```
HEADER    HYDROLASE                                   19-JUL-00   1FCV
TITLE     CRYSTAL STRUCTURE OF BEE VENOM HYALURONIDASE IN COMPLEX WITH
TITLE    2 HYALURONIC ACID TETRAMER
CAVEAT     1FCV    NAG B 2 HAS WRONG CHIRALITY AT ATOM C1 GCU B 3 HAS WRONG
CAVEAT   2 1FCV    CHIRALITY AT ATOM C1 GCU B 5 HAS WRONG CHIRALITY AT ATOM C1
COMPND    MOL_ID: 1;
COMPND   2 MOLECULE: HYALURONOGLUCOSAMINIDASE;
COMPND   3 CHAIN: A;
COMPND   4 SYNONYM: HYALURONIDASE, API M II;
COMPND   5 EC: 3.2.1.35;
COMPND   6 ENGINEERED: YES
SOURCE    MOL_ID: 1;
SOURCE   2 ORGANISM_SCIENTIFIC: APIS MELLIFERA;
SOURCE   3 ORGANISM_COMMON: HONEY BEE;
SOURCE   4 ORGANISM_TAXID: 7460;
SOURCE   5 EXPRESSION_SYSTEM: TRICHOPLUSIA NI;
SOURCE   6 EXPRESSION_SYSTEM_COMMON: CABBAGE LOOPER;
SOURCE   7 EXPRESSION_SYSTEM_TAXID: 7111;
SOURCE   8 EXPRESSION_SYSTEM_CELL: HIGH-FIVE INSECT CELLS;
SOURCE   9 EXPRESSION_SYSTEM_VECTOR_TYPE: BACULOVIRUS;
SOURCE  10 EXPRESSION_SYSTEM_VECTOR: PMELBAC A
KEYWDS    7 STRANDED TIM BARREL, ALLERGEN, GLYCOSIDASE FAMILY 56, HYALURONIC
KEYWDS   2 ACID, HYDROLASE
EXPDTA    X-RAY DIFFRACTION
AUTHOR    Z.MARKOVIC-HOUSLEY,G.MIGLIERINI,L.SOLDATOVA,P.J.RIZKALLAH,U.MUELLER,
AUTHOR   2 T.SCHIRMER
REVDAT   7   30-OCT-24 1FCV    1       REMARK HETSYN
REVDAT   6   29-JUL-20 1FCV    1       CAVEAT COMPND REMARK HETNAM
REVDAT   6 2                   1       LINK   SITE   ATOM
REVDAT   5   25-NOV-15 1FCV    1       AUTHOR
REVDAT   4   13-JUL-11 1FCV    1       VERSN
REVDAT   3   24-FEB-09 1FCV    1       VERSN
REVDAT   2   01-APR-03 1FCV    1       JRNL
REVDAT   1   01-OCT-01 1FCV    0
JRNL        AUTH   Z.MARKOVIC-HOUSLEY,G.MIGLIERINI,L.SOLDATOVA,P.J.RIZKALLAH,
JRNL        AUTH 2 U.MULLER,T.SCHIRMER
JRNL        TITL   CRYSTAL STRUCTURE OF HYALURONIDASE, A MAJOR ALLERGEN OF BEE
JRNL        TITL 2 VENOM.
JRNL        REF    STRUCTURE FOLD.DES.           V.   8  1025 2000
JRNL        REFN                   ISSN 0969-2126
JRNL        PMID   11080624
JRNL        DOI    10.1016/S0969-2126(00)00511-6
REMARK   2
REMARK   2 RESOLUTION.    2.65 ANGSTROMS.
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : REFMAC
REMARK   3   AUTHORS     : MURSHUDOV,SKUBAK,LEBEDEV,PANNU,STEINER,
REMARK   3               : NICHOLLS,WINN,LONG,VAGIN
REMARK   3
```

```
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) : 2.65
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) : 8.00
REMARK   3   DATA CUTOFF            (SIGMA(F)) : 0.000
REMARK   3   COMPLETENESS FOR RANGE        (%) : NULL
REMARK   3   NUMBER OF REFLECTIONS             : 12387
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD          : NULL
REMARK   3   FREE R VALUE TEST SET SELECTION  : RANDOM
REMARK   3   R VALUE     (WORKING + TEST SET) : 0.180
REMARK   3   R VALUE            (WORKING SET) : 0.163
REMARK   3   FREE R VALUE                     : 0.252
REMARK   3   FREE R VALUE TEST SET SIZE   (%) : NULL
REMARK   3   FREE R VALUE TEST SET COUNT      : 1295
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   PROTEIN ATOMS            : 2681
REMARK   3   NUCLEIC ACID ATOMS       : 0
REMARK   3   HETEROGEN ATOMS          : 53
REMARK   3   SOLVENT ATOMS            : 132
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT           (A**2) : 34.40
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 OVERALL COORDINATE ERROR.
REMARK   3   ESU BASED ON R VALUE                            (A): NULL
REMARK   3   ESU BASED ON FREE R VALUE                       (A): NULL
REMARK   3   ESU BASED ON MAXIMUM LIKELIHOOD                 (A): NULL
REMARK   3   ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2): NULL
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES.
REMARK   3   DISTANCE RESTRAINTS.                     RMS    SIGMA
REMARK   3    BOND LENGTH                     (A) : 0.009 ; NULL
REMARK   3    ANGLE DISTANCE                  (A) : 0.032 ; NULL
REMARK   3    INTRAPLANAR 1-4 DISTANCE        (A) : NULL  ; NULL
REMARK   3    H-BOND OR METAL COORDINATION    (A) : NULL  ; NULL
REMARK   3
REMARK   3   PLANE RESTRAINT                  (A) : NULL  ; NULL
REMARK   3   CHIRAL-CENTER RESTRAINT       (A**3) : NULL  ; NULL
REMARK   3
REMARK   3   NON-BONDED CONTACT RESTRAINTS.
```

```
REMARK   3    SINGLE TORSION                  (A) : NULL  ; NULL
REMARK   3    MULTIPLE TORSION                (A) : NULL  ; NULL
REMARK   3    H-BOND (X...Y)                  (A) : NULL  ; NULL
REMARK   3    H-BOND (X-H...Y)                (A) : NULL  ; NULL
REMARK   3
REMARK   3   CONFORMATIONAL TORSION ANGLE RESTRAINTS.
REMARK   3    SPECIFIED                 (DEGREES) : NULL  ; NULL
REMARK   3    PLANAR                    (DEGREES) : NULL  ; NULL
REMARK   3    STAGGERED                 (DEGREES) : NULL  ; NULL
REMARK   3    TRANSVERSE                (DEGREES) : NULL  ; 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  OTHER REFINEMENT REMARKS: NULL
REMARK   4
REMARK   4 1FCV COMPLIES WITH FORMAT V. 3.30, 13-JUL-11
REMARK 100
REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 28-JUL-00.
REMARK 100 THE DEPOSITION ID IS D_1000011485.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200  EXPERIMENT TYPE                : X-RAY DIFFRACTION
REMARK 200  DATE OF DATA COLLECTION        : 10-APR-00
REMARK 200  TEMPERATURE           (KELVIN) : 277
REMARK 200  PH                             : 4.6
REMARK 200  NUMBER OF CRYSTALS USED        : 1
REMARK 200
REMARK 200  SYNCHROTRON              (Y/N) : N
REMARK 200  RADIATION SOURCE               : ROTATING ANODE
REMARK 200  BEAMLINE                       : NULL
REMARK 200  X-RAY GENERATOR MODEL          : ENRAF-NONIUS FR571
REMARK 200  MONOCHROMATIC OR LAUE    (M/L) : M
REMARK 200  WAVELENGTH OR RANGE        (A) : 1.54
REMARK 200  MONOCHROMATOR                  : NULL
REMARK 200  OPTICS                         : NULL
REMARK 200
REMARK 200  DETECTOR TYPE                  : IMAGE PLATE
REMARK 200  DETECTOR MANUFACTURER          : MARRESEARCH
REMARK 200  INTENSITY-INTEGRATION SOFTWARE : MOSFLM
REMARK 200  DATA SCALING SOFTWARE          : SCALA, CCP4 (SCALA)
REMARK 200
REMARK 200  NUMBER OF UNIQUE REFLECTIONS   : 13411
REMARK 200  RESOLUTION RANGE HIGH      (A) : 2.650
REMARK 200  RESOLUTION RANGE LOW       (A) : 30.000
REMARK 200  REJECTION CRITERIA  (SIGMA(I)) : 0.000
REMARK 200
```

```
REMARK 200 OVERALL.
REMARK 200  COMPLETENESS FOR RANGE     (%) : 99.8
REMARK 200  DATA REDUNDANCY                : 3.700
REMARK 200  R MERGE                    (I) : 0.10000
REMARK 200  R SYM                      (I) : NULL
REMARK 200  <I/SIGMA(I)> FOR THE DATA SET  : 7.4000
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.65
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE LOW  (A) : 2.79
REMARK 200  COMPLETENESS FOR SHELL     (%) : 99.9
REMARK 200  DATA REDUNDANCY IN SHELL       : 3.70
REMARK 200  R MERGE FOR SHELL          (I) : 0.29500
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: NULL
REMARK 200 SOFTWARE USED: NULL
REMARK 200 STARTING MODEL: NULL
REMARK 200
REMARK 200 REMARK: NULL
REMARK 280
REMARK 280 CRYSTAL
REMARK 280 SOLVENT CONTENT, VS   (%): 54.00
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 2.70
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: PEG 4000, AMMONIUM SULPHATE, NA
REMARK 280  ACETATE, PH 4.6, VAPOR DIFFUSION, HANGING DROP, TEMPERATURE 298K
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 32 2 1
REMARK 290
REMARK 290      SYMOP   SYMMETRY
REMARK 290     NNNMMM   OPERATOR
REMARK 290       1555   X,Y,Z
REMARK 290       2555   -Y,X-Y,Z+2/3
REMARK 290       3555   -X+Y,-X,Z+1/3
REMARK 290       4555   Y,X,-Z
REMARK 290       5555   X-Y,-Y,-Z+1/3
REMARK 290       6555   -X,-X+Y,-Z+2/3
REMARK 290
REMARK 290     WHERE NNN -> OPERATOR NUMBER
REMARK 290           MMM -> TRANSLATION VECTOR
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.
REMARK 290   SMTRY1   1  1.000000  0.000000  0.000000        0.00000
```

```
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 -0.500000 -0.866025  0.000000        0.00000
REMARK 290   SMTRY2   2  0.866025 -0.500000  0.000000        0.00000
REMARK 290   SMTRY3   2  0.000000  0.000000  1.000000      100.88400
REMARK 290   SMTRY1   3 -0.500000  0.866025  0.000000        0.00000
REMARK 290   SMTRY2   3 -0.866025 -0.500000  0.000000        0.00000
REMARK 290   SMTRY3   3  0.000000  0.000000  1.000000       50.44200
REMARK 290   SMTRY1   4 -0.500000  0.866025  0.000000        0.00000
REMARK 290   SMTRY2   4  0.866025  0.500000  0.000000        0.00000
REMARK 290   SMTRY3   4  0.000000  0.000000 -1.000000        0.00000
REMARK 290   SMTRY1   5  1.000000  0.000000  0.000000        0.00000
REMARK 290   SMTRY2   5  0.000000 -1.000000  0.000000        0.00000
REMARK 290   SMTRY3   5  0.000000  0.000000 -1.000000       50.44200
REMARK 290   SMTRY1   6 -0.500000 -0.866025  0.000000        0.00000
REMARK 290   SMTRY2   6 -0.866025  0.500000  0.000000        0.00000
REMARK 290   SMTRY3   6  0.000000  0.000000 -1.000000      100.88400
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 465
REMARK 465 MISSING RESIDUES
REMARK 465 THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE
REMARK 465 EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
REMARK 465 IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)
REMARK 465
REMARK 465   M RES C SSSEQI
REMARK 465     THR A     1
REMARK 465     PRO A     2
REMARK 465     ASP A     3
REMARK 465     ASN A     4
REMARK 465     ASN A     5
```

```
REMARK 465     LYS A     6
REMARK 465     THR A     7
REMARK 465     VAL A     8
REMARK 465     ARG A     9
REMARK 465     ASN A   334
REMARK 465     ASN A   335
REMARK 465     ASN A   336
REMARK 465     ALA A   337
REMARK 465     ASN A   338
REMARK 465     ASP A   339
REMARK 465     ARG A   340
REMARK 465     LEU A   341
REMARK 465     THR A   342
REMARK 465     VAL A   343
REMARK 465     ASP A   344
REMARK 465     VAL A   345
REMARK 465     SER A   346
REMARK 465     VAL A   347
REMARK 465     ASP A   348
REMARK 465     GLN A   349
REMARK 465     VAL A   350
REMARK 475
REMARK 475 ZERO OCCUPANCY RESIDUES
REMARK 475 THE FOLLOWING RESIDUES WERE MODELED WITH ZERO OCCUPANCY.
REMARK 475 THE LOCATION AND PROPERTIES OF THESE RESIDUES MAY NOT
REMARK 475 BE RELIABLE. (M=MODEL NUMBER; RES=RESIDUE NAME;
REMARK 475 C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE)
REMARK 475   M RES C  SSEQI
REMARK 475     LEU A   333
REMARK 480
REMARK 480 ZERO OCCUPANCY ATOM
REMARK 480 THE FOLLOWING RESIDUES HAVE ATOMS MODELED WITH ZERO
REMARK 480 OCCUPANCY. THE LOCATION AND PROPERTIES OF THESE ATOMS
REMARK 480 MAY NOT BE RELIABLE. (M=MODEL NUMBER; RES=RESIDUE NAME;
REMARK 480 C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE):
REMARK 480   M RES C SSEQI ATOMS
REMARK 480     GLU A   10   CG   CD   OE1  OE2
REMARK 480     GLU A   30   CG   CD   OE1  OE2
REMARK 480     ASP A   93   CG   OD1  OD2
REMARK 480     LYS A  131   CD   CE   NZ
REMARK 480     ARG A  138   CG   CD   NE   CZ   NH1  NH2
REMARK 480     ARG A  174   CB   CG   CD   NE   CZ   NH1  NH2
REMARK 480     ARG A  280   NE   CZ   NH1  NH2
REMARK 480     ARG A  330   CG   CD   NE   CZ   NH1  NH2
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: CLOSE CONTACTS IN SAME ASYMMETRIC UNIT
REMARK 500
REMARK 500 THE FOLLOWING ATOMS ARE IN CLOSE CONTACT.
REMARK 500
```

```
REMARK 500  ATM1  RES C  SSEQI   ATM2  RES C  SSEQI           DISTANCE
REMARK 500   O    ALA A   332     N    LEU A   333              1.69
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: CLOSE CONTACTS
REMARK 500
REMARK 500 THE FOLLOWING ATOMS THAT ARE RELATED BY CRYSTALLOGRAPHIC
REMARK 500 SYMMETRY ARE IN CLOSE CONTACT.  AN ATOM LOCATED WITHIN 0.15
REMARK 500 ANGSTROMS OF A SYMMETRY RELATED ATOM IS ASSUMED TO BE ON A
REMARK 500 SPECIAL POSITION AND IS, THEREFORE, LISTED IN REMARK 375
REMARK 500 INSTEAD OF REMARK 500.  ATOMS WITH NON-BLANK ALTERNATE
REMARK 500 LOCATION INDICATORS ARE NOT INCLUDED IN THE CALCULATIONS.
REMARK 500
REMARK 500 DISTANCE CUTOFF:
REMARK 500 2.2 ANGSTROMS FOR CONTACTS NOT INVOLVING HYDROGEN ATOMS
REMARK 500 1.6 ANGSTROMS FOR CONTACTS INVOLVING HYDROGEN ATOMS
REMARK 500
REMARK 500  ATM1  RES C  SSEQI   ATM2  RES C  SSEQI  SSYMOP   DISTANCE
REMARK 500   OE1  GLU A   236     NZ   LYS A   261     4455     2.09
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS
REMARK 500
REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT: (10X,I3,1X,2(A3,1X,A1,I4,A1,1X,A4,3X),1X,F6.3)
REMARK 500
REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999
REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996
REMARK 500
REMARK 500  M RES CSSEQI ATM1   RES CSSEQI ATM2   DEVIATION
REMARK 500    GLU A  10   CB    GLU A  10   CG      0.149
REMARK 500    ALA A 332   C     LEU A 333   N      -0.256
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: COVALENT BOND ANGLES
REMARK 500
REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
```

```
REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)
REMARK 500
REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999
REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996
REMARK 500
REMARK 500  M RES CSSEQI ATM1   ATM2   ATM3
REMARK 500    ARG A  28   CD  -  NE  -  CZ  ANGL. DEV. =  10.7 DEGREES
REMARK 500    ARG A  28   NE  -  CZ  -  NH1 ANGL. DEV. =   4.2 DEGREES
REMARK 500    ASP A  44   CB  -  CG  -  OD2 ANGL. DEV. =   6.1 DEGREES
REMARK 500    ARG A  47   NE  -  CZ  -  NH2 ANGL. DEV. =  -4.0 DEGREES
REMARK 500    ARG A 116   NE  -  CZ  -  NH2 ANGL. DEV. =  -4.8 DEGREES
REMARK 500    TRP A 123   CA  -  CB  -  CG  ANGL. DEV. =  14.7 DEGREES
REMARK 500    ARG A 155   NE  -  CZ  -  NH1 ANGL. DEV. =   4.0 DEGREES
REMARK 500    ARG A 155   NE  -  CZ  -  NH2 ANGL. DEV. =  -3.0 DEGREES
REMARK 500    TYR A 160   CB  -  CG  -  CD2 ANGL. DEV. =  -5.3 DEGREES
REMARK 500    ARG A 176   CD  -  NE  -  CZ  ANGL. DEV. =   9.5 DEGREES
REMARK 500    ARG A 176   NE  -  CZ  -  NH1 ANGL. DEV. =  -3.3 DEGREES
REMARK 500    TYR A 183   CB  -  CG  -  CD2 ANGL. DEV. =  -3.9 DEGREES
REMARK 500    ARG A 229   NE  -  CZ  -  NH2 ANGL. DEV. =  -4.3 DEGREES
REMARK 500    ARG A 244   NH1 -  CZ  -  NH2 ANGL. DEV. =   8.5 DEGREES
REMARK 500    ARG A 244   NE  -  CZ  -  NH1 ANGL. DEV. =  -6.9 DEGREES
REMARK 500    ARG A 250   NE  -  CZ  -  NH1 ANGL. DEV. =  -4.5 DEGREES
REMARK 500    ARG A 250   NE  -  CZ  -  NH2 ANGL. DEV. =   7.0 DEGREES
REMARK 500    THR A 256   N   -  CA  -  CB  ANGL. DEV. = -13.4 DEGREES
REMARK 500    ARG A 273   NE  -  CZ  -  NH1 ANGL. DEV. =  -3.5 DEGREES
REMARK 500    ARG A 280   CG  -  CD  -  NE  ANGL. DEV. =  14.7 DEGREES
REMARK 500    ARG A 288   CA  -  CB  -  CG  ANGL. DEV. =  13.3 DEGREES
REMARK 500    ARG A 317   NE  -  CZ  -  NH2 ANGL. DEV. =  -5.3 DEGREES
REMARK 500    ALA A 332   CA  -  C   -  N   ANGL. DEV. =  23.9 DEGREES
REMARK 500    ALA A 332   O   -  C   -  N   ANGL. DEV. = -29.0 DEGREES
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: TORSION ANGLES
REMARK 500
REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:
REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;
REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)
REMARK 500
REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-
REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400
REMARK 500
REMARK 500  M RES CSSEQI        PSI       PHI
```

```
REMARK 500    ALA A 124     -121.45     41.06
REMARK 500    ALA A 185       -4.64     78.26
REMARK 500    CYS A 189      -35.93   -140.02
REMARK 500    MET A 212       35.56    -95.68
REMARK 500    ARG A 273       56.99   -174.21
REMARK 500    ILE A 307       43.82   -142.73
REMARK 500    GLU A 323      -67.53   -133.53
REMARK 500    ILE A 331     -105.88    -75.93
REMARK 500    ALA A 332      -65.98    -29.77
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: MAIN CHAIN PLANARITY
REMARK 500
REMARK 500 THE FOLLOWING RESIDUES HAVE A PSEUDO PLANARITY
REMARK 500 TORSION ANGLE, C(I) - CA(I) - N(I+1) - O(I), GREATER
REMARK 500 10.0 DEGREES. (M=MODEL NUMBER; RES=RESIDUE NAME;
REMARK 500 C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;
REMARK 500 I=INSERTION CODE).
REMARK 500
REMARK 500  M RES CSSEQI        ANGLE
REMARK 500    ASP A  66        -14.77
REMARK 500    ASP A 101        -10.87
REMARK 500
REMARK 500 REMARK: NULL
REMARK 900
REMARK 900 RELATED ENTRIES
REMARK 900 RELATED ID: 1FCQ   RELATED DB: PDB
REMARK 900 1FCQ IS THE SAME PROTEIN WITHOUT LIGAND IN A DIFFERENT CRYSTAL FORM
REMARK 900 RELATED ID: 1FCU   RELATED DB: PDB
REMARK 900 1FCU IS THE SAME PROTEIN WITHOUT LIGAND IN THE SAME CRYSTAL FORM
DBREF  1FCV A    1   350  UNP    Q08169   HUGA_APIME      33    382
SEQRES   1 A  350  THR PRO ASP ASN ASN LYS THR VAL ARG GLU PHE ASN VAL
SEQRES   2 A  350  TYR TRP ASN VAL PRO THR PHE MET CYS HIS LYS TYR GLY
SEQRES   3 A  350  LEU ARG PHE GLU GLU VAL SER GLU LYS TYR GLY ILE LEU
SEQRES   4 A  350  GLN ASN TRP MET ASP LYS PHE ARG GLY GLU GLU ILE ALA
SEQRES   5 A  350  ILE LEU TYR ASP PRO GLY MET PHE PRO ALA LEU LEU LYS
SEQRES   6 A  350  ASP PRO ASN GLY ASN VAL VAL ALA ARG ASN GLY GLY VAL
SEQRES   7 A  350  PRO GLN LEU GLY ASN LEU THR LYS HIS LEU GLN VAL PHE
SEQRES   8 A  350  ARG ASP HIS LEU ILE ASN GLN ILE PRO ASP LYS SER PHE
SEQRES   9 A  350  PRO GLY VAL GLY VAL ILE ASP PHE GLU SER TRP ARG PRO
SEQRES  10 A  350  ILE PHE ARG GLN ASN TRP ALA SER LEU GLN PRO TYR LYS
SEQRES  11 A  350  LYS LEU SER VAL GLU VAL VAL ARG ARG GLU HIS PRO PHE
SEQRES  12 A  350  TRP ASP ASP GLN ARG VAL GLU GLN GLU ALA LYS ARG ARG
SEQRES  13 A  350  PHE GLU LYS TYR GLY GLN LEU PHE MET GLU GLU THR LEU
SEQRES  14 A  350  LYS ALA ALA LYS ARG MET ARG PRO ALA ALA ASN TRP GLY
SEQRES  15 A  350  TYR TYR ALA TYR PRO TYR CYS TYR ASN LEU THR PRO ASN
SEQRES  16 A  350  GLN PRO SER ALA GLN CYS GLU ALA THR THR MET GLN GLU
SEQRES  17 A  350  ASN ASP LYS MET SER TRP LEU PHE GLU SER GLU ASP VAL
```

```
SEQRES  18 A  350  LEU LEU PRO SER VAL TYR LEU ARG TRP ASN LEU THR SER
SEQRES  19 A  350  GLY GLU ARG VAL GLY LEU VAL GLY GLY ARG VAL LYS GLU
SEQRES  20 A  350  ALA LEU ARG ILE ALA ARG GLN MET THR THR SER ARG LYS
SEQRES  21 A  350  LYS VAL LEU PRO TYR TYR TRP TYR LYS TYR GLN ASP ARG
SEQRES  22 A  350  ARG ASP THR ASP LEU SER ARG ALA ASP LEU GLU ALA THR
SEQRES  23 A  350  LEU ARG LYS ILE THR ASP LEU GLY ALA ASP GLY PHE ILE
SEQRES  24 A  350  ILE TRP GLY SER SER ASP ASP ILE ASN THR LYS ALA LYS
SEQRES  25 A  350  CYS LEU GLN PHE ARG GLU TYR LEU ASN ASN GLU LEU GLY
SEQRES  26 A  350  PRO ALA VAL LYS ARG ILE ALA LEU ASN ASN ASN ALA ASN
SEQRES  27 A  350  ASP ARG LEU THR VAL ASP VAL SER VAL ASP GLN VAL
HET    GCU  B   1       1
HET    NAG  B   2      14
HET    GCU  B   3      12
HET    NAG  B   4      14
HET    GCU  B   5      12
HETNAM     GCU ALPHA-D-GLUCOPYRANURONIC ACID
HETNAM     NAG 2-ACETAMIDO-2-DEOXY-BETA-D-GLUCOPYRANOSE
HETSYN     GCU ALPHA-D-GLUCURONIC ACID; D-GLUCURONIC ACID; GLUCURONIC
HETSYN   2 GCU  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
FORMUL   2  GCU    3(C6 H10 O7)
FORMUL   2  NAG    2(C8 H15 N O6)
FORMUL   3  HOH   *132(H2 O)
HELIX    1   1 PRO A   18  GLY A   26  5                                      9
HELIX    2   2 GLU A   30  LYS A   35  1                                      6
HELIX    3   3 ASN A   41  LYS A   45  5                                      5
HELIX    4   4 ASN A   75  GLY A   77  5                                      3
HELIX    5   5 VAL A   78  GLY A   82  5                                      5
HELIX    6   6 ASN A   83  ILE A   99  1                                     17
HELIX    7   7 ILE A  118  ASN A  122  5                                      5
HELIX    8   8 TRP A  123  LEU A  126  5                                      4
HELIX    9   9 GLN A  127  HIS A  141  1                                     15
HELIX   10  10 ASP A  145  ARG A  176  1                                     32
HELIX   11  11 GLU A  202  MET A  212  1                                     11
HELIX   12  12 MET A  212  GLU A  219  1                                      8
HELIX   13  13 THR A  233  ARG A  253  1                                     21
HELIX   14  14 SER A  279  GLY A  294  1                                     16
HELIX   15  15 SER A  303  ILE A  307  5                                      5
HELIX   16  16 THR A  309  GLU A  323  1                                     15
HELIX   17  17 GLU A  323  ILE A  331  1                                      9
SHEET    1   A 3 ASN A  12  ASN A  16  0
SHEET    2   A 3 GLY A 297  TRP A 301  1  O  PHE A 298   N  TYR A  14
SHEET    3   A 3 TYR A 265  TRP A 267  1  N  TYR A 266   O  ILE A 299
SHEET    1   B 3 ILE A  51  TYR A  55  0
SHEET    2   B 3 VAL A 107  ASP A 111  1  O  VAL A 107   N  ALA A  52
SHEET    3   B 3 ASN A 180  TYR A 183  1  O  ASN A 180   N  GLY A 108
SHEET    1   C 2 ALA A  62  LYS A  65  0
SHEET    2   C 2 VAL A  71  ARG A  74 -1  N  VAL A  72   O  LEU A  64
```

```
SHEET    1   D 2 VAL A 221  LEU A 222  0
SHEET    2   D 2 LYS A 261  VAL A 262  1  O  LYS A 261   N  LEU A 222
SHEET    1   E 2 LYS A 269  TYR A 270  0
SHEET    2   E 2 ARG A 273  ASP A 277 -1  N  ARG A 273   O  TYR A 270
SSBOND   1 CYS A   22    CYS A  313                          1555   1555  2.05
SSBOND   2 CYS A  189    CYS A  201                          1555   1555  1.99
LINK         O4  GCU B   1                 C1  NAG B   2     1555   1555  1.35
LINK         O3  NAG B   2                 C1  GCU B   3     1555   1555  1.30
LINK         O4  GCU B   3                 C1  NAG B   4     1555   1555  1.33
LINK         O3  NAG B   4                 C1  GCU B   5     1555   1555  1.31
CISPEP   1 TYR A  186    PRO A  187          0         2.58
CRYST1   71.012   71.012  151.326  90.00  90.00 120.00 P 32 2 1      6
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      0.014080  0.008130  0.000000        0.00000
SCALE2      0.000000  0.016260  0.000000        0.00000
SCALE3      0.000000  0.000000  0.006610        0.00000
ATOM      1  N   GLU A  10     -17.008  51.967  -3.959  1.00 60.60           N
ATOM      2  CA  GLU A  10     -15.820  51.727  -4.835  1.00 59.01           C
ATOM      3  C   GLU A  10     -15.447  50.246  -4.813  1.00 55.41           C
ATOM      4  O   GLU A  10     -15.415  49.615  -3.760  1.00 58.68           O
ATOM      5  CB  GLU A  10     -14.614  52.573  -4.467  1.00 59.55           C
ATOM      6  CG  GLU A  10     -15.057  54.125  -4.880  0.00104.69           C
ATOM      7  CD  GLU A  10     -13.844  55.020  -4.718  0.00110.34           C
ATOM      8  OE1 GLU A  10     -12.741  54.485  -4.478  0.00112.66           O
ATOM      9  OE2 GLU A  10     -13.995  56.254  -4.830  0.00113.38           O
ATOM     10  N   PHE A  11     -15.243  49.691  -5.999  1.00 46.14           N
ATOM     11  CA  PHE A  11     -15.043  48.259  -6.136  1.00 36.59           C
ATOM     12  C   PHE A  11     -14.069  47.955  -7.265  1.00 37.80           C
ATOM     13  O   PHE A  11     -14.443  47.894  -8.435  1.00 36.16           O
ATOM     14  CB  PHE A  11     -16.407  47.611  -6.400  1.00 29.70           C
ATOM     15  CG  PHE A  11     -16.375  46.115  -6.378  1.00 29.70           C
ATOM     16  CD1 PHE A  11     -16.498  45.434  -5.175  1.00 24.85           C
ATOM     17  CD2 PHE A  11     -16.182  45.392  -7.558  1.00 25.42           C
ATOM     18  CE1 PHE A  11     -16.456  44.049  -5.157  1.00 28.21           C
ATOM     19  CE2 PHE A  11     -16.115  44.015  -7.540  1.00 25.17           C
ATOM     20  CZ  PHE A  11     -16.260  43.333  -6.336  1.00 29.04           C
ATOM     21  N   ASN A  12     -12.803  47.728  -6.922  1.00 33.84           N
ATOM     22  CA  ASN A  12     -11.770  47.446  -7.885  1.00 30.53           C
ATOM     23  C   ASN A  12     -11.380  45.985  -8.030  1.00 33.21           C
ATOM     24  O   ASN A  12     -11.115  45.310  -7.031  1.00 38.82           O
ATOM     25  CB  ASN A  12     -10.502  48.172  -7.446  1.00 29.98           C
ATOM     26  CG  ASN A  12     -10.713  49.630  -7.163  1.00 28.95           C
ATOM     27  OD1 ASN A  12     -10.414  50.113  -6.075  1.00 35.27           O
ATOM     28  ND2 ASN A  12     -11.157  50.376  -8.152  1.00 33.28           N
ATOM     29  N   VAL A  13     -11.256  45.514  -9.255  1.00 28.48           N
ATOM     30  CA  VAL A  13     -10.767  44.171  -9.576  1.00 24.98           C
ATOM     31  C   VAL A  13      -9.333  44.301 -10.103  1.00 23.22           C
ATOM     32  O   VAL A  13      -9.005  45.227 -10.846  1.00 19.92           O
```

ATOM	33	CB	VAL	A	13	-11.651	43.503	-10.634	1.00	24.45	C
ATOM	34	CG1	VAL	A	13	-11.161	42.110	-10.956	1.00	27.47	C
ATOM	35	CG2	VAL	A	13	-13.101	43.459	-10.175	1.00	27.71	C
ATOM	36	N	TYR	A	14	-8.433	43.438	-9.690	1.00	21.41	N
ATOM	37	CA	TYR	A	14	-7.021	43.481	-9.978	1.00	17.97	C
ATOM	38	C	TYR	A	14	-6.587	42.222	-10.699	1.00	17.98	C
ATOM	39	O	TYR	A	14	-6.974	41.156	-10.271	1.00	17.83	O
ATOM	40	CB	TYR	A	14	-6.183	43.486	-8.692	1.00	20.49	C
ATOM	41	CG	TYR	A	14	-6.210	44.764	-7.908	1.00	23.01	C
ATOM	42	CD1	TYR	A	14	-7.121	44.909	-6.869	1.00	24.31	C
ATOM	43	CD2	TYR	A	14	-5.364	45.823	-8.228	1.00	24.59	C
ATOM	44	CE1	TYR	A	14	-7.181	46.084	-6.137	1.00	29.50	C
ATOM	45	CE2	TYR	A	14	-5.444	47.018	-7.535	1.00	28.99	C
ATOM	46	CZ	TYR	A	14	-6.347	47.133	-6.494	1.00	32.04	C
ATOM	47	OH	TYR	A	14	-6.415	48.310	-5.795	1.00	34.27	O
ATOM	48	N	TRP	A	15	-5.620	42.344	-11.581	1.00	22.92	N
ATOM	49	CA	TRP	A	15	-5.190	41.162	-12.346	1.00	24.59	C
ATOM	50	C	TRP	A	15	-3.808	40.730	-11.860	1.00	24.56	C
ATOM	51	O	TRP	A	15	-2.873	41.524	-11.896	1.00	26.05	O
ATOM	52	CB	TRP	A	15	-5.243	41.533	-13.811	1.00	22.17	C
ATOM	53	CG	TRP	A	15	-4.795	40.528	-14.813	1.00	20.98	C
ATOM	54	CD1	TRP	A	15	-3.547	40.462	-15.367	1.00	18.09	C
ATOM	55	CD2	TRP	A	15	-5.576	39.495	-15.427	1.00	17.63	C
ATOM	56	NE1	TRP	A	15	-3.507	39.457	-16.288	1.00	18.20	N
ATOM	57	CE2	TRP	A	15	-4.722	38.830	-16.337	1.00	20.70	C
ATOM	58	CE3	TRP	A	15	-6.892	39.072	-15.314	1.00	12.18	C
ATOM	59	CZ2	TRP	A	15	-5.143	37.760	-17.133	1.00	19.85	C
ATOM	60	CZ3	TRP	A	15	-7.302	38.000	-16.073	1.00	15.52	C
ATOM	61	CH2	TRP	A	15	-6.441	37.365	-16.973	1.00	19.79	C
ATOM	62	N	ASN	A	16	-3.738	39.496	-11.381	1.00	19.04	N
ATOM	63	CA	ASN	A	16	-2.519	38.940	-10.840	1.00	17.05	C
ATOM	64	C	ASN	A	16	-2.306	37.564	-11.469	1.00	20.29	C
ATOM	65	O	ASN	A	16	-1.884	36.608	-10.830	1.00	24.90	O
ATOM	66	CB	ASN	A	16	-2.561	38.911	-9.324	1.00	13.44	C
ATOM	67	CG	ASN	A	16	-1.251	38.620	-8.621	1.00	16.67	C
ATOM	68	OD1	ASN	A	16	-1.259	37.867	-7.634	1.00	14.61	O
ATOM	69	ND2	ASN	A	16	-0.172	39.254	-9.111	1.00	12.57	N
ATOM	70	N	VAL	A	17	-2.669	37.448	-12.736	1.00	19.26	N
ATOM	71	CA	VAL	A	17	-2.439	36.210	-13.485	1.00	21.12	C
ATOM	72	C	VAL	A	17	-1.129	36.459	-14.203	1.00	21.57	C
ATOM	73	O	VAL	A	17	-0.976	37.522	-14.811	1.00	25.17	O
ATOM	74	CB	VAL	A	17	-3.553	35.983	-14.517	1.00	21.60	C
ATOM	75	CG1	VAL	A	17	-3.347	34.744	-15.370	1.00	19.88	C
ATOM	76	CG2	VAL	A	17	-4.899	35.954	-13.817	1.00	23.79	C
ATOM	77	N	PRO	A	18	-0.203	35.525	-14.183	1.00	22.28	N
ATOM	78	CA	PRO	A	18	1.109	35.721	-14.793	1.00	23.41	C
ATOM	79	C	PRO	A	18	1.151	35.601	-16.296	1.00	24.10	C
ATOM	80	O	PRO	A	18	1.953	34.825	-16.818	1.00	22.38	O
ATOM	81	CB	PRO	A	18	1.951	34.660	-14.082	1.00	16.23	C
ATOM	82	CG	PRO	A	18	0.990	33.532	-13.955	1.00	11.20	C

ATOM	83	CD	PRO	A	18	-0.277	34.224	-13.493	1.00	16.14	C
ATOM	84	N	THR	A	19	0.359	36.386	-17.011	1.00	26.08	N
ATOM	85	CA	THR	A	19	0.285	36.431	-18.460	1.00	25.76	C
ATOM	86	C	THR	A	19	1.523	37.011	-19.114	1.00	25.75	C
ATOM	87	O	THR	A	19	1.606	36.972	-20.339	1.00	34.39	O
ATOM	88	CB	THR	A	19	-0.947	37.214	-18.985	1.00	25.89	C
ATOM	89	OG1	THR	A	19	-1.206	38.456	-18.267	1.00	15.57	O
ATOM	90	CG2	THR	A	19	-2.201	36.337	-18.947	1.00	20.52	C
ATOM	91	N	PHE	A	20	2.561	37.462	-18.445	1.00	25.27	N
ATOM	92	CA	PHE	A	20	3.845	37.880	-18.975	1.00	21.41	C
ATOM	93	C	PHE	A	20	4.499	36.692	-19.672	1.00	25.86	C
ATOM	94	O	PHE	A	20	5.253	36.818	-20.635	1.00	23.73	O
ATOM	95	CB	PHE	A	20	4.764	38.446	-17.883	1.00	18.67	C
ATOM	96	CG	PHE	A	20	5.308	37.411	-16.939	1.00	19.65	C
ATOM	97	CD1	PHE	A	20	6.444	36.686	-17.256	1.00	15.17	C
ATOM	98	CD2	PHE	A	20	4.674	37.172	-15.720	1.00	21.23	C
ATOM	99	CE1	PHE	A	20	6.932	35.725	-16.396	1.00	18.08	C
ATOM	100	CE2	PHE	A	20	5.173	36.215	-14.851	1.00	21.72	C
ATOM	101	CZ	PHE	A	20	6.294	35.485	-15.193	1.00	19.86	C
ATOM	102	N	MET	A	21	4.216	35.473	-19.208	1.00	28.19	N
ATOM	103	CA	MET	A	21	4.568	34.212	-19.802	1.00	30.14	C
ATOM	104	C	MET	A	21	4.097	34.027	-21.253	1.00	29.68	C
ATOM	105	O	MET	A	21	4.638	33.145	-21.918	1.00	26.32	O
ATOM	106	CB	MET	A	21	3.875	33.040	-19.074	1.00	30.55	C
ATOM	107	CG	MET	A	21	4.155	32.861	-17.605	1.00	31.72	C
ATOM	108	SD	MET	A	21	5.746	32.156	-17.185	1.00	33.30	S
ATOM	109	CE	MET	A	21	5.720	30.531	-17.880	1.00	22.40	C
ATOM	110	N	CYS	A	22	3.079	34.755	-21.698	1.00	27.10	N
ATOM	111	CA	CYS	A	22	2.549	34.671	-23.034	1.00	24.63	C
ATOM	112	C	CYS	A	22	3.020	35.806	-23.940	1.00	26.72	C
ATOM	113	O	CYS	A	22	2.763	35.791	-25.163	1.00	26.94	O
ATOM	114	CB	CYS	A	22	1.017	34.662	-22.971	1.00	23.96	C
ATOM	115	SG	CYS	A	22	0.250	33.397	-21.953	1.00	16.92	S
ATOM	116	N	HIS	A	23	3.839	36.721	-23.422	1.00	24.23	N
ATOM	117	CA	HIS	A	23	4.287	37.876	-24.210	1.00	24.28	C
ATOM	118	C	HIS	A	23	5.170	37.427	-25.350	1.00	27.05	C
ATOM	119	O	HIS	A	23	5.070	37.889	-26.500	1.00	26.96	O
ATOM	120	CB	HIS	A	23	4.865	38.967	-23.321	1.00	21.99	C
ATOM	121	CG	HIS	A	23	3.882	39.599	-22.388	1.00	23.78	C
ATOM	122	ND1	HIS	A	23	4.235	40.430	-21.364	1.00	26.21	N
ATOM	123	CD2	HIS	A	23	2.529	39.491	-22.275	1.00	25.90	C
ATOM	124	CE1	HIS	A	23	3.177	40.862	-20.692	1.00	21.38	C
ATOM	125	NE2	HIS	A	23	2.127	40.268	-21.219	1.00	24.05	N
ATOM	126	N	LYS	A	24	5.979	36.384	-25.145	1.00	27.08	N
ATOM	127	CA	LYS	A	24	6.833	35.822	-26.173	1.00	23.74	C
ATOM	128	C	LYS	A	24	6.070	35.341	-27.411	1.00	28.47	C
ATOM	129	O	LYS	A	24	6.683	35.084	-28.463	1.00	27.20	O
ATOM	130	CB	LYS	A	24	7.623	34.661	-25.558	1.00	16.79	C
ATOM	131	CG	LYS	A	24	6.677	33.495	-25.264	1.00	25.36	C
ATOM	132	CD	LYS	A	24	7.468	32.278	-24.812	1.00	30.63	C

