 | 16.852 | 37.506 | 1.00 89.52 | C |
| ATOM | 16506 | CE2 | PHE | B1033 | 69.463 | 17.501 | 38.351 | 1.00 89.52 | C |
| ATOM | 16507 | CZ | PHE | B1033 | 68.095 | 17.329 | 38.544 | 1.00 89.52 | C |
| ATOM | 16508 | N | SER | B1034 | 67.605 | 15.695 | 32.124 | 1.00142.85 | N |
| ATOM | 16509 | CA | SER | B1034 | 67.260 | 16.129 | 30.782 | 1.00142.85 | C |
| ATOM | 16510 | C | SER | B1034 | 66.137 | 17.168 | 30.759 | 1.00142.85 | C |
| ATOM | 16511 | O | SER | B1034 | 65.127 | 17.031 | 31.464 | 1.00142.85 | O |
| ATOM | 16512 | CB | SER | B1034 | 66.857 | 14.923 | 29.926 | 1.00 99.78 | C |
| ATOM | 16513 | OG | SER | B1034 | 66.646 | 15.301 | 28.574 | 1.00 99.78 | O |
| ATOM | 16514 | N | GLY | B1035 | 66.342 | 18.212 | 29.949 | 1.00108.14 | N |
| ATOM | 16515 | CA | GLY | B1035 | 65.373 | 19.289 | 29.810 | 1.00108.14 | C |
| ATOM | 16516 | C | GLY | B1035 | 65.385 | 20.201 | 31.019 | 1.00108.14 | C |
| ATOM | 16517 | O | GLY | B1035 | 65.442 | 21.426 | 30.916 | 1.00108.14 | O |
| ATOM | 16518 | N | VAL | B1036 | 65.340 | 19.568 | 32.178 | 1.00127.83 | N |
| ATOM | 16519 | CA | VAL | B1036 | 65.341 | 20.250 | 33.457 | 1.00127.83 | C |
| ATOM | 16520 | C | VAL | B1036 | 65.132 | 21.764 | 33.382 | 1.00127.83 | C |
| ATOM | 16521 | O | VAL | B1036 | 66.072 | 22.527 | 33.160 | 1.00127.83 | O |
| ATOM | 16522 | CB | VAL | B1036 | 66.644 | 19.935 | 34.226 | 1.00 56.61 | C |
| ATOM | 16523 | CG1 | VAL | B1036 | 66.656 | 20.658 | 35.568 | 1.00 56.61 | C |
| ATOM | 16524 | CG2 | VAL | B1036 | 66.764 | 18.423 | 34.425 | 1.00 56.61 | C |
| ATOM | 16525 | N | VAL | B1037 | 63.877 | 22.180 | 33.545 | 1.00165.34 | N |
| ATOM | 16526 | CA | VAL | B1037 | 63.509 | 23.592 | 33.547 | 1.00165.34 | C |
| ATOM | 16527 | C | VAL | B1037 | 62.709 | 23.772 | 34.831 | 1.00165.34 | C |
| ATOM | 16528 | O | VAL | B1037 | 61.784 | 22.981 | 35.105 | 1.00165.34 | O |
| ATOM | 16529 | CB | VAL | B1037 | 62.630 | 23.958 | 32.323 | 1.00195.62 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16530 | CG1 | VAL | B1037 | 63.075 | 23.153 | 31.108 | 1.00195.62 | C |
| ATOM | 16531 | CG2 | VAL | B1037 | 61.160 | 23.724 | 32.624 | 1.00195.62 | C |
| ATOM | 16532 | N | PHE | B1038 | 63.048 | 24.808 | 35.603 | 1.00157.45 | N |
| ATOM | 16533 | CA | PHE | B1038 | 62.395 | 25.007 | 36.889 | 1.00157.45 | C |
| ATOM | 16534 | C | PHE | B1038 | 62.762 | 26.247 | 37.706 | 1.00157.45 | C |
| ATOM | 16535 | O | PHE | B1038 | 63.886 | 26.766 | 37.613 | 1.00157.45 | O |
| ATOM | 16536 | CB | PHE | B1038 | 62.650 | 23.755 | 37.730 | 1.00127.37 | C |
| ATOM | 16537 | CG | PHE | B1038 | 62.549 | 23.979 | 39.206 | 1.00127.37 | C |
| ATOM | 16538 | CD1 | PHE | B1038 | 61.317 | 23.979 | 39.839 | 1.00127.37 | C |
| ATOM | 16539 | CD2 | PHE | B1038 | 63.694 | 24.197 | 39.968 | 1.00127.37 | C |
| ATOM | 16540 | CE1 | PHE | B1038 | 61.222 | 24.192 | 41.213 | 1.00127.37 | C |
| ATOM | 16541 | CE2 | PHE | B1038 | 63.611 | 24.412 | 41.348 | 1.00127.37 | C |
| ATOM | 16542 | CZ | PHE | B1038 | 62.373 | 24.410 | 41.970 | 1.00127.37 | C |
| ATOM | 16543 | N | ASN | B1039 | 61.788 | 26.685 | 38.512 | 1.00172.84 | N |
| ATOM | 16544 | CA | ASN | B1039 | 61.919 | 27.805 | 39.450 | 1.00172.84 | C |
| ATOM | 16545 | C | ASN | B1039 | 61.073 | 27.548 | 40.695 | 1.00172.84 | C |
| ATOM | 16546 | O | ASN | B1039 | 59.857 | 27.368 | 40.594 | 1.00172.84 | O |
| ATOM | 16547 | CB | ASN | B1039 | 61.511 | 29.132 | 38.823 | 1.00207.38 | C |
| ATOM | 16548 | CG | ASN | B1039 | 61.862 | 30.320 | 39.714 | 1.00207.38 | C |
| ATOM | 16549 | OD1 | ASN | B1039 | 61.365 | 30.443 | 40.836 | 1.00207.38 | O |
| ATOM | 16550 | ND2 | ASN | B1039 | 62.730 | 31.192 | 39.219 | 1.00207.38 | N |
| ATOM | 16551 | N | TYR | B1040 | 61.709 | 27.555 | 41.865 | 1.00139.21 | N |
| ATOM | 16552 | CA | TYR | B1040 | 60.999 | 27.325 | 43.120 | 1.00139.21 | C |
| ATOM | 16553 | C | TYR | B1040 | 59.788 | 28.266 | 43.235 | 1.00139.21 | C |
| ATOM | 16554 | O | TYR | B1040 | 59.960 | 29.478 | 43.315 | 1.00139.21 | O |
| ATOM | 16555 | CB | TYR | B1040 | 61.952 | 27.525 | 44.312 | 1.00206.72 | C |
| ATOM | 16556 | CG | TYR | B1040 | 62.682 | 28.854 | 44.349 | 1.00206.72 | C |
| ATOM | 16557 | CD1 | TYR | B1040 | 63.554 | 29.227 | 43.325 | 1.00206.72 | C |
| ATOM | 16558 | CD2 | TYR | B1040 | 62.508 | 29.733 | 45.417 | 1.00206.72 | C |
| ATOM | 16559 | CE1 | TYR | B1040 | 64.232 | 30.447 | 43.366 | 1.00206.72 | C |
| ATOM | 16560 | CE2 | TYR | B1040 | 63.182 | 30.949 | 45.467 | 1.00206.72 | C |
| ATOM | 16561 | CZ | TYR | B1040 | 64.039 | 31.300 | 44.440 | 1.00206.72 | C |
| ATOM | 16562 | OH | TYR | B1040 | 64.689 | 32.510 | 44.483 | 1.00206.72 | O |
| ATOM | 16563 | N | PRO | B1041 | 58.549 | 27.712 | 43.250 | 1.00137.51 | N |
| ATOM | 16564 | CA | PRO | B1041 | 57.321 | 28.508 | 43.348 | 1.00137.51 | C |
| ATOM | 16565 | C | PRO | B1041 | 57.609 | 29.939 | 43.775 | 1.00137.51 | C |
| ATOM | 16566 | O | PRO | B1041 | 57.965 | 30.250 | 44.911 | 1.00137.51 | O |
| ATOM | 16567 | CB | PRO | B1041 | 56.504 | 27.715 | 44.350 | 1.00171.19 | C |
| ATOM | 16568 | CG | PRO | B1041 | 56.756 | 26.312 | 43.858 | 1.00171.19 | C |
| ATOM | 16569 | CD | PRO | B1041 | 58.267 | 26.303 | 43.587 | 1.00171.19 | C |
| ATOM | 16570 | N | THR | B1042 | 57.485 | 30.811 | 42.797 | 1.00207.38 | N |
| ATOM | 16571 | CA | THR | B1042 | 57.769 | 32.222 | 42.951 | 1.00207.38 | C |
| ATOM | 16572 | C | THR | B1042 | 58.191 | 32.426 | 41.504 | 1.00207.38 | C |
| ATOM | 16573 | O | THR | B1042 | 58.778 | 33.442 | 41.123 | 1.00207.38 | O |
| ATOM | 16574 | CB | THR | B1042 | 58.950 | 32.464 | 43.927 | 1.00200.61 | C |
| ATOM | 16575 | OG1 | THR | B1042 | 58.926 | 33.825 | 44.378 | 1.00200.61 | O |
| ATOM | 16576 | CG2 | THR | B1042 | 60.284 | 32.172 | 43.250 | 1.00200.61 | C |
| ATOM | 16577 | N | ARG | B1043 | 57.841 | 31.406 | 40.714 | 1.00207.38 | N |
| ATOM | 16578 | CA | ARG | B1043 | 58.120 | 31.299 | 39.281 | 1.00207.38 | C |
| ATOM | 16579 | C | ARG | B1043 | 58.232 | 32.637 | 38.551 | 1.00207.38 | C |
| ATOM | 16580 | O | ARG | B1043 | 59.035 | 32.785 | 37.626 | 1.00207.38 | O |
| ATOM | 16581 | CB | ARG | B1043 | 57.044 | 30.419 | 38.615 | 1.00207.38 | C |
| ATOM | 16582 | CG | ARG | B1043 | 57.359 | 29.979 | 37.176 | 1.00207.38 | C |
| ATOM | 16583 | CD | ARG | B1043 | 56.295 | 29.033 | 36.606 | 1.00207.38 | C |
| ATOM | 16584 | NE | ARG | B1043 | 56.319 | 27.707 | 37.223 | 1.00207.38 | N |
| ATOM | 16585 | CZ | ARG | B1043 | 55.502 | 26.711 | 36.889 | 1.00207.38 | C |
| ATOM | 16586 | NH1 | ARG | B1043 | 54.590 | 26.884 | 35.940 | 1.00207.38 | N |
| ATOM | 16587 | NH2 | ARG | B1043 | 55.595 | 25.540 | 37.505 | 1.00207.38 | N |
| ATOM | 16588 | N | PRO | B1044 | 57.406 | 33.621 | 38.931 | 1.00207.38 | N |
| ATOM | 16589 | CA | PRO | B1044 | 57.519 | 34.908 | 38.247 | 1.00207.38 | C |
| ATOM | 16590 | C | PRO | B1044 | 58.983 | 35.370 | 38.034 | 1.00207.38 | C |
| ATOM | 16591 | O | PRO | B1044 | 59.273 | 35.962 | 37.004 | 1.00207.38 | O |
| ATOM | 16592 | CB | PRO | B1044 | 56.708 | 35.860 | 39.142 | 1.00207.38 | C |
| ATOM | 16593 | CG | PRO | B1044 | 56.276 | 35.006 | 40.356 | 1.00207.38 | C |
| ATOM | 16594 | CD | PRO | B1044 | 56.252 | 33.608 | 39.841 | 1.00207.38 | C |
| ATOM | 16595 | N | SER | B1045 | 59.873 | 35.081 | 38.991 | 1.00206.58 | N |
| ATOM | 16596 | CA | SER | B1045 | 61.261 | 35.468 | 38.870 | 1.00206.58 | C |
| ATOM | 16597 | C | SER | B1045 | 61.898 | 34.377 | 37.951 | 1.00206.58 | C |
| ATOM | 16598 | O | SER | B1045 | 63.042 | 33.915 | 38.143 | 1.00206.58 | O |
| ATOM | 16599 | CB | SER | B1045 | 61.951 | 35.485 | 40.246 | 1.00155.84 | C |
| ATOM | 16600 | OG | SER | B1045 | 61.887 | 34.225 | 40.882 | 1.00155.84 | O |
| ATOM | 16601 | N | ILE | B1046 | 61.124 | 34.017 | 36.934 | 1.00206.11 | N |
| ATOM | 16602 | CA | ILE | B1046 | 61.469 | 32.927 | 36.045 | 1.00206.11 | C |
| ATOM | 16603 | C | ILE | B1046 | 62.262 | 31.896 | 36.825 | 1.00206.11 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16604 | O | ILE | B1046 | 62.468 | 32.026 | 38.032 | 1.00206.11 | O |
| ATOM | 16605 | CB | ILE | B1046 | 62.438 | 33.383 | 34.921 | 1.00134.02 | C |
| ATOM | 16606 | CG1 | ILE | B1046 | 61.728 | 34.325 | 33.946 | 1.00134.02 | C |
| ATOM | 16607 | CG2 | ILE | B1046 | 63.083 | 32.155 | 34.269 | 1.00134.02 | C |
| ATOM | 16608 | CD1 | ILE | B1046 | 60.328 | 33.929 | 33.636 | 1.00134.02 | C |
| ATOM | 16609 | N | PRO | B1047 | 62.708 | 30.872 | 36.114 | 1.00206.42 | N |
| ATOM | 16610 | CA | PRO | B1047 | 63.420 | 29.743 | 36.721 | 1.00206.42 | C |
| ATOM | 16611 | C | PRO | B1047 | 64.901 | 29.855 | 36.654 | 1.00206.42 | C |
| ATOM | 16612 | O | PRO | B1047 | 65.363 | 30.660 | 35.884 | 1.00206.42 | O |
| ATOM | 16613 | CB | PRO | B1047 | 62.887 | 28.517 | 35.951 | 1.00159.00 | C |
| ATOM | 16614 | CG | PRO | B1047 | 61.464 | 28.880 | 35.782 | 1.00159.00 | C |
| ATOM | 16615 | CD | PRO | B1047 | 61.654 | 30.321 | 35.247 | 1.00159.00 | C |
| ATOM | 16616 | N | VAL | B1048 | 65.661 | 29.220 | 37.549 | 1.00185.40 | N |
| ATOM | 16617 | CA | VAL | B1048 | 67.093 | 29.303 | 37.549 | 1.00185.40 | C |
| ATOM | 16618 | C | VAL | B1048 | 67.590 | 28.105 | 36.767 | 1.00185.40 | C |
| ATOM | 16619 | O | VAL | B1048 | 68.794 | 27.884 | 36.619 | 1.00185.40 | O |
| ATOM | 16620 | CB | VAL | B1048 | 67.676 | 29.279 | 38.977 | 1.00206.00 | C |
| ATOM | 16621 | CG1 | VAL | B1048 | 67.257 | 30.530 | 39.730 | 1.00206.00 | C |
| ATOM | 16622 | CG2 | VAL | B1048 | 67.206 | 28.034 | 39.718 | 1.00206.00 | C |
| ATOM | 16623 | N | LEU | B1049 | 66.642 | 27.305 | 36.289 | 1.00158.09 | N |
| ATOM | 16624 | CA | LEU | B1049 | 66.955 | 26.136 | 35.476 | 1.00158.09 | C |
| ATOM | 16625 | C | LEU | B1049 | 66.102 | 26.255 | 34.221 | 1.00158.09 | C |
| ATOM | 16626 | O | LEU | B1049 | 64.910 | 25.970 | 34.246 | 1.00158.09 | O |
| ATOM | 16627 | CB | LEU | B1049 | 66.608 | 24.835 | 36.214 | 1.00151.29 | C |
| ATOM | 16628 | CG | LEU | B1049 | 67.295 | 24.473 | 37.538 | 1.00151.29 | C |
| ATOM | 16629 | CD1 | LEU | B1049 | 68.782 | 24.784 | 37.449 | 1.00151.29 | C |
| ATOM | 16630 | CD2 | LEU | B1049 | 66.662 | 25.241 | 38.684 | 1.00151.29 | C |
| ATOM | 16631 | N | GLN | B1050 | 66.706 | 26.691 | 33.125 | 1.00195.67 | N |
| ATOM | 16632 | CA | GLN | B1050 | 65.954 | 26.861 | 31.889 | 1.00195.67 | C |
| ATOM | 16633 | C | GLN | B1050 | 66.490 | 26.032 | 30.729 | 1.00195.67 | C |
| ATOM | 16634 | O | GLN | B1050 | 67.229 | 26.527 | 29.877 | 1.00195.67 | O |
| ATOM | 16635 | CB | GLN | B1050 | 65.937 | 28.338 | 31.506 | 1.00180.38 | C |
| ATOM | 16636 | CG | GLN | B1050 | 67.300 | 28.995 | 31.582 | 1.00180.38 | C |
| ATOM | 16637 | CD | GLN | B1050 | 67.264 | 30.443 | 31.154 | 1.00180.38 | C |
| ATOM | 16638 | OE1 | GLN | B1050 | 66.855 | 30.759 | 30.036 | 1.00180.38 | O |
| ATOM | 16639 | NE2 | GLN | B1050 | 67.693 | 31.335 | 32.040 | 1.00180.38 | N |
| ATOM | 16640 | N | GLY | B1051 | 66.096 | 24.767 | 30.691 | 1.00160.56 | N |
| ATOM | 16641 | CA | GLY | B1051 | 66.554 | 23.897 | 29.630 | 1.00160.56 | C |
| ATOM | 16642 | C | GLY | B1051 | 67.912 | 23.332 | 29.981 | 1.00160.56 | C |
| ATOM | 16643 | O | GLY | B1051 | 68.851 | 23.415 | 29.184 | 1.00160.56 | O |
| ATOM | 16644 | N | LEU | B1052 | 68.023 | 22.770 | 31.184 | 1.00113.21 | N |
| ATOM | 16645 | CA | LEU | B1052 | 69.278 | 22.181 | 31.629 | 1.00113.21 | C |
| ATOM | 16646 | C | LEU | B1052 | 69.314 | 20.673 | 31.399 | 1.00113.21 | C |
| ATOM | 16647 | O | LEU | B1052 | 68.279 | 19.986 | 31.462 | 1.00113.21 | O |
| ATOM | 16648 | CB | LEU | B1052 | 69.522 | 22.467 | 33.109 | 1.00140.23 | C |
| ATOM | 16649 | CG | LEU | B1052 | 70.873 | 21.918 | 33.578 | 1.00140.23 | C |
| ATOM | 16650 | CD1 | LEU | B1052 | 71.985 | 22.529 | 32.734 | 1.00140.23 | C |
| ATOM | 16651 | CD2 | LEU | B1052 | 71.088 | 22.221 | 35.047 | 1.00140.23 | C |
| ATOM | 16652 | N | SER | B1053 | 70.519 | 20.175 | 31.124 | 1.00142.87 | N |
| ATOM | 16653 | CA | SER | B1053 | 70.740 | 18.759 | 30.872 | 1.00142.87 | C |
| ATOM | 16654 | C | SER | B1053 | 72.188 | 18.366 | 31.062 | 1.00142.87 | C |
| ATOM | 16655 | O | SER | B1053 | 73.083 | 18.864 | 30.372 | 1.00142.87 | O |
| ATOM | 16656 | CB | SER | B1053 | 70.309 | 18.398 | 29.446 | 1.00159.52 | C |
| ATOM | 16657 | OG | SER | B1053 | 68.902 | 18.468 | 29.294 | 1.00159.52 | O |
| ATOM | 16658 | N | LEU | B1054 | 72.399 | 17.470 | 32.016 | 1.00150.37 | N |
| ATOM | 16659 | CA | LEU | B1054 | 73.716 | 16.935 | 32.302 | 1.00150.37 | C |
| ATOM | 16660 | C | LEU | B1054 | 73.510 | 15.482 | 32.693 | 1.00150.37 | C |
| ATOM | 16661 | O | LEU | B1054 | 72.417 | 14.918 | 32.539 | 1.00150.37 | O |
| ATOM | 16662 | CB | LEU | B1054 | 74.377 | 17.663 | 33.480 | 1.00189.84 | C |
| ATOM | 16663 | CG | LEU | B1054 | 74.210 | 19.172 | 33.660 | 1.00189.84 | C |
| ATOM | 16664 | CD1 | LEU | B1054 | 74.556 | 19.902 | 32.373 | 1.00189.84 | C |
| ATOM | 16665 | CD2 | LEU | B1054 | 72.780 | 19.463 | 34.077 | 1.00189.84 | C |
| ATOM | 16666 | N | GLU | B1055 | 74.575 | 14.890 | 33.216 | 1.00111.29 | N |
| ATOM | 16667 | CA | GLU | B1055 | 74.540 | 13.516 | 33.655 | 1.00111.29 | C |
| ATOM | 16668 | C | GLU | B1055 | 75.854 | 13.127 | 34.343 | 1.00111.29 | C |
| ATOM | 16669 | O | GLU | B1055 | 76.855 | 13.848 | 34.291 | 1.00111.29 | O |
| ATOM | 16670 | CB | GLU | B1055 | 74.210 | 12.618 | 32.454 | 1.00207.38 | C |
| ATOM | 16671 | CG | GLU | B1055 | 74.839 | 11.250 | 32.437 | 1.00207.38 | C |
| ATOM | 16672 | CD | GLU | B1055 | 76.055 | 11.213 | 31.544 | 1.00207.38 | C |
| ATOM | 16673 | OE1 | GLU | B1055 | 76.540 | 10.103 | 31.242 | 1.00207.38 | O |
| ATOM | 16674 | OE2 | GLU | B1055 | 76.526 | 12.299 | 31.142 | 1.00207.38 | O |
| ATOM | 16675 | N | VAL | B1056 | 75.822 | 12.002 | 35.033 | 1.00 97.86 | N |
| ATOM | 16676 | CA | VAL | B1056 | 76.993 | 11.555 | 35.731 | 1.00 97.86 | C |
| ATOM | 16677 | C | VAL | B1056 | 77.043 | 10.033 | 35.706 | 1.00 97.86 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------|--------|---|
| ATOM | 16678 | O | VAL | B1056 | 76.064 | 9.351 | 36.058 | 1.00 | 97.86 | O |
| ATOM | 16679 | CB | VAL | B1056 | 76.983 | 12.053 | 37.194 | 1.00 | 207.03 | C |
| ATOM | 16680 | CG1 | VAL | B1056 | 75.891 | 11.345 | 37.978 | 1.00 | 207.03 | C |
| ATOM | 16681 | CG2 | VAL | B1056 | 78.346 | 11.839 | 37.833 | 1.00 | 207.03 | C |
| ATOM | 16682 | N | LYS | B1057 | 78.193 | 9.517 | 35.268 | 1.00 | 125.24 | N |
| ATOM | 16683 | CA | LYS | B1057 | 78.430 | 8.081 | 35.169 | 1.00 | 125.24 | C |
| ATOM | 16684 | C | LYS | B1057 | 78.234 | 7.457 | 36.544 | 1.00 | 125.24 | C |
| ATOM | 16685 | O | LYS | B1057 | 77.529 | 8.006 | 37.378 | 1.00 | 125.24 | O |
| ATOM | 16686 | CB | LYS | B1057 | 79.856 | 7.802 | 34.684 | 1.00 | 178.83 | C |
| ATOM | 16687 | CG | LYS | B1057 | 80.131 | 8.217 | 33.249 | 1.00 | 178.83 | C |
| ATOM | 16688 | CD | LYS | B1057 | 80.021 | 9.723 | 33.057 | 1.00 | 178.83 | C |
| ATOM | 16689 | CE | LYS | B1057 | 80.176 | 10.100 | 31.591 | 1.00 | 178.83 | C |
| ATOM | 16690 | NZ | LYS | B1057 | 79.887 | 11.543 | 31.359 | 1.00 | 178.83 | N |
| ATOM | 16691 | N | LYS | B1058 | 78.826 | 6.288 | 36.760 | 1.00 | 71.10 | N |
| ATOM | 16692 | CA | LYS | B1058 | 78.741 | 5.600 | 38.048 | 1.00 | 71.10 | C |
| ATOM | 16693 | C | LYS | B1058 | 80.087 | 5.583 | 38.830 | 1.00 | 71.10 | C |
| ATOM | 16694 | O | LYS | B1058 | 81.151 | 5.868 | 38.289 | 1.00 | 71.10 | O |
| ATOM | 16695 | CB | LYS | B1058 | 78.241 | 4.152 | 37.904 | 1.00 | 113.47 | C |
| ATOM | 16696 | CG | LYS | B1058 | 79.335 | 3.105 | 37.683 | 1.00 | 113.47 | C |
| ATOM | 16697 | CD | LYS | B1058 | 79.011 | 1.782 | 38.392 | 1.00 | 113.47 | C |
| ATOM | 16698 | CE | LYS | B1058 | 79.452 | 1.791 | 39.858 | 1.00 | 113.47 | C |
| ATOM | 16699 | NZ | LYS | B1058 | 79.256 | 0.471 | 40.532 | 1.00 | 113.47 | N |
| ATOM | 16700 | N | GLY | B1059 | 80.010 | 5.257 | 40.119 | 1.00 | 172.63 | N |
| ATOM | 16701 | CA | GLY | B1059 | 81.190 | 5.207 | 40.972 | 1.00 | 172.63 | C |
| ATOM | 16702 | C | GLY | B1059 | 82.227 | 6.288 | 40.720 | 1.00 | 172.63 | C |
| ATOM | 16703 | O | GLY | B1059 | 83.412 | 6.084 | 40.967 | 1.00 | 172.63 | O |
| ATOM | 16704 | N | GLN | B1060 | 81.800 | 7.451 | 40.246 | 1.00 | 153.72 | N |
| ATOM | 16705 | CA | GLN | B1060 | 82.762 | 8.501 | 39.968 | 1.00 | 153.72 | C |
| ATOM | 16706 | C | GLN | B1060 | 82.514 | 9.897 | 40.577 | 1.00 | 153.72 | C |
| ATOM | 16707 | O | GLN | B1060 | 82.077 | 10.005 | 41.738 | 1.00 | 153.72 | O |
| ATOM | 16708 | CB | GLN | B1060 | 82.988 | 8.634 | 38.454 | 1.00 | 167.89 | C |
| ATOM | 16709 | CG | GLN | B1060 | 81.797 | 8.307 | 37.558 | 1.00 | 167.89 | C |
| ATOM | 16710 | CD | GLN | B1060 | 80.742 | 9.390 | 37.545 | 1.00 | 167.89 | C |
| ATOM | 16711 | OE1 | GLN | B1060 | 80.075 | 9.638 | 38.549 | 1.00 | 167.89 | O |
| ATOM | 16712 | NE2 | GLN | B1060 | 80.588 | 10.050 | 36.401 | 1.00 | 167.89 | N |
| ATOM | 16713 | N | THR | B1061 | 82.778 | 10.961 | 39.804 | 1.00 | 116.87 | N |
| ATOM | 16714 | CA | THR | B1061 | 82.635 | 12.334 | 40.315 | 1.00 | 116.87 | C |
| ATOM | 16715 | C | THR | B1061 | 82.188 | 13.464 | 39.347 | 1.00 | 116.87 | C |
| ATOM | 16716 | O | THR | B1061 | 82.987 | 13.958 | 38.546 | 1.00 | 116.87 | O |
| ATOM | 16717 | CB | THR | B1061 | 83.965 | 12.790 | 40.946 | 1.00 | 79.25 | C |
| ATOM | 16718 | OG1 | THR | B1061 | 84.323 | 11.876 | 41.978 | 1.00 | 79.25 | O |
| ATOM | 16719 | CG2 | THR | B1061 | 83.848 | 14.173 | 41.565 | 1.00 | 79.25 | C |
| ATOM | 16720 | N | LEU | B1062 | 80.925 | 13.880 | 39.452 | 1.00 | 165.41 | N |
| ATOM | 16721 | CA | LEU | B1062 | 80.394 | 14.962 | 38.621 | 1.00 | 165.41 | C |
| ATOM | 16722 | C | LEU | B1062 | 80.786 | 16.269 | 39.259 | 1.00 | 165.41 | C |
| ATOM | 16723 | O | LEU | B1062 | 80.278 | 16.620 | 40.333 | 1.00 | 165.41 | O |
| ATOM | 16724 | CB | LEU | B1062 | 78.866 | 14.896 | 38.536 | 1.00 | 140.22 | C |
| ATOM | 16725 | CG | LEU | B1062 | 78.212 | 15.950 | 37.633 | 1.00 | 140.22 | C |
| ATOM | 16726 | CD1 | LEU | B1062 | 78.621 | 17.360 | 38.053 | 1.00 | 140.22 | C |
