```
HEADER    LYASE                                   06-MAY-02   1LOH
TITLE     STREPTOCOCCUS PNEUMONIAE HYALURONATE LYASE IN COMPLEX WITH
TITLE    2 HEXASACCHARIDE HYALURONAN SUBSTRATE
CAVEAT     1LOH    BDP B 6 HAS WRONG CHIRALITY AT ATOM C4
COMPND    MOL_ID: 1;
COMPND   2 MOLECULE: HYALURONATE LYASE;
COMPND   3 CHAIN: A;
COMPND   4 SYNONYM: HYALURONIDASE;
COMPND   5 EC: 4.2.2.1;
COMPND   6 ENGINEERED: YES;
COMPND   7 MUTATION: YES
SOURCE    MOL_ID: 1;
SOURCE   2 ORGANISM_SCIENTIFIC: STREPTOCOCCUS PNEUMONIAE;
SOURCE   3 ORGANISM_TAXID: 1313;
SOURCE   4 EXPRESSION_SYSTEM: ESCHERICHIA COLI;
SOURCE   5 EXPRESSION_SYSTEM_TAXID: 562
KEYWDS    PROTEIN-CARBOHYDRATE COMPLEX, LYASE
EXPDTA    X-RAY DIFFRACTION
AUTHOR    M.J.JEDRZEJAS,L.V.MELLO,B.L.DE GROOT,S.LI
REVDAT   8   14-FEB-24 1LOH    1       REMARK
REVDAT   7   27-OCT-21 1LOH    1       SEQADV HETSYN
REVDAT   6   29-JUL-20 1LOH    1       CAVEAT COMPND REMARK HETNAM
REVDAT   6 2                    1       LINK   SITE   ATOM
REVDAT   5   13-JUL-11 1LOH    1       VERSN
REVDAT   4   23-JUN-10 1LOH    1       HETNAM
REVDAT   3   24-FEB-09 1LOH    1       VERSN
REVDAT   2   01-APR-03 1LOH    1       JRNL
REVDAT   1   07-AUG-02 1LOH    0
JRNL        AUTH   M.J.JEDRZEJAS,L.V.MELLO,B.L.DE GROOT,S.LI
JRNL        TITL   MECHANISM OF HYALURONAN DEGRADATION BY STREPTOCOCCUS
JRNL        TITL 2 PNEUMONIAE HYALURONATE LYASE. STRUCTURES OF COMPLEXES WITH
JRNL        TITL 3 THE SUBSTRATE.
JRNL        REF    J.BIOL.CHEM.                  V. 277 28287 2002
JRNL        REFN                   ISSN 0021-9258
JRNL        PMID   11991948
JRNL        DOI    10.1074/JBC.M112009200
REMARK   2
REMARK   2 RESOLUTION.    2.00 ANGSTROMS.
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : X-PLOR 3.851
REMARK   3   AUTHORS     : BRUNGER
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) : 2.00
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) : 20.00
REMARK   3   DATA CUTOFF            (SIGMA(F)) : 2.000
REMARK   3   DATA CUTOFF HIGH         (ABS(F)) : NULL
REMARK   3   DATA CUTOFF LOW          (ABS(F)) : NULL
REMARK   3   COMPLETENESS (WORKING+TEST)   (%) : NULL
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REMARK   3   NUMBER OF REFLECTIONS             : 58376
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD          : NULL
REMARK   3   FREE R VALUE TEST SET SELECTION  : 1 % REFS SELECTED
REMARK   3   R VALUE            (WORKING SET) : 0.224
REMARK   3   FREE R VALUE                     : 0.324
REMARK   3   FREE R VALUE TEST SET SIZE   (%) : NULL
REMARK   3   FREE R VALUE TEST SET COUNT      : 1205
REMARK   3   ESTIMATED ERROR OF FREE R VALUE  : NULL
REMARK   3
REMARK   3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK   3   TOTAL NUMBER OF BINS USED           : NULL
REMARK   3   BIN RESOLUTION RANGE HIGH       (A) : NULL
REMARK   3   BIN RESOLUTION RANGE LOW        (A) : NULL
REMARK   3   BIN COMPLETENESS (WORKING+TEST) (%) : NULL
REMARK   3   REFLECTIONS IN BIN    (WORKING SET) : NULL
REMARK   3   BIN R VALUE           (WORKING SET) : NULL
REMARK   3   BIN FREE R VALUE                    : NULL
REMARK   3   BIN FREE R VALUE TEST SET SIZE  (%) : NULL
REMARK   3   BIN FREE R VALUE TEST SET COUNT     : NULL
REMARK   3   ESTIMATED ERROR OF BIN FREE R VALUE : NULL
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   PROTEIN ATOMS            : 5785
REMARK   3   NUCLEIC ACID ATOMS       : 0
REMARK   3   HETEROGEN ATOMS          : 79
REMARK   3   SOLVENT ATOMS            : 515
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT           (A**2) : NULL
REMARK   3   MEAN B VALUE      (OVERALL, A**2) : NULL
REMARK   3   OVERALL ANISOTROPIC B VALUE.
REMARK   3    B11 (A**2) : NULL
REMARK   3    B22 (A**2) : NULL
REMARK   3    B33 (A**2) : NULL
REMARK   3    B12 (A**2) : NULL
REMARK   3    B13 (A**2) : NULL
REMARK   3    B23 (A**2) : NULL
REMARK   3
REMARK   3  ESTIMATED COORDINATE ERROR.
REMARK   3   ESD FROM LUZZATI PLOT        (A) : NULL
REMARK   3   ESD FROM SIGMAA              (A) : NULL
REMARK   3   LOW RESOLUTION CUTOFF        (A) : NULL
REMARK   3
REMARK   3  CROSS-VALIDATED ESTIMATED COORDINATE ERROR.
REMARK   3   ESD FROM C-V LUZZATI PLOT    (A) : NULL
REMARK   3   ESD FROM C-V SIGMAA          (A) : NULL
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES.
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REMARK   3   BOND LENGTHS                (A) : NULL
REMARK   3   BOND ANGLES            (DEGREES) : NULL
REMARK   3   DIHEDRAL ANGLES        (DEGREES) : NULL
REMARK   3   IMPROPER ANGLES        (DEGREES) : NULL
REMARK   3
REMARK   3  ISOTROPIC THERMAL MODEL : NULL
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS.    RMS    SIGMA
REMARK   3   MAIN-CHAIN BOND             (A**2) : NULL  ; NULL
REMARK   3   MAIN-CHAIN ANGLE            (A**2) : NULL  ; NULL
REMARK   3   SIDE-CHAIN BOND             (A**2) : NULL  ; NULL
REMARK   3   SIDE-CHAIN ANGLE            (A**2) : NULL  ; NULL
REMARK   3
REMARK   3  NCS MODEL : NULL
REMARK   3
REMARK   3  NCS RESTRAINTS.                         RMS   SIGMA/WEIGHT
REMARK   3   GROUP  1  POSITIONAL              (A) : NULL  ; NULL
REMARK   3   GROUP  1  B-FACTOR           (A**2) : NULL  ; NULL
REMARK   3
REMARK   3  PARAMETER FILE  1  : NULL
REMARK   3  TOPOLOGY FILE  1   : NULL
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS: NULL
REMARK   4
REMARK   4 1LOH COMPLIES WITH FORMAT V. 3.30, 13-JUL-11
REMARK 100
REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 09-MAY-02.
REMARK 100 THE DEPOSITION ID IS D_1000016134.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200  EXPERIMENT TYPE                : X-RAY DIFFRACTION
REMARK 200  DATE OF DATA COLLECTION        : 20-MAR-01
REMARK 200  TEMPERATURE           (KELVIN) : 298
REMARK 200  PH                             : 6.0
REMARK 200  NUMBER OF CRYSTALS USED        : 1
REMARK 200
REMARK 200  SYNCHROTRON              (Y/N) : Y
REMARK 200  RADIATION SOURCE               : APS
REMARK 200  BEAMLINE                       : 19-BM
REMARK 200  X-RAY GENERATOR MODEL          : NULL
REMARK 200  MONOCHROMATIC OR LAUE    (M/L) : M
REMARK 200  WAVELENGTH OR RANGE        (A) : 1.0
REMARK 200  MONOCHROMATOR                  : SI
REMARK 200  OPTICS                         : NULL
REMARK 200
REMARK 200  DETECTOR TYPE                  : CCD
REMARK 200  DETECTOR MANUFACTURER          : OXFORD
REMARK 200  INTENSITY-INTEGRATION SOFTWARE : HKL-2000
REMARK 200  DATA SCALING SOFTWARE          : SCALEPACK
REMARK 200
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REMARK 200  NUMBER OF UNIQUE REFLECTIONS   : 60259
REMARK 200  RESOLUTION RANGE HIGH      (A) : 2.000
REMARK 200  RESOLUTION RANGE LOW       (A) : 50.000
REMARK 200  REJECTION CRITERIA  (SIGMA(I)) : 2.000
REMARK 200
REMARK 200 OVERALL.
REMARK 200  COMPLETENESS FOR RANGE     (%) : 99.9
REMARK 200  DATA REDUNDANCY                : NULL
REMARK 200  R MERGE                    (I) : NULL
REMARK 200  R SYM                      (I) : NULL
REMARK 200  <I/SIGMA(I)> FOR THE DATA SET  : NULL
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.00
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE LOW  (A) : 2.07
REMARK 200  COMPLETENESS FOR SHELL     (%) : 99.4
REMARK 200  DATA REDUNDANCY IN SHELL       : NULL
REMARK 200  R MERGE FOR SHELL          (I) : NULL
REMARK 200  R SYM FOR SHELL            (I) : NULL
REMARK 200  <I/SIGMA(I)> FOR SHELL         : NULL
REMARK 200
REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH
REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: MOLECULAR REPLACEMENT
REMARK 200 SOFTWARE USED: X-PLOR
REMARK 200 STARTING MODEL: NULL
REMARK 200
REMARK 200 REMARK: NULL
REMARK 280
REMARK 280 CRYSTAL
REMARK 280 SOLVENT CONTENT, VS   (%): 53.86
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 2.67
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: AMMONIUM SULFATE, SODIUM CACODYLATE,
REMARK 280  PH 6.0, VAPOR DIFFUSION, HANGING DROP, TEMPERATURE 292K
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 21 21 21
REMARK 290
REMARK 290      SYMOP   SYMMETRY
REMARK 290     NNNMMM   OPERATOR
REMARK 290       1555   X,Y,Z
REMARK 290       2555   -X+1/2,-Y,Z+1/2
REMARK 290       3555   -X,Y+1/2,-Z+1/2
REMARK 290       4555   X+1/2,-Y+1/2,-Z
REMARK 290
REMARK 290     WHERE NNN -> OPERATOR NUMBER
REMARK 290           MMM -> TRANSLATION VECTOR
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
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REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.
REMARK 290   SMTRY1   1  1.000000  0.000000  0.000000        0.00000
REMARK 290   SMTRY2   1  0.000000  1.000000  0.000000        0.00000
REMARK 290   SMTRY3   1  0.000000  0.000000  1.000000        0.00000
REMARK 290   SMTRY1   2 -1.000000  0.000000  0.000000       41.85000
REMARK 290   SMTRY2   2  0.000000 -1.000000  0.000000        0.00000
REMARK 290   SMTRY3   2  0.000000  0.000000  1.000000       50.63450
REMARK 290   SMTRY1   3 -1.000000  0.000000  0.000000        0.00000
REMARK 290   SMTRY2   3  0.000000  1.000000  0.000000       51.78500
REMARK 290   SMTRY3   3  0.000000  0.000000 -1.000000       50.63450
REMARK 290   SMTRY1   4  1.000000  0.000000  0.000000       41.85000
REMARK 290   SMTRY2   4  0.000000 -1.000000  0.000000       51.78500
REMARK 290   SMTRY3   4  0.000000  0.000000 -1.000000        0.00000
REMARK 290
REMARK 290 REMARK: NULL
REMARK 300
REMARK 300 BIOMOLECULE: 1
REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM
REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN
REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON
REMARK 300 BURIED SURFACE AREA.
REMARK 350
REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN
REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE
REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS
REMARK 350 GIVEN BELOW.  BOTH NON-CRYSTALLOGRAPHIC AND
REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.
REMARK 350
REMARK 350 BIOMOLECULE: 1
REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC
REMARK 350 APPLY THE FOLLOWING TO CHAINS: A, B
REMARK 350   BIOMT1   1  1.000000  0.000000  0.000000        0.00000
REMARK 350   BIOMT2   1  0.000000  1.000000  0.000000        0.00000
REMARK 350   BIOMT3   1  0.000000  0.000000  1.000000        0.00000
REMARK 470
REMARK 470 MISSING ATOM
REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS (M=MODEL NUMBER;
REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;
REMARK 470 I=INSERTION CODE):
REMARK 470   M RES CSSEQI  ATOMS
REMARK 470     VAL A 170    CG1  CG2
REMARK 470     LEU A 890    CG   CD1  CD2
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: CLOSE CONTACTS IN SAME ASYMMETRIC UNIT
REMARK 500
REMARK 500 THE FOLLOWING ATOMS ARE IN CLOSE CONTACT.