ATOM	133	CE	LYS	A	24	8.297	32.552	-23.572	1.00	33.86	C
ATOM	134	NZ	LYS	A	24	7.417	32.926	-22.406	1.00	35.10	N
ATOM	135	N	TYR	A	25	4.771	35.060	-27.327	1.00	29.91	N
ATOM	136	CA	TYR	A	25	3.999	34.531	-28.435	1.00	29.37	C
ATOM	137	C	TYR	A	25	3.163	35.646	-29.058	1.00	31.24	C
ATOM	138	O	TYR	A	25	2.363	35.424	-29.966	1.00	32.27	O
ATOM	139	CB	TYR	A	25	3.098	33.372	-28.067	1.00	27.27	C
ATOM	140	CG	TYR	A	25	3.711	32.243	-27.275	1.00	30.67	C
ATOM	141	CD1	TYR	A	25	3.249	32.009	-25.976	1.00	29.30	C
ATOM	142	CD2	TYR	A	25	4.714	31.420	-27.762	1.00	28.87	C
ATOM	143	CE1	TYR	A	25	3.769	31.000	-25.204	1.00	26.97	C
ATOM	144	CE2	TYR	A	25	5.250	30.402	-26.990	1.00	29.04	C
ATOM	145	CZ	TYR	A	25	4.768	30.209	-25.714	1.00	30.91	C
ATOM	146	OH	TYR	A	25	5.271	29.207	-24.916	1.00	37.25	O
ATOM	147	N	GLY	A	26	3.351	36.869	-28.573	1.00	30.18	N
ATOM	148	CA	GLY	A	26	2.605	37.997	-29.094	1.00	31.15	C
ATOM	149	C	GLY	A	26	1.286	38.269	-28.404	1.00	35.22	C
ATOM	150	O	GLY	A	26	0.595	39.195	-28.840	1.00	39.17	O
ATOM	151	N	LEU	A	27	0.899	37.569	-27.361	1.00	35.54	N
ATOM	152	CA	LEU	A	27	-0.336	37.782	-26.617	1.00	34.87	C
ATOM	153	C	LEU	A	27	-0.106	38.686	-25.411	1.00	34.12	C
ATOM	154	O	LEU	A	27	0.526	38.306	-24.422	1.00	36.64	O
ATOM	155	CB	LEU	A	27	-0.812	36.397	-26.152	1.00	35.63	C
ATOM	156	CG	LEU	A	27	-0.824	35.269	-27.190	1.00	34.27	C
ATOM	157	CD1	LEU	A	27	-1.441	34.004	-26.628	1.00	38.10	C
ATOM	158	CD2	LEU	A	27	-1.634	35.678	-28.398	1.00	34.44	C
ATOM	159	N	ARG	A	28	-0.482	39.952	-25.437	1.00	32.46	N
ATOM	160	CA	ARG	A	28	-0.192	40.840	-24.311	1.00	32.00	C
ATOM	161	C	ARG	A	28	-1.353	41.102	-23.380	1.00	31.18	C
ATOM	162	O	ARG	A	28	-1.252	41.920	-22.462	1.00	30.67	O
ATOM	163	CB	ARG	A	28	0.445	42.123	-24.873	1.00	36.59	C
ATOM	164	CG	ARG	A	28	1.665	41.826	-25.745	1.00	45.96	C
ATOM	165	CD	ARG	A	28	2.719	42.902	-25.821	1.00	46.79	C
ATOM	166	NE	ARG	A	28	3.199	43.320	-24.522	1.00	53.93	N
ATOM	167	CZ	ARG	A	28	4.335	43.181	-23.875	1.00	55.97	C
ATOM	168	NH1	ARG	A	28	5.402	42.559	-24.356	1.00	56.35	N
ATOM	169	NH2	ARG	A	28	4.460	43.697	-22.650	1.00	57.35	N
ATOM	170	N	PHE	A	29	-2.491	40.438	-23.523	1.00	28.19	N
ATOM	171	CA	PHE	A	29	-3.679	40.579	-22.711	1.00	28.44	C
ATOM	172	C	PHE	A	29	-4.096	42.002	-22.405	1.00	28.22	C
ATOM	173	O	PHE	A	29	-4.699	42.292	-21.349	1.00	30.46	O
ATOM	174	CB	PHE	A	29	-3.498	39.735	-21.411	1.00	24.89	C
ATOM	175	CG	PHE	A	29	-3.448	38.272	-21.765	1.00	26.74	C
ATOM	176	CD1	PHE	A	29	-2.279	37.687	-22.243	1.00	28.34	C
ATOM	177	CD2	PHE	A	29	-4.576	37.481	-21.666	1.00	21.85	C
ATOM	178	CE1	PHE	A	29	-2.235	36.347	-22.594	1.00	26.87	C
ATOM	179	CE2	PHE	A	29	-4.527	36.154	-22.032	1.00	21.52	C
ATOM	180	CZ	PHE	A	29	-3.377	35.568	-22.494	1.00	21.14	C
ATOM	181	N	GLU	A	30	-3.945	42.953	-23.303	1.00	25.89	N
ATOM	182	CA	GLU	A	30	-4.361	44.341	-23.163	1.00	28.89	C

ATOM	183	C	GLU	A	30	-5.854	44.523	-22.887	1.00	27.78	C
ATOM	184	O	GLU	A	30	-6.250	45.513	-22.263	1.00	25.44	O
ATOM	185	CB	GLU	A	30	-4.103	45.171	-24.439	1.00	27.78	C
ATOM	186	CG	GLU	A	30	-2.842	44.837	-25.290	0.00	76.98	C
ATOM	187	CD	GLU	A	30	-3.059	44.001	-26.528	0.00	88.34	C
ATOM	188	OE1	GLU	A	30	-4.133	44.090	-27.157	0.00	93.07	O
ATOM	189	OE2	GLU	A	30	-2.150	43.235	-26.907	0.00	99.95	O
ATOM	190	N	GLU	A	31	-6.683	43.576	-23.319	1.00	25.60	N
ATOM	191	CA	GLU	A	31	-8.111	43.606	-23.138	1.00	30.20	C
ATOM	192	C	GLU	A	31	-8.533	43.449	-21.675	1.00	34.17	C
ATOM	193	O	GLU	A	31	-9.664	43.808	-21.303	1.00	34.41	O
ATOM	194	CB	GLU	A	31	-8.818	42.585	-24.022	1.00	26.73	C
ATOM	195	CG	GLU	A	31	-8.575	41.139	-23.704	1.00	30.18	C
ATOM	196	CD	GLU	A	31	-7.368	40.539	-24.393	1.00	33.19	C
ATOM	197	OE1	GLU	A	31	-7.387	39.299	-24.595	1.00	37.73	O
ATOM	198	OE2	GLU	A	31	-6.397	41.234	-24.723	1.00	28.33	O
ATOM	199	N	VAL	A	32	-7.654	42.941	-20.821	1.00	31.73	N
ATOM	200	CA	VAL	A	32	-7.930	42.780	-19.403	1.00	31.35	C
ATOM	201	C	VAL	A	32	-8.407	44.141	-18.893	1.00	31.46	C
ATOM	202	O	VAL	A	32	-9.467	44.256	-18.277	1.00	30.31	O
ATOM	203	CB	VAL	A	32	-6.707	42.244	-18.639	1.00	30.00	C
ATOM	204	CG1	VAL	A	32	-6.768	42.423	-17.128	1.00	24.19	C
ATOM	205	CG2	VAL	A	32	-6.522	40.743	-18.897	1.00	27.34	C
ATOM	206	N	SER	A	33	-7.625	45.178	-19.148	1.00	32.36	N
ATOM	207	CA	SER	A	33	-8.023	46.503	-18.721	1.00	37.23	C
ATOM	208	C	SER	A	33	-8.708	47.292	-19.824	1.00	39.14	C
ATOM	209	O	SER	A	33	-9.611	48.030	-19.444	1.00	41.45	O
ATOM	210	CB	SER	A	33	-6.829	47.334	-18.241	1.00	36.08	C
ATOM	211	OG	SER	A	33	-5.902	47.375	-19.316	1.00	41.82	O
ATOM	212	N	GLU	A	34	-8.327	47.161	-21.092	1.00	43.67	N
ATOM	213	CA	GLU	A	34	-8.982	47.952	-22.136	1.00	43.37	C
ATOM	214	C	GLU	A	34	-10.441	47.588	-22.349	1.00	39.62	C
ATOM	215	O	GLU	A	34	-11.179	48.538	-22.653	1.00	39.26	O
ATOM	216	CB	GLU	A	34	-8.206	47.961	-23.449	1.00	46.36	C
ATOM	217	CG	GLU	A	34	-6.969	48.835	-23.422	1.00	55.87	C
ATOM	218	CD	GLU	A	34	-6.059	48.713	-24.623	1.00	62.97	C
ATOM	219	OE1	GLU	A	34	-6.361	47.951	-25.572	1.00	69.42	O
ATOM	220	OE2	GLU	A	34	-4.981	49.360	-24.652	1.00	64.60	O
ATOM	221	N	LYS	A	35	-10.886	46.348	-22.180	1.00	33.76	N
ATOM	222	CA	LYS	A	35	-12.296	46.084	-22.380	1.00	35.04	C
ATOM	223	C	LYS	A	35	-13.020	45.663	-21.093	1.00	35.07	C
ATOM	224	O	LYS	A	35	-14.222	45.952	-21.006	1.00	35.53	O
ATOM	225	CB	LYS	A	35	-12.650	45.002	-23.378	1.00	35.79	C
ATOM	226	CG	LYS	A	35	-11.816	44.649	-24.560	1.00	41.57	C
ATOM	227	CD	LYS	A	35	-12.514	43.777	-25.592	1.00	47.42	C
ATOM	228	CE	LYS	A	35	-13.719	43.024	-25.053	1.00	49.97	C
ATOM	229	NZ	LYS	A	35	-14.637	42.533	-26.107	1.00	53.85	N
ATOM	230	N	TYR	A	36	-12.355	44.956	-20.175	1.00	31.05	N
ATOM	231	CA	TYR	A	36	-13.060	44.514	-18.975	1.00	25.61	C
ATOM	232	C	TYR	A	36	-12.824	45.375	-17.754	1.00	24.02	C

ATOM	233	O	TYR	A	36	-13.404	45.105	-16.712	1.00	25.48	O
ATOM	234	CB	TYR	A	36	-12.827	43.023	-18.707	1.00	25.32	C
ATOM	235	CG	TYR	A	36	-13.009	42.198	-19.974	1.00	27.28	C
ATOM	236	CD1	TYR	A	36	-11.966	41.462	-20.528	1.00	24.23	C
ATOM	237	CD2	TYR	A	36	-14.217	42.194	-20.638	1.00	27.99	C
ATOM	238	CE1	TYR	A	36	-12.161	40.746	-21.679	1.00	22.67	C
ATOM	239	CE2	TYR	A	36	-14.417	41.475	-21.797	1.00	25.19	C
ATOM	240	CZ	TYR	A	36	-13.371	40.758	-22.311	1.00	23.69	C
ATOM	241	OH	TYR	A	36	-13.554	40.042	-23.477	1.00	32.19	O
ATOM	242	N	GLY	A	37	-12.071	46.455	-17.801	1.00	24.99	N
ATOM	243	CA	GLY	A	37	-11.867	47.367	-16.709	1.00	29.80	C
ATOM	244	C	GLY	A	37	-11.207	46.796	-15.461	1.00	34.68	C
ATOM	245	O	GLY	A	37	-11.439	47.284	-14.347	1.00	34.94	O
ATOM	246	N	ILE	A	38	-10.400	45.748	-15.620	1.00	30.62	N
ATOM	247	CA	ILE	A	38	-9.678	45.167	-14.509	1.00	29.37	C
ATOM	248	C	ILE	A	38	-8.389	45.953	-14.278	1.00	29.08	C
ATOM	249	O	ILE	A	38	-7.821	46.379	-15.290	1.00	30.64	O
ATOM	250	CB	ILE	A	38	-9.410	43.692	-14.856	1.00	28.84	C
ATOM	251	CG1	ILE	A	38	-10.761	43.013	-15.072	1.00	27.16	C
ATOM	252	CG2	ILE	A	38	-8.565	43.066	-13.750	1.00	27.90	C
ATOM	253	CD1	ILE	A	38	-10.735	41.510	-15.159	1.00	28.50	C
ATOM	254	N	LEU	A	39	-8.038	46.387	-13.072	1.00	23.48	N
ATOM	255	CA	LEU	A	39	-6.792	47.093	-12.892	1.00	23.30	C
ATOM	256	C	LEU	A	39	-5.626	46.172	-13.271	1.00	26.36	C
ATOM	257	O	LEU	A	39	-5.526	45.051	-12.774	1.00	20.78	O
ATOM	258	CB	LEU	A	39	-6.646	47.639	-11.477	1.00	27.06	C
ATOM	259	CG	LEU	A	39	-7.722	48.661	-11.076	1.00	29.42	C
ATOM	260	CD1	LEU	A	39	-7.443	49.254	-9.715	1.00	23.06	C
ATOM	261	CD2	LEU	A	39	-7.821	49.755	-12.122	1.00	32.01	C
ATOM	262	N	GLN	A	40	-4.758	46.670	-14.161	1.00	23.12	N
ATOM	263	CA	GLN	A	40	-3.629	45.897	-14.644	1.00	24.59	C
ATOM	264	C	GLN	A	40	-2.341	46.697	-14.635	1.00	24.86	C
ATOM	265	O	GLN	A	40	-2.324	47.888	-14.947	1.00	23.68	O
ATOM	266	CB	GLN	A	40	-4.021	45.395	-16.044	1.00	24.25	C
ATOM	267	CG	GLN	A	40	-2.936	44.737	-16.891	1.00	23.96	C
ATOM	268	CD	GLN	A	40	-3.482	44.198	-18.208	1.00	26.65	C
ATOM	269	OE1	GLN	A	40	-4.417	44.765	-18.805	1.00	28.60	O
ATOM	270	NE2	GLN	A	40	-2.931	43.087	-18.699	1.00	17.95	N
ATOM	271	N	ASN	A	41	-1.222	46.092	-14.239	1.00	26.73	N
ATOM	272	CA	ASN	A	41	0.085	46.761	-14.263	1.00	25.60	C
ATOM	273	C	ASN	A	41	0.439	47.170	-15.706	1.00	33.49	C
ATOM	274	O	ASN	A	41	0.272	46.440	-16.712	1.00	30.92	O
ATOM	275	CB	ASN	A	41	1.170	45.827	-13.743	1.00	20.63	C
ATOM	276	CG	ASN	A	41	1.075	45.521	-12.269	1.00	22.71	C
ATOM	277	OD1	ASN	A	41	0.741	46.400	-11.469	1.00	26.20	O
ATOM	278	ND2	ASN	A	41	1.404	44.312	-11.836	1.00	19.69	N
ATOM	279	N	TRP	A	42	0.971	48.388	-15.828	1.00	34.58	N
ATOM	280	CA	TRP	A	42	1.373	48.887	-17.136	1.00	33.99	C
ATOM	281	C	TRP	A	42	2.201	47.858	-17.884	1.00	35.83	C
ATOM	282	O	TRP	A	42	3.107	47.195	-17.397	1.00	35.45	O

ATOM	283	CB	TRP	A	42	2.094	50.183	-16.908	1.00	42.61	C
ATOM	284	CG	TRP	A	42	2.527	50.958	-18.112	1.00	49.90	C
ATOM	285	CD1	TRP	A	42	1.760	51.614	-19.029	1.00	51.69	C
ATOM	286	CD2	TRP	A	42	3.887	51.167	-18.499	1.00	52.69	C
ATOM	287	NE1	TRP	A	42	2.556	52.208	-19.978	1.00	55.06	N
ATOM	288	CE2	TRP	A	42	3.864	51.948	-19.667	1.00	55.07	C
ATOM	289	CE3	TRP	A	42	5.111	50.761	-17.961	1.00	55.85	C
ATOM	290	CZ2	TRP	A	42	5.033	52.352	-20.293	1.00	58.29	C
ATOM	291	CZ3	TRP	A	42	6.270	51.160	-18.608	1.00	62.05	C
ATOM	292	CH2	TRP	A	42	6.227	51.945	-19.773	1.00	61.22	C
ATOM	293	N	MET	A	43	1.868	47.640	-19.148	1.00	37.79	N
ATOM	294	CA	MET	A	43	2.461	46.733	-20.106	1.00	36.12	C
ATOM	295	C	MET	A	43	2.293	45.262	-19.803	1.00	34.07	C
ATOM	296	O	MET	A	43	3.087	44.414	-20.226	1.00	32.57	O
ATOM	297	CB	MET	A	43	3.950	47.068	-20.289	1.00	39.94	C
ATOM	298	CG	MET	A	43	4.170	48.321	-21.123	1.00	44.88	C
ATOM	299	SD	MET	A	43	5.939	48.681	-21.260	1.00	54.10	S
ATOM	300	CE	MET	A	43	6.309	47.618	-22.679	1.00	53.35	C
ATOM	301	N	ASP	A	44	1.337	44.931	-18.948	1.00	32.32	N
ATOM	302	CA	ASP	A	44	1.034	43.617	-18.441	1.00	27.82	C
ATOM	303	C	ASP	A	44	2.206	42.970	-17.714	1.00	30.86	C
ATOM	304	O	ASP	A	44	2.313	41.736	-17.663	1.00	32.09	O
ATOM	305	CB	ASP	A	44	0.484	42.702	-19.526	1.00	24.41	C
ATOM	306	CG	ASP	A	44	-0.042	41.387	-18.972	1.00	26.70	C
ATOM	307	OD1	ASP	A	44	-0.606	41.462	-17.864	1.00	27.77	O
ATOM	308	OD2	ASP	A	44	0.114	40.278	-19.521	1.00	27.48	O
ATOM	309	N	LYS	A	45	3.123	43.757	-17.156	1.00	26.74	N
ATOM	310	CA	LYS	A	45	4.198	43.186	-16.344	1.00	26.52	C
ATOM	311	C	LYS	A	45	3.658	42.527	-15.092	1.00	20.85	C
ATOM	312	O	LYS	A	45	2.658	42.914	-14.494	1.00	23.61	O
ATOM	313	CB	LYS	A	45	5.168	44.341	-16.055	1.00	33.03	C
ATOM	314	CG	LYS	A	45	6.049	44.551	-17.279	1.00	39.91	C
ATOM	315	CD	LYS	A	45	7.025	45.696	-17.148	1.00	48.05	C
ATOM	316	CE	LYS	A	45	7.791	45.848	-18.460	1.00	56.69	C
ATOM	317	NZ	LYS	A	45	8.593	44.604	-18.721	1.00	62.67	N
ATOM	318	N	PHE	A	46	4.259	41.463	-14.616	1.00	20.63	N
ATOM	319	CA	PHE	A	46	3.829	40.749	-13.426	1.00	22.47	C
ATOM	320	C	PHE	A	46	3.735	41.673	-12.216	1.00	23.13	C
ATOM	321	O	PHE	A	46	2.694	41.721	-11.571	1.00	18.68	O
ATOM	322	CB	PHE	A	46	4.733	39.570	-13.072	1.00	19.87	C
ATOM	323	CG	PHE	A	46	4.072	38.595	-12.144	1.00	23.21	C
ATOM	324	CD1	PHE	A	46	2.722	38.280	-12.254	1.00	24.85	C
ATOM	325	CD2	PHE	A	46	4.807	37.971	-11.155	1.00	23.81	C
ATOM	326	CE1	PHE	A	46	2.149	37.353	-11.413	1.00	25.33	C
ATOM	327	CE2	PHE	A	46	4.219	37.050	-10.295	1.00	21.43	C
ATOM	328	CZ	PHE	A	46	2.899	36.731	-10.435	1.00	22.09	C
ATOM	329	N	ARG	A	47	4.854	42.334	-11.903	1.00	24.93	N
ATOM	330	CA	ARG	A	47	4.850	43.278	-10.788	1.00	26.98	C
ATOM	331	C	ARG	A	47	4.820	44.690	-11.365	1.00	30.13	C
ATOM	332	O	ARG	A	47	5.523	44.970	-12.330	1.00	31.79	O

ATOM	333	CB	ARG	A	47	6.093	43.114	-9.919	1.00	24.81	C
ATOM	334	CG	ARG	A	47	6.177	41.769	-9.282	1.00	26.53	C
ATOM	335	CD	ARG	A	47	7.305	41.578	-8.265	1.00	35.14	C
ATOM	336	NE	ARG	A	47	6.998	40.239	-7.727	1.00	44.34	N
ATOM	337	CZ	ARG	A	47	7.434	39.116	-8.306	1.00	45.21	C
ATOM	338	NH1	ARG	A	47	7.033	37.954	-7.809	1.00	41.51	N
ATOM	339	NH2	ARG	A	47	8.297	39.267	-9.307	1.00	42.14	N
ATOM	340	N	GLY	A	48	3.999	45.577	-10.833	1.00	33.56	N
ATOM	341	CA	GLY	A	48	3.986	46.948	-11.325	1.00	33.44	C
ATOM	342	C	GLY	A	48	3.337	47.862	-10.299	1.00	37.38	C
ATOM	343	O	GLY	A	48	3.276	47.575	-9.101	1.00	40.09	O
ATOM	344	N	GLU	A	49	2.749	48.929	-10.815	1.00	36.01	N
ATOM	345	CA	GLU	A	49	2.129	49.949	-9.969	1.00	35.55	C
ATOM	346	C	GLU	A	49	0.763	49.563	-9.435	1.00	31.79	C
ATOM	347	O	GLU	A	49	0.236	50.227	-8.542	1.00	32.04	O
ATOM	348	CB	GLU	A	49	2.085	51.254	-10.767	1.00	37.32	C
ATOM	349	CG	GLU	A	49	1.029	51.342	-11.829	1.00	43.56	C
ATOM	350	CD	GLU	A	49	1.176	50.539	-13.092	1.00	47.82	C
ATOM	351	OE1	GLU	A	49	2.181	49.829	-13.317	1.00	50.25	O
ATOM	352	OE2	GLU	A	49	0.237	50.616	-13.926	1.00	50.20	O
ATOM	353	N	GLU	A	50	0.134	48.504	-9.919	1.00	27.08	N
ATOM	354	CA	GLU	A	50	-1.169	48.118	-9.402	1.00	22.21	C
ATOM	355	C	GLU	A	50	-0.984	47.016	-8.382	1.00	20.02	C
ATOM	356	O	GLU	A	50	-1.553	47.050	-7.308	1.00	19.43	O
ATOM	357	CB	GLU	A	50	-2.077	47.619	-10.522	1.00	24.28	C
ATOM	358	CG	GLU	A	50	-2.413	48.629	-11.573	1.00	26.78	C
ATOM	359	CD	GLU	A	50	-3.135	49.834	-11.014	1.00	33.86	C
ATOM	360	OE1	GLU	A	50	-2.831	50.966	-11.468	1.00	45.76	O
ATOM	361	OE2	GLU	A	50	-4.007	49.719	-10.142	1.00	30.31	O
ATOM	362	N	ILE	A	51	-0.210	45.988	-8.761	1.00	21.15	N
ATOM	363	CA	ILE	A	51	-0.040	44.902	-7.789	1.00	21.17	C
ATOM	364	C	ILE	A	51	1.301	44.217	-7.883	1.00	22.07	C
ATOM	365	O	ILE	A	51	2.007	44.231	-8.901	1.00	25.24	O
ATOM	366	CB	ILE	A	51	-1.273	43.987	-7.888	1.00	21.71	C
ATOM	367	CG1	ILE	A	51	-1.210	42.871	-6.841	1.00	13.52	C
ATOM	368	CG2	ILE	A	51	-1.458	43.452	-9.308	1.00	22.33	C
ATOM	369	CD1	ILE	A	51	-2.477	42.074	-6.815	1.00	12.19	C
ATOM	370	N	ALA	A	52	1.706	43.636	-6.754	1.00	19.36	N
ATOM	371	CA	ALA	A	52	2.976	42.922	-6.714	1.00	21.81	C
ATOM	372	C	ALA	A	52	2.806	41.832	-5.654	1.00	22.45	C
ATOM	373	O	ALA	A	52	2.329	42.180	-4.572	1.00	23.63	O
ATOM	374	CB	ALA	A	52	4.210	43.737	-6.400	1.00	18.84	C
ATOM	375	N	ILE	A	53	3.071	40.604	-6.075	1.00	19.86	N
ATOM	376	CA	ILE	A	53	3.009	39.541	-5.071	1.00	22.64	C
ATOM	377	C	ILE	A	53	4.429	39.079	-4.827	1.00	21.87	C
ATOM	378	O	ILE	A	53	5.220	38.999	-5.759	1.00	23.76	O
ATOM	379	CB	ILE	A	53	2.044	38.432	-5.512	1.00	24.97	C
ATOM	380	CG1	ILE	A	53	1.913	37.355	-4.424	1.00	21.78	C
ATOM	381	CG2	ILE	A	53	2.443	37.886	-6.872	1.00	22.15	C
ATOM	382	CD1	ILE	A	53	0.773	36.361	-4.594	1.00	14.35	C

ATOM	383	N	LEU	A	54	4.789	38.792	-3.602	1.00	23.76	N
ATOM	384	CA	LEU	A	54	6.117	38.309	-3.239	1.00	23.25	C
ATOM	385	C	LEU	A	54	5.956	36.866	-2.764	1.00	22.88	C
ATOM	386	O	LEU	A	54	5.353	36.578	-1.729	1.00	30.32	O
ATOM	387	CB	LEU	A	54	6.740	39.189	-2.163	1.00	24.12	C
ATOM	388	CG	LEU	A	54	6.892	40.691	-2.449	1.00	29.71	C
ATOM	389	CD1	LEU	A	54	7.515	41.451	-1.273	1.00	27.59	C
ATOM	390	CD2	LEU	A	54	7.741	40.951	-3.681	1.00	29.94	C
ATOM	391	N	TYR	A	55	6.421	35.891	-3.498	1.00	19.55	N
ATOM	392	CA	TYR	A	55	6.363	34.487	-3.127	1.00	19.40	C
ATOM	393	C	TYR	A	55	7.496	34.104	-2.195	1.00	22.64	C
ATOM	394	O	TYR	A	55	8.660	34.283	-2.534	1.00	21.02	O
ATOM	395	CB	TYR	A	55	6.496	33.673	-4.420	1.00	16.20	C
ATOM	396	CG	TYR	A	55	5.289	33.779	-5.337	1.00	19.65	C
ATOM	397	CD1	TYR	A	55	5.453	34.046	-6.689	1.00	17.09	C
ATOM	398	CD2	TYR	A	55	3.985	33.630	-4.851	1.00	14.52	C
ATOM	399	CE1	TYR	A	55	4.354	34.110	-7.530	1.00	19.32	C
ATOM	400	CE2	TYR	A	55	2.892	33.707	-5.665	1.00	13.56	C
ATOM	401	CZ	TYR	A	55	3.093	33.947	-7.008	1.00	19.40	C
ATOM	402	OH	TYR	A	55	2.016	34.008	-7.847	1.00	21.94	O
ATOM	403	N	ASP	A	56	7.228	33.662	-0.969	1.00	25.48	N
ATOM	404	CA	ASP	A	56	8.292	33.285	-0.024	1.00	25.79	C
ATOM	405	C	ASP	A	56	9.515	34.171	-0.002	1.00	23.91	C
ATOM	406	O	ASP	A	56	10.643	33.709	-0.153	1.00	25.48	O
ATOM	407	CB	ASP	A	56	8.669	31.838	-0.383	1.00	22.69	C
ATOM	408	CG	ASP	A	56	9.548	31.138	0.623	1.00	25.26	C
ATOM	409	OD1	ASP	A	56	9.453	31.450	1.824	1.00	21.98	O
ATOM	410	OD2	ASP	A	56	10.366	30.281	0.210	1.00	30.45	O
ATOM	411	N	PRO	A	57	9.389	35.473	0.237	1.00	23.57	N
ATOM	412	CA	PRO	A	57	10.528	36.379	0.199	1.00	24.32	C
ATOM	413	C	PRO	A	57	11.355	36.272	1.459	1.00	25.05	C
ATOM	414	O	PRO	A	57	10.817	35.743	2.435	1.00	23.96	O
ATOM	415	CB	PRO	A	57	9.894	37.764	0.058	1.00	23.06	C
ATOM	416	CG	PRO	A	57	8.617	37.606	0.791	1.00	22.32	C
ATOM	417	CD	PRO	A	57	8.138	36.205	0.509	1.00	18.56	C
ATOM	418	N	GLY	A	58	12.587	36.770	1.433	1.00	26.20	N
ATOM	419	CA	GLY	A	58	13.421	36.727	2.633	1.00	24.72	C
ATOM	420	C	GLY	A	58	13.912	35.304	2.862	1.00	27.27	C
ATOM	421	O	GLY	A	58	14.117	34.491	1.960	1.00	30.11	O
ATOM	422	N	MET	A	59	14.122	34.959	4.111	1.00	27.64	N
ATOM	423	CA	MET	A	59	14.604	33.645	4.511	1.00	30.14	C
ATOM	424	C	MET	A	59	13.812	33.201	5.741	1.00	31.04	C
ATOM	425	O	MET	A	59	14.265	33.139	6.885	1.00	30.66	O
ATOM	426	CB	MET	A	59	16.117	33.655	4.656	1.00	31.38	C
ATOM	427	CG	MET	A	59	16.799	32.324	4.465	1.00	41.13	C
ATOM	428	SD	MET	A	59	18.417	32.173	5.275	1.00	50.87	S
ATOM	429	CE	MET	A	59	19.297	33.514	4.480	1.00	51.15	C
ATOM	430	N	PHE	A	60	12.490	33.118	5.505	1.00	27.16	N
ATOM	431	CA	PHE	A	60	11.544	32.672	6.513	1.00	24.33	C
ATOM	432	C	PHE	A	60	11.958	31.271	6.940	1.00	24.09	C

ATOM	433	O	PHE	A	60	12.214	30.441	6.071	1.00	32.57	O
ATOM	434	CB	PHE	A	60	10.114	32.558	5.981	1.00	22.99	C
ATOM	435	CG	PHE	A	60	9.322	33.829	6.105	1.00	28.22	C
ATOM	436	CD1	PHE	A	60	9.008	34.572	4.987	1.00	25.86	C
ATOM	437	CD2	PHE	A	60	8.906	34.284	7.359	1.00	28.10	C
ATOM	438	CE1	PHE	A	60	8.306	35.753	5.105	1.00	28.98	C
ATOM	439	CE2	PHE	A	60	8.198	35.462	7.457	1.00	28.76	C
ATOM	440	CZ	PHE	A	60	7.897	36.209	6.341	1.00	28.68	C
ATOM	441	N	PRO	A	61	11.943	30.985	8.221	1.00	21.52	N
ATOM	442	CA	PRO	A	61	12.263	29.637	8.681	1.00	19.79	C
ATOM	443	C	PRO	A	61	11.244	28.655	8.119	1.00	21.52	C
ATOM	444	O	PRO	A	61	10.035	28.913	8.134	1.00	23.31	O
ATOM	445	CB	PRO	A	61	12.272	29.760	10.188	1.00	18.74	C
ATOM	446	CG	PRO	A	61	12.279	31.219	10.520	1.00	17.43	C
ATOM	447	CD	PRO	A	61	11.680	31.926	9.334	1.00	17.90	C
ATOM	448	N	ALA	A	62	11.673	27.525	7.558	1.00	19.33	N
ATOM	449	CA	ALA	A	62	10.747	26.530	7.069	1.00	17.38	C
ATOM	450	C	ALA	A	62	11.418	25.154	7.043	1.00	24.19	C
ATOM	451	O	ALA	A	62	12.635	25.065	7.171	1.00	27.35	O
ATOM	452	CB	ALA	A	62	10.256	26.831	5.670	1.00	20.95	C
ATOM	453	N	LEU	A	63	10.605	24.136	6.826	1.00	23.94	N
ATOM	454	CA	LEU	A	63	11.046	22.774	6.700	1.00	28.56	C
ATOM	455	C	LEU	A	63	10.862	22.314	5.259	1.00	30.69	C
ATOM	456	O	LEU	A	63	9.739	22.220	4.771	1.00	30.94	O
ATOM	457	CB	LEU	A	63	10.231	21.864	7.627	1.00	30.47	C
ATOM	458	CG	LEU	A	63	10.528	22.081	9.108	1.00	32.40	C
ATOM	459	CD1	LEU	A	63	9.462	21.389	9.932	1.00	28.74	C
ATOM	460	CD2	LEU	A	63	11.963	21.652	9.420	1.00	34.39	C
ATOM	461	N	LEU	A	64	11.956	22.045	4.574	1.00	32.62	N
ATOM	462	CA	LEU	A	64	11.853	21.638	3.178	1.00	35.93	C
ATOM	463	C	LEU	A	64	12.351	20.216	3.021	1.00	40.24	C
ATOM	464	O	LEU	A	64	13.036	19.716	3.905	1.00	39.87	O
ATOM	465	CB	LEU	A	64	12.663	22.631	2.350	1.00	37.71	C
ATOM	466	CG	LEU	A	64	12.183	24.083	2.321	1.00	39.71	C
ATOM	467	CD1	LEU	A	64	13.233	24.988	1.706	1.00	38.82	C
ATOM	468	CD2	LEU	A	64	10.876	24.200	1.530	1.00	37.70	C
ATOM	469	N	LYS	A	65	12.124	19.603	1.873	1.00	45.22	N
ATOM	470	CA	LYS	A	65	12.592	18.251	1.611	1.00	46.08	C
ATOM	471	C	LYS	A	65	13.286	18.107	0.265	1.00	43.66	C
ATOM	472	O	LYS	A	65	12.806	18.539	-0.776	1.00	33.32	O
ATOM	473	CB	LYS	A	65	11.362	17.345	1.714	1.00	53.28	C
ATOM	474	CG	LYS	A	65	11.517	15.884	1.391	1.00	64.30	C
ATOM	475	CD	LYS	A	65	10.214	15.106	1.418	1.00	71.11	C
ATOM	476	CE	LYS	A	65	10.101	14.096	0.276	1.00	76.19	C
ATOM	477	NZ	LYS	A	65	8.956	13.144	0.444	1.00	76.84	N
ATOM	478	N	ASP	A	66	14.449	17.468	0.272	1.00	47.36	N
ATOM	479	CA	ASP	A	66	15.209	17.165	-0.923	1.00	54.63	C
ATOM	480	C	ASP	A	66	14.361	16.107	-1.672	1.00	59.53	C
ATOM	481	O	ASP	A	66	13.858	15.193	-0.990	1.00	58.60	O
ATOM	482	CB	ASP	A	66	16.458	16.364	-0.602	1.00	59.49	C

ATOM	483	CG	ASP	A	66	17.569	16.853	0.257	1.00	65.84	C
ATOM	484	OD1	ASP	A	66	18.222	15.993	0.905	1.00	68.78	O
ATOM	485	OD2	ASP	A	66	17.897	18.055	0.323	1.00	68.11	O
ATOM	486	N	PRO	A	67	14.648	15.899	-2.954	1.00	62.60	N
ATOM	487	CA	PRO	A	67	14.167	14.743	-3.703	1.00	64.68	C
ATOM	488	C	PRO	A	67	14.810	13.500	-3.098	1.00	67.61	C
ATOM	489	O	PRO	A	67	14.201	12.451	-2.958	1.00	63.12	O
ATOM	490	CB	PRO	A	67	14.591	14.955	-5.135	1.00	61.89	C
ATOM	491	CG	PRO	A	67	15.056	16.353	-5.219	1.00	63.40	C
ATOM	492	CD	PRO	A	67	15.322	16.872	-3.835	1.00	63.38	C
ATOM	493	N	ASN	A	68	16.059	13.658	-2.644	1.00	75.09	N
ATOM	494	CA	ASN	A	68	16.754	12.661	-1.845	1.00	79.98	C
ATOM	495	C	ASN	A	68	15.811	12.279	-0.702	1.00	79.35	C
ATOM	496	O	ASN	A	68	15.453	11.109	-0.589	1.00	81.14	O
ATOM	497	CB	ASN	A	68	18.087	13.143	-1.271	1.00	83.88	C
ATOM	498	CG	ASN	A	68	19.149	13.330	-2.335	1.00	87.71	C
ATOM	499	OD1	ASN	A	68	19.201	12.496	-3.244	1.00	89.75	O
ATOM	500	ND2	ASN	A	68	19.937	14.398	-2.272	1.00	88.19	N
ATOM	501	N	GLY	A	69	15.333	13.232	0.095	1.00	76.97	N
ATOM	502	CA	GLY	A	69	14.331	12.885	1.104	1.00	71.46	C
ATOM	503	C	GLY	A	69	14.729	13.419	2.470	1.00	65.80	C
ATOM	504	O	GLY	A	69	13.999	13.291	3.444	1.00	65.03	O
ATOM	505	N	ASN	A	70	15.895	14.051	2.506	1.00	62.15	N
ATOM	506	CA	ASN	A	70	16.352	14.665	3.741	1.00	58.31	C
ATOM	507	C	ASN	A	70	15.619	15.984	3.981	1.00	55.69	C
ATOM	508	O	ASN	A	70	15.331	16.784	3.101	1.00	53.98	O
ATOM	509	CB	ASN	A	70	17.860	14.850	3.737	1.00	61.11	C
ATOM	510	CG	ASN	A	70	18.555	13.533	3.422	1.00	63.47	C
ATOM	511	OD1	ASN	A	70	17.976	12.463	3.611	1.00	63.78	O
ATOM	512	ND2	ASN	A	70	19.790	13.613	2.946	1.00	64.56	N
ATOM	513	N	VAL	A	71	15.265	16.157	5.250	1.00	48.87	N
ATOM	514	CA	VAL	A	71	14.573	17.346	5.687	1.00	42.97	C
ATOM	515	C	VAL	A	71	15.595	18.455	5.837	1.00	41.90	C
ATOM	516	O	VAL	A	71	16.661	18.216	6.397	1.00	45.27	O
ATOM	517	CB	VAL	A	71	13.826	17.029	6.988	1.00	40.94	C
ATOM	518	CG1	VAL	A	71	13.068	18.237	7.488	1.00	39.91	C
ATOM	519	CG2	VAL	A	71	12.887	15.857	6.712	1.00	39.81	C
ATOM	520	N	VAL	A	72	15.380	19.598	5.205	1.00	38.91	N
ATOM	521	CA	VAL	A	72	16.287	20.721	5.367	1.00	39.13	C
ATOM	522	C	VAL	A	72	15.549	21.755	6.218	1.00	33.82	C
ATOM	523	O	VAL	A	72	14.385	22.039	5.967	1.00	31.61	O
ATOM	524	CB	VAL	A	72	16.778	21.403	4.081	1.00	42.54	C
ATOM	525	CG1	VAL	A	72	17.863	20.632	3.337	1.00	41.36	C
ATOM	526	CG2	VAL	A	72	15.629	21.597	3.106	1.00	42.35	C
ATOM	527	N	ALA	A	73	16.228	22.271	7.221	1.00	30.53	N
ATOM	528	CA	ALA	A	73	15.640	23.291	8.072	1.00	28.93	C
ATOM	529	C	ALA	A	73	16.210	24.631	7.587	1.00	31.55	C
ATOM	530	O	ALA	A	73	17.301	24.978	8.051	1.00	36.58	O
ATOM	531	CB	ALA	A	73	15.939	23.122	9.546	1.00	21.22	C
ATOM	532	N	ARG	A	74	15.518	25.290	6.674	1.00	28.13	N