| ATOM | 16727 | CD2 | LEU | B1062 | 78.646 | 15.694 | 36.204 | 1.00 | 140.22 | C |
| ATOM | 16728 | N | ALA | B1063 | 81.646 | 17.015 | 38.581 | 1.00 | 101.57 | N |
| ATOM | 16729 | CA | ALA | B1063 | 82.111 | 18.282 | 39.127 | 1.00 | 101.57 | C |
| ATOM | 16730 | C | ALA | B1063 | 81.177 | 19.394 | 38.764 | 1.00 | 101.57 | C |
| ATOM | 16731 | O | ALA | B1063 | 80.754 | 19.518 | 37.616 | 1.00 | 101.57 | O |
| ATOM | 16732 | CB | ALA | B1063 | 83.520 | 18.583 | 38.610 | 1.00 | 105.29 | C |
| ATOM | 16733 | N | LEU | B1064 | 80.839 | 20.215 | 39.735 | 1.00 | 119.66 | N |
| ATOM | 16734 | CA | LEU | B1064 | 79.957 | 21.289 | 39.384 | 1.00 | 119.66 | C |
| ATOM | 16735 | C | LEU | B1064 | 80.539 | 22.644 | 39.723 | 1.00 | 119.66 | C |
| ATOM | 16736 | O | LEU | B1064 | 80.931 | 22.896 | 40.874 | 1.00 | 119.66 | O |
| ATOM | 16737 | CB | LEU | B1064 | 78.604 | 21.124 | 40.076 | 1.00 | 158.84 | C |
| ATOM | 16738 | CG | LEU | B1064 | 77.431 | 21.643 | 39.243 | 1.00 | 158.84 | C |
| ATOM | 16739 | CD1 | LEU | B1064 | 77.598 | 23.133 | 38.992 | 1.00 | 158.84 | C |
| ATOM | 16740 | CD2 | LEU | B1064 | 77.381 | 20.890 | 37.914 | 1.00 | 158.84 | C |
| ATOM | 16741 | N | VAL | B1065 | 80.609 | 23.497 | 38.697 | 1.00 | 121.10 | N |
| ATOM | 16742 | CA | VAL | B1065 | 81.114 | 24.862 | 38.821 | 1.00 | 121.10 | C |
| ATOM | 16743 | C | VAL | B1065 | 80.156 | 25.812 | 38.126 | 1.00 | 121.10 | C |
| ATOM | 16744 | O | VAL | B1065 | 80.069 | 25.869 | 36.889 | 1.00 | 121.10 | O |
| ATOM | 16745 | CB | VAL | B1065 | 82.508 | 25.026 | 38.179 | 1.00 | 164.88 | C |
| ATOM | 16746 | CG1 | VAL | B1065 | 82.496 | 24.485 | 36.760 | 1.00 | 164.88 | C |
| ATOM | 16747 | CG2 | VAL | B1065 | 82.906 | 26.501 | 38.177 | 1.00 | 164.88 | C |
| ATOM | 16748 | N | GLY | B1066 | 79.427 | 26.558 | 38.937 | 1.00 | 142.67 | N |
| ATOM | 16749 | CA | GLY | B1066 | 78.479 | 27.486 | 38.379 | 1.00 | 142.67 | C |
| ATOM | 16750 | C | GLY | B1066 | 78.895 | 28.904 | 38.654 | 1.00 | 142.67 | C |
| ATOM | 16751 | O | GLY | B1066 | 80.060 | 29.182 | 38.945 | 1.00 | 142.67 | O |

| | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|
| ATOM | 16752 | N | SER | B1067 | 77.916 | 29.793 | 38.559 | 1.00206.98 |
| ATOM | 16753 | CA | SER | B1067 | 78.112 | 31.209 | 38.788 | 1.00206.98 |
| ATOM | 16754 | C | SER | B1067 | 78.211 | 31.481 | 40.279 | 1.00206.98 |
| ATOM | 16755 | O | SER | B1067 | 79.281 | 31.806 | 40.792 | 1.00206.98 |
| ATOM | 16756 | CB | SER | B1067 | 76.922 | 31.991 | 38.237 | 1.00134.77 |
| ATOM | 16757 | OG | SER | B1067 | 75.741 | 31.681 | 38.965 | 1.00134.77 |
| ATOM | 16758 | N | SER | B1068 | 77.082 | 31.348 | 40.969 | 1.00207.38 |
| ATOM | 16759 | CA | SER | B1068 | 77.036 | 31.599 | 42.399 | 1.00207.38 |
| ATOM | 16760 | C | SER | B1068 | 75.638 | 31.331 | 42.950 | 1.00207.38 |
| ATOM | 16761 | O | SER | B1068 | 74.647 | 31.437 | 42.220 | 1.00207.38 |
| ATOM | 16762 | CB | SER | B1068 | 77.446 | 33.048 | 42.682 | 1.00184.49 |
| ATOM | 16763 | OG | SER | B1068 | 77.689 | 33.258 | 44.062 | 1.00184.49 |
| ATOM | 16764 | N | GLY | B1069 | 75.576 | 30.982 | 44.237 | 1.00207.38 |
| ATOM | 16765 | CA | GLY | B1069 | 74.311 | 30.706 | 44.907 | 1.00207.38 |
| ATOM | 16766 | C | GLY | B1069 | 73.421 | 29.676 | 44.233 | 1.00207.38 |
| ATOM | 16767 | O | GLY | B1069 | 73.776 | 28.497 | 44.132 | 1.00207.38 |
| ATOM | 16768 | N | CYS | B1070 | 72.251 | 30.128 | 43.786 | 1.00147.20 |
| ATOM | 16769 | CA | CYS | B1070 | 71.281 | 29.275 | 43.101 | 1.00147.20 |
| ATOM | 16770 | C | CYS | B1070 | 71.941 | 28.406 | 42.015 | 1.00147.20 |
| ATOM | 16771 | O | CYS | B1070 | 73.111 | 28.609 | 41.664 | 1.00147.20 |
| ATOM | 16772 | CB | CYS | B1070 | 70.173 | 30.131 | 42.482 | 1.00147.20 |
| ATOM | 16773 | SG | CYS | B1070 | 69.043 | 30.945 | 43.651 | 1.00147.20 |
| ATOM | 16774 | N | GLY | B1071 | 71.186 | 27.437 | 41.494 | 1.00152.66 |
| ATOM | 16775 | CA | GLY | B1071 | 71.698 | 26.557 | 40.453 | 1.00152.66 |
| ATOM | 16776 | C | GLY | B1071 | 72.280 | 25.267 | 40.995 | 1.00152.66 |
| ATOM | 16777 | O | GLY | B1071 | 71.735 | 24.187 | 40.792 | 1.00152.66 |
| ATOM | 16778 | N | LYS | B1072 | 73.403 | 25.391 | 41.685 | 1.00155.17 |
| ATOM | 16779 | CA | LYS | B1072 | 74.083 | 24.252 | 42.276 | 1.00155.17 |
| ATOM | 16780 | C | LYS | B1072 | 73.117 | 23.633 | 43.286 | 1.00155.17 |
| ATOM | 16781 | O | LYS | B1072 | 72.864 | 22.415 | 43.302 | 1.00155.17 |
| ATOM | 16782 | CB | LYS | B1072 | 75.369 | 24.752 | 42.935 | 1.00169.89 |
| ATOM | 16783 | CG | LYS | B1072 | 76.134 | 25.708 | 42.009 | 1.00169.89 |
| ATOM | 16784 | CD | LYS | B1072 | 77.289 | 26.430 | 42.682 | 1.00169.89 |
| ATOM | 16785 | CE | LYS | B1072 | 77.945 | 27.404 | 41.706 | 1.00169.89 |
| ATOM | 16786 | NZ | LYS | B1072 | 79.077 | 28.157 | 42.316 | 1.00169.89 |
| ATOM | 16787 | N | SER | B1073 | 72.546 | 24.503 | 44.105 | 1.00207.04 |
| ATOM | 16788 | CA | SER | B1073 | 71.590 | 24.082 | 45.105 | 1.00207.04 |
| ATOM | 16789 | C | SER | B1073 | 70.383 | 23.412 | 44.437 | 1.00207.04 |
| ATOM | 16790 | O | SER | B1073 | 70.121 | 22.234 | 44.680 | 1.00207.04 |
| ATOM | 16791 | CB | SER | B1073 | 71.129 | 25.282 | 45.938 | 1.00179.14 |
| ATOM | 16792 | OG | SER | B1073 | 70.659 | 26.329 | 45.109 | 1.00179.14 |
| ATOM | 16793 | N | THR | B1074 | 69.671 | 24.156 | 43.586 | 1.00142.56 |
| ATOM | 16794 | CA | THR | B1074 | 68.475 | 23.642 | 42.897 | 1.00142.56 |
| ATOM | 16795 | C | THR | B1074 | 68.712 | 22.272 | 42.286 | 1.00142.56 |
| ATOM | 16796 | O | THR | B1074 | 67.867 | 21.375 | 42.349 | 1.00142.56 |
| ATOM | 16797 | CB | THR | B1074 | 68.012 | 24.596 | 41.774 | 1.00207.38 |
| ATOM | 16798 | OG1 | THR | B1074 | 69.113 | 24.878 | 40.900 | 1.00207.38 |
| ATOM | 16799 | CG2 | THR | B1074 | 67.474 | 25.891 | 42.359 | 1.00207.38 |
| ATOM | 16800 | N | VAL | B1075 | 69.874 | 22.123 | 41.677 | 1.00 89.86 |
| ATOM | 16801 | CA | VAL | B1075 | 70.226 | 20.864 | 41.069 | 1.00 89.86 |
| ATOM | 16802 | C | VAL | B1075 | 70.063 | 19.818 | 42.161 | 1.00 89.86 |
| ATOM | 16803 | O | VAL | B1075 | 69.133 | 18.994 | 42.134 | 1.00 89.86 |
| ATOM | 16804 | CB | VAL | B1075 | 71.693 | 20.876 | 40.580 | 1.00151.82 |
| ATOM | 16805 | CG1 | VAL | B1075 | 72.135 | 19.471 | 40.201 | 1.00151.82 |
| ATOM | 16806 | CG2 | VAL | B1075 | 71.831 | 21.807 | 39.390 | 1.00151.82 |
| ATOM | 16807 | N | VAL | B1076 | 70.966 | 19.900 | 43.139 | 1.00 80.66 |
| ATOM | 16808 | CA | VAL | B1076 | 70.996 | 18.960 | 44.251 | 1.00 80.66 |
| ATOM | 16809 | C | VAL | B1076 | 69.580 | 18.614 | 44.624 | 1.00 80.66 |
| ATOM | 16810 | O | VAL | B1076 | 69.150 | 17.473 | 44.479 | 1.00 80.66 |
| ATOM | 16811 | CB | VAL | B1076 | 71.700 | 19.567 | 45.482 | 1.00115.38 |
| ATOM | 16812 | CG1 | VAL | B1076 | 71.941 | 18.488 | 46.528 | 1.00115.38 |
| ATOM | 16813 | CG2 | VAL | B1076 | 73.007 | 20.221 | 45.065 | 1.00115.38 |
| ATOM | 16814 | N | GLN | B1077 | 68.863 | 19.632 | 45.092 | 1.00149.15 |
| ATOM | 16815 | CA | GLN | B1077 | 67.467 | 19.515 | 45.515 | 1.00149.15 |
| ATOM | 16816 | C | GLN | B1077 | 66.711 | 18.596 | 44.579 | 1.00149.15 |
| ATOM | 16817 | O | GLN | B1077 | 66.222 | 17.538 | 44.970 | 1.00149.15 |
| ATOM | 16818 | CB | GLN | B1077 | 66.797 | 20.896 | 45.495 | 1.00173.56 |
| ATOM | 16819 | CG | GLN | B1077 | 66.737 | 21.627 | 46.829 | 1.00173.56 |
| ATOM | 16820 | CD | GLN | B1077 | 67.275 | 23.047 | 46.747 | 1.00173.56 |
| ATOM | 16821 | OE1 | GLN | B1077 | 68.487 | 23.260 | 46.726 | 1.00173.56 |
| ATOM | 16822 | NE2 | GLN | B1077 | 66.374 | 24.024 | 46.692 | 1.00173.56 |
| ATOM | 16823 | N | LEU | B1078 | 66.618 | 19.033 | 43.332 | 1.00 73.28 |
| ATOM | 16824 | CA | LEU | B1078 | 65.917 | 18.297 | 42.310 | 1.00 73.28 |
| ATOM | 16825 | C | LEU | B1078 | 66.176 | 16.816 | 42.407 | 1.00 73.28 |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------|--------|---|
| ATOM | 16826 | O | LEU | B1078 | 65.238 | 16.030 | 42.375 | 1.00 | 73.28 | O |
| ATOM | 16827 | CB | LEU | B1078 | 66.310 | 18.819 | 40.932 | 1.00 | 55.65 | C |
| ATOM | 16828 | CG | LEU | B1078 | 65.524 | 20.105 | 40.677 | 1.00 | 55.65 | C |
| ATOM | 16829 | CD1 | LEU | B1078 | 66.185 | 20.956 | 39.616 | 1.00 | 55.65 | C |
| ATOM | 16830 | CD2 | LEU | B1078 | 64.100 | 19.731 | 40.288 | 1.00 | 55.65 | C |
| ATOM | 16831 | N | LEU | B1079 | 67.441 | 16.423 | 42.521 | 1.00 | 105.18 | N |
| ATOM | 16832 | CA | LEU | B1079 | 67.736 | 14.998 | 42.637 | 1.00 | 105.18 | C |
| ATOM | 16833 | C | LEU | B1079 | 66.987 | 14.503 | 43.867 | 1.00 | 105.18 | C |
| ATOM | 16834 | O | LEU | B1079 | 66.338 | 13.446 | 43.843 | 1.00 | 105.18 | O |
| ATOM | 16835 | CB | LEU | B1079 | 69.227 | 14.758 | 42.855 | 1.00 | 134.45 | C |
| ATOM | 16836 | CG | LEU | B1079 | 69.476 | 13.364 | 43.443 | 1.00 | 134.45 | C |
| ATOM | 16837 | CD1 | LEU | B1079 | 68.984 | 12.305 | 42.464 | 1.00 | 134.45 | C |
| ATOM | 16838 | CD2 | LEU | B1079 | 70.946 | 13.175 | 43.755 | 1.00 | 134.45 | C |
| ATOM | 16839 | N | GLU | B1080 | 67.091 | 15.300 | 44.933 | 1.00 | 103.43 | N |
| ATOM | 16840 | CA | GLU | B1080 | 66.442 | 15.030 | 46.212 | 1.00 | 103.43 | C |
| ATOM | 16841 | C | GLU | B1080 | 64.966 | 15.156 | 45.992 | 1.00 | 103.43 | C |
| ATOM | 16842 | O | GLU | B1080 | 64.164 | 15.025 | 46.911 | 1.00 | 103.43 | O |
| ATOM | 16843 | CB | GLU | B1080 | 66.902 | 16.044 | 47.260 | 1.00 | 154.28 | C |
| ATOM | 16844 | CG | GLU | B1080 | 68.251 | 15.721 | 47.858 | 1.00 | 154.28 | C |
| ATOM | 16845 | CD | GLU | B1080 | 68.194 | 14.501 | 48.750 | 1.00 | 154.28 | C |
| ATOM | 16846 | OE1 | GLU | B1080 | 67.548 | 13.506 | 48.356 | 1.00 | 154.28 | O |
| ATOM | 16847 | OE2 | GLU | B1080 | 68.798 | 14.533 | 49.842 | 1.00 | 154.28 | O |
| ATOM | 16848 | N | ARG | B1081 | 64.625 | 15.413 | 44.741 | 1.00 | 116.02 | N |
| ATOM | 16849 | CA | ARG | B1081 | 63.251 | 15.576 | 44.341 | 1.00 | 116.02 | C |
| ATOM | 16850 | C | ARG | B1081 | 62.464 | 16.294 | 45.418 | 1.00 | 116.02 | C |
| ATOM | 16851 | O | ARG | B1081 | 61.486 | 15.777 | 45.932 | 1.00 | 116.02 | O |
| ATOM | 16852 | CB | ARG | B1081 | 62.618 | 14.212 | 44.046 | 1.00 | 118.22 | C |
| ATOM | 16853 | CG | ARG | B1081 | 61.142 | 14.256 | 43.652 | 1.00 | 118.22 | C |
| ATOM | 16854 | CD | ARG | B1081 | 60.658 | 12.885 | 43.216 | 1.00 | 118.22 | C |
| ATOM | 16855 | NE | ARG | B1081 | 59.209 | 12.839 | 43.042 | 1.00 | 118.22 | N |
| ATOM | 16856 | CZ | ARG | B1081 | 58.569 | 11.840 | 42.443 | 1.00 | 118.22 | C |
| ATOM | 16857 | NH1 | ARG | B1081 | 59.257 | 10.812 | 41.960 | 1.00 | 118.22 | N |
| ATOM | 16858 | NH2 | ARG | B1081 | 57.246 | 11.858 | 42.334 | 1.00 | 118.22 | N |
| ATOM | 16859 | N | PHE | B1082 | 62.920 | 17.485 | 45.775 | 1.00 | 98.07 | N |
| ATOM | 16860 | CA | PHE | B1082 | 62.228 | 18.296 | 46.764 | 1.00 | 98.07 | C |
| ATOM | 16861 | C | PHE | B1082 | 61.149 | 19.071 | 46.023 | 1.00 | 98.07 | C |
| ATOM | 16862 | O | PHE | B1082 | 59.994 | 19.119 | 46.420 | 1.00 | 98.07 | O |
| ATOM | 16863 | CB | PHE | B1082 | 63.184 | 19.282 | 47.428 | 1.00 | 97.00 | C |
| ATOM | 16864 | CG | PHE | B1082 | 64.110 | 18.651 | 48.416 | 1.00 | 97.00 | C |
| ATOM | 16865 | CD1 | PHE | B1082 | 63.794 | 17.427 | 48.997 | 1.00 | 97.00 | C |
| ATOM | 16866 | CD2 | PHE | B1082 | 65.278 | 19.298 | 48.803 | 1.00 | 97.00 | C |
| ATOM | 16867 | CE1 | PHE | B1082 | 64.626 | 16.850 | 49.953 | 1.00 | 97.00 | C |
| ATOM | 16868 | CE2 | PHE | B1082 | 66.124 | 18.735 | 49.762 | 1.00 | 97.00 | C |
| ATOM | 16869 | CZ | PHE | B1082 | 65.798 | 17.507 | 50.339 | 1.00 | 97.00 | C |
| ATOM | 16870 | N | TYR | B1083 | 61.557 | 19.692 | 44.935 | 1.00 | 102.01 | N |
| ATOM | 16871 | CA | TYR | B1083 | 60.652 | 20.439 | 44.097 | 1.00 | 102.01 | C |
| ATOM | 16872 | C | TYR | B1083 | 60.803 | 19.673 | 42.785 | 1.00 | 102.01 | C |
| ATOM | 16873 | O | TYR | B1083 | 61.916 | 19.273 | 42.427 | 1.00 | 102.01 | O |
| ATOM | 16874 | CB | TYR | B1083 | 61.156 | 21.882 | 43.931 | 1.00 | 149.37 | C |
| ATOM | 16875 | CG | TYR | B1083 | 61.691 | 22.531 | 45.199 | 1.00 | 149.37 | C |
| ATOM | 16876 | CD1 | TYR | B1083 | 62.740 | 21.950 | 45.912 | 1.00 | 149.37 | C |
| ATOM | 16877 | CD2 | TYR | B1083 | 61.160 | 23.732 | 45.675 | 1.00 | 149.37 | C |
| ATOM | 16878 | CE1 | TYR | B1083 | 63.246 | 22.542 | 47.061 | 1.00 | 149.37 | C |
| ATOM | 16879 | CE2 | TYR | B1083 | 61.663 | 24.337 | 46.827 | 1.00 | 149.37 | C |
| ATOM | 16880 | CZ | TYR | B1083 | 62.704 | 23.735 | 47.512 | 1.00 | 149.37 | C |
| ATOM | 16881 | OH | TYR | B1083 | 63.205 | 24.335 | 48.640 | 1.00 | 149.37 | O |
| ATOM | 16882 | N | ASP | B1084 | 59.707 | 19.435 | 42.072 | 1.00 | 90.24 | N |
| ATOM | 16883 | CA | ASP | B1084 | 59.811 | 18.705 | 40.814 | 1.00 | 90.24 | C |
| ATOM | 16884 | C | ASP | B1084 | 59.952 | 19.644 | 39.648 | 1.00 | 90.24 | C |
| ATOM | 16885 | O | ASP | B1084 | 59.148 | 20.563 | 39.485 | 1.00 | 90.24 | O |
| ATOM | 16886 | CB | ASP | B1084 | 58.589 | 17.811 | 40.610 | 1.00 | 120.27 | C |
| ATOM | 16887 | CG | ASP | B1084 | 58.942 | 16.340 | 40.621 | 1.00 | 120.27 | C |
| ATOM | 16888 | OD1 | ASP | B1084 | 59.883 | 15.950 | 39.898 | 1.00 | 120.27 | O |
| ATOM | 16889 | OD2 | ASP | B1084 | 58.278 | 15.574 | 41.346 | 1.00 | 120.27 | O |
| ATOM | 16890 | N | PRO | B1085 | 60.972 | 19.412 | 38.809 | 1.00 | 102.97 | N |
| ATOM | 16891 | CA | PRO | B1085 | 61.261 | 20.220 | 37.625 | 1.00 | 102.97 | C |
| ATOM | 16892 | C | PRO | B1085 | 59.981 | 20.565 | 36.885 | 1.00 | 102.97 | C |
| ATOM | 16893 | O | PRO | B1085 | 59.085 | 19.733 | 36.737 | 1.00 | 102.97 | O |
| ATOM | 16894 | CB | PRO | B1085 | 62.192 | 19.322 | 36.805 | 1.00 | 115.94 | C |
| ATOM | 16895 | CG | PRO | B1085 | 61.811 | 17.931 | 37.233 | 1.00 | 115.94 | C |
| ATOM | 16896 | CD | PRO | B1085 | 61.678 | 18.120 | 38.726 | 1.00 | 115.94 | C |
| ATOM | 16897 | N | MET | B1086 | 59.888 | 21.810 | 36.444 | 1.00 | 199.05 | N |
| ATOM | 16898 | CA | MET | B1086 | 58.706 | 22.268 | 35.744 | 1.00 | 199.05 | C |
| ATOM | 16899 | C | MET | B1086 | 58.598 | 21.644 | 34.366 | 1.00 | 199.05 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16900 | O | MET | B1086 | 57.527 | 21.656 | 33.762 | 1.00199.05 | O |
| ATOM | 16901 | CB | MET | B1086 | 58.728 | 23.788 | 35.644 | 1.00160.50 | C |
| ATOM | 16902 | CG | MET | B1086 | 58.495 | 24.480 | 36.973 | 1.00160.50 | C |
| ATOM | 16903 | SD | MET | B1086 | 59.080 | 26.178 | 36.954 | 1.00160.50 | S |
| ATOM | 16904 | CE | MET | B1086 | 58.469 | 26.734 | 35.379 | 1.00160.50 | C |
| ATOM | 16905 | N | ALA | B1087 | 59.705 | 21.106 | 33.861 | 1.00146.10 | N |
| ATOM | 16906 | CA | ALA | B1087 | 59.674 | 20.442 | 32.554 | 1.00146.10 | C |
| ATOM | 16907 | C | ALA | B1087 | 60.936 | 19.641 | 32.342 | 1.00146.10 | C |
| ATOM | 16908 | O | ALA | B1087 | 62.017 | 20.094 | 32.691 | 1.00146.10 | O |
| ATOM | 16909 | CB | ALA | B1087 | 59.517 | 21.489 | 31.449 | 1.00115.18 | C |
| ATOM | 16910 | N | GLY | B1088 | 60.807 | 18.460 | 31.752 | 1.00116.21 | N |
| ATOM | 16911 | CA | GLY | B1088 | 61.981 | 17.630 | 31.549 | 1.00116.21 | C |
| ATOM | 16912 | C | GLY | B1088 | 61.936 | 16.542 | 32.602 | 1.00116.21 | C |
| ATOM | 16913 | O | GLY | B1088 | 60.899 | 16.408 | 33.263 | 1.00116.21 | O |
| ATOM | 16914 | N | SER | B1089 | 63.012 | 15.767 | 32.778 | 1.00 99.30 | N |
| ATOM | 16915 | CA | SER | B1089 | 62.977 | 14.699 | 33.786 | 1.00 99.30 | C |
| ATOM | 16916 | C | SER | B1089 | 64.347 | 14.228 | 34.262 | 1.00 99.30 | C |
| ATOM | 16917 | O | SER | B1089 | 65.371 | 14.842 | 33.942 | 1.00 99.30 | O |
| ATOM | 16918 | CB | SER | B1089 | 62.168 | 13.515 | 33.258 | 1.00207.38 | C |
| ATOM | 16919 | OG | SER | B1089 | 61.596 | 12.787 | 34.329 | 1.00207.38 | O |
| ATOM | 16920 | N | VAL | B1090 | 64.381 | 13.160 | 35.056 | 1.00173.98 | N |
| ATOM | 16921 | CA | VAL | B1090 | 65.689 | 12.722 | 35.531 | 1.00173.98 | C |
| ATOM | 16922 | C | VAL | B1090 | 65.657 | 11.230 | 35.786 | 1.00173.98 | C |
| ATOM | 16923 | O | VAL | B1090 | 64.562 | 10.705 | 35.841 | 1.00173.98 | O |
| ATOM | 16924 | CB | VAL | B1090 | 66.053 | 13.468 | 36.841 | 1.00 55.71 | C |
| ATOM | 16925 | CG1 | VAL | B1090 | 64.772 | 13.878 | 37.566 | 1.00 55.71 | C |
| ATOM | 16926 | CG2 | VAL | B1090 | 66.932 | 12.581 | 37.741 | 1.00 55.71 | C |
| ATOM | 16927 | N | PHE | B1091 | 66.820 | 10.559 | 35.920 | 1.00118.64 | N |
| ATOM | 16928 | CA | PHE | B1091 | 66.920 | 9.091 | 36.181 | 1.00118.64 | C |
| ATOM | 16929 | C | PHE | B1091 | 68.164 | 8.746 | 36.991 | 1.00118.64 | C |
| ATOM | 16930 | O | PHE | B1091 | 69.255 | 8.715 | 36.425 | 1.00118.64 | O |
| ATOM | 16931 | CB | PHE | B1091 | 67.001 | 8.340 | 34.854 | 1.00167.94 | C |
| ATOM | 16932 | CG | PHE | B1091 | 65.818 | 8.555 | 33.956 | 1.00167.94 | C |
| ATOM | 16933 | CD1 | PHE | B1091 | 64.563 | 8.886 | 34.486 | 1.00167.94 | C |
| ATOM | 16934 | CD2 | PHE | B1091 | 65.956 | 8.409 | 32.575 | 1.00167.94 | C |
| ATOM | 16935 | CE1 | PHE | B1091 | 63.466 | 9.069 | 33.649 | 1.00167.94 | C |
| ATOM | 16936 | CE2 | PHE | B1091 | 64.875 | 8.589 | 31.731 | 1.00167.94 | C |
| ATOM | 16937 | CZ | PHE | B1091 | 63.624 | 8.920 | 32.262 | 1.00167.94 | C |
| ATOM | 16938 | N | LEU | B1092 | 68.019 | 8.452 | 38.284 | 1.00140.81 | N |
| ATOM | 16939 | CA | LEU | B1092 | 69.182 | 8.138 | 39.134 | 1.00140.81 | C |
| ATOM | 16940 | C | LEU | B1092 | 69.827 | 6.884 | 38.604 | 1.00140.81 | C |
| ATOM | 16941 | O | LEU | B1092 | 70.862 | 6.430 | 39.097 | 1.00140.81 | O |
| ATOM | 16942 | CB | LEU | B1092 | 68.730 | 7.872 | 40.572 | 1.00112.78 | C |
| ATOM | 16943 | CG | LEU | B1092 | 68.396 | 6.390 | 40.789 | 1.00112.78 | C |
| ATOM | 16944 | CD1 | LEU | B1092 | 67.989 | 6.141 | 42.222 | 1.00112.78 | C |
| ATOM | 16945 | CD2 | LEU | B1092 | 67.290 | 5.972 | 39.836 | 1.00112.78 | C |
| ATOM | 16946 | N | ASP | B1093 | 69.196 | 6.342 | 37.578 | 1.00157.98 | N |
| ATOM | 16947 | CA | ASP | B1093 | 69.632 | 5.107 | 37.023 | 1.00157.98 | C |
| ATOM | 16948 | C | ASP | B1093 | 68.986 | 4.922 | 35.683 | 1.00157.98 | C |
| ATOM | 16949 | O | ASP | B1093 | 69.635 | 4.782 | 34.658 | 1.00157.98 | O |
| ATOM | 16950 | CB | ASP | B1093 | 69.193 | 3.986 | 37.954 | 1.00 97.85 | C |
