```
HEADER    LYASE                                   06-MAY-02   1LOH
TITLE     STREPTOCOCCUS PNEUMONIAE HYALURONATE LYASE IN COMPLEX WITH
TITLE    2 HEXASACCHARIDE HYALURONAN SUBSTRATE
CAVEAT     1LOH    BDP B 6 HAS WRONG CHIRALITY AT ATOM C4
COMPND    MOL_ID: 1;
COMPND   2 MOLECULE: HYALURONATE LYASE;
COMPND   3 CHAIN: A;
COMPND   4 SYNONYM: HYALURONIDASE;
COMPND   5 EC: 4.2.2.1;
COMPND   6 ENGINEERED: YES;
COMPND   7 MUTATION: YES
SOURCE    MOL_ID: 1;
SOURCE   2 ORGANISM_SCIENTIFIC: STREPTOCOCCUS PNEUMONIAE;
SOURCE   3 ORGANISM_TAXID: 1313;
SOURCE   4 EXPRESSION_SYSTEM: ESCHERICHIA COLI;
SOURCE   5 EXPRESSION_SYSTEM_TAXID: 562
KEYWDS    PROTEIN-CARBOHYDRATE COMPLEX, LYASE
EXPDTA    X-RAY DIFFRACTION
AUTHOR    M.J.JEDRZEJAS,L.V.MELLO,B.L.DE GROOT,S.LI
REVDAT   8   14-FEB-24 1LOH    1       REMARK
REVDAT   7   27-OCT-21 1LOH    1       SEQADV HETSYN
REVDAT   6   29-JUL-20 1LOH    1       CAVEAT COMPND REMARK HETNAM
REVDAT   6 2                   1       LINK   SITE   ATOM
REVDAT   5   13-JUL-11 1LOH    1       VERSN
REVDAT   4   23-JUN-10 1LOH    1       HETNAM
REVDAT   3   24-FEB-09 1LOH    1       VERSN
REVDAT   2   01-APR-03 1LOH    1       JRNL
REVDAT   1   07-AUG-02 1LOH    0
JRNL        AUTH   M.J.JEDRZEJAS,L.V.MELLO,B.L.DE GROOT,S.LI
JRNL        TITL   MECHANISM OF HYALURONAN DEGRADATION BY STREPTOCOCCUS
JRNL        TITL 2 PNEUMONIAE HYALURONATE LYASE. STRUCTURES OF COMPLEXES WITH
JRNL        TITL 3 THE SUBSTRATE.
JRNL        REF    J.BIOL.CHEM.                  V. 277 28287 2002
JRNL        REFN                   ISSN 0021-9258
JRNL        PMID   11991948
JRNL        DOI    10.1074/JBC.M112009200
REMARK   2
REMARK   2 RESOLUTION.    2.00 ANGSTROMS.
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : X-PLOR 3.851
REMARK   3   AUTHORS     : BRUNGER
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) : 2.00
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) : 20.00
REMARK   3   DATA CUTOFF            (SIGMA(F)) : 2.000
REMARK   3   DATA CUTOFF HIGH         (ABS(F)) : NULL
REMARK   3   DATA CUTOFF LOW          (ABS(F)) : NULL
REMARK   3   COMPLETENESS (WORKING+TEST)   (%) : NULL
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Halozyme EX2178
Merck v. Halozyme
PGR2025-00039

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REMARK   3   NUMBER OF REFLECTIONS             : 58376
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD          : NULL
REMARK   3   FREE R VALUE TEST SET SELECTION  : 1 % REFS SELECTED
REMARK   3   R VALUE            (WORKING SET) : 0.224
REMARK   3   FREE R VALUE                     : 0.324
REMARK   3   FREE R VALUE TEST SET SIZE   (%) : NULL
REMARK   3   FREE R VALUE TEST SET COUNT      : 1205
REMARK   3   ESTIMATED ERROR OF FREE R VALUE  : NULL
REMARK   3
REMARK   3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK   3   TOTAL NUMBER OF BINS USED           : NULL
REMARK   3   BIN RESOLUTION RANGE HIGH       (A) : NULL
REMARK   3   BIN RESOLUTION RANGE LOW        (A) : NULL
REMARK   3   BIN COMPLETENESS (WORKING+TEST) (%) : NULL
REMARK   3   REFLECTIONS IN BIN    (WORKING SET) : NULL
REMARK   3   BIN R VALUE           (WORKING SET) : NULL
REMARK   3   BIN FREE R VALUE                    : NULL
REMARK   3   BIN FREE R VALUE TEST SET SIZE  (%) : NULL
REMARK   3   BIN FREE R VALUE TEST SET COUNT     : NULL
REMARK   3   ESTIMATED ERROR OF BIN FREE R VALUE : NULL
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   PROTEIN ATOMS            : 5785
REMARK   3   NUCLEIC ACID ATOMS       : 0
REMARK   3   HETEROGEN ATOMS          : 79
REMARK   3   SOLVENT ATOMS            : 515
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT           (A**2) : NULL
REMARK   3   MEAN B VALUE      (OVERALL, A**2) : NULL
REMARK   3   OVERALL ANISOTROPIC B VALUE.
REMARK   3    B11 (A**2) : NULL
REMARK   3    B22 (A**2) : NULL
REMARK   3    B33 (A**2) : NULL
REMARK   3    B12 (A**2) : NULL
REMARK   3    B13 (A**2) : NULL
REMARK   3    B23 (A**2) : NULL
REMARK   3
REMARK   3  ESTIMATED COORDINATE ERROR.
REMARK   3   ESD FROM LUZZATI PLOT        (A) : NULL
REMARK   3   ESD FROM SIGMAA              (A) : NULL
REMARK   3   LOW RESOLUTION CUTOFF        (A) : NULL
REMARK   3
REMARK   3  CROSS-VALIDATED ESTIMATED COORDINATE ERROR.
REMARK   3   ESD FROM C-V LUZZATI PLOT    (A) : NULL
REMARK   3   ESD FROM C-V SIGMAA          (A) : NULL
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES.
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REMARK   3   BOND LENGTHS                (A) : NULL
REMARK   3   BOND ANGLES           (DEGREES) : NULL
REMARK   3   DIHEDRAL ANGLES       (DEGREES) : NULL
REMARK   3   IMPROPER ANGLES       (DEGREES) : NULL
REMARK   3
REMARK   3  ISOTROPIC THERMAL MODEL : NULL
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  NCS MODEL : NULL
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  : NULL
REMARK   3  TOPOLOGY FILE  1   : NULL
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS: NULL
REMARK   4
REMARK   4 1LOH COMPLIES WITH FORMAT V. 3.30, 13-JUL-11
REMARK 100
REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 09-MAY-02.
REMARK 100 THE DEPOSITION ID IS D_1000016134.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200  EXPERIMENT TYPE                : X-RAY DIFFRACTION
REMARK 200  DATE OF DATA COLLECTION        : 20-MAR-01
REMARK 200  TEMPERATURE           (KELVIN) : 298
REMARK 200  PH                             : 6.0
REMARK 200  NUMBER OF CRYSTALS USED        : 1
REMARK 200
REMARK 200  SYNCHROTRON              (Y/N) : Y
REMARK 200  RADIATION SOURCE               : APS
REMARK 200  BEAMLINE                       : 19-BM
REMARK 200  X-RAY GENERATOR MODEL          : NULL
REMARK 200  MONOCHROMATIC OR LAUE    (M/L) : M
REMARK 200  WAVELENGTH OR RANGE        (A) : 1.0
REMARK 200  MONOCHROMATOR                  : SI
REMARK 200  OPTICS                         : NULL
REMARK 200
REMARK 200  DETECTOR TYPE                  : CCD
REMARK 200  DETECTOR MANUFACTURER          : OXFORD
REMARK 200  INTENSITY-INTEGRATION SOFTWARE : HKL-2000
REMARK 200  DATA SCALING SOFTWARE          : SCALEPACK
REMARK 200
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REMARK 200  NUMBER OF UNIQUE REFLECTIONS   : 60259
REMARK 200  RESOLUTION RANGE HIGH      (A) : 2.000
REMARK 200  RESOLUTION RANGE LOW       (A) : 50.000
REMARK 200  REJECTION CRITERIA  (SIGMA(I)) : 2.000
REMARK 200
REMARK 200 OVERALL.
REMARK 200  COMPLETENESS FOR RANGE     (%) : 99.9
REMARK 200  DATA REDUNDANCY                : NULL
REMARK 200  R MERGE                    (I) : NULL
REMARK 200  R SYM                      (I) : NULL
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) : 2.00
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE LOW  (A) : 2.07
REMARK 200  COMPLETENESS FOR SHELL     (%) : 99.4
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: SINGLE WAVELENGTH
REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: MOLECULAR REPLACEMENT
REMARK 200 SOFTWARE USED: X-PLOR
REMARK 200 STARTING MODEL: NULL
REMARK 200
REMARK 200 REMARK: NULL
REMARK 280
REMARK 280 CRYSTAL
REMARK 280 SOLVENT CONTENT, VS   (%): 53.86
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 2.67
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: AMMONIUM SULFATE, SODIUM CACODYLATE,
REMARK 280  PH 6.0, VAPOR DIFFUSION, HANGING DROP, TEMPERATURE 292K
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
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REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.
REMARK 290   SMTRY1   1  1.000000  0.000000  0.000000        0.00000
REMARK 290   SMTRY2   1  0.000000  1.000000  0.000000        0.00000
REMARK 290   SMTRY3   1  0.000000  0.000000  1.000000        0.00000
REMARK 290   SMTRY1   2 -1.000000  0.000000  0.000000       41.85000
REMARK 290   SMTRY2   2  0.000000 -1.000000  0.000000        0.00000
REMARK 290   SMTRY3   2  0.000000  0.000000  1.000000       50.63450
REMARK 290   SMTRY1   3 -1.000000  0.000000  0.000000        0.00000
REMARK 290   SMTRY2   3  0.000000  1.000000  0.000000       51.78500
REMARK 290   SMTRY3   3  0.000000  0.000000 -1.000000       50.63450
REMARK 290   SMTRY1   4  1.000000  0.000000  0.000000       41.85000
REMARK 290   SMTRY2   4  0.000000 -1.000000  0.000000       51.78500
REMARK 290   SMTRY3   4  0.000000  0.000000 -1.000000        0.00000
REMARK 290
REMARK 290 REMARK: NULL
REMARK 300
REMARK 300 BIOMOLECULE: 1
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 APPLY THE FOLLOWING TO CHAINS: A, B
REMARK 350   BIOMT1   1  1.000000  0.000000  0.000000        0.00000
REMARK 350   BIOMT2   1  0.000000  1.000000  0.000000        0.00000
REMARK 350   BIOMT3   1  0.000000  0.000000  1.000000        0.00000
REMARK 470
REMARK 470 MISSING ATOM
REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS (M=MODEL NUMBER;
REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;
REMARK 470 I=INSERTION CODE):
REMARK 470   M RES CSSEQI  ATOMS
REMARK 470     VAL A 170    CG1  CG2
REMARK 470     LEU A 890    CG   CD1  CD2
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
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REMARK 500   O    HOH A  1129     O    HOH A  1131              2.17
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
REMARK 500  M RES CSSEQI        PSI       PHI
REMARK 500    ALA A 186      -53.48   -122.67
REMARK 500    GLN A 219      134.47     56.84
REMARK 500    ALA A 220       84.04     41.68
REMARK 500    ASP A 221      111.65     -0.37
REMARK 500    ASN A 231       89.66    -55.09
REMARK 500    VAL A 280      -41.69   -135.39
REMARK 500    ILE A 296      -66.45   -123.21
REMARK 500    ASN A 341       69.98   -118.61
REMARK 500    VAL A 356      -60.29    -92.74
REMARK 500    THR A 400      -56.37     71.46
REMARK 500    ASN A 401       34.97   -151.31
REMARK 500    ALA A 407      -60.34   -145.76
REMARK 500    MET A 458       -7.71    -59.00
REMARK 500    SER A 469       42.48   -140.92
REMARK 500    THR A 589        2.73    -64.40
REMARK 500    ASP A 591       46.40    -82.86
REMARK 500    ASN A 598     -155.09   -129.59
REMARK 500    SER A 605     -167.24   -124.02
REMARK 500    ALA A 666      137.50   -173.58
REMARK 500    LYS A 674      -73.36     67.79
REMARK 500    ASN A 705       68.19   -116.14
REMARK 500    ASN A 820       78.76   -161.42
REMARK 500    ASN A 821     -164.16   -128.41
REMARK 500    SER A 848       26.71     44.23
REMARK 500    SER A 880     -154.40    -96.44
REMARK 500
REMARK 500 REMARK: NULL
REMARK 900
REMARK 900 RELATED ENTRIES
REMARK 900 RELATED ID: 1C82   RELATED DB: PDB
REMARK 900 1C82 IS THE MECHANISM OF HYALURONAN BINDING AND DEGRADATION:
REMARK 900 STRUCTURE OF STREPTOCOCCUS PNEUMONIAE HYALURONATE LYASE IN COMPLEX
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REMARK 900 WITH HYALURONIC ACID DISACCHARIDE AT 1.7 A RESOLUTION
REMARK 900 RELATED ID: 1EGU   RELATED DB: PDB
REMARK 900 1EGU IS THE CRYSTAL STRUCTURE OF STREPTOCOCCUS PNEUMONIAE
REMARK 900 HYALURONATE LYASE AT 1.56 A RESOLUTION
DBREF  1LOH A  170   890  GB     437705   AAA53685       170    890
SEQADV 1LOH PHE A  408  GB   437705    TYR   408 ENGINEERED MUTATION
SEQADV 1LOH VAL A  731  GB   437705    GLY   731 SEE REMARK 999
SEQRES   1 A  721  VAL LYS ASP THR TYR THR ASP ARG LEU ASP ASP TRP ASN
SEQRES   2 A  721  GLY ILE ILE ALA GLY ASN GLN TYR TYR ASP SER LYS ASN
SEQRES   3 A  721  ASP GLN MET ALA LYS LEU ASN GLN GLU LEU GLU GLY LYS
SEQRES   4 A  721  VAL ALA ASP SER LEU SER SER ILE SER SER GLN ALA ASP
SEQRES   5 A  721  ARG ILE TYR LEU TRP GLU LYS PHE SER ASN TYR LYS THR
SEQRES   6 A  721  SER ALA ASN LEU THR ALA THR TYR ARG LYS LEU GLU GLU
SEQRES   7 A  721  MET ALA LYS GLN VAL THR ASN PRO SER SER ARG TYR TYR
SEQRES   8 A  721  GLN ASP GLU THR VAL VAL ARG THR VAL ARG ASP SER MET
SEQRES   9 A  721  GLU TRP MET HIS LYS HIS VAL TYR ASN SER GLU LYS SER
SEQRES  10 A  721  ILE VAL GLY ASN TRP TRP ASP TYR GLU ILE GLY THR PRO
SEQRES  11 A  721  ARG ALA ILE ASN ASN THR LEU SER LEU MET LYS GLU TYR
SEQRES  12 A  721  PHE SER ASP GLU GLU ILE LYS LYS TYR THR ASP VAL ILE
SEQRES  13 A  721  GLU LYS PHE VAL PRO ASP PRO GLU HIS PHE ARG LYS THR
SEQRES  14 A  721  THR ASP ASN PRO PHE LYS ALA LEU GLY GLY ASN LEU VAL
SEQRES  15 A  721  ASP MET GLY ARG VAL LYS VAL ILE ALA GLY LEU LEU ARG
SEQRES  16 A  721  LYS ASP ASP GLN GLU ILE SER SER THR ILE ARG SER ILE
SEQRES  17 A  721  GLU GLN VAL PHE LYS LEU VAL ASP GLN GLY GLU GLY PHE
SEQRES  18 A  721  TYR GLN ASP GLY SER TYR ILE ASP HIS THR ASN VAL ALA
SEQRES  19 A  721  TYR THR GLY ALA PHE GLY ASN VAL LEU ILE ASP GLY LEU
SEQRES  20 A  721  SER GLN LEU LEU PRO VAL ILE GLN LYS THR LYS ASN PRO
SEQRES  21 A  721  ILE ASP LYS ASP LYS MET GLN THR MET TYR HIS TRP ILE
SEQRES  22 A  721  ASP LYS SER PHE ALA PRO LEU LEU VAL ASN GLY GLU LEU
SEQRES  23 A  721  MET ASP MET SER ARG GLY ARG SER ILE SER ARG ALA ASN
SEQRES  24 A  721  SER GLU GLY HIS VAL ALA ALA VAL GLU VAL LEU ARG GLY
SEQRES  25 A  721  ILE HIS ARG ILE ALA ASP MET SER GLU GLY GLU THR LYS
SEQRES  26 A  721  GLN ARG LEU GLN SER LEU VAL LYS THR ILE VAL GLN SER
SEQRES  27 A  721  ASP SER TYR TYR ASP VAL PHE LYS ASN LEU LYS THR TYR
SEQRES  28 A  721  LYS ASP ILE SER LEU MET GLN SER LEU LEU SER ASP ALA
SEQRES  29 A  721  GLY VAL ALA SER VAL PRO ARG THR SER TYR LEU SER ALA
SEQRES  30 A  721  PHE ASN LYS MET ASP LYS THR ALA MET TYR ASN ALA GLU
SEQRES  31 A  721  LYS GLY PHE GLY PHE GLY LEU SER LEU PHE SER SER ARG
SEQRES  32 A  721  THR LEU ASN TYR GLU HIS MET ASN LYS GLU ASN LYS ARG
SEQRES  33 A  721  GLY TRP TYR THR SER ASP GLY MET PHE TYR LEU TYR ASN
SEQRES  34 A  721  GLY ASP LEU SER HIS TYR SER ASP GLY TYR TRP PRO THR
SEQRES  35 A  721  VAL ASN PRO TYR LYS MET PRO GLY THR THR GLU THR ASP
SEQRES  36 A  721  ALA LYS ARG ALA ASP SER ASP THR GLY LYS VAL LEU PRO
SEQRES  37 A  721  SER ALA PHE VAL GLY THR SER LYS LEU ASP ASP ALA ASN
SEQRES  38 A  721  ALA THR ALA THR MET ASP PHE THR ASN TRP ASN GLN THR
SEQRES  39 A  721  LEU THR ALA HIS LYS SER TRP PHE MET LEU LYS ASP LYS
SEQRES  40 A  721  ILE ALA PHE LEU GLY SER ASN ILE GLN ASN THR SER THR
SEQRES  41 A  721  ASP THR ALA ALA THR THR ILE ASP GLN ARG LYS LEU GLU
SEQRES  42 A  721  SER SER ASN PRO TYR LYS VAL TYR VAL ASN ASP LYS GLU
SEQRES  43 A  721  ALA SER LEU THR GLU GLN GLU LYS ASP TYR PRO GLU THR
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SEQRES  44 A  721  GLN SER VAL PHE LEU GLU SER SER ASP SER LYS LYS ASN
SEQRES  45 A  721  ILE GLY TYR PHE PHE PHE LYS LYS SER SER ILE SER MET
SEQRES  46 A  721  SER LYS ALA LEU GLN LYS GLY ALA TRP LYS ASP ILE ASN
SEQRES  47 A  721  GLU GLY GLN SER ASP LYS GLU VAL GLU ASN GLU PHE LEU
SEQRES  48 A  721  THR ILE SER GLN ALA HIS LYS GLN ASN GLY ASP SER TYR
SEQRES  49 A  721  GLY TYR MET LEU ILE PRO ASN VAL ASP ARG ALA THR PHE
SEQRES  50 A  721  ASN GLN MET ILE LYS GLU LEU GLU SER SER LEU ILE GLU
SEQRES  51 A  721  ASN ASN GLU THR LEU GLN SER VAL TYR ASP ALA LYS GLN
SEQRES  52 A  721  GLY VAL TRP GLY ILE VAL LYS TYR ASP ASP SER VAL SER
SEQRES  53 A  721  THR ILE SER ASN GLN PHE GLN VAL LEU LYS ARG GLY VAL
SEQRES  54 A  721  TYR THR ILE ARG LYS GLU GLY ASP GLU TYR LYS ILE ALA
SEQRES  55 A  721  TYR TYR ASN PRO GLU THR GLN GLU SER ALA PRO ASP GLN
SEQRES  56 A  721  GLU VAL PHE LYS LYS LEU
HET    NAG  B   1      15
HET    BDP  B   2      12
HET    NAG  B   3      14
HET    BDP  B   4      12
HET    NAG  B   5      14
HET    BDP  B   6      12
HETNAM     NAG 2-ACETAMIDO-2-DEOXY-BETA-D-GLUCOPYRANOSE
HETNAM     BDP BETA-D-GLUCOPYRANURONIC ACID
HETSYN     NAG N-ACETYL-BETA-D-GLUCOSAMINE; 2-ACETAMIDO-2-DEOXY-BETA-
HETSYN   2 NAG  D-GLUCOSE; 2-ACETAMIDO-2-DEOXY-D-GLUCOSE; 2-ACETAMIDO-
HETSYN   3 NAG  2-DEOXY-GLUCOSE; N-ACETYL-D-GLUCOSAMINE
HETSYN     BDP BETA-D-GLUCURONIC ACID; D-GLUCURONIC ACID; GLUCURONIC
HETSYN   2 BDP  ACID
FORMUL   2  NAG    3(C8 H15 N O6)
FORMUL   2  BDP    3(C6 H10 O7)
FORMUL   3  HOH   *515(H2 O)
HELIX    1   1 ASP A  172  ALA A  186  1                                  15
HELIX    2   2 GLY A  187  TYR A  191  5                                   5
HELIX    3   3 ASN A  195  ILE A  216  1                                  22
HELIX    4   4 TRP A  226  SER A  230  5                                   5
HELIX    5   5 THR A  234  THR A  253  1                                  20
HELIX    6   6 ASP A  262  VAL A  280  1                                  19
HELIX    7   7 ASN A  290  ILE A  296  1                                   7
HELIX    8   8 ILE A  296  MET A  309  1                                  14
HELIX    9   9 SER A  314  VAL A  329  1                                  16
HELIX   10  10 LEU A  346  ARG A  364  1                                  19
HELIX   11  11 ASP A  366  GLU A  378  1                                  13
HELIX   12  12 GLN A  379  LYS A  382  5                                   4
HELIX   13  13 ALA A  407  GLN A  424  1                                  18
HELIX   14  14 LYS A  432  MET A  435  5                                   4
HELIX   15  15 GLN A  436  SER A  445  1                                  10
HELIX   16  16 PHE A  446  PRO A  448  5                                   3
HELIX   17  17 ASP A  457  SER A  469  5                                  13
HELIX   18  18 GLU A  470  SER A  489  1                                  20
HELIX   19  19 GLU A  490  ASP A  508  1                                  19
HELIX   20  20 ASP A  512  LEU A  517  5                                   6
HELIX   21  21 THR A  519  ASP A  532  1                                  14
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HELIX   22  22 GLY A  607  VAL A  612  1                                   6
HELIX   23  23 ASP A  737  LYS A  740  5                                   4
HELIX   24  24 LYS A  764  ILE A  766  5                                   3
HELIX   25  25 ASP A  802  LEU A  813  1                                  12
HELIX   26  26 PRO A  882  VAL A  886  1                                   5
SHEET    1   A 2 HIS A 334  PHE A 335  0
SHEET    2   A 2 PHE A 343  LYS A 344 -1  O  PHE A 343   N  PHE A 335
SHEET    1   B 3 GLY A 389  PHE A 390  0
SHEET    2   B 3 TYR A 396  ASP A 398 -1  O  ILE A 397   N  GLY A 389
SHEET    3   B 3 VAL A 402  ALA A 403 -1  O  VAL A 402   N  ASP A 398
SHEET    1   C 2 LEU A 450  VAL A 451  0
SHEET    2   C 2 GLU A 454  LEU A 455 -1  O  GLU A 454   N  VAL A 451
SHEET    1   D 4 TYR A 543  PHE A 547  0
SHEET    2   D 4 LYS A 552  ASN A 557 -1  O  ALA A 554   N  SER A 545
SHEET    3   D 4 PHE A 562  SER A 567 -1  O  PHE A 564   N  MET A 555
SHEET    4   D 4 MET A 593  TYR A 597 -1  O  MET A 593   N  SER A 567
SHEET    1   E 7 THR A 621  THR A 623  0
SHEET    2   E 7 ALA A 692  LYS A 700 -1  O  ALA A 693   N  GLU A 622
SHEET    3   E 7 GLU A 774  HIS A 786 -1  O  HIS A 786   N  ALA A 692
SHEET    4   E 7 ILE A 742  ALA A 762 -1  N  GLY A 761   O  VAL A 775
SHEET    5   E 7 LYS A 723  GLU A 734 -1  N  TYR A 725   O  ILE A 752
SHEET    6   E 7 LYS A 708  VAL A 711 -1  N  TYR A 710   O  PHE A 732
SHEET    7   E 7 LYS A 714  ALA A 716 -1  O  ALA A 716   N  VAL A 709
SHEET    1   F 9 THR A 621  THR A 623  0
SHEET    2   F 9 ALA A 692  LYS A 700 -1  O  ALA A 693   N  GLU A 622
SHEET    3   F 9 GLU A 774  HIS A 786 -1  O  HIS A 786   N  ALA A 692
SHEET    4   F 9 ILE A 742  ALA A 762 -1  N  GLY A 761   O  VAL A 775
SHEET    5   F 9 ASP A 791  PRO A 799 -1  O  MET A 796   N  PHE A 745
SHEET    6   F 9 ILE A 677  ASN A 686 -1  N  PHE A 679   O  TYR A 795
SHEET    7   F 9 LEU A 664  LEU A 673 -1  N  SER A 669   O  LEU A 680
SHEET    8   F 9 ASN A 650  THR A 658 -1  N  ALA A 653   O  TRP A 670
SHEET    9   F 9 VAL A 641  LYS A 645 -1  N  SER A 644   O  THR A 652
SHEET    1   G 5 LEU A 817  ASN A 820  0
SHEET    2   G 5 LEU A 824  ASP A 829 -1  O  SER A 826   N  GLU A 819
SHEET    3   G 5 VAL A 834  LYS A 839 -1  O  VAL A 834   N  ASP A 829
SHEET    4   G 5 GLY A 857  GLU A 864 -1  O  TYR A 859   N  ILE A 837
SHEET    5   G 5 GLU A 867  TYR A 873 -1  O  GLU A 867   N  GLU A 864
SHEET    1   H 3 SER A 845  ILE A 847  0
SHEET    2   H 3 PHE A 851  VAL A 853 -1  O  PHE A 851   N  ILE A 847
SHEET    3   H 3 PHE A 887  LYS A 889 -1  O  LYS A 888   N  GLN A 852
LINK         O3  NAG B   1                 C1  BDP B   2     1555   1555  1.41
LINK         O4  BDP B   2                 C1  NAG B   3     1555   1555  1.42
LINK         O3  NAG B   3                 C1  BDP B   4     1555   1555  1.43
LINK         O4  BDP B   4                 C1  NAG B   5     1555   1555  1.41
LINK         O3  NAG B   5                 C1  BDP B   6     1555   1555  1.41
CRYST1   83.700  103.570  101.269  90.00  90.00  90.00 P 21 21 21    4
ORIGX1      1.000000  0.000000  0.000000        0.00000
ORIGX2      0.000000  1.000000  0.000000        0.00000
ORIGX3      0.000000  0.000000  1.000000        0.00000
SCALE1      0.011947  0.000000  0.000000        0.00000
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SCALE2      0.000000  0.009655  0.000000        0.00000
SCALE3      0.000000  0.000000  0.009875        0.00000
ATOM      1  N   VAL A 170       1.305  -7.754  -5.646  1.00 65.47           N
ATOM      2  CA  VAL A 170       0.328  -8.779  -5.162  1.00 65.66           C
ATOM      3  C   VAL A 170       0.816  -9.412  -3.855  1.00 65.39           C
ATOM      4  O   VAL A 170       1.776  -8.926  -3.243  1.00 67.14           O
ATOM      5  CB  VAL A 170       0.126  -9.862  -6.237  1.00 61.94           C
ATOM      6  N   LYS A 171       0.149 -10.483  -3.424  1.00 62.69           N
ATOM      7  CA  LYS A 171       0.534 -11.170  -2.198  1.00 56.88           C
ATOM      8  C   LYS A 171       0.298 -12.681  -2.184  1.00 53.32           C
ATOM      9  O   LYS A 171       0.008 -13.273  -3.222  1.00 54.88           O
ATOM     10  CB  LYS A 171      -0.112 -10.495  -0.994  1.00 54.73           C
ATOM     11  CG  LYS A 171       0.811  -9.438  -0.379  1.00 57.59           C
ATOM     12  CD  LYS A 171       2.270  -9.926  -0.311  1.00 52.53           C
ATOM     13  CE  LYS A 171       3.255  -8.862  -0.769  1.00 52.92           C
ATOM     14  NZ  LYS A 171       3.984  -9.300  -1.993  1.00 49.31           N
ATOM     15  N   ASP A 172       0.387 -13.306  -1.012  1.00 47.73           N
ATOM     16  CA  ASP A 172       0.307 -14.763  -0.956  1.00 41.90           C
ATOM     17  C   ASP A 172      -0.251 -15.403   0.313  1.00 40.52           C
ATOM     18  O   ASP A 172      -0.905 -14.760   1.135  1.00 40.15           O
ATOM     19  CB  ASP A 172       1.724 -15.278  -1.155  1.00 41.18           C
ATOM     20  CG  ASP A 172       2.753 -14.412  -0.417  1.00 39.25           C
ATOM     21  OD1 ASP A 172       3.839 -14.152  -0.971  1.00 41.70           O
ATOM     22  OD2 ASP A 172       2.469 -13.979   0.723  1.00 35.86           O
ATOM     23  N   THR A 173       0.055 -16.692   0.463  1.00 36.07           N
ATOM     24  CA  THR A 173      -0.369 -17.476   1.617  1.00 34.21           C
ATOM     25  C   THR A 173       0.311 -16.986   2.892  1.00 32.87           C
ATOM     26  O   THR A 173      -0.131 -17.287   4.007  1.00 30.52           O
ATOM     27  CB  THR A 173      -0.034 -18.963   1.429  1.00 33.06           C
ATOM     28  OG1 THR A 173       1.349 -19.183   1.728  1.00 33.67           O
ATOM     29  CG2 THR A 173      -0.304 -19.388  -0.007  1.00 39.65           C
ATOM     30  N   TYR A 174       1.398 -16.239   2.728  1.00 30.98           N
ATOM     31  CA  TYR A 174       2.104 -15.708   3.883  1.00 32.41           C
ATOM     32  C   TYR A 174       1.250 -14.598   4.467  1.00 31.83           C
ATOM     33  O   TYR A 174       1.049 -14.526   5.678  1.00 31.97           O
ATOM     34  CB  TYR A 174       3.469 -15.150   3.478  1.00 34.15           C
ATOM     35  CG  TYR A 174       4.466 -16.216   3.094  1.00 37.96           C
ATOM     36  CD1 TYR A 174       5.072 -17.016   4.065  1.00 35.74           C
ATOM     37  CD2 TYR A 174       4.803 -16.428   1.757  1.00 38.76           C
ATOM     38  CE1 TYR A 174       5.987 -17.999   3.712  1.00 37.23           C
ATOM     39  CE2 TYR A 174       5.718 -17.410   1.395  1.00 40.82           C
ATOM     40  CZ  TYR A 174       6.304 -18.189   2.378  1.00 38.06           C
ATOM     41  OH  TYR A 174       7.199 -19.161   2.018  1.00 38.41           O
ATOM     42  N   THR A 175       0.750 -13.730   3.595  1.00 31.33           N
ATOM     43  CA  THR A 175      -0.091 -12.627   4.030  1.00 31.91           C
ATOM     44  C   THR A 175      -1.415 -13.187   4.545  1.00 30.21           C
ATOM     45  O   THR A 175      -2.045 -12.606   5.432  1.00 29.93           O
ATOM     46  CB  THR A 175      -0.338 -11.634   2.879  1.00 31.71           C
ATOM     47  OG1 THR A 175      -0.865 -12.329   1.746  1.00 34.62           O
ATOM     48  CG2 THR A 175       0.967 -10.965   2.482  1.00 31.71           C
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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 49 | N | ASP | A | 176 | -1.817 | -14.328 | 3.990 | 1.00 | 29.47 | N |
| ATOM | 50 | CA | ASP | A | 176 | -3.045 | -14.996 | 4.400 | 1.00 | 29.68 | C |
| ATOM | 51 | C | ASP | A | 176 | -2.911 | -15.378 | 5.858 | 1.00 | 29.92 | C |
| ATOM | 52 | O | ASP | A | 176 | -3.862 | -15.294 | 6.631 | 1.00 | 31.10 | O |
| ATOM | 53 | CB | ASP | A | 176 | -3.260 | -16.270 | 3.593 | 1.00 | 31.81 | C |
| ATOM | 54 | CG | ASP | A | 176 | -3.707 | -15.994 | 2.190 | 1.00 | 32.58 | C |
| ATOM | 55 | OD1 | ASP | A | 176 | -3.760 | -16.952 | 1.393 | 1.00 | 32.60 | O |
| ATOM | 56 | OD2 | ASP | A | 176 | -4.005 | -14.821 | 1.884 | 1.00 | 36.03 | O |
| ATOM | 57 | N | ARG | A | 177 | -1.716 | -15.818 | 6.226 | 1.00 | 28.12 | N |
| ATOM | 58 | CA | ARG | A | 177 | -1.464 | -16.216 | 7.594 | 1.00 | 24.88 | C |
| ATOM | 59 | C | ARG | A | 177 | -1.402 | -14.978 | 8.465 | 1.00 | 23.11 | C |
| ATOM | 60 | O | ARG | A | 177 | -1.895 | -14.984 | 9.587 | 1.00 | 25.09 | O |
| ATOM | 61 | CB | ARG | A | 177 | -0.151 | -16.997 | 7.686 | 1.00 | 27.66 | C |
| ATOM | 62 | CG | ARG | A | 177 | -0.165 | -18.327 | 6.948 | 1.00 | 24.98 | C |
| ATOM | 63 | CD | ARG | A | 177 | -0.998 | -19.351 | 7.697 | 1.00 | 26.86 | C |
| ATOM | 64 | NE | ARG | A | 177 | -2.419 | -19.078 | 7.537 | 1.00 | 26.13 | N |
| ATOM | 65 | CZ | ARG | A | 177 | -3.068 | -19.176 | 6.382 | 1.00 | 29.70 | C |
| ATOM | 66 | NH1 | ARG | A | 177 | -2.423 | -19.543 | 5.288 | 1.00 | 29.83 | N |
| ATOM | 67 | NH2 | ARG | A | 177 | -4.358 | -18.882 | 6.313 | 1.00 | 32.37 | N |
| ATOM | 68 | N | LEU | A | 178 | -0.801 | -13.912 | 7.945 | 1.00 | 21.53 | N |
| ATOM | 69 | CA | LEU | A | 178 | -0.684 | -12.673 | 8.708 | 1.00 | 23.11 | C |
| ATOM | 70 | C | LEU | A | 178 | -2.056 | -12.020 | 8.853 | 1.00 | 24.28 | C |
| ATOM | 71 | O | LEU | A | 178 | -2.318 | -11.289 | 9.813 | 1.00 | 23.53 | O |
| ATOM | 72 | CB | LEU | A | 178 | 0.296 | -11.725 | 8.028 | 1.00 | 25.25 | C |
| ATOM | 73 | CG | LEU | A | 178 | 1.730 | -12.263 | 7.943 | 1.00 | 28.31 | C |
| ATOM | 74 | CD1 | LEU | A | 178 | 2.486 | -11.501 | 6.871 | 1.00 | 31.74 | C |
| ATOM | 75 | CD2 | LEU | A | 178 | 2.422 | -12.127 | 9.292 | 1.00 | 25.22 | C |
| ATOM | 76 | N | ASP | A | 179 | -2.932 | -12.285 | 7.893 | 1.00 | 24.53 | N |
| ATOM | 77 | CA | ASP | A | 179 | -4.289 | -11.767 | 7.967 | 1.00 | 24.73 | C |
| ATOM | 78 | C | ASP | A | 179 | -4.941 | -12.486 | 9.151 | 1.00 | 25.25 | C |
| ATOM | 79 | O | ASP | A | 179 | -5.608 | -11.866 | 9.980 | 1.00 | 21.12 | O |
| ATOM | 80 | CB | ASP | A | 179 | -5.041 | -12.086 | 6.681 | 1.00 | 25.10 | C |
| ATOM | 81 | CG | ASP | A | 179 | -4.940 | -10.976 | 5.676 | 1.00 | 23.17 | C |
| ATOM | 82 | OD1 | ASP | A | 179 | -4.607 | -9.847 | 6.088 | 1.00 | 26.16 | O |
| ATOM | 83 | OD2 | ASP | A | 179 | -5.191 | -11.228 | 4.481 | 1.00 | 25.01 | O |
| ATOM | 84 | N | ASP | A | 180 | -4.725 | -13.797 | 9.230 | 1.00 | 25.14 | N |
| ATOM | 85 | CA | ASP | A | 180 | -5.264 | -14.601 | 10.319 | 1.00 | 23.86 | C |
| ATOM | 86 | C | ASP | A | 180 | -4.709 | -14.099 | 11.653 | 1.00 | 23.90 | C |
| ATOM | 87 | O | ASP | A | 180 | -5.434 | -13.981 | 12.644 | 1.00 | 24.51 | O |
| ATOM | 88 | CB | ASP | A | 180 | -4.878 | -16.072 | 10.134 | 1.00 | 26.01 | C |
| ATOM | 89 | CG | ASP | A | 180 | -5.619 | -16.742 | 8.981 | 1.00 | 30.51 | C |
| ATOM | 90 | OD1 | ASP | A | 180 | -6.469 | -16.086 | 8.340 | 1.00 | 35.33 | O |
| ATOM | 91 | OD2 | ASP | A | 180 | -5.342 | -17.932 | 8.713 | 1.00 | 30.65 | O |
| ATOM | 92 | N | TRP | A | 181 | -3.417 | -13.799 | 11.672 | 1.00 | 19.92 | N |
| ATOM | 93 | CA | TRP | A | 181 | -2.761 | -13.330 | 12.885 | 1.00 | 18.36 | C |
| ATOM | 94 | C | TRP | A | 181 | -3.347 | -12.005 | 13.369 | 1.00 | 17.87 | C |
| ATOM | 95 | O | TRP | A | 181 | -3.531 | -11.801 | 14.568 | 1.00 | 19.16 | O |
| ATOM | 96 | CB | TRP | A | 181 | -1.252 | -13.201 | 12.628 | 1.00 | 18.86 | C |
| ATOM | 97 | CG | TRP | A | 181 | -0.450 | -12.730 | 13.808 | 1.00 | 16.92 | C |
| ATOM | 98 | CD1 | TRP | A | 181 | 0.236 | -11.557 | 13.912 | 1.00 | 12.32 | C |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 99 | CD2 | TRP | A | 181 | -0.241 | -13.430 | 15.039 | 1.00 | 16.17 | C |
| ATOM | 100 | NE1 | TRP | A | 181 | 0.862 | -11.481 | 15.131 | 1.00 | 17.96 | N |
| ATOM | 101 | CE2 | TRP | A | 181 | 0.589 | -12.618 | 15.843 | 1.00 | 18.45 | C |
| ATOM | 102 | CE3 | TRP | A | 181 | -0.673 | -14.667 | 15.540 | 1.00 | 19.93 | C |
| ATOM | 103 | CZ2 | TRP | A | 181 | 0.999 | -13.002 | 17.126 | 1.00 | 18.83 | C |
| ATOM | 104 | CZ3 | TRP | A | 181 | -0.269 | -15.050 | 16.813 | 1.00 | 19.84 | C |
| ATOM | 105 | CH2 | TRP | A | 181 | 0.561 | -14.218 | 17.593 | 1.00 | 20.33 | C |
| ATOM | 106 | N | ASN | A | 182 | -3.637 | -11.107 | 12.432 | 1.00 | 21.42 | N |
| ATOM | 107 | CA | ASN | A | 182 | -4.217 | -9.803 | 12.761 | 1.00 | 22.79 | C |
| ATOM | 108 | C | ASN | A | 182 | -5.593 | -9.951 | 13.418 | 1.00 | 22.02 | C |
| ATOM | 109 | O | ASN | A | 182 | -5.928 | -9.224 | 14.353 | 1.00 | 24.82 | O |
| ATOM | 110 | CB | ASN | A | 182 | -4.356 | -8.949 | 11.496 | 1.00 | 22.00 | C |
| ATOM | 111 | CG | ASN | A | 182 | -3.023 | -8.457 | 10.979 | 1.00 | 23.18 | C |
| ATOM | 112 | OD1 | ASN | A | 182 | -2.028 | -8.489 | 11.699 | 1.00 | 21.68 | O |
| ATOM | 113 | ND2 | ASN | A | 182 | -2.994 | -7.998 | 9.729 | 1.00 | 18.15 | N |
| ATOM | 114 | N | GLY | A | 183 | -6.385 | -10.892 | 12.916 | 1.00 | 22.13 | N |
| ATOM | 115 | CA | GLY | A | 183 | -7.710 | -11.116 | 13.463 | 1.00 | 21.98 | C |
| ATOM | 116 | C | GLY | A | 183 | -7.633 | -11.649 | 14.874 | 1.00 | 22.44 | C |
| ATOM | 117 | O | GLY | A | 183 | -8.550 | -11.467 | 15.682 | 1.00 | 21.56 | O |
| ATOM | 118 | N | ILE | A | 184 | -6.517 | -12.304 | 15.175 | 1.00 | 22.59 | N |
| ATOM | 119 | CA | ILE | A | 184 | -6.304 | -12.871 | 16.496 | 1.00 | 20.81 | C |
| ATOM | 120 | C | ILE | A | 184 | -5.766 | -11.812 | 17.443 | 1.00 | 20.27 | C |
| ATOM | 121 | O | ILE | A | 184 | -6.232 | -11.679 | 18.579 | 1.00 | 20.47 | O |
| ATOM | 122 | CB | ILE | A | 184 | -5.282 | -14.035 | 16.451 | 1.00 | 21.89 | C |
| ATOM | 123 | CG1 | ILE | A | 184 | -5.898 | -15.255 | 15.785 | 1.00 | 20.13 | C |
| ATOM | 124 | CG2 | ILE | A | 184 | -4.829 | -14.396 | 17.854 | 1.00 | 18.15 | C |
| ATOM | 125 | CD1 | ILE | A | 184 | -4.871 | -16.177 | 15.172 | 1.00 | 24.26 | C |
| ATOM | 126 | N | ILE | A | 185 | -4.785 | -11.053 | 16.970 | 1.00 | 20.38 | N |
| ATOM | 127 | CA | ILE | A | 185 | -4.164 | -10.047 | 17.811 | 1.00 | 20.31 | C |
| ATOM | 128 | C | ILE | A | 185 | -4.880 | -8.715 | 17.894 | 1.00 | 22.22 | C |
| ATOM | 129 | O | ILE | A | 185 | -4.707 | -7.984 | 18.865 | 1.00 | 19.75 | O |
| ATOM | 130 | CB | ILE | A | 185 | -2.693 | -9.811 | 17.399 | 1.00 | 23.46 | C |
| ATOM | 131 | CG1 | ILE | A | 185 | -2.616 | -9.148 | 16.033 | 1.00 | 21.82 | C |
| ATOM | 132 | CG2 | ILE | A | 185 | -1.957 | -11.131 | 17.386 | 1.00 | 20.13 | C |
| ATOM | 133 | CD1 | ILE | A | 185 | -1.233 | -8.663 | 15.704 | 1.00 | 20.25 | C |
| ATOM | 134 | N | ALA | A | 186 | -5.690 | -8.394 | 16.894 | 1.00 | 22.95 | N |
| ATOM | 135 | CA | ALA | A | 186 | -6.422 | -7.133 | 16.921 | 1.00 | 20.64 | C |
| ATOM | 136 | C | ALA | A | 186 | -7.924 | -7.415 | 16.814 | 1.00 | 20.30 | C |
| ATOM | 137 | O | ALA | A | 186 | -8.711 | -6.974 | 17.648 | 1.00 | 16.98 | O |
| ATOM | 138 | CB | ALA | A | 186 | -5.961 | -6.239 | 15.782 | 1.00 | 21.90 | C |
| ATOM | 139 | N | GLY | A | 187 | -8.295 | -8.166 | 15.783 | 1.00 | 21.57 | N |
| ATOM | 140 | CA | GLY | A | 187 | -9.682 | -8.523 | 15.564 | 1.00 | 27.15 | C |
| ATOM | 141 | C | GLY | A | 187 | -10.492 | -7.364 | 15.030 | 1.00 | 28.73 | C |
| ATOM | 142 | O | GLY | A | 187 | -11.683 | -7.266 | 15.303 | 1.00 | 30.52 | O |
| ATOM | 143 | N | ASN | A | 188 | -9.851 | -6.485 | 14.269 | 1.00 | 27.86 | N |
| ATOM | 144 | CA | ASN | A | 188 | -10.542 | -5.332 | 13.722 | 1.00 | 27.05 | C |
| ATOM | 145 | C | ASN | A | 188 | -11.698 | -5.782 | 12.854 | 1.00 | 29.21 | C |
| ATOM | 146 | O | ASN | A | 188 | -12.730 | -5.117 | 12.784 | 1.00 | 31.40 | O |
| ATOM | 147 | CB | ASN | A | 188 | -9.592 | -4.473 | 12.894 | 1.00 | 25.16 | C |
| ATOM | 148 | CG | ASN | A | 188 | -8.837 | -3.469 | 13.735 | 1.00 | 27.05 | C |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 149 | OD1 | ASN | A | 188 | -9.264 | -3.111 | 14.837 | 1.00 | 25.01 | O |
| ATOM | 150 | ND2 | ASN | A | 188 | -7.702 | -3.006 | 13.221 | 1.00 | 23.69 | N |
| ATOM | 151 | N | GLN | A | 189 | -11.527 | -6.919 | 12.194 | 1.00 | 28.90 | N |
| ATOM | 152 | CA | GLN | A | 189 | -12.572 | -7.435 | 11.326 | 1.00 | 29.84 | C |
| ATOM | 153 | C | GLN | A | 189 | -13.826 | -7.880 | 12.082 | 1.00 | 28.93 | C |
| ATOM | 154 | O | GLN | A | 189 | -14.846 | -8.164 | 11.457 | 1.00 | 32.39 | O |
| ATOM | 155 | CB | GLN | A | 189 | -12.042 | -8.607 | 10.509 | 1.00 | 32.91 | C |
| ATOM | 156 | CG | GLN | A | 189 | -12.411 | -9.952 | 11.093 | 1.00 | 35.34 | C |
| ATOM | 157 | CD | GLN | A | 189 | -11.575 | -11.059 | 10.532 | 1.00 | 38.79 | C |
| ATOM | 158 | OE1 | GLN | A | 189 | -10.344 | -10.985 | 10.544 | 1.00 | 45.83 | O |
| ATOM | 159 | NE2 | GLN | A | 189 | -12.230 | -12.100 | 10.030 | 1.00 | 37.87 | N |
| ATOM | 160 | N | TYR | A | 190 | -13.751 | -7.951 | 13.409 | 1.00 | 24.91 | N |
| ATOM | 161 | CA | TYR | A | 190 | -14.891 | -8.368 | 14.218 | 1.00 | 23.76 | C |
| ATOM | 162 | C | TYR | A | 190 | -15.508 | -7.195 | 14.964 | 1.00 | 25.45 | C |
| ATOM | 163 | O | TYR | A | 190 | -16.486 | -7.365 | 15.694 | 1.00 | 24.50 | O |
| ATOM | 164 | CB | TYR | A | 190 | -14.478 | -9.420 | 15.256 | 1.00 | 25.38 | C |
| ATOM | 165 | CG | TYR | A | 190 | -13.773 | -10.628 | 14.695 | 1.00 | 27.51 | C |
| ATOM | 166 | CD1 | TYR | A | 190 | -14.488 | -11.661 | 14.095 | 1.00 | 25.28 | C |
| ATOM | 167 | CD2 | TYR | A | 190 | -12.386 | -10.743 | 14.767 | 1.00 | 26.34 | C |
| ATOM | 168 | CE1 | TYR | A | 190 | -13.846 | -12.772 | 13.582 | 1.00 | 26.81 | C |
| ATOM | 169 | CE2 | TYR | A | 190 | -11.736 | -11.850 | 14.256 | 1.00 | 22.71 | C |
| ATOM | 170 | CZ | TYR | A | 190 | -12.468 | -12.863 | 13.667 | 1.00 | 25.16 | C |
| ATOM | 171 | OH | TYR | A | 190 | -11.828 | -13.980 | 13.176 | 1.00 | 26.34 | O |
| ATOM | 172 | N | TYR | A | 191 | -14.942 | -6.006 | 14.794 | 1.00 | 22.42 | N |
| ATOM | 173 | CA | TYR | A | 191 | -15.463 | -4.848 | 15.506 | 1.00 | 24.92 | C |
| ATOM | 174 | C | TYR | A | 191 | -16.905 | -4.500 | 15.161 | 1.00 | 26.04 | C |
| ATOM | 175 | O | TYR | A | 191 | -17.339 | -4.613 | 14.016 | 1.00 | 25.30 | O |
| ATOM | 176 | CB | TYR | A | 191 | -14.595 | -3.617 | 15.263 | 1.00 | 19.20 | C |
| ATOM | 177 | CG | TYR | A | 191 | -14.962 | -2.490 | 16.188 | 1.00 | 17.77 | C |
| ATOM | 178 | CD1 | TYR | A | 191 | -14.690 | -2.568 | 17.546 | 1.00 | 17.07 | C |
| ATOM | 179 | CD2 | TYR | A | 191 | -15.612 | -1.359 | 15.711 | 1.00 | 22.45 | C |
| ATOM | 180 | CE1 | TYR | A | 191 | -15.056 | -1.549 | 18.412 | 1.00 | 17.86 | C |
| ATOM | 181 | CE2 | TYR | A | 191 | -15.984 | -0.331 | 16.568 | 1.00 | 21.64 | C |
| ATOM | 182 | CZ | TYR | A | 191 | -15.704 | -0.429 | 17.914 | 1.00 | 20.08 | C |
| ATOM | 183 | OH | TYR | A | 191 | -16.065 | 0.598 | 18.762 | 1.00 | 22.78 | O |
| ATOM | 184 | N | ASP | A | 192 | -17.640 | -4.061 | 16.170 | 1.00 | 29.51 | N |
| ATOM | 185 | CA | ASP | A | 192 | -19.035 | -3.677 | 16.006 | 1.00 | 26.88 | C |
| ATOM | 186 | C | ASP | A | 192 | -19.277 | -2.547 | 16.984 | 1.00 | 24.87 | C |
| ATOM | 187 | O | ASP | A | 192 | -19.248 | -2.754 | 18.199 | 1.00 | 24.87 | O |
| ATOM | 188 | CB | ASP | A | 192 | -19.944 | -4.864 | 16.327 | 1.00 | 28.87 | C |
| ATOM | 189 | CG | ASP | A | 192 | -21.408 | -4.470 | 16.461 | 1.00 | 32.04 | C |
| ATOM | 190 | OD1 | ASP | A | 192 | -21.766 | -3.311 | 16.162 | 1.00 | 32.70 | O |
| ATOM | 191 | OD2 | ASP | A | 192 | -22.204 | -5.333 | 16.872 | 1.00 | 30.86 | O |
| ATOM | 192 | N | SER | A | 193 | -19.500 | -1.349 | 16.451 | 1.00 | 26.80 | N |
| ATOM | 193 | CA | SER | A | 193 | -19.735 | -0.173 | 17.285 | 1.00 | 31.54 | C |
| ATOM | 194 | C | SER | A | 193 | -20.946 | -0.320 | 18.196 | 1.00 | 32.46 | C |
| ATOM | 195 | O | SER | A | 193 | -20.988 | 0.271 | 19.275 | 1.00 | 35.05 | O |
| ATOM | 196 | CB | SER | A | 193 | -19.898 | 1.081 | 16.415 | 1.00 | 32.12 | C |
| ATOM | 197 | OG | SER | A | 193 | -20.823 | 0.873 | 15.360 | 1.00 | 33.42 | O |
| ATOM | 198 | N | LYS | A | 194 | -21.929 | -1.109 | 17.776 | 1.00 | 32.92 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 199 | CA | LYS | A | 194 | -23.121 | -1.291 | 18.594 | 1.00 | 36.50 | C |
| ATOM | 200 | C | LYS | A | 194 | -22.848 | -2.254 | 19.746 | 1.00 | 35.06 | C |
| ATOM | 201 | O | LYS | A | 194 | -23.696 | -2.442 | 20.622 | 1.00 | 33.04 | O |
| ATOM | 202 | CB | LYS | A | 194 | -24.290 | -1.795 | 17.736 | 1.00 | 41.78 | C |
| ATOM | 203 | CG | LYS | A | 194 | -25.100 | -0.678 | 17.061 | 1.00 | 50.01 | C |
| ATOM | 204 | CD | LYS | A | 194 | -25.798 | 0.240 | 18.088 | 1.00 | 59.61 | C |
| ATOM | 205 | CE | LYS | A | 194 | -26.696 | 1.302 | 17.416 | 1.00 | 61.69 | C |
| ATOM | 206 | NZ | LYS | A | 194 | -26.754 | 2.610 | 18.160 | 1.00 | 55.17 | N |
| ATOM | 207 | N | ASN | A | 195 | -21.658 | -2.854 | 19.741 | 1.00 | 32.29 | N |
| ATOM | 208 | CA | ASN | A | 195 | -21.255 | -3.788 | 20.790 | 1.00 | 26.47 | C |
| ATOM | 209 | C | ASN | A | 195 | -20.607 | -3.014 | 21.928 | 1.00 | 28.37 | C |
| ATOM | 210 | O | ASN | A | 195 | -19.518 | -2.470 | 21.777 | 1.00 | 33.56 | O |
| ATOM | 211 | CB | ASN | A | 195 | -20.270 | -4.823 | 20.237 | 1.00 | 22.17 | C |
| ATOM | 212 | CG | ASN | A | 195 | -19.879 | -5.874 | 21.269 | 1.00 | 15.37 | C |
| ATOM | 213 | OD1 | ASN | A | 195 | -19.615 | -5.557 | 22.425 | 1.00 | 21.78 | O |
| ATOM | 214 | ND2 | ASN | A | 195 | -19.836 | -7.128 | 20.848 | 1.00 | 16.44 | N |
| ATOM | 215 | N | ASP | A | 196 | -21.291 | -2.971 | 23.063 | 1.00 | 29.40 | N |
| ATOM | 216 | CA | ASP | A | 196 | -20.838 | -2.271 | 24.264 | 1.00 | 31.16 | C |
| ATOM | 217 | C | ASP | A | 196 | -19.382 | -2.547 | 24.662 | 1.00 | 29.81 | C |
| ATOM | 218 | O | ASP | A | 196 | -18.589 | -1.619 | 24.828 | 1.00 | 23.18 | O |
| ATOM | 219 | CB | ASP | A | 196 | -21.741 | -2.656 | 25.441 | 1.00 | 41.96 | C |
| ATOM | 220 | CG | ASP | A | 196 | -22.412 | -1.462 | 26.086 | 1.00 | 52.78 | C |
| ATOM | 221 | OD1 | ASP | A | 196 | -22.394 | -1.372 | 27.337 | 1.00 | 57.45 | O |
| ATOM | 222 | OD2 | ASP | A | 196 | -22.962 | -0.618 | 25.344 | 1.00 | 58.05 | O |
| ATOM | 223 | N | GLN | A | 197 | -19.049 | -3.824 | 24.834 | 1.00 | 25.61 | N |
| ATOM | 224 | CA | GLN | A | 197 | -17.706 | -4.222 | 25.247 | 1.00 | 26.24 | C |
| ATOM | 225 | C | GLN | A | 197 | -16.621 | -3.841 | 24.252 | 1.00 | 22.47 | C |
| ATOM | 226 | O | GLN | A | 197 | -15.575 | -3.338 | 24.639 | 1.00 | 25.12 | O |
| ATOM | 227 | CB | GLN | A | 197 | -17.659 | -5.728 | 25.507 | 1.00 | 25.03 | C |
| ATOM | 228 | CG | GLN | A | 197 | -18.551 | -6.198 | 26.649 | 1.00 | 29.71 | C |
| ATOM | 229 | CD | GLN | A | 197 | -18.252 | -5.519 | 27.978 | 1.00 | 31.88 | C |
| ATOM | 230 | OE1 | GLN | A | 197 | -17.245 | -4.823 | 28.133 | 1.00 | 31.11 | O |
| ATOM | 231 | NE2 | GLN | A | 197 | -19.134 | -5.723 | 28.947 | 1.00 | 34.08 | N |
| ATOM | 232 | N | MET | A | 198 | -16.870 | -4.086 | 22.973 | 1.00 | 23.25 | N |
| ATOM | 233 | CA | MET | A | 198 | -15.903 | -3.756 | 21.940 | 1.00 | 20.65 | C |
| ATOM | 234 | C | MET | A | 198 | -15.674 | -2.262 | 21.832 | 1.00 | 24.40 | C |
| ATOM | 235 | O | MET | A | 198 | -14.536 | -1.807 | 21.723 | 1.00 | 29.36 | O |
| ATOM | 236 | CB | MET | A | 198 | -16.374 | -4.279 | 20.596 | 1.00 | 16.82 | C |
| ATOM | 237 | CG | MET | A | 198 | -16.575 | -5.755 | 20.596 | 1.00 | 12.00 | C |
| ATOM | 238 | SD | MET | A | 198 | -16.683 | -6.307 | 18.938 | 1.00 | 21.29 | S |
| ATOM | 239 | CE | MET | A | 198 | -16.595 | -8.069 | 19.174 | 1.00 | 18.90 | C |
| ATOM | 240 | N | ALA | A | 199 | -16.758 | -1.498 | 21.849 | 1.00 | 21.81 | N |
| ATOM | 241 | CA | ALA | A | 199 | -16.660 | -0.049 | 21.750 | 1.00 | 21.18 | C |
| ATOM | 242 | C | ALA | A | 199 | -15.783 | 0.497 | 22.871 | 1.00 | 22.66 | C |
| ATOM | 243 | O | ALA | A | 199 | -15.050 | 1.465 | 22.679 | 1.00 | 26.47 | O |
| ATOM | 244 | CB | ALA | A | 199 | -18.047 | 0.571 | 21.822 | 1.00 | 20.79 | C |
| ATOM | 245 | N | LYS | A | 200 | -15.860 | -0.135 | 24.039 | 1.00 | 24.96 | N |
| ATOM | 246 | CA | LYS | A | 200 | -15.085 | 0.283 | 25.204 | 1.00 | 26.59 | C |
| ATOM | 247 | C | LYS | A | 200 | -13.577 | 0.077 | 25.015 | 1.00 | 27.29 | C |
| ATOM | 248 | O | LYS | A | 200 | -12.776 | 0.906 | 25.445 | 1.00 | 27.95 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 249 | CB | LYS | A | 200 | -15.558 | -0.477 | 26.446 | 1.00 | 28.15 | C |
| ATOM | 250 | CG | LYS | A | 200 | -15.111 | 0.152 | 27.746 | 1.00 | 36.34 | C |
| ATOM | 251 | CD | LYS | A | 200 | -15.982 | -0.267 | 28.920 | 1.00 | 43.70 | C |
| ATOM | 252 | CE | LYS | A | 200 | -15.511 | 0.408 | 30.210 | 1.00 | 50.19 | C |
| ATOM | 253 | NZ | LYS | A | 200 | -16.607 | 0.548 | 31.212 | 1.00 | 53.86 | N |
| ATOM | 254 | N | LEU | A | 201 | -13.200 | -1.030 | 24.378 | 1.00 | 25.09 | N |
| ATOM | 255 | CA | LEU | A | 201 | -11.792 | -1.337 | 24.124 | 1.00 | 25.47 | C |
| ATOM | 256 | C | LEU | A | 201 | -11.276 | -0.409 | 23.028 | 1.00 | 25.98 | C |
| ATOM | 257 | O | LEU | A | 201 | -10.163 | 0.109 | 23.103 | 1.00 | 24.35 | O |
| ATOM | 258 | CB | LEU | A | 201 | -11.638 | -2.788 | 23.671 | 1.00 | 20.63 | C |
| ATOM | 259 | CG | LEU | A | 201 | -10.275 | -3.133 | 23.084 | 1.00 | 20.08 | C |
| ATOM | 260 | CD1 | LEU | A | 201 | -9.223 | -2.894 | 24.154 | 1.00 | 19.31 | C |
| ATOM | 261 | CD2 | LEU | A | 201 | -10.247 | -4.580 | 22.612 | 1.00 | 15.66 | C |
| ATOM | 262 | N | ASN | A | 202 | -12.099 | -0.210 | 22.006 | 1.00 | 25.19 | N |
| ATOM | 263 | CA | ASN | A | 202 | -11.739 | 0.663 | 20.907 | 1.00 | 23.96 | C |
| ATOM | 264 | C | ASN | A | 202 | -11.539 | 2.075 | 21.418 | 1.00 | 25.37 | C |
| ATOM | 265 | O | ASN | A | 202 | -10.686 | 2.805 | 20.927 | 1.00 | 27.28 | O |
| ATOM | 266 | CB | ASN | A | 202 | -12.831 | 0.667 | 19.847 | 1.00 | 24.10 | C |
| ATOM | 267 | CG | ASN | A | 202 | -12.650 | 1.781 | 18.838 | 1.00 | 25.65 | C |
| ATOM | 268 | OD1 | ASN | A | 202 | -13.364 | 2.781 | 18.873 | 1.00 | 24.97 | O |
| ATOM | 269 | ND2 | ASN | A | 202 | -11.689 | 1.616 | 17.934 | 1.00 | 19.24 | N |
| ATOM | 270 | N | GLN | A | 203 | -12.335 | 2.467 | 22.404 | 1.00 | 26.96 | N |
| ATOM | 271 | CA | GLN | A | 203 | -12.217 | 3.803 | 22.961 | 1.00 | 27.55 | C |
| ATOM | 272 | C | GLN | A | 203 | -10.902 | 3.897 | 23.725 | 1.00 | 27.26 | C |
| ATOM | 273 | O | GLN | A | 203 | -10.249 | 4.942 | 23.736 | 1.00 | 24.34 | O |
| ATOM | 274 | CB | GLN | A | 203 | -13.400 | 4.099 | 23.891 | 1.00 | 29.48 | C |
| ATOM | 275 | CG | GLN | A | 203 | -13.732 | 5.587 | 24.043 | 1.00 | 37.48 | C |
| ATOM | 276 | CD | GLN | A | 203 | -13.937 | 6.316 | 22.705 | 1.00 | 43.62 | C |
| ATOM | 277 | OE1 | GLN | A | 203 | -14.407 | 5.734 | 21.719 | 1.00 | 42.22 | O |
| ATOM | 278 | NE2 | GLN | A | 203 | -13.588 | 7.600 | 22.676 | 1.00 | 46.18 | N |
| ATOM | 279 | N | GLU | A | 204 | -10.520 | 2.795 | 24.361 | 1.00 | 27.48 | N |
| ATOM | 280 | CA | GLU | A | 204 | -9.277 | 2.746 | 25.119 | 1.00 | 28.10 | C |
| ATOM | 281 | C | GLU | A | 204 | -8.094 | 2.910 | 24.156 | 1.00 | 27.44 | C |
| ATOM | 282 | O | GLU | A | 204 | -7.138 | 3.627 | 24.448 | 1.00 | 26.98 | O |
| ATOM | 283 | CB | GLU | A | 204 | -9.181 | 1.419 | 25.880 | 1.00 | 27.54 | C |
| ATOM | 284 | CG | GLU | A | 204 | -7.776 | 0.830 | 25.969 | 1.00 | 37.36 | C |
| ATOM | 285 | CD | GLU | A | 204 | -7.662 | -0.252 | 27.033 | 1.00 | 39.98 | C |
| ATOM | 286 | OE1 | GLU | A | 204 | -7.179 | -1.363 | 26.718 | 1.00 | 40.04 | O |
| ATOM | 287 | OE2 | GLU | A | 204 | -8.058 | 0.012 | 28.188 | 1.00 | 41.38 | O |
| ATOM | 288 | N | LEU | A | 205 | -8.174 | 2.250 | 23.004 | 1.00 | 24.35 | N |
| ATOM | 289 | CA | LEU | A | 205 | -7.124 | 2.335 | 22.000 | 1.00 | 23.98 | C |
| ATOM | 290 | C | LEU | A | 205 | -7.103 | 3.713 | 21.320 | 1.00 | 29.76 | C |
| ATOM | 291 | O | LEU | A | 205 | -6.045 | 4.179 | 20.886 | 1.00 | 29.42 | O |
| ATOM | 292 | CB | LEU | A | 205 | -7.316 | 1.241 | 20.948 | 1.00 | 20.75 | C |
| ATOM | 293 | CG | LEU | A | 205 | -6.980 | -0.184 | 21.394 | 1.00 | 22.96 | C |
| ATOM | 294 | CD1 | LEU | A | 205 | -7.451 | -1.195 | 20.344 | 1.00 | 18.14 | C |
| ATOM | 295 | CD2 | LEU | A | 205 | -5.473 | -0.293 | 21.622 | 1.00 | 23.69 | C |
| ATOM | 296 | N | GLU | A | 206 | -8.269 | 4.357 | 21.223 | 1.00 | 28.76 | N |
| ATOM | 297 | CA | GLU | A | 206 | -8.379 | 5.683 | 20.610 | 1.00 | 26.35 | C |
| ATOM | 298 | C | GLU | A | 206 | -7.653 | 6.695 | 21.482 | 1.00 | 26.14 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 299 | O | GLU | A | 206 | -6.941 | 7.568 | 20.984 | 1.00 | 31.14 | O |
| ATOM | 300 | CB | GLU | A | 206 | -9.848 | 6.109 | 20.491 | 1.00 | 27.57 | C |
| ATOM | 301 | CG | GLU | A | 206 | -10.644 | 5.352 | 19.455 | 1.00 | 28.09 | C |
| ATOM | 302 | CD | GLU | A | 206 | -10.406 | 5.857 | 18.048 | 1.00 | 30.97 | C |
| ATOM | 303 | OE1 | GLU | A | 206 | -9.428 | 5.409 | 17.404 | 1.00 | 29.91 | O |
| ATOM | 304 | OE2 | GLU | A | 206 | -11.203 | 6.699 | 17.586 | 1.00 | 29.96 | O |
| ATOM | 305 | N | GLY | A | 207 | -7.846 | 6.569 | 22.789 | 1.00 | 22.82 | N |
| ATOM | 306 | CA | GLY | A | 207 | -7.207 | 7.470 | 23.728 | 1.00 | 24.97 | C |
| ATOM | 307 | C | GLY | A | 207 | -5.700 | 7.282 | 23.805 | 1.00 | 27.29 | C |
| ATOM | 308 | O | GLY | A | 207 | -4.966 | 8.246 | 24.006 | 1.00 | 27.41 | O |
| ATOM | 309 | N | LYS | A | 208 | -5.235 | 6.044 | 23.652 | 1.00 | 26.67 | N |
| ATOM | 310 | CA | LYS | A | 208 | -3.808 | 5.758 | 23.706 | 1.00 | 24.96 | C |
| ATOM | 311 | C | LYS | A | 208 | -3.127 | 6.440 | 22.536 | 1.00 | 23.43 | C |
| ATOM | 312 | O | LYS | A | 208 | -2.222 | 7.242 | 22.729 | 1.00 | 25.69 | O |
| ATOM | 313 | CB | LYS | A | 208 | -3.558 | 4.251 | 23.637 | 1.00 | 23.56 | C |
| ATOM | 314 | CG | LYS | A | 208 | -3.610 | 3.542 | 24.982 | 1.00 | 22.21 | C |
| ATOM | 315 | CD | LYS | A | 208 | -3.859 | 2.051 | 24.786 | 1.00 | 24.52 | C |
| ATOM | 316 | CE | LYS | A | 208 | -3.344 | 1.230 | 25.954 | 1.00 | 25.43 | C |
| ATOM | 317 | NZ | LYS | A | 208 | -3.835 | 1.735 | 27.267 | 1.00 | 25.90 | N |
| ATOM | 318 | N | VAL | A | 209 | -3.582 | 6.122 | 21.327 | 1.00 | 22.79 | N |
| ATOM | 319 | CA | VAL | A | 209 | -3.023 | 6.691 | 20.106 | 1.00 | 22.87 | C |
| ATOM | 320 | C | VAL | A | 209 | -2.992 | 8.216 | 20.135 | 1.00 | 26.28 | C |
| ATOM | 321 | O | VAL | A | 209 | -2.013 | 8.835 | 19.718 | 1.00 | 28.10 | O |
| ATOM | 322 | CB | VAL | A | 209 | -3.806 | 6.202 | 18.882 | 1.00 | 18.90 | C |
| ATOM | 323 | CG1 | VAL | A | 209 | -3.296 | 6.862 | 17.621 | 1.00 | 13.76 | C |
| ATOM | 324 | CG2 | VAL | A | 209 | -3.668 | 4.690 | 18.777 | 1.00 | 18.90 | C |
| ATOM | 325 | N | ALA | A | 210 | -4.057 | 8.822 | 20.642 | 1.00 | 29.41 | N |
| ATOM | 326 | CA | ALA | A | 210 | -4.125 | 10.273 | 20.738 | 1.00 | 28.43 | C |
| ATOM | 327 | C | ALA | A | 210 | -3.062 | 10.793 | 21.707 | 1.00 | 30.14 | C |
| ATOM | 328 | O | ALA | A | 210 | -2.409 | 11.803 | 21.445 | 1.00 | 30.84 | O |
| ATOM | 329 | CB | ALA | A | 210 | -5.519 | 10.704 | 21.204 | 1.00 | 27.62 | C |
| ATOM | 330 | N | ASP | A | 211 | -2.898 | 10.111 | 22.835 | 1.00 | 29.04 | N |
| ATOM | 331 | CA | ASP | A | 211 | -1.906 | 10.523 | 23.817 | 1.00 | 31.89 | C |
| ATOM | 332 | C | ASP | A | 211 | -0.517 | 10.393 | 23.201 | 1.00 | 30.61 | C |
| ATOM | 333 | O | ASP | A | 211 | 0.322 | 11.277 | 23.349 | 1.00 | 33.13 | O |
| ATOM | 334 | CB | ASP | A | 211 | -2.009 | 9.651 | 25.069 | 1.00 | 34.60 | C |
| ATOM | 335 | CG | ASP | A | 211 | -3.241 | 9.972 | 25.901 | 1.00 | 40.73 | C |
| ATOM | 336 | OD1 | ASP | A | 211 | -3.843 | 11.044 | 25.674 | 1.00 | 38.74 | O |
| ATOM | 337 | OD2 | ASP | A | 211 | -3.607 | 9.156 | 26.782 | 1.00 | 41.14 | O |
| ATOM | 338 | N | SER | A | 212 | -0.296 | 9.287 | 22.499 | 1.00 | 28.68 | N |
| ATOM | 339 | CA | SER | A | 212 | 0.973 | 9.013 | 21.847 | 1.00 | 28.16 | C |
| ATOM | 340 | C | SER | A | 212 | 1.244 | 10.031 | 20.749 | 1.00 | 28.68 | C |
| ATOM | 341 | O | SER | A | 212 | 2.369 | 10.506 | 20.583 | 1.00 | 26.39 | O |
| ATOM | 342 | CB | SER | A | 212 | 0.959 | 7.606 | 21.238 | 1.00 | 27.32 | C |
| ATOM | 343 | OG | SER | A | 212 | 0.861 | 6.610 | 22.241 | 1.00 | 29.82 | O |
| ATOM | 344 | N | LEU | A | 213 | 0.204 | 10.361 | 19.997 | 1.00 | 27.03 | N |
| ATOM | 345 | CA | LEU | A | 213 | 0.331 | 11.303 | 18.897 | 1.00 | 27.23 | C |
| ATOM | 346 | C | LEU | A | 213 | 0.570 | 12.746 | 19.334 | 1.00 | 27.41 | C |
| ATOM | 347 | O | LEU | A | 213 | 1.237 | 13.501 | 18.636 | 1.00 | 30.36 | O |
| ATOM | 348 | CB | LEU | A | 213 | -0.920 | 11.249 | 18.025 | 1.00 | 24.65 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 349 | CG | LEU | A | 213 | -1.045 | 10.095 | 17.038 | 1.00 | 22.93 | C |
| ATOM | 350 | CD1 | LEU | A | 213 | -2.366 | 10.234 | 16.280 | 1.00 | 20.30 | C |
| ATOM | 351 | CD2 | LEU | A | 213 | 0.133 | 10.109 | 16.076 | 1.00 | 20.03 | C |
| ATOM | 352 | N | SER | A | 214 | 0.027 | 13.129 | 20.483 | 1.00 | 25.64 | N |
| ATOM | 353 | CA | SER | A | 214 | 0.179 | 14.496 | 20.961 | 1.00 | 32.16 | C |
| ATOM | 354 | C | SER | A | 214 | 1.405 | 14.708 | 21.845 | 1.00 | 35.56 | C |
| ATOM | 355 | O | SER | A | 214 | 1.698 | 15.835 | 22.254 | 1.00 | 36.68 | O |
| ATOM | 356 | CB | SER | A | 214 | -1.070 | 14.916 | 21.727 | 1.00 | 29.35 | C |
| ATOM | 357 | OG | SER | A | 214 | -1.206 | 14.155 | 22.911 | 1.00 | 36.25 | O |
| ATOM | 358 | N | SER | A | 215 | 2.116 | 13.624 | 22.140 | 1.00 | 37.38 | N |
| ATOM | 359 | CA | SER | A | 215 | 3.301 | 13.691 | 22.987 | 1.00 | 36.43 | C |
| ATOM | 360 | C | SER | A | 215 | 4.559 | 13.329 | 22.208 | 1.00 | 38.11 | C |
| ATOM | 361 | O | SER | A | 215 | 5.675 | 13.592 | 22.659 | 1.00 | 41.31 | O |
| ATOM | 362 | CB | SER | A | 215 | 3.151 | 12.741 | 24.171 | 1.00 | 32.54 | C |
| ATOM | 363 | OG | SER | A | 215 | 3.246 | 11.403 | 23.726 | 1.00 | 32.60 | O |
| ATOM | 364 | N | ILE | A | 216 | 4.384 | 12.723 | 21.041 | 1.00 | 36.96 | N |
| ATOM | 365 | CA | ILE | A | 216 | 5.529 | 12.344 | 20.231 | 1.00 | 39.41 | C |
| ATOM | 366 | C | ILE | A | 216 | 6.328 | 13.589 | 19.845 | 1.00 | 43.96 | C |
| ATOM | 367 | O | ILE | A | 216 | 5.764 | 14.589 | 19.385 | 1.00 | 46.85 | O |
| ATOM | 368 | CB | ILE | A | 216 | 5.089 | 11.569 | 18.953 | 1.00 | 34.89 | C |
| ATOM | 369 | CG1 | ILE | A | 216 | 6.265 | 10.754 | 18.413 | 1.00 | 33.85 | C |
| ATOM | 370 | CG2 | ILE | A | 216 | 4.575 | 12.529 | 17.893 | 1.00 | 32.20 | C |
| ATOM | 371 | CD1 | ILE | A | 216 | 5.908 | 9.874 | 17.229 | 1.00 | 32.21 | C |
| ATOM | 372 | N | SER | A | 217 | 7.641 | 13.527 | 20.052 | 1.00 | 45.40 | N |
| ATOM | 373 | CA | SER | A | 217 | 8.526 | 14.642 | 19.731 | 1.00 | 46.51 | C |
| ATOM | 374 | C | SER | A | 217 | 8.641 | 14.845 | 18.222 | 1.00 | 46.45 | C |
| ATOM | 375 | O | SER | A | 217 | 8.673 | 13.883 | 17.450 | 1.00 | 44.01 | O |
| ATOM | 376 | CB | SER | A | 217 | 9.917 | 14.400 | 20.327 | 1.00 | 48.12 | C |
| ATOM | 377 | OG | SER | A | 217 | 10.049 | 15.014 | 21.602 | 1.00 | 52.62 | O |
| ATOM | 378 | N | SER | A | 218 | 8.703 | 16.105 | 17.804 | 1.00 | 50.77 | N |
| ATOM | 379 | CA | SER | A | 218 | 8.808 | 16.418 | 16.388 | 1.00 | 53.97 | C |
| ATOM | 380 | C | SER | A | 218 | 9.903 | 17.435 | 16.067 | 1.00 | 55.71 | C |
| ATOM | 381 | O | SER | A | 218 | 10.624 | 17.920 | 16.954 | 1.00 | 52.92 | O |
| ATOM | 382 | CB | SER | A | 218 | 7.463 | 16.935 | 15.865 | 1.00 | 55.53 | C |
| ATOM | 383 | OG | SER | A | 218 | 6.373 | 16.340 | 16.554 | 1.00 | 58.39 | O |
| ATOM | 384 | N | GLN | A | 219 | 10.009 | 17.730 | 14.773 | 1.00 | 59.11 | N |
| ATOM | 385 | CA | GLN | A | 219 | 10.969 | 18.682 | 14.217 | 1.00 | 61.20 | C |
| ATOM | 386 | C | GLN | A | 219 | 12.442 | 18.409 | 14.518 | 1.00 | 59.78 | C |
| ATOM | 387 | O | GLN | A | 219 | 12.814 | 18.113 | 15.659 | 1.00 | 60.78 | O |
| ATOM | 388 | CB | GLN | A | 219 | 10.612 | 20.110 | 14.663 | 1.00 | 64.29 | C |
| ATOM | 389 | CG | GLN | A | 219 | 9.566 | 20.807 | 13.781 | 1.00 | 62.21 | C |
| ATOM | 390 | CD | GLN | A | 219 | 10.163 | 21.886 | 12.892 | 1.00 | 63.11 | C |
| ATOM | 391 | OE1 | GLN | A | 219 | 9.799 | 22.013 | 11.719 | 1.00 | 62.55 | O |
| ATOM | 392 | NE2 | GLN | A | 219 | 11.084 | 22.672 | 13.447 | 1.00 | 62.80 | N |
| ATOM | 393 | N | ALA | A | 220 | 13.262 | 18.521 | 13.469 | 1.00 | 57.94 | N |
| ATOM | 394 | CA | ALA | A | 220 | 14.712 | 18.329 | 13.536 | 1.00 | 55.40 | C |
| ATOM | 395 | C | ALA | A | 220 | 15.102 | 17.144 | 14.406 | 1.00 | 55.00 | C |
| ATOM | 396 | O | ALA | A | 220 | 15.426 | 17.316 | 15.585 | 1.00 | 49.81 | O |
| ATOM | 397 | CB | ALA | A | 220 | 15.379 | 19.603 | 14.058 | 1.00 | 53.26 | C |
| ATOM | 398 | N | ASP | A | 221 | 15.079 | 15.954 | 13.806 | 1.00 | 57.54 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 399 | CA | ASP | A | 221 | 15.405 | 14.699 | 14.490 | 1.00 | 59.73 | C |
| ATOM | 400 | C | ASP | A | 221 | 15.781 | 14.888 | 15.950 | 1.00 | 60.40 | C |
| ATOM | 401 | O | ASP | A | 221 | 16.828 | 15.455 | 16.274 | 1.00 | 63.03 | O |
| ATOM | 402 | CB | ASP | A | 221 | 16.532 | 13.975 | 13.759 | 1.00 | 62.91 | C |
| ATOM | 403 | CG | ASP | A | 221 | 16.018 | 13.078 | 12.656 | 1.00 | 63.74 | C |
| ATOM | 404 | OD1 | ASP | A | 221 | 14.959 | 13.407 | 12.080 | 1.00 | 65.67 | O |
| ATOM | 405 | OD2 | ASP | A | 221 | 16.670 | 12.049 | 12.367 | 1.00 | 64.74 | O |
| ATOM | 406 | N | ARG | A | 222 | 14.912 | 14.403 | 16.826 | 1.00 | 58.89 | N |
| ATOM | 407 | CA | ARG | A | 222 | 15.104 | 14.523 | 18.264 | 1.00 | 56.62 | C |
| ATOM | 408 | C | ARG | A | 222 | 16.021 | 13.450 | 18.838 | 1.00 | 53.75 | C |
| ATOM | 409 | O | ARG | A | 222 | 16.609 | 12.657 | 18.102 | 1.00 | 53.66 | O |
| ATOM | 410 | CB | ARG | A | 222 | 13.743 | 14.467 | 18.967 | 1.00 | 58.03 | C |
| ATOM | 411 | CG | ARG | A | 222 | 12.564 | 14.197 | 18.028 | 1.00 | 58.32 | C |
| ATOM | 412 | CD | ARG | A | 222 | 12.686 | 12.838 | 17.361 | 1.00 | 57.28 | C |
| ATOM | 413 | NE | ARG | A | 222 | 11.491 | 12.467 | 16.609 | 1.00 | 58.34 | N |
| ATOM | 414 | CZ | ARG | A | 222 | 11.479 | 12.214 | 15.304 | 1.00 | 58.40 | C |
| ATOM | 415 | NH1 | ARG | A | 222 | 12.601 | 12.295 | 14.600 | 1.00 | 60.06 | N |
| ATOM | 416 | NH2 | ARG | A | 222 | 10.351 | 11.859 | 14.705 | 1.00 | 56.21 | N |
| ATOM | 417 | N | ILE | A | 223 | 16.132 | 13.439 | 20.163 | 1.00 | 51.45 | N |
| ATOM | 418 | CA | ILE | A | 223 | 16.963 | 12.473 | 20.868 | 1.00 | 50.29 | C |
| ATOM | 419 | C | ILE | A | 223 | 16.097 | 11.345 | 21.441 | 1.00 | 51.24 | C |
| ATOM | 420 | O | ILE | A | 223 | 16.606 | 10.380 | 22.009 | 1.00 | 50.24 | O |
| ATOM | 421 | CB | ILE | A | 223 | 17.754 | 13.166 | 22.020 | 1.00 | 47.58 | C |
| ATOM | 422 | CG1 | ILE | A | 223 | 16.929 | 13.176 | 23.307 | 1.00 | 46.76 | C |
| ATOM | 423 | CG2 | ILE | A | 223 | 18.090 | 14.597 | 21.635 | 1.00 | 45.48 | C |
| ATOM | 424 | CD1 | ILE | A | 223 | 17.765 | 13.128 | 24.565 | 1.00 | 48.08 | C |
| ATOM | 425 | N | TYR | A | 224 | 14.785 | 11.474 | 21.270 | 1.00 | 51.41 | N |
| ATOM | 426 | CA | TYR | A | 224 | 13.823 | 10.499 | 21.777 | 1.00 | 50.17 | C |
| ATOM | 427 | C | TYR | A | 224 | 12.491 | 10.652 | 21.051 | 1.00 | 49.09 | C |
| ATOM | 428 | O | TYR | A | 224 | 12.112 | 11.766 | 20.683 | 1.00 | 49.28 | O |
| ATOM | 429 | CB | TYR | A | 224 | 13.592 | 10.718 | 23.278 | 1.00 | 50.76 | C |
| ATOM | 430 | CG | TYR | A | 224 | 13.412 | 12.173 | 23.699 | 1.00 | 53.84 | C |
| ATOM | 431 | CD1 | TYR | A | 224 | 13.380 | 12.525 | 25.046 | 1.00 | 54.76 | C |
| ATOM | 432 | CD2 | TYR | A | 224 | 13.301 | 13.198 | 22.754 | 1.00 | 56.15 | C |
| ATOM | 433 | CE1 | TYR | A | 224 | 13.245 | 13.850 | 25.447 | 1.00 | 55.51 | C |
| ATOM | 434 | CE2 | TYR | A | 224 | 13.166 | 14.530 | 23.143 | 1.00 | 57.89 | C |
| ATOM | 435 | CZ | TYR | A | 224 | 13.140 | 14.848 | 24.492 | 1.00 | 58.94 | C |
| ATOM | 436 | OH | TYR | A | 224 | 13.022 | 16.161 | 24.887 | 1.00 | 60.64 | O |
| ATOM | 437 | N | LEU | A | 225 | 11.783 | 9.545 | 20.839 | 1.00 | 45.71 | N |
| ATOM | 438 | CA | LEU | A | 225 | 10.483 | 9.617 | 20.177 | 1.00 | 40.22 | C |
| ATOM | 439 | C | LEU | A | 225 | 9.488 | 10.123 | 21.210 | 1.00 | 39.70 | C |
| ATOM | 440 | O | LEU | A | 225 | 8.691 | 11.022 | 20.945 | 1.00 | 40.01 | O |
| ATOM | 441 | CB | LEU | A | 225 | 10.056 | 8.243 | 19.666 | 1.00 | 33.79 | C |
| ATOM | 442 | CG | LEU | A | 225 | 10.653 | 7.819 | 18.325 | 1.00 | 32.44 | C |
| ATOM | 443 | CD1 | LEU | A | 225 | 9.784 | 6.745 | 17.716 | 1.00 | 31.25 | C |
| ATOM | 444 | CD2 | LEU | A | 225 | 10.761 | 9.010 | 17.386 | 1.00 | 30.80 | C |
| ATOM | 445 | N | TRP | A | 226 | 9.563 | 9.551 | 22.403 | 1.00 | 36.66 | N |
| ATOM | 446 | CA | TRP | A | 226 | 8.688 | 9.939 | 23.486 | 1.00 | 37.07 | C |
| ATOM | 447 | C | TRP | A | 226 | 9.547 | 10.189 | 24.715 | 1.00 | 41.10 | C |
| ATOM | 448 | O | TRP | A | 226 | 10.284 | 9.308 | 25.153 | 1.00 | 42.37 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 449 | CB | TRP | A | 226 | 7.665 | 8.826 | 23.752 | 1.00 | 35.18 | C |
| ATOM | 450 | CG | TRP | A | 226 | 6.503 | 8.858 | 22.792 | 1.00 | 31.67 | C |
| ATOM | 451 | CD1 | TRP | A | 226 | 5.430 | 9.703 | 22.836 | 1.00 | 30.38 | C |
| ATOM | 452 | CD2 | TRP | A | 226 | 6.322 | 8.045 | 21.626 | 1.00 | 31.06 | C |
| ATOM | 453 | NE1 | TRP | A | 226 | 4.596 | 9.471 | 21.770 | 1.00 | 29.87 | N |
| ATOM | 454 | CE2 | TRP | A | 226 | 5.118 | 8.457 | 21.010 | 1.00 | 29.55 | C |
| ATOM | 455 | CE3 | TRP | A | 226 | 7.059 | 7.008 | 21.039 | 1.00 | 30.33 | C |
| ATOM | 456 | CZ2 | TRP | A | 226 | 4.634 | 7.871 | 19.837 | 1.00 | 28.02 | C |
| ATOM | 457 | CZ3 | TRP | A | 226 | 6.575 | 6.424 | 19.867 | 1.00 | 33.27 | C |
| ATOM | 458 | CH2 | TRP | A | 226 | 5.372 | 6.859 | 19.281 | 1.00 | 29.10 | C |
| ATOM | 459 | N | GLU | A | 227 | 9.459 | 11.397 | 25.259 | 1.00 | 42.84 | N |
| ATOM | 460 | CA | GLU | A | 227 | 10.229 | 11.781 | 26.439 | 1.00 | 45.27 | C |
| ATOM | 461 | C | GLU | A | 227 | 10.171 | 10.767 | 27.591 | 1.00 | 46.31 | C |
| ATOM | 462 | O | GLU | A | 227 | 11.130 | 10.628 | 28.354 | 1.00 | 45.31 | O |
| ATOM | 463 | CB | GLU | A | 227 | 9.747 | 13.146 | 26.942 | 1.00 | 48.28 | C |
| ATOM | 464 | CG | GLU | A | 227 | 10.851 | 14.073 | 27.413 | 1.00 | 52.70 | C |
| ATOM | 465 | CD | GLU | A | 227 | 11.061 | 14.012 | 28.912 | 1.00 | 59.78 | C |
| ATOM | 466 | OE1 | GLU | A | 227 | 11.345 | 15.069 | 29.515 | 1.00 | 67.76 | O |
| ATOM | 467 | OE2 | GLU | A | 227 | 10.945 | 12.912 | 29.492 | 1.00 | 62.47 | O |
| ATOM | 468 | N | LYS | A | 228 | 9.048 | 10.066 | 27.725 | 1.00 | 47.22 | N |
| ATOM | 469 | CA | LYS | A | 228 | 8.881 | 9.085 | 28.797 | 1.00 | 46.79 | C |
| ATOM | 470 | C | LYS | A | 228 | 9.741 | 7.841 | 28.597 | 1.00 | 44.20 | C |
| ATOM | 471 | O | LYS | A | 228 | 10.081 | 7.158 | 29.562 | 1.00 | 44.29 | O |
| ATOM | 472 | CB | LYS | A | 228 | 7.411 | 8.674 | 28.916 | 1.00 | 51.24 | C |
| ATOM | 473 | CG | LYS | A | 228 | 6.612 | 9.494 | 29.921 | 1.00 | 57.40 | C |
| ATOM | 474 | CD | LYS | A | 228 | 5.360 | 10.100 | 29.279 | 1.00 | 63.26 | C |
| ATOM | 475 | CE | LYS | A | 228 | 4.083 | 9.404 | 29.747 | 1.00 | 62.52 | C |
| ATOM | 476 | NZ | LYS | A | 228 | 3.425 | 8.642 | 28.644 | 1.00 | 62.54 | N |
| ATOM | 477 | N | PHE | A | 229 | 10.081 | 7.548 | 27.346 | 1.00 | 39.64 | N |
| ATOM | 478 | CA | PHE | A | 229 | 10.906 | 6.387 | 27.016 | 1.00 | 40.93 | C |
| ATOM | 479 | C | PHE | A | 229 | 12.059 | 6.843 | 26.127 | 1.00 | 41.46 | C |
| ATOM | 480 | O | PHE | A | 229 | 12.278 | 6.310 | 25.035 | 1.00 | 40.57 | O |
| ATOM | 481 | CB | PHE | A | 229 | 10.066 | 5.332 | 26.291 | 1.00 | 41.02 | C |
| ATOM | 482 | CG | PHE | A | 229 | 8.678 | 5.175 | 26.851 | 1.00 | 39.17 | C |
| ATOM | 483 | CD1 | PHE | A | 229 | 8.468 | 4.475 | 28.036 | 1.00 | 36.23 | C |
| ATOM | 484 | CD2 | PHE | A | 229 | 7.586 | 5.749 | 26.209 | 1.00 | 38.48 | C |
| ATOM | 485 | CE1 | PHE | A | 229 | 7.189 | 4.349 | 28.578 | 1.00 | 39.56 | C |
| ATOM | 486 | CE2 | PHE | A | 229 | 6.304 | 5.630 | 26.742 | 1.00 | 41.01 | C |
| ATOM | 487 | CZ | PHE | A | 229 | 6.105 | 4.928 | 27.930 | 1.00 | 39.79 | C |
| ATOM | 488 | N | SER | A | 230 | 12.795 | 7.835 | 26.620 | 1.00 | 44.01 | N |
| ATOM | 489 | CA | SER | A | 230 | 13.923 | 8.429 | 25.904 | 1.00 | 46.38 | C |
| ATOM | 490 | C | SER | A | 230 | 15.230 | 7.663 | 26.082 | 1.00 | 46.62 | C |
| ATOM | 491 | O | SER | A | 230 | 15.915 | 7.341 | 25.103 | 1.00 | 47.04 | O |
| ATOM | 492 | CB | SER | A | 230 | 14.120 | 9.869 | 26.378 | 1.00 | 46.02 | C |
| ATOM | 493 | OG | SER | A | 230 | 13.942 | 9.974 | 27.783 | 1.00 | 47.73 | O |
| ATOM | 494 | N | ASN | A | 231 | 15.570 | 7.388 | 27.339 | 1.00 | 45.55 | N |
| ATOM | 495 | CA | ASN | A | 231 | 16.791 | 6.670 | 27.686 | 1.00 | 44.43 | C |
| ATOM | 496 | C | ASN | A | 231 | 16.890 | 5.326 | 26.975 | 1.00 | 43.30 | C |
| ATOM | 497 | O | ASN | A | 231 | 16.441 | 4.313 | 27.509 | 1.00 | 42.61 | O |
| ATOM | 498 | CB | ASN | A | 231 | 16.839 | 6.447 | 29.196 | 1.00 | 43.08 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 499 | CG | ASN | A | 231 | 18.171 | 5.909 | 29.656 | 1.00 | 46.43 | C |
| ATOM | 500 | OD1 | ASN | A | 231 | 19.085 | 5.712 | 28.849 | 1.00 | 43.54 | O |
| ATOM | 501 | ND2 | ASN | A | 231 | 18.296 | 5.665 | 30.956 | 1.00 | 43.28 | N |
| ATOM | 502 | N | TYR | A | 232 | 17.487 | 5.316 | 25.784 | 1.00 | 43.58 | N |
| ATOM | 503 | CA | TYR | A | 232 | 17.625 | 4.086 | 25.009 | 1.00 | 46.64 | C |
| ATOM | 504 | C | TYR | A | 232 | 18.627 | 3.086 | 25.595 | 1.00 | 44.90 | C |
| ATOM | 505 | O | TYR | A | 232 | 18.972 | 2.102 | 24.952 | 1.00 | 41.63 | O |
| ATOM | 506 | CB | TYR | A | 232 | 17.984 | 4.412 | 23.551 | 1.00 | 54.49 | C |
| ATOM | 507 | CG | TYR | A | 232 | 19.400 | 4.922 | 23.321 | 1.00 | 65.85 | C |
| ATOM | 508 | CD1 | TYR | A | 232 | 19.806 | 6.181 | 23.788 | 1.00 | 68.42 | C |
| ATOM | 509 | CD2 | TYR | A | 232 | 20.328 | 4.159 | 22.604 | 1.00 | 68.20 | C |
| ATOM | 510 | CE1 | TYR | A | 232 | 21.102 | 6.664 | 23.543 | 1.00 | 69.60 | C |
| ATOM | 511 | CE2 | TYR | A | 232 | 21.623 | 4.633 | 22.355 | 1.00 | 70.98 | C |
| ATOM | 512 | CZ | TYR | A | 232 | 22.002 | 5.883 | 22.825 | 1.00 | 71.51 | C |
| ATOM | 513 | OH | TYR | A | 232 | 23.277 | 6.344 | 22.573 | 1.00 | 71.03 | O |
| ATOM | 514 | N | LYS | A | 233 | 19.084 | 3.347 | 26.817 | 1.00 | 46.53 | N |
| ATOM | 515 | CA | LYS | A | 233 | 20.019 | 2.460 | 27.508 | 1.00 | 47.93 | C |
| ATOM | 516 | C | LYS | A | 233 | 19.186 | 1.516 | 28.378 | 1.00 | 45.87 | C |
| ATOM | 517 | O | LYS | A | 233 | 19.663 | 0.466 | 28.819 | 1.00 | 45.65 | O |
| ATOM | 518 | CB | LYS | A | 233 | 20.989 | 3.268 | 28.380 | 1.00 | 48.98 | C |
| ATOM | 519 | CG | LYS | A | 233 | 22.195 | 3.823 | 27.630 | 1.00 | 51.82 | C |
| ATOM | 520 | CD | LYS | A | 233 | 22.964 | 4.830 | 28.486 | 1.00 | 56.42 | C |
| ATOM | 521 | CE | LYS | A | 233 | 24.418 | 4.412 | 28.697 | 1.00 | 58.89 | C |
| ATOM | 522 | NZ | LYS | A | 233 | 25.174 | 5.365 | 29.569 | 1.00 | 57.91 | N |
| ATOM | 523 | N | THR | A | 234 | 17.941 | 1.916 | 28.634 | 1.00 | 44.34 | N |
| ATOM | 524 | CA | THR | A | 234 | 16.991 | 1.103 | 29.396 | 1.00 | 41.15 | C |
| ATOM | 525 | C | THR | A | 234 | 16.218 | 0.323 | 28.337 | 1.00 | 38.52 | C |
| ATOM | 526 | O | THR | A | 234 | 15.370 | 0.888 | 27.651 | 1.00 | 39.15 | O |
| ATOM | 527 | CB | THR | A | 234 | 15.983 | 1.963 | 30.166 | 1.00 | 37.22 | C |
| ATOM | 528 | OG1 | THR | A | 234 | 16.640 | 3.113 | 30.698 | 1.00 | 44.77 | O |
| ATOM | 529 | CG2 | THR | A | 234 | 15.372 | 1.175 | 31.298 | 1.00 | 40.12 | C |
| ATOM | 530 | N | SER | A | 235 | 16.523 | -0.962 | 28.190 | 1.00 | 35.42 | N |
| ATOM | 531 | CA | SER | A | 235 | 15.866 | -1.794 | 27.190 | 1.00 | 29.24 | C |
| ATOM | 532 | C | SER | A | 235 | 14.345 | -1.673 | 27.251 | 1.00 | 28.94 | C |
| ATOM | 533 | O | SER | A | 235 | 13.673 | -1.794 | 26.233 | 1.00 | 28.85 | O |
| ATOM | 534 | CB | SER | A | 235 | 16.275 | -3.255 | 27.376 | 1.00 | 30.51 | C |
| ATOM | 535 | OG | SER | A | 235 | 16.258 | -3.600 | 28.750 | 1.00 | 28.50 | O |
| ATOM | 536 | N | ALA | A | 236 | 13.806 | -1.436 | 28.443 | 1.00 | 28.03 | N |
| ATOM | 537 | CA | ALA | A | 236 | 12.365 | -1.298 | 28.609 | 1.00 | 30.31 | C |
| ATOM | 538 | C | ALA | A | 236 | 11.781 | -0.265 | 27.635 | 1.00 | 32.79 | C |
| ATOM | 539 | O | ALA | A | 236 | 10.808 | -0.539 | 26.929 | 1.00 | 32.54 | O |
| ATOM | 540 | CB | ALA | A | 236 | 12.047 | -0.902 | 30.044 | 1.00 | 28.13 | C |
| ATOM | 541 | N | ASN | A | 237 | 12.387 | 0.919 | 27.597 | 1.00 | 34.10 | N |
| ATOM | 542 | CA | ASN | A | 237 | 11.939 | 1.998 | 26.722 | 1.00 | 32.68 | C |
| ATOM | 543 | C | ASN | A | 237 | 11.920 | 1.588 | 25.255 | 1.00 | 33.29 | C |
| ATOM | 544 | O | ASN | A | 237 | 11.290 | 2.245 | 24.426 | 1.00 | 35.72 | O |
| ATOM | 545 | CB | ASN | A | 237 | 12.841 | 3.222 | 26.897 | 1.00 | 33.07 | C |
| ATOM | 546 | CG | ASN | A | 237 | 12.876 | 3.720 | 28.326 | 1.00 | 35.02 | C |
| ATOM | 547 | OD1 | ASN | A | 237 | 13.744 | 4.511 | 28.700 | 1.00 | 38.08 | O |
| ATOM | 548 | ND2 | ASN | A | 237 | 11.930 | 3.258 | 29.137 | 1.00 | 34.96 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 549 | N | LEU | A | 238 | 12.605 | 0.499 | 24.934 | 1.00 | 33.79 | N |
| ATOM | 550 | CA | LEU | A | 238 | 12.658 | 0.014 | 23.561 | 1.00 | 32.59 | C |
| ATOM | 551 | C | LEU | A | 238 | 11.316 | -0.581 | 23.133 | 1.00 | 35.15 | C |
| ATOM | 552 | O | LEU | A | 238 | 10.729 | -0.150 | 22.140 | 1.00 | 34.28 | O |
| ATOM | 553 | CB | LEU | A | 238 | 13.753 | -1.047 | 23.423 | 1.00 | 35.70 | C |
| ATOM | 554 | CG | LEU | A | 238 | 14.857 | -0.871 | 22.378 | 1.00 | 37.04 | C |
| ATOM | 555 | CD1 | LEU | A | 238 | 14.243 | -0.880 | 20.998 | 1.00 | 40.88 | C |
| ATOM | 556 | CD2 | LEU | A | 238 | 15.608 | 0.420 | 22.627 | 1.00 | 34.67 | C |
| ATOM | 557 | N | THR | A | 239 | 10.830 | -1.568 | 23.882 | 1.00 | 33.79 | N |
| ATOM | 558 | CA | THR | A | 239 | 9.569 | -2.216 | 23.537 | 1.00 | 33.51 | C |
| ATOM | 559 | C | THR | A | 239 | 8.333 | -1.381 | 23.886 | 1.00 | 33.48 | C |
| ATOM | 560 | O | THR | A | 239 | 7.275 | -1.567 | 23.292 | 1.00 | 33.91 | O |
| ATOM | 561 | CB | THR | A | 239 | 9.457 | -3.624 | 24.186 | 1.00 | 34.57 | C |
| ATOM | 562 | OG1 | THR | A | 239 | 8.661 | -3.558 | 25.374 | 1.00 | 36.90 | O |
| ATOM | 563 | CG2 | THR | A | 239 | 10.830 | -4.161 | 24.525 | 1.00 | 26.43 | C |
| ATOM | 564 | N | ALA | A | 240 | 8.465 | -0.465 | 24.841 | 1.00 | 32.87 | N |
| ATOM | 565 | CA | ALA | A | 240 | 7.353 | 0.402 | 25.217 | 1.00 | 32.26 | C |
| ATOM | 566 | C | ALA | A | 240 | 7.112 | 1.391 | 24.081 | 1.00 | 34.80 | C |
| ATOM | 567 | O | ALA | A | 240 | 5.988 | 1.855 | 23.859 | 1.00 | 37.42 | O |
| ATOM | 568 | CB | ALA | A | 240 | 7.678 | 1.155 | 26.484 | 1.00 | 27.57 | C |
| ATOM | 569 | N | THR | A | 241 | 8.184 | 1.701 | 23.361 | 1.00 | 33.25 | N |
| ATOM | 570 | CA | THR | A | 241 | 8.125 | 2.630 | 22.246 | 1.00 | 28.68 | C |
| ATOM | 571 | C | THR | A | 241 | 7.493 | 1.948 | 21.046 | 1.00 | 25.59 | C |
| ATOM | 572 | O | THR | A | 241 | 6.615 | 2.510 | 20.399 | 1.00 | 27.81 | O |
| ATOM | 573 | CB | THR | A | 241 | 9.549 | 3.139 | 21.860 | 1.00 | 29.16 | C |
| ATOM | 574 | OG1 | THR | A | 241 | 9.954 | 4.175 | 22.766 | 1.00 | 25.42 | O |
| ATOM | 575 | CG2 | THR | A | 241 | 9.557 | 3.689 | 20.440 | 1.00 | 25.67 | C |
| ATOM | 576 | N | TYR | A | 242 | 7.934 | 0.732 | 20.754 | 1.00 | 22.37 | N |
| ATOM | 577 | CA | TYR | A | 242 | 7.410 | -0.013 | 19.616 | 1.00 | 26.52 | C |
| ATOM | 578 | C | TYR | A | 242 | 5.953 | -0.437 | 19.824 | 1.00 | 27.57 | C |
| ATOM | 579 | O | TYR | A | 242 | 5.200 | -0.622 | 18.867 | 1.00 | 23.29 | O |
| ATOM | 580 | CB | TYR | A | 242 | 8.286 | -1.237 | 19.355 | 1.00 | 28.99 | C |
| ATOM | 581 | CG | TYR | A | 242 | 9.496 | -0.923 | 18.507 | 1.00 | 31.58 | C |
| ATOM | 582 | CD1 | TYR | A | 242 | 9.358 | -0.657 | 17.147 | 1.00 | 32.69 | C |
| ATOM | 583 | CD2 | TYR | A | 242 | 10.780 | -0.905 | 19.057 | 1.00 | 31.23 | C |
| ATOM | 584 | CE1 | TYR | A | 242 | 10.468 | -0.383 | 16.347 | 1.00 | 34.78 | C |
| ATOM | 585 | CE2 | TYR | A | 242 | 11.905 | -0.631 | 18.260 | 1.00 | 32.36 | C |
| ATOM | 586 | CZ | TYR | A | 242 | 11.736 | -0.374 | 16.906 | 1.00 | 34.16 | C |
| ATOM | 587 | OH | TYR | A | 242 | 12.818 | -0.130 | 16.092 | 1.00 | 30.26 | O |
| ATOM | 588 | N | ARG | A | 243 | 5.571 | -0.585 | 21.085 | 1.00 | 25.99 | N |
| ATOM | 589 | CA | ARG | A | 243 | 4.216 | -0.972 | 21.435 | 1.00 | 27.56 | C |
| ATOM | 590 | C | ARG | A | 243 | 3.279 | 0.185 | 21.136 | 1.00 | 29.72 | C |