ATOM	533	CA	ARG	A	74	15.943	26.614	6.226	1.00	27.31	C
ATOM	534	C	ARG	A	74	15.849	27.578	7.404	1.00	25.71	C
ATOM	535	O	ARG	A	74	14.811	27.584	8.077	1.00	23.88	O
ATOM	536	CB	ARG	A	74	14.983	27.097	5.124	1.00	27.25	C
ATOM	537	CG	ARG	A	74	15.458	28.245	4.271	1.00	23.63	C
ATOM	538	CD	ARG	A	74	14.473	28.672	3.216	1.00	32.50	C
ATOM	539	NE	ARG	A	74	13.273	29.354	3.728	1.00	32.78	N
ATOM	540	CZ	ARG	A	74	12.246	29.653	2.936	1.00	30.30	C
ATOM	541	NH1	ARG	A	74	12.271	29.351	1.647	1.00	27.97	N
ATOM	542	NH2	ARG	A	74	11.173	30.259	3.415	1.00	30.90	N
ATOM	543	N	ASN	A	75	16.894	28.306	7.715	1.00	24.43	N
ATOM	544	CA	ASN	A	75	16.955	29.298	8.772	1.00	25.13	C
ATOM	545	C	ASN	A	75	16.276	28.914	10.080	1.00	27.46	C
ATOM	546	O	ASN	A	75	15.487	29.658	10.666	1.00	25.01	O
ATOM	547	CB	ASN	A	75	16.446	30.648	8.299	1.00	26.05	C
ATOM	548	CG	ASN	A	75	16.707	31.802	9.235	1.00	28.98	C
ATOM	549	OD1	ASN	A	75	16.231	32.933	9.084	1.00	32.85	O
ATOM	550	ND2	ASN	A	75	17.471	31.579	10.278	1.00	30.96	N
ATOM	551	N	GLY	A	76	16.606	27.712	10.564	1.00	25.66	N
ATOM	552	CA	GLY	A	76	16.103	27.203	11.801	1.00	24.63	C
ATOM	553	C	GLY	A	76	15.092	26.090	11.680	1.00	26.90	C
ATOM	554	O	GLY	A	76	14.944	25.315	12.640	1.00	29.77	O
ATOM	555	N	GLY	A	77	14.267	26.142	10.640	1.00	25.45	N
ATOM	556	CA	GLY	A	77	13.142	25.218	10.556	1.00	29.39	C
ATOM	557	C	GLY	A	77	11.922	25.844	11.218	1.00	30.19	C
ATOM	558	O	GLY	A	77	10.919	26.084	10.530	1.00	34.75	O
ATOM	559	N	VAL	A	78	11.998	26.079	12.527	1.00	28.86	N
ATOM	560	CA	VAL	A	78	10.877	26.685	13.244	1.00	24.87	C
ATOM	561	C	VAL	A	78	11.259	28.099	13.630	1.00	27.51	C
ATOM	562	O	VAL	A	78	12.416	28.510	13.766	1.00	28.66	O
ATOM	563	CB	VAL	A	78	10.414	25.824	14.416	1.00	27.44	C
ATOM	564	CG1	VAL	A	78	9.648	24.605	13.901	1.00	23.11	C
ATOM	565	CG2	VAL	A	78	11.601	25.403	15.276	1.00	28.26	C
ATOM	566	N	PRO	A	79	10.257	28.968	13.774	1.00	28.01	N
ATOM	567	CA	PRO	A	79	10.486	30.376	14.035	1.00	23.80	C
ATOM	568	C	PRO	A	79	11.417	30.616	15.197	1.00	29.15	C
ATOM	569	O	PRO	A	79	12.344	31.437	15.129	1.00	29.91	O
ATOM	570	CB	PRO	A	79	9.109	30.951	14.240	1.00	21.92	C
ATOM	571	CG	PRO	A	79	8.131	29.850	14.123	1.00	26.25	C
ATOM	572	CD	PRO	A	79	8.821	28.641	13.566	1.00	26.14	C
ATOM	573	N	GLN	A	80	11.237	29.890	16.305	1.00	28.72	N
ATOM	574	CA	GLN	A	80	11.984	30.082	17.531	1.00	25.88	C
ATOM	575	C	GLN	A	80	13.468	29.787	17.391	1.00	27.85	C
ATOM	576	O	GLN	A	80	14.221	30.252	18.251	1.00	25.69	O
ATOM	577	CB	GLN	A	80	11.419	29.316	18.716	1.00	25.14	C
ATOM	578	CG	GLN	A	80	11.192	27.857	18.589	1.00	22.44	C
ATOM	579	CD	GLN	A	80	9.935	27.379	17.914	1.00	23.52	C
ATOM	580	OE1	GLN	A	80	9.368	26.354	18.348	1.00	28.46	O
ATOM	581	NE2	GLN	A	80	9.519	28.055	16.865	1.00	17.84	N
ATOM	582	N	LEU	A	81	13.856	29.042	16.351	1.00	26.95	N

ATOM	583	CA	LEU	A	81	15.234	28.768	16.053	1.00	24.06	C
ATOM	584	C	LEU	A	81	15.805	29.692	14.994	1.00	25.49	C
ATOM	585	O	LEU	A	81	17.025	29.654	14.776	1.00	36.50	O
ATOM	586	CB	LEU	A	81	15.431	27.323	15.588	1.00	25.74	C
ATOM	587	CG	LEU	A	81	15.192	26.246	16.663	1.00	27.91	C
ATOM	588	CD1	LEU	A	81	15.694	24.893	16.171	1.00	25.35	C
ATOM	589	CD2	LEU	A	81	15.821	26.572	18.000	1.00	16.71	C
ATOM	590	N	GLY	A	82	15.056	30.560	14.340	1.00	22.60	N
ATOM	591	CA	GLY	A	82	15.574	31.409	13.310	1.00	18.20	C
ATOM	592	C	GLY	A	82	16.312	32.680	13.537	1.00	21.80	C
ATOM	593	O	GLY	A	82	16.128	33.364	14.548	1.00	22.19	O
ATOM	594	N	ASN	A	83	17.096	33.092	12.513	1.00	23.51	N
ATOM	595	CA	ASN	A	83	17.817	34.364	12.587	1.00	22.84	C
ATOM	596	C	ASN	A	83	16.980	35.459	11.933	1.00	24.91	C
ATOM	597	O	ASN	A	83	16.906	35.708	10.723	1.00	23.16	O
ATOM	598	CB	ASN	A	83	19.245	34.249	12.074	1.00	22.27	C
ATOM	599	CG	ASN	A	83	20.054	35.530	12.153	1.00	31.42	C
ATOM	600	OD1	ASN	A	83	19.471	36.635	12.160	1.00	36.88	O
ATOM	601	ND2	ASN	A	83	21.391	35.544	12.212	1.00	26.40	N
ATOM	602	N	LEU	A	84	16.301	36.221	12.785	1.00	23.94	N
ATOM	603	CA	LEU	A	84	15.448	37.320	12.345	1.00	25.13	C
ATOM	604	C	LEU	A	84	16.199	38.330	11.497	1.00	26.62	C
ATOM	605	O	LEU	A	84	15.751	38.744	10.428	1.00	28.74	O
ATOM	606	CB	LEU	A	84	14.817	38.041	13.532	1.00	25.09	C
ATOM	607	CG	LEU	A	84	13.503	38.759	13.298	1.00	28.49	C
ATOM	608	CD1	LEU	A	84	12.832	39.087	14.609	1.00	28.50	C
ATOM	609	CD2	LEU	A	84	13.702	40.060	12.560	1.00	34.71	C
ATOM	610	N	THR	A	85	17.371	38.754	11.969	1.00	32.80	N
ATOM	611	CA	THR	A	85	18.071	39.819	11.255	1.00	34.56	C
ATOM	612	C	THR	A	85	18.621	39.317	9.933	1.00	30.85	C
ATOM	613	O	THR	A	85	18.571	40.058	8.950	1.00	31.51	O
ATOM	614	CB	THR	A	85	19.114	40.589	12.063	1.00	35.22	C
ATOM	615	OG1	THR	A	85	20.396	40.422	11.454	1.00	35.32	O
ATOM	616	CG2	THR	A	85	19.134	40.170	13.514	1.00	34.55	C
ATOM	617	N	LYS	A	86	18.962	38.046	9.847	1.00	33.88	N
ATOM	618	CA	LYS	A	86	19.384	37.494	8.554	1.00	36.89	C
ATOM	619	C	LYS	A	86	18.190	37.418	7.608	1.00	34.78	C
ATOM	620	O	LYS	A	86	18.344	37.645	6.411	1.00	34.04	O
ATOM	621	CB	LYS	A	86	20.011	36.126	8.743	1.00	38.19	C
ATOM	622	CG	LYS	A	86	20.599	35.525	7.489	1.00	44.36	C
ATOM	623	CD	LYS	A	86	20.830	34.031	7.681	1.00	51.05	C
ATOM	624	CE	LYS	A	86	21.786	33.753	8.823	1.00	56.58	C
ATOM	625	NZ	LYS	A	86	22.931	34.713	8.920	1.00	56.32	N
ATOM	626	N	HIS	A	87	16.998	37.120	8.130	1.00	34.35	N
ATOM	627	CA	HIS	A	87	15.801	37.077	7.290	1.00	32.39	C
ATOM	628	C	HIS	A	87	15.527	38.478	6.745	1.00	33.94	C
ATOM	629	O	HIS	A	87	15.323	38.600	5.544	1.00	34.00	O
ATOM	630	CB	HIS	A	87	14.566	36.585	8.021	1.00	30.12	C
ATOM	631	CG	HIS	A	87	13.236	36.808	7.378	1.00	32.77	C
ATOM	632	ND1	HIS	A	87	12.238	37.576	7.953	1.00	32.81	N

ATOM	633	CD2	HIS	A	87	12.699	36.387	6.210	1.00	31.04	C
ATOM	634	CE1	HIS	A	87	11.194	37.579	7.155	1.00	33.86	C
ATOM	635	NE2	HIS	A	87	11.435	36.859	6.073	1.00	30.60	N
ATOM	636	N	LEU	A	88	15.585	39.486	7.623	1.00	32.76	N
ATOM	637	CA	LEU	A	88	15.247	40.833	7.202	1.00	32.05	C
ATOM	638	C	LEU	A	88	16.256	41.461	6.246	1.00	37.17	C
ATOM	639	O	LEU	A	88	15.790	42.308	5.462	1.00	33.33	O
ATOM	640	CB	LEU	A	88	14.985	41.677	8.431	1.00	27.90	C
ATOM	641	CG	LEU	A	88	13.788	41.415	9.324	1.00	28.18	C
ATOM	642	CD1	LEU	A	88	13.846	42.446	10.450	1.00	29.94	C
ATOM	643	CD2	LEU	A	88	12.455	41.566	8.607	1.00	23.68	C
ATOM	644	N	GLN	A	89	17.556	41.112	6.240	1.00	36.49	N
ATOM	645	CA	GLN	A	89	18.403	41.729	5.223	1.00	41.57	C
ATOM	646	C	GLN	A	89	18.018	41.143	3.848	1.00	36.63	C
ATOM	647	O	GLN	A	89	17.905	41.860	2.864	1.00	32.72	O
ATOM	648	CB	GLN	A	89	19.894	41.504	5.326	1.00	50.69	C
ATOM	649	CG	GLN	A	89	20.488	41.380	6.710	1.00	65.22	C
ATOM	650	CD	GLN	A	89	21.964	41.039	6.562	1.00	72.41	C
ATOM	651	OE1	GLN	A	89	22.641	41.695	5.765	1.00	78.56	O
ATOM	652	NE2	GLN	A	89	22.406	40.037	7.307	1.00	75.27	N
ATOM	653	N	VAL	A	90	17.841	39.825	3.806	1.00	31.07	N
ATOM	654	CA	VAL	A	90	17.473	39.161	2.564	1.00	32.76	C
ATOM	655	C	VAL	A	90	16.138	39.724	2.098	1.00	35.42	C
ATOM	656	O	VAL	A	90	15.988	40.102	0.929	1.00	32.49	O
ATOM	657	CB	VAL	A	90	17.488	37.633	2.713	1.00	33.52	C
ATOM	658	CG1	VAL	A	90	17.051	36.899	1.459	1.00	22.63	C
ATOM	659	CG2	VAL	A	90	18.885	37.154	3.144	1.00	26.91	C
ATOM	660	N	PHE	A	91	15.176	39.865	3.018	1.00	34.40	N
ATOM	661	CA	PHE	A	91	13.868	40.411	2.662	1.00	32.79	C
ATOM	662	C	PHE	A	91	13.986	41.816	2.084	1.00	35.08	C
ATOM	663	O	PHE	A	91	13.370	42.103	1.047	1.00	29.28	O
ATOM	664	CB	PHE	A	91	12.899	40.372	3.853	1.00	31.38	C
ATOM	665	CG	PHE	A	91	11.583	41.017	3.530	1.00	26.09	C
ATOM	666	CD1	PHE	A	91	10.699	40.310	2.733	1.00	30.65	C
ATOM	667	CD2	PHE	A	91	11.228	42.275	3.939	1.00	22.12	C
ATOM	668	CE1	PHE	A	91	9.473	40.822	2.339	1.00	24.26	C
ATOM	669	CE2	PHE	A	91	10.010	42.804	3.549	1.00	26.28	C
ATOM	670	CZ	PHE	A	91	9.132	42.087	2.753	1.00	23.03	C
ATOM	671	N	ARG	A	92	14.789	42.684	2.708	1.00	38.24	N
ATOM	672	CA	ARG	A	92	14.954	44.050	2.227	1.00	41.19	C
ATOM	673	C	ARG	A	92	15.631	44.087	0.863	1.00	42.90	C
ATOM	674	O	ARG	A	92	15.300	44.949	0.038	1.00	38.42	O
ATOM	675	CB	ARG	A	92	15.626	44.966	3.250	1.00	44.75	C
ATOM	676	CG	ARG	A	92	14.937	44.949	4.614	1.00	55.89	C
ATOM	677	CD	ARG	A	92	15.276	46.103	5.536	1.00	62.85	C
ATOM	678	NE	ARG	A	92	14.540	46.061	6.794	1.00	72.18	N
ATOM	679	CZ	ARG	A	92	14.918	45.457	7.915	1.00	77.45	C
ATOM	680	NH1	ARG	A	92	16.086	44.821	7.940	1.00	80.30	N
ATOM	681	NH2	ARG	A	92	14.164	45.480	9.008	1.00	77.76	N
ATOM	682	N	ASP	A	93	16.532	43.153	0.560	1.00	44.68	N

ATOM	683	CA	ASP	A	93	17.214	43.169	-0.731	1.00	46.77	C
ATOM	684	C	ASP	A	93	16.377	42.603	-1.861	1.00	47.84	C
ATOM	685	O	ASP	A	93	16.447	43.098	-2.988	1.00	50.00	O
ATOM	686	CB	ASP	A	93	18.580	42.499	-0.625	1.00	48.77	C
ATOM	687	CG	ASP	A	93	19.323	42.931	0.572	0.00	98.09	C
ATOM	688	OD1	ASP	A	93	19.138	44.136	0.859	0.00	98.35	O
ATOM	689	OD2	ASP	A	93	20.171	42.219	1.145	0.00	103.28	O
ATOM	690	N	HIS	A	94	15.546	41.609	-1.622	1.00	50.93	N
ATOM	691	CA	HIS	A	94	14.565	41.167	-2.611	1.00	52.89	C
ATOM	692	C	HIS	A	94	13.621	42.322	-2.943	1.00	50.66	C
ATOM	693	O	HIS	A	94	13.570	42.755	-4.092	1.00	49.50	O
ATOM	694	CB	HIS	A	94	13.834	39.960	-2.024	1.00	59.26	C
ATOM	695	CG	HIS	A	94	14.724	38.755	-2.059	1.00	65.63	C
ATOM	696	ND1	HIS	A	94	16.037	38.839	-2.474	1.00	66.82	N
ATOM	697	CD2	HIS	A	94	14.500	37.461	-1.718	1.00	69.18	C
ATOM	698	CE1	HIS	A	94	16.590	37.642	-2.404	1.00	68.96	C
ATOM	699	NE2	HIS	A	94	15.679	36.791	-1.948	1.00	71.10	N
ATOM	700	N	LEU	A	95	12.945	42.873	-1.944	1.00	45.54	N
ATOM	701	CA	LEU	A	95	12.028	43.979	-2.058	1.00	43.12	C
ATOM	702	C	LEU	A	95	12.585	45.129	-2.878	1.00	43.52	C
ATOM	703	O	LEU	A	95	11.967	45.524	-3.876	1.00	43.60	O
ATOM	704	CB	LEU	A	95	11.591	44.494	-0.685	1.00	39.78	C
ATOM	705	CG	LEU	A	95	10.232	45.191	-0.657	1.00	35.95	C
ATOM	706	CD1	LEU	A	95	9.451	44.823	0.595	1.00	38.24	C
ATOM	707	CD2	LEU	A	95	10.413	46.695	-0.633	1.00	38.25	C
ATOM	708	N	ILE	A	96	13.794	45.582	-2.605	1.00	45.96	N
ATOM	709	CA	ILE	A	96	14.423	46.606	-3.429	1.00	50.70	C
ATOM	710	C	ILE	A	96	14.319	46.255	-4.911	1.00	52.07	C
ATOM	711	O	ILE	A	96	14.026	47.129	-5.726	1.00	49.10	O
ATOM	712	CB	ILE	A	96	15.900	46.817	-3.045	1.00	53.10	C
ATOM	713	CG1	ILE	A	96	15.990	47.836	-1.902	1.00	56.42	C
ATOM	714	CG2	ILE	A	96	16.743	47.312	-4.212	1.00	55.18	C
ATOM	715	CD1	ILE	A	96	17.410	48.063	-1.423	1.00	59.18	C
ATOM	716	N	ASN	A	97	14.670	45.024	-5.284	1.00	55.18	N
ATOM	717	CA	ASN	A	97	14.709	44.636	-6.686	1.00	56.64	C
ATOM	718	C	ASN	A	97	13.341	44.299	-7.247	1.00	53.57	C
ATOM	719	O	ASN	A	97	13.045	44.678	-8.376	1.00	54.16	O
ATOM	720	CB	ASN	A	97	15.652	43.453	-6.883	1.00	63.00	C
ATOM	721	CG	ASN	A	97	17.097	43.853	-6.629	1.00	67.09	C
ATOM	722	OD1	ASN	A	97	17.511	44.972	-6.952	1.00	67.69	O
ATOM	723	ND2	ASN	A	97	17.829	42.907	-6.049	1.00	69.17	N
ATOM	724	N	GLN	A	98	12.527	43.628	-6.453	1.00	46.91	N
ATOM	725	CA	GLN	A	98	11.184	43.234	-6.839	1.00	41.62	C
ATOM	726	C	GLN	A	98	10.266	44.426	-7.022	1.00	37.77	C
ATOM	727	O	GLN	A	98	9.418	44.454	-7.903	1.00	29.78	O
ATOM	728	CB	GLN	A	98	10.606	42.315	-5.770	1.00	48.47	C
ATOM	729	CG	GLN	A	98	11.288	40.980	-5.534	1.00	54.61	C
ATOM	730	CD	GLN	A	98	10.651	39.920	-6.421	1.00	61.86	C
ATOM	731	OE1	GLN	A	98	10.391	38.813	-5.953	1.00	61.49	O
ATOM	732	NE2	GLN	A	98	10.355	40.312	-7.667	1.00	65.25	N

ATOM	733	N	ILE	A	99	10.323	45.433	-6.147	1.00	36.40	N
ATOM	734	CA	ILE	A	99	9.486	46.623	-6.260	1.00	32.47	C
ATOM	735	C	ILE	A	99	10.412	47.836	-6.209	1.00	31.54	C
ATOM	736	O	ILE	A	99	10.514	48.516	-5.198	1.00	31.41	O
ATOM	737	CB	ILE	A	99	8.391	46.731	-5.187	1.00	31.08	C
ATOM	738	CG1	ILE	A	99	7.490	45.493	-5.125	1.00	30.84	C
ATOM	739	CG2	ILE	A	99	7.522	47.964	-5.467	1.00	24.26	C
ATOM	740	CD1	ILE	A	99	6.539	45.440	-3.951	1.00	33.29	C
ATOM	741	N	PRO	A	100	11.104	48.123	-7.303	1.00	32.92	N
ATOM	742	CA	PRO	A	100	12.112	49.155	-7.402	1.00	29.66	C
ATOM	743	C	PRO	A	100	11.669	50.568	-7.103	1.00	31.11	C
ATOM	744	O	PRO	A	100	12.464	51.413	-6.686	1.00	37.68	O
ATOM	745	CB	PRO	A	100	12.625	49.029	-8.836	1.00	29.06	C
ATOM	746	CG	PRO	A	100	11.567	48.342	-9.632	1.00	27.35	C
ATOM	747	CD	PRO	A	100	10.921	47.434	-8.625	1.00	35.78	C
ATOM	748	N	ASP	A	101	10.428	50.921	-7.332	1.00	31.46	N
ATOM	749	CA	ASP	A	101	9.820	52.194	-7.111	1.00	30.51	C
ATOM	750	C	ASP	A	101	9.419	52.424	-5.657	1.00	30.41	C
ATOM	751	O	ASP	A	101	8.320	52.018	-5.279	1.00	27.41	O
ATOM	752	CB	ASP	A	101	8.520	52.325	-7.924	1.00	34.87	C
ATOM	753	CG	ASP	A	101	8.054	53.767	-7.976	1.00	43.54	C
ATOM	754	OD1	ASP	A	101	8.438	54.606	-7.124	1.00	46.19	O
ATOM	755	OD2	ASP	A	101	7.292	54.115	-8.905	1.00	46.80	O
ATOM	756	N	LYS	A	102	10.067	53.373	-5.005	1.00	31.88	N
ATOM	757	CA	LYS	A	102	9.813	53.813	-3.660	1.00	34.35	C
ATOM	758	C	LYS	A	102	8.398	54.323	-3.417	1.00	31.50	C
ATOM	759	O	LYS	A	102	7.939	54.177	-2.285	1.00	27.20	O
ATOM	760	CB	LYS	A	102	10.750	54.948	-3.212	1.00	40.50	C
ATOM	761	CG	LYS	A	102	12.173	54.504	-3.011	1.00	49.47	C
ATOM	762	CD	LYS	A	102	13.100	55.594	-2.496	1.00	57.73	C
ATOM	763	CE	LYS	A	102	14.516	55.217	-2.942	1.00	64.17	C
ATOM	764	NZ	LYS	A	102	15.553	55.426	-1.888	1.00	68.67	N
ATOM	765	N	SER	A	103	7.736	54.878	-4.417	1.00	28.05	N
ATOM	766	CA	SER	A	103	6.385	55.385	-4.242	1.00	27.61	C
ATOM	767	C	SER	A	103	5.284	54.439	-4.653	1.00	27.92	C
ATOM	768	O	SER	A	103	4.084	54.770	-4.712	1.00	31.84	O
ATOM	769	CB	SER	A	103	6.298	56.722	-4.993	1.00	30.04	C
ATOM	770	OG	SER	A	103	7.238	57.549	-4.262	1.00	39.55	O
ATOM	771	N	PHE	A	104	5.671	53.189	-4.868	1.00	21.28	N
ATOM	772	CA	PHE	A	104	4.672	52.192	-5.236	1.00	22.39	C
ATOM	773	C	PHE	A	104	3.452	52.295	-4.326	1.00	24.28	C
ATOM	774	O	PHE	A	104	3.506	52.045	-3.114	1.00	25.29	O
ATOM	775	CB	PHE	A	104	5.385	50.852	-5.122	1.00	17.77	C
ATOM	776	CG	PHE	A	104	4.472	49.668	-5.136	1.00	19.33	C
ATOM	777	CD1	PHE	A	104	3.659	49.426	-6.224	1.00	18.04	C
ATOM	778	CD2	PHE	A	104	4.447	48.792	-4.053	1.00	18.38	C
ATOM	779	CE1	PHE	A	104	2.809	48.333	-6.235	1.00	18.97	C
ATOM	780	CE2	PHE	A	104	3.647	47.683	-4.073	1.00	16.10	C
ATOM	781	CZ	PHE	A	104	2.828	47.456	-5.162	1.00	21.31	C
ATOM	782	N	PRO	A	105	2.320	52.656	-4.903	1.00	20.79	N

ATOM	783	CA	PRO	A	105	1.072	52.802	-4.166	1.00	16.89	C
ATOM	784	C	PRO	A	105	0.113	51.652	-4.380	1.00	17.07	C
ATOM	785	O	PRO	A	105	-1.047	51.803	-4.007	1.00	20.69	O
ATOM	786	CB	PRO	A	105	0.532	54.052	-4.885	1.00	17.16	C
ATOM	787	CG	PRO	A	105	0.789	53.730	-6.324	1.00	11.52	C
ATOM	788	CD	PRO	A	105	2.125	52.999	-6.336	1.00	14.64	C
ATOM	789	N	GLY	A	106	0.487	50.582	-5.064	1.00	18.79	N
ATOM	790	CA	GLY	A	106	-0.411	49.487	-5.372	1.00	18.97	C
ATOM	791	C	GLY	A	106	-0.666	48.528	-4.227	1.00	20.63	C
ATOM	792	O	GLY	A	106	-0.270	48.795	-3.097	1.00	25.21	O
ATOM	793	N	VAL	A	107	-1.286	47.389	-4.466	1.00	18.77	N
ATOM	794	CA	VAL	A	107	-1.484	46.326	-3.514	1.00	19.16	C
ATOM	795	C	VAL	A	107	-0.204	45.474	-3.472	1.00	21.43	C
ATOM	796	O	VAL	A	107	0.276	45.006	-4.493	1.00	22.79	O
ATOM	797	CB	VAL	A	107	-2.652	45.385	-3.862	1.00	20.57	C
ATOM	798	CG1	VAL	A	107	-2.834	44.276	-2.826	1.00	12.43	C
ATOM	799	CG2	VAL	A	107	-3.941	46.180	-4.008	1.00	19.90	C
ATOM	800	N	GLY	A	108	0.346	45.305	-2.283	1.00	21.71	N
ATOM	801	CA	GLY	A	108	1.539	44.562	-2.001	1.00	20.84	C
ATOM	802	C	GLY	A	108	1.186	43.339	-1.168	1.00	25.13	C
ATOM	803	O	GLY	A	108	0.817	43.458	0.000	1.00	29.98	O
ATOM	804	N	VAL	A	109	1.445	42.168	-1.711	1.00	25.79	N
ATOM	805	CA	VAL	A	109	1.055	40.889	-1.159	1.00	24.96	C
ATOM	806	C	VAL	A	109	2.191	39.959	-0.776	1.00	27.96	C
ATOM	807	O	VAL	A	109	2.912	39.525	-1.681	1.00	26.26	O
ATOM	808	CB	VAL	A	109	0.248	40.149	-2.271	1.00	24.21	C
ATOM	809	CG1	VAL	A	109	-0.138	38.742	-1.839	1.00	23.28	C
ATOM	810	CG2	VAL	A	109	-0.973	40.945	-2.680	1.00	16.88	C
ATOM	811	N	ILE	A	110	2.362	39.611	0.506	1.00	30.04	N
ATOM	812	CA	ILE	A	110	3.444	38.678	0.811	1.00	28.08	C
ATOM	813	C	ILE	A	110	2.838	37.281	0.833	1.00	25.86	C
ATOM	814	O	ILE	A	110	1.858	37.106	1.540	1.00	27.62	O
ATOM	815	CB	ILE	A	110	4.147	38.926	2.137	1.00	31.51	C
ATOM	816	CG1	ILE	A	110	4.888	40.263	2.095	1.00	31.30	C
ATOM	817	CG2	ILE	A	110	5.100	37.780	2.462	1.00	30.97	C
ATOM	818	CD1	ILE	A	110	4.189	41.370	2.820	1.00	31.16	C
ATOM	819	N	ASP	A	111	3.332	36.371	0.024	1.00	25.11	N
ATOM	820	CA	ASP	A	111	2.786	35.005	0.028	1.00	26.00	C
ATOM	821	C	ASP	A	111	3.742	34.185	0.894	1.00	21.59	C
ATOM	822	O	ASP	A	111	4.820	33.850	0.400	1.00	25.58	O
ATOM	823	CB	ASP	A	111	2.607	34.424	-1.373	1.00	23.37	C
ATOM	824	CG	ASP	A	111	1.899	33.089	-1.365	1.00	25.68	C
ATOM	825	OD1	ASP	A	111	1.728	32.513	-0.254	1.00	26.67	O
ATOM	826	OD2	ASP	A	111	1.486	32.599	-2.443	1.00	22.47	O
ATOM	827	N	PHE	A	112	3.370	33.965	2.140	1.00	14.94	N
ATOM	828	CA	PHE	A	112	4.205	33.224	3.077	1.00	15.07	C
ATOM	829	C	PHE	A	112	3.309	32.131	3.660	1.00	16.82	C
ATOM	830	O	PHE	A	112	2.333	32.405	4.351	1.00	15.94	O
ATOM	831	CB	PHE	A	112	4.806	34.111	4.177	1.00	23.84	C
ATOM	832	CG	PHE	A	112	5.046	33.376	5.472	1.00	25.81	C

ATOM	833	CD1	PHE	A	112	6.152	32.554	5.611	1.00	26.05	C
ATOM	834	CD2	PHE	A	112	4.147	33.486	6.521	1.00	28.03	C
ATOM	835	CE1	PHE	A	112	6.367	31.858	6.787	1.00	27.86	C
ATOM	836	CE2	PHE	A	112	4.360	32.791	7.701	1.00	28.81	C
ATOM	837	CZ	PHE	A	112	5.468	31.978	7.836	1.00	28.24	C
ATOM	838	N	GLU	A	113	3.559	30.903	3.232	1.00	17.83	N
ATOM	839	CA	GLU	A	113	2.720	29.779	3.596	1.00	19.13	C
ATOM	840	C	GLU	A	113	3.431	28.684	4.367	1.00	19.80	C
ATOM	841	O	GLU	A	113	2.766	27.675	4.636	1.00	25.10	O
ATOM	842	CB	GLU	A	113	2.089	29.174	2.324	1.00	12.73	C
ATOM	843	CG	GLU	A	113	1.112	30.155	1.684	1.00	22.09	C
ATOM	844	CD	GLU	A	113	0.508	29.673	0.374	1.00	26.74	C
ATOM	845	OE1	GLU	A	113	-0.353	28.753	0.391	1.00	26.91	O
ATOM	846	OE2	GLU	A	113	0.924	30.184	-0.690	1.00	21.67	O
ATOM	847	N	SER	A	114	4.684	28.842	4.757	1.00	19.18	N
ATOM	848	CA	SER	A	114	5.396	27.789	5.457	1.00	22.47	C
ATOM	849	C	SER	A	114	4.740	27.259	6.718	1.00	21.25	C
ATOM	850	O	SER	A	114	4.958	26.100	7.013	1.00	25.75	O
ATOM	851	CB	SER	A	114	6.813	28.270	5.861	1.00	23.51	C
ATOM	852	OG	SER	A	114	7.342	29.081	4.838	1.00	23.70	O
ATOM	853	N	TRP	A	115	4.200	28.061	7.608	1.00	21.51	N
ATOM	854	CA	TRP	A	115	3.613	27.676	8.869	1.00	22.74	C
ATOM	855	C	TRP	A	115	2.617	28.788	9.255	1.00	20.41	C
ATOM	856	O	TRP	A	115	2.795	29.906	8.811	1.00	20.86	O
ATOM	857	CB	TRP	A	115	4.599	27.534	10.055	1.00	18.57	C
ATOM	858	CG	TRP	A	115	5.751	28.477	10.111	1.00	15.73	C
ATOM	859	CD1	TRP	A	115	6.974	28.141	9.585	1.00	21.01	C
ATOM	860	CD2	TRP	A	115	5.905	29.799	10.611	1.00	14.08	C
ATOM	861	NE1	TRP	A	115	7.873	29.169	9.736	1.00	22.12	N
ATOM	862	CE2	TRP	A	115	7.238	30.198	10.382	1.00	18.45	C
ATOM	863	CE3	TRP	A	115	5.058	30.721	11.214	1.00	16.17	C
ATOM	864	CZ2	TRP	A	115	7.745	31.453	10.721	1.00	17.66	C
ATOM	865	CZ3	TRP	A	115	5.564	31.996	11.565	1.00	12.19	C
ATOM	866	CH2	TRP	A	115	6.872	32.343	11.323	1.00	14.41	C
ATOM	867	N	ARG	A	116	1.686	28.504	10.127	1.00	21.83	N
ATOM	868	CA	ARG	A	116	0.777	29.480	10.694	1.00	23.77	C
ATOM	869	C	ARG	A	116	1.322	29.897	12.057	1.00	26.16	C
ATOM	870	O	ARG	A	116	1.981	29.113	12.734	1.00	27.96	O
ATOM	871	CB	ARG	A	116	-0.610	28.854	10.795	1.00	26.58	C
ATOM	872	CG	ARG	A	116	-1.225	28.803	9.412	1.00	32.37	C
ATOM	873	CD	ARG	A	116	-2.041	27.566	9.172	1.00	38.03	C
ATOM	874	NE	ARG	A	116	-2.282	27.459	7.727	1.00	43.78	N
ATOM	875	CZ	ARG	A	116	-2.979	26.419	7.263	1.00	45.18	C
ATOM	876	NH1	ARG	A	116	-3.453	25.499	8.096	1.00	42.42	N
ATOM	877	NH2	ARG	A	116	-3.130	26.376	5.951	1.00	45.95	N
ATOM	878	N	PRO	A	117	1.010	31.114	12.487	1.00	23.28	N
ATOM	879	CA	PRO	A	117	1.532	31.664	13.708	1.00	21.97	C
ATOM	880	C	PRO	A	117	0.899	31.158	14.982	1.00	24.02	C
ATOM	881	O	PRO	A	117	1.358	31.397	16.096	1.00	27.35	O
ATOM	882	CB	PRO	A	117	1.361	33.161	13.490	1.00	24.25	C

ATOM	883	CG	PRO	A	117	0.162	33.301	12.606	1.00	24.54	C
ATOM	884	CD	PRO	A	117	0.234	32.109	11.697	1.00	24.95	C
ATOM	885	N	ILE	A	118	-0.220	30.499	14.904	1.00	26.18	N
ATOM	886	CA	ILE	A	118	-0.947	29.857	15.974	1.00	26.73	C
ATOM	887	C	ILE	A	118	-0.568	28.381	15.937	1.00	29.88	C
ATOM	888	O	ILE	A	118	-0.842	27.732	14.921	1.00	32.34	O
ATOM	889	CB	ILE	A	118	-2.452	30.008	15.700	1.00	28.19	C
ATOM	890	CG1	ILE	A	118	-2.790	31.507	15.685	1.00	27.59	C
ATOM	891	CG2	ILE	A	118	-3.279	29.201	16.664	1.00	24.16	C
ATOM	892	CD1	ILE	A	118	-2.534	32.216	16.990	1.00	27.31	C
ATOM	893	N	PHE	A	119	0.031	27.900	17.018	1.00	24.62	N
ATOM	894	CA	PHE	A	119	0.524	26.549	17.123	1.00	21.90	C
ATOM	895	C	PHE	A	119	-0.498	25.485	16.798	1.00	24.54	C
ATOM	896	O	PHE	A	119	-0.306	24.580	15.981	1.00	26.05	O
ATOM	897	CB	PHE	A	119	1.038	26.384	18.559	1.00	25.96	C
ATOM	898	CG	PHE	A	119	1.993	25.240	18.723	1.00	27.02	C
ATOM	899	CD1	PHE	A	119	3.218	25.252	18.089	1.00	28.74	C
ATOM	900	CD2	PHE	A	119	1.664	24.148	19.496	1.00	29.36	C
ATOM	901	CE1	PHE	A	119	4.102	24.196	18.230	1.00	30.36	C
ATOM	902	CE2	PHE	A	119	2.543	23.106	19.654	1.00	28.32	C
ATOM	903	CZ	PHE	A	119	3.765	23.130	19.024	1.00	29.46	C
ATOM	904	N	ARG	A	120	-1.702	25.639	17.331	1.00	24.08	N
ATOM	905	CA	ARG	A	120	-2.801	24.729	17.076	1.00	27.10	C
ATOM	906	C	ARG	A	120	-3.103	24.602	15.582	1.00	27.46	C
ATOM	907	O	ARG	A	120	-3.569	23.542	15.133	1.00	26.67	O
ATOM	908	CB	ARG	A	120	-4.045	25.210	17.868	1.00	26.00	C
ATOM	909	CG	ARG	A	120	-5.158	24.167	17.855	1.00	25.70	C
ATOM	910	CD	ARG	A	120	-6.477	24.716	18.347	1.00	23.82	C
ATOM	911	NE	ARG	A	120	-7.018	25.807	17.550	1.00	27.38	N
ATOM	912	CZ	ARG	A	120	-7.929	25.685	16.593	1.00	25.34	C
ATOM	913	NH1	ARG	A	120	-8.449	24.509	16.280	1.00	22.01	N
ATOM	914	NH2	ARG	A	120	-8.324	26.765	15.926	1.00	27.01	N
ATOM	915	N	GLN	A	121	-2.935	25.665	14.796	1.00	21.10	N
ATOM	916	CA	GLN	A	121	-3.379	25.631	13.411	1.00	23.47	C
ATOM	917	C	GLN	A	121	-2.435	24.899	12.487	1.00	24.64	C
ATOM	918	O	GLN	A	121	-2.787	24.726	11.318	1.00	23.87	O
ATOM	919	CB	GLN	A	121	-3.627	27.056	12.875	1.00	19.31	C
ATOM	920	CG	GLN	A	121	-5.030	27.541	13.167	1.00	16.86	C
ATOM	921	CD	GLN	A	121	-5.218	29.018	12.902	1.00	22.20	C
ATOM	922	OE1	GLN	A	121	-5.747	29.715	13.781	1.00	22.51	O
ATOM	923	NE2	GLN	A	121	-4.780	29.486	11.728	1.00	19.55	N
ATOM	924	N	ASN	A	122	-1.260	24.479	12.947	1.00	26.50	N
ATOM	925	CA	ASN	A	122	-0.316	23.781	12.076	1.00	26.81	C
ATOM	926	C	ASN	A	122	-0.636	22.295	12.046	1.00	25.18	C
ATOM	927	O	ASN	A	122	0.162	21.488	12.506	1.00	22.39	O
ATOM	928	CB	ASN	A	122	1.120	24.025	12.543	1.00	26.33	C
ATOM	929	CG	ASN	A	122	1.570	25.462	12.452	1.00	28.17	C
ATOM	930	OD1	ASN	A	122	1.832	25.972	11.361	1.00	28.54	O
ATOM	931	ND2	ASN	A	122	1.648	26.157	13.580	1.00	30.82	N
ATOM	932	N	TRP	A	123	-1.807	21.920	11.561	1.00	25.31	N