| ATOM | 16951 | CG | ASP | B1093 | 70.126 | 2.819 | 37.936 | 1.00 97.85 | C |
| ATOM | 16952 | OD1 | ASP | B1093 | 71.339 | 3.035 | 38.126 | 1.00 97.85 | O |
| ATOM | 16953 | OD2 | ASP | B1093 | 69.644 | 1.687 | 37.746 | 1.00 97.85 | O |
| ATOM | 16954 | N | GLY | B1094 | 67.676 | 4.927 | 35.685 | 1.00150.06 | N |
| ATOM | 16955 | CA | GLY | B1094 | 67.038 | 4.720 | 34.425 | 1.00150.06 | C |
| ATOM | 16956 | C | GLY | B1094 | 65.614 | 5.191 | 34.387 | 1.00150.06 | C |
| ATOM | 16957 | O | GLY | B1094 | 65.334 | 6.023 | 33.555 | 1.00150.06 | O |
| ATOM | 16958 | N | LYS | B1095 | 64.716 | 4.691 | 35.244 | 1.00189.45 | N |
| ATOM | 16959 | CA | LYS | B1095 | 63.293 | 5.116 | 35.232 | 1.00189.45 | C |
| ATOM | 16960 | C | LYS | B1095 | 63.225 | 6.560 | 35.624 | 1.00189.45 | C |
| ATOM | 16961 | O | LYS | B1095 | 64.222 | 7.050 | 36.142 | 1.00189.45 | O |
| ATOM | 16962 | CB | LYS | B1095 | 62.468 | 4.288 | 36.230 | 1.00113.33 | C |
| ATOM | 16963 | CG | LYS | B1095 | 62.819 | 2.823 | 36.291 | 1.00113.33 | C |
| ATOM | 16964 | CD | LYS | B1095 | 64.255 | 2.683 | 36.717 | 1.00113.33 | C |
| ATOM | 16965 | CE | LYS | B1095 | 64.685 | 1.252 | 36.650 | 1.00113.33 | C |
| ATOM | 16966 | NZ | LYS | B1095 | 66.100 | 1.098 | 37.052 | 1.00113.33 | N |
| ATOM | 16967 | N | GLU | B1096 | 62.047 | 7.201 | 35.482 | 1.00112.57 | N |
| ATOM | 16968 | CA | GLU | B1096 | 61.889 | 8.646 | 35.754 | 1.00112.57 | C |
| ATOM | 16969 | C | GLU | B1096 | 61.963 | 9.115 | 37.189 | 1.00112.57 | C |
| ATOM | 16970 | O | GLU | B1096 | 61.097 | 8.816 | 37.996 | 1.00112.57 | O |
| ATOM | 16971 | CB | GLU | B1096 | 60.606 | 9.163 | 35.078 | 1.00207.38 | C |
| ATOM | 16972 | CG | GLU | B1096 | 60.734 | 9.296 | 33.549 | 1.00207.38 | C |
| ATOM | 16973 | CD | GLU | B1096 | 59.553 | 10.030 | 32.892 | 1.00207.38 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 16974 | OE1 | GLU | B1096 | 59.305 | 11.211 | 33.211 | 1.00207.38 | O |
| ATOM | 16975 | OE2 | GLU | B1096 | 58.861 | 9.426 | 32.047 | 1.00207.38 | O |
| ATOM | 16976 | N | ILE | B1097 | 63.035 | 9.790 | 37.564 | 1.00191.91 | N |
| ATOM | 16977 | CA | ILE | B1097 | 63.007 | 10.359 | 38.881 | 1.00191.91 | C |
| ATOM | 16978 | C | ILE | B1097 | 62.149 | 11.494 | 38.459 | 1.00191.91 | C |
| ATOM | 16979 | O | ILE | B1097 | 62.533 | 12.364 | 37.632 | 1.00191.91 | O |
| ATOM | 16980 | CB | ILE | B1097 | 64.376 | 10.815 | 39.364 | 1.00 68.24 | C |
| ATOM | 16981 | CG1 | ILE | B1097 | 65.153 | 9.592 | 39.848 | 1.00 68.24 | C |
| ATOM | 16982 | CG2 | ILE | B1097 | 64.224 | 11.775 | 40.522 | 1.00 68.24 | C |
| ATOM | 16983 | CD1 | ILE | B1097 | 64.291 | 8.650 | 40.750 | 1.00 68.24 | C |
| ATOM | 16984 | N | LYS | B1098 | 60.929 | 11.325 | 38.955 | 1.00117.50 | N |
| ATOM | 16985 | CA | LYS | B1098 | 59.760 | 12.156 | 38.757 | 1.00117.50 | C |
| ATOM | 16986 | C | LYS | B1098 | 58.729 | 11.067 | 39.052 | 1.00117.50 | C |
| ATOM | 16987 | O | LYS | B1098 | 57.573 | 11.331 | 39.372 | 1.00117.50 | O |
| ATOM | 16988 | CB | LYS | B1098 | 59.664 | 12.574 | 37.295 | 1.00181.31 | C |
| ATOM | 16989 | CG | LYS | B1098 | 59.437 | 14.043 | 37.126 | 1.00181.31 | C |
| ATOM | 16990 | CD | LYS | B1098 | 58.714 | 14.358 | 35.842 | 1.00181.31 | C |
| ATOM | 16991 | CE | LYS | B1098 | 57.664 | 15.418 | 36.110 | 1.00181.31 | C |
| ATOM | 16992 | NZ | LYS | B1098 | 57.432 | 16.277 | 34.926 | 1.00181.31 | N |
| ATOM | 16993 | N | GLN | B1099 | 59.226 | 9.832 | 38.982 | 1.00135.37 | N |
| ATOM | 16994 | CA | GLN | B1099 | 58.445 | 8.618 | 39.140 | 1.00135.37 | C |
| ATOM | 16995 | C | GLN | B1099 | 59.115 | 7.530 | 39.993 | 1.00135.37 | C |
| ATOM | 16996 | O | GLN | B1099 | 58.626 | 6.404 | 40.057 | 1.00135.37 | O |
| ATOM | 16997 | CB | GLN | B1099 | 58.141 | 8.064 | 37.740 | 1.00207.38 | C |
| ATOM | 16998 | CG | GLN | B1099 | 58.037 | 6.547 | 37.629 | 1.00207.38 | C |
| ATOM | 16999 | CD | GLN | B1099 | 58.277 | 6.049 | 36.209 | 1.00207.38 | C |
| ATOM | 17000 | OE1 | GLN | B1099 | 58.203 | 4.850 | 35.939 | 1.00207.38 | O |
| ATOM | 17001 | NE2 | GLN | B1099 | 58.572 | 6.971 | 35.299 | 1.00207.38 | N |
| ATOM | 17002 | N | LEU | B1100 | 60.235 | 7.825 | 40.634 | 1.00136.38 | N |
| ATOM | 17003 | CA | LEU | B1100 | 60.811 | 6.787 | 41.466 | 1.00136.38 | C |
| ATOM | 17004 | C | LEU | B1100 | 60.224 | 6.949 | 42.890 | 1.00136.38 | C |
| ATOM | 17005 | O | LEU | B1100 | 59.858 | 8.060 | 43.265 | 1.00136.38 | O |
| ATOM | 17006 | CB | LEU | B1100 | 62.327 | 6.929 | 41.520 | 1.00165.07 | C |
| ATOM | 17007 | CG | LEU | B1100 | 63.108 | 5.799 | 42.194 | 1.00165.07 | C |
| ATOM | 17008 | CD1 | LEU | B1100 | 63.060 | 4.550 | 41.316 | 1.00165.07 | C |
| ATOM | 17009 | CD2 | LEU | B1100 | 64.544 | 6.240 | 42.434 | 1.00165.07 | C |
| ATOM | 17010 | N | ASN | B1101 | 60.103 | 5.875 | 43.684 | 1.00 99.07 | N |
| ATOM | 17011 | CA | ASN | B1101 | 59.571 | 6.036 | 45.050 | 1.00 99.07 | C |
| ATOM | 17012 | C | ASN | B1101 | 60.481 | 6.890 | 45.901 | 1.00 99.07 | C |
| ATOM | 17013 | O | ASN | B1101 | 61.517 | 6.415 | 46.395 | 1.00 99.07 | O |
| ATOM | 17014 | CB | ASN | B1101 | 59.368 | 4.721 | 45.789 | 1.00117.46 | C |
| ATOM | 17015 | CG | ASN | B1101 | 59.002 | 4.951 | 47.252 | 1.00117.46 | C |
| ATOM | 17016 | OD1 | ASN | B1101 | 59.778 | 5.535 | 48.010 | 1.00117.46 | O |
| ATOM | 17017 | ND2 | ASN | B1101 | 57.813 | 4.512 | 47.647 | 1.00117.46 | N |
| ATOM | 17018 | N | VAL | B1102 | 60.057 | 8.138 | 46.080 | 1.00137.03 | N |
| ATOM | 17019 | CA | VAL | B1102 | 60.745 | 9.167 | 46.860 | 1.00137.03 | C |
| ATOM | 17020 | C | VAL | B1102 | 61.566 | 8.694 | 48.073 | 1.00137.03 | C |
| ATOM | 17021 | O | VAL | B1102 | 62.786 | 8.886 | 48.118 | 1.00137.03 | O |
| ATOM | 17022 | CB | VAL | B1102 | 59.712 | 10.238 | 47.310 | 1.00 44.12 | C |
| ATOM | 17023 | CG1 | VAL | B1102 | 58.357 | 9.598 | 47.514 | 1.00 44.12 | C |
| ATOM | 17024 | CG2 | VAL | B1102 | 60.154 | 10.891 | 48.602 | 1.00 44.12 | C |
| ATOM | 17025 | N | GLN | B1103 | 60.887 | 8.092 | 49.050 | 1.00 83.82 | N |
| ATOM | 17026 | CA | GLN | B1103 | 61.521 | 7.589 | 50.262 | 1.00 83.82 | C |
| ATOM | 17027 | C | GLN | B1103 | 62.768 | 6.801 | 49.916 | 1.00 83.82 | C |
| ATOM | 17028 | O | GLN | B1103 | 63.785 | 6.876 | 50.604 | 1.00 83.82 | O |
| ATOM | 17029 | CB | GLN | B1103 | 60.540 | 6.712 | 51.044 | 1.00207.38 | C |
| ATOM | 17030 | CG | GLN | B1103 | 60.815 | 6.661 | 52.533 | 1.00207.38 | C |
| ATOM | 17031 | CD | GLN | B1103 | 60.829 | 8.041 | 53.152 | 1.00207.38 | C |
| ATOM | 17032 | OE1 | GLN | B1103 | 61.749 | 8.826 | 52.922 | 1.00207.38 | O |
| ATOM | 17033 | NE2 | GLN | B1103 | 59.800 | 8.351 | 53.931 | 1.00207.38 | N |
| ATOM | 17034 | N | TRP | B1104 | 62.683 | 6.036 | 48.839 | 1.00 92.14 | N |
| ATOM | 17035 | CA | TRP | B1104 | 63.820 | 5.257 | 48.413 | 1.00 92.14 | C |
| ATOM | 17036 | C | TRP | B1104 | 64.763 | 6.218 | 47.717 | 1.00 92.14 | C |
| ATOM | 17037 | O | TRP | B1104 | 65.961 | 6.305 | 48.050 | 1.00 92.14 | O |
| ATOM | 17038 | CB | TRP | B1104 | 63.406 | 4.144 | 47.446 | 1.00143.14 | C |
| ATOM | 17039 | CG | TRP | B1104 | 64.547 | 3.254 | 47.065 | 1.00143.14 | C |
| ATOM | 17040 | CD1 | TRP | B1104 | 65.041 | 2.199 | 47.780 | 1.00143.14 | C |
| ATOM | 17041 | CD2 | TRP | B1104 | 65.383 | 3.379 | 45.906 | 1.00143.14 | C |
| ATOM | 17042 | NE1 | TRP | B1104 | 66.132 | 1.661 | 47.138 | 1.00143.14 | N |
| ATOM | 17043 | CE2 | TRP | B1104 | 66.363 | 2.365 | 45.986 | 1.00143.14 | C |
| ATOM | 17044 | CE3 | TRP | B1104 | 65.397 | 4.248 | 44.806 | 1.00143.14 | C |
| ATOM | 17045 | CZ2 | TRP | B1104 | 67.352 | 2.200 | 45.009 | 1.00143.14 | C |
| ATOM | 17046 | CZ3 | TRP | B1104 | 66.381 | 4.082 | 43.837 | 1.00143.14 | C |
| ATOM | 17047 | CH2 | TRP | B1104 | 67.342 | 3.064 | 43.945 | 1.00143.14 | C |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------|--------|---|
| ATOM | 17048 | N | LEU | B1105 | 64.219 | 6.954 | 46.756 | 1.00 | 73.06 | N |
| ATOM | 17049 | CA | LEU | B1105 | 65.041 | 7.890 | 46.032 | 1.00 | 73.06 | C |
| ATOM | 17050 | C | LEU | B1105 | 65.962 | 8.490 | 47.075 | 1.00 | 73.06 | C |
| ATOM | 17051 | O | LEU | B1105 | 67.189 | 8.431 | 46.945 | 1.00 | 73.06 | O |
| ATOM | 17052 | CB | LEU | B1105 | 64.213 | 8.998 | 45.382 | 1.00 | 92.97 | C |
| ATOM | 17053 | CG | LEU | B1105 | 65.051 | 10.073 | 44.676 | 1.00 | 92.97 | C |
| ATOM | 17054 | CD1 | LEU | B1105 | 65.996 | 9.408 | 43.683 | 1.00 | 92.97 | C |
| ATOM | 17055 | CD2 | LEU | B1105 | 64.147 | 11.077 | 43.977 | 1.00 | 92.97 | C |
| ATOM | 17056 | N | ARG | B1106 | 65.373 | 9.023 | 48.143 | 1.00 | 78.26 | N |
| ATOM | 17057 | CA | ARG | B1106 | 66.171 | 9.650 | 49.190 | 1.00 | 78.26 | C |
| ATOM | 17058 | C | ARG | B1106 | 66.866 | 8.657 | 50.105 | 1.00 | 78.26 | C |
| ATOM | 17059 | O | ARG | B1106 | 67.572 | 9.046 | 51.041 | 1.00 | 78.26 | O |
| ATOM | 17060 | CB | ARG | B1106 | 65.312 | 10.600 | 50.004 | 1.00 | 81.84 | C |
| ATOM | 17061 | CG | ARG | B1106 | 64.790 | 11.725 | 49.163 | 1.00 | 81.84 | C |
| ATOM | 17062 | CD | ARG | B1106 | 63.862 | 12.600 | 49.945 | 1.00 | 81.84 | C |
| ATOM | 17063 | NE | ARG | B1106 | 62.840 | 13.178 | 49.085 | 1.00 | 81.84 | N |
| ATOM | 17064 | CZ | ARG | B1106 | 61.739 | 13.769 | 49.532 | 1.00 | 81.84 | C |
| ATOM | 17065 | NH1 | ARG | B1106 | 61.517 | 13.861 | 50.835 | 1.00 | 81.84 | N |
| ATOM | 17066 | NH2 | ARG | B1106 | 60.854 | 14.253 | 48.673 | 1.00 | 81.84 | N |
| ATOM | 17067 | N | ALA | B1107 | 66.648 | 7.372 | 49.848 | 1.00 | 100.21 | N |
| ATOM | 17068 | CA | ALA | B1107 | 67.314 | 6.350 | 50.630 | 1.00 | 100.21 | C |
| ATOM | 17069 | C | ALA | B1107 | 68.752 | 6.609 | 50.261 | 1.00 | 100.21 | C |
| ATOM | 17070 | O | ALA | B1107 | 69.628 | 6.581 | 51.126 | 1.00 | 100.21 | O |
| ATOM | 17071 | CB | ALA | B1107 | 66.878 | 4.964 | 50.165 | 1.00 | 103.66 | C |
| ATOM | 17072 | N | GLN | B1108 | 68.976 | 6.883 | 48.967 | 1.00 | 80.46 | N |
| ATOM | 17073 | CA | GLN | B1108 | 70.336 | 7.201 | 48.465 | 1.00 | 80.46 | C |
| ATOM | 17074 | C | GLN | B1108 | 70.578 | 8.723 | 48.212 | 1.00 | 80.46 | C |
| ATOM | 17075 | O | GLN | B1108 | 70.034 | 9.377 | 47.291 | 1.00 | 80.46 | O |
| ATOM | 17076 | CB | GLN | B1108 | 70.636 | 6.412 | 47.183 | 1.00 | 135.34 | C |
| ATOM | 17077 | CG | GLN | B1108 | 70.757 | 4.901 | 47.370 | 1.00 | 135.34 | C |
| ATOM | 17078 | CD | GLN | B1108 | 69.448 | 4.174 | 47.124 | 1.00 | 135.34 | C |
| ATOM | 17079 | OE1 | GLN | B1108 | 69.397 | 2.943 | 47.112 | 1.00 | 135.34 | O |
| ATOM | 17080 | NE2 | GLN | B1108 | 68.382 | 4.935 | 46.925 | 1.00 | 135.34 | N |
| ATOM | 17081 | N | LEU | B1109 | 71.435 | 9.272 | 49.061 | 1.00 | 204.82 | N |
| ATOM | 17082 | CA | LEU | B1109 | 71.739 | 10.681 | 48.997 | 1.00 | 204.82 | C |
| ATOM | 17083 | C | LEU | B1109 | 72.853 | 11.047 | 49.980 | 1.00 | 204.82 | C |
| ATOM | 17084 | O | LEU | B1109 | 72.588 | 11.401 | 51.124 | 1.00 | 204.82 | O |
| ATOM | 17085 | CB | LEU | B1109 | 70.485 | 11.486 | 49.340 | 1.00 | 117.30 | C |
| ATOM | 17086 | CG | LEU | B1109 | 69.965 | 11.443 | 50.784 | 1.00 | 117.30 | C |
| ATOM | 17087 | CD1 | LEU | B1109 | 68.502 | 11.876 | 50.793 | 1.00 | 117.30 | C |
| ATOM | 17088 | CD2 | LEU | B1109 | 70.104 | 10.039 | 51.369 | 1.00 | 117.30 | C |
| ATOM | 17089 | N | GLY | B1110 | 74.102 | 10.937 | 49.549 | 1.00 | 131.62 | N |
| ATOM | 17090 | CA | GLY | B1110 | 75.195 | 11.316 | 50.423 | 1.00 | 131.62 | C |
| ATOM | 17091 | C | GLY | B1110 | 75.275 | 12.832 | 50.385 | 1.00 | 131.62 | C |
| ATOM | 17092 | O | GLY | B1110 | 76.179 | 13.400 | 49.766 | 1.00 | 131.62 | O |
| ATOM | 17093 | N | ILE | B1111 | 74.309 | 13.477 | 51.041 | 1.00 | 119.99 | N |
| ATOM | 17094 | CA | ILE | B1111 | 74.187 | 14.936 | 51.099 | 1.00 | 119.99 | C |
| ATOM | 17095 | C | ILE | B1111 | 74.903 | 15.510 | 52.311 | 1.00 | 119.99 | C |
| ATOM | 17096 | O | ILE | B1111 | 74.839 | 14.938 | 53.392 | 1.00 | 119.99 | O |
| ATOM | 17097 | CB | ILE | B1111 | 72.694 | 15.345 | 51.168 | 1.00 | 127.13 | C |
| ATOM | 17098 | CG1 | ILE | B1111 | 72.560 | 16.855 | 51.380 | 1.00 | 127.13 | C |
| ATOM | 17099 | CG2 | ILE | B1111 | 71.999 | 14.597 | 52.309 | 1.00 | 127.13 | C |
| ATOM | 17100 | CD1 | ILE | B1111 | 72.882 | 17.695 | 50.164 | 1.00 | 127.13 | C |
| ATOM | 17101 | N | VAL | B1112 | 75.610 | 16.620 | 52.105 | 1.00 | 115.79 | N |
| ATOM | 17102 | CA | VAL | B1112 | 76.315 | 17.349 | 53.167 | 1.00 | 115.79 | C |
| ATOM | 17103 | C | VAL | B1112 | 76.508 | 18.738 | 52.583 | 1.00 | 115.79 | C |
| ATOM | 17104 | O | VAL | B1112 | 77.084 | 18.885 | 51.497 | 1.00 | 115.79 | O |
| ATOM | 17105 | CB | VAL | B1112 | 77.703 | 16.766 | 53.500 | 1.00 | 96.46 | C |
| ATOM | 17106 | CG1 | VAL | B1112 | 78.353 | 17.596 | 54.615 | 1.00 | 96.46 | C |
| ATOM | 17107 | CG2 | VAL | B1112 | 77.574 | 15.317 | 53.929 | 1.00 | 96.46 | C |
| ATOM | 17108 | N | SER | B1113 | 76.036 | 19.755 | 53.296 | 1.00 | 138.03 | N |
| ATOM | 17109 | CA | SER | B1113 | 76.121 | 21.120 | 52.788 | 1.00 | 138.03 | C |
| ATOM | 17110 | C | SER | B1113 | 76.796 | 22.139 | 53.695 | 1.00 | 138.03 | C |
| ATOM | 17111 | O | SER | B1113 | 77.211 | 21.822 | 54.806 | 1.00 | 138.03 | O |
| ATOM | 17112 | CB | SER | B1113 | 74.717 | 21.616 | 52.431 | 1.00 | 207.38 | C |
| ATOM | 17113 | OG | SER | B1113 | 74.747 | 22.947 | 51.947 | 1.00 | 207.38 | O |
| ATOM | 17114 | N | GLN | B1114 | 76.889 | 23.369 | 53.187 | 1.00 | 187.92 | N |
| ATOM | 17115 | CA | GLN | B1114 | 77.483 | 24.513 | 53.884 | 1.00 | 187.92 | C |
| ATOM | 17116 | C | GLN | B1114 | 77.324 | 24.357 | 55.377 | 1.00 | 187.92 | C |
| ATOM | 17117 | O | GLN | B1114 | 78.204 | 23.867 | 56.081 | 1.00 | 187.92 | O |
| ATOM | 17118 | CB | GLN | B1114 | 76.757 | 25.798 | 53.479 | 1.00 | 166.54 | C |
| ATOM | 17119 | CG | GLN | B1114 | 76.784 | 26.112 | 52.001 | 1.00 | 166.54 | C |
| ATOM | 17120 | CD | GLN | B1114 | 78.002 | 26.918 | 51.604 | 1.00 | 166.54 | C |
| ATOM | 17121 | OE1 | GLN | B1114 | 78.280 | 27.098 | 50.419 | 1.00 | 166.54 | O |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17122 | NE2 | GLN | B1114 | 78.731 | 27.420 | 52.595 | 1.00166.54 | N |
| ATOM | 17123 | N | GLU | B1115 | 76.168 | 24.810 | 55.837 | 1.00145.28 | N |
| ATOM | 17124 | CA | GLU | B1115 | 75.797 | 24.760 | 57.232 | 1.00145.28 | C |
| ATOM | 17125 | C | GLU | B1115 | 75.266 | 23.363 | 57.538 | 1.00145.28 | C |
| ATOM | 17126 | O | GLU | B1115 | 74.147 | 23.019 | 57.156 | 1.00145.28 | O |
| ATOM | 17127 | CB | GLU | B1115 | 74.714 | 25.808 | 57.507 | 1.00207.38 | C |
| ATOM | 17128 | CG | GLU | B1115 | 74.269 | 25.927 | 58.953 | 1.00207.38 | C |
| ATOM | 17129 | CD | GLU | B1115 | 75.402 | 26.296 | 59.888 | 1.00207.38 | C |
| ATOM | 17130 | OE1 | GLU | B1115 | 76.250 | 27.131 | 59.507 | 1.00207.38 | O |
| ATOM | 17131 | OE2 | GLU | B1115 | 75.435 | 25.759 | 61.014 | 1.00207.38 | O |
| ATOM | 17132 | N | PRO | B1116 | 76.073 | 22.528 | 58.209 | 1.00207.38 | N |
| ATOM | 17133 | CA | PRO | B1116 | 75.611 | 21.181 | 58.539 | 1.00207.38 | C |
| ATOM | 17134 | C | PRO | B1116 | 74.553 | 21.373 | 59.615 | 1.00207.38 | C |
| ATOM | 17135 | O | PRO | B1116 | 73.767 | 22.316 | 59.545 | 1.00207.38 | O |
| ATOM | 17136 | CB | PRO | B1116 | 76.870 | 20.518 | 59.077 | 1.00144.40 | C |
| ATOM | 17137 | CG | PRO | B1116 | 77.536 | 21.652 | 59.800 | 1.00144.40 | C |
| ATOM | 17138 | CD | PRO | B1116 | 77.397 | 22.789 | 58.803 | 1.00144.40 | C |
| ATOM | 17139 | N | ILE | B1117 | 74.548 | 20.493 | 60.611 | 1.00186.65 | N |
| ATOM | 17140 | CA | ILE | B1117 | 73.609 | 20.564 | 61.728 | 1.00186.65 | C |
| ATOM | 17141 | C | ILE | B1117 | 73.242 | 19.203 | 62.259 | 1.00186.65 | C |
| ATOM | 17142 | O | ILE | B1117 | 73.308 | 18.196 | 61.562 | 1.00186.65 | O |
| ATOM | 17143 | CB | ILE | B1117 | 72.297 | 21.268 | 61.357 | 1.00116.47 | C |
| ATOM | 17144 | CG1 | ILE | B1117 | 71.392 | 21.337 | 62.590 | 1.00116.47 | C |
| ATOM | 17145 | CG2 | ILE | B1117 | 71.583 | 20.501 | 60.258 | 1.00116.47 | C |
| ATOM | 17146 | CD1 | ILE | B1117 | 72.079 | 21.889 | 63.830 | 1.00116.47 | C |
| ATOM | 17147 | N | LEU | B1118 | 72.810 | 19.196 | 63.504 | 1.00144.46 | N |
| ATOM | 17148 | CA | LEU | B1118 | 72.437 | 17.969 | 64.150 | 1.00144.46 | C |
| ATOM | 17149 | C | LEU | B1118 | 71.511 | 18.322 | 65.307 | 1.00144.46 | C |
| ATOM | 17150 | O | LEU | B1118 | 71.773 | 19.294 | 66.033 | 1.00144.46 | O |
| ATOM | 17151 | CB | LEU | B1118 | 73.692 | 17.273 | 64.687 | 1.00158.29 | C |
| ATOM | 17152 | CG | LEU | B1118 | 75.051 | 17.890 | 64.321 | 1.00158.29 | C |
| ATOM | 17153 | CD1 | LEU | B1118 | 75.155 | 19.302 | 64.890 | 1.00158.29 | C |
| ATOM | 17154 | CD2 | LEU | B1118 | 76.178 | 17.020 | 64.861 | 1.00158.29 | C |
| ATOM | 17155 | N | PHE | B1119 | 70.412 | 17.581 | 65.464 | 1.00207.38 | N |
| ATOM | 17156 | CA | PHE | B1119 | 69.549 | 17.862 | 66.605 | 1.00207.38 | C |
| ATOM | 17157 | C | PHE | B1119 | 70.233 | 17.135 | 67.749 | 1.00207.38 | C |
| ATOM | 17158 | O | PHE | B1119 | 70.819 | 16.067 | 67.566 | 1.00207.38 | O |
| ATOM | 17159 | CB | PHE | B1119 | 68.099 | 17.378 | 66.437 | 1.00136.79 | C |
| ATOM | 17160 | CG | PHE | B1119 | 67.141 | 17.975 | 67.466 | 1.00136.79 | C |
| ATOM | 17161 | CD1 | PHE | B1119 | 67.365 | 19.252 | 67.986 | 1.00136.79 | C |
| ATOM | 17162 | CD2 | PHE | B1119 | 66.010 | 17.281 | 67.891 | 1.00136.79 | C |
| ATOM | 17163 | CE1 | PHE | B1119 | 66.484 | 19.817 | 68.901 | 1.00136.79 | C |
| ATOM | 17164 | CE2 | PHE | B1119 | 65.123 | 17.848 | 68.810 | 1.00136.79 | C |
| ATOM | 17165 | CZ | PHE | B1119 | 65.360 | 19.111 | 69.312 | 1.00136.79 | C |
| ATOM | 17166 | N | ASP | B1120 | 70.142 | 17.735 | 68.927 | 1.00 83.86 | N |
| ATOM | 17167 | CA | ASP | B1120 | 70.793 | 17.270 | 70.137 | 1.00 83.86 | C |
| ATOM | 17168 | C | ASP | B1120 | 70.724 | 15.835 | 70.663 | 1.00 83.86 | C |
| ATOM | 17169 | O | ASP | B1120 | 70.420 | 15.646 | 71.836 | 1.00 83.86 | O |
| ATOM | 17170 | CB | ASP | B1120 | 70.414 | 18.232 | 71.259 | 1.00100.59 | C |
| ATOM | 17171 | CG | ASP | B1120 | 69.131 | 18.992 | 70.955 | 1.00100.59 | C |
| ATOM | 17172 | OD1 | ASP | B1120 | 68.047 | 18.528 | 71.370 | 1.00100.59 | O |