REMARK 500
REMARK 500  ATM1  RES C  SSEQI   ATM2  RES C  SSEQI          DISTANCE
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REMARK 500   O    HOH A  1129     O    HOH A  1131              2.17
REMARK 500
REMARK 500 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: TORSION ANGLES
REMARK 500
REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:
REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;
REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)
REMARK 500
REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-
REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400
REMARK 500
REMARK 500  M RES CSSEQI        PSI       PHI
REMARK 500    ALA A 186      -53.48   -122.67
REMARK 500    GLN A 219      134.47     56.84
REMARK 500    ALA A 220       84.04     41.68
REMARK 500    ASP A 221      111.65     -0.37
REMARK 500    ASN A 231       89.66    -55.09
REMARK 500    VAL A 280      -41.69   -135.39
REMARK 500    ILE A 296      -66.45   -123.21
REMARK 500    ASN A 341       69.98   -118.61
REMARK 500    VAL A 356      -60.29    -92.74
REMARK 500    THR A 400      -56.37     71.46
REMARK 500    ASN A 401       34.97   -151.31
REMARK 500    ALA A 407      -60.34   -145.76
REMARK 500    MET A 458       -7.71    -59.00
REMARK 500    SER A 469       42.48   -140.92
REMARK 500    THR A 589        2.73    -64.40
REMARK 500    ASP A 591       46.40    -82.86
REMARK 500    ASN A 598     -155.09   -129.59
REMARK 500    SER A 605     -167.24   -124.02
REMARK 500    ALA A 666      137.50   -173.58
REMARK 500    LYS A 674      -73.36     67.79
REMARK 500    ASN A 705       68.19   -116.14
REMARK 500    ASN A 820       78.76   -161.42
REMARK 500    ASN A 821     -164.16   -128.41
REMARK 500    SER A 848       26.71     44.23
REMARK 500    SER A 880     -154.40    -96.44
REMARK 500
REMARK 500 REMARK: NULL
REMARK 900
REMARK 900 RELATED ENTRIES
REMARK 900 RELATED ID: 1C82   RELATED DB: PDB
REMARK 900 1C82 IS THE MECHANISM OF HYALURONAN BINDING AND DEGRADATION:
REMARK 900 STRUCTURE OF STREPTOCOCCUS PNEUMONIAE HYALURONATE LYASE IN COMPLEX
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REMARK 900 WITH HYALURONIC ACID DISACCHARIDE AT 1.7 A RESOLUTION
REMARK 900 RELATED ID: 1EGU   RELATED DB: PDB
REMARK 900 1EGU IS THE CRYSTAL STRUCTURE OF STREPTOCOCCUS PNEUMONIAE
REMARK 900 HYALURONATE LYASE AT 1.56 A RESOLUTION
DBREF  1LOH A  170   890  GB     437705   AAA53685       170    890
SEQADV 1LOH PHE A  408  GB   437705    TYR   408 ENGINEERED MUTATION
SEQADV 1LOH VAL A  731  GB   437705    GLY   731 SEE REMARK 999
SEQRES   1 A  721  VAL LYS ASP THR TYR THR ASP ARG LEU ASP ASP TRP ASN
SEQRES   2 A  721  GLY ILE ILE ALA GLY ASN GLN TYR TYR ASP SER LYS ASN
SEQRES   3 A  721  ASP GLN MET ALA LYS LEU ASN GLN GLU LEU GLU GLY LYS
SEQRES   4 A  721  VAL ALA ASP SER LEU SER SER ILE SER SER GLN ALA ASP
SEQRES   5 A  721  ARG ILE TYR LEU TRP GLU LYS PHE SER ASN TYR LYS THR
SEQRES   6 A  721  SER ALA ASN LEU THR ALA THR TYR ARG LYS LEU GLU GLU
SEQRES   7 A  721  MET ALA LYS GLN VAL THR ASN PRO SER SER ARG TYR TYR
SEQRES   8 A  721  GLN ASP GLU THR VAL VAL ARG THR VAL ARG ASP SER MET
SEQRES   9 A  721  GLU TRP MET HIS LYS HIS VAL TYR ASN SER GLU LYS SER
SEQRES  10 A  721  ILE VAL GLY ASN TRP TRP ASP TYR GLU ILE GLY THR PRO
SEQRES  11 A  721  ARG ALA ILE ASN ASN THR LEU SER LEU MET LYS GLU TYR
SEQRES  12 A  721  PHE SER ASP GLU GLU ILE LYS LYS TYR THR ASP VAL ILE
SEQRES  13 A  721  GLU LYS PHE VAL PRO ASP PRO GLU HIS PHE ARG LYS THR
SEQRES  14 A  721  THR ASP ASN PRO PHE LYS ALA LEU GLY GLY ASN LEU VAL
SEQRES  15 A  721  ASP MET GLY ARG VAL LYS VAL ILE ALA GLY LEU LEU ARG
SEQRES  16 A  721  LYS ASP ASP GLN GLU ILE SER SER THR ILE ARG SER ILE
SEQRES  17 A  721  GLU GLN VAL PHE LYS LEU VAL ASP GLN GLY GLU GLY PHE
SEQRES  18 A  721  TYR GLN ASP GLY SER TYR ILE ASP HIS THR ASN VAL ALA
SEQRES  19 A  721  TYR THR GLY ALA PHE GLY ASN VAL LEU ILE ASP GLY LEU
SEQRES  20 A  721  SER GLN LEU LEU PRO VAL ILE GLN LYS THR LYS ASN PRO
SEQRES  21 A  721  ILE ASP LYS ASP LYS MET GLN THR MET TYR HIS TRP ILE
SEQRES  22 A  721  ASP LYS SER PHE ALA PRO LEU LEU VAL ASN GLY GLU LEU
SEQRES  23 A  721  MET ASP MET SER ARG GLY ARG SER ILE SER ARG ALA ASN
SEQRES  24 A  721  SER GLU GLY HIS VAL ALA ALA VAL GLU VAL LEU ARG GLY
SEQRES  25 A  721  ILE HIS ARG ILE ALA ASP MET SER GLU GLY GLU THR LYS
SEQRES  26 A  721  GLN ARG LEU GLN SER LEU VAL LYS THR ILE VAL GLN SER
SEQRES  27 A  721  ASP SER TYR TYR ASP VAL PHE LYS ASN LEU LYS THR TYR
SEQRES  28 A  721  LYS ASP ILE SER LEU MET GLN SER LEU LEU SER ASP ALA
SEQRES  29 A  721  GLY VAL ALA SER VAL PRO ARG THR SER TYR LEU SER ALA
SEQRES  30 A  721  PHE ASN LYS MET ASP LYS THR ALA MET TYR ASN ALA GLU
SEQRES  31 A  721  LYS GLY PHE GLY PHE GLY LEU SER LEU PHE SER SER ARG
SEQRES  32 A  721  THR LEU ASN TYR GLU HIS MET ASN LYS GLU ASN LYS ARG
SEQRES  33 A  721  GLY TRP TYR THR SER ASP GLY MET PHE TYR LEU TYR ASN
SEQRES  34 A  721  GLY ASP LEU SER HIS TYR SER ASP GLY TYR TRP PRO THR
SEQRES  35 A  721  VAL ASN PRO TYR LYS MET PRO GLY THR THR GLU THR ASP
SEQRES  36 A  721  ALA LYS ARG ALA ASP SER ASP THR GLY LYS VAL LEU PRO
SEQRES  37 A  721  SER ALA PHE VAL GLY THR SER LYS LEU ASP ASP ALA ASN
SEQRES  38 A  721  ALA THR ALA THR MET ASP PHE THR ASN TRP ASN GLN THR
SEQRES  39 A  721  LEU THR ALA HIS LYS SER TRP PHE MET LEU LYS ASP LYS
SEQRES  40 A  721  ILE ALA PHE LEU GLY SER ASN ILE GLN ASN THR SER THR
SEQRES  41 A  721  ASP THR ALA ALA THR THR ILE ASP GLN ARG LYS LEU GLU
SEQRES  42 A  721  SER SER ASN PRO TYR LYS VAL TYR VAL ASN ASP LYS GLU
SEQRES  43 A  721  ALA SER LEU THR GLU GLN GLU LYS ASP TYR PRO GLU THR
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SEQRES  44 A  721  GLN SER VAL PHE LEU GLU SER SER ASP SER LYS LYS ASN
SEQRES  45 A  721  ILE GLY TYR PHE PHE PHE LYS LYS SER SER ILE SER MET
SEQRES  46 A  721  SER LYS ALA LEU GLN LYS GLY ALA TRP LYS ASP ILE ASN
SEQRES  47 A  721  GLU GLY GLN SER ASP LYS GLU VAL GLU ASN GLU PHE LEU
SEQRES  48 A  721  THR ILE SER GLN ALA HIS LYS GLN ASN GLY ASP SER TYR
SEQRES  49 A  721  GLY TYR MET LEU ILE PRO ASN VAL ASP ARG ALA THR PHE
SEQRES  50 A  721  ASN GLN MET ILE LYS GLU LEU GLU SER SER LEU ILE GLU
SEQRES  51 A  721  ASN ASN GLU THR LEU GLN SER VAL TYR ASP ALA LYS GLN
SEQRES  52 A  721  GLY VAL TRP GLY ILE VAL LYS TYR ASP ASP SER VAL SER
SEQRES  53 A  721  THR ILE SER ASN GLN PHE GLN VAL LEU LYS ARG GLY VAL
SEQRES  54 A  721  TYR THR ILE ARG LYS GLU GLY ASP GLU TYR LYS ILE ALA
SEQRES  55 A  721  TYR TYR ASN PRO GLU THR GLN GLU SER ALA PRO ASP GLN
SEQRES  56 A  721  GLU VAL PHE LYS LYS LEU
HET    NAG  B   1      15
HET    BDP  B   2      12
HET    NAG  B   3      14
HET    BDP  B   4      12
HET    NAG  B   5      14
HET    BDP  B   6      12
HETNAM     NAG 2-ACETAMIDO-2-DEOXY-BETA-D-GLUCOPYRANOSE
HETNAM     BDP BETA-D-GLUCOPYRANURONIC ACID
HETSYN     NAG N-ACETYL-BETA-D-GLUCOSAMINE; 2-ACETAMIDO-2-DEOXY-BETA-
HETSYN   2 NAG  D-GLUCOSE; 2-ACETAMIDO-2-DEOXY-D-GLUCOSE; 2-ACETAMIDO-
HETSYN   3 NAG  2-DEOXY-GLUCOSE; N-ACETYL-D-GLUCOSAMINE
HETSYN     BDP BETA-D-GLUCURONIC ACID; D-GLUCURONIC ACID; GLUCURONIC
HETSYN   2 BDP  ACID
FORMUL   2  NAG    3(C8 H15 N O6)
FORMUL   2  BDP    3(C6 H10 O7)
FORMUL   3  HOH   *515(H2 O)
HELIX    1   1 ASP A  172  ALA A  186  1                                  15
HELIX    2   2 GLY A  187  TYR A  191  5                                   5
HELIX    3   3 ASN A  195  ILE A  216  1                                  22
HELIX    4   4 TRP A  226  SER A  230  5                                   5
HELIX    5   5 THR A  234  THR A  253  1                                  20
HELIX    6   6 ASP A  262  VAL A  280  1                                  19
HELIX    7   7 ASN A  290  ILE A  296  1                                   7
HELIX    8   8 ILE A  296  MET A  309  1                                  14
HELIX    9   9 SER A  314  VAL A  329  1                                  16
HELIX   10  10 LEU A  346  ARG A  364  1                                  19
HELIX   11  11 ASP A  366  GLU A  378  1                                  13
HELIX   12  12 GLN A  379  LYS A  382  5                                   4
HELIX   13  13 ALA A  407  GLN A  424  1                                  18
HELIX   14  14 LYS A  432  MET A  435  5                                   4
HELIX   15  15 GLN A  436  SER A  445  1                                  10
HELIX   16  16 PHE A  446  PRO A  448  5                                   3
HELIX   17  17 ASP A  457  SER A  469  5                                  13
HELIX   18  18 GLU A  470  SER A  489  1                                  20
HELIX   19  19 GLU A  490  ASP A  508  1                                  19
HELIX   20  20 ASP A  512  LEU A  517  5                                   6
HELIX   21  21 THR A  519  ASP A  532  1                                  14
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HELIX   22  22 GLY A  607  VAL A  612  1                                       6
HELIX   23  23 ASP A  737  LYS A  740  5                                       4
HELIX   24  24 LYS A  764  ILE A  766  5                                       3
HELIX   25  25 ASP A  802  LEU A  813  1                                      12
HELIX   26  26 PRO A  882  VAL A  886  1                                       5
SHEET    1   A 2 HIS A 334  PHE A 335  0
SHEET    2   A 2 PHE A 343  LYS A 344 -1  O  PHE A 343   N  PHE A 335
SHEET    1   B 3 GLY A 389  PHE A 390  0
SHEET    2   B 3 TYR A 396  ASP A 398 -1  O  ILE A 397   N  GLY A 389
SHEET    3   B 3 VAL A 402  ALA A 403 -1  O  VAL A 402   N  ASP A 398
SHEET    1   C 2 LEU A 450  VAL A 451  0
SHEET    2   C 2 GLU A 454  LEU A 455 -1  O  GLU A 454   N  VAL A 451
SHEET    1   D 4 TYR A 543  PHE A 547  0
SHEET    2   D 4 LYS A 552  ASN A 557 -1  O  ALA A 554   N  SER A 545
SHEET    3   D 4 PHE A 562  SER A 567 -1  O  PHE A 564   N  MET A 555
SHEET    4   D 4 MET A 593  TYR A 597 -1  O  MET A 593   N  SER A 567
SHEET    1   E 7 THR A 621  THR A 623  0
SHEET    2   E 7 ALA A 692  LYS A 700 -1  O  ALA A 693   N  GLU A 622
SHEET    3   E 7 GLU A 774  HIS A 786 -1  O  HIS A 786   N  ALA A 692
SHEET    4   E 7 ILE A 742  ALA A 762 -1  N  GLY A 761   O  VAL A 775
SHEET    5   E 7 LYS A 723  GLU A 734 -1  N  TYR A 725   O  ILE A 752
SHEET    6   E 7 LYS A 708  VAL A 711 -1  N  TYR A 710   O  PHE A 732
SHEET    7   E 7 LYS A 714  ALA A 716 -1  O  ALA A 716   N  VAL A 709
SHEET    1   F 9 THR A 621  THR A 623  0
SHEET    2   F 9 ALA A 692  LYS A 700 -1  O  ALA A 693   N  GLU A 622
SHEET    3   F 9 GLU A 774  HIS A 786 -1  O  HIS A 786   N  ALA A 692
SHEET    4   F 9 ILE A 742  ALA A 762 -1  N  GLY A 761   O  VAL A 775
SHEET    5   F 9 ASP A 791  PRO A 799 -1  O  MET A 796   N  PHE A 745
SHEET    6   F 9 ILE A 677  ASN A 686 -1  N  PHE A 679   O  TYR A 795
SHEET    7   F 9 LEU A 664  LEU A 673 -1  N  SER A 669   O  LEU A 680
SHEET    8   F 9 ASN A 650  THR A 658 -1  N  ALA A 653   O  TRP A 670
SHEET    9   F 9 VAL A 641  LYS A 645 -1  N  SER A 644   O  THR A 652
SHEET    1   G 5 LEU A 817  ASN A 820  0
SHEET    2   G 5 LEU A 824  ASP A 829 -1  O  SER A 826   N  GLU A 819
SHEET    3   G 5 VAL A 834  LYS A 839 -1  O  VAL A 834   N  ASP A 829
SHEET    4   G 5 GLY A 857  GLU A 864 -1  O  TYR A 859   N  ILE A 837
SHEET    5   G 5 GLU A 867  TYR A 873 -1  O  GLU A 867   N  GLU A 864
SHEET    1   H 3 SER A 845  ILE A 847  0
SHEET    2   H 3 PHE A 851  VAL A 853 -1  O  PHE A 851   N  ILE A 847
SHEET    3   H 3 PHE A 887  LYS A 889 -1  O  LYS A 888   N  GLN A 852
LINK         O3  NAG B   1                 C1  BDP B   2     1555   1555  1.41
LINK         O4  BDP B   2                 C1  NAG B   3     1555   1555  1.42
LINK         O3  NAG B   3                 C1  BDP B   4     1555   1555  1.43
LINK         O4  BDP B   4                 C1  NAG B   5     1555   1555  1.41
LINK         O3  NAG B   5                 C1  BDP B   6     1555   1555  1.41
CRYST1   83.700  103.570  101.269  90.00  90.00  90.00 P 21 21 21    4
ORIGX1      1.000000  0.000000  0.000000        0.00000
ORIGX2      0.000000  1.000000  0.000000        0.00000
ORIGX3      0.000000  0.000000  1.000000        0.00000
SCALE1      0.011947  0.000000  0.000000        0.00000
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SCALE2      0.000000  0.009655  0.000000        0.00000
SCALE3      0.000000  0.000000  0.009875        0.00000
ATOM      1  N   VAL A 170       1.305  -7.754  -5.646  1.00 65.47           N
ATOM      2  CA  VAL A 170       0.328  -8.779  -5.162  1.00 65.66           C
ATOM      3  C   VAL A 170       0.816  -9.412  -3.855  1.00 65.39           C
ATOM      4  O   VAL A 170       1.776  -8.926  -3.243  1.00 67.14           O
ATOM      5  CB  VAL A 170       0.126  -9.862  -6.237  1.00 61.94           C
ATOM      6  N   LYS A 171       0.149 -10.483  -3.424  1.00 62.69           N
ATOM      7  CA  LYS A 171       0.534 -11.170  -2.198  1.00 56.88           C
ATOM      8  C   LYS A 171       0.298 -12.681  -2.184  1.00 53.32           C
ATOM      9  O   LYS A 171       0.008 -13.273  -3.222  1.00 54.88           O
ATOM     10  CB  LYS A 171      -0.112 -10.495  -0.994  1.00 54.73           C
ATOM     11  CG  LYS A 171       0.811  -9.438  -0.379  1.00 57.59           C
ATOM     12  CD  LYS A 171       2.270  -9.926  -0.311  1.00 52.53           C
ATOM     13  CE  LYS A 171       3.255  -8.862  -0.769  1.00 52.92           C
ATOM     14  NZ  LYS A 171       3.984  -9.300  -1.993  1.00 49.31           N
ATOM     15  N   ASP A 172       0.387 -13.306  -1.012  1.00 47.73           N
ATOM     16  CA  ASP A 172       0.307 -14.763  -0.956  1.00 41.90           C
ATOM     17  C   ASP A 172      -0.251 -15.403   0.313  1.00 40.52           C
ATOM     18  O   ASP A 172      -0.905 -14.760   1.135  1.00 40.15           O
ATOM     19  CB  ASP A 172       1.724 -15.278  -1.155  1.00 41.18           C
ATOM     20  CG  ASP A 172       2.753 -14.412  -0.417  1.00 39.25           C
ATOM     21  OD1 ASP A 172       3.839 -14.152  -0.971  1.00 41.70           O
ATOM     22  OD2 ASP A 172       2.469 -13.979   0.723  1.00 35.86           O
ATOM     23  N   THR A 173       0.055 -16.692   0.463  1.00 36.07           N
ATOM     24  CA  THR A 173      -0.369 -17.476   1.617  1.00 34.21           C
ATOM     25  C   THR A 173       0.311 -16.986   2.892  1.00 32.87           C
ATOM     26  O   THR A 173      -0.131 -17.287   4.007  1.00 30.52           O
ATOM     27  CB  THR A 173      -0.034 -18.963   1.429  1.00 33.06           C
ATOM     28  OG1 THR A 173       1.349 -19.183   1.728  1.00 33.67           O
ATOM     29  CG2 THR A 173      -0.304 -19.388  -0.007  1.00 39.65           C
ATOM     30  N   TYR A 174       1.398 -16.239   2.728  1.00 30.98           N
ATOM     31  CA  TYR A 174       2.104 -15.708   3.883  1.00 32.41           C
ATOM     32  C   TYR A 174       1.250 -14.598   4.467  1.00 31.83           C