ATOM	933	CA	TRP	A	123	-2.264	20.563	11.506	1.00	24.12	C
ATOM	934	C	TRP	A	123	-1.837	19.890	10.188	1.00	27.35	C
ATOM	935	O	TRP	A	123	-1.275	20.459	9.256	1.00	30.61	O
ATOM	936	CB	TRP	A	123	-3.754	20.469	11.554	1.00	25.97	C
ATOM	937	CG	TRP	A	123	-4.701	21.414	12.130	1.00	31.65	C
ATOM	938	CD1	TRP	A	123	-5.093	21.467	13.440	1.00	39.58	C
ATOM	939	CD2	TRP	A	123	-5.459	22.438	11.477	1.00	33.92	C
ATOM	940	NE1	TRP	A	123	-6.026	22.461	13.670	1.00	40.36	N
ATOM	941	CE2	TRP	A	123	-6.263	23.077	12.467	1.00	38.82	C
ATOM	942	CE3	TRP	A	123	-5.527	22.874	10.165	1.00	27.32	C
ATOM	943	CZ2	TRP	A	123	-7.129	24.138	12.207	1.00	35.10	C
ATOM	944	CZ3	TRP	A	123	-6.394	23.931	9.917	1.00	34.96	C
ATOM	945	CH2	TRP	A	123	-7.173	24.544	10.903	1.00	34.03	C
ATOM	946	N	ALA	A	124	-2.306	18.665	10.038	1.00	25.09	N
ATOM	947	CA	ALA	A	124	-2.087	17.869	8.833	1.00	23.68	C
ATOM	948	C	ALA	A	124	-0.681	18.013	8.306	1.00	26.97	C
ATOM	949	O	ALA	A	124	0.257	17.750	9.080	1.00	35.34	O
ATOM	950	CB	ALA	A	124	-3.163	18.183	7.847	1.00	10.16	C
ATOM	951	N	SER	A	125	-0.432	18.453	7.084	1.00	31.79	N
ATOM	952	CA	SER	A	125	0.969	18.541	6.652	1.00	33.84	C
ATOM	953	C	SER	A	125	1.744	19.628	7.363	1.00	33.37	C
ATOM	954	O	SER	A	125	2.948	19.639	7.102	1.00	32.96	O
ATOM	955	CB	SER	A	125	1.097	18.686	5.144	1.00	36.92	C
ATOM	956	OG	SER	A	125	0.894	20.038	4.762	1.00	45.19	O
ATOM	957	N	LEU	A	126	1.201	20.506	8.209	1.00	31.69	N
ATOM	958	CA	LEU	A	126	2.073	21.455	8.901	1.00	31.10	C
ATOM	959	C	LEU	A	126	2.504	20.905	10.252	1.00	35.93	C
ATOM	960	O	LEU	A	126	3.346	21.525	10.909	1.00	37.07	O
ATOM	961	CB	LEU	A	126	1.460	22.844	9.009	1.00	25.55	C
ATOM	962	CG	LEU	A	126	1.143	23.453	7.634	1.00	24.38	C
ATOM	963	CD1	LEU	A	126	0.287	24.675	7.764	1.00	20.06	C
ATOM	964	CD2	LEU	A	126	2.408	23.818	6.874	1.00	25.17	C
ATOM	965	N	GLN	A	127	2.180	19.636	10.526	1.00	37.02	N
ATOM	966	CA	GLN	A	127	2.493	18.963	11.766	1.00	39.37	C
ATOM	967	C	GLN	A	127	3.956	18.882	12.153	1.00	35.65	C
ATOM	968	O	GLN	A	127	4.287	19.184	13.316	1.00	31.45	O
ATOM	969	CB	GLN	A	127	1.832	17.591	11.794	1.00	46.53	C
ATOM	970	CG	GLN	A	127	1.580	17.044	13.189	1.00	55.02	C
ATOM	971	CD	GLN	A	127	0.711	15.799	13.101	1.00	64.18	C
ATOM	972	OE1	GLN	A	127	-0.435	15.829	12.646	1.00	68.03	O
ATOM	973	NE2	GLN	A	127	1.276	14.676	13.536	1.00	68.59	N
ATOM	974	N	PRO	A	128	4.883	18.627	11.236	1.00	28.82	N
ATOM	975	CA	PRO	A	128	6.309	18.596	11.492	1.00	26.01	C
ATOM	976	C	PRO	A	128	6.810	19.793	12.266	1.00	24.38	C
ATOM	977	O	PRO	A	128	7.722	19.681	13.085	1.00	26.65	O
ATOM	978	CB	PRO	A	128	6.938	18.532	10.105	1.00	26.02	C
ATOM	979	CG	PRO	A	128	5.927	17.769	9.326	1.00	24.91	C
ATOM	980	CD	PRO	A	128	4.604	18.268	9.832	1.00	27.45	C
ATOM	981	N	TYR	A	129	6.191	20.945	12.090	1.00	25.65	N
ATOM	982	CA	TYR	A	129	6.432	22.136	12.866	1.00	29.44	C

ATOM	983	C	TYR	A	129	6.006	21.970	14.316	1.00	28.46	C
ATOM	984	O	TYR	A	129	6.629	22.632	15.147	1.00	32.21	O
ATOM	985	CB	TYR	A	129	5.713	23.343	12.252	1.00	30.99	C
ATOM	986	CG	TYR	A	129	6.274	23.716	10.897	1.00	28.60	C
ATOM	987	CD1	TYR	A	129	5.641	23.335	9.725	1.00	23.83	C
ATOM	988	CD2	TYR	A	129	7.454	24.452	10.834	1.00	30.30	C
ATOM	989	CE1	TYR	A	129	6.164	23.672	8.494	1.00	24.41	C
ATOM	990	CE2	TYR	A	129	7.982	24.824	9.607	1.00	29.63	C
ATOM	991	CZ	TYR	A	129	7.312	24.449	8.455	1.00	28.63	C
ATOM	992	OH	TYR	A	129	7.853	24.787	7.242	1.00	26.46	O
ATOM	993	N	LYS	A	130	5.023	21.150	14.649	1.00	32.41	N
ATOM	994	CA	LYS	A	130	4.687	20.943	16.069	1.00	34.22	C
ATOM	995	C	LYS	A	130	5.633	19.916	16.660	1.00	32.56	C
ATOM	996	O	LYS	A	130	6.147	20.139	17.746	1.00	33.64	O
ATOM	997	CB	LYS	A	130	3.242	20.507	16.339	1.00	31.55	C
ATOM	998	CG	LYS	A	130	2.260	21.584	15.902	1.00	29.70	C
ATOM	999	CD	LYS	A	130	0.909	20.993	15.619	1.00	29.97	C
ATOM	1000	CE	LYS	A	130	0.130	20.920	16.917	1.00	37.38	C
ATOM	1001	NZ	LYS	A	130	-1.331	20.821	16.665	1.00	39.36	N
ATOM	1002	N	LYS	A	131	5.890	18.838	15.930	1.00	36.97	N
ATOM	1003	CA	LYS	A	131	6.819	17.819	16.390	1.00	38.26	C
ATOM	1004	C	LYS	A	131	8.186	18.421	16.745	1.00	37.01	C
ATOM	1005	O	LYS	A	131	8.664	18.332	17.879	1.00	34.66	O
ATOM	1006	CB	LYS	A	131	7.065	16.739	15.338	1.00	38.93	C
ATOM	1007	CG	LYS	A	131	6.143	15.547	15.362	1.00	41.68	C
ATOM	1008	CD	LYS	A	131	5.943	14.812	14.126	0.00	95.85	C
ATOM	1009	CE	LYS	A	131	4.643	14.101	13.785	0.00	102.06	C
ATOM	1010	NZ	LYS	A	131	4.871	12.902	12.935	0.00	109.68	N
ATOM	1011	N	LEU	A	132	8.750	19.097	15.743	1.00	32.56	N
ATOM	1012	CA	LEU	A	132	10.086	19.662	15.880	1.00	30.52	C
ATOM	1013	C	LEU	A	132	10.198	20.622	17.049	1.00	30.56	C
ATOM	1014	O	LEU	A	132	11.189	20.578	17.765	1.00	29.75	O
ATOM	1015	CB	LEU	A	132	10.539	20.374	14.603	1.00	25.58	C
ATOM	1016	CG	LEU	A	132	11.890	21.087	14.720	1.00	24.38	C
ATOM	1017	CD1	LEU	A	132	12.982	20.127	15.146	1.00	19.79	C
ATOM	1018	CD2	LEU	A	132	12.208	21.810	13.433	1.00	26.49	C
ATOM	1019	N	SER	A	133	9.188	21.467	17.214	1.00	35.35	N
ATOM	1020	CA	SER	A	133	9.143	22.430	18.296	1.00	36.05	C
ATOM	1021	C	SER	A	133	9.169	21.726	19.651	1.00	35.50	C
ATOM	1022	O	SER	A	133	9.795	22.259	20.578	1.00	33.17	O
ATOM	1023	CB	SER	A	133	7.892	23.313	18.215	1.00	35.64	C
ATOM	1024	OG	SER	A	133	8.169	24.386	17.348	1.00	39.22	O
ATOM	1025	N	VAL	A	134	8.442	20.612	19.723	1.00	29.41	N
ATOM	1026	CA	VAL	A	134	8.416	19.845	20.976	1.00	28.24	C
ATOM	1027	C	VAL	A	134	9.742	19.154	21.162	1.00	31.30	C
ATOM	1028	O	VAL	A	134	10.314	19.111	22.242	1.00	39.06	O
ATOM	1029	CB	VAL	A	134	7.211	18.885	20.937	1.00	27.48	C
ATOM	1030	CG1	VAL	A	134	7.384	17.669	21.818	1.00	24.38	C
ATOM	1031	CG2	VAL	A	134	5.915	19.633	21.255	1.00	18.58	C
ATOM	1032	N	GLU	A	135	10.334	18.597	20.121	1.00	40.40	N

ATOM	1033	CA	GLU	A	135	11.617	17.919	20.214	1.00	45.94	C
ATOM	1034	C	GLU	A	135	12.724	18.851	20.690	1.00	42.68	C
ATOM	1035	O	GLU	A	135	13.584	18.418	21.471	1.00	42.47	O
ATOM	1036	CB	GLU	A	135	12.052	17.276	18.904	1.00	51.97	C
ATOM	1037	CG	GLU	A	135	11.257	16.064	18.468	1.00	62.48	C
ATOM	1038	CD	GLU	A	135	11.514	15.753	17.000	1.00	71.77	C
ATOM	1039	OE1	GLU	A	135	12.500	16.264	16.415	1.00	74.44	O
ATOM	1040	OE2	GLU	A	135	10.711	14.987	16.418	1.00	77.00	O
ATOM	1041	N	VAL	A	136	12.768	20.092	20.230	1.00	38.03	N
ATOM	1042	CA	VAL	A	136	13.827	20.992	20.699	1.00	34.98	C
ATOM	1043	C	VAL	A	136	13.804	21.141	22.222	1.00	36.85	C
ATOM	1044	O	VAL	A	136	14.866	21.200	22.850	1.00	32.09	O
ATOM	1045	CB	VAL	A	136	13.746	22.347	19.992	1.00	29.55	C
ATOM	1046	CG1	VAL	A	136	14.261	23.511	20.821	1.00	31.93	C
ATOM	1047	CG2	VAL	A	136	14.563	22.276	18.715	1.00	29.14	C
ATOM	1048	N	VAL	A	137	12.623	21.261	22.814	1.00	33.78	N
ATOM	1049	CA	VAL	A	137	12.489	21.426	24.244	1.00	39.98	C
ATOM	1050	C	VAL	A	137	12.896	20.161	24.996	1.00	41.50	C
ATOM	1051	O	VAL	A	137	13.711	20.249	25.929	1.00	38.08	O
ATOM	1052	CB	VAL	A	137	11.051	21.874	24.573	1.00	41.24	C
ATOM	1053	CG1	VAL	A	137	10.780	21.813	26.066	1.00	41.04	C
ATOM	1054	CG2	VAL	A	137	10.859	23.282	24.017	1.00	37.85	C
ATOM	1055	N	ARG	A	138	12.407	18.999	24.561	1.00	38.09	N
ATOM	1056	CA	ARG	A	138	12.829	17.748	25.180	1.00	42.36	C
ATOM	1057	C	ARG	A	138	14.340	17.561	25.224	1.00	42.69	C
ATOM	1058	O	ARG	A	138	14.897	17.198	26.273	1.00	41.92	O
ATOM	1059	CB	ARG	A	138	12.179	16.544	24.498	1.00	43.52	C
ATOM	1060	CG	ARG	A	138	10.826	16.594	23.961	0.00	96.35	C
ATOM	1061	CD	ARG	A	138	10.320	15.346	23.273	0.00	109.94	C
ATOM	1062	NE	ARG	A	138	8.874	15.328	23.116	0.00	118.14	N
ATOM	1063	CZ	ARG	A	138	7.970	15.129	24.060	0.00	118.70	C
ATOM	1064	NH1	ARG	A	138	8.374	14.909	25.302	0.00	117.43	N
ATOM	1065	NH2	ARG	A	138	6.673	15.144	23.779	0.00	119.53	N
ATOM	1066	N	ARG	A	139	15.087	17.828	24.163	1.00	42.06	N
ATOM	1067	CA	ARG	A	139	16.537	17.716	24.148	1.00	42.81	C
ATOM	1068	C	ARG	A	139	17.195	18.627	25.193	1.00	46.23	C
ATOM	1069	O	ARG	A	139	18.260	18.316	25.750	1.00	44.96	O
ATOM	1070	CB	ARG	A	139	17.088	18.029	22.764	1.00	41.64	C
ATOM	1071	CG	ARG	A	139	16.638	17.201	21.568	1.00	42.60	C
ATOM	1072	CD	ARG	A	139	17.443	17.586	20.331	1.00	44.56	C
ATOM	1073	NE	ARG	A	139	16.706	17.804	19.110	1.00	46.40	N
ATOM	1074	CZ	ARG	A	139	15.853	16.982	18.517	1.00	50.37	C
ATOM	1075	NH1	ARG	A	139	15.281	17.362	17.377	1.00	52.27	N
ATOM	1076	NH2	ARG	A	139	15.561	15.788	19.024	1.00	52.10	N
ATOM	1077	N	GLU	A	140	16.602	19.787	25.440	1.00	46.59	N
ATOM	1078	CA	GLU	A	140	17.062	20.784	26.364	1.00	52.79	C
ATOM	1079	C	GLU	A	140	16.756	20.392	27.809	1.00	52.46	C
ATOM	1080	O	GLU	A	140	17.475	20.750	28.727	1.00	52.88	O
ATOM	1081	CB	GLU	A	140	16.356	22.127	26.156	1.00	60.28	C
ATOM	1082	CG	GLU	A	140	16.837	23.016	25.042	1.00	66.63	C

ATOM	1083	CD	GLU	A	140	16.377	24.454	25.206	1.00	72.14	C
ATOM	1084	OE1	GLU	A	140	15.787	24.792	26.259	1.00	73.69	O
ATOM	1085	OE2	GLU	A	140	16.648	25.234	24.265	1.00	73.31	O
ATOM	1086	N	HIS	A	141	15.563	19.870	28.038	1.00	51.20	N
ATOM	1087	CA	HIS	A	141	15.033	19.518	29.335	1.00	48.46	C
ATOM	1088	C	HIS	A	141	14.555	18.078	29.380	1.00	50.52	C
ATOM	1089	O	HIS	A	141	13.368	17.798	29.213	1.00	49.56	O
ATOM	1090	CB	HIS	A	141	13.805	20.391	29.666	1.00	46.95	C
ATOM	1091	CG	HIS	A	141	14.156	21.845	29.582	1.00	48.55	C
ATOM	1092	ND1	HIS	A	141	15.225	22.360	30.284	1.00	48.56	N
ATOM	1093	CD2	HIS	A	141	13.668	22.864	28.857	1.00	49.66	C
ATOM	1094	CE1	HIS	A	141	15.352	23.649	30.036	1.00	47.37	C
ATOM	1095	NE2	HIS	A	141	14.403	23.984	29.185	1.00	49.00	N
ATOM	1096	N	PRO	A	142	15.477	17.153	29.618	1.00	50.33	N
ATOM	1097	CA	PRO	A	142	15.173	15.737	29.643	1.00	49.71	C
ATOM	1098	C	PRO	A	142	14.239	15.344	30.771	1.00	54.37	C
ATOM	1099	O	PRO	A	142	13.380	14.466	30.587	1.00	53.13	O
ATOM	1100	CB	PRO	A	142	16.522	15.058	29.764	1.00	47.05	C
ATOM	1101	CG	PRO	A	142	17.537	16.083	29.393	1.00	48.44	C
ATOM	1102	CD	PRO	A	142	16.927	17.413	29.766	1.00	49.45	C
ATOM	1103	N	PHE	A	143	14.338	16.052	31.899	1.00	58.13	N
ATOM	1104	CA	PHE	A	143	13.508	15.718	33.047	1.00	62.68	C
ATOM	1105	C	PHE	A	143	12.132	16.341	33.051	1.00	60.23	C
ATOM	1106	O	PHE	A	143	11.289	15.868	33.820	1.00	60.72	O
ATOM	1107	CB	PHE	A	143	14.276	16.034	34.340	1.00	70.10	C
ATOM	1108	CG	PHE	A	143	15.630	15.369	34.331	1.00	75.08	C
ATOM	1109	CD1	PHE	A	143	16.785	16.120	34.239	1.00	77.73	C
ATOM	1110	CD2	PHE	A	143	15.734	13.992	34.381	1.00	77.92	C
ATOM	1111	CE1	PHE	A	143	18.025	15.511	34.222	1.00	80.29	C
ATOM	1112	CE2	PHE	A	143	16.971	13.376	34.370	1.00	80.66	C
ATOM	1113	CZ	PHE	A	143	18.121	14.135	34.294	1.00	80.75	C
ATOM	1114	N	TRP	A	144	11.841	17.338	32.226	1.00	60.29	N
ATOM	1115	CA	TRP	A	144	10.494	17.914	32.190	1.00	55.94	C
ATOM	1116	C	TRP	A	144	9.481	16.869	31.711	1.00	53.64	C
ATOM	1117	O	TRP	A	144	9.821	16.025	30.896	1.00	48.61	O
ATOM	1118	CB	TRP	A	144	10.393	19.137	31.289	1.00	50.99	C
ATOM	1119	CG	TRP	A	144	11.062	20.380	31.786	1.00	48.50	C
ATOM	1120	CD1	TRP	A	144	11.981	20.486	32.783	1.00	46.23	C
ATOM	1121	CD2	TRP	A	144	10.962	21.695	31.204	1.00	47.88	C
ATOM	1122	NE1	TRP	A	144	12.413	21.783	32.888	1.00	46.75	N
ATOM	1123	CE2	TRP	A	144	11.821	22.542	31.919	1.00	44.66	C
ATOM	1124	CE3	TRP	A	144	10.215	22.234	30.146	1.00	45.79	C
ATOM	1125	CZ2	TRP	A	144	11.955	23.896	31.632	1.00	43.73	C
ATOM	1126	CZ3	TRP	A	144	10.337	23.580	29.877	1.00	43.82	C
ATOM	1127	CH2	TRP	A	144	11.199	24.399	30.611	1.00	42.92	C
ATOM	1128	N	ASP	A	145	8.262	16.970	32.218	1.00	54.34	N
ATOM	1129	CA	ASP	A	145	7.171	16.102	31.825	1.00	58.76	C
ATOM	1130	C	ASP	A	145	6.506	16.639	30.558	1.00	57.99	C
ATOM	1131	O	ASP	A	145	6.613	17.820	30.265	1.00	58.29	O
ATOM	1132	CB	ASP	A	145	6.117	15.984	32.928	1.00	63.84	C

ATOM	1133	CG	ASP	A	145	5.342	17.277	33.127	1.00	70.66	C
ATOM	1134	OD1	ASP	A	145	4.310	17.443	32.436	1.00	68.62	O
ATOM	1135	OD2	ASP	A	145	5.773	18.113	33.958	1.00	75.43	O
ATOM	1136	N	ASP	A	146	5.715	15.821	29.897	1.00	58.79	N
ATOM	1137	CA	ASP	A	146	5.045	16.131	28.662	1.00	61.80	C
ATOM	1138	C	ASP	A	146	4.438	17.516	28.633	1.00	62.03	C
ATOM	1139	O	ASP	A	146	4.896	18.422	27.934	1.00	63.07	O
ATOM	1140	CB	ASP	A	146	3.956	15.089	28.382	1.00	69.97	C
ATOM	1141	CG	ASP	A	146	4.572	13.710	28.170	1.00	77.53	C
ATOM	1142	OD1	ASP	A	146	5.734	13.647	27.702	1.00	76.67	O
ATOM	1143	OD2	ASP	A	146	3.919	12.682	28.472	1.00	81.92	O
ATOM	1144	N	GLN	A	147	3.439	17.713	29.466	1.00	60.85	N
ATOM	1145	CA	GLN	A	147	2.683	18.953	29.596	1.00	55.45	C
ATOM	1146	C	GLN	A	147	3.587	20.163	29.684	1.00	47.23	C
ATOM	1147	O	GLN	A	147	3.367	21.141	28.971	1.00	44.17	O
ATOM	1148	CB	GLN	A	147	1.766	18.826	30.802	1.00	58.74	C
ATOM	1149	CG	GLN	A	147	0.538	19.689	30.915	1.00	64.11	C
ATOM	1150	CD	GLN	A	147	0.257	19.960	32.389	1.00	70.64	C
ATOM	1151	OE1	GLN	A	147	0.954	20.777	32.996	1.00	70.56	O
ATOM	1152	NE2	GLN	A	147	-0.703	19.224	32.942	1.00	73.67	N
ATOM	1153	N	ARG	A	148	4.630	20.104	30.498	1.00	44.94	N
ATOM	1154	CA	ARG	A	148	5.528	21.244	30.627	1.00	45.32	C
ATOM	1155	C	ARG	A	148	6.197	21.564	29.291	1.00	43.82	C
ATOM	1156	O	ARG	A	148	6.352	22.728	28.957	1.00	38.30	O
ATOM	1157	CB	ARG	A	148	6.593	21.042	31.708	1.00	45.00	C
ATOM	1158	CG	ARG	A	148	7.243	22.376	32.067	1.00	47.00	C
ATOM	1159	CD	ARG	A	148	8.169	22.261	33.273	1.00	51.42	C
ATOM	1160	NE	ARG	A	148	8.921	23.485	33.439	1.00	56.33	N
ATOM	1161	CZ	ARG	A	148	9.839	23.833	34.322	1.00	60.12	C
ATOM	1162	NH1	ARG	A	148	10.408	25.040	34.233	1.00	60.03	N
ATOM	1163	NH2	ARG	A	148	10.267	22.986	35.247	1.00	60.52	N
ATOM	1164	N	VAL	A	149	6.647	20.530	28.597	1.00	42.32	N
ATOM	1165	CA	VAL	A	149	7.303	20.586	27.316	1.00	40.07	C
ATOM	1166	C	VAL	A	149	6.446	21.198	26.215	1.00	40.15	C
ATOM	1167	O	VAL	A	149	6.899	22.127	25.560	1.00	36.41	O
ATOM	1168	CB	VAL	A	149	7.697	19.154	26.889	1.00	37.95	C
ATOM	1169	CG1	VAL	A	149	8.298	19.106	25.492	1.00	39.17	C
ATOM	1170	CG2	VAL	A	149	8.667	18.575	27.893	1.00	34.98	C
ATOM	1171	N	GLU	A	150	5.237	20.681	26.033	1.00	43.91	N
ATOM	1172	CA	GLU	A	150	4.351	21.126	24.984	1.00	53.00	C
ATOM	1173	C	GLU	A	150	4.003	22.599	25.180	1.00	51.37	C
ATOM	1174	O	GLU	A	150	4.127	23.475	24.326	1.00	52.54	O
ATOM	1175	CB	GLU	A	150	3.083	20.272	24.840	1.00	59.83	C
ATOM	1176	CG	GLU	A	150	2.508	20.449	23.440	1.00	73.28	C
ATOM	1177	CD	GLU	A	150	1.052	20.116	23.228	1.00	81.43	C
ATOM	1178	OE1	GLU	A	150	0.392	20.850	22.446	1.00	84.75	O
ATOM	1179	OE2	GLU	A	150	0.531	19.138	23.813	1.00	83.17	O
ATOM	1180	N	GLN	A	151	3.719	22.938	26.407	1.00	48.08	N
ATOM	1181	CA	GLN	A	151	3.373	24.280	26.830	1.00	50.52	C
ATOM	1182	C	GLN	A	151	4.436	25.265	26.399	1.00	43.73	C

ATOM	1183	O	GLN	A	151	4.134	26.353	25.916	1.00	48.89	O
ATOM	1184	CB	GLN	A	151	3.188	24.227	28.351	1.00	56.36	C
ATOM	1185	CG	GLN	A	151	3.132	25.516	29.112	1.00	67.54	C
ATOM	1186	CD	GLN	A	151	3.039	25.345	30.620	1.00	75.25	C
ATOM	1187	OE1	GLN	A	151	3.978	24.953	31.328	1.00	76.19	O
ATOM	1188	NE2	GLN	A	151	1.862	25.656	31.167	1.00	76.41	N
ATOM	1189	N	GLU	A	152	5.695	24.921	26.562	1.00	34.91	N
ATOM	1190	CA	GLU	A	152	6.846	25.758	26.301	1.00	29.77	C
ATOM	1191	C	GLU	A	152	7.207	25.767	24.826	1.00	29.37	C
ATOM	1192	O	GLU	A	152	7.739	26.742	24.307	1.00	26.30	O
ATOM	1193	CB	GLU	A	152	7.996	25.314	27.206	1.00	27.33	C
ATOM	1194	CG	GLU	A	152	9.350	25.922	26.991	1.00	31.09	C
ATOM	1195	CD	GLU	A	152	9.493	27.385	27.305	1.00	37.27	C
ATOM	1196	OE1	GLU	A	152	8.586	28.004	27.900	1.00	38.45	O
ATOM	1197	OE2	GLU	A	152	10.564	27.947	26.954	1.00	42.24	O
ATOM	1198	N	ALA	A	153	6.947	24.634	24.167	1.00	28.15	N
ATOM	1199	CA	ALA	A	153	7.120	24.565	22.720	1.00	27.69	C
ATOM	1200	C	ALA	A	153	6.188	25.595	22.082	1.00	29.41	C
ATOM	1201	O	ALA	A	153	6.601	26.504	21.389	1.00	29.98	O
ATOM	1202	CB	ALA	A	153	6.872	23.151	22.268	1.00	23.90	C
ATOM	1203	N	LYS	A	154	4.904	25.510	22.367	1.00	31.56	N
ATOM	1204	CA	LYS	A	154	3.880	26.406	21.909	1.00	32.33	C
ATOM	1205	C	LYS	A	154	4.233	27.850	22.226	1.00	30.72	C
ATOM	1206	O	LYS	A	154	4.146	28.699	21.351	1.00	31.99	O
ATOM	1207	CB	LYS	A	154	2.559	26.054	22.599	1.00	33.07	C
ATOM	1208	CG	LYS	A	154	1.450	27.068	22.337	1.00	38.41	C
ATOM	1209	CD	LYS	A	154	0.580	27.140	23.574	1.00	45.58	C
ATOM	1210	CE	LYS	A	154	-0.881	27.343	23.255	1.00	50.90	C
ATOM	1211	NZ	LYS	A	154	-1.201	28.775	23.011	1.00	57.89	N
ATOM	1212	N	ARG	A	155	4.613	28.154	23.450	1.00	31.40	N
ATOM	1213	CA	ARG	A	155	4.977	29.496	23.877	1.00	31.73	C
ATOM	1214	C	ARG	A	155	6.053	30.053	22.962	1.00	32.04	C
ATOM	1215	O	ARG	A	155	5.934	31.154	22.449	1.00	37.17	O
ATOM	1216	CB	ARG	A	155	5.449	29.531	25.336	1.00	32.00	C
ATOM	1217	CG	ARG	A	155	5.739	30.914	25.880	1.00	33.58	C
ATOM	1218	CD	ARG	A	155	6.542	30.909	27.160	1.00	36.40	C
ATOM	1219	NE	ARG	A	155	7.989	30.715	27.026	1.00	35.06	N
ATOM	1220	CZ	ARG	A	155	8.770	31.631	26.467	1.00	36.92	C
ATOM	1221	NH1	ARG	A	155	10.088	31.516	26.342	1.00	37.10	N
ATOM	1222	NH2	ARG	A	155	8.180	32.728	25.988	1.00	38.73	N
ATOM	1223	N	ARG	A	156	7.107	29.296	22.745	1.00	33.92	N
ATOM	1224	CA	ARG	A	156	8.222	29.652	21.912	1.00	36.83	C
ATOM	1225	C	ARG	A	156	7.869	29.876	20.445	1.00	34.34	C
ATOM	1226	O	ARG	A	156	8.296	30.870	19.838	1.00	30.71	O
ATOM	1227	CB	ARG	A	156	9.297	28.562	22.051	1.00	42.60	C
ATOM	1228	CG	ARG	A	156	10.115	28.750	23.326	1.00	46.84	C
ATOM	1229	CD	ARG	A	156	11.231	27.720	23.353	1.00	54.10	C
ATOM	1230	NE	ARG	A	156	11.949	27.755	24.621	1.00	61.01	N
ATOM	1231	CZ	ARG	A	156	12.860	26.861	24.992	1.00	62.37	C
ATOM	1232	NH1	ARG	A	156	13.170	25.852	24.201	1.00	59.47	N

ATOM	1233	NH2	ARG	A	156	13.461	26.975	26.169	1.00	66.20	N
ATOM	1234	N	PHE	A	157	7.132	28.938	19.867	1.00	29.33	N
ATOM	1235	CA	PHE	A	157	6.729	28.999	18.471	1.00	28.15	C
ATOM	1236	C	PHE	A	157	5.845	30.231	18.280	1.00	27.68	C
ATOM	1237	O	PHE	A	157	6.104	31.061	17.393	1.00	21.91	O
ATOM	1238	CB	PHE	A	157	6.052	27.703	18.053	1.00	27.62	C
ATOM	1239	CG	PHE	A	157	5.564	27.652	16.637	1.00	30.90	C
ATOM	1240	CD1	PHE	A	157	6.345	27.072	15.637	1.00	27.43	C
ATOM	1241	CD2	PHE	A	157	4.315	28.189	16.307	1.00	28.96	C
ATOM	1242	CE1	PHE	A	157	5.886	27.040	14.335	1.00	23.00	C
ATOM	1243	CE2	PHE	A	157	3.871	28.143	15.002	1.00	27.35	C
ATOM	1244	CZ	PHE	A	157	4.655	27.571	14.017	1.00	23.01	C
ATOM	1245	N	GLU	A	158	4.882	30.391	19.196	1.00	22.63	N
ATOM	1246	CA	GLU	A	158	3.968	31.537	19.068	1.00	21.46	C
ATOM	1247	C	GLU	A	158	4.590	32.901	19.234	1.00	22.01	C
ATOM	1248	O	GLU	A	158	4.426	33.750	18.356	1.00	20.34	O
ATOM	1249	CB	GLU	A	158	2.745	31.310	19.951	1.00	16.53	C
ATOM	1250	CG	GLU	A	158	1.789	30.394	19.202	1.00	19.07	C
ATOM	1251	CD	GLU	A	158	0.477	30.128	19.895	1.00	27.85	C
ATOM	1252	OE1	GLU	A	158	0.118	30.842	20.861	1.00	34.46	O
ATOM	1253	OE2	GLU	A	158	-0.204	29.178	19.452	1.00	27.61	O
ATOM	1254	N	LYS	A	159	5.512	33.059	20.174	1.00	28.42	N
ATOM	1255	CA	LYS	A	159	6.222	34.312	20.353	1.00	25.83	C
ATOM	1256	C	LYS	A	159	6.999	34.702	19.103	1.00	27.70	C
ATOM	1257	O	LYS	A	159	6.852	35.804	18.597	1.00	24.68	O
ATOM	1258	CB	LYS	A	159	7.176	34.202	21.536	1.00	24.05	C
ATOM	1259	CG	LYS	A	159	7.918	35.518	21.711	1.00	30.30	C
ATOM	1260	CD	LYS	A	159	9.028	35.418	22.739	1.00	35.46	C
ATOM	1261	CE	LYS	A	159	9.763	36.754	22.820	1.00	37.41	C
ATOM	1262	NZ	LYS	A	159	10.140	37.008	24.240	1.00	40.84	N
ATOM	1263	N	TYR	A	160	7.832	33.795	18.625	1.00	28.52	N
ATOM	1264	CA	TYR	A	160	8.655	33.972	17.446	1.00	28.61	C
ATOM	1265	C	TYR	A	160	7.916	33.877	16.130	1.00	30.18	C
ATOM	1266	O	TYR	A	160	8.414	34.380	15.119	1.00	34.87	O
ATOM	1267	CB	TYR	A	160	9.772	32.891	17.497	1.00	28.69	C
ATOM	1268	CG	TYR	A	160	10.683	33.321	18.635	1.00	29.69	C
ATOM	1269	CD1	TYR	A	160	10.564	32.857	19.936	1.00	25.25	C
ATOM	1270	CD2	TYR	A	160	11.569	34.356	18.342	1.00	28.44	C
ATOM	1271	CE1	TYR	A	160	11.348	33.378	20.938	1.00	21.72	C
ATOM	1272	CE2	TYR	A	160	12.360	34.890	19.343	1.00	29.24	C
ATOM	1273	CZ	TYR	A	160	12.254	34.367	20.617	1.00	28.18	C
ATOM	1274	OH	TYR	A	160	13.113	34.927	21.531	1.00	33.44	O
ATOM	1275	N	GLY	A	161	6.769	33.216	16.063	1.00	26.82	N
ATOM	1276	CA	GLY	A	161	5.961	33.216	14.843	1.00	22.58	C
ATOM	1277	C	GLY	A	161	5.434	34.644	14.676	1.00	22.78	C
ATOM	1278	O	GLY	A	161	5.492	35.258	13.611	1.00	24.25	O
ATOM	1279	N	GLN	A	162	4.931	35.215	15.771	1.00	24.01	N
ATOM	1280	CA	GLN	A	162	4.426	36.579	15.670	1.00	26.52	C
ATOM	1281	C	GLN	A	162	5.553	37.528	15.268	1.00	29.06	C
ATOM	1282	O	GLN	A	162	5.462	38.286	14.304	1.00	33.14	O

ATOM	1283	CB	GLN	A	162	3.800	36.986	16.980	1.00	24.83	C
ATOM	1284	CG	GLN	A	162	3.479	38.478	17.013	1.00	27.42	C
ATOM	1285	CD	GLN	A	162	2.646	38.822	18.219	1.00	23.66	C
ATOM	1286	OE1	GLN	A	162	2.366	39.988	18.439	1.00	29.78	O
ATOM	1287	NE2	GLN	A	162	2.243	37.793	18.939	1.00	26.80	N
ATOM	1288	N	LEU	A	163	6.676	37.437	15.950	1.00	27.94	N
ATOM	1289	CA	LEU	A	163	7.846	38.239	15.680	1.00	27.89	C
ATOM	1290	C	LEU	A	163	8.277	38.165	14.228	1.00	27.58	C
ATOM	1291	O	LEU	A	163	8.287	39.234	13.608	1.00	27.30	O
ATOM	1292	CB	LEU	A	163	8.961	37.866	16.656	1.00	33.47	C
ATOM	1293	CG	LEU	A	163	10.206	38.755	16.556	1.00	40.18	C
ATOM	1294	CD1	LEU	A	163	9.869	40.178	16.956	1.00	37.67	C
ATOM	1295	CD2	LEU	A	163	11.344	38.191	17.396	1.00	40.96	C
ATOM	1296	N	PHE	A	164	8.417	36.990	13.612	1.00	24.52	N
ATOM	1297	CA	PHE	A	164	8.813	36.939	12.221	1.00	22.39	C
ATOM	1298	C	PHE	A	164	7.800	37.578	11.289	1.00	23.60	C
ATOM	1299	O	PHE	A	164	8.187	38.207	10.306	1.00	25.65	O
ATOM	1300	CB	PHE	A	164	9.118	35.522	11.751	1.00	25.83	C
ATOM	1301	CG	PHE	A	164	10.584	35.186	11.843	1.00	28.44	C
ATOM	1302	CD1	PHE	A	164	11.155	34.853	13.063	1.00	26.68	C
ATOM	1303	CD2	PHE	A	164	11.379	35.209	10.710	1.00	28.89	C
ATOM	1304	CE1	PHE	A	164	12.488	34.549	13.173	1.00	26.84	C
ATOM	1305	CE2	PHE	A	164	12.724	34.893	10.807	1.00	28.30	C
ATOM	1306	CZ	PHE	A	164	13.273	34.565	12.034	1.00	29.71	C
ATOM	1307	N	MET	A	165	6.516	37.410	11.534	1.00	24.13	N
ATOM	1308	CA	MET	A	165	5.488	37.994	10.707	1.00	24.48	C
ATOM	1309	C	MET	A	165	5.356	39.492	10.931	1.00	26.35	C
ATOM	1310	O	MET	A	165	5.180	40.231	9.967	1.00	28.63	O
ATOM	1311	CB	MET	A	165	4.124	37.325	10.945	1.00	21.14	C
ATOM	1312	CG	MET	A	165	4.074	35.964	10.292	1.00	20.68	C
ATOM	1313	SD	MET	A	165	2.561	35.081	10.472	1.00	22.91	S
ATOM	1314	CE	MET	A	165	1.466	35.888	9.305	1.00	26.63	C
ATOM	1315	N	GLU	A	166	5.431	39.948	12.173	1.00	30.43	N
ATOM	1316	CA	GLU	A	166	5.180	41.356	12.437	1.00	32.57	C
ATOM	1317	C	GLU	A	166	6.352	42.186	11.922	1.00	32.14	C
ATOM	1318	O	GLU	A	166	6.156	43.258	11.326	1.00	27.00	O
ATOM	1319	CB	GLU	A	166	4.870	41.587	13.905	1.00	38.15	C
ATOM	1320	CG	GLU	A	166	4.140	42.897	14.183	1.00	51.21	C
ATOM	1321	CD	GLU	A	166	3.769	43.084	15.643	1.00	58.44	C
ATOM	1322	OE1	GLU	A	166	3.983	42.149	16.456	1.00	61.76	O
ATOM	1323	OE2	GLU	A	166	3.245	44.152	16.030	1.00	61.26	O
ATOM	1324	N	GLU	A	167	7.561	41.677	12.142	1.00	30.87	N
ATOM	1325	CA	GLU	A	167	8.762	42.377	11.726	1.00	32.19	C
ATOM	1326	C	GLU	A	167	8.913	42.469	10.213	1.00	30.35	C
ATOM	1327	O	GLU	A	167	9.428	43.508	9.764	1.00	28.57	O
ATOM	1328	CB	GLU	A	167	10.007	41.752	12.356	1.00	38.59	C
ATOM	1329	CG	GLU	A	167	10.150	41.922	13.851	1.00	43.16	C
ATOM	1330	CD	GLU	A	167	10.041	43.358	14.334	1.00	48.78	C
ATOM	1331	OE1	GLU	A	167	10.652	44.238	13.683	1.00	49.25	O
ATOM	1332	OE2	GLU	A	167	9.346	43.588	15.361	1.00	49.52	O