| ATOM | 17173 | OD2 | ASP | B1120 | 69.202 | 20.041 | 70.273 | 1.00100.59 | O |
| ATOM | 17174 | N | CYS | B1121 | 70.988 | 14.826 | 69.827 | 1.00147.20 | N |
| ATOM | 17175 | CA | CYS | B1121 | 71.075 | 13.455 | 70.359 | 1.00147.20 | C |
| ATOM | 17176 | C | CYS | B1121 | 72.575 | 13.393 | 70.563 | 1.00147.20 | C |
| ATOM | 17177 | O | CYS | B1121 | 73.319 | 14.284 | 70.130 | 1.00147.20 | O |
| ATOM | 17178 | CB | CYS | B1121 | 70.702 | 12.378 | 69.348 | 1.00147.20 | C |
| ATOM | 17179 | SG | CYS | B1121 | 68.958 | 12.189 | 69.158 | 1.00147.20 | S |
| ATOM | 17180 | N | SER | B1122 | 73.031 | 12.369 | 71.258 | 1.00170.78 | N |
| ATOM | 17181 | CA | SER | B1122 | 74.454 | 12.244 | 71.430 | 1.00170.78 | C |
| ATOM | 17182 | C | SER | B1122 | 74.901 | 12.087 | 69.985 | 1.00170.78 | C |
| ATOM | 17183 | O | SER | B1122 | 74.108 | 11.692 | 69.126 | 1.00170.78 | O |
| ATOM | 17184 | CB | SER | B1122 | 74.798 | 10.993 | 72.244 | 1.00148.49 | C |
| ATOM | 17185 | OG | SER | B1122 | 74.298 | 9.823 | 71.622 | 1.00148.49 | O |
| ATOM | 17186 | N | ILE | B1123 | 76.146 | 12.424 | 69.692 | 1.00122.04 | N |
| ATOM | 17187 | CA | ILE | B1123 | 76.611 | 12.263 | 68.324 | 1.00122.04 | C |
| ATOM | 17188 | C | ILE | B1123 | 76.476 | 10.791 | 67.884 | 1.00122.04 | C |
| ATOM | 17189 | O | ILE | B1123 | 76.237 | 10.518 | 66.719 | 1.00122.04 | O |
| ATOM | 17190 | CB | ILE | B1123 | 78.072 | 12.765 | 68.162 | 1.00120.70 | C |
| ATOM | 17191 | CG1 | ILE | B1123 | 79.004 | 12.065 | 69.152 | 1.00120.70 | C |
| ATOM | 17192 | CG2 | ILE | B1123 | 78.121 | 14.260 | 68.383 | 1.00120.70 | C |
| ATOM | 17193 | CD1 | ILE | B1123 | 79.435 | 10.693 | 68.711 | 1.00120.70 | C |
| ATOM | 17194 | N | ALA | B1124 | 76.605 | 9.847 | 68.815 | 1.00135.14 | N |
| ATOM | 17195 | CA | ALA | B1124 | 76.458 | 8.430 | 68.463 | 1.00135.14 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17196 | C | ALA | B1124 | 75.127 | 8.200 | 67.758 | 1.00135.14 | C |
| ATOM | 17197 | O | ALA | B1124 | 75.034 | 7.420 | 66.806 | 1.00135.14 | O |
| ATOM | 17198 | CB | ALA | B1124 | 76.551 | 7.570 | 69.726 | 1.00 74.80 | C |
| ATOM | 17199 | N | GLU | B1125 | 74.095 | 8.870 | 68.265 | 1.00162.67 | N |
| ATOM | 17200 | CA | GLU | B1125 | 72.754 | 8.777 | 67.710 | 1.00162.67 | C |
| ATOM | 17201 | C | GLU | B1125 | 72.756 | 9.576 | 66.436 | 1.00162.67 | C |
| ATOM | 17202 | O | GLU | B1125 | 72.330 | 9.094 | 65.390 | 1.00162.67 | O |
| ATOM | 17203 | CB | GLU | B1125 | 71.723 | 9.373 | 68.673 | 1.00198.08 | C |
| ATOM | 17204 | CG | GLU | B1125 | 71.477 | 8.568 | 69.936 | 1.00198.08 | C |
| ATOM | 17205 | CD | GLU | B1125 | 71.111 | 7.126 | 69.644 | 1.00198.08 | C |
| ATOM | 17206 | OE1 | GLU | B1125 | 72.029 | 6.327 | 69.367 | 1.00198.08 | O |
| ATOM | 17207 | OE2 | GLU | B1125 | 69.907 | 6.793 | 69.680 | 1.00198.08 | O |
| ATOM | 17208 | N | ASN | B1126 | 73.231 | 10.813 | 66.530 | 1.00143.74 | N |
| ATOM | 17209 | CA | ASN | B1126 | 73.284 | 11.653 | 65.351 | 1.00143.74 | C |
| ATOM | 17210 | C | ASN | B1126 | 73.877 | 10.758 | 64.283 | 1.00143.74 | C |
| ATOM | 17211 | O | ASN | B1126 | 73.184 | 10.387 | 63.346 | 1.00143.74 | O |
| ATOM | 17212 | CB | ASN | B1126 | 74.172 | 12.883 | 65.590 | 1.00145.98 | C |
| ATOM | 17213 | CG | ASN | B1126 | 73.403 | 14.045 | 66.206 | 1.00145.98 | C |
| ATOM | 17214 | OD1 | ASN | B1126 | 73.980 | 15.058 | 66.595 | 1.00145.98 | O |
| ATOM | 17215 | ND2 | ASN | B1126 | 72.086 | 13.900 | 66.285 | 1.00145.98 | N |
| ATOM | 17216 | N | ILE | B1127 | 75.143 | 10.384 | 64.455 | 1.00158.81 | N |
| ATOM | 17217 | CA | ILE | B1127 | 75.838 | 9.499 | 63.522 | 1.00158.81 | C |
| ATOM | 17218 | C | ILE | B1127 | 74.828 | 8.501 | 62.998 | 1.00158.81 | C |
| ATOM | 17219 | O | ILE | B1127 | 74.677 | 8.300 | 61.787 | 1.00158.81 | O |
| ATOM | 17220 | CB | ILE | B1127 | 76.936 | 8.669 | 64.219 | 1.00103.37 | C |
| ATOM | 17221 | CG1 | ILE | B1127 | 78.008 | 9.583 | 64.804 | 1.00103.37 | C |
| ATOM | 17222 | CG2 | ILE | B1127 | 77.534 | 7.666 | 63.233 | 1.00103.37 | C |
| ATOM | 17223 | CD1 | ILE | B1127 | 78.995 | 8.844 | 65.684 | 1.00103.37 | C |
| ATOM | 17224 | N | ALA | B1128 | 74.147 | 7.877 | 63.951 | 1.00172.61 | N |
| ATOM | 17225 | CA | ALA | B1128 | 73.130 | 6.881 | 63.670 | 1.00172.61 | C |
| ATOM | 17226 | C | ALA | B1128 | 71.875 | 7.488 | 63.041 | 1.00172.61 | C |
| ATOM | 17227 | O | ALA | B1128 | 70.814 | 6.873 | 63.064 | 1.00172.61 | O |
| ATOM | 17228 | CB | ALA | B1128 | 72.760 | 6.137 | 64.948 | 1.00158.32 | C |
| ATOM | 17229 | N | TYR | B1129 | 72.000 | 8.686 | 62.478 | 1.00151.21 | N |
| ATOM | 17230 | CA | TYR | B1129 | 70.875 | 9.355 | 61.851 | 1.00151.21 | C |
| ATOM | 17231 | C | TYR | B1129 | 69.861 | 8.363 | 61.356 | 1.00151.21 | C |
| ATOM | 17232 | O | TYR | B1129 | 70.052 | 7.725 | 60.324 | 1.00151.21 | O |
| ATOM | 17233 | CB | TYR | B1129 | 71.357 | 10.262 | 60.725 | 1.00180.43 | C |
| ATOM | 17234 | CG | TYR | B1129 | 71.746 | 11.607 | 61.265 | 1.00180.43 | C |
| ATOM | 17235 | CD1 | TYR | B1129 | 70.810 | 12.391 | 61.937 | 1.00180.43 | C |
| ATOM | 17236 | CD2 | TYR | B1129 | 73.050 | 12.077 | 61.159 | 1.00180.43 | C |
| ATOM | 17237 | CE1 | TYR | B1129 | 71.158 | 13.603 | 62.491 | 1.00180.43 | C |
| ATOM | 17238 | CE2 | TYR | B1129 | 73.414 | 13.296 | 61.713 | 1.00180.43 | C |
| ATOM | 17239 | CZ | TYR | B1129 | 72.461 | 14.052 | 62.377 | 1.00180.43 | C |
| ATOM | 17240 | OH | TYR | B1129 | 72.805 | 15.259 | 62.932 | 1.00180.43 | O |
| ATOM | 17241 | N | GLY | B1130 | 68.792 | 8.246 | 62.143 | 1.00206.70 | N |
| ATOM | 17242 | CA | GLY | B1130 | 67.698 | 7.325 | 61.891 | 1.00206.70 | C |
| ATOM | 17243 | C | GLY | B1130 | 67.090 | 7.387 | 60.517 | 1.00206.70 | C |
| ATOM | 17244 | O | GLY | B1130 | 65.871 | 7.495 | 60.372 | 1.00206.70 | O |
| ATOM | 17245 | N | ASP | B1131 | 67.960 | 7.314 | 59.517 | 1.00207.38 | N |
| ATOM | 17246 | CA | ASP | B1131 | 67.589 | 7.333 | 58.112 | 1.00207.38 | C |
| ATOM | 17247 | C | ASP | B1131 | 66.290 | 6.549 | 57.919 | 1.00207.38 | C |
| ATOM | 17248 | O | ASP | B1131 | 65.453 | 6.885 | 57.072 | 1.00207.38 | O |
| ATOM | 17249 | CB | ASP | B1131 | 68.726 | 6.720 | 57.295 | 1.00179.26 | C |
| ATOM | 17250 | CG | ASP | B1131 | 69.853 | 6.203 | 58.174 | 1.00179.26 | C |
| ATOM | 17251 | OD1 | ASP | B1131 | 69.669 | 5.159 | 58.836 | 1.00179.26 | O |
| ATOM | 17252 | OD2 | ASP | B1131 | 70.919 | 6.851 | 58.214 | 1.00179.26 | O |
| ATOM | 17253 | N | ASN | B1132 | 66.117 | 5.515 | 58.734 | 1.00133.58 | N |
| ATOM | 17254 | CA | ASN | B1132 | 64.936 | 4.684 | 58.656 | 1.00133.58 | C |
| ATOM | 17255 | C | ASN | B1132 | 65.142 | 3.532 | 59.600 | 1.00133.58 | C |
| ATOM | 17256 | O | ASN | B1132 | 65.856 | 3.644 | 60.599 | 1.00133.58 | O |
| ATOM | 17257 | CB | ASN | B1132 | 64.764 | 4.164 | 57.230 | 1.00189.83 | C |
| ATOM | 17258 | CG | ASN | B1132 | 66.005 | 3.458 | 56.719 | 1.00189.83 | C |
| ATOM | 17259 | OD1 | ASN | B1132 | 66.436 | 2.449 | 57.279 | 1.00189.83 | O |
| ATOM | 17260 | ND2 | ASN | B1132 | 66.590 | 3.988 | 55.651 | 1.00189.83 | N |
| ATOM | 17261 | N | SER | B1133 | 64.518 | 2.416 | 59.262 | 1.00129.36 | N |
| ATOM | 17262 | CA | SER | B1133 | 64.619 | 1.229 | 60.071 | 1.00129.36 | C |
| ATOM | 17263 | C | SER | B1133 | 66.055 | 1.054 | 60.514 | 1.00129.36 | C |
| ATOM | 17264 | O | SER | B1133 | 66.318 | 0.489 | 61.575 | 1.00129.36 | O |
| ATOM | 17265 | CB | SER | B1133 | 64.169 | 0.009 | 59.266 | 1.00132.05 | C |
| ATOM | 17266 | OG | SER | B1133 | 64.854 | -0.068 | 58.028 | 1.00132.05 | O |
| ATOM | 17267 | N | ARG | B1134 | 66.982 | 1.550 | 59.701 | 1.00207.31 | N |
| ATOM | 17268 | CA | ARG | B1134 | 68.400 | 1.449 | 60.017 | 1.00207.31 | C |
| ATOM | 17269 | C | ARG | B1134 | 68.595 | 1.580 | 61.542 | 1.00207.31 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17270 | O | ARG | B1134 | 68.400 | 2.651 | 62.122 | 1.00207.31 | O |
| ATOM | 17271 | CB | ARG | B1134 | 69.204 | 2.530 | 59.286 | 1.00137.57 | C |
| ATOM | 17272 | CG | ARG | B1134 | 69.285 | 2.379 | 57.762 | 1.00137.57 | C |
| ATOM | 17273 | CD | ARG | B1134 | 70.001 | 1.105 | 57.318 | 1.00137.57 | C |
| ATOM | 17274 | NE | ARG | B1134 | 71.101 | 0.753 | 58.209 | 1.00137.57 | N |
| ATOM | 17275 | CZ | ARG | B1134 | 71.893 | -0.302 | 58.046 | 1.00137.57 | C |
| ATOM | 17276 | NH1 | ARG | B1134 | 71.719 | -1.119 | 57.015 | 1.00137.57 | N |
| ATOM | 17277 | NH2 | ARG | B1134 | 72.849 | -0.548 | 58.931 | 1.00137.57 | N |
| ATOM | 17278 | N | VAL | B1135 | 68.945 | 0.469 | 62.185 | 1.00123.43 | N |
| ATOM | 17279 | CA | VAL | B1135 | 69.155 | 0.442 | 63.624 | 1.00123.43 | C |
| ATOM | 17280 | C | VAL | B1135 | 70.493 | 1.093 | 63.929 | 1.00123.43 | C |
| ATOM | 17281 | O | VAL | B1135 | 71.352 | 1.202 | 63.050 | 1.00123.43 | O |
| ATOM | 17282 | CB | VAL | B1135 | 69.142 | -1.013 | 64.149 | 1.00129.51 | C |
| ATOM | 17283 | CG1 | VAL | B1135 | 70.215 | -1.833 | 63.452 | 1.00129.51 | C |
| ATOM | 17284 | CG2 | VAL | B1135 | 69.350 | -1.031 | 65.642 | 1.00129.51 | C |
| ATOM | 17285 | N | VAL | B1136 | 70.654 | 1.533 | 65.174 | 1.00207.38 | N |
| ATOM | 17286 | CA | VAL | B1136 | 71.884 | 2.175 | 65.628 | 1.00207.38 | C |
| ATOM | 17287 | C | VAL | B1136 | 73.038 | 1.177 | 65.612 | 1.00207.38 | C |
| ATOM | 17288 | O | VAL | B1136 | 73.629 | 0.890 | 66.656 | 1.00207.38 | O |
| ATOM | 17289 | CB | VAL | B1136 | 71.739 | 2.711 | 67.070 | 1.00133.52 | C |
| ATOM | 17290 | CG1 | VAL | B1136 | 72.949 | 3.550 | 67.436 | 1.00133.52 | C |
| ATOM | 17291 | CG2 | VAL | B1136 | 70.470 | 3.526 | 67.198 | 1.00133.52 | C |
| ATOM | 17292 | N | SER | B1137 | 73.347 | 0.648 | 64.428 | 1.00207.38 | N |
| ATOM | 17293 | CA | SER | B1137 | 74.433 | -0.321 | 64.266 | 1.00207.38 | C |
| ATOM | 17294 | C | SER | B1137 | 75.732 | 0.281 | 64.806 | 1.00207.38 | C |
| ATOM | 17295 | O | SER | B1137 | 76.389 | 1.073 | 64.132 | 1.00207.38 | O |
| ATOM | 17296 | CB | SER | B1137 | 74.605 | -0.672 | 62.785 | 1.00168.80 | C |
| ATOM | 17297 | OG | SER | B1137 | 75.703 | -1.546 | 62.594 | 1.00168.80 | O |
| ATOM | 17298 | N | TYR | B1138 | 76.092 | -0.098 | 66.030 | 1.00206.95 | N |
| ATOM | 17299 | CA | TYR | B1138 | 77.292 | 0.433 | 66.667 | 1.00206.95 | C |
| ATOM | 17300 | C | TYR | B1138 | 78.498 | 0.446 | 65.739 | 1.00206.95 | C |
| ATOM | 17301 | O | TYR | B1138 | 78.819 | 1.479 | 65.161 | 1.00206.95 | O |
| ATOM | 17302 | CB | TYR | B1138 | 77.620 | -0.345 | 67.945 | 1.00193.90 | C |
| ATOM | 17303 | CG | TYR | B1138 | 78.597 | 0.378 | 68.849 | 1.00193.90 | C |
| ATOM | 17304 | CD1 | TYR | B1138 | 79.927 | 0.562 | 68.469 | 1.00193.90 | C |
| ATOM | 17305 | CD2 | TYR | B1138 | 78.185 | 0.906 | 70.072 | 1.00193.90 | C |
| ATOM | 17306 | CE1 | TYR | B1138 | 80.822 | 1.257 | 69.285 | 1.00193.90 | C |
| ATOM | 17307 | CE2 | TYR | B1138 | 79.070 | 1.602 | 70.895 | 1.00193.90 | C |
| ATOM | 17308 | CZ | TYR | B1138 | 80.386 | 1.774 | 70.495 | 1.00193.90 | C |
| ATOM | 17309 | OH | TYR | B1138 | 81.261 | 2.467 | 71.301 | 1.00193.90 | O |
| ATOM | 17310 | N | GLU | B1139 | 79.173 | -0.689 | 65.598 | 1.00190.92 | N |
| ATOM | 17311 | CA | GLU | B1139 | 80.338 | -0.755 | 64.720 | 1.00190.92 | C |
| ATOM | 17312 | C | GLU | B1139 | 80.059 | 0.011 | 63.427 | 1.00190.92 | C |
| ATOM | 17313 | O | GLU | B1139 | 80.982 | 0.510 | 62.778 | 1.00190.92 | O |
| ATOM | 17314 | CB | GLU | B1139 | 80.682 | -2.214 | 64.402 | 1.00207.38 | C |
| ATOM | 17315 | CG | GLU | B1139 | 79.491 | -3.068 | 63.996 | 1.00207.38 | C |
| ATOM | 17316 | CD | GLU | B1139 | 78.567 | -3.363 | 65.160 | 1.00207.38 | C |
| ATOM | 17317 | OE1 | GLU | B1139 | 78.998 | -4.065 | 66.100 | 1.00207.38 | O |
| ATOM | 17318 | OE2 | GLU | B1139 | 77.413 | -2.889 | 65.136 | 1.00207.38 | O |
| ATOM | 17319 | N | GLU | B1140 | 78.785 | 0.100 | 63.052 | 1.00140.31 | N |
| ATOM | 17320 | CA | GLU | B1140 | 78.431 | 0.842 | 61.857 | 1.00140.31 | C |
| ATOM | 17321 | C | GLU | B1140 | 78.770 | 2.285 | 62.201 | 1.00140.31 | C |
| ATOM | 17322 | O | GLU | B1140 | 79.660 | 2.868 | 61.588 | 1.00140.31 | O |
| ATOM | 17323 | CB | GLU | B1140 | 76.937 | 0.695 | 61.560 | 1.00144.42 | C |
| ATOM | 17324 | CG | GLU | B1140 | 76.566 | 0.539 | 60.081 | 1.00144.42 | C |
| ATOM | 17325 | CD | GLU | B1140 | 76.520 | 1.853 | 59.316 | 1.00144.42 | C |
| ATOM | 17326 | OE1 | GLU | B1140 | 77.589 | 2.457 | 59.086 | 1.00144.42 | O |
| ATOM | 17327 | OE2 | GLU | B1140 | 75.405 | 2.279 | 58.944 | 1.00144.42 | O |
| ATOM | 17328 | N | ILE | B1141 | 78.088 | 2.847 | 63.202 | 1.00163.29 | N |
| ATOM | 17329 | CA | ILE | B1141 | 78.332 | 4.235 | 63.616 | 1.00163.29 | C |
| ATOM | 17330 | C | ILE | B1141 | 79.830 | 4.458 | 63.784 | 1.00163.29 | C |
| ATOM | 17331 | O | ILE | B1141 | 80.328 | 5.583 | 63.691 | 1.00163.29 | O |
| ATOM | 17332 | CB | ILE | B1141 | 77.631 | 4.567 | 64.955 | 1.00161.13 | C |
| ATOM | 17333 | CG1 | ILE | B1141 | 78.385 | 3.926 | 66.124 | 1.00161.13 | C |
| ATOM | 17334 | CG2 | ILE | B1141 | 76.195 | 4.070 | 64.920 | 1.00161.13 | C |
| ATOM | 17335 | CD1 | ILE | B1141 | 77.725 | 4.140 | 67.477 | 1.00161.13 | C |
| ATOM | 17336 | N | VAL | B1142 | 80.540 | 3.363 | 64.030 | 1.00111.60 | N |
| ATOM | 17337 | CA | VAL | B1142 | 81.980 | 3.394 | 64.203 | 1.00111.60 | C |
| ATOM | 17338 | C | VAL | B1142 | 82.620 | 3.478 | 62.831 | 1.00111.60 | C |
| ATOM | 17339 | O | VAL | B1142 | 83.581 | 4.212 | 62.633 | 1.00111.60 | O |
| ATOM | 17340 | CB | VAL | B1142 | 82.484 | 2.126 | 64.925 | 1.00115.90 | C |
| ATOM | 17341 | CG1 | VAL | B1142 | 84.008 | 2.131 | 64.993 | 1.00115.90 | C |
| ATOM | 17342 | CG2 | VAL | B1142 | 81.885 | 2.059 | 66.323 | 1.00115.90 | C |
| ATOM | 17343 | N | ARG | B1143 | 82.088 | 2.716 | 61.885 | 1.00138.18 | N |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17344 | CA | ARG | B1143 | 82.606 | 2.740 | 60.527 | 1.00138.18 | C |
| ATOM | 17345 | C | ARG | B1143 | 82.589 | 4.197 | 60.059 | 1.00138.18 | C |
| ATOM | 17346 | O | ARG | B1143 | 83.556 | 4.699 | 59.459 | 1.00138.18 | O |
| ATOM | 17347 | CB | ARG | B1143 | 81.716 | 1.890 | 59.620 | 1.00194.40 | C |
| ATOM | 17348 | CG | ARG | B1143 | 82.238 | 1.711 | 58.204 | 1.00194.40 | C |
| ATOM | 17349 | CD | ARG | B1143 | 83.682 | 1.234 | 58.213 | 1.00194.40 | C |
| ATOM | 17350 | NE | ARG | B1143 | 83.955 | 0.339 | 59.336 | 1.00194.40 | N |
| ATOM | 17351 | CZ | ARG | B1143 | 83.288 | -0.782 | 59.588 | 1.00194.40 | C |
| ATOM | 17352 | NH1 | ARG | B1143 | 82.297 | -1.163 | 58.796 | 1.00194.40 | N |
| ATOM | 17353 | NH2 | ARG | B1143 | 83.611 | -1.522 | 60.639 | 1.00194.40 | N |
| ATOM | 17354 | N | ALA | B1144 | 81.475 | 4.866 | 60.351 | 1.00153.74 | N |
| ATOM | 17355 | CA | ALA | B1144 | 81.294 | 6.261 | 60.000 | 1.00153.74 | C |
| ATOM | 17356 | C | ALA | B1144 | 82.376 | 7.048 | 60.697 | 1.00153.74 | C |
| ATOM | 17357 | O | ALA | B1144 | 83.303 | 7.507 | 60.055 | 1.00153.74 | O |
| ATOM | 17358 | CB | ALA | B1144 | 79.905 | 6.741 | 60.449 | 1.00104.87 | C |
| ATOM | 17359 | N | ALA | B1145 | 82.270 | 7.185 | 62.015 | 1.00145.77 | N |
| ATOM | 17360 | CA | ALA | B1145 | 83.274 | 7.928 | 62.777 | 1.00145.77 | C |
| ATOM | 17361 | C | ALA | B1145 | 84.664 | 7.658 | 62.218 | 1.00145.77 | C |
| ATOM | 17362 | O | ALA | B1145 | 85.532 | 8.531 | 62.231 | 1.00145.77 | O |
| ATOM | 17363 | CB | ALA | B1145 | 83.209 | 7.526 | 64.245 | 1.00177.92 | C |
| ATOM | 17364 | N | LYS | B1146 | 84.870 | 6.439 | 61.732 | 1.00204.14 | N |
| ATOM | 17365 | CA | LYS | B1146 | 86.146 | 6.070 | 61.153 | 1.00204.14 | C |
| ATOM | 17366 | C | LYS | B1146 | 86.421 | 6.928 | 59.930 | 1.00204.14 | C |
| ATOM | 17367 | O | LYS | B1146 | 87.099 | 7.952 | 60.031 | 1.00204.14 | O |
| ATOM | 17368 | CB | LYS | B1146 | 86.157 | 4.586 | 60.776 | 1.00192.93 | C |
| ATOM | 17369 | CG | LYS | B1146 | 86.460 | 3.658 | 61.943 | 1.00192.93 | C |
| ATOM | 17370 | CD | LYS | B1146 | 87.876 | 3.883 | 62.459 | 1.00192.93 | C |
| ATOM | 17371 | CE | LYS | B1146 | 88.194 | 2.985 | 63.640 | 1.00192.93 | C |
| ATOM | 17372 | NZ | LYS | B1146 | 88.023 | 1.548 | 63.295 | 1.00192.93 | N |
| ATOM | 17373 | N | GLU | B1147 | 85.888 | 6.536 | 58.777 | 1.00141.15 | N |
| ATOM | 17374 | CA | GLU | B1147 | 86.139 | 7.327 | 57.581 | 1.00141.15 | C |
| ATOM | 17375 | C | GLU | B1147 | 85.648 | 8.775 | 57.718 | 1.00141.15 | C |
| ATOM | 17376 | O | GLU | B1147 | 86.008 | 9.635 | 56.919 | 1.00141.15 | O |
| ATOM | 17377 | CB | GLU | B1147 | 85.499 | 6.677 | 56.350 | 1.00170.90 | C |
| ATOM | 17378 | CG | GLU | B1147 | 85.895 | 7.349 | 55.037 | 1.00170.90 | C |
| ATOM | 17379 | CD | GLU | B1147 | 87.385 | 7.238 | 54.743 | 1.00170.90 | C |
| ATOM | 17380 | OE1 | GLU | B1147 | 87.886 | 8.013 | 53.901 | 1.00170.90 | O |
| ATOM | 17381 | OE2 | GLU | B1147 | 88.056 | 6.372 | 55.344 | 1.00170.90 | O |
| ATOM | 17382 | N | ALA | B1148 | 84.827 | 9.047 | 58.727 | 1.00129.03 | N |
| ATOM | 17383 | CA | ALA | B1148 | 84.328 | 10.399 | 58.956 | 1.00129.03 | C |
| ATOM | 17384 | C | ALA | B1148 | 85.510 | 11.190 | 59.474 | 1.00129.03 | C |
| ATOM | 17385 | O | ALA | B1148 | 85.659 | 12.368 | 59.177 | 1.00129.03 | O |
| ATOM | 17386 | CB | ALA | B1148 | 83.207 | 10.372 | 59.982 | 1.00 98.15 | C |
| ATOM | 17387 | N | ASN | B1149 | 86.356 | 10.517 | 60.246 | 1.00160.61 | N |
| ATOM | 17388 | CA | ASN | B1149 | 87.532 | 11.141 | 60.828 | 1.00160.61 | C |
| ATOM | 17389 | C | ASN | B1149 | 87.143 | 12.053 | 61.964 | 1.00160.61 | C |
| ATOM | 17390 | O | ASN | B1149 | 87.897 | 12.959 | 62.318 | 1.00160.61 | O |
| ATOM | 17391 | CB | ASN | B1149 | 88.280 | 11.943 | 59.761 | 1.00150.72 | C |
| ATOM | 17392 | CG | ASN | B1149 | 88.887 | 11.063 | 58.692 | 1.00150.72 | C |
| ATOM | 17393 | OD1 | ASN | B1149 | 89.314 | 11.543 | 57.641 | 1.00150.72 | O |
| ATOM | 17394 | ND2 | ASN | B1149 | 88.941 | 9.764 | 58.959 | 1.00150.72 | N |
| ATOM | 17395 | N | ILE | B1150 | 85.949 | 11.823 | 62.510 | 1.00207.38 | N |
| ATOM | 17396 | CA | ILE | B1150 | 85.433 | 12.588 | 63.648 | 1.00207.38 | C |
| ATOM | 17397 | C | ILE | B1150 | 85.823 | 11.748 | 64.859 | 1.00207.38 | C |