| ATOM | 591 | O | ARG | A | 243 | 2.111 | -0.021 | 20.815 | 1.00 | 27.30 | O |
| ATOM | 592 | CB | ARG | A | 243 | 4.145 | -1.329 | 22.913 | 1.00 | 23.64 | C |
| ATOM | 593 | CG | ARG | A | 243 | 4.015 | -2.792 | 23.133 | 1.00 | 27.23 | C |
| ATOM | 594 | CD | ARG | A | 243 | 4.594 | -3.199 | 24.454 | 1.00 | 30.28 | C |
| ATOM | 595 | NE | ARG | A | 243 | 5.058 | -4.575 | 24.375 | 1.00 | 31.79 | N |
| ATOM | 596 | CZ | ARG | A | 243 | 5.323 | -5.349 | 25.420 | 1.00 | 37.27 | C |
| ATOM | 597 | NH1 | ARG | A | 243 | 5.741 | -6.586 | 25.206 | 1.00 | 33.47 | N |
| ATOM | 598 | NH2 | ARG | A | 243 | 5.178 | -4.898 | 26.664 | 1.00 | 32.47 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 599 | N | LYS | A | 244 | 3.801 | 1.404 | 21.250 | 1.00 | 28.92 | N |
| ATOM | 600 | CA | LYS | A | 244 | 3.014 | 2.596 | 20.969 | 1.00 | 28.82 | C |
| ATOM | 601 | C | LYS | A | 244 | 2.680 | 2.674 | 19.475 | 1.00 | 28.16 | C |
| ATOM | 602 | O | LYS | A | 244 | 1.617 | 3.175 | 19.102 | 1.00 | 25.57 | O |
| ATOM | 603 | CB | LYS | A | 244 | 3.773 | 3.851 | 21.408 | 1.00 | 25.68 | C |
| ATOM | 604 | CG | LYS | A | 244 | 3.672 | 4.139 | 22.898 | 1.00 | 25.39 | C |
| ATOM | 605 | CD | LYS | A | 244 | 3.825 | 5.624 | 23.169 | 1.00 | 31.20 | C |
| ATOM | 606 | CE | LYS | A | 244 | 2.952 | 6.076 | 24.326 | 1.00 | 33.92 | C |
| ATOM | 607 | NZ | LYS | A | 244 | 3.034 | 5.131 | 25.477 | 1.00 | 43.60 | N |
| ATOM | 608 | N | LEU | A | 245 | 3.579 | 2.170 | 18.627 | 1.00 | 24.58 | N |
| ATOM | 609 | CA | LEU | A | 245 | 3.360 | 2.184 | 17.179 | 1.00 | 26.00 | C |
| ATOM | 610 | C | LEU | A | 245 | 2.405 | 1.074 | 16.773 | 1.00 | 23.48 | C |
| ATOM | 611 | O | LEU | A | 245 | 1.694 | 1.169 | 15.774 | 1.00 | 22.96 | O |
| ATOM | 612 | CB | LEU | A | 245 | 4.678 | 1.996 | 16.429 | 1.00 | 24.56 | C |
| ATOM | 613 | CG | LEU | A | 245 | 5.702 | 3.117 | 16.586 | 1.00 | 30.07 | C |
| ATOM | 614 | CD1 | LEU | A | 245 | 6.923 | 2.808 | 15.716 | 1.00 | 29.45 | C |
| ATOM | 615 | CD2 | LEU | A | 245 | 5.077 | 4.451 | 16.204 | 1.00 | 25.03 | C |
| ATOM | 616 | N | GLU | A | 246 | 2.419 | 0.008 | 17.552 | 1.00 | 24.71 | N |
| ATOM | 617 | CA | GLU | A | 246 | 1.564 | -1.138 | 17.315 | 1.00 | 25.78 | C |
| ATOM | 618 | C | GLU | A | 246 | 0.117 | -0.727 | 17.600 | 1.00 | 25.12 | C |
| ATOM | 619 | O | GLU | A | 246 | -0.811 | -1.119 | 16.895 | 1.00 | 26.90 | O |
| ATOM | 620 | CB | GLU | A | 246 | 1.991 | -2.244 | 18.253 | 1.00 | 23.35 | C |
| ATOM | 621 | CG | GLU | A | 246 | 1.380 | -3.566 | 17.997 | 1.00 | 27.48 | C |
| ATOM | 622 | CD | GLU | A | 246 | 1.618 | -4.441 | 19.171 | 1.00 | 30.39 | C |
| ATOM | 623 | OE1 | GLU | A | 246 | 2.093 | -5.574 | 18.991 | 1.00 | 43.97 | O |
| ATOM | 624 | OE2 | GLU | A | 246 | 1.340 | -3.983 | 20.290 | 1.00 | 31.73 | O |
| ATOM | 625 | N | GLU | A | 247 | -0.056 | 0.067 | 18.649 | 1.00 | 23.32 | N |
| ATOM | 626 | CA | GLU | A | 247 | -1.365 | 0.565 | 19.018 | 1.00 | 20.70 | C |
| ATOM | 627 | C | GLU | A | 247 | -1.886 | 1.406 | 17.860 | 1.00 | 23.35 | C |
| ATOM | 628 | O | GLU | A | 247 | -3.068 | 1.332 | 17.509 | 1.00 | 24.72 | O |
| ATOM | 629 | CB | GLU | A | 247 | -1.258 | 1.405 | 20.286 | 1.00 | 18.86 | C |
| ATOM | 630 | CG | GLU | A | 247 | -0.994 | 0.579 | 21.534 | 1.00 | 15.04 | C |
| ATOM | 631 | CD | GLU | A | 247 | -0.769 | 1.440 | 22.755 | 1.00 | 17.41 | C |
| ATOM | 632 | OE1 | GLU | A | 247 | -0.525 | 2.655 | 22.580 | 1.00 | 21.23 | O |
| ATOM | 633 | OE2 | GLU | A | 247 | -0.835 | 0.906 | 23.888 | 1.00 | 20.63 | O |
| ATOM | 634 | N | MET | A | 248 | -0.994 | 2.196 | 17.263 | 1.00 | 20.21 | N |
| ATOM | 635 | CA | MET | A | 248 | -1.333 | 3.054 | 16.128 | 1.00 | 19.19 | C |
| ATOM | 636 | C | MET | A | 248 | -1.691 | 2.206 | 14.924 | 1.00 | 18.31 | C |
| ATOM | 637 | O | MET | A | 248 | -2.524 | 2.588 | 14.104 | 1.00 | 21.92 | O |
| ATOM | 638 | CB | MET | A | 248 | -0.150 | 3.952 | 15.755 | 1.00 | 17.78 | C |
| ATOM | 639 | CG | MET | A | 248 | 0.064 | 5.139 | 16.669 | 1.00 | 23.45 | C |
| ATOM | 640 | SD | MET | A | 248 | 1.507 | 6.118 | 16.180 | 1.00 | 22.12 | S |
| ATOM | 641 | CE | MET | A | 248 | 1.938 | 6.862 | 17.770 | 1.00 | 14.59 | C |
| ATOM | 642 | N | ALA | A | 249 | -1.049 | 1.052 | 14.816 | 1.00 | 17.28 | N |
| ATOM | 643 | CA | ALA | A | 249 | -1.280 | 0.143 | 13.704 | 1.00 | 18.95 | C |
| ATOM | 644 | C | ALA | A | 249 | -2.667 | -0.480 | 13.794 | 1.00 | 21.57 | C |
| ATOM | 645 | O | ALA | A | 249 | -3.312 | -0.744 | 12.780 | 1.00 | 21.85 | O |
| ATOM | 646 | CB | ALA | A | 249 | -0.234 | -0.939 | 13.710 | 1.00 | 19.69 | C |
| ATOM | 647 | N | LYS | A | 250 | -3.115 | -0.722 | 15.020 | 1.00 | 20.42 | N |
| ATOM | 648 | CA | LYS | A | 250 | -4.431 | -1.300 | 15.245 | 1.00 | 21.24 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 649 | C | LYS | A | 250 | -5.535 | -0.325 | 14.832 | 1.00 | 21.22 | C |
| ATOM | 650 | O | LYS | A | 250 | -6.424 | -0.676 | 14.059 | 1.00 | 24.69 | O |
| ATOM | 651 | CB | LYS | A | 250 | -4.590 | -1.663 | 16.718 | 1.00 | 19.20 | C |
| ATOM | 652 | CG | LYS | A | 250 | -3.885 | -2.952 | 17.114 | 1.00 | 20.04 | C |
| ATOM | 653 | CD | LYS | A | 250 | -3.931 | -3.121 | 18.615 | 1.00 | 18.21 | C |
| ATOM | 654 | CE | LYS | A | 250 | -3.464 | -4.489 | 19.024 | 1.00 | 16.16 | C |
| ATOM | 655 | NZ | LYS | A | 250 | -3.549 | -4.662 | 20.501 | 1.00 | 17.44 | N |
| ATOM | 656 | N | GLN | A | 251 | -5.460 | 0.902 | 15.339 | 1.00 | 20.83 | N |
| ATOM | 657 | CA | GLN | A | 251 | -6.454 | 1.919 | 15.039 | 1.00 | 18.78 | C |
| ATOM | 658 | C | GLN | A | 251 | -6.458 | 2.369 | 13.591 | 1.00 | 20.52 | C |
| ATOM | 659 | O | GLN | A | 251 | -7.516 | 2.640 | 13.026 | 1.00 | 22.65 | O |
| ATOM | 660 | CB | GLN | A | 251 | -6.257 | 3.113 | 15.962 | 1.00 | 18.97 | C |
| ATOM | 661 | CG | GLN | A | 251 | -6.544 | 2.786 | 17.423 | 1.00 | 22.19 | C |
| ATOM | 662 | CD | GLN | A | 251 | -7.868 | 2.034 | 17.618 | 1.00 | 26.65 | C |
| ATOM | 663 | OE1 | GLN | A | 251 | -7.961 | 0.827 | 17.374 | 1.00 | 28.86 | O |
| ATOM | 664 | NE2 | GLN | A | 251 | -8.892 | 2.751 | 18.063 | 1.00 | 21.88 | N |
| ATOM | 665 | N | VAL | A | 252 | -5.281 | 2.436 | 12.982 | 1.00 | 18.47 | N |
| ATOM | 666 | CA | VAL | A | 252 | -5.169 | 2.860 | 11.597 | 1.00 | 20.58 | C |
| ATOM | 667 | C | VAL | A | 252 | -5.815 | 1.866 | 10.631 | 1.00 | 21.03 | C |
| ATOM | 668 | O | VAL | A | 252 | -6.106 | 2.202 | 9.479 | 1.00 | 21.32 | O |
| ATOM | 669 | CB | VAL | A | 252 | -3.688 | 3.069 | 11.199 | 1.00 | 24.55 | C |
| ATOM | 670 | CG1 | VAL | A | 252 | -3.164 | 1.837 | 10.479 | 1.00 | 26.33 | C |
| ATOM | 671 | CG2 | VAL | A | 252 | -3.557 | 4.300 | 10.314 | 1.00 | 18.98 | C |
| ATOM | 672 | N | THR | A | 253 | -6.027 | 0.639 | 11.097 | 1.00 | 22.32 | N |
| ATOM | 673 | CA | THR | A | 253 | -6.648 | -0.391 | 10.266 | 1.00 | 22.83 | C |
| ATOM | 674 | C | THR | A | 253 | -8.041 | -0.763 | 10.793 | 1.00 | 20.66 | C |
| ATOM | 675 | O | THR | A | 253 | -8.588 | -1.806 | 10.437 | 1.00 | 22.77 | O |
| ATOM | 676 | CB | THR | A | 253 | -5.779 | -1.670 | 10.213 | 1.00 | 23.10 | C |
| ATOM | 677 | OG1 | THR | A | 253 | -5.404 | -2.046 | 11.543 | 1.00 | 19.37 | O |
| ATOM | 678 | CG2 | THR | A | 253 | -4.521 | -1.433 | 9.370 | 1.00 | 19.68 | C |
| ATOM | 679 | N | ASN | A | 254 | -8.596 | 0.095 | 11.644 | 1.00 | 22.50 | N |
| ATOM | 680 | CA | ASN | A | 254 | -9.923 | -0.106 | 12.238 | 1.00 | 23.82 | C |
| ATOM | 681 | C | ASN | A | 254 | -10.871 | 0.916 | 11.601 | 1.00 | 22.80 | C |
| ATOM | 682 | O | ASN | A | 254 | -10.845 | 2.099 | 11.949 | 1.00 | 24.47 | O |
| ATOM | 683 | CB | ASN | A | 254 | -9.843 | 0.120 | 13.753 | 1.00 | 26.40 | C |
| ATOM | 684 | CG | ASN | A | 254 | -11.169 | -0.102 | 14.460 | 1.00 | 29.35 | C |
| ATOM | 685 | OD1 | ASN | A | 254 | -11.261 | 0.053 | 15.675 | 1.00 | 31.53 | O |
| ATOM | 686 | ND2 | ASN | A | 254 | -12.199 | -0.464 | 13.705 | 1.00 | 29.44 | N |
| ATOM | 687 | N | PRO | A | 255 | -11.725 | 0.471 | 10.661 | 1.00 | 22.45 | N |
| ATOM | 688 | CA | PRO | A | 255 | -12.667 | 1.371 | 9.984 | 1.00 | 20.97 | C |
| ATOM | 689 | C | PRO | A | 255 | -13.492 | 2.268 | 10.891 | 1.00 | 21.25 | C |
| ATOM | 690 | O | PRO | A | 255 | -13.962 | 3.319 | 10.463 | 1.00 | 21.95 | O |
| ATOM | 691 | CB | PRO | A | 255 | -13.533 | 0.428 | 9.154 | 1.00 | 19.58 | C |
| ATOM | 692 | CG | PRO | A | 255 | -12.660 | -0.760 | 8.907 | 1.00 | 18.31 | C |
| ATOM | 693 | CD | PRO | A | 255 | -11.860 | -0.917 | 10.181 | 1.00 | 19.56 | C |
| ATOM | 694 | N | SER | A | 256 | -13.646 | 1.867 | 12.148 | 1.00 | 21.24 | N |
| ATOM | 695 | CA | SER | A | 256 | -14.423 | 2.645 | 13.103 | 1.00 | 22.21 | C |
| ATOM | 696 | C | SER | A | 256 | -13.573 | 3.584 | 13.936 | 1.00 | 25.58 | C |
| ATOM | 697 | O | SER | A | 256 | -14.096 | 4.312 | 14.789 | 1.00 | 26.07 | O |
| ATOM | 698 | CB | SER | A | 256 | -15.204 | 1.720 | 14.034 | 1.00 | 22.96 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 699 | OG | SER | A | 256 | -16.240 | 1.062 | 13.328 | 1.00 | 22.72 | O |
| ATOM | 700 | N | SER | A | 257 | -12.263 | 3.572 | 13.706 | 1.00 | 24.21 | N |
| ATOM | 701 | CA | SER | A | 257 | -11.383 | 4.462 | 14.456 | 1.00 | 21.38 | C |
| ATOM | 702 | C | SER | A | 257 | -11.296 | 5.820 | 13.781 | 1.00 | 16.84 | C |
| ATOM | 703 | O | SER | A | 257 | -11.356 | 5.930 | 12.554 | 1.00 | 16.35 | O |
| ATOM | 704 | CB | SER | A | 257 | -9.971 | 3.882 | 14.573 | 1.00 | 26.62 | C |
| ATOM | 705 | OG | SER | A | 257 | -9.078 | 4.881 | 15.051 | 1.00 | 21.66 | O |
| ATOM | 706 | N | ARG | A | 258 | -11.152 | 6.855 | 14.596 | 1.00 | 20.75 | N |
| ATOM | 707 | CA | ARG | A | 258 | -11.030 | 8.206 | 14.083 | 1.00 | 21.79 | C |
| ATOM | 708 | C | ARG | A | 258 | -9.670 | 8.331 | 13.414 | 1.00 | 24.26 | C |
| ATOM | 709 | O | ARG | A | 258 | -9.359 | 9.356 | 12.821 | 1.00 | 24.24 | O |
| ATOM | 710 | CB | ARG | A | 258 | -11.126 | 9.210 | 15.223 | 1.00 | 21.27 | C |
| ATOM | 711 | CG | ARG | A | 258 | -9.829 | 9.419 | 15.959 | 1.00 | 31.59 | C |
| ATOM | 712 | CD | ARG | A | 258 | -9.874 | 10.688 | 16.770 | 1.00 | 34.98 | C |
| ATOM | 713 | NE | ARG | A | 258 | -9.675 | 10.414 | 18.186 | 1.00 | 43.54 | N |
| ATOM | 714 | CZ | ARG | A | 258 | -10.625 | 9.956 | 18.992 | 1.00 | 47.53 | C |
| ATOM | 715 | NH1 | ARG | A | 258 | -11.839 | 9.724 | 18.515 | 1.00 | 50.36 | N |
| ATOM | 716 | NH2 | ARG | A | 258 | -10.360 | 9.726 | 20.271 | 1.00 | 48.31 | N |
| ATOM | 717 | N | TYR | A | 259 | -8.863 | 7.278 | 13.521 | 1.00 | 24.23 | N |
| ATOM | 718 | CA | TYR | A | 259 | -7.532 | 7.270 | 12.931 | 1.00 | 22.40 | C |
| ATOM | 719 | C | TYR | A | 259 | -7.464 | 6.340 | 11.738 | 1.00 | 23.85 | C |
| ATOM | 720 | O | TYR | A | 259 | -6.395 | 6.102 | 11.186 | 1.00 | 25.04 | O |
| ATOM | 721 | CB | TYR | A | 259 | -6.509 | 6.832 | 13.973 | 1.00 | 19.81 | C |
| ATOM | 722 | CG | TYR | A | 259 | -6.438 | 7.760 | 15.147 | 1.00 | 11.65 | C |
| ATOM | 723 | CD1 | TYR | A | 259 | -6.041 | 9.085 | 14.980 | 1.00 | 12.66 | C |
| ATOM | 724 | CD2 | TYR | A | 259 | -6.808 | 7.332 | 16.414 | 1.00 | 8.73 | C |
| ATOM | 725 | CE1 | TYR | A | 259 | -6.017 | 9.965 | 16.047 | 1.00 | 12.53 | C |
| ATOM | 726 | CE2 | TYR | A | 259 | -6.790 | 8.198 | 17.489 | 1.00 | 13.34 | C |
| ATOM | 727 | CZ | TYR | A | 259 | -6.394 | 9.517 | 17.299 | 1.00 | 16.78 | C |
| ATOM | 728 | OH | TYR | A | 259 | -6.376 | 10.382 | 18.366 | 1.00 | 20.56 | O |
| ATOM | 729 | N | TYR | A | 260 | -8.607 | 5.809 | 11.336 | 1.00 | 22.34 | N |
| ATOM | 730 | CA | TYR | A | 260 | -8.641 | 4.897 | 10.210 | 1.00 | 21.71 | C |
| ATOM | 731 | C | TYR | A | 260 | -8.011 | 5.547 | 8.989 | 1.00 | 24.82 | C |
| ATOM | 732 | O | TYR | A | 260 | -8.445 | 6.610 | 8.552 | 1.00 | 21.76 | O |
| ATOM | 733 | CB | TYR | A | 260 | -10.083 | 4.499 | 9.907 | 1.00 | 17.31 | C |
| ATOM | 734 | CG | TYR | A | 260 | -10.224 | 3.524 | 8.773 | 1.00 | 12.31 | C |
| ATOM | 735 | CD1 | TYR | A | 260 | -9.628 | 2.268 | 8.831 | 1.00 | 15.42 | C |
| ATOM | 736 | CD2 | TYR | A | 260 | -10.980 | 3.842 | 7.655 | 1.00 | 14.56 | C |
| ATOM | 737 | CE1 | TYR | A | 260 | -9.787 | 1.351 | 7.796 | 1.00 | 13.82 | C |
| ATOM | 738 | CE2 | TYR | A | 260 | -11.147 | 2.936 | 6.613 | 1.00 | 18.23 | C |
| ATOM | 739 | CZ | TYR | A | 260 | -10.549 | 1.693 | 6.689 | 1.00 | 17.70 | C |
| ATOM | 740 | OH | TYR | A | 260 | -10.709 | 0.798 | 5.655 | 1.00 | 20.83 | O |
| ATOM | 741 | N | GLN | A | 261 | -6.980 | 4.898 | 8.450 | 1.00 | 26.40 | N |
| ATOM | 742 | CA | GLN | A | 261 | -6.264 | 5.382 | 7.271 | 1.00 | 22.82 | C |
| ATOM | 743 | C | GLN | A | 261 | -5.819 | 6.842 | 7.348 | 1.00 | 20.40 | C |
| ATOM | 744 | O | GLN | A | 261 | -5.690 | 7.517 | 6.324 | 1.00 | 24.43 | O |
| ATOM | 745 | CB | GLN | A | 261 | -7.119 | 5.154 | 6.023 | 1.00 | 21.43 | C |
| ATOM | 746 | CG | GLN | A | 261 | -7.298 | 3.680 | 5.706 | 1.00 | 23.77 | C |
| ATOM | 747 | CD | GLN | A | 261 | -8.244 | 3.415 | 4.552 | 1.00 | 24.50 | C |
| ATOM | 748 | OE1 | GLN | A | 261 | -8.262 | 2.318 | 3.992 | 1.00 | 27.79 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 749 | NE2 | GLN | A | 261 | -9.037 | 4.414 | 4.193 | 1.00 | 30.83 | N |
| ATOM | 750 | N | ASP | A | 262 | -5.577 | 7.325 | 8.563 | 1.00 | 18.43 | N |
| ATOM | 751 | CA | ASP | A | 262 | -5.146 | 8.703 | 8.770 | 1.00 | 24.86 | C |
| ATOM | 752 | C | ASP | A | 262 | -3.714 | 8.895 | 8.248 | 1.00 | 28.82 | C |
| ATOM | 753 | O | ASP | A | 262 | -2.787 | 8.218 | 8.698 | 1.00 | 26.19 | O |
| ATOM | 754 | CB | ASP | A | 262 | -5.229 | 9.050 | 10.263 | 1.00 | 24.63 | C |
| ATOM | 755 | CG | ASP | A | 262 | -4.749 | 10.464 | 10.570 | 1.00 | 30.09 | C |
| ATOM | 756 | OD1 | ASP | A | 262 | -3.879 | 10.971 | 9.840 | 1.00 | 36.93 | O |
| ATOM | 757 | OD2 | ASP | A | 262 | -5.233 | 11.073 | 11.546 | 1.00 | 33.35 | O |
| ATOM | 758 | N | GLU | A | 263 | -3.549 | 9.822 | 7.303 | 1.00 | 30.54 | N |
| ATOM | 759 | CA | GLU | A | 263 | -2.252 | 10.113 | 6.684 | 1.00 | 32.21 | C |
| ATOM | 760 | C | GLU | A | 263 | -1.149 | 10.391 | 7.697 | 1.00 | 32.13 | C |
| ATOM | 761 | O | GLU | A | 263 | -0.009 | 9.943 | 7.542 | 1.00 | 33.01 | O |
| ATOM | 762 | CB | GLU | A | 263 | -2.374 | 11.318 | 5.743 | 1.00 | 36.41 | C |
| ATOM | 763 | CG | GLU | A | 263 | -2.781 | 12.615 | 6.444 | 1.00 | 41.22 | C |
| ATOM | 764 | CD | GLU | A | 263 | -1.847 | 13.782 | 6.150 | 1.00 | 44.60 | C |
| ATOM | 765 | OE1 | GLU | A | 263 | -0.722 | 13.543 | 5.667 | 1.00 | 41.83 | O |
| ATOM | 766 | OE2 | GLU | A | 263 | -2.243 | 14.942 | 6.403 | 1.00 | 45.06 | O |
| ATOM | 767 | N | THR | A | 264 | -1.485 | 11.147 | 8.729 | 1.00 | 27.16 | N |
| ATOM | 768 | CA | THR | A | 264 | -0.517 | 11.477 | 9.748 | 1.00 | 29.15 | C |
| ATOM | 769 | C | THR | A | 264 | -0.121 | 10.234 | 10.545 | 1.00 | 31.30 | C |
| ATOM | 770 | O | THR | A | 264 | 1.061 | 10.004 | 10.795 | 1.00 | 34.12 | O |
| ATOM | 771 | CB | THR | A | 264 | -1.083 | 12.553 | 10.689 | 1.00 | 29.11 | C |
| ATOM | 772 | OG1 | THR | A | 264 | -1.149 | 13.796 | 9.984 | 1.00 | 33.49 | O |
| ATOM | 773 | CG2 | THR | A | 264 | -0.204 | 12.725 | 11.921 | 1.00 | 32.08 | C |
| ATOM | 774 | N | VAL | A | 265 | -1.105 | 9.430 | 10.937 | 1.00 | 29.04 | N |
| ATOM | 775 | CA | VAL | A | 265 | -0.834 | 8.226 | 11.712 | 1.00 | 27.63 | C |
| ATOM | 776 | C | VAL | A | 265 | -0.070 | 7.191 | 10.895 | 1.00 | 26.45 | C |
| ATOM | 777 | O | VAL | A | 265 | 0.733 | 6.436 | 11.440 | 1.00 | 23.93 | O |
| ATOM | 778 | CB | VAL | A | 265 | -2.142 | 7.594 | 12.249 | 1.00 | 26.76 | C |
| ATOM | 779 | CG1 | VAL | A | 265 | -1.847 | 6.249 | 12.913 | 1.00 | 23.06 | C |
| ATOM | 780 | CG2 | VAL | A | 265 | -2.793 | 8.543 | 13.245 | 1.00 | 24.96 | C |
| ATOM | 781 | N | VAL | A | 266 | -0.318 | 7.154 | 9.590 | 1.00 | 25.31 | N |
| ATOM | 782 | CA | VAL | A | 266 | 0.374 | 6.204 | 8.724 | 1.00 | 27.68 | C |
| ATOM | 783 | C | VAL | A | 266 | 1.846 | 6.606 | 8.608 | 1.00 | 28.63 | C |
| ATOM | 784 | O | VAL | A | 266 | 2.737 | 5.765 | 8.706 | 1.00 | 24.81 | O |
| ATOM | 785 | CB | VAL | A | 266 | -0.247 | 6.166 | 7.307 | 1.00 | 26.96 | C |
| ATOM | 786 | CG1 | VAL | A | 266 | 0.658 | 5.391 | 6.362 | 1.00 | 28.95 | C |
| ATOM | 787 | CG2 | VAL | A | 266 | -1.630 | 5.521 | 7.358 | 1.00 | 29.58 | C |
| ATOM | 788 | N | ARG | A | 267 | 2.084 | 7.902 | 8.410 | 1.00 | 26.19 | N |
| ATOM | 789 | CA | ARG | A | 267 | 3.433 | 8.425 | 8.278 | 1.00 | 26.21 | C |
| ATOM | 790 | C | ARG | A | 267 | 4.183 | 8.349 | 9.592 | 1.00 | 23.72 | C |
| ATOM | 791 | O | ARG | A | 267 | 5.371 | 8.058 | 9.619 | 1.00 | 24.11 | O |
| ATOM | 792 | CB | ARG | A | 267 | 3.399 | 9.872 | 7.799 | 1.00 | 28.43 | C |
| ATOM | 793 | CG | ARG | A | 267 | 4.781 | 10.458 | 7.562 | 1.00 | 29.22 | C |
| ATOM | 794 | CD | ARG | A | 267 | 4.730 | 11.639 | 6.607 | 1.00 | 32.84 | C |
| ATOM | 795 | NE | ARG | A | 267 | 3.907 | 12.708 | 7.155 | 1.00 | 34.85 | N |
| ATOM | 796 | CZ | ARG | A | 267 | 2.714 | 13.048 | 6.683 | 1.00 | 33.39 | C |
| ATOM | 797 | NH1 | ARG | A | 267 | 2.197 | 12.402 | 5.644 | 1.00 | 31.38 | N |
| ATOM | 798 | NH2 | ARG | A | 267 | 2.039 | 14.033 | 7.257 | 1.00 | 33.24 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 799 | N | THR | A | 268 | 3.485 | 8.618 | 10.684 | 1.00 | 20.83 | N |
| ATOM | 800 | CA | THR | A | 268 | 4.104 | 8.565 | 11.995 | 1.00 | 22.96 | C |
| ATOM | 801 | C | THR | A | 268 | 4.661 | 7.178 | 12.249 | 1.00 | 26.28 | C |
| ATOM | 802 | O | THR | A | 268 | 5.769 | 7.033 | 12.765 | 1.00 | 29.95 | O |
| ATOM | 803 | CB | THR | A | 268 | 3.100 | 8.903 | 13.114 | 1.00 | 22.40 | C |
| ATOM | 804 | OG1 | THR | A | 268 | 2.877 | 10.316 | 13.140 | 1.00 | 24.29 | O |
| ATOM | 805 | CG2 | THR | A | 268 | 3.637 | 8.459 | 14.480 | 1.00 | 20.20 | C |
| ATOM | 806 | N | VAL | A | 269 | 3.894 | 6.155 | 11.894 | 1.00 | 27.19 | N |
| ATOM | 807 | CA | VAL | A | 269 | 4.348 | 4.788 | 12.107 | 1.00 | 25.87 | C |
| ATOM | 808 | C | VAL | A | 269 | 5.525 | 4.476 | 11.185 | 1.00 | 29.55 | C |
| ATOM | 809 | O | VAL | A | 269 | 6.548 | 3.953 | 11.625 | 1.00 | 30.07 | O |
| ATOM | 810 | CB | VAL | A | 269 | 3.214 | 3.774 | 11.852 | 1.00 | 24.75 | C |
| ATOM | 811 | CG1 | VAL | A | 269 | 3.763 | 2.348 | 11.879 | 1.00 | 20.56 | C |
| ATOM | 812 | CG2 | VAL | A | 269 | 2.132 | 3.942 | 12.905 | 1.00 | 17.66 | C |
| ATOM | 813 | N | ARG | A | 270 | 5.378 | 4.808 | 9.910 | 1.00 | 28.22 | N |
| ATOM | 814 | CA | ARG | A | 270 | 6.425 | 4.558 | 8.938 | 1.00 | 31.39 | C |
| ATOM | 815 | C | ARG | A | 270 | 7.694 | 5.335 | 9.268 | 1.00 | 33.54 | C |
| ATOM | 816 | O | ARG | A | 270 | 8.800 | 4.843 | 9.054 | 1.00 | 36.06 | O |
| ATOM | 817 | CB | ARG | A | 270 | 5.940 | 4.934 | 7.540 | 1.00 | 30.33 | C |
| ATOM | 818 | CG | ARG | A | 270 | 4.983 | 3.928 | 6.934 | 1.00 | 31.64 | C |
| ATOM | 819 | CD | ARG | A | 270 | 4.529 | 4.385 | 5.574 | 1.00 | 27.98 | C |
| ATOM | 820 | NE | ARG | A | 270 | 5.665 | 4.696 | 4.721 | 1.00 | 36.10 | N |
| ATOM | 821 | CZ | ARG | A | 270 | 6.416 | 3.778 | 4.121 | 1.00 | 42.07 | C |
| ATOM | 822 | NH1 | ARG | A | 270 | 6.148 | 2.488 | 4.283 | 1.00 | 39.95 | N |
| ATOM | 823 | NH2 | ARG | A | 270 | 7.433 | 4.148 | 3.354 | 1.00 | 46.07 | N |
| ATOM | 824 | N | ASP | A | 271 | 7.530 | 6.548 | 9.787 | 1.00 | 34.03 | N |
| ATOM | 825 | CA | ASP | A | 271 | 8.670 | 7.389 | 10.142 | 1.00 | 33.48 | C |
| ATOM | 826 | C | ASP | A | 271 | 9.339 | 6.871 | 11.398 | 1.00 | 33.48 | C |
| ATOM | 827 | O | ASP | A | 271 | 10.559 | 6.712 | 11.450 | 1.00 | 35.54 | O |
| ATOM | 828 | CB | ASP | A | 271 | 8.227 | 8.826 | 10.405 | 1.00 | 31.43 | C |
| ATOM | 829 | CG | ASP | A | 271 | 8.202 | 9.666 | 9.157 | 1.00 | 32.79 | C |
| ATOM | 830 | OD1 | ASP | A | 271 | 8.160 | 10.910 | 9.293 | 1.00 | 36.66 | O |
| ATOM | 831 | OD2 | ASP | A | 271 | 8.216 | 9.090 | 8.046 | 1.00 | 30.05 | O |
| ATOM | 832 | N | SER | A | 272 | 8.526 | 6.622 | 12.417 | 1.00 | 31.77 | N |
| ATOM | 833 | CA | SER | A | 272 | 9.029 | 6.140 | 13.686 | 1.00 | 31.81 | C |
| ATOM | 834 | C | SER | A | 272 | 9.803 | 4.837 | 13.533 | 1.00 | 31.12 | C |
| ATOM | 835 | O | SER | A | 272 | 10.759 | 4.586 | 14.267 | 1.00 | 31.55 | O |
| ATOM | 836 | CB | SER | A | 272 | 7.871 | 5.969 | 14.662 | 1.00 | 27.85 | C |
| ATOM | 837 | OG | SER | A | 272 | 7.303 | 7.231 | 14.961 | 1.00 | 23.45 | O |
| ATOM | 838 | N | MET | A | 273 | 9.394 | 4.015 | 12.577 | 1.00 | 30.98 | N |
| ATOM | 839 | CA | MET | A | 273 | 10.067 | 2.751 | 12.347 | 1.00 | 31.53 | C |
| ATOM | 840 | C | MET | A | 273 | 11.456 | 3.047 | 11.819 | 1.00 | 34.69 | C |
| ATOM | 841 | O | MET | A | 273 | 12.447 | 2.522 | 12.327 | 1.00 | 36.56 | O |
| ATOM | 842 | CB | MET | A | 273 | 9.303 | 1.907 | 11.328 | 1.00 | 27.42 | C |
| ATOM | 843 | CG | MET | A | 273 | 8.094 | 1.181 | 11.900 | 1.00 | 30.77 | C |
| ATOM | 844 | SD | MET | A | 273 | 8.459 | 0.198 | 13.367 | 1.00 | 30.35 | S |
| ATOM | 845 | CE | MET | A | 273 | 9.052 | -1.309 | 12.595 | 1.00 | 23.01 | C |
| ATOM | 846 | N | GLU | A | 274 | 11.519 | 3.897 | 10.798 | 1.00 | 35.73 | N |
| ATOM | 847 | CA | GLU | A | 274 | 12.783 | 4.273 | 10.185 | 1.00 | 35.21 | C |
| ATOM | 848 | C | GLU | A | 274 | 13.723 | 4.952 | 11.173 | 1.00 | 34.51 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 849 | O | GLU | A | 274 | 14.913 | 4.644 | 11.207 | 1.00 | 39.94 | O |
| ATOM | 850 | CB | GLU | A | 274 | 12.538 | 5.198 | 8.998 | 1.00 | 39.43 | C |
| ATOM | 851 | CG | GLU | A | 274 | 13.812 | 5.646 | 8.292 | 1.00 | 47.30 | C |
| ATOM | 852 | CD | GLU | A | 274 | 14.546 | 4.502 | 7.606 | 1.00 | 52.06 | C |
| ATOM | 853 | OE1 | GLU | A | 274 | 15.708 | 4.700 | 7.181 | 1.00 | 53.62 | O |
| ATOM | 854 | OE2 | GLU | A | 274 | 13.962 | 3.404 | 7.491 | 1.00 | 55.02 | O |
| ATOM | 855 | N | TRP | A | 275 | 13.202 | 5.872 | 11.977 | 1.00 | 32.10 | N |
| ATOM | 856 | CA | TRP | A | 275 | 14.043 | 6.560 | 12.947 | 1.00 | 32.24 | C |
| ATOM | 857 | C | TRP | A | 275 | 14.620 | 5.594 | 13.971 | 1.00 | 34.85 | C |
| ATOM | 858 | O | TRP | A | 275 | 15.823 | 5.584 | 14.219 | 1.00 | 36.80 | O |
| ATOM | 859 | CB | TRP | A | 275 | 13.261 | 7.649 | 13.675 | 1.00 | 31.10 | C |
| ATOM | 860 | CG | TRP | A | 275 | 14.147 | 8.552 | 14.495 | 1.00 | 32.60 | C |
| ATOM | 861 | CD1 | TRP | A | 275 | 14.812 | 9.662 | 14.057 | 1.00 | 32.65 | C |
| ATOM | 862 | CD2 | TRP | A | 275 | 14.457 | 8.426 | 15.892 | 1.00 | 32.56 | C |
| ATOM | 863 | NE1 | TRP | A | 275 | 15.514 | 10.234 | 15.091 | 1.00 | 33.55 | N |
| ATOM | 864 | CE2 | TRP | A | 275 | 15.314 | 9.497 | 16.228 | 1.00 | 32.19 | C |
| ATOM | 865 | CE3 | TRP | A | 275 | 14.095 | 7.513 | 16.893 | 1.00 | 34.41 | C |
| ATOM | 866 | CZ2 | TRP | A | 275 | 15.814 | 9.681 | 17.522 | 1.00 | 34.35 | C |
| ATOM | 867 | CZ3 | TRP | A | 275 | 14.594 | 7.699 | 18.182 | 1.00 | 33.42 | C |
| ATOM | 868 | CH2 | TRP | A | 275 | 15.444 | 8.775 | 18.482 | 1.00 | 33.26 | C |
| ATOM | 869 | N | MET | A | 276 | 13.759 | 4.784 | 14.574 | 1.00 | 35.73 | N |
| ATOM | 870 | CA | MET | A | 276 | 14.197 | 3.820 | 15.577 | 1.00 | 36.29 | C |
| ATOM | 871 | C | MET | A | 276 | 15.234 | 2.865 | 15.006 | 1.00 | 35.21 | C |
| ATOM | 872 | O | MET | A | 276 | 16.207 | 2.515 | 15.674 | 1.00 | 37.49 | O |
| ATOM | 873 | CB | MET | A | 276 | 13.001 | 3.023 | 16.100 | 1.00 | 35.33 | C |
| ATOM | 874 | CG | MET | A | 276 | 12.178 | 3.779 | 17.108 | 1.00 | 33.42 | C |
| ATOM | 875 | SD | MET | A | 276 | 12.953 | 3.703 | 18.708 | 1.00 | 37.86 | S |
| ATOM | 876 | CE | MET | A | 276 | 12.853 | 5.373 | 19.221 | 1.00 | 34.74 | C |
| ATOM | 877 | N | HIS | A | 277 | 15.017 | 2.450 | 13.766 | 1.00 | 33.98 | N |
| ATOM | 878 | CA | HIS | A | 277 | 15.914 | 1.527 | 13.090 | 1.00 | 39.21 | C |
| ATOM | 879 | C | HIS | A | 277 | 17.306 | 2.116 | 12.868 | 1.00 | 42.89 | C |
| ATOM | 880 | O | HIS | A | 277 | 18.322 | 1.430 | 12.996 | 1.00 | 43.12 | O |
| ATOM | 881 | CB | HIS | A | 277 | 15.307 | 1.126 | 11.748 | 1.00 | 38.01 | C |
| ATOM | 882 | CG | HIS | A | 277 | 16.321 | 0.854 | 10.682 | 1.00 | 43.03 | C |
| ATOM | 883 | ND1 | HIS | A | 277 | 16.967 | -0.357 | 10.563 | 1.00 | 45.66 | N |
| ATOM | 884 | CD2 | HIS | A | 277 | 16.780 | 1.628 | 9.671 | 1.00 | 45.31 | C |
| ATOM | 885 | CE1 | HIS | A | 277 | 17.780 | -0.319 | 9.522 | 1.00 | 45.97 | C |
| ATOM | 886 | NE2 | HIS | A | 277 | 17.685 | 0.875 | 8.964 | 1.00 | 46.40 | N |
| ATOM | 887 | N | LYS | A | 278 | 17.347 | 3.396 | 12.534 | 1.00 | 43.88 | N |
| ATOM | 888 | CA | LYS | A | 278 | 18.605 | 4.058 | 12.278 | 1.00 | 44.44 | C |
| ATOM | 889 | C | LYS | A | 278 | 19.382 | 4.427 | 13.530 | 1.00 | 45.38 | C |
| ATOM | 890 | O | LYS | A | 278 | 20.607 | 4.379 | 13.528 | 1.00 | 49.02 | O |
| ATOM | 891 | CB | LYS | A | 278 | 18.359 | 5.314 | 11.447 | 1.00 | 45.17 | C |
| ATOM | 892 | CG | LYS | A | 278 | 17.981 | 5.027 | 10.008 | 1.00 | 52.16 | C |
| ATOM | 893 | CD | LYS | A | 278 | 18.759 | 5.923 | 9.057 | 1.00 | 59.64 | C |
| ATOM | 894 | CE | LYS | A | 278 | 20.230 | 5.520 | 8.989 | 1.00 | 62.87 | C |
| ATOM | 895 | NZ | LYS | A | 278 | 21.153 | 6.665 | 9.260 | 1.00 | 64.63 | N |
| ATOM | 896 | N | HIS | A | 279 | 18.681 | 4.765 | 14.607 | 1.00 | 44.27 | N |
| ATOM | 897 | CA | HIS | A | 279 | 19.356 | 5.205 | 15.826 | 1.00 | 45.46 | C |
| ATOM | 898 | C | HIS | A | 279 | 19.256 | 4.386 | 17.100 | 1.00 | 45.34 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 899 | O | HIS | A | 279 | 19.960 | 4.689 | 18.062 | 1.00 | 45.83 | O |
| ATOM | 900 | CB | HIS | A | 279 | 18.909 | 6.630 | 16.178 | 1.00 | 49.18 | C |
| ATOM | 901 | CG | HIS | A | 279 | 18.980 | 7.586 | 15.032 | 1.00 | 54.89 | C |
| ATOM | 902 | ND1 | HIS | A | 279 | 19.650 | 8.789 | 15.109 | 1.00 | 55.69 | N |
| ATOM | 903 | CD2 | HIS | A | 279 | 18.480 | 7.515 | 13.775 | 1.00 | 56.95 | C |
| ATOM | 904 | CE1 | HIS | A | 279 | 19.560 | 9.414 | 13.949 | 1.00 | 58.40 | C |
| ATOM | 905 | NE2 | HIS | A | 279 | 18.855 | 8.662 | 13.122 | 1.00 | 58.74 | N |
| ATOM | 906 | N | VAL | A | 280 | 18.403 | 3.370 | 17.148 | 1.00 | 43.17 | N |
| ATOM | 907 | CA | VAL | A | 280 | 18.285 | 2.629 | 18.398 | 1.00 | 41.90 | C |
| ATOM | 908 | C | VAL | A | 280 | 18.256 | 1.112 | 18.304 | 1.00 | 43.37 | C |
| ATOM | 909 | O | VAL | A | 280 | 18.889 | 0.428 | 19.110 | 1.00 | 43.88 | O |
| ATOM | 910 | CB | VAL | A | 280 | 17.031 | 3.085 | 19.187 | 1.00 | 40.19 | C |
| ATOM | 911 | CG1 | VAL | A | 280 | 17.173 | 2.726 | 20.651 | 1.00 | 41.03 | C |
| ATOM | 912 | CG2 | VAL | A | 280 | 16.840 | 4.581 | 19.044 | 1.00 | 40.05 | C |
| ATOM | 913 | N | TYR | A | 281 | 17.533 | 0.580 | 17.326 | 1.00 | 42.90 | N |
| ATOM | 914 | CA | TYR | A | 281 | 17.413 | -0.867 | 17.191 | 1.00 | 40.07 | C |
| ATOM | 915 | C | TYR | A | 281 | 17.691 | -1.346 | 15.775 | 1.00 | 42.29 | C |
| ATOM | 916 | O | TYR | A | 281 | 16.829 | -1.269 | 14.897 | 1.00 | 43.73 | O |
| ATOM | 917 | CB | TYR | A | 281 | 16.008 | -1.292 | 17.630 | 1.00 | 36.11 | C |
| ATOM | 918 | CG | TYR | A | 281 | 15.808 | -2.778 | 17.805 | 1.00 | 31.31 | C |
| ATOM | 919 | CD1 | TYR | A | 281 | 16.145 | -3.415 | 19.002 | 1.00 | 30.52 | C |
| ATOM | 920 | CD2 | TYR | A | 281 | 15.245 | -3.542 | 16.786 | 1.00 | 28.19 | C |
| ATOM | 921 | CE1 | TYR | A | 281 | 15.919 | -4.782 | 19.177 | 1.00 | 29.13 | C |
| ATOM | 922 | CE2 | TYR | A | 281 | 15.017 | -4.902 | 16.949 | 1.00 | 28.76 | C |
| ATOM | 923 | CZ | TYR | A | 281 | 15.353 | -5.516 | 18.142 | 1.00 | 26.58 | C |
| ATOM | 924 | OH | TYR | A | 281 | 15.111 | -6.862 | 18.288 | 1.00 | 29.46 | O |
| ATOM | 925 | N | ASN | A | 282 | 18.901 | -1.852 | 15.566 | 1.00 | 42.55 | N |
| ATOM | 926 | CA | ASN | A | 282 | 19.315 | -2.353 | 14.260 | 1.00 | 44.03 | C |
| ATOM | 927 | C | ASN | A | 282 | 20.320 | -3.489 | 14.450 | 1.00 | 43.68 | C |
| ATOM | 928 | O | ASN | A | 282 | 20.754 | -3.761 | 15.573 | 1.00 | 40.22 | O |
| ATOM | 929 | CB | ASN | A | 282 | 19.948 | -1.221 | 13.449 | 1.00 | 47.90 | C |
| ATOM | 930 | CG | ASN | A | 282 | 20.823 | -0.324 | 14.301 | 1.00 | 49.61 | C |
| ATOM | 931 | OD1 | ASN | A | 282 | 20.427 | 0.781 | 14.684 | 1.00 | 55.42 | O |
| ATOM | 932 | ND2 | ASN | A | 282 | 22.020 | -0.801 | 14.612 | 1.00 | 48.60 | N |
| ATOM | 933 | N | SER | A | 283 | 20.687 | -4.139 | 13.348 | 1.00 | 43.29 | N |
| ATOM | 934 | CA | SER | A | 283 | 21.626 | -5.266 | 13.364 | 1.00 | 43.37 | C |
| ATOM | 935 | C | SER | A | 283 | 23.024 | -4.957 | 13.910 | 1.00 | 44.36 | C |
| ATOM | 936 | O | SER | A | 283 | 23.725 | -5.852 | 14.392 | 1.00 | 43.20 | O |
| ATOM | 937 | CB | SER | A | 283 | 21.765 | -5.840 | 11.955 | 1.00 | 39.61 | C |
| ATOM | 938 | OG | SER | A | 283 | 20.710 | -6.730 | 11.670 | 1.00 | 36.46 | O |
| ATOM | 939 | N | GLU | A | 284 | 23.435 | -3.698 | 13.829 | 1.00 | 42.79 | N |
| ATOM | 940 | CA | GLU | A | 284 | 24.755 | -3.321 | 14.308 | 1.00 | 42.74 | C |
| ATOM | 941 | C | GLU | A | 284 | 24.794 | -3.036 | 15.805 | 1.00 | 39.78 | C |
| ATOM | 942 | O | GLU | A | 284 | 25.850 | -2.719 | 16.348 | 1.00 | 41.76 | O |
| ATOM | 943 | CB | GLU | A | 284 | 25.258 | -2.095 | 13.544 | 1.00 | 44.89 | C |
| ATOM | 944 | CG | GLU | A | 284 | 25.072 | -2.168 | 12.038 | 1.00 | 51.54 | C |
| ATOM | 945 | CD | GLU | A | 284 | 25.146 | -0.794 | 11.384 | 1.00 | 57.90 | C |
| ATOM | 946 | OE1 | GLU | A | 284 | 24.880 | -0.688 | 10.166 | 1.00 | 61.44 | O |
| ATOM | 947 | OE2 | GLU | A | 284 | 25.472 | 0.186 | 12.091 | 1.00 | 58.14 | O |
| ATOM | 948 | N | LYS | A | 285 | 23.654 | -3.148 | 16.477 | 1.00 | 37.61 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 949 | CA | LYS | A | 285 | 23.613 | -2.874 | 17.911 | 1.00 | 36.16 | C |
| ATOM | 950 | C | LYS | A | 285 | 23.812 | -4.133 | 18.741 | 1.00 | 34.49 | C |
| ATOM | 951 | O | LYS | A | 285 | 23.788 | -5.247 | 18.217 | 1.00 | 34.26 | O |
| ATOM | 952 | CB | LYS | A | 285 | 22.283 | -2.217 | 18.293 | 1.00 | 37.08 | C |
| ATOM | 953 | CG | LYS | A | 285 | 22.006 | -0.910 | 17.566 | 1.00 | 38.13 | C |
| ATOM | 954 | CD | LYS | A | 285 | 22.279 | 0.294 | 18.457 | 1.00 | 40.88 | C |
| ATOM | 955 | CE | LYS | A | 285 | 22.324 | 1.592 | 17.651 | 1.00 | 39.70 | C |
| ATOM | 956 | NZ | LYS | A | 285 | 22.908 | 2.714 | 18.438 | 1.00 | 40.32 | N |
| ATOM | 957 | N | SER | A | 286 | 24.015 | -3.941 | 20.039 | 1.00 | 30.84 | N |
| ATOM | 958 | CA | SER | A | 286 | 24.210 | -5.051 | 20.958 | 1.00 | 32.66 | C |
| ATOM | 959 | C | SER | A | 286 | 23.259 | -4.882 | 22.126 | 1.00 | 31.14 | C |
| ATOM | 960 | O | SER | A | 286 | 22.905 | -3.763 | 22.501 | 1.00 | 34.36 | O |
| ATOM | 961 | CB | SER | A | 286 | 25.651 | -5.078 | 21.481 | 1.00 | 33.68 | C |
| ATOM | 962 | OG | SER | A | 286 | 26.476 | -5.880 | 20.655 | 1.00 | 34.39 | O |
| ATOM | 963 | N | ILE | A | 287 | 22.844 | -5.996 | 22.707 | 1.00 | 29.73 | N |
| ATOM | 964 | CA | ILE | A | 287 | 21.935 | -5.935 | 23.829 | 1.00 | 30.74 | C |
| ATOM | 965 | C | ILE | A | 287 | 22.445 | -4.961 | 24.876 | 1.00 | 32.82 | C |
| ATOM | 966 | O | ILE | A | 287 | 23.533 | -5.129 | 25.420 | 1.00 | 38.87 | O |
| ATOM | 967 | CB | ILE | A | 287 | 21.760 | -7.314 | 24.476 | 1.00 | 28.25 | C |
| ATOM | 968 | CG1 | ILE | A | 287 | 21.112 | -8.271 | 23.473 | 1.00 | 31.91 | C |
| ATOM | 969 | CG2 | ILE | A | 287 | 20.912 | -7.193 | 25.731 | 1.00 | 29.39 | C |
| ATOM | 970 | CD1 | ILE | A | 287 | 21.240 | -9.741 | 23.842 | 1.00 | 29.02 | C |
| ATOM | 971 | N | VAL | A | 288 | 21.659 | -3.928 | 25.138 | 1.00 | 33.74 | N |
| ATOM | 972 | CA | VAL | A | 288 | 21.998 | -2.939 | 26.144 | 1.00 | 34.12 | C |
| ATOM | 973 | C | VAL | A | 288 | 20.851 | -2.977 | 27.137 | 1.00 | 37.01 | C |
| ATOM | 974 | O | VAL | A | 288 | 19.775 | -2.447 | 26.868 | 1.00 | 41.43 | O |
| ATOM | 975 | CB | VAL | A | 288 | 22.088 | -1.543 | 25.539 | 1.00 | 34.07 | C |
| ATOM | 976 | CG1 | VAL | A | 288 | 22.350 | -0.520 | 26.634 | 1.00 | 35.11 | C |
| ATOM | 977 | CG2 | VAL | A | 288 | 23.179 | -1.514 | 24.489 | 1.00 | 34.93 | C |
| ATOM | 978 | N | GLY | A | 289 | 21.081 | -3.612 | 28.281 | 1.00 | 36.53 | N |
| ATOM | 979 | CA | GLY | A | 289 | 20.036 | -3.736 | 29.280 | 1.00 | 38.46 | C |
| ATOM | 980 | C | GLY | A | 289 | 19.490 | -5.153 | 29.225 | 1.00 | 39.92 | C |
| ATOM | 981 | O | GLY | A | 289 | 20.256 | -6.099 | 29.047 | 1.00 | 43.29 | O |
| ATOM | 982 | N | ASN | A | 290 | 18.175 | -5.314 | 29.353 | 1.00 | 38.64 | N |
| ATOM | 983 | CA | ASN | A | 290 | 17.571 | -6.648 | 29.321 | 1.00 | 34.90 | C |
| ATOM | 984 | C | ASN | A | 290 | 17.500 | -7.258 | 27.922 | 1.00 | 31.27 | C |
| ATOM | 985 | O | ASN | A | 290 | 17.079 | -6.612 | 26.962 | 1.00 | 34.51 | O |
| ATOM | 986 | CB | ASN | A | 290 | 16.167 | -6.608 | 29.931 | 1.00 | 35.10 | C |
| ATOM | 987 | CG | ASN | A | 290 | 15.673 | -7.982 | 30.353 | 1.00 | 38.29 | C |
| ATOM | 988 | OD1 | ASN | A | 290 | 14.689 | -8.102 | 31.080 | 1.00 | 42.41 | O |
| ATOM | 989 | ND2 | ASN | A | 290 | 16.355 | -9.025 | 29.900 | 1.00 | 40.02 | N |
| ATOM | 990 | N | TRP | A | 291 | 17.922 | -8.511 | 27.818 | 1.00 | 27.96 | N |
| ATOM | 991 | CA | TRP | A | 291 | 17.899 | -9.242 | 26.557 | 1.00 | 29.66 | C |
| ATOM | 992 | C | TRP | A | 291 | 16.452 | -9.438 | 26.093 | 1.00 | 31.28 | C |
| ATOM | 993 | O | TRP | A | 291 | 16.151 | -9.363 | 24.900 | 1.00 | 32.54 | O |
| ATOM | 994 | CB | TRP | A | 291 | 18.540 | -10.621 | 26.746 | 1.00 | 31.27 | C |
| ATOM | 995 | CG | TRP | A | 291 | 17.729 | -11.515 | 27.657 | 1.00 | 30.18 | C |
| ATOM | 996 | CD1 | TRP | A | 291 | 17.742 | -11.529 | 29.028 | 1.00 | 32.26 | C |
| ATOM | 997 | CD2 | TRP | A | 291 | 16.735 | -12.467 | 27.258 | 1.00 | 27.97 | C |
| ATOM | 998 | NE1 | TRP | A | 291 | 16.815 | -12.429 | 29.502 | 1.00 | 32.05 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 999 | CE2 | TRP | A | 291 | 16.184 | -13.018 | 28.437 | 1.00 | 30.64 | C |
| ATOM | 1000 | CE3 | TRP | A | 291 | 16.255 | -12.907 | 26.017 | 1.00 | 26.81 | C |
| ATOM | 1001 | CZ2 | TRP | A | 291 | 15.175 | -13.988 | 28.410 | 1.00 | 30.51 | C |
| ATOM | 1002 | CZ3 | TRP | A | 291 | 15.249 | -13.873 | 25.992 | 1.00 | 27.67 | C |
| ATOM | 1003 | CH2 | TRP | A | 291 | 14.722 | -14.400 | 27.182 | 1.00 | 27.48 | C |
| ATOM | 1004 | N | TRP | A | 292 | 15.572 | -9.713 | 27.054 | 1.00 | 33.47 | N |
| ATOM | 1005 | CA | TRP | A | 292 | 14.157 | -9.950 | 26.792 | 1.00 | 33.28 | C |
| ATOM | 1006 | C | TRP | A | 292 | 13.570 | -8.932 | 25.815 | 1.00 | 32.60 | C |
| ATOM | 1007 | O | TRP | A | 292 | 12.870 | -9.302 | 24.870 | 1.00 | 32.87 | O |
| ATOM | 1008 | CB | TRP | A | 292 | 13.378 | -9.934 | 28.114 | 1.00 | 37.64 | C |
| ATOM | 1009 | CG | TRP | A | 292 | 11.992 | -10.489 | 27.990 | 1.00 | 40.97 | C |
| ATOM | 1010 | CD1 | TRP | A | 292 | 11.606 | -11.792 | 28.145 | 1.00 | 40.77 | C |
| ATOM | 1011 | CD2 | TRP | A | 292 | 10.810 | -9.759 | 27.639 | 1.00 | 42.02 | C |
| ATOM | 1012 | NE1 | TRP | A | 292 | 10.256 | -11.919 | 27.908 | 1.00 | 40.69 | N |
| ATOM | 1013 | CE2 | TRP | A | 292 | 9.743 | -10.686 | 27.596 | 1.00 | 42.10 | C |
| ATOM | 1014 | CE3 | TRP | A | 292 | 10.548 | -8.409 | 27.356 | 1.00 | 39.64 | C |
| ATOM | 1015 | CZ2 | TRP | A | 292 | 8.433 | -10.305 | 27.279 | 1.00 | 41.32 | C |
| ATOM | 1016 | CZ3 | TRP | A | 292 | 9.245 | -8.031 | 27.042 | 1.00 | 36.97 | C |
| ATOM | 1017 | CH2 | TRP | A | 292 | 8.206 | -8.977 | 27.007 | 1.00 | 35.65 | C |
| ATOM | 1018 | N | ASP | A | 293 | 13.873 | -7.655 | 26.035 | 1.00 | 31.49 | N |
| ATOM | 1019 | CA | ASP | A | 293 | 13.385 | -6.579 | 25.174 | 1.00 | 29.17 | C |
| ATOM | 1020 | C | ASP | A | 293 | 13.955 | -6.655 | 23.763 | 1.00 | 30.19 | C |
| ATOM | 1021 | O | ASP | A | 293 | 13.274 | -6.320 | 22.795 | 1.00 | 29.27 | O |
| ATOM | 1022 | CB | ASP | A | 293 | 13.741 | -5.216 | 25.767 | 1.00 | 29.33 | C |
| ATOM | 1023 | CG | ASP | A | 293 | 12.939 | -4.889 | 27.003 | 1.00 | 32.84 | C |
| ATOM | 1024 | OD1 | ASP | A | 293 | 13.553 | -4.485 | 28.014 | 1.00 | 30.59 | O |
| ATOM | 1025 | OD2 | ASP | A | 293 | 11.694 | -5.033 | 26.967 | 1.00 | 34.19 | O |
| ATOM | 1026 | N | TYR | A | 294 | 15.206 | -7.093 | 23.643 | 1.00 | 28.02 | N |
| ATOM | 1027 | CA | TYR | A | 294 | 15.853 | -7.176 | 22.337 | 1.00 | 27.86 | C |
| ATOM | 1028 | C | TYR | A | 294 | 15.438 | -8.401 | 21.551 | 1.00 | 25.34 | C |
| ATOM | 1029 | O | TYR | A | 294 | 15.482 | -8.406 | 20.322 | 1.00 | 23.76 | O |
| ATOM | 1030 | CB | TYR | A | 294 | 17.375 | -7.194 | 22.498 | 1.00 | 26.37 | C |
| ATOM | 1031 | CG | TYR | A | 294 | 17.975 | -5.843 | 22.749 | 1.00 | 19.99 | C |
| ATOM | 1032 | CD1 | TYR | A | 294 | 17.994 | -5.305 | 24.031 | 1.00 | 22.00 | C |
| ATOM | 1033 | CD2 | TYR | A | 294 | 18.521 | -5.098 | 21.703 | 1.00 | 23.83 | C |
| ATOM | 1034 | CE1 | TYR | A | 294 | 18.543 | -4.052 | 24.272 | 1.00 | 28.97 | C |
| ATOM | 1035 | CE2 | TYR | A | 294 | 19.077 | -3.836 | 21.929 | 1.00 | 22.89 | C |
| ATOM | 1036 | CZ | TYR | A | 294 | 19.083 | -3.323 | 23.216 | 1.00 | 28.76 | C |
| ATOM | 1037 | OH | TYR | A | 294 | 19.623 | -2.081 | 23.459 | 1.00 | 32.27 | O |
| ATOM | 1038 | N | GLU | A | 295 | 15.033 | -9.443 | 22.263 | 1.00 | 27.18 | N |
| ATOM | 1039 | CA | GLU | A | 295 | 14.661 | -10.680 | 21.604 | 1.00 | 28.36 | C |
| ATOM | 1040 | C | GLU | A | 295 | 13.198 | -11.085 | 21.685 | 1.00 | 26.18 | C |
| ATOM | 1041 | O | GLU | A | 295 | 12.743 | -11.888 | 20.876 | 1.00 | 25.09 | O |
| ATOM | 1042 | CB | GLU | A | 295 | 15.538 | -11.808 | 22.138 | 1.00 | 30.23 | C |
| ATOM | 1043 | CG | GLU | A | 295 | 17.010 | -11.572 | 21.877 | 1.00 | 36.10 | C |
| ATOM | 1044 | CD | GLU | A | 295 | 17.891 | -12.566 | 22.597 | 1.00 | 40.33 | C |
| ATOM | 1045 | OE1 | GLU | A | 295 | 17.661 | -13.787 | 22.433 | 1.00 | 38.60 | O |
| ATOM | 1046 | OE2 | GLU | A | 295 | 18.809 | -12.122 | 23.323 | 1.00 | 41.38 | O |
| ATOM | 1047 | N | ILE | A | 296 | 12.462 | -10.548 | 22.653 | 1.00 | 27.58 | N |
| ATOM | 1048 | CA | ILE | A | 296 | 11.042 | -10.889 | 22.780 | 1.00 | 29.63 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1049 | C | ILE | A | 296 | 10.116 | -9.663 | 22.734 | 1.00 | 26.35 | C |
| ATOM | 1050 | O | ILE | A | 296 | 9.340 | -9.492 | 21.791 | 1.00 | 25.98 | O |
| ATOM | 1051 | CB | ILE | A | 296 | 10.776 | -11.688 | 24.080 | 1.00 | 29.78 | C |
| ATOM | 1052 | CG1 | ILE | A | 296 | 11.640 | -12.951 | 24.102 | 1.00 | 26.46 | C |
| ATOM | 1053 | CG2 | ILE | A | 296 | 9.311 | -12.094 | 24.152 | 1.00 | 32.03 | C |
| ATOM | 1054 | CD1 | ILE | A | 296 | 11.531 | -13.743 | 25.392 | 1.00 | 27.75 | C |
| ATOM | 1055 | N | GLY | A | 297 | 10.209 | -8.811 | 23.746 | 1.00 | 26.16 | N |
| ATOM | 1056 | CA | GLY | A | 297 | 9.370 | -7.630 | 23.798 | 1.00 | 26.51 | C |
| ATOM | 1057 | C | GLY | A | 297 | 9.305 | -6.825 | 22.514 | 1.00 | 28.70 | C |
| ATOM | 1058 | O | GLY | A | 297 | 8.249 | -6.714 | 21.896 | 1.00 | 28.07 | O |
| ATOM | 1059 | N | THR | A | 298 | 10.437 | -6.263 | 22.103 | 1.00 | 28.32 | N |
| ATOM | 1060 | CA | THR | A | 298 | 10.485 | -5.434 | 20.901 | 1.00 | 27.57 | C |
| ATOM | 1061 | C | THR | A | 298 | 10.196 | -6.170 | 19.593 | 1.00 | 25.94 | C |
| ATOM | 1062 | O | THR | A | 298 | 9.428 | -5.684 | 18.770 | 1.00 | 29.77 | O |
| ATOM | 1063 | CB | THR | A | 298 | 11.847 | -4.686 | 20.804 | 1.00 | 23.37 | C |
| ATOM | 1064 | OG1 | THR | A | 298 | 11.859 | -3.611 | 21.750 | 1.00 | 24.14 | O |
| ATOM | 1065 | CG2 | THR | A | 298 | 12.062 | -4.111 | 19.419 | 1.00 | 19.54 | C |
| ATOM | 1066 | N | PRO | A | 299 | 10.816 | -7.338 | 19.373 | 1.00 | 25.03 | N |
| ATOM | 1067 | CA | PRO | A | 299 | 10.544 | -8.055 | 18.123 | 1.00 | 20.78 | C |
| ATOM | 1068 | C | PRO | A | 299 | 9.061 | -8.390 | 17.932 | 1.00 | 21.04 | C |
| ATOM | 1069 | O | PRO | A | 299 | 8.569 | -8.438 | 16.804 | 1.00 | 18.43 | O |
| ATOM | 1070 | CB | PRO | A | 299 | 11.407 | -9.310 | 18.229 | 1.00 | 23.43 | C |
| ATOM | 1071 | CG | PRO | A | 299 | 12.474 | -8.955 | 19.233 | 1.00 | 23.96 | C |
| ATOM | 1072 | CD | PRO | A | 299 | 11.809 | -8.033 | 20.209 | 1.00 | 25.07 | C |
| ATOM | 1073 | N | ARG | A | 300 | 8.352 | -8.635 | 19.028 | 1.00 | 20.78 | N |
| ATOM | 1074 | CA | ARG | A | 300 | 6.928 | -8.956 | 18.935 | 1.00 | 24.13 | C |
| ATOM | 1075 | C | ARG | A | 300 | 6.147 | -7.712 | 18.496 | 1.00 | 24.12 | C |
| ATOM | 1076 | O | ARG | A | 300 | 5.358 | -7.769 | 17.551 | 1.00 | 27.77 | O |
| ATOM | 1077 | CB | ARG | A | 300 | 6.405 | -9.467 | 20.284 | 1.00 | 23.19 | C |
| ATOM | 1078 | CG | ARG | A | 300 | 6.615 | -10.967 | 20.498 | 1.00 | 22.94 | C |
| ATOM | 1079 | CD | ARG | A | 300 | 6.331 | -11.375 | 21.934 | 1.00 | 23.90 | C |
| ATOM | 1080 | NE | ARG | A | 300 | 5.059 | -10.841 | 22.410 | 1.00 | 29.22 | N |
| ATOM | 1081 | CZ | ARG | A | 300 | 4.797 | -10.545 | 23.681 | 1.00 | 27.62 | C |
| ATOM | 1082 | NH1 | ARG | A | 300 | 5.717 | -10.729 | 24.618 | 1.00 | 31.85 | N |
| ATOM | 1083 | NH2 | ARG | A | 300 | 3.620 | -10.045 | 24.015 | 1.00 | 25.61 | N |
| ATOM | 1084 | N | ALA | A | 301 | 6.387 | -6.592 | 19.177 | 1.00 | 22.50 | N |
| ATOM | 1085 | CA | ALA | A | 301 | 5.726 | -5.323 | 18.864 | 1.00 | 25.32 | C |
| ATOM | 1086 | C | ALA | A | 301 | 5.963 | -4.915 | 17.408 | 1.00 | 27.01 | C |
| ATOM | 1087 | O | ALA | A | 301 | 5.082 | -4.338 | 16.759 | 1.00 | 27.27 | O |
| ATOM | 1088 | CB | ALA | A | 301 | 6.233 | -4.228 | 19.800 | 1.00 | 22.94 | C |
| ATOM | 1089 | N | ILE | A | 302 | 7.156 | -5.226 | 16.903 | 1.00 | 23.57 | N |
| ATOM | 1090 | CA | ILE | A | 302 | 7.530 | -4.900 | 15.535 | 1.00 | 20.42 | C |
| ATOM | 1091 | C | ILE | A | 302 | 6.808 | -5.812 | 14.545 | 1.00 | 19.53 | C |
| ATOM | 1092 | O | ILE | A | 302 | 6.282 | -5.356 | 13.533 | 1.00 | 22.62 | O |
| ATOM | 1093 | CB | ILE | A | 302 | 9.069 | -5.043 | 15.334 | 1.00 | 20.95 | C |
| ATOM | 1094 | CG1 | ILE | A | 302 | 9.790 | -3.886 | 16.024 | 1.00 | 20.70 | C |
| ATOM | 1095 | CG2 | ILE | A | 302 | 9.415 | -5.071 | 13.836 | 1.00 | 19.11 | C |
| ATOM | 1096 | CD1 | ILE | A | 302 | 11.297 | -3.869 | 15.793 | 1.00 | 25.33 | C |
| ATOM | 1097 | N | ASN | A | 303 | 6.803 | -7.105 | 14.835 | 1.00 | 18.78 | N |
| ATOM | 1098 | CA | ASN | A | 303 | 6.148 | -8.080 | 13.978 | 1.00 | 20.66 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1099 | C | ASN | A | 303 | 4.674 | -7.719 | 13.840 | 1.00 | 20.76 | C |
| ATOM | 1100 | O | ASN | A | 303 | 4.109 | -7.749 | 12.748 | 1.00 | 21.26 | O |
| ATOM | 1101 | CB | ASN | A | 303 | 6.244 | -9.480 | 14.595 | 1.00 | 23.23 | C |
| ATOM | 1102 | CG | ASN | A | 303 | 7.630 | -10.083 | 14.472 | 1.00 | 25.48 | C |
| ATOM | 1103 | OD1 | ASN | A | 303 | 8.412 | -9.693 | 13.608 | 1.00 | 25.20 | O |
| ATOM | 1104 | ND2 | ASN | A | 303 | 7.936 | -11.046 | 15.336 | 1.00 | 24.26 | N |
| ATOM | 1105 | N | ASN | A | 304 | 4.062 | -7.390 | 14.971 | 1.00 | 21.90 | N |
| ATOM | 1106 | CA | ASN | A | 304 | 2.651 | -7.045 | 15.011 | 1.00 | 21.75 | C |
| ATOM | 1107 | C | ASN | A | 304 | 2.361 | -5.764 | 14.253 | 1.00 | 22.34 | C |
| ATOM | 1108 | O | ASN | A | 304 | 1.396 | -5.698 | 13.487 | 1.00 | 25.39 | O |
| ATOM | 1109 | CB | ASN | A | 304 | 2.195 | -6.917 | 16.459 | 1.00 | 15.09 | C |
| ATOM | 1110 | CG | ASN | A | 304 | 2.070 | -8.266 | 17.151 | 1.00 | 19.18 | C |
| ATOM | 1111 | OD1 | ASN | A | 304 | 2.386 | -9.314 | 16.575 | 1.00 | 19.19 | O |
| ATOM | 1112 | ND2 | ASN | A | 304 | 1.607 | -8.246 | 18.396 | 1.00 | 21.07 | N |
| ATOM | 1113 | N | THR | A | 305 | 3.200 | -4.751 | 14.456 | 1.00 | 19.38 | N |
| ATOM | 1114 | CA | THR | A | 305 | 3.019 | -3.477 | 13.777 | 1.00 | 19.36 | C |
| ATOM | 1115 | C | THR | A | 305 | 3.077 | -3.646 | 12.268 | 1.00 | 19.67 | C |
| ATOM | 1116 | O | THR | A | 305 | 2.253 | -3.099 | 11.538 | 1.00 | 20.53 | O |
| ATOM | 1117 | CB | THR | A | 305 | 4.095 | -2.458 | 14.187 | 1.00 | 17.17 | C |
| ATOM | 1118 | OG1 | THR | A | 305 | 4.030 | -2.222 | 15.599 | 1.00 | 16.78 | O |
| ATOM | 1119 | CG2 | THR | A | 305 | 3.880 | -1.150 | 13.448 | 1.00 | 17.25 | C |
| ATOM | 1120 | N | LEU | A | 306 | 4.060 | -4.410 | 11.805 | 1.00 | 21.63 | N |
| ATOM | 1121 | CA | LEU | A | 306 | 4.248 | -4.650 | 10.380 | 1.00 | 20.58 | C |
| ATOM | 1122 | C | LEU | A | 306 | 3.153 | -5.538 | 9.800 | 1.00 | 20.98 | C |
| ATOM | 1123 | O | LEU | A | 306 | 2.721 | -5.344 | 8.669 | 1.00 | 21.47 | O |
| ATOM | 1124 | CB | LEU | A | 306 | 5.615 | -5.293 | 10.141 | 1.00 | 21.35 | C |
| ATOM | 1125 | CG | LEU | A | 306 | 6.817 | -4.420 | 10.506 | 1.00 | 23.97 | C |
| ATOM | 1126 | CD1 | LEU | A | 306 | 8.081 | -5.258 | 10.464 | 1.00 | 20.99 | C |
| ATOM | 1127 | CD2 | LEU | A | 306 | 6.920 | -3.252 | 9.527 | 1.00 | 24.00 | C |
| ATOM | 1128 | N | SER | A | 307 | 2.718 | -6.523 | 10.575 | 1.00 | 23.65 | N |
| ATOM | 1129 | CA | SER | A | 307 | 1.658 | -7.428 | 10.131 | 1.00 | 23.86 | C |
| ATOM | 1130 | C | SER | A | 307 | 0.351 | -6.660 | 9.919 | 1.00 | 22.34 | C |
| ATOM | 1131 | O | SER | A | 307 | -0.332 | -6.839 | 8.910 | 1.00 | 22.24 | O |
| ATOM | 1132 | CB | SER | A | 307 | 1.433 | -8.529 | 11.169 | 1.00 | 21.79 | C |
| ATOM | 1133 | OG | SER | A | 307 | 0.590 | -9.547 | 10.657 | 1.00 | 22.07 | O |
| ATOM | 1134 | N | LEU | A | 308 | 0.013 | -5.803 | 10.878 | 1.00 | 22.14 | N |
| ATOM | 1135 | CA | LEU | A | 308 | -1.208 | -5.015 | 10.795 | 1.00 | 23.09 | C |
| ATOM | 1136 | C | LEU | A | 308 | -1.169 | -4.022 | 9.635 | 1.00 | 25.14 | C |
| ATOM | 1137 | O | LEU | A | 308 | -2.129 | -3.923 | 8.868 | 1.00 | 25.10 | O |
| ATOM | 1138 | CB | LEU | A | 308 | -1.448 | -4.277 | 12.113 | 1.00 | 19.11 | C |
| ATOM | 1139 | CG | LEU | A | 308 | -1.773 | -5.198 | 13.293 | 1.00 | 19.05 | C |
| ATOM | 1140 | CD1 | LEU | A | 308 | -1.786 | -4.413 | 14.605 | 1.00 | 14.50 | C |
| ATOM | 1141 | CD2 | LEU | A | 308 | -3.121 | -5.855 | 13.057 | 1.00 | 22.21 | C |
| ATOM | 1142 | N | MET | A | 309 | -0.054 | -3.304 | 9.491 | 1.00 | 24.85 | N |
| ATOM | 1143 | CA | MET | A | 309 | 0.079 | -2.314 | 8.423 | 1.00 | 21.92 | C |
| ATOM | 1144 | C | MET | A | 309 | 0.808 | -2.814 | 7.183 | 1.00 | 23.98 | C |
| ATOM | 1145 | O | MET | A | 309 | 1.370 | -2.022 | 6.431 | 1.00 | 25.94 | O |
| ATOM | 1146 | CB | MET | A | 309 | 0.788 | -1.064 | 8.954 | 1.00 | 22.55 | C |
| ATOM | 1147 | CG | MET | A | 309 | -0.046 | -0.266 | 9.927 | 1.00 | 16.77 | C |
| ATOM | 1148 | SD | MET | A | 309 | 0.660 | 1.306 | 10.417 | 1.00 | 23.63 | S |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1149 | CE | MET | A | 309 | 0.810 | 2.129 | 8.842 | 1.00 | 18.17 | C |
| ATOM | 1150 | N | LYS | A | 310 | 0.779 | -4.116 | 6.943 | 1.00 | 24.50 | N |
| ATOM | 1151 | CA | LYS | A | 310 | 1.484 | -4.659 | 5.793 | 1.00 | 24.26 | C |
| ATOM | 1152 | C | LYS | A | 310 | 1.080 | -4.059 | 4.456 | 1.00 | 26.23 | C |
| ATOM | 1153 | O | LYS | A | 310 | 1.836 | -4.134 | 3.485 | 1.00 | 25.95 | O |
| ATOM | 1154 | CB | LYS | A | 310 | 1.346 | -6.183 | 5.752 | 1.00 | 23.96 | C |
| ATOM | 1155 | CG | LYS | A | 310 | -0.061 | -6.721 | 5.567 | 1.00 | 22.71 | C |
| ATOM | 1156 | CD | LYS | A | 310 | -0.012 | -8.223 | 5.272 | 1.00 | 21.40 | C |
| ATOM | 1157 | CE | LYS | A | 310 | -1.224 | -8.946 | 5.820 | 1.00 | 21.27 | C |
| ATOM | 1158 | NZ | LYS | A | 310 | -2.476 | -8.353 | 5.283 | 1.00 | 23.68 | N |
| ATOM | 1159 | N | GLU | A | 311 | -0.099 | -3.448 | 4.396 | 1.00 | 28.30 | N |
| ATOM | 1160 | CA | GLU | A | 311 | -0.557 | -2.845 | 3.141 | 1.00 | 27.27 | C |
| ATOM | 1161 | C | GLU | A | 311 | 0.019 | -1.441 | 2.943 | 1.00 | 27.90 | C |
| ATOM | 1162 | O | GLU | A | 311 | -0.263 | -0.792 | 1.934 | 1.00 | 26.89 | O |
| ATOM | 1163 | CB | GLU | A | 311 | -2.094 | -2.792 | 3.091 | 1.00 | 27.32 | C |
| ATOM | 1164 | CG | GLU | A | 311 | -2.767 | -4.161 | 3.172 | 1.00 | 31.53 | C |
| ATOM | 1165 | CD | GLU | A | 311 | -4.246 | -4.143 | 2.782 | 1.00 | 34.26 | C |
| ATOM | 1166 | OE1 | GLU | A | 311 | -4.912 | -3.101 | 2.963 | 1.00 | 34.24 | O |
| ATOM | 1167 | OE2 | GLU | A | 311 | -4.743 | -5.180 | 2.294 | 1.00 | 35.40 | O |
| ATOM | 1168 | N | TYR | A | 312 | 0.825 | -0.983 | 3.904 | 1.00 | 27.83 | N |
| ATOM | 1169 | CA | TYR | A | 312 | 1.453 | 0.337 | 3.848 | 1.00 | 27.15 | C |
| ATOM | 1170 | C | TYR | A | 312 | 2.975 | 0.255 | 3.774 | 1.00 | 28.69 | C |
| ATOM | 1171 | O | TYR | A | 312 | 3.640 | 1.265 | 3.553 | 1.00 | 28.85 | O |
| ATOM | 1172 | CB | TYR | A | 312 | 1.078 | 1.162 | 5.076 | 1.00 | 30.02 | C |
| ATOM | 1173 | CG | TYR | A | 312 | -0.383 | 1.516 | 5.150 | 1.00 | 32.50 | C |
| ATOM | 1174 | CD1 | TYR | A | 312 | -0.895 | 2.587 | 4.420 | 1.00 | 33.12 | C |
| ATOM | 1175 | CD2 | TYR | A | 312 | -1.255 | 0.781 | 5.948 | 1.00 | 31.56 | C |
| ATOM | 1176 | CE1 | TYR | A | 312 | -2.252 | 2.921 | 4.484 | 1.00 | 35.97 | C |
| ATOM | 1177 | CE2 | TYR | A | 312 | -2.613 | 1.104 | 6.020 | 1.00 | 35.65 | C |
| ATOM | 1178 | CZ | TYR | A | 312 | -3.103 | 2.175 | 5.286 | 1.00 | 32.98 | C |
| ATOM | 1179 | OH | TYR | A | 312 | -4.436 | 2.499 | 5.358 | 1.00 | 33.63 | O |
| ATOM | 1180 | N | PHE | A | 313 | 3.515 | -0.943 | 3.982 | 1.00 | 28.47 | N |
| ATOM | 1181 | CA | PHE | A | 313 | 4.959 | -1.178 | 3.943 | 1.00 | 28.96 | C |
| ATOM | 1182 | C | PHE | A | 313 | 5.275 | -2.088 | 2.769 | 1.00 | 29.82 | C |
| ATOM | 1183 | O | PHE | A | 313 | 4.497 | -2.986 | 2.453 | 1.00 | 31.28 | O |
| ATOM | 1184 | CB | PHE | A | 313 | 5.426 | -1.866 | 5.226 | 1.00 | 23.80 | C |
| ATOM | 1185 | CG | PHE | A | 313 | 5.572 | -0.939 | 6.396 | 1.00 | 27.90 | C |
| ATOM | 1186 | CD1 | PHE | A | 313 | 6.668 | -0.082 | 6.491 | 1.00 | 27.25 | C |
| ATOM | 1187 | CD2 | PHE | A | 313 | 4.625 | -0.933 | 7.416 | 1.00 | 23.90 | C |
| ATOM | 1188 | CE1 | PHE | A | 313 | 6.818 | 0.771 | 7.591 | 1.00 | 28.51 | C |
| ATOM | 1189 | CE2 | PHE | A | 313 | 4.763 | -0.088 | 8.519 | 1.00 | 24.22 | C |
| ATOM | 1190 | CZ | PHE | A | 313 | 5.862 | 0.767 | 8.608 | 1.00 | 27.65 | C |
| ATOM | 1191 | N | SER | A | 314 | 6.404 | -1.854 | 2.113 | 1.00 | 30.18 | N |
| ATOM | 1192 | CA | SER | A | 314 | 6.794 | -2.702 | 0.996 | 1.00 | 32.00 | C |
| ATOM | 1193 | C | SER | A | 314 | 7.495 | -3.901 | 1.612 | 1.00 | 32.43 | C |
| ATOM | 1194 | O | SER | A | 314 | 7.927 | -3.847 | 2.766 | 1.00 | 31.99 | O |
| ATOM | 1195 | CB | SER | A | 314 | 7.760 | -1.966 | 0.068 | 1.00 | 33.29 | C |
| ATOM | 1196 | OG | SER | A | 314 | 9.049 | -1.896 | 0.647 | 1.00 | 32.43 | O |
| ATOM | 1197 | N | ASP | A | 315 | 7.602 | -4.987 | 0.859 | 1.00 | 31.97 | N |
| ATOM | 1198 | CA | ASP | A | 315 | 8.276 | -6.168 | 1.371 | 1.00 | 35.06 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1199 | C | ASP | A | 315 | 9.720 | -5.824 | 1.735 | 1.00 | 36.46 | C |
| ATOM | 1200 | O | ASP | A | 315 | 10.245 | -6.285 | 2.749 | 1.00 | 37.15 | O |
| ATOM | 1201 | CB | ASP | A | 315 | 8.229 | -7.276 | 0.329 | 1.00 | 33.19 | C |
| ATOM | 1202 | CG | ASP | A | 315 | 6.852 | -7.878 | 0.207 | 1.00 | 36.12 | C |
| ATOM | 1203 | OD1 | ASP | A | 315 | 6.133 | -7.880 | 1.223 | 1.00 | 41.93 | O |
| ATOM | 1204 | OD2 | ASP | A | 315 | 6.479 | -8.343 | -0.889 | 1.00 | 35.72 | O |
| ATOM | 1205 | N | GLU | A | 316 | 10.347 | -4.990 | 0.914 | 1.00 | 38.52 | N |
| ATOM | 1206 | CA | GLU | A | 316 | 11.724 | -4.567 | 1.145 | 1.00 | 41.15 | C |
| ATOM | 1207 | C | GLU | A | 316 | 11.843 | -3.875 | 2.494 | 1.00 | 41.08 | C |
| ATOM | 1208 | O | GLU | A | 316 | 12.816 | -4.066 | 3.232 | 1.00 | 38.78 | O |
| ATOM | 1209 | CB | GLU | A | 316 | 12.171 | -3.597 | 0.049 | 1.00 | 46.26 | C |
| ATOM | 1210 | CG | GLU | A | 316 | 12.760 | -4.265 | -1.178 | 1.00 | 55.79 | C |
| ATOM | 1211 | CD | GLU | A | 316 | 11.698 | -4.868 | -2.080 | 1.00 | 62.26 | C |
| ATOM | 1212 | OE1 | GLU | A | 316 | 11.980 | -5.054 | -3.284 | 1.00 | 67.83 | O |
| ATOM | 1213 | OE2 | GLU | A | 316 | 10.582 | -5.154 | -1.592 | 1.00 | 64.74 | O |
| ATOM | 1214 | N | GLU | A | 317 | 10.850 | -3.055 | 2.814 | 1.00 | 37.15 | N |
| ATOM | 1215 | CA | GLU | A | 317 | 10.869 | -2.341 | 4.074 | 1.00 | 34.68 | C |
| ATOM | 1216 | C | GLU | A | 317 | 10.637 | -3.320 | 5.213 | 1.00 | 33.17 | C |
| ATOM | 1217 | O | GLU | A | 317 | 11.258 | -3.215 | 6.269 | 1.00 | 35.20 | O |
| ATOM | 1218 | CB | GLU | A | 317 | 9.798 | -1.250 | 4.073 | 1.00 | 36.52 | C |
| ATOM | 1219 | CG | GLU | A | 317 | 10.287 | 0.088 | 3.540 | 1.00 | 36.97 | C |
| ATOM | 1220 | CD | GLU | A | 317 | 9.167 | 0.952 | 2.987 | 1.00 | 39.32 | C |
| ATOM | 1221 | OE1 | GLU | A | 317 | 8.079 | 0.406 | 2.709 | 1.00 | 41.95 | O |
| ATOM | 1222 | OE2 | GLU | A | 317 | 9.378 | 2.175 | 2.829 | 1.00 | 40.29 | O |
| ATOM | 1223 | N | ILE | A | 318 | 9.753 | -4.287 | 4.998 | 1.00 | 31.45 | N |
| ATOM | 1224 | CA | ILE | A | 318 | 9.470 | -5.263 | 6.039 | 1.00 | 32.38 | C |
| ATOM | 1225 | C | ILE | A | 318 | 10.737 | -6.062 | 6.357 | 1.00 | 33.71 | C |
| ATOM | 1226 | O | ILE | A | 318 | 11.146 | -6.162 | 7.519 | 1.00 | 29.01 | O |
| ATOM | 1227 | CB | ILE | A | 318 | 8.329 | -6.216 | 5.613 | 1.00 | 33.09 | C |
| ATOM | 1228 | CG1 | ILE | A | 318 | 6.999 | -5.457 | 5.612 | 1.00 | 30.95 | C |
| ATOM | 1229 | CG2 | ILE | A | 318 | 8.240 | -7.393 | 6.576 | 1.00 | 28.97 | C |
| ATOM | 1230 | CD1 | ILE | A | 318 | 5.922 | -6.144 | 4.820 | 1.00 | 29.42 | C |
| ATOM | 1231 | N | LYS | A | 319 | 11.357 | -6.627 | 5.323 | 1.00 | 33.09 | N |
| ATOM | 1232 | CA | LYS | A | 319 | 12.585 | -7.390 | 5.506 | 1.00 | 33.31 | C |
| ATOM | 1233 | C | LYS | A | 319 | 13.592 | -6.499 | 6.230 | 1.00 | 30.89 | C |
| ATOM | 1234 | O | LYS | A | 319 | 14.176 | -6.882 | 7.248 | 1.00 | 28.57 | O |
| ATOM | 1235 | CB | LYS | A | 319 | 13.148 | -7.811 | 4.149 | 1.00 | 35.46 | C |
| ATOM | 1236 | CG | LYS | A | 319 | 13.098 | -9.308 | 3.900 | 1.00 | 44.20 | C |
| ATOM | 1237 | CD | LYS | A | 319 | 14.029 | -9.717 | 2.766 | 1.00 | 47.92 | C |
| ATOM | 1238 | CE | LYS | A | 319 | 15.255 | -10.462 | 3.288 | 1.00 | 51.52 | C |
| ATOM | 1239 | NZ | LYS | A | 319 | 15.146 | -11.935 | 3.069 | 1.00 | 53.31 | N |
| ATOM | 1240 | N | LYS | A | 320 | 13.771 | -5.295 | 5.703 | 1.00 | 27.58 | N |
| ATOM | 1241 | CA | LYS | A | 320 | 14.692 | -4.336 | 6.282 | 1.00 | 27.96 | C |
| ATOM | 1242 | C | LYS | A | 320 | 14.449 | -4.129 | 7.773 | 1.00 | 31.43 | C |
| ATOM | 1243 | O | LYS | A | 320 | 15.397 | -4.060 | 8.561 | 1.00 | 35.58 | O |
| ATOM | 1244 | CB | LYS | A | 320 | 14.563 | -3.000 | 5.550 | 1.00 | 29.40 | C |
| ATOM | 1245 | CG | LYS | A | 320 | 15.140 | -1.806 | 6.295 | 1.00 | 29.53 | C |
| ATOM | 1246 | CD | LYS | A | 320 | 15.013 | -0.539 | 5.460 | 1.00 | 33.45 | C |
| ATOM | 1247 | CE | LYS | A | 320 | 14.616 | 0.657 | 6.313 | 1.00 | 36.76 | C |
| ATOM | 1248 | NZ | LYS | A | 320 | 14.268 | 1.838 | 5.469 | 1.00 | 41.30 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1249 | N | TYR | A | 321 | 13.180 | -4.035 | 8.166 | 1.00 | 31.13 | N |
| ATOM | 1250 | CA | TYR | A | 321 | 12.839 | -3.803 | 9.566 | 1.00 | 26.82 | C |
| ATOM | 1251 | C | TYR | A | 321 | 12.855 | -5.035 | 10.467 | 1.00 | 23.51 | C |
| ATOM | 1252 | O | TYR | A | 321 | 12.823 | -4.912 | 11.692 | 1.00 | 23.05 | O |
| ATOM | 1253 | CB | TYR | A | 321 | 11.482 | -3.107 | 9.651 | 1.00 | 31.65 | C |
| ATOM | 1254 | CG | TYR | A | 321 | 11.526 | -1.683 | 9.155 | 1.00 | 31.21 | C |
| ATOM | 1255 | CD1 | TYR | A | 321 | 12.405 | -0.756 | 9.716 | 1.00 | 29.99 | C |
| ATOM | 1256 | CD2 | TYR | A | 321 | 10.703 | -1.264 | 8.116 | 1.00 | 30.71 | C |
| ATOM | 1257 | CE1 | TYR | A | 321 | 12.459 | 0.551 | 9.253 | 1.00 | 34.24 | C |
| ATOM | 1258 | CE2 | TYR | A | 321 | 10.748 | 0.037 | 7.646 | 1.00 | 32.88 | C |
| ATOM | 1259 | CZ | TYR | A | 321 | 11.623 | 0.942 | 8.216 | 1.00 | 33.15 | C |
| ATOM | 1260 | OH | TYR | A | 321 | 11.646 | 2.240 | 7.760 | 1.00 | 34.10 | O |
| ATOM | 1261 | N | THR | A | 322 | 12.909 | -6.220 | 9.872 | 1.00 | 26.16 | N |
| ATOM | 1262 | CA | THR | A | 322 | 12.949 | -7.441 | 10.667 | 1.00 | 29.60 | C |
| ATOM | 1263 | C | THR | A | 322 | 14.346 | -8.086 | 10.664 | 1.00 | 32.47 | C |
| ATOM | 1264 | O | THR | A | 322 | 14.610 | -9.026 | 11.419 | 1.00 | 33.11 | O |
| ATOM | 1265 | CB | THR | A | 322 | 11.898 | -8.460 | 10.179 | 1.00 | 26.82 | C |
| ATOM | 1266 | OG1 | THR | A | 322 | 12.026 | -8.663 | 8.767 | 1.00 | 26.20 | O |
| ATOM | 1267 | CG2 | THR | A | 322 | 10.497 | -7.947 | 10.489 | 1.00 | 29.63 | C |
| ATOM | 1268 | N | ASP | A | 323 | 15.241 | -7.573 | 9.821 | 1.00 | 32.23 | N |
| ATOM | 1269 | CA | ASP | A | 323 | 16.606 | -8.092 | 9.756 | 1.00 | 29.43 | C |
| ATOM | 1270 | C | ASP | A | 323 | 17.174 | -8.117 | 11.167 | 1.00 | 27.39 | C |
| ATOM | 1271 | O | ASP | A | 323 | 17.685 | -9.135 | 11.620 | 1.00 | 31.12 | O |
| ATOM | 1272 | CB | ASP | A | 323 | 17.475 | -7.193 | 8.877 | 1.00 | 26.81 | C |
| ATOM | 1273 | CG | ASP | A | 323 | 17.337 | -7.508 | 7.397 | 1.00 | 31.62 | C |
| ATOM | 1274 | OD1 | ASP | A | 323 | 17.503 | -6.573 | 6.582 | 1.00 | 34.44 | O |
| ATOM | 1275 | OD2 | ASP | A | 323 | 17.066 | -8.681 | 7.040 | 1.00 | 29.48 | O |
| ATOM | 1276 | N | VAL | A | 324 | 17.067 | -6.990 | 11.865 | 1.00 | 29.01 | N |
| ATOM | 1277 | CA | VAL | A | 324 | 17.566 | -6.877 | 13.228 | 1.00 | 26.65 | C |
| ATOM | 1278 | C | VAL | A | 324 | 17.001 | -7.952 | 14.156 | 1.00 | 30.28 | C |
| ATOM | 1279 | O | VAL | A | 324 | 17.657 | -8.337 | 15.123 | 1.00 | 31.27 | O |
| ATOM | 1280 | CB | VAL | A | 324 | 17.258 | -5.480 | 13.822 | 1.00 | 28.11 | C |
| ATOM | 1281 | CG1 | VAL | A | 324 | 15.759 | -5.208 | 13.774 | 1.00 | 30.83 | C |
| ATOM | 1282 | CG2 | VAL | A | 324 | 17.773 | -5.393 | 15.255 | 1.00 | 28.20 | C |
| ATOM | 1283 | N | ILE | A | 325 | 15.789 | -8.432 | 13.875 | 1.00 | 29.56 | N |
| ATOM | 1284 | CA | ILE | A | 325 | 15.180 | -9.469 | 14.710 | 1.00 | 28.67 | C |
| ATOM | 1285 | C | ILE | A | 325 | 15.929 | -10.759 | 14.433 | 1.00 | 27.44 | C |
| ATOM | 1286 | O | ILE | A | 325 | 16.164 | -11.563 | 15.330 | 1.00 | 25.26 | O |
| ATOM | 1287 | CB | ILE | A | 325 | 13.679 | -9.692 | 14.371 | 1.00 | 32.05 | C |
| ATOM | 1288 | CG1 | ILE | A | 325 | 12.812 | -8.648 | 15.072 | 1.00 | 30.39 | C |
| ATOM | 1289 | CG2 | ILE | A | 325 | 13.231 | -11.078 | 14.828 | 1.00 | 30.90 | C |
| ATOM | 1290 | CD1 | ILE | A | 325 | 11.430 | -8.512 | 14.445 | 1.00 | 30.81 | C |
| ATOM | 1291 | N | GLU | A | 326 | 16.289 | -10.951 | 13.170 | 1.00 | 30.85 | N |
| ATOM | 1292 | CA | GLU | A | 326 | 17.029 | -12.136 | 12.754 | 1.00 | 33.24 | C |
| ATOM | 1293 | C | GLU | A | 326 | 18.421 | -12.090 | 13.375 | 1.00 | 33.80 | C |
| ATOM | 1294 | O | GLU | A | 326 | 19.011 | -13.123 | 13.669 | 1.00 | 35.53 | O |
| ATOM | 1295 | CB | GLU | A | 326 | 17.145 | -12.186 | 11.227 | 1.00 | 33.41 | C |
| ATOM | 1296 | CG | GLU | A | 326 | 15.847 | -12.518 | 10.520 | 1.00 | 35.28 | C |
| ATOM | 1297 | CD | GLU | A | 326 | 15.057 | -13.585 | 11.246 | 1.00 | 40.13 | C |
| ATOM | 1298 | OE1 | GLU | A | 326 | 15.634 | -14.652 | 11.538 | 1.00 | 36.16 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1299 | OE2 | GLU | A | 326 | 13.861 | -13.358 | 11.527 | 1.00 | 41.26 | O |
| ATOM | 1300 | N | LYS | A | 327 | 18.935 | -10.882 | 13.579 | 1.00 | 33.52 | N |
| ATOM | 1301 | CA | LYS | A | 327 | 20.249 | -10.707 | 14.174 | 1.00 | 32.69 | C |
| ATOM | 1302 | C | LYS | A | 327 | 20.251 | -11.104 | 15.649 | 1.00 | 33.84 | C |
| ATOM | 1303 | O | LYS | A | 327 | 21.107 | -11.869 | 16.091 | 1.00 | 34.03 | O |
| ATOM | 1304 | CB | LYS | A | 327 | 20.702 | -9.254 | 14.035 | 1.00 | 30.36 | C |
| ATOM | 1305 | CG | LYS | A | 327 | 22.121 | -8.998 | 14.522 | 1.00 | 33.18 | C |
| ATOM | 1306 | CD | LYS | A | 327 | 22.128 | -8.314 | 15.891 | 1.00 | 38.75 | C |
| ATOM | 1307 | CE | LYS | A | 327 | 23.406 | -8.619 | 16.668 | 1.00 | 39.29 | C |
| ATOM | 1308 | NZ | LYS | A | 327 | 24.324 | -7.448 | 16.725 | 1.00 | 37.76 | N |
| ATOM | 1309 | N | PHE | A | 328 | 19.293 | -10.594 | 16.414 | 1.00 | 32.47 | N |
| ATOM | 1310 | CA | PHE | A | 328 | 19.241 | -10.909 | 17.833 | 1.00 | 33.53 | C |
| ATOM | 1311 | C | PHE | A | 328 | 18.660 | -12.282 | 18.141 | 1.00 | 33.69 | C |
| ATOM | 1312 | O | PHE | A | 328 | 18.996 | -12.884 | 19.166 | 1.00 | 36.49 | O |
| ATOM | 1313 | CB | PHE | A | 328 | 18.452 | -9.837 | 18.576 | 1.00 | 36.45 | C |
| ATOM | 1314 | CG | PHE | A | 328 | 19.201 | -8.552 | 18.742 | 1.00 | 40.37 | C |
| ATOM | 1315 | CD1 | PHE | A | 328 | 20.349 | -8.500 | 19.532 | 1.00 | 43.60 | C |
| ATOM | 1316 | CD2 | PHE | A | 328 | 18.777 | -7.396 | 18.093 | 1.00 | 40.48 | C |
| ATOM | 1317 | CE1 | PHE | A | 328 | 21.068 | -7.310 | 19.673 | 1.00 | 43.23 | C |
| ATOM | 1318 | CE2 | PHE | A | 328 | 19.485 | -6.202 | 18.225 | 1.00 | 43.14 | C |
| ATOM | 1319 | CZ | PHE | A | 328 | 20.634 | -6.158 | 19.017 | 1.00 | 43.34 | C |
| ATOM | 1320 | N | VAL | A | 329 | 17.798 | -12.779 | 17.257 | 1.00 | 31.63 | N |
| ATOM | 1321 | CA | VAL | A | 329 | 17.162 | -14.080 | 17.459 | 1.00 | 30.16 | C |
| ATOM | 1322 | C | VAL | A | 329 | 17.228 | -14.947 | 16.206 | 1.00 | 32.50 | C |
| ATOM | 1323 | O | VAL | A | 329 | 16.232 | -15.119 | 15.505 | 1.00 | 32.33 | O |
| ATOM | 1324 | CB | VAL | A | 329 | 15.679 | -13.916 | 17.872 | 1.00 | 31.45 | C |
| ATOM | 1325 | CG1 | VAL | A | 329 | 15.077 | -15.264 | 18.215 | 1.00 | 29.01 | C |
| ATOM | 1326 | CG2 | VAL | A | 329 | 15.573 | -12.979 | 19.062 | 1.00 | 33.44 | C |
| ATOM | 1327 | N | PRO | A | 330 | 18.419 | -15.493 | 15.899 | 1.00 | 35.11 | N |
| ATOM | 1328 | CA | PRO | A | 330 | 18.630 | -16.354 | 14.725 | 1.00 | 32.16 | C |
| ATOM | 1329 | C | PRO | A | 330 | 18.316 | -17.831 | 14.992 | 1.00 | 30.87 | C |
| ATOM | 1330 | O | PRO | A | 330 | 17.992 | -18.594 | 14.077 | 1.00 | 28.44 | O |
| ATOM | 1331 | CB | PRO | A | 330 | 20.109 | -16.163 | 14.423 | 1.00 | 33.40 | C |
| ATOM | 1332 | CG | PRO | A | 330 | 20.721 | -15.993 | 15.801 | 1.00 | 28.91 | C |
| ATOM | 1333 | CD | PRO | A | 330 | 19.677 | -15.279 | 16.648 | 1.00 | 32.30 | C |
| ATOM | 1334 | N | ASP | A | 331 | 18.418 | -18.219 | 16.259 | 1.00 | 31.74 | N |
| ATOM | 1335 | CA | ASP | A | 331 | 18.214 | -19.595 | 16.674 | 1.00 | 32.42 | C |
| ATOM | 1336 | C | ASP | A | 331 | 16.881 | -19.826 | 17.363 | 1.00 | 30.25 | C |
| ATOM | 1337 | O | ASP | A | 331 | 16.656 | -19.346 | 18.475 | 1.00 | 31.11 | O |
| ATOM | 1338 | CB | ASP | A | 331 | 19.361 | -20.001 | 17.605 | 1.00 | 33.54 | C |
| ATOM | 1339 | CG | ASP | A | 331 | 19.362 | -21.479 | 17.927 | 1.00 | 36.90 | C |
| ATOM | 1340 | OD1 | ASP | A | 331 | 18.699 | -22.254 | 17.197 | 1.00 | 35.71 | O |
| ATOM | 1341 | OD2 | ASP | A | 331 | 20.031 | -21.861 | 18.913 | 1.00 | 33.28 | O |
| ATOM | 1342 | N | PRO | A | 332 | 15.984 | -20.587 | 16.716 | 1.00 | 30.09 | N |
| ATOM | 1343 | CA | PRO | A | 332 | 14.659 | -20.889 | 17.265 | 1.00 | 31.45 | C |
| ATOM | 1344 | C | PRO | A | 332 | 14.706 | -21.745 | 18.527 | 1.00 | 33.31 | C |
| ATOM | 1345 | O | PRO | A | 332 | 13.692 | -21.908 | 19.208 | 1.00 | 36.27 | O |
| ATOM | 1346 | CB | PRO | A | 332 | 13.947 | -21.609 | 16.120 | 1.00 | 30.34 | C |
| ATOM | 1347 | CG | PRO | A | 332 | 15.044 | -22.213 | 15.329 | 1.00 | 31.55 | C |
| ATOM | 1348 | CD | PRO | A | 332 | 16.182 | -21.220 | 15.401 | 1.00 | 31.94 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1349 | N | GLU | A | 333 | 15.875 | -22.289 | 18.847 | 1.00 | 31.07 | N |
| ATOM | 1350 | CA | GLU | A | 333 | 16.000 | -23.128 | 20.033 | 1.00 | 32.24 | C |
| ATOM | 1351 | C | GLU | A | 333 | 16.665 | -22.426 | 21.204 | 1.00 | 31.76 | C |
| ATOM | 1352 | O | GLU | A | 333 | 16.537 | -22.871 | 22.345 | 1.00 | 32.33 | O |
| ATOM | 1353 | CB | GLU | A | 333 | 16.774 | -24.406 | 19.701 | 1.00 | 34.87 | C |
| ATOM | 1354 | CG | GLU | A | 333 | 16.246 | -25.139 | 18.481 | 1.00 | 43.92 | C |
| ATOM | 1355 | CD | GLU | A | 333 | 16.728 | -26.572 | 18.402 | 1.00 | 51.08 | C |
| ATOM | 1356 | OE1 | GLU | A | 333 | 17.845 | -26.801 | 17.889 | 1.00 | 56.51 | O |
| ATOM | 1357 | OE2 | GLU | A | 333 | 15.989 | -27.472 | 18.852 | 1.00 | 55.29 | O |
| ATOM | 1358 | N | HIS | A | 334 | 17.360 | -21.323 | 20.928 | 1.00 | 32.12 | N |
| ATOM | 1359 | CA | HIS | A | 334 | 18.067 | -20.589 | 21.978 | 1.00 | 30.77 | C |
| ATOM | 1360 | C | HIS | A | 334 | 17.772 | -19.100 | 21.999 | 1.00 | 31.11 | C |
| ATOM | 1361 | O | HIS | A | 334 | 17.421 | -18.504 | 20.980 | 1.00 | 29.92 | O |
| ATOM | 1362 | CB | HIS | A | 334 | 19.594 | -20.770 | 21.831 | 1.00 | 28.34 | C |
| ATOM | 1363 | CG | HIS | A | 334 | 20.064 | -22.183 | 21.999 | 1.00 | 23.59 | C |
| ATOM | 1364 | ND1 | HIS | A | 334 | 20.019 | -23.110 | 20.978 | 1.00 | 23.28 | N |
| ATOM | 1365 | CD2 | HIS | A | 334 | 20.567 | -22.835 | 23.075 | 1.00 | 23.82 | C |
| ATOM | 1366 | CE1 | HIS | A | 334 | 20.472 | -24.269 | 21.417 | 1.00 | 21.34 | C |
| ATOM | 1367 | NE2 | HIS | A | 334 | 20.812 | -24.130 | 22.686 | 1.00 | 24.26 | N |
| ATOM | 1368 | N | PHE | A | 335 | 17.926 | -18.512 | 23.181 | 1.00 | 33.36 | N |
| ATOM | 1369 | CA | PHE | A | 335 | 17.747 | -17.081 | 23.379 | 1.00 | 37.95 | C |
| ATOM | 1370 | C | PHE | A | 335 | 19.109 | -16.562 | 23.854 | 1.00 | 41.56 | C |
| ATOM | 1371 | O | PHE | A | 335 | 19.927 | -17.330 | 24.373 | 1.00 | 39.05 | O |
| ATOM | 1372 | CB | PHE | A | 335 | 16.675 | -16.802 | 24.438 | 1.00 | 38.28 | C |
| ATOM | 1373 | CG | PHE | A | 335 | 15.290 | -16.639 | 23.873 | 1.00 | 39.06 | C |
| ATOM | 1374 | CD1 | PHE | A | 335 | 14.998 | -15.597 | 22.997 | 1.00 | 38.47 | C |
| ATOM | 1375 | CD2 | PHE | A | 335 | 14.275 | -17.530 | 24.216 | 1.00 | 35.75 | C |
| ATOM | 1376 | CE1 | PHE | A | 335 | 13.717 | -15.445 | 22.469 | 1.00 | 37.49 | C |
| ATOM | 1377 | CE2 | PHE | A | 335 | 12.994 | -17.385 | 23.694 | 1.00 | 34.79 | C |
| ATOM | 1378 | CZ | PHE | A | 335 | 12.715 | -16.340 | 22.819 | 1.00 | 35.29 | C |
| ATOM | 1379 | N | ARG | A | 336 | 19.350 | -15.267 | 23.666 | 1.00 | 42.06 | N |
| ATOM | 1380 | CA | ARG | A | 336 | 20.611 | -14.647 | 24.056 | 1.00 | 39.57 | C |
| ATOM | 1381 | C | ARG | A | 336 | 21.760 | -15.243 | 23.246 | 1.00 | 40.87 | C |
| ATOM | 1382 | O | ARG | A | 336 | 22.848 | -15.490 | 23.769 | 1.00 | 41.06 | O |
| ATOM | 1383 | CB | ARG | A | 336 | 20.852 | -14.851 | 25.548 | 1.00 | 35.08 | C |
| ATOM | 1384 | CG | ARG | A | 336 | 20.046 | -13.909 | 26.408 | 1.00 | 35.79 | C |
| ATOM | 1385 | CD | ARG | A | 336 | 20.609 | -13.845 | 27.803 | 1.00 | 38.94 | C |
| ATOM | 1386 | NE | ARG | A | 336 | 20.802 | -15.182 | 28.349 | 1.00 | 47.23 | N |
| ATOM | 1387 | CZ | ARG | A | 336 | 20.608 | -15.500 | 29.625 | 1.00 | 52.52 | C |
| ATOM | 1388 | NH1 | ARG | A | 336 | 20.217 | -14.569 | 30.489 | 1.00 | 55.62 | N |
| ATOM | 1389 | NH2 | ARG | A | 336 | 20.801 | -16.749 | 30.037 | 1.00 | 51.76 | N |
| ATOM | 1390 | N | LYS | A | 337 | 21.505 | -15.455 | 21.960 | 1.00 | 39.60 | N |
| ATOM | 1391 | CA | LYS | A | 337 | 22.492 | -16.030 | 21.059 | 1.00 | 40.76 | C |
| ATOM | 1392 | C | LYS | A | 337 | 23.640 | -15.092 | 20.714 | 1.00 | 41.47 | C |
| ATOM | 1393 | O | LYS | A | 337 | 24.677 | -15.537 | 20.228 | 1.00 | 40.50 | O |
| ATOM | 1394 | CB | LYS | A | 337 | 21.820 | -16.487 | 19.765 | 1.00 | 42.63 | C |
| ATOM | 1395 | CG | LYS | A | 337 | 22.541 | -17.629 | 19.076 | 1.00 | 43.82 | C |
| ATOM | 1396 | CD | LYS | A | 337 | 22.886 | -18.730 | 20.065 | 1.00 | 41.29 | C |
| ATOM | 1397 | CE | LYS | A | 337 | 23.386 | -19.958 | 19.346 | 1.00 | 42.43 | C |
| ATOM | 1398 | NZ | LYS | A | 337 | 22.891 | -19.980 | 17.946 | 1.00 | 41.23 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1399 | N | THR | A | 338 | 23.452 | -13.796 | 20.941 | 1.00 | 40.56 | N |
| ATOM | 1400 | CA | THR | A | 338 | 24.505 | -12.835 | 20.652 | 1.00 | 40.67 | C |
| ATOM | 1401 | C | THR | A | 338 | 25.331 | -12.585 | 21.903 | 1.00 | 40.89 | C |
| ATOM | 1402 | O | THR | A | 338 | 26.223 | -11.742 | 21.899 | 1.00 | 43.07 | O |
| ATOM | 1403 | CB | THR | A | 338 | 23.950 | -11.479 | 20.167 | 1.00 | 38.04 | C |
| ATOM | 1404 | OG1 | THR | A | 338 | 23.267 | -10.824 | 21.245 | 1.00 | 39.99 | O |
| ATOM | 1405 | CG2 | THR | A | 338 | 23.010 | -11.678 | 18.994 | 1.00 | 37.01 | C |
| ATOM | 1406 | N | THR | A | 339 | 25.028 | -13.307 | 22.977 | 1.00 | 40.02 | N |
| ATOM | 1407 | CA | THR | A | 339 | 25.774 | -13.143 | 24.222 | 1.00 | 41.23 | C |
| ATOM | 1408 | C | THR | A | 339 | 26.737 | -14.304 | 24.468 | 1.00 | 41.58 | C |
| ATOM | 1409 | O | THR | A | 339 | 26.953 | -15.155 | 23.599 | 1.00 | 38.34 | O |
| ATOM | 1410 | CB | THR | A | 339 | 24.836 | -13.031 | 25.451 | 1.00 | 43.28 | C |
| ATOM | 1411 | OG1 | THR | A | 339 | 24.150 | -14.276 | 25.650 | 1.00 | 42.61 | O |
| ATOM | 1412 | CG2 | THR | A | 339 | 23.832 | -11.903 | 25.258 | 1.00 | 41.38 | C |
| ATOM | 1413 | N | ASP | A | 340 | 27.312 | -14.325 | 25.666 | 1.00 | 44.27 | N |
| ATOM | 1414 | CA | ASP | A | 340 | 28.249 | -15.369 | 26.054 | 1.00 | 48.35 | C |
| ATOM | 1415 | C | ASP | A | 340 | 27.510 | -16.503 | 26.736 | 1.00 | 48.94 | C |
| ATOM | 1416 | O | ASP | A | 340 | 27.948 | -17.655 | 26.717 | 1.00 | 50.60 | O |
| ATOM | 1417 | CB | ASP | A | 340 | 29.284 | -14.800 | 27.019 | 1.00 | 52.10 | C |
| ATOM | 1418 | CG | ASP | A | 340 | 30.389 | -14.069 | 26.306 | 1.00 | 53.11 | C |
| ATOM | 1419 | OD1 | ASP | A | 340 | 30.886 | -13.057 | 26.849 | 1.00 | 55.17 | O |
| ATOM | 1420 | OD2 | ASP | A | 340 | 30.751 | -14.510 | 25.197 | 1.00 | 53.24 | O |
| ATOM | 1421 | N | ASN | A | 341 | 26.379 | -16.161 | 27.338 | 1.00 | 49.07 | N |
| ATOM | 1422 | CA | ASN | A | 341 | 25.580 | -17.133 | 28.056 | 1.00 | 48.40 | C |
| ATOM | 1423 | C | ASN | A | 341 | 24.176 | -17.321 | 27.492 | 1.00 | 46.91 | C |
| ATOM | 1424 | O | ASN | A | 341 | 23.194 | -16.899 | 28.104 | 1.00 | 45.97 | O |
| ATOM | 1425 | CB | ASN | A | 341 | 25.488 | -16.731 | 29.530 | 1.00 | 52.64 | C |
| ATOM | 1426 | CG | ASN | A | 341 | 26.697 | -15.938 | 29.994 | 1.00 | 57.15 | C |
| ATOM | 1427 | OD1 | ASN | A | 341 | 27.540 | -16.450 | 30.731 | 1.00 | 59.76 | O |
| ATOM | 1428 | ND2 | ASN | A | 341 | 26.787 | -14.681 | 29.565 | 1.00 | 56.30 | N |
| ATOM | 1429 | N | PRO | A | 342 | 24.066 | -17.931 | 26.298 | 1.00 | 45.10 | N |
| ATOM | 1430 | CA | PRO | A | 342 | 22.747 | -18.163 | 25.696 | 1.00 | 43.83 | C |