ATOM	1333	N	THR	A	168	8.541	41.426	9.462	1.00	22.54	N
ATOM	1334	CA	THR	A	168	8.623	41.507	8.014	1.00	24.07	C
ATOM	1335	C	THR	A	168	7.666	42.531	7.403	1.00	24.87	C
ATOM	1336	O	THR	A	168	7.981	43.250	6.452	1.00	22.64	O
ATOM	1337	CB	THR	A	168	8.318	40.149	7.351	1.00	27.99	C
ATOM	1338	OG1	THR	A	168	9.092	39.157	8.036	1.00	29.76	O
ATOM	1339	CG2	THR	A	168	8.664	40.168	5.871	1.00	22.83	C
ATOM	1340	N	LEU	A	169	6.463	42.601	7.928	1.00	23.62	N
ATOM	1341	CA	LEU	A	169	5.422	43.518	7.515	1.00	24.41	C
ATOM	1342	C	LEU	A	169	5.797	44.956	7.836	1.00	27.38	C
ATOM	1343	O	LEU	A	169	5.612	45.858	7.019	1.00	24.00	O
ATOM	1344	CB	LEU	A	169	4.132	43.149	8.242	1.00	23.82	C
ATOM	1345	CG	LEU	A	169	2.852	43.883	7.875	1.00	22.30	C
ATOM	1346	CD1	LEU	A	169	2.639	43.871	6.378	1.00	22.38	C
ATOM	1347	CD2	LEU	A	169	1.674	43.211	8.583	1.00	22.37	C
ATOM	1348	N	LYS	A	170	6.467	45.175	8.974	1.00	29.18	N
ATOM	1349	CA	LYS	A	170	6.901	46.532	9.301	1.00	30.67	C
ATOM	1350	C	LYS	A	170	8.032	46.912	8.358	1.00	31.32	C
ATOM	1351	O	LYS	A	170	8.169	48.075	7.997	1.00	29.80	O
ATOM	1352	CB	LYS	A	170	7.334	46.689	10.756	1.00	37.73	C
ATOM	1353	CG	LYS	A	170	6.175	46.487	11.715	1.00	50.43	C
ATOM	1354	CD	LYS	A	170	6.541	46.595	13.187	1.00	56.21	C
ATOM	1355	CE	LYS	A	170	5.235	46.645	13.990	1.00	61.25	C
ATOM	1356	NZ	LYS	A	170	5.454	46.657	15.463	1.00	63.12	N
ATOM	1357	N	ALA	A	171	8.824	45.928	7.931	1.00	31.46	N
ATOM	1358	CA	ALA	A	171	9.926	46.246	7.019	1.00	33.04	C
ATOM	1359	C	ALA	A	171	9.349	46.672	5.675	1.00	32.63	C
ATOM	1360	O	ALA	A	171	9.756	47.698	5.129	1.00	33.77	O
ATOM	1361	CB	ALA	A	171	10.906	45.101	6.915	1.00	29.04	C
ATOM	1362	N	ALA	A	172	8.312	45.986	5.214	1.00	29.67	N
ATOM	1363	CA	ALA	A	172	7.680	46.310	3.942	1.00	28.26	C
ATOM	1364	C	ALA	A	172	7.158	47.741	3.979	1.00	28.30	C
ATOM	1365	O	ALA	A	172	7.485	48.632	3.192	1.00	20.55	O
ATOM	1366	CB	ALA	A	172	6.561	45.307	3.668	1.00	28.58	C
ATOM	1367	N	LYS	A	173	6.415	48.007	5.070	1.00	28.94	N
ATOM	1368	CA	LYS	A	173	5.808	49.312	5.280	1.00	26.13	C
ATOM	1369	C	LYS	A	173	6.849	50.407	5.388	1.00	24.98	C
ATOM	1370	O	LYS	A	173	6.642	51.510	4.880	1.00	27.98	O
ATOM	1371	CB	LYS	A	173	4.857	49.269	6.474	1.00	28.15	C
ATOM	1372	CG	LYS	A	173	3.644	48.365	6.239	1.00	29.54	C
ATOM	1373	CD	LYS	A	173	2.794	48.318	7.494	1.00	30.13	C
ATOM	1374	CE	LYS	A	173	1.829	49.494	7.510	1.00	38.87	C
ATOM	1375	NZ	LYS	A	173	1.332	49.751	8.899	1.00	43.44	N
ATOM	1376	N	ARG	A	174	7.959	50.158	6.047	1.00	25.76	N
ATOM	1377	CA	ARG	A	174	9.040	51.135	6.196	1.00	30.25	C
ATOM	1378	C	ARG	A	174	9.562	51.461	4.789	1.00	33.50	C
ATOM	1379	O	ARG	A	174	9.523	52.603	4.360	1.00	33.05	O
ATOM	1380	CB	ARG	A	174	10.150	50.642	6.993	0.00	56.44	C
ATOM	1381	CG	ARG	A	174	9.732	50.415	8.434	0.00	77.59	C
ATOM	1382	CD	ARG	A	174	10.942	50.164	9.315	0.00	91.43	C

ATOM	1383	NE	ARG	A	174	10.575	49.952	10.710	0.00	103.19	N
ATOM	1384	CZ	ARG	A	174	11.448	49.707	11.679	0.00	109.86	C
ATOM	1385	NH1	ARG	A	174	12.744	49.644	11.402	0.00	113.07	N
ATOM	1386	NH2	ARG	A	174	11.027	49.527	12.923	0.00	112.84	N
ATOM	1387	N	MET	A	175	9.932	50.433	4.042	1.00	32.32	N
ATOM	1388	CA	MET	A	175	10.470	50.543	2.721	1.00	31.82	C
ATOM	1389	C	MET	A	175	9.541	51.109	1.686	1.00	29.08	C
ATOM	1390	O	MET	A	175	9.989	51.855	0.823	1.00	25.86	O
ATOM	1391	CB	MET	A	175	10.988	49.145	2.326	1.00	38.13	C
ATOM	1392	CG	MET	A	175	12.516	49.126	2.527	1.00	46.21	C
ATOM	1393	SD	MET	A	175	13.186	47.549	1.942	1.00	50.32	S
ATOM	1394	CE	MET	A	175	12.472	46.568	3.263	1.00	44.98	C
ATOM	1395	N	ARG	A	176	8.280	50.719	1.652	1.00	28.97	N
ATOM	1396	CA	ARG	A	176	7.311	51.196	0.646	1.00	30.36	C
ATOM	1397	C	ARG	A	176	6.067	51.735	1.332	1.00	32.35	C
ATOM	1398	O	ARG	A	176	5.028	51.056	1.400	1.00	33.41	O
ATOM	1399	CB	ARG	A	176	6.911	49.988	-0.213	1.00	21.07	C
ATOM	1400	CG	ARG	A	176	8.060	49.367	-0.981	1.00	24.83	C
ATOM	1401	CD	ARG	A	176	8.612	50.370	-1.981	1.00	26.65	C
ATOM	1402	NE	ARG	A	176	9.804	50.029	-2.689	1.00	30.61	N
ATOM	1403	CZ	ARG	A	176	11.090	50.215	-2.438	1.00	27.52	C
ATOM	1404	NH1	ARG	A	176	11.953	49.777	-3.350	1.00	23.72	N
ATOM	1405	NH2	ARG	A	176	11.502	50.830	-1.340	1.00	24.09	N
ATOM	1406	N	PRO	A	177	6.139	52.949	1.875	1.00	29.30	N
ATOM	1407	CA	PRO	A	177	5.114	53.388	2.799	1.00	28.50	C
ATOM	1408	C	PRO	A	177	3.791	53.690	2.162	1.00	28.16	C
ATOM	1409	O	PRO	A	177	2.823	53.816	2.921	1.00	35.18	O
ATOM	1410	CB	PRO	A	177	5.746	54.539	3.565	1.00	26.69	C
ATOM	1411	CG	PRO	A	177	6.844	55.026	2.696	1.00	21.90	C
ATOM	1412	CD	PRO	A	177	7.305	53.849	1.880	1.00	23.63	C
ATOM	1413	N	ALA	A	178	3.703	53.773	0.845	1.00	24.66	N
ATOM	1414	CA	ALA	A	178	2.403	54.075	0.243	1.00	21.81	C
ATOM	1415	C	ALA	A	178	1.716	52.821	-0.268	1.00	20.56	C
ATOM	1416	O	ALA	A	178	0.608	52.937	-0.768	1.00	21.73	O
ATOM	1417	CB	ALA	A	178	2.543	55.133	-0.824	1.00	16.17	C
ATOM	1418	N	ALA	A	179	2.331	51.654	-0.182	1.00	20.10	N
ATOM	1419	CA	ALA	A	179	1.665	50.436	-0.613	1.00	22.07	C
ATOM	1420	C	ALA	A	179	0.641	49.997	0.432	1.00	24.16	C
ATOM	1421	O	ALA	A	179	0.654	50.342	1.626	1.00	17.34	O
ATOM	1422	CB	ALA	A	179	2.679	49.303	-0.741	1.00	28.51	C
ATOM	1423	N	ASN	A	180	-0.186	49.086	-0.060	1.00	26.91	N
ATOM	1424	CA	ASN	A	180	-1.217	48.436	0.766	1.00	26.47	C
ATOM	1425	C	ASN	A	180	-0.822	46.985	1.008	1.00	27.15	C
ATOM	1426	O	ASN	A	180	-1.032	46.193	0.093	1.00	25.42	O
ATOM	1427	CB	ASN	A	180	-2.517	48.500	-0.014	1.00	25.08	C
ATOM	1428	CG	ASN	A	180	-3.325	49.706	0.367	1.00	24.95	C
ATOM	1429	OD1	ASN	A	180	-3.968	50.343	-0.425	1.00	27.27	O
ATOM	1430	ND2	ASN	A	180	-3.343	50.058	1.642	1.00	33.65	N
ATOM	1431	N	TRP	A	181	-0.093	46.727	2.082	1.00	26.52	N
ATOM	1432	CA	TRP	A	181	0.458	45.426	2.385	1.00	24.24	C

ATOM	1433	C	TRP	A	181	-0.487	44.490	3.112	1.00	22.16	C
ATOM	1434	O	TRP	A	181	-1.317	44.855	3.950	1.00	21.99	O
ATOM	1435	CB	TRP	A	181	1.726	45.612	3.242	1.00	25.09	C
ATOM	1436	CG	TRP	A	181	2.843	46.188	2.425	1.00	24.07	C
ATOM	1437	CD1	TRP	A	181	3.261	47.486	2.441	1.00	26.71	C
ATOM	1438	CD2	TRP	A	181	3.680	45.497	1.491	1.00	20.04	C
ATOM	1439	NE1	TRP	A	181	4.314	47.654	1.572	1.00	24.35	N
ATOM	1440	CE2	TRP	A	181	4.576	46.458	0.964	1.00	23.08	C
ATOM	1441	CE3	TRP	A	181	3.742	44.184	1.036	1.00	12.33	C
ATOM	1442	CZ2	TRP	A	181	5.528	46.151	-0.011	1.00	23.36	C
ATOM	1443	CZ3	TRP	A	181	4.725	43.902	0.099	1.00	19.08	C
ATOM	1444	CH2	TRP	A	181	5.601	44.854	-0.435	1.00	15.70	C
ATOM	1445	N	GLY	A	182	-0.355	43.216	2.760	1.00	18.91	N
ATOM	1446	CA	GLY	A	182	-1.273	42.239	3.411	1.00	16.92	C
ATOM	1447	C	GLY	A	182	-0.686	40.865	3.137	1.00	16.49	C
ATOM	1448	O	GLY	A	182	0.107	40.718	2.195	1.00	17.26	O
ATOM	1449	N	TYR	A	183	-0.980	39.928	4.036	1.00	16.48	N
ATOM	1450	CA	TYR	A	183	-0.433	38.588	3.835	1.00	17.70	C
ATOM	1451	C	TYR	A	183	-1.418	37.762	3.030	1.00	19.43	C
ATOM	1452	O	TYR	A	183	-2.625	37.846	3.321	1.00	17.63	O
ATOM	1453	CB	TYR	A	183	-0.135	37.987	5.177	1.00	20.05	C
ATOM	1454	CG	TYR	A	183	1.187	38.293	5.823	1.00	22.71	C
ATOM	1455	CD1	TYR	A	183	1.383	39.345	6.713	1.00	18.76	C
ATOM	1456	CD2	TYR	A	183	2.258	37.447	5.516	1.00	22.95	C
ATOM	1457	CE1	TYR	A	183	2.621	39.541	7.283	1.00	16.32	C
ATOM	1458	CE2	TYR	A	183	3.505	37.656	6.080	1.00	18.67	C
ATOM	1459	CZ	TYR	A	183	3.656	38.698	6.958	1.00	14.94	C
ATOM	1460	OH	TYR	A	183	4.898	38.872	7.488	1.00	18.79	O
ATOM	1461	N	TYR	A	184	-0.938	37.067	1.999	1.00	20.71	N
ATOM	1462	CA	TYR	A	184	-1.863	36.206	1.233	1.00	21.95	C
ATOM	1463	C	TYR	A	184	-2.578	35.246	2.178	1.00	19.84	C
ATOM	1464	O	TYR	A	184	-1.919	34.716	3.063	1.00	21.06	O
ATOM	1465	CB	TYR	A	184	-1.076	35.409	0.179	1.00	19.58	C
ATOM	1466	CG	TYR	A	184	-1.855	34.242	-0.398	1.00	20.41	C
ATOM	1467	CD1	TYR	A	184	-3.003	34.465	-1.156	1.00	20.44	C
ATOM	1468	CD2	TYR	A	184	-1.490	32.922	-0.133	1.00	15.80	C
ATOM	1469	CE1	TYR	A	184	-3.757	33.426	-1.679	1.00	14.81	C
ATOM	1470	CE2	TYR	A	184	-2.215	31.876	-0.645	1.00	13.92	C
ATOM	1471	CZ	TYR	A	184	-3.323	32.137	-1.433	1.00	16.33	C
ATOM	1472	OH	TYR	A	184	-4.060	31.080	-1.925	1.00	20.71	O
ATOM	1473	N	ALA	A	185	-3.855	34.995	2.050	1.00	20.23	N
ATOM	1474	CA	ALA	A	185	-4.658	34.034	2.792	1.00	21.94	C
ATOM	1475	C	ALA	A	185	-5.132	34.351	4.201	1.00	20.44	C
ATOM	1476	O	ALA	A	185	-5.922	33.582	4.728	1.00	17.63	O
ATOM	1477	CB	ALA	A	185	-3.983	32.657	2.794	1.00	16.93	C
ATOM	1478	N	TYR	A	186	-4.788	35.435	4.859	1.00	23.21	N
ATOM	1479	CA	TYR	A	186	-5.244	35.796	6.198	1.00	20.77	C
ATOM	1480	C	TYR	A	186	-6.419	36.739	6.014	1.00	23.83	C
ATOM	1481	O	TYR	A	186	-6.375	37.569	5.113	1.00	21.69	O
ATOM	1482	CB	TYR	A	186	-4.108	36.394	7.041	1.00	18.88	C

ATOM	1483	CG	TYR	A	186	-3.098	35.341	7.463	1.00	17.43	C
ATOM	1484	CD1	TYR	A	186	-2.089	34.928	6.585	1.00	17.62	C
ATOM	1485	CD2	TYR	A	186	-3.167	34.745	8.711	1.00	16.11	C
ATOM	1486	CE1	TYR	A	186	-1.170	33.950	6.922	1.00	16.57	C
ATOM	1487	CE2	TYR	A	186	-2.250	33.762	9.073	1.00	19.81	C
ATOM	1488	CZ	TYR	A	186	-1.255	33.383	8.182	1.00	23.34	C
ATOM	1489	OH	TYR	A	186	-0.339	32.409	8.557	1.00	26.12	O
ATOM	1490	N	PRO	A	187	-7.485	36.535	6.776	1.00	28.99	N
ATOM	1491	CA	PRO	A	187	-7.545	35.495	7.800	1.00	28.01	C
ATOM	1492	C	PRO	A	187	-8.050	34.159	7.284	1.00	23.04	C
ATOM	1493	O	PRO	A	187	-8.895	34.117	6.403	1.00	20.73	O
ATOM	1494	CB	PRO	A	187	-8.573	36.078	8.786	1.00	27.75	C
ATOM	1495	CG	PRO	A	187	-9.567	36.716	7.859	1.00	29.95	C
ATOM	1496	CD	PRO	A	187	-8.763	37.288	6.711	1.00	28.22	C
ATOM	1497	N	TYR	A	188	-7.641	33.071	7.877	1.00	21.23	N
ATOM	1498	CA	TYR	A	188	-8.157	31.751	7.636	1.00	21.97	C
ATOM	1499	C	TYR	A	188	-9.514	31.588	8.294	1.00	22.00	C
ATOM	1500	O	TYR	A	188	-9.890	32.299	9.206	1.00	24.46	O
ATOM	1501	CB	TYR	A	188	-7.170	30.760	8.285	1.00	27.38	C
ATOM	1502	CG	TYR	A	188	-5.977	30.571	7.363	1.00	28.41	C
ATOM	1503	CD1	TYR	A	188	-4.782	31.237	7.592	1.00	25.96	C
ATOM	1504	CD2	TYR	A	188	-6.101	29.744	6.245	1.00	25.84	C
ATOM	1505	CE1	TYR	A	188	-3.717	31.064	6.723	1.00	24.92	C
ATOM	1506	CE2	TYR	A	188	-5.028	29.555	5.400	1.00	23.68	C
ATOM	1507	CZ	TYR	A	188	-3.846	30.221	5.636	1.00	23.65	C
ATOM	1508	OH	TYR	A	188	-2.789	30.051	4.776	1.00	22.12	O
ATOM	1509	N	CYS	A	189	-10.294	30.641	7.840	1.00	25.92	N
ATOM	1510	CA	CYS	A	189	-11.658	30.338	8.238	1.00	23.60	C
ATOM	1511	C	CYS	A	189	-11.850	28.832	8.309	1.00	23.61	C
ATOM	1512	O	CYS	A	189	-12.383	28.273	9.281	1.00	26.23	O
ATOM	1513	CB	CYS	A	189	-12.571	31.051	7.254	1.00	21.82	C
ATOM	1514	SG	CYS	A	189	-14.315	30.573	7.170	1.00	18.48	S
ATOM	1515	N	TYR	A	190	-11.232	28.053	7.434	1.00	22.54	N
ATOM	1516	CA	TYR	A	190	-11.302	26.594	7.421	1.00	22.82	C
ATOM	1517	C	TYR	A	190	-12.739	26.102	7.444	1.00	24.59	C
ATOM	1518	O	TYR	A	190	-13.029	25.209	8.222	1.00	30.32	O
ATOM	1519	CB	TYR	A	190	-10.581	25.898	8.590	1.00	18.92	C
ATOM	1520	CG	TYR	A	190	-9.197	26.438	8.874	1.00	18.93	C
ATOM	1521	CD1	TYR	A	190	-8.973	27.287	9.951	1.00	16.41	C
ATOM	1522	CD2	TYR	A	190	-8.147	26.190	7.997	1.00	13.03	C
ATOM	1523	CE1	TYR	A	190	-7.717	27.835	10.161	1.00	18.18	C
ATOM	1524	CE2	TYR	A	190	-6.899	26.727	8.207	1.00	16.72	C
ATOM	1525	CZ	TYR	A	190	-6.678	27.551	9.293	1.00	21.15	C
ATOM	1526	OH	TYR	A	190	-5.410	28.053	9.509	1.00	21.07	O
ATOM	1527	N	ASN	A	191	-13.636	26.634	6.647	1.00	28.03	N
ATOM	1528	CA	ASN	A	191	-15.005	26.233	6.434	1.00	27.83	C
ATOM	1529	C	ASN	A	191	-15.009	25.195	5.315	1.00	34.70	C
ATOM	1530	O	ASN	A	191	-14.086	25.260	4.502	1.00	34.65	O
ATOM	1531	CB	ASN	A	191	-15.884	27.405	6.042	1.00	24.96	C
ATOM	1532	CG	ASN	A	191	-15.502	28.159	4.784	1.00	27.80	C

ATOM	1533	OD1	ASN	A	191	-14.392	28.081	4.245	1.00	28.12	O
ATOM	1534	ND2	ASN	A	191	-16.444	28.952	4.269	1.00	21.51	N
ATOM	1535	N	LEU	A	192	-15.918	24.228	5.300	1.00	43.35	N
ATOM	1536	CA	LEU	A	192	-15.944	23.164	4.280	1.00	46.14	C
ATOM	1537	C	LEU	A	192	-14.584	22.471	4.257	1.00	49.84	C
ATOM	1538	O	LEU	A	192	-13.863	22.336	3.272	1.00	47.74	O
ATOM	1539	CB	LEU	A	192	-16.333	23.733	2.915	1.00	43.51	C
ATOM	1540	CG	LEU	A	192	-17.714	24.383	2.827	1.00	42.49	C
ATOM	1541	CD1	LEU	A	192	-17.856	25.270	1.603	1.00	42.64	C
ATOM	1542	CD2	LEU	A	192	-18.807	23.325	2.787	1.00	40.23	C
ATOM	1543	N	THR	A	193	-14.212	22.016	5.451	1.00	55.39	N
ATOM	1544	CA	THR	A	193	-12.905	21.365	5.674	1.00	59.82	C
ATOM	1545	C	THR	A	193	-13.181	20.193	6.586	1.00	69.80	C
ATOM	1546	O	THR	A	193	-14.325	20.012	7.016	1.00	66.18	O
ATOM	1547	CB	THR	A	193	-12.044	22.511	6.248	1.00	55.05	C
ATOM	1548	OG1	THR	A	193	-10.845	22.691	5.486	1.00	49.87	O
ATOM	1549	CG2	THR	A	193	-11.647	22.382	7.701	1.00	53.30	C
ATOM	1550	N	PRO	A	194	-12.187	19.367	6.874	1.00	80.16	N
ATOM	1551	CA	PRO	A	194	-12.340	18.234	7.774	1.00	85.84	C
ATOM	1552	C	PRO	A	194	-12.418	18.740	9.209	1.00	90.77	C
ATOM	1553	O	PRO	A	194	-13.162	18.209	10.034	1.00	93.10	O
ATOM	1554	CB	PRO	A	194	-11.079	17.421	7.531	1.00	84.90	C
ATOM	1555	CG	PRO	A	194	-10.056	18.461	7.211	1.00	84.08	C
ATOM	1556	CD	PRO	A	194	-10.791	19.482	6.384	1.00	82.28	C
ATOM	1557	N	ASN	A	195	-11.678	19.813	9.504	1.00	94.13	N
ATOM	1558	CA	ASN	A	195	-11.741	20.447	10.814	1.00	96.07	C
ATOM	1559	C	ASN	A	195	-13.127	21.068	10.999	1.00	97.08	C
ATOM	1560	O	ASN	A	195	-13.753	20.823	12.031	1.00	98.69	O
ATOM	1561	CB	ASN	A	195	-10.686	21.517	11.040	1.00	95.91	C
ATOM	1562	CG	ASN	A	195	-9.263	21.112	10.751	1.00	95.48	C
ATOM	1563	OD1	ASN	A	195	-8.650	20.278	11.412	1.00	94.31	O
ATOM	1564	ND2	ASN	A	195	-8.712	21.739	9.717	1.00	97.14	N
ATOM	1565	N	GLN	A	196	-13.583	21.838	10.017	1.00	95.91	N
ATOM	1566	CA	GLN	A	196	-14.900	22.471	10.084	1.00	94.44	C
ATOM	1567	C	GLN	A	196	-15.716	22.211	8.826	1.00	92.10	C
ATOM	1568	O	GLN	A	196	-15.586	22.873	7.795	1.00	93.96	O
ATOM	1569	CB	GLN	A	196	-14.746	23.972	10.325	1.00	93.56	C
ATOM	1570	CG	GLN	A	196	-16.043	24.750	10.211	1.00	92.80	C
ATOM	1571	CD	GLN	A	196	-16.975	24.535	11.379	1.00	91.86	C
ATOM	1572	OE1	GLN	A	196	-16.708	23.716	12.257	1.00	92.94	O
ATOM	1573	NE2	GLN	A	196	-18.078	25.269	11.412	1.00	90.78	N
ATOM	1574	N	PRO	A	197	-16.512	21.140	8.839	1.00	87.28	N
ATOM	1575	CA	PRO	A	197	-17.202	20.622	7.677	1.00	82.99	C
ATOM	1576	C	PRO	A	197	-18.500	21.271	7.239	1.00	75.17	C
ATOM	1577	O	PRO	A	197	-19.315	20.679	6.524	1.00	75.82	O
ATOM	1578	CB	PRO	A	197	-17.410	19.140	7.991	1.00	85.43	C
ATOM	1579	CG	PRO	A	197	-16.684	18.869	9.260	1.00	88.07	C
ATOM	1580	CD	PRO	A	197	-16.619	20.195	9.985	1.00	87.42	C
ATOM	1581	N	SER	A	198	-18.747	22.507	7.614	1.00	64.32	N
ATOM	1582	CA	SER	A	198	-19.908	23.266	7.199	1.00	54.32	C

ATOM	1583	C	SER	A	198	-19.368	24.528	6.525	1.00	47.87	C
ATOM	1584	O	SER	A	198	-18.165	24.775	6.543	1.00	44.36	O
ATOM	1585	CB	SER	A	198	-20.805	23.654	8.370	1.00	55.61	C
ATOM	1586	OG	SER	A	198	-20.132	24.360	9.388	1.00	46.46	O
ATOM	1587	N	ALA	A	199	-20.247	25.375	6.029	1.00	41.77	N
ATOM	1588	CA	ALA	A	199	-19.857	26.637	5.438	1.00	39.40	C
ATOM	1589	C	ALA	A	199	-19.505	27.697	6.473	1.00	39.07	C
ATOM	1590	O	ALA	A	199	-19.310	28.850	6.088	1.00	39.28	O
ATOM	1591	CB	ALA	A	199	-21.019	27.147	4.600	1.00	37.53	C
ATOM	1592	N	GLN	A	200	-19.568	27.442	7.763	1.00	41.12	N
ATOM	1593	CA	GLN	A	200	-19.237	28.423	8.792	1.00	42.98	C
ATOM	1594	C	GLN	A	200	-17.772	28.278	9.154	1.00	37.81	C
ATOM	1595	O	GLN	A	200	-17.246	27.171	9.029	1.00	38.24	O
ATOM	1596	CB	GLN	A	200	-20.148	28.211	10.009	1.00	51.83	C
ATOM	1597	CG	GLN	A	200	-21.633	28.212	9.667	1.00	63.80	C
ATOM	1598	CD	GLN	A	200	-22.555	27.444	10.586	1.00	70.66	C
ATOM	1599	OE1	GLN	A	200	-22.543	27.538	11.821	1.00	73.20	O
ATOM	1600	NE2	GLN	A	200	-23.454	26.637	10.005	1.00	72.70	N
ATOM	1601	N	CYS	A	201	-17.065	29.330	9.538	1.00	31.89	N
ATOM	1602	CA	CYS	A	201	-15.658	29.185	9.921	1.00	27.97	C
ATOM	1603	C	CYS	A	201	-15.537	28.361	11.198	1.00	25.74	C
ATOM	1604	O	CYS	A	201	-16.443	28.327	12.029	1.00	22.17	O
ATOM	1605	CB	CYS	A	201	-14.984	30.552	10.095	1.00	24.48	C
ATOM	1606	SG	CYS	A	201	-15.126	31.651	8.637	1.00	19.50	S
ATOM	1607	N	GLU	A	202	-14.434	27.654	11.388	1.00	27.03	N
ATOM	1608	CA	GLU	A	202	-14.276	26.871	12.624	1.00	28.36	C
ATOM	1609	C	GLU	A	202	-14.244	27.870	13.771	1.00	28.00	C
ATOM	1610	O	GLU	A	202	-13.491	28.848	13.740	1.00	30.93	O
ATOM	1611	CB	GLU	A	202	-13.034	25.994	12.545	1.00	28.63	C
ATOM	1612	CG	GLU	A	202	-12.740	25.139	13.747	1.00	32.46	C
ATOM	1613	CD	GLU	A	202	-11.312	25.204	14.242	1.00	38.17	C
ATOM	1614	OE1	GLU	A	202	-10.651	26.255	14.055	1.00	43.72	O
ATOM	1615	OE2	GLU	A	202	-10.782	24.238	14.842	1.00	39.56	O
ATOM	1616	N	ALA	A	203	-15.061	27.691	14.789	1.00	28.47	N
ATOM	1617	CA	ALA	A	203	-15.168	28.591	15.927	1.00	27.33	C
ATOM	1618	C	ALA	A	203	-13.901	28.974	16.674	1.00	24.42	C
ATOM	1619	O	ALA	A	203	-13.811	30.146	17.085	1.00	25.53	O
ATOM	1620	CB	ALA	A	203	-16.169	28.001	16.918	1.00	21.11	C
ATOM	1621	N	THR	A	204	-12.918	28.105	16.861	1.00	23.40	N
ATOM	1622	CA	THR	A	204	-11.701	28.478	17.568	1.00	25.25	C
ATOM	1623	C	THR	A	204	-10.835	29.382	16.691	1.00	31.08	C
ATOM	1624	O	THR	A	204	-10.113	30.248	17.204	1.00	30.93	O
ATOM	1625	CB	THR	A	204	-10.897	27.259	18.029	1.00	24.66	C
ATOM	1626	OG1	THR	A	204	-11.715	26.475	18.884	1.00	26.29	O
ATOM	1627	CG2	THR	A	204	-9.665	27.654	18.849	1.00	25.40	C
ATOM	1628	N	THR	A	205	-10.914	29.153	15.366	1.00	29.42	N
ATOM	1629	CA	THR	A	205	-10.219	30.037	14.442	1.00	28.62	C
ATOM	1630	C	THR	A	205	-10.722	31.460	14.611	1.00	27.35	C
ATOM	1631	O	THR	A	205	-9.932	32.399	14.724	1.00	25.92	O
ATOM	1632	CB	THR	A	205	-10.207	29.510	12.998	1.00	26.29	C

ATOM	1633	OG1	THR	A	205	-9.298	28.389	13.031	1.00	23.39	O
ATOM	1634	CG2	THR	A	205	-9.628	30.507	11.988	1.00	17.33	C
ATOM	1635	N	MET	A	206	-12.029	31.656	14.710	1.00	29.40	N
ATOM	1636	CA	MET	A	206	-12.567	32.988	15.001	1.00	28.89	C
ATOM	1637	C	MET	A	206	-11.962	33.578	16.266	1.00	29.02	C
ATOM	1638	O	MET	A	206	-11.319	34.643	16.204	1.00	26.38	O
ATOM	1639	CB	MET	A	206	-14.085	32.861	15.011	1.00	27.79	C
ATOM	1640	CG	MET	A	206	-14.604	32.545	13.609	1.00	32.87	C
ATOM	1641	SD	MET	A	206	-16.407	32.498	13.527	1.00	26.55	S
ATOM	1642	CE	MET	A	206	-16.681	34.267	13.439	1.00	37.21	C
ATOM	1643	N	GLN	A	207	-11.961	32.901	17.418	1.00	28.01	N
ATOM	1644	CA	GLN	A	207	-11.301	33.460	18.600	1.00	30.59	C
ATOM	1645	C	GLN	A	207	-9.814	33.702	18.332	1.00	29.28	C
ATOM	1646	O	GLN	A	207	-9.242	34.698	18.780	1.00	27.22	O
ATOM	1647	CB	GLN	A	207	-11.470	32.609	19.842	1.00	32.68	C
ATOM	1648	CG	GLN	A	207	-12.893	32.277	20.250	1.00	46.96	C
ATOM	1649	CD	GLN	A	207	-12.932	31.115	21.237	1.00	55.16	C
ATOM	1650	OE1	GLN	A	207	-13.829	30.259	21.189	1.00	57.68	O
ATOM	1651	NE2	GLN	A	207	-11.923	31.032	22.111	1.00	54.48	N
ATOM	1652	N	GLU	A	208	-9.141	32.828	17.595	1.00	26.76	N
ATOM	1653	CA	GLU	A	208	-7.729	33.037	17.293	1.00	27.37	C
ATOM	1654	C	GLU	A	208	-7.527	34.252	16.397	1.00	24.38	C
ATOM	1655	O	GLU	A	208	-6.599	35.037	16.595	1.00	25.90	O
ATOM	1656	CB	GLU	A	208	-7.135	31.742	16.718	1.00	24.60	C
ATOM	1657	CG	GLU	A	208	-6.786	30.778	17.837	1.00	18.28	C
ATOM	1658	CD	GLU	A	208	-6.763	29.341	17.417	1.00	24.31	C
ATOM	1659	OE1	GLU	A	208	-7.011	29.007	16.245	1.00	26.14	O
ATOM	1660	OE2	GLU	A	208	-6.525	28.478	18.290	1.00	30.05	O
ATOM	1661	N	ASN	A	209	-8.446	34.541	15.493	1.00	20.27	N
ATOM	1662	CA	ASN	A	209	-8.335	35.721	14.658	1.00	20.98	C
ATOM	1663	C	ASN	A	209	-8.508	36.980	15.489	1.00	20.20	C
ATOM	1664	O	ASN	A	209	-7.716	37.890	15.255	1.00	16.10	O
ATOM	1665	CB	ASN	A	209	-9.225	35.728	13.427	1.00	19.94	C
ATOM	1666	CG	ASN	A	209	-8.991	34.670	12.383	1.00	20.29	C
ATOM	1667	OD1	ASN	A	209	-7.909	34.076	12.266	1.00	22.96	O
ATOM	1668	ND2	ASN	A	209	-10.010	34.388	11.566	1.00	16.07	N
ATOM	1669	N	ASP	A	210	-9.337	37.016	16.527	1.00	27.44	N
ATOM	1670	CA	ASP	A	210	-9.467	38.196	17.379	1.00	27.39	C
ATOM	1671	C	ASP	A	210	-8.202	38.415	18.205	1.00	26.29	C
ATOM	1672	O	ASP	A	210	-7.816	39.557	18.478	1.00	27.77	O
ATOM	1673	CB	ASP	A	210	-10.637	38.132	18.343	1.00	27.87	C
ATOM	1674	CG	ASP	A	210	-11.990	38.022	17.692	1.00	29.70	C
ATOM	1675	OD1	ASP	A	210	-12.196	38.590	16.598	1.00	33.57	O
ATOM	1676	OD2	ASP	A	210	-12.854	37.360	18.296	1.00	32.10	O
ATOM	1677	N	LYS	A	211	-7.539	37.316	18.534	1.00	22.37	N
ATOM	1678	CA	LYS	A	211	-6.279	37.379	19.262	1.00	27.72	C
ATOM	1679	C	LYS	A	211	-5.142	37.848	18.389	1.00	24.45	C
ATOM	1680	O	LYS	A	211	-4.088	38.231	18.866	1.00	30.16	O
ATOM	1681	CB	LYS	A	211	-6.038	36.004	19.889	1.00	37.66	C
ATOM	1682	CG	LYS	A	211	-4.813	35.783	20.719	1.00	48.04	C

ATOM	1683	CD	LYS	A	211	-4.550	34.347	21.134	1.00	60.15	C
ATOM	1684	CE	LYS	A	211	-3.467	33.673	20.295	1.00	67.24	C
ATOM	1685	NZ	LYS	A	211	-3.073	32.314	20.798	1.00	69.88	N
ATOM	1686	N	MET	A	212	-5.234	37.829	17.077	1.00	26.29	N
ATOM	1687	CA	MET	A	212	-4.280	38.251	16.102	1.00	23.92	C
ATOM	1688	C	MET	A	212	-4.510	39.670	15.610	1.00	26.28	C
ATOM	1689	O	MET	A	212	-4.111	40.063	14.506	1.00	31.16	O
ATOM	1690	CB	MET	A	212	-4.185	37.300	14.905	1.00	23.39	C
ATOM	1691	CG	MET	A	212	-3.336	36.067	15.191	1.00	23.84	C
ATOM	1692	SD	MET	A	212	-3.491	34.783	13.941	1.00	17.63	S
ATOM	1693	CE	MET	A	212	-2.874	35.593	12.470	1.00	19.59	C
ATOM	1694	N	SER	A	213	-4.954	40.560	16.471	1.00	26.76	N
ATOM	1695	CA	SER	A	213	-5.031	41.983	16.211	1.00	29.11	C
ATOM	1696	C	SER	A	213	-3.696	42.597	15.825	1.00	27.73	C
ATOM	1697	O	SER	A	213	-3.687	43.595	15.114	1.00	24.50	O
ATOM	1698	CB	SER	A	213	-5.538	42.700	17.489	1.00	32.03	C
ATOM	1699	OG	SER	A	213	-6.949	42.455	17.351	1.00	40.53	O
ATOM	1700	N	TRP	A	214	-2.585	42.061	16.331	1.00	24.91	N
ATOM	1701	CA	TRP	A	214	-1.289	42.601	15.977	1.00	24.64	C
ATOM	1702	C	TRP	A	214	-1.088	42.498	14.474	1.00	29.10	C
ATOM	1703	O	TRP	A	214	-0.661	43.516	13.933	1.00	30.54	O
ATOM	1704	CB	TRP	A	214	-0.187	41.923	16.793	1.00	28.16	C
ATOM	1705	CG	TRP	A	214	-0.219	40.427	16.709	1.00	30.62	C
ATOM	1706	CD1	TRP	A	214	-0.849	39.560	17.541	1.00	26.67	C
ATOM	1707	CD2	TRP	A	214	0.383	39.640	15.662	1.00	30.30	C
ATOM	1708	NE1	TRP	A	214	-0.642	38.274	17.102	1.00	29.05	N
ATOM	1709	CE2	TRP	A	214	0.078	38.302	15.930	1.00	30.24	C
ATOM	1710	CE3	TRP	A	214	1.147	39.938	14.536	1.00	32.32	C
ATOM	1711	CZ2	TRP	A	214	0.518	37.269	15.102	1.00	32.06	C
ATOM	1712	CZ3	TRP	A	214	1.574	38.918	13.704	1.00	30.99	C
ATOM	1713	CH2	TRP	A	214	1.273	37.588	14.010	1.00	29.24	C
ATOM	1714	N	LEU	A	215	-1.528	41.440	13.782	1.00	27.45	N
ATOM	1715	CA	LEU	A	215	-1.398	41.361	12.338	1.00	27.79	C
ATOM	1716	C	LEU	A	215	-2.409	42.219	11.582	1.00	28.05	C
ATOM	1717	O	LEU	A	215	-2.038	43.108	10.815	1.00	25.24	O
ATOM	1718	CB	LEU	A	215	-1.522	39.912	11.891	1.00	32.06	C
ATOM	1719	CG	LEU	A	215	-1.297	39.569	10.419	1.00	32.23	C
ATOM	1720	CD1	LEU	A	215	0.186	39.737	10.143	1.00	36.15	C
ATOM	1721	CD2	LEU	A	215	-1.765	38.156	10.111	1.00	31.40	C
ATOM	1722	N	PHE	A	216	-3.702	42.036	11.801	1.00	26.30	N
ATOM	1723	CA	PHE	A	216	-4.747	42.768	11.117	1.00	28.13	C
ATOM	1724	C	PHE	A	216	-4.698	44.262	11.355	1.00	31.76	C
ATOM	1725	O	PHE	A	216	-5.006	44.996	10.404	1.00	34.44	O
ATOM	1726	CB	PHE	A	216	-6.143	42.194	11.429	1.00	24.64	C
ATOM	1727	CG	PHE	A	216	-6.148	40.727	11.095	1.00	26.99	C
ATOM	1728	CD1	PHE	A	216	-6.289	39.783	12.115	1.00	25.49	C
ATOM	1729	CD2	PHE	A	216	-5.848	40.288	9.808	1.00	26.24	C
ATOM	1730	CE1	PHE	A	216	-6.237	38.430	11.805	1.00	22.48	C
ATOM	1731	CE2	PHE	A	216	-5.748	38.934	9.525	1.00	20.91	C
ATOM	1732	CZ	PHE	A	216	-5.963	38.009	10.520	1.00	17.73	C