| ATOM | 17398 | O | ILE | B1150 | 85.708 | 12.156 | 66.022 | 1.00207.38 | O |
| ATOM | 17399 | CB | ILE | B1150 | 83.897 | 12.727 | 63.583 | 1.00175.39 | C |
| ATOM | 17400 | CG1 | ILE | B1150 | 83.393 | 13.487 | 64.811 | 1.00175.39 | C |
| ATOM | 17401 | CG2 | ILE | B1150 | 83.250 | 11.354 | 63.508 | 1.00175.39 | C |
| ATOM | 17402 | CD1 | ILE | B1150 | 83.948 | 14.895 | 64.936 | 1.00175.39 | C |
| ATOM | 17403 | N | HIS | B1151 | 86.296 | 10.551 | 64.541 | 1.00152.47 | N |
| ATOM | 17404 | CA | HIS | B1151 | 86.744 | 9.604 | 65.531 | 1.00152.47 | C |
| ATOM | 17405 | C | HIS | B1151 | 87.835 | 10.252 | 66.384 | 1.00152.47 | C |
| ATOM | 17406 | O | HIS | B1151 | 88.024 | 9.876 | 67.532 | 1.00152.47 | O |
| ATOM | 17407 | CB | HIS | B1151 | 87.307 | 8.362 | 64.841 | 1.00155.77 | C |
| ATOM | 17408 | CG | HIS | B1151 | 87.082 | 7.097 | 65.604 | 1.00155.77 | C |
| ATOM | 17409 | ND1 | HIS | B1151 | 87.311 | 6.994 | 66.958 | 1.00155.77 | N |
| ATOM | 17410 | CD2 | HIS | B1151 | 86.644 | 5.880 | 65.202 | 1.00155.77 | C |
| ATOM | 17411 | CE1 | HIS | B1151 | 87.022 | 5.769 | 67.359 | 1.00155.77 | C |
| ATOM | 17412 | NE2 | HIS | B1151 | 86.616 | 5.073 | 66.312 | 1.00155.77 | N |
| ATOM | 17413 | N | GLN | B1152 | 88.555 | 11.220 | 65.812 | 1.00207.38 | N |
| ATOM | 17414 | CA | GLN | B1152 | 89.622 | 11.924 | 66.531 | 1.00207.38 | C |
| ATOM | 17415 | C | GLN | B1152 | 89.034 | 12.503 | 67.825 | 1.00207.38 | C |
| ATOM | 17416 | O | GLN | B1152 | 89.743 | 12.684 | 68.819 | 1.00207.38 | O |
| ATOM | 17417 | CB | GLN | B1152 | 90.174 | 13.043 | 65.641 | 1.00154.68 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17418 | CG | GLN | B1152 | 90.644 | 12.551 | 64.272 | 1.00154.68 | C |
| ATOM | 17419 | CD | GLN | B1152 | 90.848 | 13.678 | 63.275 | 1.00154.68 | C |
| ATOM | 17420 | OE1 | GLN | B1152 | 89.964 | 14.513 | 63.082 | 1.00154.68 | O |
| ATOM | 17421 | NE2 | GLN | B1152 | 92.009 | 13.701 | 62.629 | 1.00154.68 | N |
| ATOM | 17422 | N | PHE | B1153 | 87.733 | 12.789 | 67.801 | 1.00140.50 | N |
| ATOM | 17423 | CA | PHE | B1153 | 87.043 | 13.301 | 68.976 | 1.00140.50 | C |
| ATOM | 17424 | C | PHE | B1153 | 86.424 | 12.109 | 69.670 | 1.00140.50 | C |
| ATOM | 17425 | O | PHE | B1153 | 86.298 | 12.078 | 70.889 | 1.00140.50 | O |
| ATOM | 17426 | CB | PHE | B1153 | 85.959 | 14.311 | 68.577 | 1.00118.69 | C |
| ATOM | 17427 | CG | PHE | B1153 | 86.493 | 15.674 | 68.258 | 1.00118.69 | C |
| ATOM | 17428 | CD1 | PHE | B1153 | 87.364 | 15.860 | 67.191 | 1.00118.69 | C |
| ATOM | 17429 | CD2 | PHE | B1153 | 86.135 | 16.773 | 69.036 | 1.00118.69 | C |
| ATOM | 17430 | CE1 | PHE | B1153 | 87.871 | 17.117 | 66.905 | 1.00118.69 | C |
| ATOM | 17431 | CE2 | PHE | B1153 | 86.637 | 18.039 | 68.758 | 1.00118.69 | C |
| ATOM | 17432 | CZ | PHE | B1153 | 87.506 | 18.213 | 67.692 | 1.00118.69 | C |
| ATOM | 17433 | N | ILE | B1154 | 86.054 | 11.112 | 68.877 | 1.00207.38 | N |
| ATOM | 17434 | CA | ILE | B1154 | 85.447 | 9.898 | 69.414 | 1.00207.38 | C |
| ATOM | 17435 | C | ILE | B1154 | 86.390 | 9.088 | 70.320 | 1.00207.38 | C |
| ATOM | 17436 | O | ILE | B1154 | 85.982 | 8.579 | 71.367 | 1.00207.38 | O |
| ATOM | 17437 | CB | ILE | B1154 | 84.930 | 8.990 | 68.263 | 1.00173.41 | C |
| ATOM | 17438 | CG1 | ILE | B1154 | 83.595 | 9.527 | 67.740 | 1.00173.41 | C |
| ATOM | 17439 | CG2 | ILE | B1154 | 84.758 | 7.562 | 68.747 | 1.00173.41 | C |
| ATOM | 17440 | CD1 | ILE | B1154 | 83.634 | 10.979 | 67.286 | 1.00173.41 | C |
| ATOM | 17441 | N | ASP | B1155 | 87.650 | 8.980 | 69.915 | 1.00207.38 | N |
| ATOM | 17442 | CA | ASP | B1155 | 88.655 | 8.224 | 70.660 | 1.00207.38 | C |
| ATOM | 17443 | C | ASP | B1155 | 88.686 | 8.575 | 72.149 | 1.00207.38 | C |
| ATOM | 17444 | O | ASP | B1155 | 88.566 | 7.700 | 73.011 | 1.00207.38 | O |
| ATOM | 17445 | CB | ASP | B1155 | 90.044 | 8.468 | 70.063 | 1.00206.82 | C |
| ATOM | 17446 | CG | ASP | B1155 | 90.098 | 8.202 | 68.569 | 1.00206.82 | C |
| ATOM | 17447 | OD1 | ASP | B1155 | 89.733 | 7.087 | 68.141 | 1.00206.82 | O |
| ATOM | 17448 | OD2 | ASP | B1155 | 90.514 | 9.113 | 67.822 | 1.00206.82 | O |
| ATOM | 17449 | N | SER | B1156 | 88.851 | 9.864 | 72.433 | 1.00207.38 | N |
| ATOM | 17450 | CA | SER | B1156 | 88.928 | 10.353 | 73.801 | 1.00207.38 | C |
| ATOM | 17451 | C | SER | B1156 | 87.767 | 11.262 | 74.210 | 1.00207.38 | C |
| ATOM | 17452 | O | SER | B1156 | 86.813 | 10.786 | 74.824 | 1.00207.38 | O |
| ATOM | 17453 | CB | SER | B1156 | 90.260 | 11.078 | 74.016 | 1.00166.72 | C |
| ATOM | 17454 | OG | SER | B1156 | 90.537 | 11.966 | 72.946 | 1.00166.72 | O |
| ATOM | 17455 | N | LEU | B1157 | 87.853 | 12.553 | 73.870 | 1.00207.38 | N |
| ATOM | 17456 | CA | LEU | B1157 | 86.825 | 13.554 | 74.216 | 1.00207.38 | C |
| ATOM | 17457 | C | LEU | B1157 | 85.718 | 13.012 | 75.124 | 1.00207.38 | C |
| ATOM | 17458 | O | LEU | B1157 | 84.859 | 12.248 | 74.679 | 1.00207.38 | O |
| ATOM | 17459 | CB | LEU | B1157 | 86.191 | 14.140 | 72.948 | 1.00162.03 | C |
| ATOM | 17460 | CG | LEU | B1157 | 86.958 | 15.179 | 72.118 | 1.00162.03 | C |
| ATOM | 17461 | CD1 | LEU | B1157 | 87.291 | 16.396 | 72.979 | 1.00162.03 | C |
| ATOM | 17462 | CD2 | LEU | B1157 | 88.220 | 14.556 | 71.547 | 1.00162.03 | C |
| ATOM | 17463 | N | PRO | B1158 | 85.717 | 13.426 | 76.405 | 1.00144.45 | N |
| ATOM | 17464 | CA | PRO | B1158 | 84.751 | 13.021 | 77.426 | 1.00144.45 | C |
| ATOM | 17465 | C | PRO | B1158 | 83.493 | 12.350 | 76.905 | 1.00144.45 | C |
| ATOM | 17466 | O | PRO | B1158 | 82.879 | 12.819 | 75.949 | 1.00144.45 | O |
| ATOM | 17467 | CB | PRO | B1158 | 84.471 | 14.328 | 78.149 | 1.00182.49 | C |
| ATOM | 17468 | CG | PRO | B1158 | 85.840 | 14.917 | 78.224 | 1.00182.49 | C |
| ATOM | 17469 | CD | PRO | B1158 | 86.429 | 14.646 | 76.837 | 1.00182.49 | C |
| ATOM | 17470 | N | ASP | B1159 | 83.131 | 11.245 | 77.555 | 1.00193.84 | N |
| ATOM | 17471 | CA | ASP | B1159 | 81.953 | 10.444 | 77.223 | 1.00193.84 | C |
| ATOM | 17472 | C | ASP | B1159 | 81.919 | 9.918 | 75.799 | 1.00193.84 | C |
| ATOM | 17473 | O | ASP | B1159 | 80.957 | 9.264 | 75.391 | 1.00193.84 | O |
| ATOM | 17474 | CB | ASP | B1159 | 80.676 | 11.231 | 77.526 | 1.00207.38 | C |
| ATOM | 17475 | CG | ASP | B1159 | 79.991 | 10.756 | 78.798 | 1.00207.38 | C |
| ATOM | 17476 | OD1 | ASP | B1159 | 79.072 | 11.450 | 79.281 | 1.00207.38 | O |
| ATOM | 17477 | OD2 | ASP | B1159 | 80.367 | 9.678 | 79.310 | 1.00207.38 | O |
| ATOM | 17478 | N | LYS | B1160 | 82.977 | 10.205 | 75.049 | 1.00172.71 | N |
| ATOM | 17479 | CA | LYS | B1160 | 83.089 | 9.732 | 73.681 | 1.00172.71 | C |
| ATOM | 17480 | C | LYS | B1160 | 81.738 | 9.863 | 72.951 | 1.00172.71 | C |
| ATOM | 17481 | O | LYS | B1160 | 81.003 | 10.838 | 73.143 | 1.00172.71 | O |
| ATOM | 17482 | CB | LYS | B1160 | 83.561 | 8.275 | 73.707 | 1.00127.21 | C |
| ATOM | 17483 | CG | LYS | B1160 | 84.819 | 8.067 | 74.555 | 1.00127.21 | C |
| ATOM | 17484 | CD | LYS | B1160 | 84.863 | 6.689 | 75.219 | 1.00127.21 | C |
| ATOM | 17485 | CE | LYS | B1160 | 85.203 | 5.567 | 74.243 | 1.00127.21 | C |
| ATOM | 17486 | NZ | LYS | B1160 | 86.618 | 5.627 | 73.780 | 1.00127.21 | N |
| ATOM | 17487 | N | TYR | B1161 | 81.424 | 8.878 | 72.116 | 1.00207.38 | N |
| ATOM | 17488 | CA | TYR | B1161 | 80.180 | 8.852 | 71.347 | 1.00207.38 | C |
| ATOM | 17489 | C | TYR | B1161 | 78.948 | 9.314 | 72.132 | 1.00207.38 | C |
| ATOM | 17490 | O | TYR | B1161 | 78.034 | 9.925 | 71.560 | 1.00207.38 | O |
| ATOM | 17491 | CB | TYR | B1161 | 79.897 | 7.432 | 70.848 | 1.00155.67 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17492 | CG | TYR | B1161 | 80.749 | 6.960 | 69.696 | 1.00155.67 | C |
| ATOM | 17493 | CD1 | TYR | B1161 | 81.304 | 5.681 | 69.700 | 1.00155.67 | C |
| ATOM | 17494 | CD2 | TYR | B1161 | 80.976 | 7.773 | 68.586 | 1.00155.67 | C |
| ATOM | 17495 | CE1 | TYR | B1161 | 82.070 | 5.221 | 68.625 | 1.00155.67 | C |
| ATOM | 17496 | CE2 | TYR | B1161 | 81.736 | 7.321 | 67.502 | 1.00155.67 | C |
| ATOM | 17497 | CZ | TYR | B1161 | 82.279 | 6.046 | 67.530 | 1.00155.67 | C |
| ATOM | 17498 | OH | TYR | B1161 | 83.022 | 5.589 | 66.463 | 1.00155.67 | O |
| ATOM | 17499 | N | ASN | B1162 | 78.932 | 9.000 | 73.430 | 1.00130.01 | N |
| ATOM | 17500 | CA | ASN | B1162 | 77.815 | 9.312 | 74.323 | 1.00130.01 | C |
| ATOM | 17501 | C | ASN | B1162 | 77.580 | 10.801 | 74.444 | 1.00130.01 | C |
| ATOM | 17502 | O | ASN | B1162 | 76.475 | 11.242 | 74.747 | 1.00130.01 | O |
| ATOM | 17503 | CB | ASN | B1162 | 78.072 | 8.735 | 75.720 | 1.00204.76 | C |
| ATOM | 17504 | CG | ASN | B1162 | 78.269 | 7.230 | 75.709 | 1.00204.76 | C |
| ATOM | 17505 | OD1 | ASN | B1162 | 77.394 | 6.479 | 75.278 | 1.00204.76 | O |
| ATOM | 17506 | ND2 | ASN | B1162 | 79.423 | 6.781 | 76.192 | 1.00204.76 | N |
| ATOM | 17507 | N | THR | B1163 | 78.631 | 11.571 | 74.202 | 1.00114.19 | N |
| ATOM | 17508 | CA | THR | B1163 | 78.542 | 13.011 | 74.312 | 1.00114.19 | C |
| ATOM | 17509 | C | THR | B1163 | 77.443 | 13.568 | 73.452 | 1.00114.19 | C |
| ATOM | 17510 | O | THR | B1163 | 77.522 | 13.528 | 72.226 | 1.00114.19 | O |
| ATOM | 17511 | CB | THR | B1163 | 79.859 | 13.693 | 73.895 | 1.00191.59 | C |
| ATOM | 17512 | OG1 | THR | B1163 | 80.967 | 13.030 | 74.516 | 1.00191.59 | O |
| ATOM | 17513 | CG2 | THR | B1163 | 79.850 | 15.154 | 74.322 | 1.00191.59 | C |
| ATOM | 17514 | N | ARG | B1164 | 76.408 | 14.083 | 74.096 | 1.00120.10 | N |
| ATOM | 17515 | CA | ARG | B1164 | 75.302 | 14.678 | 73.369 | 1.00120.10 | C |
| ATOM | 17516 | C | ARG | B1164 | 75.901 | 15.849 | 72.601 | 1.00120.10 | C |
| ATOM | 17517 | O | ARG | B1164 | 76.941 | 16.379 | 73.007 | 1.00120.10 | O |
| ATOM | 17518 | CB | ARG | B1164 | 74.242 | 15.154 | 74.371 | 1.00183.98 | C |
| ATOM | 17519 | CG | ARG | B1164 | 73.065 | 15.943 | 73.808 | 1.00183.98 | C |
| ATOM | 17520 | CD | ARG | B1164 | 71.932 | 15.955 | 74.833 | 1.00183.98 | C |
| ATOM | 17521 | NE | ARG | B1164 | 70.933 | 16.993 | 74.596 | 1.00183.98 | N |
| ATOM | 17522 | CZ | ARG | B1164 | 69.798 | 17.097 | 75.282 | 1.00183.98 | C |
| ATOM | 17523 | NH1 | ARG | B1164 | 69.518 | 16.221 | 76.239 | 1.00183.98 | N |
| ATOM | 17524 | NH2 | ARG | B1164 | 68.946 | 18.080 | 75.021 | 1.00183.98 | N |
| ATOM | 17525 | N | VAL | B1165 | 75.278 | 16.235 | 71.487 | 1.00143.56 | N |
| ATOM | 17526 | CA | VAL | B1165 | 75.792 | 17.369 | 70.722 | 1.00143.56 | C |
| ATOM | 17527 | C | VAL | B1165 | 75.973 | 18.500 | 71.712 | 1.00143.56 | C |
| ATOM | 17528 | O | VAL | B1165 | 76.624 | 19.501 | 71.411 | 1.00143.56 | O |
| ATOM | 17529 | CB | VAL | B1165 | 74.801 | 17.830 | 69.623 | 1.00144.09 | C |
| ATOM | 17530 | CG1 | VAL | B1165 | 74.162 | 16.621 | 68.946 | 1.00144.09 | C |
| ATOM | 17531 | CG2 | VAL | B1165 | 73.745 | 18.736 | 70.217 | 1.00144.09 | C |
| ATOM | 17532 | N | GLY | B1166 | 75.358 | 18.323 | 72.885 | 1.00207.38 | N |
| ATOM | 17533 | CA | GLY | B1166 | 75.431 | 19.282 | 73.979 | 1.00207.38 | C |
| ATOM | 17534 | C | GLY | B1166 | 74.986 | 20.711 | 73.710 | 1.00207.38 | C |
| ATOM | 17535 | O | GLY | B1166 | 75.760 | 21.513 | 73.171 | 1.00207.38 | O |
| ATOM | 17536 | N | ASP | B1167 | 73.753 | 21.035 | 74.108 | 1.00207.38 | N |
| ATOM | 17537 | CA | ASP | B1167 | 73.175 | 22.373 | 73.917 | 1.00207.38 | C |
| ATOM | 17538 | C | ASP | B1167 | 72.786 | 22.627 | 72.440 | 1.00207.38 | C |
| ATOM | 17539 | O | ASP | B1167 | 72.841 | 23.770 | 71.960 | 1.00207.38 | O |
| ATOM | 17540 | CB | ASP | B1167 | 74.166 | 23.444 | 74.391 | 1.00207.38 | C |
| ATOM | 17541 | CG | ASP | B1167 | 73.580 | 24.847 | 74.353 | 1.00207.38 | C |
| ATOM | 17542 | OD1 | ASP | B1167 | 72.507 | 25.074 | 74.952 | 1.00207.38 | O |
| ATOM | 17543 | OD2 | ASP | B1167 | 74.202 | 25.728 | 73.727 | 1.00207.38 | O |
| ATOM | 17544 | N | LYS | B1168 | 72.379 | 21.553 | 71.743 | 1.00207.38 | N |
| ATOM | 17545 | CA | LYS | B1168 | 71.958 | 21.586 | 70.329 | 1.00207.38 | C |
| ATOM | 17546 | C | LYS | B1168 | 73.127 | 21.703 | 69.328 | 1.00207.38 | C |
| ATOM | 17547 | O | LYS | B1168 | 72.899 | 21.755 | 68.114 | 1.00207.38 | O |
| ATOM | 17548 | CB | LYS | B1168 | 70.954 | 22.737 | 70.131 | 1.00138.84 | C |
| ATOM | 17549 | CG | LYS | B1168 | 69.671 | 22.590 | 70.964 | 1.00138.84 | C |
| ATOM | 17550 | CD | LYS | B1168 | 69.837 | 23.147 | 72.375 | 1.00138.84 | C |
| ATOM | 17551 | CE | LYS | B1168 | 68.908 | 22.473 | 73.377 | 1.00138.84 | C |
| ATOM | 17552 | NZ | LYS | B1168 | 69.399 | 21.122 | 73.775 | 1.00138.84 | N |
| ATOM | 17553 | N | GLY | B1169 | 74.364 | 21.732 | 69.846 | 1.00207.38 | N |
| ATOM | 17554 | CA | GLY | B1169 | 75.559 | 21.851 | 69.011 | 1.00207.38 | C |
| ATOM | 17555 | C | GLY | B1169 | 76.773 | 22.616 | 69.563 | 1.00207.38 | C |
| ATOM | 17556 | O | GLY | B1169 | 77.798 | 22.006 | 69.877 | 1.00207.38 | O |
| ATOM | 17557 | N | THR | B1170 | 76.662 | 23.944 | 69.677 | 1.00207.38 | N |
| ATOM | 17558 | CA | THR | B1170 | 77.756 | 24.800 | 70.158 | 1.00207.38 | C |
| ATOM | 17559 | C | THR | B1170 | 78.660 | 24.165 | 71.182 | 1.00207.38 | C |
| ATOM | 17560 | O | THR | B1170 | 78.393 | 24.199 | 72.380 | 1.00207.38 | O |
| ATOM | 17561 | CB | THR | B1170 | 77.240 | 26.132 | 70.752 | 1.00207.38 | C |
| ATOM | 17562 | OG1 | THR | B1170 | 76.701 | 26.951 | 69.706 | 1.00207.38 | O |
| ATOM | 17563 | CG2 | THR | B1170 | 78.380 | 26.879 | 71.446 | 1.00207.38 | C |
| ATOM | 17564 | N | GLN | B1171 | 79.743 | 23.596 | 70.685 | 1.00174.13 | N |
| ATOM | 17565 | CA | GLN | B1171 | 80.739 | 22.958 | 71.514 | 1.00174.13 | C |

| | | | | | | | | | |
|------|-------|-----|-------|-------|--------|--------|--------|------------|---|
| ATOM | 17566 | C | GLN | B1171 | 81.684 | 22.184 | 70.620 | 1.00174.13 | C |
| ATOM | 17567 | O | GLN | B1171 | 82.483 | 21.376 | 71.098 | 1.00174.13 | O |
| ATOM | 17568 | CB | GLN | B1171 | 80.092 | 22.035 | 72.547 | 1.00194.67 | C |
| ATOM | 17569 | CG | GLN | B1171 | 79.290 | 20.893 | 71.982 | 1.00194.67 | C |
| ATOM | 17570 | CD | GLN | B1171 | 78.680 | 20.045 | 73.075 | 1.00194.67 | C |
| ATOM | 17571 | OE1 | GLN | B1171 | 77.935 | 20.545 | 73.919 | 1.00194.67 | O |
| ATOM | 17572 | NE2 | GLN | B1171 | 78.992 | 18.756 | 73.068 | 1.00194.67 | N |
| ATOM | 17573 | N | LEU | B1172 | 81.580 | 22.445 | 69.316 | 1.00207.38 | N |
| ATOM | 17574 | CA | LEU | B1172 | 82.430 | 21.814 | 68.305 | 1.00207.38 | C |
| ATOM | 17575 | C | LEU | B1172 | 82.494 | 22.574 | 66.979 | 1.00207.38 | C |
| ATOM | 17576 | O | LEU | B1172 | 81.466 | 22.959 | 66.412 | 1.00207.38 | O |
| ATOM | 17577 | CB | LEU | B1172 | 81.992 | 20.370 | 68.059 | 1.00126.19 | C |
| ATOM | 17578 | CG | LEU | B1172 | 82.524 | 19.382 | 69.099 | 1.00126.19 | C |
| ATOM | 17579 | CD1 | LEU | B1172 | 82.187 | 17.963 | 68.684 | 1.00126.19 | C |
| ATOM | 17580 | CD2 | LEU | B1172 | 84.034 | 19.546 | 69.223 | 1.00126.19 | C |
| ATOM | 17581 | N | SER | B1173 | 83.719 | 22.783 | 66.497 | 1.00123.37 | N |
| ATOM | 17582 | CA | SER | B1173 | 83.954 | 23.484 | 65.247 | 1.00123.37 | C |
| ATOM | 17583 | C | SER | B1173 | 83.211 | 22.757 | 64.122 | 1.00123.37 | C |
| ATOM | 17584 | O | SER | B1173 | 82.967 | 21.542 | 64.191 | 1.00123.37 | O |
| ATOM | 17585 | CB | SER | B1173 | 85.455 | 23.503 | 64.954 | 1.00196.11 | C |
| ATOM | 17586 | OG | SER | B1173 | 85.723 | 24.028 | 63.667 | 1.00196.11 | O |
| ATOM | 17587 | N | GLY | B1174 | 82.836 | 23.520 | 63.096 | 1.00207.38 | N |
| ATOM | 17588 | CA | GLY | B1174 | 82.125 | 22.965 | 61.952 | 1.00207.38 | C |
| ATOM | 17589 | C | GLY | B1174 | 82.920 | 21.884 | 61.243 | 1.00207.38 | C |
| ATOM | 17590 | O | GLY | B1174 | 82.358 | 21.007 | 60.581 | 1.00207.38 | O |
| ATOM | 17591 | N | GLY | B1175 | 84.240 | 21.960 | 61.368 | 1.00120.50 | N |
| ATOM | 17592 | CA | GLY | B1175 | 85.080 | 20.958 | 60.760 | 1.00120.50 | C |
| ATOM | 17593 | C | GLY | B1175 | 84.648 | 19.626 | 61.330 | 1.00120.50 | C |
| ATOM | 17594 | O | GLY | B1175 | 84.273 | 18.726 | 60.587 | 1.00120.50 | O |
| ATOM | 17595 | N | GLN | B1176 | 84.686 | 19.499 | 62.652 | 1.00160.72 | N |
| ATOM | 17596 | CA | GLN | B1176 | 84.281 | 18.257 | 63.291 | 1.00160.72 | C |
| ATOM | 17597 | C | GLN | B1176 | 82.857 | 17.939 | 62.870 | 1.00160.72 | C |
| ATOM | 17598 | O | GLN | B1176 | 82.538 | 16.793 | 62.562 | 1.00160.72 | O |
| ATOM | 17599 | CB | GLN | B1176 | 84.327 | 18.374 | 64.818 | 1.00158.46 | C |
| ATOM | 17600 | CG | GLN | B1176 | 85.652 | 18.831 | 65.407 | 1.00158.46 | C |
| ATOM | 17601 | CD | GLN | B1176 | 85.776 | 20.339 | 65.463 | 1.00158.46 | C |
| ATOM | 17602 | OE1 | GLN | B1176 | 85.977 | 20.999 | 64.445 | 1.00158.46 | O |
| ATOM | 17603 | NE2 | GLN | B1176 | 85.639 | 20.896 | 66.662 | 1.00158.46 | N |
| ATOM | 17604 | N | LYS | B1177 | 82.000 | 18.959 | 62.872 | 1.00171.11 | N |
| ATOM | 17605 | CA | LYS | B1177 | 80.602 | 18.774 | 62.478 | 1.00171.11 | C |
| ATOM | 17606 | C | LYS | B1177 | 80.496 | 18.089 | 61.114 | 1.00171.11 | C |
| ATOM | 17607 | O | LYS | B1177 | 79.811 | 17.073 | 60.968 | 1.00171.11 | O |
| ATOM | 17608 | CB | LYS | B1177 | 79.875 | 20.114 | 62.433 | 1.00137.50 | C |
| ATOM | 17609 | CG | LYS</ | | | | | | |

| | | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------|--------|---|
| ATOM | 17640 | CD1 | ILE | B1180 | 79.536 | 16.386 | 64.571 | 1.00 | 78.75 | C |
| ATOM | 17641 | N | ALA | B1181 | 78.519 | 14.923 | 59.818 | 1.00 | 127.23 | N |
| ATOM | 17642 | CA | ALA | B1181 | 77.590 | 14.945 | 58.695 | 1.00 | 127.23 | C |
| ATOM | 17643 | C | ALA | B1181 | 77.967 | 13.812 | 57.753 | 1.00 | 127.23 | C |
| ATOM | 17644 | O | ALA | B1181 | 77.159 | 12.946 | 57.421 | 1.00 | 127.23 | O |
| ATOM | 17645 | CB | ALA | B1181 | 77.669 | 16.280 | 57.968 | 1.00 | 140.23 | C |
| ATOM | 17646 | N | ILE | B1182 | 79.223 | 13.833 | 57.335 | 1.00 | 136.62 | N |
| ATOM | 17647 | CA | ILE | B1182 | 79.765 | 12.819 | 56.451 | 1.00 | 136.62 | C |
| ATOM | 17648 | C | ILE | B1182 | 79.505 | 11.443 | 57.009 | 1.00 | 136.62 | C |
| ATOM | 17649 | O | ILE | B1182 | 79.107 | 10.541 | 56.274 | 1.00 | 136.62 | O |
| ATOM | 17650 | CB | ILE | B1182 | 81.281 | 13.039 | 56.257 | 1.00 | 123.23 | C |