ATOM     33  O   TYR A 174       1.049 -14.526   5.678  1.00 31.97           O
ATOM     34  CB  TYR A 174       3.469 -15.150   3.478  1.00 34.15           C
ATOM     35  CG  TYR A 174       4.466 -16.216   3.094  1.00 37.96           C
ATOM     36  CD1 TYR A 174       5.072 -17.016   4.065  1.00 35.74           C
ATOM     37  CD2 TYR A 174       4.803 -16.428   1.757  1.00 38.76           C
ATOM     38  CE1 TYR A 174       5.987 -17.999   3.712  1.00 37.23           C
ATOM     39  CE2 TYR A 174       5.718 -17.410   1.395  1.00 40.82           C
ATOM     40  CZ  TYR A 174       6.304 -18.189   2.378  1.00 38.06           C
ATOM     41  OH  TYR A 174       7.199 -19.161   2.018  1.00 38.41           O
ATOM     42  N   THR A 175       0.750 -13.730   3.595  1.00 31.33           N
ATOM     43  CA  THR A 175      -0.091 -12.627   4.030  1.00 31.91           C
ATOM     44  C   THR A 175      -1.415 -13.187   4.545  1.00 30.21           C
ATOM     45  O   THR A 175      -2.045 -12.606   5.432  1.00 29.93           O
ATOM     46  CB  THR A 175      -0.338 -11.634   2.879  1.00 31.71           C
ATOM     47  OG1 THR A 175      -0.865 -12.329   1.746  1.00 34.62           O
ATOM     48  CG2 THR A 175       0.967 -10.965   2.482  1.00 31.71           C
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ATOM     49  N   ASP A 176      -1.817 -14.328   3.990  1.00 29.47           N
ATOM     50  CA  ASP A 176      -3.045 -14.996   4.400  1.00 29.68           C
ATOM     51  C   ASP A 176      -2.911 -15.378   5.858  1.00 29.92           C
ATOM     52  O   ASP A 176      -3.862 -15.294   6.631  1.00 31.10           O
ATOM     53  CB  ASP A 176      -3.260 -16.270   3.593  1.00 31.81           C
ATOM     54  CG  ASP A 176      -3.707 -15.994   2.190  1.00 32.58           C
ATOM     55  OD1 ASP A 176      -3.760 -16.952   1.393  1.00 32.60           O
ATOM     56  OD2 ASP A 176      -4.005 -14.821   1.884  1.00 36.03           O
ATOM     57  N   ARG A 177      -1.716 -15.818   6.226  1.00 28.12           N
ATOM     58  CA  ARG A 177      -1.464 -16.216   7.594  1.00 24.88           C
ATOM     59  C   ARG A 177      -1.402 -14.978   8.465  1.00 23.11           C
ATOM     60  O   ARG A 177      -1.895 -14.984   9.587  1.00 25.09           O
ATOM     61  CB  ARG A 177      -0.151 -16.997   7.686  1.00 27.66           C
ATOM     62  CG  ARG A 177      -0.165 -18.327   6.948  1.00 24.98           C
ATOM     63  CD  ARG A 177      -0.998 -19.351   7.697  1.00 26.86           C
ATOM     64  NE  ARG A 177      -2.419 -19.078   7.537  1.00 26.13           N
ATOM     65  CZ  ARG A 177      -3.068 -19.176   6.382  1.00 29.70           C
ATOM     66  NH1 ARG A 177      -2.423 -19.543   5.288  1.00 29.83           N
ATOM     67  NH2 ARG A 177      -4.358 -18.882   6.313  1.00 32.37           N
ATOM     68  N   LEU A 178      -0.801 -13.912   7.945  1.00 21.53           N
ATOM     69  CA  LEU A 178      -0.684 -12.673   8.708  1.00 23.11           C
ATOM     70  C   LEU A 178      -2.056 -12.020   8.853  1.00 24.28           C
ATOM     71  O   LEU A 178      -2.318 -11.289   9.813  1.00 23.53           O
ATOM     72  CB  LEU A 178       0.296 -11.725   8.028  1.00 25.25           C
ATOM     73  CG  LEU A 178       1.730 -12.263   7.943  1.00 28.31           C
ATOM     74  CD1 LEU A 178       2.486 -11.501   6.871  1.00 31.74           C
ATOM     75  CD2 LEU A 178       2.422 -12.127   9.292  1.00 25.22           C
ATOM     76  N   ASP A 179      -2.932 -12.285   7.893  1.00 24.53           N
ATOM     77  CA  ASP A 179      -4.289 -11.767   7.967  1.00 24.73           C
ATOM     78  C   ASP A 179      -4.941 -12.486   9.151  1.00 25.25           C
ATOM     79  O   ASP A 179      -5.608 -11.866   9.980  1.00 21.12           O
ATOM     80  CB  ASP A 179      -5.041 -12.086   6.681  1.00 25.10           C
ATOM     81  CG  ASP A 179      -4.940 -10.976   5.676  1.00 23.17           C
ATOM     82  OD1 ASP A 179      -4.607  -9.847   6.088  1.00 26.16           O
ATOM     83  OD2 ASP A 179      -5.191 -11.228   4.481  1.00 25.01           O
ATOM     84  N   ASP A 180      -4.725 -13.797   9.230  1.00 25.14           N
ATOM     85  CA  ASP A 180      -5.264 -14.601  10.319  1.00 23.86           C
ATOM     86  C   ASP A 180      -4.709 -14.099  11.653  1.00 23.90           C
ATOM     87  O   ASP A 180      -5.434 -13.981  12.644  1.00 24.51           O
ATOM     88  CB  ASP A 180      -4.878 -16.072  10.134  1.00 26.01           C
ATOM     89  CG  ASP A 180      -5.619 -16.742   8.981  1.00 30.51           C
ATOM     90  OD1 ASP A 180      -6.469 -16.086   8.340  1.00 35.33           O
ATOM     91  OD2 ASP A 180      -5.342 -17.932   8.713  1.00 30.65           O
ATOM     92  N   TRP A 181      -3.417 -13.799  11.672  1.00 19.92           N
ATOM     93  CA  TRP A 181      -2.761 -13.330  12.885  1.00 18.36           C
ATOM     94  C   TRP A 181      -3.347 -12.005  13.369  1.00 17.87           C
ATOM     95  O   TRP A 181      -3.531 -11.801  14.568  1.00 19.16           O
ATOM     96  CB  TRP A 181      -1.252 -13.201  12.628  1.00 18.86           C
ATOM     97  CG  TRP A 181      -0.450 -12.730  13.808  1.00 16.92           C
ATOM     98  CD1 TRP A 181       0.236 -11.557  13.912  1.00 12.32           C
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ATOM     99  CD2 TRP A 181      -0.241 -13.430  15.039  1.00 16.17           C
ATOM    100  NE1 TRP A 181       0.862 -11.481  15.131  1.00 17.96           N
ATOM    101  CE2 TRP A 181       0.589 -12.618  15.843  1.00 18.45           C
ATOM    102  CE3 TRP A 181      -0.673 -14.667  15.540  1.00 19.93           C
ATOM    103  CZ2 TRP A 181       0.999 -13.002  17.126  1.00 18.83           C
ATOM    104  CZ3 TRP A 181      -0.269 -15.050  16.813  1.00 19.84           C
ATOM    105  CH2 TRP A 181       0.561 -14.218  17.593  1.00 20.33           C
ATOM    106  N   ASN A 182      -3.637 -11.107  12.432  1.00 21.42           N
ATOM    107  CA  ASN A 182      -4.217  -9.803  12.761  1.00 22.79           C
ATOM    108  C   ASN A 182      -5.593  -9.951  13.418  1.00 22.02           C
ATOM    109  O   ASN A 182      -5.928  -9.224  14.353  1.00 24.82           O
ATOM    110  CB  ASN A 182      -4.356  -8.949  11.496  1.00 22.00           C
ATOM    111  CG  ASN A 182      -3.023  -8.457  10.979  1.00 23.18           C
ATOM    112  OD1 ASN A 182      -2.028  -8.489  11.699  1.00 21.68           O
ATOM    113  ND2 ASN A 182      -2.994  -7.998   9.729  1.00 18.15           N
ATOM    114  N   GLY A 183      -6.385 -10.892  12.916  1.00 22.13           N
ATOM    115  CA  GLY A 183      -7.710 -11.116  13.463  1.00 21.98           C
ATOM    116  C   GLY A 183      -7.633 -11.649  14.874  1.00 22.44           C
ATOM    117  O   GLY A 183      -8.550 -11.467  15.682  1.00 21.56           O
ATOM    118  N   ILE A 184      -6.517 -12.304  15.175  1.00 22.59           N
ATOM    119  CA  ILE A 184      -6.304 -12.871  16.496  1.00 20.81           C
ATOM    120  C   ILE A 184      -5.766 -11.812  17.443  1.00 20.27           C
ATOM    121  O   ILE A 184      -6.232 -11.679  18.579  1.00 20.47           O
ATOM    122  CB  ILE A 184      -5.282 -14.035  16.451  1.00 21.89           C
ATOM    123  CG1 ILE A 184      -5.898 -15.255  15.785  1.00 20.13           C
ATOM    124  CG2 ILE A 184      -4.829 -14.396  17.854  1.00 18.15           C
ATOM    125  CD1 ILE A 184      -4.871 -16.177  15.172  1.00 24.26           C
ATOM    126  N   ILE A 185      -4.785 -11.053  16.970  1.00 20.38           N
ATOM    127  CA  ILE A 185      -4.164 -10.047  17.811  1.00 20.31           C
ATOM    128  C   ILE A 185      -4.880  -8.715  17.894  1.00 22.22           C
ATOM    129  O   ILE A 185      -4.707  -7.984  18.865  1.00 19.75           O
ATOM    130  CB  ILE A 185      -2.693  -9.811  17.399  1.00 23.46           C
ATOM    131  CG1 ILE A 185      -2.616  -9.148  16.033  1.00 21.82           C
ATOM    132  CG2 ILE A 185      -1.957 -11.131  17.386  1.00 20.13           C
ATOM    133  CD1 ILE A 185      -1.233  -8.663  15.704  1.00 20.25           C
ATOM    134  N   ALA A 186      -5.690  -8.394  16.894  1.00 22.95           N
ATOM    135  CA  ALA A 186      -6.422  -7.133  16.921  1.00 20.64           C
ATOM    136  C   ALA A 186      -7.924  -7.415  16.814  1.00 20.30           C
ATOM    137  O   ALA A 186      -8.711  -6.974  17.648  1.00 16.98           O
ATOM    138  CB  ALA A 186      -5.961  -6.239  15.782  1.00 21.90           C
ATOM    139  N   GLY A 187      -8.295  -8.166  15.783  1.00 21.57           N
ATOM    140  CA  GLY A 187      -9.682  -8.523  15.564  1.00 27.15           C
ATOM    141  C   GLY A 187     -10.492  -7.364  15.030  1.00 28.73           C
ATOM    142  O   GLY A 187     -11.683  -7.266  15.303  1.00 30.52           O
ATOM    143  N   ASN A 188      -9.851  -6.485  14.269  1.00 27.86           N
ATOM    144  CA  ASN A 188     -10.542  -5.332  13.722  1.00 27.05           C
ATOM    145  C   ASN A 188     -11.698  -5.782  12.854  1.00 29.21           C
ATOM    146  O   ASN A 188     -12.730  -5.117  12.784  1.00 31.40           O
ATOM    147  CB  ASN A 188      -9.592  -4.473  12.894  1.00 25.16           C
ATOM    148  CG  ASN A 188      -8.837  -3.469  13.735  1.00 27.05           C
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ATOM    149  OD1 ASN A 188      -9.264  -3.111  14.837  1.00 25.01           O
ATOM    150  ND2 ASN A 188      -7.702  -3.006  13.221  1.00 23.69           N
ATOM    151  N   GLN A 189     -11.527  -6.919  12.194  1.00 28.90           N
ATOM    152  CA  GLN A 189     -12.572  -7.435  11.326  1.00 29.84           C
ATOM    153  C   GLN A 189     -13.826  -7.880  12.082  1.00 28.93           C
ATOM    154  O   GLN A 189     -14.846  -8.164  11.457  1.00 32.39           O
ATOM    155  CB  GLN A 189     -12.042  -8.607  10.509  1.00 32.91           C
ATOM    156  CG  GLN A 189     -12.411  -9.952  11.093  1.00 35.34           C
ATOM    157  CD  GLN A 189     -11.575 -11.059  10.532  1.00 38.79           C
ATOM    158  OE1 GLN A 189     -10.344 -10.985  10.544  1.00 45.83           O
ATOM    159  NE2 GLN A 189     -12.230 -12.100  10.030  1.00 37.87           N
ATOM    160  N   TYR A 190     -13.751  -7.951  13.409  1.00 24.91           N
ATOM    161  CA  TYR A 190     -14.891  -8.368  14.218  1.00 23.76           C
ATOM    162  C   TYR A 190     -15.508  -7.195  14.964  1.00 25.45           C
ATOM    163  O   TYR A 190     -16.486  -7.365  15.694  1.00 24.50           O
ATOM    164  CB  TYR A 190     -14.478  -9.420  15.256  1.00 25.38           C
ATOM    165  CG  TYR A 190     -13.773 -10.628  14.695  1.00 27.51           C
ATOM    166  CD1 TYR A 190     -14.488 -11.661  14.095  1.00 25.28           C
ATOM    167  CD2 TYR A 190     -12.386 -10.743  14.767  1.00 26.34           C
ATOM    168  CE1 TYR A 190     -13.846 -12.772  13.582  1.00 26.81           C
ATOM    169  CE2 TYR A 190     -11.736 -11.850  14.256  1.00 22.71           C
ATOM    170  CZ  TYR A 190     -12.468 -12.863  13.667  1.00 25.16           C
ATOM    171  OH  TYR A 190     -11.828 -13.980  13.176  1.00 26.34           O
ATOM    172  N   TYR A 191     -14.942  -6.006  14.794  1.00 22.42           N
ATOM    173  CA  TYR A 191     -15.463  -4.848  15.506  1.00 24.92           C
ATOM    174  C   TYR A 191     -16.905  -4.500  15.161  1.00 26.04           C
ATOM    175  O   TYR A 191     -17.339  -4.613  14.016  1.00 25.30           O
ATOM    176  CB  TYR A 191     -14.595  -3.617  15.263  1.00 19.20           C
ATOM    177  CG  TYR A 191     -14.962  -2.490  16.188  1.00 17.77           C
ATOM    178  CD1 TYR A 191     -14.690  -2.568  17.546  1.00 17.07           C
ATOM    179  CD2 TYR A 191     -15.612  -1.359  15.711  1.00 22.45           C
ATOM    180  CE1 TYR A 191     -15.056  -1.549  18.412  1.00 17.86           C
ATOM    181  CE2 TYR A 191     -15.984  -0.331  16.568  1.00 21.64           C
ATOM    182  CZ  TYR A 191     -15.704  -0.429  17.914  1.00 20.08           C
ATOM    183  OH  TYR A 191     -16.065   0.598  18.762  1.00 22.78           O
ATOM    184  N   ASP A 192     -17.640  -4.061  16.170  1.00 29.51           N
ATOM    185  CA  ASP A 192     -19.035  -3.677  16.006  1.00 26.88           C
ATOM    186  C   ASP A 192     -19.277  -2.547  16.984  1.00 24.87           C
ATOM    187  O   ASP A 192     -19.248  -2.754  18.199  1.00 24.87           O
ATOM    188  CB  ASP A 192     -19.944  -4.864  16.327  1.00 28.87           C
ATOM    189  CG  ASP A 192     -21.408  -4.470  16.461  1.00 32.04           C
ATOM    190  OD1 ASP A 192     -21.766  -3.311  16.162  1.00 32.70           O
ATOM    191  OD2 ASP A 192     -22.204  -5.333  16.872  1.00 30.86           O
ATOM    192  N   SER A 193     -19.500  -1.349  16.451  1.00 26.80           N
ATOM    193  CA  SER A 193     -19.735  -0.173  17.285  1.00 31.54           C
ATOM    194  C   SER A 193     -20.946  -0.320  18.196  1.00 32.46           C
ATOM    195  O   SER A 193     -20.988   0.271  19.275  1.00 35.05           O
ATOM    196  CB  SER A 193     -19.898   1.081  16.415  1.00 32.12           C
ATOM    197  OG  SER A 193     -20.823   0.873  15.360  1.00 33.42           O
ATOM    198  N   LYS A 194     -21.929  -1.109  17.776  1.00 32.92           N
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ATOM    199  CA  LYS A 194     -23.121  -1.291  18.594  1.00 36.50           C
ATOM    200  C   LYS A 194     -22.848  -2.254  19.746  1.00 35.06           C
ATOM    201  O   LYS A 194     -23.696  -2.442  20.622  1.00 33.04           O
ATOM    202  CB  LYS A 194     -24.290  -1.795  17.736  1.00 41.78           C
ATOM    203  CG  LYS A 194     -25.100  -0.678  17.061  1.00 50.01           C
ATOM    204  CD  LYS A 194     -25.798   0.240  18.088  1.00 59.61           C
ATOM    205  CE  LYS A 194     -26.696   1.302  17.416  1.00 61.69           C
ATOM    206  NZ  LYS A 194     -26.754   2.610  18.160  1.00 55.17           N
ATOM    207  N   ASN A 195     -21.658  -2.854  19.741  1.00 32.29           N
ATOM    208  CA  ASN A 195     -21.255  -3.788  20.790  1.00 26.47           C
ATOM    209  C   ASN A 195     -20.607  -3.014  21.928  1.00 28.37           C
ATOM    210  O   ASN A 195     -19.518  -2.470  21.777  1.00 33.56           O
ATOM    211  CB  ASN A 195     -20.270  -4.823  20.237  1.00 22.17           C
ATOM    212  CG  ASN A 195     -19.879  -5.874  21.269  1.00 15.37           C
ATOM    213  OD1 ASN A 195     -19.615  -5.557  22.425  1.00 21.78           O
ATOM    214  ND2 ASN A 195     -19.836  -7.128  20.848  1.00 16.44           N
ATOM    215  N   ASP A 196     -21.291  -2.971  23.063  1.00 29.40           N
ATOM    216  CA  ASP A 196     -20.838  -2.271  24.264  1.00 31.16           C
ATOM    217  C   ASP A 196     -19.382  -2.547  24.662  1.00 29.81           C