| ATOM | 1431 | C | PRO | A | 342 | 22.063 | -19.294 | 26.461 | 1.00 | 43.36 | C |
| ATOM | 1432 | O | PRO | A | 342 | 22.716 | -19.997 | 27.235 | 1.00 | 43.48 | O |
| ATOM | 1433 | CB | PRO | A | 342 | 23.071 | -18.568 | 24.261 | 1.00 | 41.92 | C |
| ATOM | 1434 | CG | PRO | A | 342 | 24.437 | -19.150 | 24.343 | 1.00 | 41.76 | C |
| ATOM | 1435 | CD | PRO | A | 342 | 25.159 | -18.405 | 25.430 | 1.00 | 42.14 | C |
| ATOM | 1436 | N | PHE | A | 343 | 20.760 | -19.473 | 26.259 | 1.00 | 41.40 | N |
| ATOM | 1437 | CA | PHE | A | 343 | 20.047 | -20.544 | 26.947 | 1.00 | 38.69 | C |
| ATOM | 1438 | C | PHE | A | 343 | 19.010 | -21.214 | 26.056 | 1.00 | 35.45 | C |
| ATOM | 1439 | O | PHE | A | 343 | 18.510 | -20.604 | 25.115 | 1.00 | 36.40 | O |
| ATOM | 1440 | CB | PHE | A | 343 | 19.396 | -20.017 | 28.240 | 1.00 | 36.22 | C |
| ATOM | 1441 | CG | PHE | A | 343 | 18.194 | -19.132 | 28.021 | 1.00 | 38.01 | C |
| ATOM | 1442 | CD1 | PHE | A | 343 | 16.913 | -19.679 | 27.946 | 1.00 | 36.70 | C |
| ATOM | 1443 | CD2 | PHE | A | 343 | 18.337 | -17.746 | 27.945 | 1.00 | 36.16 | C |
| ATOM | 1444 | CE1 | PHE | A | 343 | 15.793 | -18.858 | 27.803 | 1.00 | 35.38 | C |
| ATOM | 1445 | CE2 | PHE | A | 343 | 17.225 | -16.915 | 27.803 | 1.00 | 34.01 | C |
| ATOM | 1446 | CZ | PHE | A | 343 | 15.950 | -17.472 | 27.732 | 1.00 | 34.87 | C |
| ATOM | 1447 | N | LYS | A | 344 | 18.713 | -22.478 | 26.344 | 1.00 | 33.33 | N |
| ATOM | 1448 | CA | LYS | A | 344 | 17.731 | -23.240 | 25.572 | 1.00 | 35.15 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1449 | C | LYS | A | 344 | 16.318 | -22.775 | 25.915 | 1.00 | 33.59 | C |
| ATOM | 1450 | O | LYS | A | 344 | 15.881 | -22.863 | 27.066 | 1.00 | 31.71 | O |
| ATOM | 1451 | CB | LYS | A | 344 | 17.860 | -24.740 | 25.864 | 1.00 | 33.30 | C |
| ATOM | 1452 | CG | LYS | A | 344 | 16.768 | -25.595 | 25.239 | 1.00 | 32.71 | C |
| ATOM | 1453 | CD | LYS | A | 344 | 17.198 | -26.163 | 23.894 | 1.00 | 37.70 | C |
| ATOM | 1454 | CE | LYS | A | 344 | 16.181 | -27.157 | 23.346 | 1.00 | 38.23 | C |
| ATOM | 1455 | NZ | LYS | A | 344 | 16.752 | -28.014 | 22.267 | 1.00 | 43.55 | N |
| ATOM | 1456 | N | ALA | A | 345 | 15.610 | -22.281 | 24.906 | 1.00 | 34.69 | N |
| ATOM | 1457 | CA | ALA | A | 345 | 14.251 | -21.788 | 25.092 | 1.00 | 33.04 | C |
| ATOM | 1458 | C | ALA | A | 345 | 13.291 | -22.918 | 25.467 | 1.00 | 30.56 | C |
| ATOM | 1459 | O | ALA | A | 345 | 13.207 | -23.928 | 24.765 | 1.00 | 29.86 | O |
| ATOM | 1460 | CB | ALA | A | 345 | 13.777 | -21.085 | 23.814 | 1.00 | 28.86 | C |
| ATOM | 1461 | N | LEU | A | 346 | 12.587 | -22.739 | 26.585 | 1.00 | 31.62 | N |
| ATOM | 1462 | CA | LEU | A | 346 | 11.602 | -23.711 | 27.078 | 1.00 | 30.85 | C |
| ATOM | 1463 | C | LEU | A | 346 | 10.355 | -22.971 | 27.575 | 1.00 | 31.60 | C |
| ATOM | 1464 | O | LEU | A | 346 | 10.406 | -21.768 | 27.844 | 1.00 | 30.61 | O |
| ATOM | 1465 | CB | LEU | A | 346 | 12.170 | -24.540 | 28.242 | 1.00 | 27.20 | C |
| ATOM | 1466 | CG | LEU | A | 346 | 13.324 | -25.527 | 28.023 | 1.00 | 25.99 | C |
| ATOM | 1467 | CD1 | LEU | A | 346 | 13.481 | -26.375 | 29.268 | 1.00 | 21.97 | C |
| ATOM | 1468 | CD2 | LEU | A | 346 | 13.059 | -26.411 | 26.816 | 1.00 | 23.27 | C |
| ATOM | 1469 | N | GLY | A | 347 | 9.245 | -23.702 | 27.687 | 1.00 | 32.08 | N |
| ATOM | 1470 | CA | GLY | A | 347 | 7.989 | -23.145 | 28.180 | 1.00 | 29.62 | C |
| ATOM | 1471 | C | GLY | A | 347 | 7.508 | -21.819 | 27.612 | 1.00 | 26.36 | C |
| ATOM | 1472 | O | GLY | A | 347 | 7.390 | -21.656 | 26.392 | 1.00 | 25.44 | O |
| ATOM | 1473 | N | GLY | A | 348 | 7.222 | -20.871 | 28.501 | 1.00 | 25.28 | N |
| ATOM | 1474 | CA | GLY | A | 348 | 6.753 | -19.564 | 28.070 | 1.00 | 23.07 | C |
| ATOM | 1475 | C | GLY | A | 348 | 7.673 | -18.923 | 27.049 | 1.00 | 26.47 | C |
| ATOM | 1476 | O | GLY | A | 348 | 7.218 | -18.431 | 26.011 | 1.00 | 25.52 | O |
| ATOM | 1477 | N | ASN | A | 349 | 8.973 | -18.934 | 27.348 | 1.00 | 27.41 | N |
| ATOM | 1478 | CA | ASN | A | 349 | 9.989 | -18.359 | 26.470 | 1.00 | 26.06 | C |
| ATOM | 1479 | C | ASN | A | 349 | 9.960 | -19.038 | 25.103 | 1.00 | 23.42 | C |
| ATOM | 1480 | O | ASN | A | 349 | 10.106 | -18.386 | 24.064 | 1.00 | 23.04 | O |
| ATOM | 1481 | CB | ASN | A | 349 | 11.381 | -18.522 | 27.100 | 1.00 | 27.00 | C |
| ATOM | 1482 | CG | ASN | A | 349 | 11.579 | -17.644 | 28.332 | 1.00 | 26.85 | C |
| ATOM | 1483 | OD1 | ASN | A | 349 | 12.283 | -18.026 | 29.273 | 1.00 | 31.48 | O |
| ATOM | 1484 | ND2 | ASN | A | 349 | 10.960 | -16.464 | 28.333 | 1.00 | 25.39 | N |
| ATOM | 1485 | N | LEU | A | 350 | 9.775 | -20.353 | 25.111 | 1.00 | 21.13 | N |
| ATOM | 1486 | CA | LEU | A | 350 | 9.717 | -21.120 | 23.874 | 1.00 | 20.65 | C |
| ATOM | 1487 | C | LEU | A | 350 | 8.518 | -20.660 | 23.053 | 1.00 | 25.82 | C |
| ATOM | 1488 | O | LEU | A | 350 | 8.583 | -20.597 | 21.821 | 1.00 | 27.50 | O |
| ATOM | 1489 | CB | LEU | A | 350 | 9.597 | -22.617 | 24.182 | 1.00 | 19.46 | C |
| ATOM | 1490 | CG | LEU | A | 350 | 9.634 | -23.610 | 23.017 | 1.00 | 22.54 | C |
| ATOM | 1491 | CD1 | LEU | A | 350 | 10.709 | -23.203 | 22.014 | 1.00 | 26.32 | C |
| ATOM | 1492 | CD2 | LEU | A | 350 | 9.902 | -25.010 | 23.551 | 1.00 | 19.44 | C |
| ATOM | 1493 | N | VAL | A | 351 | 7.420 | -20.334 | 23.732 | 1.00 | 23.76 | N |
| ATOM | 1494 | CA | VAL | A | 351 | 6.232 | -19.876 | 23.025 | 1.00 | 24.89 | C |
| ATOM | 1495 | C | VAL | A | 351 | 6.492 | -18.466 | 22.505 | 1.00 | 23.12 | C |
| ATOM | 1496 | O | VAL | A | 351 | 6.111 | -18.131 | 21.385 | 1.00 | 24.81 | O |
| ATOM | 1497 | CB | VAL | A | 351 | 4.964 | -19.890 | 23.939 | 1.00 | 26.62 | C |
| ATOM | 1498 | CG1 | VAL | A | 351 | 3.811 | -19.139 | 23.264 | 1.00 | 21.20 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1499 | CG2 | VAL | A | 351 | 4.543 | -21.335 | 24.218 | 1.00 | 25.87 | C |
| ATOM | 1500 | N | ASP | A | 352 | 7.150 | -17.640 | 23.309 | 1.00 | 21.42 | N |
| ATOM | 1501 | CA | ASP | A | 352 | 7.441 | -16.285 | 22.867 | 1.00 | 23.04 | C |
| ATOM | 1502 | C | ASP | A | 352 | 8.358 | -16.354 | 21.645 | 1.00 | 25.87 | C |
| ATOM | 1503 | O | ASP | A | 352 | 8.335 | -15.468 | 20.783 | 1.00 | 27.02 | O |
| ATOM | 1504 | CB | ASP | A | 352 | 8.080 | -15.479 | 24.003 | 1.00 | 22.96 | C |
| ATOM | 1505 | CG | ASP | A | 352 | 7.074 | -14.572 | 24.707 | 1.00 | 25.32 | C |
| ATOM | 1506 | OD1 | ASP | A | 352 | 6.052 | -14.230 | 24.080 | 1.00 | 26.10 | O |
| ATOM | 1507 | OD2 | ASP | A | 352 | 7.294 | -14.196 | 25.880 | 1.00 | 26.79 | O |
| ATOM | 1508 | N | MET | A | 353 | 9.148 | -17.425 | 21.562 | 1.00 | 27.20 | N |
| ATOM | 1509 | CA | MET | A | 353 | 10.053 | -17.622 | 20.432 | 1.00 | 27.18 | C |
| ATOM | 1510 | C | MET | A | 353 | 9.238 | -17.748 | 19.146 | 1.00 | 26.45 | C |
| ATOM | 1511 | O | MET | A | 353 | 9.665 | -17.294 | 18.083 | 1.00 | 25.26 | O |
| ATOM | 1512 | CB | MET | A | 353 | 10.895 | -18.890 | 20.632 | 1.00 | 30.17 | C |
| ATOM | 1513 | CG | MET | A | 353 | 11.847 | -19.209 | 19.466 | 1.00 | 29.81 | C |
| ATOM | 1514 | SD | MET | A | 353 | 13.202 | -18.023 | 19.364 | 1.00 | 30.95 | S |
| ATOM | 1515 | CE | MET | A | 353 | 14.171 | -18.512 | 20.805 | 1.00 | 32.76 | C |
| ATOM | 1516 | N | GLY | A | 354 | 8.066 | -18.372 | 19.258 | 1.00 | 24.46 | N |
| ATOM | 1517 | CA | GLY | A | 354 | 7.190 | -18.551 | 18.112 | 1.00 | 21.96 | C |
| ATOM | 1518 | C | GLY | A | 354 | 6.531 | -17.251 | 17.679 | 1.00 | 23.59 | C |
| ATOM | 1519 | O | GLY | A | 354 | 6.430 | -16.955 | 16.487 | 1.00 | 26.91 | O |
| ATOM | 1520 | N | ARG | A | 355 | 6.085 | -16.462 | 18.648 | 1.00 | 23.15 | N |
| ATOM | 1521 | CA | ARG | A | 355 | 5.443 | -15.192 | 18.341 | 1.00 | 25.34 | C |
| ATOM | 1522 | C | ARG | A | 355 | 6.447 | -14.241 | 17.720 | 1.00 | 26.85 | C |
| ATOM | 1523 | O | ARG | A | 355 | 6.071 | -13.238 | 17.110 | 1.00 | 27.53 | O |
| ATOM | 1524 | CB | ARG | A | 355 | 4.860 | -14.577 | 19.609 | 1.00 | 24.06 | C |
| ATOM | 1525 | CG | ARG | A | 355 | 3.649 | -15.324 | 20.117 | 1.00 | 25.20 | C |
| ATOM | 1526 | CD | ARG | A | 355 | 2.818 | -14.449 | 21.013 | 1.00 | 27.62 | C |
| ATOM | 1527 | NE | ARG | A | 355 | 3.367 | -14.378 | 22.362 | 1.00 | 28.85 | N |
| ATOM | 1528 | CZ | ARG | A | 355 | 2.694 | -13.894 | 23.396 | 1.00 | 29.80 | C |
| ATOM | 1529 | NH1 | ARG | A | 355 | 1.463 | -13.454 | 23.209 | 1.00 | 29.03 | N |
| ATOM | 1530 | NH2 | ARG | A | 355 | 3.240 | -13.849 | 24.606 | 1.00 | 32.06 | N |
| ATOM | 1531 | N | VAL | A | 356 | 7.730 | -14.561 | 17.890 | 1.00 | 28.05 | N |
| ATOM | 1532 | CA | VAL | A | 356 | 8.807 | -13.751 | 17.338 | 1.00 | 23.66 | C |
| ATOM | 1533 | C | VAL | A | 356 | 9.225 | -14.260 | 15.959 | 1.00 | 23.96 | C |
| ATOM | 1534 | O | VAL | A | 356 | 9.118 | -13.544 | 14.963 | 1.00 | 25.90 | O |
| ATOM | 1535 | CB | VAL | A | 356 | 10.057 | -13.760 | 18.259 | 1.00 | 21.14 | C |
| ATOM | 1536 | CG1 | VAL | A | 356 | 11.277 | -13.258 | 17.484 | 1.00 | 18.73 | C |
| ATOM | 1537 | CG2 | VAL | A | 356 | 9.817 | -12.887 | 19.483 | 1.00 | 18.71 | C |
| ATOM | 1538 | N | LYS | A | 357 | 9.677 | -15.508 | 15.901 | 1.00 | 27.14 | N |
| ATOM | 1539 | CA | LYS | A | 357 | 10.153 | -16.083 | 14.650 | 1.00 | 27.44 | C |
| ATOM | 1540 | C | LYS | A | 357 | 9.104 | -16.608 | 13.666 | 1.00 | 25.16 | C |
| ATOM | 1541 | O | LYS | A | 357 | 9.313 | -16.543 | 12.456 | 1.00 | 25.29 | O |
| ATOM | 1542 | CB | LYS | A | 357 | 11.214 | -17.154 | 14.961 | 1.00 | 26.70 | C |
| ATOM | 1543 | CG | LYS | A | 357 | 12.358 | -16.601 | 15.834 | 1.00 | 28.00 | C |
| ATOM | 1544 | CD | LYS | A | 357 | 13.651 | -17.426 | 15.756 | 1.00 | 29.38 | C |
| ATOM | 1545 | CE | LYS | A | 357 | 14.129 | -17.637 | 14.325 | 1.00 | 25.08 | C |
| ATOM | 1546 | NZ | LYS | A | 357 | 15.013 | -16.536 | 13.847 | 1.00 | 28.96 | N |
| ATOM | 1547 | N | VAL | A | 358 | 7.979 | -17.125 | 14.147 | 1.00 | 25.59 | N |
| ATOM | 1548 | CA | VAL | A | 358 | 6.961 | -17.593 | 13.205 | 1.00 | 21.52 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1549 | C | VAL | A | 358 | 6.366 | -16.388 | 12.454 | 1.00 | 20.47 | C |
| ATOM | 1550 | O | VAL | A | 358 | 6.209 | -16.415 | 11.230 | 1.00 | 22.88 | O |
| ATOM | 1551 | CB | VAL | A | 358 | 5.825 | -18.349 | 13.916 | 1.00 | 23.23 | C |
| ATOM | 1552 | CG1 | VAL | A | 358 | 4.621 | -18.494 | 12.972 | 1.00 | 21.05 | C |
| ATOM | 1553 | CG2 | VAL | A | 358 | 6.316 | -19.712 | 14.354 | 1.00 | 16.65 | C |
| ATOM | 1554 | N | ILE | A | 359 | 6.052 | -15.326 | 13.190 | 1.00 | 18.76 | N |
| ATOM | 1555 | CA | ILE | A | 359 | 5.491 | -14.131 | 12.578 | 1.00 | 22.37 | C |
| ATOM | 1556 | C | ILE | A | 359 | 6.530 | -13.478 | 11.679 | 1.00 | 25.58 | C |
| ATOM | 1557 | O | ILE | A | 359 | 6.234 | -13.114 | 10.537 | 1.00 | 26.24 | O |
| ATOM | 1558 | CB | ILE | A | 359 | 5.037 | -13.122 | 13.640 | 1.00 | 23.37 | C |
| ATOM | 1559 | CG1 | ILE | A | 359 | 4.088 | -13.803 | 14.632 | 1.00 | 22.78 | C |
| ATOM | 1560 | CG2 | ILE | A | 359 | 4.332 | -11.950 | 12.970 | 1.00 | 26.29 | C |
| ATOM | 1561 | CD1 | ILE | A | 359 | 3.012 | -14.665 | 13.982 | 1.00 | 16.30 | C |
| ATOM | 1562 | N | ALA | A | 360 | 7.749 | -13.328 | 12.196 | 1.00 | 26.25 | N |
| ATOM | 1563 | CA | ALA | A | 360 | 8.834 | -12.746 | 11.411 | 1.00 | 24.30 | C |
| ATOM | 1564 | C | ALA | A | 360 | 9.008 | -13.620 | 10.182 | 1.00 | 22.75 | C |
| ATOM | 1565 | O | ALA | A | 360 | 9.202 | -13.132 | 9.074 | 1.00 | 27.89 | O |
| ATOM | 1566 | CB | ALA | A | 360 | 10.123 | -12.719 | 12.217 | 1.00 | 23.35 | C |
| ATOM | 1567 | N | GLY | A | 361 | 8.930 | -14.927 | 10.383 | 1.00 | 23.71 | N |
| ATOM | 1568 | CA | GLY | A | 361 | 9.064 | -15.835 | 9.262 | 1.00 | 26.02 | C |
| ATOM | 1569 | C | GLY | A | 361 | 8.010 | -15.548 | 8.211 | 1.00 | 28.14 | C |
| ATOM | 1570 | O | GLY | A | 361 | 8.305 | -15.545 | 7.020 | 1.00 | 32.01 | O |
| ATOM | 1571 | N | LEU | A | 362 | 6.777 | -15.308 | 8.648 | 1.00 | 27.95 | N |
| ATOM | 1572 | CA | LEU | A | 362 | 5.682 | -15.022 | 7.724 | 1.00 | 25.83 | C |
| ATOM | 1573 | C | LEU | A | 362 | 5.918 | -13.712 | 6.993 | 1.00 | 22.75 | C |
| ATOM | 1574 | O | LEU | A | 362 | 5.751 | -13.624 | 5.778 | 1.00 | 23.28 | O |
| ATOM | 1575 | CB | LEU | A | 362 | 4.356 | -14.946 | 8.484 | 1.00 | 23.48 | C |
| ATOM | 1576 | CG | LEU | A | 362 | 3.849 | -16.296 | 8.975 | 1.00 | 23.27 | C |
| ATOM | 1577 | CD1 | LEU | A | 362 | 2.712 | -16.089 | 9.955 | 1.00 | 24.11 | C |
| ATOM | 1578 | CD2 | LEU | A | 362 | 3.409 | -17.135 | 7.788 | 1.00 | 21.92 | C |
| ATOM | 1579 | N | LEU | A | 363 | 6.306 | -12.695 | 7.751 | 1.00 | 22.27 | N |
| ATOM | 1580 | CA | LEU | A | 363 | 6.560 | -11.384 | 7.183 | 1.00 | 25.04 | C |
| ATOM | 1581 | C | LEU | A | 363 | 7.680 | -11.429 | 6.149 | 1.00 | 28.03 | C |
| ATOM | 1582 | O | LEU | A | 363 | 7.609 | -10.760 | 5.121 | 1.00 | 28.46 | O |
| ATOM | 1583 | CB | LEU | A | 363 | 6.911 | -10.395 | 8.298 | 1.00 | 24.00 | C |
| ATOM | 1584 | CG | LEU | A | 363 | 5.747 | -10.006 | 9.212 | 1.00 | 22.34 | C |
| ATOM | 1585 | CD1 | LEU | A | 363 | 6.257 | -9.375 | 10.487 | 1.00 | 20.10 | C |
| ATOM | 1586 | CD2 | LEU | A | 363 | 4.844 | -9.042 | 8.468 | 1.00 | 26.32 | C |
| ATOM | 1587 | N | ARG | A | 364 | 8.706 | -12.235 | 6.416 | 1.00 | 31.89 | N |
| ATOM | 1588 | CA | ARG | A | 364 | 9.854 | -12.344 | 5.517 | 1.00 | 30.70 | C |
| ATOM | 1589 | C | ARG | A | 364 | 9.667 | -13.421 | 4.465 | 1.00 | 32.07 | C |
| ATOM | 1590 | O | ARG | A | 364 | 10.559 | -13.670 | 3.657 | 1.00 | 32.31 | O |
| ATOM | 1591 | CB | ARG | A | 364 | 11.125 | -12.626 | 6.323 | 1.00 | 28.84 | C |
| ATOM | 1592 | CG | ARG | A | 364 | 11.478 | -11.524 | 7.312 | 1.00 | 29.02 | C |
| ATOM | 1593 | CD | ARG | A | 364 | 12.533 | -11.983 | 8.314 | 1.00 | 34.76 | C |
| ATOM | 1594 | NE | ARG | A | 364 | 13.847 | -12.118 | 7.689 | 1.00 | 37.07 | N |
| ATOM | 1595 | CZ | ARG | A | 364 | 14.711 | -11.117 | 7.536 | 1.00 | 37.74 | C |
| ATOM | 1596 | NH1 | ARG | A | 364 | 14.411 | -9.895 | 7.963 | 1.00 | 31.21 | N |
| ATOM | 1597 | NH2 | ARG | A | 364 | 15.875 | -11.337 | 6.937 | 1.00 | 40.23 | N |
| ATOM | 1598 | N | LYS | A | 365 | 8.499 | -14.052 | 4.474 | 1.00 | 35.47 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1599 | CA | LYS | A | 365 | 8.195 | -15.109 | 3.516 | 1.00 | 37.43 | C |
| ATOM | 1600 | C | LYS | A | 365 | 9.335 | -16.122 | 3.491 | 1.00 | 40.04 | C |
| ATOM | 1601 | O | LYS | A | 365 | 9.760 | -16.571 | 2.424 | 1.00 | 41.91 | O |
| ATOM | 1602 | CB | LYS | A | 365 | 7.995 | -14.504 | 2.127 | 1.00 | 35.88 | C |
| ATOM | 1603 | CG | LYS | A | 365 | 7.054 | -13.310 | 2.120 | 1.00 | 32.99 | C |
| ATOM | 1604 | CD | LYS | A | 365 | 6.870 | -12.741 | 0.720 | 1.00 | 32.58 | C |
| ATOM | 1605 | CE | LYS | A | 365 | 5.940 | -11.536 | 0.739 | 1.00 | 35.57 | C |
| ATOM | 1606 | NZ | LYS | A | 365 | 4.515 | -11.925 | 0.522 | 1.00 | 38.83 | N |
| ATOM | 1607 | N | ASP | A | 366 | 9.807 | -16.482 | 4.685 | 1.00 | 40.39 | N |
| ATOM | 1608 | CA | ASP | A | 366 | 10.916 | -17.418 | 4.874 | 1.00 | 38.83 | C |
| ATOM | 1609 | C | ASP | A | 366 | 10.458 | -18.766 | 5.446 | 1.00 | 37.36 | C |
| ATOM | 1610 | O | ASP | A | 366 | 10.333 | -18.927 | 6.662 | 1.00 | 39.06 | O |
| ATOM | 1611 | CB | ASP | A | 366 | 11.947 | -16.769 | 5.806 | 1.00 | 39.00 | C |
| ATOM | 1612 | CG | ASP | A | 366 | 13.173 | -17.631 | 6.027 | 1.00 | 39.91 | C |
| ATOM | 1613 | OD1 | ASP | A | 366 | 13.209 | -18.776 | 5.532 | 1.00 | 40.26 | O |
| ATOM | 1614 | OD2 | ASP | A | 366 | 14.105 | -17.152 | 6.706 | 1.00 | 39.61 | O |
| ATOM | 1615 | N | ASP | A | 367 | 10.226 | -19.734 | 4.565 | 1.00 | 35.93 | N |
| ATOM | 1616 | CA | ASP | A | 367 | 9.772 | -21.061 | 4.976 | 1.00 | 40.44 | C |
| ATOM | 1617 | C | ASP | A | 367 | 10.663 | -21.734 | 6.013 | 1.00 | 41.19 | C |
| ATOM | 1618 | O | ASP | A | 367 | 10.183 | -22.216 | 7.040 | 1.00 | 43.84 | O |
| ATOM | 1619 | CB | ASP | A | 367 | 9.656 | -21.980 | 3.763 | 1.00 | 42.58 | C |
| ATOM | 1620 | CG | ASP | A | 367 | 8.801 | -21.390 | 2.674 | 1.00 | 46.73 | C |
| ATOM | 1621 | OD1 | ASP | A | 367 | 9.347 | -20.625 | 1.856 | 1.00 | 53.93 | O |
| ATOM | 1622 | OD2 | ASP | A | 367 | 7.587 | -21.688 | 2.637 | 1.00 | 48.66 | O |
| ATOM | 1623 | N | GLN | A | 368 | 11.958 | -21.779 | 5.739 | 1.00 | 38.60 | N |
| ATOM | 1624 | CA | GLN | A | 368 | 12.881 | -22.408 | 6.662 | 1.00 | 37.00 | C |
| ATOM | 1625 | C | GLN | A | 368 | 12.667 | -21.896 | 8.084 | 1.00 | 33.45 | C |
| ATOM | 1626 | O | GLN | A | 368 | 12.541 | -22.684 | 9.023 | 1.00 | 32.74 | O |
| ATOM | 1627 | CB | GLN | A | 368 | 14.319 | -22.141 | 6.219 | 1.00 | 40.84 | C |
| ATOM | 1628 | CG | GLN | A | 368 | 15.235 | -23.338 | 6.386 | 1.00 | 46.54 | C |
| ATOM | 1629 | CD | GLN | A | 368 | 15.467 | -23.694 | 7.845 | 1.00 | 50.37 | C |
| ATOM | 1630 | OE1 | GLN | A | 368 | 15.258 | -24.841 | 8.258 | 1.00 | 50.02 | O |
| ATOM | 1631 | NE2 | GLN | A | 368 | 15.904 | -22.711 | 8.636 | 1.00 | 49.46 | N |
| ATOM | 1632 | N | GLU | A | 369 | 12.614 | -20.576 | 8.236 | 1.00 | 30.33 | N |
| ATOM | 1633 | CA | GLU | A | 369 | 12.425 | -19.963 | 9.547 | 1.00 | 26.17 | C |
| ATOM | 1634 | C | GLU | A | 369 | 11.177 | -20.482 | 10.224 | 1.00 | 30.72 | C |
| ATOM | 1635 | O | GLU | A | 369 | 11.193 | -20.809 | 11.414 | 1.00 | 32.47 | O |
| ATOM | 1636 | CB | GLU | A | 369 | 12.322 | -18.447 | 9.429 | 1.00 | 17.68 | C |
| ATOM | 1637 | CG | GLU | A | 369 | 12.349 | -17.753 | 10.766 | 1.00 | 17.93 | C |
| ATOM | 1638 | CD | GLU | A | 369 | 12.479 | -16.256 | 10.631 | 1.00 | 20.95 | C |
| ATOM | 1639 | OE1 | GLU | A | 369 | 12.340 | -15.752 | 9.496 | 1.00 | 30.56 | O |
| ATOM | 1640 | OE2 | GLU | A | 369 | 12.717 | -15.577 | 11.652 | 1.00 | 24.65 | O |
| ATOM | 1641 | N | ILE | A | 370 | 10.097 | -20.560 | 9.453 | 1.00 | 31.43 | N |
| ATOM | 1642 | CA | ILE | A | 370 | 8.816 | -21.031 | 9.959 | 1.00 | 29.36 | C |
| ATOM | 1643 | C | ILE | A | 370 | 8.864 | -22.479 | 10.456 | 1.00 | 29.18 | C |
| ATOM | 1644 | O | ILE | A | 370 | 8.585 | -22.747 | 11.629 | 1.00 | 28.26 | O |
| ATOM | 1645 | CB | ILE | A | 370 | 7.730 | -20.864 | 8.874 | 1.00 | 28.81 | C |
| ATOM | 1646 | CG1 | ILE | A | 370 | 7.413 | -19.374 | 8.707 | 1.00 | 22.92 | C |
| ATOM | 1647 | CG2 | ILE | A | 370 | 6.473 | -21.635 | 9.251 | 1.00 | 29.29 | C |
| ATOM | 1648 | CD1 | ILE | A | 370 | 7.056 | -18.978 | 7.302 | 1.00 | 18.54 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1649 | N | SER | A | 371 | 9.229 | -23.403 | 9.571 | 1.00 | 30.43 | N |
| ATOM | 1650 | CA | SER | A | 371 | 9.320 | -24.822 | 9.911 | 1.00 | 31.18 | C |
| ATOM | 1651 | C | SER | A | 371 | 10.226 | -25.099 | 11.118 | 1.00 | 31.50 | C |
| ATOM | 1652 | O | SER | A | 371 | 9.836 | -25.797 | 12.056 | 1.00 | 32.57 | O |
| ATOM | 1653 | CB | SER | A | 371 | 9.832 | -25.605 | 8.706 | 1.00 | 33.45 | C |
| ATOM | 1654 | OG | SER | A | 371 | 11.160 | -25.215 | 8.396 | 1.00 | 36.87 | O |
| ATOM | 1655 | N | SER | A | 372 | 11.437 | -24.555 | 11.093 | 1.00 | 31.76 | N |
| ATOM | 1656 | CA | SER | A | 372 | 12.375 | -24.758 | 12.195 | 1.00 | 32.23 | C |
| ATOM | 1657 | C | SER | A | 372 | 11.806 | -24.243 | 13.517 | 1.00 | 29.38 | C |
| ATOM | 1658 | O | SER | A | 372 | 11.872 | -24.926 | 14.541 | 1.00 | 28.28 | O |
| ATOM | 1659 | CB | SER | A | 372 | 13.706 | -24.057 | 11.897 | 1.00 | 33.19 | C |
| ATOM | 1660 | OG | SER | A | 372 | 13.509 | -22.698 | 11.540 | 1.00 | 37.15 | O |
| ATOM | 1661 | N | THR | A | 373 | 11.251 | -23.034 | 13.491 | 1.00 | 28.80 | N |
| ATOM | 1662 | CA | THR | A | 373 | 10.667 | -22.439 | 14.689 | 1.00 | 29.38 | C |
| ATOM | 1663 | C | THR | A | 373 | 9.482 | -23.270 | 15.165 | 1.00 | 30.35 | C |
| ATOM | 1664 | O | THR | A | 373 | 9.319 | -23.490 | 16.360 | 1.00 | 30.57 | O |
| ATOM | 1665 | CB | THR | A | 373 | 10.176 | -21.002 | 14.432 | 1.00 | 29.92 | C |
| ATOM | 1666 | OG1 | THR | A | 373 | 11.244 | -20.219 | 13.885 | 1.00 | 27.58 | O |
| ATOM | 1667 | CG2 | THR | A | 373 | 9.698 | -20.365 | 15.730 | 1.00 | 24.94 | C |
| ATOM | 1668 | N | ILE | A | 374 | 8.654 | -23.729 | 14.233 | 1.00 | 29.22 | N |
| ATOM | 1669 | CA | ILE | A | 374 | 7.506 | -24.541 | 14.605 | 1.00 | 30.60 | C |
| ATOM | 1670 | C | ILE | A | 374 | 8.007 | -25.867 | 15.163 | 1.00 | 34.59 | C |
| ATOM | 1671 | O | ILE | A | 374 | 7.580 | -26.299 | 16.238 | 1.00 | 37.03 | O |
| ATOM | 1672 | CB | ILE | A | 374 | 6.577 | -24.801 | 13.394 | 1.00 | 30.70 | C |
| ATOM | 1673 | CG1 | ILE | A | 374 | 5.758 | -23.540 | 13.093 | 1.00 | 28.94 | C |
| ATOM | 1674 | CG2 | ILE | A | 374 | 5.641 | -25.975 | 13.683 | 1.00 | 25.27 | C |
| ATOM | 1675 | CD1 | ILE | A | 374 | 5.100 | -23.535 | 11.718 | 1.00 | 29.78 | C |
| ATOM | 1676 | N | ARG | A | 375 | 8.917 | -26.513 | 14.440 | 1.00 | 34.73 | N |
| ATOM | 1677 | CA | ARG | A | 375 | 9.468 | -27.783 | 14.904 | 1.00 | 35.43 | C |
| ATOM | 1678 | C | ARG | A | 375 | 9.967 | -27.594 | 16.329 | 1.00 | 31.19 | C |
| ATOM | 1679 | O | ARG | A | 375 | 9.748 | -28.431 | 17.202 | 1.00 | 31.34 | O |
| ATOM | 1680 | CB | ARG | A | 375 | 10.625 | -28.219 | 14.008 | 1.00 | 42.61 | C |
| ATOM | 1681 | CG | ARG | A | 375 | 10.261 | -29.328 | 13.039 | 1.00 | 53.44 | C |
| ATOM | 1682 | CD | ARG | A | 375 | 10.882 | -29.089 | 11.672 | 1.00 | 61.85 | C |
| ATOM | 1683 | NE | ARG | A | 375 | 10.422 | -30.064 | 10.687 | 1.00 | 68.75 | N |
| ATOM | 1684 | CZ | ARG | A | 375 | 10.732 | -30.027 | 9.395 | 1.00 | 74.54 | C |
| ATOM | 1685 | NH1 | ARG | A | 375 | 11.509 | -29.057 | 8.923 | 1.00 | 74.02 | N |
| ATOM | 1686 | NH2 | ARG | A | 375 | 10.264 | -30.961 | 8.573 | 1.00 | 76.51 | N |
| ATOM | 1687 | N | SER | A | 376 | 10.635 | -26.470 | 16.551 | 1.00 | 29.23 | N |
| ATOM | 1688 | CA | SER | A | 376 | 11.173 | -26.139 | 17.857 | 1.00 | 25.94 | C |
| ATOM | 1689 | C | SER | A | 376 | 10.048 | -25.983 | 18.886 | 1.00 | 26.25 | C |
| ATOM | 1690 | O | SER | A | 376 | 10.151 | -26.475 | 20.014 | 1.00 | 23.71 | O |
| ATOM | 1691 | CB | SER | A | 376 | 11.996 | -24.844 | 17.752 | 1.00 | 24.92 | C |
| ATOM | 1692 | OG | SER | A | 376 | 12.667 | -24.534 | 18.965 | 1.00 | 24.97 | O |
| ATOM | 1693 | N | ILE | A | 377 | 8.969 | -25.308 | 18.496 | 1.00 | 27.76 | N |
| ATOM | 1694 | CA | ILE | A | 377 | 7.837 | -25.079 | 19.402 | 1.00 | 29.90 | C |
| ATOM | 1695 | C | ILE | A | 377 | 7.247 | -26.383 | 19.922 | 1.00 | 29.94 | C |
| ATOM | 1696 | O | ILE | A | 377 | 6.890 | -26.485 | 21.101 | 1.00 | 27.72 | O |
| ATOM | 1697 | CB | ILE | A | 377 | 6.710 | -24.258 | 18.710 | 1.00 | 31.93 | C |
| ATOM | 1698 | CG1 | ILE | A | 377 | 6.854 | -22.783 | 19.074 | 1.00 | 33.58 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1699 | CG2 | ILE | A | 377 | 5.335 | -24.753 | 19.144 | 1.00 | 32.31 | C |
| ATOM | 1700 | CD1 | ILE | A | 377 | 6.084 | -21.859 | 18.159 | 1.00 | 37.34 | C |
| ATOM | 1701 | N | GLU | A | 378 | 7.154 | -27.372 | 19.036 | 1.00 | 30.39 | N |
| ATOM | 1702 | CA | GLU | A | 378 | 6.605 | -28.677 | 19.380 | 1.00 | 31.93 | C |
| ATOM | 1703 | C | GLU | A | 378 | 7.152 | -29.232 | 20.691 | 1.00 | 32.49 | C |
| ATOM | 1704 | O | GLU | A | 378 | 6.484 | -30.009 | 21.374 | 1.00 | 31.66 | O |
| ATOM | 1705 | CB | GLU | A | 378 | 6.884 | -29.662 | 18.252 | 1.00 | 31.50 | C |
| ATOM | 1706 | CG | GLU | A | 378 | 5.732 | -29.815 | 17.294 | 1.00 | 35.24 | C |
| ATOM | 1707 | CD | GLU | A | 378 | 6.160 | -30.358 | 15.947 | 1.00 | 39.04 | C |
| ATOM | 1708 | OE1 | GLU | A | 378 | 7.184 | -31.071 | 15.879 | 1.00 | 42.16 | O |
| ATOM | 1709 | OE2 | GLU | A | 378 | 5.468 | -30.071 | 14.952 | 1.00 | 40.03 | O |
| ATOM | 1710 | N | GLN | A | 379 | 8.368 | -28.824 | 21.037 | 1.00 | 33.95 | N |
| ATOM | 1711 | CA | GLN | A | 379 | 9.031 | -29.266 | 22.259 | 1.00 | 33.78 | C |
| ATOM | 1712 | C | GLN | A | 379 | 8.202 | -28.910 | 23.497 | 1.00 | 32.21 | C |
| ATOM | 1713 | O | GLN | A | 379 | 8.265 | -29.594 | 24.524 | 1.00 | 29.56 | O |
| ATOM | 1714 | CB | GLN | A | 379 | 10.425 | -28.618 | 22.335 | 1.00 | 37.94 | C |
| ATOM | 1715 | CG | GLN | A | 379 | 11.104 | -28.650 | 23.704 | 1.00 | 44.16 | C |
| ATOM | 1716 | CD | GLN | A | 379 | 12.583 | -28.266 | 23.635 | 1.00 | 45.52 | C |
| ATOM | 1717 | OE1 | GLN | A | 379 | 12.942 | -27.233 | 23.066 | 1.00 | 47.04 | O |
| ATOM | 1718 | NE2 | GLN | A | 379 | 13.443 | -29.101 | 24.214 | 1.00 | 45.30 | N |
| ATOM | 1719 | N | VAL | A | 380 | 7.411 | -27.847 | 23.390 | 1.00 | 29.08 | N |
| ATOM | 1720 | CA | VAL | A | 380 | 6.594 | -27.397 | 24.511 | 1.00 | 27.52 | C |
| ATOM | 1721 | C | VAL | A | 380 | 5.552 | -28.412 | 24.960 | 1.00 | 24.25 | C |
| ATOM | 1722 | O | VAL | A | 380 | 5.113 | -28.390 | 26.107 | 1.00 | 22.87 | O |
| ATOM | 1723 | CB | VAL | A | 380 | 5.870 | -26.067 | 24.178 | 1.00 | 28.23 | C |
| ATOM | 1724 | CG1 | VAL | A | 380 | 4.564 | -26.344 | 23.437 | 1.00 | 27.23 | C |
| ATOM | 1725 | CG2 | VAL | A | 380 | 5.604 | -25.286 | 25.463 | 1.00 | 29.42 | C |
| ATOM | 1726 | N | PHE | A | 381 | 5.174 | -29.309 | 24.058 | 1.00 | 26.58 | N |
| ATOM | 1727 | CA | PHE | A | 381 | 4.147 | -30.303 | 24.355 | 1.00 | 29.70 | C |
| ATOM | 1728 | C | PHE | A | 381 | 4.606 | -31.501 | 25.162 | 1.00 | 32.39 | C |
| ATOM | 1729 | O | PHE | A | 381 | 3.804 | -32.379 | 25.484 | 1.00 | 32.80 | O |
| ATOM | 1730 | CB | PHE | A | 381 | 3.492 | -30.777 | 23.054 | 1.00 | 24.29 | C |
| ATOM | 1731 | CG | PHE | A | 381 | 2.846 | -29.670 | 22.274 | 1.00 | 24.25 | C |
| ATOM | 1732 | CD1 | PHE | A | 381 | 1.800 | -28.932 | 22.828 | 1.00 | 25.62 | C |
| ATOM | 1733 | CD2 | PHE | A | 381 | 3.305 | -29.333 | 21.007 | 1.00 | 23.13 | C |
| ATOM | 1734 | CE1 | PHE | A | 381 | 1.226 | -27.872 | 22.128 | 1.00 | 27.18 | C |
| ATOM | 1735 | CE2 | PHE | A | 381 | 2.738 | -28.277 | 20.300 | 1.00 | 24.24 | C |
| ATOM | 1736 | CZ | PHE | A | 381 | 1.699 | -27.544 | 20.861 | 1.00 | 26.04 | C |
| ATOM | 1737 | N | LYS | A | 382 | 5.885 | -31.544 | 25.508 | 1.00 | 30.93 | N |
| ATOM | 1738 | CA | LYS | A | 382 | 6.378 | -32.674 | 26.275 | 1.00 | 29.91 | C |
| ATOM | 1739 | C | LYS | A | 382 | 6.280 | -32.425 | 27.765 | 1.00 | 25.34 | C |
| ATOM | 1740 | O | LYS | A | 382 | 6.597 | -31.339 | 28.237 | 1.00 | 24.88 | O |
| ATOM | 1741 | CB | LYS | A | 382 | 7.829 | -32.977 | 25.900 | 1.00 | 35.88 | C |
| ATOM | 1742 | CG | LYS | A | 382 | 8.062 | -33.123 | 24.405 | 1.00 | 44.05 | C |
| ATOM | 1743 | CD | LYS | A | 382 | 8.430 | -34.552 | 24.044 | 1.00 | 48.47 | C |
| ATOM | 1744 | CE | LYS | A | 382 | 9.643 | -34.591 | 23.123 | 1.00 | 53.05 | C |
| ATOM | 1745 | NZ | LYS | A | 382 | 9.780 | -35.914 | 22.444 | 1.00 | 55.69 | N |
| ATOM | 1746 | N | LEU | A | 383 | 5.823 | -33.434 | 28.501 | 1.00 | 23.91 | N |
| ATOM | 1747 | CA | LEU | A | 383 | 5.726 | -33.336 | 29.951 | 1.00 | 26.91 | C |
| ATOM | 1748 | C | LEU | A | 383 | 7.108 | -33.746 | 30.452 | 1.00 | 28.96 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1749 | O | LEU | A | 383 | 7.739 | -34.625 | 29.867 | 1.00 | 30.62 | O |
| ATOM | 1750 | CB | LEU | A | 383 | 4.665 | -34.305 | 30.484 | 1.00 | 27.57 | C |
| ATOM | 1751 | CG | LEU | A | 383 | 3.383 | -33.720 | 31.093 | 1.00 | 30.04 | C |
| ATOM | 1752 | CD1 | LEU | A | 383 | 2.881 | -32.575 | 30.247 | 1.00 | 28.74 | C |
| ATOM | 1753 | CD2 | LEU | A | 383 | 2.321 | -34.804 | 31.188 | 1.00 | 26.63 | C |
| ATOM | 1754 | N | VAL | A | 384 | 7.585 | -33.119 | 31.521 | 1.00 | 28.13 | N |
| ATOM | 1755 | CA | VAL | A | 384 | 8.912 | -33.434 | 32.052 | 1.00 | 27.36 | C |
| ATOM | 1756 | C | VAL | A | 384 | 8.847 | -34.058 | 33.443 | 1.00 | 29.12 | C |
| ATOM | 1757 | O | VAL | A | 384 | 7.812 | -34.000 | 34.107 | 1.00 | 29.12 | O |
| ATOM | 1758 | CB | VAL | A | 384 | 9.798 | -32.149 | 32.138 | 1.00 | 20.83 | C |
| ATOM | 1759 | CG1 | VAL | A | 384 | 9.833 | -31.440 | 30.797 | 1.00 | 23.11 | C |
| ATOM | 1760 | CG2 | VAL | A | 384 | 9.253 | -31.208 | 33.195 | 1.00 | 15.21 | C |
| ATOM | 1761 | N | ASP | A | 385 | 9.946 | -34.674 | 33.877 | 1.00 | 30.31 | N |
| ATOM | 1762 | CA | ASP | A | 385 | 9.998 | -35.240 | 35.224 | 1.00 | 28.24 | C |
| ATOM | 1763 | C | ASP | A | 385 | 11.205 | -34.641 | 35.941 | 1.00 | 22.57 | C |
| ATOM | 1764 | O | ASP | A | 385 | 11.600 | -35.077 | 37.020 | 1.00 | 19.31 | O |
| ATOM | 1765 | CB | ASP | A | 385 | 10.057 | -36.772 | 35.207 | 1.00 | 35.78 | C |
| ATOM | 1766 | CG | ASP | A | 385 | 11.192 | -37.306 | 34.387 | 1.00 | 37.15 | C |
| ATOM | 1767 | OD1 | ASP | A | 385 | 10.923 | -38.096 | 33.460 | 1.00 | 45.74 | O |
| ATOM | 1768 | OD2 | ASP | A | 385 | 12.348 | -36.944 | 34.670 | 1.00 | 44.64 | O |
| ATOM | 1769 | N | GLN | A | 386 | 11.761 | -33.604 | 35.321 | 1.00 | 21.36 | N |
| ATOM | 1770 | CA | GLN | A | 386 | 12.894 | -32.870 | 35.867 | 1.00 | 21.60 | C |
| ATOM | 1771 | C | GLN | A | 386 | 13.092 | -31.592 | 35.058 | 1.00 | 16.60 | C |
| ATOM | 1772 | O | GLN | A | 386 | 12.822 | -31.564 | 33.862 | 1.00 | 18.31 | O |
| ATOM | 1773 | CB | GLN | A | 386 | 14.165 | -33.726 | 35.822 | 1.00 | 20.85 | C |
| ATOM | 1774 | CG | GLN | A | 386 | 15.338 | -33.127 | 36.576 | 1.00 | 25.77 | C |
| ATOM | 1775 | CD | GLN | A | 386 | 16.579 | -33.985 | 36.469 | 1.00 | 22.66 | C |
| ATOM | 1776 | OE1 | GLN | A | 386 | 16.975 | -34.626 | 37.434 | 1.00 | 25.10 | O |
| ATOM | 1777 | NE2 | GLN | A | 386 | 17.191 | -34.011 | 35.287 | 1.00 | 23.20 | N |
| ATOM | 1778 | N | GLY | A | 387 | 13.546 | -30.532 | 35.719 | 1.00 | 17.32 | N |
| ATOM | 1779 | CA | GLY | A | 387 | 13.772 | -29.282 | 35.021 | 1.00 | 20.41 | C |
| ATOM | 1780 | C | GLY | A | 387 | 12.557 | -28.378 | 34.899 | 1.00 | 21.15 | C |
| ATOM | 1781 | O | GLY | A | 387 | 11.602 | -28.487 | 35.661 | 1.00 | 23.95 | O |
| ATOM | 1782 | N | GLU | A | 388 | 12.601 | -27.472 | 33.931 | 1.00 | 18.78 | N |
| ATOM | 1783 | CA | GLU | A | 388 | 11.511 | -26.540 | 33.708 | 1.00 | 16.93 | C |
| ATOM | 1784 | C | GLU | A | 388 | 10.462 | -27.166 | 32.812 | 1.00 | 16.74 | C |
| ATOM | 1785 | O | GLU | A | 388 | 10.783 | -27.922 | 31.899 | 1.00 | 16.04 | O |
| ATOM | 1786 | CB | GLU | A | 388 | 12.043 | -25.266 | 33.058 | 1.00 | 19.35 | C |
| ATOM | 1787 | CG | GLU | A | 388 | 13.225 | -24.645 | 33.797 | 1.00 | 20.91 | C |
| ATOM | 1788 | CD | GLU | A | 388 | 13.781 | -23.424 | 33.089 | 1.00 | 17.38 | C |
| ATOM | 1789 | OE1 | GLU | A | 388 | 13.808 | -23.423 | 31.839 | 1.00 | 19.70 | O |
| ATOM | 1790 | OE2 | GLU | A | 388 | 14.193 | -22.469 | 33.783 | 1.00 | 18.73 | O |
| ATOM | 1791 | N | GLY | A | 389 | 9.200 | -26.849 | 33.079 | 1.00 | 19.80 | N |
| ATOM | 1792 | CA | GLY | A | 389 | 8.121 | -27.395 | 32.275 | 1.00 | 16.92 | C |
| ATOM | 1793 | C | GLY | A | 389 | 6.980 | -27.932 | 33.114 | 1.00 | 18.57 | C |
| ATOM | 1794 | O | GLY | A | 389 | 6.940 | -27.731 | 34.330 | 1.00 | 18.32 | O |
| ATOM | 1795 | N | PHE | A | 390 | 6.054 | -28.619 | 32.449 | 1.00 | 20.75 | N |
| ATOM | 1796 | CA | PHE | A | 390 | 4.885 | -29.212 | 33.091 | 1.00 | 18.87 | C |
| ATOM | 1797 | C | PHE | A | 390 | 5.199 | -30.633 | 33.519 | 1.00 | 17.43 | C |
| ATOM | 1798 | O | PHE | A | 390 | 5.802 | -31.395 | 32.767 | 1.00 | 19.70 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1799 | CB | PHE | A | 390 | 3.705 | -29.267 | 32.112 | 1.00 | 18.56 | C |
| ATOM | 1800 | CG | PHE | A | 390 | 3.053 | -27.940 | 31.855 | 1.00 | 18.49 | C |
| ATOM | 1801 | CD1 | PHE | A | 390 | 2.244 | -27.347 | 32.820 | 1.00 | 16.74 | C |
| ATOM | 1802 | CD2 | PHE | A | 390 | 3.209 | -27.304 | 30.626 | 1.00 | 17.43 | C |
| ATOM | 1803 | CE1 | PHE | A | 390 | 1.597 | -26.144 | 32.560 | 1.00 | 17.51 | C |
| ATOM | 1804 | CE2 | PHE | A | 390 | 2.566 | -26.100 | 30.358 | 1.00 | 15.83 | C |
| ATOM | 1805 | CZ | PHE | A | 390 | 1.759 | -25.520 | 31.323 | 1.00 | 14.74 | C |
| ATOM | 1806 | N | TYR | A | 391 | 4.776 | -30.998 | 34.719 | 1.00 | 16.60 | N |
| ATOM | 1807 | CA | TYR | A | 391 | 5.007 | -32.345 | 35.210 | 1.00 | 16.09 | C |
| ATOM | 1808 | C | TYR | A | 391 | 3.686 | -33.099 | 35.162 | 1.00 | 19.74 | C |
| ATOM | 1809 | O | TYR | A | 391 | 2.625 | -32.495 | 35.043 | 1.00 | 17.52 | O |
| ATOM | 1810 | CB | TYR | A | 391 | 5.526 | -32.308 | 36.648 | 1.00 | 19.14 | C |
| ATOM | 1811 | CG | TYR | A | 391 | 6.939 | -31.792 | 36.775 | 1.00 | 23.55 | C |
| ATOM | 1812 | CD1 | TYR | A | 391 | 7.274 | -30.496 | 36.364 | 1.00 | 22.65 | C |
| ATOM | 1813 | CD2 | TYR | A | 391 | 7.949 | -32.604 | 37.287 | 1.00 | 22.78 | C |
| ATOM | 1814 | CE1 | TYR | A | 391 | 8.586 | -30.025 | 36.461 | 1.00 | 23.30 | C |
| ATOM | 1815 | CE2 | TYR | A | 391 | 9.258 | -32.146 | 37.388 | 1.00 | 24.58 | C |
| ATOM | 1816 | CZ | TYR | A | 391 | 9.571 | -30.859 | 36.974 | 1.00 | 26.56 | C |
| ATOM | 1817 | OH | TYR | A | 391 | 10.869 | -30.415 | 37.082 | 1.00 | 25.09 | O |
| ATOM | 1818 | N | GLN | A | 392 | 3.766 | -34.421 | 35.268 | 1.00 | 23.01 | N |
| ATOM | 1819 | CA | GLN | A | 392 | 2.597 | -35.285 | 35.234 | 1.00 | 24.68 | C |
| ATOM | 1820 | C | GLN | A | 392 | 1.632 | -34.996 | 36.385 | 1.00 | 24.31 | C |
| ATOM | 1821 | O | GLN | A | 392 | 0.433 | -35.252 | 36.273 | 1.00 | 27.78 | O |
| ATOM | 1822 | CB | GLN | A | 392 | 3.041 | -36.761 | 35.253 | 1.00 | 28.55 | C |
| ATOM | 1823 | CG | GLN | A | 392 | 2.707 | -37.534 | 36.536 | 1.00 | 41.57 | C |
| ATOM | 1824 | CD | GLN | A | 392 | 3.916 | -38.244 | 37.162 | 1.00 | 48.36 | C |
| ATOM | 1825 | OE1 | GLN | A | 392 | 4.672 | -38.948 | 36.480 | 1.00 | 47.26 | O |
| ATOM | 1826 | NE2 | GLN | A | 392 | 4.095 | -38.060 | 38.471 | 1.00 | 50.57 | N |
| ATOM | 1827 | N | ASP | A | 393 | 2.148 | -34.460 | 37.487 | 1.00 | 19.99 | N |
| ATOM | 1828 | CA | ASP | A | 393 | 1.299 | -34.160 | 38.626 | 1.00 | 14.73 | C |
| ATOM | 1829 | C | ASP | A | 393 | 0.682 | -32.772 | 38.552 | 1.00 | 13.71 | C |
| ATOM | 1830 | O | ASP | A | 393 | 0.013 | -32.331 | 39.488 | 1.00 | 17.40 | O |
| ATOM | 1831 | CB | ASP | A | 393 | 2.063 | -34.358 | 39.947 | 1.00 | 14.32 | C |
| ATOM | 1832 | CG | ASP | A | 393 | 2.998 | -33.200 | 40.292 | 1.00 | 13.16 | C |
| ATOM | 1833 | OD1 | ASP | A | 393 | 3.198 | -32.278 | 39.469 | 1.00 | 13.88 | O |
| ATOM | 1834 | OD2 | ASP | A | 393 | 3.540 | -33.230 | 41.415 | 1.00 | 14.44 | O |
| ATOM | 1835 | N | GLY | A | 394 | 0.904 | -32.094 | 37.432 | 1.00 | 13.79 | N |
| ATOM | 1836 | CA | GLY | A | 394 | 0.340 | -30.770 | 37.234 | 1.00 | 14.15 | C |
| ATOM | 1837 | C | GLY | A | 394 | 1.243 | -29.587 | 37.530 | 1.00 | 18.27 | C |
| ATOM | 1838 | O | GLY | A | 394 | 0.968 | -28.469 | 37.080 | 1.00 | 18.13 | O |
| ATOM | 1839 | N | SER | A | 395 | 2.313 | -29.816 | 38.286 | 1.00 | 17.44 | N |
| ATOM | 1840 | CA | SER | A | 395 | 3.231 | -28.739 | 38.627 | 1.00 | 13.29 | C |
| ATOM | 1841 | C | SER | A | 395 | 3.854 | -28.179 | 37.372 | 1.00 | 14.55 | C |
| ATOM | 1842 | O | SER | A | 395 | 3.905 | -28.847 | 36.340 | 1.00 | 17.48 | O |
| ATOM | 1843 | CB | SER | A | 395 | 4.350 | -29.243 | 39.533 | 1.00 | 14.12 | C |
| ATOM | 1844 | OG | SER | A | 395 | 3.854 | -30.075 | 40.549 | 1.00 | 12.80 | O |
| ATOM | 1845 | N | TYR | A | 396 | 4.329 | -26.945 | 37.470 | 1.00 | 18.07 | N |
| ATOM | 1846 | CA | TYR | A | 396 | 4.985 | -26.273 | 36.358 | 1.00 | 16.11 | C |
| ATOM | 1847 | C | TYR | A | 396 | 6.163 | -25.514 | 36.939 | 1.00 | 18.79 | C |
| ATOM | 1848 | O | TYR | A | 396 | 5.996 | -24.618 | 37.777 | 1.00 | 17.43 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1849 | CB | TYR | A | 396 | 4.050 | -25.291 | 35.658 | 1.00 | 15.30 | C |
| ATOM | 1850 | CG | TYR | A | 396 | 4.748 | -24.520 | 34.569 | 1.00 | 15.45 | C |
| ATOM | 1851 | CD1 | TYR | A | 396 | 5.322 | -23.269 | 34.823 | 1.00 | 15.36 | C |
| ATOM | 1852 | CD2 | TYR | A | 396 | 4.877 | -25.058 | 33.294 | 1.00 | 16.87 | C |
| ATOM | 1853 | CE1 | TYR | A | 396 | 6.011 | -22.575 | 33.824 | 1.00 | 12.70 | C |
| ATOM | 1854 | CE2 | TYR | A | 396 | 5.562 | -24.375 | 32.288 | 1.00 | 17.00 | C |
| ATOM | 1855 | CZ | TYR | A | 396 | 6.125 | -23.137 | 32.560 | 1.00 | 16.61 | C |
| ATOM | 1856 | OH | TYR | A | 396 | 6.791 | -22.470 | 31.549 | 1.00 | 20.37 | O |
| ATOM | 1857 | N | ILE | A | 397 | 7.357 | -25.873 | 36.480 | 1.00 | 19.04 | N |
| ATOM | 1858 | CA | ILE | A | 397 | 8.572 | -25.250 | 36.973 | 1.00 | 15.80 | C |
| ATOM | 1859 | C | ILE | A | 397 | 9.177 | -24.355 | 35.917 | 1.00 | 11.60 | C |
| ATOM | 1860 | O | ILE | A | 397 | 9.145 | -24.667 | 34.735 | 1.00 | 14.44 | O |
| ATOM | 1861 | CB | ILE | A | 397 | 9.622 | -26.330 | 37.367 | 1.00 | 15.34 | C |
| ATOM | 1862 | CG1 | ILE | A | 397 | 9.135 | -27.114 | 38.584 | 1.00 | 10.31 | C |
| ATOM | 1863 | CG2 | ILE | A | 397 | 10.984 | -25.678 | 37.671 | 1.00 | 14.04 | C |
| ATOM | 1864 | CD1 | ILE | A | 397 | 9.109 | -26.324 | 39.842 | 1.00 | 7.59 | C |
| ATOM | 1865 | N | ASP | A | 398 | 9.708 | -23.222 | 36.350 | 1.00 | 17.66 | N |
| ATOM | 1866 | CA | ASP | A | 398 | 10.394 | -22.316 | 35.446 | 1.00 | 18.72 | C |
| ATOM | 1867 | C | ASP | A | 398 | 11.519 | -21.617 | 36.189 | 1.00 | 15.89 | C |
| ATOM | 1868 | O | ASP | A | 398 | 11.619 | -21.704 | 37.414 | 1.00 | 16.27 | O |
| ATOM | 1869 | CB | ASP | A | 398 | 9.451 | -21.291 | 34.821 | 1.00 | 20.43 | C |
| ATOM | 1870 | CG | ASP | A | 398 | 9.913 | -20.871 | 33.442 | 1.00 | 23.37 | C |
| ATOM | 1871 | OD1 | ASP | A | 398 | 11.095 | -20.486 | 33.318 | 1.00 | 28.29 | O |
| ATOM | 1872 | OD2 | ASP | A | 398 | 9.114 | -20.940 | 32.480 | 1.00 | 22.29 | O |
| ATOM | 1873 | N | HIS | A | 399 | 12.353 | -20.905 | 35.445 | 1.00 | 20.34 | N |
| ATOM | 1874 | CA | HIS | A | 399 | 13.512 | -20.249 | 36.030 | 1.00 | 19.37 | C |
| ATOM | 1875 | C | HIS | A | 399 | 14.228 | -21.232 | 36.949 | 1.00 | 16.42 | C |
| ATOM | 1876 | O | HIS | A | 399 | 14.446 | -20.980 | 38.132 | 1.00 | 17.80 | O |
| ATOM | 1877 | CB | HIS | A | 399 | 13.102 | -18.976 | 36.753 | 1.00 | 22.56 | C |
| ATOM | 1878 | CG | HIS | A | 399 | 12.928 | -17.814 | 35.824 | 1.00 | 31.00 | C |
| ATOM | 1879 | ND1 | HIS | A | 399 | 12.575 | -16.552 | 36.253 | 1.00 | 32.27 | N |
| ATOM | 1880 | CD2 | HIS | A | 399 | 13.050 | -17.732 | 34.476 | 1.00 | 27.72 | C |
| ATOM | 1881 | CE1 | HIS | A | 399 | 12.485 | -15.744 | 35.210 | 1.00 | 33.26 | C |
| ATOM | 1882 | NE2 | HIS | A | 399 | 12.769 | -16.436 | 34.120 | 1.00 | 31.54 | N |
| ATOM | 1883 | N | THR | A | 400 | 14.548 | -22.381 | 36.355 | 1.00 | 17.85 | N |
| ATOM | 1884 | CA | THR | A | 400 | 15.264 | -23.473 | 36.993 | 1.00 | 18.78 | C |
| ATOM | 1885 | C | THR | A | 400 | 14.507 | -24.263 | 38.036 | 1.00 | 15.82 | C |
| ATOM | 1886 | O | THR | A | 400 | 14.385 | -25.477 | 37.920 | 1.00 | 16.43 | O |
| ATOM | 1887 | CB | THR | A | 400 | 16.590 | -22.969 | 37.626 | 1.00 | 23.37 | C |
| ATOM | 1888 | OG1 | THR | A | 400 | 17.376 | -22.322 | 36.618 | 1.00 | 27.49 | O |
| ATOM | 1889 | CG2 | THR | A | 400 | 17.392 | -24.130 | 38.216 | 1.00 | 20.11 | C |
| ATOM | 1890 | N | ASN | A | 401 | 13.993 | -23.599 | 39.059 | 1.00 | 16.72 | N |
| ATOM | 1891 | CA | ASN | A | 401 | 13.304 | -24.353 | 40.099 | 1.00 | 20.08 | C |
| ATOM | 1892 | C | ASN | A | 401 | 12.198 | -23.599 | 40.835 | 1.00 | 16.56 | C |
| ATOM | 1893 | O | ASN | A | 401 | 11.994 | -23.810 | 42.030 | 1.00 | 14.23 | O |
| ATOM | 1894 | CB | ASN | A | 401 | 14.342 | -24.842 | 41.108 | 1.00 | 16.77 | C |
| ATOM | 1895 | CG | ASN | A | 401 | 15.129 | -23.701 | 41.714 | 1.00 | 20.35 | C |
| ATOM | 1896 | OD1 | ASN | A | 401 | 15.128 | -22.587 | 41.186 | 1.00 | 22.81 | O |
| ATOM | 1897 | ND2 | ASN | A | 401 | 15.797 | -23.964 | 42.829 | 1.00 | 18.69 | N |
| ATOM | 1898 | N | VAL | A | 402 | 11.481 | -22.733 | 40.125 | 1.00 | 20.87 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1899 | CA | VAL | A | 402 | 10.414 | -21.953 | 40.754 | 1.00 | 19.69 | C |
| ATOM | 1900 | C | VAL | A | 402 | 9.010 | -22.391 | 40.311 | 1.00 | 16.00 | C |
| ATOM | 1901 | O | VAL | A | 402 | 8.774 | -22.627 | 39.131 | 1.00 | 12.31 | O |
| ATOM | 1902 | CB | VAL | A | 402 | 10.573 | -20.447 | 40.434 | 1.00 | 19.00 | C |
| ATOM | 1903 | CG1 | VAL | A | 402 | 9.693 | -19.617 | 41.358 | 1.00 | 17.41 | C |
| ATOM | 1904 | CG2 | VAL | A | 402 | 12.034 | -20.032 | 40.569 | 1.00 | 16.17 | C |
| ATOM | 1905 | N | ALA | A | 403 | 8.093 | -22.527 | 41.268 | 1.00 | 18.78 | N |
| ATOM | 1906 | CA | ALA | A | 403 | 6.697 | -22.876 | 40.962 | 1.00 | 14.94 | C |
| ATOM | 1907 | C | ALA | A | 403 | 6.221 | -21.675 | 40.150 | 1.00 | 12.38 | C |
| ATOM | 1908 | O | ALA | A | 403 | 6.143 | -20.562 | 40.676 | 1.00 | 16.92 | O |
| ATOM | 1909 | CB | ALA | A | 403 | 5.907 | -22.987 | 42.244 | 1.00 | 14.92 | C |
| ATOM | 1910 | N | TYR | A | 404 | 5.913 | -21.881 | 38.875 | 1.00 | 13.53 | N |
| ATOM | 1911 | CA | TYR | A | 404 | 5.531 | -20.749 | 38.034 | 1.00 | 15.94 | C |
| ATOM | 1912 | C | TYR | A | 404 | 4.338 | -20.921 | 37.086 | 1.00 | 15.00 | C |
| ATOM | 1913 | O | TYR | A | 404 | 4.232 | -20.207 | 36.082 | 1.00 | 15.63 | O |
| ATOM | 1914 | CB | TYR | A | 404 | 6.760 | -20.296 | 37.221 | 1.00 | 12.77 | C |
| ATOM | 1915 | CG | TYR | A | 404 | 7.241 | -18.896 | 37.542 | 1.00 | 17.25 | C |
| ATOM | 1916 | CD1 | TYR | A | 404 | 6.335 | -17.850 | 37.686 | 1.00 | 18.79 | C |
| ATOM | 1917 | CD2 | TYR | A | 404 | 8.602 | -18.609 | 37.686 | 1.00 | 18.49 | C |
| ATOM | 1918 | CE1 | TYR | A | 404 | 6.757 | -16.561 | 37.958 | 1.00 | 21.53 | C |
| ATOM | 1919 | CE2 | TYR | A | 404 | 9.037 | -17.306 | 37.962 | 1.00 | 21.01 | C |
| ATOM | 1920 | CZ | TYR | A | 404 | 8.104 | -16.288 | 38.095 | 1.00 | 23.29 | C |
| ATOM | 1921 | OH | TYR | A | 404 | 8.485 | -14.988 | 38.354 | 1.00 | 22.41 | O |
| ATOM | 1922 | N | THR | A | 405 | 3.438 | -21.847 | 37.394 | 1.00 | 16.04 | N |
| ATOM | 1923 | CA | THR | A | 405 | 2.274 | -22.044 | 36.541 | 1.00 | 14.81 | C |
| ATOM | 1924 | C | THR | A | 405 | 1.545 | -20.720 | 36.262 | 1.00 | 16.73 | C |
| ATOM | 1925 | O | THR | A | 405 | 1.173 | -20.433 | 35.116 | 1.00 | 13.35 | O |
| ATOM | 1926 | CB | THR | A | 405 | 1.243 | -22.979 | 37.198 | 1.00 | 13.31 | C |
| ATOM | 1927 | OG1 | THR | A | 405 | 1.909 | -24.022 | 37.912 | 1.00 | 16.53 | O |
| ATOM | 1928 | CG2 | THR | A | 405 | 0.343 | -23.585 | 36.144 | 1.00 | 17.23 | C |
| ATOM | 1929 | N | GLY | A | 406 | 1.370 | -19.924 | 37.324 | 1.00 | 15.08 | N |
| ATOM | 1930 | CA | GLY | A | 406 | 0.646 | -18.666 | 37.246 | 1.00 | 16.18 | C |
| ATOM | 1931 | C | GLY | A | 406 | 1.259 | -17.405 | 36.674 | 1.00 | 20.23 | C |
| ATOM | 1932 | O | GLY | A | 406 | 0.726 | -16.317 | 36.886 | 1.00 | 21.43 | O |
| ATOM | 1933 | N | ALA | A | 407 | 2.369 | -17.519 | 35.959 | 1.00 | 20.96 | N |
| ATOM | 1934 | CA | ALA | A | 407 | 2.985 | -16.343 | 35.358 | 1.00 | 16.33 | C |
| ATOM | 1935 | C | ALA | A | 407 | 3.590 | -16.785 | 34.048 | 1.00 | 16.74 | C |
| ATOM | 1936 | O | ALA | A | 407 | 3.212 | -16.291 | 32.990 | 1.00 | 17.74 | O |
| ATOM | 1937 | CB | ALA | A | 407 | 4.041 | -15.762 | 36.274 | 1.00 | 15.52 | C |
| ATOM | 1938 | N | PHE | A | 408 | 4.526 | -17.724 | 34.110 | 1.00 | 17.70 | N |
| ATOM | 1939 | CA | PHE | A | 408 | 5.129 | -18.231 | 32.889 | 1.00 | 17.31 | C |
| ATOM | 1940 | C | PHE | A | 408 | 4.155 | -19.193 | 32.225 | 1.00 | 16.87 | C |
| ATOM | 1941 | O | PHE | A | 408 | 4.115 | -19.309 | 30.995 | 1.00 | 16.82 | O |
| ATOM | 1942 | CB | PHE | A | 408 | 6.473 | -18.907 | 33.196 | 1.00 | 19.46 | C |
| ATOM | 1943 | CG | PHE | A | 408 | 7.608 | -17.933 | 33.266 | 1.00 | 19.00 | C |
| ATOM | 1944 | CD1 | PHE | A | 408 | 8.194 | -17.455 | 32.099 | 1.00 | 20.98 | C |
| ATOM | 1945 | CD2 | PHE | A | 408 | 8.022 | -17.412 | 34.489 | 1.00 | 21.09 | C |
| ATOM | 1946 | CE1 | PHE | A | 408 | 9.175 | -16.461 | 32.149 | 1.00 | 25.16 | C |
| ATOM | 1947 | CE2 | PHE | A | 408 | 9.003 | -16.417 | 34.553 | 1.00 | 26.47 | C |
| ATOM | 1948 | CZ | PHE | A | 408 | 9.578 | -15.940 | 33.379 | 1.00 | 26.76 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1949 | N | GLY | A | 409 | 3.362 | -19.881 | 33.039 | 1.00 | 16.18 | N |
| ATOM | 1950 | CA | GLY | A | 409 | 2.371 | -20.776 | 32.474 | 1.00 | 19.27 | C |
| ATOM | 1951 | C | GLY | A | 409 | 1.375 | -19.939 | 31.680 | 1.00 | 17.71 | C |
| ATOM | 1952 | O | GLY | A | 409 | 0.956 | -20.319 | 30.581 | 1.00 | 18.46 | O |
| ATOM | 1953 | N | ASN | A | 410 | 0.998 | -18.788 | 32.237 | 1.00 | 17.12 | N |
| ATOM | 1954 | CA | ASN | A | 410 | 0.056 | -17.896 | 31.570 | 1.00 | 13.95 | C |
| ATOM | 1955 | C | ASN | A | 410 | 0.568 | -17.564 | 30.190 | 1.00 | 15.20 | C |
| ATOM | 1956 | O | ASN | A | 410 | -0.126 | -17.774 | 29.192 | 1.00 | 17.95 | O |
| ATOM | 1957 | CB | ASN | A | 410 | -0.113 | -16.587 | 32.339 | 1.00 | 11.83 | C |
| ATOM | 1958 | CG | ASN | A | 410 | -0.659 | -16.790 | 33.730 | 1.00 | 18.30 | C |
| ATOM | 1959 | OD1 | ASN | A | 410 | -0.610 | -17.893 | 34.276 | 1.00 | 21.79 | O |
| ATOM | 1960 | ND2 | ASN | A | 410 | -1.179 | -15.715 | 34.324 | 1.00 | 18.66 | N |
| ATOM | 1961 | N | VAL | A | 411 | 1.792 | -17.039 | 30.137 | 1.00 | 20.64 | N |
| ATOM | 1962 | CA | VAL | A | 411 | 2.419 | -16.655 | 28.867 | 1.00 | 19.59 | C |
| ATOM | 1963 | C | VAL | A | 411 | 2.429 | -17.814 | 27.892 | 1.00 | 17.21 | C |
| ATOM | 1964 | O | VAL | A | 411 | 2.218 | -17.638 | 26.703 | 1.00 | 19.78 | O |
| ATOM | 1965 | CB | VAL | A | 411 | 3.880 | -16.180 | 29.062 | 1.00 | 20.02 | C |
| ATOM | 1966 | CG1 | VAL | A | 411 | 4.496 | -15.850 | 27.709 | 1.00 | 19.04 | C |
| ATOM | 1967 | CG2 | VAL | A | 411 | 3.920 | -14.960 | 29.973 | 1.00 | 14.39 | C |
| ATOM | 1968 | N | LEU | A | 412 | 2.682 | -19.006 | 28.405 | 1.00 | 20.07 | N |
| ATOM | 1969 | CA | LEU | A | 412 | 2.711 | -20.191 | 27.569 | 1.00 | 22.22 | C |
| ATOM | 1970 | C | LEU | A | 412 | 1.341 | -20.416 | 26.919 | 1.00 | 24.37 | C |
| ATOM | 1971 | O | LEU | A | 412 | 1.218 | -20.412 | 25.693 | 1.00 | 24.92 | O |
| ATOM | 1972 | CB | LEU | A | 412 | 3.107 | -21.408 | 28.415 | 1.00 | 18.91 | C |
| ATOM | 1973 | CG | LEU | A | 412 | 3.848 | -22.562 | 27.738 | 1.00 | 18.00 | C |
| ATOM | 1974 | CD1 | LEU | A | 412 | 4.466 | -23.440 | 28.802 | 1.00 | 15.11 | C |
| ATOM | 1975 | CD2 | LEU | A | 412 | 2.894 | -23.370 | 26.875 | 1.00 | 18.02 | C |
| ATOM | 1976 | N | ILE | A | 413 | 0.309 | -20.603 | 27.741 | 1.00 | 24.52 | N |
| ATOM | 1977 | CA | ILE | A | 413 | -1.037 | -20.843 | 27.216 | 1.00 | 22.39 | C |
| ATOM | 1978 | C | ILE | A | 413 | -1.566 | -19.651 | 26.422 | 1.00 | 16.41 | C |
| ATOM | 1979 | O | ILE | A | 413 | -2.108 | -19.804 | 25.335 | 1.00 | 19.11 | O |
| ATOM | 1980 | CB | ILE | A | 413 | -2.035 | -21.182 | 28.357 | 1.00 | 23.28 | C |
| ATOM | 1981 | CG1 | ILE | A | 413 | -3.345 | -21.681 | 27.756 | 1.00 | 26.45 | C |
| ATOM | 1982 | CG2 | ILE | A | 413 | -2.291 | -19.958 | 29.237 | 1.00 | 20.38 | C |
| ATOM | 1983 | CD1 | ILE | A | 413 | -3.759 | -23.044 | 28.254 | 1.00 | 33.73 | C |
| ATOM | 1984 | N | ASP | A | 414 | -1.394 | -18.464 | 26.976 | 1.00 | 16.83 | N |
| ATOM | 1985 | CA | ASP | A | 414 | -1.848 | -17.251 | 26.329 | 1.00 | 18.77 | C |
| ATOM | 1986 | C | ASP | A | 414 | -1.251 | -17.125 | 24.933 | 1.00 | 20.57 | C |
| ATOM | 1987 | O | ASP | A | 414 | -1.967 | -16.949 | 23.943 | 1.00 | 21.29 | O |
| ATOM | 1988 | CB | ASP | A | 414 | -1.450 | -16.056 | 27.186 | 1.00 | 22.87 | C |
| ATOM | 1989 | CG | ASP | A | 414 | -2.167 | -14.796 | 26.792 | 1.00 | 25.97 | C |
| ATOM | 1990 | OD1 | ASP | A | 414 | -2.839 | -14.790 | 25.742 | 1.00 | 29.25 | O |
| ATOM | 1991 | OD2 | ASP | A | 414 | -2.057 | -13.808 | 27.540 | 1.00 | 31.77 | O |
| ATOM | 1992 | N | GLY | A | 415 | 0.070 | -17.228 | 24.851 | 1.00 | 21.27 | N |
| ATOM | 1993 | CA | GLY | A | 415 | 0.731 | -17.115 | 23.565 | 1.00 | 15.75 | C |
| ATOM | 1994 | C | GLY | A | 415 | 0.510 | -18.289 | 22.634 | 1.00 | 14.27 | C |
| ATOM | 1995 | O | GLY | A | 415 | 0.286 | -18.114 | 21.436 | 1.00 | 15.13 | O |
| ATOM | 1996 | N | LEU | A | 416 | 0.560 | -19.501 | 23.164 | 1.00 | 14.39 | N |
| ATOM | 1997 | CA | LEU | A | 416 | 0.372 | -20.649 | 22.297 | 1.00 | 16.03 | C |
| ATOM | 1998 | C | LEU | A | 416 | -0.995 | -20.629 | 21.628 | 1.00 | 19.14 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 1999 | O | LEU | A | 416 | -1.101 | -20.907 | 20.438 | 1.00 | 21.14 | O |
| ATOM | 2000 | CB | LEU | A | 416 | 0.551 | -21.954 | 23.080 | 1.00 | 16.20 | C |
| ATOM | 2001 | CG | LEU | A | 416 | 0.680 | -23.213 | 22.212 | 1.00 | 18.43 | C |
| ATOM | 2002 | CD1 | LEU | A | 416 | 1.807 | -23.045 | 21.193 | 1.00 | 20.34 | C |
| ATOM | 2003 | CD2 | LEU | A | 416 | 0.951 | -24.413 | 23.103 | 1.00 | 17.18 | C |
| ATOM | 2004 | N | SER | A | 417 | -2.038 | -20.289 | 22.388 | 1.00 | 20.29 | N |
| ATOM | 2005 | CA | SER | A | 417 | -3.397 | -20.256 | 21.840 | 1.00 | 21.02 | C |
| ATOM | 2006 | C | SER | A | 417 | -3.565 | -19.244 | 20.705 | 1.00 | 18.73 | C |
| ATOM | 2007 | O | SER | A | 417 | -4.396 | -19.437 | 19.820 | 1.00 | 19.94 | O |
| ATOM | 2008 | CB | SER | A | 417 | -4.419 | -20.006 | 22.956 | 1.00 | 14.72 | C |
| ATOM | 2009 | OG | SER | A | 417 | -4.230 | -18.750 | 23.574 | 1.00 | 20.20 | O |
| ATOM | 2010 | N | GLN | A | 418 | -2.769 | -18.178 | 20.711 | 1.00 | 19.99 | N |
| ATOM | 2011 | CA | GLN | A | 418 | -2.837 | -17.182 | 19.633 | 1.00 | 21.94 | C |
| ATOM | 2012 | C | GLN | A | 418 | -2.159 | -17.730 | 18.375 | 1.00 | 21.90 | C |
| ATOM | 2013 | O | GLN | A | 418 | -2.605 | -17.499 | 17.254 | 1.00 | 20.00 | O |
| ATOM | 2014 | CB | GLN | A | 418 | -2.090 | -15.906 | 20.016 | 1.00 | 22.94 | C |
| ATOM | 2015 | CG | GLN | A | 418 | -2.644 | -15.135 | 21.170 | 1.00 | 27.64 | C |
| ATOM | 2016 | CD | GLN | A | 418 | -2.167 | -13.703 | 21.144 | 1.00 | 30.09 | C |
| ATOM | 2017 | OE1 | GLN | A | 418 | -0.965 | -13.440 | 21.141 | 1.00 | 29.49 | O |
| ATOM | 2018 | NE2 | GLN | A | 418 | -3.105 | -12.767 | 21.112 | 1.00 | 36.00 | N |
| ATOM | 2019 | N | LEU | A | 419 | -1.067 | -18.457 | 18.590 | 1.00 | 20.78 | N |
| ATOM | 2020 | CA | LEU | A | 419 | -0.255 | -19.009 | 17.518 | 1.00 | 19.63 | C |
| ATOM | 2021 | C | LEU | A | 419 | -0.800 | -20.236 | 16.807 | 1.00 | 19.46 | C |
| ATOM | 2022 | O | LEU | A | 419 | -0.731 | -20.321 | 15.588 | 1.00 | 21.15 | O |
| ATOM | 2023 | CB | LEU | A | 419 | 1.133 | -19.331 | 18.079 | 1.00 | 25.56 | C |
| ATOM | 2024 | CG | LEU | A | 419 | 2.421 | -19.044 | 17.302 | 1.00 | 29.75 | C |
| ATOM | 2025 | CD1 | LEU | A | 419 | 2.244 | -17.883 | 16.337 | 1.00 | 26.51 | C |
| ATOM | 2026 | CD2 | LEU | A | 419 | 3.525 | -18.745 | 18.312 | 1.00 | 29.28 | C |
| ATOM | 2027 | N | LEU | A | 420 | -1.330 | -21.187 | 17.568 | 1.00 | 21.04 | N |
| ATOM | 2028 | CA | LEU | A | 420 | -1.848 | -22.433 | 17.005 | 1.00 | 23.85 | C |
| ATOM | 2029 | C | LEU | A | 420 | -2.707 | -22.309 | 15.757 | 1.00 | 25.50 | C |
| ATOM | 2030 | O | LEU | A | 420 | -2.503 | -23.031 | 14.780 | 1.00 | 28.06 | O |
| ATOM | 2031 | CB | LEU | A | 420 | -2.620 | -23.198 | 18.070 | 1.00 | 24.37 | C |
| ATOM | 2032 | CG | LEU | A | 420 | -1.690 | -23.937 | 19.025 | 1.00 | 31.14 | C |
| ATOM | 2033 | CD1 | LEU | A | 420 | -2.517 | -24.729 | 20.019 | 1.00 | 27.61 | C |
| ATOM | 2034 | CD2 | LEU | A | 420 | -0.751 | -24.846 | 18.232 | 1.00 | 32.23 | C |
| ATOM | 2035 | N | PRO | A | 421 | -3.713 | -21.427 | 15.783 | 1.00 | 25.51 | N |
| ATOM | 2036 | CA | PRO | A | 421 | -4.559 | -21.277 | 14.597 | 1.00 | 23.30 | C |
| ATOM | 2037 | C | PRO | A | 421 | -3.744 | -20.924 | 13.354 | 1.00 | 23.84 | C |
| ATOM | 2038 | O | PRO | A | 421 | -4.021 | -21.407 | 12.259 | 1.00 | 23.59 | O |
| ATOM | 2039 | CB | PRO | A | 421 | -5.531 | -20.162 | 14.988 | 1.00 | 22.43 | C |
| ATOM | 2040 | CG | PRO | A | 421 | -5.556 | -20.198 | 16.475 | 1.00 | 25.14 | C |
| ATOM | 2041 | CD | PRO | A | 421 | -4.161 | -20.567 | 16.889 | 1.00 | 22.78 | C |
| ATOM | 2042 | N | VAL | A | 422 | -2.737 | -20.076 | 13.520 | 1.00 | 23.72 | N |
| ATOM | 2043 | CA | VAL | A | 422 | -1.908 | -19.684 | 12.390 | 1.00 | 26.05 | C |
| ATOM | 2044 | C | VAL | A | 422 | -0.980 | -20.820 | 11.973 | 1.00 | 25.52 | C |
| ATOM | 2045 | O | VAL | A | 422 | -0.916 | -21.178 | 10.800 | 1.00 | 26.93 | O |
| ATOM | 2046 | CB | VAL | A | 422 | -1.055 | -18.459 | 12.727 | 1.00 | 26.29 | C |
| ATOM | 2047 | CG1 | VAL | A | 422 | -0.147 | -18.129 | 11.555 | 1.00 | 26.69 | C |
| ATOM | 2048 | CG2 | VAL | A | 422 | -1.953 | -17.283 | 13.063 | 1.00 | 25.74 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2049 | N | ILE | A | 423 | -0.261 | -21.374 | 12.945 | 1.00 | 27.05 | N |
| ATOM | 2050 | CA | ILE | A | 423 | 0.671 | -22.478 | 12.714 | 1.00 | 25.11 | C |
| ATOM | 2051 | C | ILE | A | 423 | -0.040 | -23.636 | 12.028 | 1.00 | 27.63 | C |
| ATOM | 2052 | O | ILE | A | 423 | 0.484 | -24.247 | 11.100 | 1.00 | 25.33 | O |
| ATOM | 2053 | CB | ILE | A | 423 | 1.245 | -23.000 | 14.052 | 1.00 | 23.82 | C |
| ATOM | 2054 | CG1 | ILE | A | 423 | 2.409 | -22.115 | 14.501 | 1.00 | 24.64 | C |
| ATOM | 2055 | CG2 | ILE | A | 423 | 1.683 | -24.457 | 13.909 | 1.00 | 26.94 | C |
| ATOM | 2056 | CD1 | ILE | A | 423 | 2.763 | -22.264 | 15.959 | 1.00 | 18.62 | C |
| ATOM | 2057 | N | GLN | A | 424 | -1.243 | -23.928 | 12.504 | 1.00 | 28.72 | N |
| ATOM | 2058 | CA | GLN | A | 424 | -2.033 | -25.020 | 11.974 | 1.00 | 31.26 | C |
| ATOM | 2059 | C | GLN | A | 424 | -2.449 | -24.837 | 10.520 | 1.00 | 35.47 | C |
| ATOM | 2060 | O | GLN | A | 424 | -2.928 | -25.779 | 9.880 | 1.00 | 35.63 | O |
| ATOM | 2061 | CB | GLN | A | 424 | -3.257 | -25.227 | 12.860 | 1.00 | 30.68 | C |
| ATOM | 2062 | CG | GLN | A | 424 | -2.918 | -25.914 | 14.170 | 1.00 | 33.08 | C |
| ATOM | 2063 | CD | GLN | A | 424 | -1.846 | -26.984 | 14.003 | 1.00 | 32.85 | C |
| ATOM | 2064 | OE1 | GLN | A | 424 | -0.674 | -26.678 | 13.804 | 1.00 | 37.29 | O |
| ATOM | 2065 | NE2 | GLN | A | 424 | -2.249 | -28.245 | 14.083 | 1.00 | 37.12 | N |
| ATOM | 2066 | N | LYS | A | 425 | -2.261 | -23.634 | 9.989 | 1.00 | 35.93 | N |
| ATOM | 2067 | CA | LYS | A | 425 | -2.624 | -23.377 | 8.605 | 1.00 | 36.90 | C |
| ATOM | 2068 | C | LYS | A | 425 | -1.397 | -23.162 | 7.728 | 1.00 | 39.00 | C |
| ATOM | 2069 | O | LYS | A | 425 | -1.510 | -22.727 | 6.581 | 1.00 | 40.88 | O |
| ATOM | 2070 | CB | LYS | A | 425 | -3.562 | -22.173 | 8.518 | 1.00 | 38.16 | C |
| ATOM | 2071 | CG | LYS | A | 425 | -5.034 | -22.569 | 8.453 | 1.00 | 37.02 | C |
| ATOM | 2072 | CD | LYS | A | 425 | -5.950 | -21.401 | 8.763 | 1.00 | 41.28 | C |
| ATOM | 2073 | CE | LYS | A | 425 | -7.343 | -21.637 | 8.194 | 1.00 | 45.56 | C |
| ATOM | 2074 | NZ | LYS | A | 425 | -8.353 | -20.701 | 8.780 | 1.00 | 51.01 | N |
| ATOM | 2075 | N | THR | A | 426 | -0.224 | -23.471 | 8.274 | 1.00 | 40.17 | N |
| ATOM | 2076 | CA | THR | A | 426 | 1.020 | -23.330 | 7.531 | 1.00 | 39.97 | C |
| ATOM | 2077 | C | THR | A | 426 | 1.382 | -24.658 | 6.884 | 1.00 | 43.79 | C |
| ATOM | 2078 | O | THR | A | 426 | 0.618 | -25.624 | 6.939 | 1.00 | 44.12 | O |
| ATOM | 2079 | CB | THR | A | 426 | 2.194 | -22.917 | 8.440 | 1.00 | 36.89 | C |
| ATOM | 2080 | OG1 | THR | A | 426 | 2.563 | -24.019 | 9.280 | 1.00 | 30.96 | O |
| ATOM | 2081 | CG2 | THR | A | 426 | 1.813 | -21.724 | 9.291 | 1.00 | 37.12 | C |
| ATOM | 2082 | N | LYS | A | 427 | 2.561 | -24.693 | 6.274 | 1.00 | 48.51 | N |
| ATOM | 2083 | CA | LYS | A | 427 | 3.063 | -25.888 | 5.607 | 1.00 | 49.16 | C |
| ATOM | 2084 | C | LYS | A | 427 | 3.454 | -26.947 | 6.632 | 1.00 | 47.24 | C |
| ATOM | 2085 | O | LYS | A | 427 | 3.631 | -28.113 | 6.284 | 1.00 | 47.48 | O |
| ATOM | 2086 | CB | LYS | A | 427 | 4.291 | -25.529 | 4.763 | 1.00 | 54.24 | C |
| ATOM | 2087 | CG | LYS | A | 427 | 4.158 | -25.815 | 3.278 | 1.00 | 60.26 | C |
| ATOM | 2088 | CD | LYS | A | 427 | 5.271 | -25.130 | 2.478 | 1.00 | 65.19 | C |
| ATOM | 2089 | CE | LYS | A | 427 | 6.617 | -25.833 | 2.661 | 1.00 | 65.55 | C |
| ATOM | 2090 | NZ | LYS | A | 427 | 6.754 | -27.031 | 1.782 | 1.00 | 65.06 | N |
| ATOM | 2091 | N | ASN | A | 428 | 3.586 | -26.537 | 7.894 | 1.00 | 45.18 | N |
| ATOM | 2092 | CA | ASN | A | 428 | 3.980 | -27.456 | 8.956 | 1.00 | 42.35 | C |
| ATOM | 2093 | C | ASN | A | 428 | 3.039 | -27.483 | 10.155 | 1.00 | 40.24 | C |
| ATOM | 2094 | O | ASN | A | 428 | 3.413 | -27.084 | 11.260 | 1.00 | 39.83 | O |
| ATOM | 2095 | CB | ASN | A | 428 | 5.392 | -27.115 | 9.435 | 1.00 | 47.04 | C |
| ATOM | 2096 | CG | ASN | A | 428 | 6.426 | -27.238 | 8.334 | 1.00 | 51.78 | C |
| ATOM | 2097 | OD1 | ASN | A | 428 | 6.532 | -26.370 | 7.464 | 1.00 | 52.24 | O |
| ATOM | 2098 | ND2 | ASN | A | 428 | 7.197 | -28.322 | 8.364 | 1.00 | 58.10 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2099 | N | PRO | A | 429 | 1.805 | -27.965 | 9.959 | 1.00 | 39.82 | N |
| ATOM | 2100 | CA | PRO | A | 429 | 0.858 | -28.019 | 11.075 | 1.00 | 37.58 | C |
| ATOM | 2101 | C | PRO | A | 429 | 1.337 | -29.037 | 12.095 | 1.00 | 39.40 | C |
| ATOM | 2102 | O | PRO | A | 429 | 2.012 | -30.003 | 11.741 | 1.00 | 41.56 | O |
| ATOM | 2103 | CB | PRO | A | 429 | -0.443 | -28.449 | 10.416 | 1.00 | 37.21 | C |
| ATOM | 2104 | CG | PRO | A | 429 | 0.005 | -29.225 | 9.221 | 1.00 | 38.72 | C |
| ATOM | 2105 | CD | PRO | A | 429 | 1.213 | -28.492 | 8.718 | 1.00 | 36.87 | C |
| ATOM | 2106 | N | ILE | A | 430 | 0.982 | -28.826 | 13.357 | 1.00 | 39.57 | N |
| ATOM | 2107 | CA | ILE | A | 430 | 1.387 | -29.736 | 14.420 | 1.00 | 38.20 | C |
| ATOM | 2108 | C | ILE | A | 430 | 0.387 | -30.880 | 14.580 | 1.00 | 38.66 | C |
| ATOM | 2109 | O | ILE | A | 430 | -0.823 | -30.660 | 14.581 | 1.00 | 39.20 | O |
| ATOM | 2110 | CB | ILE | A | 430 | 1.533 | -28.975 | 15.764 | 1.00 | 36.70 | C |
| ATOM | 2111 | CG1 | ILE | A | 430 | 2.582 | -27.866 | 15.616 | 1.00 | 35.16 | C |
| ATOM | 2112 | CG2 | ILE | A | 430 | 1.938 | -29.933 | 16.872 | 1.00 | 36.43 | C |
| ATOM | 2113 | CD1 | ILE | A | 430 | 2.699 | -26.948 | 16.820 | 1.00 | 34.78 | C |
| ATOM | 2114 | N | ASP | A | 431 | 0.907 | -32.100 | 14.707 | 1.00 | 38.46 | N |
| ATOM | 2115 | CA | ASP | A | 431 | 0.085 | -33.296 | 14.874 | 1.00 | 38.43 | C |
| ATOM | 2116 | C | ASP | A | 431 | -0.874 | -33.171 | 16.047 | 1.00 | 37.51 | C |
| ATOM | 2117 | O | ASP | A | 431 | -0.497 | -32.713 | 17.119 | 1.00 | 35.71 | O |
| ATOM | 2118 | CB | ASP | A | 431 | 0.972 | -34.523 | 15.103 | 1.00 | 43.86 | C |
| ATOM | 2119 | CG | ASP | A | 431 | 2.032 | -34.688 | 14.033 | 1.00 | 48.34 | C |
| ATOM | 2120 | OD1 | ASP | A | 431 | 1.842 | -34.150 | 12.920 | 1.00 | 51.51 | O |
| ATOM | 2121 | OD2 | ASP | A | 431 | 3.055 | -35.356 | 14.306 | 1.00 | 50.41 | O |
| ATOM | 2122 | N | LYS | A | 432 | -2.113 | -33.600 | 15.840 | 1.00 | 40.63 | N |
| ATOM | 2123 | CA | LYS | A | 432 | -3.133 | -33.541 | 16.881 | 1.00 | 42.27 | C |
| ATOM | 2124 | C | LYS | A | 432 | -2.664 | -34.229 | 18.155 | 1.00 | 41.34 | C |
| ATOM | 2125 | O | LYS | A | 432 | -2.831 | -33.701 | 19.253 | 1.00 | 41.26 | O |
| ATOM | 2126 | CB | LYS | A | 432 | -4.424 | -34.207 | 16.398 | 1.00 | 45.66 | C |
| ATOM | 2127 | CG | LYS | A | 432 | -4.749 | -33.956 | 14.931 | 1.00 | 55.97 | C |
| ATOM | 2128 | CD | LYS | A | 432 | -4.197 | -35.066 | 14.035 | 1.00 | 60.22 | C |
| ATOM | 2129 | CE | LYS | A | 432 | -5.194 | -35.453 | 12.949 | 1.00 | 61.31 | C |
| ATOM | 2130 | NZ | LYS | A | 432 | -4.524 | -35.645 | 11.630 | 1.00 | 63.38 | N |
| ATOM | 2131 | N | ASP | A | 433 | -2.077 | -35.409 | 18.005 | 1.00 | 42.31 | N |
| ATOM | 2132 | CA | ASP | A | 433 | -1.597 | -36.168 | 19.152 | 1.00 | 44.86 | C |
| ATOM | 2133 | C | ASP | A | 433 | -0.600 | -35.370 | 19.968 | 1.00 | 41.91 | C |
| ATOM | 2134 | O | ASP | A | 433 | -0.618 | -35.410 | 21.197 | 1.00 | 41.20 | O |
| ATOM | 2135 | CB | ASP | A | 433 | -0.934 | -37.468 | 18.696 | 1.00 | 51.82 | C |
| ATOM | 2136 | CG | ASP | A | 433 | -1.673 | -38.128 | 17.552 | 1.00 | 60.85 | C |
| ATOM | 2137 | OD1 | ASP | A | 433 | -1.845 | -37.470 | 16.499 | 1.00 | 66.09 | O |
| ATOM | 2138 | OD2 | ASP | A | 433 | -2.082 | -39.304 | 17.705 | 1.00 | 64.72 | O |
| ATOM | 2139 | N | LYS | A | 434 | 0.272 | -34.643 | 19.283 | 1.00 | 40.90 | N |
| ATOM | 2140 | CA | LYS | A | 434 | 1.285 | -33.854 | 19.969 | 1.00 | 40.42 | C |
| ATOM | 2141 | C | LYS | A | 434 | 0.696 | -32.731 | 20.806 | 1.00 | 39.43 | C |
| ATOM | 2142 | O | LYS | A | 434 | 1.289 | -32.335 | 21.804 | 1.00 | 42.45 | O |
| ATOM | 2143 | CB | LYS | A | 434 | 2.286 | -33.278 | 18.964 | 1.00 | 42.40 | C |
| ATOM | 2144 | CG | LYS | A | 434 | 3.559 | -34.091 | 18.841 | 1.00 | 41.24 | C |
| ATOM | 2145 | CD | LYS | A | 434 | 4.190 | -33.915 | 17.480 | 1.00 | 44.82 | C |
| ATOM | 2146 | CE | LYS | A | 434 | 5.702 | -33.875 | 17.582 | 1.00 | 44.59 | C |
| ATOM | 2147 | NZ | LYS | A | 434 | 6.326 | -33.665 | 16.242 | 1.00 | 50.95 | N |
| ATOM | 2148 | N | MET | A | 435 | -0.468 | -32.222 | 20.408 | 1.00 | 37.63 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2149 | CA | MET | A | 435 | -1.111 | -31.133 | 21.141 | 1.00 | 36.89 | C |
| ATOM | 2150 | C | MET | A | 435 | -2.021 | -31.643 | 22.256 | 1.00 | 36.14 | C |
| ATOM | 2151 | O | MET | A | 435 | -2.622 | -30.861 | 22.993 | 1.00 | 35.90 | O |
| ATOM | 2152 | CB | MET | A | 435 | -1.905 | -30.256 | 20.175 | 1.00 | 37.66 | C |
| ATOM | 2153 | CG | MET | A | 435 | -1.047 | -29.652 | 19.080 | 1.00 | 40.00 | C |
| ATOM | 2154 | SD | MET | A | 435 | -2.022 | -28.971 | 17.732 | 1.00 | 45.57 | S |
| ATOM | 2155 | CE | MET | A | 435 | -3.061 | -27.846 | 18.637 | 1.00 | 45.65 | C |
| ATOM | 2156 | N | GLN | A | 436 | -2.100 | -32.963 | 22.376 | 1.00 | 36.57 | N |
| ATOM | 2157 | CA | GLN | A | 436 | -2.922 | -33.631 | 23.385 | 1.00 | 36.08 | C |
| ATOM | 2158 | C | GLN | A | 436 | -2.670 | -33.131 | 24.801 | 1.00 | 34.26 | C |
| ATOM | 2159 | O | GLN | A | 436 | -3.602 | -32.878 | 25.560 | 1.00 | 32.57 | O |
| ATOM | 2160 | CB | GLN | A | 436 | -2.644 | -35.136 | 23.358 | 1.00 | 39.55 | C |
| ATOM | 2161 | CG | GLN | A | 436 | -3.862 | -35.990 | 23.561 | 1.00 | 46.35 | C |
| ATOM | 2162 | CD | GLN | A | 436 | -4.964 | -35.623 | 22.596 | 1.00 | 51.52 | C |
| ATOM | 2163 | OE1 | GLN | A | 436 | -6.147 | -35.686 | 22.934 | 1.00 | 55.23 | O |
| ATOM | 2164 | NE2 | GLN | A | 436 | -4.581 | -35.233 | 21.382 | 1.00 | 50.96 | N |
| ATOM | 2165 | N | THR | A | 437 | -1.395 | -33.013 | 25.152 | 1.00 | 31.79 | N |
| ATOM | 2166 | CA | THR | A | 437 | -0.997 | -32.586 | 26.480 | 1.00 | 28.81 | C |
| ATOM | 2167 | C | THR | A | 437 | -1.592 | -31.256 | 26.905 | 1.00 | 24.29 | C |
| ATOM | 2168 | O | THR | A | 437 | -1.707 | -30.986 | 28.098 | 1.00 | 26.47 | O |
| ATOM | 2169 | CB | THR | A | 437 | 0.541 | -32.503 | 26.588 | 1.00 | 32.70 | C |
| ATOM | 2170 | OG1 | THR | A | 437 | 1.053 | -31.701 | 25.517 | 1.00 | 34.73 | O |
| ATOM | 2171 | CG2 | THR | A | 437 | 1.155 | -33.892 | 26.502 | 1.00 | 36.27 | C |
| ATOM | 2172 | N | MET | A | 438 | -1.971 | -30.427 | 25.939 | 1.00 | 23.12 | N |
| ATOM | 2173 | CA | MET | A | 438 | -2.547 | -29.123 | 26.249 | 1.00 | 22.70 | C |
| ATOM | 2174 | C | MET | A | 438 | -3.706 | -29.254 | 27.226 | 1.00 | 22.95 | C |
| ATOM | 2175 | O | MET | A | 438 | -3.823 | -28.493 | 28.185 | 1.00 | 23.80 | O |
| ATOM | 2176 | CB | MET | A | 438 | -3.043 | -28.456 | 24.973 | 1.00 | 22.83 | C |
| ATOM | 2177 | CG | MET | A | 438 | -2.055 | -27.510 | 24.362 | 1.00 | 29.18 | C |
| ATOM | 2178 | SD | MET | A | 438 | -2.845 | -26.460 | 23.149 | 1.00 | 32.92 | S |
| ATOM | 2179 | CE | MET | A | 438 | -3.744 | -27.640 | 22.191 | 1.00 | 26.14 | C |
| ATOM | 2180 | N | TYR | A | 439 | -4.567 | -30.229 | 26.975 | 1.00 | 22.91 | N |
| ATOM | 2181 | CA | TYR | A | 439 | -5.722 | -30.445 | 27.832 | 1.00 | 24.71 | C |
| ATOM | 2182 | C | TYR | A | 439 | -5.286 | -30.951 | 29.189 | 1.00 | 25.18 | C |
| ATOM | 2183 | O | TYR | A | 439 | -6.018 | -30.819 | 30.172 | 1.00 | 28.97 | O |
| ATOM | 2184 | CB | TYR | A | 439 | -6.684 | -31.419 | 27.155 | 1.00 | 21.04 | C |
| ATOM | 2185 | CG | TYR | A | 439 | -6.990 | -30.990 | 25.742 | 1.00 | 22.54 | C |
| ATOM | 2186 | CD1 | TYR | A | 439 | -7.779 | -29.868 | 25.495 | 1.00 | 25.42 | C |
| ATOM | 2187 | CD2 | TYR | A | 439 | -6.439 | -31.660 | 24.652 | 1.00 | 25.04 | C |
| ATOM | 2188 | CE1 | TYR | A | 439 | -8.010 | -29.421 | 24.205 | 1.00 | 28.08 | C |
| ATOM | 2189 | CE2 | TYR | A | 439 | -6.662 | -31.222 | 23.353 | 1.00 | 28.88 | C |
| ATOM | 2190 | CZ | TYR | A | 439 | -7.450 | -30.100 | 23.137 | 1.00 | 30.28 | C |
| ATOM | 2191 | OH | TYR | A | 439 | -7.686 | -29.657 | 21.855 | 1.00 | 31.49 | O |
| ATOM | 2192 | N | HIS | A | 440 | -4.080 | -31.515 | 29.247 | 1.00 | 24.98 | N |
| ATOM | 2193 | CA | HIS | A | 440 | -3.544 | -32.008 | 30.509 | 1.00 | 20.66 | C |
| ATOM | 2194 | C | HIS | A | 440 | -3.114 | -30.810 | 31.345 | 1.00 | 18.67 | C |
| ATOM | 2195 | O | HIS | A | 440 | -3.232 | -30.826 | 32.568 | 1.00 | 20.24 | O |
| ATOM | 2196 | CB | HIS | A | 440 | -2.354 | -32.937 | 30.265 | 1.00 | 22.79 | C |
| ATOM | 2197 | CG | HIS | A | 440 | -1.936 | -33.707 | 31.476 | 1.00 | 23.79 | C |
| ATOM | 2198 | ND1 | HIS | A | 440 | -1.049 | -33.207 | 32.405 | 1.00 | 27.68 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2199 | CD2 | HIS | A | 440 | -2.285 | -34.939 | 31.914 | 1.00 | 27.02 | C |
| ATOM | 2200 | CE1 | HIS | A | 440 | -0.869 | -34.098 | 33.364 | 1.00 | 25.83 | C |
| ATOM | 2201 | NE2 | HIS | A | 440 | -1.608 | -35.158 | 33.090 | 1.00 | 27.78 | N |
| ATOM | 2202 | N | TRP | A | 441 | -2.624 | -29.761 | 30.690 | 1.00 | 17.90 | N |
| ATOM | 2203 | CA | TRP | A | 441 | -2.199 | -28.570 | 31.422 | 1.00 | 19.77 | C |
| ATOM | 2204 | C | TRP | A | 441 | -3.413 | -27.890 | 32.028 | 1.00 | 20.15 | C |
| ATOM | 2205 | O | TRP | A | 441 | -3.427 | -27.524 | 33.200 | 1.00 | 23.56 | O |
| ATOM | 2206 | CB | TRP | A | 441 | -1.527 | -27.544 | 30.507 | 1.00 | 22.37 | C |
| ATOM | 2207 | CG | TRP | A | 441 | -0.400 | -28.035 | 29.658 | 1.00 | 23.02 | C |
| ATOM | 2208 | CD1 | TRP | A | 441 | 0.419 | -29.107 | 29.892 | 1.00 | 20.31 | C |
| ATOM | 2209 | CD2 | TRP | A | 441 | 0.047 | -27.443 | 28.436 | 1.00 | 23.87 | C |
| ATOM | 2210 | NE1 | TRP | A | 441 | 1.352 | -29.215 | 28.885 | 1.00 | 22.59 | N |
| ATOM | 2211 | CE2 | TRP | A | 441 | 1.146 | -28.206 | 27.979 | 1.00 | 22.92 | C |
| ATOM | 2212 | CE3 | TRP | A | 441 | -0.374 | -26.339 | 27.681 | 1.00 | 23.83 | C |
| ATOM | 2213 | CZ2 | TRP | A | 441 | 1.831 | -27.899 | 26.797 | 1.00 | 23.63 | C |
| ATOM | 2214 | CZ3 | TRP | A | 441 | 0.308 | -26.035 | 26.507 | 1.00 | 27.24 | C |
| ATOM | 2215 | CH2 | TRP | A | 441 | 1.400 | -26.814 | 26.078 | 1.00 | 24.17 | C |
| ATOM | 2216 | N | ILE | A | 442 | -4.427 | -27.698 | 31.194 | 1.00 | 22.27 | N |
| ATOM | 2217 | CA | ILE | A | 442 | -5.649 | -27.041 | 31.618 | 1.00 | 22.42 | C |
| ATOM | 2218 | C | ILE | A | 442 | -6.276 | -27.741 | 32.823 | 1.00 | 18.56 | C |
| ATOM | 2219 | O | ILE | A | 442 | -6.490 | -27.128 | 33.872 | 1.00 | 18.77 | O |
| ATOM | 2220 | CB | ILE | A | 442 | -6.651 | -26.975 | 30.429 | 1.00 | 23.13 | C |
| ATOM | 2221 | CG1 | ILE | A | 442 | -6.048 | -26.124 | 29.303 | 1.00 | 22.83 | C |
| ATOM | 2222 | CG2 | ILE | A | 442 | -7.982 | -26.377 | 30.882 | 1.00 | 24.87 | C |
| ATOM | 2223 | CD1 | ILE | A | 442 | -6.752 | -26.242 | 27.954 | 1.00 | 20.90 | C |
| ATOM | 2224 | N | ASP | A | 443 | -6.536 | -29.034 | 32.683 | 1.00 | 19.50 | N |
| ATOM | 2225 | CA | ASP | A | 443 | -7.163 | -29.808 | 33.749 | 1.00 | 19.21 | C |
| ATOM | 2226 | C | ASP | A | 443 | -6.325 | -30.061 | 34.998 | 1.00 | 20.71 | C |
| ATOM | 2227 | O | ASP | A | 443 | -6.813 | -29.923 | 36.117 | 1.00 | 19.96 | O |
| ATOM | 2228 | CB | ASP | A | 443 | -7.629 | -31.154 | 33.193 | 1.00 | 19.87 | C |
| ATOM | 2229 | CG | ASP | A | 443 | -8.818 | -31.022 | 32.266 | 1.00 | 22.48 | C |
| ATOM | 2230 | OD1 | ASP | A | 443 | -9.530 | -29.999 | 32.341 | 1.00 | 22.32 | O |
| ATOM | 2231 | OD2 | ASP | A | 443 | -9.040 | -31.946 | 31.458 | 1.00 | 26.57 | O |
| ATOM | 2232 | N | LYS | A | 444 | -5.063 | -30.433 | 34.810 | 1.00 | 22.66 | N |
| ATOM | 2233 | CA | LYS | A | 444 | -4.187 | -30.751 | 35.934 | 1.00 | 17.15 | C |
| ATOM | 2234 | C | LYS | A | 444 | -3.388 | -29.588 | 36.507 | 1.00 | 16.13 | C |
| ATOM | 2235 | O | LYS | A | 444 | -3.151 | -29.530 | 37.714 | 1.00 | 15.89 | O |
| ATOM | 2236 | CB | LYS | A | 444 | -3.214 | -31.862 | 35.520 | 1.00 | 18.91 | C |
| ATOM | 2237 | CG | LYS | A | 444 | -3.763 | -33.274 | 35.641 | 1.00 | 21.94 | C |
| ATOM | 2238 | CD | LYS | A | 444 | -3.655 | -33.767 | 37.077 | 1.00 | 26.67 | C |
| ATOM | 2239 | CE | LYS | A | 444 | -2.856 | -35.060 | 37.188 | 1.00 | 27.62 | C |
| ATOM | 2240 | NZ | LYS | A | 444 | -2.739 | -35.510 | 38.617 | 1.00 | 28.79 | N |
| ATOM | 2241 | N | SER | A | 445 | -2.985 | -28.657 | 35.647 | 1.00 | 16.44 | N |
| ATOM | 2242 | CA | SER | A | 445 | -2.165 | -27.528 | 36.077 | 1.00 | 18.17 | C |
| ATOM | 2243 | C | SER | A | 445 | -2.881 | -26.223 | 36.372 | 1.00 | 15.50 | C |
| ATOM | 2244 | O | SER | A | 445 | -2.700 | -25.640 | 37.445 | 1.00 | 14.74 | O |
| ATOM | 2245 | CB | SER | A | 445 | -1.070 | -27.245 | 35.033 | 1.00 | 15.47 | C |
| ATOM | 2246 | OG | SER | A | 445 | -0.162 | -28.325 | 34.920 | 1.00 | 19.89 | O |
| ATOM | 2247 | N | PHE | A | 446 | -3.685 | -25.766 | 35.417 | 1.00 | 14.55 | N |
| ATOM | 2248 | CA | PHE | A | 446 | -4.377 | -24.488 | 35.546 | 1.00 | 17.56 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2249 | C | PHE | A | 446 | -5.665 | -24.445 | 36.351 | 1.00 | 15.83 | C |
| ATOM | 2250 | O | PHE | A | 446 | -5.784 | -23.669 | 37.303 | 1.00 | 14.50 | O |
| ATOM | 2251 | CB | PHE | A | 446 | -4.645 | -23.922 | 34.155 | 1.00 | 14.73 | C |
| ATOM | 2252 | CG | PHE | A | 446 | -3.408 | -23.478 | 33.440 | 1.00 | 17.93 | C |
| ATOM | 2253 | CD1 | PHE | A | 446 | -2.669 | -22.396 | 33.910 | 1.00 | 16.36 | C |
| ATOM | 2254 | CD2 | PHE | A | 446 | -2.987 | -24.130 | 32.288 | 1.00 | 16.91 | C |
| ATOM | 2255 | CE1 | PHE | A | 446 | -1.528 | -21.965 | 33.240 | 1.00 | 16.54 | C |
| ATOM | 2256 | CE2 | PHE | A | 446 | -1.848 | -23.709 | 31.609 | 1.00 | 20.00 | C |