| ATOM | 17651 | CG1 | ILE | B1182 | 81.504 | 14.035 | 55.117 | 1.00 | 123.23 | C |
| ATOM | 17652 | CG2 | ILE | B1182 | 81.983 | 11.718 | 56.016 | 1.00 | 123.23 | C |
| ATOM | 17653 | CD1 | ILE | B1182 | 80.663 | 15.291 | 55.236 | 1.00 | 123.23 | C |
| ATOM | 17654 | N | ALA | B1183 | 79.751 | 11.284 | 58.307 | 1.00 | 111.08 | N |
| ATOM | 17655 | CA | ALA | B1183 | 79.506 | 10.010 | 58.955 | 1.00 | 111.08 | C |
| ATOM | 17656 | C | ALA | B1183 | 78.090 | 9.739 | 58.534 | 1.00 | 111.08 | C |
| ATOM | 17657 | O | ALA | B1183 | 77.858 | 9.004 | 57.582 | 1.00 | 111.08 | O |
| ATOM | 17658 | CB | ALA | B1183 | 79.602 | 10.158 | 60.472 | 1.00 | 160.05 | C |
| ATOM | 17659 | N | ARG | B1184 | 77.154 | 10.358 | 59.241 | 1.00 | 126.80 | N |
| ATOM | 17660 | CA | ARG | B1184 | 75.743 | 10.242 | 58.925 | 1.00 | 126.80 | C |
| ATOM | 17661 | C | ARG | B1184 | 75.614 | 9.623 | 57.539 | 1.00 | 126.80 | C |
| ATOM | 17662 | O | ARG | B1184 | 75.085 | 8.521 | 57.389 | 1.00 | 126.80 | O |
| ATOM | 17663 | CB | ARG | B1184 | 75.132 | 11.657 | 58.954 | 1.00 | 127.45 | C |
| ATOM | 17664 | CG | ARG | B1184 | 73.843 | 11.880 | 58.154 | 1.00 | 127.45 | C |
| ATOM | 17665 | CD | ARG | B1184 | 73.618 | 13.366 | 57.826 | 1.00 | 127.45 | C |
| ATOM | 17666 | NE | ARG | B1184 | 73.279 | 14.176 | 58.994 | 1.00 | 127.45 | N |
| ATOM | 17667 | CZ | ARG | B1184 | 73.099 | 15.494 | 58.963 | 1.00 | 127.45 | C |
| ATOM | 17668 | NH1 | ARG | B1184 | 73.224 | 16.158 | 57.821 | 1.00 | 127.45 | N |
| ATOM | 17669 | NH2 | ARG | B1184 | 72.799 | 16.149 | 60.076 | 1.00 | 127.45 | N |
| ATOM | 17670 | N | ALA | B1185 | 76.155 | 10.322 | 56.540 | 1.00 | 97.36 | N |
| ATOM | 17671 | CA | ALA | B1185 | 76.093 | 9.890 | 55.147 | 1.00 | 97.36 | C |
| ATOM | 17672 | C | ALA | B1185 | 76.694 | 8.512 | 54.886 | 1.00 | 97.36 | C |
| ATOM | 17673 | O | ALA | B1185 | 75.979 | 7.528 | 54.671 | 1.00 | 97.36 | O |
| ATOM | 17674 | CB | ALA | B1185 | 76.775 | 10.922 | 54.252 | 1.00 | 153.99 | C |
| ATOM | 17675 | N | LEU | B1186 | 78.013 | 8.428 | 54.901 | 1.00 | 153.37 | N |
| ATOM | 17676 | CA | LEU | B1186 | 78.625 | 7.144 | 54.647 | 1.00 | 153.37 | C |
| ATOM | 17677 | C | LEU | B1186 | 78.108 | 6.087 | 55.623 | 1.00 | 153.37 | C |
| ATOM | 17678 | O | LEU | B1186 | 78.476 | 4.922 | 55.526 | 1.00 | 153.37 | O |
| ATOM | 17679 | CB | LEU | B1186 | 80.160 | 7.246 | 54.677 | 1.00 | 191.38 | C |
| ATOM | 17680 | CG | LEU | B1186 | 80.947 | 7.744 | 55.889 | 1.00 | 191.38 | C |
| ATOM | 17681 | CD1 | LEU | B1186 | 80.903 | 6.707 | 57.001 | 1.00 | 191.38 | C |
| ATOM | 17682 | CD2 | LEU | B1186 | 82.393 | 8.002 | 55.468 | 1.00 | 191.38 | C |
| ATOM | 17683 | N | VAL | B1187 | 77.254 | 6.489 | 56.563 | 1.00 | 102.42 | N |
| ATOM | 17684 | CA | VAL | B1187 | 76.668 | 5.532 | 57.504 | 1.00 | 102.42 | C |
| ATOM | 17685 | C | VAL | B1187 | 75.490 | 4.988 | 56.712 | 1.00 | 102.42 | C |
| ATOM | 17686 | O | VAL | B1187 | 75.142 | 3.810 | 56.798 | 1.00 | 102.42 | O |
| ATOM | 17687 | CB | VAL | B1187 | 76.113 | 6.202 | 58.780 | 1.00 | 98.54 | C |
| ATOM | 17688 | CG1 | VAL | B1187 | 75.511 | 5.134 | 59.696 | 1.00 | 98.54 | C |
| ATOM | 17689 | CG2 | VAL | B1187 | 77.209 | 6.986 | 59.491 | 1.00 | 98.54 | C |
| ATOM | 17690 | N | ARG | B1188 | 74.872 | 5.875 | 55.938 | 1.00 | 207.38 | N |
| ATOM | 17691 | CA | ARG | B1188 | 73.730 | 5.509 | 55.107 | 1.00 | 207.38 | C |
| ATOM | 17692 | C | ARG | B1188 | 74.236 | 4.584 | 53.969 | 1.00 | 207.38 | C |
| ATOM | 17693 | O | ARG | B1188 | 73.453 | 3.814 | 53.398 | 1.00 | 207.38 | O |
| ATOM | 17694 | CB | ARG | B1188 | 73.046 | 6.792 | 54.563 | 1.00 | 171.52 | C |
| ATOM | 17695 | CG | ARG | B1188 | 71.552 | 6.653 | 54.167 | 1.00 | 171.52 | C |
| ATOM | 17696 | CD | ARG | B1188 | 70.759 | 7.989 | 54.217 | 1.00 | 171.52 | C |
| ATOM | 17697 | NE | ARG | B1188 | 70.435 | 8.417 | 55.582 | 1.00 | 171.52 | N |
| ATOM | 17698 | CZ | ARG | B1188 | 69.730 | 9.502 | 55.904 | 1.00 | 171.52 | C |
| ATOM | 17699 | NH1 | ARG | B1188 | 69.250 | 10.308 | 54.963 | 1.00 | 171.52 | N |
| ATOM | 17700 | NH2 | ARG | B1188 | 69.502 | 9.778 | 57.182 | 1.00 | 171.52 | N |
| ATOM | 17701 | N | GLN | B1189 | 75.543 | 4.622 | 53.670 | 1.00 | 114.27 | N |
| ATOM | 17702 | CA | GLN | B1189 | 76.104 | 3.776 | 52.589 | 1.00 | 114.27 | C |
| ATOM | 17703 | C | GLN | B1189 | 75.378 | 4.061 | 51.272 | 1.00 | 114.27 | C |
| ATOM | 17704 | O | GLN | B1189 | 74.822 | 3.145 | 50.653 | 1.00 | 114.27 | O |
| ATOM | 17705 | CB | GLN | B1189 | 75.947 | 2.291 | 52.938 | 1.00 | 206.35 | C |
| ATOM | 17706 | CG | GLN | B1189 | 76.822 | 1.800 | 54.076 | 1.00 | 206.35 | C |
| ATOM | 17707 | CD | GLN | B1189 | 78.298 | 1.837 | 53.736 | 1.00 | 206.35 | C |
| ATOM | 17708 | OE1 | GLN | B1189 | 78.680 | 2.108 | 52.597 | 1.00 | 206.35 | O |
| ATOM | 17709 | NE2 | GLN | B1189 | 79.137 | 1.556 | 54.725 | 1.00 | 206.35 | N |
| ATOM | 17710 | N | PRO | B1190 | 75.373 | 5.339 | 50.832 | 1.00 | 172.11 | N |
| ATOM | 17711 | CA | PRO | B1190 | 74.697 | 5.721 | 49.591 | 1.00 | 172.11 | C |
| ATOM | 17712 | C | PRO | B1190 | 75.293 | 5.074 | 48.373 | 1.00 | 172.11 | C |
| ATOM | 17713 | O | PRO | B1190 | 75.775 | 3.954 | 48.420 | 1.00 | 172.11 | O |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17714 | CB | PRO | B1190 | 74.864 | 7.238 | 49.561 | 1.00114.64 | C |
| ATOM | 17715 | CG | PRO | B1190 | 75.050 | 7.606 | 51.005 | 1.00114.64 | C |
| ATOM | 17716 | CD | PRO | B1190 | 75.940 | 6.517 | 51.506 | 1.00114.64 | C |
| ATOM | 17717 | N | HIS | B1191 | 75.254 | 5.811 | 47.279 | 1.00129.14 | N |
| ATOM | 17718 | CA | HIS | B1191 | 75.778 | 5.351 | 46.017 | 1.00129.14 | C |
| ATOM | 17719 | C | HIS | B1191 | 76.083 | 6.644 | 45.287 | 1.00129.14 | C |
| ATOM | 17720 | O | HIS | B1191 | 76.988 | 6.724 | 44.459 | 1.00129.14 | O |
| ATOM | 17721 | CB | HIS | B1191 | 74.721 | 4.565 | 45.235 | 1.00163.84 | C |
| ATOM | 17722 | CG | HIS | B1191 | 74.718 | 3.092 | 45.512 | 1.00163.84 | C |
| ATOM | 17723 | ND1 | HIS | B1191 | 74.422 | 2.564 | 46.750 | 1.00163.84 | N |
| ATOM | 17724 | CD2 | HIS | B1191 | 74.947 | 2.034 | 44.697 | 1.00163.84 | C |
| ATOM | 17725 | CE1 | HIS | B1191 | 74.467 | 1.245 | 46.687 | 1.00163.84 | C |
| ATOM | 17726 | NE2 | HIS | B1191 | 74.783 | 0.898 | 45.452 | 1.00163.84 | N |
| ATOM | 17727 | N | ILE | B1192 | 75.306 | 7.663 | 45.613 | 1.00181.73 | N |
| ATOM | 17728 | CA | ILE | B1192 | 75.445 | 8.964 | 44.995 | 1.00181.73 | C |
| ATOM | 17729 | C | ILE | B1192 | 75.736 | 9.926 | 46.165 | 1.00181.73 | C |
| ATOM | 17730 | O | ILE | B1192 | 75.451 | 9.586 | 47.308 | 1.00181.73 | O |
| ATOM | 17731 | CB | ILE | B1192 | 74.121 | 9.312 | 44.244 | 1.00143.24 | C |
| ATOM | 17732 | CG1 | ILE | B1192 | 74.396 | 10.252 | 43.068 | 1.00143.24 | C |
| ATOM | 17733 | CG2 | ILE | B1192 | 73.098 | 9.878 | 45.215 | 1.00143.24 | C |
| ATOM | 17734 | CD1 | ILE | B1192 | 74.780 | 11.646 | 43.456 | 1.00143.24 | C |
| ATOM | 17735 | N | LEU | B1193 | 76.355 | 11.081 | 45.900 | 1.00120.07 | N |
| ATOM | 17736 | CA | LEU | B1193 | 76.647 | 12.090 | 46.941 | 1.00120.07 | C |
| ATOM | 17737 | C | LEU | B1193 | 76.455 | 13.528 | 46.472 | 1.00120.07 | C |
| ATOM | 17738 | O | LEU | B1193 | 76.870 | 13.917 | 45.379 | 1.00120.07 | O |
| ATOM | 17739 | CB | LEU | B1193 | 78.105 | 11.991 | 47.400 | 1.00 78.81 | C |
| ATOM | 17740 | CG | LEU | B1193 | 78.687 | 10.793 | 48.148 | 1.00 78.81 | C |
| ATOM | 17741 | CD1 | LEU | B1193 | 79.946 | 11.259 | 48.875 | 1.00 78.81 | C |
| ATOM | 17742 | CD2 | LEU | B1193 | 77.686 | 10.244 | 49.156 | 1.00 78.81 | C |
| ATOM | 17743 | N | LEU | B1194 | 75.853 | 14.331 | 47.329 | 1.00152.34 | N |
| ATOM | 17744 | CA | LEU | B1194 | 75.629 | 15.721 | 47.015 | 1.00152.34 | C |
| ATOM | 17745 | C | LEU | B1194 | 76.520 | 16.489 | 47.963 | 1.00152.34 | C |
| ATOM | 17746 | O | LEU | B1194 | 76.162 | 16.741 | 49.115 | 1.00152.34 | O |
| ATOM | 17747 | CB | LEU | B1194 | 74.157 | 16.057 | 47.234 | 1.00131.14 | C |
| ATOM | 17748 | CG | LEU | B1194 | 73.269 | 15.143 | 46.382 | 1.00131.14 | C |
| ATOM | 17749 | CD1 | LEU | B1194 | 71.813 | 15.294 | 46.771 | 1.00131.14 | C |
| ATOM | 17750 | CD2 | LEU | B1194 | 73.481 | 15.470 | 44.909 | 1.00131.14 | C |
| ATOM | 17751 | N | LEU | B1195 | 77.712 | 16.818 | 47.487 | 1.00114.84 | N |
| ATOM | 17752 | CA | LEU | B1195 | 78.656 | 17.573 | 48.302 | 1.00114.84 | C |
| ATOM | 17753 | C | LEU | B1195 | 78.480 | 19.055 | 47.937 | 1.00114.84 | C |
| ATOM | 17754 | O | LEU | B1195 | 79.216 | 19.602 | 47.101 | 1.00114.84 | O |
| ATOM | 17755 | CB | LEU | B1195 | 80.086 | 17.105 | 48.015 | 1.00151.72 | C |
| ATOM | 17756 | CG | LEU | B1195 | 80.446 | 15.654 | 48.376 | 1.00151.72 | C |
| ATOM | 17757 | CD1 | LEU | B1195 | 79.209 | | | | |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17788 | N | SER | B1200 | 83.159 | 25.283 | 52.877 | 1.00176.62 | N |
| ATOM | 17789 | CA | SER | B1200 | 83.211 | 26.568 | 52.169 | 1.00176.62 | C |
| ATOM | 17790 | C | SER | B1200 | 83.253 | 27.619 | 53.272 | 1.00176.62 | C |
| ATOM | 17791 | O | SER | B1200 | 82.844 | 28.770 | 53.101 | 1.00176.62 | O |
| ATOM | 17792 | CB | SER | B1200 | 81.965 | 26.741 | 51.302 | 1.00207.38 | C |
| ATOM | 17793 | OG | SER | B1200 | 82.183 | 27.711 | 50.294 | 1.00207.38 | O |
| ATOM | 17794 | N | ALA | B1201 | 83.747 | 27.161 | 54.415 | 1.00160.24 | N |
| ATOM | 17795 | CA | ALA | B1201 | 83.902 | 27.952 | 55.623 | 1.00160.24 | C |
| ATOM | 17796 | C | ALA | B1201 | 84.610 | 27.016 | 56.593 | 1.00160.24 | C |
| ATOM | 17797 | O | ALA | B1201 | 83.967 | 26.257 | 57.327 | 1.00160.24 | O |
| ATOM | 17798 | CB | ALA | B1201 | 82.539 | 28.353 | 56.169 | 1.00134.39 | C |
| ATOM | 17799 | N | LEU | B1202 | 85.939 | 27.049 | 56.564 | 1.00149.89 | N |
| ATOM | 17800 | CA | LEU | B1202 | 86.730 | 26.182 | 57.415 | 1.00149.89 | C |
| ATOM | 17801 | C | LEU | B1202 | 88.168 | 26.669 | 57.446 | 1.00149.89 | C |
| ATOM | 17802 | O | LEU | B1202 | 88.422 | 27.874 | 57.467 | 1.00149.89 | O |
| ATOM | 17803 | CB | LEU | B1202 | 86.665 | 24.749 | 56.883 | 1.00120.72 | C |
| ATOM | 17804 | CG | LEU | B1202 | 86.693 | 23.620 | 57.914 | 1.00120.72 | C |
| ATOM | 17805 | CD1 | LEU | B1202 | 85.569 | 23.819 | 58.923 | 1.00120.72 | C |
| ATOM | 17806 | CD2 | LEU | B1202 | 86.542 | 22.284 | 57.206 | 1.00120.72 | C |
| ATOM | 17807 | N | ASP | B1203 | 89.122 | 25.748 | 57.435 | 1.00207.38 | N |
| ATOM | 17808 | CA | ASP | B1203 | 90.514 | 26.175 | 57.490 | 1.00207.38 | C |
| ATOM | 17809 | C | ASP | B1203 | 91.437 | 25.009 | 57.768 | 1.00207.38 | C |
| ATOM | 17810 | O | ASP | B1203 | 90.990 | 23.871 | 57.960 | 1.00207.38 | O |
| ATOM | 17811 | CB | ASP | B1203 | 90.677 | 27.205 | 58.604 | 1.00207.38 | C |
| ATOM | 17812 | CG | ASP | B1203 | 90.394 | 26.617 | 59.978 | 1.00207.38 | C |
| ATOM | 17813 | OD1 | ASP | B1203 | 89.774 | 27.311 | 60.811 | 1.00207.38 | O |
| ATOM | 17814 | OD2 | ASP | B1203 | 90.799 | 25.460 | 60.224 | 1.00207.38 | O |
| ATOM | 17815 | N | THR | B1204 | 92.728 | 25.310 | 57.781 | 1.00207.38 | N |
| ATOM | 17816 | CA | THR | B1204 | 93.733 | 24.320 | 58.093 | 1.00207.38 | C |
| ATOM | 17817 | C | THR | B1204 | 93.426 | 22.906 | 57.593 | 1.00207.38 | C |
| ATOM | 17818 | O | THR | B1204 | 92.905 | 22.684 | 56.488 | 1.00207.38 | O |
| ATOM | 17819 | CB | THR | B1204 | 93.894 | 24.235 | 59.625 | 1.00207.38 | C |
| ATOM | 17820 | OG1 | THR | B1204 | 94.073 | 25.548 | 60.171 | 1.00207.38 | O |
| ATOM | 17821 | CG2 | THR | B1204 | 95.072 | 23.349 | 60.001 | 1.00207.38 | C |
| ATOM | 17822 | N | GLU | B1205 | 93.799 | 21.947 | 58.439 | 1.00191.85 | N |
| ATOM | 17823 | CA | GLU | B1205 | 93.565 | 20.536 | 58.168 | 1.00191.85 | C |
| ATOM | 17824 | C | GLU | B1205 | 92.104 | 20.270 | 57.906 | 1.00191.85 | C |
| ATOM | 17825 | O | GLU | B1205 | 91.736 | 19.578 | 56.968 | 1.00191.85 | O |
| ATOM | 17826 | CB | GLU | B1205 | 93.960 | 19.694 | 59.375 | 1.00198.78 | C |
| ATOM | 17827 | CG | GLU | B1205 | 95.340 | 19.119 | 59.349 | 1.00198.78 | C |
| ATOM | 17828 | CD | GLU | B1205 | 95.526 | 18.126 | 60.471 | 1.00198.78 | C |
| ATOM | 17829 | OE1 | GLU | B1205 | 94.775 | 17.128 | 60.504 | 1.00198.78 | O |
| ATOM | 17830 | OE2 | GLU | B1205 | 96.409 | 18.345 | 61.325 | 1.00198.78 | O |
| ATOM | 17831 | N | SER | B1206 | 91.271 | 20.795 | 58.786 | 1.00196.14 | N |
| ATOM | 17832 | CA | SER | B1206 | 89.847 | 20.595 | 58.656 | 1.00196.14 | C |
| ATOM | 17833 | C | SER | B1206 | 89.553 | 20.484 | 57.171 | 1.00196.14 | C |
| ATOM | 17834 | O | SER | B1206 | 89.044 | 19.460 | 56.700 | 1.00196.14 | O |
| ATOM | 17835 | CB | SER | B1206 | 89.102 | 21.794 | 59.241 | 1.00164.78 | C |
| ATOM | 17836 | OG | SER | B1206 | 89.624 | 22.150 | 60.512 | 1.00164.78 | O |
| ATOM | 17837 | N | GLU | B1207 | 89.893 | 21.534 | 56.428 | 1.00181.90 | N |
| ATOM | 17838 | CA | GLU | B1207 | 89.688 | 21.511 | 54.997 | 1.00181.90 | C |
| ATOM | 17839 | C | GLU | B1207 | 90.520 | 20.365 | 54.565 | 1.00181.90 | C |
| ATOM | 17840 | O | GLU | B1207 | 90.032 | 19.427 | 54.036 | 1.00181.90 | O |
| ATOM | 17841 | CB | GLU | B1207 | 90.289 | 22.738 | 54.312 | 1.00173.73 | C |
| ATOM | 17842 | CG | GLU | B1207 | 89.925 | 24.073 | 54.847 | 1.00173.73 | C |
| ATOM | 17843 | CD | GLU | B1207 | 90.986 | 25.070 | 54.440 | 1.00173.73 | C |
| ATOM | 17844 | OE1 | GLU | B1207 | 92.115 | 24.949 | 54.962 | 1.00173.73 | O |
| ATOM | 17845 | OE2 | GLU | B1207 | 90.721 | 25.944 | 53.584 | 1.00173.73 | O |
| ATOM | 17846 | N | LYS | B1208 | 91.811 | 20.374 | 54.783 | 1.00149.80 | N |
| ATOM | 17847 | CA | LYS | B1208 | 92.438 | 19.214 | 54.163 | 1.00149.80 | C |
| ATOM | 17848 | C | LYS | B1208 | 91.817 | 17.808 | 54.430 | 1.00149.80 | C |
| ATOM | 17849 | O | LYS | B1208 | 91.184 | 17.182 | 53.531 | 1.00149.80 | O |
| ATOM | 17850 | CB | LYS | B1208 | 93.947 | 19.226 | 54.479 | 1.00132.90 | C |
| ATOM | 17851 | CG | LYS | B1208 | 94.652 | 17.978 | 54.014 | 1.00132.90 | C |
| ATOM | 17852 | CD | LYS | B1208 | 94.952 | 17.161 | 55.248 | 1.00132.90 | C |
| ATOM | 17853 | CE | LYS | B1208 | 95.284 | 15.720 | 54.935 | 1.00132.90 | C |
| ATOM | 17854 | NZ | LYS | B1208 | 94.056 | 14.956 | 54.600 | 1.00132.90 | N |
| ATOM | 17855 | N | VAL | B1209 | 92.018 | 17.334 | 55.648 | 1.00139.97 | N |
| ATOM | 17856 | CA | VAL | B1209 | 91.533 | 16.053 | 56.129 | 1.00139.97 | C |
| ATOM | 17857 | C | VAL | B1209 | 90.162 | 15.659 | 55.583 | 1.00139.97 | C |
| ATOM | 17858 | O | VAL | B1209 | 89.940 | 14.508 | 55.226 | 1.00139.97 | O |
| ATOM | 17859 | CB | VAL | B1209 | 91.470 | 16.061 | 57.673 | 1.00174.63 | C |
| ATOM | 17860 | CG1 | VAL | B1209 | 90.481 | 17.118 | 58.144 | 1.00174.63 | C |
| ATOM | 17861 | CG2 | VAL | B1209 | 91.086 | 14.684 | 58.196 | 1.00174.63 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17862 | N | VAL | B1210 | 89.245 | 16.620 | 55.533 | 1.00172.73 | N |
| ATOM | 17863 | CA | VAL | B1210 | 87.888 | 16.373 | 55.045 | 1.00172.73 | C |
| ATOM | 17864 | C | VAL | B1210 | 87.886 | 16.033 | 53.552 | 1.00172.73 | C |
| ATOM | 17865 | O | VAL | B1210 | 87.055 | 15.238 | 53.076 | 1.00172.73 | O |
| ATOM | 17866 | CB | VAL | B1210 | 86.985 | 17.605 | 55.284 | 1.00207.38 | C |
| ATOM | 17867 | CG1 | VAL | B1210 | 85.613 | 17.383 | 54.660 | 1.00207.38 | C |
| ATOM | 17868 | CG2 | VAL | B1210 | 86.846 | 17.857 | 56.774 | 1.00207.38 | C |
| ATOM | 17869 | N | GLN | B1211 | 88.797 | 16.670 | 52.817 | 1.00179.79 | N |
| ATOM | 17870 | CA | GLN | B1211 | 88.913 | 16.389 | 51.388 | 1.00179.79 | C |
| ATOM | 17871 | C | GLN | B1211 | 89.395 | 14.962 | 51.288 | 1.00179.79 | C |
| ATOM | 17872 | O | GLN | B1211 | 89.171 | 14.283 | 50.290 | 1.00179.79 | O |
| ATOM | 17873 | CB | GLN | B1211 | 89.964 | 17.301 | 50.761 | 1.00117.57 | C |
| ATOM | 17874 | CG | GLN | B1211 | 89.498 | 18.710 | 50.483 | 1.00117.57 | C |
| ATOM | 17875 | CD | GLN | B1211 | 88.342 | 18.739 | 49.505 | 1.00117.57 | C |
| ATOM | 17876 | OE1 | GLN | B1211 | 87.197 | 18.471 | 49.869 | 1.00117.57 | O |
| ATOM | 17877 | NE2 | GLN | B1211 | 88.639 | 19.047 | 48.247 | 1.00117.57 | N |
| ATOM | 17878 | N | GLU | B1212 | 90.086 | 14.533 | 52.339 | 1.00160.13 | N |
| ATOM | 17879 | CA | GLU | B1212 | 90.624 | 13.183 | 52.415 | 1.00160.13 | C |
| ATOM | 17880 | C | GLU | B1212 | 89.440 | 12.253 | 52.701 | 1.00160.13 | C |
| ATOM | 17881 | O | GLU | B1212 | 89.347 | 11.134 | 52.174 | 1.00160.13 | O |
| ATOM | 17882 | CB | GLU | B1212 | 91.672 | 13.129 | 53.532 | 1.00205.89 | C |
| ATOM | 17883 | CG | GLU | B1212 | 92.421 | 11.825 | 53.647 | 1.00205.89 | C |
| ATOM | 17884 | CD | GLU | B1212 | 91.854 | 10.935 | 54.726 | 1.00205.89 | C |
| ATOM | 17885 | OE1 | GLU | B1212 | 92.019 | 11.265 | 55.920 | 1.00205.89 | O |
| ATOM | 17886 | OE2 | GLU | B1212 | 91.234 | 9.908 | 54.383 | 1.00205.89 | O |
| ATOM | 17887 | N | ALA | B1213 | 88.521 | 12.741 | 53.529 | 1.00160.58 | N |
| ATOM | 17888 | CA | ALA | B1213 | 87.325 | 11.984 | 53.865 | 1.00160.58 | C |
| ATOM | 17889 | C | ALA | B1213 | 86.559 | 11.895 | 52.565 | 1.00160.58 | C |
| ATOM | 17890 | O | ALA | B1213 | 86.547 | 10.848 | 51.921 | 1.00160.58 | O |
| ATOM | 17891 | CB | ALA | B1213 | 86.507 | 12.722 | 54.920 | 1.00175.45 | C |
| ATOM | 17892 | N | LEU | B1214 | 85.948 | 13.019 | 52.189 | 1.00156.61 | N |
| ATOM | 17893 | CA | LEU | B1214 | 85.185 | 13.153 | 50.953 | 1.00156.61 | C |
| ATOM | 17894 | C | LEU | B1214 | 85.906 | 12.373 | 49.838 | 1.00156.61 | C |
| ATOM | 17895 | O | LEU | B1214 | 85.291 | 11.825 | 48.916 | 1.00156.61 | O |
| ATOM | 17896 | CB | LEU | B1214 | 85.087 | 14.637 | 50.587 | 1.00188.39 | C |
| ATOM | 17897 | CG | LEU | B1214 | 84.310 | 15.105 | 49.359 | 1.00188.39 | C |
| ATOM | 17898 | CD1 | LEU | B1214 | 84.290 | 16.632 | 49.339 | 1.00188.39 | C |
| ATOM | 17899 | CD2 | LEU | B1214 | 84.954 | 14.555 | 48.100 | 1.00188.39 | C |
| ATOM | 17900 | N | ASP | B1215 | 87.226 | 12.323 | 49.947 | 1.00155.34 | N |
| ATOM | 17901 | CA | ASP | B1215 | 88.061 | 11.621 | 48.991 | 1.00155.34 | C |
| ATOM | 17902 | C | ASP | B1215 | 87.676 | 10.150 | 49.030 | 1.00155.34 | C |