ATOM    218  O   ASP A 196     -18.589  -1.619  24.828  1.00 23.18           O
ATOM    219  CB  ASP A 196     -21.741  -2.656  25.441  1.00 41.96           C
ATOM    220  CG  ASP A 196     -22.412  -1.462  26.086  1.00 52.78           C
ATOM    221  OD1 ASP A 196     -22.394  -1.372  27.337  1.00 57.45           O
ATOM    222  OD2 ASP A 196     -22.962  -0.618  25.344  1.00 58.05           O
ATOM    223  N   GLN A 197     -19.049  -3.824  24.834  1.00 25.61           N
ATOM    224  CA  GLN A 197     -17.706  -4.222  25.247  1.00 26.24           C
ATOM    225  C   GLN A 197     -16.621  -3.841  24.252  1.00 22.47           C
ATOM    226  O   GLN A 197     -15.575  -3.338  24.639  1.00 25.12           O
ATOM    227  CB  GLN A 197     -17.659  -5.728  25.507  1.00 25.03           C
ATOM    228  CG  GLN A 197     -18.551  -6.198  26.649  1.00 29.71           C
ATOM    229  CD  GLN A 197     -18.252  -5.519  27.978  1.00 31.88           C
ATOM    230  OE1 GLN A 197     -17.245  -4.823  28.133  1.00 31.11           O
ATOM    231  NE2 GLN A 197     -19.134  -5.723  28.947  1.00 34.08           N
ATOM    232  N   MET A 198     -16.870  -4.086  22.973  1.00 23.25           N
ATOM    233  CA  MET A 198     -15.903  -3.756  21.940  1.00 20.65           C
ATOM    234  C   MET A 198     -15.674  -2.262  21.832  1.00 24.40           C
ATOM    235  O   MET A 198     -14.536  -1.807  21.723  1.00 29.36           O
ATOM    236  CB  MET A 198     -16.374  -4.279  20.596  1.00 16.82           C
ATOM    237  CG  MET A 198     -16.575  -5.755  20.596  1.00 12.00           C
ATOM    238  SD  MET A 198     -16.683  -6.307  18.938  1.00 21.29           S
ATOM    239  CE  MET A 198     -16.595  -8.069  19.174  1.00 18.90           C
ATOM    240  N   ALA A 199     -16.758  -1.498  21.849  1.00 21.81           N
ATOM    241  CA  ALA A 199     -16.660  -0.049  21.750  1.00 21.18           C
ATOM    242  C   ALA A 199     -15.783   0.497  22.871  1.00 22.66           C
ATOM    243  O   ALA A 199     -15.050   1.465  22.679  1.00 26.47           O
ATOM    244  CB  ALA A 199     -18.047   0.571  21.822  1.00 20.79           C
ATOM    245  N   LYS A 200     -15.860  -0.135  24.039  1.00 24.96           N
ATOM    246  CA  LYS A 200     -15.085   0.283  25.204  1.00 26.59           C
ATOM    247  C   LYS A 200     -13.577   0.077  25.015  1.00 27.29           C
ATOM    248  O   LYS A 200     -12.776   0.906  25.445  1.00 27.95           O
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ATOM    249  CB  LYS A 200     -15.558  -0.477  26.446  1.00 28.15           C
ATOM    250  CG  LYS A 200     -15.111   0.152  27.746  1.00 36.34           C
ATOM    251  CD  LYS A 200     -15.982  -0.267  28.920  1.00 43.70           C
ATOM    252  CE  LYS A 200     -15.511   0.408  30.210  1.00 50.19           C
ATOM    253  NZ  LYS A 200     -16.607   0.548  31.212  1.00 53.86           N
ATOM    254  N   LEU A 201     -13.200  -1.030  24.378  1.00 25.09           N
ATOM    255  CA  LEU A 201     -11.792  -1.337  24.124  1.00 25.47           C
ATOM    256  C   LEU A 201     -11.276  -0.409  23.028  1.00 25.98           C
ATOM    257  O   LEU A 201     -10.163   0.109  23.103  1.00 24.35           O
ATOM    258  CB  LEU A 201     -11.638  -2.788  23.671  1.00 20.63           C
ATOM    259  CG  LEU A 201     -10.275  -3.133  23.084  1.00 20.08           C
ATOM    260  CD1 LEU A 201      -9.223  -2.894  24.154  1.00 19.31           C
ATOM    261  CD2 LEU A 201     -10.247  -4.580  22.612  1.00 15.66           C
ATOM    262  N   ASN A 202     -12.099  -0.210  22.006  1.00 25.19           N
ATOM    263  CA  ASN A 202     -11.739   0.663  20.907  1.00 23.96           C
ATOM    264  C   ASN A 202     -11.539   2.075  21.418  1.00 25.37           C
ATOM    265  O   ASN A 202     -10.686   2.805  20.927  1.00 27.28           O
ATOM    266  CB  ASN A 202     -12.831   0.667  19.847  1.00 24.10           C
ATOM    267  CG  ASN A 202     -12.650   1.781  18.838  1.00 25.65           C
ATOM    268  OD1 ASN A 202     -13.364   2.781  18.873  1.00 24.97           O
ATOM    269  ND2 ASN A 202     -11.689   1.616  17.934  1.00 19.24           N
ATOM    270  N   GLN A 203     -12.335   2.467  22.404  1.00 26.96           N
ATOM    271  CA  GLN A 203     -12.217   3.803  22.961  1.00 27.55           C
ATOM    272  C   GLN A 203     -10.902   3.897  23.725  1.00 27.26           C
ATOM    273  O   GLN A 203     -10.249   4.942  23.736  1.00 24.34           O
ATOM    274  CB  GLN A 203     -13.400   4.099  23.891  1.00 29.48           C
ATOM    275  CG  GLN A 203     -13.732   5.587  24.043  1.00 37.48           C
ATOM    276  CD  GLN A 203     -13.937   6.316  22.705  1.00 43.62           C
ATOM    277  OE1 GLN A 203     -14.407   5.734  21.719  1.00 42.22           O
ATOM    278  NE2 GLN A 203     -13.588   7.600  22.676  1.00 46.18           N
ATOM    279  N   GLU A 204     -10.520   2.795  24.361  1.00 27.48           N
ATOM    280  CA  GLU A 204      -9.277   2.746  25.119  1.00 28.10           C
ATOM    281  C   GLU A 204      -8.094   2.910  24.156  1.00 27.44           C
ATOM    282  O   GLU A 204      -7.138   3.627  24.448  1.00 26.98           O
ATOM    283  CB  GLU A 204      -9.181   1.419  25.880  1.00 27.54           C
ATOM    284  CG  GLU A 204      -7.776   0.830  25.969  1.00 37.36           C
ATOM    285  CD  GLU A 204      -7.662  -0.252  27.033  1.00 39.98           C
ATOM    286  OE1 GLU A 204      -7.179  -1.363  26.718  1.00 40.04           O
ATOM    287  OE2 GLU A 204      -8.058   0.012  28.188  1.00 41.38           O
ATOM    288  N   LEU A 205      -8.174   2.250  23.004  1.00 24.35           N
ATOM    289  CA  LEU A 205      -7.124   2.335  22.000  1.00 23.98           C
ATOM    290  C   LEU A 205      -7.103   3.713  21.320  1.00 29.76           C
ATOM    291  O   LEU A 205      -6.045   4.179  20.886  1.00 29.42           O
ATOM    292  CB  LEU A 205      -7.316   1.241  20.948  1.00 20.75           C
ATOM    293  CG  LEU A 205      -6.980  -0.184  21.394  1.00 22.96           C
ATOM    294  CD1 LEU A 205      -7.451  -1.195  20.344  1.00 18.14           C
ATOM    295  CD2 LEU A 205      -5.473  -0.293  21.622  1.00 23.69           C
ATOM    296  N   GLU A 206      -8.269   4.357  21.223  1.00 28.76           N
ATOM    297  CA  GLU A 206      -8.379   5.683  20.610  1.00 26.35           C
ATOM    298  C   GLU A 206      -7.653   6.695  21.482  1.00 26.14           C
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ATOM    299  O   GLU A 206      -6.941   7.568  20.984  1.00 31.14           O
ATOM    300  CB  GLU A 206      -9.848   6.109  20.491  1.00 27.57           C
ATOM    301  CG  GLU A 206     -10.644   5.352  19.455  1.00 28.09           C
ATOM    302  CD  GLU A 206     -10.406   5.857  18.048  1.00 30.97           C
ATOM    303  OE1 GLU A 206      -9.428   5.409  17.404  1.00 29.91           O
ATOM    304  OE2 GLU A 206     -11.203   6.699  17.586  1.00 29.96           O
ATOM    305  N   GLY A 207      -7.846   6.569  22.789  1.00 22.82           N
ATOM    306  CA  GLY A 207      -7.207   7.470  23.728  1.00 24.97           C
ATOM    307  C   GLY A 207      -5.700   7.282  23.805  1.00 27.29           C
ATOM    308  O   GLY A 207      -4.966   8.246  24.006  1.00 27.41           O
ATOM    309  N   LYS A 208      -5.235   6.044  23.652  1.00 26.67           N
ATOM    310  CA  LYS A 208      -3.808   5.758  23.706  1.00 24.96           C
ATOM    311  C   LYS A 208      -3.127   6.440  22.536  1.00 23.43           C
ATOM    312  O   LYS A 208      -2.222   7.242  22.729  1.00 25.69           O
ATOM    313  CB  LYS A 208      -3.558   4.251  23.637  1.00 23.56           C
ATOM    314  CG  LYS A 208      -3.610   3.542  24.982  1.00 22.21           C
ATOM    315  CD  LYS A 208      -3.859   2.051  24.786  1.00 24.52           C
ATOM    316  CE  LYS A 208      -3.344   1.230  25.954  1.00 25.43           C
ATOM    317  NZ  LYS A 208      -3.835   1.735  27.267  1.00 25.90           N
ATOM    318  N   VAL A 209      -3.582   6.122  21.327  1.00 22.79           N
ATOM    319  CA  VAL A 209      -3.023   6.691  20.106  1.00 22.87           C
ATOM    320  C   VAL A 209      -2.992   8.216  20.135  1.00 26.28           C
ATOM    321  O   VAL A 209      -2.013   8.835  19.718  1.00 28.10           O
ATOM    322  CB  VAL A 209      -3.806   6.202  18.882  1.00 18.90           C
ATOM    323  CG1 VAL A 209      -3.296   6.862  17.621  1.00 13.76           C
ATOM    324  CG2 VAL A 209      -3.668   4.690  18.777  1.00 18.90           C
ATOM    325  N   ALA A 210      -4.057   8.822  20.642  1.00 29.41           N
ATOM    326  CA  ALA A 210      -4.125  10.273  20.738  1.00 28.43           C
ATOM    327  C   ALA A 210      -3.062  10.793  21.707  1.00 30.14           C
ATOM    328  O   ALA A 210      -2.409  11.803  21.445  1.00 30.84           O
ATOM    329  CB  ALA A 210      -5.519  10.704  21.204  1.00 27.62           C
ATOM    330  N   ASP A 211      -2.898  10.111  22.835  1.00 29.04           N
ATOM    331  CA  ASP A 211      -1.906  10.523  23.817  1.00 31.89           C
ATOM    332  C   ASP A 211      -0.517  10.393  23.201  1.00 30.61           C
ATOM    333  O   ASP A 211       0.322  11.277  23.349  1.00 33.13           O
ATOM    334  CB  ASP A 211      -2.009   9.651  25.069  1.00 34.60           C
ATOM    335  CG  ASP A 211      -3.241   9.972  25.901  1.00 40.73           C
ATOM    336  OD1 ASP A 211      -3.843  11.044  25.674  1.00 38.74           O
ATOM    337  OD2 ASP A 211      -3.607   9.156  26.782  1.00 41.14           O
ATOM    338  N   SER A 212      -0.296   9.287  22.499  1.00 28.68           N
ATOM    339  CA  SER A 212       0.973   9.013  21.847  1.00 28.16           C
ATOM    340  C   SER A 212       1.244  10.031  20.749  1.00 28.68           C
ATOM    341  O   SER A 212       2.369  10.506  20.583  1.00 26.39           O
ATOM    342  CB  SER A 212       0.959   7.606  21.238  1.00 27.32           C
ATOM    343  OG  SER A 212       0.861   6.610  22.241  1.00 29.82           O
ATOM    344  N   LEU A 213       0.204  10.361  19.997  1.00 27.03           N
ATOM    345  CA  LEU A 213       0.331  11.303  18.897  1.00 27.23           C
ATOM    346  C   LEU A 213       0.570  12.746  19.334  1.00 27.41           C
ATOM    347  O   LEU A 213       1.237  13.501  18.636  1.00 30.36           O
ATOM    348  CB  LEU A 213      -0.920  11.249  18.025  1.00 24.65           C
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ATOM    349  CG  LEU A 213      -1.045  10.095  17.038  1.00 22.93           C
ATOM    350  CD1 LEU A 213      -2.366  10.234  16.280  1.00 20.30           C
ATOM    351  CD2 LEU A 213       0.133  10.109  16.076  1.00 20.03           C
ATOM    352  N   SER A 214       0.027  13.129  20.483  1.00 25.64           N
ATOM    353  CA  SER A 214       0.179  14.496  20.961  1.00 32.16           C
ATOM    354  C   SER A 214       1.405  14.708  21.845  1.00 35.56           C
ATOM    355  O   SER A 214       1.698  15.835  22.254  1.00 36.68           O
ATOM    356  CB  SER A 214      -1.070  14.916  21.727  1.00 29.35           C
ATOM    357  OG  SER A 214      -1.206  14.155  22.911  1.00 36.25           O
ATOM    358  N   SER A 215       2.116  13.624  22.140  1.00 37.38           N
ATOM    359  CA  SER A 215       3.301  13.691  22.987  1.00 36.43           C
ATOM    360  C   SER A 215       4.559  13.329  22.208  1.00 38.11           C
ATOM    361  O   SER A 215       5.675  13.592  22.659  1.00 41.31           O
ATOM    362  CB  SER A 215       3.151  12.741  24.171  1.00 32.54           C
ATOM    363  OG  SER A 215       3.246  11.403  23.726  1.00 32.60           O
ATOM    364  N   ILE A 216       4.384  12.723  21.041  1.00 36.96           N
ATOM    365  CA  ILE A 216       5.529  12.344  20.231  1.00 39.41           C
ATOM    366  C   ILE A 216       6.328  13.589  19.845  1.00 43.96           C
ATOM    367  O   ILE A 216       5.764  14.589  19.385  1.00 46.85           O
ATOM    368  CB  ILE A 216       5.089  11.569  18.953  1.00 34.89           C
ATOM    369  CG1 ILE A 216       6.265  10.754  18.413  1.00 33.85           C
ATOM    370  CG2 ILE A 216       4.575  12.529  17.893  1.00 32.20           C
ATOM    371  CD1 ILE A 216       5.908   9.874  17.229  1.00 32.21           C
ATOM    372  N   SER A 217       7.641  13.527  20.052  1.00 45.40           N
ATOM    373  CA  SER A 217       8.526  14.642  19.731  1.00 46.51           C
ATOM    374  C   SER A 217       8.641  14.845  18.222  1.00 46.45           C
ATOM    375  O   SER A 217       8.673  13.883  17.450  1.00 44.01           O
ATOM    376  CB  SER A 217       9.917  14.400  20.327  1.00 48.12           C
ATOM    377  OG  SER A 217      10.049  15.014  21.602  1.00 52.62           O
ATOM    378  N   SER A 218       8.703  16.105  17.804  1.00 50.77           N
ATOM    379  CA  SER A 218       8.808  16.418  16.388  1.00 53.97           C
ATOM    380  C   SER A 218       9.903  17.435  16.067  1.00 55.71           C
ATOM    381  O   SER A 218      10.624  17.920  16.954  1.00 52.92           O
ATOM    382  CB  SER A 218       7.463  16.935  15.865  1.00 55.53           C
ATOM    383  OG  SER A 218       6.373  16.340  16.554  1.00 58.39           O
ATOM    384  N   GLN A 219      10.009  17.730  14.773  1.00 59.11           N
ATOM    385  CA  GLN A 219      10.969  18.682  14.217  1.00 61.20           C
ATOM    386  C   GLN A 219      12.442  18.409  14.518  1.00 59.78           C
ATOM    387  O   GLN A 219      12.814  18.113  15.659  1.00 60.78           O
ATOM    388  CB  GLN A 219      10.612  20.110  14.663  1.00 64.29           C
ATOM    389  CG  GLN A 219       9.566  20.807  13.781  1.00 62.21           C
ATOM    390  CD  GLN A 219      10.163  21.886  12.892  1.00 63.11           C
ATOM    391  OE1 GLN A 219       9.799  22.013  11.719  1.00 62.55           O
ATOM    392  NE2 GLN A 219      11.084  22.672  13.447  1.00 62.80           N
ATOM    393  N   ALA A 220      13.262  18.521  13.469  1.00 57.94           N
ATOM    394  CA  ALA A 220      14.712  18.329  13.536  1.00 55.40           C
ATOM    395  C   ALA A 220      15.102  17.144  14.406  1.00 55.00           C
ATOM    396  O   ALA A 220      15.426  17.316  15.585  1.00 49.81           O
ATOM    397  CB  ALA A 220      15.379  19.603  14.058  1.00 53.26           C
ATOM    398  N   ASP A 221      15.079  15.954  13.806  1.00 57.54           N
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ATOM    399  CA  ASP A 221      15.405  14.699  14.490  1.00 59.73           C
ATOM    400  C   ASP A 221      15.781  14.888  15.950  1.00 60.40           C
ATOM    401  O   ASP A 221      16.828  15.455  16.274  1.00 63.03           O
ATOM    402  CB  ASP A 221      16.532  13.975  13.759  1.00 62.91           C
ATOM    403  CG  ASP A 221      16.018  13.078  12.656  1.00 63.74           C