| ATOM | 2257 | CZ | PHE | A | 446 | -1.117 | -22.621 | 32.086 | 1.00 | 18.49 | C |
| ATOM | 2258 | N | ALA | A | 447 | -6.625 | -25.276 | 35.960 | 1.00 | 18.91 | N |
| ATOM | 2259 | CA | ALA | A | 447 | -7.925 | -25.316 | 36.615 | 1.00 | 16.02 | C |
| ATOM | 2260 | C | ALA | A | 447 | -7.865 | -25.265 | 38.134 | 1.00 | 15.41 | C |
| ATOM | 2261 | O | ALA | A | 447 | -8.536 | -24.430 | 38.748 | 1.00 | 18.11 | O |
| ATOM | 2262 | CB | ALA | A | 447 | -8.703 | -26.552 | 36.148 | 1.00 | 14.32 | C |
| ATOM | 2263 | N | PRO | A | 448 | -7.044 | -26.133 | 38.771 | 1.00 | 13.88 | N |
| ATOM | 2264 | CA | PRO | A | 448 | -6.984 | -26.098 | 40.235 | 1.00 | 9.60 | C |
| ATOM | 2265 | C | PRO | A | 448 | -6.514 | -24.793 | 40.855 | 1.00 | 10.87 | C |
| ATOM | 2266 | O | PRO | A | 448 | -6.819 | -24.516 | 42.014 | 1.00 | 10.44 | O |
| ATOM | 2267 | CB | PRO | A | 448 | -6.067 | -27.276 | 40.594 | 1.00 | 7.41 | C |
| ATOM | 2268 | CG | PRO | A | 448 | -6.048 | -28.129 | 39.404 | 1.00 | 10.14 | C |
| ATOM | 2269 | CD | PRO | A | 448 | -6.173 | -27.190 | 38.236 | 1.00 | 11.16 | C |
| ATOM | 2270 | N | LEU | A | 449 | -5.798 | -23.982 | 40.087 | 1.00 | 12.49 | N |
| ATOM | 2271 | CA | LEU | A | 449 | -5.274 | -22.726 | 40.619 | 1.00 | 15.32 | C |
| ATOM | 2272 | C | LEU | A | 449 | -6.248 | -21.571 | 40.507 | 1.00 | 16.27 | C |
| ATOM | 2273 | O | LEU | A | 449 | -5.978 | -20.473 | 40.997 | 1.00 | 16.73 | O |
| ATOM | 2274 | CB | LEU | A | 449 | -3.970 | -22.365 | 39.906 | 1.00 | 13.20 | C |
| ATOM | 2275 | CG | LEU | A | 449 | -2.843 | -23.386 | 40.103 | 1.00 | 11.58 | C |
| ATOM | 2276 | CD1 | LEU | A | 449 | -1.585 | -22.962 | 39.320 | 1.00 | 8.48 | C |
| ATOM | 2277 | CD2 | LEU | A | 449 | -2.552 | -23.496 | 41.594 | 1.00 | 8.71 | C |
| ATOM | 2278 | N | LEU | A | 450 | -7.378 | -21.823 | 39.861 | 1.00 | 17.49 | N |
| ATOM | 2279 | CA | LEU | A | 450 | -8.402 | -20.795 | 39.675 | 1.00 | 18.34 | C |
| ATOM | 2280 | C | LEU | A | 450 | -9.542 | -20.985 | 40.668 | 1.00 | 18.77 | C |
| ATOM | 2281 | O | LEU | A | 450 | -10.206 | -22.023 | 40.669 | 1.00 | 19.83 | O |
| ATOM | 2282 | CB | LEU | A | 450 | -8.936 | -20.853 | 38.249 | 1.00 | 17.08 | C |
| ATOM | 2283 | CG | LEU | A | 450 | -7.914 | -20.508 | 37.164 | 1.00 | 18.47 | C |
| ATOM | 2284 | CD1 | LEU | A | 450 | -8.297 | -21.165 | 35.859 | 1.00 | 15.67 | C |
| ATOM | 2285 | CD2 | LEU | A | 450 | -7.845 | -18.995 | 37.004 | 1.00 | 19.69 | C |
| ATOM | 2286 | N | VAL | A | 451 | -9.748 | -19.988 | 41.525 | 1.00 | 15.81 | N |
| ATOM | 2287 | CA | VAL | A | 451 | -10.802 | -20.036 | 42.530 | 1.00 | 20.19 | C |
| ATOM | 2288 | C | VAL | A | 451 | -11.636 | -18.769 | 42.493 | 1.00 | 16.93 | C |
| ATOM | 2289 | O | VAL | A | 451 | -11.173 | -17.697 | 42.877 | 1.00 | 20.61 | O |
| ATOM | 2290 | CB | VAL | A | 451 | -10.223 | -20.195 | 43.945 | 1.00 | 22.25 | C |
| ATOM | 2291 | CG1 | VAL | A | 451 | -11.345 | -20.127 | 44.987 | 1.00 | 18.40 | C |
| ATOM | 2292 | CG2 | VAL | A | 451 | -9.492 | -21.519 | 44.045 | 1.00 | 25.53 | C |
| ATOM | 2293 | N | ASN | A | 452 | -12.874 | -18.906 | 42.033 | 1.00 | 18.13 | N |
| ATOM | 2294 | CA | ASN | A | 452 | -13.794 | -17.780 | 41.932 | 1.00 | 14.13 | C |
| ATOM | 2295 | C | ASN | A | 452 | -13.206 | -16.696 | 41.054 | 1.00 | 12.61 | C |
| ATOM | 2296 | O | ASN | A | 452 | -13.257 | -15.520 | 41.389 | 1.00 | 13.06 | O |
| ATOM | 2297 | CB | ASN | A | 452 | -14.121 | -17.227 | 43.324 | 1.00 | 11.24 | C |
| ATOM | 2298 | CG | ASN | A | 452 | -15.036 | -18.154 | 44.115 | 1.00 | 16.40 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2299 | OD1 | ASN | A | 452 | -15.906 | -18.815 | 43.544 | 1.00 | 19.80 | O |
| ATOM | 2300 | ND2 | ASN | A | 452 | -14.836 | -18.218 | 45.427 | 1.00 | 13.81 | N |
| ATOM | 2301 | N | GLY | A | 453 | -12.651 | -17.115 | 39.921 | 1.00 | 14.69 | N |
| ATOM | 2302 | CA | GLY | A | 453 | -12.052 | -16.186 | 38.975 | 1.00 | 17.99 | C |
| ATOM | 2303 | C | GLY | A | 453 | -10.654 | -15.675 | 39.315 | 1.00 | 17.12 | C |
| ATOM | 2304 | O | GLY | A | 453 | -10.088 | -14.871 | 38.566 | 1.00 | 14.09 | O |
| ATOM | 2305 | N | GLU | A | 454 | -10.103 | -16.141 | 40.436 | 1.00 | 16.23 | N |
| ATOM | 2306 | CA | GLU | A | 454 | -8.780 | -15.717 | 40.897 | 1.00 | 19.91 | C |
| ATOM | 2307 | C | GLU | A | 454 | -7.706 | -16.776 | 40.700 | 1.00 | 21.01 | C |
| ATOM | 2308 | O | GLU | A | 454 | -7.913 | -17.939 | 41.035 | 1.00 | 20.48 | O |
| ATOM | 2309 | CB | GLU | A | 454 | -8.832 | -15.353 | 42.384 | 1.00 | 15.21 | C |
| ATOM | 2310 | CG | GLU | A | 454 | -7.516 | -14.829 | 42.934 | 1.00 | 18.16 | C |
| ATOM | 2311 | CD | GLU | A | 454 | -7.667 | -14.204 | 44.300 | 1.00 | 21.47 | C |
| ATOM | 2312 | OE1 | GLU | A | 454 | -8.781 | -14.275 | 44.862 | 1.00 | 27.30 | O |
| ATOM | 2313 | OE2 | GLU | A | 454 | -6.679 | -13.643 | 44.816 | 1.00 | 15.96 | O |
| ATOM | 2314 | N | LEU | A | 455 | -6.559 | -16.361 | 40.161 | 1.00 | 21.58 | N |
| ATOM | 2315 | CA | LEU | A | 455 | -5.421 | -17.262 | 39.950 | 1.00 | 18.45 | C |
| ATOM | 2316 | C | LEU | A | 455 | -4.572 | -17.162 | 41.211 | 1.00 | 15.85 | C |
| ATOM | 2317 | O | LEU | A | 455 | -4.080 | -16.087 | 41.548 | 1.00 | 17.79 | O |
| ATOM | 2318 | CB | LEU | A | 455 | -4.612 | -16.811 | 38.737 | 1.00 | 17.87 | C |
| ATOM | 2319 | CG | LEU | A | 455 | -3.447 | -17.688 | 38.284 | 1.00 | 13.92 | C |
| ATOM | 2320 | CD1 | LEU | A | 455 | -3.861 | -19.144 | 38.184 | 1.00 | 14.68 | C |
| ATOM | 2321 | CD2 | LEU | A | 455 | -2.980 | -17.176 | 36.941 | 1.00 | 11.48 | C |
| ATOM | 2322 | N | MET | A | 456 | -4.418 | -18.279 | 41.914 | 1.00 | 15.93 | N |
| ATOM | 2323 | CA | MET | A | 456 | -3.664 | -18.309 | 43.163 | 1.00 | 14.51 | C |
| ATOM | 2324 | C | MET | A | 456 | -2.260 | -17.717 | 43.051 | 1.00 | 16.18 | C |
| ATOM | 2325 | O | MET | A | 456 | -1.436 | -18.196 | 42.280 | 1.00 | 14.86 | O |
| ATOM | 2326 | CB | MET | A | 456 | -3.574 | -19.741 | 43.677 | 1.00 | 16.35 | C |
| ATOM | 2327 | CG | MET | A | 456 | -4.834 | -20.229 | 44.382 | 1.00 | 21.54 | C |
| ATOM | 2328 | SD | MET | A | 456 | -4.710 | -21.951 | 44.897 | 1.00 | 21.38 | S |
| ATOM | 2329 | CE | MET | A | 456 | -6.433 | -22.355 | 45.345 | 1.00 | 21.14 | C |
| ATOM | 2330 | N | ASP | A | 457 | -2.003 | -16.687 | 43.849 | 1.00 | 15.17 | N |
| ATOM | 2331 | CA | ASP | A | 457 | -0.719 | -15.983 | 43.867 | 1.00 | 17.63 | C |
| ATOM | 2332 | C | ASP | A | 457 | 0.518 | -16.855 | 44.114 | 1.00 | 18.73 | C |
| ATOM | 2333 | O | ASP | A | 457 | 1.612 | -16.558 | 43.613 | 1.00 | 19.57 | O |
| ATOM | 2334 | CB | ASP | A | 457 | -0.761 | -14.883 | 44.930 | 1.00 | 15.63 | C |
| ATOM | 2335 | CG | ASP | A | 457 | -1.684 | -13.735 | 44.555 | 1.00 | 15.74 | C |
| ATOM | 2336 | OD1 | ASP | A | 457 | -1.885 | -13.486 | 43.344 | 1.00 | 15.90 | O |
| ATOM | 2337 | OD2 | ASP | A | 457 | -2.201 | -13.080 | 45.483 | 1.00 | 17.88 | O |
| ATOM | 2338 | N | MET | A | 458 | 0.354 | -17.917 | 44.896 | 1.00 | 19.33 | N |
| ATOM | 2339 | CA | MET | A | 458 | 1.471 | -18.796 | 45.210 | 1.00 | 19.71 | C |
| ATOM | 2340 | C | MET | A | 458 | 2.102 | -19.410 | 43.969 | 1.00 | 20.07 | C |
| ATOM | 2341 | O | MET | A | 458 | 3.157 | -20.043 | 44.053 | 1.00 | 22.71 | O |
| ATOM | 2342 | CB | MET | A | 458 | 1.014 | -19.898 | 46.174 | 1.00 | 19.63 | C |
| ATOM | 2343 | CG | MET | A | 458 | 0.335 | -21.096 | 45.521 | 1.00 | 13.75 | C |
| ATOM | 2344 | SD | MET | A | 458 | -0.254 | -22.294 | 46.737 | 1.00 | 17.93 | S |
| ATOM | 2345 | CE | MET | A | 458 | -1.181 | -23.373 | 45.682 | 1.00 | 12.17 | C |
| ATOM | 2346 | N | SER | A | 459 | 1.472 | -19.201 | 42.816 | 1.00 | 14.22 | N |
| ATOM | 2347 | CA | SER | A | 459 | 1.961 | -19.767 | 41.562 | 1.00 | 13.89 | C |
| ATOM | 2348 | C | SER | A | 459 | 2.380 | -18.711 | 40.564 | 1.00 | 10.66 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2349 | O | SER | A | 459 | 2.741 | -19.033 | 39.434 | 1.00 | 11.51 | O |
| ATOM | 2350 | CB | SER | A | 459 | 0.869 | -20.622 | 40.917 | 1.00 | 17.13 | C |
| ATOM | 2351 | OG | SER | A | 459 | -0.080 | -19.807 | 40.233 | 1.00 | 18.90 | O |
| ATOM | 2352 | N | ARG | A | 460 | 2.332 | -17.452 | 40.981 | 1.00 | 15.24 | N |
| ATOM | 2353 | CA | ARG | A | 460 | 2.655 | -16.347 | 40.086 | 1.00 | 15.91 | C |
| ATOM | 2354 | C | ARG | A | 460 | 4.028 | -15.694 | 40.276 | 1.00 | 16.80 | C |
| ATOM | 2355 | O | ARG | A | 460 | 4.306 | -14.637 | 39.708 | 1.00 | 16.57 | O |
| ATOM | 2356 | CB | ARG | A | 460 | 1.545 | -15.293 | 40.180 | 1.00 | 17.27 | C |
| ATOM | 2357 | CG | ARG | A | 460 | 0.131 | -15.906 | 40.159 | 1.00 | 13.61 | C |
| ATOM | 2358 | CD | ARG | A | 460 | -0.940 | -14.894 | 39.750 | 1.00 | 14.01 | C |
| ATOM | 2359 | NE | ARG | A | 460 | -1.083 | -13.816 | 40.726 | 1.00 | 13.20 | N |
| ATOM | 2360 | CZ | ARG | A | 460 | -0.716 | -12.563 | 40.498 | 1.00 | 11.13 | C |
| ATOM | 2361 | NH1 | ARG | A | 460 | -0.187 | -12.243 | 39.328 | 1.00 | 13.77 | N |
| ATOM | 2362 | NH2 | ARG | A | 460 | -0.888 | -11.630 | 41.430 | 1.00 | 15.57 | N |
| ATOM | 2363 | N | GLY | A | 461 | 4.883 | -16.329 | 41.067 | 1.00 | 18.89 | N |
| ATOM | 2364 | CA | GLY | A | 461 | 6.218 | -15.797 | 41.280 | 1.00 | 14.06 | C |
| ATOM | 2365 | C | GLY | A | 461 | 6.286 | -14.331 | 41.645 | 1.00 | 13.90 | C |
| ATOM | 2366 | O | GLY | A | 461 | 5.629 | -13.895 | 42.578 | 1.00 | 16.29 | O |
| ATOM | 2367 | N | ARG | A | 462 | 7.084 | -13.566 | 40.906 | 1.00 | 14.74 | N |
| ATOM | 2368 | CA | ARG | A | 462 | 7.260 | -12.151 | 41.191 | 1.00 | 17.87 | C |
| ATOM | 2369 | C | ARG | A | 462 | 6.178 | -11.262 | 40.591 | 1.00 | 15.90 | C |
| ATOM | 2370 | O | ARG | A | 462 | 6.136 | -10.061 | 40.856 | 1.00 | 18.39 | O |
| ATOM | 2371 | CB | ARG | A | 462 | 8.650 | -11.687 | 40.718 | 1.00 | 18.34 | C |
| ATOM | 2372 | CG | ARG | A | 462 | 8.854 | -11.702 | 39.212 | 1.00 | 20.30 | C |
| ATOM | 2373 | CD | ARG | A | 462 | 10.278 | -11.261 | 38.820 | 1.00 | 19.42 | C |
| ATOM | 2374 | NE | ARG | A | 462 | 10.312 | -10.732 | 37.459 | 1.00 | 17.17 | N |
| ATOM | 2375 | CZ | ARG | A | 462 | 10.464 | -11.482 | 36.376 | 1.00 | 17.45 | C |
| ATOM | 2376 | NH1 | ARG | A | 462 | 10.600 | -12.793 | 36.495 | 1.00 | 17.51 | N |
| ATOM | 2377 | NH2 | ARG | A | 462 | 10.442 | -10.926 | 35.175 | 1.00 | 18.82 | N |
| ATOM | 2378 | N | SER | A | 463 | 5.303 | -11.854 | 39.788 | 1.00 | 17.91 | N |
| ATOM | 2379 | CA | SER | A | 463 | 4.216 | -11.111 | 39.160 | 1.00 | 17.32 | C |
| ATOM | 2380 | C | SER | A | 463 | 3.289 | -10.487 | 40.191 | 1.00 | 16.29 | C |
| ATOM | 2381 | O | SER | A | 463 | 2.616 | -9.499 | 39.911 | 1.00 | 21.20 | O |
| ATOM | 2382 | CB | SER | A | 463 | 3.405 | -12.038 | 38.265 | 1.00 | 15.79 | C |
| ATOM | 2383 | OG | SER | A | 463 | 3.993 | -12.114 | 36.988 | 1.00 | 24.37 | O |
| ATOM | 2384 | N | ILE | A | 464 | 3.262 | -11.068 | 41.385 | 1.00 | 15.31 | N |
| ATOM | 2385 | CA | ILE | A | 464 | 2.399 | -10.593 | 42.457 | 1.00 | 15.12 | C |
| ATOM | 2386 | C | ILE | A | 464 | 2.722 | -9.171 | 42.873 | 1.00 | 20.08 | C |
| ATOM | 2387 | O | ILE | A | 464 | 1.904 | -8.505 | 43.506 | 1.00 | 19.60 | O |
| ATOM | 2388 | CB | ILE | A | 464 | 2.506 | -11.497 | 43.718 | 1.00 | 16.86 | C |
| ATOM | 2389 | CG1 | ILE | A | 464 | 3.911 | -11.390 | 44.312 | 1.00 | 15.32 | C |
| ATOM | 2390 | CG2 | ILE | A | 464 | 2.191 | -12.953 | 43.357 | 1.00 | 14.53 | C |
| ATOM | 2391 | CD1 | ILE | A | 464 | 4.075 | -12.080 | 45.634 | 1.00 | 12.65 | C |
| ATOM | 2392 | N | SER | A | 465 | 3.915 | -8.704 | 42.520 | 1.00 | 18.11 | N |
| ATOM | 2393 | CA | SER | A | 465 | 4.339 | -7.362 | 42.898 | 1.00 | 16.99 | C |
| ATOM | 2394 | C | SER | A | 465 | 3.928 | -6.341 | 41.861 | 1.00 | 15.16 | C |
| ATOM | 2395 | O | SER | A | 465 | 4.274 | -5.171 | 41.976 | 1.00 | 19.49 | O |
| ATOM | 2396 | CB | SER | A | 465 | 5.861 | -7.319 | 43.086 | 1.00 | 15.42 | C |
| ATOM | 2397 | OG | SER | A | 465 | 6.527 | -7.648 | 41.875 | 1.00 | 20.68 | O |
| ATOM | 2398 | N | ARG | A | 466 | 3.201 | -6.787 | 40.845 | 1.00 | 15.66 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2399 | CA | ARG | A | 466 | 2.741 | -5.895 | 39.787 | 1.00 | 19.61 | C |
| ATOM | 2400 | C | ARG | A | 466 | 1.307 | -5.434 | 40.076 | 1.00 | 23.96 | C |
| ATOM | 2401 | O | ARG | A | 466 | 0.400 | -6.252 | 40.266 | 1.00 | 23.41 | O |
| ATOM | 2402 | CB | ARG | A | 466 | 2.819 | -6.611 | 38.444 | 1.00 | 19.65 | C |
| ATOM | 2403 | CG | ARG | A | 466 | 4.244 | -6.882 | 38.014 | 1.00 | 17.76 | C |
| ATOM | 2404 | CD | ARG | A | 466 | 4.305 | -7.910 | 36.910 | 1.00 | 22.70 | C |
| ATOM | 2405 | NE | ARG | A | 466 | 5.680 | -8.327 | 36.656 | 1.00 | 25.78 | N |
| ATOM | 2406 | CZ | ARG | A | 466 | 6.027 | -9.257 | 35.777 | 1.00 | 26.98 | C |
| ATOM | 2407 | NH1 | ARG | A | 466 | 5.101 | -9.874 | 35.061 | 1.00 | 27.70 | N |
| ATOM | 2408 | NH2 | ARG | A | 466 | 7.301 | -9.575 | 35.622 | 1.00 | 28.25 | N |
| ATOM | 2409 | N | ALA | A | 467 | 1.114 | -4.120 | 40.113 | 1.00 | 21.61 | N |
| ATOM | 2410 | CA | ALA | A | 467 | -0.187 | -3.540 | 40.417 | 1.00 | 21.01 | C |
| ATOM | 2411 | C | ALA | A | 467 | -1.278 | -3.859 | 39.397 | 1.00 | 21.33 | C |
| ATOM | 2412 | O | ALA | A | 467 | -2.440 | -4.037 | 39.762 | 1.00 | 24.96 | O |
| ATOM | 2413 | CB | ALA | A | 467 | -0.048 | -2.031 | 40.581 | 1.00 | 14.43 | C |
| ATOM | 2414 | N | ASN | A | 468 | -0.903 | -3.936 | 38.127 | 1.00 | 22.73 | N |
| ATOM | 2415 | CA | ASN | A | 468 | -1.852 | -4.222 | 37.059 | 1.00 | 19.02 | C |
| ATOM | 2416 | C | ASN | A | 468 | -2.041 | -5.712 | 36.819 | 1.00 | 17.66 | C |
| ATOM | 2417 | O | ASN | A | 468 | -2.566 | -6.110 | 35.779 | 1.00 | 21.52 | O |
| ATOM | 2418 | CB | ASN | A | 468 | -1.394 | -3.560 | 35.753 | 1.00 | 21.47 | C |
| ATOM | 2419 | CG | ASN | A | 468 | -0.046 | -4.096 | 35.251 | 1.00 | 30.47 | C |
| ATOM | 2420 | OD1 | ASN | A | 468 | 0.260 | -4.021 | 34.056 | 1.00 | 31.56 | O |
| ATOM | 2421 | ND2 | ASN | A | 468 | 0.760 | -4.635 | 36.162 | 1.00 | 28.68 | N |
| ATOM | 2422 | N | SER | A | 469 | -1.631 | -6.543 | 37.769 | 1.00 | 16.90 | N |
| ATOM | 2423 | CA | SER | A | 469 | -1.753 | -7.980 | 37.571 | 1.00 | 16.86 | C |
| ATOM | 2424 | C | SER | A | 469 | -2.164 | -8.737 | 38.807 | 1.00 | 18.32 | C |
| ATOM | 2425 | O | SER | A | 469 | -1.616 | -9.805 | 39.089 | 1.00 | 21.39 | O |
| ATOM | 2426 | CB | SER | A | 469 | -0.430 | -8.568 | 37.074 | 1.00 | 22.46 | C |
| ATOM | 2427 | OG | SER | A | 469 | 0.123 | -7.793 | 36.030 | 1.00 | 29.23 | O |
| ATOM | 2428 | N | GLU | A | 470 | -3.118 | -8.214 | 39.559 | 1.00 | 15.12 | N |
| ATOM | 2429 | CA | GLU | A | 470 | -3.526 | -8.951 | 40.731 | 1.00 | 13.17 | C |
| ATOM | 2430 | C | GLU | A | 470 | -4.231 | -10.245 | 40.287 | 1.00 | 10.80 | C |
| ATOM | 2431 | O | GLU | A | 470 | -4.504 | -10.443 | 39.103 | 1.00 | 9.66 | O |
| ATOM | 2432 | CB | GLU | A | 470 | -4.380 | -8.060 | 41.620 | 1.00 | 17.37 | C |
| ATOM | 2433 | CG | GLU | A | 470 | -3.546 | -6.952 | 42.255 | 1.00 | 15.41 | C |
| ATOM | 2434 | CD | GLU | A | 470 | -4.371 | -5.943 | 43.017 | 1.00 | 19.23 | C |
| ATOM | 2435 | OE1 | GLU | A | 470 | -5.450 | -5.560 | 42.513 | 1.00 | 25.87 | O |
| ATOM | 2436 | OE2 | GLU | A | 470 | -3.944 | -5.530 | 44.121 | 1.00 | 20.17 | O |
| ATOM | 2437 | N | GLY | A | 471 | -4.482 | -11.133 | 41.238 | 1.00 | 11.94 | N |
| ATOM | 2438 | CA | GLY | A | 471 | -5.081 | -12.429 | 40.948 | 1.00 | 16.67 | C |
| ATOM | 2439 | C | GLY | A | 471 | -6.163 | -12.635 | 39.902 | 1.00 | 14.98 | C |
| ATOM | 2440 | O | GLY | A | 471 | -6.046 | -13.536 | 39.070 | 1.00 | 12.72 | O |
| ATOM | 2441 | N | HIS | A | 472 | -7.224 | -11.832 | 39.953 | 1.00 | 16.99 | N |
| ATOM | 2442 | CA | HIS | A | 472 | -8.331 | -11.963 | 39.009 | 1.00 | 15.44 | C |
| ATOM | 2443 | C | HIS | A | 472 | -7.921 | -11.528 | 37.611 | 1.00 | 14.25 | C |
| ATOM | 2444 | O | HIS | A | 472 | -8.353 | -12.110 | 36.616 | 1.00 | 13.95 | O |
| ATOM | 2445 | CB | HIS | A | 472 | -9.529 | -11.146 | 39.502 | 1.00 | 16.97 | C |
| ATOM | 2446 | CG | HIS | A | 472 | -10.169 | -11.706 | 40.739 | 1.00 | 18.34 | C |
| ATOM | 2447 | ND1 | HIS | A | 472 | -11.220 | -12.599 | 40.696 | 1.00 | 17.78 | N |
| ATOM | 2448 | CD2 | HIS | A | 472 | -9.882 | -11.529 | 42.052 | 1.00 | 17.32 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2449 | CE1 | HIS | A | 472 | -11.550 | -12.949 | 41.928 | 1.00 | 17.83 | C |
| ATOM | 2450 | NE2 | HIS | A | 472 | -10.753 | -12.313 | 42.768 | 1.00 | 17.14 | N |
| ATOM | 2451 | N | VAL | A | 473 | -7.063 | -10.515 | 37.541 | 1.00 | 16.37 | N |
| ATOM | 2452 | CA | VAL | A | 473 | -6.569 | -10.018 | 36.261 | 1.00 | 15.29 | C |
| ATOM | 2453 | C | VAL | A | 473 | -5.681 | -11.076 | 35.595 | 1.00 | 18.01 | C |
| ATOM | 2454 | O | VAL | A | 473 | -5.826 | -11.373 | 34.410 | 1.00 | 16.17 | O |
| ATOM | 2455 | CB | VAL | A | 473 | -5.740 | -8.724 | 36.454 | 1.00 | 18.65 | C |
| ATOM | 2456 | CG1 | VAL | A | 473 | -5.329 | -8.149 | 35.098 | 1.00 | 16.48 | C |
| ATOM | 2457 | CG2 | VAL | A | 473 | -6.545 | -7.707 | 37.247 | 1.00 | 15.30 | C |
| ATOM | 2458 | N | ALA | A | 474 | -4.761 | -11.643 | 36.367 | 1.00 | 21.45 | N |
| ATOM | 2459 | CA | ALA | A | 474 | -3.854 | -12.662 | 35.851 | 1.00 | 18.55 | C |
| ATOM | 2460 | C | ALA | A | 474 | -4.627 | -13.868 | 35.352 | 1.00 | 18.33 | C |
| ATOM | 2461 | O | ALA | A | 474 | -4.285 | -14.451 | 34.328 | 1.00 | 17.48 | O |
| ATOM | 2462 | CB | ALA | A | 474 | -2.878 | -13.086 | 36.938 | 1.00 | 19.68 | C |
| ATOM | 2463 | N | ALA | A | 475 | -5.673 | -14.241 | 36.083 | 1.00 | 21.23 | N |
| ATOM | 2464 | CA | ALA | A | 475 | -6.510 | -15.383 | 35.714 | 1.00 | 17.72 | C |
| ATOM | 2465 | C | ALA | A | 475 | -7.106 | -15.249 | 34.318 | 1.00 | 17.28 | C |
| ATOM | 2466 | O | ALA | A | 475 | -7.223 | -16.237 | 33.593 | 1.00 | 20.14 | O |
| ATOM | 2467 | CB | ALA | A | 475 | -7.630 | -15.565 | 36.739 | 1.00 | 17.04 | C |
| ATOM | 2468 | N | VAL | A | 476 | -7.479 | -14.035 | 33.930 | 1.00 | 17.22 | N |
| ATOM | 2469 | CA | VAL | A | 476 | -8.069 | -13.840 | 32.611 | 1.00 | 17.86 | C |
| ATOM | 2470 | C | VAL | A | 476 | -7.074 | -14.202 | 31.517 | 1.00 | 19.31 | C |
| ATOM | 2471 | O | VAL | A | 476 | -7.453 | -14.580 | 30.410 | 1.00 | 21.69 | O |
| ATOM | 2472 | CB | VAL | A | 476 | -8.550 | -12.389 | 32.422 | 1.00 | 15.78 | C |
| ATOM | 2473 | CG1 | VAL | A | 476 | -9.146 | -12.215 | 31.035 | 1.00 | 14.84 | C |
| ATOM | 2474 | CG2 | VAL | A | 476 | -9.577 | -12.049 | 33.489 | 1.00 | 19.93 | C |
| ATOM | 2475 | N | GLU | A | 477 | -5.792 | -14.078 | 31.836 | 1.00 | 22.48 | N |
| ATOM | 2476 | CA | GLU | A | 477 | -4.723 | -14.413 | 30.901 | 1.00 | 21.17 | C |
| ATOM | 2477 | C | GLU | A | 477 | -4.817 | -15.898 | 30.562 | 1.00 | 17.16 | C |
| ATOM | 2478 | O | GLU | A | 477 | -4.684 | -16.297 | 29.408 | 1.00 | 18.24 | O |
| ATOM | 2479 | CB | GLU | A | 477 | -3.382 | -14.143 | 31.557 | 1.00 | 26.95 | C |
| ATOM | 2480 | CG | GLU | A | 477 | -2.359 | -13.511 | 30.674 | 1.00 | 30.55 | C |
| ATOM | 2481 | CD | GLU | A | 477 | -1.283 | -12.861 | 31.494 | 1.00 | 30.70 | C |
| ATOM | 2482 | OE1 | GLU | A | 477 | -1.026 | -11.662 | 31.280 | 1.00 | 33.24 | O |
| ATOM | 2483 | OE2 | GLU | A | 477 | -0.710 | -13.552 | 32.363 | 1.00 | 27.24 | O |
| ATOM | 2484 | N | VAL | A | 478 | -5.034 | -16.711 | 31.592 | 1.00 | 14.74 | N |
| ATOM | 2485 | CA | VAL | A | 478 | -5.160 | -18.149 | 31.416 | 1.00 | 14.40 | C |
| ATOM | 2486 | C | VAL | A | 478 | -6.505 | -18.461 | 30.752 | 1.00 | 18.71 | C |
| ATOM | 2487 | O | VAL | A | 478 | -6.569 | -19.182 | 29.752 | 1.00 | 19.17 | O |
| ATOM | 2488 | CB | VAL | A | 478 | -5.105 | -18.873 | 32.768 | 1.00 | 13.57 | C |
| ATOM | 2489 | CG1 | VAL | A | 478 | -5.286 | -20.344 | 32.556 | 1.00 | 15.57 | C |
| ATOM | 2490 | CG2 | VAL | A | 478 | -3.780 | -18.615 | 33.457 | 1.00 | 15.62 | C |
| ATOM | 2491 | N | LEU | A | 479 | -7.577 | -17.899 | 31.311 | 1.00 | 20.29 | N |
| ATOM | 2492 | CA | LEU | A | 479 | -8.924 | -18.113 | 30.793 | 1.00 | 17.71 | C |
| ATOM | 2493 | C | LEU | A | 479 | -9.057 | -17.789 | 29.303 | 1.00 | 18.89 | C |
| ATOM | 2494 | O | LEU | A | 479 | -9.616 | -18.590 | 28.549 | 1.00 | 22.14 | O |
| ATOM | 2495 | CB | LEU | A | 479 | -9.932 | -17.299 | 31.615 | 1.00 | 17.55 | C |
| ATOM | 2496 | CG | LEU | A | 479 | -10.153 | -17.844 | 33.033 | 1.00 | 19.23 | C |
| ATOM | 2497 | CD1 | LEU | A | 479 | -10.778 | -16.774 | 33.903 | 1.00 | 15.80 | C |
| ATOM | 2498 | CD2 | LEU | A | 479 | -11.045 | -19.090 | 32.990 | 1.00 | 17.09 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2499 | N | ARG | A | 480 | -8.547 | -16.641 | 28.856 | 1.00 | 17.46 | N |
| ATOM | 2500 | CA | ARG | A | 480 | -8.656 | -16.313 | 27.434 | 1.00 | 16.35 | C |
| ATOM | 2501 | C | ARG | A | 480 | -7.880 | -17.309 | 26.583 | 1.00 | 16.83 | C |
| ATOM | 2502 | O | ARG | A | 480 | -8.226 | -17.571 | 25.425 | 1.00 | 15.98 | O |
| ATOM | 2503 | CB | ARG | A | 480 | -8.172 | -14.886 | 27.155 | 1.00 | 18.64 | C |
| ATOM | 2504 | CG | ARG | A | 480 | -6.764 | -14.577 | 27.598 | 1.00 | 20.72 | C |
| ATOM | 2505 | CD | ARG | A | 480 | -6.535 | -13.075 | 27.623 | 1.00 | 21.96 | C |
| ATOM | 2506 | NE | ARG | A | 480 | -5.149 | -12.739 | 27.322 | 1.00 | 20.80 | N |
| ATOM | 2507 | CZ | ARG | A | 480 | -4.586 | -11.570 | 27.598 | 1.00 | 22.57 | C |
| ATOM | 2508 | NH1 | ARG | A | 480 | -5.292 | -10.613 | 28.182 | 1.00 | 16.68 | N |
| ATOM | 2509 | NH2 | ARG | A | 480 | -3.308 | -11.361 | 27.301 | 1.00 | 21.96 | N |
| ATOM | 2510 | N | GLY | A | 481 | -6.828 | -17.875 | 27.160 | 1.00 | 18.19 | N |
| ATOM | 2511 | CA | GLY | A | 481 | -6.050 | -18.858 | 26.430 | 1.00 | 16.35 | C |
| ATOM | 2512 | C | GLY | A | 481 | -6.865 | -20.133 | 26.326 | 1.00 | 15.70 | C |
| ATOM | 2513 | O | GLY | A | 481 | -7.019 | -20.712 | 25.249 | 1.00 | 15.53 | O |
| ATOM | 2514 | N | ILE | A | 482 | -7.391 | -20.570 | 27.462 | 1.00 | 16.77 | N |
| ATOM | 2515 | CA | ILE | A | 482 | -8.218 | -21.766 | 27.511 | 1.00 | 21.16 | C |
| ATOM | 2516 | C | ILE | A | 482 | -9.400 | -21.643 | 26.544 | 1.00 | 20.47 | C |
| ATOM | 2517 | O | ILE | A | 482 | -9.700 | -22.578 | 25.800 | 1.00 | 20.98 | O |
| ATOM | 2518 | CB | ILE | A | 482 | -8.754 | -21.996 | 28.938 | 1.00 | 18.22 | C |
| ATOM | 2519 | CG1 | ILE | A | 482 | -7.582 | -22.279 | 29.882 | 1.00 | 19.48 | C |
| ATOM | 2520 | CG2 | ILE | A | 482 | -9.749 | -23.139 | 28.940 | 1.00 | 21.46 | C |
| ATOM | 2521 | CD1 | ILE | A | 482 | -7.971 | -22.450 | 31.338 | 1.00 | 16.55 | C |
| ATOM | 2522 | N | HIS | A | 483 | -10.057 | -20.482 | 26.549 | 1.00 | 23.12 | N |
| ATOM | 2523 | CA | HIS | A | 483 | -11.206 | -20.253 | 25.677 | 1.00 | 22.39 | C |
| ATOM | 2524 | C | HIS | A | 483 | -10.815 | -20.352 | 24.212 | 1.00 | 21.89 | C |
| ATOM | 2525 | O | HIS | A | 483 | -11.537 | -20.942 | 23.407 | 1.00 | 21.17 | O |
| ATOM | 2526 | CB | HIS | A | 483 | -11.822 | -18.880 | 25.958 | 1.00 | 28.75 | C |
| ATOM | 2527 | CG | HIS | A | 483 | -13.232 | -18.736 | 25.471 | 1.00 | 33.99 | C |
| ATOM | 2528 | ND1 | HIS | A | 483 | -13.844 | -19.676 | 24.667 | 1.00 | 36.75 | N |
| ATOM | 2529 | CD2 | HIS | A | 483 | -14.147 | -17.756 | 25.664 | 1.00 | 34.94 | C |
| ATOM | 2530 | CE1 | HIS | A | 483 | -15.073 | -19.282 | 24.386 | 1.00 | 34.79 | C |
| ATOM | 2531 | NE2 | HIS | A | 483 | -15.283 | -18.120 | 24.980 | 1.00 | 36.71 | N |
| ATOM | 2532 | N | ARG | A | 484 | -9.671 | -19.776 | 23.858 | 1.00 | 22.63 | N |
| ATOM | 2533 | CA | ARG | A | 484 | -9.204 | -19.833 | 22.477 | 1.00 | 19.09 | C |
| ATOM | 2534 | C | ARG | A | 484 | -8.974 | -21.286 | 22.075 | 1.00 | 19.68 | C |
| ATOM | 2535 | O | ARG | A | 484 | -9.270 | -21.683 | 20.951 | 1.00 | 21.83 | O |
| ATOM | 2536 | CB | ARG | A | 484 | -7.902 | -19.056 | 22.325 | 1.00 | 20.96 | C |
| ATOM | 2537 | CG | ARG | A | 484 | -8.054 | -17.552 | 22.354 | 1.00 | 23.05 | C |
| ATOM | 2538 | CD | ARG | A | 484 | -6.725 | -16.890 | 22.046 | 1.00 | 21.70 | C |
| ATOM | 2539 | NE | ARG | A | 484 | -6.626 | -15.565 | 22.636 | 1.00 | 21.15 | N |
| ATOM | 2540 | CZ | ARG | A | 484 | -5.691 | -15.198 | 23.500 | 1.00 | 16.17 | C |
| ATOM | 2541 | NH1 | ARG | A | 484 | -4.763 | -16.059 | 23.883 | 1.00 | 19.08 | N |
| ATOM | 2542 | NH2 | ARG | A | 484 | -5.684 | -13.965 | 23.980 | 1.00 | 21.28 | N |
| ATOM | 2543 | N | ILE | A | 485 | -8.438 | -22.077 | 22.999 | 1.00 | 21.78 | N |
| ATOM | 2544 | CA | ILE | A | 485 | -8.169 | -23.490 | 22.739 | 1.00 | 23.68 | C |
| ATOM | 2545 | C | ILE | A | 485 | -9.477 | -24.267 | 22.546 | 1.00 | 24.37 | C |
| ATOM | 2546 | O | ILE | A | 485 | -9.612 | -25.057 | 21.609 | 1.00 | 20.30 | O |
| ATOM | 2547 | CB | ILE | A | 485 | -7.358 | -24.118 | 23.897 | 1.00 | 21.64 | C |
| ATOM | 2548 | CG1 | ILE | A | 485 | -5.929 | -23.571 | 23.871 | 1.00 | 24.52 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2549 | CG2 | ILE | A | 485 | -7.329 | -25.638 | 23.762 | 1.00 | 22.35 | C |
| ATOM | 2550 | CD1 | ILE | A | 485 | -5.186 | -23.750 | 25.167 | 1.00 | 26.40 | C |
| ATOM | 2551 | N | ALA | A | 486 | -10.432 | -24.047 | 23.442 | 1.00 | 26.00 | N |
| ATOM | 2552 | CA | ALA | A | 486 | -11.728 | -24.704 | 23.338 | 1.00 | 25.96 | C |
| ATOM | 2553 | C | ALA | A | 486 | -12.293 | -24.403 | 21.947 | 1.00 | 26.47 | C |
| ATOM | 2554 | O | ALA | A | 486 | -12.824 | -25.284 | 21.269 | 1.00 | 26.22 | O |
| ATOM | 2555 | CB | ALA | A | 486 | -12.668 | -24.167 | 24.419 | 1.00 | 22.47 | C |
| ATOM | 2556 | N | ASP | A | 487 | -12.148 | -23.150 | 21.523 | 1.00 | 27.15 | N |
| ATOM | 2557 | CA | ASP | A | 487 | -12.644 | -22.701 | 20.229 | 1.00 | 26.54 | C |
| ATOM | 2558 | C | ASP | A | 487 | -12.028 | -23.411 | 19.020 | 1.00 | 28.97 | C |
| ATOM | 2559 | O | ASP | A | 487 | -12.663 | -23.516 | 17.970 | 1.00 | 28.93 | O |
| ATOM | 2560 | CB | ASP | A | 487 | -12.447 | -21.193 | 20.093 | 1.00 | 28.11 | C |
| ATOM | 2561 | CG | ASP | A | 487 | -13.116 | -20.635 | 18.858 | 1.00 | 36.16 | C |
| ATOM | 2562 | OD1 | ASP | A | 487 | -14.334 | -20.863 | 18.692 | 1.00 | 40.80 | O |
| ATOM | 2563 | OD2 | ASP | A | 487 | -12.428 | -19.971 | 18.051 | 1.00 | 42.52 | O |
| ATOM | 2564 | N | MET | A | 488 | -10.792 | -23.882 | 19.143 | 1.00 | 28.41 | N |
| ATOM | 2565 | CA | MET | A | 488 | -10.180 | -24.591 | 18.026 | 1.00 | 32.16 | C |
| ATOM | 2566 | C | MET | A | 488 | -10.353 | -26.100 | 18.202 | 1.00 | 30.43 | C |
| ATOM | 2567 | O | MET | A | 488 | -9.914 | -26.891 | 17.373 | 1.00 | 32.73 | O |
| ATOM | 2568 | CB | MET | A | 488 | -8.698 | -24.213 | 17.879 | 1.00 | 33.51 | C |
| ATOM | 2569 | CG | MET | A | 488 | -7.778 | -24.696 | 18.987 | 1.00 | 40.86 | C |
| ATOM | 2570 | SD | MET | A | 488 | -6.017 | -24.312 | 18.659 | 1.00 | 45.33 | S |
| ATOM | 2571 | CE | MET | A | 488 | -5.864 | -24.721 | 16.856 | 1.00 | 38.24 | C |
| ATOM | 2572 | N | SER | A | 489 | -11.008 | -26.486 | 19.292 | 1.00 | 30.20 | N |
| ATOM | 2573 | CA | SER | A | 489 | -11.273 | -27.891 | 19.578 | 1.00 | 31.87 | C |
| ATOM | 2574 | C | SER | A | 489 | -12.649 | -28.204 | 19.015 | 1.00 | 33.27 | C |
| ATOM | 2575 | O | SER | A | 489 | -13.211 | -27.412 | 18.261 | 1.00 | 31.07 | O |
| ATOM | 2576 | CB | SER | A | 489 | -11.282 | -28.149 | 21.088 | 1.00 | 30.95 | C |
| ATOM | 2577 | OG | SER | A | 489 | -10.056 | -27.774 | 21.690 | 1.00 | 36.97 | O |
| ATOM | 2578 | N | GLU | A | 490 | -13.199 | -29.353 | 19.382 | 1.00 | 35.99 | N |
| ATOM | 2579 | CA | GLU | A | 490 | -14.522 | -29.708 | 18.897 | 1.00 | 41.82 | C |
| ATOM | 2580 | C | GLU | A | 490 | -15.188 | -30.778 | 19.735 | 1.00 | 40.22 | C |
| ATOM | 2581 | O | GLU | A | 490 | -14.530 | -31.523 | 20.457 | 1.00 | 39.53 | O |
| ATOM | 2582 | CB | GLU | A | 490 | -14.448 | -30.171 | 17.443 | 1.00 | 46.97 | C |
| ATOM | 2583 | CG | GLU | A | 490 | -13.744 | -31.496 | 17.250 | 1.00 | 58.25 | C |
| ATOM | 2584 | CD | GLU | A | 490 | -13.804 | -31.974 | 15.811 | 1.00 | 68.00 | C |
| ATOM | 2585 | OE1 | GLU | A | 490 | -14.852 | -32.532 | 15.414 | 1.00 | 74.46 | O |
| ATOM | 2586 | OE2 | GLU | A | 490 | -12.806 | -31.789 | 15.077 | 1.00 | 70.48 | O |
| ATOM | 2587 | N | GLY | A | 491 | -16.510 | -30.834 | 19.637 | 1.00 | 43.21 | N |
| ATOM | 2588 | CA | GLY | A | 491 | -17.271 | -31.822 | 20.376 | 1.00 | 42.99 | C |
| ATOM | 2589 | C | GLY | A | 491 | -17.235 | -31.667 | 21.882 | 1.00 | 43.61 | C |
| ATOM | 2590 | O | GLY | A | 491 | -17.420 | -30.570 | 22.421 | 1.00 | 43.49 | O |
| ATOM | 2591 | N | GLU | A | 492 | -17.009 | -32.788 | 22.559 | 1.00 | 41.76 | N |
| ATOM | 2592 | CA | GLU | A | 492 | -16.946 | -32.819 | 24.010 | 1.00 | 44.00 | C |
| ATOM | 2593 | C | GLU | A | 492 | -15.876 | -31.874 | 24.533 | 1.00 | 40.46 | C |
| ATOM | 2594 | O | GLU | A | 492 | -16.147 | -31.019 | 25.372 | 1.00 | 39.66 | O |
| ATOM | 2595 | CB | GLU | A | 492 | -16.629 | -34.236 | 24.488 | 1.00 | 49.40 | C |
| ATOM | 2596 | CG | GLU | A | 492 | -17.597 | -34.773 | 25.517 | 1.00 | 58.95 | C |
| ATOM | 2597 | CD | GLU | A | 492 | -18.583 | -35.753 | 24.912 | 1.00 | 65.61 | C |
| ATOM | 2598 | OE1 | GLU | A | 492 | -18.185 | -36.496 | 23.984 | 1.00 | 67.46 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2599 | OE2 | GLU | A | 492 | -19.752 | -35.777 | 25.361 | 1.00 | 68.38 | O |
| ATOM | 2600 | N | THR | A | 493 | -14.655 | -32.047 | 24.033 | 1.00 | 38.97 | N |
| ATOM | 2601 | CA | THR | A | 493 | -13.526 | -31.230 | 24.456 | 1.00 | 35.36 | C |
| ATOM | 2602 | C | THR | A | 493 | -13.861 | -29.753 | 24.383 | 1.00 | 31.81 | C |
| ATOM | 2603 | O | THR | A | 493 | -13.598 | -29.007 | 25.324 | 1.00 | 33.38 | O |
| ATOM | 2604 | CB | THR | A | 493 | -12.281 | -31.509 | 23.598 | 1.00 | 33.93 | C |
| ATOM | 2605 | OG1 | THR | A | 493 | -11.986 | -32.909 | 23.630 | 1.00 | 35.12 | O |
| ATOM | 2606 | CG2 | THR | A | 493 | -11.084 | -30.752 | 24.141 | 1.00 | 38.01 | C |
| ATOM | 2607 | N | LYS | A | 494 | -14.447 | -29.332 | 23.269 | 1.00 | 27.93 | N |
| ATOM | 2608 | CA | LYS | A | 494 | -14.818 | -27.937 | 23.105 | 1.00 | 27.56 | C |
| ATOM | 2609 | C | LYS | A | 494 | -15.890 | -27.592 | 24.127 | 1.00 | 28.91 | C |
| ATOM | 2610 | O | LYS | A | 494 | -15.821 | -26.569 | 24.805 | 1.00 | 28.91 | O |
| ATOM | 2611 | CB | LYS | A | 494 | -15.350 | -27.695 | 21.693 | 1.00 | 26.06 | C |
| ATOM | 2612 | CG | LYS | A | 494 | -15.980 | -26.331 | 21.501 | 1.00 | 23.64 | C |
| ATOM | 2613 | CD | LYS | A | 494 | -16.186 | -26.021 | 20.035 | 1.00 | 24.24 | C |
| ATOM | 2614 | CE | LYS | A | 494 | -16.784 | -24.636 | 19.860 | 1.00 | 31.03 | C |
| ATOM | 2615 | NZ | LYS | A | 494 | -16.701 | -24.149 | 18.453 | 1.00 | 37.55 | N |
| ATOM | 2616 | N | GLN | A | 495 | -16.879 | -28.471 | 24.233 | 1.00 | 33.57 | N |
| ATOM | 2617 | CA | GLN | A | 495 | -17.992 | -28.296 | 25.157 | 1.00 | 32.02 | C |
| ATOM | 2618 | C | GLN | A | 495 | -17.547 | -28.125 | 26.606 | 1.00 | 28.42 | C |
| ATOM | 2619 | O | GLN | A | 495 | -17.858 | -27.111 | 27.234 | 1.00 | 28.14 | O |
| ATOM | 2620 | CB | GLN | A | 495 | -18.936 | -29.496 | 25.059 | 1.00 | 39.78 | C |
| ATOM | 2621 | CG | GLN | A | 495 | -20.214 | -29.235 | 24.269 | 1.00 | 50.68 | C |
| ATOM | 2622 | CD | GLN | A | 495 | -20.897 | -30.527 | 23.835 | 1.00 | 57.28 | C |
| ATOM | 2623 | OE1 | GLN | A | 495 | -20.916 | -30.865 | 22.650 | 1.00 | 60.01 | O |
| ATOM | 2624 | NE2 | GLN | A | 495 | -21.459 | -31.257 | 24.797 | 1.00 | 56.65 | N |
| ATOM | 2625 | N | ARG | A | 496 | -16.821 | -29.107 | 27.137 | 1.00 | 24.77 | N |
| ATOM | 2626 | CA | ARG | A | 496 | -16.373 | -29.037 | 28.525 | 1.00 | 26.47 | C |
| ATOM | 2627 | C | ARG | A | 496 | -15.433 | -27.877 | 28.820 | 1.00 | 23.09 | C |
| ATOM | 2628 | O | ARG | A | 496 | -15.471 | -27.310 | 29.910 | 1.00 | 25.24 | O |
| ATOM | 2629 | CB | ARG | A | 496 | -15.731 | -30.356 | 28.962 | 1.00 | 28.37 | C |
| ATOM | 2630 | CG | ARG | A | 496 | -14.555 | -30.791 | 28.142 | 1.00 | 38.90 | C |
| ATOM | 2631 | CD | ARG | A | 496 | -13.889 | -32.002 | 28.782 | 1.00 | 45.68 | C |
| ATOM | 2632 | NE | ARG | A | 496 | -12.453 | -32.007 | 28.527 | 1.00 | 49.41 | N |
| ATOM | 2633 | CZ | ARG | A | 496 | -11.570 | -31.323 | 29.244 | 1.00 | 48.69 | C |
| ATOM | 2634 | NH1 | ARG | A | 496 | -11.977 | -30.578 | 30.267 | 1.00 | 44.81 | N |
| ATOM | 2635 | NH2 | ARG | A | 496 | -10.283 | -31.372 | 28.930 | 1.00 | 50.90 | N |
| ATOM | 2636 | N | LEU | A | 497 | -14.592 | -27.514 | 27.860 | 1.00 | 22.44 | N |
| ATOM | 2637 | CA | LEU | A | 497 | -13.687 | -26.397 | 28.077 | 1.00 | 21.24 | C |
| ATOM | 2638 | C | LEU | A | 497 | -14.532 | -25.131 | 28.180 | 1.00 | 19.62 | C |
| ATOM | 2639 | O | LEU | A | 497 | -14.298 | -24.277 | 29.037 | 1.00 | 20.83 | O |
| ATOM | 2640 | CB | LEU | A | 497 | -12.684 | -26.291 | 26.925 | 1.00 | 20.44 | C |
| ATOM | 2641 | CG | LEU | A | 497 | -11.615 | -27.389 | 26.912 | 1.00 | 20.10 | C |
| ATOM | 2642 | CD1 | LEU | A | 497 | -10.627 | -27.146 | 25.788 | 1.00 | 24.33 | C |
| ATOM | 2643 | CD2 | LEU | A | 497 | -10.905 | -27.420 | 28.251 | 1.00 | 19.62 | C |
| ATOM | 2644 | N | GLN | A | 498 | -15.532 | -25.025 | 27.315 | 1.00 | 21.60 | N |
| ATOM | 2645 | CA | GLN | A | 498 | -16.427 | -23.869 | 27.327 | 1.00 | 22.23 | C |
| ATOM | 2646 | C | GLN | A | 498 | -17.095 | -23.737 | 28.688 | 1.00 | 19.96 | C |
| ATOM | 2647 | O | GLN | A | 498 | -17.163 | -22.648 | 29.265 | 1.00 | 19.02 | O |
| ATOM | 2648 | CB | GLN | A | 498 | -17.505 | -24.031 | 26.266 | 1.00 | 23.34 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2649 | CG | GLN | A | 498 | -17.010 | -23.895 | 24.856 | 1.00 | 23.24 | C |
| ATOM | 2650 | CD | GLN | A | 498 | -18.125 | -24.055 | 23.857 | 1.00 | 22.47 | C |
| ATOM | 2651 | OE1 | GLN | A | 498 | -18.591 | -25.166 | 23.596 | 1.00 | 22.41 | O |
| ATOM | 2652 | NE2 | GLN | A | 498 | -18.563 | -22.943 | 23.290 | 1.00 | 22.50 | N |
| ATOM | 2653 | N | SER | A | 499 | -17.592 | -24.859 | 29.194 | 1.00 | 20.33 | N |
| ATOM | 2654 | CA | SER | A | 499 | -18.263 | -24.874 | 30.481 | 1.00 | 20.46 | C |
| ATOM | 2655 | C | SER | A | 499 | -17.284 | -24.483 | 31.563 | 1.00 | 21.14 | C |
| ATOM | 2656 | O | SER | A | 499 | -17.643 | -23.790 | 32.517 | 1.00 | 18.93 | O |
| ATOM | 2657 | CB | SER | A | 499 | -18.829 | -26.263 | 30.762 | 1.00 | 19.70 | C |
| ATOM | 2658 | OG | SER | A | 499 | -19.820 | -26.596 | 29.805 | 1.00 | 27.74 | O |
| ATOM | 2659 | N | LEU | A | 500 | -16.041 | -24.938 | 31.419 | 1.00 | 21.68 | N |
| ATOM | 2660 | CA | LEU | A | 500 | -15.014 | -24.610 | 32.398 | 1.00 | 18.97 | C |
| ATOM | 2661 | C | LEU | A | 500 | -14.807 | -23.100 | 32.449 | 1.00 | 13.48 | C |
| ATOM | 2662 | O | LEU | A | 500 | -14.819 | -22.504 | 33.522 | 1.00 | 16.62 | O |
| ATOM | 2663 | CB | LEU | A | 500 | -13.690 | -25.298 | 32.045 | 1.00 | 22.68 | C |
| ATOM | 2664 | CG | LEU | A | 500 | -12.561 | -25.095 | 33.067 | 1.00 | 25.38 | C |
| ATOM | 2665 | CD1 | LEU | A | 500 | -13.015 | -25.552 | 34.442 | 1.00 | 25.04 | C |
| ATOM | 2666 | CD2 | LEU | A | 500 | -11.324 | -25.880 | 32.629 | 1.00 | 29.46 | C |
| ATOM | 2667 | N | VAL | A | 501 | -14.607 | -22.487 | 31.286 | 1.00 | 13.24 | N |
| ATOM | 2668 | CA | VAL | A | 501 | -14.405 | -21.045 | 31.217 | 1.00 | 15.12 | C |
| ATOM | 2669 | C | VAL | A | 501 | -15.664 | -20.334 | 31.720 | 1.00 | 17.06 | C |
| ATOM | 2670 | O | VAL | A | 501 | -15.592 | -19.438 | 32.565 | 1.00 | 17.59 | O |
| ATOM | 2671 | CB | VAL | A | 501 | -14.122 | -20.585 | 29.765 | 1.00 | 16.19 | C |
| ATOM | 2672 | CG1 | VAL | A | 501 | -14.116 | -19.071 | 29.687 | 1.00 | 13.59 | C |
| ATOM | 2673 | CG2 | VAL | A | 501 | -12.796 | -21.156 | 29.282 | 1.00 | 20.10 | C |
| ATOM | 2674 | N | LYS | A | 502 | -16.819 | -20.743 | 31.200 | 1.00 | 18.33 | N |
| ATOM | 2675 | CA | LYS | A | 502 | -18.096 | -20.139 | 31.597 | 1.00 | 14.81 | C |
| ATOM | 2676 | C | LYS | A | 502 | -18.307 | -20.113 | 33.100 | 1.00 | 10.55 | C |
| ATOM | 2677 | O | LYS | A | 502 | -18.497 | -19.051 | 33.688 | 1.00 | 17.09 | O |
| ATOM | 2678 | CB | LYS | A | 502 | -19.266 | -20.880 | 30.949 | 1.00 | 15.44 | C |
| ATOM | 2679 | CG | LYS | A | 502 | -20.530 | -20.032 | 30.859 | 1.00 | 17.77 | C |
| ATOM | 2680 | CD | LYS | A | 502 | -21.649 | -20.771 | 30.149 | 1.00 | 20.86 | C |
| ATOM | 2681 | CE | LYS | A | 502 | -22.948 | -19.957 | 30.184 | 1.00 | 19.94 | C |
| ATOM | 2682 | NZ | LYS | A | 502 | -23.712 | -20.097 | 28.912 | 1.00 | 25.39 | N |
| ATOM | 2683 | N | THR | A | 503 | -18.273 | -21.279 | 33.730 | 1.00 | 10.56 | N |
| ATOM | 2684 | CA | THR | A | 503 | -18.490 | -21.340 | 35.167 | 1.00 | 13.47 | C |
| ATOM | 2685 | C | THR | A | 503 | -17.484 | -20.525 | 36.002 | 1.00 | 20.62 | C |
| ATOM | 2686 | O | THR | A | 503 | -17.862 | -19.884 | 37.000 | 1.00 | 16.37 | O |
| ATOM | 2687 | CB | THR | A | 503 | -18.494 | -22.796 | 35.652 | 1.00 | 16.17 | C |
| ATOM | 2688 | OG1 | THR | A | 503 | -18.811 | -22.826 | 37.046 | 1.00 | 19.65 | O |
| ATOM | 2689 | CG2 | THR | A | 503 | -17.141 | -23.435 | 35.437 | 1.00 | 20.00 | C |
| ATOM | 2690 | N | ILE | A | 504 | -16.207 | -20.545 | 35.613 | 1.00 | 18.91 | N |
| ATOM | 2691 | CA | ILE | A | 504 | -15.199 | -19.787 | 36.350 | 1.00 | 15.68 | C |
| ATOM | 2692 | C | ILE | A | 504 | -15.530 | -18.306 | 36.229 | 1.00 | 14.35 | C |
| ATOM | 2693 | O | ILE | A | 504 | -15.624 | -17.598 | 37.232 | 1.00 | 17.50 | O |
| ATOM | 2694 | CB | ILE | A | 504 | -13.764 | -20.036 | 35.799 | 1.00 | 14.74 | C |
| ATOM | 2695 | CG1 | ILE | A | 504 | -13.320 | -21.467 | 36.112 | 1.00 | 14.25 | C |
| ATOM | 2696 | CG2 | ILE | A | 504 | -12.784 | -19.061 | 36.438 | 1.00 | 14.19 | C |
| ATOM | 2697 | CD1 | ILE | A | 504 | -12.038 | -21.881 | 35.390 | 1.00 | 16.81 | C |
| ATOM | 2698 | N | VAL | A | 505 | -15.717 | -17.848 | 34.994 | 1.00 | 16.81 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2699 | CA | VAL | A | 505 | -16.047 | -16.449 | 34.738 | 1.00 | 19.28 | C |
| ATOM | 2700 | C | VAL | A | 505 | -17.317 | -16.033 | 35.474 | 1.00 | 22.16 | C |
| ATOM | 2701 | O | VAL | A | 505 | -17.386 | -14.933 | 36.012 | 1.00 | 24.95 | O |
| ATOM | 2702 | CB | VAL | A | 505 | -16.273 | -16.175 | 33.226 | 1.00 | 20.90 | C |
| ATOM | 2703 | CG1 | VAL | A | 505 | -16.816 | -14.759 | 33.037 | 1.00 | 15.39 | C |
| ATOM | 2704 | CG2 | VAL | A | 505 | -14.978 | -16.363 | 32.446 | 1.00 | 19.61 | C |
| ATOM | 2705 | N | GLN | A | 506 | -18.323 | -16.909 | 35.495 | 1.00 | 20.45 | N |
| ATOM | 2706 | CA | GLN | A | 506 | -19.584 | -16.584 | 36.162 | 1.00 | 21.56 | C |
| ATOM | 2707 | C | GLN | A | 506 | -19.512 | -16.632 | 37.683 | 1.00 | 20.38 | C |
| ATOM | 2708 | O | GLN | A | 506 | -20.331 | -16.023 | 38.364 | 1.00 | 22.10 | O |
| ATOM | 2709 | CB | GLN | A | 506 | -20.708 | -17.492 | 35.633 | 1.00 | 20.26 | C |
| ATOM | 2710 | CG | GLN | A | 506 | -20.995 | -17.235 | 34.157 | 1.00 | 15.73 | C |
| ATOM | 2711 | CD | GLN | A | 506 | -22.273 | -17.872 | 33.652 | 1.00 | 20.13 | C |
| ATOM | 2712 | OE1 | GLN | A | 506 | -22.639 | -18.965 | 34.063 | 1.00 | 22.30 | O |
| ATOM | 2713 | NE2 | GLN | A | 506 | -22.952 | -17.188 | 32.738 | 1.00 | 19.02 | N |
| ATOM | 2714 | N | SER | A | 507 | -18.525 | -17.340 | 38.223 | 1.00 | 20.09 | N |
| ATOM | 2715 | CA | SER | A | 507 | -18.372 | -17.414 | 39.673 | 1.00 | 18.51 | C |
| ATOM | 2716 | C | SER | A | 507 | -17.669 | -16.160 | 40.191 | 1.00 | 18.24 | C |
| ATOM | 2717 | O | SER | A | 507 | -17.627 | -15.915 | 41.389 | 1.00 | 21.37 | O |
| ATOM | 2718 | CB | SER | A | 507 | -17.559 | -18.653 | 40.064 | 1.00 | 23.80 | C |
| ATOM | 2719 | OG | SER | A | 507 | -16.181 | -18.497 | 39.739 | 1.00 | 25.60 | O |
| ATOM | 2720 | N | ASP | A | 508 | -17.134 | -15.356 | 39.278 | 1.00 | 20.05 | N |
| ATOM | 2721 | CA | ASP | A | 508 | -16.405 | -14.147 | 39.652 | 1.00 | 20.68 | C |
| ATOM | 2722 | C | ASP | A | 508 | -17.290 | -12.909 | 39.777 | 1.00 | 21.70 | C |
| ATOM | 2723 | O | ASP | A | 508 | -17.612 | -12.253 | 38.782 | 1.00 | 24.19 | O |
| ATOM | 2724 | CB | ASP | A | 508 | -15.277 | -13.885 | 38.637 | 1.00 | 17.83 | C |
| ATOM | 2725 | CG | ASP | A | 508 | -14.174 | -12.992 | 39.195 | 1.00 | 19.67 | C |
| ATOM | 2726 | OD1 | ASP | A | 508 | -14.411 | -12.291 | 40.199 | 1.00 | 17.18 | O |
| ATOM | 2727 | OD2 | ASP | A | 508 | -13.064 | -12.987 | 38.622 | 1.00 | 19.43 | O |
| ATOM | 2728 | N | SER | A | 509 | -17.655 | -12.582 | 41.013 | 1.00 | 23.75 | N |
| ATOM | 2729 | CA | SER | A | 509 | -18.502 | -11.425 | 41.292 | 1.00 | 25.11 | C |
| ATOM | 2730 | C | SER | A | 509 | -17.693 | -10.164 | 41.575 | 1.00 | 27.54 | C |
| ATOM | 2731 | O | SER | A | 509 | -18.257 | -9.083 | 41.759 | 1.00 | 26.99 | O |
| ATOM | 2732 | CB | SER | A | 509 | -19.397 | -11.718 | 42.497 | 1.00 | 24.60 | C |
| ATOM | 2733 | OG | SER | A | 509 | -18.628 | -11.903 | 43.676 | 1.00 | 25.41 | O |
| ATOM | 2734 | N | TYR | A | 510 | -16.372 | -10.300 | 41.605 | 1.00 | 24.64 | N |
| ATOM | 2735 | CA | TYR | A | 510 | -15.504 | -9.171 | 41.901 | 1.00 | 23.14 | C |
| ATOM | 2736 | C | TYR | A | 510 | -14.856 | -8.514 | 40.681 | 1.00 | 21.48 | C |
| ATOM | 2737 | O | TYR | A | 510 | -14.819 | -7.287 | 40.573 | 1.00 | 22.31 | O |
| ATOM | 2738 | CB | TYR | A | 510 | -14.424 | -9.621 | 42.888 | 1.00 | 21.96 | C |
| ATOM | 2739 | CG | TYR | A | 510 | -13.286 | -8.649 | 43.027 | 1.00 | 24.02 | C |
| ATOM | 2740 | CD1 | TYR | A | 510 | -13.430 | -7.486 | 43.780 | 1.00 | 23.46 | C |
| ATOM | 2741 | CD2 | TYR | A | 510 | -12.067 | -8.881 | 42.392 | 1.00 | 21.82 | C |
| ATOM | 2742 | CE1 | TYR | A | 510 | -12.390 | -6.576 | 43.896 | 1.00 | 25.03 | C |
| ATOM | 2743 | CE2 | TYR | A | 510 | -11.021 | -7.979 | 42.503 | 1.00 | 24.58 | C |
| ATOM | 2744 | CZ | TYR | A | 510 | -11.189 | -6.827 | 43.256 | 1.00 | 26.53 | C |
| ATOM | 2745 | OH | TYR | A | 510 | -10.152 | -5.928 | 43.372 | 1.00 | 32.18 | O |
| ATOM | 2746 | N | TYR | A | 511 | -14.356 | -9.320 | 39.756 | 1.00 | 20.51 | N |
| ATOM | 2747 | CA | TYR | A | 511 | -13.697 | -8.772 | 38.583 | 1.00 | 21.81 | C |
| ATOM | 2748 | C | TYR | A | 511 | -14.456 | -8.990 | 37.288 | 1.00 | 22.78 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2749 | O | TYR | A | 511 | -14.915 | -10.095 | 36.994 | 1.00 | 25.57 | O |
| ATOM | 2750 | CB | TYR | A | 511 | -12.291 | -9.376 | 38.454 | 1.00 | 23.58 | C |
| ATOM | 2751 | CG | TYR | A | 511 | -11.440 | -8.784 | 37.349 | 1.00 | 20.75 | C |
| ATOM | 2752 | CD1 | TYR | A | 511 | -10.884 | -7.504 | 37.471 | 1.00 | 18.70 | C |
| ATOM | 2753 | CD2 | TYR | A | 511 | -11.168 | -9.517 | 36.188 | 1.00 | 19.48 | C |
| ATOM | 2754 | CE1 | TYR | A | 511 | -10.076 | -6.971 | 36.458 | 1.00 | 18.36 | C |
| ATOM | 2755 | CE2 | TYR | A | 511 | -10.362 | -8.996 | 35.174 | 1.00 | 21.29 | C |
| ATOM | 2756 | CZ | TYR | A | 511 | -9.820 | -7.724 | 35.316 | 1.00 | 19.65 | C |
| ATOM | 2757 | OH | TYR | A | 511 | -9.028 | -7.215 | 34.312 | 1.00 | 22.74 | O |
| ATOM | 2758 | N | ASP | A | 512 | -14.566 | -7.923 | 36.507 | 1.00 | 20.69 | N |
| ATOM | 2759 | CA | ASP | A | 512 | -15.243 | -7.967 | 35.225 | 1.00 | 18.96 | C |
| ATOM | 2760 | C | ASP | A | 512 | -14.283 | -8.538 | 34.190 | 1.00 | 19.54 | C |
| ATOM | 2761 | O | ASP | A | 512 | -13.389 | -7.842 | 33.721 | 1.00 | 21.28 | O |
| ATOM | 2762 | CB | ASP | A | 512 | -15.662 | -6.552 | 34.834 | 1.00 | 17.41 | C |
| ATOM | 2763 | CG | ASP | A | 512 | -16.180 | -6.470 | 33.421 | 1.00 | 19.44 | C |
| ATOM | 2764 | OD1 | ASP | A | 512 | -16.489 | -7.528 | 32.832 | 1.00 | 25.25 | O |
| ATOM | 2765 | OD2 | ASP | A | 512 | -16.274 | -5.342 | 32.897 | 1.00 | 24.90 | O |
| ATOM | 2766 | N | VAL | A | 513 | -14.477 | -9.803 | 33.831 | 1.00 | 19.24 | N |
| ATOM | 2767 | CA | VAL | A | 513 | -13.610 | -10.472 | 32.873 | 1.00 | 16.90 | C |
| ATOM | 2768 | C | VAL | A | 513 | -13.238 | -9.697 | 31.615 | 1.00 | 21.74 | C |
| ATOM | 2769 | O | VAL | A | 513 | -12.192 | -9.958 | 31.026 | 1.00 | 26.72 | O |
| ATOM | 2770 | CB | VAL | A | 513 | -14.208 | -11.818 | 32.419 | 1.00 | 20.06 | C |
| ATOM | 2771 | CG1 | VAL | A | 513 | -15.336 | -11.585 | 31.413 | 1.00 | 18.71 | C |
| ATOM | 2772 | CG2 | VAL | A | 513 | -13.122 | -12.678 | 31.782 | 1.00 | 16.61 | C |
| ATOM | 2773 | N | PHE | A | 514 | -14.075 | -8.760 | 31.185 | 1.00 | 19.41 | N |
| ATOM | 2774 | CA | PHE | A | 514 | -13.792 | -8.009 | 29.963 | 1.00 | 16.87 | C |
| ATOM | 2775 | C | PHE | A | 514 | -12.689 | -6.968 | 30.119 | 1.00 | 16.16 | C |
| ATOM | 2776 | O | PHE | A | 514 | -12.123 | -6.490 | 29.139 | 1.00 | 19.60 | O |
| ATOM | 2777 | CB | PHE | A | 514 | -15.072 | -7.347 | 29.444 | 1.00 | 16.48 | C |
| ATOM | 2778 | CG | PHE | A | 514 | -16.031 | -8.312 | 28.815 | 1.00 | 13.94 | C |
| ATOM | 2779 | CD1 | PHE | A | 514 | -15.848 | -8.741 | 27.507 | 1.00 | 17.23 | C |
| ATOM | 2780 | CD2 | PHE | A | 514 | -17.098 | -8.824 | 29.543 | 1.00 | 16.17 | C |
| ATOM | 2781 | CE1 | PHE | A | 514 | -16.712 | -9.675 | 26.926 | 1.00 | 18.05 | C |
| ATOM | 2782 | CE2 | PHE | A | 514 | -17.968 | -9.756 | 28.976 | 1.00 | 16.82 | C |
| ATOM | 2783 | CZ | PHE | A | 514 | -17.774 | -10.184 | 27.662 | 1.00 | 14.76 | C |
| ATOM | 2784 | N | LYS | A | 515 | -12.382 | -6.621 | 31.361 | 1.00 | 20.09 | N |
| ATOM | 2785 | CA | LYS | A | 515 | -11.337 | -5.652 | 31.639 | 1.00 | 20.89 | C |
| ATOM | 2786 | C | LYS | A | 515 | -9.973 | -6.156 | 31.167 | 1.00 | 23.51 | C |
| ATOM | 2787 | O | LYS | A | 515 | -9.032 | -5.379 | 31.024 | 1.00 | 27.60 | O |
| ATOM | 2788 | CB | LYS | A | 515 | -11.304 | -5.356 | 33.133 | 1.00 | 21.72 | C |
| ATOM | 2789 | CG | LYS | A | 515 | -12.470 | -4.503 | 33.588 | 1.00 | 17.98 | C |
| ATOM | 2790 | CD | LYS | A | 515 | -12.079 | -3.649 | 34.762 | 1.00 | 24.50 | C |
| ATOM | 2791 | CE | LYS | A | 515 | -13.301 | -3.016 | 35.384 | 1.00 | 29.26 | C |
| ATOM | 2792 | NZ | LYS | A | 515 | -13.218 | -3.078 | 36.865 | 1.00 | 35.83 | N |
| ATOM | 2793 | N | ASN | A | 516 | -9.868 | -7.457 | 30.919 | 1.00 | 22.37 | N |
| ATOM | 2794 | CA | ASN | A | 516 | -8.616 | -8.025 | 30.448 | 1.00 | 18.91 | C |
| ATOM | 2795 | C | ASN | A | 516 | -8.791 | -8.929 | 29.236 | 1.00 | 16.23 | C |
| ATOM | 2796 | O | ASN | A | 516 | -8.157 | -9.974 | 29.131 | 1.00 | 18.02 | O |
| ATOM | 2797 | CB | ASN | A | 516 | -7.904 | -8.779 | 31.578 | 1.00 | 20.32 | C |
| ATOM | 2798 | CG | ASN | A | 516 | -6.395 | -8.827 | 31.388 | 1.00 | 22.00 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2799 | OD1 | ASN | A | 516 | -5.835 | -8.088 | 30.578 | 1.00 | 21.06 | O |
| ATOM | 2800 | ND2 | ASN | A | 516 | -5.734 | -9.706 | 32.128 | 1.00 | 17.51 | N |
| ATOM | 2801 | N | LEU | A | 517 | -9.687 | -8.531 | 28.339 | 1.00 | 19.08 | N |
| ATOM | 2802 | CA | LEU | A | 517 | -9.908 | -9.232 | 27.078 | 1.00 | 18.82 | C |
| ATOM | 2803 | C | LEU | A | 517 | -9.567 | -8.069 | 26.151 | 1.00 | 22.51 | C |
| ATOM | 2804 | O | LEU | A | 517 | -10.356 | -7.133 | 25.996 | 1.00 | 24.13 | O |
| ATOM | 2805 | CB | LEU | A | 517 | -11.369 | -9.675 | 26.936 | 1.00 | 18.95 | C |
| ATOM | 2806 | CG | LEU | A | 517 | -11.758 | -10.943 | 27.717 | 1.00 | 24.05 | C |
| ATOM | 2807 | CD1 | LEU | A | 517 | -13.076 | -11.504 | 27.195 | 1.00 | 16.21 | C |
| ATOM | 2808 | CD2 | LEU | A | 517 | -10.658 | -11.993 | 27.585 | 1.00 | 20.33 | C |
| ATOM | 2809 | N | LYS | A | 518 | -8.371 | -8.121 | 25.565 | 1.00 | 24.61 | N |
| ATOM | 2810 | CA | LYS | A | 518 | -7.865 | -7.028 | 24.740 | 1.00 | 22.80 | C |
| ATOM | 2811 | C | LYS | A | 518 | -7.868 | -7.106 | 23.224 | 1.00 | 24.92 | C |
| ATOM | 2812 | O | LYS | A | 518 | -7.040 | -6.462 | 22.576 | 1.00 | 25.14 | O |
| ATOM | 2813 | CB | LYS | A | 518 | -6.450 | -6.665 | 25.200 | 1.00 | 20.92 | C |
| ATOM | 2814 | CG | LYS | A | 518 | -6.146 | -7.060 | 26.633 | 1.00 | 18.78 | C |
| ATOM | 2815 | CD | LYS | A | 518 | -6.768 | -6.113 | 27.627 | 1.00 | 20.53 | C |
| ATOM | 2816 | CE | LYS | A | 518 | -6.520 | -4.660 | 27.257 | 1.00 | 20.93 | C |
| ATOM | 2817 | NZ | LYS | A | 518 | -7.067 | -3.728 | 28.290 | 1.00 | 26.97 | N |
| ATOM | 2818 | N | THR | A | 519 | -8.773 | -7.894 | 22.656 | 1.00 | 23.01 | N |
| ATOM | 2819 | CA | THR | A | 519 | -8.910 | -7.968 | 21.207 | 1.00 | 22.23 | C |
| ATOM | 2820 | C | THR | A | 519 | -10.401 | -8.190 | 20.976 | 1.00 | 22.79 | C |
| ATOM | 2821 | O | THR | A | 519 | -11.094 | -8.705 | 21.853 | 1.00 | 24.07 | O |
| ATOM | 2822 | CB | THR | A | 519 | -8.058 | -9.105 | 20.567 | 1.00 | 22.79 | C |
| ATOM | 2823 | OG1 | THR | A | 519 | -8.664 | -10.379 | 20.804 | 1.00 | 19.48 | O |
| ATOM | 2824 | CG2 | THR | A | 519 | -6.643 | -9.091 | 21.144 | 1.00 | 23.12 | C |
| ATOM | 2825 | N | TYR | A | 520 | -10.904 | -7.774 | 19.824 | 1.00 | 20.28 | N |
| ATOM | 2826 | CA | TYR | A | 520 | -12.320 | -7.925 | 19.541 | 1.00 | 21.09 | C |
| ATOM | 2827 | C | TYR | A | 520 | -12.739 | -9.377 | 19.427 | 1.00 | 23.70 | C |
| ATOM | 2828 | O | TYR | A | 520 | -13.859 | -9.733 | 19.782 | 1.00 | 28.81 | O |
| ATOM | 2829 | CB | TYR | A | 520 | -12.673 | -7.156 | 18.272 | 1.00 | 20.67 | C |
| ATOM | 2830 | CG | TYR | A | 520 | -12.326 | -5.695 | 18.394 | 1.00 | 16.82 | C |
| ATOM | 2831 | CD1 | TYR | A | 520 | -12.662 | -4.984 | 19.543 | 1.00 | 11.98 | C |
| ATOM | 2832 | CD2 | TYR | A | 520 | -11.595 | -5.043 | 17.401 | 1.00 | 18.61 | C |
| ATOM | 2833 | CE1 | TYR | A | 520 | -12.273 | -3.666 | 19.714 | 1.00 | 16.98 | C |
| ATOM | 2834 | CE2 | TYR | A | 520 | -11.196 | -3.715 | 17.561 | 1.00 | 16.98 | C |
| ATOM | 2835 | CZ | TYR | A | 520 | -11.535 | -3.037 | 18.723 | 1.00 | 18.00 | C |
| ATOM | 2836 | OH | TYR | A | 520 | -11.101 | -1.749 | 18.930 | 1.00 | 20.05 | O |
| ATOM | 2837 | N | LYS | A | 521 | -11.844 | -10.227 | 18.943 | 1.00 | 23.38 | N |
| ATOM | 2838 | CA | LYS | A | 521 | -12.173 | -11.636 | 18.823 | 1.00 | 24.96 | C |
| ATOM | 2839 | C | LYS | A | 521 | -12.337 | -12.266 | 20.204 | 1.00 | 24.36 | C |
| ATOM | 2840 | O | LYS | A | 521 | -13.193 | -13.121 | 20.420 | 1.00 | 22.22 | O |
| ATOM | 2841 | CB | LYS | A | 521 | -11.076 | -12.366 | 18.055 | 1.00 | 32.71 | C |
| ATOM | 2842 | CG | LYS | A | 521 | -11.593 | -13.312 | 16.993 | 1.00 | 36.80 | C |
| ATOM | 2843 | CD | LYS | A | 521 | -12.499 | -14.377 | 17.574 | 1.00 | 42.87 | C |
| ATOM | 2844 | CE | LYS | A | 521 | -12.062 | -15.767 | 17.129 | 1.00 | 50.26 | C |
| ATOM | 2845 | NZ | LYS | A | 521 | -10.848 | -15.744 | 16.246 | 1.00 | 53.81 | N |
| ATOM | 2846 | N | ASP | A | 522 | -11.505 | -11.842 | 21.143 | 1.00 | 22.59 | N |
| ATOM | 2847 | CA | ASP | A | 522 | -11.559 | -12.378 | 22.491 | 1.00 | 19.15 | C |
| ATOM | 2848 | C | ASP | A | 522 | -12.813 | -11.925 | 23.201 | 1.00 | 20.40 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2849 | O | ASP | A | 522 | -13.395 | -12.669 | 23.982 | 1.00 | 21.08 | O |
| ATOM | 2850 | CB | ASP | A | 522 | -10.340 | -11.923 | 23.283 | 1.00 | 16.99 | C |
| ATOM | 2851 | CG | ASP | A | 522 | -9.099 | -12.704 | 22.922 | 1.00 | 23.70 | C |
| ATOM | 2852 | OD1 | ASP | A | 522 | -9.214 | -13.933 | 22.707 | 1.00 | 21.96 | O |
| ATOM | 2853 | OD2 | ASP | A | 522 | -8.014 | -12.088 | 22.851 | 1.00 | 23.01 | O |
| ATOM | 2854 | N | ILE | A | 523 | -13.205 | -10.685 | 22.944 | 1.00 | 22.63 | N |
| ATOM | 2855 | CA | ILE | A | 523 | -14.395 | -10.119 | 23.550 | 1.00 | 20.82 | C |
| ATOM | 2856 | C | ILE | A | 523 | -15.596 | -10.847 | 22.972 | 1.00 | 24.11 | C |
| ATOM | 2857 | O | ILE | A | 523 | -16.489 | -11.283 | 23.699 | 1.00 | 21.46 | O |
| ATOM | 2858 | CB | ILE | A | 523 | -14.521 | -8.622 | 23.224 | 1.00 | 22.21 | C |
| ATOM | 2859 | CG1 | ILE | A | 523 | -13.483 | -7.834 | 24.034 | 1.00 | 21.60 | C |
| ATOM | 2860 | CG2 | ILE | A | 523 | -15.949 | -8.135 | 23.530 | 1.00 | 18.98 | C |
| ATOM | 2861 | CD1 | ILE | A | 523 | -13.256 | -6.416 | 23.555 | 1.00 | 16.65 | C |
| ATOM | 2862 | N | SER | A | 524 | -15.596 | -10.978 | 21.651 | 1.00 | 23.21 | N |
| ATOM | 2863 | CA | SER | A | 524 | -16.670 | -11.643 | 20.942 | 1.00 | 23.99 | C |
| ATOM | 2864 | C | SER | A | 524 | -16.847 | -13.090 | 21.399 | 1.00 | 27.52 | C |
| ATOM | 2865 | O | SER | A | 524 | -17.964 | -13.534 | 21.647 | 1.00 | 31.29 | O |
| ATOM | 2866 | CB | SER | A | 524 | -16.397 | -11.588 | 19.448 | 1.00 | 21.76 | C |
| ATOM | 2867 | OG | SER | A | 524 | -17.134 | -12.584 | 18.777 | 1.00 | 27.29 | O |
| ATOM | 2868 | N | LEU | A | 525 | -15.749 | -13.825 | 21.518 | 1.00 | 26.74 | N |
| ATOM | 2869 | CA | LEU | A | 525 | -15.806 | -15.214 | 21.961 | 1.00 | 26.56 | C |
| ATOM | 2870 | C | LEU | A | 525 | -16.437 | -15.334 | 23.344 | 1.00 | 25.97 | C |
| ATOM | 2871 | O | LEU | A | 525 | -17.263 | -16.210 | 23.586 | 1.00 | 26.97 | O |
| ATOM | 2872 | CB | LEU | A | 525 | -14.399 | -15.809 | 22.015 | 1.00 | 28.17 | C |
| ATOM | 2873 | CG | LEU | A | 525 | -13.832 | -16.363 | 20.709 | 1.00 | 32.91 | C |
| ATOM | 2874 | CD1 | LEU | A | 525 | -12.353 | -16.687 | 20.895 | 1.00 | 35.22 | C |
| ATOM | 2875 | CD2 | LEU | A | 525 | -14.602 | -17.608 | 20.304 | 1.00 | 30.90 | C |
| ATOM | 2876 | N | MET | A | 526 | -16.033 | -14.453 | 24.252 | 1.00 | 24.48 | N |
| ATOM | 2877 | CA | MET | A | 526 | -16.539 | -14.467 | 25.616 | 1.00 | 26.23 | C |
| ATOM | 2878 | C | MET | A | 526 | -18.019 | -14.105 | 25.697 | 1.00 | 28.23 | C |
| ATOM | 2879 | O | MET | A | 526 | -18.739 | -14.627 | 26.544 | 1.00 | 28.92 | O |
| ATOM | 2880 | CB | MET | A | 526 | -15.736 | -13.502 | 26.494 | 1.00 | 20.42 | C |
| ATOM | 2881 | CG | MET | A | 526 | -16.152 | -13.515 | 27.952 | 1.00 | 21.97 | C |
| ATOM | 2882 | SD | MET | A | 526 | -16.005 | -15.150 | 28.718 | 1.00 | 24.41 | S |
| ATOM | 2883 | CE | MET | A | 526 | -14.264 | -15.512 | 28.391 | 1.00 | 31.72 | C |
| ATOM | 2884 | N | GLN | A | 527 | -18.470 | -13.214 | 24.819 | 1.00 | 27.93 | N |
| ATOM | 2885 | CA | GLN | A | 527 | -19.866 | -12.798 | 24.824 | 1.00 | 24.91 | C |
| ATOM | 2886 | C | GLN | A | 527 | -20.804 | -13.934 | 24.415 | 1.00 | 24.37 | C |
| ATOM | 2887 | O | GLN | A | 527 | -21.784 | -14.219 | 25.110 | 1.00 | 25.75 | O |
| ATOM | 2888 | CB | GLN | A | 527 | -20.051 | -11.582 | 23.913 | 1.00 | 21.78 | C |
| ATOM | 2889 | CG | GLN | A | 527 | -19.521 | -10.299 | 24.540 | 1.00 | 21.91 | C |
| ATOM | 2890 | CD | GLN | A | 527 | -19.527 | -9.117 | 23.586 | 1.00 | 22.99 | C |
| ATOM | 2891 | OE1 | GLN | A | 527 | -19.314 | -9.269 | 22.382 | 1.00 | 23.13 | O |
| ATOM | 2892 | NE2 | GLN | A | 527 | -19.770 | -7.927 | 24.125 | 1.00 | 23.70 | N |
| ATOM | 2893 | N | SER | A | 528 | -20.505 | -14.595 | 23.305 | 1.00 | 21.70 | N |
| ATOM | 2894 | CA | SER | A | 528 | -21.348 | -15.694 | 22.857 | 1.00 | 27.29 | C |
| ATOM | 2895 | C | SER | A | 528 | -21.328 | -16.884 | 23.832 | 1.00 | 28.44 | C |
| ATOM | 2896 | O | SER | A | 528 | -22.324 | -17.599 | 23.972 | 1.00 | 29.14 | O |
| ATOM | 2897 | CB | SER | A | 528 | -20.927 | -16.147 | 21.454 | 1.00 | 28.21 | C |
| ATOM | 2898 | OG | SER | A | 528 | -19.776 | -16.969 | 21.504 | 1.00 | 37.70 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2899 | N | LEU | A | 529 | -20.201 | -17.089 | 24.508 | 1.00 | 26.26 | N |
| ATOM | 2900 | CA | LEU | A | 529 | -20.066 | -18.187 | 25.465 | 1.00 | 22.88 | C |
| ATOM | 2901 | C | LEU | A | 529 | -21.007 | -17.988 | 26.649 | 1.00 | 21.15 | C |
| ATOM | 2902 | O | LEU | A | 529 | -21.740 | -18.893 | 27.051 | 1.00 | 21.55 | O |
| ATOM | 2903 | CB | LEU | A | 529 | -18.619 | -18.268 | 25.981 | 1.00 | 20.23 | C |
| ATOM | 2904 | CG | LEU | A | 529 | -18.393 | -19.230 | 27.155 | 1.00 | 20.79 | C |
| ATOM | 2905 | CD1 | LEU | A | 529 | -18.268 | -20.633 | 26.604 | 1.00 | 21.94 | C |
| ATOM | 2906 | CD2 | LEU | A | 529 | -17.153 | -18.858 | 27.946 | 1.00 | 16.31 | C |
| ATOM | 2907 | N | LEU | A | 530 | -20.967 | -16.787 | 27.206 | 1.00 | 18.78 | N |
| ATOM | 2908 | CA | LEU | A | 530 | -21.782 | -16.432 | 28.352 | 1.00 | 20.38 | C |
| ATOM | 2909 | C | LEU | A | 530 | -23.274 | -16.378 | 28.036 | 1.00 | 24.02 | C |
| ATOM | 2910 | O | LEU | A | 530 | -24.103 | -16.599 | 28.912 | 1.00 | 23.24 | O |
| ATOM | 2911 | CB | LEU | A | 530 | -21.336 | -15.078 | 28.887 | 1.00 | 19.43 | C |
| ATOM | 2912 | CG | LEU | A | 530 | -19.935 | -15.086 | 29.497 | 1.00 | 19.88 | C |
| ATOM | 2913 | CD1 | LEU | A | 530 | -19.561 | -13.677 | 29.907 | 1.00 | 18.79 | C |
| ATOM | 2914 | CD2 | LEU | A | 530 | -19.902 | -16.026 | 30.702 | 1.00 | 18.51 | C |
| ATOM | 2915 | N | SER | A | 531 | -23.607 | -16.083 | 26.783 | 1.00 | 25.46 | N |
| ATOM | 2916 | CA | SER | A | 531 | -24.997 | -15.983 | 26.366 | 1.00 | 26.33 | C |
| ATOM | 2917 | C | SER | A | 531 | -25.546 | -17.289 | 25.808 | 1.00 | 25.50 | C |
| ATOM | 2918 | O | SER | A | 531 | -26.759 | -17.469 | 25.729 | 1.00 | 24.84 | O |
| ATOM | 2919 | CB | SER | A | 531 | -25.146 | -14.878 | 25.322 | 1.00 | 24.73 | C |
| ATOM | 2920 | OG | SER | A | 531 | -24.655 | -15.309 | 24.064 | 1.00 | 30.10 | O |
| ATOM | 2921 | N | ASP | A | 532 | -24.657 | -18.200 | 25.425 | 1.00 | 25.37 | N |
| ATOM | 2922 | CA | ASP | A | 532 | -25.080 | -19.479 | 24.876 | 1.00 | 24.64 | C |
| ATOM | 2923 | C | ASP | A | 532 | -25.602 | -20.417 | 25.964 | 1.00 | 27.33 | C |
| ATOM | 2924 | O | ASP | A | 532 | -24.833 | -20.967 | 26.750 | 1.00 | 27.00 | O |
| ATOM | 2925 | CB | ASP | A | 532 | -23.921 | -20.133 | 24.133 | 1.00 | 27.05 | C |
| ATOM | 2926 | CG | ASP | A | 532 | -24.308 | -21.456 | 23.503 | 1.00 | 34.59 | C |
| ATOM | 2927 | OD1 | ASP | A | 532 | -25.336 | -22.035 | 23.911 | 1.00 | 39.46 | O |
| ATOM | 2928 | OD2 | ASP | A | 532 | -23.582 | -21.920 | 22.599 | 1.00 | 35.02 | O |
| ATOM | 2929 | N | ALA | A | 533 | -26.917 | -20.604 | 25.998 | 1.00 | 27.92 | N |
| ATOM | 2930 | CA | ALA | A | 533 | -27.541 | -21.471 | 26.997 | 1.00 | 28.12 | C |
| ATOM | 2931 | C | ALA | A | 533 | -27.175 | -22.933 | 26.799 | 1.00 | 26.59 | C |
| ATOM | 2932 | O | ALA | A | 533 | -27.295 | -23.737 | 27.725 | 1.00 | 28.89 | O |
| ATOM | 2933 | CB | ALA | A | 533 | -29.052 | -21.309 | 26.956 | 1.00 | 30.50 | C |
| ATOM | 2934 | N | GLY | A | 534 | -26.738 | -23.275 | 25.590 | 1.00 | 23.26 | N |
| ATOM | 2935 | CA | GLY | A | 534 | -26.356 | -24.645 | 25.300 | 1.00 | 22.45 | C |
| ATOM | 2936 | C | GLY | A | 534 | -25.099 | -25.061 | 26.044 | 1.00 | 23.00 | C |
| ATOM | 2937 | O | GLY | A | 534 | -24.810 | -26.253 | 26.185 | 1.00 | 20.86 | O |
| ATOM | 2938 | N | VAL | A | 535 | -24.353 | -24.067 | 26.524 | 1.00 | 23.16 | N |
| ATOM | 2939 | CA | VAL | A | 535 | -23.120 | -24.309 | 27.267 | 1.00 | 20.95 | C |
| ATOM | 2940 | C | VAL | A | 535 | -23.407 | -24.273 | 28.764 | 1.00 | 18.09 | C |
| ATOM | 2941 | O | VAL | A | 535 | -23.700 | -23.216 | 29.333 | 1.00 | 20.61 | O |
| ATOM | 2942 | CB | VAL | A | 535 | -22.037 | -23.246 | 26.930 | 1.00 | 18.75 | C |
| ATOM | 2943 | CG1 | VAL | A | 535 | -20.817 | -23.454 | 27.817 | 1.00 | 18.09 | C |
| ATOM | 2944 | CG2 | VAL | A | 535 | -21.662 | -23.332 | 25.457 | 1.00 | 14.38 | C |
| ATOM | 2945 | N | ALA | A | 536 | -23.317 | -25.438 | 29.396 | 1.00 | 17.54 | N |
| ATOM | 2946 | CA | ALA | A | 536 | -23.578 | -25.571 | 30.819 | 1.00 | 19.48 | C |
| ATOM | 2947 | C | ALA | A | 536 | -22.616 | -24.763 | 31.670 | 1.00 | 21.52 | C |
| ATOM | 2948 | O | ALA | A | 536 | -21.428 | -24.686 | 31.379 | 1.00 | 30.13 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2949 | CB | ALA | A | 536 | -23.507 | -27.037 | 31.224 | 1.00 | 17.12 | C |
| ATOM | 2950 | N | SER | A | 537 | -23.141 | -24.158 | 32.724 | 1.00 | 18.37 | N |
| ATOM | 2951 | CA | SER | A | 537 | -22.334 | -23.390 | 33.647 | 1.00 | 18.20 | C |
| ATOM | 2952 | C | SER | A | 537 | -22.745 | -23.868 | 35.031 | 1.00 | 22.85 | C |
| ATOM | 2953 | O | SER | A | 537 | -23.620 | -23.287 | 35.674 | 1.00 | 29.34 | O |
| ATOM | 2954 | CB | SER | A | 537 | -22.602 | -21.897 | 33.488 | 1.00 | 18.64 | C |
| ATOM | 2955 | OG | SER | A | 537 | -21.886 | -21.154 | 34.458 | 1.00 | 24.43 | O |
| ATOM | 2956 | N | VAL | A | 538 | -22.123 | -24.956 | 35.471 | 1.00 | 24.00 | N |
| ATOM | 2957 | CA | VAL | A | 538 | -22.410 | -25.559 | 36.767 | 1.00 | 21.99 | C |
| ATOM | 2958 | C | VAL | A | 538 | -21.238 | -25.306 | 37.712 | 1.00 | 22.96 | C |
| ATOM | 2959 | O | VAL | A | 538 | -20.086 | -25.396 | 37.309 | 1.00 | 24.34 | O |
| ATOM | 2960 | CB | VAL | A | 538 | -22.618 | -27.091 | 36.609 | 1.00 | 18.65 | C |
| ATOM | 2961 | CG1 | VAL | A | 538 | -22.854 | -27.742 | 37.964 | 1.00 | 18.57 | C |
| ATOM | 2962 | CG2 | VAL | A | 538 | -23.775 | -27.359 | 35.675 | 1.00 | 19.06 | C |
| ATOM | 2963 | N | PRO | A | 539 | -21.520 | -24.968 | 38.977 | 1.00 | 21.77 | N |
| ATOM | 2964 | CA | PRO | A | 539 | -20.443 | -24.718 | 39.933 | 1.00 | 24.03 | C |
| ATOM | 2965 | C | PRO | A | 539 | -19.488 | -25.899 | 39.966 | 1.00 | 26.11 | C |
| ATOM | 2966 | O | PRO | A | 539 | -19.920 | -27.055 | 39.992 | 1.00 | 22.01 | O |
| ATOM | 2967 | CB | PRO | A | 539 | -21.172 | -24.538 | 41.258 | 1.00 | 25.09 | C |
| ATOM | 2968 | CG | PRO | A | 539 | -22.517 | -24.049 | 40.864 | 1.00 | 25.34 | C |
| ATOM | 2969 | CD | PRO | A | 539 | -22.842 | -24.770 | 39.586 | 1.00 | 27.53 | C |
| ATOM | 2970 | N | ARG | A | 540 | -18.191 | -25.610 | 39.963 | 1.00 | 24.27 | N |
| ATOM | 2971 | CA | ARG | A | 540 | -17.206 | -26.678 | 39.981 | 1.00 | 22.38 | C |
| ATOM | 2972 | C | ARG | A | 540 | -17.285 | -27.437 | 41.280 | 1.00 | 14.34 | C |
| ATOM | 2973 | O | ARG | A | 540 | -17.563 | -26.871 | 42.336 | 1.00 | 14.91 | O |
| ATOM | 2974 | CB | ARG | A | 540 | -15.780 | -26.138 | 39.804 | 1.00 | 27.55 | C |
| ATOM | 2975 | CG | ARG | A | 540 | -15.663 | -24.638 | 39.613 | 1.00 | 33.57 | C |
| ATOM | 2976 | CD | ARG | A | 540 | -14.567 | -24.299 | 38.606 | 1.00 | 37.33 | C |
| ATOM | 2977 | NE | ARG | A | 540 | -13.600 | -25.387 | 38.464 | 1.00 | 38.23 | N |
| ATOM | 2978 | CZ | ARG | A | 540 | -12.308 | -25.292 | 38.763 | 1.00 | 36.05 | C |
| ATOM | 2979 | NH1 | ARG | A | 540 | -11.806 | -24.156 | 39.225 | 1.00 | 31.33 | N |
| ATOM | 2980 | NH2 | ARG | A | 540 | -11.517 | -26.344 | 38.606 | 1.00 | 40.93 | N |
| ATOM | 2981 | N | THR | A | 541 | -17.012 | -28.728 | 41.188 | 1.00 | 14.62 | N |
| ATOM | 2982 | CA | THR | A | 541 | -17.034 | -29.616 | 42.332 | 1.00 | 17.09 | C |
| ATOM | 2983 | C | THR | A | 541 | -15.716 | -29.538 | 43.123 | 1.00 | 19.23 | C |
| ATOM | 2984 | O | THR | A | 541 | -14.764 | -28.885 | 42.694 | 1.00 | 16.55 | O |
| ATOM | 2985 | CB | THR | A | 541 | -17.281 | -31.054 | 41.865 | 1.00 | 16.64 | C |
| ATOM | 2986 | OG1 | THR | A | 541 | -17.397 | -31.918 | 43.001 | 1.00 | 22.82 | O |
| ATOM | 2987 | CG2 | THR | A | 541 | -16.149 | -31.517 | 40.980 | 1.00 | 17.97 | C |
| ATOM | 2988 | N | SER | A | 542 | -15.686 | -30.201 | 44.279 | 1.00 | 18.82 | N |
| ATOM | 2989 | CA | SER | A | 542 | -14.532 | -30.221 | 45.175 | 1.00 | 19.54 | C |
| ATOM | 2990 | C | SER | A | 542 | -13.320 | -30.922 | 44.563 | 1.00 | 22.85 | C |
| ATOM | 2991 | O | SER | A | 542 | -13.460 | -31.873 | 43.790 | 1.00 | 23.13 | O |
| ATOM | 2992 | CB | SER | A | 542 | -14.894 | -30.918 | 46.495 | 1.00 | 17.26 | C |
| ATOM | 2993 | OG | SER | A | 542 | -15.843 | -30.187 | 47.261 | 1.00 | 18.82 | O |
| ATOM | 2994 | N | TYR | A | 543 | -12.130 | -30.438 | 44.911 | 1.00 | 21.49 | N |
| ATOM | 2995 | CA | TYR | A | 543 | -10.886 | -31.021 | 44.419 | 1.00 | 20.80 | C |
| ATOM | 2996 | C | TYR | A | 543 | -9.709 | -30.631 | 45.313 | 1.00 | 19.26 | C |
| ATOM | 2997 | O | TYR | A | 543 | -9.758 | -29.639 | 46.044 | 1.00 | 18.06 | O |
| ATOM | 2998 | CB | TYR | A | 543 | -10.613 | -30.593 | 42.961 | 1.00 | 19.71 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2999 | CG | TYR | A | 543 | -10.366 | -29.113 | 42.771 | 1.00 | 22.70 | C |
| ATOM | 3000 | CD1 | TYR | A | 543 | -9.167 | -28.527 | 43.180 | 1.00 | 27.25 | C |
| ATOM | 3001 | CD2 | TYR | A | 543 | -11.348 | -28.287 | 42.217 | 1.00 | 22.96 | C |
| ATOM | 3002 | CE1 | TYR | A | 543 | -8.952 | -27.155 | 43.051 | 1.00 | 25.49 | C |
| ATOM | 3003 | CE2 | TYR | A | 543 | -11.146 | -26.912 | 42.082 | 1.00 | 23.19 | C |
| ATOM | 3004 | CZ | TYR | A | 543 | -9.946 | -26.352 | 42.502 | 1.00 | 25.27 | C |
| ATOM | 3005 | OH | TYR | A | 543 | -9.740 | -24.996 | 42.385 | 1.00 | 21.60 | O |
| ATOM | 3006 | N | LEU | A | 544 | -8.661 | -31.442 | 45.268 | 1.00 | 19.49 | N |
| ATOM | 3007 | CA | LEU | A | 544 | -7.456 | -31.193 | 46.047 | 1.00 | 14.96 | C |
| ATOM | 3008 | C | LEU | A | 544 | -6.301 | -31.636 | 45.173 | 1.00 | 15.34 | C |
| ATOM | 3009 | O | LEU | A | 544 | -6.172 | -32.815 | 44.853 | 1.00 | 16.12 | O |
| ATOM | 3010 | CB | LEU | A | 544 | -7.466 | -32.000 | 47.344 | 1.00 | 13.53 | C |
| ATOM | 3011 | CG | LEU | A | 544 | -6.522 | -31.452 | 48.415 | 1.00 | 9.05 | C |
| ATOM | 3012 | CD1 | LEU | A | 544 | -6.912 | -31.929 | 49.796 | 1.00 | 8.65 | C |
| ATOM | 3013 | CD2 | LEU | A | 544 | -5.113 | -31.925 | 48.087 | 1.00 | 20.36 | C |
| ATOM | 3014 | N | SER | A | 545 | -5.474 | -30.680 | 44.771 | 1.00 | 16.49 | N |
| ATOM | 3015 | CA | SER | A | 545 | -4.326 | -30.973 | 43.924 | 1.00 | 15.69 | C |
| ATOM | 3016 | C | SER | A | 545 | -3.025 | -30.897 | 44.728 | 1.00 | 15.37 | C |
| ATOM | 3017 | O | SER | A | 545 | -2.724 | -29.862 | 45.329 | 1.00 | 17.85 | O |
| ATOM | 3018 | CB | SER | A | 545 | -4.268 | -29.969 | 42.779 | 1.00 | 8.71 | C |
| ATOM | 3019 | OG | SER | A | 545 | -5.069 | -30.379 | 41.695 | 1.00 | 19.35 | O |
| ATOM | 3020 | N | ALA | A | 546 | -2.273 | -31.994 | 44.758 | 1.00 | 15.14 | N |
| ATOM | 3021 | CA | ALA | A | 546 | -0.983 | -32.020 | 45.460 | 1.00 | 14.18 | C |
| ATOM | 3022 | C | ALA | A | 546 | 0.109 | -31.842 | 44.399 | 1.00 | 14.23 | C |
| ATOM | 3023 | O | ALA | A | 546 | 0.524 | -32.813 | 43.769 | 1.00 | 17.46 | O |
| ATOM | 3024 | CB | ALA | A | 546 | -0.800 | -33.343 | 46.178 | 1.00 | 8.02 | C |
| ATOM | 3025 | N | PHE | A | 547 | 0.542 | -30.600 | 44.172 | 1.00 | 14.46 | N |
| ATOM | 3026 | CA | PHE | A | 547 | 1.585 | -30.327 | 43.180 | 1.00 | 14.90 | C |
| ATOM | 3027 | C | PHE | A | 547 | 2.923 | -30.531 | 43.890 | 1.00 | 16.51 | C |
| ATOM | 3028 | O | PHE | A | 547 | 3.620 | -29.573 | 44.205 | 1.00 | 14.20 | O |
| ATOM | 3029 | CB | PHE | A | 547 | 1.502 | -28.882 | 42.678 | 1.00 | 18.17 | C |
| ATOM | 3030 | CG | PHE | A | 547 | 0.187 | -28.518 | 42.033 | 1.00 | 14.95 | C |
| ATOM | 3031 | CD1 | PHE | A | 547 | -0.247 | -29.166 | 40.891 | 1.00 | 15.86 | C |
| ATOM | 3032 | CD2 | PHE | A | 547 | -0.586 | -27.489 | 42.548 | 1.00 | 13.10 | C |
| ATOM | 3033 | CE1 | PHE | A | 547 | -1.436 | -28.792 | 40.262 | 1.00 | 21.71 | C |
| ATOM | 3034 | CE2 | PHE | A | 547 | -1.779 | -27.104 | 41.929 | 1.00 | 16.91 | C |
| ATOM | 3035 | CZ | PHE | A | 547 | -2.203 | -27.756 | 40.785 | 1.00 | 15.35 | C |
| ATOM | 3036 | N | ASN | A | 548 | 3.270 | -31.786 | 44.145 | 1.00 | 17.83 | N |
| ATOM | 3037 | CA | ASN | A | 548 | 4.500 | -32.100 | 44.856 | 1.00 | 19.08 | C |
| ATOM | 3038 | C | ASN | A | 548 | 5.775 | -31.754 | 44.095 | 1.00 | 17.37 | C |
| ATOM | 3039 | O | ASN | A | 548 | 6.813 | -31.552 | 44.707 | 1.00 | 22.32 | O |
| ATOM | 3040 | CB | ASN | A | 548 | 4.511 | -33.575 | 45.242 | 1.00 | 16.18 | C |
| ATOM | 3041 | CG | ASN | A | 548 | 3.659 | -33.860 | 46.457 | 1.00 | 18.09 | C |
| ATOM | 3042 | OD1 | ASN | A | 548 | 3.782 | -33.196 | 47.486 | 1.00 | 15.72 | O |
| ATOM | 3043 | ND2 | ASN | A | 548 | 2.789 | -34.858 | 46.347 | 1.00 | 15.83 | N |
| ATOM | 3044 | N | LYS | A | 549 | 5.694 | -31.680 | 42.772 | 1.00 | 14.88 | N |
| ATOM | 3045 | CA | LYS | A | 549 | 6.856 | -31.345 | 41.967 | 1.00 | 18.28 | C |
| ATOM | 3046 | C | LYS | A | 549 | 7.179 | -29.858 | 41.977 | 1.00 | 20.80 | C |
| ATOM | 3047 | O | LYS | A | 549 | 8.160 | -29.426 | 41.367 | 1.00 | 21.11 | O |
| ATOM | 3048 | CB | LYS | A | 549 | 6.675 | -31.830 | 40.532 | 1.00 | 20.77 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3049 | CG | LYS | A | 549 | 6.643 | -33.346 | 40.410 | 1.00 | 25.40 | C |
| ATOM | 3050 | CD | LYS | A | 549 | 7.958 | -33.976 | 40.843 | 1.00 | 22.56 | C |
| ATOM | 3051 | CE | LYS | A | 549 | 8.143 | -35.346 | 40.199 | 1.00 | 26.33 | C |
| ATOM | 3052 | NZ | LYS | A | 549 | 8.018 | -36.439 | 41.195 | 1.00 | 30.31 | N |
| ATOM | 3053 | N | MET | A | 550 | 6.348 | -29.072 | 42.656 | 1.00 | 16.93 | N |
| ATOM | 3054 | CA | MET | A | 550 | 6.604 | -27.646 | 42.784 | 1.00 | 12.03 | C |
| ATOM | 3055 | C | MET | A | 550 | 6.270 | -27.190 | 44.193 | 1.00 | 11.69 | C |
| ATOM | 3056 | O | MET | A | 550 | 6.188 | -25.998 | 44.487 | 1.00 | 14.34 | O |
| ATOM | 3057 | CB | MET | A | 550 | 5.858 | -26.847 | 41.711 | 1.00 | 16.07 | C |
| ATOM | 3058 | CG | MET | A | 550 | 4.361 | -26.623 | 41.890 | 1.00 | 12.57 | C |
| ATOM | 3059 | SD | MET | A | 550 | 3.837 | -25.473 | 40.613 | 1.00 | 17.48 | S |
| ATOM | 3060 | CE | MET | A | 550 | 2.046 | -25.251 | 41.040 | 1.00 | 17.26 | C |
| ATOM | 3061 | N | ASP | A | 551 | 6.125 | -28.178 | 45.072 | 1.00 | 14.20 | N |
| ATOM | 3062 | CA | ASP | A | 551 | 5.826 | -27.974 | 46.486 | 1.00 | 14.20 | C |
| ATOM | 3063 | C | ASP | A | 551 | 4.677 | -27.027 | 46.810 | 1.00 | 15.57 | C |
| ATOM | 3064 | O | ASP | A | 551 | 4.779 | -26.193 | 47.710 | 1.00 | 13.10 | O |
| ATOM | 3065 | CB | ASP | A | 551 | 7.089 | -27.529 | 47.227 | 1.00 | 15.01 | C |
| ATOM | 3066 | CG | ASP | A | 551 | 8.209 | -28.542 | 47.111 | 1.00 | 21.08 | C |
| ATOM | 3067 | OD1 | ASP | A | 551 | 8.024 | -29.688 | 47.572 | 1.00 | 21.55 | O |
| ATOM | 3068 | OD2 | ASP | A | 551 | 9.266 | -28.197 | 46.548 | 1.00 | 18.28 | O |
| ATOM | 3069 | N | LYS | A | 552 | 3.579 | -27.171 | 46.075 | 1.00 | 18.81 | N |
| ATOM | 3070 | CA | LYS | A | 552 | 2.386 | -26.365 | 46.310 | 1.00 | 17.38 | C |
| ATOM | 3071 | C | LYS | A | 552 | 1.199 | -27.328 | 46.414 | 1.00 | 16.31 | C |
| ATOM | 3072 | O | LYS | A | 552 | 1.240 | -28.444 | 45.889 | 1.00 | 12.60 | O |
| ATOM | 3073 | CB | LYS | A | 552 | 2.163 | -25.369 | 45.167 | 1.00 | 15.49 | C |
| ATOM | 3074 | CG | LYS | A | 552 | 3.359 | -24.459 | 44.872 | 1.00 | 14.61 | C |
| ATOM | 3075 | CD | LYS | A | 552 | 3.777 | -23.636 | 46.089 | 1.00 | 8.60 | C |