| ATOM | 17903 | O | ASP | B1215 | 86.867 | 9.697 | 48.216 | 1.00155.34 | O |
| ATOM | 17904 | CB | ASP | B1215 | 89.532 | 11.812 | 49.378 | 1.00207.38 | C |
| ATOM | 17905 | CG | ASP | B1215 | 90.485 | 11.490 | 48.248 | 1.00207.38 | C |
| ATOM | 17906 | OD1 | ASP | B1215 | 90.290 | 12.028 | 47.139 | 1.00207.38 | O |
| ATOM | 17907 | OD2 | ASP | B1215 | 91.438 | 10.713 | 48.469 | 1.00207.38 | O |
| ATOM | 17908 | N | LYS | B1216 | 88.246 | 9.418 | 49.992 | 1.00185.06 | N |
| ATOM | 17909 | CA | LYS | B1216 | 87.981 | 7.987 | 50.150 | 1.00185.06 | C |
| ATOM | 17910 | C | LYS | B1216 | 86.494 | 7.762 | 50.294 | 1.00185.06 | C |
| ATOM | 17911 | O | LYS | B1216 | 86.009 | 6.635 | 50.210 | 1.00185.06 | O |
| ATOM | 17912 | CB | LYS | B1216 | 88.722 | 7.432 | 51.374 | 1.00206.49 | C |
| ATOM | 17913 | CG | LYS | B1216 | 90.229 | 7.241 | 51.180 | 1.00206.49 | C |
| ATOM | 17914 | CD | LYS | B1216 | 90.582 | 5.797 | 50.828 | 1.00206.49 | C |
| ATOM | 17915 | CE | LYS | B1216 | 91.244 | 5.680 | 49.462 | 1.00206.49 | C |
| ATOM | 17916 | NZ | LYS | B1216 | 90.295 | 5.955 | 48.349 | 1.00206.49 | N |
| ATOM | 17917 | N | ALA | B1217 | 85.775 | 8.851 | 50.520 | 1.00166.71 | N |
| ATOM | 17918 | CA | ALA | B1217 | 84.336 | 8.786 | 50.642 | 1.00166.71 | C |
| ATOM | 17919 | C | ALA | B1217 | 83.768 | 8.564 | 49.250 | 1.00166.71 | C |
| ATOM | 17920 | O | ALA | B1217 | 82.692 | 7.991 | 49.132 | 1.00166.71 | O |
| ATOM | 17921 | CB | ALA | B1217 | 83.804 | 10.088 | 51.232 | 1.00145.50 | C |
| ATOM | 17922 | N | ARG | B1218 | 84.473 | 9.016 | 48.205 | 1.00104.79 | N |
| ATOM | 17923 | CA | ARG | B1218 | 83.990 | 8.813 | 46.831 | 1.00104.79 | C |
| ATOM | 17924 | C | ARG | B1218 | 84.701 | 7.691 | 46.094 | 1.00104.79 | C |
| ATOM | 17925 | O | ARG | B1218 | 85.269 | 6.774 | 46.708 | 1.00104.79 | O |
| ATOM | 17926 | CB | ARG | B1218 | 84.067 | 10.111 | 46.010 | 1.00141.04 | C |
| ATOM | 17927 | CG | ARG | B1218 | 85.360 | 10.304 | 45.265 | 1.00141.04 | C |
| ATOM | 17928 | CD | ARG | B1218 | 86.137 | 11.480 | 45.816 | 1.00141.04 | C |
| ATOM | 17929 | NE | ARG | B1218 | 87.187 | 11.914 | 44.901 | 1.00141.04 | N |
| ATOM | 17930 | CZ | ARG | B1218 | 87.790 | 13.096 | 44.980 | 1.00141.04 | C |
| ATOM | 17931 | NH1 | ARG | B1218 | 87.446 | 13.951 | 45.936 | 1.00141.04 | N |
| ATOM | 17932 | NH2 | ARG | B1218 | 88.716 | 13.437 | 44.091 | 1.00141.04 | N |
| ATOM | 17933 | N | GLU | B1219 | 84.644 | 7.744 | 44.767 | 1.00174.62 | N |
| ATOM | 17934 | CA | GLU | B1219 | 85.311 | 6.737 | 43.912 | 1.00174.62 | C |
| ATOM | 17935 | C | GLU | B1219 | 84.695 | 5.372 | 44.233 | 1.00174.62 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 17936 | O | GLU | B1219 | 84.670 | 4.456 | 43.412 | 1.00174.62 | O |
| ATOM | 17937 | CB | GLU | B1219 | 86.795 | 6.646 | 44.166 | 1.00156.14 | C |
| ATOM | 17938 | CG | GLU | B1219 | 87.504 | 5.650 | 43.252 | 1.00156.14 | C |
| ATOM | 17939 | CD | GLU | B1219 | 87.357 | 6.039 | 41.793 | 1.00156.14 | C |
| ATOM | 17940 | OE1 | GLU | B1219 | 87.601 | 7.225 | 41.463 | 1.00156.14 | O |
| ATOM | 17941 | OE2 | GLU | B1219 | 87.000 | 5.165 | 40.975 | 1.00156.14 | O |
| ATOM | 17942 | N | GLY | B1220 | 84.024 | 5.288 | 45.367 | 1.00142.86 | N |
| ATOM | 17943 | CA | GLY | B1220 | 83.432 | 4.028 | 45.723 | 1.00142.86 | C |
| ATOM | 17944 | C | GLY | B1220 | 82.063 | 4.248 | 45.254 | 1.00142.86 | C |
| ATOM | 17945 | O | GLY | B1220 | 81.308 | 3.313 | 45.137 | 1.00142.86 | O |
| ATOM | 17946 | N | ARG | B1221 | 81.763 | 5.508 | 44.977 | 1.00 92.77 | N |
| ATOM | 17947 | CA | ARG | B1221 | 80.430 | 5.825 | 44.534 | 1.00 92.77 | C |
| ATOM | 17948 | C | ARG | B1221 | 80.358 | 7.122 | 43.781 | 1.00 92.77 | C |
| ATOM | 17949 | O | ARG | B1221 | 81.242 | 7.955 | 43.933 | 1.00 92.77 | O |
| ATOM | 17950 | CB | ARG | B1221 | 79.462 | 5.886 | 45.719 | 1.00196.85 | C |
| ATOM | 17951 | CG | ARG | B1221 | 79.574 | 7.155 | 46.560 | 1.00196.85 | C |
| ATOM | 17952 | CD | ARG | B1221 | 80.830 | 7.156 | 47.409 | 1.00196.85 | C |
| ATOM | 17953 | NE | ARG | B1221 | 80.777 | 6.126 | 48.441 | 1.00196.85 | N |
| ATOM | 17954 | CZ | ARG | B1221 | 80.205 | 6.280 | 49.631 | 1.00196.85 | C |
| ATOM | 17955 | NH1 | ARG | B1221 | 79.633 | 7.432 | 49.954 | 1.00196.85 | N |
| ATOM | 17956 | NH2 | ARG | B1221 | 80.198 | 5.275 | 50.495 | 1.00196.85 | N |
| ATOM | 17957 | N | THR | B1222 | 79.294 | 7.296 | 42.986 | 1.00133.94 | N |
| ATOM | 17958 | CA | THR | B1222 | 79.076 | 8.524 | 42.204 | 1.00133.94 | C |
| ATOM | 17959 | C | THR | B1222 | 78.763 | 9.634 | 43.150 | 1.00133.94 | C |
| ATOM | 17960 | O | THR | B1222 | 78.043 | 9.423 | 44.118 | 1.00133.94 | O |
| ATOM | 17961 | CB | THR | B1222 | 77.858 | 8.424 | 41.258 | 1.00145.50 | C |
| ATOM | 17962 | OG1 | THR | B1222 | 78.135 | 7.519 | 40.181 | 1.00145.50 | O |
| ATOM | 17963 | CG2 | THR | B1222 | 77.513 | 9.806 | 40.708 | 1.00145.50 | C |
| ATOM | 17964 | N | CYS | B1223 | 79.269 | 10.824 | 42.873 | 1.00147.20 | N |
| ATOM | 17965 | CA | CYS | B1223 | 78.971 | 11.923 | 43.770 | 1.00147.20 | C |
| ATOM | 17966 | C | CYS | B1223 | 79.095 | 13.227 | 42.987 | 1.00147.20 | C |
| ATOM | 17967 | O | CYS | B1223 | 80.067 | 13.447 | 42.254 | 1.00147.20 | O |
| ATOM | 17968 | CB | CYS | B1223 | 80.051 | 12.066 | 44.822 | 1.00147.20 | C |
| ATOM | 17969 | SG | CYS | B1223 | 81.294 | 13.135 | 44.016 | 1.00147.20 | S |
| ATOM | 17970 | N | ILE | B1224 | 78.132 | 14.109 | 43.136 | 1.00149.58 | N |
| ATOM | 17971 | CA | ILE | B1224 | 78.270 | 15.372 | 42.469 | 1.00149.58 | C |
| ATOM | 17972 | C | ILE | B1224 | 78.830 | 16.264 | 43.523 | 1.00149.58 | C |
| ATOM | 17973 | O | ILE | B1224 | 78.148 | 16.677 | 44.463 | 1.00149.58 | O |
| ATOM | 17974 | CB | ILE | B1224 | 76.920 | 15.929 | 42.035 | 1.00 81.49 | C |
| ATOM | 17975 | CG1 | ILE | B1224 | 76.080 | 14.813 | 41.419 | 1.00 81.49 | C |
| ATOM | 17976 | CG2 | ILE | B1224 | 77.129 | 17.057 | 41.044 | 1.00 81.49 | C |
| ATOM | 17977 | CD1 | ILE | B1224 | 74.685 | 15.226 | 41.085 | 1.00 81.49 | C |
| ATOM | 17978 | N | VAL | B1225 | 80.107 | 16.515 | 43.394 | 1.00134.50 | N |
| ATOM | 17979 | CA | VAL | B1225 | 80.746 | 17.385 | 44.325 | 1.00134.50 | C |
| ATOM | 17980 | C | VAL | B1225 | 80.672 | 18.720 | 43.580 | 1.00134.50 | C |
| ATOM | 17981 | O | VAL | B1225 | 81.204 | 18.899 | 42.477 | 1.00134.50 | O |
| ATOM | 17982 | CB | VAL | B1225 | 82.190 | 16.889 | 44.579 | 1.00 49.69 | C |
| ATOM | 17983 | CG1 | VAL | B1225 | 82.906 | 16.623 | 43.269 | 1.00 49.69 | C |
| ATOM | 17984 | CG2 | VAL | B1225 | 82.951 | 17.884 | 45.400 | 1.00 49.69 | C |
| ATOM | 17985 | N | ILE | B1226 | 79.937 | 19.648 | 44.159 | 1.00127.54 | N |
| ATOM | 17986 | CA | ILE | B1226 | 79.774 | 20.938 | 43.525 | 1.00127.54 | C |
| ATOM | 17987 | C | ILE | B1226 | 80.379 | 21.912 | 44.487 | 1.00127.54 | C |
| ATOM | 17988 | O | ILE | B1226 | 80.266 | 21.711 | 45.689 | 1.00127.54 | O |
| ATOM | 17989 | CB | ILE | B1226 | 78.274 | 21.247 | 43.315 | 1.00207.38 | C |
| ATOM | 17990 | CG1 | ILE | B1226 | 77.615 | 21.670 | 44.630 | 1.00207.38 | C |
| ATOM | 17991 | CG2 | ILE | B1226 | 77.562 | 20.004 | 42.804 | 1.00207.38 | C |
| ATOM | 17992 | CD1 | ILE | B1226 | 77.748 | 23.146 | 44.927 | 1.00207.38 | C |
| ATOM | 17993 | N | ALA | B1227 | 81.021 | 22.963 | 43.994 | 1.00138.35 | N |
| ATOM | 17994 | CA | ALA | B1227 | 81.617 | 23.890 | 44.945 | 1.00138.35 | C |
| ATOM | 17995 | C | ALA | B1227 | 82.087 | 25.198 | 44.365 | 1.00138.35 | C |
| ATOM | 17996 | O | ALA | B1227 | 82.041 | 25.407 | 43.161 | 1.00138.35 | O |
| ATOM | 17997 | CB | ALA | B1227 | 82.766 | 23.206 | 45.674 | 1.00120.70 | C |
| ATOM | 17998 | N | HIS | B1228 | 82.527 | 26.089 | 45.246 | 1.00207.38 | N |
| ATOM | 17999 | CA | HIS | B1228 | 83.068 | 27.361 | 44.817 | 1.00207.38 | C |
| ATOM | 18000 | C | HIS | B1228 | 84.570 | 27.296 | 45.090 | 1.00207.38 | C |
| ATOM | 18001 | O | HIS | B1228 | 85.264 | 28.315 | 45.094 | 1.00207.38 | O |
| ATOM | 18002 | CB | HIS | B1228 | 82.436 | 28.528 | 45.574 | 1.00178.04 | C |
| ATOM | 18003 | CG | HIS | B1228 | 82.793 | 29.866 | 45.003 | 1.00178.04 | C |
| ATOM | 18004 | ND1 | HIS | B1228 | 82.779 | 30.120 | 43.648 | 1.00178.04 | N |
| ATOM | 18005 | CD2 | HIS | B1228 | 83.177 | 31.021 | 45.596 | 1.00178.04 | C |
| ATOM | 18006 | CE1 | HIS | B1228 | 83.140 | 31.371 | 43.431 | 1.00178.04 | C |
| ATOM | 18007 | NE2 | HIS | B1228 | 83.387 | 31.941 | 44.596 | 1.00178.04 | N |
| ATOM | 18008 | N | ARG | B1229 | 85.053 | 26.076 | 45.339 | 1.00207.38 | N |
| ATOM | 18009 | CA | ARG | B1229 | 86.479 | 25.816 | 45.577 | 1.00207.38 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 18010 | C | ARG | B1229 | 87.105 | 25.565 | 44.199 | 1.00207.38 | C |
| ATOM | 18011 | O | ARG | B1229 | 87.655 | 24.483 | 43.910 | 1.00207.38 | O |
| ATOM | 18012 | CB | ARG | B1229 | 86.688 | 24.600 | 46.495 | 1.00168.01 | C |
| ATOM | 18013 | CG | ARG | B1229 | 86.900 | 24.962 | 47.968 | 1.00168.01 | C |
| ATOM | 18014 | CD | ARG | B1229 | 88.228 | 25.689 | 48.194 | 1.00168.01 | C |
| ATOM | 18015 | NE | ARG | B1229 | 88.301 | 26.339 | 49.503 | 1.00168.01 | N |
| ATOM | 18016 | CZ | ARG | B1229 | 88.326 | 25.702 | 50.670 | 1.00168.01 | C |
| ATOM | 18017 | NH1 | ARG | B1229 | 88.283 | 24.378 | 50.712 | 1.00168.01 | N |
| ATOM | 18018 | NH2 | ARG | B1229 | 88.394 | 26.394 | 51.800 | 1.00168.01 | N |
| ATOM | 18019 | N | LEU | B1230 | 86.982 | 26.592 | 43.355 | 1.00206.52 | N |
| ATOM | 18020 | CA | LEU | B1230 | 87.489 | 26.598 | 41.986 | 1.00206.52 | C |
| ATOM | 18021 | C | LEU | B1230 | 88.871 | 25.936 | 41.899 | 1.00206.52 | C |
| ATOM | 18022 | O | LEU | B1230 | 89.277 | 25.448 | 40.842 | 1.00206.52 | O |
| ATOM | 18023 | CB | LEU | B1230 | 87.585 | 28.044 | 41.479 | 1.00118.57 | C |
| ATOM | 18024 | CG | LEU | B1230 | 87.235 | 29.175 | 42.458 | 1.00118.57 | C |
| ATOM | 18025 | CD1 | LEU | B1230 | 87.892 | 30.468 | 42.000 | 1.00118.57 | C |
| ATOM | 18026 | CD2 | LEU | B1230 | 85.722 | 29.340 | 42.559 | 1.00118.57 | C |
| ATOM | 18027 | N | SER | B1231 | 89.568 | 25.910 | 43.034 | 1.00180.73 | N |
| ATOM | 18028 | CA | SER | B1231 | 90.909 | 25.342 | 43.152 | 1.00180.73 | C |
| ATOM | 18029 | C | SER | B1231 | 90.934 | 23.830 | 43.282 | 1.00180.73 | C |
| ATOM | 18030 | O | SER | B1231 | 91.354 | 23.127 | 42.371 | 1.00180.73 | O |
| ATOM | 18031 | CB | SER | B1231 | 91.631 | 25.964 | 44.347 | 1.00189.81 | C |
| ATOM | 18032 | OG | SER | B1231 | 90.934 | 25.695 | 45.550 | 1.00189.81 | O |
| ATOM | 18033 | N | THR | B1232 | 90.494 | 23.339 | 44.432 | 1.00127.31 | N |
| ATOM | 18034 | CA | THR | B1232 | 90.478 | 21.913 | 44.704 | 1.00127.31 | C |
| ATOM | 18035 | C | THR | B1232 | 89.435 | 21.122 | 43.907 | 1.00127.31 | C |
| ATOM | 18036 | O | THR | B1232 | 89.237 | 19.929 | 44.133 | 1.00127.31 | O |
| ATOM | 18037 | CB | THR | B1232 | 90.249 | 21.666 | 46.205 | 1.00197.77 | C |
| ATOM | 18038 | OG1 | THR | B1232 | 88.988 | 22.224 | 46.597 | 1.00197.77 | O |
| ATOM | 18039 | CG2 | THR | B1232 | 91.348 | 22.326 | 47.017 | 1.00197.77 | C |
| ATOM | 18040 | N | ILE | B1233 | 88.756 | 21.780 | 42.981 | 1.00122.67 | N |
| ATOM | 18041 | CA | ILE | B1233 | 87.792 | 21.068 | 42.153 | 1.00122.67 | C |
| ATOM | 18042 | C | ILE | B1233 | 88.529 | 20.247 | 41.067 | 1.00122.67 | C |
| ATOM | 18043 | O | ILE | B1233 | 87.929 | 19.359 | 40.476 | 1.00122.67 | O |
| ATOM | 18044 | CB | ILE | B1233 | 86.843 | 22.060 | 41.437 | 1.00 86.46 | C |
| ATOM | 18045 | CG1 | ILE | B1233 | 85.851 | 21.312 | 40.542 | 1.00 86.46 | C |
| ATOM | 18046 | CG2 | ILE | B1233 | 87.648 | 23.038 | 40.585 | 1.00 86.46 | C |
| ATOM | 18047 | CD1 | ILE | B1233 | 84.647 | 20.755 | 41.279 | 1.00 86.46 | C |
| ATOM | 18048 | N | GLN | B1234 | 89.816 | 20.538 | 40.815 | 1.00185.62 | N |
| ATOM | 18049 | CA | GLN | B1234 | 90.636 | 19.861 | 39.774 | 1.00185.62 | C |
| ATOM | 18050 | C | GLN | B1234 | 90.531 | 18.357 | 39.644 | 1.00185.62 | C |
| ATOM | 18051 | O | GLN | B1234 | 90.632 | 17.816 | 38.538 | 1.00185.62 | O |
| ATOM | 18052 | CB | GLN | B1234 | 92.108 | 20.218 | 39.978 | 1.00188.30 | C |
| ATOM | 18053 | CG | GLN | B1234 | 92.503 | 21.598 | 39.501 | 1.00188.30 | C |
| ATOM | 18054 | CD | GLN | B1234 | 93.998 | 21.814 | 39.585 | 1.00188.30 | C |
| ATOM | 18055 | OE1 | GLN | B1234 | 94.566 | 21.897 | 40.674 | 1.00188.30 | O |
| ATOM | 18056 | NE2 | GLN | B1234 | 94.649 | 21.891 | 38.430 | 1.00188.30 | N |
| ATOM | 18057 | N | ASN | B1235 | 90.369 | 17.693 | 40.783 | 1.00164.50 | N |
| ATOM | 18058 | CA | ASN | B1235 | 90.253 | 16.241 | 40.839 | 1.00164.50 | C |
| ATOM | 18059 | C | ASN | B1235 | 88.857 | 15.769 | 40.450 | 1.00164.50 | C |
| ATOM | 18060 | O | ASN | B1235 | 88.276 | 14.918 | 41.122 | 1.00164.50 | O |
| ATOM | 18061 | CB | ASN | B1235 | 90.603 | 15.745 | 42.247 | 1.00176.70 | C |
| ATOM | 18062 | CG | ASN | B1235 | 90.058 | 16.650 | 43.336 | 1.00176.70 | C |
| ATOM | 18063 | OD1 | ASN | B1235 | 90.460 | 17.808 | 43.456 | 1.00176.70 | O |
| ATOM | 18064 | ND2 | ASN | B1235 | 89.140 | 16.124 | 44.138 | 1.00176.70 | N |
| ATOM | 18065 | N | ALA | B1236 | 88.333 | 16.309 | 39.352 | 1.00146.25 | N |
| ATOM | 18066 | CA | ALA | B1236 | 86.988 | 15.964 | 38.898 | 1.00146.25 | C |
| ATOM | 18067 | C | ALA | B1236 | 86.951 | 15.128 | 37.649 | 1.00146.25 | C |
| ATOM | 18068 | O | ALA | B1236 | 87.827 | 15.223 | 36.795 | 1.00146.25 | O |
| ATOM | 18069 | CB | ALA | B1236 | 86.178 | 17.245 | 38.700 | 1.00 79.42 | C |
| ATOM | 18070 | N | ASP | B1237 | 85.910 | 14.318 | 37.537 | 1.00110.82 | N |
| ATOM | 18071 | CA | ASP | B1237 | 85.800 | 13.482 | 36.377 | 1.00110.82 | C |
| ATOM | 18072 | C | ASP | B1237 | 85.288 | 14.353 | 35.259 | 1.00110.82 | C |
| ATOM | 18073 | O | ASP | B1237 | 86.010 | 14.628 | 34.317 | 1.00110.82 | O |
| ATOM | 18074 | CB | ASP | B1237 | 84.876 | 12.293 | 36.652 | 1.00207.38 | C |
| ATOM | 18075 | CG | ASP | B1237 | 85.461 | 11.336 | 37.679 | 1.00207.38 | C |
| ATOM | 18076 | OD1 | ASP | B1237 | 84.935 | 10.212 | 37.826 | 1.00207.38 | O |
| ATOM | 18077 | OD2 | ASP | B1237 | 86.452 | 11.714 | 38.342 | 1.00207.38 | O |
| ATOM | 18078 | N | LEU | B1238 | 84.057 | 14.818 | 35.367 | 1.00105.63 | N |
| ATOM | 18079 | CA | LEU | B1238 | 83.513 | 15.672 | 34.327 | 1.00105.63 | C |
| ATOM | 18080 | C | LEU | B1238 | 83.106 | 16.952 | 34.973 | 1.00105.63 | C |
| ATOM | 18081 | O | LEU | B1238 | 82.159 | 16.993 | 35.762 | 1.00105.63 | O |
| ATOM | 18082 | CB | LEU | B1238 | 82.297 | 15.030 | 33.655 | 1.00149.31 | C |
| ATOM | 18083 | CG | LEU | B1238 | 81.577 | 15.942 | 32.651 | 1.00149.31 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 18084 | CD1 | LEU | B1238 | 82.526 | 16.325 | 31.520 | 1.00149.31 | C |
| ATOM | 18085 | CD2 | LEU | B1238 | 80.346 | 15.244 | 32.100 | 1.00149.31 | C |
| ATOM | 18086 | N | ILE | B1239 | 83.829 | 18.002 | 34.619 | 1.00113.22 | N |
| ATOM | 18087 | CA | ILE | B1239 | 83.584 | 19.319 | 35.167 | 1.00113.22 | C |
| ATOM | 18088 | C | ILE | B1239 | 82.679 | 20.116 | 34.240 | 1.00113.22 | C |
| ATOM | 18089 | O | ILE | B1239 | 83.030 | 20.418 | 33.104 | 1.00113.22 | O |
| ATOM | 18090 | CB | ILE | B1239 | 84.925 | 20.050 | 35.383 | 1.00105.68 | C |
| ATOM | 18091 | CG1 | ILE | B1239 | 85.804 | 19.237 | 36.339 | 1.00105.68 | C |
| ATOM | 18092 | CG2 | ILE | B1239 | 84.687 | 21.429 | 35.946 | 1.00105.68 | C |
| ATOM | 18093 | CD1 | ILE | B1239 | 86.163 | 17.856 | 35.828 | 1.00105.68 | C |
| ATOM | 18094 | N | VAL | B1240 | 81.487 | 20.418 | 34.729 | 1.00101.93 | N |
| ATOM | 18095 | CA | VAL | B1240 | 80.556 | 21.187 | 33.942 | 1.00101.93 | C |
| ATOM | 18096 | C | VAL | B1240 | 80.436 | 22.583 | 34.509 | 1.00101.93 | C |
| ATOM | 18097 | O | VAL | B1240 | 80.260 | 22.779 | 35.717 | 1.00101.93 | O |
| ATOM | 18098 | CB | VAL | B1240 | 79.152 | 20.550 | 33.932 | 1.00123.79 | C |
| ATOM | 18099 | CG1 | VAL | B1240 | 78.177 | 21.460 | 33.199 | 1.00123.79 | C |
| ATOM | 18100 | CG2 | VAL | B1240 | 79.202 | 19.179 | 33.273 | 1.00123.79 | C |
| ATOM | 18101 | N | VAL | B1241 | 80.540 | 23.557 | 33.620 | 1.00112.92 | N |
| ATOM | 18102 | CA | VAL | B1241 | 80.430 | 24.947 | 33.993 | 1.00112.92 | C |
| ATOM | 18103 | C | VAL | B1241 | 79.051 | 25.338 | 33.547 | 1.00112.92 | C |
| ATOM | 18104 | O | VAL | B1241 | 78.758 | 25.443 | 32.335 | 1.00112.92 | O |
| ATOM | 18105 | CB | VAL | B1241 | 81.468 | 25.811 | 33.254 | 1.00207.38 | C |
| ATOM | 18106 | CG1 | VAL | B1241 | 81.399 | 27.249 | 33.744 | 1.00207.38 | C |
| ATOM | 18107 | CG2 | VAL | B1241 | 82.858 | 25.236 | 33.461 | 1.00207.38 | C |
| ATOM | 18108 | N | ILE | B1242 | 78.189 | 25.508 | 34.531 | 1.00128.61 | N |
| ATOM | 18109 | CA | ILE | B1242 | 76.827 | 25.880 | 34.247 | 1.00128.61 | C |
| ATOM | 18110 | C | ILE | B1242 | 76.680 | 27.378 | 34.516 | 1.00128.61 | C |
| ATOM | 18111 | O | ILE | B1242 | 77.265 | 27.914 | 35.462 | 1.00128.61 | O |
| ATOM | 18112 | CB | ILE | B1242 | 75.838 | 25.010 | 35.095 | 1.00102.39 | C |
| ATOM | 18113 | CG1 | ILE | B1242 | 74.517 | 25.751 | 35.307 | 1.00102.39 | C |
| ATOM | 18114 | CG2 | ILE | B1242 | 76.493 | 24.584 | 36.392 | 1.00102.39 | C |
| ATOM | 18115 | CD1 | ILE | B1242 | 73.668 | 25.875 | 34.068 | 1.00102.39 | C |
| ATOM | 18116 | N | GLN | B1243 | 75.949 | 28.057 | 33.635 | 1.00172.80 | N |
| ATOM | 18117 | CA | GLN | B1243 | 75.717 | 29.490 | 33.763 | 1.00172.80 | C |
| ATOM | 18118 | C | GLN | B1243 | 74.250 | 29.634 | 34.126 | 1.00172.80 | C |
| ATOM | 18119 | O | GLN | B1243 | 73.396 | 29.734 | 33.245 | 1.00172.80 | O |
| ATOM | 18120 | CB | GLN | B1243 | 75.997 | 30.192 | 32.433 | 1.00171.41 | C |
| ATOM | 18121 | CG | GLN | B1243 | 76.065 | 31.708 | 32.535 | 1.00171.41 | C |
| ATOM | 18122 | CD | GLN | B1243 | 77.298 | 32.185 | 33.280 | 1.00171.41 | C |
| ATOM | 18123 | OE1 | GLN | B1243 | 77.565 | 31.755 | 34.402 | 1.00171.41 | O |
| ATOM | 18124 | NE2 | GLN | B1243 | 78.054 | 33.083 | 32.658 | 1.00171.41 | N |
| ATOM | 18125 | N | ASN | B1244 | 73.971 | 29.629 | 35.427 | 1.00207.38 | N |
| ATOM | 18126 | CA | ASN | B1244 | 72.604 | 29.718 | 35.942 | 1.00207.38 | C |