ATOM    404  OD1 ASP A 221      14.959  13.407  12.080  1.00 65.67           O
ATOM    405  OD2 ASP A 221      16.670  12.049  12.367  1.00 64.74           O
ATOM    406  N   ARG A 222      14.912  14.403  16.826  1.00 58.89           N
ATOM    407  CA  ARG A 222      15.104  14.523  18.264  1.00 56.62           C
ATOM    408  C   ARG A 222      16.021  13.450  18.838  1.00 53.75           C
ATOM    409  O   ARG A 222      16.609  12.657  18.102  1.00 53.66           O
ATOM    410  CB  ARG A 222      13.743  14.467  18.967  1.00 58.03           C
ATOM    411  CG  ARG A 222      12.564  14.197  18.028  1.00 58.32           C
ATOM    412  CD  ARG A 222      12.686  12.838  17.361  1.00 57.28           C
ATOM    413  NE  ARG A 222      11.491  12.467  16.609  1.00 58.34           N
ATOM    414  CZ  ARG A 222      11.479  12.214  15.304  1.00 58.40           C
ATOM    415  NH1 ARG A 222      12.601  12.295  14.600  1.00 60.06           N
ATOM    416  NH2 ARG A 222      10.351  11.859  14.705  1.00 56.21           N
ATOM    417  N   ILE A 223      16.132  13.439  20.163  1.00 51.45           N
ATOM    418  CA  ILE A 223      16.963  12.473  20.868  1.00 50.29           C
ATOM    419  C   ILE A 223      16.097  11.345  21.441  1.00 51.24           C
ATOM    420  O   ILE A 223      16.606  10.380  22.009  1.00 50.24           O
ATOM    421  CB  ILE A 223      17.754  13.166  22.020  1.00 47.58           C
ATOM    422  CG1 ILE A 223      16.929  13.176  23.307  1.00 46.76           C
ATOM    423  CG2 ILE A 223      18.090  14.597  21.635  1.00 45.48           C
ATOM    424  CD1 ILE A 223      17.765  13.128  24.565  1.00 48.08           C
ATOM    425  N   TYR A 224      14.785  11.474  21.270  1.00 51.41           N
ATOM    426  CA  TYR A 224      13.823  10.499  21.777  1.00 50.17           C
ATOM    427  C   TYR A 224      12.491  10.652  21.051  1.00 49.09           C
ATOM    428  O   TYR A 224      12.112  11.766  20.683  1.00 49.28           O
ATOM    429  CB  TYR A 224      13.592  10.718  23.278  1.00 50.76           C
ATOM    430  CG  TYR A 224      13.412  12.173  23.699  1.00 53.84           C
ATOM    431  CD1 TYR A 224      13.380  12.525  25.046  1.00 54.76           C
ATOM    432  CD2 TYR A 224      13.301  13.198  22.754  1.00 56.15           C
ATOM    433  CE1 TYR A 224      13.245  13.850  25.447  1.00 55.51           C
ATOM    434  CE2 TYR A 224      13.166  14.530  23.143  1.00 57.89           C
ATOM    435  CZ  TYR A 224      13.140  14.848  24.492  1.00 58.94           C
ATOM    436  OH  TYR A 224      13.022  16.161  24.887  1.00 60.64           O
ATOM    437  N   LEU A 225      11.783   9.545  20.839  1.00 45.71           N
ATOM    438  CA  LEU A 225      10.483   9.617  20.177  1.00 40.22           C
ATOM    439  C   LEU A 225       9.488  10.123  21.210  1.00 39.70           C
ATOM    440  O   LEU A 225       8.691  11.022  20.945  1.00 40.01           O
ATOM    441  CB  LEU A 225      10.056   8.243  19.666  1.00 33.79           C
ATOM    442  CG  LEU A 225      10.653   7.819  18.325  1.00 32.44           C
ATOM    443  CD1 LEU A 225       9.784   6.745  17.716  1.00 31.25           C
ATOM    444  CD2 LEU A 225      10.761   9.010  17.386  1.00 30.80           C
ATOM    445  N   TRP A 226       9.563   9.551  22.403  1.00 36.66           N
ATOM    446  CA  TRP A 226       8.688   9.939  23.486  1.00 37.07           C
ATOM    447  C   TRP A 226       9.547  10.189  24.715  1.00 41.10           C
ATOM    448  O   TRP A 226      10.284   9.308  25.153  1.00 42.37           O
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ATOM    449  CB  TRP A 226       7.665   8.826  23.752  1.00 35.18           C
ATOM    450  CG  TRP A 226       6.503   8.858  22.792  1.00 31.67           C
ATOM    451  CD1 TRP A 226       5.430   9.703  22.836  1.00 30.38           C
ATOM    452  CD2 TRP A 226       6.322   8.045  21.626  1.00 31.06           C
ATOM    453  NE1 TRP A 226       4.596   9.471  21.770  1.00 29.87           N
ATOM    454  CE2 TRP A 226       5.118   8.457  21.010  1.00 29.55           C
ATOM    455  CE3 TRP A 226       7.059   7.008  21.039  1.00 30.33           C
ATOM    456  CZ2 TRP A 226       4.634   7.871  19.837  1.00 28.02           C
ATOM    457  CZ3 TRP A 226       6.575   6.424  19.867  1.00 33.27           C
ATOM    458  CH2 TRP A 226       5.372   6.859  19.281  1.00 29.10           C
ATOM    459  N   GLU A 227       9.459  11.397  25.259  1.00 42.84           N
ATOM    460  CA  GLU A 227      10.229  11.781  26.439  1.00 45.27           C
ATOM    461  C   GLU A 227      10.171  10.767  27.591  1.00 46.31           C
ATOM    462  O   GLU A 227      11.130  10.628  28.354  1.00 45.31           O
ATOM    463  CB  GLU A 227       9.747  13.146  26.942  1.00 48.28           C
ATOM    464  CG  GLU A 227      10.851  14.073  27.413  1.00 52.70           C
ATOM    465  CD  GLU A 227      11.061  14.012  28.912  1.00 59.78           C
ATOM    466  OE1 GLU A 227      11.345  15.069  29.515  1.00 67.76           O
ATOM    467  OE2 GLU A 227      10.945  12.912  29.492  1.00 62.47           O
ATOM    468  N   LYS A 228       9.048  10.066  27.725  1.00 47.22           N
ATOM    469  CA  LYS A 228       8.881   9.085  28.797  1.00 46.79           C
ATOM    470  C   LYS A 228       9.741   7.841  28.597  1.00 44.20           C
ATOM    471  O   LYS A 228      10.081   7.158  29.562  1.00 44.29           O
ATOM    472  CB  LYS A 228       7.411   8.674  28.916  1.00 51.24           C
ATOM    473  CG  LYS A 228       6.612   9.494  29.921  1.00 57.40           C
ATOM    474  CD  LYS A 228       5.360  10.100  29.279  1.00 63.26           C
ATOM    475  CE  LYS A 228       4.083   9.404  29.747  1.00 62.52           C
ATOM    476  NZ  LYS A 228       3.425   8.642  28.644  1.00 62.54           N
ATOM    477  N   PHE A 229      10.081   7.548  27.346  1.00 39.64           N
ATOM    478  CA  PHE A 229      10.906   6.387  27.016  1.00 40.93           C
ATOM    479  C   PHE A 229      12.059   6.843  26.127  1.00 41.46           C
ATOM    480  O   PHE A 229      12.278   6.310  25.035  1.00 40.57           O
ATOM    481  CB  PHE A 229      10.066   5.332  26.291  1.00 41.02           C
ATOM    482  CG  PHE A 229       8.678   5.175  26.851  1.00 39.17           C
ATOM    483  CD1 PHE A 229       8.468   4.475  28.036  1.00 36.23           C
ATOM    484  CD2 PHE A 229       7.586   5.749  26.209  1.00 38.48           C
ATOM    485  CE1 PHE A 229       7.189   4.349  28.578  1.00 39.56           C
ATOM    486  CE2 PHE A 229       6.304   5.630  26.742  1.00 41.01           C
ATOM    487  CZ  PHE A 229       6.105   4.928  27.930  1.00 39.79           C
ATOM    488  N   SER A 230      12.795   7.835  26.620  1.00 44.01           N
ATOM    489  CA  SER A 230      13.923   8.429  25.904  1.00 46.38           C
ATOM    490  C   SER A 230      15.230   7.663  26.082  1.00 46.62           C
ATOM    491  O   SER A 230      15.915   7.341  25.103  1.00 47.04           O
ATOM    492  CB  SER A 230      14.120   9.869  26.378  1.00 46.02           C
ATOM    493  OG  SER A 230      13.942   9.974  27.783  1.00 47.73           O
ATOM    494  N   ASN A 231      15.570   7.388  27.339  1.00 45.55           N
ATOM    495  CA  ASN A 231      16.791   6.670  27.686  1.00 44.43           C
ATOM    496  C   ASN A 231      16.890   5.326  26.975  1.00 43.30           C
ATOM    497  O   ASN A 231      16.441   4.313  27.509  1.00 42.61           O
ATOM    498  CB  ASN A 231      16.839   6.447  29.196  1.00 43.08           C
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ATOM    499  CG  ASN A 231      18.171   5.909  29.656  1.00 46.43           C
ATOM    500  OD1 ASN A 231      19.085   5.712  28.849  1.00 43.54           O
ATOM    501  ND2 ASN A 231      18.296   5.665  30.956  1.00 43.28           N
ATOM    502  N   TYR A 232      17.487   5.316  25.784  1.00 43.58           N
ATOM    503  CA  TYR A 232      17.625   4.086  25.009  1.00 46.64           C
ATOM    504  C   TYR A 232      18.627   3.086  25.595  1.00 44.90           C
ATOM    505  O   TYR A 232      18.972   2.102  24.952  1.00 41.63           O
ATOM    506  CB  TYR A 232      17.984   4.412  23.551  1.00 54.49           C
ATOM    507  CG  TYR A 232      19.400   4.922  23.321  1.00 65.85           C
ATOM    508  CD1 TYR A 232      19.806   6.181  23.788  1.00 68.42           C
ATOM    509  CD2 TYR A 232      20.328   4.159  22.604  1.00 68.20           C
ATOM    510  CE1 TYR A 232      21.102   6.664  23.543  1.00 69.60           C
ATOM    511  CE2 TYR A 232      21.623   4.633  22.355  1.00 70.98           C
ATOM    512  CZ  TYR A 232      22.002   5.883  22.825  1.00 71.51           C
ATOM    513  OH  TYR A 232      23.277   6.344  22.573  1.00 71.03           O
ATOM    514  N   LYS A 233      19.084   3.347  26.817  1.00 46.53           N
ATOM    515  CA  LYS A 233      20.019   2.460  27.508  1.00 47.93           C
ATOM    516  C   LYS A 233      19.186   1.516  28.378  1.00 45.87           C
ATOM    517  O   LYS A 233      19.663   0.466  28.819  1.00 45.65           O
ATOM    518  CB  LYS A 233      20.989   3.268  28.380  1.00 48.98           C
ATOM    519  CG  LYS A 233      22.195   3.823  27.630  1.00 51.82           C
ATOM    520  CD  LYS A 233      22.964   4.830  28.486  1.00 56.42           C
ATOM    521  CE  LYS A 233      24.418   4.412  28.697  1.00 58.89           C
ATOM    522  NZ  LYS A 233      25.174   5.365  29.569  1.00 57.91           N
ATOM    523  N   THR A 234      17.941   1.916  28.634  1.00 44.34           N
ATOM    524  CA  THR A 234      16.991   1.103  29.396  1.00 41.15           C
ATOM    525  C   THR A 234      16.218   0.323  28.337  1.00 38.52           C
ATOM    526  O   THR A 234      15.370   0.888  27.651  1.00 39.15           O
ATOM    527  CB  THR A 234      15.983   1.963  30.166  1.00 37.22           C
ATOM    528  OG1 THR A 234      16.640   3.113  30.698  1.00 44.77           O
ATOM    529  CG2 THR A 234      15.372   1.175  31.298  1.00 40.12           C
ATOM    530  N   SER A 235      16.523  -0.962  28.190  1.00 35.42           N
ATOM    531  CA  SER A 235      15.866  -1.794  27.190  1.00 29.24           C
ATOM    532  C   SER A 235      14.345  -1.673  27.251  1.00 28.94           C
ATOM    533  O   SER A 235      13.673  -1.794  26.233  1.00 28.85           O
ATOM    534  CB  SER A 235      16.275  -3.255  27.376  1.00 30.51           C
ATOM    535  OG  SER A 235      16.258  -3.600  28.750  1.00 28.50           O
ATOM    536  N   ALA A 236      13.806  -1.436  28.443  1.00 28.03           N
ATOM    537  CA  ALA A 236      12.365  -1.298  28.609  1.00 30.31           C
ATOM    538  C   ALA A 236      11.781  -0.265  27.635  1.00 32.79           C
ATOM    539  O   ALA A 236      10.808  -0.539  26.929  1.00 32.54           O
ATOM    540  CB  ALA A 236      12.047  -0.902  30.044  1.00 28.13           C
ATOM    541  N   ASN A 237      12.387   0.919  27.597  1.00 34.10           N
ATOM    542  CA  ASN A 237      11.939   1.998  26.722  1.00 32.68           C
ATOM    543  C   ASN A 237      11.920   1.588  25.255  1.00 33.29           C
ATOM    544  O   ASN A 237      11.290   2.245  24.426  1.00 35.72           O
ATOM    545  CB  ASN A 237      12.841   3.222  26.897  1.00 33.07           C
ATOM    546  CG  ASN A 237      12.876   3.720  28.326  1.00 35.02           C
ATOM    547  OD1 ASN A 237      13.744   4.511  28.700  1.00 38.08           O
ATOM    548  ND2 ASN A 237      11.930   3.258  29.137  1.00 34.96           N
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ATOM    549  N   LEU A 238      12.605   0.499  24.934  1.00 33.79           N
ATOM    550  CA  LEU A 238      12.658   0.014  23.561  1.00 32.59           C
ATOM    551  C   LEU A 238      11.316  -0.581  23.133  1.00 35.15           C
ATOM    552  O   LEU A 238      10.729  -0.150  22.140  1.00 34.28           O
ATOM    553  CB  LEU A 238      13.753  -1.047  23.423  1.00 35.70           C
ATOM    554  CG  LEU A 238      14.857  -0.871  22.378  1.00 37.04           C
ATOM    555  CD1 LEU A 238      14.243  -0.880  20.998  1.00 40.88           C
ATOM    556  CD2 LEU A 238      15.608   0.420  22.627  1.00 34.67           C
ATOM    557  N   THR A 239      10.830  -1.568  23.882  1.00 33.79           N
ATOM    558  CA  THR A 239       9.569  -2.216  23.537  1.00 33.51           C
ATOM    559  C   THR A 239       8.333  -1.381  23.886  1.00 33.48           C
ATOM    560  O   THR A 239       7.275  -1.567  23.292  1.00 33.91           O
ATOM    561  CB  THR A 239       9.457  -3.624  24.186  1.00 34.57           C
ATOM    562  OG1 THR A 239       8.661  -3.558  25.374  1.00 36.90           O
ATOM    563  CG2 THR A 239      10.830  -4.161  24.525  1.00 26.43           C
ATOM    564  N   ALA A 240       8.465  -0.465  24.841  1.00 32.87           N
ATOM    565  CA  ALA A 240       7.353   0.402  25.217  1.00 32.26           C
ATOM    566  C   ALA A 240       7.112   1.391  24.081  1.00 34.80           C
ATOM    567  O   ALA A 240       5.988   1.855  23.859  1.00 37.42           O
ATOM    568  CB  ALA A 240       7.678   1.155  26.484  1.00 27.57           C
ATOM    569  N   THR A 241       8.184   1.701  23.361  1.00 33.25           N
ATOM    570  CA  THR A 241       8.125   2.630  22.246  1.00 28.68           C
ATOM    571  C   THR A 241       7.493   1.948  21.046  1.00 25.59           C
ATOM    572  O   THR A 241       6.615   2.510  20.399  1.00 27.81           O
ATOM    573  CB  THR A 241       9.549   3.139  21.860  1.00 29.16           C
ATOM    574  OG1 THR A 241       9.954   4.175  22.766  1.00 25.42           O
ATOM    575  CG2 THR A 241       9.557   3.689  20.440  1.00 25.67           C
ATOM    576  N   TYR A 242       7.934   0.732  20.754  1.00 22.37           N
ATOM    577  CA  TYR A 242       7.410  -0.013  19.616  1.00 26.52           C
ATOM    578  C   TYR A 242       5.953  -0.437  19.824  1.00 27.57           C
ATOM    579  O   TYR A 242       5.200  -0.622  18.867  1.00 23.29           O
ATOM    580  CB  TYR A 242       8.286  -1.237  19.355  1.00 28.99           C
ATOM    581  CG  TYR A 242       9.496  -0.923  18.507  1.00 31.58           C
ATOM    582  CD1 TYR A 242       9.358  -0.657  17.147  1.00 32.69           C
ATOM    583  CD2 TYR A 242      10.780  -0.905  19.057  1.00 31.23           C
ATOM    584  CE1 TYR A 242      10.468  -0.383  16.347  1.00 34.78           C
ATOM    585  CE2 TYR A 242      11.905  -0.631  18.260  1.00 32.36           C
ATOM    586  CZ  TYR A 242      11.736  -0.374  16.906  1.00 34.16           C
ATOM    587  OH  TYR A 242      12.818  -0.130  16.092  1.00 30.26           O
ATOM    588  N   ARG A 243       5.571  -0.585  21.085  1.00 25.99           N
ATOM    589  CA  ARG A 243       4.216  -0.972  21.435  1.00 27.56           C