| ATOM | 3076 | CE | LYS | A | 552 | 4.756 | -22.548 | 45.683 | 1.00 | 9.92 | C |
| ATOM | 3077 | NZ | LYS | A | 552 | 5.419 | -21.944 | 46.860 | 1.00 | 11.88 | N |
| ATOM | 3078 | N | THR | A | 553 | 0.159 | -26.902 | 47.121 | 1.00 | 17.95 | N |
| ATOM | 3079 | CA | THR | A | 553 | -1.045 | -27.715 | 47.289 | 1.00 | 18.57 | C |
| ATOM | 3080 | C | THR | A | 553 | -2.271 | -26.800 | 47.209 | 1.00 | 13.72 | C |
| ATOM | 3081 | O | THR | A | 553 | -2.364 | -25.814 | 47.937 | 1.00 | 15.44 | O |
| ATOM | 3082 | CB | THR | A | 553 | -1.032 | -28.473 | 48.654 | 1.00 | 18.68 | C |
| ATOM | 3083 | OG1 | THR | A | 553 | -0.008 | -29.478 | 48.630 | 1.00 | 20.47 | O |
| ATOM | 3084 | CG2 | THR | A | 553 | -2.377 | -29.160 | 48.914 | 1.00 | 15.70 | C |
| ATOM | 3085 | N | ALA | A | 554 | -3.186 | -27.118 | 46.299 | 1.00 | 16.18 | N |
| ATOM | 3086 | CA | ALA | A | 554 | -4.415 | -26.334 | 46.122 | 1.00 | 16.30 | C |
| ATOM | 3087 | C | ALA | A | 554 | -5.625 | -27.179 | 46.516 | 1.00 | 16.58 | C |
| ATOM | 3088 | O | ALA | A | 554 | -5.770 | -28.327 | 46.079 | 1.00 | 16.15 | O |
| ATOM | 3089 | CB | ALA | A | 554 | -4.550 | -25.867 | 44.672 | 1.00 | 9.88 | C |
| ATOM | 3090 | N | MET | A | 555 | -6.489 | -26.600 | 47.345 | 1.00 | 17.32 | N |
| ATOM | 3091 | CA | MET | A | 555 | -7.675 | -27.294 | 47.823 | 1.00 | 15.79 | C |
| ATOM | 3092 | C | MET | A | 555 | -8.936 | -26.449 | 47.650 | 1.00 | 15.01 | C |
| ATOM | 3093 | O | MET | A | 555 | -8.907 | -25.236 | 47.856 | 1.00 | 15.88 | O |
| ATOM | 3094 | CB | MET | A | 555 | -7.483 | -27.646 | 49.294 | 1.00 | 14.86 | C |
| ATOM | 3095 | CG | MET | A | 555 | -8.643 | -28.366 | 49.928 | 1.00 | 15.75 | C |
| ATOM | 3096 | SD | MET | A | 555 | -8.575 | -28.198 | 51.697 | 1.00 | 20.46 | S |
| ATOM | 3097 | CE | MET | A | 555 | -9.884 | -29.322 | 52.202 | 1.00 | 28.78 | C |
| ATOM | 3098 | N | TYR | A | 556 | -10.037 | -27.095 | 47.264 | 1.00 | 19.12 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3099 | CA | TYR | A | 556 | -11.322 | -26.407 | 47.092 | 1.00 | 19.12 | C |
| ATOM | 3100 | C | TYR | A | 556 | -12.519 | -27.265 | 47.509 | 1.00 | 14.70 | C |
| ATOM | 3101 | O | TYR | A | 556 | -12.656 | -28.401 | 47.070 | 1.00 | 13.71 | O |
| ATOM | 3102 | CB | TYR | A | 556 | -11.531 | -25.959 | 45.640 | 1.00 | 19.50 | C |
| ATOM | 3103 | CG | TYR | A | 556 | -12.864 | -25.264 | 45.430 | 1.00 | 20.19 | C |
| ATOM | 3104 | CD1 | TYR | A | 556 | -13.133 | -24.038 | 46.038 | 1.00 | 21.11 | C |
| ATOM | 3105 | CD2 | TYR | A | 556 | -13.868 | -25.848 | 44.653 | 1.00 | 22.54 | C |
| ATOM | 3106 | CE1 | TYR | A | 556 | -14.371 | -23.407 | 45.880 | 1.00 | 22.19 | C |
| ATOM | 3107 | CE2 | TYR | A | 556 | -15.116 | -25.222 | 44.488 | 1.00 | 21.90 | C |
| ATOM | 3108 | CZ | TYR | A | 556 | -15.354 | -24.004 | 45.107 | 1.00 | 20.77 | C |
| ATOM | 3109 | OH | TYR | A | 556 | -16.571 | -23.380 | 44.965 | 1.00 | 21.95 | O |
| ATOM | 3110 | N | ASN | A | 557 | -13.374 | -26.686 | 48.352 | 1.00 | 14.99 | N |
| ATOM | 3111 | CA | ASN | A | 557 | -14.589 | -27.322 | 48.865 | 1.00 | 15.68 | C |
| ATOM | 3112 | C | ASN | A | 557 | -15.803 | -26.637 | 48.200 | 1.00 | 15.83 | C |
| ATOM | 3113 | O | ASN | A | 557 | -16.110 | -25.479 | 48.499 | 1.00 | 16.53 | O |
| ATOM | 3114 | CB | ASN | A | 557 | -14.645 | -27.136 | 50.381 | 1.00 | 14.69 | C |
| ATOM | 3115 | CG | ASN | A | 557 | -15.805 | -27.862 | 51.017 | 1.00 | 19.24 | C |
| ATOM | 3116 | OD1 | ASN | A | 557 | -15.671 | -28.434 | 52.101 | 1.00 | 18.36 | O |
| ATOM | 3117 | ND2 | ASN | A | 557 | -16.953 | -27.848 | 50.349 | 1.00 | 18.49 | N |
| ATOM | 3118 | N | ALA | A | 558 | -16.476 | -27.341 | 47.290 | 1.00 | 16.16 | N |
| ATOM | 3119 | CA | ALA | A | 558 | -17.627 | -26.760 | 46.590 | 1.00 | 15.92 | C |
| ATOM | 3120 | C | ALA | A | 558 | -18.852 | -26.647 | 47.481 | 1.00 | 14.79 | C |
| ATOM | 3121 | O | ALA | A | 558 | -19.646 | -25.727 | 47.322 | 1.00 | 17.61 | O |
| ATOM | 3122 | CB | ALA | A | 558 | -17.968 | -27.574 | 45.354 | 1.00 | 9.11 | C |
| ATOM | 3123 | N | GLU | A | 559 | -18.998 | -27.569 | 48.426 | 1.00 | 17.87 | N |
| ATOM | 3124 | CA | GLU | A | 559 | -20.145 | -27.554 | 49.328 | 1.00 | 18.05 | C |
| ATOM | 3125 | C | GLU | A | 559 | -20.140 | -26.315 | 50.200 | 1.00 | 20.89 | C |
| ATOM | 3126 | O | GLU | A | 559 | -21.144 | -25.622 | 50.288 | 1.00 | 20.22 | O |
| ATOM | 3127 | CB | GLU | A | 559 | -20.166 | -28.798 | 50.225 | 1.00 | 19.49 | C |
| ATOM | 3128 | CG | GLU | A | 559 | -21.111 | -28.671 | 51.432 | 1.00 | 22.65 | C |
| ATOM | 3129 | CD | GLU | A | 559 | -21.142 | -29.910 | 52.325 | 1.00 | 25.92 | C |
| ATOM | 3130 | OE1 | GLU | A | 559 | -20.353 | -30.848 | 52.087 | 1.00 | 31.06 | O |
| ATOM | 3131 | OE2 | GLU | A | 559 | -21.955 | -29.946 | 53.276 | 1.00 | 22.33 | O |
| ATOM | 3132 | N | LYS | A | 560 | -19.007 | -26.033 | 50.841 | 1.00 | 19.62 | N |
| ATOM | 3133 | CA | LYS | A | 560 | -18.905 | -24.870 | 51.714 | 1.00 | 15.49 | C |
| ATOM | 3134 | C | LYS | A | 560 | -18.382 | -23.648 | 50.975 | 1.00 | 14.98 | C |
| ATOM | 3135 | O | LYS | A | 560 | -18.464 | -22.531 | 51.483 | 1.00 | 18.46 | O |
| ATOM | 3136 | CB | LYS | A | 560 | -18.036 | -25.192 | 52.925 | 1.00 | 15.42 | C |
| ATOM | 3137 | CG | LYS | A | 560 | -18.853 | -25.463 | 54.180 | 1.00 | 21.68 | C |
| ATOM | 3138 | CD | LYS | A | 560 | -18.685 | -26.882 | 54.654 | 1.00 | 25.16 | C |
| ATOM | 3139 | CE | LYS | A | 560 | -19.339 | -27.087 | 56.012 | 1.00 | 34.78 | C |
| ATOM | 3140 | NZ | LYS | A | 560 | -18.349 | -27.172 | 57.133 | 1.00 | 32.40 | N |
| ATOM | 3141 | N | GLY | A | 561 | -17.855 | -23.872 | 49.774 | 1.00 | 13.26 | N |
| ATOM | 3142 | CA | GLY | A | 561 | -17.372 | -22.787 | 48.939 | 1.00 | 15.08 | C |
| ATOM | 3143 | C | GLY | A | 561 | -16.120 | -22.013 | 49.319 | 1.00 | 19.37 | C |
| ATOM | 3144 | O | GLY | A | 561 | -16.068 | -20.798 | 49.136 | 1.00 | 19.23 | O |
| ATOM | 3145 | N | PHE | A | 562 | -15.107 | -22.684 | 49.849 | 1.00 | 18.33 | N |
| ATOM | 3146 | CA | PHE | A | 562 | -13.875 | -21.971 | 50.175 | 1.00 | 16.64 | C |
| ATOM | 3147 | C | PHE | A | 562 | -12.686 | -22.650 | 49.498 | 1.00 | 18.19 | C |
| ATOM | 3148 | O | PHE | A | 562 | -12.736 | -23.838 | 49.178 | 1.00 | 18.01 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3149 | CB | PHE | A | 562 | -13.666 | -21.892 | 51.695 | 1.00 | 15.52 | C |
| ATOM | 3150 | CG | PHE | A | 562 | -13.282 | -23.199 | 52.340 | 1.00 | 18.79 | C |
| ATOM | 3151 | CD1 | PHE | A | 562 | -11.958 | -23.636 | 52.336 | 1.00 | 19.41 | C |
| ATOM | 3152 | CD2 | PHE | A | 562 | -14.235 | -23.968 | 53.003 | 1.00 | 18.21 | C |
| ATOM | 3153 | CE1 | PHE | A | 562 | -11.588 | -24.823 | 52.988 | 1.00 | 18.54 | C |
| ATOM | 3154 | CE2 | PHE | A | 562 | -13.881 | -25.157 | 53.659 | 1.00 | 18.72 | C |
| ATOM | 3155 | CZ | PHE | A | 562 | -12.552 | -25.585 | 53.652 | 1.00 | 20.77 | C |
| ATOM | 3156 | N | GLY | A | 563 | -11.636 | -21.876 | 49.246 | 1.00 | 18.26 | N |
| ATOM | 3157 | CA | GLY | A | 563 | -10.440 | -22.417 | 48.625 | 1.00 | 17.39 | C |
| ATOM | 3158 | C | GLY | A | 563 | -9.289 | -22.305 | 49.607 | 1.00 | 15.47 | C |
| ATOM | 3159 | O | GLY | A | 563 | -9.298 | -21.425 | 50.479 | 1.00 | 12.34 | O |
| ATOM | 3160 | N | PHE | A | 564 | -8.308 | -23.196 | 49.486 | 1.00 | 14.98 | N |
| ATOM | 3161 | CA | PHE | A | 564 | -7.150 | -23.180 | 50.382 | 1.00 | 15.63 | C |
| ATOM | 3162 | C | PHE | A | 564 | -5.893 | -23.499 | 49.594 | 1.00 | 15.61 | C |
| ATOM | 3163 | O | PHE | A | 564 | -5.866 | -24.460 | 48.826 | 1.00 | 12.40 | O |
| ATOM | 3164 | CB | PHE | A | 564 | -7.343 | -24.206 | 51.498 | 1.00 | 16.53 | C |
| ATOM | 3165 | CG | PHE | A | 564 | -6.116 | -24.443 | 52.345 | 1.00 | 17.53 | C |
| ATOM | 3166 | CD1 | PHE | A | 564 | -5.799 | -23.587 | 53.395 | 1.00 | 15.55 | C |
| ATOM | 3167 | CD2 | PHE | A | 564 | -5.317 | -25.564 | 52.135 | 1.00 | 17.32 | C |
| ATOM | 3168 | CE1 | PHE | A | 564 | -4.712 | -23.845 | 54.226 | 1.00 | 17.48 | C |
| ATOM | 3169 | CE2 | PHE | A | 564 | -4.226 | -25.832 | 52.960 | 1.00 | 13.51 | C |
| ATOM | 3170 | CZ | PHE | A | 564 | -3.924 | -24.972 | 54.007 | 1.00 | 15.94 | C |
| ATOM | 3171 | N | GLY | A | 565 | -4.866 | -22.670 | 49.781 | 1.00 | 17.08 | N |
| ATOM | 3172 | CA | GLY | A | 565 | -3.595 | -22.866 | 49.097 | 1.00 | 14.91 | C |
| ATOM | 3173 | C | GLY | A | 565 | -2.430 | -22.988 | 50.073 | 1.00 | 14.94 | C |
| ATOM | 3174 | O | GLY | A | 565 | -2.274 | -22.179 | 50.994 | 1.00 | 14.91 | O |
| ATOM | 3175 | N | LEU | A | 566 | -1.614 | -24.018 | 49.895 | 1.00 | 15.58 | N |
| ATOM | 3176 | CA | LEU | A | 566 | -0.462 | -24.208 | 50.773 | 1.00 | 16.98 | C |
| ATOM | 3177 | C | LEU | A | 566 | 0.781 | -23.950 | 49.949 | 1.00 | 14.02 | C |
| ATOM | 3178 | O | LEU | A | 566 | 1.013 | -24.632 | 48.955 | 1.00 | 12.08 | O |
| ATOM | 3179 | CB | LEU | A | 566 | -0.438 | -25.627 | 51.331 | 1.00 | 15.16 | C |
| ATOM | 3180 | CG | LEU | A | 566 | 0.599 | -25.906 | 52.422 | 1.00 | 12.17 | C |
| ATOM | 3181 | CD1 | LEU | A | 566 | 0.521 | -24.855 | 53.532 | 1.00 | 10.47 | C |
| ATOM | 3182 | CD2 | LEU | A | 566 | 0.360 | -27.315 | 52.960 | 1.00 | 8.91 | C |
| ATOM | 3183 | N | SER | A | 567 | 1.560 | -22.952 | 50.362 | 1.00 | 18.62 | N |
| ATOM | 3184 | CA | SER | A | 567 | 2.776 | -22.554 | 49.650 | 1.00 | 17.62 | C |
| ATOM | 3185 | C | SER | A | 567 | 4.041 | -22.926 | 50.398 | 1.00 | 17.72 | C |
| ATOM | 3186 | O | SER | A | 567 | 4.310 | -22.422 | 51.490 | 1.00 | 17.98 | O |
| ATOM | 3187 | CB | SER | A | 567 | 2.780 | -21.044 | 49.423 | 1.00 | 14.73 | C |
| ATOM | 3188 | OG | SER | A | 567 | 3.852 | -20.657 | 48.589 | 1.00 | 14.77 | O |
| ATOM | 3189 | N | LEU | A | 568 | 4.824 | -23.810 | 49.800 | 1.00 | 18.94 | N |
| ATOM | 3190 | CA | LEU | A | 568 | 6.071 | -24.224 | 50.423 | 1.00 | 19.33 | C |
| ATOM | 3191 | C | LEU | A | 568 | 7.200 | -24.267 | 49.387 | 1.00 | 15.24 | C |
| ATOM | 3192 | O | LEU | A | 568 | 7.035 | -23.839 | 48.238 | 1.00 | 11.75 | O |
| ATOM | 3193 | CB | LEU | A | 568 | 5.907 | -25.616 | 51.061 | 1.00 | 16.46 | C |
| ATOM | 3194 | CG | LEU | A | 568 | 4.543 | -26.040 | 51.605 | 1.00 | 15.28 | C |
| ATOM | 3195 | CD1 | LEU | A | 568 | 4.545 | -27.537 | 51.843 | 1.00 | 12.94 | C |
| ATOM | 3196 | CD2 | LEU | A | 568 | 4.245 | -25.296 | 52.899 | 1.00 | 12.97 | C |
| ATOM | 3197 | N | PHE | A | 569 | 8.350 | -24.768 | 49.831 | 1.00 | 16.23 | N |
| ATOM | 3198 | CA | PHE | A | 569 | 9.520 | -24.965 | 48.989 | 1.00 | 16.35 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3199 | C | PHE | A | 569 | 10.386 | -26.005 | 49.686 | 1.00 | 18.19 | C |
| ATOM | 3200 | O | PHE | A | 569 | 10.151 | -26.351 | 50.847 | 1.00 | 12.52 | O |
| ATOM | 3201 | CB | PHE | A | 569 | 10.291 | -23.653 | 48.746 | 1.00 | 17.20 | C |
| ATOM | 3202 | CG | PHE | A | 569 | 11.125 | -23.180 | 49.913 | 1.00 | 16.12 | C |
| ATOM | 3203 | CD1 | PHE | A | 569 | 10.525 | -22.721 | 51.084 | 1.00 | 12.15 | C |
| ATOM | 3204 | CD2 | PHE | A | 569 | 12.514 | -23.118 | 49.808 | 1.00 | 19.07 | C |
| ATOM | 3205 | CE1 | PHE | A | 569 | 11.288 | -22.202 | 52.131 | 1.00 | 17.79 | C |
| ATOM | 3206 | CE2 | PHE | A | 569 | 13.292 | -22.599 | 50.852 | 1.00 | 16.10 | C |
| ATOM | 3207 | CZ | PHE | A | 569 | 12.678 | -22.139 | 52.014 | 1.00 | 13.43 | C |
| ATOM | 3208 | N | SER | A | 570 | 11.368 | -26.531 | 48.969 | 1.00 | 19.70 | N |
| ATOM | 3209 | CA | SER | A | 570 | 12.238 | -27.542 | 49.545 | 1.00 | 17.96 | C |
| ATOM | 3210 | C | SER | A | 570 | 13.617 | -27.435 | 48.914 | 1.00 | 19.83 | C |
| ATOM | 3211 | O | SER | A | 570 | 13.949 | -26.428 | 48.284 | 1.00 | 19.28 | O |
| ATOM | 3212 | CB | SER | A | 570 | 11.669 | -28.935 | 49.270 | 1.00 | 14.08 | C |
| ATOM | 3213 | OG | SER | A | 570 | 11.726 | -29.214 | 47.880 | 1.00 | 12.60 | O |
| ATOM | 3214 | N | SER | A | 571 | 14.403 | -28.494 | 49.072 | 1.00 | 21.62 | N |
| ATOM | 3215 | CA | SER | A | 571 | 15.737 | -28.544 | 48.501 | 1.00 | 18.28 | C |
| ATOM | 3216 | C | SER | A | 571 | 15.598 | -28.548 | 46.983 | 1.00 | 18.10 | C |
| ATOM | 3217 | O | SER | A | 571 | 16.550 | -28.258 | 46.259 | 1.00 | 17.83 | O |
| ATOM | 3218 | CB | SER | A | 571 | 16.447 | -29.812 | 48.967 | 1.00 | 16.99 | C |
| ATOM | 3219 | OG | SER | A | 571 | 15.776 | -30.966 | 48.496 | 1.00 | 19.67 | O |
| ATOM | 3220 | N | ARG | A | 572 | 14.393 | -28.861 | 46.507 | 1.00 | 16.68 | N |
| ATOM | 3221 | CA | ARG | A | 572 | 14.110 | -28.917 | 45.073 | 1.00 | 11.33 | C |
| ATOM | 3222 | C | ARG | A | 572 | 13.550 | -27.623 | 44.497 | 1.00 | 8.69 | C |
| ATOM | 3223 | O | ARG | A | 572 | 13.477 | -27.471 | 43.294 | 1.00 | 12.48 | O |
| ATOM | 3224 | CB | ARG | A | 572 | 13.101 | -30.032 | 44.768 | 1.00 | 13.06 | C |
| ATOM | 3225 | CG | ARG | A | 572 | 13.497 | -31.421 | 45.246 | 1.00 | 15.81 | C |
| ATOM | 3226 | CD | ARG | A | 572 | 12.314 | -32.380 | 45.203 | 1.00 | 15.29 | C |
| ATOM | 3227 | NE | ARG | A | 572 | 11.255 | -31.917 | 46.091 | 1.00 | 20.40 | N |
| ATOM | 3228 | CZ | ARG | A | 572 | 11.058 | -32.367 | 47.325 | 1.00 | 20.66 | C |
| ATOM | 3229 | NH1 | ARG | A | 572 | 11.845 | -33.307 | 47.834 | 1.00 | 15.25 | N |
| ATOM | 3230 | NH2 | ARG | A | 572 | 10.090 | -31.847 | 48.068 | 1.00 | 16.80 | N |
| ATOM | 3231 | N | THR | A | 573 | 13.171 | -26.681 | 45.344 | 1.00 | 11.15 | N |
| ATOM | 3232 | CA | THR | A | 573 | 12.567 | -25.465 | 44.831 | 1.00 | 11.43 | C |
| ATOM | 3233 | C | THR | A | 573 | 12.990 | -24.210 | 45.569 | 1.00 | 9.73 | C |
| ATOM | 3234 | O | THR | A | 573 | 13.314 | -24.250 | 46.751 | 1.00 | 12.69 | O |
| ATOM | 3235 | CB | THR | A | 573 | 11.018 | -25.564 | 44.927 | 1.00 | 14.05 | C |
| ATOM | 3236 | OG1 | THR | A | 573 | 10.664 | -26.021 | 46.237 | 1.00 | 14.93 | O |
| ATOM | 3237 | CG2 | THR | A | 573 | 10.465 | -26.551 | 43.902 | 1.00 | 11.51 | C |
| ATOM | 3238 | N | LEU | A | 574 | 12.960 | -23.093 | 44.852 | 1.00 | 11.49 | N |
| ATOM | 3239 | CA | LEU | A | 574 | 13.302 | -21.788 | 45.410 | 1.00 | 14.38 | C |
| ATOM | 3240 | C | LEU | A | 574 | 12.107 | -21.247 | 46.215 | 1.00 | 18.28 | C |
| ATOM | 3241 | O | LEU | A | 574 | 10.965 | -21.389 | 45.779 | 1.00 | 17.28 | O |
| ATOM | 3242 | CB | LEU | A | 574 | 13.622 | -20.833 | 44.260 | 1.00 | 15.33 | C |
| ATOM | 3243 | CG | LEU | A | 574 | 14.504 | -19.642 | 44.613 | 1.00 | 19.80 | C |
| ATOM | 3244 | CD1 | LEU | A | 574 | 15.940 | -20.128 | 44.819 | 1.00 | 17.86 | C |
| ATOM | 3245 | CD2 | LEU | A | 574 | 14.413 | -18.605 | 43.510 | 1.00 | 19.93 | C |
| ATOM | 3246 | N | ASN | A | 575 | 12.352 | -20.623 | 47.366 | 1.00 | 15.81 | N |
| ATOM | 3247 | CA | ASN | A | 575 | 11.241 | -20.105 | 48.160 | 1.00 | 17.32 | C |
| ATOM | 3248 | C | ASN | A | 575 | 10.529 | -18.927 | 47.499 | 1.00 | 22.21 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3249 | O | ASN | A | 575 | 9.300 | -18.925 | 47.386 | 1.00 | 21.26 | O |
| ATOM | 3250 | CB | ASN | A | 575 | 11.689 | -19.724 | 49.576 | 1.00 | 18.34 | C |
| ATOM | 3251 | CG | ASN | A | 575 | 12.953 | -18.887 | 49.601 | 1.00 | 18.42 | C |
| ATOM | 3252 | OD1 | ASN | A | 575 | 13.443 | -18.438 | 48.564 | 1.00 | 17.61 | O |
| ATOM | 3253 | ND2 | ASN | A | 575 | 13.483 | -18.670 | 50.800 | 1.00 | 14.00 | N |
| ATOM | 3254 | N | TYR | A | 576 | 11.278 | -17.920 | 47.066 | 1.00 | 21.06 | N |
| ATOM | 3255 | CA | TYR | A | 576 | 10.651 | -16.790 | 46.391 | 1.00 | 21.12 | C |
| ATOM | 3256 | C | TYR | A | 576 | 11.554 | -16.215 | 45.316 | 1.00 | 24.17 | C |
| ATOM | 3257 | O | TYR | A | 576 | 12.781 | -16.354 | 45.378 | 1.00 | 25.81 | O |
| ATOM | 3258 | CB | TYR | A | 576 | 10.259 | -15.703 | 47.393 | 1.00 | 20.31 | C |
| ATOM | 3259 | CG | TYR | A | 576 | 11.391 | -14.795 | 47.814 | 1.00 | 23.59 | C |
| ATOM | 3260 | CD1 | TYR | A | 576 | 12.354 | -15.232 | 48.729 | 1.00 | 19.70 | C |
| ATOM | 3261 | CD2 | TYR | A | 576 | 11.498 | -13.496 | 47.310 | 1.00 | 21.96 | C |
| ATOM | 3262 | CE1 | TYR | A | 576 | 13.395 | -14.400 | 49.133 | 1.00 | 20.34 | C |
| ATOM | 3263 | CE2 | TYR | A | 576 | 12.542 | -12.651 | 47.710 | 1.00 | 22.11 | C |
| ATOM | 3264 | CZ | TYR | A | 576 | 13.486 | -13.112 | 48.622 | 1.00 | 22.03 | C |
| ATOM | 3265 | OH | TYR | A | 576 | 14.513 | -12.289 | 49.036 | 1.00 | 23.12 | O |
| ATOM | 3266 | N | GLU | A | 577 | 10.941 | -15.588 | 44.316 | 1.00 | 24.18 | N |
| ATOM | 3267 | CA | GLU | A | 577 | 11.688 | -14.990 | 43.221 | 1.00 | 20.88 | C |
| ATOM | 3268 | C | GLU | A | 577 | 11.705 | -13.470 | 43.260 | 1.00 | 24.52 | C |
| ATOM | 3269 | O | GLU | A | 577 | 10.658 | -12.823 | 43.145 | 1.00 | 20.99 | O |
| ATOM | 3270 | CB | GLU | A | 577 | 11.126 | -15.440 | 41.877 | 1.00 | 20.06 | C |
| ATOM | 3271 | CG | GLU | A | 577 | 12.202 | -15.676 | 40.841 | 1.00 | 23.05 | C |
| ATOM | 3272 | CD | GLU | A | 577 | 11.799 | -15.234 | 39.461 | 1.00 | 23.44 | C |
| ATOM | 3273 | OE1 | GLU | A | 577 | 11.447 | -14.055 | 39.285 | 1.00 | 29.43 | O |
| ATOM | 3274 | OE2 | GLU | A | 577 | 11.841 | -16.071 | 38.544 | 1.00 | 29.27 | O |
| ATOM | 3275 | N | HIS | A | 578 | 12.901 | -12.912 | 43.451 | 1.00 | 24.39 | N |
| ATOM | 3276 | CA | HIS | A | 578 | 13.108 | -11.471 | 43.459 | 1.00 | 22.40 | C |
| ATOM | 3277 | C | HIS | A | 578 | 14.089 | -11.244 | 42.335 | 1.00 | 25.19 | C |
| ATOM | 3278 | O | HIS | A | 578 | 15.279 | -11.494 | 42.497 | 1.00 | 26.89 | O |
| ATOM | 3279 | CB | HIS | A | 578 | 13.742 | -10.982 | 44.758 | 1.00 | 20.38 | C |
| ATOM | 3280 | CG | HIS | A | 578 | 14.297 | -9.593 | 44.658 | 1.00 | 24.34 | C |
| ATOM | 3281 | ND1 | HIS | A | 578 | 15.257 | -9.104 | 45.519 | 1.00 | 24.91 | N |
| ATOM | 3282 | CD2 | HIS | A | 578 | 14.032 | -8.590 | 43.785 | 1.00 | 23.77 | C |
| ATOM | 3283 | CE1 | HIS | A | 578 | 15.558 | -7.863 | 45.180 | 1.00 | 25.40 | C |
| ATOM | 3284 | NE2 | HIS | A | 578 | 14.830 | -7.527 | 44.131 | 1.00 | 24.97 | N |
| ATOM | 3285 | N | MET | A | 579 | 13.588 | -10.776 | 41.198 | 1.00 | 26.42 | N |
| ATOM | 3286 | CA | MET | A | 579 | 14.416 | -10.537 | 40.032 | 1.00 | 25.66 | C |
| ATOM | 3287 | C | MET | A | 579 | 13.950 | -9.269 | 39.331 | 1.00 | 28.32 | C |
| ATOM | 3288 | O | MET | A | 579 | 12.767 | -8.943 | 39.339 | 1.00 | 31.02 | O |
| ATOM | 3289 | CB | MET | A | 579 | 14.320 | -11.743 | 39.088 | 1.00 | 25.76 | C |
| ATOM | 3290 | CG | MET | A | 579 | 14.971 | -11.563 | 37.727 | 1.00 | 31.65 | C |
| ATOM | 3291 | SD | MET | A | 579 | 14.735 | -12.989 | 36.633 | 1.00 | 32.24 | S |
| ATOM | 3292 | CE | MET | A | 579 | 15.314 | -14.290 | 37.692 | 1.00 | 35.17 | C |
| ATOM | 3293 | N | ASN | A | 580 | 14.892 | -8.547 | 38.738 | 1.00 | 28.20 | N |
| ATOM | 3294 | CA | ASN | A | 580 | 14.588 | -7.322 | 38.019 | 1.00 | 26.12 | C |
| ATOM | 3295 | C | ASN | A | 580 | 13.910 | -6.272 | 38.885 | 1.00 | 26.65 | C |
| ATOM | 3296 | O | ASN | A | 580 | 13.121 | -5.459 | 38.401 | 1.00 | 27.49 | O |
| ATOM | 3297 | CB | ASN | A | 580 | 13.728 | -7.643 | 36.801 | 1.00 | 28.03 | C |
| ATOM | 3298 | CG | ASN | A | 580 | 14.515 | -8.342 | 35.715 | 1.00 | 36.31 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3299 | OD1 | ASN | A | 580 | 15.695 | -8.650 | 35.891 | 1.00 | 45.13 | O |
| ATOM | 3300 | ND2 | ASN | A | 580 | 13.873 | -8.596 | 34.586 | 1.00 | 38.44 | N |
| ATOM | 3301 | N | LYS | A | 581 | 14.233 | -6.293 | 40.170 | 1.00 | 25.38 | N |
| ATOM | 3302 | CA | LYS | A | 581 | 13.685 | -5.338 | 41.118 | 1.00 | 30.90 | C |
| ATOM | 3303 | C | LYS | A | 581 | 12.216 | -5.576 | 41.484 | 1.00 | 25.95 | C |
| ATOM | 3304 | O | LYS | A | 581 | 11.583 | -4.722 | 42.107 | 1.00 | 25.47 | O |
| ATOM | 3305 | CB | LYS | A | 581 | 13.867 | -3.919 | 40.572 | 1.00 | 36.08 | C |
| ATOM | 3306 | CG | LYS | A | 581 | 15.316 | -3.454 | 40.532 | 1.00 | 42.17 | C |
| ATOM | 3307 | CD | LYS | A | 581 | 15.903 | -3.609 | 39.143 | 1.00 | 48.76 | C |
| ATOM | 3308 | CE | LYS | A | 581 | 15.931 | -2.280 | 38.392 | 1.00 | 54.74 | C |
| ATOM | 3309 | NZ | LYS | A | 581 | 16.977 | -2.253 | 37.322 | 1.00 | 57.71 | N |
| ATOM | 3310 | N | GLU | A | 582 | 11.683 | -6.732 | 41.104 | 1.00 | 23.54 | N |
| ATOM | 3311 | CA | GLU | A | 582 | 10.294 | -7.075 | 41.412 | 1.00 | 21.01 | C |
| ATOM | 3312 | C | GLU | A | 582 | 10.229 | -8.069 | 42.559 | 1.00 | 19.35 | C |
| ATOM | 3313 | O | GLU | A | 582 | 11.058 | -8.964 | 42.658 | 1.00 | 15.42 | O |
| ATOM | 3314 | CB | GLU | A | 582 | 9.612 | -7.692 | 40.196 | 1.00 | 17.76 | C |
| ATOM | 3315 | CG | GLU | A | 582 | 9.802 | -6.926 | 38.920 | 1.00 | 16.55 | C |
| ATOM | 3316 | CD | GLU | A | 582 | 8.833 | -7.361 | 37.855 | 1.00 | 22.35 | C |
| ATOM | 3317 | OE1 | GLU | A | 582 | 9.177 | -8.284 | 37.085 | 1.00 | 23.46 | O |
| ATOM | 3318 | OE2 | GLU | A | 582 | 7.724 | -6.782 | 37.789 | 1.00 | 26.02 | O |
| ATOM | 3319 | N | ASN | A | 583 | 9.221 | -7.915 | 43.409 | 1.00 | 20.78 | N |
| ATOM | 3320 | CA | ASN | A | 583 | 9.003 | -8.780 | 44.568 | 1.00 | 19.49 | C |
| ATOM | 3321 | C | ASN | A | 583 | 10.158 | -8.733 | 45.556 | 1.00 | 20.70 | C |
| ATOM | 3322 | O | ASN | A | 583 | 10.687 | -9.766 | 45.965 | 1.00 | 21.11 | O |
| ATOM | 3323 | CB | ASN | A | 583 | 8.736 | -10.237 | 44.139 | 1.00 | 17.90 | C |
| ATOM | 3324 | CG | ASN | A | 583 | 8.045 | -11.054 | 45.236 | 1.00 | 15.55 | C |
| ATOM | 3325 | OD1 | ASN | A | 583 | 7.484 | -10.488 | 46.172 | 1.00 | 17.87 | O |
| ATOM | 3326 | ND2 | ASN | A | 583 | 8.091 | -12.385 | 45.128 | 1.00 | 13.15 | N |
| ATOM | 3327 | N | LYS | A | 584 | 10.518 | -7.519 | 45.958 | 1.00 | 19.22 | N |
| ATOM | 3328 | CA | LYS | A | 584 | 11.601 | -7.294 | 46.902 | 1.00 | 19.21 | C |
| ATOM | 3329 | C | LYS | A | 584 | 11.355 | -7.834 | 48.301 | 1.00 | 20.29 | C |
| ATOM | 3330 | O | LYS | A | 584 | 12.302 | -8.050 | 49.043 | 1.00 | 20.70 | O |
| ATOM | 3331 | CB | LYS | A | 584 | 11.898 | -5.799 | 47.006 | 1.00 | 19.67 | C |
| ATOM | 3332 | CG | LYS | A | 584 | 12.179 | -5.131 | 45.676 | 1.00 | 22.73 | C |
| ATOM | 3333 | CD | LYS | A | 584 | 12.289 | -3.644 | 45.847 | 1.00 | 25.08 | C |
| ATOM | 3334 | CE | LYS | A | 584 | 13.190 | -3.051 | 44.801 | 1.00 | 32.67 | C |
| ATOM | 3335 | NZ | LYS | A | 584 | 13.181 | -1.561 | 44.883 | 1.00 | 42.63 | N |
| ATOM | 3336 | N | ARG | A | 585 | 10.100 | -8.049 | 48.682 | 1.00 | 17.53 | N |
| ATOM | 3337 | CA | ARG | A | 585 | 9.842 | -8.547 | 50.027 | 1.00 | 15.92 | C |
| ATOM | 3338 | C | ARG | A | 585 | 9.029 | -9.839 | 50.136 | 1.00 | 18.87 | C |
| ATOM | 3339 | O | ARG | A | 585 | 8.311 | -10.053 | 51.120 | 1.00 | 18.34 | O |
| ATOM | 3340 | CB | ARG | A | 585 | 9.178 | -7.460 | 50.864 | 1.00 | 18.21 | C |
| ATOM | 3341 | CG | ARG | A | 585 | 9.520 | -6.056 | 50.424 | 1.00 | 18.20 | C |
| ATOM | 3342 | CD | ARG | A | 585 | 9.389 | -5.085 | 51.574 | 1.00 | 17.84 | C |
| ATOM | 3343 | NE | ARG | A | 585 | 10.240 | -3.924 | 51.370 | 1.00 | 22.81 | N |
| ATOM | 3344 | CZ | ARG | A | 585 | 10.008 | -2.729 | 51.892 | 1.00 | 29.51 | C |
| ATOM | 3345 | NH1 | ARG | A | 585 | 8.945 | -2.533 | 52.656 | 1.00 | 30.89 | N |
| ATOM | 3346 | NH2 | ARG | A | 585 | 10.837 | -1.724 | 51.643 | 1.00 | 36.26 | N |
| ATOM | 3347 | N | GLY | A | 586 | 9.165 | -10.714 | 49.146 | 1.00 | 17.02 | N |
| ATOM | 3348 | CA | GLY | A | 586 | 8.436 | -11.968 | 49.185 | 1.00 | 18.63 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3349 | C | GLY | A | 586 | 9.162 | -13.007 | 50.009 | 1.00 | 18.46 | C |
| ATOM | 3350 | O | GLY | A | 586 | 8.850 | -14.198 | 49.931 | 1.00 | 18.12 | O |
| ATOM | 3351 | N | TRP | A | 587 | 10.118 | -12.546 | 50.815 | 1.00 | 18.03 | N |
| ATOM | 3352 | CA | TRP | A | 587 | 10.943 | -13.420 | 51.654 | 1.00 | 15.84 | C |
| ATOM | 3353 | C | TRP | A | 587 | 10.296 | -14.676 | 52.202 | 1.00 | 19.57 | C |
| ATOM | 3354 | O | TRP | A | 587 | 10.815 | -15.776 | 52.030 | 1.00 | 18.33 | O |
| ATOM | 3355 | CB | TRP | A | 587 | 11.495 | -12.659 | 52.855 | 1.00 | 14.21 | C |
| ATOM | 3356 | CG | TRP | A | 587 | 12.090 | -11.343 | 52.535 | 1.00 | 17.68 | C |
| ATOM | 3357 | CD1 | TRP | A | 587 | 13.091 | -11.084 | 51.651 | 1.00 | 16.19 | C |
| ATOM | 3358 | CD2 | TRP | A | 587 | 11.725 | -10.090 | 53.113 | 1.00 | 18.21 | C |
| ATOM | 3359 | NE1 | TRP | A | 587 | 13.378 | -9.741 | 51.640 | 1.00 | 19.25 | N |
| ATOM | 3360 | CE2 | TRP | A | 587 | 12.552 | -9.107 | 52.530 | 1.00 | 15.88 | C |
| ATOM | 3361 | CE3 | TRP | A | 587 | 10.779 | -9.701 | 54.070 | 1.00 | 16.80 | C |
| ATOM | 3362 | CZ2 | TRP | A | 587 | 12.462 | -7.760 | 52.868 | 1.00 | 18.62 | C |
| ATOM | 3363 | CZ3 | TRP | A | 587 | 10.687 | -8.361 | 54.407 | 1.00 | 18.04 | C |
| ATOM | 3364 | CH2 | TRP | A | 587 | 11.526 | -7.407 | 53.807 | 1.00 | 21.38 | C |
| ATOM | 3365 | N | TYR | A | 588 | 9.156 | -14.508 | 52.864 | 1.00 | 22.40 | N |
| ATOM | 3366 | CA | TYR | A | 588 | 8.479 | -15.624 | 53.511 | 1.00 | 19.10 | C |
| ATOM | 3367 | C | TYR | A | 588 | 7.216 | -16.202 | 52.864 | 1.00 | 18.49 | C |
| ATOM | 3368 | O | TYR | A | 588 | 6.536 | -17.035 | 53.458 | 1.00 | 20.41 | O |
| ATOM | 3369 | CB | TYR | A | 588 | 8.179 | -15.204 | 54.949 | 1.00 | 22.75 | C |
| ATOM | 3370 | CG | TYR | A | 588 | 9.367 | -14.589 | 55.668 | 1.00 | 22.00 | C |
| ATOM | 3371 | CD1 | TYR | A | 588 | 10.612 | -15.234 | 55.676 | 1.00 | 27.21 | C |
| ATOM | 3372 | CD2 | TYR | A | 588 | 9.235 | -13.406 | 56.400 | 1.00 | 18.33 | C |
| ATOM | 3373 | CE1 | TYR | A | 588 | 11.690 | -14.722 | 56.403 | 1.00 | 24.10 | C |
| ATOM | 3374 | CE2 | TYR | A | 588 | 10.307 | -12.884 | 57.131 | 1.00 | 22.88 | C |
| ATOM | 3375 | CZ | TYR | A | 588 | 11.528 | -13.552 | 57.130 | 1.00 | 27.26 | C |
| ATOM | 3376 | OH | TYR | A | 588 | 12.577 | -13.076 | 57.878 | 1.00 | 28.43 | O |
| ATOM | 3377 | N | THR | A | 589 | 6.919 | -15.787 | 51.645 | 1.00 | 18.72 | N |
| ATOM | 3378 | CA | THR | A | 589 | 5.727 | -16.258 | 50.958 | 1.00 | 17.71 | C |
| ATOM | 3379 | C | THR | A | 589 | 5.690 | -17.747 | 50.636 | 1.00 | 18.84 | C |
| ATOM | 3380 | O | THR | A | 589 | 4.737 | -18.223 | 50.019 | 1.00 | 18.69 | O |
| ATOM | 3381 | CB | THR | A | 589 | 5.500 | -15.466 | 49.663 | 1.00 | 16.09 | C |
| ATOM | 3382 | OG1 | THR | A | 589 | 6.584 | -15.695 | 48.757 | 1.00 | 21.34 | O |
| ATOM | 3383 | CG2 | THR | A | 589 | 5.409 | -13.980 | 49.968 | 1.00 | 14.41 | C |
| ATOM | 3384 | N | SER | A | 590 | 6.708 | -18.494 | 51.052 | 1.00 | 14.84 | N |
| ATOM | 3385 | CA | SER | A | 590 | 6.723 | -19.931 | 50.781 | 1.00 | 11.45 | C |
| ATOM | 3386 | C | SER | A | 590 | 7.153 | -20.694 | 52.016 | 1.00 | 10.48 | C |
| ATOM | 3387 | O | SER | A | 590 | 7.352 | -21.906 | 51.974 | 1.00 | 15.15 | O |
| ATOM | 3388 | CB | SER | A | 590 | 7.678 | -20.262 | 49.632 | 1.00 | 15.98 | C |
| ATOM | 3389 | OG | SER | A | 590 | 7.072 | -20.086 | 48.364 | 1.00 | 16.66 | O |
| ATOM | 3390 | N | ASP | A | 591 | 7.295 | -19.982 | 53.122 | 1.00 | 11.63 | N |
| ATOM | 3391 | CA | ASP | A | 591 | 7.719 | -20.606 | 54.362 | 1.00 | 11.23 | C |
| ATOM | 3392 | C | ASP | A | 591 | 6.554 | -21.248 | 55.086 | 1.00 | 15.46 | C |
| ATOM | 3393 | O | ASP | A | 591 | 6.402 | -21.102 | 56.303 | 1.00 | 14.78 | O |
| ATOM | 3394 | CB | ASP | A | 591 | 8.373 | -19.574 | 55.260 | 1.00 | 12.27 | C |
| ATOM | 3395 | CG | ASP | A | 591 | 9.764 | -19.201 | 54.790 | 1.00 | 14.47 | C |
| ATOM | 3396 | OD1 | ASP | A | 591 | 10.164 | -19.636 | 53.688 | 1.00 | 10.47 | O |
| ATOM | 3397 | OD2 | ASP | A | 591 | 10.448 | -18.467 | 55.524 | 1.00 | 19.51 | O |
| ATOM | 3398 | N | GLY | A | 592 | 5.747 | -21.990 | 54.341 | 1.00 | 18.06 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3399 | CA | GLY | A | 592 | 4.594 | -22.611 | 54.955 | 1.00 | 17.39 | C |
| ATOM | 3400 | C | GLY | A | 592 | 3.504 | -21.562 | 55.024 | 1.00 | 15.47 | C |
| ATOM | 3401 | O | GLY | A | 592 | 2.767 | -21.482 | 56.003 | 1.00 | 18.47 | O |
| ATOM | 3402 | N | MET | A | 593 | 3.421 | -20.741 | 53.983 | 1.00 | 14.99 | N |
| ATOM | 3403 | CA | MET | A | 593 | 2.399 | -19.705 | 53.911 | 1.00 | 15.88 | C |
| ATOM | 3404 | C | MET | A | 593 | 1.108 | -20.348 | 53.394 | 1.00 | 16.44 | C |
| ATOM | 3405 | O | MET | A | 593 | 1.145 | -21.182 | 52.480 | 1.00 | 17.10 | O |
| ATOM | 3406 | CB | MET | A | 593 | 2.815 | -18.595 | 52.946 | 1.00 | 12.17 | C |
| ATOM | 3407 | CG | MET | A | 593 | 1.856 | -17.422 | 52.949 | 1.00 | 15.68 | C |
| ATOM | 3408 | SD | MET | A | 593 | 2.144 | -16.179 | 51.699 | 1.00 | 18.88 | S |
| ATOM | 3409 | CE | MET | A | 593 | 0.488 | -15.360 | 51.655 | 1.00 | 22.14 | C |
| ATOM | 3410 | N | PHE | A | 594 | -0.023 | -19.973 | 53.986 | 1.00 | 14.31 | N |
| ATOM | 3411 | CA | PHE | A | 594 | -1.311 | -20.512 | 53.548 | 1.00 | 15.28 | C |
| ATOM | 3412 | C | PHE | A | 594 | -2.195 | -19.398 | 52.994 | 1.00 | 16.91 | C |
| ATOM | 3413 | O | PHE | A | 594 | -2.087 | -18.229 | 53.385 | 1.00 | 14.86 | O |
| ATOM | 3414 | CB | PHE | A | 594 | -2.029 | -21.233 | 54.698 | 1.00 | 13.08 | C |
| ATOM | 3415 | CG | PHE | A | 594 | -2.863 | -20.324 | 55.567 | 1.00 | 16.70 | C |
| ATOM | 3416 | CD1 | PHE | A | 594 | -2.302 | -19.688 | 56.669 | 1.00 | 15.95 | C |
| ATOM | 3417 | CD2 | PHE | A | 594 | -4.207 | -20.087 | 55.269 | 1.00 | 14.60 | C |
| ATOM | 3418 | CE1 | PHE | A | 594 | -3.060 | -18.820 | 57.468 | 1.00 | 19.60 | C |
| ATOM | 3419 | CE2 | PHE | A | 594 | -4.972 | -19.222 | 56.057 | 1.00 | 14.15 | C |
| ATOM | 3420 | CZ | PHE | A | 594 | -4.398 | -18.588 | 57.157 | 1.00 | 18.73 | C |
| ATOM | 3421 | N | TYR | A | 595 | -3.063 | -19.779 | 52.069 | 1.00 | 15.95 | N |
| ATOM | 3422 | CA | TYR | A | 595 | -3.987 | -18.855 | 51.444 | 1.00 | 17.48 | C |
| ATOM | 3423 | C | TYR | A | 595 | -5.415 | -19.362 | 51.673 | 1.00 | 15.85 | C |
| ATOM | 3424 | O | TYR | A | 595 | -5.674 | -20.564 | 51.554 | 1.00 | 13.03 | O |
| ATOM | 3425 | CB | TYR | A | 595 | -3.725 | -18.806 | 49.943 | 1.00 | 17.10 | C |
| ATOM | 3426 | CG | TYR | A | 595 | -2.492 | -18.036 | 49.532 | 1.00 | 18.25 | C |
| ATOM | 3427 | CD1 | TYR | A | 595 | -1.238 | -18.650 | 49.477 | 1.00 | 18.49 | C |
| ATOM | 3428 | CD2 | TYR | A | 595 | -2.594 | -16.709 | 49.125 | 1.00 | 18.57 | C |
| ATOM | 3429 | CE1 | TYR | A | 595 | -0.108 | -17.948 | 49.011 | 1.00 | 17.62 | C |
| ATOM | 3430 | CE2 | TYR | A | 595 | -1.488 | -16.006 | 48.662 | 1.00 | 18.97 | C |
| ATOM | 3431 | CZ | TYR | A | 595 | -0.254 | -16.630 | 48.603 | 1.00 | 17.22 | C |
| ATOM | 3432 | OH | TYR | A | 595 | 0.798 | -15.924 | 48.093 | 1.00 | 13.58 | O |
| ATOM | 3433 | N | LEU | A | 596 | -6.327 | -18.454 | 52.017 | 1.00 | 14.45 | N |
| ATOM | 3434 | CA | LEU | A | 596 | -7.734 | -18.822 | 52.196 | 1.00 | 15.23 | C |
| ATOM | 3435 | C | LEU | A | 596 | -8.567 | -17.984 | 51.236 | 1.00 | 14.23 | C |
| ATOM | 3436 | O | LEU | A | 596 | -8.554 | -16.752 | 51.303 | 1.00 | 15.84 | O |
| ATOM | 3437 | CB | LEU | A | 596 | -8.218 | -18.574 | 53.633 | 1.00 | 12.95 | C |
| ATOM | 3438 | CG | LEU | A | 596 | -9.741 | -18.750 | 53.839 | 1.00 | 12.43 | C |
| ATOM | 3439 | CD1 | LEU | A | 596 | -10.101 | -20.208 | 53.666 | 1.00 | 8.33 | C |
| ATOM | 3440 | CD2 | LEU | A | 596 | -10.166 | -18.276 | 55.219 | 1.00 | 10.19 | C |
| ATOM | 3441 | N | TYR | A | 597 | -9.264 | -18.658 | 50.326 | 1.00 | 16.88 | N |
| ATOM | 3442 | CA | TYR | A | 597 | -10.125 | -17.989 | 49.359 | 1.00 | 17.47 | C |
| ATOM | 3443 | C | TYR | A | 597 | -11.571 | -18.171 | 49.810 | 1.00 | 18.82 | C |
| ATOM | 3444 | O | TYR | A | 597 | -12.094 | -19.285 | 49.801 | 1.00 | 15.24 | O |
| ATOM | 3445 | CB | TYR | A | 597 | -9.923 | -18.587 | 47.970 | 1.00 | 16.85 | C |
| ATOM | 3446 | CG | TYR | A | 597 | -8.541 | -18.313 | 47.456 | 1.00 | 18.51 | C |
| ATOM | 3447 | CD1 | TYR | A | 597 | -8.236 | -17.101 | 46.843 | 1.00 | 15.47 | C |
| ATOM | 3448 | CD2 | TYR | A | 597 | -7.521 | -19.239 | 47.637 | 1.00 | 18.35 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3449 | CE1 | TYR | A | 597 | -6.944 | -16.815 | 46.424 | 1.00 | 20.31 | C |
| ATOM | 3450 | CE2 | TYR | A | 597 | -6.226 | -18.965 | 47.222 | 1.00 | 23.13 | C |
| ATOM | 3451 | CZ | TYR | A | 597 | -5.943 | -17.753 | 46.617 | 1.00 | 21.95 | C |
| ATOM | 3452 | OH | TYR | A | 597 | -4.661 | -17.487 | 46.205 | 1.00 | 22.20 | O |
| ATOM | 3453 | N | ASN | A | 598 | -12.204 | -17.079 | 50.222 | 1.00 | 17.53 | N |
| ATOM | 3454 | CA | ASN | A | 598 | -13.579 | -17.153 | 50.694 | 1.00 | 17.03 | C |
| ATOM | 3455 | C | ASN | A | 598 | -14.509 | -16.123 | 50.032 | 1.00 | 20.14 | C |
| ATOM | 3456 | O | ASN | A | 598 | -14.252 | -15.666 | 48.913 | 1.00 | 18.93 | O |
| ATOM | 3457 | CB | ASN | A | 598 | -13.593 | -17.005 | 52.221 | 1.00 | 11.88 | C |
| ATOM | 3458 | CG | ASN | A | 598 | -13.112 | -15.647 | 52.682 | 1.00 | 5.65 | C |
| ATOM | 3459 | OD1 | ASN | A | 598 | -12.838 | -14.765 | 51.872 | 1.00 | 13.36 | O |
| ATOM | 3460 | ND2 | ASN | A | 598 | -13.010 | -15.470 | 53.990 | 1.00 | 7.66 | N |
| ATOM | 3461 | N | GLY | A | 599 | -15.590 | -15.772 | 50.727 | 1.00 | 19.32 | N |
| ATOM | 3462 | CA | GLY | A | 599 | -16.549 | -14.823 | 50.192 | 1.00 | 17.77 | C |
| ATOM | 3463 | C | GLY | A | 599 | -15.935 | -13.546 | 49.664 | 1.00 | 19.67 | C |
| ATOM | 3464 | O | GLY | A | 599 | -16.475 | -12.930 | 48.743 | 1.00 | 19.30 | O |
| ATOM | 3465 | N | ASP | A | 600 | -14.807 | -13.142 | 50.247 | 1.00 | 22.09 | N |
| ATOM | 3466 | CA | ASP | A | 600 | -14.117 | -11.925 | 49.825 | 1.00 | 18.71 | C |
| ATOM | 3467 | C | ASP | A | 600 | -13.198 | -12.201 | 48.640 | 1.00 | 20.68 | C |
| ATOM | 3468 | O | ASP | A | 600 | -12.025 | -12.513 | 48.817 | 1.00 | 22.51 | O |
| ATOM | 3469 | CB | ASP | A | 600 | -13.299 | -11.363 | 50.982 | 1.00 | 18.22 | C |
| ATOM | 3470 | CG | ASP | A | 600 | -12.706 | -10.006 | 50.664 | 1.00 | 19.77 | C |
| ATOM | 3471 | OD1 | ASP | A | 600 | -12.999 | -9.479 | 49.566 | 1.00 | 19.40 | O |
| ATOM | 3472 | OD2 | ASP | A | 600 | -11.953 | -9.467 | 51.511 | 1.00 | 18.83 | O |
| ATOM | 3473 | N | LEU | A | 601 | -13.731 | -12.077 | 47.433 | 1.00 | 18.15 | N |
| ATOM | 3474 | CA | LEU | A | 601 | -12.960 | -12.327 | 46.228 | 1.00 | 14.76 | C |
| ATOM | 3475 | C | LEU | A | 601 | -11.839 | -11.304 | 46.008 | 1.00 | 20.13 | C |
| ATOM | 3476 | O | LEU | A | 601 | -10.944 | -11.526 | 45.193 | 1.00 | 17.19 | O |
| ATOM | 3477 | CB | LEU | A | 601 | -13.885 | -12.327 | 45.011 | 1.00 | 11.72 | C |
| ATOM | 3478 | CG | LEU | A | 601 | -14.620 | -13.628 | 44.675 | 1.00 | 12.86 | C |
| ATOM | 3479 | CD1 | LEU | A | 601 | -15.455 | -14.078 | 45.856 | 1.00 | 15.69 | C |
| ATOM | 3480 | CD2 | LEU | A | 601 | -15.497 | -13.411 | 43.473 | 1.00 | 13.75 | C |
| ATOM | 3481 | N | SER | A | 602 | -11.883 | -10.192 | 46.734 | 1.00 | 18.88 | N |
| ATOM | 3482 | CA | SER | A | 602 | -10.884 | -9.131 | 46.587 | 1.00 | 17.54 | C |
| ATOM | 3483 | C | SER | A | 602 | -9.796 | -9.148 | 47.657 | 1.00 | 17.19 | C |
| ATOM | 3484 | O | SER | A | 602 | -8.969 | -8.226 | 47.726 | 1.00 | 15.47 | O |
| ATOM | 3485 | CB | SER | A | 602 | -11.569 | -7.772 | 46.656 | 1.00 | 18.90 | C |
| ATOM | 3486 | OG | SER | A | 602 | -11.713 | -7.371 | 48.012 | 1.00 | 16.63 | O |
| ATOM | 3487 | N | HIS | A | 603 | -9.797 | -10.179 | 48.493 | 1.00 | 17.05 | N |
| ATOM | 3488 | CA | HIS | A | 603 | -8.831 | -10.248 | 49.574 | 1.00 | 18.25 | C |
| ATOM | 3489 | C | HIS | A | 603 | -7.393 | -10.023 | 49.158 | 1.00 | 18.16 | C |
| ATOM | 3490 | O | HIS | A | 603 | -6.723 | -9.151 | 49.695 | 1.00 | 20.48 | O |
| ATOM | 3491 | CB | HIS | A | 603 | -8.902 | -11.577 | 50.320 | 1.00 | 14.00 | C |
| ATOM | 3492 | CG | HIS | A | 603 | -7.977 | -11.635 | 51.496 | 1.00 | 13.32 | C |
| ATOM | 3493 | ND1 | HIS | A | 603 | -6.706 | -12.165 | 51.419 | 1.00 | 15.87 | N |
| ATOM | 3494 | CD2 | HIS | A | 603 | -8.112 | -11.168 | 52.760 | 1.00 | 15.31 | C |
| ATOM | 3495 | CE1 | HIS | A | 603 | -6.101 | -12.024 | 52.585 | 1.00 | 14.82 | C |
| ATOM | 3496 | NE2 | HIS | A | 603 | -6.932 | -11.421 | 53.417 | 1.00 | 18.55 | N |
| ATOM | 3497 | N | TYR | A | 604 | -6.919 | -10.808 | 48.205 | 1.00 | 16.49 | N |
| ATOM | 3498 | CA | TYR | A | 604 | -5.537 | -10.677 | 47.785 | 1.00 | 18.48 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3499 | C | TYR | A | 604 | -5.364 | -9.634 | 46.701 | 1.00 | 20.07 | C |
| ATOM | 3500 | O | TYR | A | 604 | -4.348 | -9.605 | 46.007 | 1.00 | 22.13 | O |
| ATOM | 3501 | CB | TYR | A | 604 | -5.003 | -12.044 | 47.343 | 1.00 | 13.80 | C |
| ATOM | 3502 | CG | TYR | A | 604 | -5.060 | -13.061 | 48.463 | 1.00 | 10.96 | C |
| ATOM | 3503 | CD1 | TYR | A | 604 | -4.126 | -13.040 | 49.497 | 1.00 | 11.35 | C |
| ATOM | 3504 | CD2 | TYR | A | 604 | -6.077 | -14.020 | 48.513 | 1.00 | 9.59 | C |
| ATOM | 3505 | CE1 | TYR | A | 604 | -4.204 | -13.946 | 50.555 | 1.00 | 9.70 | C |
| ATOM | 3506 | CE2 | TYR | A | 604 | -6.163 | -14.925 | 49.563 | 1.00 | 7.41 | C |
| ATOM | 3507 | CZ | TYR | A | 604 | -5.229 | -14.883 | 50.579 | 1.00 | 13.44 | C |
| ATOM | 3508 | OH | TYR | A | 604 | -5.324 | -15.771 | 51.628 | 1.00 | 15.63 | O |
| ATOM | 3509 | N | SER | A | 605 | -6.361 | -8.764 | 46.570 | 1.00 | 20.71 | N |
| ATOM | 3510 | CA | SER | A | 605 | -6.316 | -7.697 | 45.578 | 1.00 | 16.31 | C |
| ATOM | 3511 | C | SER | A | 605 | -6.503 | -6.362 | 46.290 | 1.00 | 14.54 | C |
| ATOM | 3512 | O | SER | A | 605 | -6.422 | -6.301 | 47.520 | 1.00 | 17.46 | O |
| ATOM | 3513 | CB | SER | A | 605 | -7.413 | -7.901 | 44.534 | 1.00 | 20.59 | C |
| ATOM | 3514 | OG | SER | A | 605 | -7.297 | -9.174 | 43.922 | 1.00 | 19.32 | O |
| ATOM | 3515 | N | ASP | A | 606 | -6.751 | -5.298 | 45.529 | 1.00 | 14.97 | N |
| ATOM | 3516 | CA | ASP | A | 606 | -6.938 | -3.966 | 46.115 | 1.00 | 19.04 | C |
| ATOM | 3517 | C | ASP | A | 606 | -5.717 | -3.536 | 46.920 | 1.00 | 20.72 | C |
| ATOM | 3518 | O | ASP | A | 606 | -5.861 | -2.893 | 47.962 | 1.00 | 20.78 | O |
| ATOM | 3519 | CB | ASP | A | 606 | -8.144 | -3.931 | 47.067 | 1.00 | 29.09 | C |
| ATOM | 3520 | CG | ASP | A | 606 | -9.478 | -4.105 | 46.357 | 1.00 | 32.39 | C |
| ATOM | 3521 | OD1 | ASP | A | 606 | -9.598 | -3.747 | 45.162 | 1.00 | 28.89 | O |
| ATOM | 3522 | OD2 | ASP | A | 606 | -10.413 | -4.608 | 47.020 | 1.00 | 39.11 | O |
| ATOM | 3523 | N | GLY | A | 607 | -4.524 | -3.908 | 46.464 | 1.00 | 22.30 | N |
| ATOM | 3524 | CA | GLY | A | 607 | -3.318 | -3.508 | 47.174 | 1.00 | 20.32 | C |
| ATOM | 3525 | C | GLY | A | 607 | -2.951 | -4.348 | 48.380 | 1.00 | 19.50 | C |
| ATOM | 3526 | O | GLY | A | 607 | -2.358 | -3.849 | 49.343 | 1.00 | 21.37 | O |
| ATOM | 3527 | N | TYR | A | 608 | -3.304 | -5.627 | 48.346 | 1.00 | 16.42 | N |
| ATOM | 3528 | CA | TYR | A | 608 | -2.958 | -6.515 | 49.448 | 1.00 | 16.72 | C |
| ATOM | 3529 | C | TYR | A | 608 | -1.429 | -6.610 | 49.574 | 1.00 | 19.96 | C |
| ATOM | 3530 | O | TYR | A | 608 | -0.858 | -6.422 | 50.652 | 1.00 | 19.58 | O |
| ATOM | 3531 | CB | TYR | A | 608 | -3.513 | -7.912 | 49.180 | 1.00 | 12.48 | C |
| ATOM | 3532 | CG | TYR | A | 608 | -2.920 | -8.999 | 50.052 | 1.00 | 13.57 | C |
| ATOM | 3533 | CD1 | TYR | A | 608 | -3.387 | -9.216 | 51.347 | 1.00 | 12.23 | C |
| ATOM | 3534 | CD2 | TYR | A | 608 | -1.896 | -9.820 | 49.578 | 1.00 | 13.62 | C |
| ATOM | 3535 | CE1 | TYR | A | 608 | -2.850 | -10.228 | 52.156 | 1.00 | 11.08 | C |
| ATOM | 3536 | CE2 | TYR | A | 608 | -1.353 | -10.831 | 50.377 | 1.00 | 12.50 | C |
| ATOM | 3537 | CZ | TYR | A | 608 | -1.833 | -11.028 | 51.658 | 1.00 | 12.65 | C |
| ATOM | 3538 | OH | TYR | A | 608 | -1.294 | -12.019 | 52.441 | 1.00 | 11.20 | O |
| ATOM | 3539 | N | TRP | A | 609 | -0.780 | -6.896 | 48.449 | 1.00 | 20.74 | N |
| ATOM | 3540 | CA | TRP | A | 609 | 0.664 | -7.076 | 48.411 | 1.00 | 22.75 | C |
| ATOM | 3541 | C | TRP | A | 609 | 1.516 | -5.901 | 48.897 | 1.00 | 24.08 | C |
| ATOM | 3542 | O | TRP | A | 609 | 2.410 | -6.096 | 49.720 | 1.00 | 29.48 | O |
| ATOM | 3543 | CB | TRP | A | 609 | 1.072 | -7.558 | 47.014 | 1.00 | 16.97 | C |
| ATOM | 3544 | CG | TRP | A | 609 | 0.733 | -9.043 | 46.847 | 1.00 | 21.13 | C |
| ATOM | 3545 | CD1 | TRP | A | 609 | -0.190 | -9.593 | 45.990 | 1.00 | 19.25 | C |
| ATOM | 3546 | CD2 | TRP | A | 609 | 1.259 | -10.141 | 47.620 | 1.00 | 19.14 | C |
| ATOM | 3547 | NE1 | TRP | A | 609 | -0.270 | -10.956 | 46.189 | 1.00 | 17.09 | N |
| ATOM | 3548 | CE2 | TRP | A | 609 | 0.606 | -11.317 | 47.180 | 1.00 | 19.52 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3549 | CE3 | TRP | A | 609 | 2.217 | -10.241 | 48.642 | 1.00 | 16.58 | C |
| ATOM | 3550 | CZ2 | TRP | A | 609 | 0.882 | -12.579 | 47.728 | 1.00 | 18.61 | C |
| ATOM | 3551 | CZ3 | TRP | A | 609 | 2.488 | -11.496 | 49.186 | 1.00 | 19.55 | C |
| ATOM | 3552 | CH2 | TRP | A | 609 | 1.821 | -12.648 | 48.726 | 1.00 | 17.83 | C |
| ATOM | 3553 | N | PRO | A | 610 | 1.291 | -4.681 | 48.385 | 1.00 | 21.01 | N |
| ATOM | 3554 | CA | PRO | A | 610 | 2.128 | -3.597 | 48.905 | 1.00 | 20.42 | C |
| ATOM | 3555 | C | PRO | A | 610 | 1.750 | -3.124 | 50.309 | 1.00 | 22.64 | C |
| ATOM | 3556 | O | PRO | A | 610 | 2.417 | -2.244 | 50.858 | 1.00 | 24.85 | O |
| ATOM | 3557 | CB | PRO | A | 610 | 1.957 | -2.482 | 47.880 | 1.00 | 22.44 | C |
| ATOM | 3558 | CG | PRO | A | 610 | 0.620 | -2.726 | 47.294 | 1.00 | 22.93 | C |
| ATOM | 3559 | CD | PRO | A | 610 | 0.409 | -4.221 | 47.299 | 1.00 | 20.00 | C |
| ATOM | 3560 | N | THR | A | 611 | 0.695 | -3.687 | 50.904 | 1.00 | 17.89 | N |
| ATOM | 3561 | CA | THR | A | 611 | 0.291 | -3.244 | 52.245 | 1.00 | 15.25 | C |
| ATOM | 3562 | C | THR | A | 611 | 0.421 | -4.315 | 53.309 | 1.00 | 14.42 | C |
| ATOM | 3563 | O | THR | A | 611 | 0.454 | -4.027 | 54.513 | 1.00 | 14.17 | O |
| ATOM | 3564 | CB | THR | A | 611 | -1.165 | -2.703 | 52.263 | 1.00 | 18.68 | C |
| ATOM | 3565 | OG1 | THR | A | 611 | -2.065 | -3.691 | 51.746 | 1.00 | 18.52 | O |
| ATOM | 3566 | CG2 | THR | A | 611 | -1.266 | -1.451 | 51.417 | 1.00 | 16.51 | C |
| ATOM | 3567 | N | VAL | A | 612 | 0.491 | -5.560 | 52.867 | 1.00 | 15.34 | N |
| ATOM | 3568 | CA | VAL | A | 612 | 0.638 | -6.667 | 53.795 | 1.00 | 16.58 | C |
| ATOM | 3569 | C | VAL | A | 612 | 2.026 | -6.558 | 54.464 | 1.00 | 19.77 | C |
| ATOM | 3570 | O | VAL | A | 612 | 3.005 | -6.212 | 53.800 | 1.00 | 21.95 | O |
| ATOM | 3571 | CB | VAL | A | 612 | 0.491 | -8.007 | 53.024 | 1.00 | 13.17 | C |
| ATOM | 3572 | CG1 | VAL | A | 612 | 1.620 | -8.162 | 52.033 | 1.00 | 16.36 | C |
| ATOM | 3573 | CG2 | VAL | A | 612 | 0.442 | -9.173 | 53.986 | 1.00 | 14.35 | C |
| ATOM | 3574 | N | ASN | A | 613 | 2.104 | -6.818 | 55.771 | 1.00 | 18.79 | N |
| ATOM | 3575 | CA | ASN | A | 613 | 3.381 | -6.771 | 56.494 | 1.00 | 21.02 | C |
| ATOM | 3576 | C | ASN | A | 613 | 4.182 | -7.993 | 56.038 | 1.00 | 20.32 | C |
| ATOM | 3577 | O | ASN | A | 613 | 3.880 | -9.119 | 56.424 | 1.00 | 19.24 | O |
| ATOM | 3578 | CB | ASN | A | 613 | 3.141 | -6.832 | 58.003 | 1.00 | 19.19 | C |
| ATOM | 3579 | CG | ASN | A | 613 | 4.429 | -6.800 | 58.796 | 1.00 | 20.63 | C |
| ATOM | 3580 | OD1 | ASN | A | 613 | 5.509 | -6.936 | 58.234 | 1.00 | 22.51 | O |
| ATOM | 3581 | ND2 | ASN | A | 613 | 4.320 | -6.626 | 60.105 | 1.00 | 19.89 | N |
| ATOM | 3582 | N | PRO | A | 614 | 5.244 | -7.779 | 55.241 | 1.00 | 22.02 | N |
| ATOM | 3583 | CA | PRO | A | 614 | 6.056 | -8.896 | 54.735 | 1.00 | 19.06 | C |
| ATOM | 3584 | C | PRO | A | 614 | 6.750 | -9.769 | 55.773 | 1.00 | 15.35 | C |
| ATOM | 3585 | O | PRO | A | 614 | 7.210 | -10.871 | 55.456 | 1.00 | 17.62 | O |
| ATOM | 3586 | CB | PRO | A | 614 | 7.035 | -8.225 | 53.766 | 1.00 | 19.44 | C |
| ATOM | 3587 | CG | PRO | A | 614 | 7.117 | -6.817 | 54.227 | 1.00 | 19.49 | C |
| ATOM | 3588 | CD | PRO | A | 614 | 5.777 | -6.471 | 54.823 | 1.00 | 21.70 | C |
| ATOM | 3589 | N | TYR | A | 615 | 6.798 | -9.288 | 57.009 | 1.00 | 15.35 | N |
| ATOM | 3590 | CA | TYR | A | 615 | 7.427 | -10.022 | 58.100 | 1.00 | 19.56 | C |
| ATOM | 3591 | C | TYR | A | 615 | 6.494 | -11.032 | 58.760 | 1.00 | 21.87 | C |
| ATOM | 3592 | O | TYR | A | 615 | 6.945 | -11.928 | 59.480 | 1.00 | 21.39 | O |
| ATOM | 3593 | CB | TYR | A | 615 | 7.939 | -9.041 | 59.169 | 1.00 | 21.14 | C |
| ATOM | 3594 | CG | TYR | A | 615 | 9.178 | -8.299 | 58.739 | 1.00 | 19.67 | C |
| ATOM | 3595 | CD1 | TYR | A | 615 | 10.439 | -8.881 | 58.859 | 1.00 | 20.50 | C |
| ATOM | 3596 | CD2 | TYR | A | 615 | 9.085 | -7.045 | 58.146 | 1.00 | 20.46 | C |
| ATOM | 3597 | CE1 | TYR | A | 615 | 11.572 | -8.236 | 58.391 | 1.00 | 22.20 | C |
| ATOM | 3598 | CE2 | TYR | A | 615 | 10.213 | -6.390 | 57.672 | 1.00 | 23.80 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3599 | CZ | TYR | A | 615 | 11.453 | -6.995 | 57.794 | 1.00 | 24.69 | C |
| ATOM | 3600 | OH | TYR | A | 615 | 12.564 | -6.372 | 57.281 | 1.00 | 24.36 | O |
| ATOM | 3601 | N | LYS | A | 616 | 5.193 | -10.893 | 58.522 | 1.00 | 21.73 | N |
| ATOM | 3602 | CA | LYS | A | 616 | 4.233 | -11.799 | 59.140 | 1.00 | 20.89 | C |
| ATOM | 3603 | C | LYS | A | 616 | 3.303 | -12.486 | 58.154 | 1.00 | 20.22 | C |
| ATOM | 3604 | O | LYS | A | 616 | 2.093 | -12.452 | 58.322 | 1.00 | 21.82 | O |
| ATOM | 3605 | CB | LYS | A | 616 | 3.395 | -11.046 | 60.179 | 1.00 | 17.61 | C |
| ATOM | 3606 | CG | LYS | A | 616 | 4.096 | -9.866 | 60.826 | 1.00 | 17.22 | C |
| ATOM | 3607 | CD | LYS | A | 616 | 3.881 | -9.865 | 62.328 | 1.00 | 19.43 | C |
| ATOM | 3608 | CE | LYS | A | 616 | 4.267 | -8.528 | 62.924 | 1.00 | 26.16 | C |
| ATOM | 3609 | NZ | LYS | A | 616 | 3.674 | -8.322 | 64.272 | 1.00 | 31.36 | N |
| ATOM | 3610 | N | MET | A | 617 | 3.856 | -13.101 | 57.118 | 1.00 | 19.87 | N |
| ATOM | 3611 | CA | MET | A | 617 | 3.014 | -13.788 | 56.161 | 1.00 | 18.60 | C |
| ATOM | 3612 | C | MET | A | 617 | 2.245 | -14.844 | 56.969 | 1.00 | 21.87 | C |
| ATOM | 3613 | O | MET | A | 617 | 2.810 | -15.488 | 57.862 | 1.00 | 21.13 | O |
| ATOM | 3614 | CB | MET | A | 617 | 3.870 | -14.418 | 55.062 | 1.00 | 16.19 | C |
| ATOM | 3615 | CG | MET | A | 617 | 4.523 | -13.399 | 54.124 | 1.00 | 18.67 | C |
| ATOM | 3616 | SD | MET | A | 617 | 3.589 | -11.869 | 53.819 | 1.00 | 21.28 | S |
| ATOM | 3617 | CE | MET | A | 617 | 2.644 | -12.321 | 52.355 | 1.00 | 20.53 | C |
| ATOM | 3618 | N | PRO | A | 618 | 0.942 | -15.026 | 56.674 | 1.00 | 18.57 | N |
| ATOM | 3619 | CA | PRO | A | 618 | 0.084 | -15.990 | 57.375 | 1.00 | 15.96 | C |
| ATOM | 3620 | C | PRO | A | 618 | 0.517 | -17.452 | 57.349 | 1.00 | 13.94 | C |
| ATOM | 3621 | O | PRO | A | 618 | 0.781 | -18.019 | 56.291 | 1.00 | 12.10 | O |
| ATOM | 3622 | CB | PRO | A | 618 | -1.293 | -15.798 | 56.728 | 1.00 | 16.22 | C |
| ATOM | 3623 | CG | PRO | A | 618 | -1.223 | -14.510 | 56.005 | 1.00 | 19.64 | C |
| ATOM | 3624 | CD | PRO | A | 618 | 0.209 | -14.323 | 55.607 | 1.00 | 20.23 | C |
| ATOM | 3625 | N | GLY | A | 619 | 0.559 | -18.058 | 58.532 | 1.00 | 12.81 | N |
| ATOM | 3626 | CA | GLY | A | 619 | 0.948 | -19.450 | 58.645 | 1.00 | 17.11 | C |
| ATOM | 3627 | C | GLY | A | 619 | 2.443 | -19.681 | 58.821 | 1.00 | 17.66 | C |
| ATOM | 3628 | O | GLY | A | 619 | 2.860 | -20.783 | 59.193 | 1.00 | 17.57 | O |
| ATOM | 3629 | N | THR | A | 620 | 3.250 | -18.652 | 58.572 | 1.00 | 18.67 | N |
| ATOM | 3630 | CA | THR | A | 620 | 4.705 | -18.790 | 58.680 | 1.00 | 12.85 | C |
| ATOM | 3631 | C | THR | A | 620 | 5.241 | -18.603 | 60.084 | 1.00 | 15.54 | C |
| ATOM | 3632 | O | THR | A | 620 | 4.697 | -17.845 | 60.885 | 1.00 | 17.15 | O |
| ATOM | 3633 | CB | THR | A | 620 | 5.436 | -17.808 | 57.740 | 1.00 | 12.83 | C |
| ATOM | 3634 | OG1 | THR | A | 620 | 5.209 | -16.460 | 58.165 | 1.00 | 14.62 | O |
| ATOM | 3635 | CG2 | THR | A | 620 | 4.948 | -17.965 | 56.317 | 1.00 | 9.97 | C |
| ATOM | 3636 | N | THR | A | 621 | 6.319 | -19.324 | 60.374 | 1.00 | 18.82 | N |
| ATOM | 3637 | CA | THR | A | 621 | 7.000 | -19.269 | 61.660 | 1.00 | 19.15 | C |
| ATOM | 3638 | C | THR | A | 621 | 8.317 | -18.553 | 61.342 | 1.00 | 21.56 | C |
| ATOM | 3639 | O | THR | A | 621 | 9.061 | -18.993 | 60.463 | 1.00 | 21.93 | O |
| ATOM | 3640 | CB | THR | A | 621 | 7.268 | -20.697 | 62.182 | 1.00 | 20.31 | C |
| ATOM | 3641 | OG1 | THR | A | 621 | 6.015 | -21.353 | 62.412 | 1.00 | 21.20 | O |
| ATOM | 3642 | CG2 | THR | A | 621 | 8.049 | -20.667 | 63.479 | 1.00 | 15.46 | C |
| ATOM | 3643 | N | GLU | A | 622 | 8.586 | -17.439 | 62.024 | 1.00 | 18.53 | N |
| ATOM | 3644 | CA | GLU | A | 622 | 9.795 | -16.660 | 61.761 | 1.00 | 20.04 | C |
| ATOM | 3645 | C | GLU | A | 622 | 10.268 | -15.843 | 62.946 | 1.00 | 20.78 | C |
| ATOM | 3646 | O | GLU | A | 622 | 9.528 | -15.633 | 63.908 | 1.00 | 22.65 | O |
| ATOM | 3647 | CB | GLU | A | 622 | 9.562 | -15.684 | 60.601 | 1.00 | 14.62 | C |
| ATOM | 3648 | CG | GLU | A | 622 | 8.760 | -16.228 | 59.438 | 1.00 | 17.78 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3649 | CD | GLU | A | 622 | 9.603 | -17.028 | 58.469 | 1.00 | 18.87 | C |
| ATOM | 3650 | OE1 | GLU | A | 622 | 10.813 | -17.209 | 58.731 | 1.00 | 22.95 | O |
| ATOM | 3651 | OE2 | GLU | A | 622 | 9.059 | -17.481 | 57.443 | 1.00 | 14.22 | O |
| ATOM | 3652 | N | THR | A | 623 | 11.517 | -15.385 | 62.875 | 1.00 | 20.13 | N |
| ATOM | 3653 | CA | THR | A | 623 | 12.058 | -14.528 | 63.924 | 1.00 | 16.73 | C |
| ATOM | 3654 | C | THR | A | 623 | 11.821 | -13.128 | 63.367 | 1.00 | 15.25 | C |
| ATOM | 3655 | O | THR | A | 623 | 11.586 | -12.966 | 62.164 | 1.00 | 13.26 | O |
| ATOM | 3656 | CB | THR | A | 623 | 13.587 | -14.737 | 64.151 | 1.00 | 18.68 | C |
| ATOM | 3657 | OG1 | THR | A | 623 | 14.306 | -14.327 | 62.982 | 1.00 | 20.05 | O |
| ATOM | 3658 | CG2 | THR | A | 623 | 13.892 | -16.190 | 64.465 | 1.00 | 13.22 | C |
| ATOM | 3659 | N | ASP | A | 624 | 11.890 | -12.115 | 64.221 | 1.00 | 17.72 | N |
| ATOM | 3660 | CA | ASP | A | 624 | 11.643 | -10.752 | 63.767 | 1.00 | 22.08 | C |
| ATOM | 3661 | C | ASP | A | 624 | 12.867 | -9.984 | 63.286 | 1.00 | 25.02 | C |
| ATOM | 3662 | O | ASP | A | 624 | 12.889 | -8.751 | 63.321 | 1.00 | 26.22 | O |
| ATOM | 3663 | CB | ASP | A | 624 | 10.959 | -9.954 | 64.871 | 1.00 | 26.45 | C |
| ATOM | 3664 | CG | ASP | A | 624 | 11.858 | -9.722 | 66.049 | 1.00 | 30.54 | C |
| ATOM | 3665 | OD1 | ASP | A | 624 | 12.804 | -10.515 | 66.234 | 1.00 | 36.63 | O |
| ATOM | 3666 | OD2 | ASP | A | 624 | 11.622 | -8.747 | 66.791 | 1.00 | 36.46 | O |
| ATOM | 3667 | N | ALA | A | 625 | 13.886 | -10.702 | 62.833 | 1.00 | 26.06 | N |
| ATOM | 3668 | CA | ALA | A | 625 | 15.085 | -10.045 | 62.331 | 1.00 | 24.66 | C |
| ATOM | 3669 | C | ALA | A | 625 | 14.751 | -9.256 | 61.069 | 1.00 | 24.42 | C |
| ATOM | 3670 | O | ALA | A | 625 | 13.890 | -9.652 | 60.282 | 1.00 | 23.95 | O |
| ATOM | 3671 | CB | ALA | A | 625 | 16.150 | -11.071 | 62.029 | 1.00 | 21.97 | C |
| ATOM | 3672 | N | LYS | A | 626 | 15.432 | -8.134 | 60.880 | 1.00 | 22.39 | N |
| ATOM | 3673 | CA | LYS | A | 626 | 15.211 | -7.304 | 59.706 | 1.00 | 22.39 | C |
| ATOM | 3674 | C | LYS | A | 626 | 15.703 | -8.054 | 58.477 | 1.00 | 23.17 | C |
| ATOM | 3675 | O | LYS | A | 626 | 16.606 | -8.887 | 58.573 | 1.00 | 24.84 | O |
| ATOM | 3676 | CB | LYS | A | 626 | 15.968 | -5.978 | 59.844 | 1.00 | 24.95 | C |
| ATOM | 3677 | CG | LYS | A | 626 | 16.076 | -5.201 | 58.541 | 1.00 | 34.89 | C |
| ATOM | 3678 | CD | LYS | A | 626 | 16.435 | -3.741 | 58.774 | 1.00 | 42.23 | C |
| ATOM | 3679 | CE | LYS | A | 626 | 16.153 | -2.894 | 57.534 | 1.00 | 47.08 | C |
| ATOM | 3680 | NZ | LYS | A | 626 | 15.862 | -3.723 | 56.320 | 1.00 | 44.83 | N |
| ATOM | 3681 | N | ARG | A | 627 | 15.101 | -7.773 | 57.326 | 1.00 | 19.94 | N |
| ATOM | 3682 | CA | ARG | A | 627 | 15.504 | -8.419 | 56.087 | 1.00 | 20.35 | C |
| ATOM | 3683 | C | ARG | A | 627 | 15.805 | -7.332 | 55.075 | 1.00 | 22.79 | C |
| ATOM | 3684 | O | ARG | A | 627 | 15.272 | -6.229 | 55.173 | 1.00 | 24.87 | O |
| ATOM | 3685 | CB | ARG | A | 627 | 14.397 | -9.342 | 55.573 | 1.00 | 19.14 | C |
| ATOM | 3686 | CG | ARG | A | 627 | 14.131 | -10.537 | 56.484 | 1.00 | 18.91 | C |
| ATOM | 3687 | CD | ARG | A | 627 | 15.320 | -11.493 | 56.523 | 1.00 | 17.98 | C |
| ATOM | 3688 | NE | ARG | A | 627 | 15.783 | -11.837 | 55.182 | 1.00 | 15.43 | N |
| ATOM | 3689 | CZ | ARG | A | 627 | 15.420 | -12.934 | 54.528 | 1.00 | 13.77 | C |
| ATOM | 3690 | NH1 | ARG | A | 627 | 14.590 | -13.795 | 55.094 | 1.00 | 17.18 | N |
| ATOM | 3691 | NH2 | ARG | A | 627 | 15.873 | -13.165 | 53.303 | 1.00 | 15.09 | N |
| ATOM | 3692 | N | ALA | A | 628 | 16.662 | -7.640 | 54.106 | 1.00 | 22.03 | N |
| ATOM | 3693 | CA | ALA | A | 628 | 17.043 | -6.669 | 53.096 | 1.00 | 20.45 | C |
| ATOM | 3694 | C | ALA | A | 628 | 16.336 | -6.913 | 51.779 | 1.00 | 21.86 | C |
| ATOM | 3695 | O | ALA | A | 628 | 16.269 | -8.040 | 51.297 | 1.00 | 25.18 | O |
| ATOM | 3696 | CB | ALA | A | 628 | 18.553 | -6.705 | 52.891 | 1.00 | 23.13 | C |
| ATOM | 3697 | N | ASP | A | 629 | 15.822 | -5.842 | 51.189 | 1.00 | 21.52 | N |
| ATOM | 3698 | CA | ASP | A | 629 | 15.120 | -5.948 | 49.924 | 1.00 | 21.16 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3699 | C | ASP | A | 629 | 16.029 | -6.561 | 48.884 | 1.00 | 22.60 | C |
| ATOM | 3700 | O | ASP | A | 629 | 15.560 | -7.223 | 47.954 | 1.00 | 20.73 | O |
| ATOM | 3701 | CB | ASP | A | 629 | 14.675 | -4.571 | 49.430 | 1.00 | 18.91 | C |
| ATOM | 3702 | CG | ASP | A | 629 | 13.659 | -3.919 | 50.342 | 1.00 | 19.38 | C |
| ATOM | 3703 | OD1 | ASP | A | 629 | 13.213 | -4.562 | 51.312 | 1.00 | 18.38 | O |
| ATOM | 3704 | OD2 | ASP | A | 629 | 13.308 | -2.752 | 50.086 | 1.00 | 21.96 | O |
| ATOM | 3705 | N | SER | A | 630 | 17.332 | -6.342 | 49.033 | 1.00 | 21.13 | N |
| ATOM | 3706 | CA | SER | A | 630 | 18.271 | -6.868 | 48.054 | 1.00 | 24.24 | C |
| ATOM | 3707 | C | SER | A | 630 | 18.457 | -8.387 | 48.109 | 1.00 | 22.18 | C |
| ATOM | 3708 | O | SER | A | 630 | 19.029 | -8.971 | 47.190 | 1.00 | 23.73 | O |
| ATOM | 3709 | CB | SER | A | 630 | 19.628 | -6.148 | 48.165 | 1.00 | 23.32 | C |
| ATOM | 3710 | OG | SER | A | 630 | 20.247 | -6.379 | 49.417 | 1.00 | 26.34 | O |
| ATOM | 3711 | N | ASP | A | 631 | 17.961 | -9.035 | 49.161 | 1.00 | 22.98 | N |
| ATOM | 3712 | CA | ASP | A | 631 | 18.088 | -10.489 | 49.265 | 1.00 | 22.20 | C |
| ATOM | 3713 | C | ASP | A | 631 | 17.417 | -11.185 | 48.081 | 1.00 | 23.49 | C |
| ATOM | 3714 | O | ASP | A | 631 | 16.596 | -10.592 | 47.386 | 1.00 | 27.89 | O |
| ATOM | 3715 | CB | ASP | A | 631 | 17.445 | -10.995 | 50.553 | 1.00 | 20.78 | C |
| ATOM | 3716 | CG | ASP | A | 631 | 18.388 | -10.955 | 51.725 | 1.00 | 25.72 | C |
| ATOM | 3717 | OD1 | ASP | A | 631 | 18.177 | -11.695 | 52.705 | 1.00 | 25.64 | O |
| ATOM | 3718 | OD2 | ASP | A | 631 | 19.350 | -10.172 | 51.668 | 1.00 | 31.01 | O |
| ATOM | 3719 | N | THR | A | 632 | 17.788 | -12.441 | 47.846 | 1.00 | 22.90 | N |
| ATOM | 3720 | CA | THR | A | 632 | 17.199 | -13.236 | 46.777 | 1.00 | 20.84 | C |
| ATOM | 3721 | C | THR | A | 632 | 16.870 | -14.618 | 47.342 | 1.00 | 19.18 | C |
| ATOM | 3722 | O | THR | A | 632 | 17.289 | -14.961 | 48.452 | 1.00 | 18.77 | O |
| ATOM | 3723 | CB | THR | A | 632 | 18.139 | -13.371 | 45.535 | 1.00 | 26.27 | C |
| ATOM | 3724 | OG1 | THR | A | 632 | 19.388 | -13.963 | 45.913 | 1.00 | 26.96 | O |
| ATOM | 3725 | CG2 | THR | A | 632 | 18.400 | -12.011 | 44.920 | 1.00 | 23.05 | C |
| ATOM | 3726 | N | GLY | A | 633 | 16.114 | -15.399 | 46.577 | 1.00 | 21.09 | N |
| ATOM | 3727 | CA | GLY | A | 633 | 15.692 | -16.714 | 47.029 | 1.00 | 22.45 | C |
| ATOM | 3728 | C | GLY | A | 633 | 16.743 | -17.751 | 47.359 | 1.00 | 22.91 | C |
| ATOM | 3729 | O | GLY | A | 633 | 17.890 | -17.656 | 46.934 | 1.00 | 26.94 | O |
| ATOM | 3730 | N | LYS | A | 634 | 16.325 | -18.754 | 48.127 | 1.00 | 21.11 | N |
| ATOM | 3731 | CA | LYS | A | 634 | 17.185 | -19.860 | 48.548 | 1.00 | 22.16 | C |
| ATOM | 3732 | C | LYS | A | 634 | 16.368 | -21.142 | 48.493 | 1.00 | 22.87 | C |
| ATOM | 3733 | O | LYS | A | 634 | 15.146 | -21.094 | 48.598 | 1.00 | 26.78 | O |
| ATOM | 3734 | CB | LYS | A | 634 | 17.652 | -19.665 | 49.997 | 1.00 | 17.59 | C |
| ATOM | 3735 | CG | LYS | A | 634 | 18.304 | -18.323 | 50.296 | 1.00 | 22.99 | C |
| ATOM | 3736 | CD | LYS | A | 634 | 19.766 | -18.312 | 49.881 | 1.00 | 32.38 | C |
| ATOM | 3737 | CE | LYS | A | 634 | 20.312 | -16.890 | 49.795 | 1.00 | 35.16 | C |
| ATOM | 3738 | NZ | LYS | A | 634 | 20.196 | -16.319 | 48.422 | 1.00 | 31.31 | N |
| ATOM | 3739 | N | VAL | A | 635 | 17.020 | -22.288 | 48.315 | 1.00 | 20.24 | N |
| ATOM | 3740 | CA | VAL | A | 635 | 16.286 | -23.547 | 48.333 | 1.00 | 14.72 | C |
| ATOM | 3741 | C | VAL | A | 635 | 16.315 | -23.942 | 49.799 | 1.00 | 17.08 | C |
| ATOM | 3742 | O | VAL | A | 635 | 17.028 | -23.326 | 50.593 | 1.00 | 20.14 | O |
| ATOM | 3743 | CB | VAL | A | 635 | 16.953 | -24.643 | 47.499 | 1.00 | 12.28 | C |
| ATOM | 3744 | CG1 | VAL | A | 635 | 16.986 | -24.229 | 46.045 | 1.00 | 11.36 | C |
| ATOM | 3745 | CG2 | VAL | A | 635 | 18.344 | -24.931 | 48.028 | 1.00 | 12.97 | C |
| ATOM | 3746 | N | LEU | A | 636 | 15.532 | -24.941 | 50.181 | 1.00 | 15.90 | N |
| ATOM | 3747 | CA | LEU | A | 636 | 15.511 | -25.347 | 51.573 | 1.00 | 15.95 | C |
| ATOM | 3748 | C | LEU | A | 636 | 16.522 | -26.462 | 51.806 | 1.00 | 15.32 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3749 | O | LEU | A | 636 | 16.767 | -27.281 | 50.919 | 1.00 | 13.12 | O |
| ATOM | 3750 | CB | LEU | A | 636 | 14.107 | -25.834 | 51.957 | 1.00 | 13.28 | C |
| ATOM | 3751 | CG | LEU | A | 636 | 13.898 | -26.220 | 53.421 | 1.00 | 13.56 | C |
| ATOM | 3752 | CD1 | LEU | A | 636 | 13.738 | -24.972 | 54.253 | 1.00 | 10.44 | C |
| ATOM | 3753 | CD2 | LEU | A | 636 | 12.673 | -27.117 | 53.560 | 1.00 | 15.87 | C |
| ATOM | 3754 | N | PRO | A | 637 | 17.157 | -26.481 | 52.988 | 1.00 | 15.92 | N |
| ATOM | 3755 | CA | PRO | A | 637 | 18.131 | -27.538 | 53.275 | 1.00 | 18.30 | C |
| ATOM | 3756 | C | PRO | A | 637 | 17.522 | -28.934 | 53.136 | 1.00 | 21.15 | C |
| ATOM | 3757 | O | PRO | A | 637 | 18.113 | -29.823 | 52.518 | 1.00 | 22.74 | O |
| ATOM | 3758 | CB | PRO | A | 637 | 18.558 | -27.259 | 54.718 | 1.00 | 14.98 | C |
| ATOM | 3759 | CG | PRO | A | 637 | 18.277 | -25.807 | 54.925 | 1.00 | 14.03 | C |
| ATOM | 3760 | CD | PRO | A | 637 | 17.071 | -25.497 | 54.084 | 1.00 | 16.16 | C |
| ATOM | 3761 | N | SER | A | 638 | 16.329 | -29.109 | 53.706 | 1.00 | 19.93 | N |
| ATOM | 3762 | CA | SER | A | 638 | 15.633 | -30.392 | 53.699 | 1.00 | 16.13 | C |
| ATOM | 3763 | C | SER | A | 638 | 14.785 | -30.715 | 52.474 | 1.00 | 15.83 | C |
| ATOM | 3764 | O | SER | A | 638 | 14.253 | -29.825 | 51.808 | 1.00 | 19.43 | O |
| ATOM | 3765 | CB | SER | A | 638 | 14.757 | -30.503 | 54.949 | 1.00 | 15.49 | C |
| ATOM | 3766 | OG | SER | A | 638 | 14.127 | -31.769 | 54.992 | 1.00 | 16.71 | O |
| ATOM | 3767 | N | ALA | A | 639 | 14.662 | -32.010 | 52.193 | 1.00 | 14.58 | N |
| ATOM | 3768 | CA | ALA | A | 639 | 13.869 | -32.498 | 51.069 | 1.00 | 15.34 | C |
| ATOM | 3769 | C | ALA | A | 639 | 12.575 | -33.099 | 51.618 | 1.00 | 14.34 | C |
| ATOM | 3770 | O | ALA | A | 639 | 11.726 | -33.579 | 50.863 | 1.00 | 16.75 | O |
| ATOM | 3771 | CB | ALA | A | 639 | 14.635 | -33.558 | 50.303 | 1.00 | 11.43 | C |
| ATOM | 3772 | N | PHE | A | 640 | 12.455 | -33.095 | 52.941 | 1.00 | 14.53 | N |
| ATOM | 3773 | CA | PHE | A | 640 | 11.281 | -33.632 | 53.608 | 1.00 | 15.34 | C |
| ATOM | 3774 | C | PHE | A | 640 | 10.177 | -32.579 | 53.593 | 1.00 | 16.07 | C |
| ATOM | 3775 | O | PHE | A | 640 | 9.866 | -31.961 | 54.615 | 1.00 | 18.01 | O |
| ATOM | 3776 | CB | PHE | A | 640 | 11.616 | -34.013 | 55.045 | 1.00 | 13.61 | C |
| ATOM | 3777 | CG | PHE | A | 640 | 10.643 | -34.975 | 55.650 | 1.00 | 18.61 | C |
| ATOM | 3778 | CD1 | PHE | A | 640 | 10.387 | -36.203 | 55.040 | 1.00 | 20.39 | C |
| ATOM | 3779 | CD2 | PHE | A | 640 | 9.981 | -34.663 | 56.833 | 1.00 | 18.05 | C |
| ATOM | 3780 | CE1 | PHE | A | 640 | 9.485 | -37.108 | 55.605 | 1.00 | 23.30 | C |
| ATOM | 3781 | CE2 | PHE | A | 640 | 9.079 | -35.557 | 57.403 | 1.00 | 21.93 | C |
| ATOM | 3782 | CZ | PHE | A | 640 | 8.830 | -36.782 | 56.791 | 1.00 | 21.89 | C |
| ATOM | 3783 | N | VAL | A | 641 | 9.608 | -32.378 | 52.410 | 1.00 | 16.99 | N |
| ATOM | 3784 | CA | VAL | A | 641 | 8.536 | -31.412 | 52.197 | 1.00 | 17.61 | C |
| ATOM | 3785 | C | VAL | A | 641 | 7.625 | -32.081 | 51.164 | 1.00 | 18.11 | C |
| ATOM | 3786 | O | VAL | A | 641 | 8.089 | -32.491 | 50.098 | 1.00 | 17.61 | O |
| ATOM | 3787 | CB | VAL | A | 641 | 9.098 | -30.061 | 51.630 | 1.00 | 18.26 | C |
| ATOM | 3788 | CG1 | VAL | A | 641 | 7.963 | -29.060 | 51.411 | 1.00 | 19.17 | C |
| ATOM | 3789 | CG2 | VAL | A | 641 | 10.134 | -29.465 | 52.597 | 1.00 | 12.94 | C |
| ATOM | 3790 | N | GLY | A | 642 | 6.341 | -32.223 | 51.485 | 1.00 | 15.83 | N |
| ATOM | 3791 | CA | GLY | A | 642 | 5.442 | -32.865 | 50.542 | 1.00 | 15.49 | C |
| ATOM | 3792 | C | GLY | A | 642 | 4.024 | -33.114 | 51.027 | 1.00 | 13.20 | C |
| ATOM | 3793 | O | GLY | A | 642 | 3.729 | -33.006 | 52.219 | 1.00 | 14.34 | O |
| ATOM | 3794 | N | THR | A | 643 | 3.154 | -33.483 | 50.092 | 1.00 | 18.05 | N |
| ATOM | 3795 | CA | THR | A | 643 | 1.743 | -33.737 | 50.397 | 1.00 | 15.89 | C |
| ATOM | 3796 | C | THR | A | 643 | 1.258 | -35.137 | 50.043 | 1.00 | 13.58 | C |
| ATOM | 3797 | O | THR | A | 643 | 1.454 | -35.598 | 48.926 | 1.00 | 13.31 | O |
| ATOM | 3798 | CB | THR | A | 643 | 0.830 | -32.744 | 49.640 | 1.00 | 15.75 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3799 | OG1 | THR | A | 643 | 1.175 | -31.402 | 50.001 | 1.00 | 12.58 | O |
| ATOM | 3800 | CG2 | THR | A | 643 | -0.651 | -33.002 | 49.978 | 1.00 | 15.98 | C |
| ATOM | 3801 | N | SER | A | 644 | 0.626 | -35.808 | 51.001 | 1.00 | 15.12 | N |
| ATOM | 3802 | CA | SER | A | 644 | 0.041 | -37.121 | 50.757 | 1.00 | 14.46 | C |
| ATOM | 3803 | C | SER | A | 644 | -1.479 | -36.893 | 50.628 | 1.00 | 16.59 | C |
| ATOM | 3804 | O | SER | A | 644 | -2.152 | -36.569 | 51.611 | 1.00 | 17.58 | O |
| ATOM | 3805 | CB | SER | A | 644 | 0.306 | -38.059 | 51.926 | 1.00 | 12.22 | C |
| ATOM | 3806 | OG | SER | A | 644 | -0.155 | -39.358 | 51.613 | 1.00 | 21.34 | O |
| ATOM | 3807 | N | LYS | A | 645 | -2.006 | -37.050 | 49.418 | 1.00 | 15.83 | N |
| ATOM | 3808 | CA | LYS | A | 645 | -3.431 | -36.849 | 49.146 | 1.00 | 17.28 | C |
| ATOM | 3809 | C | LYS | A | 645 | -4.231 | -38.157 | 49.181 | 1.00 | 19.12 | C |
| ATOM | 3810 | O | LYS | A | 645 | -3.887 | -39.109 | 48.483 | 1.00 | 21.82 | O |
| ATOM | 3811 | CB | LYS | A | 645 | -3.589 | -36.196 | 47.767 | 1.00 | 14.10 | C |
| ATOM | 3812 | CG | LYS | A | 645 | -4.940 | -36.407 | 47.123 | 1.00 | 16.72 | C |
| ATOM | 3813 | CD | LYS | A | 645 | -4.957 | -35.927 | 45.700 | 1.00 | 12.66 | C |
| ATOM | 3814 | CE | LYS | A | 645 | -6.386 | -35.903 | 45.161 | 1.00 | 14.19 | C |
| ATOM | 3815 | NZ | LYS | A | 645 | -6.418 | -35.478 | 43.730 | 1.00 | 22.69 | N |
| ATOM | 3816 | N | LEU | A | 646 | -5.288 | -38.217 | 49.990 | 1.00 | 19.83 | N |
| ATOM | 3817 | CA | LEU | A | 646 | -6.118 | -39.431 | 50.039 | 1.00 | 16.47 | C |
| ATOM | 3818 | C | LEU | A | 646 | -7.187 | -39.348 | 48.943 | 1.00 | 17.57 | C |
| ATOM | 3819 | O | LEU | A | 646 | -7.327 | -40.253 | 48.124 | 1.00 | 16.25 | O |
| ATOM | 3820 | CB | LEU | A | 646 | -6.782 | -39.583 | 51.409 | 1.00 | 15.71 | C |
| ATOM | 3821 | CG | LEU | A | 646 | -7.814 | -40.710 | 51.533 | 1.00 | 19.57 | C |
| ATOM | 3822 | CD1 | LEU | A | 646 | -7.170 | -42.031 | 51.151 | 1.00 | 22.63 | C |
| ATOM | 3823 | CD2 | LEU | A | 646 | -8.349 | -40.776 | 52.953 | 1.00 | 18.23 | C |
| ATOM | 3824 | N | ASP | A | 647 | -7.935 | -38.251 | 48.919 | 1.00 | 17.27 | N |
| ATOM | 3825 | CA | ASP | A | 647 | -8.959 | -38.063 | 47.905 | 1.00 | 19.07 | C |
| ATOM | 3826 | C | ASP | A | 647 | -9.111 | -36.579 | 47.600 | 1.00 | 21.01 | C |
| ATOM | 3827 | O | ASP | A | 647 | -8.212 | -35.805 | 47.900 | 1.00 | 27.03 | O |
| ATOM | 3828 | CB | ASP | A | 647 | -10.291 | -38.673 | 48.367 | 1.00 | 21.60 | C |
| ATOM | 3829 | CG | ASP | A | 647 | -10.736 | -38.173 | 49.729 | 1.00 | 21.83 | C |
| ATOM | 3830 | OD1 | ASP | A | 647 | -10.410 | -37.025 | 50.095 | 1.00 | 24.69 | O |
| ATOM | 3831 | OD2 | ASP | A | 647 | -11.427 | -38.938 | 50.436 | 1.00 | 30.33 | O |
| ATOM | 3832 | N | ASP | A | 648 | -10.233 | -36.173 | 47.012 | 1.00 | 19.47 | N |
| ATOM | 3833 | CA | ASP | A | 648 | -10.436 | -34.765 | 46.672 | 1.00 | 19.02 | C |
| ATOM | 3834 | C | ASP | A | 648 | -10.743 | -33.866 | 47.856 | 1.00 | 11.90 | C |
| ATOM | 3835 | O | ASP | A | 648 | -10.856 | -32.655 | 47.697 | 1.00 | 13.50 | O |
| ATOM | 3836 | CB | ASP | A | 648 | -11.570 | -34.609 | 45.662 | 1.00 | 29.87 | C |
| ATOM | 3837 | CG | ASP | A | 648 | -11.469 | -35.583 | 44.519 | 1.00 | 42.61 | C |
| ATOM | 3838 | OD1 | ASP | A | 648 | -10.334 | -35.836 | 44.054 | 1.00 | 51.02 | O |
| ATOM | 3839 | OD2 | ASP | A | 648 | -12.529 | -36.092 | 44.083 | 1.00 | 46.46 | O |
| ATOM | 3840 | N | ALA | A | 649 | -10.881 | -34.439 | 49.043 | 1.00 | 11.95 | N |
| ATOM | 3841 | CA | ALA | A | 649 | -11.202 | -33.627 | 50.205 | 1.00 | 15.36 | C |
| ATOM | 3842 | C | ALA | A | 649 | -10.219 | -33.756 | 51.356 | 1.00 | 15.00 | C |
| ATOM | 3843 | O | ALA | A | 649 | -10.235 | -32.946 | 52.286 | 1.00 | 13.56 | O |
| ATOM | 3844 | CB | ALA | A | 649 | -12.612 | -33.971 | 50.696 | 1.00 | 17.09 | C |
| ATOM | 3845 | N | ASN | A | 650 | -9.364 | -34.769 | 51.299 | 1.00 | 14.90 | N |
| ATOM | 3846 | CA | ASN | A | 650 | -8.420 | -34.992 | 52.379 | 1.00 | 16.14 | C |
| ATOM | 3847 | C | ASN | A | 650 | -6.974 | -35.225 | 51.943 | 1.00 | 17.44 | C |
| ATOM | 3848 | O | ASN | A | 650 | -6.698 | -35.976 | 51.006 | 1.00 | 17.38 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3849 | CB | ASN | A | 650 | -8.897 | -36.172 | 53.215 | 1.00 | 16.81 | C |
| ATOM | 3850 | CG | ASN | A | 650 | -10.319 | -35.998 | 53.688 | 1.00 | 21.06 | C |
| ATOM | 3851 | OD1 | ASN | A | 650 | -10.567 | -35.382 | 54.727 | 1.00 | 18.14 | O |
| ATOM | 3852 | ND2 | ASN | A | 650 | -11.266 | -36.525 | 52.921 | 1.00 | 20.25 | N |
| ATOM | 3853 | N | ALA | A | 651 | -6.053 | -34.574 | 52.640 | 1.00 | 15.84 | N |
| ATOM | 3854 | CA | ALA | A | 651 | -4.637 | -34.723 | 52.334 | 1.00 | 16.26 | C |
| ATOM | 3855 | C | ALA | A | 651 | -3.830 | -34.236 | 53.517 | 1.00 | 16.74 | C |
| ATOM | 3856 | O | ALA | A | 651 | -4.328 | -33.480 | 54.361 | 1.00 | 16.56 | O |
| ATOM | 3857 | CB | ALA | A | 651 | -4.281 | -33.931 | 51.085 | 1.00 | 13.74 | C |
| ATOM | 3858 | N | THR | A | 652 | -2.589 | -34.691 | 53.596 | 1.00 | 17.21 | N |
| ATOM | 3859 | CA | THR | A | 652 | -1.719 | -34.274 | 54.678 | 1.00 | 17.44 | C |
| ATOM | 3860 | C | THR | A | 652 | -0.411 | -33.772 | 54.094 | 1.00 | 15.53 | C |
| ATOM | 3861 | O | THR | A | 652 | 0.056 | -34.277 | 53.075 | 1.00 | 13.60 | O |
| ATOM | 3862 | CB | THR | A | 652 | -1.475 | -35.417 | 55.645 | 1.00 | 16.83 | C |
| ATOM | 3863 | OG1 | THR | A | 652 | -2.744 | -35.957 | 56.038 | 1.00 | 19.83 | O |
| ATOM | 3864 | CG2 | THR | A | 652 | -0.732 | -34.918 | 56.883 | 1.00 | 9.21 | C |
| ATOM | 3865 | N | ALA | A | 653 | 0.156 | -32.756 | 54.732 | 1.00 | 15.05 | N |
| ATOM | 3866 | CA | ALA | A | 653 | 1.395 | -32.162 | 54.254 | 1.00 | 17.60 | C |
| ATOM | 3867 | C | ALA | A | 653 | 2.351 | -31.860 | 55.396 | 1.00 | 16.53 | C |
| ATOM | 3868 | O | ALA | A | 653 | 1.940 | -31.756 | 56.544 | 1.00 | 15.96 | O |
| ATOM | 3869 | CB | ALA | A | 653 | 1.086 | -30.873 | 53.489 | 1.00 | 11.89 | C |
| ATOM | 3870 | N | THR | A | 654 | 3.634 | -31.724 | 55.071 | 1.00 | 19.90 | N |
| ATOM | 3871 | CA | THR | A | 654 | 4.638 | -31.400 | 56.081 | 1.00 | 19.62 | C |
| ATOM | 3872 | C | THR | A | 654 | 5.810 | -30.644 | 55.482 | 1.00 | 18.31 | C |
| ATOM | 3873 | O | THR | A | 654 | 6.084 | -30.753 | 54.292 | 1.00 | 15.97 | O |
| ATOM | 3874 | CB | THR | A | 654 | 5.191 | -32.659 | 56.765 | 1.00 | 20.06 | C |
| ATOM | 3875 | OG1 | THR | A | 654 | 5.858 | -32.281 | 57.975 | 1.00 | 19.14 | O |
| ATOM | 3876 | CG2 | THR | A | 654 | 6.163 | -33.374 | 55.853 | 1.00 | 19.52 | C |
| ATOM | 3877 | N | MET | A | 655 | 6.489 | -29.871 | 56.317 | 1.00 | 17.47 | N |
| ATOM | 3878 | CA | MET | A | 655 | 7.649 | -29.116 | 55.876 | 1.00 | 19.43 | C |
| ATOM | 3879 | C | MET | A | 655 | 8.686 | -29.124 | 56.993 | 1.00 | 20.42 | C |
| ATOM | 3880 | O | MET | A | 655 | 8.439 | -28.633 | 58.089 | 1.00 | 20.10 | O |
| ATOM | 3881 | CB | MET | A | 655 | 7.268 | -27.671 | 55.533 | 1.00 | 18.52 | C |
| ATOM | 3882 | CG | MET | A | 655 | 8.389 | -26.873 | 54.862 | 1.00 | 20.10 | C |
| ATOM | 3883 | SD | MET | A | 655 | 8.006 | -25.132 | 54.709 | 1.00 | 19.06 | S |
| ATOM | 3884 | CE | MET | A | 655 | 9.070 | -24.624 | 53.376 | 1.00 | 23.28 | C |
| ATOM | 3885 | N | ASP | A | 656 | 9.836 | -29.725 | 56.705 | 1.00 | 20.82 | N |
| ATOM | 3886 | CA | ASP | A | 656 | 10.956 | -29.804 | 57.639 | 1.00 | 17.43 | C |
| ATOM | 3887 | C | ASP | A | 656 | 11.564 | -28.416 | 57.486 | 1.00 | 18.74 | C |
| ATOM | 3888 | O | ASP | A | 656 | 12.478 | -28.207 | 56.678 | 1.00 | 19.57 | O |
| ATOM | 3889 | CB | ASP | A | 656 | 11.911 | -30.886 | 57.139 | 1.00 | 20.88 | C |
| ATOM | 3890 | CG | ASP | A | 656 | 13.017 | -31.198 | 58.109 | 1.00 | 21.53 | C |
| ATOM | 3891 | OD1 | ASP | A | 656 | 12.991 | -30.706 | 59.260 | 1.00 | 19.53 | O |
| ATOM | 3892 | OD2 | ASP | A | 656 | 13.924 | -31.953 | 57.699 | 1.00 | 24.91 | O |
| ATOM | 3893 | N | PHE | A | 657 | 11.033 | -27.466 | 58.249 | 1.00 | 12.67 | N |
| ATOM | 3894 | CA | PHE | A | 657 | 11.444 | -26.078 | 58.149 | 1.00 | 14.06 | C |
| ATOM | 3895 | C | PHE | A | 657 | 12.678 | -25.570 | 58.875 | 1.00 | 13.37 | C |
| ATOM | 3896 | O | PHE | A | 657 | 12.919 | -25.896 | 60.035 | 1.00 | 17.71 | O |
| ATOM | 3897 | CB | PHE | A | 657 | 10.277 | -25.180 | 58.544 | 1.00 | 11.47 | C |
| ATOM | 3898 | CG | PHE | A | 657 | 10.554 | -23.711 | 58.374 | 1.00 | 7.10 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3899 | CD1 | PHE | A | 657 | 10.562 | -23.138 | 57.113 | 1.00 | 11.58 | C |