ATOM	1733	N	GLU	A	217	-4.275	44.725	12.533	1.00	31.37	N
ATOM	1734	CA	GLU	A	217	-4.109	46.156	12.757	1.00	27.64	C
ATOM	1735	C	GLU	A	217	-2.982	46.696	11.887	1.00	27.94	C
ATOM	1736	O	GLU	A	217	-3.247	47.770	11.330	1.00	31.93	O
ATOM	1737	CB	GLU	A	217	-3.887	46.566	14.208	1.00	28.62	C
ATOM	1738	CG	GLU	A	217	-5.113	46.716	15.102	1.00	26.34	C
ATOM	1739	CD	GLU	A	217	-6.080	47.827	14.719	1.00	28.15	C
ATOM	1740	OE1	GLU	A	217	-7.131	47.941	15.407	1.00	24.10	O
ATOM	1741	OE2	GLU	A	217	-5.828	48.593	13.744	1.00	24.42	O
ATOM	1742	N	SER	A	218	-1.856	46.005	11.714	1.00	22.87	N
ATOM	1743	CA	SER	A	218	-0.822	46.598	10.873	1.00	26.28	C
ATOM	1744	C	SER	A	218	-0.964	46.406	9.376	1.00	28.06	C
ATOM	1745	O	SER	A	218	-0.292	47.140	8.632	1.00	28.55	O
ATOM	1746	CB	SER	A	218	0.585	46.178	11.316	1.00	25.73	C
ATOM	1747	OG	SER	A	218	0.460	44.936	11.968	1.00	36.41	O
ATOM	1748	N	GLU	A	219	-1.792	45.498	8.903	1.00	29.29	N
ATOM	1749	CA	GLU	A	219	-2.007	45.340	7.475	1.00	29.89	C
ATOM	1750	C	GLU	A	219	-3.032	46.393	6.988	1.00	27.63	C
ATOM	1751	O	GLU	A	219	-3.826	46.912	7.765	1.00	27.97	O
ATOM	1752	CB	GLU	A	219	-2.690	44.025	7.099	1.00	27.62	C
ATOM	1753	CG	GLU	A	219	-2.019	42.768	7.503	1.00	26.52	C
ATOM	1754	CD	GLU	A	219	-2.534	41.555	6.769	1.00	28.29	C
ATOM	1755	OE1	GLU	A	219	-3.753	41.316	6.654	1.00	28.32	O
ATOM	1756	OE2	GLU	A	219	-1.615	40.830	6.326	1.00	31.86	O
ATOM	1757	N	ASP	A	220	-2.981	46.614	5.697	1.00	21.67	N
ATOM	1758	CA	ASP	A	220	-3.861	47.517	5.014	1.00	25.33	C
ATOM	1759	C	ASP	A	220	-4.981	46.727	4.314	1.00	24.96	C
ATOM	1760	O	ASP	A	220	-6.078	47.236	4.056	1.00	21.20	O
ATOM	1761	CB	ASP	A	220	-3.090	48.272	3.936	1.00	29.39	C
ATOM	1762	CG	ASP	A	220	-2.044	49.254	4.413	1.00	34.52	C
ATOM	1763	OD1	ASP	A	220	-2.478	50.214	5.094	1.00	31.73	O
ATOM	1764	OD2	ASP	A	220	-0.836	49.043	4.110	1.00	34.16	O
ATOM	1765	N	VAL	A	221	-4.665	45.475	3.992	1.00	22.66	N
ATOM	1766	CA	VAL	A	221	-5.621	44.682	3.221	1.00	27.40	C
ATOM	1767	C	VAL	A	221	-5.731	43.242	3.664	1.00	27.80	C
ATOM	1768	O	VAL	A	221	-4.733	42.591	4.001	1.00	28.40	O
ATOM	1769	CB	VAL	A	221	-5.202	44.905	1.746	1.00	30.25	C
ATOM	1770	CG1	VAL	A	221	-3.768	44.476	1.457	1.00	26.67	C
ATOM	1771	CG2	VAL	A	221	-6.111	44.142	0.799	1.00	33.28	C
ATOM	1772	N	LEU	A	222	-6.961	42.710	3.799	1.00	27.91	N
ATOM	1773	CA	LEU	A	222	-7.101	41.298	4.219	1.00	26.15	C
ATOM	1774	C	LEU	A	222	-7.369	40.527	2.931	1.00	26.47	C
ATOM	1775	O	LEU	A	222	-8.100	40.940	2.029	1.00	25.03	O
ATOM	1776	CB	LEU	A	222	-8.084	41.047	5.329	1.00	24.12	C
ATOM	1777	CG	LEU	A	222	-8.332	42.200	6.301	1.00	25.86	C
ATOM	1778	CD1	LEU	A	222	-9.423	41.843	7.301	1.00	28.52	C
ATOM	1779	CD2	LEU	A	222	-7.091	42.633	7.035	1.00	21.44	C
ATOM	1780	N	LEU	A	223	-6.714	39.377	2.810	1.00	24.93	N
ATOM	1781	CA	LEU	A	223	-6.638	38.598	1.595	1.00	24.38	C
ATOM	1782	C	LEU	A	223	-6.970	37.121	1.698	1.00	24.59	C

ATOM	1783	O	LEU	A	223	-6.154	36.237	1.418	1.00	23.43	O
ATOM	1784	CB	LEU	A	223	-5.168	38.783	1.118	1.00	22.74	C
ATOM	1785	CG	LEU	A	223	-4.632	40.191	0.842	1.00	20.16	C
ATOM	1786	CD1	LEU	A	223	-3.134	40.200	0.594	1.00	20.20	C
ATOM	1787	CD2	LEU	A	223	-5.311	40.794	-0.376	1.00	20.42	C
ATOM	1788	N	PRO	A	224	-8.217	36.800	2.049	1.00	22.37	N
ATOM	1789	CA	PRO	A	224	-8.671	35.428	2.167	1.00	18.41	C
ATOM	1790	C	PRO	A	224	-8.681	34.729	0.821	1.00	18.65	C
ATOM	1791	O	PRO	A	224	-9.058	35.287	-0.212	1.00	21.43	O
ATOM	1792	CB	PRO	A	224	-10.050	35.571	2.786	1.00	21.16	C
ATOM	1793	CG	PRO	A	224	-10.531	36.933	2.421	1.00	23.38	C
ATOM	1794	CD	PRO	A	224	-9.300	37.779	2.312	1.00	19.86	C
ATOM	1795	N	SER	A	225	-8.219	33.490	0.764	1.00	18.79	N
ATOM	1796	CA	SER	A	225	-8.142	32.722	-0.464	1.00	18.04	C
ATOM	1797	C	SER	A	225	-9.480	32.051	-0.669	1.00	17.68	C
ATOM	1798	O	SER	A	225	-10.041	31.502	0.282	1.00	23.88	O
ATOM	1799	CB	SER	A	225	-7.053	31.664	-0.423	1.00	18.23	C
ATOM	1800	OG	SER	A	225	-7.199	30.862	-1.591	1.00	23.30	O
ATOM	1801	N	VAL	A	226	-10.111	32.273	-1.808	1.00	17.52	N
ATOM	1802	CA	VAL	A	226	-11.465	31.733	-1.965	1.00	16.49	C
ATOM	1803	C	VAL	A	226	-11.525	30.817	-3.175	1.00	15.53	C
ATOM	1804	O	VAL	A	226	-12.521	30.826	-3.879	1.00	12.07	O
ATOM	1805	CB	VAL	A	226	-12.536	32.819	-2.035	1.00	16.07	C
ATOM	1806	CG1	VAL	A	226	-12.625	33.558	-0.703	1.00	10.85	C
ATOM	1807	CG2	VAL	A	226	-12.258	33.783	-3.190	1.00	13.76	C
ATOM	1808	N	TYR	A	227	-10.468	30.048	-3.352	1.00	14.57	N
ATOM	1809	CA	TYR	A	227	-10.375	29.103	-4.466	1.00	21.70	C
ATOM	1810	C	TYR	A	227	-11.510	28.110	-4.415	1.00	22.57	C
ATOM	1811	O	TYR	A	227	-11.726	27.686	-3.272	1.00	29.80	O
ATOM	1812	CB	TYR	A	227	-8.972	28.432	-4.440	1.00	17.99	C
ATOM	1813	CG	TYR	A	227	-7.826	29.433	-4.612	1.00	17.21	C
ATOM	1814	CD1	TYR	A	227	-8.094	30.766	-4.935	1.00	14.20	C
ATOM	1815	CD2	TYR	A	227	-6.496	29.070	-4.460	1.00	14.83	C
ATOM	1816	CE1	TYR	A	227	-7.115	31.705	-5.103	1.00	15.11	C
ATOM	1817	CE2	TYR	A	227	-5.475	30.004	-4.627	1.00	18.30	C
ATOM	1818	CZ	TYR	A	227	-5.789	31.307	-4.952	1.00	17.81	C
ATOM	1819	OH	TYR	A	227	-4.838	32.271	-5.144	1.00	12.51	O
ATOM	1820	N	LEU	A	228	-12.237	27.767	-5.481	1.00	25.36	N
ATOM	1821	CA	LEU	A	228	-13.280	26.748	-5.344	1.00	27.23	C
ATOM	1822	C	LEU	A	228	-12.826	25.308	-5.563	1.00	25.82	C
ATOM	1823	O	LEU	A	228	-11.823	25.002	-6.202	1.00	22.29	O
ATOM	1824	CB	LEU	A	228	-14.451	26.920	-6.323	1.00	22.35	C
ATOM	1825	CG	LEU	A	228	-14.903	28.361	-6.583	1.00	22.79	C
ATOM	1826	CD1	LEU	A	228	-15.883	28.416	-7.751	1.00	16.98	C
ATOM	1827	CD2	LEU	A	228	-15.450	28.975	-5.318	1.00	12.95	C
ATOM	1828	N	ARG	A	229	-13.658	24.380	-5.071	1.00	27.00	N
ATOM	1829	CA	ARG	A	229	-13.435	22.961	-5.376	1.00	28.28	C
ATOM	1830	C	ARG	A	229	-14.618	22.465	-6.207	1.00	26.47	C
ATOM	1831	O	ARG	A	229	-15.761	22.876	-6.091	1.00	28.52	O
ATOM	1832	CB	ARG	A	229	-13.192	22.047	-4.183	1.00	30.98	C

ATOM	1833	CG	ARG	A	229	-12.176	22.663	-3.225	1.00	34.81	C
ATOM	1834	CD	ARG	A	229	-11.710	21.715	-2.161	1.00	39.00	C
ATOM	1835	NE	ARG	A	229	-12.736	21.501	-1.157	1.00	41.76	N
ATOM	1836	CZ	ARG	A	229	-13.004	22.302	-0.144	1.00	42.91	C
ATOM	1837	NH1	ARG	A	229	-12.323	23.417	0.076	1.00	45.80	N
ATOM	1838	NH2	ARG	A	229	-13.987	21.916	0.658	1.00	44.04	N
ATOM	1839	N	TRP	A	230	-14.310	21.574	-7.126	1.00	29.08	N
ATOM	1840	CA	TRP	A	230	-15.294	21.001	-8.015	1.00	30.84	C
ATOM	1841	C	TRP	A	230	-16.142	20.044	-7.190	1.00	29.30	C
ATOM	1842	O	TRP	A	230	-17.365	20.037	-7.319	1.00	29.13	O
ATOM	1843	CB	TRP	A	230	-14.684	20.271	-9.244	1.00	29.30	C
ATOM	1844	CG	TRP	A	230	-15.806	20.226	-10.245	1.00	32.76	C
ATOM	1845	CD1	TRP	A	230	-16.183	21.229	-11.099	1.00	35.82	C
ATOM	1846	CD2	TRP	A	230	-16.781	19.193	-10.397	1.00	32.20	C
ATOM	1847	NE1	TRP	A	230	-17.322	20.871	-11.792	1.00	34.84	N
ATOM	1848	CE2	TRP	A	230	-17.698	19.622	-11.374	1.00	32.13	C
ATOM	1849	CE3	TRP	A	230	-16.967	17.964	-9.778	1.00	31.72	C
ATOM	1850	CZ2	TRP	A	230	-18.769	18.851	-11.788	1.00	35.37	C
ATOM	1851	CZ3	TRP	A	230	-18.058	17.211	-10.154	1.00	37.42	C
ATOM	1852	CH2	TRP	A	230	-18.927	17.628	-11.180	1.00	40.26	C
ATOM	1853	N	ASN	A	231	-15.506	19.291	-6.305	1.00	25.93	N
ATOM	1854	CA	ASN	A	231	-16.236	18.316	-5.513	1.00	33.16	C
ATOM	1855	C	ASN	A	231	-16.962	18.932	-4.360	1.00	32.46	C
ATOM	1856	O	ASN	A	231	-16.719	18.646	-3.184	1.00	39.19	O
ATOM	1857	CB	ASN	A	231	-15.296	17.175	-5.070	1.00	39.47	C
ATOM	1858	CG	ASN	A	231	-15.446	16.112	-6.167	1.00	50.81	C
ATOM	1859	OD1	ASN	A	231	-16.560	15.614	-6.402	1.00	52.47	O
ATOM	1860	ND2	ASN	A	231	-14.380	15.777	-6.883	1.00	52.59	N
ATOM	1861	N	LEU	A	232	-17.962	19.740	-4.613	1.00	26.93	N
ATOM	1862	CA	LEU	A	232	-18.807	20.477	-3.717	1.00	22.96	C
ATOM	1863	C	LEU	A	232	-20.114	20.769	-4.461	1.00	23.75	C
ATOM	1864	O	LEU	A	232	-20.066	20.873	-5.698	1.00	21.88	O
ATOM	1865	CB	LEU	A	232	-18.163	21.831	-3.357	1.00	21.00	C
ATOM	1866	CG	LEU	A	232	-16.992	21.928	-2.385	1.00	20.15	C
ATOM	1867	CD1	LEU	A	232	-16.500	23.343	-2.080	1.00	14.25	C
ATOM	1868	CD2	LEU	A	232	-17.344	21.234	-1.072	1.00	13.39	C
ATOM	1869	N	THR	A	233	-21.242	20.891	-3.772	1.00	21.84	N
ATOM	1870	CA	THR	A	233	-22.461	21.239	-4.522	1.00	20.53	C
ATOM	1871	C	THR	A	233	-22.330	22.709	-4.933	1.00	23.67	C
ATOM	1872	O	THR	A	233	-21.380	23.395	-4.515	1.00	23.85	O
ATOM	1873	CB	THR	A	233	-23.694	21.043	-3.645	1.00	20.73	C
ATOM	1874	OG1	THR	A	233	-23.642	22.025	-2.577	1.00	17.75	O
ATOM	1875	CG2	THR	A	233	-23.716	19.617	-3.101	1.00	14.71	C
ATOM	1876	N	SER	A	234	-23.254	23.226	-5.738	1.00	17.99	N
ATOM	1877	CA	SER	A	234	-23.223	24.623	-6.087	1.00	19.83	C
ATOM	1878	C	SER	A	234	-23.435	25.517	-4.879	1.00	21.51	C
ATOM	1879	O	SER	A	234	-22.768	26.548	-4.824	1.00	27.86	O
ATOM	1880	CB	SER	A	234	-24.268	24.995	-7.150	1.00	22.05	C
ATOM	1881	OG	SER	A	234	-23.871	24.259	-8.302	1.00	29.62	O
ATOM	1882	N	GLY	A	235	-24.354	25.185	-3.992	1.00	20.50	N

ATOM	1883	CA	GLY	A	235	-24.545	25.948	-2.765	1.00	19.84	C
ATOM	1884	C	GLY	A	235	-23.255	26.019	-1.963	1.00	21.56	C
ATOM	1885	O	GLY	A	235	-22.808	27.112	-1.597	1.00	21.46	O
ATOM	1886	N	GLU	A	236	-22.580	24.875	-1.808	1.00	21.31	N
ATOM	1887	CA	GLU	A	236	-21.358	24.843	-1.030	1.00	21.73	C
ATOM	1888	C	GLU	A	236	-20.265	25.719	-1.602	1.00	21.88	C
ATOM	1889	O	GLU	A	236	-19.561	26.323	-0.811	1.00	28.81	O
ATOM	1890	CB	GLU	A	236	-20.856	23.423	-0.869	1.00	22.42	C
ATOM	1891	CG	GLU	A	236	-21.754	22.596	0.018	1.00	21.34	C
ATOM	1892	CD	GLU	A	236	-21.321	21.158	-0.130	1.00	25.84	C
ATOM	1893	OE1	GLU	A	236	-21.526	20.605	0.945	1.00	33.08	O
ATOM	1894	OE2	GLU	A	236	-20.814	20.592	-1.097	1.00	31.81	O
ATOM	1895	N	ARG	A	237	-20.123	25.846	-2.904	1.00	23.40	N
ATOM	1896	CA	ARG	A	237	-19.190	26.715	-3.564	1.00	21.20	C
ATOM	1897	C	ARG	A	237	-19.456	28.183	-3.218	1.00	24.99	C
ATOM	1898	O	ARG	A	237	-18.498	28.942	-3.001	1.00	19.65	O
ATOM	1899	CB	ARG	A	237	-19.235	26.533	-5.083	1.00	18.80	C
ATOM	1900	CG	ARG	A	237	-18.559	25.284	-5.591	1.00	17.56	C
ATOM	1901	CD	ARG	A	237	-18.850	25.049	-7.070	1.00	19.08	C
ATOM	1902	NE	ARG	A	237	-18.599	23.676	-7.456	1.00	24.97	N
ATOM	1903	CZ	ARG	A	237	-18.849	23.068	-8.610	1.00	28.28	C
ATOM	1904	NH1	ARG	A	237	-19.373	23.720	-9.643	1.00	29.24	N
ATOM	1905	NH2	ARG	A	237	-18.532	21.786	-8.827	1.00	22.45	N
ATOM	1906	N	VAL	A	238	-20.745	28.559	-3.180	1.00	26.72	N
ATOM	1907	CA	VAL	A	238	-21.095	29.927	-2.791	1.00	29.65	C
ATOM	1908	C	VAL	A	238	-20.798	30.129	-1.307	1.00	28.95	C
ATOM	1909	O	VAL	A	238	-20.131	31.065	-0.890	1.00	33.06	O
ATOM	1910	CB	VAL	A	238	-22.561	30.276	-3.072	1.00	32.71	C
ATOM	1911	CG1	VAL	A	238	-22.963	31.613	-2.442	1.00	29.63	C
ATOM	1912	CG2	VAL	A	238	-22.831	30.327	-4.579	1.00	33.81	C
ATOM	1913	N	GLY	A	239	-21.104	29.157	-0.473	1.00	26.55	N
ATOM	1914	CA	GLY	A	239	-20.857	29.153	0.950	1.00	27.34	C
ATOM	1915	C	GLY	A	239	-19.370	29.158	1.293	1.00	27.43	C
ATOM	1916	O	GLY	A	239	-18.970	29.684	2.328	1.00	20.55	O
ATOM	1917	N	LEU	A	240	-18.557	28.556	0.414	1.00	26.59	N
ATOM	1918	CA	LEU	A	240	-17.120	28.540	0.605	1.00	23.45	C
ATOM	1919	C	LEU	A	240	-16.637	29.992	0.586	1.00	24.00	C
ATOM	1920	O	LEU	A	240	-15.961	30.466	1.489	1.00	20.71	O
ATOM	1921	CB	LEU	A	240	-16.422	27.700	-0.458	1.00	26.75	C
ATOM	1922	CG	LEU	A	240	-14.941	27.376	-0.167	1.00	30.90	C
ATOM	1923	CD1	LEU	A	240	-14.421	26.233	-1.023	1.00	29.11	C
ATOM	1924	CD2	LEU	A	240	-14.081	28.610	-0.427	1.00	30.11	C
ATOM	1925	N	VAL	A	241	-16.886	30.678	-0.531	1.00	22.40	N
ATOM	1926	CA	VAL	A	241	-16.552	32.085	-0.660	1.00	20.79	C
ATOM	1927	C	VAL	A	241	-17.192	32.946	0.425	1.00	24.97	C
ATOM	1928	O	VAL	A	241	-16.521	33.722	1.114	1.00	25.72	O
ATOM	1929	CB	VAL	A	241	-16.987	32.573	-2.054	1.00	20.10	C
ATOM	1930	CG1	VAL	A	241	-16.867	34.081	-2.193	1.00	14.48	C
ATOM	1931	CG2	VAL	A	241	-16.177	31.853	-3.134	1.00	16.84	C
ATOM	1932	N	GLY	A	242	-18.506	32.853	0.626	1.00	22.47	N

ATOM	1933	CA	GLY	A	242	-19.213	33.683	1.573	1.00	21.83	C
ATOM	1934	C	GLY	A	242	-18.680	33.659	2.988	1.00	24.42	C
ATOM	1935	O	GLY	A	242	-18.560	34.732	3.582	1.00	30.66	O
ATOM	1936	N	GLY	A	243	-18.446	32.507	3.596	1.00	20.49	N
ATOM	1937	CA	GLY	A	243	-17.976	32.371	4.949	1.00	19.38	C
ATOM	1938	C	GLY	A	243	-16.625	33.011	5.170	1.00	24.59	C
ATOM	1939	O	GLY	A	243	-16.321	33.616	6.193	1.00	28.70	O
ATOM	1940	N	ARG	A	244	-15.759	32.933	4.170	1.00	27.10	N
ATOM	1941	CA	ARG	A	244	-14.416	33.493	4.236	1.00	25.31	C
ATOM	1942	C	ARG	A	244	-14.370	35.006	4.133	1.00	23.00	C
ATOM	1943	O	ARG	A	244	-13.530	35.663	4.753	1.00	23.34	O
ATOM	1944	CB	ARG	A	244	-13.621	32.837	3.092	1.00	23.84	C
ATOM	1945	CG	ARG	A	244	-13.083	31.493	3.546	1.00	15.59	C
ATOM	1946	CD	ARG	A	244	-12.666	30.676	2.341	1.00	19.02	C
ATOM	1947	NE	ARG	A	244	-12.572	29.298	2.842	1.00	26.92	N
ATOM	1948	CZ	ARG	A	244	-11.696	28.416	2.371	1.00	21.57	C
ATOM	1949	NH1	ARG	A	244	-11.764	27.250	2.960	1.00	22.09	N
ATOM	1950	NH2	ARG	A	244	-10.872	28.792	1.427	1.00	20.11	N
ATOM	1951	N	VAL	A	245	-15.228	35.564	3.298	1.00	19.33	N
ATOM	1952	CA	VAL	A	245	-15.311	37.002	3.152	1.00	20.20	C
ATOM	1953	C	VAL	A	245	-16.057	37.613	4.325	1.00	20.96	C
ATOM	1954	O	VAL	A	245	-15.558	38.656	4.787	1.00	24.06	O
ATOM	1955	CB	VAL	A	245	-15.972	37.430	1.827	1.00	20.30	C
ATOM	1956	CG1	VAL	A	245	-15.962	38.957	1.752	1.00	16.04	C
ATOM	1957	CG2	VAL	A	245	-15.267	36.795	0.642	1.00	11.73	C
ATOM	1958	N	LYS	A	246	-17.091	36.973	4.882	1.00	19.69	N
ATOM	1959	CA	LYS	A	246	-17.714	37.614	6.049	1.00	26.32	C
ATOM	1960	C	LYS	A	246	-16.684	37.716	7.180	1.00	25.99	C
ATOM	1961	O	LYS	A	246	-16.617	38.709	7.893	1.00	30.45	O
ATOM	1962	CB	LYS	A	246	-18.950	36.955	6.648	1.00	34.24	C
ATOM	1963	CG	LYS	A	246	-19.875	36.171	5.774	1.00	43.97	C
ATOM	1964	CD	LYS	A	246	-21.316	36.148	6.263	1.00	52.36	C
ATOM	1965	CE	LYS	A	246	-22.283	35.907	5.097	1.00	55.74	C
ATOM	1966	NZ	LYS	A	246	-22.058	34.612	4.387	1.00	53.67	N
ATOM	1967	N	GLU	A	247	-15.943	36.636	7.417	1.00	22.42	N
ATOM	1968	CA	GLU	A	247	-14.935	36.614	8.455	1.00	24.66	C
ATOM	1969	C	GLU	A	247	-13.932	37.746	8.274	1.00	25.03	C
ATOM	1970	O	GLU	A	247	-13.661	38.466	9.246	1.00	21.89	O
ATOM	1971	CB	GLU	A	247	-14.318	35.219	8.464	1.00	25.20	C
ATOM	1972	CG	GLU	A	247	-13.217	34.939	9.453	1.00	22.27	C
ATOM	1973	CD	GLU	A	247	-13.517	35.242	10.888	1.00	22.57	C
ATOM	1974	OE1	GLU	A	247	-14.678	35.447	11.312	1.00	23.64	O
ATOM	1975	OE2	GLU	A	247	-12.563	35.320	11.696	1.00	24.20	O
ATOM	1976	N	ALA	A	248	-13.431	37.980	7.054	1.00	23.27	N
ATOM	1977	CA	ALA	A	248	-12.515	39.071	6.777	1.00	21.39	C
ATOM	1978	C	ALA	A	248	-13.184	40.399	7.140	1.00	23.00	C
ATOM	1979	O	ALA	A	248	-12.531	41.163	7.858	1.00	21.63	O
ATOM	1980	CB	ALA	A	248	-12.059	39.132	5.341	1.00	19.66	C
ATOM	1981	N	LEU	A	249	-14.427	40.590	6.694	1.00	21.25	N
ATOM	1982	CA	LEU	A	249	-15.227	41.762	6.998	1.00	16.60	C

ATOM	1983	C	LEU	A	249	-15.453	41.945	8.488	1.00	20.31	C
ATOM	1984	O	LEU	A	249	-15.374	43.050	9.038	1.00	24.51	O
ATOM	1985	CB	LEU	A	249	-16.591	41.725	6.285	1.00	15.26	C
ATOM	1986	CG	LEU	A	249	-16.558	41.899	4.744	1.00	16.64	C
ATOM	1987	CD1	LEU	A	249	-17.845	41.441	4.075	1.00	11.23	C
ATOM	1988	CD2	LEU	A	249	-16.259	43.344	4.386	1.00	10.64	C
ATOM	1989	N	ARG	A	250	-15.728	40.868	9.208	1.00	22.58	N
ATOM	1990	CA	ARG	A	250	-15.844	40.880	10.649	1.00	23.45	C
ATOM	1991	C	ARG	A	250	-14.624	41.529	11.305	1.00	27.11	C
ATOM	1992	O	ARG	A	250	-14.706	42.384	12.178	1.00	26.27	O
ATOM	1993	CB	ARG	A	250	-15.937	39.442	11.162	1.00	21.38	C
ATOM	1994	CG	ARG	A	250	-16.475	39.346	12.578	1.00	16.17	C
ATOM	1995	CD	ARG	A	250	-16.508	37.902	13.022	1.00	19.09	C
ATOM	1996	NE	ARG	A	250	-15.540	37.574	14.052	1.00	30.00	N
ATOM	1997	CZ	ARG	A	250	-14.260	37.346	13.894	1.00	36.76	C
ATOM	1998	NH1	ARG	A	250	-13.805	37.450	12.653	1.00	46.72	N
ATOM	1999	NH2	ARG	A	250	-13.386	37.034	14.825	1.00	36.71	N
ATOM	2000	N	ILE	A	251	-13.461	41.005	10.945	1.00	29.24	N
ATOM	2001	CA	ILE	A	251	-12.184	41.458	11.448	1.00	31.54	C
ATOM	2002	C	ILE	A	251	-11.955	42.901	11.021	1.00	34.01	C
ATOM	2003	O	ILE	A	251	-11.502	43.707	11.823	1.00	33.72	O
ATOM	2004	CB	ILE	A	251	-11.003	40.632	10.882	1.00	28.48	C
ATOM	2005	CG1	ILE	A	251	-11.243	39.140	10.982	1.00	25.80	C
ATOM	2006	CG2	ILE	A	251	-9.703	41.075	11.510	1.00	18.52	C
ATOM	2007	CD1	ILE	A	251	-11.027	38.352	12.211	1.00	24.51	C
ATOM	2008	N	ALA	A	252	-12.188	43.162	9.737	1.00	39.34	N
ATOM	2009	CA	ALA	A	252	-12.026	44.494	9.163	1.00	42.73	C
ATOM	2010	C	ALA	A	252	-12.825	45.603	9.836	1.00	42.98	C
ATOM	2011	O	ALA	A	252	-12.286	46.710	9.879	1.00	42.38	O
ATOM	2012	CB	ALA	A	252	-12.370	44.497	7.677	1.00	40.73	C
ATOM	2013	N	ARG	A	253	-14.019	45.363	10.352	1.00	44.37	N
ATOM	2014	CA	ARG	A	253	-14.793	46.390	11.015	1.00	49.80	C
ATOM	2015	C	ARG	A	253	-14.432	46.594	12.470	1.00	48.95	C
ATOM	2016	O	ARG	A	253	-14.920	47.544	13.080	1.00	51.68	O
ATOM	2017	CB	ARG	A	253	-16.291	46.091	10.856	1.00	61.04	C
ATOM	2018	CG	ARG	A	253	-16.718	46.385	9.419	1.00	71.31	C
ATOM	2019	CD	ARG	A	253	-17.733	45.365	8.945	1.00	80.98	C
ATOM	2020	NE	ARG	A	253	-18.151	45.623	7.561	1.00	89.44	N
ATOM	2021	CZ	ARG	A	253	-18.984	44.809	6.911	1.00	93.46	C
ATOM	2022	NH1	ARG	A	253	-19.448	43.718	7.519	1.00	95.70	N
ATOM	2023	NH2	ARG	A	253	-19.352	45.084	5.668	1.00	94.77	N
ATOM	2024	N	GLN	A	254	-13.596	45.769	13.069	1.00	46.27	N
ATOM	2025	CA	GLN	A	254	-13.129	45.931	14.426	1.00	41.89	C
ATOM	2026	C	GLN	A	254	-11.801	46.706	14.433	1.00	37.82	C
ATOM	2027	O	GLN	A	254	-11.314	47.028	15.514	1.00	35.82	O
ATOM	2028	CB	GLN	A	254	-12.850	44.604	15.110	1.00	45.89	C
ATOM	2029	CG	GLN	A	254	-14.059	43.860	15.634	1.00	54.10	C
ATOM	2030	CD	GLN	A	254	-13.702	42.420	15.983	1.00	58.02	C
ATOM	2031	OE1	GLN	A	254	-14.608	41.611	16.202	1.00	61.40	O
ATOM	2032	NE2	GLN	A	254	-12.414	42.087	16.021	1.00	60.01	N

ATOM	2033	N	MET	A	255	-11.130	46.775	13.279	1.00	32.35	N
ATOM	2034	CA	MET	A	255	-9.838	47.448	13.225	1.00	30.54	C
ATOM	2035	C	MET	A	255	-10.062	48.910	13.603	1.00	29.30	C
ATOM	2036	O	MET	A	255	-11.165	49.458	13.592	1.00	23.65	O
ATOM	2037	CB	MET	A	255	-9.064	47.178	11.946	1.00	32.52	C
ATOM	2038	CG	MET	A	255	-8.745	45.710	11.700	1.00	32.09	C
ATOM	2039	SD	MET	A	255	-7.860	44.845	12.994	1.00	24.11	S
ATOM	2040	CE	MET	A	255	-9.068	44.433	14.216	1.00	24.59	C
ATOM	2041	N	THR	A	256	-8.981	49.531	14.027	1.00	28.79	N
ATOM	2042	CA	THR	A	256	-8.984	50.841	14.684	1.00	29.62	C
ATOM	2043	C	THR	A	256	-7.959	51.840	14.237	1.00	30.76	C
ATOM	2044	O	THR	A	256	-8.116	53.046	14.402	1.00	31.35	O
ATOM	2045	CB	THR	A	256	-8.745	50.320	16.142	1.00	30.32	C
ATOM	2046	OG1	THR	A	256	-9.980	50.435	16.856	1.00	28.82	O
ATOM	2047	CG2	THR	A	256	-7.535	50.816	16.874	1.00	24.56	C
ATOM	2048	N	THR	A	257	-6.848	51.380	13.669	1.00	29.76	N
ATOM	2049	CA	THR	A	257	-5.795	52.229	13.175	1.00	28.36	C
ATOM	2050	C	THR	A	257	-6.187	52.848	11.838	1.00	27.57	C
ATOM	2051	O	THR	A	257	-5.754	53.981	11.618	1.00	25.91	O
ATOM	2052	CB	THR	A	257	-4.443	51.481	13.050	1.00	27.62	C
ATOM	2053	OG1	THR	A	257	-4.586	50.303	12.251	1.00	32.17	O
ATOM	2054	CG2	THR	A	257	-3.988	51.088	14.434	1.00	17.64	C
ATOM	2055	N	SER	A	258	-6.908	52.120	10.977	1.00	25.12	N
ATOM	2056	CA	SER	A	258	-7.305	52.725	9.709	1.00	24.26	C
ATOM	2057	C	SER	A	258	-8.365	51.912	8.986	1.00	26.14	C
ATOM	2058	O	SER	A	258	-8.801	50.914	9.524	1.00	26.30	O
ATOM	2059	CB	SER	A	258	-6.106	52.884	8.765	1.00	25.62	C
ATOM	2060	OG	SER	A	258	-5.748	51.657	8.143	1.00	18.69	O
ATOM	2061	N	ARG	A	259	-8.806	52.335	7.806	1.00	29.41	N
ATOM	2062	CA	ARG	A	259	-9.773	51.546	7.058	1.00	32.68	C
ATOM	2063	C	ARG	A	259	-8.976	50.331	6.569	1.00	31.73	C
ATOM	2064	O	ARG	A	259	-7.758	50.415	6.428	1.00	27.06	O
ATOM	2065	CB	ARG	A	259	-10.385	52.329	5.914	1.00	41.69	C
ATOM	2066	CG	ARG	A	259	-11.770	51.933	5.476	1.00	52.30	C
ATOM	2067	CD	ARG	A	259	-11.800	51.118	4.205	1.00	64.29	C
ATOM	2068	NE	ARG	A	259	-12.451	51.778	3.089	1.00	75.39	N
ATOM	2069	CZ	ARG	A	259	-12.106	52.960	2.587	1.00	83.95	C
ATOM	2070	NH1	ARG	A	259	-11.099	53.663	3.106	1.00	88.13	N
ATOM	2071	NH2	ARG	A	259	-12.754	53.497	1.553	1.00	85.34	N
ATOM	2072	N	LYS	A	260	-9.639	49.191	6.454	1.00	27.17	N
ATOM	2073	CA	LYS	A	260	-8.998	47.976	5.993	1.00	26.32	C
ATOM	2074	C	LYS	A	260	-9.743	47.526	4.742	1.00	27.33	C
ATOM	2075	O	LYS	A	260	-10.974	47.474	4.821	1.00	33.79	O
ATOM	2076	CB	LYS	A	260	-9.076	46.859	7.040	1.00	16.84	C
ATOM	2077	CG	LYS	A	260	-8.394	47.215	8.337	1.00	21.49	C
ATOM	2078	CD	LYS	A	260	-6.907	47.532	8.112	1.00	20.18	C
ATOM	2079	CE	LYS	A	260	-6.349	48.051	9.420	1.00	17.36	C
ATOM	2080	NZ	LYS	A	260	-5.130	48.871	9.291	1.00	18.92	N
ATOM	2081	N	LYS	A	261	-9.060	47.179	3.683	1.00	24.40	N
ATOM	2082	CA	LYS	A	261	-9.735	46.721	2.480	1.00	26.01	C

ATOM	2083	C	LYS	A	261	-9.786	45.199	2.452	1.00	25.78	C
ATOM	2084	O	LYS	A	261	-8.793	44.531	2.763	1.00	28.37	O
ATOM	2085	CB	LYS	A	261	-9.016	47.191	1.213	1.00	27.66	C
ATOM	2086	CG	LYS	A	261	-9.010	48.701	1.068	1.00	34.65	C
ATOM	2087	CD	LYS	A	261	-8.385	49.120	-0.253	1.00	39.53	C
ATOM	2088	CE	LYS	A	261	-8.735	50.579	-0.570	1.00	40.46	C
ATOM	2089	NZ	LYS	A	261	-7.511	51.172	-1.202	1.00	44.53	N
ATOM	2090	N	VAL	A	262	-10.945	44.686	2.078	1.00	22.09	N
ATOM	2091	CA	VAL	A	262	-11.086	43.236	1.914	1.00	23.65	C
ATOM	2092	C	VAL	A	262	-11.014	42.985	0.402	1.00	23.62	C
ATOM	2093	O	VAL	A	262	-11.867	43.496	-0.325	1.00	20.26	O
ATOM	2094	CB	VAL	A	262	-12.403	42.715	2.486	1.00	19.65	C
ATOM	2095	CG1	VAL	A	262	-12.455	41.200	2.465	1.00	17.50	C
ATOM	2096	CG2	VAL	A	262	-12.581	43.261	3.883	1.00	18.33	C
ATOM	2097	N	LEU	A	263	-10.008	42.244	-0.012	1.00	21.94	N
ATOM	2098	CA	LEU	A	263	-9.789	41.945	-1.423	1.00	21.48	C
ATOM	2099	C	LEU	A	263	-9.456	40.458	-1.514	1.00	21.73	C
ATOM	2100	O	LEU	A	263	-8.287	40.084	-1.397	1.00	25.46	O
ATOM	2101	CB	LEU	A	263	-8.590	42.734	-1.937	1.00	18.71	C
ATOM	2102	CG	LEU	A	263	-8.577	44.242	-2.126	1.00	19.35	C
ATOM	2103	CD1	LEU	A	263	-7.254	44.704	-2.770	1.00	14.18	C
ATOM	2104	CD2	LEU	A	263	-9.766	44.668	-2.978	1.00	13.37	C
ATOM	2105	N	PRO	A	264	-10.456	39.610	-1.617	1.00	16.61	N
ATOM	2106	CA	PRO	A	264	-10.231	38.182	-1.643	1.00	19.07	C
ATOM	2107	C	PRO	A	264	-9.510	37.710	-2.900	1.00	23.95	C
ATOM	2108	O	PRO	A	264	-9.612	38.304	-3.980	1.00	22.98	O
ATOM	2109	CB	PRO	A	264	-11.627	37.626	-1.475	1.00	21.20	C
ATOM	2110	CG	PRO	A	264	-12.613	38.684	-1.768	1.00	16.92	C
ATOM	2111	CD	PRO	A	264	-11.880	39.998	-1.683	1.00	18.40	C
ATOM	2112	N	TYR	A	265	-8.698	36.655	-2.754	1.00	22.59	N
ATOM	2113	CA	TYR	A	265	-7.907	36.061	-3.811	1.00	19.24	C
ATOM	2114	C	TYR	A	265	-8.750	35.010	-4.520	1.00	24.40	C
ATOM	2115	O	TYR	A	265	-9.307	34.091	-3.931	1.00	26.94	O
ATOM	2116	CB	TYR	A	265	-6.587	35.488	-3.298	1.00	22.15	C
ATOM	2117	CG	TYR	A	265	-5.354	36.256	-3.716	1.00	21.58	C
ATOM	2118	CD1	TYR	A	265	-4.986	37.441	-3.082	1.00	22.49	C
ATOM	2119	CD2	TYR	A	265	-4.546	35.795	-4.747	1.00	20.71	C
ATOM	2120	CE1	TYR	A	265	-3.859	38.146	-3.476	1.00	20.81	C
ATOM	2121	CE2	TYR	A	265	-3.451	36.509	-5.196	1.00	20.46	C
ATOM	2122	CZ	TYR	A	265	-3.120	37.696	-4.552	1.00	22.04	C
ATOM	2123	OH	TYR	A	265	-2.058	38.439	-5.010	1.00	19.10	O
ATOM	2124	N	TYR	A	266	-8.974	35.217	-5.811	1.00	25.08	N
ATOM	2125	CA	TYR	A	266	-9.861	34.392	-6.617	1.00	22.15	C
ATOM	2126	C	TYR	A	266	-9.060	33.739	-7.731	1.00	22.64	C
ATOM	2127	O	TYR	A	266	-8.143	34.358	-8.293	1.00	26.34	O
ATOM	2128	CB	TYR	A	266	-10.965	35.317	-7.131	1.00	27.01	C
ATOM	2129	CG	TYR	A	266	-12.197	34.702	-7.748	1.00	28.69	C
ATOM	2130	CD1	TYR	A	266	-13.329	34.434	-6.984	1.00	28.37	C
ATOM	2131	CD2	TYR	A	266	-12.213	34.345	-9.092	1.00	27.53	C
ATOM	2132	CE1	TYR	A	266	-14.446	33.841	-7.537	1.00	27.81	C