ATOM    590  C   ARG A 243       3.279   0.185  21.136  1.00 29.72           C
ATOM    591  O   ARG A 243       2.111  -0.021  20.815  1.00 27.30           O
ATOM    592  CB  ARG A 243       4.145  -1.329  22.913  1.00 23.64           C
ATOM    593  CG  ARG A 243       4.015  -2.792  23.133  1.00 27.23           C
ATOM    594  CD  ARG A 243       4.594  -3.199  24.454  1.00 30.28           C
ATOM    595  NE  ARG A 243       5.058  -4.575  24.375  1.00 31.79           N
ATOM    596  CZ  ARG A 243       5.323  -5.349  25.420  1.00 37.27           C
ATOM    597  NH1 ARG A 243       5.741  -6.586  25.206  1.00 33.47           N
ATOM    598  NH2 ARG A 243       5.178  -4.898  26.664  1.00 32.47           N
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ATOM    599  N   LYS A 244       3.801   1.404  21.250  1.00 28.92           N
ATOM    600  CA  LYS A 244       3.014   2.596  20.969  1.00 28.82           C
ATOM    601  C   LYS A 244       2.680   2.674  19.475  1.00 28.16           C
ATOM    602  O   LYS A 244       1.617   3.175  19.102  1.00 25.57           O
ATOM    603  CB  LYS A 244       3.773   3.851  21.408  1.00 25.68           C
ATOM    604  CG  LYS A 244       3.672   4.139  22.898  1.00 25.39           C
ATOM    605  CD  LYS A 244       3.825   5.624  23.169  1.00 31.20           C
ATOM    606  CE  LYS A 244       2.952   6.076  24.326  1.00 33.92           C
ATOM    607  NZ  LYS A 244       3.034   5.131  25.477  1.00 43.60           N
ATOM    608  N   LEU A 245       3.579   2.170  18.627  1.00 24.58           N
ATOM    609  CA  LEU A 245       3.360   2.184  17.179  1.00 26.00           C
ATOM    610  C   LEU A 245       2.405   1.074  16.773  1.00 23.48           C
ATOM    611  O   LEU A 245       1.694   1.169  15.774  1.00 22.96           O
ATOM    612  CB  LEU A 245       4.678   1.996  16.429  1.00 24.56           C
ATOM    613  CG  LEU A 245       5.702   3.117  16.586  1.00 30.07           C
ATOM    614  CD1 LEU A 245       6.923   2.808  15.716  1.00 29.45           C
ATOM    615  CD2 LEU A 245       5.077   4.451  16.204  1.00 25.03           C
ATOM    616  N   GLU A 246       2.419   0.008  17.552  1.00 24.71           N
ATOM    617  CA  GLU A 246       1.564  -1.138  17.315  1.00 25.78           C
ATOM    618  C   GLU A 246       0.117  -0.727  17.600  1.00 25.12           C
ATOM    619  O   GLU A 246      -0.811  -1.119  16.895  1.00 26.90           O
ATOM    620  CB  GLU A 246       1.991  -2.244  18.253  1.00 23.35           C
ATOM    621  CG  GLU A 246       1.380  -3.566  17.997  1.00 27.48           C
ATOM    622  CD  GLU A 246       1.618  -4.441  19.171  1.00 30.39           C
ATOM    623  OE1 GLU A 246       2.093  -5.574  18.991  1.00 43.97           O
ATOM    624  OE2 GLU A 246       1.340  -3.983  20.290  1.00 31.73           O
ATOM    625  N   GLU A 247      -0.056   0.067  18.649  1.00 23.32           N
ATOM    626  CA  GLU A 247      -1.365   0.565  19.018  1.00 20.70           C
ATOM    627  C   GLU A 247      -1.886   1.406  17.860  1.00 23.35           C
ATOM    628  O   GLU A 247      -3.068   1.332  17.509  1.00 24.72           O
ATOM    629  CB  GLU A 247      -1.258   1.405  20.286  1.00 18.86           C
ATOM    630  CG  GLU A 247      -0.994   0.579  21.534  1.00 15.04           C
ATOM    631  CD  GLU A 247      -0.769   1.440  22.755  1.00 17.41           C
ATOM    632  OE1 GLU A 247      -0.525   2.655  22.580  1.00 21.23           O
ATOM    633  OE2 GLU A 247      -0.835   0.906  23.888  1.00 20.63           O
ATOM    634  N   MET A 248      -0.994   2.196  17.263  1.00 20.21           N
ATOM    635  CA  MET A 248      -1.333   3.054  16.128  1.00 19.19           C
ATOM    636  C   MET A 248      -1.691   2.206  14.924  1.00 18.31           C
ATOM    637  O   MET A 248      -2.524   2.588  14.104  1.00 21.92           O
ATOM    638  CB  MET A 248      -0.150   3.952  15.755  1.00 17.78           C
ATOM    639  CG  MET A 248       0.064   5.139  16.669  1.00 23.45           C
ATOM    640  SD  MET A 248       1.507   6.118  16.180  1.00 22.12           S
ATOM    641  CE  MET A 248       1.938   6.862  17.770  1.00 14.59           C
ATOM    642  N   ALA A 249      -1.049   1.052  14.816  1.00 17.28           N
ATOM    643  CA  ALA A 249      -1.280   0.143  13.704  1.00 18.95           C
ATOM    644  C   ALA A 249      -2.667  -0.480  13.794  1.00 21.57           C
ATOM    645  O   ALA A 249      -3.312  -0.744  12.780  1.00 21.85           O
ATOM    646  CB  ALA A 249      -0.234  -0.939  13.710  1.00 19.69           C
ATOM    647  N   LYS A 250      -3.115  -0.722  15.020  1.00 20.42           N
ATOM    648  CA  LYS A 250      -4.431  -1.300  15.245  1.00 21.24           C
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ATOM    649  C   LYS A 250      -5.535  -0.325  14.832  1.00 21.22           C
ATOM    650  O   LYS A 250      -6.424  -0.676  14.059  1.00 24.69           O
ATOM    651  CB  LYS A 250      -4.590  -1.663  16.718  1.00 19.20           C
ATOM    652  CG  LYS A 250      -3.885  -2.952  17.114  1.00 20.04           C
ATOM    653  CD  LYS A 250      -3.931  -3.121  18.615  1.00 18.21           C
ATOM    654  CE  LYS A 250      -3.464  -4.489  19.024  1.00 16.16           C
ATOM    655  NZ  LYS A 250      -3.549  -4.662  20.501  1.00 17.44           N
ATOM    656  N   GLN A 251      -5.460   0.902  15.339  1.00 20.83           N
ATOM    657  CA  GLN A 251      -6.454   1.919  15.039  1.00 18.78           C
ATOM    658  C   GLN A 251      -6.458   2.369  13.591  1.00 20.52           C
ATOM    659  O   GLN A 251      -7.516   2.640  13.026  1.00 22.65           O
ATOM    660  CB  GLN A 251      -6.257   3.113  15.962  1.00 18.97           C
ATOM    661  CG  GLN A 251      -6.544   2.786  17.423  1.00 22.19           C
ATOM    662  CD  GLN A 251      -7.868   2.034  17.618  1.00 26.65           C
ATOM    663  OE1 GLN A 251      -7.961   0.827  17.374  1.00 28.86           O
ATOM    664  NE2 GLN A 251      -8.892   2.751  18.063  1.00 21.88           N
ATOM    665  N   VAL A 252      -5.281   2.436  12.982  1.00 18.47           N
ATOM    666  CA  VAL A 252      -5.169   2.860  11.597  1.00 20.58           C
ATOM    667  C   VAL A 252      -5.815   1.866  10.631  1.00 21.03           C
ATOM    668  O   VAL A 252      -6.106   2.202   9.479  1.00 21.32           O
ATOM    669  CB  VAL A 252      -3.688   3.069  11.199  1.00 24.55           C
ATOM    670  CG1 VAL A 252      -3.164   1.837  10.479  1.00 26.33           C
ATOM    671  CG2 VAL A 252      -3.557   4.300  10.314  1.00 18.98           C
ATOM    672  N   THR A 253      -6.027   0.639  11.097  1.00 22.32           N
ATOM    673  CA  THR A 253      -6.648  -0.391  10.266  1.00 22.83           C
ATOM    674  C   THR A 253      -8.041  -0.763  10.793  1.00 20.66           C
ATOM    675  O   THR A 253      -8.588  -1.806  10.437  1.00 22.77           O
ATOM    676  CB  THR A 253      -5.779  -1.670  10.213  1.00 23.10           C
ATOM    677  OG1 THR A 253      -5.404  -2.046  11.543  1.00 19.37           O
ATOM    678  CG2 THR A 253      -4.521  -1.433   9.370  1.00 19.68           C
ATOM    679  N   ASN A 254      -8.596   0.095  11.644  1.00 22.50           N
ATOM    680  CA  ASN A 254      -9.923  -0.106  12.238  1.00 23.82           C
ATOM    681  C   ASN A 254     -10.871   0.916  11.601  1.00 22.80           C
ATOM    682  O   ASN A 254     -10.845   2.099  11.949  1.00 24.47           O
ATOM    683  CB  ASN A 254      -9.843   0.120  13.753  1.00 26.40           C
ATOM    684  CG  ASN A 254     -11.169  -0.102  14.460  1.00 29.35           C
ATOM    685  OD1 ASN A 254     -11.261   0.053  15.675  1.00 31.53           O
ATOM    686  ND2 ASN A 254     -12.199  -0.464  13.705  1.00 29.44           N
ATOM    687  N   PRO A 255     -11.725   0.471  10.661  1.00 22.45           N
ATOM    688  CA  PRO A 255     -12.667   1.371   9.984  1.00 20.97           C
ATOM    689  C   PRO A 255     -13.492   2.268  10.891  1.00 21.25           C
ATOM    690  O   PRO A 255     -13.962   3.319  10.463  1.00 21.95           O
ATOM    691  CB  PRO A 255     -13.533   0.428   9.154  1.00 19.58           C
ATOM    692  CG  PRO A 255     -12.660  -0.760   8.907  1.00 18.31           C
ATOM    693  CD  PRO A 255     -11.860  -0.917  10.181  1.00 19.56           C
ATOM    694  N   SER A 256     -13.646   1.867  12.148  1.00 21.24           N
ATOM    695  CA  SER A 256     -14.423   2.645  13.103  1.00 22.21           C
ATOM    696  C   SER A 256     -13.573   3.584  13.936  1.00 25.58           C
ATOM    697  O   SER A 256     -14.096   4.312  14.789  1.00 26.07           O
ATOM    698  CB  SER A 256     -15.204   1.720  14.034  1.00 22.96           C
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ATOM    699  OG  SER A 256     -16.240   1.062  13.328  1.00 22.72           O
ATOM    700  N   SER A 257     -12.263   3.572  13.706  1.00 24.21           N
ATOM    701  CA  SER A 257     -11.383   4.462  14.456  1.00 21.38           C
ATOM    702  C   SER A 257     -11.296   5.820  13.781  1.00 16.84           C
ATOM    703  O   SER A 257     -11.356   5.930  12.554  1.00 16.35           O
ATOM    704  CB  SER A 257      -9.971   3.882  14.573  1.00 26.62           C
ATOM    705  OG  SER A 257      -9.078   4.881  15.051  1.00 21.66           O
ATOM    706  N   ARG A 258     -11.152   6.855  14.596  1.00 20.75           N
ATOM    707  CA  ARG A 258     -11.030   8.206  14.083  1.00 21.79           C
ATOM    708  C   ARG A 258      -9.670   8.331  13.414  1.00 24.26           C
ATOM    709  O   ARG A 258      -9.359   9.356  12.821  1.00 24.24           O
ATOM    710  CB  ARG A 258     -11.126   9.210  15.223  1.00 21.27           C
ATOM    711  CG  ARG A 258      -9.829   9.419  15.959  1.00 31.59           C
ATOM    712  CD  ARG A 258      -9.874  10.688  16.770  1.00 34.98           C
ATOM    713  NE  ARG A 258      -9.675  10.414  18.186  1.00 43.54           N
ATOM    714  CZ  ARG A 258     -10.625   9.956  18.992  1.00 47.53           C
ATOM    715  NH1 ARG A 258     -11.839   9.724  18.515  1.00 50.36           N
ATOM    716  NH2 ARG A 258     -10.360   9.726  20.271  1.00 48.31           N
ATOM    717  N   TYR A 259      -8.863   7.278  13.521  1.00 24.23           N
ATOM    718  CA  TYR A 259      -7.532   7.270  12.931  1.00 22.40           C
ATOM    719  C   TYR A 259      -7.464   6.340  11.738  1.00 23.85           C
ATOM    720  O   TYR A 259      -6.395   6.102  11.186  1.00 25.04           O
ATOM    721  CB  TYR A 259      -6.509   6.832  13.973  1.00 19.81           C
ATOM    722  CG  TYR A 259      -6.438   7.760  15.147  1.00 11.65           C
ATOM    723  CD1 TYR A 259      -6.041   9.085  14.980  1.00 12.66           C
ATOM    724  CD2 TYR A 259      -6.808   7.332  16.414  1.00  8.73           C
ATOM    725  CE1 TYR A 259      -6.017   9.965  16.047  1.00 12.53           C
ATOM    726  CE2 TYR A 259      -6.790   8.198  17.489  1.00 13.34           C
ATOM    727  CZ  TYR A 259      -6.394   9.517  17.299  1.00 16.78           C
ATOM    728  OH  TYR A 259      -6.376  10.382  18.366  1.00 20.56           O
ATOM    729  N   TYR A 260      -8.607   5.809  11.336  1.00 22.34           N
ATOM    730  CA  TYR A 260      -8.641   4.897  10.210  1.00 21.71           C
ATOM    731  C   TYR A 260      -8.011   5.547   8.989  1.00 24.82           C
ATOM    732  O   TYR A 260      -8.445   6.610   8.552  1.00 21.76           O
ATOM    733  CB  TYR A 260     -10.083   4.499   9.907  1.00 17.31           C
ATOM    734  CG  TYR A 260     -10.224   3.524   8.773  1.00 12.31           C
ATOM    735  CD1 TYR A 260      -9.628   2.268   8.831  1.00 15.42           C
ATOM    736  CD2 TYR A 260     -10.980   3.842   7.655  1.00 14.56           C
ATOM    737  CE1 TYR A 260      -9.787   1.351   7.796  1.00 13.82           C
ATOM    738  CE2 TYR A 260     -11.147   2.936   6.613  1.00 18.23           C
ATOM    739  CZ  TYR A 260     -10.549   1.693   6.689  1.00 17.70           C
ATOM    740  OH  TYR A 260     -10.709   0.798   5.655  1.00 20.83           O
ATOM    741  N   GLN A 261      -6.980   4.898   8.450  1.00 26.40           N
ATOM    742  CA  GLN A 261      -6.264   5.382   7.271  1.00 22.82           C
ATOM    743  C   GLN A 261      -5.819   6.842   7.348  1.00 20.40           C
ATOM    744  O   GLN A 261      -5.690   7.517   6.324  1.00 24.43           O
ATOM    745  CB  GLN A 261      -7.119   5.154   6.023  1.00 21.43           C
ATOM    746  CG  GLN A 261      -7.298   3.680   5.706  1.00 23.77           C
ATOM    747  CD  GLN A 261      -8.244   3.415   4.552  1.00 24.50           C
ATOM    748  OE1 GLN A 261      -8.262   2.318   3.992  1.00 27.79           O
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ATOM    749  NE2 GLN A 261      -9.037   4.414   4.193  1.00 30.83           N
ATOM    750  N   ASP A 262      -5.577   7.325   8.563  1.00 18.43           N
ATOM    751  CA  ASP A 262      -5.146   8.703   8.770  1.00 24.86           C
ATOM    752  C   ASP A 262      -3.714   8.895   8.248  1.00 28.82           C
ATOM    753  O   ASP A 262      -2.787   8.218   8.698  1.00 26.19           O
ATOM    754  CB  ASP A 262      -5.229   9.050  10.263  1.00 24.63           C
ATOM    755  CG  ASP A 262      -4.749  10.464  10.570  1.00 30.09           C
ATOM    756  OD1 ASP A 262      -3.879  10.971   9.840  1.00 36.93           O
ATOM    757  OD2 ASP A 262      -5.233  11.073  11.546  1.00 33.35           O
ATOM    758  N   GLU A 263      -3.549   9.822   7.303  1.00 30.54           N
ATOM    759  CA  GLU A 263      -2.252  10.113   6.684  1.00 32.21           C
ATOM    760  C   GLU A 263      -1.149  10.391   7.697  1.00 32.13           C
ATOM    761  O   GLU A 263      -0.009   9.943   7.542  1.00 33.01           O
ATOM    762  CB  GLU A 263      -2.374  11.318   5.743  1.00 36.41           C
ATOM    763  CG  GLU A 263      -2.781  12.615   6.444  1.00 41.22           C
ATOM    764  CD  GLU A 263      -1.847  13.782   6.150  1.00 44.60           C
ATOM    765  OE1 GLU A 263      -0.722  13.543   5.667  1.00 41.83           O
ATOM    766  OE2 GLU A 263      -2.243  14.942   6.403  1.00 45.06           O
ATOM    767  N   THR A 264      -1.485  11.147   8.729  1.00 27.16           N
ATOM    768  CA  THR A 264      -0.517  11.477   9.748  1.00 29.15           C
ATOM    769  C   THR A 264      -0.121  10.234  10.545  1.00 31.30           C
ATOM    770  O   THR A 264       1.061  10.004  10.795  1.00 34.12           O
ATOM    771  CB  THR A 264      -1.083  12.553  10.689  1.00 29.11           C
ATOM    772  OG1 THR A 264      -1.149  13.796   9.984  1.00 33.49           O
ATOM    773  CG2 THR A 264      -0.204  12.725  11.921  1.00 32.08           C
ATOM    774  N   VAL A 265      -1.105   9.430  10.937  1.00 29.04           N