| ATOM | 3900 | CD2 | PHE | A | 657 | 10.773 | -22.900 | 59.482 | 1.00 | 10.10 | C |
| ATOM | 3901 | CE1 | PHE | A | 657 | 10.779 | -21.773 | 56.950 | 1.00 | 11.22 | C |
| ATOM | 3902 | CE2 | PHE | A | 657 | 10.991 | -21.535 | 59.336 | 1.00 | 10.61 | C |
| ATOM | 3903 | CZ | PHE | A | 657 | 10.994 | -20.969 | 58.068 | 1.00 | 10.31 | C |
| ATOM | 3904 | N | THR | A | 658 | 13.418 | -24.722 | 58.162 | 1.00 | 15.43 | N |
| ATOM | 3905 | CA | THR | A | 658 | 14.615 | -24.046 | 58.655 | 1.00 | 16.22 | C |
| ATOM | 3906 | C | THR | A | 658 | 14.568 | -22.666 | 58.008 | 1.00 | 11.10 | C |
| ATOM | 3907 | O | THR | A | 658 | 14.407 | -22.558 | 56.788 | 1.00 | 12.53 | O |
| ATOM | 3908 | CB | THR | A | 658 | 15.905 | -24.765 | 58.218 | 1.00 | 17.42 | C |
| ATOM | 3909 | OG1 | THR | A | 658 | 15.970 | -26.045 | 58.852 | 1.00 | 16.60 | O |
| ATOM | 3910 | CG2 | THR | A | 658 | 17.122 | -23.956 | 58.640 | 1.00 | 21.87 | C |
| ATOM | 3911 | N | ASN | A | 659 | 14.695 | -21.607 | 58.799 | 1.00 | 14.43 | N |
| ATOM | 3912 | CA | ASN | A | 659 | 14.623 | -20.273 | 58.213 | 1.00 | 17.83 | C |
| ATOM | 3913 | C | ASN | A | 659 | 15.858 | -19.864 | 57.418 | 1.00 | 23.23 | C |
| ATOM | 3914 | O | ASN | A | 659 | 16.913 | -20.505 | 57.481 | 1.00 | 23.51 | O |
| ATOM | 3915 | CB | ASN | A | 659 | 14.301 | -19.218 | 59.277 | 1.00 | 19.05 | C |
| ATOM | 3916 | CG | ASN | A | 659 | 15.441 | -18.982 | 60.241 | 1.00 | 19.61 | C |
| ATOM | 3917 | OD1 | ASN | A | 659 | 16.335 | -19.815 | 60.379 | 1.00 | 23.51 | O |
| ATOM | 3918 | ND2 | ASN | A | 659 | 15.407 | -17.841 | 60.930 | 1.00 | 11.75 | N |
| ATOM | 3919 | N | TRP | A | 660 | 15.695 | -18.782 | 56.667 | 1.00 | 22.38 | N |
| ATOM | 3920 | CA | TRP | A | 660 | 16.716 | -18.233 | 55.788 | 1.00 | 22.69 | C |
| ATOM | 3921 | C | TRP | A | 660 | 18.157 | -18.185 | 56.307 | 1.00 | 23.34 | C |
| ATOM | 3922 | O | TRP | A | 660 | 19.092 | -18.307 | 55.524 | 1.00 | 23.65 | O |
| ATOM | 3923 | CB | TRP | A | 660 | 16.281 | -16.835 | 55.344 | 1.00 | 17.21 | C |
| ATOM | 3924 | CG | TRP | A | 660 | 16.339 | -15.836 | 56.441 | 1.00 | 19.30 | C |
| ATOM | 3925 | CD1 | TRP | A | 660 | 15.474 | -15.712 | 57.488 | 1.00 | 18.06 | C |
| ATOM | 3926 | CD2 | TRP | A | 660 | 17.356 | -14.852 | 56.639 | 1.00 | 20.74 | C |
| ATOM | 3927 | NE1 | TRP | A | 660 | 15.891 | -14.711 | 58.332 | 1.00 | 17.68 | N |
| ATOM | 3928 | CE2 | TRP | A | 660 | 17.045 | -14.165 | 57.834 | 1.00 | 18.89 | C |
| ATOM | 3929 | CE3 | TRP | A | 660 | 18.503 | -14.484 | 55.923 | 1.00 | 22.51 | C |
| ATOM | 3930 | CZ2 | TRP | A | 660 | 17.838 | -13.132 | 58.331 | 1.00 | 19.27 | C |
| ATOM | 3931 | CZ3 | TRP | A | 660 | 19.294 | -13.455 | 56.418 | 1.00 | 21.11 | C |
| ATOM | 3932 | CH2 | TRP | A | 660 | 18.956 | -12.790 | 57.613 | 1.00 | 23.84 | C |
| ATOM | 3933 | N | ASN | A | 661 | 18.338 | -18.016 | 57.614 | 1.00 | 23.28 | N |
| ATOM | 3934 | CA | ASN | A | 661 | 19.677 | -17.926 | 58.184 | 1.00 | 22.57 | C |
| ATOM | 3935 | C | ASN | A | 661 | 19.973 | -19.005 | 59.214 | 1.00 | 24.18 | C |
| ATOM | 3936 | O | ASN | A | 661 | 20.773 | -18.802 | 60.122 | 1.00 | 27.82 | O |
| ATOM | 3937 | CB | ASN | A | 661 | 19.869 | -16.555 | 58.825 | 1.00 | 21.47 | C |
| ATOM | 3938 | CG | ASN | A | 661 | 18.973 | -16.343 | 60.027 | 1.00 | 25.75 | C |
| ATOM | 3939 | OD1 | ASN | A | 661 | 18.233 | -17.238 | 60.439 | 1.00 | 25.02 | O |
| ATOM | 3940 | ND2 | ASN | A | 661 | 19.037 | -15.152 | 60.603 | 1.00 | 26.44 | N |
| ATOM | 3941 | N | GLN | A | 662 | 19.319 | -20.148 | 59.068 | 1.00 | 23.07 | N |
| ATOM | 3942 | CA | GLN | A | 662 | 19.500 | -21.279 | 59.970 | 1.00 | 21.70 | C |
| ATOM | 3943 | C | GLN | A | 662 | 19.609 | -20.945 | 61.446 | 1.00 | 20.78 | C |
| ATOM | 3944 | O | GLN | A | 662 | 20.568 | -21.334 | 62.104 | 1.00 | 22.24 | O |
| ATOM | 3945 | CB | GLN | A | 662 | 20.720 | -22.103 | 59.553 | 1.00 | 22.74 | C |
| ATOM | 3946 | CG | GLN | A | 662 | 20.595 | -22.726 | 58.173 | 1.00 | 18.04 | C |
| ATOM | 3947 | CD | GLN | A | 662 | 20.961 | -21.751 | 57.074 | 1.00 | 24.69 | C |
| ATOM | 3948 | OE1 | GLN | A | 662 | 21.707 | -20.794 | 57.295 | 1.00 | 28.43 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3949 | NE2 | GLN | A | 662 | 20.437 | -21.986 | 55.880 | 1.00 | 27.73 | N |
| ATOM | 3950 | N | THR | A | 663 | 18.632 | -20.213 | 61.964 | 1.00 | 19.81 | N |
| ATOM | 3951 | CA | THR | A | 663 | 18.598 | -19.899 | 63.386 | 1.00 | 20.20 | C |
| ATOM | 3952 | C | THR | A | 663 | 17.276 | -20.411 | 63.962 | 1.00 | 20.40 | C |
| ATOM | 3953 | O | THR | A | 663 | 17.095 | -20.461 | 65.176 | 1.00 | 21.34 | O |
| ATOM | 3954 | CB | THR | A | 663 | 18.705 | -18.393 | 63.659 | 1.00 | 19.22 | C |
| ATOM | 3955 | OG1 | THR | A | 663 | 17.710 | -17.692 | 62.907 | 1.00 | 22.01 | O |
| ATOM | 3956 | CG2 | THR | A | 663 | 20.081 | -17.887 | 63.261 | 1.00 | 19.06 | C |
| ATOM | 3957 | N | LEU | A | 664 | 16.361 | -20.808 | 63.083 | 1.00 | 20.69 | N |
| ATOM | 3958 | CA | LEU | A | 664 | 15.065 | -21.311 | 63.526 | 1.00 | 21.04 | C |
| ATOM | 3959 | C | LEU | A | 664 | 14.630 | -22.536 | 62.744 | 1.00 | 19.48 | C |
| ATOM | 3960 | O | LEU | A | 664 | 14.820 | -22.619 | 61.532 | 1.00 | 18.10 | O |
| ATOM | 3961 | CB | LEU | A | 664 | 13.988 | -20.230 | 63.393 | 1.00 | 22.69 | C |
| ATOM | 3962 | CG | LEU | A | 664 | 12.646 | -20.571 | 64.061 | 1.00 | 24.60 | C |
| ATOM | 3963 | CD1 | LEU | A | 664 | 11.941 | -19.307 | 64.496 | 1.00 | 19.91 | C |
| ATOM | 3964 | CD2 | LEU | A | 664 | 11.782 | -21.340 | 63.093 | 1.00 | 24.25 | C |
| ATOM | 3965 | N | THR | A | 665 | 14.041 | -23.487 | 63.459 | 1.00 | 20.07 | N |
| ATOM | 3966 | CA | THR | A | 665 | 13.548 | -24.710 | 62.851 | 1.00 | 21.87 | C |
| ATOM | 3967 | C | THR | A | 665 | 12.148 | -24.997 | 63.375 | 1.00 | 20.19 | C |
| ATOM | 3968 | O | THR | A | 665 | 11.738 | -24.472 | 64.412 | 1.00 | 19.86 | O |
| ATOM | 3969 | CB | THR | A | 665 | 14.427 | -25.920 | 63.201 | 1.00 | 20.96 | C |
| ATOM | 3970 | OG1 | THR | A | 665 | 14.216 | -26.278 | 64.573 | 1.00 | 21.04 | O |
| ATOM | 3971 | CG2 | THR | A | 665 | 15.904 | -25.599 | 62.974 | 1.00 | 28.54 | C |
| ATOM | 3972 | N | ALA | A | 666 | 11.431 | -25.848 | 62.656 | 1.00 | 19.47 | N |
| ATOM | 3973 | CA | ALA | A | 666 | 10.088 | -26.230 | 63.045 | 1.00 | 17.36 | C |
| ATOM | 3974 | C | ALA | A | 666 | 9.557 | -27.328 | 62.141 | 1.00 | 15.68 | C |
| ATOM | 3975 | O | ALA | A | 666 | 9.766 | -27.297 | 60.928 | 1.00 | 16.93 | O |
| ATOM | 3976 | CB | ALA | A | 666 | 9.164 | -25.020 | 62.974 | 1.00 | 18.38 | C |
| ATOM | 3977 | N | HIS | A | 667 | 8.900 | -28.315 | 62.739 | 1.00 | 16.33 | N |
| ATOM | 3978 | CA | HIS | A | 667 | 8.273 | -29.371 | 61.957 | 1.00 | 17.73 | C |
| ATOM | 3979 | C | HIS | A | 667 | 6.856 | -28.832 | 61.747 | 1.00 | 17.68 | C |
| ATOM | 3980 | O | HIS | A | 667 | 6.015 | -28.895 | 62.643 | 1.00 | 17.47 | O |
| ATOM | 3981 | CB | HIS | A | 667 | 8.226 | -30.684 | 62.740 | 1.00 | 19.60 | C |
| ATOM | 3982 | CG | HIS | A | 667 | 9.559 | -31.347 | 62.888 | 1.00 | 23.93 | C |
| ATOM | 3983 | ND1 | HIS | A | 667 | 10.730 | -30.777 | 62.429 | 1.00 | 24.70 | N |
| ATOM | 3984 | CD2 | HIS | A | 667 | 9.910 | -32.529 | 63.448 | 1.00 | 23.79 | C |
| ATOM | 3985 | CE1 | HIS | A | 667 | 11.743 | -31.582 | 62.701 | 1.00 | 21.53 | C |
| ATOM | 3986 | NE2 | HIS | A | 667 | 11.273 | -32.651 | 63.318 | 1.00 | 26.39 | N |
| ATOM | 3987 | N | LYS | A | 668 | 6.612 | -28.268 | 60.574 | 1.00 | 16.93 | N |
| ATOM | 3988 | CA | LYS | A | 668 | 5.309 | -27.703 | 60.268 | 1.00 | 19.43 | C |
| ATOM | 3989 | C | LYS | A | 668 | 4.503 | -28.685 | 59.445 | 1.00 | 20.61 | C |
| ATOM | 3990 | O | LYS | A | 668 | 4.940 | -29.121 | 58.371 | 1.00 | 20.05 | O |
| ATOM | 3991 | CB | LYS | A | 668 | 5.470 | -26.388 | 59.504 | 1.00 | 14.22 | C |
| ATOM | 3992 | CG | LYS | A | 668 | 5.984 | -25.236 | 60.366 | 1.00 | 12.25 | C |
| ATOM | 3993 | CD | LYS | A | 668 | 6.395 | -24.053 | 59.504 | 1.00 | 11.56 | C |
| ATOM | 3994 | CE | LYS | A | 668 | 5.206 | -23.167 | 59.181 | 1.00 | 12.10 | C |
| ATOM | 3995 | NZ | LYS | A | 668 | 4.540 | -22.694 | 60.423 | 1.00 | 12.00 | N |
| ATOM | 3996 | N | SER | A | 669 | 3.326 | -29.041 | 59.951 | 1.00 | 16.11 | N |
| ATOM | 3997 | CA | SER | A | 669 | 2.477 | -29.983 | 59.244 | 1.00 | 16.65 | C |
| ATOM | 3998 | C | SER | A | 669 | 1.061 | -29.454 | 59.083 | 1.00 | 15.56 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3999 | O | SER | A | 669 | 0.573 | -28.689 | 59.914 | 1.00 | 15.88 | O |
| ATOM | 4000 | CB | SER | A | 669 | 2.471 | -31.318 | 59.984 | 1.00 | 17.56 | C |
| ATOM | 4001 | OG | SER | A | 669 | 3.756 | -31.923 | 59.913 | 1.00 | 17.74 | O |
| ATOM | 4002 | N | TRP | A | 670 | 0.409 | -29.855 | 58.000 | 1.00 | 16.02 | N |
| ATOM | 4003 | CA | TRP | A | 670 | -0.952 | -29.421 | 57.731 | 1.00 | 12.45 | C |
| ATOM | 4004 | C | TRP | A | 670 | -1.841 | -30.617 | 57.437 | 1.00 | 14.21 | C |
| ATOM | 4005 | O | TRP | A | 670 | -1.474 | -31.517 | 56.674 | 1.00 | 13.28 | O |
| ATOM | 4006 | CB | TRP | A | 670 | -0.980 | -28.465 | 56.544 | 1.00 | 13.03 | C |
| ATOM | 4007 | CG | TRP | A | 670 | -0.196 | -27.219 | 56.752 | 1.00 | 14.94 | C |
| ATOM | 4008 | CD1 | TRP | A | 670 | -0.672 | -26.011 | 57.151 | 1.00 | 14.63 | C |
| ATOM | 4009 | CD2 | TRP | A | 670 | 1.209 | -27.045 | 56.521 | 1.00 | 17.93 | C |
| ATOM | 4010 | NE1 | TRP | A | 670 | 0.346 | -25.086 | 57.182 | 1.00 | 20.67 | N |
| ATOM | 4011 | CE2 | TRP | A | 670 | 1.512 | -25.698 | 56.799 | 1.00 | 20.41 | C |
| ATOM | 4012 | CE3 | TRP | A | 670 | 2.240 | -27.900 | 56.104 | 1.00 | 21.10 | C |
| ATOM | 4013 | CZ2 | TRP | A | 670 | 2.809 | -25.179 | 56.673 | 1.00 | 20.28 | C |
| ATOM | 4014 | CZ3 | TRP | A | 670 | 3.532 | -27.383 | 55.978 | 1.00 | 20.38 | C |
| ATOM | 4015 | CH2 | TRP | A | 670 | 3.801 | -26.037 | 56.263 | 1.00 | 18.91 | C |
| ATOM | 4016 | N | PHE | A | 671 | -3.024 | -30.614 | 58.038 | 1.00 | 16.67 | N |
| ATOM | 4017 | CA | PHE | A | 671 | -3.970 | -31.706 | 57.854 | 1.00 | 16.90 | C |
| ATOM | 4018 | C | PHE | A | 671 | -5.258 | -31.178 | 57.242 | 1.00 | 17.56 | C |
| ATOM | 4019 | O | PHE | A | 671 | -6.084 | -30.580 | 57.929 | 1.00 | 18.26 | O |
| ATOM | 4020 | CB | PHE | A | 671 | -4.219 | -32.377 | 59.203 | 1.00 | 14.37 | C |
| ATOM | 4021 | CG | PHE | A | 671 | -2.952 | -32.728 | 59.926 | 1.00 | 17.03 | C |
| ATOM | 4022 | CD1 | PHE | A | 671 | -2.216 | -31.745 | 60.583 | 1.00 | 19.47 | C |
| ATOM | 4023 | CD2 | PHE | A | 671 | -2.454 | -34.027 | 59.894 | 1.00 | 24.20 | C |
| ATOM | 4024 | CE1 | PHE | A | 671 | -0.992 | -32.050 | 61.193 | 1.00 | 17.24 | C |
| ATOM | 4025 | CE2 | PHE | A | 671 | -1.228 | -34.344 | 60.504 | 1.00 | 22.48 | C |
| ATOM | 4026 | CZ | PHE | A | 671 | -0.501 | -33.354 | 61.151 | 1.00 | 16.35 | C |
| ATOM | 4027 | N | MET | A | 672 | -5.395 | -31.374 | 55.935 | 1.00 | 16.26 | N |
| ATOM | 4028 | CA | MET | A | 672 | -6.568 | -30.914 | 55.212 | 1.00 | 18.50 | C |
| ATOM | 4029 | C | MET | A | 672 | -7.653 | -31.974 | 55.354 | 1.00 | 18.66 | C |
| ATOM | 4030 | O | MET | A | 672 | -7.543 | -33.088 | 54.834 | 1.00 | 13.97 | O |
| ATOM | 4031 | CB | MET | A | 672 | -6.220 | -30.673 | 53.743 | 1.00 | 15.63 | C |
| ATOM | 4032 | CG | MET | A | 672 | -5.351 | -29.426 | 53.503 | 1.00 | 19.39 | C |
| ATOM | 4033 | SD | MET | A | 672 | -4.227 | -29.561 | 52.071 | 1.00 | 18.28 | S |
| ATOM | 4034 | CE | MET | A | 672 | -2.881 | -30.512 | 52.795 | 1.00 | 23.68 | C |
| ATOM | 4035 | N | LEU | A | 673 | -8.703 | -31.610 | 56.075 | 1.00 | 17.57 | N |
| ATOM | 4036 | CA | LEU | A | 673 | -9.791 | -32.527 | 56.332 | 1.00 | 18.69 | C |
| ATOM | 4037 | C | LEU | A | 673 | -11.157 | -32.058 | 55.840 | 1.00 | 19.41 | C |
| ATOM | 4038 | O | LEU | A | 673 | -12.042 | -31.739 | 56.639 | 1.00 | 19.47 | O |
| ATOM | 4039 | CB | LEU | A | 673 | -9.840 | -32.824 | 57.827 | 1.00 | 12.86 | C |
| ATOM | 4040 | CG | LEU | A | 673 | -8.554 | -33.472 | 58.333 | 1.00 | 10.02 | C |
| ATOM | 4041 | CD1 | LEU | A | 673 | -8.425 | -33.260 | 59.814 | 1.00 | 12.96 | C |
| ATOM | 4042 | CD2 | LEU | A | 673 | -8.568 | -34.944 | 58.012 | 1.00 | 10.35 | C |
| ATOM | 4043 | N | LYS | A | 674 | -11.306 | -32.007 | 54.519 | 1.00 | 18.12 | N |
| ATOM | 4044 | CA | LYS | A | 674 | -12.569 | -31.637 | 53.872 | 1.00 | 19.38 | C |
| ATOM | 4045 | C | LYS | A | 674 | -13.065 | -30.205 | 54.012 | 1.00 | 13.53 | C |
| ATOM | 4046 | O | LYS | A | 674 | -13.027 | -29.435 | 53.055 | 1.00 | 13.10 | O |
| ATOM | 4047 | CB | LYS | A | 674 | -13.682 | -32.587 | 54.337 | 1.00 | 18.67 | C |
| ATOM | 4048 | CG | LYS | A | 674 | -15.020 | -32.368 | 53.634 | 1.00 | 21.72 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4049 | CD | LYS | A | 674 | -15.651 | -33.689 | 53.231 | 1.00 | 27.58 | C |
| ATOM | 4050 | CE | LYS | A | 674 | -16.946 | -33.928 | 53.976 | 1.00 | 29.97 | C |
| ATOM | 4051 | NZ | LYS | A | 674 | -16.886 | -33.368 | 55.357 | 1.00 | 33.44 | N |
| ATOM | 4052 | N | ASP | A | 675 | -13.552 | -29.863 | 55.198 | 1.00 | 15.08 | N |
| ATOM | 4053 | CA | ASP | A | 675 | -14.101 | -28.534 | 55.456 | 1.00 | 19.03 | C |
| ATOM | 4054 | C | ASP | A | 675 | -13.293 | -27.742 | 56.481 | 1.00 | 20.81 | C |
| ATOM | 4055 | O | ASP | A | 675 | -13.753 | -26.720 | 56.996 | 1.00 | 19.12 | O |
| ATOM | 4056 | CB | ASP | A | 675 | -15.564 | -28.667 | 55.930 | 1.00 | 16.90 | C |
| ATOM | 4057 | CG | ASP | A | 675 | -15.712 | -29.544 | 57.176 | 1.00 | 21.61 | C |
| ATOM | 4058 | OD1 | ASP | A | 675 | -14.694 | -30.040 | 57.702 | 1.00 | 21.72 | O |
| ATOM | 4059 | OD2 | ASP | A | 675 | -16.860 | -29.739 | 57.641 | 1.00 | 23.75 | O |
| ATOM | 4060 | N | LYS | A | 676 | -12.086 | -28.214 | 56.771 | 1.00 | 18.40 | N |
| ATOM | 4061 | CA | LYS | A | 676 | -11.222 | -27.564 | 57.748 | 1.00 | 18.29 | C |
| ATOM | 4062 | C | LYS | A | 676 | -9.775 | -28.002 | 57.509 | 1.00 | 18.05 | C |
| ATOM | 4063 | O | LYS | A | 676 | -9.527 | -28.994 | 56.816 | 1.00 | 14.58 | O |
| ATOM | 4064 | CB | LYS | A | 676 | -11.639 | -27.976 | 59.155 | 1.00 | 16.56 | C |
| ATOM | 4065 | CG | LYS | A | 676 | -11.671 | -29.488 | 59.339 | 1.00 | 17.00 | C |
| ATOM | 4066 | CD | LYS | A | 676 | -12.407 | -29.884 | 60.607 | 1.00 | 17.48 | C |
| ATOM | 4067 | CE | LYS | A | 676 | -12.691 | -31.371 | 60.629 | 1.00 | 16.07 | C |
| ATOM | 4068 | NZ | LYS | A | 676 | -13.119 | -31.857 | 59.291 | 1.00 | 18.59 | N |
| ATOM | 4069 | N | ILE | A | 677 | -8.837 | -27.256 | 58.089 | 1.00 | 17.44 | N |
| ATOM | 4070 | CA | ILE | A | 677 | -7.408 | -27.549 | 57.969 | 1.00 | 16.21 | C |
| ATOM | 4071 | C | ILE | A | 677 | -6.734 | -27.374 | 59.331 | 1.00 | 16.28 | C |
| ATOM | 4072 | O | ILE | A | 677 | -6.823 | -26.310 | 59.953 | 1.00 | 19.53 | O |
| ATOM | 4073 | CB | ILE | A | 677 | -6.718 | -26.608 | 56.945 | 1.00 | 15.68 | C |
| ATOM | 4074 | CG1 | ILE | A | 677 | -7.290 | -26.830 | 55.543 | 1.00 | 15.11 | C |
| ATOM | 4075 | CG2 | ILE | A | 677 | -5.231 | -26.889 | 56.909 | 1.00 | 18.43 | C |
| ATOM | 4076 | CD1 | ILE | A | 677 | -8.248 | -25.742 | 55.080 | 1.00 | 12.33 | C |
| ATOM | 4077 | N | ALA | A | 678 | -6.079 | -28.424 | 59.811 | 1.00 | 16.13 | N |
| ATOM | 4078 | CA | ALA | A | 678 | -5.394 | -28.348 | 61.094 | 1.00 | 14.70 | C |
| ATOM | 4079 | C | ALA | A | 678 | -3.936 | -27.951 | 60.846 | 1.00 | 18.04 | C |
| ATOM | 4080 | O | ALA | A | 678 | -3.276 | -28.506 | 59.968 | 1.00 | 19.60 | O |
| ATOM | 4081 | CB | ALA | A | 678 | -5.458 | -29.694 | 61.802 | 1.00 | 11.75 | C |
| ATOM | 4082 | N | PHE | A | 679 | -3.449 | -26.978 | 61.604 | 1.00 | 17.71 | N |
| ATOM | 4083 | CA | PHE | A | 679 | -2.067 | -26.523 | 61.485 | 1.00 | 16.53 | C |
| ATOM | 4084 | C | PHE | A | 679 | -1.319 | -27.018 | 62.715 | 1.00 | 16.55 | C |
| ATOM | 4085 | O | PHE | A | 679 | -1.669 | -26.654 | 63.836 | 1.00 | 18.94 | O |
| ATOM | 4086 | CB | PHE | A | 679 | -1.989 | -24.995 | 61.467 | 1.00 | 11.89 | C |
| ATOM | 4087 | CG | PHE | A | 679 | -2.513 | -24.360 | 60.214 | 1.00 | 12.14 | C |
| ATOM | 4088 | CD1 | PHE | A | 679 | -3.849 | -24.481 | 59.858 | 1.00 | 16.26 | C |
| ATOM | 4089 | CD2 | PHE | A | 679 | -1.674 | -23.593 | 59.410 | 1.00 | 15.06 | C |
| ATOM | 4090 | CE1 | PHE | A | 679 | -4.341 | -23.848 | 58.720 | 1.00 | 14.99 | C |
| ATOM | 4091 | CE2 | PHE | A | 679 | -2.157 | -22.955 | 58.273 | 1.00 | 13.22 | C |
| ATOM | 4092 | CZ | PHE | A | 679 | -3.489 | -23.082 | 57.926 | 1.00 | 16.52 | C |
| ATOM | 4093 | N | LEU | A | 680 | -0.301 | -27.851 | 62.519 | 1.00 | 16.99 | N |
| ATOM | 4094 | CA | LEU | A | 680 | 0.481 | -28.350 | 63.653 | 1.00 | 17.10 | C |
| ATOM | 4095 | C | LEU | A | 680 | 1.954 | -27.963 | 63.498 | 1.00 | 16.76 | C |
| ATOM | 4096 | O | LEU | A | 680 | 2.522 | -28.041 | 62.408 | 1.00 | 18.53 | O |
| ATOM | 4097 | CB | LEU | A | 680 | 0.374 | -29.877 | 63.764 | 1.00 | 18.67 | C |
| ATOM | 4098 | CG | LEU | A | 680 | -0.955 | -30.528 | 64.162 | 1.00 | 17.73 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4099 | CD1 | LEU | A | 680 | -0.696 | -31.981 | 64.562 | 1.00 | 13.98 | C |
| ATOM | 4100 | CD2 | LEU | A | 680 | -1.607 | -29.752 | 65.304 | 1.00 | 16.35 | C |
| ATOM | 4101 | N | GLY | A | 681 | 2.565 | -27.541 | 64.594 | 1.00 | 18.95 | N |
| ATOM | 4102 | CA | GLY | A | 681 | 3.966 | -27.166 | 64.554 | 1.00 | 17.72 | C |
| ATOM | 4103 | C | GLY | A | 681 | 4.646 | -27.646 | 65.813 | 1.00 | 18.63 | C |
| ATOM | 4104 | O | GLY | A | 681 | 4.152 | -27.394 | 66.908 | 1.00 | 19.19 | O |
| ATOM | 4105 | N | SER | A | 682 | 5.769 | -28.346 | 65.666 | 1.00 | 16.14 | N |
| ATOM | 4106 | CA | SER | A | 682 | 6.504 | -28.846 | 66.820 | 1.00 | 13.27 | C |
| ATOM | 4107 | C | SER | A | 682 | 8.005 | -28.678 | 66.613 | 1.00 | 15.95 | C |
| ATOM | 4108 | O | SER | A | 682 | 8.456 | -28.300 | 65.527 | 1.00 | 15.30 | O |
| ATOM | 4109 | CB | SER | A | 682 | 6.206 | -30.327 | 67.036 | 1.00 | 13.32 | C |
| ATOM | 4110 | OG | SER | A | 682 | 6.548 | -31.087 | 65.882 | 1.00 | 17.69 | O |
| ATOM | 4111 | N | ASN | A | 683 | 8.773 | -28.952 | 67.662 | 1.00 | 18.68 | N |
| ATOM | 4112 | CA | ASN | A | 683 | 10.225 | -28.863 | 67.570 | 1.00 | 21.47 | C |
| ATOM | 4113 | C | ASN | A | 683 | 10.639 | -27.463 | 67.142 | 1.00 | 20.47 | C |
| ATOM | 4114 | O | ASN | A | 683 | 11.541 | -27.305 | 66.327 | 1.00 | 23.32 | O |
| ATOM | 4115 | CB | ASN | A | 683 | 10.715 | -29.881 | 66.538 | 1.00 | 21.93 | C |
| ATOM | 4116 | CG | ASN | A | 683 | 12.162 | -30.264 | 66.730 | 1.00 | 26.67 | C |
| ATOM | 4117 | OD1 | ASN | A | 683 | 12.950 | -30.243 | 65.783 | 1.00 | 28.58 | O |
| ATOM | 4118 | ND2 | ASN | A | 683 | 12.520 | -30.624 | 67.953 | 1.00 | 24.35 | N |
| ATOM | 4119 | N | ILE | A | 684 | 9.969 | -26.445 | 67.666 | 1.00 | 18.14 | N |
| ATOM | 4120 | CA | ILE | A | 684 | 10.311 | -25.082 | 67.290 | 1.00 | 19.34 | C |
| ATOM | 4121 | C | ILE | A | 684 | 11.553 | -24.667 | 68.080 | 1.00 | 21.92 | C |
| ATOM | 4122 | O | ILE | A | 684 | 11.567 | -24.721 | 69.315 | 1.00 | 18.13 | O |
| ATOM | 4123 | CB | ILE | A | 684 | 9.141 | -24.116 | 67.574 | 1.00 | 18.33 | C |
| ATOM | 4124 | CG1 | ILE | A | 684 | 7.946 | -24.473 | 66.672 | 1.00 | 20.19 | C |
| ATOM | 4125 | CG2 | ILE | A | 684 | 9.567 | -22.686 | 67.313 | 1.00 | 13.06 | C |
| ATOM | 4126 | CD1 | ILE | A | 684 | 6.694 | -23.646 | 66.941 | 1.00 | 21.05 | C |
| ATOM | 4127 | N | GLN | A | 685 | 12.602 | -24.268 | 67.365 | 1.00 | 23.39 | N |
| ATOM | 4128 | CA | GLN | A | 685 | 13.848 | -23.886 | 68.026 | 1.00 | 22.53 | C |
| ATOM | 4129 | C | GLN | A | 685 | 14.462 | -22.613 | 67.480 | 1.00 | 20.52 | C |
| ATOM | 4130 | O | GLN | A | 685 | 14.407 | -22.334 | 66.282 | 1.00 | 24.38 | O |
| ATOM | 4131 | CB | GLN | A | 685 | 14.834 | -25.050 | 67.951 | 1.00 | 21.38 | C |
| ATOM | 4132 | CG | GLN | A | 685 | 14.204 | -26.329 | 68.453 | 1.00 | 21.91 | C |
| ATOM | 4133 | CD | GLN | A | 685 | 15.156 | -27.503 | 68.508 | 1.00 | 28.30 | C |
| ATOM | 4134 | OE1 | GLN | A | 685 | 15.439 | -28.137 | 67.492 | 1.00 | 28.83 | O |
| ATOM | 4135 | NE2 | GLN | A | 685 | 15.643 | -27.812 | 69.706 | 1.00 | 35.22 | N |
| ATOM | 4136 | N | ASN | A | 686 | 15.039 | -21.839 | 68.390 | 1.00 | 21.70 | N |
| ATOM | 4137 | CA | ASN | A | 686 | 15.642 | -20.560 | 68.056 | 1.00 | 23.06 | C |
| ATOM | 4138 | C | ASN | A | 686 | 16.985 | -20.406 | 68.760 | 1.00 | 24.36 | C |
| ATOM | 4139 | O | ASN | A | 686 | 17.055 | -20.408 | 69.991 | 1.00 | 23.62 | O |
| ATOM | 4140 | CB | ASN | A | 686 | 14.707 | -19.443 | 68.496 | 1.00 | 21.45 | C |
| ATOM | 4141 | CG | ASN | A | 686 | 15.161 | -18.095 | 68.030 | 1.00 | 19.42 | C |
| ATOM | 4142 | OD1 | ASN | A | 686 | 15.981 | -17.989 | 67.129 | 1.00 | 24.98 | O |
| ATOM | 4143 | ND2 | ASN | A | 686 | 14.628 | -17.048 | 68.638 | 1.00 | 19.43 | N |
| ATOM | 4144 | N | THR | A | 687 | 18.046 | -20.278 | 67.972 | 1.00 | 27.05 | N |
| ATOM | 4145 | CA | THR | A | 687 | 19.400 | -20.126 | 68.507 | 1.00 | 28.17 | C |
| ATOM | 4146 | C | THR | A | 687 | 19.827 | -18.664 | 68.433 | 1.00 | 30.84 | C |
| ATOM | 4147 | O | THR | A | 687 | 20.904 | -18.302 | 68.902 | 1.00 | 32.98 | O |
| ATOM | 4148 | CB | THR | A | 687 | 20.427 | -20.956 | 67.701 | 1.00 | 25.82 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4149 | OG1 | THR | A | 687 | 20.462 | -20.471 | 66.354 | 1.00 | 21.45 | O |
| ATOM | 4150 | CG2 | THR | A | 687 | 20.061 | -22.449 | 67.704 | 1.00 | 23.44 | C |
| ATOM | 4151 | N | SER | A | 688 | 18.973 | -17.833 | 67.841 | 1.00 | 30.11 | N |
| ATOM | 4152 | CA | SER | A | 688 | 19.253 | -16.411 | 67.688 | 1.00 | 30.33 | C |
| ATOM | 4153 | C | SER | A | 688 | 18.717 | -15.596 | 68.854 | 1.00 | 32.46 | C |
| ATOM | 4154 | O | SER | A | 688 | 18.114 | -16.141 | 69.783 | 1.00 | 33.53 | O |
| ATOM | 4155 | CB | SER | A | 688 | 18.643 | -15.890 | 66.381 | 1.00 | 31.88 | C |
| ATOM | 4156 | OG | SER | A | 688 | 17.373 | -15.296 | 66.603 | 1.00 | 30.85 | O |
| ATOM | 4157 | N | THR | A | 689 | 18.943 | -14.286 | 68.801 | 1.00 | 34.00 | N |
| ATOM | 4158 | CA | THR | A | 689 | 18.479 | -13.388 | 69.853 | 1.00 | 37.51 | C |
| ATOM | 4159 | C | THR | A | 689 | 17.126 | -12.773 | 69.502 | 1.00 | 37.21 | C |
| ATOM | 4160 | O | THR | A | 689 | 16.448 | -12.225 | 70.370 | 1.00 | 40.70 | O |
| ATOM | 4161 | CB | THR | A | 689 | 19.489 | -12.241 | 70.106 | 1.00 | 37.17 | C |
| ATOM | 4162 | OG1 | THR | A | 689 | 20.139 | -11.886 | 68.876 | 1.00 | 34.31 | O |
| ATOM | 4163 | CG2 | THR | A | 689 | 20.532 | -12.669 | 71.142 | 1.00 | 38.58 | C |
| ATOM | 4164 | N | ASP | A | 690 | 16.740 | -12.864 | 68.231 | 1.00 | 35.87 | N |
| ATOM | 4165 | CA | ASP | A | 690 | 15.465 | -12.317 | 67.773 | 1.00 | 34.73 | C |
| ATOM | 4166 | C | ASP | A | 690 | 14.308 | -13.173 | 68.266 | 1.00 | 34.05 | C |
| ATOM | 4167 | O | ASP | A | 690 | 14.481 | -14.367 | 68.510 | 1.00 | 37.31 | O |
| ATOM | 4168 | CB | ASP | A | 690 | 15.439 | -12.264 | 66.251 | 1.00 | 34.82 | C |
| ATOM | 4169 | CG | ASP | A | 690 | 16.766 | -11.851 | 65.666 | 1.00 | 34.39 | C |
| ATOM | 4170 | OD1 | ASP | A | 690 | 17.040 | -10.636 | 65.638 | 1.00 | 36.34 | O |
| ATOM | 4171 | OD2 | ASP | A | 690 | 17.531 | -12.737 | 65.233 | 1.00 | 29.84 | O |
| ATOM | 4172 | N | THR | A | 691 | 13.129 | -12.570 | 68.410 | 1.00 | 31.91 | N |
| ATOM | 4173 | CA | THR | A | 691 | 11.959 | -13.312 | 68.879 | 1.00 | 28.71 | C |
| ATOM | 4174 | C | THR | A | 691 | 11.365 | -14.151 | 67.770 | 1.00 | 24.30 | C |
| ATOM | 4175 | O | THR | A | 691 | 11.358 | -13.756 | 66.606 | 1.00 | 25.60 | O |
| ATOM | 4176 | CB | THR | A | 691 | 10.840 | -12.392 | 69.405 | 1.00 | 29.98 | C |
| ATOM | 4177 | OG1 | THR | A | 691 | 11.106 | -11.035 | 69.036 | 1.00 | 32.81 | O |
| ATOM | 4178 | CG2 | THR | A | 691 | 10.738 | -12.500 | 70.907 | 1.00 | 33.00 | C |
| ATOM | 4179 | N | ALA | A | 692 | 10.857 | -15.313 | 68.146 | 1.00 | 23.88 | N |
| ATOM | 4180 | CA | ALA | A | 692 | 10.250 | -16.219 | 67.189 | 1.00 | 25.11 | C |
| ATOM | 4181 | C | ALA | A | 692 | 8.735 | -16.283 | 67.428 | 1.00 | 22.37 | C |
| ATOM | 4182 | O | ALA | A | 692 | 8.268 | -16.301 | 68.566 | 1.00 | 19.84 | O |
| ATOM | 4183 | CB | ALA | A | 692 | 10.872 | -17.605 | 67.326 | 1.00 | 24.26 | C |
| ATOM | 4184 | N | ALA | A | 693 | 7.973 | -16.304 | 66.345 | 1.00 | 22.99 | N |
| ATOM | 4185 | CA | ALA | A | 693 | 6.522 | -16.374 | 66.447 | 1.00 | 21.64 | C |
| ATOM | 4186 | C | ALA | A | 693 | 5.969 | -16.893 | 65.138 | 1.00 | 22.27 | C |
| ATOM | 4187 | O | ALA | A | 693 | 6.603 | -16.756 | 64.091 | 1.00 | 20.80 | O |
| ATOM | 4188 | CB | ALA | A | 693 | 5.948 | -14.994 | 66.743 | 1.00 | 19.15 | C |
| ATOM | 4189 | N | THR | A | 694 | 4.792 | -17.504 | 65.208 | 1.00 | 21.67 | N |
| ATOM | 4190 | CA | THR | A | 694 | 4.120 | -18.021 | 64.021 | 1.00 | 19.48 | C |
| ATOM | 4191 | C | THR | A | 694 | 2.927 | -17.101 | 63.765 | 1.00 | 19.62 | C |
| ATOM | 4192 | O | THR | A | 694 | 2.191 | -16.767 | 64.700 | 1.00 | 21.08 | O |
| ATOM | 4193 | CB | THR | A | 694 | 3.600 | -19.438 | 64.259 | 1.00 | 19.10 | C |
| ATOM | 4194 | OG1 | THR | A | 694 | 4.706 | -20.334 | 64.416 | 1.00 | 19.03 | O |
| ATOM | 4195 | CG2 | THR | A | 694 | 2.748 | -19.896 | 63.091 | 1.00 | 19.71 | C |
| ATOM | 4196 | N | THR | A | 695 | 2.749 | -16.660 | 62.523 | 1.00 | 18.12 | N |
| ATOM | 4197 | CA | THR | A | 695 | 1.615 | -15.796 | 62.203 | 1.00 | 17.42 | C |
| ATOM | 4198 | C | THR | A | 695 | 0.420 | -16.702 | 61.900 | 1.00 | 15.76 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4199 | O | THR | A | 695 | 0.406 | -17.390 | 60.881 | 1.00 | 13.54 | O |
| ATOM | 4200 | CB | THR | A | 695 | 1.893 | -14.904 | 60.973 | 1.00 | 17.55 | C |
| ATOM | 4201 | OG1 | THR | A | 695 | 2.854 | -13.895 | 61.314 | 1.00 | 17.17 | O |
| ATOM | 4202 | CG2 | THR | A | 695 | 0.602 | -14.215 | 60.510 | 1.00 | 18.90 | C |
| ATOM | 4203 | N | ILE | A | 696 | -0.562 | -16.728 | 62.798 | 1.00 | 16.80 | N |
| ATOM | 4204 | CA | ILE | A | 696 | -1.749 | -17.559 | 62.587 | 1.00 | 16.80 | C |
| ATOM | 4205 | C | ILE | A | 696 | -2.500 | -16.995 | 61.389 | 1.00 | 13.79 | C |
| ATOM | 4206 | O | ILE | A | 696 | -2.999 | -17.733 | 60.553 | 1.00 | 16.27 | O |
| ATOM | 4207 | CB | ILE | A | 696 | -2.644 | -17.588 | 63.845 | 1.00 | 17.75 | C |
| ATOM | 4208 | CG1 | ILE | A | 696 | -1.953 | -18.417 | 64.930 | 1.00 | 17.07 | C |
| ATOM | 4209 | CG2 | ILE | A | 696 | -4.001 | -18.216 | 63.525 | 1.00 | 17.01 | C |
| ATOM | 4210 | CD1 | ILE | A | 696 | -2.291 | -18.006 | 66.348 | 1.00 | 19.75 | C |
| ATOM | 4211 | N | ASP | A | 697 | -2.547 | -15.676 | 61.285 | 1.00 | 15.35 | N |
| ATOM | 4212 | CA | ASP | A | 697 | -3.198 | -15.059 | 60.147 | 1.00 | 15.00 | C |
| ATOM | 4213 | C | ASP | A | 697 | -2.954 | -13.557 | 60.095 | 1.00 | 10.78 | C |
| ATOM | 4214 | O | ASP | A | 697 | -2.658 | -12.920 | 61.104 | 1.00 | 14.44 | O |
| ATOM | 4215 | CB | ASP | A | 697 | -4.714 | -15.327 | 60.203 | 1.00 | 21.38 | C |
| ATOM | 4216 | CG | ASP | A | 697 | -5.385 | -15.287 | 58.825 | 1.00 | 22.73 | C |
| ATOM | 4217 | OD1 | ASP | A | 697 | -4.750 | -14.844 | 57.846 | 1.00 | 17.52 | O |
| ATOM | 4218 | OD2 | ASP | A | 697 | -6.563 | -15.706 | 58.722 | 1.00 | 21.73 | O |
| ATOM | 4219 | N | GLN | A | 698 | -3.059 | -13.015 | 58.891 | 1.00 | 11.91 | N |
| ATOM | 4220 | CA | GLN | A | 698 | -2.966 | -11.585 | 58.632 | 1.00 | 13.87 | C |
| ATOM | 4221 | C | GLN | A | 698 | -3.998 | -11.442 | 57.523 | 1.00 | 15.08 | C |
| ATOM | 4222 | O | GLN | A | 698 | -3.695 | -11.621 | 56.337 | 1.00 | 14.48 | O |
| ATOM | 4223 | CB | GLN | A | 698 | -1.584 | -11.150 | 58.125 | 1.00 | 14.67 | C |
| ATOM | 4224 | CG | GLN | A | 698 | -1.403 | -9.633 | 58.206 | 1.00 | 18.74 | C |
| ATOM | 4225 | CD | GLN | A | 698 | -0.122 | -9.119 | 57.556 | 1.00 | 22.87 | C |
| ATOM | 4226 | OE1 | GLN | A | 698 | 0.884 | -9.829 | 57.480 | 1.00 | 24.26 | O |
| ATOM | 4227 | NE2 | GLN | A | 698 | -0.156 | -7.871 | 57.091 | 1.00 | 18.45 | N |
| ATOM | 4228 | N | ARG | A | 699 | -5.236 | -11.165 | 57.927 | 1.00 | 16.92 | N |
| ATOM | 4229 | CA | ARG | A | 699 | -6.348 | -11.044 | 56.991 | 1.00 | 14.70 | C |
| ATOM | 4230 | C | ARG | A | 699 | -6.646 | -9.605 | 56.608 | 1.00 | 9.40 | C |
| ATOM | 4231 | O | ARG | A | 699 | -6.729 | -8.741 | 57.469 | 1.00 | 14.43 | O |
| ATOM | 4232 | CB | ARG | A | 699 | -7.597 | -11.687 | 57.612 | 1.00 | 17.46 | C |
| ATOM | 4233 | CG | ARG | A | 699 | -8.657 | -12.108 | 56.616 | 1.00 | 13.09 | C |
| ATOM | 4234 | CD | ARG | A | 699 | -8.258 | -13.349 | 55.842 | 1.00 | 10.16 | C |
| ATOM | 4235 | NE | ARG | A | 699 | -9.177 | -13.562 | 54.726 | 1.00 | 15.23 | N |
| ATOM | 4236 | CZ | ARG | A | 699 | -8.939 | -14.350 | 53.684 | 1.00 | 17.42 | C |
| ATOM | 4237 | NH1 | ARG | A | 699 | -7.797 | -15.021 | 53.600 | 1.00 | 19.93 | N |
| ATOM | 4238 | NH2 | ARG | A | 699 | -9.842 | -14.459 | 52.714 | 1.00 | 13.20 | N |
| ATOM | 4239 | N | LYS | A | 700 | -6.801 | -9.354 | 55.313 | 1.00 | 14.72 | N |
| ATOM | 4240 | CA | LYS | A | 700 | -7.106 | -8.012 | 54.821 | 1.00 | 19.64 | C |
| ATOM | 4241 | C | LYS | A | 700 | -8.600 | -7.779 | 55.003 | 1.00 | 24.46 | C |
| ATOM | 4242 | O | LYS | A | 700 | -9.410 | -8.577 | 54.530 | 1.00 | 24.66 | O |
| ATOM | 4243 | CB | LYS | A | 700 | -6.764 | -7.887 | 53.335 | 1.00 | 16.70 | C |
| ATOM | 4244 | CG | LYS | A | 700 | -6.299 | -6.498 | 52.911 | 1.00 | 19.35 | C |
| ATOM | 4245 | CD | LYS | A | 700 | -7.246 | -5.856 | 51.937 | 1.00 | 23.17 | C |
| ATOM | 4246 | CE | LYS | A | 700 | -6.825 | -6.085 | 50.508 | 1.00 | 25.61 | C |
| ATOM | 4247 | NZ | LYS | A | 700 | -7.995 | -6.496 | 49.671 | 1.00 | 25.07 | N |
| ATOM | 4248 | N | LEU | A | 701 | -8.956 | -6.686 | 55.675 | 1.00 | 25.84 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4249 | CA | LEU | A | 701 | -10.356 | -6.349 | 55.935 | 1.00 | 23.49 | C |
| ATOM | 4250 | C | LEU | A | 701 | -11.029 | -5.491 | 54.864 | 1.00 | 24.99 | C |
| ATOM | 4251 | O | LEU | A | 701 | -10.368 | -4.847 | 54.045 | 1.00 | 26.59 | O |
| ATOM | 4252 | CB | LEU | A | 701 | -10.469 | -5.619 | 57.267 | 1.00 | 17.26 | C |
| ATOM | 4253 | CG | LEU | A | 701 | -9.764 | -6.250 | 58.454 | 1.00 | 13.98 | C |
| ATOM | 4254 | CD1 | LEU | A | 701 | -10.191 | -5.517 | 59.693 | 1.00 | 17.40 | C |
| ATOM | 4255 | CD2 | LEU | A | 701 | -10.113 | -7.714 | 58.563 | 1.00 | 17.51 | C |
| ATOM | 4256 | N | GLU | A | 702 | -12.361 | -5.501 | 54.884 | 1.00 | 25.99 | N |
| ATOM | 4257 | CA | GLU | A | 702 | -13.177 | -4.707 | 53.970 | 1.00 | 24.59 | C |
| ATOM | 4258 | C | GLU | A | 702 | -13.855 | -3.692 | 54.883 | 1.00 | 26.61 | C |
| ATOM | 4259 | O | GLU | A | 702 | -14.489 | -4.068 | 55.868 | 1.00 | 28.57 | O |
| ATOM | 4260 | CB | GLU | A | 702 | -14.248 | -5.567 | 53.302 | 1.00 | 26.53 | C |
| ATOM | 4261 | CG | GLU | A | 702 | -13.731 | -6.645 | 52.367 | 1.00 | 26.06 | C |
| ATOM | 4262 | CD | GLU | A | 702 | -14.850 | -7.543 | 51.858 | 1.00 | 25.99 | C |
| ATOM | 4263 | OE1 | GLU | A | 702 | -15.233 | -8.494 | 52.574 | 1.00 | 23.17 | O |
| ATOM | 4264 | OE2 | GLU | A | 702 | -15.346 | -7.298 | 50.742 | 1.00 | 23.48 | O |
| ATOM | 4265 | N | SER | A | 703 | -13.711 | -2.411 | 54.583 | 1.00 | 30.19 | N |
| ATOM | 4266 | CA | SER | A | 703 | -14.329 | -1.396 | 55.421 | 1.00 | 32.24 | C |
| ATOM | 4267 | C | SER | A | 703 | -15.841 | -1.569 | 55.393 | 1.00 | 33.61 | C |
| ATOM | 4268 | O | SER | A | 703 | -16.534 | -1.195 | 56.334 | 1.00 | 37.11 | O |
| ATOM | 4269 | CB | SER | A | 703 | -13.954 | 0.007 | 54.932 | 1.00 | 32.63 | C |
| ATOM | 4270 | OG | SER | A | 703 | -14.540 | 0.290 | 53.672 | 1.00 | 38.54 | O |
| ATOM | 4271 | N | SER | A | 704 | -16.344 | -2.159 | 54.315 | 1.00 | 36.30 | N |
| ATOM | 4272 | CA | SER | A | 704 | -17.775 | -2.370 | 54.154 | 1.00 | 39.62 | C |
| ATOM | 4273 | C | SER | A | 704 | -18.323 | -3.581 | 54.910 | 1.00 | 41.97 | C |
| ATOM | 4274 | O | SER | A | 704 | -19.468 | -3.557 | 55.367 | 1.00 | 44.26 | O |
| ATOM | 4275 | CB | SER | A | 704 | -18.122 | -2.490 | 52.661 | 1.00 | 37.43 | C |
| ATOM | 4276 | OG | SER | A | 704 | -17.683 | -3.725 | 52.123 | 1.00 | 41.22 | O |
| ATOM | 4277 | N | ASN | A | 705 | -17.512 | -4.630 | 55.053 | 1.00 | 41.46 | N |
| ATOM | 4278 | CA | ASN | A | 705 | -17.945 | -5.851 | 55.741 | 1.00 | 40.14 | C |
| ATOM | 4279 | C | ASN | A | 705 | -17.149 | -6.124 | 57.009 | 1.00 | 36.07 | C |
| ATOM | 4280 | O | ASN | A | 705 | -16.398 | -7.096 | 57.081 | 1.00 | 38.57 | O |
| ATOM | 4281 | CB | ASN | A | 705 | -17.807 | -7.056 | 54.805 | 1.00 | 47.14 | C |
| ATOM | 4282 | CG | ASN | A | 705 | -19.078 | -7.343 | 54.021 | 1.00 | 51.73 | C |
| ATOM | 4283 | OD1 | ASN | A | 705 | -19.765 | -8.344 | 54.268 | 1.00 | 52.59 | O |
| ATOM | 4284 | ND2 | ASN | A | 705 | -19.395 | -6.469 | 53.066 | 1.00 | 47.28 | N |
| ATOM | 4285 | N | PRO | A | 706 | -17.317 | -5.282 | 58.037 | 1.00 | 32.42 | N |
| ATOM | 4286 | CA | PRO | A | 706 | -16.572 | -5.494 | 59.279 | 1.00 | 30.01 | C |
| ATOM | 4287 | C | PRO | A | 706 | -16.802 | -6.839 | 59.954 | 1.00 | 30.05 | C |
| ATOM | 4288 | O | PRO | A | 706 | -17.840 | -7.489 | 59.783 | 1.00 | 28.53 | O |
| ATOM | 4289 | CB | PRO | A | 706 | -16.997 | -4.325 | 60.164 | 1.00 | 30.64 | C |
| ATOM | 4290 | CG | PRO | A | 706 | -18.274 | -3.822 | 59.559 | 1.00 | 29.03 | C |
| ATOM | 4291 | CD | PRO | A | 706 | -18.189 | -4.098 | 58.103 | 1.00 | 30.40 | C |
| ATOM | 4292 | N | TYR | A | 707 | -15.805 | -7.250 | 60.725 | 1.00 | 26.03 | N |
| ATOM | 4293 | CA | TYR | A | 707 | -15.857 | -8.502 | 61.451 | 1.00 | 22.79 | C |
| ATOM | 4294 | C | TYR | A | 707 | -16.095 | -8.184 | 62.910 | 1.00 | 22.69 | C |
| ATOM | 4295 | O | TYR | A | 707 | -15.683 | -7.135 | 63.401 | 1.00 | 24.54 | O |
| ATOM | 4296 | CB | TYR | A | 707 | -14.522 | -9.233 | 61.356 | 1.00 | 22.44 | C |
| ATOM | 4297 | CG | TYR | A | 707 | -14.304 | -10.063 | 60.117 | 1.00 | 23.80 | C |
| ATOM | 4298 | CD1 | TYR | A | 707 | -15.014 | -11.249 | 59.908 | 1.00 | 17.98 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4299 | CD2 | TYR | A | 707 | -13.331 | -9.706 | 59.188 | 1.00 | 20.80 | C |
| ATOM | 4300 | CE1 | TYR | A | 707 | -14.750 | -12.058 | 58.803 | 1.00 | 20.55 | C |
| ATOM | 4301 | CE2 | TYR | A | 707 | -13.063 | -10.510 | 58.084 | 1.00 | 21.25 | C |
| ATOM | 4302 | CZ | TYR | A | 707 | -13.769 | -11.681 | 57.897 | 1.00 | 16.54 | C |
| ATOM | 4303 | OH | TYR | A | 707 | -13.477 | -12.486 | 56.816 | 1.00 | 15.58 | O |
| ATOM | 4304 | N | LYS | A | 708 | -16.767 | -9.093 | 63.598 | 1.00 | 22.80 | N |
| ATOM | 4305 | CA | LYS | A | 708 | -17.009 | -8.953 | 65.024 | 1.00 | 26.01 | C |
| ATOM | 4306 | C | LYS | A | 708 | -16.054 | -10.019 | 65.550 | 1.00 | 24.91 | C |
| ATOM | 4307 | O | LYS | A | 708 | -16.182 | -11.191 | 65.204 | 1.00 | 22.82 | O |
| ATOM | 4308 | CB | LYS | A | 708 | -18.461 | -9.305 | 65.363 | 1.00 | 31.04 | C |
| ATOM | 4309 | CG | LYS | A | 708 | -18.965 | -8.702 | 66.658 | 1.00 | 35.97 | C |
| ATOM | 4310 | CD | LYS | A | 708 | -20.314 | -8.020 | 66.465 | 1.00 | 47.47 | C |
| ATOM | 4311 | CE | LYS | A | 708 | -20.167 | -6.497 | 66.367 | 1.00 | 52.77 | C |
| ATOM | 4312 | NZ | LYS | A | 708 | -21.067 | -5.768 | 67.320 | 1.00 | 53.20 | N |
| ATOM | 4313 | N | VAL | A | 709 | -15.081 | -9.617 | 66.358 | 1.00 | 26.00 | N |
| ATOM | 4314 | CA | VAL | A | 709 | -14.093 | -10.564 | 66.858 | 1.00 | 22.25 | C |
| ATOM | 4315 | C | VAL | A | 709 | -14.420 | -11.187 | 68.191 | 1.00 | 20.36 | C |
| ATOM | 4316 | O | VAL | A | 709 | -14.666 | -10.496 | 69.175 | 1.00 | 20.12 | O |
| ATOM | 4317 | CB | VAL | A | 709 | -12.702 | -9.901 | 66.964 | 1.00 | 26.95 | C |
| ATOM | 4318 | CG1 | VAL | A | 709 | -11.652 | -10.935 | 67.373 | 1.00 | 26.92 | C |
| ATOM | 4319 | CG2 | VAL | A | 709 | -12.341 | -9.262 | 65.635 | 1.00 | 23.89 | C |
| ATOM | 4320 | N | TYR | A | 710 | -14.409 | -12.510 | 68.222 | 1.00 | 20.52 | N |
| ATOM | 4321 | CA | TYR | A | 710 | -14.689 | -13.224 | 69.447 | 1.00 | 20.96 | C |
| ATOM | 4322 | C | TYR | A | 710 | -13.474 | -14.030 | 69.855 | 1.00 | 21.56 | C |
| ATOM | 4323 | O | TYR | A | 710 | -12.844 | -14.685 | 69.026 | 1.00 | 22.20 | O |
| ATOM | 4324 | CB | TYR | A | 710 | -15.861 | -14.195 | 69.269 | 1.00 | 23.32 | C |
| ATOM | 4325 | CG | TYR | A | 710 | -17.180 | -13.552 | 68.922 | 1.00 | 27.30 | C |
| ATOM | 4326 | CD1 | TYR | A | 710 | -17.505 | -13.265 | 67.597 | 1.00 | 31.04 | C |
| ATOM | 4327 | CD2 | TYR | A | 710 | -18.122 | -13.254 | 69.916 | 1.00 | 29.45 | C |
| ATOM | 4328 | CE1 | TYR | A | 710 | -18.737 | -12.698 | 67.261 | 1.00 | 34.56 | C |
| ATOM | 4329 | CE2 | TYR | A | 710 | -19.362 | -12.684 | 69.589 | 1.00 | 29.88 | C |
| ATOM | 4330 | CZ | TYR | A | 710 | -19.659 | -12.412 | 68.260 | 1.00 | 32.80 | C |
| ATOM | 4331 | OH | TYR | A | 710 | -20.868 | -11.860 | 67.914 | 1.00 | 37.04 | O |
| ATOM | 4332 | N | VAL | A | 711 | -13.154 | -13.980 | 71.138 | 1.00 | 18.50 | N |
| ATOM | 4333 | CA | VAL | A | 711 | -12.057 | -14.749 | 71.667 | 1.00 | 22.20 | C |
| ATOM | 4334 | C | VAL | A | 711 | -12.705 | -15.574 | 72.750 | 1.00 | 19.61 | C |
| ATOM | 4335 | O | VAL | A | 711 | -13.198 | -15.033 | 73.735 | 1.00 | 23.91 | O |
| ATOM | 4336 | CB | VAL | A | 711 | -10.959 | -13.858 | 72.277 | 1.00 | 22.97 | C |
| ATOM | 4337 | CG1 | VAL | A | 711 | -9.899 | -14.725 | 72.932 | 1.00 | 22.31 | C |
| ATOM | 4338 | CG2 | VAL | A | 711 | -10.341 | -13.004 | 71.197 | 1.00 | 15.51 | C |
| ATOM | 4339 | N | ASN | A | 712 | -12.716 | -16.885 | 72.561 | 1.00 | 20.86 | N |
| ATOM | 4340 | CA | ASN | A | 712 | -13.336 | -17.767 | 73.529 | 1.00 | 24.77 | C |
| ATOM | 4341 | C | ASN | A | 712 | -14.837 | -17.469 | 73.559 | 1.00 | 28.20 | C |
| ATOM | 4342 | O | ASN | A | 712 | -15.480 | -17.556 | 74.606 | 1.00 | 29.15 | O |
| ATOM | 4343 | CB | ASN | A | 712 | -12.719 | -17.542 | 74.907 | 1.00 | 23.46 | C |
| ATOM | 4344 | CG | ASN | A | 712 | -11.308 | -18.093 | 75.005 | 1.00 | 28.82 | C |
| ATOM | 4345 | OD1 | ASN | A | 712 | -10.862 | -18.851 | 74.140 | 1.00 | 31.37 | O |
| ATOM | 4346 | ND2 | ASN | A | 712 | -10.598 | -17.718 | 76.060 | 1.00 | 28.39 | N |
| ATOM | 4347 | N | ASP | A | 713 | -15.377 | -17.114 | 72.395 | 1.00 | 29.05 | N |
| ATOM | 4348 | CA | ASP | A | 713 | -16.798 | -16.791 | 72.233 | 1.00 | 33.51 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4349 | C | ASP | A | 713 | -17.244 | -15.549 | 73.002 | 1.00 | 32.79 | C |
| ATOM | 4350 | O | ASP | A | 713 | -18.413 | -15.430 | 73.371 | 1.00 | 32.73 | O |
| ATOM | 4351 | CB | ASP | A | 713 | -17.675 | -17.981 | 72.642 | 1.00 | 33.21 | C |
| ATOM | 4352 | CG | ASP | A | 713 | -19.078 | -17.897 | 72.059 | 1.00 | 34.56 | C |
| ATOM | 4353 | OD1 | ASP | A | 713 | -19.214 | -17.418 | 70.912 | 1.00 | 27.61 | O |
| ATOM | 4354 | OD2 | ASP | A | 713 | -20.039 | -18.310 | 72.744 | 1.00 | 33.83 | O |
| ATOM | 4355 | N | LYS | A | 714 | -16.310 | -14.633 | 73.243 | 1.00 | 31.63 | N |
| ATOM | 4356 | CA | LYS | A | 714 | -16.606 | -13.394 | 73.951 | 1.00 | 32.04 | C |
| ATOM | 4357 | C | LYS | A | 714 | -16.124 | -12.247 | 73.092 | 1.00 | 31.61 | C |
| ATOM | 4358 | O | LYS | A | 714 | -14.956 | -12.195 | 72.719 | 1.00 | 33.06 | O |
| ATOM | 4359 | CB | LYS | A | 714 | -15.890 | -13.345 | 75.298 | 1.00 | 33.93 | C |
| ATOM | 4360 | CG | LYS | A | 714 | -16.495 | -14.245 | 76.360 | 1.00 | 42.56 | C |
| ATOM | 4361 | CD | LYS | A | 714 | -16.067 | -13.809 | 77.758 | 1.00 | 50.44 | C |
| ATOM | 4362 | CE | LYS | A | 714 | -15.278 | -14.903 | 78.474 | 1.00 | 55.36 | C |
| ATOM | 4363 | NZ | LYS | A | 714 | -14.970 | -14.535 | 79.895 | 1.00 | 57.87 | N |
| ATOM | 4364 | N | GLU | A | 715 | -17.027 | -11.330 | 72.776 | 1.00 | 31.20 | N |
| ATOM | 4365 | CA | GLU | A | 715 | -16.690 | -10.183 | 71.950 | 1.00 | 32.44 | C |
| ATOM | 4366 | C | GLU | A | 715 | -15.386 | -9.543 | 72.410 | 1.00 | 33.17 | C |
| ATOM | 4367 | O | GLU | A | 715 | -15.171 | -9.326 | 73.606 | 1.00 | 32.11 | O |
| ATOM | 4368 | CB | GLU | A | 715 | -17.817 | -9.158 | 72.006 | 1.00 | 35.91 | C |
| ATOM | 4369 | CG | GLU | A | 715 | -17.467 | -7.818 | 71.407 | 1.00 | 43.49 | C |
| ATOM | 4370 | CD | GLU | A | 715 | -18.184 | -7.584 | 70.104 | 1.00 | 47.20 | C |
| ATOM | 4371 | OE1 | GLU | A | 715 | -18.386 | -6.410 | 69.728 | 1.00 | 46.49 | O |
| ATOM | 4372 | OE2 | GLU | A | 715 | -18.549 | -8.585 | 69.455 | 1.00 | 54.44 | O |
| ATOM | 4373 | N | ALA | A | 716 | -14.516 | -9.246 | 71.452 | 1.00 | 32.26 | N |
| ATOM | 4374 | CA | ALA | A | 716 | -13.233 | -8.627 | 71.751 | 1.00 | 34.06 | C |
| ATOM | 4375 | C | ALA | A | 716 | -13.061 | -7.395 | 70.894 | 1.00 | 32.91 | C |
| ATOM | 4376 | O | ALA | A | 716 | -13.457 | -7.375 | 69.728 | 1.00 | 36.85 | O |
| ATOM | 4377 | CB | ALA | A | 716 | -12.092 | -9.605 | 71.485 | 1.00 | 34.43 | C |
| ATOM | 4378 | N | SER | A | 717 | -12.475 | -6.361 | 71.475 | 1.00 | 29.82 | N |
| ATOM | 4379 | CA | SER | A | 717 | -12.247 | -5.137 | 70.736 | 1.00 | 31.92 | C |
| ATOM | 4380 | C | SER | A | 717 | -10.761 | -5.053 | 70.429 | 1.00 | 31.63 | C |
| ATOM | 4381 | O | SER | A | 717 | -9.943 | -4.864 | 71.324 | 1.00 | 32.26 | O |
| ATOM | 4382 | CB | SER | A | 717 | -12.696 | -3.943 | 71.567 | 1.00 | 31.70 | C |
| ATOM | 4383 | OG | SER | A | 717 | -13.410 | -4.390 | 72.707 | 1.00 | 43.11 | O |
| ATOM | 4384 | N | LEU | A | 718 | -10.420 | -5.219 | 69.157 | 1.00 | 32.06 | N |
| ATOM | 4385 | CA | LEU | A | 718 | -9.034 | -5.169 | 68.727 | 1.00 | 32.08 | C |
| ATOM | 4386 | C | LEU | A | 718 | -8.600 | -3.745 | 68.440 | 1.00 | 35.44 | C |
| ATOM | 4387 | O | LEU | A | 718 | -9.397 | -2.907 | 68.010 | 1.00 | 36.86 | O |
| ATOM | 4388 | CB | LEU | A | 718 | -8.843 | -6.023 | 67.481 | 1.00 | 27.06 | C |
| ATOM | 4389 | CG | LEU | A | 718 | -9.232 | -7.486 | 67.659 | 1.00 | 26.11 | C |
| ATOM | 4390 | CD1 | LEU | A | 718 | -8.815 | -8.256 | 66.424 | 1.00 | 23.76 | C |
| ATOM | 4391 | CD2 | LEU | A | 718 | -8.579 | -8.057 | 68.911 | 1.00 | 23.07 | C |
| ATOM | 4392 | N | THR | A | 719 | -7.322 | -3.482 | 68.675 | 1.00 | 36.15 | N |
| ATOM | 4393 | CA | THR | A | 719 | -6.758 | -2.166 | 68.460 | 1.00 | 34.20 | C |
| ATOM | 4394 | C | THR | A | 719 | -5.498 | -2.259 | 67.626 | 1.00 | 33.31 | C |
| ATOM | 4395 | O | THR | A | 719 | -5.006 | -3.352 | 67.336 | 1.00 | 29.14 | O |
| ATOM | 4396 | CB | THR | A | 719 | -6.383 | -1.523 | 69.786 | 1.00 | 36.69 | C |
| ATOM | 4397 | OG1 | THR | A | 719 | -5.645 | -2.471 | 70.565 | 1.00 | 38.23 | O |
| ATOM | 4398 | CG2 | THR | A | 719 | -7.629 | -1.112 | 70.556 | 1.00 | 39.61 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4399 | N | GLU | A | 720 | -4.987 | -1.097 | 67.238 | 1.00 | 34.11 | N |
| ATOM | 4400 | CA | GLU | A | 720 | -3.760 | -1.018 | 66.463 | 1.00 | 37.40 | C |
| ATOM | 4401 | C | GLU | A | 720 | -2.687 | -1.656 | 67.332 | 1.00 | 35.10 | C |
| ATOM | 4402 | O | GLU | A | 720 | -1.872 | -2.445 | 66.864 | 1.00 | 34.80 | O |
| ATOM | 4403 | CB | GLU | A | 720 | -3.404 | 0.442 | 66.195 | 1.00 | 41.61 | C |
| ATOM | 4404 | CG | GLU | A | 720 | -3.131 | 0.756 | 64.740 | 1.00 | 52.75 | C |
| ATOM | 4405 | CD | GLU | A | 720 | -1.782 | 1.430 | 64.523 | 1.00 | 59.04 | C |
| ATOM | 4406 | OE1 | GLU | A | 720 | -1.322 | 2.160 | 65.429 | 1.00 | 62.67 | O |
| ATOM | 4407 | OE2 | GLU | A | 720 | -1.180 | 1.230 | 63.444 | 1.00 | 63.40 | O |
| ATOM | 4408 | N | GLN | A | 721 | -2.713 | -1.306 | 68.612 | 1.00 | 34.74 | N |
| ATOM | 4409 | CA | GLN | A | 721 | -1.769 | -1.843 | 69.575 | 1.00 | 38.20 | C |
| ATOM | 4410 | C | GLN | A | 721 | -2.120 | -3.293 | 69.859 | 1.00 | 36.44 | C |
| ATOM | 4411 | O | GLN | A | 721 | -3.272 | -3.624 | 70.128 | 1.00 | 36.35 | O |
| ATOM | 4412 | CB | GLN | A | 721 | -1.816 | -1.040 | 70.877 | 1.00 | 43.89 | C |
| ATOM | 4413 | CG | GLN | A | 721 | -0.499 | -0.359 | 71.230 | 1.00 | 52.56 | C |
| ATOM | 4414 | CD | GLN | A | 721 | -0.077 | -0.605 | 72.669 | 1.00 | 55.95 | C |
| ATOM | 4415 | OE1 | GLN | A | 721 | -0.303 | -1.684 | 73.221 | 1.00 | 63.00 | O |
| ATOM | 4416 | NE2 | GLN | A | 721 | 0.540 | 0.400 | 73.285 | 1.00 | 58.80 | N |
| ATOM | 4417 | N | GLU | A | 722 | -1.113 | -4.153 | 69.795 | 1.00 | 37.10 | N |
| ATOM | 4418 | CA | GLU | A | 722 | -1.300 | -5.573 | 70.033 | 1.00 | 36.26 | C |
| ATOM | 4419 | C | GLU | A | 722 | -1.867 | -5.842 | 71.413 | 1.00 | 34.90 | C |
| ATOM | 4420 | O | GLU | A | 722 | -1.487 | -5.200 | 72.390 | 1.00 | 37.55 | O |
| ATOM | 4421 | CB | GLU | A | 722 | 0.034 | -6.294 | 69.904 | 1.00 | 38.14 | C |
| ATOM | 4422 | CG | GLU | A | 722 | 0.063 | -7.385 | 68.875 | 1.00 | 43.93 | C |
| ATOM | 4423 | CD | GLU | A | 722 | 1.456 | -7.959 | 68.714 | 1.00 | 49.34 | C |
| ATOM | 4424 | OE1 | GLU | A | 722 | 1.922 | -8.655 | 69.640 | 1.00 | 49.06 | O |
| ATOM | 4425 | OE2 | GLU | A | 722 | 2.088 | -7.708 | 67.665 | 1.00 | 52.76 | O |
| ATOM | 4426 | N | LYS | A | 723 | -2.783 | -6.797 | 71.487 | 1.00 | 32.25 | N |
| ATOM | 4427 | CA | LYS | A | 723 | -3.377 | -7.183 | 72.757 | 1.00 | 31.26 | C |
| ATOM | 4428 | C | LYS | A | 723 | -3.100 | -8.674 | 72.922 | 1.00 | 29.31 | C |
| ATOM | 4429 | O | LYS | A | 723 | -3.178 | -9.432 | 71.954 | 1.00 | 29.15 | O |
| ATOM | 4430 | CB | LYS | A | 723 | -4.885 | -6.922 | 72.740 | 1.00 | 34.80 | C |
| ATOM | 4431 | CG | LYS | A | 723 | -5.261 | -5.477 | 73.002 | 1.00 | 36.08 | C |
| ATOM | 4432 | CD | LYS | A | 723 | -6.579 | -5.123 | 72.335 | 1.00 | 39.87 | C |
| ATOM | 4433 | CE | LYS | A | 723 | -7.631 | -4.782 | 73.361 | 1.00 | 33.94 | C |
| ATOM | 4434 | NZ | LYS | A | 723 | -7.410 | -5.560 | 74.599 | 1.00 | 41.84 | N |
| ATOM | 4435 | N | ASP | A | 724 | -2.764 | -9.105 | 74.131 | 1.00 | 28.35 | N |
| ATOM | 4436 | CA | ASP | A | 724 | -2.488 | -10.519 | 74.336 | 1.00 | 30.84 | C |
| ATOM | 4437 | C | ASP | A | 724 | -3.676 | -11.257 | 74.924 | 1.00 | 29.74 | C |
| ATOM | 4438 | O | ASP | A | 724 | -4.359 | -10.761 | 75.818 | 1.00 | 31.41 | O |
| ATOM | 4439 | CB | ASP | A | 724 | -1.278 | -10.712 | 75.248 | 1.00 | 35.21 | C |
| ATOM | 4440 | CG | ASP | A | 724 | -0.058 | -9.964 | 74.765 | 1.00 | 38.04 | C |
| ATOM | 4441 | OD1 | ASP | A | 724 | 0.685 | -9.465 | 75.628 | 1.00 | 45.36 | O |
| ATOM | 4442 | OD2 | ASP | A | 724 | 0.165 | -9.871 | 73.538 | 1.00 | 36.86 | O |
| ATOM | 4443 | N | TYR | A | 725 | -3.917 | -12.453 | 74.414 | 1.00 | 26.21 | N |
| ATOM | 4444 | CA | TYR | A | 725 | -5.017 | -13.251 | 74.896 | 1.00 | 24.33 | C |
| ATOM | 4445 | C | TYR | A | 725 | -4.476 | -14.587 | 75.367 | 1.00 | 22.58 | C |
| ATOM | 4446 | O | TYR | A | 725 | -4.251 | -15.498 | 74.575 | 1.00 | 23.55 | O |
| ATOM | 4447 | CB | TYR | A | 725 | -6.060 | -13.431 | 73.784 | 1.00 | 26.35 | C |
| ATOM | 4448 | CG | TYR | A | 725 | -6.713 | -12.125 | 73.368 | 1.00 | 26.90 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4449 | CD1 | TYR | A | 725 | -6.170 | -11.340 | 72.355 | 1.00 | 27.63 | C |
| ATOM | 4450 | CD2 | TYR | A | 725 | -7.844 | -11.647 | 74.030 | 1.00 | 31.87 | C |
| ATOM | 4451 | CE1 | TYR | A | 725 | -6.734 | -10.106 | 72.014 | 1.00 | 29.23 | C |
| ATOM | 4452 | CE2 | TYR | A | 725 | -8.414 | -10.417 | 73.698 | 1.00 | 29.07 | C |
| ATOM | 4453 | CZ | TYR | A | 725 | -7.855 | -9.653 | 72.693 | 1.00 | 31.55 | C |
| ATOM | 4454 | OH | TYR | A | 725 | -8.417 | -8.435 | 72.375 | 1.00 | 37.99 | O |
| ATOM | 4455 | N | PRO | A | 726 | -4.221 | -14.707 | 76.674 | 1.00 | 26.35 | N |
| ATOM | 4456 | CA | PRO | A | 726 | -3.703 | -15.960 | 77.225 | 1.00 | 28.84 | C |
| ATOM | 4457 | C | PRO | A | 726 | -4.845 | -16.953 | 77.399 | 1.00 | 31.51 | C |
| ATOM | 4458 | O | PRO | A | 726 | -6.012 | -16.571 | 77.484 | 1.00 | 32.31 | O |
| ATOM | 4459 | CB | PRO | A | 726 | -3.092 | -15.551 | 78.565 | 1.00 | 27.97 | C |
| ATOM | 4460 | CG | PRO | A | 726 | -3.368 | -14.062 | 78.719 | 1.00 | 28.47 | C |
| ATOM | 4461 | CD | PRO | A | 726 | -4.391 | -13.679 | 77.712 | 1.00 | 27.50 | C |
| ATOM | 4462 | N | GLU | A | 727 | -4.511 | -18.232 | 77.438 | 1.00 | 33.80 | N |
| ATOM | 4463 | CA | GLU | A | 727 | -5.525 | -19.256 | 77.606 | 1.00 | 32.09 | C |
| ATOM | 4464 | C | GLU | A | 727 | -6.624 | -19.170 | 76.553 | 1.00 | 30.05 | C |
| ATOM | 4465 | O | GLU | A | 727 | -7.792 | -19.385 | 76.860 | 1.00 | 35.12 | O |
| ATOM | 4466 | CB | GLU | A | 727 | -6.141 | -19.140 | 78.996 | 1.00 | 32.86 | C |
| ATOM | 4467 | CG | GLU | A | 727 | -5.117 | -19.070 | 80.101 | 1.00 | 35.45 | C |
| ATOM | 4468 | CD | GLU | A | 727 | -4.562 | -20.429 | 80.451 | 1.00 | 41.45 | C |
| ATOM | 4469 | OE1 | GLU | A | 727 | -4.427 | -21.281 | 79.545 | 1.00 | 42.76 | O |
| ATOM | 4470 | OE2 | GLU | A | 727 | -4.261 | -20.648 | 81.640 | 1.00 | 48.63 | O |
| ATOM | 4471 | N | THR | A | 728 | -6.251 | -18.857 | 75.316 | 1.00 | 25.41 | N |
| ATOM | 4472 | CA | THR | A | 728 | -7.221 | -18.769 | 74.238 | 1.00 | 22.62 | C |
| ATOM | 4473 | C | THR | A | 728 | -7.508 | -20.156 | 73.687 | 1.00 | 23.73 | C |
| ATOM | 4474 | O | THR | A | 728 | -6.598 | -20.883 | 73.294 | 1.00 | 20.15 | O |
| ATOM | 4475 | CB | THR | A | 728 | -6.711 | -17.876 | 73.101 | 1.00 | 19.11 | C |
| ATOM | 4476 | OG1 | THR | A | 728 | -6.702 | -16.514 | 73.541 | 1.00 | 20.50 | O |
| ATOM | 4477 | CG2 | THR | A | 728 | -7.605 | -17.993 | 71.873 | 1.00 | 21.10 | C |
| ATOM | 4478 | N | GLN | A | 729 | -8.783 | -20.529 | 73.671 | 1.00 | 23.18 | N |
| ATOM | 4479 | CA | GLN | A | 729 | -9.177 | -21.833 | 73.155 | 1.00 | 22.63 | C |
| ATOM | 4480 | C | GLN | A | 729 | -9.685 | -21.656 | 71.735 | 1.00 | 19.95 | C |
| ATOM | 4481 | O | GLN | A | 729 | -9.685 | -22.590 | 70.940 | 1.00 | 19.91 | O |
| ATOM | 4482 | CB | GLN | A | 729 | -10.270 | -22.457 | 74.033 | 1.00 | 28.03 | C |
| ATOM | 4483 | CG | GLN | A | 729 | -10.503 | -23.949 | 73.776 | 1.00 | 36.04 | C |
| ATOM | 4484 | CD | GLN | A | 729 | -9.711 | -24.852 | 74.721 | 1.00 | 39.79 | C |
| ATOM | 4485 | OE1 | GLN | A | 729 | -9.772 | -24.699 | 75.944 | 1.00 | 46.10 | O |
| ATOM | 4486 | NE2 | GLN | A | 729 | -8.963 | -25.799 | 74.154 | 1.00 | 35.30 | N |
| ATOM | 4487 | N | SER | A | 730 | -10.112 | -20.443 | 71.412 | 1.00 | 18.51 | N |
| ATOM | 4488 | CA | SER | A | 730 | -10.612 | -20.180 | 70.081 | 1.00 | 16.55 | C |
| ATOM | 4489 | C | SER | A | 730 | -10.738 | -18.711 | 69.800 | 1.00 | 14.21 | C |
| ATOM | 4490 | O | SER | A | 730 | -10.778 | -17.889 | 70.708 | 1.00 | 19.36 | O |
| ATOM | 4491 | CB | SER | A | 730 | -11.981 | -20.829 | 69.889 | 1.00 | 21.14 | C |
| ATOM | 4492 | OG | SER | A | 730 | -12.996 | -20.020 | 70.461 | 1.00 | 20.11 | O |
| ATOM | 4493 | N | VAL | A | 731 | -10.789 | -18.398 | 68.516 | 1.00 | 17.51 | N |
| ATOM | 4494 | CA | VAL | A | 731 | -10.958 | -17.037 | 68.044 | 1.00 | 19.90 | C |
| ATOM | 4495 | C | VAL | A | 731 | -11.937 | -17.166 | 66.875 | 1.00 | 21.72 | C |
| ATOM | 4496 | O | VAL | A | 731 | -11.830 | -18.096 | 66.067 | 1.00 | 19.70 | O |
| ATOM | 4497 | CB | VAL | A | 731 | -9.615 | -16.422 | 67.549 | 1.00 | 21.14 | C |
| ATOM | 4498 | CG1 | VAL | A | 731 | -9.885 | -15.131 | 66.765 | 1.00 | 17.89 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4499 | CG2 | VAL | A | 731 | -8.692 | -16.142 | 68.748 | 1.00 | 13.43 | C |
| ATOM | 4500 | N | PHE | A | 732 | -12.904 | -16.259 | 66.794 | 1.00 | 21.50 | N |
| ATOM | 4501 | CA | PHE | A | 732 | -13.876 | -16.315 | 65.711 | 1.00 | 17.96 | C |
| ATOM | 4502 | C | PHE | A | 732 | -14.076 | -14.956 | 65.065 | 1.00 | 15.43 | C |
| ATOM | 4503 | O | PHE | A | 732 | -14.322 | -13.962 | 65.751 | 1.00 | 18.57 | O |
| ATOM | 4504 | CB | PHE | A | 732 | -15.223 | -16.845 | 66.228 | 1.00 | 19.56 | C |
| ATOM | 4505 | CG | PHE | A | 732 | -16.215 | -17.147 | 65.133 | 1.00 | 19.85 | C |
| ATOM | 4506 | CD1 | PHE | A | 732 | -16.008 | -18.220 | 64.265 | 1.00 | 18.38 | C |
| ATOM | 4507 | CD2 | PHE | A | 732 | -17.321 | -16.327 | 64.930 | 1.00 | 18.25 | C |
| ATOM | 4508 | CE1 | PHE | A | 732 | -16.881 | -18.469 | 63.211 | 1.00 | 20.12 | C |
| ATOM | 4509 | CE2 | PHE | A | 732 | -18.200 | -16.568 | 63.879 | 1.00 | 17.89 | C |
| ATOM | 4510 | CZ | PHE | A | 732 | -17.980 | -17.640 | 63.018 | 1.00 | 18.66 | C |
| ATOM | 4511 | N | LEU | A | 733 | -13.944 | -14.922 | 63.742 | 1.00 | 15.16 | N |
| ATOM | 4512 | CA | LEU | A | 733 | -14.131 | -13.708 | 62.960 | 1.00 | 15.32 | C |
| ATOM | 4513 | C | LEU | A | 733 | -15.523 | -13.818 | 62.353 | 1.00 | 15.72 | C |
| ATOM | 4514 | O | LEU | A | 733 | -15.750 | -14.617 | 61.442 | 1.00 | 15.15 | O |
| ATOM | 4515 | CB | LEU | A | 733 | -13.093 | -13.625 | 61.841 | 1.00 | 14.34 | C |
| ATOM | 4516 | CG | LEU | A | 733 | -11.635 | -13.684 | 62.310 | 1.00 | 19.29 | C |
| ATOM | 4517 | CD1 | LEU | A | 733 | -10.716 | -13.262 | 61.180 | 1.00 | 16.55 | C |
| ATOM | 4518 | CD2 | LEU | A | 733 | -11.459 | -12.783 | 63.526 | 1.00 | 20.90 | C |
| ATOM | 4519 | N | GLU | A | 734 | -16.444 | -13.005 | 62.852 | 1.00 | 16.57 | N |
| ATOM | 4520 | CA | GLU | A | 734 | -17.831 | -13.044 | 62.397 | 1.00 | 17.21 | C |
| ATOM | 4521 | C | GLU | A | 734 | -18.250 | -11.922 | 61.457 | 1.00 | 16.80 | C |
| ATOM | 4522 | O | GLU | A | 734 | -18.238 | -10.739 | 61.822 | 1.00 | 18.22 | O |
| ATOM | 4523 | CB | GLU | A | 734 | -18.750 | -13.054 | 63.615 | 1.00 | 17.72 | C |
| ATOM | 4524 | CG | GLU | A | 734 | -20.227 | -13.137 | 63.293 | 1.00 | 18.22 | C |
| ATOM | 4525 | CD | GLU | A | 734 | -21.072 | -13.168 | 64.546 | 1.00 | 14.89 | C |
| ATOM | 4526 | OE1 | GLU | A | 734 | -21.120 | -12.133 | 65.248 | 1.00 | 20.77 | O |
| ATOM | 4527 | OE2 | GLU | A | 734 | -21.679 | -14.226 | 64.827 | 1.00 | 18.02 | O |
| ATOM | 4528 | N | SER | A | 735 | -18.626 | -12.307 | 60.243 | 1.00 | 16.88 | N |
| ATOM | 4529 | CA | SER | A | 735 | -19.076 | -11.354 | 59.239 | 1.00 | 18.19 | C |
| ATOM | 4530 | C | SER | A | 735 | -20.583 | -11.520 | 59.090 | 1.00 | 20.63 | C |
| ATOM | 4531 | O | SER | A | 735 | -21.163 | -12.464 | 59.625 | 1.00 | 19.67 | O |
| ATOM | 4532 | CB | SER | A | 735 | -18.418 | -11.646 | 57.895 | 1.00 | 15.27 | C |
| ATOM | 4533 | OG | SER | A | 735 | -19.081 | -10.964 | 56.842 | 1.00 | 18.17 | O |
| ATOM | 4534 | N | SER | A | 736 | -21.206 | -10.605 | 58.358 | 1.00 | 21.62 | N |
| ATOM | 4535 | CA | SER | A | 736 | -22.639 | -10.676 | 58.113 | 1.00 | 23.02 | C |
| ATOM | 4536 | C | SER | A | 736 | -22.827 | -11.805 | 57.114 | 1.00 | 24.71 | C |
| ATOM | 4537 | O | SER | A | 736 | -23.885 | -12.429 | 57.045 | 1.00 | 25.51 | O |
| ATOM | 4538 | CB | SER | A | 736 | -23.129 | -9.371 | 57.505 | 1.00 | 20.98 | C |
| ATOM | 4539 | OG | SER | A | 736 | -22.401 | -9.084 | 56.326 | 1.00 | 26.95 | O |
| ATOM | 4540 | N | ASP | A | 737 | -21.778 | -12.062 | 56.341 | 1.00 | 22.98 | N |
| ATOM | 4541 | CA | ASP | A | 737 | -21.796 | -13.116 | 55.341 | 1.00 | 18.83 | C |
| ATOM | 4542 | C | ASP | A | 737 | -21.056 | -14.323 | 55.882 | 1.00 | 21.98 | C |
| ATOM | 4543 | O | ASP | A | 737 | -19.840 | -14.294 | 56.019 | 1.00 | 22.79 | O |
| ATOM | 4544 | CB | ASP | A | 737 | -21.124 | -12.635 | 54.061 | 1.00 | 17.92 | C |
| ATOM | 4545 | CG | ASP | A | 737 | -21.245 | -13.633 | 52.942 | 1.00 | 18.79 | C |
| ATOM | 4546 | OD1 | ASP | A | 737 | -20.952 | -13.284 | 51.780 | 1.00 | 23.36 | O |
| ATOM | 4547 | OD2 | ASP | A | 737 | -21.639 | -14.777 | 53.230 | 1.00 | 20.96 | O |
| ATOM | 4548 | N | SER | A | 738 | -21.793 | -15.383 | 56.190 | 1.00 | 21.56 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4549 | CA | SER | A | 738 | -21.207 | -16.606 | 56.729 | 1.00 | 23.25 | C |
| ATOM | 4550 | C | SER | A | 738 | -20.068 | -17.150 | 55.876 | 1.00 | 20.53 | C |
| ATOM | 4551 | O | SER | A | 738 | -19.203 | -17.852 | 56.380 | 1.00 | 21.43 | O |
| ATOM | 4552 | CB | SER | A | 738 | -22.280 | -17.690 | 56.872 | 1.00 | 23.95 | C |
| ATOM | 4553 | OG | SER | A | 738 | -22.847 | -17.670 | 58.171 | 1.00 | 35.00 | O |
| ATOM | 4554 | N | LYS | A | 739 | -20.081 | -16.835 | 54.586 | 1.00 | 19.79 | N |
| ATOM | 4555 | CA | LYS | A | 739 | -19.049 | -17.306 | 53.669 | 1.00 | 21.14 | C |
| ATOM | 4556 | C | LYS | A | 739 | -17.765 | -16.480 | 53.770 | 1.00 | 19.15 | C |
| ATOM | 4557 | O | LYS | A | 739 | -16.908 | -16.554 | 52.898 | 1.00 | 20.74 | O |
| ATOM | 4558 | CB | LYS | A | 739 | -19.563 | -17.266 | 52.232 | 1.00 | 19.19 | C |
| ATOM | 4559 | CG | LYS | A | 739 | -19.517 | -18.607 | 51.525 | 1.00 | 25.94 | C |
| ATOM | 4560 | CD | LYS | A | 739 | -20.481 | -19.597 | 52.151 | 1.00 | 21.88 | C |
| ATOM | 4561 | CE | LYS | A | 739 | -21.517 | -20.043 | 51.137 | 1.00 | 25.87 | C |
| ATOM | 4562 | NZ | LYS | A | 739 | -21.352 | -21.466 | 50.752 | 1.00 | 22.63 | N |
| ATOM | 4563 | N | LYS | A | 740 | -17.655 | -15.685 | 54.827 | 1.00 | 16.02 | N |
| ATOM | 4564 | CA | LYS | A | 740 | -16.470 | -14.862 | 55.059 | 1.00 | 18.36 | C |
| ATOM | 4565 | C | LYS | A | 740 | -16.021 | -15.068 | 56.498 | 1.00 | 17.79 | C |
| ATOM | 4566 | O | LYS | A | 740 | -15.117 | -14.399 | 56.984 | 1.00 | 21.45 | O |
| ATOM | 4567 | CB | LYS | A | 740 | -16.781 | -13.381 | 54.839 | 1.00 | 11.46 | C |
| ATOM | 4568 | CG | LYS | A | 740 | -16.787 | -12.973 | 53.385 | 1.00 | 8.36 | C |
| ATOM | 4569 | CD | LYS | A | 740 | -17.164 | -11.520 | 53.253 | 1.00 | 10.91 | C |
| ATOM | 4570 | CE | LYS | A | 740 | -17.479 | -11.174 | 51.820 | 1.00 | 13.46 | C |
| ATOM | 4571 | NZ | LYS | A | 740 | -17.632 | -9.702 | 51.674 | 1.00 | 20.28 | N |
| ATOM | 4572 | N | ASN | A | 741 | -16.672 | -15.997 | 57.183 | 1.00 | 18.77 | N |
| ATOM | 4573 | CA | ASN | A | 741 | -16.342 | -16.277 | 58.569 | 1.00 | 20.42 | C |
| ATOM | 4574 | C | ASN | A | 741 | -15.072 | -17.121 | 58.675 | 1.00 | 18.19 | C |
| ATOM | 4575 | O | ASN | A | 741 | -14.801 | -17.970 | 57.816 | 1.00 | 18.42 | O |
| ATOM | 4576 | CB | ASN | A | 741 | -17.498 | -17.024 | 59.239 | 1.00 | 19.45 | C |
| ATOM | 4577 | CG | ASN | A | 741 | -18.690 | -16.141 | 59.502 | 1.00 | 19.08 | C |
| ATOM | 4578 | OD1 | ASN | A | 741 | -18.651 | -14.936 | 59.265 | 1.00 | 17.96 | O |
| ATOM | 4579 | ND2 | ASN | A | 741 | -19.763 | -16.739 | 60.005 | 1.00 | 20.04 | N |
| ATOM | 4580 | N | ILE | A | 742 | -14.291 | -16.873 | 59.722 | 1.00 | 16.78 | N |
| ATOM | 4581 | CA | ILE | A | 742 | -13.066 | -17.629 | 59.955 | 1.00 | 14.73 | C |
| ATOM | 4582 | C | ILE | A | 742 | -12.941 | -17.949 | 61.426 | 1.00 | 11.50 | C |
| ATOM | 4583 | O | ILE | A | 742 | -12.936 | -17.050 | 62.270 | 1.00 | 18.00 | O |
| ATOM | 4584 | CB | ILE | A | 742 | -11.794 | -16.852 | 59.538 | 1.00 | 17.46 | C |
| ATOM | 4585 | CG1 | ILE | A | 742 | -11.938 | -16.302 | 58.125 | 1.00 | 16.16 | C |
| ATOM | 4586 | CG2 | ILE | A | 742 | -10.597 | -17.781 | 59.575 | 1.00 | 12.75 | C |
| ATOM | 4587 | CD1 | ILE | A | 742 | -10.967 | -15.175 | 57.824 | 1.00 | 21.25 | C |
| ATOM | 4588 | N | GLY | A | 743 | -12.861 | -19.234 | 61.740 | 1.00 | 11.61 | N |
| ATOM | 4589 | CA | GLY | A | 743 | -12.708 | -19.636 | 63.123 | 1.00 | 12.78 | C |
| ATOM | 4590 | C | GLY | A | 743 | -11.386 | -20.364 | 63.314 | 1.00 | 17.17 | C |
| ATOM | 4591 | O | GLY | A | 743 | -10.895 | -21.028 | 62.395 | 1.00 | 18.22 | O |
| ATOM | 4592 | N | TYR | A | 744 | -10.802 | -20.227 | 64.499 | 1.00 | 19.29 | N |
| ATOM | 4593 | CA | TYR | A | 744 | -9.546 | -20.887 | 64.827 | 1.00 | 17.49 | C |
| ATOM | 4594 | C | TYR | A | 744 | -9.710 | -21.566 | 66.168 | 1.00 | 14.30 | C |
| ATOM | 4595 | O | TYR | A | 744 | -9.891 | -20.906 | 67.190 | 1.00 | 19.62 | O |
| ATOM | 4596 | CB | TYR | A | 744 | -8.398 | -19.883 | 64.924 | 1.00 | 15.97 | C |
| ATOM | 4597 | CG | TYR | A | 744 | -8.327 | -18.893 | 63.792 | 1.00 | 18.76 | C |
| ATOM | 4598 | CD1 | TYR | A | 744 | -8.989 | -17.668 | 63.878 | 1.00 | 24.09 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4599 | CD2 | TYR | A | 744 | -7.566 | -19.155 | 62.655 | 1.00 | 18.99 | C |
| ATOM | 4600 | CE1 | TYR | A | 744 | -8.894 | -16.726 | 62.864 | 1.00 | 23.92 | C |
| ATOM | 4601 | CE2 | TYR | A | 744 | -7.462 | -18.216 | 61.631 | 1.00 | 20.17 | C |
| ATOM | 4602 | CZ | TYR | A | 744 | -8.129 | -17.005 | 61.747 | 1.00 | 23.23 | C |
| ATOM | 4603 | OH | TYR | A | 744 | -8.032 | -16.062 | 60.755 | 1.00 | 26.83 | O |
| ATOM | 4604 | N | PHE | A | 745 | -9.649 | -22.891 | 66.155 | 1.00 | 14.29 | N |
| ATOM | 4605 | CA | PHE | A | 745 | -9.779 | -23.678 | 67.367 | 1.00 | 14.12 | C |
| ATOM | 4606 | C | PHE | A | 745 | -8.400 | -24.174 | 67.777 | 1.00 | 15.22 | C |
| ATOM | 4607 | O | PHE | A | 745 | -7.760 | -24.913 | 67.033 | 1.00 | 15.31 | O |
| ATOM | 4608 | CB | PHE | A | 745 | -10.680 | -24.885 | 67.119 | 1.00 | 12.00 | C |
| ATOM | 4609 | CG | PHE | A | 745 | -10.653 | -25.896 | 68.232 | 1.00 | 14.77 | C |
| ATOM | 4610 | CD1 | PHE | A | 745 | -10.854 | -25.502 | 69.548 | 1.00 | 10.58 | C |
| ATOM | 4611 | CD2 | PHE | A | 745 | -10.430 | -27.245 | 67.962 | 1.00 | 14.07 | C |
| ATOM | 4612 | CE1 | PHE | A | 745 | -10.835 | -26.433 | 70.586 | 1.00 | 11.95 | C |
| ATOM | 4613 | CE2 | PHE | A | 745 | -10.407 | -28.187 | 68.994 | 1.00 | 13.17 | C |
| ATOM | 4614 | CZ | PHE | A | 745 | -10.609 | -27.783 | 70.305 | 1.00 | 13.17 | C |
| ATOM | 4615 | N | PHE | A | 746 | -7.953 | -23.765 | 68.956 | 1.00 | 15.82 | N |
| ATOM | 4616 | CA | PHE | A | 746 | -6.651 | -24.180 | 69.478 | 1.00 | 18.36 | C |
| ATOM | 4617 | C | PHE | A | 746 | -6.792 | -25.459 | 70.295 | 1.00 | 17.44 | C |
| ATOM | 4618 | O | PHE | A | 746 | -7.352 | -25.439 | 71.390 | 1.00 | 19.21 | O |
| ATOM | 4619 | CB | PHE | A | 746 | -6.077 | -23.057 | 70.335 | 1.00 | 14.91 | C |
| ATOM | 4620 | CG | PHE | A | 746 | -5.852 | -21.799 | 69.571 | 1.00 | 17.89 | C |
| ATOM | 4621 | CD1 | PHE | A | 746 | -6.840 | -20.826 | 69.507 | 1.00 | 18.85 | C |
| ATOM | 4622 | CD2 | PHE | A | 746 | -4.670 | -21.605 | 68.861 | 1.00 | 18.69 | C |
| ATOM | 4623 | CE1 | PHE | A | 746 | -6.659 | -19.677 | 68.743 | 1.00 | 21.36 | C |
| ATOM | 4624 | CE2 | PHE | A | 746 | -4.479 | -20.458 | 68.093 | 1.00 | 17.10 | C |
| ATOM | 4625 | CZ | PHE | A | 746 | -5.478 | -19.491 | 68.034 | 1.00 | 18.60 | C |
| ATOM | 4626 | N | PHE | A | 747 | -6.280 | -26.567 | 69.762 | 1.00 | 19.43 | N |
| ATOM | 4627 | CA | PHE | A | 747 | -6.370 | -27.861 | 70.434 | 1.00 | 18.66 | C |
| ATOM | 4628 | C | PHE | A | 747 | -6.039 | -27.757 | 71.906 | 1.00 | 18.35 | C |
| ATOM | 4629 | O | PHE | A | 747 | -6.668 | -28.406 | 72.742 | 1.00 | 21.39 | O |
| ATOM | 4630 | CB | PHE | A | 747 | -5.468 | -28.877 | 69.744 | 1.00 | 18.00 | C |
| ATOM | 4631 | CG | PHE | A | 747 | -5.794 | -29.076 | 68.291 | 1.00 | 18.84 | C |
| ATOM | 4632 | CD1 | PHE | A | 747 | -7.016 | -29.626 | 67.908 | 1.00 | 22.35 | C |
| ATOM | 4633 | CD2 | PHE | A | 747 | -4.891 | -28.702 | 67.301 | 1.00 | 16.97 | C |
| ATOM | 4634 | CE1 | PHE | A | 747 | -7.332 | -29.798 | 66.562 | 1.00 | 19.95 | C |
| ATOM | 4635 | CE2 | PHE | A | 747 | -5.193 | -28.869 | 65.952 | 1.00 | 17.50 | C |
| ATOM | 4636 | CZ | PHE | A | 747 | -6.419 | -29.418 | 65.580 | 1.00 | 20.93 | C |
| ATOM | 4637 | N | LYS | A | 748 | -5.056 | -26.931 | 72.232 | 1.00 | 19.50 | N |
| ATOM | 4638 | CA | LYS | A | 748 | -4.691 | -26.716 | 73.626 | 1.00 | 21.46 | C |
| ATOM | 4639 | C | LYS | A | 748 | -4.718 | -25.211 | 73.840 | 1.00 | 19.82 | C |
| ATOM | 4640 | O | LYS | A | 748 | -4.315 | -24.454 | 72.963 | 1.00 | 21.76 | O |
| ATOM | 4641 | CB | LYS | A | 748 | -3.294 | -27.281 | 73.913 | 1.00 | 27.45 | C |
| ATOM | 4642 | CG | LYS | A | 748 | -3.060 | -28.669 | 73.317 | 1.00 | 34.35 | C |
| ATOM | 4643 | CD | LYS | A | 748 | -2.489 | -29.641 | 74.341 | 1.00 | 39.98 | C |
| ATOM | 4644 | CE | LYS | A | 748 | -2.330 | -31.042 | 73.758 | 1.00 | 39.29 | C |
| ATOM | 4645 | NZ | LYS | A | 748 | -0.980 | -31.255 | 73.158 | 1.00 | 45.33 | N |
| ATOM | 4646 | N | LYS | A | 749 | -5.225 | -24.771 | 74.986 | 1.00 | 24.25 | N |
| ATOM | 4647 | CA | LYS | A | 749 | -5.289 | -23.342 | 75.264 | 1.00 | 26.33 | C |
| ATOM | 4648 | C | LYS | A | 749 | -3.906 | -22.747 | 75.003 | 1.00 | 28.05 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4649 | O | LYS | A | 749 | -2.916 | -23.264 | 75.511 | 1.00 | 29.15 | O |
| ATOM | 4650 | CB | LYS | A | 749 | -5.709 | -23.116 | 76.717 | 1.00 | 28.01 | C |
| ATOM | 4651 | CG | LYS | A | 749 | -7.215 | -23.164 | 76.931 | 1.00 | 35.51 | C |
| ATOM | 4652 | CD | LYS | A | 749 | -7.570 | -23.175 | 78.410 | 1.00 | 41.10 | C |
| ATOM | 4653 | CE | LYS | A | 749 | -8.537 | -24.307 | 78.741 | 1.00 | 46.73 | C |
| ATOM | 4654 | NZ | LYS | A | 749 | -8.187 | -25.584 | 78.046 | 1.00 | 48.55 | N |
| ATOM | 4655 | N | SER | A | 750 | -3.834 | -21.681 | 74.204 | 1.00 | 26.99 | N |
| ATOM | 4656 | CA | SER | A | 750 | -2.553 | -21.053 | 73.885 | 1.00 | 28.28 | C |
| ATOM | 4657 | C | SER | A | 750 | -2.539 | -19.539 | 74.029 | 1.00 | 28.21 | C |
| ATOM | 4658 | O | SER | A | 750 | -3.590 | -18.893 | 74.074 | 1.00 | 25.53 | O |
| ATOM | 4659 | CB | SER | A | 750 | -2.131 | -21.410 | 72.465 | 1.00 | 29.79 | C |
| ATOM | 4660 | OG | SER | A | 750 | -3.169 | -22.091 | 71.795 | 1.00 | 37.14 | O |
| ATOM | 4661 | N | SER | A | 751 | -1.330 | -18.985 | 74.096 | 1.00 | 25.05 | N |
| ATOM | 4662 | CA | SER | A | 751 | -1.131 | -17.547 | 74.238 | 1.00 | 24.84 | C |
| ATOM | 4663 | C | SER | A | 751 | -0.943 | -16.922 | 72.877 | 1.00 | 23.49 | C |
| ATOM | 4664 | O | SER | A | 751 | 0.034 | -17.203 | 72.183 | 1.00 | 25.10 | O |
| ATOM | 4665 | CB | SER | A | 751 | 0.102 | -17.259 | 75.088 | 1.00 | 22.86 | C |
| ATOM | 4666 | OG | SER | A | 751 | -0.209 | -17.337 | 76.461 | 1.00 | 33.64 | O |
| ATOM | 4667 | N | ILE | A | 752 | -1.877 | -16.063 | 72.499 | 1.00 | 22.59 | N |
| ATOM | 4668 | CA | ILE | A | 752 | -1.812 | -15.416 | 71.203 | 1.00 | 20.10 | C |
| ATOM | 4669 | C | ILE | A | 752 | -1.952 | -13.910 | 71.323 | 1.00 | 18.88 | C |
| ATOM | 4670 | O | ILE | A | 752 | -2.311 | -13.385 | 72.375 | 1.00 | 21.88 | O |
| ATOM | 4671 | CB | ILE | A | 752 | -2.917 | -15.956 | 70.269 | 1.00 | 25.31 | C |
| ATOM | 4672 | CG1 | ILE | A | 752 | -4.294 | -15.521 | 70.780 | 1.00 | 22.84 | C |
| ATOM | 4673 | CG2 | ILE | A | 752 | -2.841 | -17.485 | 70.194 | 1.00 | 20.58 | C |
| ATOM | 4674 | CD1 | ILE | A | 752 | -5.356 | -15.504 | 69.701 | 1.00 | 20.29 | C |
| ATOM | 4675 | N | SER | A | 753 | -1.649 | -13.216 | 70.237 | 1.00 | 20.23 | N |
| ATOM | 4676 | CA | SER | A | 753 | -1.748 | -11.769 | 70.203 | 1.00 | 19.49 | C |
| ATOM | 4677 | C | SER | A | 753 | -2.528 | -11.411 | 68.966 | 1.00 | 18.53 | C |
| ATOM | 4678 | O | SER | A | 753 | -2.446 | -12.103 | 67.950 | 1.00 | 20.97 | O |
| ATOM | 4679 | CB | SER | A | 753 | -0.363 | -11.135 | 70.115 | 1.00 | 20.47 | C |
| ATOM | 4680 | OG | SER | A | 753 | 0.308 | -11.246 | 71.352 | 1.00 | 37.48 | O |
| ATOM | 4681 | N | MET | A | 754 | -3.283 | -10.325 | 69.052 | 1.00 | 20.08 | N |
| ATOM | 4682 | CA | MET | A | 754 | -4.078 | -9.876 | 67.929 | 1.00 | 20.45 | C |
| ATOM | 4683 | C | MET | A | 754 | -4.063 | -8.377 | 67.905 | 1.00 | 18.68 | C |
| ATOM | 4684 | O | MET | A | 754 | -3.868 | -7.739 | 68.937 | 1.00 | 22.57 | O |
| ATOM | 4685 | CB | MET | A | 754 | -5.520 | -10.355 | 68.074 | 1.00 | 24.04 | C |
| ATOM | 4686 | CG | MET | A | 754 | -5.713 | -11.827 | 67.774 | 1.00 | 33.24 | C |
| ATOM | 4687 | SD | MET | A | 754 | -7.453 | -12.245 | 67.706 | 1.00 | 35.63 | S |
| ATOM | 4688 | CE | MET | A | 754 | -7.921 | -11.886 | 69.373 | 1.00 | 27.30 | C |
| ATOM | 4689 | N | SER | A | 755 | -4.267 | -7.820 | 66.721 | 1.00 | 16.69 | N |
| ATOM | 4690 | CA | SER | A | 755 | -4.317 | -6.385 | 66.561 | 1.00 | 17.90 | C |
| ATOM | 4691 | C | SER | A | 755 | -4.942 | -6.128 | 65.209 | 1.00 | 18.47 | C |
| ATOM | 4692 | O | SER | A | 755 | -4.880 | -6.975 | 64.325 | 1.00 | 19.05 | O |
| ATOM | 4693 | CB | SER | A | 755 | -2.912 | -5.790 | 66.614 | 1.00 | 23.08 | C |
| ATOM | 4694 | OG | SER | A | 755 | -2.202 | -6.066 | 65.420 | 1.00 | 25.78 | O |
| ATOM | 4695 | N | LYS | A | 756 | -5.578 | -4.976 | 65.061 | 1.00 | 19.87 | N |
| ATOM | 4696 | CA | LYS | A | 756 | -6.196 | -4.607 | 63.793 | 1.00 | 23.99 | C |
| ATOM | 4697 | C | LYS | A | 756 | -5.600 | -3.252 | 63.512 | 1.00 | 23.98 | C |
| ATOM | 4698 | O | LYS | A | 756 | -5.622 | -2.377 | 64.376 | 1.00 | 27.26 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4699 | CB | LYS | A | 756 | -7.718 | -4.487 | 63.929 | 1.00 | 28.51 | C |
| ATOM | 4700 | CG | LYS | A | 756 | -8.379 | -3.726 | 62.779 | 1.00 | 32.05 | C |
| ATOM | 4701 | CD | LYS | A | 756 | -9.889 | -3.925 | 62.752 | 1.00 | 34.69 | C |
| ATOM | 4702 | CE | LYS | A | 756 | -10.596 | -2.952 | 63.683 | 1.00 | 39.73 | C |
| ATOM | 4703 | NZ | LYS | A | 756 | -12.079 | -3.140 | 63.656 | 1.00 | 49.10 | N |
| ATOM | 4704 | N | ALA | A | 757 | -5.058 | -3.062 | 62.320 | 1.00 | 23.09 | N |
| ATOM | 4705 | CA | ALA | A | 757 | -4.438 | -1.784 | 62.039 | 1.00 | 22.98 | C |
| ATOM | 4706 | C | ALA | A | 757 | -4.348 | -1.461 | 60.572 | 1.00 | 21.24 | C |
| ATOM | 4707 | O | ALA | A | 757 | -4.306 | -2.350 | 59.720 | 1.00 | 23.23 | O |
| ATOM | 4708 | CB | ALA | A | 757 | -3.044 | -1.750 | 62.659 | 1.00 | 25.30 | C |
| ATOM | 4709 | N | LEU | A | 758 | -4.310 | -0.167 | 60.288 | 1.00 | 19.41 | N |
| ATOM | 4710 | CA | LEU | A | 758 | -4.197 | 0.308 | 58.928 | 1.00 | 22.52 | C |
| ATOM | 4711 | C | LEU | A | 758 | -2.728 | 0.162 | 58.552 | 1.00 | 26.23 | C |
| ATOM | 4712 | O | LEU | A | 758 | -1.848 | 0.608 | 59.289 | 1.00 | 28.39 | O |
| ATOM | 4713 | CB | LEU | A | 758 | -4.619 | 1.774 | 58.855 | 1.00 | 22.57 | C |
| ATOM | 4714 | CG | LEU | A | 758 | -4.669 | 2.427 | 57.474 | 1.00 | 27.44 | C |
| ATOM | 4715 | CD1 | LEU | A | 758 | -5.533 | 1.618 | 56.532 | 1.00 | 29.86 | C |
| ATOM | 4716 | CD2 | LEU | A | 758 | -5.228 | 3.820 | 57.614 | 1.00 | 31.47 | C |
| ATOM | 4717 | N | GLN | A | 759 | -2.460 | -0.480 | 57.422 | 1.00 | 25.56 | N |
| ATOM | 4718 | CA | GLN | A | 759 | -1.091 | -0.670 | 56.977 | 1.00 | 23.86 | C |
| ATOM | 4719 | C | GLN | A | 759 | -0.879 | 0.028 | 55.638 | 1.00 | 23.70 | C |