| ATOM | 18127 | C | ASN | B1244 | 71.509 | 29.562 | 34.858 | 1.00207.38 | C |
| ATOM | 18128 | O | ASN | B1244 | 71.239 | 30.481 | 34.067 | 1.00207.38 | O |
| ATOM | 18129 | CB | ASN | B1244 | 72.392 | 31.020 | 36.725 | 1.00184.76 | C |
| ATOM | 18130 | CG | ASN | B1244 | 72.493 | 30.814 | 38.232 | 1.00184.76 | C |
| ATOM | 18131 | OD1 | ASN | B1244 | 71.824 | 29.947 | 38.795 | 1.00184.76 | O |
| ATOM | 18132 | ND2 | ASN | B1244 | 73.325 | 31.613 | 38.889 | 1.00184.76 | N |
| ATOM | 18133 | N | GLY | B1245 | 70.906 | 28.370 | 34.826 | 1.00207.38 | N |
| ATOM | 18134 | CA | GLY | B1245 | 69.849 | 28.070 | 33.878 | 1.00207.38 | C |
| ATOM | 18135 | C | GLY | B1245 | 70.319 | 27.291 | 32.670 | 1.00207.38 | C |
| ATOM | 18136 | O | GLY | B1245 | 69.621 | 26.396 | 32.192 | 1.00207.38 | O |
| ATOM | 18137 | N | LYS | B1246 | 71.517 | 27.611 | 32.190 | 1.00194.18 | N |
| ATOM | 18138 | CA | LYS | B1246 | 72.048 | 26.957 | 31.001 | 1.00194.18 | C |
| ATOM | 18139 | C | LYS | B1246 | 73.508 | 26.511 | 31.130 | 1.00194.18 | C |
| ATOM | 18140 | O | LYS | B1246 | 74.366 | 27.279 | 31.572 | 1.00194.18 | O |
| ATOM | 18141 | CB | LYS | B1246 | 71.913 | 27.907 | 29.802 | 1.00137.65 | C |
| ATOM | 18142 | CG | LYS | B1246 | 71.325 | 29.295 | 30.134 | 1.00137.65 | C |
| ATOM | 18143 | CD | LYS | B1246 | 72.319 | 30.194 | 30.867 | 1.00137.65 | C |
| ATOM | 18144 | CE | LYS | B1246 | 71.716 | 31.558 | 31.215 | 1.00137.65 | C |
| ATOM | 18145 | NZ | LYS | B1246 | 72.653 | 32.434 | 31.986 | 1.00137.65 | N |
| ATOM | 18146 | N | VAL | B1247 | 73.784 | 25.265 | 30.751 | 1.00207.38 | N |
| ATOM | 18147 | CA | VAL | B1247 | 75.144 | 24.731 | 30.815 | 1.00207.38 | C |
| ATOM | 18148 | C | VAL | B1247 | 75.933 | 25.147 | 29.562 | 1.00207.38 | C |
| ATOM | 18149 | O | VAL | B1247 | 75.533 | 24.838 | 28.436 | 1.00207.38 | O |
| ATOM | 18150 | CB | VAL | B1247 | 75.129 | 23.185 | 30.976 | 1.00113.07 | C |
| ATOM | 18151 | CG1 | VAL | B1247 | 74.115 | 22.579 | 30.039 | 1.00113.07 | C |
| ATOM | 18152 | CG2 | VAL | B1247 | 76.510 | 22.611 | 30.709 | 1.00113.07 | C |
| ATOM | 18153 | N | LYS | B1248 | 77.059 | 25.839 | 29.761 | 1.00130.32 | N |
| ATOM | 18154 | CA | LYS | B1248 | 77.845 | 26.343 | 28.622 | 1.00130.32 | C |
| ATOM | 18155 | C | LYS | B1248 | 79.184 | 25.681 | 28.357 | 1.00130.32 | C |
| ATOM | 18156 | O | LYS | B1248 | 79.600 | 25.598 | 27.204 | 1.00130.32 | O |
| ATOM | 18157 | CB | LYS | B1248 | 78.053 | 27.853 | 28.780 | 1.00161.48 | C |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 18158 | CG | LYS | B1248 | 78.783 | 28.511 | 27.616 | 1.00161.48 | C |
| ATOM | 18159 | CD | LYS | B1248 | 77.980 | 29.658 | 27.014 | 1.00161.48 | C |
| ATOM | 18160 | CE | LYS | B1248 | 76.634 | 29.167 | 26.500 | 1.00161.48 | C |
| ATOM | 18161 | NZ | LYS | B1248 | 75.808 | 30.242 | 25.888 | 1.00161.48 | N |
| ATOM | 18162 | N | GLU | B1249 | 79.881 | 25.242 | 29.400 | 1.00194.35 | N |
| ATOM | 18163 | CA | GLU | B1249 | 81.161 | 24.580 | 29.160 | 1.00194.35 | C |
| ATOM | 18164 | C | GLU | B1249 | 81.195 | 23.257 | 29.884 | 1.00194.35 | C |
| ATOM | 18165 | O | GLU | B1249 | 80.287 | 22.940 | 30.659 | 1.00194.35 | O |
| ATOM | 18166 | CB | GLU | B1249 | 82.328 | 25.446 | 29.645 | 1.00182.18 | C |
| ATOM | 18167 | CG | GLU | B1249 | 82.555 | 26.723 | 28.849 | 1.00182.18 | C |
| ATOM | 18168 | CD | GLU | B1249 | 83.891 | 27.373 | 29.167 | 1.00182.18 | C |
| ATOM | 18169 | OE1 | GLU | B1249 | 84.124 | 28.511 | 28.710 | 1.00182.18 | O |
| ATOM | 18170 | OE2 | GLU | B1249 | 84.711 | 26.742 | 29.868 | 1.00182.18 | O |
| ATOM | 18171 | N | HIS | B1250 | 82.239 | 22.480 | 29.625 | 1.00135.49 | N |
| ATOM | 18172 | CA | HIS | B1250 | 82.380 | 21.199 | 30.289 | 1.00135.49 | C |
| ATOM | 18173 | C | HIS | B1250 | 83.449 | 20.336 | 29.639 | 1.00135.49 | C |
| ATOM | 18174 | O | HIS | B1250 | 83.807 | 20.527 | 28.474 | 1.00135.49 | O |
| ATOM | 18175 | CB | HIS | B1250 | 81.043 | 20.443 | 30.289 | 1.00133.87 | C |
| ATOM | 18176 | CG | HIS | B1250 | 80.764 | 19.717 | 29.012 | 1.00133.87 | C |
| ATOM | 18177 | ND1 | HIS | B1250 | 81.559 | 18.687 | 28.559 | 1.00133.87 | N |
| ATOM | 18178 | CD2 | HIS | B1250 | 79.793 | 19.883 | 28.083 | 1.00133.87 | C |
| ATOM | 18179 | CE1 | HIS | B1250 | 81.090 | 18.250 | 27.404 | 1.00133.87 | C |
| ATOM | 18180 | NE2 | HIS | B1250 | 80.019 | 18.958 | 27.093 | 1.00133.87 | N |
| ATOM | 18181 | N | GLY | B1251 | 83.934 | 19.374 | 30.416 | 1.00119.42 | N |
| ATOM | 18182 | CA | GLY | B1251 | 84.971 | 18.479 | 29.950 | 1.00119.42 | C |
| ATOM | 18183 | C | GLY | B1251 | 85.978 | 18.324 | 31.069 | 1.00119.42 | C |
| ATOM | 18184 | O | GLY | B1251 | 85.618 | 18.450 | 32.237 | 1.00119.42 | O |
| ATOM | 18185 | N | THR | B1252 | 87.232 | 18.041 | 30.732 | 1.00137.73 | N |
| ATOM | 18186 | CA | THR | B1252 | 88.250 | 17.894 | 31.759 | 1.00137.73 | C |
| ATOM | 18187 | C | THR | B1252 | 88.928 | 19.239 | 31.980 | 1.00137.73 | C |
| ATOM | 18188 | O | THR | B1252 | 88.838 | 20.142 | 31.148 | 1.00137.73 | O |
| ATOM | 18189 | CB | THR | B1252 | 89.291 | 16.808 | 31.387 | 1.00207.38 | C |
| ATOM | 18190 | OG1 | THR | B1252 | 90.434 | 16.930 | 32.242 | 1.00207.38 | O |
| ATOM | 18191 | CG2 | THR | B1252 | 89.705 | 16.919 | 29.930 | 1.00207.38 | C |
| ATOM | 18192 | N | HIS | B1253 | 89.594 | 19.362 | 33.122 | 1.00190.51 | N |
| ATOM | 18193 | CA | HIS | B1253 | 90.258 | 20.594 | 33.502 | 1.00190.51 | C |
| ATOM | 18194 | C | HIS | B1253 | 91.050 | 21.266 | 32.395 | 1.00190.51 | C |
| ATOM | 18195 | O | HIS | B1253 | 90.607 | 22.274 | 31.860 | 1.00190.51 | O |
| ATOM | 18196 | CB | HIS | B1253 | 91.161 | 20.364 | 34.714 | 1.00207.38 | C |
| ATOM | 18197 | CG | HIS | B1253 | 91.360 | 21.592 | 35.541 | 1.00207.38 | C |
| ATOM | 18198 | ND1 | HIS | B1253 | 91.948 | 22.735 | 35.045 | 1.00207.38 | N |
| ATOM | 18199 | CD2 | HIS | B1253 | 90.992 | 21.878 | 36.812 | 1.00207.38 | C |
| ATOM | 18200 | CE1 | HIS | B1253 | 91.932 | 23.674 | 35.974 | 1.00207.38 | C |
| ATOM | 18201 | NE2 | HIS | B1253 | 91.357 | 23.180 | 37.056 | 1.00207.38 | N |
| ATOM | 18202 | N | GLN | B1254 | 92.214 | 20.714 | 32.053 | 1.00171.69 | N |
| ATOM | 18203 | CA | GLN | B1254 | 93.063 | 21.291 | 31.004 | 1.00171.69 | C |
| ATOM | 18204 | C | GLN | B1254 | 92.307 | 21.436 | 29.687 | 1.00171.69 | C |
| ATOM | 18205 | O | GLN | B1254 | 92.613 | 22.307 | 28.868 | 1.00171.69 | O |
| ATOM | 18206 | CB | GLN | B1254 | 94.320 | 20.434 | 30.797 | 1.00199.22 | C |
| ATOM | 18207 | CG | GLN | B1254 | 94.117 | 19.149 | 30.003 | 1.00199.22 | C |
| ATOM | 18208 | CD | GLN | B1254 | 93.158 | 18.181 | 30.667 | 1.00199.22 | C |
| ATOM | 18209 | OE1 | GLN | B1254 | 91.967 | 18.457 | 30.792 | 1.00199.22 | O |
| ATOM | 18210 | NE2 | GLN | B1254 | 93.677 | 17.037 | 31.097 | 1.00199.22 | N |
| ATOM | 18211 | N | GLN | B1255 | 91.317 | 20.573 | 29.497 | 1.00150.73 | N |
| ATOM | 18212 | CA | GLN | B1255 | 90.497 | 20.590 | 28.298 | 1.00150.73 | C |
| ATOM | 18213 | C | GLN | B1255 | 89.667 | 21.860 | 28.380 | 1.00150.73 | C |
| ATOM | 18214 | O | GLN | B1255 | 89.453 | 22.539 | 27.378 | 1.00150.73 | O |
| ATOM | 18215 | CB | GLN | B1255 | 89.591 | 19.355 | 28.293 | 1.00136.02 | C |
| ATOM | 18216 | CG | GLN | B1255 | 89.036 | 18.954 | 26.938 | 1.00136.02 | C |
| ATOM | 18217 | CD | GLN | B1255 | 88.132 | 17.736 | 27.023 | 1.00136.02 | C |
| ATOM | 18218 | OE1 | GLN | B1255 | 88.524 | 16.692 | 27.543 | 1.00136.02 | O |
| ATOM | 18219 | NE2 | GLN | B1255 | 86.916 | 17.864 | 26.507 | 1.00136.02 | N |
| ATOM | 18220 | N | LEU | B1256 | 89.205 | 22.165 | 29.593 | 1.00116.95 | N |
| ATOM | 18221 | CA | LEU | B1256 | 88.396 | 23.356 | 29.869 | 1.00116.95 | C |
| ATOM | 18222 | C | LEU | B1256 | 89.208 | 24.638 | 29.665 | 1.00116.95 | C |
| ATOM | 18223 | O | LEU | B1256 | 88.719 | 25.628 | 29.119 | 1.00116.95 | O |
| ATOM | 18224 | CB | LEU | B1256 | 87.855 | 23.330 | 31.303 | 1.00156.77 | C |
| ATOM | 18225 | CG | LEU | B1256 | 86.683 | 22.398 | 31.619 | 1.00156.77 | C |
| ATOM | 18226 | CD1 | LEU | B1256 | 86.364 | 22.468 | 33.103 | 1.00156.77 | C |
| ATOM | 18227 | CD2 | LEU | B1256 | 85.471 | 22.804 | 30.798 | 1.00156.77 | C |
| ATOM | 18228 | N | LEU | B1257 | 90.451 | 24.613 | 30.132 | 1.00145.42 | N |
| ATOM | 18229 | CA | LEU | B1257 | 91.339 | 25.756 | 29.980 | 1.00145.42 | C |
| ATOM | 18230 | C | LEU | B1257 | 91.572 | 25.871 | 28.488 | 1.00145.42 | C |
| ATOM | 18231 | O | LEU | B1257 | 91.596 | 26.967 | 27.924 | 1.00145.42 | O |

| | | | | | | | | | |
|------|-------|-----|-----|-------|--------|--------|--------|------------|---|
| ATOM | 18232 | CB | LEU | B1257 | 92.669 | 25.524 | 30.698 | 1.00207.38 | C |
| ATOM | 18233 | CG | LEU | B1257 | 93.586 | 26.749 | 30.715 | 1.00207.38 | C |
| ATOM | 18234 | CD1 | LEU | B1257 | 92.916 | 27.862 | 31.508 | 1.00207.38 | C |
| ATOM | 18235 | CD2 | LEU | B1257 | 94.928 | 26.389 | 31.328 | 1.00207.38 | C |
| ATOM | 18236 | N | ALA | B1258 | 91.748 | 24.714 | 27.861 | 1.00134.17 | N |
| ATOM | 18237 | CA | ALA | B1258 | 91.942 | 24.653 | 26.426 | 1.00134.17 | C |
| ATOM | 18238 | C | ALA | B1258 | 90.847 | 25.542 | 25.854 | 1.00134.17 | C |
| ATOM | 18239 | O | ALA | B1258 | 91.093 | 26.371 | 24.987 | 1.00134.17 | O |
| ATOM | 18240 | CB | ALA | B1258 | 91.777 | 23.227 | 25.927 | 1.00129.38 | C |
| ATOM | 18241 | N | GLN | B1259 | 89.630 | 25.363 | 26.358 | 1.00207.38 | N |
| ATOM | 18242 | CA | GLN | B1259 | 88.510 | 26.182 | 25.918 | 1.00207.38 | C |
| ATOM | 18243 | C | GLN | B1259 | 88.635 | 27.532 | 26.635 | 1.00207.38 | C |
| ATOM | 18244 | O | GLN | B1259 | 87.784 | 27.894 | 27.452 | 1.00207.38 | O |
| ATOM | 18245 | CB | GLN | B1259 | 87.172 | 25.519 | 26.282 | 1.00199.90 | C |
| ATOM | 18246 | CG | GLN | B1259 | 86.537 | 24.657 | 25.183 | 1.00199.90 | C |
| ATOM | 18247 | CD | GLN | B1259 | 86.900 | 23.181 | 25.269 | 1.00199.90 | C |
| ATOM | 18248 | OE1 | GLN | B1259 | 88.040 | 22.791 | 25.023 | 1.00199.90 | O |
| ATOM | 18249 | NE2 | GLN | B1259 | 85.921 | 22.354 | 25.622 | 1.00199.90 | N |
| ATOM | 18250 | N | LYS | B1260 | 89.710 | 28.262 | 26.345 | 1.00133.17 | N |
| ATOM | 18251 | CA | LYS | B1260 | 89.925 | 29.566 | 26.963 | 1.00133.17 | C |
| ATOM | 18252 | C | LYS | B1260 | 88.669 | 30.425 | 26.839 | 1.00133.17 | C |
| ATOM | 18253 | O | LYS | B1260 | 88.141 | 30.645 | 25.741 | 1.00133.17 | O |
| ATOM | 18254 | CB | LYS | B1260 | 91.095 | 30.305 | 26.306 | 1.00207.38 | C |
| ATOM | 18255 | CG | LYS | B1260 | 92.399 | 29.536 | 26.267 | 1.00207.38 | C |
| ATOM | 18256 | CD | LYS | B1260 | 92.435 | 28.573 | 25.098 | 1.00207.38 | C |
| ATOM | 18257 | CE | LYS | B1260 | 93.711 | 27.758 | 25.110 | 1.00207.38 | C |
| ATOM | 18258 | NZ | LYS | B1260 | 93.817 | 26.971 | 26.368 | 1.00207.38 | N |
| ATOM | 18259 | N | GLY | B1261 | 88.196 | 30.910 | 27.979 | 1.00152.42 | N |
| ATOM | 18260 | CA | GLY | B1261 | 87.008 | 31.735 | 27.986 | 1.00152.42 | C |
| ATOM | 18261 | C | GLY | B1261 | 86.354 | 31.808 | 29.350 | 1.00152.42 | C |
| ATOM | 18262 | O | GLY | B1261 | 86.927 | 32.330 | 30.306 | 1.00152.42 | O |
| ATOM | 18263 | N | ILE | B1262 | 85.148 | 31.273 | 29.454 | 1.00137.20 | N |
| ATOM | 18264 | CA | ILE | B1262 | 84.445 | 31.327 | 30.714 | 1.00137.20 | C |
| ATOM | 18265 | C | ILE | B1262 | 85.252 | 30.668 | 31.847 | 1.00137.20 | C |
| ATOM | 18266 | O | ILE | B1262 | 85.880 | 31.380 | 32.641 | 1.00137.20 | O |
| ATOM | 18267 | CB | ILE | B1262 | 83.038 | 30.682 | 30.602 | 1.00126.55 | C |
| ATOM | 18268 | CG1 | ILE | B1262 | 82.230 | 31.369 | 29.494 | 1.00126.55 | C |
| ATOM | 18269 | CG2 | ILE | B1262 | 82.275 | 30.853 | 31.909 | 1.00126.55 | C |
| ATOM | 18270 | CD1 | ILE | B1262 | 82.658 | 31.012 | 28.084 | 1.00126.55 | C |
| ATOM | 18271 | N | TYR | B1263 | 85.260 | 29.332 | 31.908 | 1.00167.16 | N |
| ATOM | 18272 | CA | TYR | B1263 | 85.979 | 28.601 | 32.965 | 1.00167.16 | C |
| ATOM | 18273 | C | TYR | B1263 | 87.347 | 29.190 | 33.198 | 1.00167.16 | C |
| ATOM | 18274 | O | TYR | B1263 | 87.818 | 29.297 | 34.328 | 1.00167.16 | O |
| ATOM | 18275 | CB | TYR | B1263 | 86.149 | 27.125 | 32.601 | 1.00153.91 | C |
| ATOM | 18276 | CG | TYR | B1263 | 86.836 | 26.306 | 33.679 | 1.00153.91 | C |
| ATOM | 18277 | CD1 | TYR | B1263 | 86.149 | 25.922 | 34.829 | 1.00153.91 | C |
| ATOM | 18278 | CD2 | TYR | B1263 | 88.171 | 25.912 | 33.548 | 1.00153.91 | C |
| ATOM | 18279 | CE1 | TYR | B1263 | 86.767 | 25.163 | 35.820 | 1.00153.91 | C |
| ATOM | 18280 | CE2 | TYR | B1263 | 88.801 | 25.150 | 34.537 | 1.00153.91 | C |
| ATOM | 18281 | CZ | TYR | B1263 | 88.091 | 24.779 | 35.666 | 1.00153.91 | C |
| ATOM | 18282 | OH | TYR | B1263 | 88.701 | 24.007 | 36.628 | 1.00153.91 | O |
| ATOM | 18283 | N | PHE | B1264 | 87.989 | 29.546 | 32.100 | 1.00124.92 | N |
| ATOM | 18284 | CA | PHE | B1264 | 89.306 | 30.151 | 32.142 | 1.00124.92 | C |
| ATOM | 18285 | C | PHE | B1264 | 89.216 | 31.353 | 33.080 | 1.00124.92 | C |
| ATOM | 18286 | O | PHE | B1264 | 89.810 | 31.356 | 34.155 | 1.00124.92 | O |
| ATOM | 18287 | CB | PHE | B1264 | 89.681 | 30.604 | 30.731 | 1.00190.16 | C |
| ATOM | 18288 | CG | PHE | B1264 | 91.111 | 31.017 | 30.580 | 1.00190.16 | C |
| ATOM | 18289 | CD1 | PHE | B1264 | 91.628 | 32.069 | 31.323 | 1.00190.16 | C |
| ATOM | 18290 | CD2 | PHE | B1264 | 91.940 | 30.364 | 29.674 | 1.00190.16 | C |
| ATOM | 18291 | CE1 | PHE | B1264 | 92.954 | 32.469 | 31.167 | 1.00190.16 | C |
| ATOM | 18292 | CE2 | PHE | B1264 | 93.270 | 30.756 | 29.508 | 1.00190.16 | C |
| ATOM | 18293 | CZ | PHE | B1264 | 93.778 | 31.810 | 30.256 | 1.00190.16 | C |
| ATOM | 18294 | N | SER | B1265 | 88.446 | 32.359 | 32.665 | 1.00201.43 | N |
| ATOM | 18295 | CA | SER | B1265 | 88.275 | 33.581 | 33.444 | 1.00201.43 | C |
| ATOM | 18296 | C | SER | B1265 | 88.061 | 33.252 | 34.902 | 1.00201.43 | C |
| ATOM | 18297 | O | SER | B1265 | 88.501 | 33.983 | 35.788 | 1.00201.43 | O |
| ATOM | 18298 | CB | SER | B1265 | 87.096 | 34.399 | 32.913 | 1.00119.78 | C |
| ATOM | 18299 | OG | SER | B1265 | 87.037 | 35.663 | 33.554 | 1.00119.78 | O |
| ATOM | 18300 | N | MET | B1266 | 87.379 | 32.146 | 35.152 | 1.00105.77 | N |
| ATOM | 18301 | CA | MET | B1266 | 87.126 | 31.734 | 36.523 | 1.00105.77 | C |
| ATOM | 18302 | C | MET | B1266 | 88.448 | 31.411 | 37.222 | 1.00105.77 | C |
| ATOM | 18303 | O | MET | B1266 | 88.664 | 31.787 | 38.384 | 1.00105.77 | O |
| ATOM | 18304 | CB | MET | B1266 | 86.211 | 30.505 | 36.543 | 1.00206.78 | C |
| ATOM | 18305 | CG | MET | B1266 | 84.783 | 30.766 | 36.076 | 1.00206.78 | C |

| | | | | | | | | | |
|--------|-------|-----|-----|-------|--------|---------|--------|------------|----|
| ATOM | 18306 | SD | MET | B1266 | 83.636 | 31.130 | 37.427 | 1.00206.78 | S |
| ATOM | 18307 | CE | MET | B1266 | 83.698 | 32.917 | 37.484 | 1.00206.78 | C |
| ATOM | 18308 | N | VAL | B1267 | 89.327 | 30.710 | 36.507 | 1.00202.85 | N |
| ATOM | 18309 | CA | VAL | B1267 | 90.630 | 30.330 | 37.050 | 1.00202.85 | C |
| ATOM | 18310 | C | VAL | B1267 | 91.574 | 31.527 | 37.033 | 1.00202.85 | C |
| ATOM | 18311 | O | VAL | B1267 | 92.383 | 31.717 | 37.949 | 1.00202.85 | O |
| ATOM | 18312 | CB | VAL | B1267 | 91.287 | 29.193 | 36.232 | 1.00119.09 | C |
| ATOM | 18313 | CG1 | VAL | B1267 | 91.832 | 28.133 | 37.173 | 1.00119.09 | C |
| ATOM | 18314 | CG2 | VAL | B1267 | 90.290 | 28.589 | 35.260 | 1.00119.09 | C |
| ATOM | 18315 | N | SER | B1268 | 91.468 | 32.339 | 35.988 | 1.00207.38 | N |
| ATOM | 18316 | CA | SER | B1268 | 92.321 | 33.509 | 35.871 | 1.00207.38 | C |
| ATOM | 18317 | C | SER | B1268 | 91.961 | 34.565 | 36.921 | 1.00207.38 | C |
| ATOM | 18318 | O | SER | B1268 | 92.786 | 35.417 | 37.257 | 1.00207.38 | O |
| ATOM | 18319 | CB | SER | B1268 | 92.227 | 34.107 | 34.461 | 1.00167.74 | C |
| ATOM | 18320 | OG | SER | B1268 | 90.883 | 34.308 | 34.067 | 1.00167.74 | O |
| ATOM | 18321 | N | VAL | B1269 | 90.737 | 34.510 | 37.445 | 1.00148.70 | N |
| ATOM | 18322 | CA | VAL | B1269 | 90.327 | 35.457 | 38.477 | 1.00148.70 | C |
| ATOM | 18323 | C | VAL | B1269 | 90.777 | 34.829 | 39.791 | 1.00148.70 | C |
| ATOM | 18324 | O | VAL | B1269 | 91.185 | 35.523 | 40.727 | 1.00148.70 | O |
| ATOM | 18325 | CB | VAL | B1269 | 88.795 | 35.683 | 38.478 | 1.00148.49 | C |
| ATOM | 18326 | CG1 | VAL | B1269 | 88.074 | 34.424 | 38.917 | 1.00148.49 | C |
| ATOM | 18327 | CG2 | VAL | B1269 | 88.445 | 36.851 | 39.386 | 1.00148.49 | C |
| ATOM | 18328 | N | GLN | B1270 | 90.723 | 33.499 | 39.831 | 1.00160.26 | N |
| ATOM | 18329 | CA | GLN | B1270 | 91.139 | 32.727 | 40.997 | 1.00160.26 | C |
| ATOM | 18330 | C | GLN | B1270 | 92.589 | 33.031 | 41.389 | 1.00160.26 | C |
| ATOM | 18331 | O | GLN | B1270 | 92.925 | 33.053 | 42.571 | 1.00160.26 | O |
| ATOM | 18332 | CB | GLN | B1270 | 91.005 | 31.235 | 40.692 | 1.00207.26 | C |
| ATOM | 18333 | CG | GLN | B1270 | 91.827 | 30.336 | 41.597 | 1.00207.26 | C |
| ATOM | 18334 | CD | GLN | B1270 | 91.887 | 28.912 | 41.089 | 1.00207.26 | C |
| ATOM | 18335 | OE1 | GLN | B1270 | 92.314 | 28.661 | 39.962 | 1.00207.26 | O |
| ATOM | 18336 | NE2 | GLN | B1270 | 91.459 | 27.969 | 41.918 | 1.00207.26 | N |
| ATOM | 18337 | N | ALA | B1271 | 93.450 | 33.248 | 40.398 | 1.00207.38 | N |
| ATOM | 18338 | CA | ALA | B1271 | 94.854 | 33.559 | 40.681 | 1.00207.38 | C |
| ATOM | 18339 | C | ALA | B1271 | 95.070 | 35.045 | 41.009 | 1.00207.38 | C |
| ATOM | 18340 | O | ALA | B1271 | 95.792 | 35.316 | 41.990 | 1.00207.38 | O |
| ATOM | 18341 | CB | ALA | B1271 | 95.717 | 33.159 | 39.492 | 1.00185.28 | C |
| TER | 18342 | | ALA | B1271 | | | | | |
| HETATM | 18343 | HG | HG | A1285 | 36.303 | 60.928 | 21.579 | 1.00147.20 | HG |
| HETATM | 18344 | HG | HG | A1286 | 37.043 | 104.553 | 41.523 | 0.50166.54 | HG |
| HETATM | 18345 | HG | HG | A1287 | 1.903 | 63.568 | 4.424 | 1.00147.20 | HG |
| HETATM | 18346 | HG | HG | A1288 | 8.912 | 86.189 | 55.166 | 1.00147.20 | HG |
| HETATM | 18347 | HG | HG | A1289 | 1.419 | 98.459 | 31.585 | 1.00147.20 | HG |
| HETATM | 18348 | HG | HG | A1290 | -1.958 | 104.590 | 58.811 | 1.00147.20 | HG |
| HETATM | 18349 | H | | | | | | | |