ATOM    775  CA  VAL A 265      -0.834   8.226  11.712  1.00 27.63           C
ATOM    776  C   VAL A 265      -0.070   7.191  10.895  1.00 26.45           C
ATOM    777  O   VAL A 265       0.733   6.436  11.440  1.00 23.93           O
ATOM    778  CB  VAL A 265      -2.142   7.594  12.249  1.00 26.76           C
ATOM    779  CG1 VAL A 265      -1.847   6.249  12.913  1.00 23.06           C
ATOM    780  CG2 VAL A 265      -2.793   8.543  13.245  1.00 24.96           C
ATOM    781  N   VAL A 266      -0.318   7.154   9.590  1.00 25.31           N
ATOM    782  CA  VAL A 266       0.374   6.204   8.724  1.00 27.68           C
ATOM    783  C   VAL A 266       1.846   6.606   8.608  1.00 28.63           C
ATOM    784  O   VAL A 266       2.737   5.765   8.706  1.00 24.81           O
ATOM    785  CB  VAL A 266      -0.247   6.166   7.307  1.00 26.96           C
ATOM    786  CG1 VAL A 266       0.658   5.391   6.362  1.00 28.95           C
ATOM    787  CG2 VAL A 266      -1.630   5.521   7.358  1.00 29.58           C
ATOM    788  N   ARG A 267       2.084   7.902   8.410  1.00 26.19           N
ATOM    789  CA  ARG A 267       3.433   8.425   8.278  1.00 26.21           C
ATOM    790  C   ARG A 267       4.183   8.349   9.592  1.00 23.72           C
ATOM    791  O   ARG A 267       5.371   8.058   9.619  1.00 24.11           O
ATOM    792  CB  ARG A 267       3.399   9.872   7.799  1.00 28.43           C
ATOM    793  CG  ARG A 267       4.781  10.458   7.562  1.00 29.22           C
ATOM    794  CD  ARG A 267       4.730  11.639   6.607  1.00 32.84           C
ATOM    795  NE  ARG A 267       3.907  12.708   7.155  1.00 34.85           N
ATOM    796  CZ  ARG A 267       2.714  13.048   6.683  1.00 33.39           C
ATOM    797  NH1 ARG A 267       2.197  12.402   5.644  1.00 31.38           N
ATOM    798  NH2 ARG A 267       2.039  14.033   7.257  1.00 33.24           N
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ATOM    799  N   THR A 268       3.485   8.618  10.684  1.00 20.83           N
ATOM    800  CA  THR A 268       4.104   8.565  11.995  1.00 22.96           C
ATOM    801  C   THR A 268       4.661   7.178  12.249  1.00 26.28           C
ATOM    802  O   THR A 268       5.769   7.033  12.765  1.00 29.95           O
ATOM    803  CB  THR A 268       3.100   8.903  13.114  1.00 22.40           C
ATOM    804  OG1 THR A 268       2.877  10.316  13.140  1.00 24.29           O
ATOM    805  CG2 THR A 268       3.637   8.459  14.480  1.00 20.20           C
ATOM    806  N   VAL A 269       3.894   6.155  11.894  1.00 27.19           N
ATOM    807  CA  VAL A 269       4.348   4.788  12.107  1.00 25.87           C
ATOM    808  C   VAL A 269       5.525   4.476  11.185  1.00 29.55           C
ATOM    809  O   VAL A 269       6.548   3.953  11.625  1.00 30.07           O
ATOM    810  CB  VAL A 269       3.214   3.774  11.852  1.00 24.75           C
ATOM    811  CG1 VAL A 269       3.763   2.348  11.879  1.00 20.56           C
ATOM    812  CG2 VAL A 269       2.132   3.942  12.905  1.00 17.66           C
ATOM    813  N   ARG A 270       5.378   4.808   9.910  1.00 28.22           N
ATOM    814  CA  ARG A 270       6.425   4.558   8.938  1.00 31.39           C
ATOM    815  C   ARG A 270       7.694   5.335   9.268  1.00 33.54           C
ATOM    816  O   ARG A 270       8.800   4.843   9.054  1.00 36.06           O
ATOM    817  CB  ARG A 270       5.940   4.934   7.540  1.00 30.33           C
ATOM    818  CG  ARG A 270       4.983   3.928   6.934  1.00 31.64           C
ATOM    819  CD  ARG A 270       4.529   4.385   5.574  1.00 27.98           C
ATOM    820  NE  ARG A 270       5.665   4.696   4.721  1.00 36.10           N
ATOM    821  CZ  ARG A 270       6.416   3.778   4.121  1.00 42.07           C
ATOM    822  NH1 ARG A 270       6.148   2.488   4.283  1.00 39.95           N
ATOM    823  NH2 ARG A 270       7.433   4.148   3.354  1.00 46.07           N
ATOM    824  N   ASP A 271       7.530   6.548   9.787  1.00 34.03           N
ATOM    825  CA  ASP A 271       8.670   7.389  10.142  1.00 33.48           C
ATOM    826  C   ASP A 271       9.339   6.871  11.398  1.00 33.48           C
ATOM    827  O   ASP A 271      10.559   6.712  11.450  1.00 35.54           O
ATOM    828  CB  ASP A 271       8.227   8.826  10.405  1.00 31.43           C
ATOM    829  CG  ASP A 271       8.202   9.666   9.157  1.00 32.79           C
ATOM    830  OD1 ASP A 271       8.160  10.910   9.293  1.00 36.66           O
ATOM    831  OD2 ASP A 271       8.216   9.090   8.046  1.00 30.05           O
ATOM    832  N   SER A 272       8.526   6.622  12.417  1.00 31.77           N
ATOM    833  CA  SER A 272       9.029   6.140  13.686  1.00 31.81           C
ATOM    834  C   SER A 272       9.803   4.837  13.533  1.00 31.12           C
ATOM    835  O   SER A 272      10.759   4.586  14.267  1.00 31.55           O
ATOM    836  CB  SER A 272       7.871   5.969  14.662  1.00 27.85           C
ATOM    837  OG  SER A 272       7.303   7.231  14.961  1.00 23.45           O
ATOM    838  N   MET A 273       9.394   4.015  12.577  1.00 30.98           N
ATOM    839  CA  MET A 273      10.067   2.751  12.347  1.00 31.53           C
ATOM    840  C   MET A 273      11.456   3.047  11.819  1.00 34.69           C
ATOM    841  O   MET A 273      12.447   2.522  12.327  1.00 36.56           O
ATOM    842  CB  MET A 273       9.303   1.907  11.328  1.00 27.42           C
ATOM    843  CG  MET A 273       8.094   1.181  11.900  1.00 30.77           C
ATOM    844  SD  MET A 273       8.459   0.198  13.367  1.00 30.35           S
ATOM    845  CE  MET A 273       9.052  -1.309  12.595  1.00 23.01           C
ATOM    846  N   GLU A 274      11.519   3.897  10.798  1.00 35.73           N
ATOM    847  CA  GLU A 274      12.783   4.273  10.185  1.00 35.21           C
ATOM    848  C   GLU A 274      13.723   4.952  11.173  1.00 34.51           C
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ATOM    849  O   GLU A 274      14.913   4.644  11.207  1.00 39.94           O
ATOM    850  CB  GLU A 274      12.538   5.198   8.998  1.00 39.43           C
ATOM    851  CG  GLU A 274      13.812   5.646   8.292  1.00 47.30           C
ATOM    852  CD  GLU A 274      14.546   4.502   7.606  1.00 52.06           C
ATOM    853  OE1 GLU A 274      15.708   4.700   7.181  1.00 53.62           O
ATOM    854  OE2 GLU A 274      13.962   3.404   7.491  1.00 55.02           O
ATOM    855  N   TRP A 275      13.202   5.872  11.977  1.00 32.10           N
ATOM    856  CA  TRP A 275      14.043   6.560  12.947  1.00 32.24           C
ATOM    857  C   TRP A 275      14.620   5.594  13.971  1.00 34.85           C
ATOM    858  O   TRP A 275      15.823   5.584  14.219  1.00 36.80           O
ATOM    859  CB  TRP A 275      13.261   7.649  13.675  1.00 31.10           C
ATOM    860  CG  TRP A 275      14.147   8.552  14.495  1.00 32.60           C
ATOM    861  CD1 TRP A 275      14.812   9.662  14.057  1.00 32.65           C
ATOM    862  CD2 TRP A 275      14.457   8.426  15.892  1.00 32.56           C
ATOM    863  NE1 TRP A 275      15.514  10.234  15.091  1.00 33.55           N
ATOM    864  CE2 TRP A 275      15.314   9.497  16.228  1.00 32.19           C
ATOM    865  CE3 TRP A 275      14.095   7.513  16.893  1.00 34.41           C
ATOM    866  CZ2 TRP A 275      15.814   9.681  17.522  1.00 34.35           C
ATOM    867  CZ3 TRP A 275      14.594   7.699  18.182  1.00 33.42           C
ATOM    868  CH2 TRP A 275      15.444   8.775  18.482  1.00 33.26           C
ATOM    869  N   MET A 276      13.759   4.784  14.574  1.00 35.73           N
ATOM    870  CA  MET A 276      14.197   3.820  15.577  1.00 36.29           C
ATOM    871  C   MET A 276      15.234   2.865  15.006  1.00 35.21           C
ATOM    872  O   MET A 276      16.207   2.515  15.674  1.00 37.49           O
ATOM    873  CB  MET A 276      13.001   3.023  16.100  1.00 35.33           C
ATOM    874  CG  MET A 276      12.178   3.779  17.108  1.00 33.42           C
ATOM    875  SD  MET A 276      12.953   3.703  18.708  1.00 37.86           S
ATOM    876  CE  MET A 276      12.853   5.373  19.221  1.00 34.74           C
ATOM    877  N   HIS A 277      15.017   2.450  13.766  1.00 33.98           N
ATOM    878  CA  HIS A 277      15.914   1.527  13.090  1.00 39.21           C
ATOM    879  C   HIS A 277      17.306   2.116  12.868  1.00 42.89           C
ATOM    880  O   HIS A 277      18.322   1.430  12.996  1.00 43.12           O
ATOM    881  CB  HIS A 277      15.307   1.126  11.748  1.00 38.01           C
ATOM    882  CG  HIS A 277      16.321   0.854  10.682  1.00 43.03           C
ATOM    883  ND1 HIS A 277      16.967  -0.357  10.563  1.00 45.66           N
ATOM    884  CD2 HIS A 277      16.780   1.628   9.671  1.00 45.31           C
ATOM    885  CE1 HIS A 277      17.780  -0.319   9.522  1.00 45.97           C
ATOM    886  NE2 HIS A 277      17.685   0.875   8.964  1.00 46.40           N
ATOM    887  N   LYS A 278      17.347   3.396  12.534  1.00 43.88           N
ATOM    888  CA  LYS A 278      18.605   4.058  12.278  1.00 44.44           C
ATOM    889  C   LYS A 278      19.382   4.427  13.530  1.00 45.38           C
ATOM    890  O   LYS A 278      20.607   4.379  13.528  1.00 49.02           O
ATOM    891  CB  LYS A 278      18.359   5.314  11.447  1.00 45.17           C
ATOM    892  CG  LYS A 278      17.981   5.027  10.008  1.00 52.16           C
ATOM    893  CD  LYS A 278      18.759   5.923   9.057  1.00 59.64           C
ATOM    894  CE  LYS A 278      20.230   5.520   8.989  1.00 62.87           C
ATOM    895  NZ  LYS A 278      21.153   6.665   9.260  1.00 64.63           N
ATOM    896  N   HIS A 279      18.681   4.765  14.607  1.00 44.27           N
ATOM    897  CA  HIS A 279      19.356   5.205  15.826  1.00 45.46           C
ATOM    898  C   HIS A 279      19.256   4.386  17.100  1.00 45.34           C
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ATOM    899  O   HIS A 279      19.960   4.689  18.062  1.00 45.83           O
ATOM    900  CB  HIS A 279      18.909   6.630  16.178  1.00 49.18           C
ATOM    901  CG  HIS A 279      18.980   7.586  15.032  1.00 54.89           C
ATOM    902  ND1 HIS A 279      19.650   8.789  15.109  1.00 55.69           N
ATOM    903  CD2 HIS A 279      18.480   7.515  13.775  1.00 56.95           C
ATOM    904  CE1 HIS A 279      19.560   9.414  13.949  1.00 58.40           C
ATOM    905  NE2 HIS A 279      18.855   8.662  13.122  1.00 58.74           N
ATOM    906  N   VAL A 280      18.403   3.370  17.148  1.00 43.17           N
ATOM    907  CA  VAL A 280      18.285   2.629  18.398  1.00 41.90           C
ATOM    908  C   VAL A 280      18.256   1.112  18.304  1.00 43.37           C
ATOM    909  O   VAL A 280      18.889   0.428  19.110  1.00 43.88           O
ATOM    910  CB  VAL A 280      17.031   3.085  19.187  1.00 40.19           C
ATOM    911  CG1 VAL A 280      17.173   2.726  20.651  1.00 41.03           C
ATOM    912  CG2 VAL A 280      16.840   4.581  19.044  1.00 40.05           C
ATOM    913  N   TYR A 281      17.533   0.580  17.326  1.00 42.90           N
ATOM    914  CA  TYR A 281      17.413  -0.867  17.191  1.00 40.07           C
ATOM    915  C   TYR A 281      17.691  -1.346  15.775  1.00 42.29           C
ATOM    916  O   TYR A 281      16.829  -1.269  14.897  1.00 43.73           O
ATOM    917  CB  TYR A 281      16.008  -1.292  17.630  1.00 36.11           C
ATOM    918  CG  TYR A 281      15.808  -2.778  17.805  1.00 31.31           C
ATOM    919  CD1 TYR A 281      16.145  -3.415  19.002  1.00 30.52           C
ATOM    920  CD2 TYR A 281      15.245  -3.542  16.786  1.00 28.19           C
ATOM    921  CE1 TYR A 281      15.919  -4.782  19.177  1.00 29.13           C
ATOM    922  CE2 TYR A 281      15.017  -4.902  16.949  1.00 28.76           C
ATOM    923  CZ  TYR A 281      15.353  -5.516  18.142  1.00 26.58           C
ATOM    924  OH  TYR A 281      15.111  -6.862  18.288  1.00 29.46           O
ATOM    925  N   ASN A 282      18.901  -1.852  15.566  1.00 42.55           N
ATOM    926  CA  ASN A 282      19.315  -2.353  14.260  1.00 44.03           C
ATOM    927  C   ASN A 282      20.320  -3.489  14.450  1.00 43.68           C
ATOM    928  O   ASN A 282      20.754  -3.761  15.573  1.00 40.22           O
ATOM    929  CB  ASN A 282      19.948  -1.221  13.449  1.00 47.90           C
ATOM    930  CG  ASN A 282      20.823  -0.324  14.301  1.00 49.61           C
ATOM    931  OD1 ASN A 282      20.427   0.781  14.684  1.00 55.42           O
ATOM    932  ND2 ASN A 282      22.020  -0.801  14.612  1.00 48.60           N
ATOM    933  N   SER A 283      20.687  -4.139  13.348  1.00 43.29           N
ATOM    934  CA  SER A 283      21.626  -5.266  13.364  1.00 43.37           C
ATOM    935  C   SER A 283      23.024  -4.957  13.910  1.00 44.36           C
ATOM    936  O   SER A 283      23.725  -5.852  14.392  1.00 43.20           O
ATOM    937  CB  SER A 283      21.765  -5.840  11.955  1.00 39.61           C
ATOM    938  OG  SER A 283      20.710  -6.730  11.670  1.00 36.46           O
ATOM    939  N   GLU A 284      23.435  -3.698  13.829  1.00 42.79           N
ATOM    940  CA  GLU A 284      24.755  -3.321  14.308  1.00 42.74           C
ATOM    941  C   GLU A 284      24.794  -3.036  15.805  1.00 39.78           C
ATOM    942  O   GLU A 284      25.850  -2.719  16.348  1.00 41.76           O
ATOM    943  CB  GLU A 284      25.258  -2.095  13.544  1.00 44.89           C
ATOM    944  CG  GLU A 284      25.072  -2.168  12.038  1.00 51.54           C
ATOM    945  CD  GLU A 284      25.146  -0.794  11.384  1.00 57.90           C
ATOM    946  OE1 GLU A 284      24.880  -0.688  10.166  1.00 61.44           O
ATOM    947  OE2 GLU A 284      25.472   0.186  12.091  1.00 58.14           O
ATOM    948  N   LYS A 285      23.654  -3.148  16.477  1.00 37.61           N
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ATOM    949  CA  LYS A 285      23.613  -2.874  17.911  1.00 36.16           C
ATOM    950  C   LYS A 285      23.812  -4.133  18.741  1.00 34.49           C
ATOM    951  O   LYS A 285      23.788  -5.247  18.217  1.00 34.26           O
ATOM    952  CB  LYS A 285      22.283  -2.217  18.293  1.00 37.08           C
ATOM    953  CG  LYS A 285      22.006  -0.910  17.566  1.00 38.13           C
ATOM    954  CD  LYS A 285      22.279   0.294  18.457  1.00 40.88           C
ATOM    955  CE  LYS A 285      22.324   1.592  17.651  1.00 39.70           C
ATOM    956  NZ  LYS A 285      22.908   2.714  18.438  1.00 40.32           N
ATOM    957  N   SER A 286      24.015  -3.941  20.039  1.00 30.84           N
ATOM    958  CA  SER A 286      24.210  -5.051  20.958  1.00 32.66           C
ATOM    959  C   SER A 286      23.259  -4.882  22.126  1.00 31.14           C
ATOM    960  O   SER A 286      22.905  -3.763  22.501  1.00 34.36           O