| ATOM | 4720 | O | GLN | A | 759 | -1.497 | -0.326 | 54.642 | 1.00 | 26.25 | O |
| ATOM | 4721 | CB | GLN | A | 759 | -0.788 | -2.170 | 56.883 | 1.00 | 21.50 | C |
| ATOM | 4722 | CG | GLN | A | 759 | -0.701 | -2.829 | 58.263 | 1.00 | 18.12 | C |
| ATOM | 4723 | CD | GLN | A | 759 | -0.465 | -4.328 | 58.214 | 1.00 | 16.47 | C |
| ATOM | 4724 | OE1 | GLN | A | 759 | -0.291 | -4.919 | 57.140 | 1.00 | 18.10 | O |
| ATOM | 4725 | NE2 | GLN | A | 759 | -0.460 | -4.953 | 59.382 | 1.00 | 14.65 | N |
| ATOM | 4726 | N | LYS | A | 760 | -0.014 | 1.038 | 55.628 | 1.00 | 26.29 | N |
| ATOM | 4727 | CA | LYS | A | 760 | 0.277 | 1.801 | 54.414 | 1.00 | 27.65 | C |
| ATOM | 4728 | C | LYS | A | 760 | 1.483 | 1.261 | 53.652 | 1.00 | 23.01 | C |
| ATOM | 4729 | O | LYS | A | 760 | 2.372 | 0.639 | 54.229 | 1.00 | 25.87 | O |
| ATOM | 4730 | CB | LYS | A | 760 | 0.522 | 3.271 | 54.761 | 1.00 | 30.67 | C |
| ATOM | 4731 | CG | LYS | A | 760 | -0.664 | 3.962 | 55.421 | 1.00 | 36.43 | C |
| ATOM | 4732 | CD | LYS | A | 760 | -0.304 | 5.371 | 55.881 | 1.00 | 40.40 | C |
| ATOM | 4733 | CE | LYS | A | 760 | -0.964 | 5.710 | 57.212 | 1.00 | 45.73 | C |
| ATOM | 4734 | NZ | LYS | A | 760 | -0.878 | 4.565 | 58.171 | 1.00 | 49.51 | N |
| ATOM | 4735 | N | GLY | A | 761 | 1.504 | 1.513 | 52.351 | 1.00 | 18.71 | N |
| ATOM | 4736 | CA | GLY | A | 761 | 2.594 | 1.053 | 51.517 | 1.00 | 18.89 | C |
| ATOM | 4737 | C | GLY | A | 761 | 2.392 | 1.496 | 50.085 | 1.00 | 23.37 | C |
| ATOM | 4738 | O | GLY | A | 761 | 1.388 | 2.122 | 49.761 | 1.00 | 28.51 | O |
| ATOM | 4739 | N | ALA | A | 762 | 3.348 | 1.183 | 49.223 | 1.00 | 22.68 | N |
| ATOM | 4740 | CA | ALA | A | 762 | 3.263 | 1.547 | 47.820 | 1.00 | 22.91 | C |
| ATOM | 4741 | C | ALA | A | 762 | 3.778 | 0.373 | 47.027 | 1.00 | 24.21 | C |
| ATOM | 4742 | O | ALA | A | 762 | 4.611 | -0.390 | 47.508 | 1.00 | 26.43 | O |
| ATOM | 4743 | CB | ALA | A | 762 | 4.117 | 2.776 | 47.534 | 1.00 | 24.11 | C |
| ATOM | 4744 | N | TRP | A | 763 | 3.284 | 0.220 | 45.810 | 1.00 | 24.70 | N |
| ATOM | 4745 | CA | TRP | A | 763 | 3.734 | -0.882 | 44.978 | 1.00 | 26.44 | C |
| ATOM | 4746 | C | TRP | A | 763 | 5.239 | -0.771 | 44.696 | 1.00 | 28.11 | C |
| ATOM | 4747 | O | TRP | A | 763 | 5.931 | -1.777 | 44.579 | 1.00 | 26.72 | O |
| ATOM | 4748 | CB | TRP | A | 763 | 2.942 | -0.898 | 43.672 | 1.00 | 23.89 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4749 | CG | TRP | A | 763 | 1.538 | -1.418 | 43.850 | 1.00 | 27.88 | C |
| ATOM | 4750 | CD1 | TRP | A | 763 | 0.412 | -0.679 | 44.086 | 1.00 | 26.92 | C |
| ATOM | 4751 | CD2 | TRP | A | 763 | 1.116 | -2.789 | 43.807 | 1.00 | 27.19 | C |
| ATOM | 4752 | NE1 | TRP | A | 763 | -0.686 | -1.505 | 44.191 | 1.00 | 24.08 | N |
| ATOM | 4753 | CE2 | TRP | A | 763 | -0.282 | -2.805 | 44.024 | 1.00 | 28.58 | C |
| ATOM | 4754 | CE3 | TRP | A | 763 | 1.781 | -4.005 | 43.606 | 1.00 | 21.18 | C |
| ATOM | 4755 | CZ2 | TRP | A | 763 | -1.026 | -3.991 | 44.046 | 1.00 | 26.51 | C |
| ATOM | 4756 | CZ3 | TRP | A | 763 | 1.041 | -5.185 | 43.629 | 1.00 | 22.45 | C |
| ATOM | 4757 | CH2 | TRP | A | 763 | -0.348 | -5.167 | 43.846 | 1.00 | 24.51 | C |
| ATOM | 4758 | N | LYS | A | 764 | 5.739 | 0.458 | 44.603 | 1.00 | 28.29 | N |
| ATOM | 4759 | CA | LYS | A | 764 | 7.152 | 0.685 | 44.330 | 1.00 | 26.73 | C |
| ATOM | 4760 | C | LYS | A | 764 | 8.019 | 0.074 | 45.422 | 1.00 | 26.34 | C |
| ATOM | 4761 | O | LYS | A | 764 | 9.155 | -0.321 | 45.174 | 1.00 | 28.30 | O |
| ATOM | 4762 | CB | LYS | A | 764 | 7.436 | 2.180 | 44.230 | 1.00 | 27.67 | C |
| ATOM | 4763 | CG | LYS | A | 764 | 8.738 | 2.504 | 43.514 | 1.00 | 31.67 | C |
| ATOM | 4764 | CD | LYS | A | 764 | 9.187 | 3.921 | 43.810 | 1.00 | 30.40 | C |
| ATOM | 4765 | CE | LYS | A | 764 | 9.619 | 4.628 | 42.546 | 1.00 | 37.62 | C |
| ATOM | 4766 | NZ | LYS | A | 764 | 11.087 | 4.495 | 42.343 | 1.00 | 40.95 | N |
| ATOM | 4767 | N | ASP | A | 765 | 7.479 | 0.009 | 46.631 | 1.00 | 24.44 | N |
| ATOM | 4768 | CA | ASP | A | 765 | 8.196 | -0.562 | 47.758 | 1.00 | 25.96 | C |
| ATOM | 4769 | C | ASP | A | 765 | 8.603 | -2.004 | 47.470 | 1.00 | 28.22 | C |
| ATOM | 4770 | O | ASP | A | 765 | 9.622 | -2.480 | 47.973 | 1.00 | 29.21 | O |
| ATOM | 4771 | CB | ASP | A | 765 | 7.320 | -0.573 | 49.014 | 1.00 | 29.01 | C |
| ATOM | 4772 | CG | ASP | A | 765 | 7.014 | 0.815 | 49.543 | 1.00 | 36.09 | C |
| ATOM | 4773 | OD1 | ASP | A | 765 | 7.586 | 1.800 | 49.035 | 1.00 | 33.32 | O |
| ATOM | 4774 | OD2 | ASP | A | 765 | 6.189 | 0.915 | 50.481 | 1.00 | 36.85 | O |
| ATOM | 4775 | N | ILE | A | 766 | 7.803 | -2.703 | 46.667 | 1.00 | 22.81 | N |
| ATOM | 4776 | CA | ILE | A | 766 | 8.073 | -4.103 | 46.371 | 1.00 | 17.46 | C |
| ATOM | 4777 | C | ILE | A | 766 | 8.394 | -4.361 | 44.918 | 1.00 | 15.45 | C |
| ATOM | 4778 | O | ILE | A | 766 | 8.720 | -5.475 | 44.535 | 1.00 | 17.76 | O |
| ATOM | 4779 | CB | ILE | A | 766 | 6.871 | -4.986 | 46.774 | 1.00 | 19.17 | C |
| ATOM | 4780 | CG1 | ILE | A | 766 | 5.593 | -4.451 | 46.123 | 1.00 | 19.16 | C |
| ATOM | 4781 | CG2 | ILE | A | 766 | 6.720 | -4.998 | 48.282 | 1.00 | 14.19 | C |
| ATOM | 4782 | CD1 | ILE | A | 766 | 4.508 | -5.495 | 45.985 | 1.00 | 23.30 | C |
| ATOM | 4783 | N | ASN | A | 767 | 8.290 | -3.332 | 44.098 | 1.00 | 17.20 | N |
| ATOM | 4784 | CA | ASN | A | 767 | 8.591 | -3.480 | 42.684 | 1.00 | 20.62 | C |
| ATOM | 4785 | C | ASN | A | 767 | 9.018 | -2.120 | 42.164 | 1.00 | 26.61 | C |
| ATOM | 4786 | O | ASN | A | 767 | 8.192 | -1.251 | 41.872 | 1.00 | 24.90 | O |
| ATOM | 4787 | CB | ASN | A | 767 | 7.373 | -3.993 | 41.919 | 1.00 | 17.22 | C |
| ATOM | 4788 | CG | ASN | A | 767 | 7.691 | -4.316 | 40.485 | 1.00 | 16.56 | C |
| ATOM | 4789 | OD1 | ASN | A | 767 | 8.461 | -3.609 | 39.834 | 1.00 | 23.24 | O |
| ATOM | 4790 | ND2 | ASN | A | 767 | 7.104 | -5.389 | 39.975 | 1.00 | 17.34 | N |
| ATOM | 4791 | N | GLU | A | 768 | 10.333 | -1.950 | 42.078 | 1.00 | 27.59 | N |
| ATOM | 4792 | CA | GLU | A | 768 | 10.956 | -0.716 | 41.622 | 1.00 | 28.41 | C |
| ATOM | 4793 | C | GLU | A | 768 | 10.240 | -0.009 | 40.485 | 1.00 | 26.53 | C |
| ATOM | 4794 | O | GLU | A | 768 | 10.117 | 1.215 | 40.499 | 1.00 | 27.23 | O |
| ATOM | 4795 | CB | GLU | A | 768 | 12.396 | -0.998 | 41.188 | 1.00 | 32.76 | C |
| ATOM | 4796 | CG | GLU | A | 768 | 13.439 | -0.469 | 42.136 | 1.00 | 37.74 | C |
| ATOM | 4797 | CD | GLU | A | 768 | 13.189 | 0.966 | 42.506 | 1.00 | 38.79 | C |
| ATOM | 4798 | OE1 | GLU | A | 768 | 13.039 | 1.241 | 43.713 | 1.00 | 46.83 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4799 | OE2 | GLU | A | 768 | 13.137 | 1.815 | 41.590 | 1.00 | 41.74 | O |
| ATOM | 4800 | N | GLY | A | 769 | 9.783 | -0.780 | 39.501 | 1.00 | 24.64 | N |
| ATOM | 4801 | CA | GLY | A | 769 | 9.110 | -0.199 | 38.349 | 1.00 | 25.60 | C |
| ATOM | 4802 | C | GLY | A | 769 | 7.642 | 0.164 | 38.510 | 1.00 | 21.45 | C |
| ATOM | 4803 | O | GLY | A | 769 | 7.001 | 0.577 | 37.548 | 1.00 | 20.75 | O |
| ATOM | 4804 | N | GLN | A | 770 | 7.108 | 0.027 | 39.717 | 1.00 | 21.14 | N |
| ATOM | 4805 | CA | GLN | A | 770 | 5.703 | 0.338 | 39.957 | 1.00 | 20.93 | C |
| ATOM | 4806 | C | GLN | A | 770 | 5.524 | 1.752 | 40.497 | 1.00 | 22.76 | C |
| ATOM | 4807 | O | GLN | A | 770 | 6.504 | 2.455 | 40.730 | 1.00 | 23.49 | O |
| ATOM | 4808 | CB | GLN | A | 770 | 5.112 | -0.681 | 40.933 | 1.00 | 19.58 | C |
| ATOM | 4809 | CG | GLN | A | 770 | 5.086 | -2.088 | 40.377 | 1.00 | 17.60 | C |
| ATOM | 4810 | CD | GLN | A | 770 | 4.087 | -2.253 | 39.250 | 1.00 | 21.53 | C |
| ATOM | 4811 | OE1 | GLN | A | 770 | 2.887 | -2.023 | 39.428 | 1.00 | 27.27 | O |
| ATOM | 4812 | NE2 | GLN | A | 770 | 4.572 | -2.657 | 38.080 | 1.00 | 16.98 | N |
| ATOM | 4813 | N | SER | A | 771 | 4.271 | 2.164 | 40.697 | 1.00 | 22.65 | N |
| ATOM | 4814 | CA | SER | A | 771 | 3.970 | 3.501 | 41.195 | 1.00 | 19.70 | C |
| ATOM | 4815 | C | SER | A | 771 | 4.252 | 3.644 | 42.677 | 1.00 | 24.67 | C |
| ATOM | 4816 | O | SER | A | 771 | 4.062 | 2.708 | 43.454 | 1.00 | 26.91 | O |
| ATOM | 4817 | CB | SER | A | 771 | 2.503 | 3.855 | 40.937 | 1.00 | 21.72 | C |
| ATOM | 4818 | OG | SER | A | 771 | 2.023 | 4.793 | 41.896 | 1.00 | 21.51 | O |
| ATOM | 4819 | N | ASP | A | 772 | 4.704 | 4.830 | 43.065 | 1.00 | 26.85 | N |
| ATOM | 4820 | CA | ASP | A | 772 | 5.002 | 5.109 | 44.457 | 1.00 | 30.17 | C |
| ATOM | 4821 | C | ASP | A | 772 | 3.778 | 5.704 | 45.138 | 1.00 | 29.48 | C |
| ATOM | 4822 | O | ASP | A | 772 | 3.854 | 6.127 | 46.287 | 1.00 | 30.40 | O |
| ATOM | 4823 | CB | ASP | A | 772 | 6.176 | 6.079 | 44.565 | 1.00 | 37.62 | C |
| ATOM | 4824 | CG | ASP | A | 772 | 5.862 | 7.443 | 43.979 | 1.00 | 49.38 | C |
| ATOM | 4825 | OD1 | ASP | A | 772 | 5.037 | 7.527 | 43.037 | 1.00 | 54.59 | O |
| ATOM | 4826 | OD2 | ASP | A | 772 | 6.445 | 8.439 | 44.463 | 1.00 | 55.14 | O |
| ATOM | 4827 | N | LYS | A | 773 | 2.652 | 5.749 | 44.430 | 1.00 | 27.80 | N |
| ATOM | 4828 | CA | LYS | A | 773 | 1.428 | 6.287 | 45.019 | 1.00 | 29.53 | C |
| ATOM | 4829 | C | LYS | A | 773 | 1.141 | 5.470 | 46.272 | 1.00 | 26.94 | C |
| ATOM | 4830 | O | LYS | A | 773 | 1.292 | 4.250 | 46.265 | 1.00 | 28.38 | O |
| ATOM | 4831 | CB | LYS | A | 773 | 0.263 | 6.167 | 44.031 | 1.00 | 36.10 | C |
| ATOM | 4832 | CG | LYS | A | 773 | -1.033 | 6.809 | 44.513 | 1.00 | 45.95 | C |
| ATOM | 4833 | CD | LYS | A | 773 | -2.157 | 6.650 | 43.491 | 1.00 | 51.42 | C |
| ATOM | 4834 | CE | LYS | A | 773 | -2.614 | 8.006 | 42.950 | 1.00 | 59.61 | C |
| ATOM | 4835 | NZ | LYS | A | 773 | -4.030 | 7.998 | 42.460 | 1.00 | 62.61 | N |
| ATOM | 4836 | N | GLU | A | 774 | 0.738 | 6.129 | 47.349 | 1.00 | 27.54 | N |
| ATOM | 4837 | CA | GLU | A | 774 | 0.465 | 5.422 | 48.597 | 1.00 | 28.86 | C |
| ATOM | 4838 | C | GLU | A | 774 | -0.829 | 4.614 | 48.583 | 1.00 | 30.09 | C |
| ATOM | 4839 | O | GLU | A | 774 | -1.868 | 5.093 | 48.138 | 1.00 | 30.41 | O |
| ATOM | 4840 | CB | GLU | A | 774 | 0.426 | 6.408 | 49.755 | 1.00 | 34.46 | C |
| ATOM | 4841 | CG | GLU | A | 774 | -0.310 | 5.891 | 50.977 | 1.00 | 44.80 | C |
| ATOM | 4842 | CD | GLU | A | 774 | 0.187 | 6.533 | 52.249 | 1.00 | 51.21 | C |
| ATOM | 4843 | OE1 | GLU | A | 774 | 1.425 | 6.578 | 52.437 | 1.00 | 53.17 | O |
| ATOM | 4844 | OE2 | GLU | A | 774 | -0.657 | 6.993 | 53.052 | 1.00 | 52.11 | O |
| ATOM | 4845 | N | VAL | A | 775 | -0.747 | 3.388 | 49.088 | 1.00 | 28.10 | N |
| ATOM | 4846 | CA | VAL | A | 775 | -1.887 | 2.479 | 49.164 | 1.00 | 28.48 | C |
| ATOM | 4847 | C | VAL | A | 775 | -2.090 | 2.105 | 50.630 | 1.00 | 27.95 | C |
| ATOM | 4848 | O | VAL | A | 775 | -1.156 | 2.179 | 51.433 | 1.00 | 25.98 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4849 | CB | VAL | A | 775 | -1.624 | 1.164 | 48.370 | 1.00 | 27.98 | C |
| ATOM | 4850 | CG1 | VAL | A | 775 | -2.862 | 0.295 | 48.378 | 1.00 | 32.93 | C |
| ATOM | 4851 | CG2 | VAL | A | 775 | -1.217 | 1.472 | 46.946 | 1.00 | 29.11 | C |
| ATOM | 4852 | N | GLU | A | 776 | -3.304 | 1.711 | 50.993 | 1.00 | 24.64 | N |
| ATOM | 4853 | CA | GLU | A | 776 | -3.536 | 1.305 | 52.368 | 1.00 | 24.84 | C |
| ATOM | 4854 | C | GLU | A | 776 | -4.700 | 0.342 | 52.511 | 1.00 | 23.00 | C |
| ATOM | 4855 | O | GLU | A | 776 | -5.630 | 0.352 | 51.711 | 1.00 | 28.23 | O |
| ATOM | 4856 | CB | GLU | A | 776 | -3.743 | 2.521 | 53.261 | 1.00 | 27.18 | C |
| ATOM | 4857 | CG | GLU | A | 776 | -4.970 | 3.308 | 52.949 | 1.00 | 34.48 | C |
| ATOM | 4858 | CD | GLU | A | 776 | -5.078 | 4.508 | 53.843 | 1.00 | 44.72 | C |
| ATOM | 4859 | OE1 | GLU | A | 776 | -6.125 | 4.660 | 54.507 | 1.00 | 47.00 | O |
| ATOM | 4860 | OE2 | GLU | A | 776 | -4.104 | 5.295 | 53.886 | 1.00 | 50.87 | O |
| ATOM | 4861 | N | ASN | A | 777 | -4.624 | -0.495 | 53.539 | 1.00 | 20.76 | N |
| ATOM | 4862 | CA | ASN | A | 777 | -5.638 | -1.495 | 53.815 | 1.00 | 18.71 | C |
| ATOM | 4863 | C | ASN | A | 777 | -5.586 | -1.823 | 55.286 | 1.00 | 19.47 | C |
| ATOM | 4864 | O | ASN | A | 777 | -4.549 | -1.666 | 55.927 | 1.00 | 21.30 | O |
| ATOM | 4865 | CB | ASN | A | 777 | -5.364 | -2.766 | 53.014 | 1.00 | 20.38 | C |
| ATOM | 4866 | CG | ASN | A | 777 | -5.880 | -2.685 | 51.614 | 1.00 | 17.25 | C |
| ATOM | 4867 | OD1 | ASN | A | 777 | -7.054 | -2.424 | 51.404 | 1.00 | 22.80 | O |
| ATOM | 4868 | ND2 | ASN | A | 777 | -5.007 | -2.908 | 50.639 | 1.00 | 16.29 | N |
| ATOM | 4869 | N | GLU | A | 778 | -6.709 | -2.278 | 55.824 | 1.00 | 19.97 | N |
| ATOM | 4870 | CA | GLU | A | 778 | -6.772 | -2.648 | 57.224 | 1.00 | 20.28 | C |
| ATOM | 4871 | C | GLU | A | 778 | -6.496 | -4.147 | 57.321 | 1.00 | 21.78 | C |
| ATOM | 4872 | O | GLU | A | 778 | -6.963 | -4.929 | 56.489 | 1.00 | 22.66 | O |
| ATOM | 4873 | CB | GLU | A | 778 | -8.152 | -2.326 | 57.793 | 1.00 | 22.68 | C |
| ATOM | 4874 | CG | GLU | A | 778 | -8.208 | -2.359 | 59.294 | 1.00 | 31.99 | C |
| ATOM | 4875 | CD | GLU | A | 778 | -8.240 | -0.973 | 59.893 | 1.00 | 40.22 | C |
| ATOM | 4876 | OE1 | GLU | A | 778 | -8.688 | -0.839 | 61.053 | 1.00 | 47.50 | O |
| ATOM | 4877 | OE2 | GLU | A | 778 | -7.818 | -0.018 | 59.204 | 1.00 | 40.60 | O |
| ATOM | 4878 | N | PHE | A | 779 | -5.735 | -4.545 | 58.336 | 1.00 | 17.19 | N |
| ATOM | 4879 | CA | PHE | A | 779 | -5.389 | -5.948 | 58.515 | 1.00 | 16.85 | C |
| ATOM | 4880 | C | PHE | A | 779 | -5.621 | -6.373 | 59.950 | 1.00 | 15.85 | C |
| ATOM | 4881 | O | PHE | A | 779 | -5.453 | -5.589 | 60.885 | 1.00 | 17.92 | O |
| ATOM | 4882 | CB | PHE | A | 779 | -3.910 | -6.189 | 58.147 | 1.00 | 14.87 | C |
| ATOM | 4883 | CG | PHE | A | 779 | -3.646 | -6.234 | 56.664 | 1.00 | 9.05 | C |
| ATOM | 4884 | CD1 | PHE | A | 779 | -3.464 | -5.062 | 55.938 | 1.00 | 12.45 | C |
| ATOM | 4885 | CD2 | PHE | A | 779 | -3.579 | -7.448 | 55.992 | 1.00 | 8.76 | C |
| ATOM | 4886 | CE1 | PHE | A | 779 | -3.216 | -5.097 | 54.564 | 1.00 | 12.64 | C |
| ATOM | 4887 | CE2 | PHE | A | 779 | -3.334 | -7.490 | 54.618 | 1.00 | 11.71 | C |
| ATOM | 4888 | CZ | PHE | A | 779 | -3.152 | -6.313 | 53.903 | 1.00 | 11.57 | C |
| ATOM | 4889 | N | LEU | A | 780 | -6.036 | -7.620 | 60.111 | 1.00 | 16.09 | N |
| ATOM | 4890 | CA | LEU | A | 780 | -6.265 | -8.199 | 61.425 | 1.00 | 20.21 | C |
| ATOM | 4891 | C | LEU | A | 780 | -5.148 | -9.244 | 61.505 | 1.00 | 21.69 | C |
| ATOM | 4892 | O | LEU | A | 780 | -5.056 | -10.147 | 60.664 | 1.00 | 18.96 | O |
| ATOM | 4893 | CB | LEU | A | 780 | -7.658 | -8.849 | 61.481 | 1.00 | 23.51 | C |
| ATOM | 4894 | CG | LEU | A | 780 | -8.168 | -9.707 | 62.651 | 1.00 | 27.07 | C |
| ATOM | 4895 | CD1 | LEU | A | 780 | -7.083 | -10.024 | 63.654 | 1.00 | 29.35 | C |
| ATOM | 4896 | CD2 | LEU | A | 780 | -9.303 | -8.967 | 63.314 | 1.00 | 28.98 | C |
| ATOM | 4897 | N | THR | A | 781 | -4.286 | -9.097 | 62.502 | 1.00 | 22.47 | N |
| ATOM | 4898 | CA | THR | A | 781 | -3.153 | -9.993 | 62.662 | 1.00 | 17.25 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4899 | C | THR | A | 781 | -3.274 | -10.813 | 63.931 | 1.00 | 15.22 | C |
| ATOM | 4900 | O | THR | A | 781 | -3.603 | -10.286 | 64.995 | 1.00 | 19.48 | O |
| ATOM | 4901 | CB | THR | A | 781 | -1.847 | -9.170 | 62.700 | 1.00 | 20.52 | C |
| ATOM | 4902 | OG1 | THR | A | 781 | -1.732 | -8.410 | 61.489 | 1.00 | 17.85 | O |
| ATOM | 4903 | CG2 | THR | A | 781 | -0.641 | -10.076 | 62.855 | 1.00 | 20.74 | C |
| ATOM | 4904 | N | ILE | A | 782 | -3.016 | -12.109 | 63.806 | 1.00 | 13.99 | N |
| ATOM | 4905 | CA | ILE | A | 782 | -3.072 | -13.027 | 64.935 | 1.00 | 15.40 | C |
| ATOM | 4906 | C | ILE | A | 782 | -1.762 | -13.811 | 64.925 | 1.00 | 17.17 | C |
| ATOM | 4907 | O | ILE | A | 782 | -1.341 | -14.302 | 63.883 | 1.00 | 17.06 | O |
| ATOM | 4908 | CB | ILE | A | 782 | -4.215 | -14.055 | 64.780 | 1.00 | 15.13 | C |
| ATOM | 4909 | CG1 | ILE | A | 782 | -5.554 | -13.338 | 64.569 | 1.00 | 18.57 | C |
| ATOM | 4910 | CG2 | ILE | A | 782 | -4.255 | -14.960 | 65.997 | 1.00 | 15.13 | C |
| ATOM | 4911 | CD1 | ILE | A | 782 | -6.620 | -14.216 | 63.937 | 1.00 | 14.88 | C |
| ATOM | 4912 | N | SER | A | 783 | -1.113 | -13.939 | 66.071 | 1.00 | 20.04 | N |
| ATOM | 4913 | CA | SER | A | 783 | 0.135 | -14.693 | 66.096 | 1.00 | 22.27 | C |
| ATOM | 4914 | C | SER | A | 783 | 0.421 | -15.296 | 67.455 | 1.00 | 20.98 | C |
| ATOM | 4915 | O | SER | A | 783 | -0.127 | -14.865 | 68.470 | 1.00 | 21.31 | O |
| ATOM | 4916 | CB | SER | A | 783 | 1.310 | -13.811 | 65.662 | 1.00 | 23.19 | C |
| ATOM | 4917 | OG | SER | A | 783 | 1.364 | -12.623 | 66.423 | 1.00 | 22.95 | O |
| ATOM | 4918 | N | GLN | A | 784 | 1.281 | -16.310 | 67.456 | 1.00 | 21.64 | N |
| ATOM | 4919 | CA | GLN | A | 784 | 1.666 | -17.002 | 68.677 | 1.00 | 18.97 | C |
| ATOM | 4920 | C | GLN | A | 784 | 3.190 | -16.957 | 68.832 | 1.00 | 20.23 | C |
| ATOM | 4921 | O | GLN | A | 784 | 3.927 | -17.450 | 67.977 | 1.00 | 16.44 | O |
| ATOM | 4922 | CB | GLN | A | 784 | 1.193 | -18.456 | 68.626 | 1.00 | 15.93 | C |
| ATOM | 4923 | CG | GLN | A | 784 | 1.469 | -19.241 | 69.888 | 1.00 | 16.44 | C |
| ATOM | 4924 | CD | GLN | A | 784 | 0.970 | -20.655 | 69.790 | 1.00 | 20.23 | C |
| ATOM | 4925 | OE1 | GLN | A | 784 | 0.046 | -20.940 | 69.039 | 1.00 | 24.36 | O |
| ATOM | 4926 | NE2 | GLN | A | 784 | 1.577 | -21.553 | 70.549 | 1.00 | 23.74 | N |
| ATOM | 4927 | N | ALA | A | 785 | 3.654 | -16.359 | 69.921 | 1.00 | 20.74 | N |
| ATOM | 4928 | CA | ALA | A | 785 | 5.085 | -16.261 | 70.160 | 1.00 | 22.52 | C |
| ATOM | 4929 | C | ALA | A | 785 | 5.613 | -17.583 | 70.682 | 1.00 | 23.63 | C |
| ATOM | 4930 | O | ALA | A | 785 | 4.914 | -18.311 | 71.395 | 1.00 | 20.30 | O |
| ATOM | 4931 | CB | ALA | A | 785 | 5.381 | -15.149 | 71.158 | 1.00 | 22.18 | C |
| ATOM | 4932 | N | HIS | A | 786 | 6.853 | -17.888 | 70.310 | 1.00 | 25.35 | N |
| ATOM | 4933 | CA | HIS | A | 786 | 7.517 | -19.112 | 70.732 | 1.00 | 24.43 | C |
| ATOM | 4934 | C | HIS | A | 786 | 8.769 | -18.682 | 71.477 | 1.00 | 26.87 | C |
| ATOM | 4935 | O | HIS | A | 786 | 9.821 | -18.477 | 70.877 | 1.00 | 25.92 | O |
| ATOM | 4936 | CB | HIS | A | 786 | 7.881 | -19.942 | 69.511 | 1.00 | 21.42 | C |
| ATOM | 4937 | CG | HIS | A | 786 | 6.734 | -20.169 | 68.583 | 1.00 | 22.16 | C |
| ATOM | 4938 | ND1 | HIS | A | 786 | 5.631 | -20.917 | 68.936 | 1.00 | 26.68 | N |
| ATOM | 4939 | CD2 | HIS | A | 786 | 6.511 | -19.742 | 67.318 | 1.00 | 23.68 | C |
| ATOM | 4940 | CE1 | HIS | A | 786 | 4.779 | -20.941 | 67.928 | 1.00 | 25.36 | C |
| ATOM | 4941 | NE2 | HIS | A | 786 | 5.289 | -20.236 | 66.933 | 1.00 | 26.32 | N |
| ATOM | 4942 | N | LYS | A | 787 | 8.647 | -18.547 | 72.790 | 1.00 | 27.26 | N |
| ATOM | 4943 | CA | LYS | A | 787 | 9.753 | -18.092 | 73.611 | 1.00 | 28.29 | C |
| ATOM | 4944 | C | LYS | A | 787 | 10.709 | -19.168 | 74.132 | 1.00 | 30.18 | C |
| ATOM | 4945 | O | LYS | A | 787 | 11.697 | -18.852 | 74.796 | 1.00 | 32.91 | O |
| ATOM | 4946 | CB | LYS | A | 787 | 9.198 | -17.273 | 74.779 | 1.00 | 28.78 | C |
| ATOM | 4947 | CG | LYS | A | 787 | 8.647 | -15.911 | 74.363 | 1.00 | 30.77 | C |
| ATOM | 4948 | CD | LYS | A | 787 | 7.789 | -15.298 | 75.463 | 1.00 | 40.69 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4949 | CE | LYS | A | 787 | 7.820 | -13.760 | 75.447 | 1.00 | 44.69 | C |
| ATOM | 4950 | NZ | LYS | A | 787 | 8.071 | -13.161 | 74.095 | 1.00 | 45.70 | N |
| ATOM | 4951 | N | GLN | A | 788 | 10.443 | -20.433 | 73.834 | 1.00 | 28.39 | N |
| ATOM | 4952 | CA | GLN | A | 788 | 11.322 | -21.487 | 74.321 | 1.00 | 29.88 | C |
| ATOM | 4953 | C | GLN | A | 788 | 11.609 | -22.534 | 73.266 | 1.00 | 28.56 | C |
| ATOM | 4954 | O | GLN | A | 788 | 10.867 | -22.668 | 72.300 | 1.00 | 29.49 | O |
| ATOM | 4955 | CB | GLN | A | 788 | 10.709 | -22.172 | 75.539 | 1.00 | 35.93 | C |
| ATOM | 4956 | CG | GLN | A | 788 | 10.700 | -21.342 | 76.800 | 1.00 | 43.42 | C |
| ATOM | 4957 | CD | GLN | A | 788 | 9.832 | -21.969 | 77.875 | 1.00 | 54.09 | C |
| ATOM | 4958 | OE1 | GLN | A | 788 | 8.907 | -22.732 | 77.577 | 1.00 | 58.30 | O |
| ATOM | 4959 | NE2 | GLN | A | 788 | 10.125 | -21.654 | 79.133 | 1.00 | 58.78 | N |
| ATOM | 4960 | N | ASN | A | 789 | 12.694 | -23.276 | 73.457 | 1.00 | 24.71 | N |
| ATOM | 4961 | CA | ASN | A | 789 | 13.062 | -24.324 | 72.522 | 1.00 | 23.55 | C |
| ATOM | 4962 | C | ASN | A | 789 | 12.137 | -25.497 | 72.784 | 1.00 | 19.52 | C |
| ATOM | 4963 | O | ASN | A | 789 | 11.829 | -25.794 | 73.935 | 1.00 | 19.86 | O |
| ATOM | 4964 | CB | ASN | A | 789 | 14.516 | -24.765 | 72.734 | 1.00 | 23.96 | C |
| ATOM | 4965 | CG | ASN | A | 789 | 15.521 | -23.774 | 72.175 | 1.00 | 26.89 | C |
| ATOM | 4966 | OD1 | ASN | A | 789 | 15.278 | -23.110 | 71.163 | 1.00 | 27.15 | O |
| ATOM | 4967 | ND2 | ASN | A | 789 | 16.665 | -23.670 | 72.837 | 1.00 | 28.79 | N |
| ATOM | 4968 | N | GLY | A | 790 | 11.708 | -26.161 | 71.715 | 1.00 | 19.65 | N |
| ATOM | 4969 | CA | GLY | A | 790 | 10.813 | -27.294 | 71.850 | 1.00 | 22.04 | C |
| ATOM | 4970 | C | GLY | A | 790 | 9.375 | -26.827 | 71.946 | 1.00 | 22.56 | C |
| ATOM | 4971 | O | GLY | A | 790 | 8.513 | -27.541 | 72.447 | 1.00 | 25.11 | O |
| ATOM | 4972 | N | ASP | A | 791 | 9.123 | -25.615 | 71.466 | 1.00 | 21.78 | N |
| ATOM | 4973 | CA | ASP | A | 791 | 7.791 | -25.030 | 71.493 | 1.00 | 21.60 | C |
| ATOM | 4974 | C | ASP | A | 791 | 6.954 | -25.627 | 70.371 | 1.00 | 20.85 | C |
| ATOM | 4975 | O | ASP | A | 791 | 7.468 | -26.342 | 69.520 | 1.00 | 17.54 | O |
| ATOM | 4976 | CB | ASP | A | 791 | 7.877 | -23.506 | 71.334 | 1.00 | 19.39 | C |
| ATOM | 4977 | CG | ASP | A | 791 | 7.779 | -22.771 | 72.665 | 1.00 | 21.44 | C |
| ATOM | 4978 | OD1 | ASP | A | 791 | 7.643 | -23.440 | 73.714 | 1.00 | 26.80 | O |
| ATOM | 4979 | OD2 | ASP | A | 791 | 7.838 | -21.524 | 72.664 | 1.00 | 23.58 | O |
| ATOM | 4980 | N | SER | A | 792 | 5.660 | -25.334 | 70.374 | 1.00 | 23.35 | N |
| ATOM | 4981 | CA | SER | A | 792 | 4.778 | -25.862 | 69.348 | 1.00 | 20.09 | C |
| ATOM | 4982 | C | SER | A | 792 | 3.489 | -25.060 | 69.248 | 1.00 | 19.73 | C |
| ATOM | 4983 | O | SER | A | 792 | 3.228 | -24.169 | 70.057 | 1.00 | 16.93 | O |
| ATOM | 4984 | CB | SER | A | 792 | 4.435 | -27.311 | 69.673 | 1.00 | 19.62 | C |
| ATOM | 4985 | OG | SER | A | 792 | 3.887 | -27.399 | 70.975 | 1.00 | 16.96 | O |
| ATOM | 4986 | N | TYR | A | 793 | 2.704 | -25.381 | 68.228 | 1.00 | 19.67 | N |
| ATOM | 4987 | CA | TYR | A | 793 | 1.415 | -24.744 | 68.016 | 1.00 | 19.50 | C |
| ATOM | 4988 | C | TYR | A | 793 | 0.502 | -25.763 | 67.379 | 1.00 | 20.29 | C |
| ATOM | 4989 | O | TYR | A | 793 | 0.953 | -26.689 | 66.707 | 1.00 | 20.16 | O |
| ATOM | 4990 | CB | TYR | A | 793 | 1.527 | -23.499 | 67.123 | 1.00 | 16.30 | C |
| ATOM | 4991 | CG | TYR | A | 793 | 1.933 | -23.755 | 65.687 | 1.00 | 20.53 | C |
| ATOM | 4992 | CD1 | TYR | A | 793 | 1.043 | -24.330 | 64.776 | 1.00 | 17.89 | C |
| ATOM | 4993 | CD2 | TYR | A | 793 | 3.215 | -23.421 | 65.235 | 1.00 | 17.59 | C |
| ATOM | 4994 | CE1 | TYR | A | 793 | 1.419 | -24.568 | 63.457 | 1.00 | 19.95 | C |
| ATOM | 4995 | CE2 | TYR | A | 793 | 3.600 | -23.656 | 63.918 | 1.00 | 15.41 | C |
| ATOM | 4996 | CZ | TYR | A | 793 | 2.703 | -24.229 | 63.035 | 1.00 | 20.33 | C |
| ATOM | 4997 | OH | TYR | A | 793 | 3.088 | -24.470 | 61.735 | 1.00 | 16.23 | O |
| ATOM | 4998 | N | GLY | A | 794 | -0.791 | -25.589 | 67.607 | 1.00 | 20.27 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4999 | CA | GLY | A | 794 | -1.759 | -26.505 | 67.049 | 1.00 | 18.07 | C |
| ATOM | 5000 | C | GLY | A | 794 | -3.131 | -25.879 | 67.055 | 1.00 | 13.04 | C |
| ATOM | 5001 | O | GLY | A | 794 | -3.671 | -25.532 | 68.100 | 1.00 | 11.99 | O |
| ATOM | 5002 | N | TYR | A | 795 | -3.686 | -25.696 | 65.873 | 1.00 | 15.42 | N |
| ATOM | 5003 | CA | TYR | A | 795 | -5.008 | -25.135 | 65.785 | 1.00 | 16.94 | C |
| ATOM | 5004 | C | TYR | A | 795 | -5.673 | -25.600 | 64.521 | 1.00 | 16.65 | C |
| ATOM | 5005 | O | TYR | A | 795 | -5.009 | -25.988 | 63.560 | 1.00 | 13.36 | O |
| ATOM | 5006 | CB | TYR | A | 795 | -4.958 | -23.612 | 65.830 | 1.00 | 16.03 | C |
| ATOM | 5007 | CG | TYR | A | 795 | -4.041 | -22.984 | 64.820 | 1.00 | 19.96 | C |
| ATOM | 5008 | CD1 | TYR | A | 795 | -4.491 | -22.679 | 63.538 | 1.00 | 21.76 | C |
| ATOM | 5009 | CD2 | TYR | A | 795 | -2.725 | -22.675 | 65.150 | 1.00 | 22.35 | C |
| ATOM | 5010 | CE1 | TYR | A | 795 | -3.657 | -22.083 | 62.610 | 1.00 | 23.18 | C |
| ATOM | 5011 | CE2 | TYR | A | 795 | -1.876 | -22.075 | 64.228 | 1.00 | 23.27 | C |
| ATOM | 5012 | CZ | TYR | A | 795 | -2.347 | -21.784 | 62.963 | 1.00 | 26.33 | C |
| ATOM | 5013 | OH | TYR | A | 795 | -1.505 | -21.204 | 62.050 | 1.00 | 24.06 | O |
| ATOM | 5014 | N | MET | A | 796 | -7.001 | -25.579 | 64.542 | 1.00 | 19.66 | N |
| ATOM | 5015 | CA | MET | A | 796 | -7.799 | -25.984 | 63.397 | 1.00 | 17.36 | C |
| ATOM | 5016 | C | MET | A | 796 | -8.425 | -24.736 | 62.793 | 1.00 | 16.53 | C |
| ATOM | 5017 | O | MET | A | 796 | -8.991 | -23.911 | 63.510 | 1.00 | 16.74 | O |
| ATOM | 5018 | CB | MET | A | 796 | -8.885 | -26.963 | 63.844 | 1.00 | 17.33 | C |
| ATOM | 5019 | CG | MET | A | 796 | -9.740 | -27.488 | 62.715 | 1.00 | 16.30 | C |
| ATOM | 5020 | SD | MET | A | 796 | -9.031 | -28.913 | 61.893 | 1.00 | 20.60 | S |
| ATOM | 5021 | CE | MET | A | 796 | -9.369 | -30.196 | 63.094 | 1.00 | 10.95 | C |
| ATOM | 5022 | N | LEU | A | 797 | -8.288 | -24.576 | 61.482 | 1.00 | 13.96 | N |
| ATOM | 5023 | CA | LEU | A | 797 | -8.877 | -23.430 | 60.812 | 1.00 | 15.85 | C |
| ATOM | 5024 | C | LEU | A | 797 | -10.229 | -23.879 | 60.258 | 1.00 | 16.16 | C |
| ATOM | 5025 | O | LEU | A | 797 | -10.289 | -24.786 | 59.434 | 1.00 | 16.97 | O |
| ATOM | 5026 | CB | LEU | A | 797 | -7.979 | -22.959 | 59.668 | 1.00 | 14.01 | C |
| ATOM | 5027 | CG | LEU | A | 797 | -8.501 | -21.803 | 58.810 | 1.00 | 21.69 | C |
| ATOM | 5028 | CD1 | LEU | A | 797 | -8.571 | -20.543 | 59.628 | 1.00 | 19.45 | C |
| ATOM | 5029 | CD2 | LEU | A | 797 | -7.583 | -21.596 | 57.616 | 1.00 | 25.56 | C |
| ATOM | 5030 | N | ILE | A | 798 | -11.311 | -23.256 | 60.717 | 1.00 | 16.54 | N |
| ATOM | 5031 | CA | ILE | A | 798 | -12.648 | -23.616 | 60.243 | 1.00 | 12.94 | C |
| ATOM | 5032 | C | ILE | A | 798 | -13.344 | -22.417 | 59.603 | 1.00 | 10.11 | C |
| ATOM | 5033 | O | ILE | A | 798 | -13.791 | -21.507 | 60.297 | 1.00 | 16.79 | O |
| ATOM | 5034 | CB | ILE | A | 798 | -13.525 | -24.130 | 61.401 | 1.00 | 14.38 | C |
| ATOM | 5035 | CG1 | ILE | A | 798 | -12.879 | -25.354 | 62.042 | 1.00 | 10.67 | C |
| ATOM | 5036 | CG2 | ILE | A | 798 | -14.912 | -24.512 | 60.888 | 1.00 | 14.61 | C |
| ATOM | 5037 | CD1 | ILE | A | 798 | -13.244 | -25.533 | 63.500 | 1.00 | 10.33 | C |
| ATOM | 5038 | N | PRO | A | 799 | -13.419 | -22.380 | 58.269 | 1.00 | 11.97 | N |
| ATOM | 5039 | CA | PRO | A | 799 | -14.077 | -21.260 | 57.594 | 1.00 | 17.02 | C |
| ATOM | 5040 | C | PRO | A | 799 | -15.533 | -21.561 | 57.167 | 1.00 | 17.84 | C |
| ATOM | 5041 | O | PRO | A | 799 | -15.991 | -22.704 | 57.209 | 1.00 | 14.65 | O |
| ATOM | 5042 | CB | PRO | A | 799 | -13.198 | -21.044 | 56.373 | 1.00 | 14.70 | C |
| ATOM | 5043 | CG | PRO | A | 799 | -12.725 | -22.458 | 56.027 | 1.00 | 13.27 | C |
| ATOM | 5044 | CD | PRO | A | 799 | -12.858 | -23.321 | 57.286 | 1.00 | 14.94 | C |
| ATOM | 5045 | N | ASN | A | 800 | -16.232 | -20.510 | 56.748 | 1.00 | 18.52 | N |
| ATOM | 5046 | CA | ASN | A | 800 | -17.604 | -20.579 | 56.243 | 1.00 | 18.74 | C |
| ATOM | 5047 | C | ASN | A | 800 | -18.711 | -21.266 | 57.056 | 1.00 | 17.49 | C |
| ATOM | 5048 | O | ASN | A | 800 | -19.565 | -21.949 | 56.490 | 1.00 | 22.76 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5049 | CB | ASN | A | 800 | -17.572 | -21.158 | 54.825 | 1.00 | 15.11 | C |
| ATOM | 5050 | CG | ASN | A | 800 | -16.741 | -20.314 | 53.873 | 1.00 | 17.36 | C |
| ATOM | 5051 | OD1 | ASN | A | 800 | -16.038 | -19.393 | 54.290 | 1.00 | 19.38 | O |
| ATOM | 5052 | ND2 | ASN | A | 800 | -16.822 | -20.620 | 52.588 | 1.00 | 14.08 | N |
| ATOM | 5053 | N | VAL | A | 801 | -18.698 | -21.088 | 58.375 | 1.00 | 16.05 | N |
| ATOM | 5054 | CA | VAL | A | 801 | -19.743 | -21.630 | 59.238 | 1.00 | 18.93 | C |
| ATOM | 5055 | C | VAL | A | 801 | -20.091 | -20.484 | 60.167 | 1.00 | 20.42 | C |
| ATOM | 5056 | O | VAL | A | 801 | -19.237 | -19.642 | 60.445 | 1.00 | 18.27 | O |
| ATOM | 5057 | CB | VAL | A | 801 | -19.274 | -22.837 | 60.086 | 1.00 | 20.06 | C |
| ATOM | 5058 | CG1 | VAL | A | 801 | -18.796 | -23.948 | 59.185 | 1.00 | 22.64 | C |
| ATOM | 5059 | CG2 | VAL | A | 801 | -18.196 | -22.417 | 61.053 | 1.00 | 18.40 | C |
| ATOM | 5060 | N | ASP | A | 802 | -21.332 | -20.418 | 60.638 | 1.00 | 20.32 | N |
| ATOM | 5061 | CA | ASP | A | 802 | -21.689 | -19.325 | 61.535 | 1.00 | 20.67 | C |
| ATOM | 5062 | C | ASP | A | 802 | -21.179 | -19.602 | 62.939 | 1.00 | 19.31 | C |
| ATOM | 5063 | O | ASP | A | 802 | -20.735 | -20.711 | 63.240 | 1.00 | 18.86 | O |
| ATOM | 5064 | CB | ASP | A | 802 | -23.208 | -19.072 | 61.539 | 1.00 | 25.44 | C |
| ATOM | 5065 | CG | ASP | A | 802 | -24.006 | -20.235 | 62.086 | 1.00 | 24.20 | C |
| ATOM | 5066 | OD1 | ASP | A | 802 | -23.628 | -20.820 | 63.120 | 1.00 | 25.94 | O |
| ATOM | 5067 | OD2 | ASP | A | 802 | -25.035 | -20.563 | 61.471 | 1.00 | 36.20 | O |
| ATOM | 5068 | N | ARG | A | 803 | -21.237 | -18.587 | 63.793 | 1.00 | 17.20 | N |
| ATOM | 5069 | CA | ARG | A | 803 | -20.758 | -18.706 | 65.159 | 1.00 | 18.46 | C |
| ATOM | 5070 | C | ARG | A | 803 | -21.264 | -19.915 | 65.938 | 1.00 | 24.99 | C |
| ATOM | 5071 | O | ARG | A | 803 | -20.471 | -20.664 | 66.520 | 1.00 | 22.09 | O |
| ATOM | 5072 | CB | ARG | A | 803 | -21.105 | -17.444 | 65.923 | 1.00 | 20.21 | C |
| ATOM | 5073 | CG | ARG | A | 803 | -20.550 | -17.411 | 67.317 | 1.00 | 24.89 | C |
| ATOM | 5074 | CD | ARG | A | 803 | -20.805 | -16.054 | 67.929 | 1.00 | 29.90 | C |
| ATOM | 5075 | NE | ARG | A | 803 | -20.934 | -16.129 | 69.379 | 1.00 | 38.44 | N |
| ATOM | 5076 | CZ | ARG | A | 803 | -21.529 | -15.201 | 70.118 | 1.00 | 39.50 | C |
| ATOM | 5077 | NH1 | ARG | A | 803 | -22.049 | -14.131 | 69.531 | 1.00 | 44.66 | N |
| ATOM | 5078 | NH2 | ARG | A | 803 | -21.592 | -15.334 | 71.439 | 1.00 | 44.03 | N |
| ATOM | 5079 | N | ALA | A | 804 | -22.586 | -20.093 | 65.966 | 1.00 | 27.18 | N |
| ATOM | 5080 | CA | ALA | A | 804 | -23.206 | -21.204 | 66.684 | 1.00 | 22.96 | C |
| ATOM | 5081 | C | ALA | A | 804 | -22.712 | -22.548 | 66.164 | 1.00 | 20.85 | C |
| ATOM | 5082 | O | ALA | A | 804 | -22.478 | -23.478 | 66.937 | 1.00 | 22.24 | O |
| ATOM | 5083 | CB | ALA | A | 804 | -24.732 | -21.125 | 66.563 | 1.00 | 26.99 | C |
| ATOM | 5084 | N | THR | A | 805 | -22.555 | -22.657 | 64.853 | 1.00 | 19.36 | N |
| ATOM | 5085 | CA | THR | A | 805 | -22.078 | -23.904 | 64.275 | 1.00 | 21.15 | C |
| ATOM | 5086 | C | THR | A | 805 | -20.597 | -24.100 | 64.627 | 1.00 | 23.71 | C |
| ATOM | 5087 | O | THR | A | 805 | -20.170 | -25.210 | 64.942 | 1.00 | 22.70 | O |
| ATOM | 5088 | CB | THR | A | 805 | -22.279 | -23.902 | 62.750 | 1.00 | 22.75 | C |
| ATOM | 5089 | OG1 | THR | A | 805 | -23.621 | -23.488 | 62.455 | 1.00 | 27.14 | O |
| ATOM | 5090 | CG2 | THR | A | 805 | -22.050 | -25.288 | 62.173 | 1.00 | 20.24 | C |
| ATOM | 5091 | N | PHE | A | 806 | -19.825 | -23.015 | 64.594 | 1.00 | 25.70 | N |
| ATOM | 5092 | CA | PHE | A | 806 | -18.396 | -23.076 | 64.934 | 1.00 | 23.75 | C |
| ATOM | 5093 | C | PHE | A | 806 | -18.239 | -23.570 | 66.364 | 1.00 | 25.04 | C |
| ATOM | 5094 | O | PHE | A | 806 | -17.517 | -24.531 | 66.623 | 1.00 | 25.12 | O |
| ATOM | 5095 | CB | PHE | A | 806 | -17.743 | -21.691 | 64.813 | 1.00 | 21.49 | C |
| ATOM | 5096 | CG | PHE | A | 806 | -16.335 | -21.626 | 65.373 | 1.00 | 20.72 | C |
| ATOM | 5097 | CD1 | PHE | A | 806 | -15.280 | -22.271 | 64.727 | 1.00 | 23.86 | C |
| ATOM | 5098 | CD2 | PHE | A | 806 | -16.067 | -20.922 | 66.537 | 1.00 | 14.35 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5099 | CE1 | PHE | A | 806 | -13.979 | -22.216 | 65.236 | 1.00 | 16.84 | C |
| ATOM | 5100 | CE2 | PHE | A | 806 | -14.773 | -20.858 | 67.055 | 1.00 | 18.50 | C |
| ATOM | 5101 | CZ | PHE | A | 806 | -13.728 | -21.508 | 66.400 | 1.00 | 18.29 | C |
| ATOM | 5102 | N | ASN | A | 807 | -18.928 | -22.913 | 67.290 | 1.00 | 24.82 | N |
| ATOM | 5103 | CA | ASN | A | 807 | -18.848 | -23.281 | 68.695 | 1.00 | 26.72 | C |
| ATOM | 5104 | C | ASN | A | 807 | -19.203 | -24.741 | 68.928 | 1.00 | 26.99 | C |
| ATOM | 5105 | O | ASN | A | 807 | -18.687 | -25.374 | 69.848 | 1.00 | 26.27 | O |
| ATOM | 5106 | CB | ASN | A | 807 | -19.761 | -22.385 | 69.523 | 1.00 | 27.81 | C |
| ATOM | 5107 | CG | ASN | A | 807 | -19.181 | -21.008 | 69.729 | 1.00 | 32.27 | C |
| ATOM | 5108 | OD1 | ASN | A | 807 | -17.974 | -20.851 | 69.920 | 1.00 | 26.16 | O |
| ATOM | 5109 | ND2 | ASN | A | 807 | -20.037 | -19.995 | 69.690 | 1.00 | 32.97 | N |
| ATOM | 5110 | N | GLN | A | 808 | -20.080 | -25.276 | 68.088 | 1.00 | 28.04 | N |
| ATOM | 5111 | CA | GLN | A | 808 | -20.488 | -26.661 | 68.220 | 1.00 | 30.61 | C |
| ATOM | 5112 | C | GLN | A | 808 | -19.421 | -27.577 | 67.641 | 1.00 | 30.71 | C |
| ATOM | 5113 | O | GLN | A | 808 | -19.076 | -28.598 | 68.230 | 1.00 | 31.40 | O |
| ATOM | 5114 | CB | GLN | A | 808 | -21.812 | -26.894 | 67.492 | 1.00 | 35.72 | C |
| ATOM | 5115 | CG | GLN | A | 808 | -22.518 | -28.181 | 67.885 | 1.00 | 40.31 | C |
| ATOM | 5116 | CD | GLN | A | 808 | -24.028 | -28.037 | 67.895 | 1.00 | 47.80 | C |
| ATOM | 5117 | OE1 | GLN | A | 808 | -24.570 | -26.968 | 67.592 | 1.00 | 50.49 | O |
| ATOM | 5118 | NE2 | GLN | A | 808 | -24.718 | -29.116 | 68.244 | 1.00 | 50.89 | N |
| ATOM | 5119 | N | MET | A | 809 | -18.898 | -27.197 | 66.482 | 1.00 | 30.40 | N |
| ATOM | 5120 | CA | MET | A | 809 | -17.875 | -27.979 | 65.796 | 1.00 | 27.40 | C |
| ATOM | 5121 | C | MET | A | 809 | -16.599 | -28.169 | 66.609 | 1.00 | 25.26 | C |
| ATOM | 5122 | O | MET | A | 809 | -15.970 | -29.223 | 66.533 | 1.00 | 24.08 | O |
| ATOM | 5123 | CB | MET | A | 809 | -17.525 | -27.317 | 64.468 | 1.00 | 27.87 | C |
| ATOM | 5124 | CG | MET | A | 809 | -17.467 | -28.269 | 63.294 | 1.00 | 34.81 | C |
| ATOM | 5125 | SD | MET | A | 809 | -17.467 | -27.385 | 61.726 | 1.00 | 36.75 | S |
| ATOM | 5126 | CE | MET | A | 809 | -18.861 | -26.341 | 61.933 | 1.00 | 36.19 | C |
| ATOM | 5127 | N | ILE | A | 810 | -16.213 | -27.158 | 67.381 | 1.00 | 21.86 | N |
| ATOM | 5128 | CA | ILE | A | 810 | -14.994 | -27.267 | 68.166 | 1.00 | 25.62 | C |
| ATOM | 5129 | C | ILE | A | 810 | -15.168 | -28.140 | 69.406 | 1.00 | 29.06 | C |
| ATOM | 5130 | O | ILE | A | 810 | -14.186 | -28.603 | 69.988 | 1.00 | 30.70 | O |
| ATOM | 5131 | CB | ILE | A | 810 | -14.423 | -25.866 | 68.556 | 1.00 | 22.95 | C |
| ATOM | 5132 | CG1 | ILE | A | 810 | -15.305 | -25.175 | 69.589 | 1.00 | 20.53 | C |
| ATOM | 5133 | CG2 | ILE | A | 810 | -14.281 | -25.003 | 67.311 | 1.00 | 23.26 | C |
| ATOM | 5134 | CD1 | ILE | A | 810 | -14.824 | -23.769 | 69.948 | 1.00 | 16.47 | C |
| ATOM | 5135 | N | LYS | A | 811 | -16.411 | -28.386 | 69.804 | 1.00 | 29.62 | N |
| ATOM | 5136 | CA | LYS | A | 811 | -16.650 | -29.241 | 70.956 | 1.00 | 29.17 | C |
| ATOM | 5137 | C | LYS | A | 811 | -16.416 | -30.672 | 70.507 | 1.00 | 28.21 | C |
| ATOM | 5138 | O | LYS | A | 811 | -15.827 | -31.479 | 71.229 | 1.00 | 30.99 | O |
| ATOM | 5139 | CB | LYS | A | 811 | -18.079 | -29.074 | 71.466 | 1.00 | 34.36 | C |
| ATOM | 5140 | CG | LYS | A | 811 | -18.260 | -27.865 | 72.372 | 1.00 | 40.08 | C |
| ATOM | 5141 | CD | LYS | A | 811 | -18.051 | -28.228 | 73.833 | 1.00 | 46.36 | C |
| ATOM | 5142 | CE | LYS | A | 811 | -17.500 | -27.047 | 74.620 | 1.00 | 51.49 | C |
| ATOM | 5143 | NZ | LYS | A | 811 | -16.636 | -26.170 | 73.773 | 1.00 | 52.64 | N |
| ATOM | 5144 | N | GLU | A | 812 | -16.876 | -30.985 | 69.303 | 1.00 | 27.17 | N |
| ATOM | 5145 | CA | GLU | A | 812 | -16.698 | -32.321 | 68.747 | 1.00 | 32.59 | C |
| ATOM | 5146 | C | GLU | A | 812 | -15.208 | -32.563 | 68.487 | 1.00 | 32.60 | C |
| ATOM | 5147 | O | GLU | A | 812 | -14.700 | -33.674 | 68.655 | 1.00 | 28.34 | O |
| ATOM | 5148 | CB | GLU | A | 812 | -17.475 | -32.456 | 67.432 | 1.00 | 33.86 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5149 | CG | GLU | A | 812 | -18.590 | -31.426 | 67.252 | 1.00 | 47.86 | C |
| ATOM | 5150 | CD | GLU | A | 812 | -19.788 | -31.965 | 66.477 | 1.00 | 53.16 | C |
| ATOM | 5151 | OE1 | GLU | A | 812 | -19.800 | -31.840 | 65.229 | 1.00 | 53.39 | O |
| ATOM | 5152 | OE2 | GLU | A | 812 | -20.720 | -32.509 | 67.117 | 1.00 | 58.27 | O |
| ATOM | 5153 | N | LEU | A | 813 | -14.525 | -31.497 | 68.079 | 1.00 | 32.59 | N |
| ATOM | 5154 | CA | LEU | A | 813 | -13.102 | -31.525 | 67.760 | 1.00 | 29.45 | C |
| ATOM | 5155 | C | LEU | A | 813 | -12.224 | -31.530 | 69.006 | 1.00 | 30.79 | C |
| ATOM | 5156 | O | LEU | A | 813 | -11.000 | -31.488 | 68.911 | 1.00 | 27.56 | O |
| ATOM | 5157 | CB | LEU | A | 813 | -12.753 | -30.311 | 66.900 | 1.00 | 22.99 | C |
| ATOM | 5158 | CG | LEU | A | 813 | -12.674 | -30.474 | 65.381 | 1.00 | 23.23 | C |
| ATOM | 5159 | CD1 | LEU | A | 813 | -13.434 | -31.695 | 64.922 | 1.00 | 25.83 | C |
| ATOM | 5160 | CD2 | LEU | A | 813 | -13.221 | -29.221 | 64.727 | 1.00 | 23.26 | C |
| ATOM | 5161 | N | GLU | A | 814 | -12.855 | -31.596 | 70.172 | 1.00 | 36.28 | N |
| ATOM | 5162 | CA | GLU | A | 814 | -12.125 | -31.587 | 71.433 | 1.00 | 39.16 | C |
| ATOM | 5163 | C | GLU | A | 814 | -11.060 | -32.656 | 71.578 | 1.00 | 37.99 | C |
| ATOM | 5164 | O | GLU | A | 814 | -10.219 | -32.568 | 72.465 | 1.00 | 41.69 | O |
| ATOM | 5165 | CB | GLU | A | 814 | -13.084 | -31.709 | 72.615 | 1.00 | 40.62 | C |
| ATOM | 5166 | CG | GLU | A | 814 | -12.555 | -31.024 | 73.850 | 1.00 | 48.34 | C |
| ATOM | 5167 | CD | GLU | A | 814 | -11.761 | -29.777 | 73.500 | 1.00 | 54.89 | C |
| ATOM | 5168 | OE1 | GLU | A | 814 | -12.357 | -28.839 | 72.925 | 1.00 | 57.47 | O |
| ATOM | 5169 | OE2 | GLU | A | 814 | -10.545 | -29.736 | 73.787 | 1.00 | 57.65 | O |
| ATOM | 5170 | N | SER | A | 815 | -11.088 | -33.667 | 70.724 | 1.00 | 33.98 | N |
| ATOM | 5171 | CA | SER | A | 815 | -10.104 | -34.725 | 70.828 | 1.00 | 31.64 | C |
| ATOM | 5172 | C | SER | A | 815 | -9.541 | -35.136 | 69.477 | 1.00 | 27.62 | C |
| ATOM | 5173 | O | SER | A | 815 | -9.111 | -36.274 | 69.299 | 1.00 | 27.20 | O |
| ATOM | 5174 | CB | SER | A | 815 | -10.734 | -35.934 | 71.516 | 1.00 | 36.76 | C |
| ATOM | 5175 | OG | SER | A | 815 | -12.090 | -36.068 | 71.132 | 1.00 | 42.21 | O |
| ATOM | 5176 | N | SER | A | 816 | -9.542 | -34.211 | 68.525 | 1.00 | 25.23 | N |
| ATOM | 5177 | CA | SER | A | 816 | -9.031 | -34.497 | 67.192 | 1.00 | 23.62 | C |
| ATOM | 5178 | C | SER | A | 816 | -7.498 | -34.567 | 67.152 | 1.00 | 22.24 | C |
| ATOM | 5179 | O | SER | A | 816 | -6.936 | -35.258 | 66.307 | 1.00 | 19.56 | O |
| ATOM | 5180 | CB | SER | A | 816 | -9.520 | -33.441 | 66.207 | 1.00 | 22.07 | C |
| ATOM | 5181 | OG | SER | A | 816 | -9.258 | -32.140 | 66.703 | 1.00 | 27.87 | O |
| ATOM | 5182 | N | LEU | A | 817 | -6.823 | -33.858 | 68.053 | 1.00 | 20.48 | N |
| ATOM | 5183 | CA | LEU | A | 817 | -5.359 | -33.883 | 68.077 | 1.00 | 21.89 | C |
| ATOM | 5184 | C | LEU | A | 817 | -4.877 | -35.213 | 68.616 | 1.00 | 20.14 | C |
| ATOM | 5185 | O | LEU | A | 817 | -5.046 | -35.500 | 69.798 | 1.00 | 21.62 | O |
| ATOM | 5186 | CB | LEU | A | 817 | -4.806 | -32.764 | 68.963 | 1.00 | 22.44 | C |
| ATOM | 5187 | CG | LEU | A | 817 | -3.310 | -32.412 | 68.857 | 1.00 | 22.66 | C |
| ATOM | 5188 | CD1 | LEU | A | 817 | -2.517 | -33.356 | 69.716 | 1.00 | 27.24 | C |
| ATOM | 5189 | CD2 | LEU | A | 817 | -2.834 | -32.493 | 67.420 | 1.00 | 19.44 | C |
| ATOM | 5190 | N | ILE | A | 818 | -4.283 | -36.030 | 67.756 | 1.00 | 19.99 | N |
| ATOM | 5191 | CA | ILE | A | 818 | -3.780 | -37.323 | 68.199 | 1.00 | 23.03 | C |
| ATOM | 5192 | C | ILE | A | 818 | -2.385 | -37.161 | 68.800 | 1.00 | 24.83 | C |
| ATOM | 5193 | O | ILE | A | 818 | -2.056 | -37.780 | 69.809 | 1.00 | 26.14 | O |
| ATOM | 5194 | CB | ILE | A | 818 | -3.702 | -38.333 | 67.037 | 1.00 | 24.76 | C |
| ATOM | 5195 | CG1 | ILE | A | 818 | -5.091 | -38.530 | 66.420 | 1.00 | 27.41 | C |
| ATOM | 5196 | CG2 | ILE | A | 818 | -3.166 | -39.667 | 67.544 | 1.00 | 21.70 | C |
| ATOM | 5197 | CD1 | ILE | A | 818 | -6.103 | -39.169 | 67.358 | 1.00 | 19.80 | C |
| ATOM | 5198 | N | GLU | A | 819 | -1.568 | -36.314 | 68.182 | 1.00 | 25.69 | N |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5199 | CA | GLU | A | 819 | -0.211 | -36.088 | 68.659 | 1.00 | 24.44 | C |
| ATOM | 5200 | C | GLU | A | 819 | 0.453 | -34.929 | 67.935 | 1.00 | 21.64 | C |
| ATOM | 5201 | O | GLU | A | 819 | 0.098 | -34.590 | 66.807 | 1.00 | 19.88 | O |
| ATOM | 5202 | CB | GLU | A | 819 | 0.633 | -37.352 | 68.461 | 1.00 | 24.87 | C |
| ATOM | 5203 | CG | GLU | A | 819 | 2.017 | -37.268 | 69.074 | 1.00 | 33.16 | C |
| ATOM | 5204 | CD | GLU | A | 819 | 1.981 | -36.892 | 70.546 | 1.00 | 38.89 | C |
| ATOM | 5205 | OE1 | GLU | A | 819 | 1.762 | -37.795 | 71.384 | 1.00 | 38.93 | O |
| ATOM | 5206 | OE2 | GLU | A | 819 | 2.171 | -35.694 | 70.863 | 1.00 | 38.13 | O |
| ATOM | 5207 | N | ASN | A | 820 | 1.430 | -34.326 | 68.595 | 1.00 | 21.61 | N |
| ATOM | 5208 | CA | ASN | A | 820 | 2.163 | -33.220 | 68.009 | 1.00 | 22.88 | C |
| ATOM | 5209 | C | ASN | A | 820 | 3.481 | -33.024 | 68.747 | 1.00 | 21.82 | C |
| ATOM | 5210 | O | ASN | A | 820 | 3.592 | -32.153 | 69.606 | 1.00 | 19.93 | O |
| ATOM | 5211 | CB | ASN | A | 820 | 1.344 | -31.933 | 68.081 | 1.00 | 18.23 | C |
| ATOM | 5212 | CG | ASN | A | 820 | 2.047 | -30.766 | 67.426 | 1.00 | 16.25 | C |
| ATOM | 5213 | OD1 | ASN | A | 820 | 1.879 | -29.614 | 67.831 | 1.00 | 19.25 | O |
| ATOM | 5214 | ND2 | ASN | A | 820 | 2.836 | -31.056 | 66.403 | 1.00 | 14.95 | N |
| ATOM | 5215 | N | ASN | A | 821 | 4.465 | -33.862 | 68.437 | 1.00 | 21.52 | N |
| ATOM | 5216 | CA | ASN | A | 821 | 5.782 | -33.734 | 69.060 | 1.00 | 20.73 | C |
| ATOM | 5217 | C | ASN | A | 821 | 6.864 | -33.702 | 67.977 | 1.00 | 22.04 | C |
| ATOM | 5218 | O | ASN | A | 821 | 6.560 | -33.491 | 66.796 | 1.00 | 22.42 | O |
| ATOM | 5219 | CB | ASN | A | 821 | 6.028 | -34.872 | 70.055 | 1.00 | 15.79 | C |
| ATOM | 5220 | CG | ASN | A | 821 | 5.852 | -36.238 | 69.440 | 1.00 | 17.20 | C |
| ATOM | 5221 | OD1 | ASN | A | 821 | 6.230 | -36.467 | 68.296 | 1.00 | 24.72 | O |
| ATOM | 5222 | ND2 | ASN | A | 821 | 5.275 | -37.162 | 70.203 | 1.00 | 18.04 | N |
| ATOM | 5223 | N | GLU | A | 822 | 8.118 | -33.914 | 68.368 | 1.00 | 23.41 | N |
| ATOM | 5224 | CA | GLU | A | 822 | 9.236 | -33.864 | 67.425 | 1.00 | 24.08 | C |
| ATOM | 5225 | C | GLU | A | 822 | 9.323 | -34.980 | 66.383 | 1.00 | 24.10 | C |
| ATOM | 5226 | O | GLU | A | 822 | 10.039 | -34.831 | 65.389 | 1.00 | 24.50 | O |
| ATOM | 5227 | CB | GLU | A | 822 | 10.565 | -33.773 | 68.193 | 1.00 | 30.48 | C |
| ATOM | 5228 | CG | GLU | A | 822 | 10.969 | -35.040 | 68.938 | 1.00 | 37.13 | C |
| ATOM | 5229 | CD | GLU | A | 822 | 10.122 | -35.295 | 70.172 | 1.00 | 43.88 | C |
| ATOM | 5230 | OE1 | GLU | A | 822 | 9.700 | -36.458 | 70.379 | 1.00 | 47.59 | O |
| ATOM | 5231 | OE2 | GLU | A | 822 | 9.875 | -34.333 | 70.933 | 1.00 | 46.57 | O |
| ATOM | 5232 | N | THR | A | 823 | 8.612 | -36.091 | 66.592 | 1.00 | 21.56 | N |
| ATOM | 5233 | CA | THR | A | 823 | 8.640 | -37.198 | 65.627 | 1.00 | 20.47 | C |
| ATOM | 5234 | C | THR | A | 823 | 7.298 | -37.577 | 65.004 | 1.00 | 19.74 | C |
| ATOM | 5235 | O | THR | A | 823 | 7.268 | -38.135 | 63.904 | 1.00 | 14.93 | O |
| ATOM | 5236 | CB | THR | A | 823 | 9.201 | -38.482 | 66.249 | 1.00 | 20.67 | C |
| ATOM | 5237 | OG1 | THR | A | 823 | 8.600 | -38.692 | 67.530 | 1.00 | 17.70 | O |
| ATOM | 5238 | CG2 | THR | A | 823 | 10.705 | -38.384 | 66.399 | 1.00 | 23.22 | C |
| ATOM | 5239 | N | LEU | A | 824 | 6.202 | -37.288 | 65.706 | 1.00 | 23.06 | N |
| ATOM | 5240 | CA | LEU | A | 824 | 4.855 | -37.631 | 65.228 | 1.00 | 23.76 | C |
| ATOM | 5241 | C | LEU | A | 824 | 3.825 | -36.508 | 65.360 | 1.00 | 20.84 | C |
| ATOM | 5242 | O | LEU | A | 824 | 3.673 | -35.902 | 66.423 | 1.00 | 21.44 | O |
| ATOM | 5243 | CB | LEU | A | 824 | 4.338 | -38.861 | 65.980 | 1.00 | 23.57 | C |
| ATOM | 5244 | CG | LEU | A | 824 | 2.953 | -39.383 | 65.590 | 1.00 | 23.36 | C |
| ATOM | 5245 | CD1 | LEU | A | 824 | 2.990 | -39.940 | 64.178 | 1.00 | 19.46 | C |
| ATOM | 5246 | CD2 | LEU | A | 824 | 2.523 | -40.462 | 66.570 | 1.00 | 23.64 | C |
| ATOM | 5247 | N | GLN | A | 825 | 3.118 | -36.243 | 64.268 | 1.00 | 20.15 | N |
| ATOM | 5248 | CA | GLN | A | 825 | 2.080 | -35.213 | 64.239 | 1.00 | 19.57 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5249 | C | GLN | A | 825 | 0.849 | -35.826 | 63.573 | 1.00 | 21.51 | C |
| ATOM | 5250 | O | GLN | A | 825 | 0.926 | -36.311 | 62.440 | 1.00 | 19.73 | O |
| ATOM | 5251 | CB | GLN | A | 825 | 2.561 | -34.001 | 63.447 | 1.00 | 15.86 | C |
| ATOM | 5252 | CG | GLN | A | 825 | 3.611 | -33.188 | 64.178 | 1.00 | 10.41 | C |
| ATOM | 5253 | CD | GLN | A | 825 | 4.065 | -32.015 | 63.369 | 1.00 | 14.16 | C |
| ATOM | 5254 | OE1 | GLN | A | 825 | 4.046 | -30.877 | 63.839 | 1.00 | 20.58 | O |
| ATOM | 5255 | NE2 | GLN | A | 825 | 4.474 | -32.275 | 62.134 | 1.00 | 10.97 | N |
| ATOM | 5256 | N | SER | A | 826 | -0.282 | -35.811 | 64.275 | 1.00 | 21.64 | N |
| ATOM | 5257 | CA | SER | A | 826 | -1.497 | -36.414 | 63.734 | 1.00 | 22.50 | C |
| ATOM | 5258 | C | SER | A | 826 | -2.801 | -35.825 | 64.259 | 1.00 | 22.03 | C |
| ATOM | 5259 | O | SER | A | 826 | -2.942 | -35.520 | 65.447 | 1.00 | 19.08 | O |
| ATOM | 5260 | CB | SER | A | 826 | -1.492 | -37.925 | 64.011 | 1.00 | 20.31 | C |
| ATOM | 5261 | OG | SER | A | 826 | -2.662 | -38.563 | 63.522 | 1.00 | 21.70 | O |
| ATOM | 5262 | N | VAL | A | 827 | -3.755 | -35.682 | 63.348 | 1.00 | 18.84 | N |
| ATOM | 5263 | CA | VAL | A | 827 | -5.071 | -35.167 | 63.683 | 1.00 | 20.59 | C |
| ATOM | 5264 | C | VAL | A | 827 | -6.091 | -36.170 | 63.150 | 1.00 | 20.48 | C |
| ATOM | 5265 | O | VAL | A | 827 | -5.916 | -36.734 | 62.072 | 1.00 | 19.27 | O |
| ATOM | 5266 | CB | VAL | A | 827 | -5.303 | -33.795 | 63.051 | 1.00 | 18.09 | C |
| ATOM | 5267 | CG1 | VAL | A | 827 | -6.734 | -33.327 | 63.328 | 1.00 | 17.75 | C |
| ATOM | 5268 | CG2 | VAL | A | 827 | -4.295 | -32.800 | 63.619 | 1.00 | 15.22 | C |
| ATOM | 5269 | N | TYR | A | 828 | -7.154 | -36.389 | 63.912 | 1.00 | 21.18 | N |
| ATOM | 5270 | CA | TYR | A | 828 | -8.181 | -37.353 | 63.537 | 1.00 | 17.78 | C |
| ATOM | 5271 | C | TYR | A | 828 | -9.562 | -36.717 | 63.388 | 1.00 | 19.50 | C |
| ATOM | 5272 | O | TYR | A | 828 | -10.001 | -35.962 | 64.259 | 1.00 | 20.02 | O |
| ATOM | 5273 | CB | TYR | A | 828 | -8.226 | -38.448 | 64.598 | 1.00 | 19.17 | C |
| ATOM | 5274 | CG | TYR | A | 828 | -9.361 | -39.422 | 64.453 | 1.00 | 21.93 | C |
| ATOM | 5275 | CD1 | TYR | A | 828 | -9.506 | -40.184 | 63.294 | 1.00 | 21.90 | C |
| ATOM | 5276 | CD2 | TYR | A | 828 | -10.279 | -39.603 | 65.486 | 1.00 | 23.47 | C |
| ATOM | 5277 | CE1 | TYR | A | 828 | -10.540 | -41.107 | 63.166 | 1.00 | 25.41 | C |
| ATOM | 5278 | CE2 | TYR | A | 828 | -11.318 | -40.522 | 65.372 | 1.00 | 24.95 | C |
| ATOM | 5279 | CZ | TYR | A | 828 | -11.445 | -41.273 | 64.209 | 1.00 | 28.31 | C |
| ATOM | 5280 | OH | TYR | A | 828 | -12.482 | -42.181 | 64.081 | 1.00 | 32.49 | O |
| ATOM | 5281 | N | ASP | A | 829 | -10.225 | -37.021 | 62.273 | 1.00 | 17.92 | N |
| ATOM | 5282 | CA | ASP | A | 829 | -11.573 | -36.527 | 61.977 | 1.00 | 19.81 | C |
| ATOM | 5283 | C | ASP | A | 829 | -12.567 | -37.669 | 62.243 | 1.00 | 17.69 | C |
| ATOM | 5284 | O | ASP | A | 829 | -12.791 | -38.519 | 61.384 | 1.00 | 20.45 | O |
| ATOM | 5285 | CB | ASP | A | 829 | -11.665 | -36.097 | 60.509 | 1.00 | 18.13 | C |
| ATOM | 5286 | CG | ASP | A | 829 | -12.930 | -35.315 | 60.204 | 1.00 | 20.82 | C |
| ATOM | 5287 | OD1 | ASP | A | 829 | -13.871 | -35.342 | 61.030 | 1.00 | 26.30 | O |
| ATOM | 5288 | OD2 | ASP | A | 829 | -12.982 | -34.674 | 59.132 | 1.00 | 19.89 | O |
| ATOM | 5289 | N | ALA | A | 830 | -13.145 | -37.687 | 63.439 | 1.00 | 21.77 | N |
| ATOM | 5290 | CA | ALA | A | 830 | -14.091 | -38.735 | 63.825 | 1.00 | 23.40 | C |
| ATOM | 5291 | C | ALA | A | 830 | -15.307 | -38.835 | 62.907 | 1.00 | 23.99 | C |
| ATOM | 5292 | O | ALA | A | 830 | -15.791 | -39.929 | 62.628 | 1.00 | 25.02 | O |
| ATOM | 5293 | CB | ALA | A | 830 | -14.544 | -38.514 | 65.260 | 1.00 | 19.43 | C |
| ATOM | 5294 | N | LYS | A | 831 | -15.803 | -37.695 | 62.443 | 1.00 | 25.89 | N |
| ATOM | 5295 | CA | LYS | A | 831 | -16.963 | -37.675 | 61.561 | 1.00 | 25.63 | C |
| ATOM | 5296 | C | LYS | A | 831 | -16.647 | -38.423 | 60.272 | 1.00 | 26.72 | C |
| ATOM | 5297 | O | LYS | A | 831 | -17.465 | -39.193 | 59.763 | 1.00 | 24.07 | O |
| ATOM | 5298 | CB | LYS | A | 831 | -17.344 | -36.229 | 61.223 | 1.00 | 27.74 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5299 | CG | LYS | A | 831 | -18.360 | -35.586 | 62.163 | 1.00 | 35.88 | C |
| ATOM | 5300 | CD | LYS | A | 831 | -19.189 | -34.541 | 61.417 | 1.00 | 40.55 | C |
| ATOM | 5301 | CE | LYS | A | 831 | -19.610 | -33.384 | 62.317 | 1.00 | 44.35 | C |
| ATOM | 5302 | NZ | LYS | A | 831 | -18.569 | -33.034 | 63.322 | 1.00 | 44.01 | N |
| ATOM | 5303 | N | GLN | A | 832 | -15.445 | -38.195 | 59.752 | 1.00 | 23.33 | N |
| ATOM | 5304 | CA | GLN | A | 832 | -15.013 | -38.811 | 58.505 | 1.00 | 19.17 | C |
| ATOM | 5305 | C | GLN | A | 832 | -14.327 | -40.153 | 58.665 | 1.00 | 16.84 | C |
| ATOM | 5306 | O | GLN | A | 832 | -14.336 | -40.970 | 57.741 | 1.00 | 20.32 | O |
| ATOM | 5307 | CB | GLN | A | 832 | -14.050 | -37.878 | 57.783 | 1.00 | 22.26 | C |
| ATOM | 5308 | CG | GLN | A | 832 | -14.688 | -36.987 | 56.775 | 1.00 | 23.70 | C |
| ATOM | 5309 | CD | GLN | A | 832 | -13.667 | -36.233 | 55.964 | 1.00 | 21.29 | C |
| ATOM | 5310 | OE1 | GLN | A | 832 | -12.936 | -35.391 | 56.489 | 1.00 | 23.79 | O |
| ATOM | 5311 | NE2 | GLN | A | 832 | -13.607 | -36.528 | 54.678 | 1.00 | 19.07 | N |
| ATOM | 5312 | N | GLY | A | 833 | -13.727 | -40.386 | 59.826 | 1.00 | 17.55 | N |
| ATOM | 5313 | CA | GLY | A | 833 | -13.004 | -41.628 | 60.029 | 1.00 | 20.07 | C |
| ATOM | 5314 | C | GLY | A | 833 | -11.708 | -41.499 | 59.245 | 1.00 | 22.22 | C |
| ATOM | 5315 | O | GLY | A | 833 | -11.207 | -42.465 | 58.662 | 1.00 | 24.45 | O |
| ATOM | 5316 | N | VAL | A | 834 | -11.175 | -40.279 | 59.220 | 1.00 | 21.04 | N |
| ATOM | 5317 | CA | VAL | A | 834 | -9.943 | -39.987 | 58.492 | 1.00 | 21.63 | C |
| ATOM | 5318 | C | VAL | A | 834 | -8.847 | -39.538 | 59.453 | 1.00 | 22.00 | C |
| ATOM | 5319 | O | VAL | A | 834 | -9.104 | -38.800 | 60.410 | 1.00 | 21.16 | O |
| ATOM | 5320 | CB | VAL | A | 834 | -10.170 | -38.881 | 57.418 | 1.00 | 21.68 | C |
| ATOM | 5321 | CG1 | VAL | A | 834 | -8.840 | -38.407 | 56.845 | 1.00 | 17.92 | C |
| ATOM | 5322 | CG2 | VAL | A | 834 | -11.038 | -39.417 | 56.290 | 1.00 | 17.24 | C |
| ATOM | 5323 | N | TRP | A | 835 | -7.626 | -40.007 | 59.195 | 1.00 | 23.06 | N |
| ATOM | 5324 | CA | TRP | A | 835 | -6.464 | -39.662 | 60.015 | 1.00 | 22.17 | C |
| ATOM | 5325 | C | TRP | A | 835 | -5.421 | -38.967 | 59.152 | 1.00 | 20.47 | C |
| ATOM | 5326 | O | TRP | A | 835 | -5.143 | -39.412 | 58.038 | 1.00 | 22.05 | O |
| ATOM | 5327 | CB | TRP | A | 835 | -5.794 | -40.916 | 60.595 | 1.00 | 21.20 | C |
| ATOM | 5328 | CG | TRP | A | 835 | -6.456 | -41.527 | 61.785 | 1.00 | 17.17 | C |
| ATOM | 5329 | CD1 | TRP | A | 835 | -6.210 | -41.247 | 63.094 | 1.00 | 18.37 | C |
| ATOM | 5330 | CD2 | TRP | A | 835 | -7.423 | -42.581 | 61.772 | 1.00 | 18.17 | C |
| ATOM | 5331 | NE1 | TRP | A | 835 | -6.962 | -42.068 | 63.902 | 1.00 | 19.29 | N |
| ATOM | 5332 | CE2 | TRP | A | 835 | -7.715 | -42.897 | 63.113 | 1.00 | 16.62 | C |
| ATOM | 5333 | CE3 | TRP | A | 835 | -8.070 | -43.292 | 60.754 | 1.00 | 17.21 | C |
| ATOM | 5334 | CZ2 | TRP | A | 835 | -8.630 | -43.893 | 63.467 | 1.00 | 21.20 | C |
| ATOM | 5335 | CZ3 | TRP | A | 835 | -8.981 | -44.286 | 61.106 | 1.00 | 19.29 | C |
| ATOM | 5336 | CH2 | TRP | A | 835 | -9.251 | -44.575 | 62.454 | 1.00 | 18.40 | C |
| ATOM | 5337 | N | GLY | A | 836 | -4.857 | -37.878 | 59.666 | 1.00 | 20.28 | N |
| ATOM | 5338 | CA | GLY | A | 836 | -3.790 | -37.178 | 58.965 | 1.00 | 21.41 | C |
| ATOM | 5339 | C | GLY | A | 836 | -2.567 | -37.487 | 59.817 | 1.00 | 21.61 | C |
| ATOM | 5340 | O | GLY | A | 836 | -2.621 | -37.269 | 61.026 | 1.00 | 21.22 | O |
| ATOM | 5341 | N | ILE | A | 837 | -1.484 | -38.007 | 59.229 | 1.00 | 21.33 | N |
| ATOM | 5342 | CA | ILE | A | 837 | -0.287 | -38.350 | 60.021 | 1.00 | 21.40 | C |
| ATOM | 5343 | C | ILE | A | 837 | 1.041 | -38.000 | 59.356 | 1.00 | 17.59 | C |
| ATOM | 5344 | O | ILE | A | 837 | 1.230 | -38.236 | 58.164 | 1.00 | 16.28 | O |
| ATOM | 5345 | CB | ILE | A | 837 | -0.212 | -39.876 | 60.344 | 1.00 | 23.39 | C |
| ATOM | 5346 | CG1 | ILE | A | 837 | -1.467 | -40.342 | 61.081 | 1.00 | 23.76 | C |
| ATOM | 5347 | CG2 | ILE | A | 837 | 1.007 | -40.166 | 61.209 | 1.00 | 22.31 | C |
| ATOM | 5348 | CD1 | ILE | A | 837 | -1.566 | -41.855 | 61.207 | 1.00 | 25.91 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5349 | N | VAL | A | 838 | 1.957 | -37.444 | 60.139 | 1.00 | 19.19 | N |
| ATOM | 5350 | CA | VAL | A | 838 | 3.289 | -37.107 | 59.639 | 1.00 | 18.15 | C |
| ATOM | 5351 | C | VAL | A | 838 | 4.312 | -37.714 | 60.589 | 1.00 | 17.25 | C |
| ATOM | 5352 | O | VAL | A | 838 | 4.324 | -37.403 | 61.784 | 1.00 | 16.77 | O |
| ATOM | 5353 | CB | VAL | A | 838 | 3.540 | -35.587 | 59.578 | 1.00 | 16.35 | C |
| ATOM | 5354 | CG1 | VAL | A | 838 | 5.011 | -35.329 | 59.252 | 1.00 | 13.51 | C |
| ATOM | 5355 | CG2 | VAL | A | 838 | 2.660 | -34.945 | 58.514 | 1.00 | 14.26 | C |
| ATOM | 5356 | N | LYS | A | 839 | 5.159 | -38.589 | 60.059 | 1.00 | 16.92 | N |
| ATOM | 5357 | CA | LYS | A | 839 | 6.200 | -39.231 | 60.862 | 1.00 | 18.88 | C |
| ATOM | 5358 | C | LYS | A | 839 | 7.587 | -38.721 | 60.447 | 1.00 | 17.81 | C |
| ATOM | 5359 | O | LYS | A | 839 | 7.920 | -38.710 | 59.256 | 1.00 | 15.98 | O |
| ATOM | 5360 | CB | LYS | A | 839 | 6.152 | -40.749 | 60.676 | 1.00 | 18.55 | C |
| ATOM | 5361 | CG | LYS | A | 839 | 5.185 | -41.468 | 61.585 | 1.00 | 19.45 | C |
| ATOM | 5362 | CD | LYS | A | 839 | 4.975 | -42.901 | 61.109 | 1.00 | 20.15 | C |
| ATOM | 5363 | CE | LYS | A | 839 | 6.163 | -43.780 | 61.461 | 1.00 | 19.57 | C |
| ATOM | 5364 | NZ | LYS | A | 839 | 6.783 | -43.390 | 62.761 | 1.00 | 19.63 | N |
| ATOM | 5365 | N | TYR | A | 840 | 8.394 | -38.300 | 61.419 | 1.00 | 18.79 | N |
| ATOM | 5366 | CA | TYR | A | 840 | 9.736 | -37.814 | 61.096 | 1.00 | 21.33 | C |
| ATOM | 5367 | C | TYR | A | 840 | 10.799 | -38.898 | 61.262 | 1.00 | 19.25 | C |
| ATOM | 5368 | O | TYR | A | 840 | 11.951 | -38.696 | 60.895 | 1.00 | 25.78 | O |
| ATOM | 5369 | CB | TYR | A | 840 | 10.089 | -36.567 | 61.927 | 1.00 | 20.67 | C |
| ATOM | 5370 | CG | TYR | A | 840 | 9.674 | -35.268 | 61.247 | 1.00 | 22.64 | C |
| ATOM | 5371 | CD1 | TYR | A | 840 | 8.351 | -34.818 | 61.307 | 1.00 | 23.72 | C |
| ATOM | 5372 | CD2 | TYR | A | 840 | 10.583 | -34.526 | 60.486 | 1.00 | 21.75 | C |
| ATOM | 5373 | CE1 | TYR | A | 840 | 7.937 | -33.667 | 60.620 | 1.00 | 24.10 | C |
| ATOM | 5374 | CE2 | TYR | A | 840 | 10.181 | -33.369 | 59.791 | 1.00 | 22.91 | C |
| ATOM | 5375 | CZ | TYR | A | 840 | 8.851 | -32.949 | 59.862 | 1.00 | 23.94 | C |
| ATOM | 5376 | OH | TYR | A | 840 | 8.424 | -31.833 | 59.171 | 1.00 | 19.59 | O |
| ATOM | 5377 | N | ASP | A | 841 | 10.418 | -40.049 | 61.807 | 1.00 | 21.45 | N |
| ATOM | 5378 | CA | ASP | A | 841 | 11.359 | -41.157 | 61.959 | 1.00 | 25.82 | C |
| ATOM | 5379 | C | ASP | A | 841 | 10.674 | -42.498 | 61.698 | 1.00 | 26.16 | C |
| ATOM | 5380 | O | ASP | A | 841 | 9.456 | -42.562 | 61.577 | 1.00 | 27.75 | O |
| ATOM | 5381 | CB | ASP | A | 841 | 12.025 | -41.136 | 63.341 | 1.00 | 22.93 | C |
| ATOM | 5382 | CG | ASP | A | 841 | 11.076 | -41.490 | 64.457 | 1.00 | 30.30 | C |
| ATOM | 5383 | OD1 | ASP | A | 841 | 10.018 | -42.092 | 64.182 | 1.00 | 30.31 | O |
| ATOM | 5384 | OD2 | ASP | A | 841 | 11.395 | -41.163 | 65.622 | 1.00 | 29.59 | O |
| ATOM | 5385 | N | ASP | A | 842 | 11.456 | -43.569 | 61.616 | 1.00 | 27.59 | N |
| ATOM | 5386 | CA | ASP | A | 842 | 10.908 | -44.888 | 61.319 | 1.00 | 28.66 | C |
| ATOM | 5387 | C | ASP | A | 842 | 10.469 | -45.746 | 62.501 | 1.00 | 27.04 | C |
| ATOM | 5388 | O | ASP | A | 842 | 10.399 | -46.970 | 62.390 | 1.00 | 28.19 | O |
| ATOM | 5389 | CB | ASP | A | 842 | 11.899 | -45.681 | 60.458 | 1.00 | 30.21 | C |
| ATOM | 5390 | CG | ASP | A | 842 | 12.000 | -45.143 | 59.041 | 1.00 | 35.50 | C |
| ATOM | 5391 | OD1 | ASP | A | 842 | 12.819 | -45.658 | 58.254 | 1.00 | 42.24 | O |
| ATOM | 5392 | OD2 | ASP | A | 842 | 11.259 | -44.201 | 58.709 | 1.00 | 36.96 | O |
| ATOM | 5393 | N | SER | A | 843 | 10.162 | -45.121 | 63.628 | 1.00 | 26.95 | N |
| ATOM | 5394 | CA | SER | A | 843 | 9.708 | -45.883 | 64.781 | 1.00 | 24.83 | C |
| ATOM | 5395 | C | SER | A | 843 | 8.286 | -46.380 | 64.506 | 1.00 | 27.69 | C |
| ATOM | 5396 | O | SER | A | 843 | 7.633 | -45.920 | 63.569 | 1.00 | 26.08 | O |
| ATOM | 5397 | CB | SER | A | 843 | 9.709 | -45.000 | 66.020 | 1.00 | 24.93 | C |
| ATOM | 5398 | OG | SER | A | 843 | 8.863 | -43.884 | 65.826 | 1.00 | 29.96 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5399 | N | VAL | A | 844 | 7.818 | -47.326 | 65.313 | 1.00 | 26.40 | N |
| ATOM | 5400 | CA | VAL | A | 844 | 6.472 | -47.865 | 65.158 | 1.00 | 27.68 | C |
| ATOM | 5401 | C | VAL | A | 844 | 5.479 | -46.989 | 65.919 | 1.00 | 28.93 | C |
| ATOM | 5402 | O | VAL | A | 844 | 5.536 | -46.908 | 67.145 | 1.00 | 29.74 | O |
| ATOM | 5403 | CB | VAL | A | 844 | 6.370 | -49.290 | 65.718 | 1.00 | 26.49 | C |
| ATOM | 5404 | CG1 | VAL | A | 844 | 4.901 | -49.687 | 65.858 | 1.00 | 28.15 | C |
| ATOM | 5405 | CG2 | VAL | A | 844 | 7.086 | -50.250 | 64.802 | 1.00 | 22.89 | C |
| ATOM | 5406 | N | SER | A | 845 | 4.570 | -46.344 | 65.192 | 1.00 | 26.54 | N |
| ATOM | 5407 | CA | SER | A | 845 | 3.578 | -45.471 | 65.813 | 1.00 | 24.36 | C |
| ATOM | 5408 | C | SER | A | 845 | 2.196 | -46.104 | 65.785 | 1.00 | 25.75 | C |
| ATOM | 5409 | O | SER | A | 845 | 1.637 | -46.343 | 64.718 | 1.00 | 24.65 | O |
| ATOM | 5410 | CB | SER | A | 845 | 3.524 | -44.131 | 65.081 | 1.00 | 22.47 | C |
| ATOM | 5411 | OG | SER | A | 845 | 4.704 | -43.388 | 65.289 | 1.00 | 23.38 | O |
| ATOM | 5412 | N | THR | A | 846 | 1.649 | -46.373 | 66.963 | 1.00 | 29.88 | N |
| ATOM | 5413 | CA | THR | A | 846 | 0.321 | -46.967 | 67.067 | 1.00 | 30.92 | C |
| ATOM | 5414 | C | THR | A | 846 | -0.691 | -45.833 | 67.120 | 1.00 | 28.42 | C |
| ATOM | 5415 | O | THR | A | 846 | -0.599 | -44.958 | 67.976 | 1.00 | 27.97 | O |
| ATOM | 5416 | CB | THR | A | 846 | 0.204 | -47.812 | 68.334 | 1.00 | 31.53 | C |
| ATOM | 5417 | OG1 | THR | A | 846 | 1.206 | -48.833 | 68.307 | 1.00 | 32.15 | O |
| ATOM | 5418 | CG2 | THR | A | 846 | -1.163 | -48.457 | 68.414 | 1.00 | 32.03 | C |
| ATOM | 5419 | N | ILE | A | 847 | -1.654 | -45.848 | 66.206 | 1.00 | 27.45 | N |
| ATOM | 5420 | CA | ILE | A | 847 | -2.641 | -44.778 | 66.154 | 1.00 | 27.73 | C |
| ATOM | 5421 | C | ILE | A | 847 | -4.037 | -45.174 | 66.605 | 1.00 | 27.75 | C |
| ATOM | 5422 | O | ILE | A | 847 | -4.594 | -46.161 | 66.137 | 1.00 | 27.41 | O |
| ATOM | 5423 | CB | ILE | A | 847 | -2.748 | -44.188 | 64.724 | 1.00 | 29.30 | C |
| ATOM | 5424 | CG1 | ILE | A | 847 | -1.350 | -43.866 | 64.179 | 1.00 | 25.58 | C |
| ATOM | 5425 | CG2 | ILE | A | 847 | -3.624 | -42.936 | 64.739 | 1.00 | 25.71 | C |
| ATOM | 5426 | CD1 | ILE | A | 847 | -0.560 | -42.880 | 65.022 | 1.00 | 21.94 | C |
| ATOM | 5427 | N | SER | A | 848 | -4.592 | -44.379 | 67.514 | 1.00 | 29.10 | N |
| ATOM | 5428 | CA | SER | A | 848 | -5.934 | -44.605 | 68.038 | 1.00 | 31.31 | C |
| ATOM | 5429 | C | SER | A | 848 | -6.187 | -46.068 | 68.376 | 1.00 | 32.06 | C |
| ATOM | 5430 | O | SER | A | 848 | -7.323 | -46.526 | 68.349 | 1.00 | 33.64 | O |
| ATOM | 5431 | CB | SER | A | 848 | -6.982 | -44.123 | 67.025 | 1.00 | 30.59 | C |
| ATOM | 5432 | OG | SER | A | 848 | -6.900 | -42.719 | 66.832 | 1.00 | 31.61 | O |
| ATOM | 5433 | N | ASN | A | 849 | -5.123 | -46.797 | 68.688 | 1.00 | 33.38 | N |
| ATOM | 5434 | CA | ASN | A | 849 | -5.242 | -48.205 | 69.033 | 1.00 | 35.43 | C |
| ATOM | 5435 | C | ASN | A | 849 | -5.913 | -49.036 | 67.949 | 1.00 | 34.88 | C |
| ATOM | 5436 | O | ASN | A | 849 | -6.498 | -50.075 | 68.243 | 1.00 | 35.34 | O |
| ATOM | 5437 | CB | ASN | A | 849 | -6.031 | -48.364 | 70.333 | 1.00 | 41.08 | C |
| ATOM | 5438 | CG | ASN | A | 849 | -5.160 | -48.234 | 71.561 | 1.00 | 48.92 | C |
| ATOM | 5439 | OD1 | ASN | A | 849 | -5.497 | -47.512 | 72.503 | 1.00 | 53.00 | O |
| ATOM | 5440 | ND2 | ASN | A | 849 | -4.030 | -48.936 | 71.562 | 1.00 | 52.54 | N |
| ATOM | 5441 | N | GLN | A | 850 | -5.839 | -48.588 | 66.701 | 1.00 | 33.41 | N |
| ATOM | 5442 | CA | GLN | A | 850 | -6.451 | -49.334 | 65.605 | 1.00 | 32.13 | C |
| ATOM | 5443 | C | GLN | A | 850 | -5.396 | -49.844 | 64.647 | 1.00 | 31.47 | C |
| ATOM | 5444 | O | GLN | A | 850 | -5.454 | -50.986 | 64.185 | 1.00 | 31.74 | O |
| ATOM | 5445 | CB | GLN | A | 850 | -7.414 | -48.454 | 64.814 | 1.00 | 35.98 | C |
| ATOM | 5446 | CG | GLN | A | 850 | -8.148 | -47.434 | 65.636 | 1.00 | 41.56 | C |
| ATOM | 5447 | CD | GLN | A | 850 | -9.631 | -47.534 | 65.433 | 1.00 | 44.48 | C |
| ATOM | 5448 | OE1 | GLN | A | 850 | -10.157 | -48.624 | 65.217 | 1.00 | 49.06 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5449 | NE2 | GLN | A | 850 | -10.321 | -46.399 | 65.495 | 1.00 | 44.59 | N |
| ATOM | 5450 | N | PHE | A | 851 | -4.437 | -48.981 | 64.337 | 1.00 | 27.84 | N |
| ATOM | 5451 | CA | PHE | A | 851 | -3.387 | -49.351 | 63.414 | 1.00 | 27.32 | C |
| ATOM | 5452 | C | PHE | A | 851 | -2.019 | -48.831 | 63.815 | 1.00 | 24.01 | C |
| ATOM | 5453 | O | PHE | A | 851 | -1.864 | -48.112 | 64.804 | 1.00 | 20.52 | O |
| ATOM | 5454 | CB | PHE | A | 851 | -3.731 | -48.862 | 62.006 | 1.00 | 23.46 | C |
| ATOM | 5455 | CG | PHE | A | 851 | -3.910 | -47.371 | 61.906 | 1.00 | 27.70 | C |
| ATOM | 5456 | CD1 | PHE | A | 851 | -2.843 | -46.549 | 61.560 | 1.00 | 21.58 | C |
| ATOM | 5457 | CD2 | PHE | A | 851 | -5.155 | -46.786 | 62.137 | 1.00 | 28.45 | C |
| ATOM | 5458 | CE1 | PHE | A | 851 | -3.009 | -45.172 | 61.444 | 1.00 | 19.29 | C |
| ATOM | 5459 | CE2 | PHE | A | 851 | -5.330 | -45.405 | 62.023 | 1.00 | 27.85 | C |
| ATOM | 5460 | CZ | PHE | A | 851 | -4.250 | -44.597 | 61.675 | 1.00 | 23.58 | C |
| ATOM | 5461 | N | GLN | A | 852 | -1.031 | -49.220 | 63.021 | 1.00 | 23.99 | N |
| ATOM | 5462 | CA | GLN | A | 852 | 0.346 | -48.833 | 63.237 | 1.00 | 23.33 | C |
| ATOM | 5463 | C | GLN | A | 852 | 0.915 | -48.327 | 61.927 | 1.00 | 21.53 | C |
| ATOM | 5464 | O | GLN | A | 852 | 0.724 | -48.951 | 60.888 | 1.00 | 24.77 | O |
| ATOM | 5465 | CB | GLN | A | 852 | 1.161 | -50.040 | 63.700 | 1.00 | 20.40 | C |
| ATOM | 5466 | CG | GLN | A | 852 | 1.395 | -50.078 | 65.191 | 1.00 | 26.34 | C |
| ATOM | 5467 | CD | GLN | A | 852 | 1.702 | -51.471 | 65.696 | 1.00 | 28.14 | C |
| ATOM | 5468 | OE1 | GLN | A | 852 | 1.844 | -52.412 | 64.914 | 1.00 | 31.71 | O |
| ATOM | 5469 | NE2 | GLN | A | 852 | 1.804 | -51.612 | 67.014 | 1.00 | 29.64 | N |
| ATOM | 5470 | N | VAL | A | 853 | 1.588 | -47.183 | 61.978 | 1.00 | 21.34 | N |
| ATOM | 5471 | CA | VAL | A | 853 | 2.224 | -46.614 | 60.803 | 1.00 | 21.13 | C |
| ATOM | 5472 | C | VAL | A | 853 | 3.702 | -46.831 | 61.098 | 1.00 | 23.28 | C |
| ATOM | 5473 | O | VAL | A | 853 | 4.164 | -46.569 | 62.213 | 1.00 | 20.80 | O |
| ATOM | 5474 | CB | VAL | A | 853 | 1.877 | -45.122 | 60.630 | 1.00 | 21.95 | C |
| ATOM | 5475 | CG1 | VAL | A | 853 | 0.576 | -45.007 | 59.856 | 1.00 | 20.48 | C |
| ATOM | 5476 | CG2 | VAL | A | 853 | 1.741 | -44.438 | 61.979 | 1.00 | 21.39 | C |
| ATOM | 5477 | N | LEU | A | 854 | 4.438 | -47.318 | 60.105 | 1.00 | 24.13 | N |
| ATOM | 5478 | CA | LEU | A | 854 | 5.840 | -47.669 | 60.307 | 1.00 | 24.65 | C |
| ATOM | 5479 | C | LEU | A | 854 | 6.967 | -46.880 | 59.660 | 1.00 | 25.62 | C |
| ATOM | 5480 | O | LEU | A | 854 | 8.112 | -47.013 | 60.075 | 1.00 | 27.45 | O |
| ATOM | 5481 | CB | LEU | A | 854 | 6.015 | -49.142 | 59.932 | 1.00 | 23.00 | C |
| ATOM | 5482 | CG | LEU | A | 854 | 4.762 | -49.988 | 60.158 | 1.00 | 20.11 | C |
| ATOM | 5483 | CD1 | LEU | A | 854 | 4.864 | -51.305 | 59.398 | 1.00 | 16.25 | C |
| ATOM | 5484 | CD2 | LEU | A | 854 | 4.588 | -50.215 | 61.658 | 1.00 | 18.16 | C |
| ATOM | 5485 | N | LYS | A | 855 | 6.675 | -46.066 | 58.657 | 1.00 | 26.51 | N |
| ATOM | 5486 | CA | LYS | A | 855 | 7.742 | -45.342 | 57.987 | 1.00 | 26.65 | C |
| ATOM | 5487 | C | LYS | A | 855 | 7.707 | -43.825 | 58.071 | 1.00 | 29.55 | C |
| ATOM | 5488 | O | LYS | A | 855 | 6.643 | -43.206 | 58.149 | 1.00 | 30.62 | O |
| ATOM | 5489 | CB | LYS | A | 855 | 7.784 | -45.747 | 56.512 | 1.00 | 32.42 | C |
| ATOM | 5490 | CG | LYS | A | 855 | 8.548 | -47.035 | 56.222 | 1.00 | 38.22 | C |
| ATOM | 5491 | CD | LYS | A | 855 | 8.846 | -47.171 | 54.723 | 1.00 | 45.94 | C |
| ATOM | 5492 | CE | LYS | A | 855 | 9.476 | -45.889 | 54.149 | 1.00 | 51.27 | C |
| ATOM | 5493 | NZ | LYS | A | 855 | 9.312 | -45.720 | 52.664 | 1.00 | 47.51 | N |
| ATOM | 5494 | N | ARG | A | 856 | 8.894 | -43.233 | 58.044 | 1.00 | 25.13 | N |
| ATOM | 5495 | CA | ARG | A | 856 | 9.041 | -41.789 | 58.064 | 1.00 | 21.36 | C |
| ATOM | 5496 | C | ARG | A | 856 | 8.303 | -41.323 | 56.802 | 1.00 | 19.89 | C |
| ATOM | 5497 | O | ARG | A | 856 | 8.459 | -41.912 | 55.728 | 1.00 | 17.35 | O |
| ATOM | 5498 | CB | ARG | A | 856 | 10.543 | -41.431 | 58.024 | 1.00 | 20.09 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5499 | CG | ARG | A | 856 | 10.928 | -40.105 | 57.353 | 1.00 | 26.32 | C |
| ATOM | 5500 | CD | ARG | A | 856 | 12.281 | -39.591 | 57.883 | 1.00 | 25.10 | C |
| ATOM | 5501 | NE | ARG | A | 856 | 12.837 | -38.467 | 57.124 | 1.00 | 20.68 | N |
| ATOM | 5502 | CZ | ARG | A | 856 | 13.125 | -37.283 | 57.659 | 1.00 | 16.26 | C |
| ATOM | 5503 | NH1 | ARG | A | 856 | 12.907 | -37.074 | 58.947 | 1.00 | 16.81 | N |
| ATOM | 5504 | NH2 | ARG | A | 856 | 13.656 | -36.315 | 56.921 | 1.00 | 18.85 | N |
| ATOM | 5505 | N | GLY | A | 857 | 7.474 | -40.292 | 56.939 | 1.00 | 19.06 | N |
| ATOM | 5506 | CA | GLY | A | 857 | 6.727 | -39.796 | 55.797 | 1.00 | 17.89 | C |
| ATOM | 5507 | C | GLY | A | 857 | 5.379 | -39.184 | 56.159 | 1.00 | 16.82 | C |
| ATOM | 5508 | O | GLY | A | 857 | 5.099 | -38.910 | 57.326 | 1.00 | 16.12 | O |
| ATOM | 5509 | N | VAL | A | 858 | 4.540 | -38.986 | 55.146 | 1.00 | 19.71 | N |
| ATOM | 5510 | CA | VAL | A | 858 | 3.226 | -38.374 | 55.322 | 1.00 | 19.21 | C |
| ATOM | 5511 | C | VAL | A | 858 | 2.101 | -39.333 | 54.950 | 1.00 | 19.51 | C |
| ATOM | 5512 | O | VAL | A | 858 | 2.143 | -39.982 | 53.905 | 1.00 | 19.68 | O |
| ATOM | 5513 | CB | VAL | A | 858 | 3.123 | -37.096 | 54.475 | 1.00 | 21.24 | C |
| ATOM | 5514 | CG1 | VAL | A | 858 | 1.802 | -36.387 | 54.743 | 1.00 | 22.86 | C |
| ATOM | 5515 | CG2 | VAL | A | 858 | 4.281 | -36.173 | 54.814 | 1.00 | 17.93 | C |
| ATOM | 5516 | N | TYR | A | 859 | 1.096 | -39.413 | 55.818 | 1.00 | 20.90 | N |
| ATOM | 5517 | CA | TYR | A | 859 | -0.033 | -40.315 | 55.616 | 1.00 | 19.66 | C |
| ATOM | 5518 | C | TYR | A | 859 | -1.400 | -39.649 | 55.710 | 1.00 | 19.04 | C |
| ATOM | 5519 | O | TYR | A | 859 | -1.595 | -38.687 | 56.450 | 1.00 | 18.21 | O |
| ATOM | 5520 | CB | TYR | A | 859 | -0.046 | -41.432 | 56.672 | 1.00 | 19.58 | C |
| ATOM | 5521 | CG | TYR | A | 859 | 1.225 | -42.233 | 56.865 | 1.00 | 26.01 | C |
| ATOM | 5522 | CD1 | TYR | A | 859 | 2.375 | -41.655 | 57.406 | 1.00 | 23.77 | C |
| ATOM | 5523 | CD2 | TYR | A | 859 | 1.248 | -43.603 | 56.584 | 1.00 | 24.93 | C |
| ATOM | 5524 | CE1 | TYR | A | 859 | 3.514 | -42.428 | 57.666 | 1.00 | 23.77 | C |
| ATOM | 5525 | CE2 | TYR | A | 859 | 2.374 | -44.379 | 56.839 | 1.00 | 21.88 | C |
| ATOM | 5526 | CZ | TYR | A | 859 | 3.499 | -43.792 | 57.379 | 1.00 | 23.71 | C |
| ATOM | 5527 | OH | TYR | A | 859 | 4.600 | -44.577 | 57.632 | 1.00 | 19.41 | O |
| ATOM | 5528 | N | THR | A | 860 | -2.337 | -40.189 | 54.942 | 1.00 | 20.59 | N |
| ATOM | 5529 | CA | THR | A | 860 | -3.735 | -39.775 | 54.975 | 1.00 | 19.08 | C |
| ATOM | 5530 | C | THR | A | 860 | -4.454 | -41.119 | 54.832 | 1.00 | 18.49 | C |
| ATOM | 5531 | O | THR | A | 860 | -4.406 | -41.763 | 53.776 | 1.00 | 17.60 | O |
| ATOM | 5532 | CB | THR | A | 860 | -4.135 | -38.817 | 53.835 | 1.00 | 18.17 | C |
| ATOM | 5533 | OG1 | THR | A | 860 | -3.203 | -37.726 | 53.758 | 1.00 | 17.33 | O |
| ATOM | 5534 | CG2 | THR | A | 860 | -5.538 | -38.234 | 54.131 | 1.00 | 15.33 | C |
| ATOM | 5535 | N | ILE | A | 861 | -5.076 | -41.543 | 55.931 | 1.00 | 19.17 | N |
| ATOM | 5536 | CA | ILE | A | 861 | -5.775 | -42.820 | 56.024 | 1.00 | 21.35 | C |
| ATOM | 5537 | C | ILE | A | 861 | -7.262 | -42.674 | 56.349 | 1.00 | 20.77 | C |
| ATOM | 5538 | O | ILE | A | 861 | -7.652 | -41.828 | 57.154 | 1.00 | 19.72 | O |
| ATOM | 5539 | CB | ILE | A | 861 | -5.128 | -43.691 | 57.130 | 1.00 | 23.32 | C |
| ATOM | 5540 | CG1 | ILE | A | 861 | -3.736 | -44.150 | 56.678 | 1.00 | 26.40 | C |
| ATOM | 5541 | CG2 | ILE | A | 861 | -6.026 | -44.878 | 57.470 | 1.00 | 22.34 | C |
| ATOM | 5542 | CD1 | ILE | A | 861 | -2.750 | -44.327 | 57.815 | 1.00 | 21.59 | C |
| ATOM | 5543 | N | ARG | A | 862 | -8.080 | -43.518 | 55.730 | 1.00 | 20.97 | N |