ATOM	2133	CE2	TYR	A	266	-13.330	33.767	-9.664	1.00	29.29	C
ATOM	2134	CZ	TYR	A	266	-14.440	33.519	-8.874	1.00	30.84	C
ATOM	2135	OH	TYR	A	266	-15.556	32.955	-9.434	1.00	30.44	O
ATOM	2136	N	TRP	A	267	-9.282	32.467	-7.967	1.00	18.35	N
ATOM	2137	CA	TRP	A	267	-8.665	31.655	-8.973	1.00	20.83	C
ATOM	2138	C	TRP	A	267	-9.755	31.175	-9.955	1.00	27.33	C
ATOM	2139	O	TRP	A	267	-10.861	30.788	-9.560	1.00	21.84	O
ATOM	2140	CB	TRP	A	267	-7.951	30.429	-8.390	1.00	22.39	C
ATOM	2141	CG	TRP	A	267	-6.998	29.710	-9.312	1.00	24.68	C
ATOM	2142	CD1	TRP	A	267	-6.518	30.172	-10.522	1.00	20.14	C
ATOM	2143	CD2	TRP	A	267	-6.351	28.456	-9.083	1.00	23.66	C
ATOM	2144	NE1	TRP	A	267	-5.638	29.272	-11.049	1.00	21.28	N
ATOM	2145	CE2	TRP	A	267	-5.500	28.212	-10.192	1.00	23.46	C
ATOM	2146	CE3	TRP	A	267	-6.397	27.508	-8.057	1.00	27.04	C
ATOM	2147	CZ2	TRP	A	267	-4.720	27.061	-10.316	1.00	22.40	C
ATOM	2148	CZ3	TRP	A	267	-5.629	26.356	-8.161	1.00	30.18	C
ATOM	2149	CH2	TRP	A	267	-4.796	26.139	-9.301	1.00	30.31	C
ATOM	2150	N	TYR	A	268	-9.406	31.153	-11.248	1.00	27.78	N
ATOM	2151	CA	TYR	A	268	-10.303	30.685	-12.278	1.00	26.68	C
ATOM	2152	C	TYR	A	268	-10.204	29.189	-12.525	1.00	26.25	C
ATOM	2153	O	TYR	A	268	-10.894	28.735	-13.450	1.00	28.75	O
ATOM	2154	CB	TYR	A	268	-10.087	31.454	-13.604	1.00	28.67	C
ATOM	2155	CG	TYR	A	268	-8.698	31.207	-14.143	1.00	24.90	C
ATOM	2156	CD1	TYR	A	268	-8.484	30.153	-15.023	1.00	24.00	C
ATOM	2157	CD2	TYR	A	268	-7.625	31.974	-13.698	1.00	21.70	C
ATOM	2158	CE1	TYR	A	268	-7.195	29.896	-15.470	1.00	24.05	C
ATOM	2159	CE2	TYR	A	268	-6.347	31.714	-14.155	1.00	19.86	C
ATOM	2160	CZ	TYR	A	268	-6.141	30.678	-15.039	1.00	20.54	C
ATOM	2161	OH	TYR	A	268	-4.883	30.383	-15.492	1.00	19.88	O
ATOM	2162	N	LYS	A	269	-9.442	28.403	-11.781	1.00	24.43	N
ATOM	2163	CA	LYS	A	269	-9.484	26.948	-11.950	1.00	24.16	C
ATOM	2164	C	LYS	A	269	-10.079	26.339	-10.663	1.00	24.41	C
ATOM	2165	O	LYS	A	269	-10.053	26.985	-9.620	1.00	25.95	O
ATOM	2166	CB	LYS	A	269	-8.165	26.256	-12.154	1.00	22.09	C
ATOM	2167	CG	LYS	A	269	-7.170	26.627	-13.206	1.00	25.32	C
ATOM	2168	CD	LYS	A	269	-7.620	26.189	-14.578	1.00	33.50	C
ATOM	2169	CE	LYS	A	269	-6.496	26.126	-15.595	1.00	32.82	C
ATOM	2170	NZ	LYS	A	269	-7.019	25.569	-16.884	1.00	38.43	N
ATOM	2171	N	TYR	A	270	-10.688	25.174	-10.766	1.00	23.34	N
ATOM	2172	CA	TYR	A	270	-11.141	24.404	-9.625	1.00	22.22	C
ATOM	2173	C	TYR	A	270	-9.858	23.811	-9.047	1.00	25.91	C
ATOM	2174	O	TYR	A	270	-9.064	23.176	-9.727	1.00	31.12	O
ATOM	2175	CB	TYR	A	270	-12.130	23.296	-9.970	1.00	20.69	C
ATOM	2176	CG	TYR	A	270	-13.397	23.847	-10.579	1.00	23.17	C
ATOM	2177	CD1	TYR	A	270	-13.603	23.888	-11.966	1.00	16.29	C
ATOM	2178	CD2	TYR	A	270	-14.389	24.336	-9.718	1.00	22.35	C
ATOM	2179	CE1	TYR	A	270	-14.781	24.414	-12.459	1.00	15.26	C
ATOM	2180	CE2	TYR	A	270	-15.575	24.860	-10.224	1.00	17.96	C
ATOM	2181	CZ	TYR	A	270	-15.745	24.895	-11.591	1.00	19.52	C
ATOM	2182	OH	TYR	A	270	-16.927	25.424	-12.068	1.00	24.32	O

ATOM	2183	N	GLN	A	271	-9.613	24.012	-7.780	1.00	28.98	N
ATOM	2184	CA	GLN	A	271	-8.412	23.540	-7.102	1.00	30.96	C
ATOM	2185	C	GLN	A	271	-8.149	22.060	-7.135	1.00	29.56	C
ATOM	2186	O	GLN	A	271	-6.999	21.618	-7.246	1.00	30.52	O
ATOM	2187	CB	GLN	A	271	-8.563	24.099	-5.695	1.00	36.08	C
ATOM	2188	CG	GLN	A	271	-7.420	23.741	-4.779	1.00	42.97	C
ATOM	2189	CD	GLN	A	271	-7.581	24.597	-3.532	1.00	44.53	C
ATOM	2190	OE1	GLN	A	271	-6.590	25.240	-3.195	1.00	50.44	O
ATOM	2191	NE2	GLN	A	271	-8.786	24.571	-2.986	1.00	45.20	N
ATOM	2192	N	ASP	A	272	-9.162	21.221	-7.076	1.00	31.29	N
ATOM	2193	CA	ASP	A	272	-9.093	19.773	-7.117	1.00	28.29	C
ATOM	2194	C	ASP	A	272	-9.299	19.228	-8.519	1.00	26.98	C
ATOM	2195	O	ASP	A	272	-9.788	18.121	-8.674	1.00	29.15	O
ATOM	2196	CB	ASP	A	272	-10.194	19.125	-6.270	1.00	30.12	C
ATOM	2197	CG	ASP	A	272	-11.553	19.756	-6.496	1.00	35.97	C
ATOM	2198	OD1	ASP	A	272	-12.533	19.177	-5.969	1.00	42.29	O
ATOM	2199	OD2	ASP	A	272	-11.719	20.813	-7.140	1.00	31.96	O
ATOM	2200	N	ARG	A	273	-9.136	20.064	-9.519	1.00	33.04	N
ATOM	2201	CA	ARG	A	273	-9.490	19.712	-10.887	1.00	35.43	C
ATOM	2202	C	ARG	A	273	-9.053	20.827	-11.828	1.00	39.94	C
ATOM	2203	O	ARG	A	273	-9.797	21.425	-12.593	1.00	39.43	O
ATOM	2204	CB	ARG	A	273	-10.982	19.525	-10.872	1.00	33.68	C
ATOM	2205	CG	ARG	A	273	-11.521	18.343	-11.623	1.00	40.55	C
ATOM	2206	CD	ARG	A	273	-12.878	18.750	-12.213	1.00	47.63	C
ATOM	2207	NE	ARG	A	273	-13.140	17.988	-13.412	1.00	54.14	N
ATOM	2208	CZ	ARG	A	273	-14.287	17.872	-14.052	1.00	59.24	C
ATOM	2209	NH1	ARG	A	273	-14.289	17.114	-15.146	1.00	60.54	N
ATOM	2210	NH2	ARG	A	273	-15.373	18.489	-13.613	1.00	61.43	N
ATOM	2211	N	ARG	A	274	-7.752	21.118	-11.771	1.00	43.31	N
ATOM	2212	CA	ARG	A	274	-7.103	22.152	-12.551	1.00	47.82	C
ATOM	2213	C	ARG	A	274	-7.297	22.173	-14.049	1.00	46.48	C
ATOM	2214	O	ARG	A	274	-7.184	23.252	-14.636	1.00	49.93	O
ATOM	2215	CB	ARG	A	274	-5.587	22.092	-12.272	1.00	48.05	C
ATOM	2216	CG	ARG	A	274	-5.350	22.323	-10.779	1.00	49.38	C
ATOM	2217	CD	ARG	A	274	-3.873	22.587	-10.594	1.00	53.17	C
ATOM	2218	NE	ARG	A	274	-3.381	23.763	-11.338	1.00	49.78	N
ATOM	2219	CZ	ARG	A	274	-2.219	24.297	-10.948	1.00	46.80	C
ATOM	2220	NH1	ARG	A	274	-1.738	25.359	-11.572	1.00	48.72	N
ATOM	2221	NH2	ARG	A	274	-1.572	23.747	-9.928	1.00	43.75	N
ATOM	2222	N	ASP	A	275	-7.610	21.098	-14.725	1.00	43.96	N
ATOM	2223	CA	ASP	A	275	-7.906	21.068	-16.141	1.00	47.56	C
ATOM	2224	C	ASP	A	275	-9.186	21.837	-16.464	1.00	45.01	C
ATOM	2225	O	ASP	A	275	-9.357	22.307	-17.585	1.00	45.51	O
ATOM	2226	CB	ASP	A	275	-8.100	19.606	-16.598	1.00	53.86	C
ATOM	2227	CG	ASP	A	275	-9.021	18.876	-15.631	1.00	60.38	C
ATOM	2228	OD1	ASP	A	275	-8.602	18.512	-14.505	1.00	63.02	O
ATOM	2229	OD2	ASP	A	275	-10.200	18.676	-15.981	1.00	64.90	O
ATOM	2230	N	THR	A	276	-10.091	21.943	-15.505	1.00	38.89	N
ATOM	2231	CA	THR	A	276	-11.346	22.633	-15.651	1.00	33.73	C
ATOM	2232	C	THR	A	276	-11.324	24.075	-15.176	1.00	33.21	C

ATOM	2233	O	THR	A	276	-10.936	24.391	-14.052	1.00	33.60	O
ATOM	2234	CB	THR	A	276	-12.436	21.856	-14.872	1.00	31.26	C
ATOM	2235	OG1	THR	A	276	-12.436	20.529	-15.397	1.00	36.64	O
ATOM	2236	CG2	THR	A	276	-13.814	22.416	-15.115	1.00	20.13	C
ATOM	2237	N	ASP	A	277	-11.846	24.960	-16.032	1.00	32.01	N
ATOM	2238	CA	ASP	A	277	-11.952	26.374	-15.669	1.00	26.74	C
ATOM	2239	C	ASP	A	277	-13.300	26.542	-14.986	1.00	31.08	C
ATOM	2240	O	ASP	A	277	-14.190	25.692	-15.147	1.00	31.14	O
ATOM	2241	CB	ASP	A	277	-11.770	27.272	-16.872	1.00	26.27	C
ATOM	2242	CG	ASP	A	277	-10.429	27.127	-17.564	1.00	27.39	C
ATOM	2243	OD1	ASP	A	277	-9.365	27.193	-16.917	1.00	30.83	O
ATOM	2244	OD2	ASP	A	277	-10.356	26.935	-18.794	1.00	31.46	O
ATOM	2245	N	LEU	A	278	-13.450	27.580	-14.162	1.00	31.48	N
ATOM	2246	CA	LEU	A	278	-14.725	27.751	-13.474	1.00	28.09	C
ATOM	2247	C	LEU	A	278	-15.832	27.875	-14.513	1.00	28.89	C
ATOM	2248	O	LEU	A	278	-15.698	28.453	-15.577	1.00	27.58	O
ATOM	2249	CB	LEU	A	278	-14.712	28.981	-12.585	1.00	30.82	C
ATOM	2250	CG	LEU	A	278	-14.435	28.838	-11.089	1.00	29.35	C
ATOM	2251	CD1	LEU	A	278	-13.407	27.771	-10.767	1.00	24.81	C
ATOM	2252	CD2	LEU	A	278	-14.013	30.183	-10.508	1.00	28.28	C
ATOM	2253	N	SER	A	279	-16.968	27.291	-14.199	1.00	29.26	N
ATOM	2254	CA	SER	A	279	-18.155	27.378	-15.034	1.00	26.10	C
ATOM	2255	C	SER	A	279	-18.663	28.810	-15.012	1.00	25.35	C
ATOM	2256	O	SER	A	279	-18.392	29.527	-14.036	1.00	26.03	O
ATOM	2257	CB	SER	A	279	-19.113	26.346	-14.430	1.00	22.04	C
ATOM	2258	OG	SER	A	279	-19.886	26.873	-13.373	1.00	25.25	O
ATOM	2259	N	ARG	A	280	-19.430	29.263	-15.997	1.00	24.48	N
ATOM	2260	CA	ARG	A	280	-20.028	30.597	-15.961	1.00	25.26	C
ATOM	2261	C	ARG	A	280	-21.060	30.700	-14.830	1.00	22.13	C
ATOM	2262	O	ARG	A	280	-21.162	31.721	-14.129	1.00	18.07	O
ATOM	2263	CB	ARG	A	280	-20.634	30.958	-17.316	1.00	25.83	C
ATOM	2264	CG	ARG	A	280	-21.783	31.939	-17.258	1.00	29.42	C
ATOM	2265	CD	ARG	A	280	-22.212	32.495	-18.596	1.00	34.66	C
ATOM	2266	NE	ARG	A	280	-22.444	33.897	-18.918	0.00	80.00	N
ATOM	2267	CZ	ARG	A	280	-23.184	34.319	-19.938	0.00	80.00	C
ATOM	2268	NH1	ARG	A	280	-23.553	33.466	-20.885	0.00	80.00	N
ATOM	2269	NH2	ARG	A	280	-23.554	35.590	-20.009	0.00	80.00	N
ATOM	2270	N	ALA	A	281	-21.801	29.621	-14.587	1.00	18.74	N
ATOM	2271	CA	ALA	A	281	-22.706	29.599	-13.438	1.00	23.15	C
ATOM	2272	C	ALA	A	281	-21.906	29.848	-12.156	1.00	25.17	C
ATOM	2273	O	ALA	A	281	-22.343	30.724	-11.420	1.00	23.74	O
ATOM	2274	CB	ALA	A	281	-23.483	28.314	-13.293	1.00	22.16	C
ATOM	2275	N	ASP	A	282	-20.806	29.124	-11.912	1.00	24.30	N
ATOM	2276	CA	ASP	A	282	-20.025	29.373	-10.722	1.00	27.45	C
ATOM	2277	C	ASP	A	282	-19.437	30.787	-10.676	1.00	26.23	C
ATOM	2278	O	ASP	A	282	-19.327	31.300	-9.556	1.00	28.77	O
ATOM	2279	CB	ASP	A	282	-18.853	28.420	-10.473	1.00	28.02	C
ATOM	2280	CG	ASP	A	282	-19.276	27.068	-9.957	1.00	27.73	C
ATOM	2281	OD1	ASP	A	282	-20.375	26.989	-9.364	1.00	28.15	O
ATOM	2282	OD2	ASP	A	282	-18.499	26.110	-10.180	1.00	29.59	O

ATOM	2283	N	LEU	A	283	-19.027	31.383	-11.768	1.00	26.60	N
ATOM	2284	CA	LEU	A	283	-18.446	32.720	-11.771	1.00	27.30	C
ATOM	2285	C	LEU	A	283	-19.430	33.778	-11.297	1.00	30.67	C
ATOM	2286	O	LEU	A	283	-19.153	34.648	-10.465	1.00	33.31	O
ATOM	2287	CB	LEU	A	283	-18.007	33.085	-13.190	1.00	30.16	C
ATOM	2288	CG	LEU	A	283	-16.662	32.526	-13.669	1.00	31.93	C
ATOM	2289	CD1	LEU	A	283	-16.461	32.853	-15.146	1.00	26.40	C
ATOM	2290	CD2	LEU	A	283	-15.551	33.105	-12.790	1.00	29.81	C
ATOM	2291	N	GLU	A	284	-20.652	33.718	-11.818	1.00	31.35	N
ATOM	2292	CA	GLU	A	284	-21.667	34.694	-11.481	1.00	29.95	C
ATOM	2293	C	GLU	A	284	-22.142	34.577	-10.055	1.00	28.04	C
ATOM	2294	O	GLU	A	284	-22.370	35.620	-9.450	1.00	26.96	O
ATOM	2295	CB	GLU	A	284	-22.858	34.591	-12.445	1.00	33.69	C
ATOM	2296	CG	GLU	A	284	-22.339	34.638	-13.870	1.00	44.97	C
ATOM	2297	CD	GLU	A	284	-23.410	34.885	-14.909	1.00	51.72	C
ATOM	2298	OE1	GLU	A	284	-24.568	34.471	-14.675	1.00	57.53	O
ATOM	2299	OE2	GLU	A	284	-23.034	35.471	-15.950	1.00	51.85	O
ATOM	2300	N	ALA	A	285	-22.356	33.364	-9.546	1.00	30.16	N
ATOM	2301	CA	ALA	A	285	-22.898	33.252	-8.187	1.00	27.61	C
ATOM	2302	C	ALA	A	285	-21.821	33.657	-7.178	1.00	24.70	C
ATOM	2303	O	ALA	A	285	-22.140	34.418	-6.273	1.00	22.50	O
ATOM	2304	CB	ALA	A	285	-23.470	31.888	-7.912	1.00	22.30	C
ATOM	2305	N	THR	A	286	-20.588	33.198	-7.382	1.00	22.10	N
ATOM	2306	CA	THR	A	286	-19.533	33.537	-6.432	1.00	23.99	C
ATOM	2307	C	THR	A	286	-19.101	34.999	-6.520	1.00	25.68	C
ATOM	2308	O	THR	A	286	-19.128	35.635	-5.445	1.00	22.29	O
ATOM	2309	CB	THR	A	286	-18.352	32.551	-6.477	1.00	21.25	C
ATOM	2310	OG1	THR	A	286	-17.688	32.652	-7.732	1.00	17.07	O
ATOM	2311	CG2	THR	A	286	-18.841	31.109	-6.311	1.00	21.68	C
ATOM	2312	N	LEU	A	287	-19.014	35.628	-7.698	1.00	24.11	N
ATOM	2313	CA	LEU	A	287	-18.678	37.043	-7.775	1.00	23.20	C
ATOM	2314	C	LEU	A	287	-19.791	37.941	-7.227	1.00	22.79	C
ATOM	2315	O	LEU	A	287	-19.515	39.022	-6.679	1.00	19.52	O
ATOM	2316	CB	LEU	A	287	-18.294	37.535	-9.164	1.00	22.46	C
ATOM	2317	CG	LEU	A	287	-17.125	36.873	-9.885	1.00	26.76	C
ATOM	2318	CD1	LEU	A	287	-16.839	37.576	-11.204	1.00	29.48	C
ATOM	2319	CD2	LEU	A	287	-15.848	36.801	-9.071	1.00	29.74	C
ATOM	2320	N	ARG	A	288	-21.020	37.476	-7.276	1.00	23.29	N
ATOM	2321	CA	ARG	A	288	-22.182	38.214	-6.766	1.00	32.62	C
ATOM	2322	C	ARG	A	288	-22.165	38.170	-5.242	1.00	31.40	C
ATOM	2323	O	ARG	A	288	-22.581	39.078	-4.545	1.00	32.10	O
ATOM	2324	CB	ARG	A	288	-23.414	37.577	-7.350	1.00	37.97	C
ATOM	2325	CG	ARG	A	288	-24.819	38.084	-7.246	1.00	44.25	C
ATOM	2326	CD	ARG	A	288	-25.686	37.276	-8.222	1.00	53.55	C
ATOM	2327	NE	ARG	A	288	-25.963	37.956	-9.476	1.00	59.96	N
ATOM	2328	CZ	ARG	A	288	-26.012	37.453	-10.699	1.00	63.05	C
ATOM	2329	NH1	ARG	A	288	-25.730	36.180	-10.956	1.00	63.51	N
ATOM	2330	NH2	ARG	A	288	-26.313	38.252	-11.721	1.00	64.16	N
ATOM	2331	N	LYS	A	289	-21.639	37.082	-4.698	1.00	32.01	N
ATOM	2332	CA	LYS	A	289	-21.514	36.862	-3.267	1.00	31.76	C

ATOM	2333	C	LYS	A	289	-20.478	37.819	-2.666	1.00	31.54	C
ATOM	2334	O	LYS	A	289	-20.734	38.472	-1.646	1.00	24.58	O
ATOM	2335	CB	LYS	A	289	-21.122	35.424	-3.002	1.00	30.35	C
ATOM	2336	CG	LYS	A	289	-21.042	34.909	-1.610	1.00	30.22	C
ATOM	2337	CD	LYS	A	289	-22.051	35.348	-0.595	1.00	32.36	C
ATOM	2338	CE	LYS	A	289	-23.488	35.497	-1.007	1.00	33.16	C
ATOM	2339	NZ	LYS	A	289	-24.337	35.955	0.150	1.00	36.24	N
ATOM	2340	N	ILE	A	290	-19.385	37.954	-3.436	1.00	27.28	N
ATOM	2341	CA	ILE	A	290	-18.324	38.856	-3.011	1.00	30.02	C
ATOM	2342	C	ILE	A	290	-18.844	40.285	-2.978	1.00	32.38	C
ATOM	2343	O	ILE	A	290	-18.743	41.033	-2.013	1.00	32.66	O
ATOM	2344	CB	ILE	A	290	-17.107	38.685	-3.927	1.00	30.01	C
ATOM	2345	CG1	ILE	A	290	-16.413	37.342	-3.636	1.00	28.53	C
ATOM	2346	CG2	ILE	A	290	-16.128	39.835	-3.754	1.00	28.77	C
ATOM	2347	CD1	ILE	A	290	-15.260	37.066	-4.605	1.00	24.81	C
ATOM	2348	N	THR	A	291	-19.467	40.688	-4.074	1.00	34.89	N
ATOM	2349	CA	THR	A	291	-20.058	41.999	-4.269	1.00	32.88	C
ATOM	2350	C	THR	A	291	-21.188	42.286	-3.308	1.00	29.85	C
ATOM	2351	O	THR	A	291	-21.143	43.301	-2.633	1.00	27.07	O
ATOM	2352	CB	THR	A	291	-20.535	42.088	-5.734	1.00	35.94	C
ATOM	2353	OG1	THR	A	291	-19.372	42.324	-6.550	1.00	37.73	O
ATOM	2354	CG2	THR	A	291	-21.566	43.161	-5.932	1.00	35.25	C
ATOM	2355	N	ASP	A	292	-22.165	41.417	-3.102	1.00	32.61	N
ATOM	2356	CA	ASP	A	292	-23.240	41.661	-2.161	1.00	32.32	C
ATOM	2357	C	ASP	A	292	-22.694	41.716	-0.744	1.00	36.15	C
ATOM	2358	O	ASP	A	292	-23.268	42.426	0.069	1.00	36.98	O
ATOM	2359	CB	ASP	A	292	-24.328	40.599	-2.190	1.00	37.89	C
ATOM	2360	CG	ASP	A	292	-25.069	40.333	-3.472	1.00	41.39	C
ATOM	2361	OD1	ASP	A	292	-25.059	41.155	-4.425	1.00	46.02	O
ATOM	2362	OD2	ASP	A	292	-25.719	39.266	-3.558	1.00	39.20	O
ATOM	2363	N	LEU	A	293	-21.621	40.993	-0.388	1.00	35.69	N
ATOM	2364	CA	LEU	A	293	-21.136	41.051	0.986	1.00	30.63	C
ATOM	2365	C	LEU	A	293	-20.495	42.380	1.330	1.00	28.81	C
ATOM	2366	O	LEU	A	293	-20.344	42.646	2.531	1.00	31.14	O
ATOM	2367	CB	LEU	A	293	-20.197	39.895	1.336	1.00	31.78	C
ATOM	2368	CG	LEU	A	293	-20.854	38.582	1.771	1.00	29.94	C
ATOM	2369	CD1	LEU	A	293	-19.899	37.413	1.735	1.00	30.19	C
ATOM	2370	CD2	LEU	A	293	-21.438	38.735	3.167	1.00	28.51	C
ATOM	2371	N	GLY	A	294	-20.094	43.164	0.351	1.00	27.05	N
ATOM	2372	CA	GLY	A	294	-19.539	44.488	0.560	1.00	27.29	C
ATOM	2373	C	GLY	A	294	-18.024	44.563	0.591	1.00	26.53	C
ATOM	2374	O	GLY	A	294	-17.467	45.445	1.242	1.00	26.36	O
ATOM	2375	N	ALA	A	295	-17.323	43.658	-0.093	1.00	24.21	N
ATOM	2376	CA	ALA	A	295	-15.869	43.703	-0.120	1.00	20.42	C
ATOM	2377	C	ALA	A	295	-15.471	44.875	-1.024	1.00	23.56	C
ATOM	2378	O	ALA	A	295	-16.309	45.388	-1.747	1.00	25.96	O
ATOM	2379	CB	ALA	A	295	-15.296	42.412	-0.653	1.00	19.80	C
ATOM	2380	N	ASP	A	296	-14.201	45.233	-1.088	1.00	22.72	N
ATOM	2381	CA	ASP	A	296	-13.725	46.332	-1.892	1.00	23.68	C
ATOM	2382	C	ASP	A	296	-13.336	45.945	-3.297	1.00	26.51	C

ATOM	2383	O	ASP	A	296	-12.946	46.832	-4.060	1.00	26.37	O
ATOM	2384	CB	ASP	A	296	-12.537	46.986	-1.144	1.00	25.75	C
ATOM	2385	CG	ASP	A	296	-13.053	47.335	0.256	1.00	26.03	C
ATOM	2386	OD1	ASP	A	296	-13.883	48.272	0.322	1.00	31.31	O
ATOM	2387	OD2	ASP	A	296	-12.684	46.689	1.243	1.00	21.78	O
ATOM	2388	N	GLY	A	297	-13.537	44.683	-3.666	1.00	27.55	N
ATOM	2389	CA	GLY	A	297	-13.116	44.186	-4.977	1.00	27.02	C
ATOM	2390	C	GLY	A	297	-12.537	42.793	-4.793	1.00	26.72	C
ATOM	2391	O	GLY	A	297	-12.812	42.181	-3.758	1.00	29.55	O
ATOM	2392	N	PHE	A	298	-11.752	42.299	-5.740	1.00	27.34	N
ATOM	2393	CA	PHE	A	298	-11.131	40.976	-5.604	1.00	23.96	C
ATOM	2394	C	PHE	A	298	-9.883	40.929	-6.470	1.00	22.83	C
ATOM	2395	O	PHE	A	298	-9.596	41.857	-7.217	1.00	21.27	O
ATOM	2396	CB	PHE	A	298	-12.063	39.797	-5.861	1.00	23.10	C
ATOM	2397	CG	PHE	A	298	-12.699	39.750	-7.214	1.00	23.57	C
ATOM	2398	CD1	PHE	A	298	-12.221	38.924	-8.205	1.00	26.58	C
ATOM	2399	CD2	PHE	A	298	-13.791	40.540	-7.515	1.00	27.49	C
ATOM	2400	CE1	PHE	A	298	-12.780	38.867	-9.463	1.00	24.62	C
ATOM	2401	CE2	PHE	A	298	-14.369	40.508	-8.761	1.00	29.23	C
ATOM	2402	CZ	PHE	A	298	-13.859	39.676	-9.736	1.00	27.60	C
ATOM	2403	N	ILE	A	299	-9.081	39.874	-6.304	1.00	25.00	N
ATOM	2404	CA	ILE	A	299	-7.830	39.708	-7.043	1.00	19.25	C
ATOM	2405	C	ILE	A	299	-7.859	38.381	-7.777	1.00	19.29	C
ATOM	2406	O	ILE	A	299	-7.918	37.296	-7.174	1.00	20.28	O
ATOM	2407	CB	ILE	A	299	-6.618	39.767	-6.080	1.00	19.31	C
ATOM	2408	CG1	ILE	A	299	-6.463	41.161	-5.452	1.00	19.44	C
ATOM	2409	CG2	ILE	A	299	-5.331	39.392	-6.783	1.00	14.11	C
ATOM	2410	CD1	ILE	A	299	-5.745	41.265	-4.139	1.00	15.56	C
ATOM	2411	N	ILE	A	300	-7.735	38.422	-9.094	1.00	18.66	N
ATOM	2412	CA	ILE	A	300	-7.677	37.222	-9.913	1.00	19.51	C
ATOM	2413	C	ILE	A	300	-6.226	36.762	-10.059	1.00	25.60	C
ATOM	2414	O	ILE	A	300	-5.376	37.461	-10.622	1.00	23.94	O
ATOM	2415	CB	ILE	A	300	-8.223	37.480	-11.322	1.00	20.69	C
ATOM	2416	CG1	ILE	A	300	-9.625	38.069	-11.237	1.00	21.12	C
ATOM	2417	CG2	ILE	A	300	-8.173	36.191	-12.126	1.00	19.35	C
ATOM	2418	CD1	ILE	A	300	-10.133	38.827	-12.430	1.00	13.92	C
ATOM	2419	N	TRP	A	301	-5.974	35.550	-9.565	1.00	24.47	N
ATOM	2420	CA	TRP	A	301	-4.664	34.940	-9.584	1.00	17.95	C
ATOM	2421	C	TRP	A	301	-4.597	33.750	-10.549	1.00	20.91	C
ATOM	2422	O	TRP	A	301	-5.628	33.133	-10.805	1.00	18.56	O
ATOM	2423	CB	TRP	A	301	-4.413	34.358	-8.172	1.00	13.42	C
ATOM	2424	CG	TRP	A	301	-3.056	33.721	-8.070	1.00	15.38	C
ATOM	2425	CD1	TRP	A	301	-1.880	34.397	-7.962	1.00	13.09	C
ATOM	2426	CD2	TRP	A	301	-2.717	32.334	-8.147	1.00	14.37	C
ATOM	2427	NE1	TRP	A	301	-0.853	33.514	-7.906	1.00	15.76	N
ATOM	2428	CE2	TRP	A	301	-1.323	32.233	-8.027	1.00	14.63	C
ATOM	2429	CE3	TRP	A	301	-3.455	31.160	-8.325	1.00	15.40	C
ATOM	2430	CZ2	TRP	A	301	-0.623	31.022	-8.068	1.00	12.51	C
ATOM	2431	CZ3	TRP	A	301	-2.769	29.950	-8.329	1.00	15.31	C
ATOM	2432	CH2	TRP	A	301	-1.371	29.888	-8.203	1.00	10.78	C

ATOM	2433	N	GLY	A	302	-3.383	33.341	-10.934	1.00	16.36	N
ATOM	2434	CA	GLY	A	302	-3.209	32.147	-11.694	1.00	17.55	C
ATOM	2435	C	GLY	A	302	-1.811	31.584	-11.590	1.00	22.46	C
ATOM	2436	O	GLY	A	302	-0.865	32.295	-11.238	1.00	27.57	O
ATOM	2437	N	SER	A	303	-1.652	30.300	-11.880	1.00	24.06	N
ATOM	2438	CA	SER	A	303	-0.320	29.712	-11.840	1.00	28.63	C
ATOM	2439	C	SER	A	303	0.372	29.850	-13.194	1.00	28.92	C
ATOM	2440	O	SER	A	303	-0.259	29.549	-14.223	1.00	30.15	O
ATOM	2441	CB	SER	A	303	-0.456	28.225	-11.470	1.00	27.52	C
ATOM	2442	OG	SER	A	303	0.817	27.631	-11.685	1.00	30.83	O
ATOM	2443	N	SER	A	304	1.681	30.048	-13.239	1.00	26.44	N
ATOM	2444	CA	SER	A	304	2.420	30.049	-14.494	1.00	32.97	C
ATOM	2445	C	SER	A	304	2.472	28.680	-15.174	1.00	33.54	C
ATOM	2446	O	SER	A	304	2.637	28.602	-16.388	1.00	30.43	O
ATOM	2447	CB	SER	A	304	3.828	30.623	-14.288	1.00	31.97	C
ATOM	2448	OG	SER	A	304	4.474	29.962	-13.214	1.00	34.37	O
ATOM	2449	N	ASP	A	305	2.089	27.584	-14.540	1.00	33.71	N
ATOM	2450	CA	ASP	A	305	1.999	26.266	-15.105	1.00	32.84	C
ATOM	2451	C	ASP	A	305	0.699	26.093	-15.890	1.00	36.48	C
ATOM	2452	O	ASP	A	305	0.537	25.056	-16.555	1.00	40.72	O
ATOM	2453	CB	ASP	A	305	1.965	25.214	-14.009	1.00	33.99	C
ATOM	2454	CG	ASP	A	305	3.145	25.082	-13.103	1.00	38.33	C
ATOM	2455	OD1	ASP	A	305	4.308	25.357	-13.447	1.00	42.92	O
ATOM	2456	OD2	ASP	A	305	2.904	24.645	-11.952	1.00	45.66	O
ATOM	2457	N	ASP	A	306	-0.248	27.027	-15.779	1.00	30.09	N
ATOM	2458	CA	ASP	A	306	-1.482	26.843	-16.545	1.00	29.92	C
ATOM	2459	C	ASP	A	306	-1.428	27.606	-17.857	1.00	30.79	C
ATOM	2460	O	ASP	A	306	-2.334	27.515	-18.691	1.00	30.53	O
ATOM	2461	CB	ASP	A	306	-2.699	27.172	-15.687	1.00	31.76	C
ATOM	2462	CG	ASP	A	306	-2.757	26.202	-14.501	1.00	34.60	C
ATOM	2463	OD1	ASP	A	306	-2.423	25.016	-14.739	1.00	37.29	O
ATOM	2464	OD2	ASP	A	306	-3.071	26.572	-13.360	1.00	25.88	O
ATOM	2465	N	ILE	A	307	-0.365	28.376	-18.084	1.00	26.45	N
ATOM	2466	CA	ILE	A	307	-0.206	29.154	-19.298	1.00	28.70	C
ATOM	2467	C	ILE	A	307	1.275	29.131	-19.698	1.00	30.67	C
ATOM	2468	O	ILE	A	307	1.816	30.180	-20.054	1.00	27.60	O
ATOM	2469	CB	ILE	A	307	-0.709	30.601	-19.198	1.00	30.40	C
ATOM	2470	CG1	ILE	A	307	-0.218	31.264	-17.899	1.00	27.94	C
ATOM	2471	CG2	ILE	A	307	-2.229	30.744	-19.297	1.00	29.62	C
ATOM	2472	CD1	ILE	A	307	-0.463	32.763	-17.936	1.00	26.22	C
ATOM	2473	N	ASN	A	308	1.898	27.939	-19.619	1.00	29.56	N
ATOM	2474	CA	ASN	A	308	3.328	27.881	-19.901	1.00	29.89	C
ATOM	2475	C	ASN	A	308	3.662	27.303	-21.269	1.00	33.07	C
ATOM	2476	O	ASN	A	308	4.729	26.693	-21.457	1.00	29.82	O
ATOM	2477	CB	ASN	A	308	4.110	27.139	-18.819	1.00	25.88	C
ATOM	2478	CG	ASN	A	308	3.762	25.676	-18.670	1.00	25.33	C
ATOM	2479	OD1	ASN	A	308	3.086	25.055	-19.479	1.00	22.90	O
ATOM	2480	ND2	ASN	A	308	4.236	25.001	-17.620	1.00	24.67	N
ATOM	2481	N	THR	A	309	2.768	27.454	-22.241	1.00	31.49	N
ATOM	2482	CA	THR	A	309	2.966	26.991	-23.600	1.00	29.50	C