| ATOM | 5544 | CA | ARG | A | 862 | -9.522 | -43.504 | 55.975 | 1.00 | 23.76 | C |
| ATOM | 5545 | C | ARG | A | 862 | -10.012 | -44.898 | 56.337 | 1.00 | 24.02 | C |
| ATOM | 5546 | O | ARG | A | 862 | -9.712 | -45.869 | 55.643 | 1.00 | 22.21 | O |
| ATOM | 5547 | CB | ARG | A | 862 | -10.278 | -43.024 | 54.735 | 1.00 | 25.26 | C |
| ATOM | 5548 | CG | ARG | A | 862 | -11.794 | -42.978 | 54.918 | 1.00 | 31.48 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5549 | CD | ARG | A | 862 | -12.522 | -43.025 | 53.576 | 1.00 | 36.73 | C |
| ATOM | 5550 | NE | ARG | A | 862 | -12.941 | -41.699 | 53.133 | 1.00 | 46.82 | N |
| ATOM | 5551 | CZ | ARG | A | 862 | -13.757 | -40.902 | 53.820 | 1.00 | 53.45 | C |
| ATOM | 5552 | NH1 | ARG | A | 862 | -14.247 | -41.298 | 54.989 | 1.00 | 54.65 | N |
| ATOM | 5553 | NH2 | ARG | A | 862 | -14.085 | -39.704 | 53.342 | 1.00 | 56.05 | N |
| ATOM | 5554 | N | LYS | A | 863 | -10.755 | -45.008 | 57.432 | 1.00 | 27.72 | N |
| ATOM | 5555 | CA | LYS | A | 863 | -11.294 | -46.305 | 57.818 | 1.00 | 28.22 | C |
| ATOM | 5556 | C | LYS | A | 863 | -12.689 | -46.437 | 57.239 | 1.00 | 30.45 | C |
| ATOM | 5557 | O | LYS | A | 863 | -13.544 | -45.584 | 57.461 | 1.00 | 30.77 | O |
| ATOM | 5558 | CB | LYS | A | 863 | -11.375 | -46.450 | 59.330 | 1.00 | 25.74 | C |
| ATOM | 5559 | CG | LYS | A | 863 | -11.996 | -47.762 | 59.761 | 1.00 | 25.92 | C |
| ATOM | 5560 | CD | LYS | A | 863 | -12.091 | -47.842 | 61.263 | 1.00 | 28.58 | C |
| ATOM | 5561 | CE | LYS | A | 863 | -11.774 | -49.237 | 61.753 | 1.00 | 30.31 | C |
| ATOM | 5562 | NZ | LYS | A | 863 | -13.016 | -50.003 | 62.020 | 1.00 | 38.01 | N |
| ATOM | 5563 | N | GLU | A | 864 | -12.902 | -47.498 | 56.473 | 1.00 | 35.93 | N |
| ATOM | 5564 | CA | GLU | A | 864 | -14.199 | -47.770 | 55.865 | 1.00 | 42.48 | C |
| ATOM | 5565 | C | GLU | A | 864 | -14.599 | -49.167 | 56.328 | 1.00 | 44.02 | C |
| ATOM | 5566 | O | GLU | A | 864 | -14.258 | -50.169 | 55.694 | 1.00 | 45.22 | O |
| ATOM | 5567 | CB | GLU | A | 864 | -14.092 | -47.715 | 54.338 | 1.00 | 45.47 | C |
| ATOM | 5568 | CG | GLU | A | 864 | -14.198 | -46.307 | 53.771 | 1.00 | 52.67 | C |
| ATOM | 5569 | CD | GLU | A | 864 | -13.974 | -46.254 | 52.271 | 1.00 | 59.07 | C |
| ATOM | 5570 | OE1 | GLU | A | 864 | -13.424 | -45.239 | 51.785 | 1.00 | 62.79 | O |
| ATOM | 5571 | OE2 | GLU | A | 864 | -14.351 | -47.225 | 51.577 | 1.00 | 64.69 | O |
| ATOM | 5572 | N | GLY | A | 865 | -15.314 | -49.225 | 57.448 | 1.00 | 44.14 | N |
| ATOM | 5573 | CA | GLY | A | 865 | -15.713 | -50.504 | 57.996 | 1.00 | 43.54 | C |
| ATOM | 5574 | C | GLY | A | 865 | -14.490 | -51.100 | 58.655 | 1.00 | 44.52 | C |
| ATOM | 5575 | O | GLY | A | 865 | -13.852 | -50.447 | 59.482 | 1.00 | 46.18 | O |
| ATOM | 5576 | N | ASP | A | 866 | -14.154 | -52.332 | 58.292 | 1.00 | 44.81 | N |
| ATOM | 5577 | CA | ASP | A | 866 | -12.979 | -52.994 | 58.847 | 1.00 | 47.47 | C |
| ATOM | 5578 | C | ASP | A | 866 | -11.820 | -52.777 | 57.878 | 1.00 | 46.89 | C |
| ATOM | 5579 | O | ASP | A | 866 | -10.723 | -53.301 | 58.074 | 1.00 | 49.97 | O |
| ATOM | 5580 | CB | ASP | A | 866 | -13.229 | -54.499 | 59.011 | 1.00 | 51.14 | C |
| ATOM | 5581 | CG | ASP | A | 866 | -14.540 | -54.808 | 59.721 | 1.00 | 55.71 | C |
| ATOM | 5582 | OD1 | ASP | A | 866 | -15.082 | -53.914 | 60.409 | 1.00 | 56.15 | O |
| ATOM | 5583 | OD2 | ASP | A | 866 | -15.029 | -55.953 | 59.590 | 1.00 | 56.68 | O |
| ATOM | 5584 | N | GLU | A | 867 | -12.080 | -52.001 | 56.828 | 1.00 | 44.39 | N |
| ATOM | 5585 | CA | GLU | A | 867 | -11.085 | -51.713 | 55.803 | 1.00 | 39.93 | C |
| ATOM | 5586 | C | GLU | A | 867 | -10.434 | -50.346 | 55.977 | 1.00 | 36.11 | C |
| ATOM | 5587 | O | GLU | A | 867 | -11.039 | -49.412 | 56.505 | 1.00 | 35.80 | O |
| ATOM | 5588 | CB | GLU | A | 867 | -11.727 | -51.797 | 54.417 | 1.00 | 42.19 | C |
| ATOM | 5589 | CG | GLU | A | 867 | -12.171 | -53.193 | 54.023 | 1.00 | 49.00 | C |
| ATOM | 5590 | CD | GLU | A | 867 | -11.145 | -54.251 | 54.387 | 1.00 | 56.03 | C |
| ATOM | 5591 | OE1 | GLU | A | 867 | -10.261 | -54.532 | 53.544 | 1.00 | 62.33 | O |
| ATOM | 5592 | OE2 | GLU | A | 867 | -11.219 | -54.802 | 55.511 | 1.00 | 56.53 | O |
| ATOM | 5593 | N | TYR | A | 868 | -9.191 | -50.239 | 55.519 | 1.00 | 34.09 | N |
| ATOM | 5594 | CA | TYR | A | 868 | -8.441 | -48.997 | 55.614 | 1.00 | 27.67 | C |
| ATOM | 5595 | C | TYR | A | 868 | -7.933 | -48.587 | 54.242 | 1.00 | 27.16 | C |
| ATOM | 5596 | O | TYR | A | 868 | -7.348 | -49.387 | 53.514 | 1.00 | 28.57 | O |
| ATOM | 5597 | CB | TYR | A | 868 | -7.259 | -49.161 | 56.574 | 1.00 | 24.68 | C |
| ATOM | 5598 | CG | TYR | A | 868 | -7.643 | -49.173 | 58.039 | 1.00 | 20.74 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5599 | CD1 | TYR | A | 868 | -7.813 | -47.985 | 58.741 | 1.00 | 23.04 | C |
| ATOM | 5600 | CD2 | TYR | A | 868 | -7.818 | -50.371 | 58.725 | 1.00 | 18.07 | C |
| ATOM | 5601 | CE1 | TYR | A | 868 | -8.148 | -47.984 | 60.101 | 1.00 | 26.13 | C |
| ATOM | 5602 | CE2 | TYR | A | 868 | -8.153 | -50.387 | 60.087 | 1.00 | 21.71 | C |
| ATOM | 5603 | CZ | TYR | A | 868 | -8.315 | -49.189 | 60.772 | 1.00 | 24.64 | C |
| ATOM | 5604 | OH | TYR | A | 868 | -8.630 | -49.184 | 62.122 | 1.00 | 26.33 | O |
| ATOM | 5605 | N | LYS | A | 869 | -8.197 | -47.338 | 53.888 | 1.00 | 25.23 | N |
| ATOM | 5606 | CA | LYS | A | 869 | -7.760 | -46.776 | 52.624 | 1.00 | 27.43 | C |
| ATOM | 5607 | C | LYS | A | 869 | -6.493 | -46.040 | 53.023 | 1.00 | 27.36 | C |
| ATOM | 5608 | O | LYS | A | 869 | -6.505 | -45.253 | 53.973 | 1.00 | 26.11 | O |
| ATOM | 5609 | CB | LYS | A | 869 | -8.805 | -45.791 | 52.092 | 1.00 | 35.21 | C |
| ATOM | 5610 | CG | LYS | A | 869 | -9.442 | -46.189 | 50.769 | 1.00 | 41.91 | C |
| ATOM | 5611 | CD | LYS | A | 869 | -9.471 | -44.997 | 49.815 | 1.00 | 47.93 | C |
| ATOM | 5612 | CE | LYS | A | 869 | -10.274 | -45.293 | 48.554 | 1.00 | 48.37 | C |
| ATOM | 5613 | NZ | LYS | A | 869 | -10.810 | -44.035 | 47.956 | 1.00 | 51.01 | N |
| ATOM | 5614 | N | ILE | A | 870 | -5.406 | -46.285 | 52.304 | 1.00 | 25.04 | N |
| ATOM | 5615 | CA | ILE | A | 870 | -4.135 | -45.671 | 52.656 | 1.00 | 24.11 | C |
| ATOM | 5616 | C | ILE | A | 870 | -3.513 | -44.803 | 51.585 | 1.00 | 18.66 | C |
| ATOM | 5617 | O | ILE | A | 870 | -3.432 | -45.201 | 50.427 | 1.00 | 20.50 | O |
| ATOM | 5618 | CB | ILE | A | 870 | -3.103 | -46.759 | 53.031 | 1.00 | 25.48 | C |
| ATOM | 5619 | CG1 | ILE | A | 870 | -3.648 | -47.626 | 54.163 | 1.00 | 28.16 | C |
| ATOM | 5620 | CG2 | ILE | A | 870 | -1.796 | -46.125 | 53.442 | 1.00 | 28.04 | C |
| ATOM | 5621 | CD1 | ILE | A | 870 | -3.202 | -49.077 | 54.083 | 1.00 | 27.76 | C |
| ATOM | 5622 | N | ALA | A | 871 | -3.074 | -43.615 | 51.986 | 1.00 | 17.08 | N |
| ATOM | 5623 | CA | ALA | A | 871 | -2.393 | -42.698 | 51.080 | 1.00 | 17.43 | C |
| ATOM | 5624 | C | ALA | A | 871 | -1.051 | -42.331 | 51.727 | 1.00 | 18.41 | C |
| ATOM | 5625 | O | ALA | A | 871 | -0.990 | -41.464 | 52.600 | 1.00 | 19.04 | O |
| ATOM | 5626 | CB | ALA | A | 871 | -3.233 | -41.452 | 50.849 | 1.00 | 17.96 | C |
| ATOM | 5627 | N | TYR | A | 872 | 0.019 | -43.009 | 51.312 | 1.00 | 22.73 | N |
| ATOM | 5628 | CA | TYR | A | 872 | 1.356 | -42.761 | 51.869 | 1.00 | 19.98 | C |
| ATOM | 5629 | C | TYR | A | 872 | 2.313 | -42.099 | 50.890 | 1.00 | 19.21 | C |
| ATOM | 5630 | O | TYR | A | 872 | 2.400 | -42.484 | 49.723 | 1.00 | 15.97 | O |
| ATOM | 5631 | CB | TYR | A | 872 | 2.003 | -44.063 | 52.349 | 1.00 | 20.65 | C |
| ATOM | 5632 | CG | TYR | A | 872 | 3.482 | -43.906 | 52.647 | 1.00 | 23.73 | C |
| ATOM | 5633 | CD1 | TYR | A | 872 | 3.913 | -43.339 | 53.849 | 1.00 | 21.79 | C |
| ATOM | 5634 | CD2 | TYR | A | 872 | 4.448 | -44.277 | 51.713 | 1.00 | 20.83 | C |
| ATOM | 5635 | CE1 | TYR | A | 872 | 5.270 | -43.142 | 54.111 | 1.00 | 22.36 | C |
| ATOM | 5636 | CE2 | TYR | A | 872 | 5.811 | -44.081 | 51.965 | 1.00 | 21.48 | C |
| ATOM | 5637 | CZ | TYR | A | 872 | 6.207 | -43.513 | 53.164 | 1.00 | 20.00 | C |
| ATOM | 5638 | OH | TYR | A | 872 | 7.536 | -43.312 | 53.422 | 1.00 | 23.43 | O |
| ATOM | 5639 | N | TYR | A | 873 | 3.056 | -41.120 | 51.389 | 1.00 | 20.26 | N |
| ATOM | 5640 | CA | TYR | A | 873 | 4.013 | -40.402 | 50.564 | 1.00 | 20.37 | C |
| ATOM | 5641 | C | TYR | A | 873 | 5.331 | -40.099 | 51.279 | 1.00 | 19.33 | C |
| ATOM | 5642 | O | TYR | A | 873 | 5.344 | -39.548 | 52.382 | 1.00 | 17.41 | O |
| ATOM | 5643 | CB | TYR | A | 873 | 3.401 | -39.089 | 50.078 | 1.00 | 16.14 | C |
| ATOM | 5644 | CG | TYR | A | 873 | 4.264 | -38.355 | 49.082 | 1.00 | 17.85 | C |
| ATOM | 5645 | CD1 | TYR | A | 873 | 4.574 | -38.929 | 47.857 | 1.00 | 17.84 | C |
| ATOM | 5646 | CD2 | TYR | A | 873 | 4.776 | -37.091 | 49.365 | 1.00 | 15.89 | C |
| ATOM | 5647 | CE1 | TYR | A | 873 | 5.370 | -38.270 | 46.932 | 1.00 | 22.39 | C |
| ATOM | 5648 | CE2 | TYR | A | 873 | 5.579 | -36.419 | 48.439 | 1.00 | 16.42 | C |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5649 | CZ | TYR | A | 873 | 5.870 | -37.017 | 47.224 | 1.00 | 17.27 | C |
| ATOM | 5650 | OH | TYR | A | 873 | 6.649 | -36.375 | 46.283 | 1.00 | 17.82 | O |
| ATOM | 5651 | N | ASN | A | 874 | 6.436 | -40.480 | 50.645 | 1.00 | 19.51 | N |
| ATOM | 5652 | CA | ASN | A | 874 | 7.765 | -40.201 | 51.183 | 1.00 | 21.29 | C |
| ATOM | 5653 | C | ASN | A | 874 | 8.226 | -38.981 | 50.387 | 1.00 | 16.09 | C |
| ATOM | 5654 | O | ASN | A | 874 | 8.573 | -39.093 | 49.212 | 1.00 | 18.63 | O |
| ATOM | 5655 | CB | ASN | A | 874 | 8.702 | -41.381 | 50.935 | 1.00 | 23.04 | C |
| ATOM | 5656 | CG | ASN | A | 874 | 10.135 | -41.085 | 51.344 | 1.00 | 27.72 | C |
| ATOM | 5657 | OD1 | ASN | A | 874 | 11.031 | -41.879 | 51.084 | 1.00 | 35.69 | O |
| ATOM | 5658 | ND2 | ASN | A | 874 | 10.354 | -39.941 | 51.981 | 1.00 | 27.78 | N |
| ATOM | 5659 | N | PRO | A | 875 | 8.218 | -37.795 | 51.012 | 1.00 | 15.76 | N |
| ATOM | 5660 | CA | PRO | A | 875 | 8.632 | -36.574 | 50.314 | 1.00 | 17.57 | C |
| ATOM | 5661 | C | PRO | A | 875 | 10.090 | -36.476 | 49.873 | 1.00 | 20.98 | C |
| ATOM | 5662 | O | PRO | A | 875 | 10.403 | -35.729 | 48.943 | 1.00 | 23.80 | O |
| ATOM | 5663 | CB | PRO | A | 875 | 8.247 | -35.454 | 51.282 | 1.00 | 17.33 | C |
| ATOM | 5664 | CG | PRO | A | 875 | 8.170 | -36.088 | 52.599 | 1.00 | 12.81 | C |
| ATOM | 5665 | CD | PRO | A | 875 | 7.812 | -37.530 | 52.402 | 1.00 | 13.70 | C |
| ATOM | 5666 | N | GLU | A | 876 | 10.977 | -37.221 | 50.526 | 1.00 | 22.70 | N |
| ATOM | 5667 | CA | GLU | A | 876 | 12.394 | -37.183 | 50.171 | 1.00 | 22.37 | C |
| ATOM | 5668 | C | GLU | A | 876 | 12.689 | -37.939 | 48.881 | 1.00 | 21.23 | C |
| ATOM | 5669 | O | GLU | A | 876 | 13.325 | -37.400 | 47.979 | 1.00 | 22.18 | O |
| ATOM | 5670 | CB | GLU | A | 876 | 13.233 | -37.746 | 51.310 | 1.00 | 21.11 | C |
| ATOM | 5671 | CG | GLU | A | 876 | 13.718 | -36.674 | 52.257 | 1.00 | 26.92 | C |
| ATOM | 5672 | CD | GLU | A | 876 | 13.880 | -37.178 | 53.666 | 1.00 | 25.65 | C |
| ATOM | 5673 | OE1 | GLU | A | 876 | 13.621 | -38.375 | 53.907 | 1.00 | 27.25 | O |
| ATOM | 5674 | OE2 | GLU | A | 876 | 14.268 | -36.375 | 54.538 | 1.00 | 31.79 | O |
| ATOM | 5675 | N | THR | A | 877 | 12.221 | -39.180 | 48.787 | 1.00 | 20.40 | N |
| ATOM | 5676 | CA | THR | A | 877 | 12.436 | -39.976 | 47.583 | 1.00 | 18.63 | C |
| ATOM | 5677 | C | THR | A | 877 | 11.352 | -39.681 | 46.556 | 1.00 | 19.94 | C |
| ATOM | 5678 | O | THR | A | 877 | 11.446 | -40.108 | 45.412 | 1.00 | 17.88 | O |
| ATOM | 5679 | CB | THR | A | 877 | 12.402 | -41.474 | 47.889 | 1.00 | 19.94 | C |
| ATOM | 5680 | OG1 | THR | A | 877 | 11.083 | -41.839 | 48.304 | 1.00 | 20.28 | O |
| ATOM | 5681 | CG2 | THR | A | 877 | 13.375 | -41.810 | 49.003 | 1.00 | 16.87 | C |
| ATOM | 5682 | N | GLN | A | 878 | 10.331 | -38.936 | 46.969 | 1.00 | 19.02 | N |
| ATOM | 5683 | CA | GLN | A | 878 | 9.216 | -38.598 | 46.093 | 1.00 | 17.22 | C |
| ATOM | 5684 | C | GLN | A | 878 | 8.540 | -39.863 | 45.580 | 1.00 | 19.56 | C |
| ATOM | 5685 | O | GLN | A | 878 | 8.275 | -39.991 | 44.388 | 1.00 | 22.55 | O |
| ATOM | 5686 | CB | GLN | A | 878 | 9.697 | -37.753 | 44.913 | 1.00 | 17.06 | C |
| ATOM | 5687 | CG | GLN | A | 878 | 10.218 | -36.392 | 45.328 | 1.00 | 19.05 | C |
| ATOM | 5688 | CD | GLN | A | 878 | 10.222 | -35.396 | 44.194 | 1.00 | 22.70 | C |
| ATOM | 5689 | OE1 | GLN | A | 878 | 10.661 | -35.698 | 43.083 | 1.00 | 28.79 | O |
| ATOM | 5690 | NE2 | GLN | A | 878 | 9.734 | -34.195 | 44.467 | 1.00 | 21.61 | N |
| ATOM | 5691 | N | GLU | A | 879 | 8.274 | -40.798 | 46.485 | 1.00 | 20.09 | N |
| ATOM | 5692 | CA | GLU | A | 879 | 7.625 | -42.058 | 46.131 | 1.00 | 20.50 | C |
| ATOM | 5693 | C | GLU | A | 879 | 6.631 | -42.490 | 47.191 | 1.00 | 22.44 | C |
| ATOM | 5694 | O | GLU | A | 879 | 6.657 | -42.022 | 48.332 | 1.00 | 20.07 | O |
| ATOM | 5695 | CB | GLU | A | 879 | 8.640 | -43.193 | 46.008 | 1.00 | 19.07 | C |
| ATOM | 5696 | CG | GLU | A | 879 | 9.792 | -42.952 | 45.079 | 1.00 | 22.07 | C |
| ATOM | 5697 | CD | GLU | A | 879 | 10.617 | -44.207 | 44.874 | 1.00 | 17.88 | C |
| ATOM | 5698 | OE1 | GLU | A | 879 | 10.527 | -45.143 | 45.701 | 1.00 | 21.19 | O |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 5699 | OE2 | GLU | A | 879 | 11.352 | -44.258 | 43.874 | 1.00 | 27.64 | O |
| ATOM | 5700 | N | SER | A | 880 | 5.755 | -43.404 | 46.802 | 1.00 | 25.23 | N |
| ATOM | 5701 | CA | SER | A | 880 | 4.795 | -43.952 | 47.742 | 1.00 | 27.86 | C |
| ATOM | 5702 | C | SER | A | 880 | 5.478 | -45.236 | 48.182 | 1.00 | 28.75 | C |
| ATOM | 5703 | O | SER | A | 880 | 6.706 | -45.337 | 48.117 | 1.00 | 29.61 | O |
| ATOM | 5704 | CB | SER | A | 880 | 3.465 | -44.270 | 47.060 | 1.00 | 26.50 | C |
| ATOM | 5705 | OG | SER | A | 880 | 2.534 | -44.739 | 48.015 | 1.00 | 28.87 | O |
| ATOM | 5706 | N | ALA | A | 881 | 4.700 | -46.217 | 48.616 | 1.00 | 28.13 | N |
| ATOM | 5707 | CA | ALA | A | 881 | 5.275 | -47.485 | 49.044 | 1.00 | 28.47 | C |
| ATOM | 5708 | C | ALA | A | 881 | 4.180 | -48.506 | 49.283 | 1.00 | 30.47 | C |
| ATOM | 5709 | O | ALA | A | 881 | 3.033 | -48.144 | 49.544 | 1.00 | 27.59 | O |
| ATOM | 5710 | CB | ALA | A | 881 | 6.083 | -47.293 | 50.314 | 1.00 | 26.95 | C |
| ATOM | 5711 | N | PRO | A | 882 | 4.517 | -49.801 | 49.163 | 1.00 | 31.15 | N |
| ATOM | 5712 | CA | PRO | A | 882 | 3.535 | -50.867 | 49.382 | 1.00 | 29.83 | C |
| ATOM | 5713 | C | PRO | A | 882 | 2.935 | -50.720 | 50.772 | 1.00 | 28.12 | C |
| ATOM | 5714 | O | PRO | A | 882 | 3.648 | -50.435 | 51.731 | 1.00 | 25.75 | O |
| ATOM | 5715 | CB | PRO | A | 882 | 4.355 | -52.149 | 49.246 | 1.00 | 30.45 | C |
| ATOM | 5716 | CG | PRO | A | 882 | 5.516 | -51.757 | 48.387 | 1.00 | 29.57 | C |
| ATOM | 5717 | CD | PRO | A | 882 | 5.833 | -50.338 | 48.776 | 1.00 | 30.11 | C |
| ATOM | 5718 | N | ASP | A | 883 | 1.624 | -50.912 | 50.866 | 1.00 | 27.98 | N |
| ATOM | 5719 | CA | ASP | A | 883 | 0.912 | -50.791 | 52.129 | 1.00 | 25.80 | C |
| ATOM | 5720 | C | ASP | A | 883 | 1.591 | -51.489 | 53.308 | 1.00 | 25.78 | C |
| ATOM | 5721 | O | ASP | A | 883 | 1.707 | -50.909 | 54.392 | 1.00 | 20.05 | O |
| ATOM | 5722 | CB | ASP | A | 883 | -0.516 | -51.347 | 51.992 | 1.00 | 28.04 | C |
| ATOM | 5723 | CG | ASP | A | 883 | -1.321 | -50.658 | 50.907 | 1.00 | 28.74 | C |
| ATOM | 5724 | OD1 | ASP | A | 883 | -1.113 | -49.449 | 50.678 | 1.00 | 30.22 | O |
| ATOM | 5725 | OD2 | ASP | A | 883 | -2.171 | -51.331 | 50.282 | 1.00 | 30.95 | O |
| ATOM | 5726 | N | GLN | A | 884 | 2.041 | -52.727 | 53.110 | 1.00 | 24.74 | N |
| ATOM | 5727 | CA | GLN | A | 884 | 2.645 | -53.475 | 54.211 | 1.00 | 27.30 | C |
| ATOM | 5728 | C | GLN | A | 884 | 3.979 | -52.933 | 54.717 | 1.00 | 25.70 | C |
| ATOM | 5729 | O | GLN | A | 884 | 4.463 | -53.343 | 55.770 | 1.00 | 23.01 | O |
| ATOM | 5730 | CB | GLN | A | 884 | 2.782 | -54.958 | 53.837 | 1.00 | 30.12 | C |
| ATOM | 5731 | CG | GLN | A | 884 | 4.040 | -55.324 | 53.064 | 1.00 | 35.88 | C |
| ATOM | 5732 | CD | GLN | A | 884 | 4.017 | -54.793 | 51.653 | 1.00 | 41.97 | C |
| ATOM | 5733 | OE1 | GLN | A | 884 | 2.975 | -54.338 | 51.169 | 1.00 | 42.85 | O |
| ATOM | 5734 | NE2 | GLN | A | 884 | 5.168 | -54.843 | 50.977 | 1.00 | 42.65 | N |
| ATOM | 5735 | N | GLU | A | 885 | 4.563 | -52.001 | 53.976 | 1.00 | 26.75 | N |
| ATOM | 5736 | CA | GLU | A | 885 | 5.835 | -51.408 | 54.368 | 1.00 | 28.09 | C |
| ATOM | 5737 | C | GLU | A | 885 | 5.636 | -50.236 | 55.328 | 1.00 | 26.78 | C |
| ATOM | 5738 | O | GLU | A | 885 | 6.496 | -49.947 | 56.162 | 1.00 | 26.46 | O |
| ATOM | 5739 | CB | GLU | A | 885 | 6.584 | -50.908 | 53.128 | 1.00 | 28.07 | C |
| ATOM | 5740 | CG | GLU | A | 885 | 7.410 | -51.963 | 52.411 | 1.00 | 31.45 | C |
| ATOM | 5741 | CD | GLU | A | 885 | 8.186 | -51.385 | 51.238 | 1.00 | 33.40 | C |
| ATOM | 5742 | OE1 | GLU | A | 885 | 8.401 | -50.153 | 51.212 | 1.00 | 34.05 | O |
| ATOM | 5743 | OE2 | GLU | A | 885 | 8.581 | -52.159 | 50.340 | 1.00 | 36.14 | O |
| ATOM | 5744 | N | VAL | A | 886 | 4.491 | -49.574 | 55.218 | 1.00 | 23.37 | N |
| ATOM | 5745 | CA | VAL | A | 886 | 4.216 | -48.400 | 56.032 | 1.00 | 22.01 | C |
| ATOM | 5746 | C | VAL | A | 886 | 3.022 | -48.484 | 56.971 | 1.00 | 22.99 | C |
| ATOM | 5747 | O | VAL | A | 886 | 2.897 | -47.670 | 57.888 | 1.00 | 22.36 | O |
| ATOM | 5748 | CB | VAL | A | 886 | 4.009 | -47.188 | 55.114 | 1.00 | 20.78 | C |

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ATOM   5749  CG1 VAL A 886       5.048 -47.205  54.008  1.00 21.70           C
ATOM   5750  CG2 VAL A 886       2.619 -47.242  54.490  1.00 20.86           C
ATOM   5751  N   PHE A 887       2.156 -49.468  56.754  1.00 24.33           N
ATOM   5752  CA  PHE A 887       0.946 -49.596  57.555  1.00 23.81           C
ATOM   5753  C   PHE A 887       0.674 -51.008  58.044  1.00 24.10           C
ATOM   5754  O   PHE A 887       0.801 -51.972  57.298  1.00 24.96           O
ATOM   5755  CB  PHE A 887      -0.240 -49.096  56.720  1.00 27.39           C
ATOM   5756  CG  PHE A 887      -1.580 -49.295  57.363  1.00 25.74           C
ATOM   5757  CD1 PHE A 887      -2.194 -48.252  58.052  1.00 29.40           C
ATOM   5758  CD2 PHE A 887      -2.249 -50.507  57.247  1.00 27.86           C
ATOM   5759  CE1 PHE A 887      -3.459 -48.412  58.617  1.00 26.08           C
ATOM   5760  CE2 PHE A 887      -3.511 -50.679  57.807  1.00 28.45           C
ATOM   5761  CZ  PHE A 887      -4.117 -49.627  58.494  1.00 28.48           C
ATOM   5762  N   LYS A 888       0.275 -51.119  59.305  1.00 27.66           N
ATOM   5763  CA  LYS A 888      -0.038 -52.417  59.887  1.00 31.22           C
ATOM   5764  C   LYS A 888      -1.336 -52.363  60.696  1.00 29.97           C
ATOM   5765  O   LYS A 888      -1.432 -51.649  61.693  1.00 26.43           O
ATOM   5766  CB  LYS A 888       1.118 -52.883  60.778  1.00 32.00           C
ATOM   5767  CG  LYS A 888       0.744 -53.965  61.767  1.00 39.41           C
ATOM   5768  CD  LYS A 888       1.626 -55.184  61.611  1.00 41.70           C
ATOM   5769  CE  LYS A 888       0.789 -56.452  61.525  1.00 48.64           C
ATOM   5770  NZ  LYS A 888       1.633 -57.683  61.454  1.00 48.97           N
ATOM   5771  N   LYS A 889      -2.344 -53.107  60.252  1.00 32.65           N
ATOM   5772  CA  LYS A 889      -3.605 -53.139  60.973  1.00 34.68           C
ATOM   5773  C   LYS A 889      -3.344 -53.892  62.275  1.00 35.25           C
ATOM   5774  O   LYS A 889      -2.703 -54.946  62.266  1.00 33.74           O
ATOM   5775  CB  LYS A 889      -4.672 -53.856  60.141  1.00 36.41           C
ATOM   5776  CG  LYS A 889      -6.015 -54.005  60.846  1.00 40.99           C
ATOM   5777  CD  LYS A 889      -6.613 -55.394  60.617  1.00 46.28           C
ATOM   5778  CE  LYS A 889      -6.853 -56.131  61.939  1.00 49.02           C
ATOM   5779  NZ  LYS A 889      -6.216 -57.488  61.980  1.00 45.97           N
ATOM   5780  N   LEU A 890      -3.820 -53.346  63.393  1.00 36.71           N
ATOM   5781  CA  LEU A 890      -3.616 -53.984  64.696  1.00 38.76           C
ATOM   5782  C   LEU A 890      -4.547 -55.188  64.887  1.00 42.65           C
ATOM   5783  O   LEU A 890      -4.041 -56.334  65.004  1.00 43.48           O
ATOM   5784  CB  LEU A 890      -3.831 -52.966  65.820  1.00 32.78           C
ATOM   5785  OXT LEU A 890      -5.778 -54.967  64.914  1.00 43.67           O
TER    5786      LEU A 890
HETATM 5787  C1  NAG B   1      18.584 -15.887  33.735  1.00 17.59           C
HETATM 5788  C2  NAG B   1      18.112 -14.542  33.092  1.00 24.26           C
HETATM 5789  C3  NAG B   1      16.593 -14.687  32.737  1.00 24.40           C
HETATM 5790  C4  NAG B   1      16.428 -15.873  31.714  1.00 17.29           C
HETATM 5791  C5  NAG B   1      16.955 -17.212  32.384  1.00 25.35           C
HETATM 5792  C6  NAG B   1      16.849 -18.434  31.428  1.00 18.80           C
HETATM 5793  C7  NAG B   1      18.543 -12.071  33.705  1.00 17.74           C
HETATM 5794  C8  NAG B   1      18.689 -11.146  34.888  1.00 20.63           C
HETATM 5795  N2  NAG B   1      18.311 -13.409  34.092  1.00 25.44           N
HETATM 5796  O1  NAG B   1      19.962 -15.807  34.060  1.00 20.34           O
HETATM 5797  O3  NAG B   1      16.118 -13.448  32.110  1.00 13.46           O
HETATM 5798  O4  NAG B   1      15.028 -16.071  31.361  1.00 23.48           O
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HETATM 5799  O5  NAG B   1      18.393 -17.056  32.775  1.00 28.51           O
HETATM 5800  O6  NAG B   1      16.331 -19.635  32.074  1.00 19.93           O
HETATM 5801  O7  NAG B   1      18.616 -11.659  32.530  1.00 13.78           O
HETATM 5802  C1  BDP B   2      14.823 -13.005  32.453  1.00 24.85           C
HETATM 5803  C2  BDP B   2      14.636 -11.459  32.225  1.00 16.75           C
HETATM 5804  C3  BDP B   2      13.169 -11.142  32.664  1.00 20.49           C
HETATM 5805  C4  BDP B   2      12.176 -11.942  31.740  1.00 24.41           C
HETATM 5806  C5  BDP B   2      12.367 -13.562  31.770  1.00 25.24           C
HETATM 5807  C6  BDP B   2      11.630 -14.355  30.949  1.00 16.24           C
HETATM 5808  O2  BDP B   2      15.575 -10.715  33.054  1.00 22.87           O
HETATM 5809  O3  BDP B   2      12.911  -9.722  32.507  1.00 25.37           O
HETATM 5810  O4  BDP B   2      10.768 -11.753  32.147  1.00 17.94           O
HETATM 5811  O5  BDP B   2      13.881 -13.770  31.641  1.00 18.19           O
HETATM 5812  O6A BDP B   2      11.997 -15.560  30.926  1.00 27.78           O
HETATM 5813  O6B BDP B   2      10.715 -13.771  30.290  1.00 15.64           O
HETATM 5814  C1  NAG B   3       9.871 -10.885  31.481  1.00 16.82           C
HETATM 5815  C2  NAG B   3       8.458 -10.940  32.182  1.00 18.62           C
HETATM 5816  C3  NAG B   3       7.511  -9.982  31.424  1.00 18.43           C
HETATM 5817  C4  NAG B   3       8.098  -8.520  31.484  1.00 13.74           C
HETATM 5818  C5  NAG B   3       9.530  -8.516  30.803  1.00 10.81           C
HETATM 5819  C6  NAG B   3      10.188  -7.130  30.842  1.00 22.07           C
HETATM 5820  C7  NAG B   3       7.197 -12.844  33.290  1.00 25.62           C
HETATM 5821  C8  NAG B   3       6.650 -14.218  33.062  1.00 22.36           C
HETATM 5822  N2  NAG B   3       7.864 -12.335  32.155  1.00 26.61           N
HETATM 5823  O3  NAG B   3       6.133 -10.059  32.019  1.00 16.03           O
HETATM 5824  O4  NAG B   3       7.260  -7.578  30.771  1.00 23.61           O
HETATM 5825  O5  NAG B   3      10.432  -9.471  31.498  1.00 18.24           O
HETATM 5826  O6  NAG B   3      10.094  -6.495  32.134  1.00 18.39           O
HETATM 5827  O7  NAG B   3       7.047 -12.250  34.360  1.00 28.34           O
HETATM 5828  C1  BDP B   4       5.207 -10.217  30.946  1.00 20.97           C
HETATM 5829  C2  BDP B   4       3.694 -10.401  31.332  1.00 26.66           C
HETATM 5830  C3  BDP B   4       2.932 -10.545  29.945  1.00 21.47           C
HETATM 5831  C4  BDP B   4       3.137  -9.160  29.197  1.00 17.66           C
HETATM 5832  C5  BDP B   4       4.653  -8.801  28.858  1.00 23.18           C
HETATM 5833  C6  BDP B   4       4.950  -7.640  28.245  1.00 14.82           C
HETATM 5834  O2  BDP B   4       3.569 -11.609  32.120  1.00 16.18           O
HETATM 5835  O3  BDP B   4       1.532 -10.750  30.216  1.00 29.04           O
HETATM 5836  O4  BDP B   4       2.656  -8.869  27.821  1.00 13.75           O
HETATM 5837  O5  BDP B   4       5.394  -9.035  30.142  1.00 15.39           O
HETATM 5838  O6A BDP B   4       5.268  -7.773  27.043  1.00 22.61           O
HETATM 5839  O6B BDP B   4       4.827  -6.597  28.958  1.00 14.92           O
HETATM 5840  C1  NAG B   5       1.452  -8.971  27.095  1.00 12.57           C
HETATM 5841  C2  NAG B   5       1.789  -8.336  25.708  1.00 14.21           C
HETATM 5842  C3  NAG B   5       0.573  -8.457  24.774  1.00 17.60           C
HETATM 5843  C4  NAG B   5       0.238  -9.999  24.605  1.00 19.79           C
HETATM 5844  C5  NAG B   5      -0.092 -10.601  26.041  1.00 17.74           C
HETATM 5845  C6  NAG B   5      -0.400 -12.106  25.926  1.00 20.87           C
HETATM 5846  C7  NAG B   5       1.625  -5.944  26.877  1.00 20.27           C
HETATM 5847  C8  NAG B   5       2.150  -4.531  26.730  1.00 23.54           C
HETATM 5848  N2  NAG B   5       2.134  -6.830  25.859  1.00 23.07           N
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HETATM 5849  O3  NAG B   5       0.926  -7.864  23.467  1.00 28.67           O
HETATM 5850  O4  NAG B   5      -0.935 -10.213  23.732  1.00 21.50           O
HETATM 5851  O5  NAG B   5       1.112 -10.420  26.905  1.00 23.36           O
HETATM 5852  O6  NAG B   5      -0.337 -12.608  24.573  1.00 18.18           O
HETATM 5853  O7  NAG B   5       0.837  -6.245  27.796  1.00 17.65           O
HETATM 5854  C1  BDP B   6      -0.110  -7.440  22.615  1.00 13.31           C
HETATM 5855  C2  BDP B   6       0.507  -6.902  21.379  1.00 25.60           C
HETATM 5856  C3  BDP B   6      -0.705  -6.525  20.514  1.00 21.59           C
HETATM 5857  C4  BDP B   6      -2.030  -7.153  20.366  1.00 18.41           C
HETATM 5858  C5  BDP B   6      -2.096  -8.135  21.289  1.00 21.71           C
HETATM 5859  C6  BDP B   6      -2.784  -9.373  21.081  1.00 19.44           C
HETATM 5860  O2  BDP B   6       1.318  -5.791  21.734  1.00 18.68           O
HETATM 5861  O3  BDP B   6      -0.193  -6.084  19.210  1.00 27.11           O
HETATM 5862  O4  BDP B   6      -2.617  -7.244  19.466  1.00 17.96           O
HETATM 5863  O5  BDP B   6      -0.946  -8.523  22.189  1.00 19.33           O
HETATM 5864  O6A BDP B   6      -2.413 -10.054  20.066  1.00 22.75           O
HETATM 5865  O6B BDP B   6      -3.642  -9.638  21.986  1.00  8.26           O
HETATM 5866  O   HOH A1001     -23.366 -26.135  19.010  1.00 53.46           O
HETATM 5867  O   HOH A1002     -23.421 -25.627  22.500  1.00 37.58           O
HETATM 5868  O   HOH A1003     -21.637 -27.408  27.836  1.00 29.33           O
HETATM 5869  O   HOH A1004     -19.716 -26.017  34.258  1.00 33.56           O
HETATM 5870  O   HOH A1005     -18.396 -27.389  36.058  1.00 33.30           O
HETATM 5871  O   HOH A1006     -19.157 -28.805  38.071  1.00 39.70           O
HETATM 5872  O   HOH A1007     -13.330 -29.004  39.811  1.00 39.37           O
HETATM 5873  O   HOH A1008     -12.068 -31.805  40.258  1.00 36.88           O
HETATM 5874  O   HOH A1009      -9.087 -33.732  43.327  1.00 18.47           O
HETATM 5875  O   HOH A1010      -7.316 -31.995  41.345  1.00 47.15           O
HETATM 5876  O   HOH A1011      -4.060 -31.211  39.557  1.00 22.55           O
HETATM 5877  O   HOH A1012      -2.274 -32.763  40.905  1.00 20.97           O
HETATM 5878  O   HOH A1013      -2.799 -34.215  42.978  1.00 17.84           O
HETATM 5879  O   HOH A1015      -5.116 -36.370  41.199  1.00 20.59           O
HETATM 5880  O   HOH A1016       8.464  12.880   6.471  1.00 52.11           O
HETATM 5881  O   HOH A1017     -12.871 -38.226  46.262  1.00 33.83           O
HETATM 5882  O   HOH A1018     -12.536 -41.976  46.455  1.00 67.83           O
HETATM 5883  O   HOH A1019     -11.655 -41.953  50.236  1.00 39.42           O
HETATM 5884  O   HOH A1020     -12.845 -46.840  47.884  1.00 50.04           O
HETATM 5885  O   HOH A1021      -6.317 -45.258  48.952  1.00 39.13           O
HETATM 5886  O   HOH A1022      -5.569 -47.782  50.057  1.00 30.61           O
HETATM 5887  O   HOH A1023      -2.890 -48.472  48.821  1.00 28.37           O
HETATM 5888  O   HOH A1024      -2.319 -46.083  47.799  1.00 30.73           O
HETATM 5889  O   HOH A1025      -0.106 -45.115  49.172  1.00 20.71           O
HETATM 5890  O   HOH A1026       0.512 -47.206  50.372  1.00 37.22           O
HETATM 5891  O   HOH A1027       0.383 -41.698  46.924  1.00 64.47           O
HETATM 5892  O   HOH A1028       5.573 -39.997  43.447  1.00 20.18           O
HETATM 5893  O   HOH A1029       6.401 -36.594  43.742  1.00 30.51           O
HETATM 5894  O   HOH A1031       8.250 -34.512  47.171  1.00 20.11           O
HETATM 5895  O   HOH A1032       6.945 -32.671  46.794  1.00 35.64           O
HETATM 5896  O   HOH A1033       6.141 -30.973  48.352  1.00 54.19           O
HETATM 5897  O   HOH A1034       2.865 -30.213  47.866  1.00 31.06           O
HETATM 5898  O   HOH A1035       9.371 -30.297  44.697  1.00 13.77           O
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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 5899 | O | HOH | A1036 | 11.193 | -30.142 | 40.912 | 1.00 | 34.83 | O |
| HETATM | 5900 | O | HOH | A1037 | 11.616 | -32.721 | 41.029 | 1.00 | 48.87 | O |
| HETATM | 5901 | O | HOH | A1038 | 13.380 | -28.369 | 39.761 | 1.00 | 28.04 | O |
| HETATM | 5902 | O | HOH | A1039 | 16.227 | -27.241 | 36.576 | 1.00 | 24.26 | O |
| HETATM | 5903 | O | HOH | A1040 | 15.111 | -27.192 | 32.394 | 1.00 | 43.49 | O |
| HETATM | 5904 | O | HOH | A1041 | 13.071 | -29.671 | 31.536 | 1.00 | 26.29 | O |
| HETATM | 5905 | O | HOH | A1042 | 9.998 | -27.698 | 29.419 | 1.00 | 34.89 | O |
| HETATM | 5906 | O | HOH | A1043 | 9.276 | -29.837 | 27.469 | 1.00 | 33.31 | O |
| HETATM | 5907 | O | HOH | A1044 | 6.852 | -29.130 | 29.615 | 1.00 | 26.12 | O |
| HETATM | 5908 | O | HOH | A1045 | 6.132 | -27.147 | 28.070 | 1.00 | 17.79 | O |
| HETATM | 5909 | O | HOH | A1046 | 4.172 | -30.305 | 28.289 | 1.00 | 38.97 | O |
| HETATM | 5910 | O | HOH | A1047 | 4.785 | -35.816 | 27.175 | 1.00 | 41.54 | O |
| HETATM | 5911 | O | HOH | A1048 | 6.157 | -32.563 | 20.841 | 1.00 | 34.71 | O |
| HETATM | 5912 | O | HOH | A1049 | 15.480 | -30.181 | 21.216 | 1.00 | 38.80 | O |
| HETATM | 5913 | O | HOH | A1050 | 19.935 | -27.005 | 22.175 | 1.00 | 56.20 | O |
| HETATM | 5914 | O | HOH | A1051 | 16.765 | -28.696 | 25.590 | 1.00 | 60.01 | O |
| HETATM | 5915 | O | HOH | A1052 | 16.532 | -26.052 | 29.539 | 1.00 | 52.91 | O |
| HETATM | 5916 | O | HOH | A1053 | 16.322 | -23.570 | 29.887 | 1.00 | 44.90 | O |
| HETATM | 5917 | O | HOH | A1054 | 13.320 | -21.154 | 28.934 | 1.00 | 28.70 | O |
| HETATM | 5918 | O | HOH | A1055 | 11.757 | -22.292 | 30.521 | 1.00 | 27.54 | O |
| HETATM | 5919 | O | HOH | A1056 | 9.669 | -20.036 | 29.893 | 1.00 | 24.93 | O |
| HETATM | 5920 | O | HOH | A1057 | 9.736 | -25.068 | 30.704 | 1.00 | 61.25 | O |
| HETATM | 5921 | O | HOH | A1058 | 14.472 | -24.766 | 22.862 | 1.00 | 27.68 | O |
| HETATM | 5922 | O | HOH | A1059 | 18.346 | -17.127 | 18.727 | 1.00 | 33.89 | O |
| HETATM | 5923 | O | HOH | A1060 | 18.761 | -15.294 | 20.483 | 1.00 | 26.57 | O |
| HETATM | 5924 | O | HOH | A1061 | 23.884 | -8.215 | 21.928 | 1.00 | 36.57 | O |
| HETATM | 5925 | O | HOH | A1062 | 25.079 | -8.735 | 13.824 | 1.00 | 44.36 | O |
| HETATM | 5926 | O | HOH | A1063 | 21.632 | -2.745 | 9.879 | 1.00 | 51.04 | O |
| HETATM | 5927 | O | HOH | A1064 | 19.544 | -3.624 | 11.102 | 1.00 | 36.92 | O |
| HETATM | 5928 | O | HOH | A1065 | 16.497 | -4.081 | 11.058 | 1.00 | 33.64 | O |
| HETATM | 5929 | O | HOH | A1066 | 16.333 | -2.170 | 12.654 | 1.00 | 26.18 | O |
| HETATM | 5930 | O | HOH | A1067 | 13.215 | -2.536 | 12.557 | 1.00 | 27.79 | O |
| HETATM | 5931 | O | HOH | A1068 | 12.590 | -0.254 | 13.571 | 1.00 | 26.58 | O |
| HETATM | 5932 | O | HOH | A1069 | 9.359 | 3.516 | 6.874 | 1.00 | 23.17 | O |
| HETATM | 5933 | O | HOH | A1070 | 6.793 | 1.781 | 0.527 | 1.00 | 46.76 | O |
| HETATM | 5934 | O | HOH | A1071 | 11.176 | 3.226 | 0.659 | 1.00 | 43.60 | O |
| HETATM | 5935 | O | HOH | A1072 | 10.648 | 0.255 | -0.872 | 1.00 | 37.05 | O |
| HETATM | 5936 | O | HOH | A1073 | 8.095 | -4.576 | -1.482 | 1.00 | 70.41 | O |
| HETATM | 5937 | O | HOH | A1074 | 3.645 | -5.442 | -2.164 | 1.00 | 63.99 | O |
| HETATM | 5938 | O | HOH | A1075 | 3.358 | -5.425 | 0.463 | 1.00 | 41.48 | O |
| HETATM | 5939 | O | HOH | A1076 | 2.256 | -2.873 | 0.113 | 1.00 | 36.09 | O |
| HETATM | 5940 | O | HOH | A1077 | -2.511 | -3.425 | 6.298 | 1.00 | 19.97 | O |
| HETATM | 5941 | O | HOH | A1078 | -3.529 | -6.027 | 6.057 | 1.00 | 33.01 | O |
| HETATM | 5942 | O | HOH | A1079 | -5.412 | -7.842 | 7.806 | 1.00 | 34.55 | O |
| HETATM | 5943 | O | HOH | A1080 | -4.749 | -5.082 | 9.152 | 1.00 | 28.66 | O |
| HETATM | 5944 | O | HOH | A1081 | -6.433 | -3.892 | 7.272 | 1.00 | 24.16 | O |
| HETATM | 5945 | O | HOH | A1082 | -4.840 | -2.247 | 5.526 | 1.00 | 30.30 | O |
| HETATM | 5946 | O | HOH | A1083 | -5.877 | 0.780 | 7.017 | 1.00 | 39.42 | O |
| HETATM | 5947 | O | HOH | A1084 | -10.156 | -2.126 | 5.169 | 1.00 | 38.03 | O |
| HETATM | 5948 | O | HOH | A1085 | -8.366 | -3.213 | 3.523 | 1.00 | 53.11 | O |

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|---|---|---|---|---|---|---|---|---|---|---|
| HETATM | 5949 | O | HOH | A1086 | -9.275 | -6.179 | 9.235 | 1.00 | 40.10 | O |
| HETATM | 5950 | O | HOH | A1087 | -9.035 | -8.550 | 11.526 | 1.00 | 17.55 | O |
| HETATM | 5951 | O | HOH | A1088 | -7.019 | -6.513 | 13.048 | 1.00 | 19.66 | O |
| HETATM | 5952 | O | HOH | A1089 | -6.460 | -4.789 | 11.089 | 1.00 | 20.97 | O |
| HETATM | 5953 | O | HOH | A1091 | -8.536 | -1.973 | 17.256 | 1.00 | 32.16 | O |
| HETATM | 5954 | O | HOH | A1092 | -7.843 | -4.395 | 18.822 | 1.00 | 29.11 | O |
| HETATM | 5955 | O | HOH | A1093 | -6.244 | -4.959 | 20.628 | 1.00 | 22.25 | O |
| HETATM | 5956 | O | HOH | A1094 | -3.074 | -5.636 | 23.635 | 1.00 | 41.90 | O |
| HETATM | 5957 | O | HOH | A1096 | -1.990 | -2.891 | 21.854 | 1.00 | 26.52 | O |
| HETATM | 5958 | O | HOH | A1097 | 0.804 | -2.374 | 22.012 | 1.00 | 35.84 | O |
| HETATM | 5959 | O | HOH | A1099 | -3.224 | -12.371 | 23.655 | 1.00 | 68.91 | O |
| HETATM | 5960 | O | HOH | A1101 | -4.104 | -10.175 | 24.228 | 1.00 | 22.17 | O |
| HETATM | 5961 | O | HOH | A1102 | -7.172 | -10.579 | 25.100 | 1.00 | 19.00 | O |
| HETATM | 5962 | O | HOH | A1103 | -3.261 | -8.238 | 29.089 | 1.00 | 37.21 | O |
| HETATM | 5963 | O | HOH | A1104 | -1.056 | -9.449 | 28.841 | 1.00 | 61.41 | O |
| HETATM | 5964 | O | HOH | A1105 | 0.698 | -13.328 | 28.692 | 1.00 | 26.65 | O |
| HETATM | 5965 | O | HOH | A1106 | 2.588 | -12.613 | 27.177 | 1.00 | 31.12 | O |
| HETATM | 5966 | O | HOH | A1108 | 7.327 | -5.454 | 28.879 | 1.00 | 31.95 | O |
| HETATM | 5967 | O | HOH | A1109 | 10.035 | -4.089 | 28.962 | 1.00 | 28.82 | O |
| HETATM | 5968 | O | HOH | A1110 | 10.546 | -3.826 | 31.361 | 1.00 | 49.83 | O |
| HETATM | 5969 | O | HOH | A1111 | 8.373 | -1.816 | 28.296 | 1.00 | 27.10 | O |
| HETATM | 5970 | O | HOH | A1112 | 5.889 | -3.809 | 30.384 | 1.00 | 40.44 | O |
| HETATM | 5971 | O | HOH | A1113 | 7.201 | -5.250 | 35.115 | 1.00 | 37.13 | O |
| HETATM | 5972 | O | HOH | A1114 | 7.215 | -3.146 | 37.090 | 1.00 | 24.55 | O |
| HETATM | 5973 | O | HOH | A1115 | 6.221 | -0.519 | 34.866 | 1.00 | 62.99 | O |
| HETATM | 5974 | O | HOH | A1116 | 3.115 | -3.643 | 35.616 | 1.00 | 42.70 | O |
| HETATM | 5975 | O | HOH | A1117 | 2.301 | -9.608 | 34.745 | 1.00 | 25.07 | O |
| HETATM | 5976 | O | HOH | A1119 | 2.260 | -13.159 | 33.827 | 1.00 | 45.41 | O |
| HETATM | 5977 | O | HOH | A1120 | 0.773 | -13.631 | 37.006 | 1.00 | 18.38 | O |
| HETATM | 5978 | O | HOH | A1121 | 6.660 | -13.396 | 36.728 | 1.00 | 14.00 | O |
| HETATM | 5979 | O | HOH | A1122 | 10.563 | -8.100 | 34.370 | 1.00 | 28.13 | O |
| HETATM | 5980 | O | HOH | A1123 | 12.657 | -1.283 | 37.107 | 1.00 | 37.58 | O |
| HETATM | 5981 | O | HOH | A1124 | 17.354 | -1.143 | 40.519 | 1.00 | 52.68 | O |
| HETATM | 5982 | O | HOH | A1125 | 17.899 | -5.011 | 37.763 | 1.00 | 38.59 | O |
| HETATM | 5983 | O | HOH | A1126 | 16.712 | -7.207 | 41.270 | 1.00 | 31.04 | O |
| HETATM | 5984 | O | HOH | A1127 | 16.986 | -4.812 | 44.240 | 1.00 | 19.24 | O |
| HETATM | 5985 | O | HOH | A1128 | 17.813 | -3.227 | 47.896 | 1.00 | 38.69 | O |
| HETATM | 5986 | O | HOH | A1129 | 18.197 | -3.212 | 50.798 | 1.00 | 19.88 | O |
| HETATM | 5987 | O | HOH | A1130 | 18.851 | -3.568 | 55.251 | 1.00 | 46.74 | O |
| HETATM | 5988 | O | HOH | A1131 | 16.990 | -3.305 | 52.600 | 1.00 | 59.15 | O |
| HETATM | 5989 | O | HOH | A1132 | 12.083 | -1.311 | 48.416 | 1.00 | 31.91 | O |
| HETATM | 5990 | O | HOH | A1133 | 8.579 | 3.209 | 47.146 | 1.00 | 35.47 | O |
| HETATM | 5991 | O | HOH | A1134 | 9.738 | 6.919 | 44.895 | 1.00 | 36.29 | O |
| HETATM | 5992 | O | HOH | A1135 | 5.321 | 6.614 | 40.435 | 1.00 | 40.59 | O |
| HETATM | 5993 | O | HOH | A1136 | 2.690 | 7.554 | 39.911 | 1.00 | 42.04 | O |
| HETATM | 5994 | O | HOH | A1137 | -0.457 | 1.488 | 40.499 | 1.00 | 20.52 | O |
| HETATM | 5995 | O | HOH | A1138 | -0.673 | 2.654 | 42.942 | 1.00 | 24.28 | O |
| HETATM | 5996 | O | HOH | A1139 | -3.355 | 1.655 | 43.258 | 1.00 | 36.27 | O |
| HETATM | 5997 | O | HOH | A1140 | -3.751 | -0.930 | 44.437 | 1.00 | 25.63 | O |
| HETATM | 5998 | O | HOH | A1141 | -5.307 | -2.495 | 42.645 | 1.00 | 32.01 | O |

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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 5999 | O | HOH A1142 | -4.558 | -1.992 | 40.289 | 1.00 | 29.80 | O |
| HETATM | 6000 | O | HOH A1143 | -3.108 | 0.401 | 40.271 | 1.00 | 33.90 | O |
| HETATM | 6001 | O | HOH A1144 | -2.333 | -1.335 | 37.090 | 1.00 | 38.02 | O |
| HETATM | 6002 | O | HOH A1145 | -1.911 | -1.718 | 33.389 | 1.00 | 46.28 | O |
| HETATM | 6003 | O | HOH A1146 | -4.060 | -2.381 | 29.918 | 1.00 | 59.86 | O |
| HETATM | 6004 | O | HOH A1147 | -5.450 | -4.509 | 35.745 | 1.00 | 41.81 | O |
| HETATM | 6005 | O | HOH A1148 | -8.174 | -4.957 | 34.929 | 1.00 | 19.28 | O |
| HETATM | 6006 | O | HOH A1149 | -7.268 | -5.894 | 40.445 | 1.00 | 26.78 | O |
| HETATM | 6007 | O | HOH A1150 | -4.391 | -5.762 | 38.987 | 1.00 | 20.01 | O |
| HETATM | 6008 | O | HOH A1151 | -7.594 | -9.117 | 41.224 | 1.00 | 19.08 | O |
| HETATM | 6009 | O | HOH A1152 | -7.976 | -11.252 | 45.571 | 1.00 | 20.12 | O |
| HETATM | 6010 | O | HOH A1153 | -9.427 | -13.574 | 47.501 | 1.00 | 23.37 | O |
| HETATM | 6011 | O | HOH A1154 | -10.531 | -14.832 | 49.725 | 1.00 | 14.11 | O |
| HETATM | 6012 | O | HOH A1155 | -12.737 | -16.775 | 46.500 | 1.00 | 12.40 | O |
| HETATM | 6013 | O | HOH A1156 | -11.275 | -15.436 | 44.615 | 1.00 | 17.08 | O |
| HETATM | 6014 | O | HOH A1157 | -4.215 | -15.076 | 45.472 | 1.00 | 13.44 | O |
| HETATM | 6015 | O | HOH A1158 | -3.353 | -10.977 | 43.812 | 1.00 | 18.47 | O |
| HETATM | 6016 | O | HOH A1159 | -0.535 | -8.454 | 41.875 | 1.00 | 15.37 | O |
| HETATM | 6017 | O | HOH A1160 | -2.437 | -7.306 | 45.834 | 1.00 | 12.80 | O |
| HETATM | 6018 | O | HOH A1161 | -7.772 | -1.332 | 43.435 | 1.00 | 41.63 | O |
| HETATM | 6019 | O | HOH A1162 | -12.190 | -2.932 | 43.847 | 1.00 | 46.07 | O |
| HETATM | 6020 | O | HOH A1163 | -14.605 | -3.661 | 44.155 | 1.00 | 38.16 | O |
| HETATM | 6021 | O | HOH A1164 | -15.957 | -5.417 | 42.533 | 1.00 | 43.30 | O |
| HETATM | 6022 | O | HOH A1165 | -17.354 | -6.722 | 44.469 | 1.00 | 37.55 | O |
| HETATM | 6023 | O | HOH A1166 | -17.464 | -9.856 | 45.142 | 1.00 | 35.52 | O |
| HETATM | 6024 | O | HOH A1167 | -16.042 | -9.871 | 47.341 | 1.00 | 30.95 | O |
| HETATM | 6025 | O | HOH A1168 | -18.201 | -9.096 | 48.563 | 1.00 | 37.65 | O |
| HETATM | 6026 | O | HOH A1169 | -20.173 | -9.662 | 46.888 | 1.00 | 56.05 | O |
| HETATM | 6027 | O | HOH A1170 | -19.035 | -13.400 | 48.033 | 1.00 | 29.56 | O |
| HETATM | 6028 | O | HOH A1171 | -20.749 | -14.852 | 49.529 | 1.00 | 31.60 | O |
| HETATM | 6029 | O | HOH A1172 | -23.265 | -13.723 | 48.401 | 1.00 | 53.41 | O |
| HETATM | 6030 | O | HOH A1173 | -24.941 | -13.285 | 51.375 | 1.00 | 49.77 | O |
| HETATM | 6031 | O | HOH A1174 | -24.045 | -16.072 | 51.881 | 1.00 | 29.59 | O |
| HETATM | 6032 | O | HOH A1175 | -23.516 | -17.139 | 49.725 | 1.00 | 37.23 | O |
| HETATM | 6033 | O | HOH A1176 | -21.800 | -20.857 | 54.799 | 1.00 | 22.37 | O |
| HETATM | 6034 | O | HOH A1177 | -20.829 | -24.343 | 55.984 | 1.00 | 26.14 | O |
| HETATM | 6035 | O | HOH A1178 | -23.081 | -22.135 | 59.257 | 1.00 | 33.35 | O |
| HETATM | 6036 | O | HOH A1179 | -26.587 | -20.184 | 58.974 | 1.00 | 43.66 | O |
| HETATM | 6037 | O | HOH A1180 | -27.287 | -17.716 | 59.267 | 1.00 | 34.90 | O |
| HETATM | 6038 | O | HOH A1181 | -27.014 | -13.448 | 56.318 | 1.00 | 48.54 | O |
| HETATM | 6039 | O | HOH A1182 | -26.211 | -12.833 | 58.710 | 1.00 | 49.86 | O |
| HETATM | 6040 | O | HOH A1183 | -22.034 | -14.947 | 60.473 | 1.00 | 22.88 | O |
| HETATM | 6041 | O | HOH A1184 | -22.345 | -16.065 | 62.837 | 1.00 | 22.05 | O |
| HETATM | 6042 | O | HOH A1185 | -24.064 | -13.891 | 66.517 | 1.00 | 23.56 | O |
| HETATM | 6043 | O | HOH A1186 | -24.390 | -14.177 | 72.201 | 1.00 | 37.12 | O |
| HETATM | 6044 | O | HOH A1187 | -22.913 | -12.328 | 72.552 | 1.00 | 44.91 | O |
| HETATM | 6045 | O | HOH A1188 | -21.230 | -14.258 | 75.009 | 1.00 | 65.92 | O |
| HETATM | 6046 | O | HOH A1189 | -21.004 | -16.633 | 74.861 | 1.00 | 45.33 | O |
| HETATM | 6047 | O | HOH A1190 | -22.770 | -17.696 | 72.213 | 1.00 | 42.76 | O |
| HETATM | 6048 | O | HOH A1191 | 17.673 | -33.706 | 32.477 | 1.00 | 47.41 | O |

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HETATM 6049  O   HOH A1192     -23.127 -21.963  70.340  1.00 40.46           O
HETATM 6050  O   HOH A1193     -17.731 -24.084  72.098  1.00 24.17           O
HETATM 6051  O   HOH A1194     -17.104 -21.616  72.022  1.00 32.48           O
HETATM 6052  O   HOH A1195     -14.267 -20.963  72.516  1.00 34.85           O
HETATM 6053  O   HOH A1196     -17.756 -21.561  74.916  1.00 33.92           O
HETATM 6054  O   HOH A1197      21.561 -26.913  24.465  1.00 25.04           O
HETATM 6055  O   HOH A1198     -21.892 -28.283  72.396  1.00 24.82           O
HETATM 6056  O   HOH A1199     -21.795 -29.932  70.383  1.00 54.72           O
HETATM 6057  O   HOH A1200      21.335 -13.648  33.124  1.00 51.45           O
HETATM 6058  O   HOH A1201     -18.349 -39.665  65.710  1.00 45.36           O
HETATM 6059  O   HOH A1202      20.199 -15.275  37.117  1.00 54.98           O
HETATM 6060  O   HOH A1203     -14.975 -34.863  64.327  1.00 42.77           O
HETATM 6061  O   HOH A1204     -12.695 -35.639  65.400  1.00 27.46           O
HETATM 6062  O   HOH A1205     -15.719 -33.544  60.205  1.00 37.55           O
HETATM 6063  O   HOH A1206     -16.836 -31.433  59.767  1.00 31.05           O
HETATM 6064  O   HOH A1207     -18.105 -34.577  57.644  1.00 35.72           O
HETATM 6065  O   HOH A1208     -19.004 -31.760  55.884  1.00 46.93           O
HETATM 6066  O   HOH A1209     -21.691 -30.259  55.871  1.00 35.33           O
HETATM 6067  O   HOH A1210     -17.889 -29.841  53.683  1.00 20.94           O
HETATM 6068  O   HOH A1211     -18.504 -31.940  50.312  1.00 25.32           O
HETATM 6069  O   HOH A1212     -15.877 -31.586  49.672  1.00 20.60           O
HETATM 6070  O   HOH A1213     -13.409 -30.477  50.570  1.00 16.96           O
HETATM 6071  O   HOH A1214     -11.503 -30.385  48.830  1.00 15.33           O
HETATM 6072  O   HOH A1215     -15.814 -34.115  48.966  1.00 29.12           O
HETATM 6073  O   HOH A1216     -14.747 -34.175  44.427  1.00 48.09           O
HETATM 6074  O   HOH A1217     -18.160 -24.575  43.194  1.00 20.40           O
HETATM 6075  O   HOH A1218     -18.190 -22.359  41.694  1.00 20.51           O
HETATM 6076  O   HOH A1219     -17.690 -22.831  39.464  1.00 24.37           O
HETATM 6077  O   HOH A1220     -15.271 -21.047  39.610  1.00 28.81           O
HETATM 6078  O   HOH A1221     -12.727 -20.158  39.289  1.00 40.27           O
HETATM 6079  O   HOH A1222     -14.143 -21.787  42.211  1.00 16.02           O
HETATM 6080  O   HOH A1223     -12.192 -23.541  42.503  1.00 15.04           O
HETATM 6081  O   HOH A1224     -16.512 -21.149  43.506  1.00 23.54           O
HETATM 6082  O   HOH A1225     -17.135 -20.639  46.450  1.00 45.13           O
HETATM 6083  O   HOH A1226     -18.819 -17.287  44.163  1.00 40.70           O
HETATM 6084  O   HOH A1227     -23.429 -19.006  38.918  1.00 47.78           O
HETATM 6085  O   HOH A1228     -20.501 -20.385  38.334  1.00 28.55           O
HETATM 6086  O   HOH A1229     -15.408 -12.201  35.443  1.00 36.16           O
HETATM 6087  O   HOH A1230     -18.050 -10.254  33.767  1.00 35.13           O
HETATM 6088  O   HOH A1231     -20.223  -8.338  32.754  1.00 47.40           O
HETATM 6089  O   HOH A1232     -17.884  -9.093  37.826  1.00 37.09           O
HETATM 6090  O   HOH A1233     -17.104  -5.333  38.042  1.00 33.41           O
HETATM 6091  O   HOH A1234     -14.157  -5.209  38.037  1.00 36.10           O
HETATM 6092  O   HOH A1235     -12.484  -5.236  40.466  1.00 29.77           O
HETATM 6093  O   HOH A1236     -18.230  -2.758  44.384  1.00 71.95           O
HETATM 6094  O   HOH A1237     -15.089  -2.523  51.539  1.00 32.06           O
HETATM 6095  O   HOH A1238     -10.510  -3.938  51.212  1.00 24.76           O
HETATM 6096  O   HOH A1239     -10.031  -1.646  50.869  1.00 45.61           O
HETATM 6097  O   HOH A1240      -8.775  -2.672  53.986  1.00 25.70           O
HETATM 6098  O   HOH A1241     -11.637  -2.312  57.513  1.00 37.84           O
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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 6099 | O | HOH A1242 | -13.533 | -3.816 | 58.660 | 1.00 | 28.15 | O |
| HETATM | 6100 | O | HOH A1243 | -13.305 | -5.554 | 60.461 | 1.00 | 27.62 | O |
| HETATM | 6101 | O | HOH A1244 | -13.509 | -7.380 | 56.602 | 1.00 | 25.30 | O |
| HETATM | 6102 | O | HOH A1245 | -14.198 | -9.469 | 54.656 | 1.00 | 20.20 | O |
| HETATM | 6103 | O | HOH A1246 | -11.714 | -10.088 | 53.938 | 1.00 | 13.30 | O |
| HETATM | 6104 | O | HOH A1247 | -12.001 | -12.560 | 54.718 | 1.00 | 18.31 | O |
| HETATM | 6105 | O | HOH A1248 | -13.897 | -17.802 | 55.344 | 1.00 | 19.09 | O |
| HETATM | 6106 | O | HOH A1249 | -16.276 | -19.981 | 60.032 | 1.00 | 37.62 | O |
| HETATM | 6107 | O | HOH A1250 | -16.143 | -25.424 | 57.104 | 1.00 | 15.64 | O |
| HETATM | 6108 | O | HOH A1251 | -20.917 | -30.154 | 61.485 | 1.00 | 45.32 | O |
| HETATM | 6109 | O | HOH A1252 | -27.204 | -21.653 | 62.922 | 1.00 | 25.66 | O |
| HETATM | 6110 | O | HOH A1253 | -22.771 | -23.636 | 51.486 | 1.00 | 15.61 | O |
| HETATM | 6111 | O | HOH A1254 | -20.413 | -23.097 | 48.532 | 1.00 | 39.20 | O |
| HETATM | 6112 | O | HOH A1255 | -21.669 | -10.883 | 51.121 | 1.00 | 40.55 | O |
| HETATM | 6113 | O | HOH A1256 | -16.862 | -9.490 | 56.229 | 1.00 | 25.68 | O |
| HETATM | 6114 | O | HOH A1257 | -19.904 | -8.241 | 57.988 | 1.00 | 39.68 | O |
| HETATM | 6115 | O | HOH A1258 | -20.095 | -8.752 | 62.100 | 1.00 | 36.38 | O |
| HETATM | 6116 | O | HOH A1259 | -14.961 | -6.933 | 67.567 | 1.00 | 28.85 | O |
| HETATM | 6117 | O | HOH A1260 | -12.575 | -5.380 | 66.571 | 1.00 | 33.10 | O |
| HETATM | 6118 | O | HOH A1261 | -8.048 | -1.323 | 65.416 | 1.00 | 48.25 | O |
| HETATM | 6119 | O | HOH A1262 | -6.326 | 1.941 | 68.065 | 1.00 | 41.04 | O |
| HETATM | 6120 | O | HOH A1263 | -4.291 | 1.648 | 62.443 | 1.00 | 32.36 | O |
| HETATM | 6121 | O | HOH A1264 | -8.059 | 2.625 | 59.504 | 1.00 | 45.54 | O |
| HETATM | 6122 | O | HOH A1265 | 0.601 | -0.443 | 61.202 | 1.00 | 38.65 | O |
| HETATM | 6123 | O | HOH A1266 | 1.755 | 1.746 | 57.956 | 1.00 | 35.90 | O |
| HETATM | 6124 | O | HOH A1267 | 2.903 | -2.684 | 58.468 | 1.00 | 39.02 | O |
| HETATM | 6125 | O | HOH A1268 | 3.360 | -3.101 | 55.983 | 1.00 | 31.25 | O |
| HETATM | 6126 | O | HOH A1269 | 6.787 | -3.919 | 58.364 | 1.00 | 44.32 | O |
| HETATM | 6127 | O | HOH A1270 | 6.828 | -5.828 | 61.555 | 1.00 | 43.31 | O |
| HETATM | 6128 | O | HOH A1271 | 8.050 | -9.705 | 63.010 | 1.00 | 32.62 | O |
| HETATM | 6129 | O | HOH A1272 | 10.663 | -6.848 | 62.346 | 1.00 | 33.55 | O |
| HETATM | 6130 | O | HOH A1273 | 12.966 | -6.033 | 64.383 | 1.00 | 47.26 | O |
| HETATM | 6131 | O | HOH A1274 | 15.115 | -9.111 | 66.391 | 1.00 | 29.75 | O |
| HETATM | 6132 | O | HOH A1275 | 18.045 | -7.089 | 63.080 | 1.00 | 40.34 | O |
| HETATM | 6133 | O | HOH A1276 | 20.645 | -12.341 | 60.624 | 1.00 | 43.88 | O |
| HETATM | 6134 | O | HOH A1277 | 18.218 | -10.154 | 54.641 | 1.00 | 22.41 | O |
| HETATM | 6135 | O | HOH A1278 | 19.481 | -14.110 | 51.896 | 1.00 | 24.79 | O |
| HETATM | 6136 | O | HOH A1279 | 20.149 | -13.340 | 49.340 | 1.00 | 25.41 | O |
| HETATM | 6137 | O | HOH A1280 | 21.882 | -12.228 | 46.482 | 1.00 | 52.42 | O |
| HETATM | 6138 | O | HOH A1281 | 19.053 | -8.565 | 44.824 | 1.00 | 31.96 | O |
| HETATM | 6139 | O | HOH A1282 | 21.109 | -8.640 | 50.221 | 1.00 | 28.35 | O |
| HETATM | 6140 | O | HOH A1283 | 14.413 | -9.653 | 48.541 | 1.00 | 21.79 | O |
| HETATM | 6141 | O | HOH A1284 | 16.995 | -15.057 | 50.996 | 1.00 | 20.01 | O |
| HETATM | 6142 | O | HOH A1285 | 15.502 | -17.008 | 51.820 | 1.00 | 19.16 | O |
| HETATM | 6143 | O | HOH A1286 | 13.454 | -16.075 | 53.430 | 1.00 | 18.61 | O |
| HETATM | 6144 | O | HOH A1287 | 12.904 | -18.888 | 53.875 | 1.00 | 16.90 | O |
| HETATM | 6145 | O | HOH A1288 | 14.678 | -20.824 | 54.691 | 1.00 | 13.59 | O |
| HETATM | 6146 | O | HOH A1289 | 17.111 | -22.018 | 52.954 | 1.00 | 19.29 | O |
| HETATM | 6147 | O | HOH A1290 | 17.483 | -22.849 | 55.627 | 1.00 | 29.88 | O |
| HETATM | 6148 | O | HOH A1291 | 15.140 | -27.687 | 56.504 | 1.00 | 15.90 | O |

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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 6149 | O | HOH | A1292 | 16.974 | -29.486 | 57.407 | 1.00 | 25.24 | O |
| HETATM | 6150 | O | HOH | A1293 | 18.895 | -31.733 | 55.043 | 1.00 | 59.23 | O |
| HETATM | 6151 | O | HOH | A1294 | 16.189 | -33.943 | 53.336 | 1.00 | 20.74 | O |
| HETATM | 6152 | O | HOH | A1295 | 14.565 | -34.708 | 60.406 | 1.00 | 34.37 | O |
| HETATM | 6153 | O | HOH | A1296 | 13.882 | -34.035 | 64.717 | 1.00 | 38.09 | O |
| HETATM | 6154 | O | HOH | A1297 | 14.204 | -33.188 | 68.421 | 1.00 | 36.42 | O |
| HETATM | 6155 | O | HOH | A1298 | 12.242 | -29.916 | 70.470 | 1.00 | 28.61 | O |
| HETATM | 6156 | O | HOH | A1299 | 8.503 | -25.799 | 75.058 | 1.00 | 33.70 | O |
| HETATM | 6157 | O | HOH | A1300 | 5.555 | -27.562 | 73.254 | 1.00 | 33.40 | O |
| HETATM | 6158 | O | HOH | A1301 | 4.523 | -24.328 | 72.961 | 1.00 | 28.54 | O |
| HETATM | 6159 | O | HOH | A1302 | 1.844 | -24.358 | 73.277 | 1.00 | 46.21 | O |
| HETATM | 6160 | O | HOH | A1303 | 1.222 | -20.880 | 73.797 | 1.00 | 38.61 | O |
| HETATM | 6161 | O | HOH | A1304 | 2.755 | -18.439 | 72.923 | 1.00 | 28.65 | O |
| HETATM | 6162 | O | HOH | A1305 | 4.138 | -21.628 | 71.426 | 1.00 | 32.48 | O |
| HETATM | 6163 | O | HOH | A1306 | 6.291 | -19.561 | 74.296 | 1.00 | 27.56 | O |
| HETATM | 6164 | O | HOH | A1307 | 5.144 | -23.523 | 78.927 | 1.00 | 59.16 | O |
| HETATM | 6165 | O | HOH | A1308 | 11.621 | -20.938 | 70.336 | 1.00 | 30.48 | O |
| HETATM | 6166 | O | HOH | A1309 | 15.177 | -15.168 | 71.248 | 1.00 | 38.90 | O |
| HETATM | 6167 | O | HOH | A1310 | 15.490 | -14.205 | 73.525 | 1.00 | 69.79 | O |
| HETATM | 6168 | O | HOH | A1311 | 8.255 | -12.516 | 66.542 | 1.00 | 43.36 | O |
| HETATM | 6169 | O | HOH | A1312 | 6.907 | -14.254 | 63.225 | 1.00 | 30.96 | O |
| HETATM | 6170 | O | HOH | A1313 | 5.468 | -14.803 | 60.718 | 1.00 | 18.81 | O |
| HETATM | 6171 | O | HOH | A1314 | 6.409 | -14.063 | 57.875 | 1.00 | 23.66 | O |
| HETATM | 6172 | O | HOH | A1315 | 7.655 | -11.927 | 53.220 | 1.00 | 18.84 | O |
| HETATM | 6173 | O | HOH | A1316 | 5.324 | -10.288 | 51.289 | 1.00 | 19.04 | O |
| HETATM | 6174 | O | HOH | A1317 | 5.176 | -7.890 | 49.678 | 1.00 | 22.65 | O |
| HETATM | 6175 | O | HOH | A1318 | 4.633 | -6.027 | 51.722 | 1.00 | 21.15 | O |
| HETATM | 6176 | O | HOH | A1319 | 5.006 | -1.667 | 51.233 | 1.00 | 23.61 | O |
| HETATM | 6177 | O | HOH | A1320 | 9.799 | 0.220 | 55.208 | 1.00 | 34.20 | O |
| HETATM | 6178 | O | HOH | A1321 | 11.410 | 1.061 | 53.536 | 1.00 | 54.43 | O |
| HETATM | 6179 | O | HOH | A1322 | 13.343 | -4.450 | 53.686 | 1.00 | 28.97 | O |
| HETATM | 6180 | O | HOH | A1324 | 12.250 | -4.009 | 56.127 | 1.00 | 22.26 | O |
| HETATM | 6181 | O | HOH | A1325 | 12.539 | -11.824 | 59.899 | 1.00 | 22.15 | O |
| HETATM | 6182 | O | HOH | A1326 | 13.038 | -16.014 | 60.261 | 1.00 | 23.10 | O |
| HETATM | 6183 | O | HOH | A1327 | 13.032 | -17.794 | 56.706 | 1.00 | 21.99 | O |
| HETATM | 6184 | O | HOH | A1328 | 9.419 | -18.309 | 51.558 | 1.00 | 15.10 | O |
| HETATM | 6185 | O | HOH | A1329 | 7.728 | -20.484 | 45.444 | 1.00 | 17.88 | O |
| HETATM | 6186 | O | HOH | A1330 | 7.149 | -18.267 | 44.376 | 1.00 | 20.42 | O |
| HETATM | 6187 | O | HOH | A1331 | 5.257 | -18.784 | 42.489 | 1.00 | 16.16 | O |
| HETATM | 6188 | O | HOH | A1332 | 4.380 | -15.580 | 44.349 | 1.00 | 18.78 | O |
| HETATM | 6189 | O | HOH | A1333 | 5.066 | -17.718 | 46.425 | 1.00 | 25.58 | O |
| HETATM | 6190 | O | HOH | A1334 | 2.935 | -17.583 | 48.104 | 1.00 | 15.19 | O |
| HETATM | 6191 | O | HOH | A1335 | -1.847 | -18.886 | 46.536 | 1.00 | 20.22 | O |
| HETATM | 6192 | O | HOH | A1336 | -3.630 | -15.717 | 53.710 | 1.00 | 16.47 | O |
| HETATM | 6193 | O | HOH | A1337 | -3.516 | -13.103 | 54.271 | 1.00 | 18.65 | O |
| HETATM | 6194 | O | HOH | A1338 | -5.763 | -15.817 | 55.488 | 1.00 | 21.10 | O |
| HETATM | 6195 | O | HOH | A1339 | -7.561 | -17.174 | 56.893 | 1.00 | 17.17 | O |
| HETATM | 6196 | O | HOH | A1340 | -2.197 | -19.993 | 60.102 | 1.00 | 24.41 | O |
| HETATM | 6197 | O | HOH | A1341 | 1.126 | -22.293 | 60.968 | 1.00 | 22.56 | O |
| HETATM | 6198 | O | HOH | A1342 | 1.214 | -22.746 | 58.004 | 1.00 | 25.28 | O |

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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 6199 | O | HOH | A1343 | 1.435 | -25.845 | 60.333 | 1.00 | 18.23 | O |
| HETATM | 6200 | O | HOH | A1344 | 7.775 | -21.083 | 58.645 | 1.00 | 13.56 | O |
| HETATM | 6201 | O | HOH | A1345 | 12.957 | -28.603 | 60.801 | 1.00 | 29.60 | O |
| HETATM | 6202 | O | HOH | A1346 | 7.310 | -34.019 | 64.006 | 1.00 | 28.92 | O |
| HETATM | 6203 | O | HOH | A1347 | 7.881 | -40.512 | 63.417 | 1.00 | 20.63 | O |
| HETATM | 6204 | O | HOH | A1348 | 14.201 | -44.131 | 62.931 | 1.00 | 32.85 | O |
| HETATM | 6205 | O | HOH | A1349 | 14.288 | -42.090 | 59.877 | 1.00 | 27.86 | O |
| HETATM | 6206 | O | HOH | A1350 | 16.049 | -40.214 | 55.938 | 1.00 | 50.48 | O |
| HETATM | 6207 | O | HOH | A1351 | 13.798 | -49.054 | 53.627 | 1.00 | 47.91 | O |
| HETATM | 6208 | O | HOH | A1352 | 8.993 | -45.427 | 49.646 | 1.00 | 23.93 | O |
| HETATM | 6209 | O | HOH | A1353 | 7.998 | -55.804 | 52.872 | 1.00 | 36.55 | O |
| HETATM | 6210 | O | HOH | A1354 | 2.689 | -54.408 | 57.781 | 1.00 | 38.45 | O |
| HETATM | 6211 | O | HOH | A1355 | -0.670 | -53.234 | 55.328 | 1.00 | 33.47 | O |
| HETATM | 6212 | O | HOH | A1356 | -2.455 | -54.958 | 57.986 | 1.00 | 32.05 | O |
| HETATM | 6213 | O | HOH | A1357 | -4.647 | -55.107 | 55.454 | 1.00 | 52.91 | O |
| HETATM | 6214 | O | HOH | A1358 | -4.249 | -53.751 | 52.785 | 1.00 | 48.47 | O |
| HETATM | 6215 | O | HOH | A1359 | -7.429 | -53.140 | 54.445 | 1.00 | 36.14 | O |
| HETATM | 6216 | O | HOH | A1360 | -5.012 | -51.624 | 51.300 | 1.00 | 36.89 | O |
| HETATM | 6217 | O | HOH | A1361 | -6.584 | -56.668 | 53.943 | 1.00 | 50.60 | O |
| HETATM | 6218 | O | HOH | A1362 | -18.390 | -53.281 | 60.029 | 1.00 | 41.34 | O |
| HETATM | 6219 | O | HOH | A1363 | -15.757 | -48.171 | 62.803 | 1.00 | 48.25 | O |
| HETATM | 6220 | O | HOH | A1364 | -17.176 | -45.141 | 56.572 | 1.00 | 49.57 | O |
| HETATM | 6221 | O | HOH | A1365 | -14.666 | -43.578 | 56.429 | 1.00 | 38.96 | O |
| HETATM | 6222 | O | HOH | A1366 | -16.461 | -39.783 | 54.936 | 1.00 | 52.56 | O |
| HETATM | 6223 | O | HOH | A1367 | -5.157 | -34.775 | 57.147 | 1.00 | 13.36 | O |
| HETATM | 6224 | O | HOH | A1368 | -3.806 | -29.180 | 55.927 | 1.00 | 74.66 | O |
| HETATM | 6225 | O | HOH | A1369 | -0.619 | -28.727 | 69.859 | 1.00 | 18.06 | O |
| HETATM | 6226 | O | HOH | A1370 | -2.921 | -26.329 | 70.360 | 1.00 | 24.41 | O |
| HETATM | 6227 | O | HOH | A1371 | -2.396 | -24.260 | 71.445 | 1.00 | 69.20 | O |
| HETATM | 6228 | O | HOH | A1372 | -1.359 | -23.108 | 69.088 | 1.00 | 18.02 | O |
| HETATM | 6229 | O | HOH | A1373 | 1.596 | -30.582 | 71.731 | 1.00 | 41.90 | O |
| HETATM | 6230 | O | HOH | A1374 | -0.581 | -33.696 | 72.137 | 1.00 | 46.98 | O |
| HETATM | 6231 | O | HOH | A1375 | 2.387 | -34.456 | 72.773 | 1.00 | 29.61 | O |
| HETATM | 6232 | O | HOH | A1376 | 0.691 | -42.595 | 69.246 | 1.00 | 37.82 | O |
| HETATM | 6233 | O | HOH | A1377 | 2.531 | -44.537 | 69.114 | 1.00 | 39.40 | O |
| HETATM | 6234 | O | HOH | A1378 | -3.136 | -42.479 | 69.183 | 1.00 | 28.47 | O |
| HETATM | 6235 | O | HOH | A1379 | -9.582 | -38.716 | 68.346 | 1.00 | 44.14 | O |
| HETATM | 6236 | O | HOH | A1380 | -8.075 | -32.285 | 70.233 | 1.00 | 30.73 | O |
| HETATM | 6237 | O | HOH | A1381 | -6.103 | -27.181 | 77.289 | 1.00 | 22.82 | O |
| HETATM | 6238 | O | HOH | A1382 | -7.156 | -26.235 | 81.462 | 1.00 | 57.61 | O |
| HETATM | 6239 | O | HOH | A1383 | -6.778 | -16.619 | 81.622 | 1.00 | 44.42 | O |
| HETATM | 6240 | O | HOH | A1384 | -7.545 | -15.393 | 75.649 | 1.00 | 33.52 | O |
| HETATM | 6241 | O | HOH | A1385 | -12.441 | -12.993 | 75.508 | 1.00 | 24.01 | O |
| HETATM | 6242 | O | HOH | A1386 | -12.625 | -10.379 | 75.290 | 1.00 | 44.37 | O |
| HETATM | 6243 | O | HOH | A1387 | -10.669 | -7.343 | 74.725 | 1.00 | 22.71 | O |
| HETATM | 6244 | O | HOH | A1388 | -13.006 | -6.312 | 74.929 | 1.00 | 49.94 | O |
| HETATM | 6245 | O | HOH | A1389 | -6.732 | -10.403 | 77.183 | 1.00 | 41.55 | O |
| HETATM | 6246 | O | HOH | A1390 | -3.190 | -6.586 | 76.711 | 1.00 | 45.47 | O |
| HETATM | 6247 | O | HOH | A1391 | 3.660 | -8.881 | 77.016 | 1.00 | 55.37 | O |
| HETATM | 6248 | O | HOH | A1392 | 4.874 | -10.912 | 75.679 | 1.00 | 55.23 | O |

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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 6249 | O | HOH | A1393 | 2.014 | -14.396 | 71.707 | 1.00 | 42.16 | O |
| HETATM | 6250 | O | HOH | A1394 | 4.610 | -8.776 | 68.519 | 1.00 | 51.07 | O |
| HETATM | 6251 | O | HOH | A1395 | 1.903 | -9.775 | 66.031 | 1.00 | 37.32 | O |
| HETATM | 6252 | O | HOH | A1396 | 2.014 | -6.444 | 62.766 | 1.00 | 40.56 | O |
| HETATM | 6253 | O | HOH | A1397 | 0.482 | -7.222 | 60.660 | 1.00 | 17.95 | O |
| HETATM | 6254 | O | HOH | A1398 | -2.859 | -6.065 | 61.980 | 1.00 | 24.24 | O |
| HETATM | 6255 | O | HOH | A1399 | -1.176 | -4.720 | 63.728 | 1.00 | 51.90 | O |
| HETATM | 6256 | O | HOH | A1400 | 1.838 | -3.347 | 68.953 | 1.00 | 40.85 | O |
| HETATM | 6257 | O | HOH | A1401 | -5.527 | -5.357 | 69.621 | 1.00 | 33.05 | O |
| HETATM | 6258 | O | HOH | A1402 | -14.614 | -17.731 | 69.796 | 1.00 | 24.45 | O |
| HETATM | 6259 | O | HOH | A1403 | -17.040 | -18.423 | 69.201 | 1.00 | 20.18 | O |
| HETATM | 6260 | O | HOH | A1404 | -18.114 | -17.240 | 77.169 | 1.00 | 62.01 | O |
| HETATM | 6261 | O | HOH | A1405 | -20.472 | -1.266 | 57.362 | 1.00 | 41.40 | O |
| HETATM | 6262 | O | HOH | A1406 | -10.088 | -7.509 | 51.787 | 1.00 | 19.92 | O |
| HETATM | 6263 | O | HOH | A1407 | -6.875 | -0.521 | 48.622 | 1.00 | 36.98 | O |
| HETATM | 6264 | O | HOH | A1408 | -5.788 | 2.418 | 49.259 | 1.00 | 23.02 | O |
| HETATM | 6265 | O | HOH | A1409 | 1.444 | 2.353 | 44.640 | 1.00 | 19.97 | O |
| HETATM | 6266 | O | HOH | A1410 | 2.064 | 0.515 | 39.924 | 1.00 | 25.31 | O |
| HETATM | 6267 | O | HOH | A1411 | 0.488 | 9.324 | 47.274 | 1.00 | 32.91 | O |
| HETATM | 6268 | O | HOH | A1412 | 1.937 | 7.373 | 58.653 | 1.00 | 39.52 | O |
| HETATM | 6269 | O | HOH | A1413 | 7.357 | -8.311 | 47.725 | 1.00 | 17.15 | O |
| HETATM | 6270 | O | HOH | A1414 | 6.585 | -14.536 | 46.079 | 1.00 | 18.60 | O |
| HETATM | 6271 | O | HOH | A1415 | 8.121 | -15.844 | 44.164 | 1.00 | 14.64 | O |
| HETATM | 6272 | O | HOH | A1416 | 8.932 | -22.360 | 43.942 | 1.00 | 20.35 | O |
| HETATM | 6273 | O | HOH | A1417 | 7.949 | -24.279 | 45.468 | 1.00 | 20.17 | O |
| HETATM | 6274 | O | HOH | A1418 | 16.988 | -26.592 | 43.628 | 1.00 | 29.68 | O |
| HETATM | 6275 | O | HOH | A1419 | 19.251 | -28.352 | 46.897 | 1.00 | 29.32 | O |
| HETATM | 6276 | O | HOH | A1420 | 13.664 | -34.921 | 46.831 | 1.00 | 28.35 | O |
| HETATM | 6277 | O | HOH | A1421 | 14.503 | -38.863 | 35.668 | 1.00 | 68.02 | O |
| HETATM | 6278 | O | HOH | A1422 | 12.634 | -34.598 | 31.504 | 1.00 | 29.19 | O |
| HETATM | 6279 | O | HOH | A1424 | 6.385 | -35.657 | 35.801 | 1.00 | 22.30 | O |
| HETATM | 6280 | O | HOH | A1425 | 4.925 | -35.286 | 38.195 | 1.00 | 21.56 | O |
| HETATM | 6281 | O | HOH | A1426 | 0.667 | -30.655 | 33.404 | 1.00 | 20.23 | O |
| HETATM | 6282 | O | HOH | A1427 | 0.106 | -26.052 | 38.380 | 1.00 | 17.98 | O |
| HETATM | 6283 | O | HOH | A1428 | -11.351 | -29.315 | 34.298 | 1.00 | 44.57 | O |
| HETATM | 6284 | O | HOH | A1429 | -13.613 | -29.892 | 32.527 | 1.00 | 34.18 | O |
| HETATM | 6285 | O | HOH | A1430 | -15.907 | -28.580 | 32.489 | 1.00 | 27.69 | O |
| HETATM | 6286 | O | HOH | A1431 | -11.739 | -33.842 | 26.516 | 1.00 | 39.20 | O |
| HETATM | 6287 | O | HOH | A1432 | -13.679 | -34.234 | 21.731 | 1.00 | 41.86 | O |
| HETATM | 6288 | O | HOH | A1433 | -5.894 | -30.315 | 19.106 | 1.00 | 46.18 | O |
| HETATM | 6289 | O | HOH | A1434 | -6.060 | -21.815 | 19.797 | 1.00 | 32.13 | O |
| HETATM | 6290 | O | HOH | A1435 | -8.678 | -20.208 | 18.468 | 1.00 | 34.64 | O |
| HETATM | 6291 | O | HOH | A1436 | -6.552 | -17.917 | 18.735 | 1.00 | 37.08 | O |
| HETATM | 6292 | O | HOH | A1500 | -8.089 | -14.123 | 19.984 | 1.00 | 46.87 | O |
| HETATM | 6293 | O | HOH | A1501 | -12.218 | -15.067 | 25.432 | 1.00 | 25.79 | O |
| HETATM | 6294 | O | HOH | A1502 | -16.970 | -15.225 | 17.710 | 1.00 | 37.98 | O |
| HETATM | 6295 | O | HOH | A1503 | -20.537 | -12.285 | 20.455 | 1.00 | 32.67 | O |
| HETATM | 6296 | O | HOH | A1504 | -24.498 | -11.144 | 24.024 | 1.00 | 37.82 | O |
| HETATM | 6297 | O | HOH | A1505 | -23.025 | -12.402 | 26.550 | 1.00 | 22.82 | O |
| HETATM | 6298 | O | HOH | A1506 | -21.282 | -10.684 | 27.910 | 1.00 | 28.93 | O |

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|---|---|---|---|---|---|---|---|---|---|
| HETATM | 6299 | O | HOH A1507 | -21.343 | -8.329 | 26.714 | 1.00 | 30.30 | O |
| HETATM | 6300 | O | HOH A1508 | -21.587 | -5.536 | 25.179 | 1.00 | 32.52 | O |
| HETATM | 6301 | O | HOH A1509 | -22.426 | -5.471 | 27.686 | 1.00 | 40.75 | O |
| HETATM | 6302 | O | HOH A1510 | -23.603 | -4.189 | 23.573 | 1.00 | 41.59 | O |
| HETATM | 6303 | O | HOH A1511 | -17.317 | 3.596 | 25.354 | 1.00 | 38.78 | O |
| HETATM | 6304 | O | HOH A1512 | -15.807 | 3.382 | 20.463 | 1.00 | 33.38 | O |
| HETATM | 6305 | O | HOH A1513 | -16.808 | 2.624 | 17.552 | 1.00 | 28.72 | O |
| HETATM | 6306 | O | HOH A1514 | -17.795 | 8.401 | 15.646 | 1.00 | 63.03 | O |
| HETATM | 6307 | O | HOH A1515 | -14.277 | 10.436 | 17.936 | 1.00 | 44.60 | O |
| HETATM | 6308 | O | HOH A1516 | -13.739 | 10.310 | 11.809 | 1.00 | 44.19 | O |
| HETATM | 6309 | O | HOH A1517 | -11.875 | 12.160 | 12.253 | 1.00 | 45.42 | O |
| HETATM | 6310 | O | HOH A1518 | -13.363 | 6.074 | 10.893 | 1.00 | 29.44 | O |
| HETATM | 6311 | O | HOH A1519 | -14.284 | 3.525 | 8.004 | 1.00 | 43.68 | O |
| HETATM | 6312 | O | HOH A1520 | -13.843 | 1.270 | 5.255 | 1.00 | 49.01 | O |
| HETATM | 6313 | O | HOH A1521 | -12.753 | 2.305 | 2.827 | 1.00 | 35.87 | O |
| HETATM | 6314 | O | HOH A1522 | -19.944 | -1.882 | 12.947 | 1.00 | 41.53 | O |
| HETATM | 6315 | O | HOH A1523 | -15.693 | -11.366 | 10.209 | 1.00 | 51.34 | O |
| HETATM | 6316 | O | HOH A1524 | -14.440 | -15.554 | 10.582 | 1.00 | 37.79 | O |
| HETATM | 6317 | O | HOH A1525 | -13.361 | -17.195 | 13.164 | 1.00 | 41.96 | O |
| HETATM | 6318 | O | HOH A1526 | -7.779 | -15.066 | 12.811 | 1.00 | 22.91 | O |
| HETATM | 6319 | O | HOH A1527 | -6.477 | -15.590 | 5.456 | 1.00 | 31.82 | O |
| HETATM | 6320 | O | HOH A1528 | -7.201 | -19.379 | 4.211 | 1.00 | 30.93 | O |
| HETATM | 6321 | O | HOH A1529 | -3.822 | -19.376 | 2.628 | 1.00 | 38.08 | O |
| HETATM | 6322 | O | HOH A1530 | -6.477 | -23.041 | 12.277 | 1.00 | 34.29 | O |
| HETATM | 6323 | O | HOH A1531 | 8.173 | -27.727 | 11.484 | 1.00 | 35.84 | O |
| HETATM | 6324 | O | HOH A1532 | 7.880 | -30.237 | 5.686 | 1.00 | 49.02 | O |
| HETATM | 6325 | O | HOH A1533 | 10.803 | -25.685 | 4.524 | 1.00 | 32.81 | O |
| HETATM | 6326 | O | HOH A1534 | 12.113 | -28.347 | 2.479 | 1.00 | 51.10 | O |
| HETATM | 6327 | O | HOH A1535 | 4.282 | -12.178 | 3.674 | 1.00 | 39.53 | O |
| HETATM | 6328 | O | HOH A1536 | 8.801 | -9.491 | 2.943 | 1.00 | 36.03 | O |
| HETATM | 6329 | O | HOH A1537 | 4.334 | -11.145 | 17.639 | 1.00 | 24.25 | O |
| HETATM | 6330 | O | HOH A1538 | 3.067 | -10.797 | 20.059 | 1.00 | 33.35 | O |
| HETATM | 6331 | O | HOH A1539 | 0.141 | -11.135 | 20.915 | 1.00 | 37.45 | O |
| HETATM | 6332 | O | HOH A1542 | 5.633 | -6.727 | 22.751 | 1.00 | 22.16 | O |
| HETATM | 6333 | O | HOH A1543 | 3.715 | 1.555 | 25.660 | 1.00 | 39.77 | O |
| HETATM | 6334 | O | HOH A1544 | 0.587 | 3.842 | 24.940 | 1.00 | 45.81 | O |
| HETATM | 6335 | O | HOH A1545 | 0.171 | 4.573 | 20.794 | 1.00 | 21.20 | O |
| HETATM | 6336 | O | HOH A1546 | 10.450 | 6.854 | 22.884 | 1.00 | 24.60 | O |
| HETATM | 6337 | O | HOH A1547 | 13.229 | 7.407 | 30.140 | 1.00 | 30.06 | O |
| HETATM | 6338 | O | HOH A1548 | 14.856 | -1.984 | 31.095 | 1.00 | 28.24 | O |
| HETATM | 6339 | O | HOH A1549 | 17.523 | -1.997 | 30.949 | 1.00 | 30.28 | O |
| HETATM | 6340 | O | HOH A1550 | 18.044 | -9.325 | 38.499 | 1.00 | 32.08 | O |
| HETATM | 6341 | O | HOH A1551 | 15.008 | -14.890 | 44.127 | 1.00 | 22.48 | O |
| HETATM | 6342 | O | HOH A1552 | 16.004 | -20.007 | 40.532 | 1.00 | 27.54 | O |
| HETATM | 6343 | O | HOH A1553 | 21.823 | -18.862 | 47.637 | 1.00 | 25.61 | O |
| HETATM | 6344 | O | HOH A1554 | 21.981 | -17.214 | 55.164 | 1.00 | 36.83 | O |
| HETATM | 6345 | O | HOH A1555 | 23.585 | -20.356 | 55.154 | 1.00 | 23.61 | O |
| HETATM | 6346 | O | HOH A1556 | 23.301 | -19.525 | 62.895 | 1.00 | 47.37 | O |
| HETATM | 6347 | O | HOH A1557 | 22.674 | -19.594 | 30.027 | 1.00 | 33.70 | O |
| HETATM | 6348 | O | HOH A1558 | 7.865 | -12.939 | 29.559 | 1.00 | 42.83 | O |

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HETATM 6349  O   HOH A1559      -2.540  -9.365  32.050  1.00 29.07           O
HETATM 6350  O   HOH A1560     -10.892 -13.608  36.081  1.00 27.60           O
HETATM 6351  O   HOH A1561     -15.738  -3.943  30.684  1.00 25.70           O
HETATM 6352  O   HOH A1562     -13.875  -4.085  27.054  1.00 26.42           O
HETATM 6353  O   HOH A1563     -10.577  -4.158  27.718  1.00 44.00           O
HETATM 6354  O   HOH A1564     -16.626  -3.426  35.230  1.00 53.79           O
HETATM 6355  O   HOH A1565     -26.606 -18.962  30.303  1.00 31.97           O
HETATM 6356  O   HOH A1566     -28.070 -17.811  28.771  1.00 32.26           O
HETATM 6357  O   HOH A1567     -28.692 -19.978  23.839  1.00 32.74           O
HETATM 6358  O   HOH A1568     -24.282 -17.103  22.200  1.00 29.09           O
HETATM 6359  O   HOH A1569      -7.014 -33.897  31.101  1.00 34.07           O
HETATM 6360  O   HOH A1570       8.942 -49.261  61.681  1.00 25.54           O
HETATM 6361  O   HOH A1571       2.039 -59.664  62.931  1.00 49.54           O
HETATM 6362  O   HOH A1572      -2.968 -50.195  74.269  1.00 53.30           O
HETATM 6363  O   HOH A1573      -9.562   9.679  22.603  1.00 30.91           O
HETATM 6364  O   HOH A1574       0.641  14.232  16.259  1.00 26.17           O
HETATM 6365  O   HOH A1575       3.503  13.286  14.778  1.00 42.67           O
HETATM 6366  O   HOH A1576       0.774  15.724   9.938  1.00 32.22           O
HETATM 6367  O   HOH A1577      -0.068  16.223   7.655  1.00 24.30           O
HETATM 6368  O   HOH A1578      -3.873  15.850   8.275  1.00 23.75           O
HETATM 6369  O   HOH A1579       3.431   7.291   4.719  1.00 56.30           O
HETATM 6370  O   HOH A1580      11.801  15.647  11.809  1.00 58.77           O
HETATM 6371  O   HOH A1581      10.357  15.319  13.900  1.00 45.42           O
HETATM 6372  O   HOH A1582     -15.494 -29.345  37.974  1.00 54.73           O
HETATM 6373  O   HOH A1583      22.926 -18.029  65.392  1.00 42.30           O
HETATM 6374  O   HOH A1584      22.848   6.915  19.049  1.00 45.16           O
HETATM 6375  O   HOH A1585      23.292   5.516  17.051  1.00 29.05           O
HETATM 6376  O   HOH A1586      23.309   4.260  14.957  1.00 32.00           O
HETATM 6377  O   HOH A1587      20.551   6.685  20.394  1.00 56.15           O
HETATM 6378  O   HOH A1588      22.599   0.898   7.709  1.00 44.02           O
HETATM 6379  O   HOH A1589      18.690   2.478   5.802  1.00 46.61           O
HETATM 6380  O   HOH A1590      27.730   0.798   8.496  1.00 54.73           O
CONECT 5787 5788 5796 5799
CONECT 5788 5787 5789 5795
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