ATOM	2483	C	THR	A	309	2.055	27.873	-24.466	1.00	34.00	C
ATOM	2484	O	THR	A	309	1.068	28.444	-23.996	1.00	38.68	O
ATOM	2485	CB	THR	A	309	2.513	25.572	-23.988	1.00	27.97	C
ATOM	2486	OG1	THR	A	309	1.059	25.551	-24.002	1.00	32.04	O
ATOM	2487	CG2	THR	A	309	2.980	24.450	-23.094	1.00	19.61	C
ATOM	2488	N	LYS	A	310	2.359	27.937	-25.750	1.00	35.66	N
ATOM	2489	CA	LYS	A	310	1.549	28.702	-26.680	1.00	31.87	C
ATOM	2490	C	LYS	A	310	0.093	28.229	-26.664	1.00	28.69	C
ATOM	2491	O	LYS	A	310	-0.875	28.996	-26.604	1.00	30.37	O
ATOM	2492	CB	LYS	A	310	2.113	28.574	-28.091	1.00	29.36	C
ATOM	2493	CG	LYS	A	310	1.894	29.892	-28.837	1.00	35.61	C
ATOM	2494	CD	LYS	A	310	1.125	29.638	-30.120	1.00	39.31	C
ATOM	2495	CE	LYS	A	310	1.787	30.353	-31.289	1.00	38.74	C
ATOM	2496	NZ	LYS	A	310	1.334	29.726	-32.553	1.00	36.91	N
ATOM	2497	N	ALA	A	311	-0.129	26.930	-26.723	1.00	21.12	N
ATOM	2498	CA	ALA	A	311	-1.444	26.315	-26.774	1.00	22.55	C
ATOM	2499	C	ALA	A	311	-2.309	26.743	-25.589	1.00	30.10	C
ATOM	2500	O	ALA	A	311	-3.469	27.118	-25.757	1.00	32.64	O
ATOM	2501	CB	ALA	A	311	-1.325	24.799	-26.778	1.00	9.46	C
ATOM	2502	N	LYS	A	312	-1.714	26.670	-24.395	1.00	29.80	N
ATOM	2503	CA	LYS	A	312	-2.408	27.056	-23.190	1.00	28.09	C
ATOM	2504	C	LYS	A	312	-2.705	28.546	-23.138	1.00	31.63	C
ATOM	2505	O	LYS	A	312	-3.830	28.940	-22.788	1.00	36.22	O
ATOM	2506	CB	LYS	A	312	-1.575	26.657	-21.986	1.00	29.26	C
ATOM	2507	CG	LYS	A	312	-1.499	25.162	-21.759	1.00	27.44	C
ATOM	2508	CD	LYS	A	312	-0.312	24.923	-20.843	1.00	30.45	C
ATOM	2509	CE	LYS	A	312	-0.444	23.531	-20.236	1.00	31.97	C
ATOM	2510	NZ	LYS	A	312	0.550	23.367	-19.152	1.00	31.54	N
ATOM	2511	N	CYS	A	313	-1.739	29.387	-23.507	1.00	28.71	N
ATOM	2512	CA	CYS	A	313	-1.995	30.822	-23.515	1.00	26.56	C
ATOM	2513	C	CYS	A	313	-3.198	31.123	-24.409	1.00	28.99	C
ATOM	2514	O	CYS	A	313	-4.067	31.885	-23.980	1.00	29.80	O
ATOM	2515	CB	CYS	A	313	-0.810	31.626	-24.022	1.00	24.46	C
ATOM	2516	SG	CYS	A	313	0.633	31.631	-22.930	1.00	21.60	S
ATOM	2517	N	LEU	A	314	-3.238	30.537	-25.611	1.00	28.28	N
ATOM	2518	CA	LEU	A	314	-4.377	30.790	-26.485	1.00	30.78	C
ATOM	2519	C	LEU	A	314	-5.683	30.354	-25.835	1.00	28.11	C
ATOM	2520	O	LEU	A	314	-6.597	31.175	-25.839	1.00	27.41	O
ATOM	2521	CB	LEU	A	314	-4.298	30.112	-27.860	1.00	29.45	C
ATOM	2522	CG	LEU	A	314	-3.413	30.886	-28.845	1.00	28.48	C
ATOM	2523	CD1	LEU	A	314	-3.149	30.039	-30.072	1.00	29.10	C
ATOM	2524	CD2	LEU	A	314	-4.051	32.223	-29.171	1.00	31.49	C
ATOM	2525	N	GLN	A	315	-5.713	29.157	-25.255	1.00	25.40	N
ATOM	2526	CA	GLN	A	315	-6.939	28.704	-24.601	1.00	23.97	C
ATOM	2527	C	GLN	A	315	-7.353	29.607	-23.456	1.00	27.03	C
ATOM	2528	O	GLN	A	315	-8.544	29.889	-23.342	1.00	29.22	O
ATOM	2529	CB	GLN	A	315	-6.854	27.250	-24.144	1.00	20.07	C
ATOM	2530	CG	GLN	A	315	-8.160	26.740	-23.580	1.00	28.47	C
ATOM	2531	CD	GLN	A	315	-8.330	26.983	-22.093	1.00	32.67	C
ATOM	2532	OE1	GLN	A	315	-7.320	27.224	-21.427	1.00	37.35	O

ATOM	2533	NE2	GLN	A	315	-9.548	26.902	-21.574	1.00	33.47	N
ATOM	2534	N	PHE	A	316	-6.421	30.102	-22.639	1.00	27.87	N
ATOM	2535	CA	PHE	A	316	-6.799	30.980	-21.542	1.00	26.69	C
ATOM	2536	C	PHE	A	316	-7.396	32.283	-22.060	1.00	29.48	C
ATOM	2537	O	PHE	A	316	-8.367	32.801	-21.521	1.00	23.44	O
ATOM	2538	CB	PHE	A	316	-5.585	31.257	-20.665	1.00	23.36	C
ATOM	2539	CG	PHE	A	316	-5.929	32.228	-19.577	1.00	21.59	C
ATOM	2540	CD1	PHE	A	316	-6.790	31.828	-18.558	1.00	22.96	C
ATOM	2541	CD2	PHE	A	316	-5.402	33.502	-19.577	1.00	20.94	C
ATOM	2542	CE1	PHE	A	316	-7.113	32.690	-17.529	1.00	22.23	C
ATOM	2543	CE2	PHE	A	316	-5.757	34.384	-18.556	1.00	26.64	C
ATOM	2544	CZ	PHE	A	316	-6.604	33.984	-17.532	1.00	24.88	C
ATOM	2545	N	ARG	A	317	-6.775	32.808	-23.115	1.00	33.23	N
ATOM	2546	CA	ARG	A	317	-7.216	34.012	-23.803	1.00	35.36	C
ATOM	2547	C	ARG	A	317	-8.664	33.831	-24.238	1.00	32.27	C
ATOM	2548	O	ARG	A	317	-9.528	34.653	-23.951	1.00	27.48	O
ATOM	2549	CB	ARG	A	317	-6.282	34.219	-24.981	1.00	42.95	C
ATOM	2550	CG	ARG	A	317	-6.590	35.319	-25.949	1.00	48.44	C
ATOM	2551	CD	ARG	A	317	-5.888	36.632	-25.632	1.00	53.98	C
ATOM	2552	NE	ARG	A	317	-5.708	37.314	-26.912	1.00	59.78	N
ATOM	2553	CZ	ARG	A	317	-5.124	38.472	-27.140	1.00	64.12	C
ATOM	2554	NH1	ARG	A	317	-4.623	39.215	-26.163	1.00	62.31	N
ATOM	2555	NH2	ARG	A	317	-5.079	38.837	-28.420	1.00	68.55	N
ATOM	2556	N	GLU	A	318	-8.983	32.702	-24.868	1.00	35.36	N
ATOM	2557	CA	GLU	A	318	-10.357	32.407	-25.242	1.00	38.21	C
ATOM	2558	C	GLU	A	318	-11.265	32.452	-24.035	1.00	34.76	C
ATOM	2559	O	GLU	A	318	-12.260	33.163	-24.091	1.00	31.73	O
ATOM	2560	CB	GLU	A	318	-10.472	31.112	-26.013	1.00	48.41	C
ATOM	2561	CG	GLU	A	318	-10.730	31.422	-27.491	1.00	61.92	C
ATOM	2562	CD	GLU	A	318	-11.153	30.160	-28.225	1.00	71.07	C
ATOM	2563	OE1	GLU	A	318	-11.097	29.070	-27.610	1.00	72.70	O
ATOM	2564	OE2	GLU	A	318	-11.535	30.261	-29.412	1.00	77.75	O
ATOM	2565	N	TYR	A	319	-10.953	31.784	-22.932	1.00	35.85	N
ATOM	2566	CA	TYR	A	319	-11.768	31.834	-21.710	1.00	29.43	C
ATOM	2567	C	TYR	A	319	-11.842	33.254	-21.164	1.00	27.20	C
ATOM	2568	O	TYR	A	319	-12.912	33.799	-20.879	1.00	22.79	O
ATOM	2569	CB	TYR	A	319	-11.182	30.892	-20.685	1.00	28.89	C
ATOM	2570	CG	TYR	A	319	-11.904	30.867	-19.356	1.00	34.41	C
ATOM	2571	CD1	TYR	A	319	-13.124	30.202	-19.207	1.00	31.84	C
ATOM	2572	CD2	TYR	A	319	-11.317	31.454	-18.235	1.00	27.52	C
ATOM	2573	CE1	TYR	A	319	-13.730	30.140	-17.965	1.00	31.60	C
ATOM	2574	CE2	TYR	A	319	-11.936	31.384	-17.015	1.00	28.31	C
ATOM	2575	CZ	TYR	A	319	-13.140	30.746	-16.879	1.00	30.39	C
ATOM	2576	OH	TYR	A	319	-13.746	30.680	-15.652	1.00	32.86	O
ATOM	2577	N	LEU	A	320	-10.698	33.953	-21.127	1.00	25.79	N
ATOM	2578	CA	LEU	A	320	-10.733	35.348	-20.729	1.00	26.32	C
ATOM	2579	C	LEU	A	320	-11.851	36.066	-21.489	1.00	28.80	C
ATOM	2580	O	LEU	A	320	-12.782	36.595	-20.883	1.00	29.57	O
ATOM	2581	CB	LEU	A	320	-9.402	36.061	-20.932	1.00	23.36	C
ATOM	2582	CG	LEU	A	320	-9.345	37.550	-20.591	1.00	24.67	C

ATOM	2583	CD1	LEU	A	320	-9.775	37.845	-19.154	1.00	23.47	C
ATOM	2584	CD2	LEU	A	320	-7.939	38.081	-20.816	1.00	27.01	C
ATOM	2585	N	ASN	A	321	-11.785	36.092	-22.816	1.00	30.48	N
ATOM	2586	CA	ASN	A	321	-12.797	36.801	-23.596	1.00	28.90	C
ATOM	2587	C	ASN	A	321	-14.182	36.210	-23.635	1.00	30.30	C
ATOM	2588	O	ASN	A	321	-15.126	36.998	-23.757	1.00	32.22	O
ATOM	2589	CB	ASN	A	321	-12.228	37.091	-24.991	1.00	22.42	C
ATOM	2590	CG	ASN	A	321	-11.124	38.131	-24.889	1.00	26.09	C
ATOM	2591	OD1	ASN	A	321	-11.474	39.294	-24.623	1.00	27.56	O
ATOM	2592	ND2	ASN	A	321	-9.842	37.788	-25.059	1.00	22.18	N
ATOM	2593	N	ASN	A	322	-14.426	34.931	-23.486	1.00	32.40	N
ATOM	2594	CA	ASN	A	322	-15.756	34.377	-23.595	1.00	36.30	C
ATOM	2595	C	ASN	A	322	-16.457	34.158	-22.269	1.00	40.71	C
ATOM	2596	O	ASN	A	322	-17.677	33.927	-22.281	1.00	43.87	O
ATOM	2597	CB	ASN	A	322	-15.646	33.025	-24.317	1.00	40.87	C
ATOM	2598	CG	ASN	A	322	-15.567	33.123	-25.816	1.00	46.70	C
ATOM	2599	OD1	ASN	A	322	-14.508	33.177	-26.434	1.00	49.95	O
ATOM	2600	ND2	ASN	A	322	-16.721	33.138	-26.493	1.00	54.11	N
ATOM	2601	N	GLU	A	323	-15.729	34.100	-21.150	1.00	40.00	N
ATOM	2602	CA	GLU	A	323	-16.327	33.782	-19.874	1.00	35.20	C
ATOM	2603	C	GLU	A	323	-15.936	34.672	-18.709	1.00	37.11	C
ATOM	2604	O	GLU	A	323	-16.775	35.388	-18.152	1.00	43.23	O
ATOM	2605	CB	GLU	A	323	-15.995	32.355	-19.459	1.00	36.40	C
ATOM	2606	CG	GLU	A	323	-16.646	31.251	-20.248	1.00	41.96	C
ATOM	2607	CD	GLU	A	323	-18.150	31.344	-20.325	1.00	46.59	C
ATOM	2608	OE1	GLU	A	323	-18.787	32.055	-19.515	1.00	49.19	O
ATOM	2609	OE2	GLU	A	323	-18.691	30.686	-21.239	1.00	49.35	O
ATOM	2610	N	LEU	A	324	-14.684	34.601	-18.298	1.00	32.44	N
ATOM	2611	CA	LEU	A	324	-14.185	35.361	-17.168	1.00	27.43	C
ATOM	2612	C	LEU	A	324	-14.335	36.856	-17.335	1.00	24.54	C
ATOM	2613	O	LEU	A	324	-14.889	37.516	-16.465	1.00	25.40	O
ATOM	2614	CB	LEU	A	324	-12.730	34.923	-16.903	1.00	27.94	C
ATOM	2615	CG	LEU	A	324	-12.043	35.555	-15.685	1.00	27.38	C
ATOM	2616	CD1	LEU	A	324	-12.602	34.989	-14.390	1.00	25.83	C
ATOM	2617	CD2	LEU	A	324	-10.539	35.356	-15.794	1.00	31.18	C
ATOM	2618	N	GLY	A	325	-13.792	37.479	-18.367	1.00	25.37	N
ATOM	2619	CA	GLY	A	325	-13.908	38.909	-18.581	1.00	27.91	C
ATOM	2620	C	GLY	A	325	-15.341	39.405	-18.491	1.00	29.49	C
ATOM	2621	O	GLY	A	325	-15.696	40.266	-17.697	1.00	27.60	O
ATOM	2622	N	PRO	A	326	-16.217	38.871	-19.335	1.00	31.45	N
ATOM	2623	CA	PRO	A	326	-17.612	39.274	-19.375	1.00	31.81	C
ATOM	2624	C	PRO	A	326	-18.285	39.184	-18.025	1.00	31.90	C
ATOM	2625	O	PRO	A	326	-18.949	40.112	-17.577	1.00	32.64	O
ATOM	2626	CB	PRO	A	326	-18.220	38.354	-20.427	1.00	33.40	C
ATOM	2627	CG	PRO	A	326	-17.084	37.938	-21.299	1.00	32.57	C
ATOM	2628	CD	PRO	A	326	-15.893	37.871	-20.386	1.00	31.86	C
ATOM	2629	N	ALA	A	327	-18.133	38.094	-17.299	1.00	33.93	N
ATOM	2630	CA	ALA	A	327	-18.683	37.906	-15.961	1.00	32.26	C
ATOM	2631	C	ALA	A	327	-18.161	39.027	-15.073	1.00	33.24	C
ATOM	2632	O	ALA	A	327	-18.907	39.777	-14.445	1.00	35.00	O

```
ATOM   2633  CB  ALA A 327     -18.262  36.542 -15.430  1.00 27.16           C
ATOM   2634  N   VAL A 328     -16.843  39.204 -15.077  1.00 30.77           N
ATOM   2635  CA  VAL A 328     -16.255  40.278 -14.280  1.00 33.73           C
ATOM   2636  C   VAL A 328     -16.908  41.600 -14.646  1.00 31.10           C
ATOM   2637  O   VAL A 328     -17.256  42.349 -13.752  1.00 29.27           O
ATOM   2638  CB  VAL A 328     -14.721  40.372 -14.351  1.00 31.78           C
ATOM   2639  CG1 VAL A 328     -14.243  41.681 -13.758  1.00 32.16           C
ATOM   2640  CG2 VAL A 328     -14.099  39.209 -13.586  1.00 31.33           C
ATOM   2641  N   LYS A 329     -17.017  41.924 -15.920  1.00 36.26           N
ATOM   2642  CA  LYS A 329     -17.632  43.156 -16.356  1.00 37.78           C
ATOM   2643  C   LYS A 329     -19.116  43.242 -16.031  1.00 34.49           C
ATOM   2644  O   LYS A 329     -19.504  44.365 -15.733  1.00 33.58           O
ATOM   2645  CB  LYS A 329     -17.481  43.411 -17.867  1.00 43.80           C
ATOM   2646  CG  LYS A 329     -17.534  44.910 -18.133  1.00 47.39           C
ATOM   2647  CD  LYS A 329     -17.456  45.186 -19.615  1.00 55.52           C
ATOM   2648  CE  LYS A 329     -17.308  46.689 -19.859  1.00 60.74           C
ATOM   2649  NZ  LYS A 329     -17.279  46.933 -21.333  1.00 64.66           N
ATOM   2650  N   ARG A 330     -19.928  42.216 -16.162  1.00 32.98           N
ATOM   2651  CA  ARG A 330     -21.339  42.338 -15.858  1.00 41.93           C
ATOM   2652  C   ARG A 330     -21.584  42.391 -14.347  1.00 51.33           C
ATOM   2653  O   ARG A 330     -22.300  43.304 -13.942  1.00 52.96           O
ATOM   2654  CB  ARG A 330     -22.236  41.233 -16.416  1.00 37.68           C
ATOM   2655  CG  ARG A 330     -21.991  41.134 -18.006  0.00 49.12           C
ATOM   2656  CD  ARG A 330     -22.996  40.149 -18.574  0.00 53.56           C
ATOM   2657  NE  ARG A 330     -22.921  40.060 -20.027  0.00 55.17           N
ATOM   2658  CZ  ARG A 330     -23.690  39.267 -20.763  0.00 57.63           C
ATOM   2659  NH1 ARG A 330     -24.594  38.491 -20.179  0.00 59.72           N
ATOM   2660  NH2 ARG A 330     -23.556  39.250 -22.082  0.00 57.17           N
ATOM   2661  N   ILE A 331     -21.071  41.439 -13.574  1.00 59.85           N
ATOM   2662  CA  ILE A 331     -21.303  41.447 -12.128  1.00 65.95           C
ATOM   2663  C   ILE A 331     -20.406  42.517 -11.527  1.00 69.19           C
ATOM   2664  O   ILE A 331     -20.675  43.689 -11.788  1.00 73.22           O
ATOM   2665  CB  ILE A 331     -21.114  40.096 -11.433  1.00 67.56           C
ATOM   2666  CG1 ILE A 331     -22.028  39.001 -12.002  1.00 65.50           C
ATOM   2667  CG2 ILE A 331     -21.384  40.208  -9.930  1.00 68.01           C
ATOM   2668  CD1 ILE A 331     -21.490  38.312 -13.231  1.00 65.91           C
ATOM   2669  N   ALA A 332     -19.333  42.173 -10.852  1.00 73.66           N
ATOM   2670  CA  ALA A 332     -18.384  43.140 -10.323  1.00 77.79           C
ATOM   2671  C   ALA A 332     -18.290  44.418 -11.147  1.00 79.20           C
ATOM   2672  O   ALA A 332     -18.454  45.549 -10.702  1.00 80.39           O
ATOM   2673  CB  ALA A 332     -17.020  42.445 -10.301  1.00 79.85           C
ATOM   2674  N   LEU A 333     -17.978  44.771 -12.119  0.00103.77           N
ATOM   2675  CA  LEU A 333     -17.956  46.179 -12.579  0.00109.41           C
ATOM   2676  C   LEU A 333     -19.212  46.583 -13.352  0.00111.13           C
ATOM   2677  O   LEU A 333     -20.047  47.332 -12.843  0.00112.12           O
ATOM   2678  CB  LEU A 333     -16.661  46.411 -13.382  0.00110.18           C
ATOM   2679  CG  LEU A 333     -15.390  45.884 -12.695  0.00111.86           C
ATOM   2680  CD1 LEU A 333     -14.235  45.827 -13.674  0.00112.16           C
ATOM   2681  CD2 LEU A 333     -15.030  46.726 -11.480  0.00109.72           C
TER    2682      LEU A 333
```

HETATM	2683	O4	GCU	B	1	-1.949	28.854	-1.891	1.00	51.12	O
HETATM	2684	C1	NAG	B	2	-1.394	28.586	-3.092	1.00	41.03	C
HETATM	2685	C2	NAG	B	2	-0.221	29.369	-3.584	1.00	37.33	C
HETATM	2686	C3	NAG	B	2	0.211	28.790	-4.924	1.00	38.78	C
HETATM	2687	C4	NAG	B	2	-0.386	27.398	-5.126	1.00	45.78	C
HETATM	2688	C5	NAG	B	2	-1.913	27.534	-5.204	1.00	49.40	C
HETATM	2689	C6	NAG	B	2	-2.628	26.237	-5.496	1.00	54.74	C
HETATM	2690	C7	NAG	B	2	-1.423	31.537	-4.155	1.00	27.95	C
HETATM	2691	C8	NAG	B	2	-1.249	33.028	-4.169	1.00	22.85	C
HETATM	2692	N2	NAG	B	2	-0.378	30.835	-3.614	1.00	34.30	N
HETATM	2693	O3	NAG	B	2	1.595	28.798	-5.030	1.00	34.66	O
HETATM	2694	O4	NAG	B	2	0.040	26.779	-6.345	1.00	44.74	O
HETATM	2695	O5	NAG	B	2	-2.358	28.127	-3.988	1.00	44.30	O
HETATM	2696	O6	NAG	B	2	-3.836	25.972	-4.766	1.00	58.98	O
HETATM	2697	O7	NAG	B	2	-2.436	31.001	-4.597	1.00	32.20	O
HETATM	2698	C1	GCU	B	3	2.279	29.479	-5.895	1.00	32.90	C
HETATM	2699	C2	GCU	B	3	3.736	29.289	-5.477	1.00	30.00	C
HETATM	2700	C3	GCU	B	3	4.654	30.063	-6.386	1.00	32.30	C
HETATM	2701	C4	GCU	B	3	4.440	29.632	-7.827	1.00	28.03	C
HETATM	2702	C5	GCU	B	3	2.981	29.868	-8.231	1.00	27.23	C
HETATM	2703	C6	GCU	B	3	2.597	29.376	-9.580	1.00	29.33	C
HETATM	2704	O2	GCU	B	3	3.830	29.814	-4.152	1.00	37.21	O
HETATM	2705	O3	GCU	B	3	6.035	29.901	-6.029	1.00	35.00	O
HETATM	2706	O4	GCU	B	3	5.338	30.278	-8.687	1.00	29.44	O
HETATM	2707	O5	GCU	B	3	2.140	29.282	-7.274	1.00	29.75	O
HETATM	2708	O6A	GCU	B	3	2.379	28.150	-9.726	1.00	34.69	O
HETATM	2709	O6B	GCU	B	3	2.523	30.230	-10.486	1.00	25.77	O
HETATM	2710	C1	NAG	B	4	6.006	29.550	-9.580	1.00	31.18	C
HETATM	2711	C2	NAG	B	4	6.817	30.504	-10.462	1.00	31.44	C
HETATM	2712	C3	NAG	B	4	7.604	29.720	-11.498	1.00	35.41	C
HETATM	2713	C4	NAG	B	4	8.426	28.623	-10.806	1.00	38.36	C
HETATM	2714	C5	NAG	B	4	7.558	27.757	-9.913	1.00	37.67	C
HETATM	2715	C6	NAG	B	4	8.309	26.721	-9.113	1.00	37.61	C
HETATM	2716	C7	NAG	B	4	6.044	32.849	-10.775	1.00	26.28	C
HETATM	2717	C8	NAG	B	4	5.062	33.803	-11.433	1.00	25.67	C
HETATM	2718	N2	NAG	B	4	5.910	31.515	-11.028	1.00	27.79	N
HETATM	2719	O3	NAG	B	4	8.569	30.541	-12.111	1.00	41.32	O
HETATM	2720	O4	NAG	B	4	9.004	27.781	-11.807	1.00	45.70	O
HETATM	2721	O5	NAG	B	4	6.875	28.601	-8.983	1.00	37.22	O
HETATM	2722	O6	NAG	B	4	9.061	27.229	-8.014	1.00	33.43	O
HETATM	2723	O7	NAG	B	4	6.906	33.311	-10.056	1.00	30.43	O
HETATM	2724	C1	GCU	B	5	8.433	31.116	-13.284	1.00	43.02	C
HETATM	2725	C2	GCU	B	5	9.323	32.357	-13.343	1.00	47.37	C
HETATM	2726	C3	GCU	B	5	9.277	33.050	-14.683	1.00	51.08	C
HETATM	2727	C4	GCU	B	5	9.494	32.050	-15.808	1.00	50.97	C
HETATM	2728	C5	GCU	B	5	8.647	30.790	-15.569	1.00	50.90	C
HETATM	2729	C6	GCU	B	5	8.830	29.723	-16.579	1.00	51.54	C
HETATM	2730	O2	GCU	B	5	8.947	33.280	-12.333	1.00	45.52	O
HETATM	2731	O3	GCU	B	5	10.308	34.045	-14.790	1.00	54.30	O
HETATM	2732	O4	GCU	B	5	9.028	32.672	-17.010	1.00	54.64	O

```
HETATM 2733  O5  GCU B   5       8.924  30.235 -14.296  1.00 47.19           O
HETATM 2734  O6A GCU B   5       8.786  28.558 -16.130  1.00 47.41           O
HETATM 2735  O6B GCU B   5       8.974  30.229 -17.712  1.00 53.66           O
HETATM 2736  O   HOH A 406      -4.302  39.104   4.577  1.00 25.81           O
HETATM 2737  O   HOH A 407      -1.706  43.410 -13.472  1.00 17.19           O
HETATM 2738  O   HOH A 408      -3.902  28.970 -13.218  1.00  8.51           O
HETATM 2739  O   HOH A 409      11.340  33.122   3.007  1.00 26.11           O
HETATM 2740  O   HOH A 410     -24.640  34.729  -5.063  1.00 27.54           O
HETATM 2741  O   HOH A 411      -7.593  31.936   3.202  1.00 19.01           O
HETATM 2742  O   HOH A 412     -11.362  28.705  -7.777  1.00 27.56           O
HETATM 2743  O   HOH A 413     -10.021  29.381   5.288  1.00 19.71           O
HETATM 2744  O   HOH A 414       2.062  39.266 -16.031  1.00 40.89           O
HETATM 2745  O   HOH A 415     -22.836  25.357 -10.525  1.00 24.94           O
HETATM 2746  O   HOH A 416      -4.080  32.083  11.547  1.00 13.21           O
HETATM 2747  O   HOH A 417      23.019  37.459  10.904  1.00 40.18           O
HETATM 2748  O   HOH A 418      -0.028  40.614 -11.657  1.00 23.06           O
HETATM 2749  O   HOH A 419     -11.618  34.082   5.948  1.00 24.36           O
HETATM 2750  O   HOH A 420       0.725  34.483   3.375  1.00 12.64           O
HETATM 2751  O   HOH A 421       1.648  31.607   6.684  1.00 23.15           O
HETATM 2752  O   HOH A 422      15.393  19.010  32.802  1.00 49.66           O
HETATM 2753  O   HOH A 423      10.755  24.832  20.548  1.00 29.50           O
HETATM 2754  O   HOH A 424      -5.880  32.746  13.462  1.00 30.81           O
HETATM 2755  O   HOH A 425     -18.283  33.634   8.060  1.00 21.43           O
HETATM 2756  O   HOH A 426      -7.822  28.233 -18.804  1.00 28.49           O
HETATM 2757  O   HOH A 427      -4.837  28.852 -18.080  1.00 37.13           O
HETATM 2758  O   HOH A 428     -11.737  46.915 -11.684  1.00 22.31           O
HETATM 2759  O   HOH A 429       2.988  40.189  -9.074  1.00 35.23           O
HETATM 2760  O   HOH A 430       1.798  25.280 -27.727  1.00 23.40           O
HETATM 2761  O   HOH A 431      -8.170  40.700  15.145  1.00 30.55           O
HETATM 2762  O   HOH A 432      -1.079  54.644  -1.431  1.00 32.85           O
HETATM 2763  O   HOH A 433     -10.084  31.956   4.830  1.00  9.31           O
HETATM 2764  O   HOH A 434      -5.969  33.707  10.398  1.00 20.62           O
HETATM 2765  O   HOH A 435     -20.749  41.498   5.357  1.00 49.80           O
HETATM 2766  O   HOH A 436      -0.465  31.602 -33.083  1.00 26.69           O
HETATM 2767  O   HOH A 437      -2.160  27.284  19.613  1.00 19.29           O
HETATM 2768  O   HOH A 438       6.404  40.866 -15.691  1.00 23.16           O
HETATM 2769  O   HOH A 439     -17.211  35.122  10.489  1.00 32.48           O
HETATM 2770  O   HOH A 440       1.678  33.876  17.221  1.00 35.70           O
HETATM 2771  O   HOH A 441       8.614  36.965  -5.618  1.00 24.00           O
HETATM 2772  O   HOH A 442     -11.933  31.654  -6.543  1.00 28.70           O
HETATM 2773  O   HOH A 443      -3.403  55.311  12.646  1.00 22.34           O
HETATM 2774  O   HOH A 444       7.581  41.988 -22.523  1.00 32.04           O
HETATM 2775  O   HOH A 445       5.372  53.107  -1.652  1.00 21.79           O
HETATM 2776  O   HOH A 446      11.067  45.393  10.835  1.00 29.89           O
HETATM 2777  O   HOH A 447       2.563  53.237   5.612  1.00 25.89           O
HETATM 2778  O   HOH A 448       1.755  22.813 -26.457  1.00 33.00           O
HETATM 2779  O   HOH A 449       7.539  41.840 -13.303  1.00 40.56           O
HETATM 2780  O   HOH A 450     -25.518  36.601  -3.060  1.00 32.52           O
HETATM 2781  O   HOH A 451     -17.689  39.964  16.177  1.00 34.93           O
HETATM 2782  O   HOH A 452      -0.819  35.682  18.138  1.00 55.23           O
```

HETATM	2783	O	HOH	A	453	6.714	55.404	6.767	1.00	35.63	O
HETATM	2784	O	HOH	A	454	-6.953	29.349	2.387	1.00	36.36	O
HETATM	2785	O	HOH	A	455	6.112	38.042	19.871	1.00	37.07	O
HETATM	2786	O	HOH	A	456	-9.674	41.864	18.725	1.00	40.03	O
HETATM	2787	O	HOH	A	457	-16.719	25.194	14.864	1.00	46.33	O
HETATM	2788	O	HOH	A	458	-7.783	21.686	17.733	1.00	66.81	O
HETATM	2789	O	HOH	A	459	-2.286	49.987	-16.659	1.00	57.27	O
HETATM	2790	O	HOH	A	460	-8.199	26.825	3.700	1.00	54.14	O
HETATM	2791	O	HOH	A	461	-5.145	49.115	-15.071	1.00	34.00	O
HETATM	2792	O	HOH	A	462	9.322	34.942	-28.758	1.00	24.89	O
HETATM	2793	O	HOH	A	463	7.033	35.649	-22.476	1.00	22.82	O
HETATM	2794	O	HOH	A	464	-0.305	42.016	-15.328	1.00	35.27	O
HETATM	2795	O	HOH	A	465	-4.464	25.224	-18.509	1.00	37.88	O
HETATM	2796	O	HOH	A	466	3.983	26.665	-27.244	1.00	42.07	O
HETATM	2797	O	HOH	A	467	-0.824	44.595	-22.100	1.00	39.58	O
HETATM	2798	O	HOH	A	468	2.919	48.901	11.131	1.00	58.17	O
HETATM	2799	O	HOH	A	469	13.448	26.436	21.582	1.00	38.20	O
HETATM	2800	O	HOH	A	470	4.865	53.153	6.955	1.00	38.52	O
HETATM	2801	O	HOH	A	471	-4.723	28.544	20.172	1.00	48.02	O
HETATM	2802	O	HOH	A	472	-18.687	31.575	9.749	1.00	48.97	O
HETATM	2803	O	HOH	A	473	-2.315	54.012	15.048	1.00	39.60	O
HETATM	2804	O	HOH	A	474	-10.921	48.569	-3.548	1.00	40.80	O
HETATM	2805	O	HOH	A	475	16.274	22.689	13.857	1.00	64.49	O
HETATM	2806	O	HOH	A	476	-23.318	34.107	1.962	1.00	66.43	O
HETATM	2807	O	HOH	A	477	-24.756	28.647	-7.842	1.00	31.94	O
HETATM	2808	O	HOH	A	478	7.572	41.044	-18.626	1.00	50.17	O
HETATM	2809	O	HOH	A	479	-19.942	27.515	-18.249	1.00	30.87	O
HETATM	2810	O	HOH	A	480	10.269	36.824	-3.334	1.00	34.03	O
HETATM	2811	O	HOH	A	481	25.152	38.368	12.068	1.00	30.23	O
HETATM	2812	O	HOH	A	482	1.559	50.890	4.443	1.00	50.90	O
HETATM	2813	O	HOH	A	483	-22.270	27.765	-7.335	1.00	27.04	O
HETATM	2814	O	HOH	A	484	-12.482	36.429	21.394	1.00	48.78	O
HETATM	2815	O	HOH	A	485	-22.449	27.217	-16.511	1.00	28.17	O
HETATM	2816	O	HOH	A	486	2.274	35.234	20.293	1.00	61.72	O
HETATM	2817	O	HOH	A	487	6.159	27.502	-29.233	1.00	42.45	O
HETATM	2818	O	HOH	A	488	-11.768	49.145	8.205	1.00	37.04	O
HETATM	2819	O	HOH	A	489	-2.104	51.572	-8.143	1.00	44.09	O
HETATM	2820	O	HOH	A	490	13.939	28.964	21.381	1.00	39.85	O
HETATM	2821	O	HOH	A	491	3.385	57.304	-3.448	1.00	26.77	O
HETATM	2822	O	HOH	A	492	-17.247	28.958	-18.470	1.00	47.74	O
HETATM	2823	O	HOH	A	493	-5.027	52.275	-9.189	1.00	57.12	O
HETATM	2824	O	HOH	A	494	6.895	30.934	2.801	1.00	52.99	O
HETATM	2825	O	HOH	A	495	16.652	26.535	0.573	1.00	57.69	O
HETATM	2826	O	HOH	A	496	2.463	20.253	-19.048	1.00	65.77	O
HETATM	2827	O	HOH	A	497	13.294	32.427	0.091	1.00	54.73	O
HETATM	2828	O	HOH	A	498	23.732	36.237	13.065	1.00	50.02	O
HETATM	2829	O	HOH	A	499	-26.244	33.913	-9.479	1.00	39.77	O
HETATM	2830	O	HOH	A	500	-7.166	18.470	9.897	1.00	51.19	O
HETATM	2831	O	HOH	A	501	19.655	27.954	6.228	1.00	32.95	O
HETATM	2832	O	HOH	A	502	9.832	55.027	5.608	1.00	49.42	O

```
HETATM 2833  O   HOH A 503     -21.641  37.293 -17.735  1.00 54.28           O
HETATM 2834  O   HOH A 504     -18.112  47.204   4.404  1.00 53.68           O
HETATM 2835  O   HOH A 505       1.171  45.857 -23.412  1.00 46.36           O
HETATM 2836  O   HOH A 506      -3.648  46.051  18.536  1.00 57.16           O
HETATM 2837  O   HOH A 507      -3.844  21.070  15.981  1.00 47.70           O
HETATM 2838  O   HOH A 508      -6.864  33.289 -28.278  1.00 34.60           O
HETATM 2839  O   HOH A 509      -3.862  23.161  -6.212  1.00 69.22           O
HETATM 2840  O   HOH A 510       0.176  22.872 -24.235  1.00 37.18           O
HETATM 2841  O   HOH A 511      -5.435  35.505 -29.673  1.00 51.78           O
HETATM 2842  O   HOH A 512      -8.738  24.721 -19.029  1.00 51.70           O
HETATM 2843  O   HOH A 513       7.863  49.443  -8.532  1.00 61.51           O
HETATM 2844  O   HOH A 514      17.063  35.715  15.600  1.00 31.00           O
HETATM 2845  O   HOH A 515     -13.132  26.464 -20.494  1.00 37.08           O
HETATM 2846  O   HOH A 516     -21.040  33.175   6.804  1.00 48.10           O
HETATM 2847  O   HOH A 517       9.776  34.690  -6.884  1.00 48.16           O
HETATM 2848  O   HOH A 518      -7.517  49.145  -3.598  1.00 52.19           O
HETATM 2849  O   HOH A 519      10.488  15.467  28.481  1.00 42.87           O
HETATM 2850  O   HOH A 520     -21.182  30.019 -20.696  1.00 40.90           O
HETATM 2851  O   HOH A 521      18.386  38.079  15.778  1.00 50.21           O
HETATM 2852  O   HOH A 522     -25.345  31.108 -10.926  1.00 30.58           O
HETATM 2853  O   HOH A 523     -20.829  32.476 -21.319  1.00 45.44           O
HETATM 2854  O   HOH A 524       9.355  38.397 -19.238  1.00 49.23           O
HETATM 2855  O   HOH A 525     -19.236  36.744  10.850  1.00 50.06           O
HETATM 2856  O   HOH A 526     -13.882  40.229  18.608  1.00 48.45           O
HETATM 2857  O   HOH A 527     -26.357  28.666 -10.153  1.00 50.37           O
HETATM 2858  O   HOH A 528      12.299  33.498  25.139  1.00 25.50           O
HETATM 2859  O   HOH A 529       1.943  32.781 -10.449  1.00 16.51           O
HETATM 2860  O   HOH A 530      -5.033  22.672  -0.418  1.00 34.58           O
HETATM 2861  O   HOH A 531      17.837  15.591  -3.634  1.00 45.54           O
HETATM 2862  O   HOH A 532      13.212  12.198  -6.142  1.00 40.59           O
HETATM 2863  O   HOH A 533     -16.116  26.668 -18.452  1.00 51.06           O
HETATM 2864  O   HOH A 534      -8.840  25.287   1.458  1.00 20.42           O
HETATM 2865  O   HOH A 535     -21.267  30.493   4.770  1.00 40.87           O
HETATM 2866  O   HOH A 536      -1.329  37.495  20.799  1.00 57.56           O
HETATM 2867  O   HOH A 537       7.025  27.379  -6.398  1.00 36.37           O
CONECT  115 2516
CONECT 1514 1606
CONECT 1606 1514
CONECT 2516  115
CONECT 2683 2684
CONECT 2684 2683 2685 2695
CONECT 2685 2684 2686 2692
CONECT 2686 2685 2687 2693
CONECT 2687 2686 2688 2694
CONECT 2688 2687 2689 2695
CONECT 2689 2688 2696
CONECT 2690 2691 2692 2697
CONECT 2691 2690
CONECT 2692 2685 2690
CONECT 2693 2686 2698
```

```
CONECT 2694 2687
CONECT 2695 2684 2688
CONECT 2696 2689
CONECT 2697 2690
CONECT 2698 2693 2699 2707
CONECT 2699 2698 2700 2704
CONECT 2700 2699 2701 2705
CONECT 2701 2700 2702 2706
CONECT 2702 2701 2703 2707
CONECT 2703 2702 2708 2709
CONECT 2704 2699
CONECT 2705 2700
CONECT 2706 2701 2710
CONECT 2707 2698 2702
CONECT 2708 2703
CONECT 2709 2703
CONECT 2710 2706 2711 2721
CONECT 2711 2710 2712 2718
CONECT 2712 2711 2713 2719
CONECT 2713 2712 2714 2720
CONECT 2714 2713 2715 2721
CONECT 2715 2714 2722
CONECT 2716 2717 2718 2723
CONECT 2717 2716
CONECT 2718 2711 2716
CONECT 2719 2712 2724
CONECT 2720 2713
CONECT 2721 2710 2714
CONECT 2722 2715
CONECT 2723 2716
CONECT 2724 2719 2725 2733
CONECT 2725 2724 2726 2730
CONECT 2726 2725 2727 2731
CONECT 2727 2726 2728 2732
CONECT 2728 2727 2729 2733
CONECT 2729 2728 2734 2735
CONECT 2730 2725
CONECT 2731 2726
CONECT 2732 2727
CONECT 2733 2724 2728
CONECT 2734 2729
CONECT 2735 2729
MASTER      390    0    5   17   12    0    0    6 2866    1   57   27
END
```