ATOM    961  CB  SER A 286      25.651  -5.078  21.481  1.00 33.68           C
ATOM    962  OG  SER A 286      26.476  -5.880  20.655  1.00 34.39           O
ATOM    963  N   ILE A 287      22.844  -5.996  22.707  1.00 29.73           N
ATOM    964  CA  ILE A 287      21.935  -5.935  23.829  1.00 30.74           C
ATOM    965  C   ILE A 287      22.445  -4.961  24.876  1.00 32.82           C
ATOM    966  O   ILE A 287      23.533  -5.129  25.420  1.00 38.87           O
ATOM    967  CB  ILE A 287      21.760  -7.314  24.476  1.00 28.25           C
ATOM    968  CG1 ILE A 287      21.112  -8.271  23.473  1.00 31.91           C
ATOM    969  CG2 ILE A 287      20.912  -7.193  25.731  1.00 29.39           C
ATOM    970  CD1 ILE A 287      21.240  -9.741  23.842  1.00 29.02           C
ATOM    971  N   VAL A 288      21.659  -3.928  25.138  1.00 33.74           N
ATOM    972  CA  VAL A 288      21.998  -2.939  26.144  1.00 34.12           C
ATOM    973  C   VAL A 288      20.851  -2.977  27.137  1.00 37.01           C
ATOM    974  O   VAL A 288      19.775  -2.447  26.868  1.00 41.43           O
ATOM    975  CB  VAL A 288      22.088  -1.543  25.539  1.00 34.07           C
ATOM    976  CG1 VAL A 288      22.350  -0.520  26.634  1.00 35.11           C
ATOM    977  CG2 VAL A 288      23.179  -1.514  24.489  1.00 34.93           C
ATOM    978  N   GLY A 289      21.081  -3.612  28.281  1.00 36.53           N
ATOM    979  CA  GLY A 289      20.036  -3.736  29.280  1.00 38.46           C
ATOM    980  C   GLY A 289      19.490  -5.153  29.225  1.00 39.92           C
ATOM    981  O   GLY A 289      20.256  -6.099  29.047  1.00 43.29           O
ATOM    982  N   ASN A 290      18.175  -5.314  29.353  1.00 38.64           N
ATOM    983  CA  ASN A 290      17.571  -6.648  29.321  1.00 34.90           C
ATOM    984  C   ASN A 290      17.500  -7.258  27.922  1.00 31.27           C
ATOM    985  O   ASN A 290      17.079  -6.612  26.962  1.00 34.51           O
ATOM    986  CB  ASN A 290      16.167  -6.608  29.931  1.00 35.10           C
ATOM    987  CG  ASN A 290      15.673  -7.982  30.353  1.00 38.29           C
ATOM    988  OD1 ASN A 290      14.689  -8.102  31.080  1.00 42.41           O
ATOM    989  ND2 ASN A 290      16.355  -9.025  29.900  1.00 40.02           N
ATOM    990  N   TRP A 291      17.922  -8.511  27.818  1.00 27.96           N
ATOM    991  CA  TRP A 291      17.899  -9.242  26.557  1.00 29.66           C
ATOM    992  C   TRP A 291      16.452  -9.438  26.093  1.00 31.28           C
ATOM    993  O   TRP A 291      16.151  -9.363  24.900  1.00 32.54           O
ATOM    994  CB  TRP A 291      18.540 -10.621  26.746  1.00 31.27           C
ATOM    995  CG  TRP A 291      17.729 -11.515  27.657  1.00 30.18           C
ATOM    996  CD1 TRP A 291      17.742 -11.529  29.028  1.00 32.26           C
ATOM    997  CD2 TRP A 291      16.735 -12.467  27.258  1.00 27.97           C
ATOM    998  NE1 TRP A 291      16.815 -12.429  29.502  1.00 32.05           N
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ATOM    999  CE2 TRP A 291      16.184 -13.018  28.437  1.00 30.64           C
ATOM   1000  CE3 TRP A 291      16.255 -12.907  26.017  1.00 26.81           C
ATOM   1001  CZ2 TRP A 291      15.175 -13.988  28.410  1.00 30.51           C
ATOM   1002  CZ3 TRP A 291      15.249 -13.873  25.992  1.00 27.67           C
ATOM   1003  CH2 TRP A 291      14.722 -14.400  27.182  1.00 27.48           C
ATOM   1004  N   TRP A 292      15.572  -9.713  27.054  1.00 33.47           N
ATOM   1005  CA  TRP A 292      14.157  -9.950  26.792  1.00 33.28           C
ATOM   1006  C   TRP A 292      13.570  -8.932  25.815  1.00 32.60           C
ATOM   1007  O   TRP A 292      12.870  -9.302  24.870  1.00 32.87           O
ATOM   1008  CB  TRP A 292      13.378  -9.934  28.114  1.00 37.64           C
ATOM   1009  CG  TRP A 292      11.992 -10.489  27.990  1.00 40.97           C
ATOM   1010  CD1 TRP A 292      11.606 -11.792  28.145  1.00 40.77           C
ATOM   1011  CD2 TRP A 292      10.810  -9.759  27.639  1.00 42.02           C
ATOM   1012  NE1 TRP A 292      10.256 -11.919  27.908  1.00 40.69           N
ATOM   1013  CE2 TRP A 292       9.743 -10.686  27.596  1.00 42.10           C
ATOM   1014  CE3 TRP A 292      10.548  -8.409  27.356  1.00 39.64           C
ATOM   1015  CZ2 TRP A 292       8.433 -10.305  27.279  1.00 41.32           C
ATOM   1016  CZ3 TRP A 292       9.245  -8.031  27.042  1.00 36.97           C
ATOM   1017  CH2 TRP A 292       8.206  -8.977  27.007  1.00 35.65           C
ATOM   1018  N   ASP A 293      13.873  -7.655  26.035  1.00 31.49           N
ATOM   1019  CA  ASP A 293      13.385  -6.579  25.174  1.00 29.17           C
ATOM   1020  C   ASP A 293      13.955  -6.655  23.763  1.00 30.19           C
ATOM   1021  O   ASP A 293      13.274  -6.320  22.795  1.00 29.27           O
ATOM   1022  CB  ASP A 293      13.741  -5.216  25.767  1.00 29.33           C
ATOM   1023  CG  ASP A 293      12.939  -4.889  27.003  1.00 32.84           C
ATOM   1024  OD1 ASP A 293      13.553  -4.485  28.014  1.00 30.59           O
ATOM   1025  OD2 ASP A 293      11.694  -5.033  26.967  1.00 34.19           O
ATOM   1026  N   TYR A 294      15.206  -7.093  23.643  1.00 28.02           N
ATOM   1027  CA  TYR A 294      15.853  -7.176  22.337  1.00 27.86           C
ATOM   1028  C   TYR A 294      15.438  -8.401  21.551  1.00 25.34           C
ATOM   1029  O   TYR A 294      15.482  -8.406  20.322  1.00 23.76           O
ATOM   1030  CB  TYR A 294      17.375  -7.194  22.498  1.00 26.37           C
ATOM   1031  CG  TYR A 294      17.975  -5.843  22.749  1.00 19.99           C
ATOM   1032  CD1 TYR A 294      17.994  -5.305  24.031  1.00 22.00           C
ATOM   1033  CD2 TYR A 294      18.521  -5.098  21.703  1.00 23.83           C
ATOM   1034  CE1 TYR A 294      18.543  -4.052  24.272  1.00 28.97           C
ATOM   1035  CE2 TYR A 294      19.077  -3.836  21.929  1.00 22.89           C
ATOM   1036  CZ  TYR A 294      19.083  -3.323  23.216  1.00 28.76           C
ATOM   1037  OH  TYR A 294      19.623  -2.081  23.459  1.00 32.27           O
ATOM   1038  N   GLU A 295      15.033  -9.443  22.263  1.00 27.18           N
ATOM   1039  CA  GLU A 295      14.661 -10.680  21.604  1.00 28.36           C
ATOM   1040  C   GLU A 295      13.198 -11.085  21.685  1.00 26.18           C
ATOM   1041  O   GLU A 295      12.743 -11.888  20.876  1.00 25.09           O
ATOM   1042  CB  GLU A 295      15.538 -11.808  22.138  1.00 30.23           C
ATOM   1043  CG  GLU A 295      17.010 -11.572  21.877  1.00 36.10           C
ATOM   1044  CD  GLU A 295      17.891 -12.566  22.597  1.00 40.33           C
ATOM   1045  OE1 GLU A 295      17.661 -13.787  22.433  1.00 38.60           O
ATOM   1046  OE2 GLU A 295      18.809 -12.122  23.323  1.00 41.38           O
ATOM   1047  N   ILE A 296      12.462 -10.548  22.653  1.00 27.58           N
ATOM   1048  CA  ILE A 296      11.042 -10.889  22.780  1.00 29.63           C
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ATOM   1049  C   ILE A 296      10.116  -9.663  22.734  1.00 26.35           C
ATOM   1050  O   ILE A 296       9.340  -9.492  21.791  1.00 25.98           O
ATOM   1051  CB  ILE A 296      10.776 -11.688  24.080  1.00 29.78           C
ATOM   1052  CG1 ILE A 296      11.640 -12.951  24.102  1.00 26.46           C
ATOM   1053  CG2 ILE A 296       9.311 -12.094  24.152  1.00 32.03           C
ATOM   1054  CD1 ILE A 296      11.531 -13.743  25.392  1.00 27.75           C
ATOM   1055  N   GLY A 297      10.209  -8.811  23.746  1.00 26.16           N
ATOM   1056  CA  GLY A 297       9.370  -7.630  23.798  1.00 26.51           C
ATOM   1057  C   GLY A 297       9.305  -6.825  22.514  1.00 28.70           C
ATOM   1058  O   GLY A 297       8.249  -6.714  21.896  1.00 28.07           O
ATOM   1059  N   THR A 298      10.437  -6.263  22.103  1.00 28.32           N
ATOM   1060  CA  THR A 298      10.485  -5.434  20.901  1.00 27.57           C
ATOM   1061  C   THR A 298      10.196  -6.170  19.593  1.00 25.94           C
ATOM   1062  O   THR A 298       9.428  -5.684  18.770  1.00 29.77           O
ATOM   1063  CB  THR A 298      11.847  -4.686  20.804  1.00 23.37           C
ATOM   1064  OG1 THR A 298      11.859  -3.611  21.750  1.00 24.14           O
ATOM   1065  CG2 THR A 298      12.062  -4.111  19.419  1.00 19.54           C
ATOM   1066  N   PRO A 299      10.816  -7.338  19.373  1.00 25.03           N
ATOM   1067  CA  PRO A 299      10.544  -8.055  18.123  1.00 20.78           C
ATOM   1068  C   PRO A 299       9.061  -8.390  17.932  1.00 21.04           C
ATOM   1069  O   PRO A 299       8.569  -8.438  16.804  1.00 18.43           O
ATOM   1070  CB  PRO A 299      11.407  -9.310  18.229  1.00 23.43           C
ATOM   1071  CG  PRO A 299      12.474  -8.955  19.233  1.00 23.96           C
ATOM   1072  CD  PRO A 299      11.809  -8.033  20.209  1.00 25.07           C
ATOM   1073  N   ARG A 300       8.352  -8.635  19.028  1.00 20.78           N
ATOM   1074  CA  ARG A 300       6.928  -8.956  18.935  1.00 24.13           C
ATOM   1075  C   ARG A 300       6.147  -7.712  18.496  1.00 24.12           C
ATOM   1076  O   ARG A 300       5.358  -7.769  17.551  1.00 27.77           O
ATOM   1077  CB  ARG A 300       6.405  -9.467  20.284  1.00 23.19           C
ATOM   1078  CG  ARG A 300       6.615 -10.967  20.498  1.00 22.94           C
ATOM   1079  CD  ARG A 300       6.331 -11.375  21.934  1.00 23.90           C
ATOM   1080  NE  ARG A 300       5.059 -10.841  22.410  1.00 29.22           N
ATOM   1081  CZ  ARG A 300       4.797 -10.545  23.681  1.00 27.62           C
ATOM   1082  NH1 ARG A 300       5.717 -10.729  24.618  1.00 31.85           N
ATOM   1083  NH2 ARG A 300       3.620 -10.045  24.015  1.00 25.61           N
ATOM   1084  N   ALA A 301       6.387  -6.592  19.177  1.00 22.50           N
ATOM   1085  CA  ALA A 301       5.726  -5.323  18.864  1.00 25.32           C
ATOM   1086  C   ALA A 301       5.963  -4.915  17.408  1.00 27.01           C
ATOM   1087  O   ALA A 301       5.082  -4.338  16.759  1.00 27.27           O
ATOM   1088  CB  ALA A 301       6.233  -4.228  19.800  1.00 22.94           C
ATOM   1089  N   ILE A 302       7.156  -5.226  16.903  1.00 23.57           N
ATOM   1090  CA  ILE A 302       7.530  -4.900  15.535  1.00 20.42           C
ATOM   1091  C   ILE A 302       6.808  -5.812  14.545  1.00 19.53           C
ATOM   1092  O   ILE A 302       6.282  -5.356  13.533  1.00 22.62           O
ATOM   1093  CB  ILE A 302       9.069  -5.043  15.334  1.00 20.95           C
ATOM   1094  CG1 ILE A 302       9.790  -3.886  16.024  1.00 20.70           C
ATOM   1095  CG2 ILE A 302       9.415  -5.071  13.836  1.00 19.11           C
ATOM   1096  CD1 ILE A 302      11.297  -3.869  15.793  1.00 25.33           C
ATOM   1097  N   ASN A 303       6.803  -7.105  14.835  1.00 18.78           N
ATOM   1098  CA  ASN A 303       6.148  -8.080  13.978  1.00 20.66           C
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ATOM   1099  C   ASN A 303       4.674  -7.719  13.840  1.00 20.76           C
ATOM   1100  O   ASN A 303       4.109  -7.749  12.748  1.00 21.26           O
ATOM   1101  CB  ASN A 303       6.244  -9.480  14.595  1.00 23.23           C
ATOM   1102  CG  ASN A 303       7.630 -10.083  14.472  1.00 25.48           C
ATOM   1103  OD1 ASN A 303       8.412  -9.693  13.608  1.00 25.20           O
ATOM   1104  ND2 ASN A 303       7.936 -11.046  15.336  1.00 24.26           N
ATOM   1105  N   ASN A 304       4.062  -7.390  14.971  1.00 21.90           N
ATOM   1106  CA  ASN A 304       2.651  -7.045  15.011  1.00 21.75           C
ATOM   1107  C   ASN A 304       2.361  -5.764  14.253  1.00 22.34           C
ATOM   1108  O   ASN A 304       1.396  -5.698  13.487  1.00 25.39           O
ATOM   1109  CB  ASN A 304       2.195  -6.917  16.459  1.00 15.09           C
ATOM   1110  CG  ASN A 304       2.070  -8.266  17.151  1.00 19.18           C
ATOM   1111  OD1 ASN A 304       2.386  -9.314  16.575  1.00 19.19           O
ATOM   1112  ND2 ASN A 304       1.607  -8.246  18.396  1.00 21.07           N
ATOM   1113  N   THR A 305       3.200  -4.751  14.456  1.00 19.38           N
ATOM   1114  CA  THR A 305       3.019  -3.477  13.777  1.00 19.36           C
ATOM   1115  C   THR A 305       3.077  -3.646  12.268  1.00 19.67           C
ATOM   1116  O   THR A 305       2.253  -3.099  11.538  1.00 20.53           O
ATOM   1117  CB  THR A 305       4.095  -2.458  14.187  1.00 17.17           C
ATOM   1118  OG1 THR A 305       4.030  -2.222  15.599  1.00 16.78           O
ATOM   1119  CG2 THR A 305       3.880  -1.150  13.448  1.00 17.25           C
ATOM   1120  N   LEU A 306       4.060  -4.410  11.805  1.00 21.63           N
ATOM   1121  CA  LEU A 306       4.248  -4.650  10.380  1.00 20.58           C
ATOM   1122  C   LEU A 306       3.153  -5.538   9.800  1.00 20.98           C
ATOM   1123  O   LEU A 306       2.721  -5.344   8.669  1.00 21.47           O
ATOM   1124  CB  LEU A 306       5.615  -5.293  10.141  1.00 21.35           C
ATOM   1125  CG  LEU A 306       6.817  -4.420  10.506  1.00 23.97           C
ATOM   1126  CD1 LEU A 306       8.081  -5.258  10.464  1.00 20.99           C
ATOM   1127  CD2 LEU A 306       6.920  -3.252   9.527  1.00 24.00           C
ATOM   1128  N   SER A 307       2.718  -6.523  10.575  1.00 23.65           N
ATOM   1129  CA  SER A 307       1.658  -7.428  10.131  1.00 23.86           C
ATOM   1130  C   SER A 307       0.351  -6.660   9.919  1.00 22.34           C
ATOM   1131  O   SER A 307      -0.332  -6.839   8.910  1.00 22.24           O
ATOM   1132  CB  SER A 307       1.433  -8.529  11.169  1.00 21.79           C
ATOM   1133  OG  SER A 307       0.590  -9.547  10.657  1.00 22.07           O
ATOM   1134  N   LEU A 308       0.013  -5.803  10.878  1.00 22.14           N
ATOM   1135  CA  LEU A 308      -1.208  -5.015  10.795  1.00 23.09           C
ATOM   1136  C   LEU A 308      -1.169  -4.022   9.635  1.00 25.14           C
ATOM   1137  O   LEU A 308      -2.129  -3.923   8.868  1.00 25.10           O
ATOM   1138  CB  LEU A 308      -1.448  -4.277  12.113  1.00 19.11           C
ATOM   1139  CG  LEU A 308      -1.773  -5.198  13.293  1.00 19.05           C
ATOM   1140  CD1 LEU A 308      -1.786  -4.413  14.605  1.00 14.50           C
ATOM   1141  CD2 LEU A 308      -3.121  -5.855  13.057  1.00 22.21           C
ATOM   1142  N   MET A 309      -0.054  -3.304   9.491  1.00 24.85           N
ATOM   1143  CA  MET A 309       0.079  -2.314   8.423  1.00 21.92           C
ATOM   1144  C   MET A 309       0.808  -2.814   7.183  1.00 23.98           C
ATOM   1145  O   MET A 309       1.370  -2.022   6.431  1.00 25.94           O
ATOM   1146  CB  MET A 309       0.788  -1.064   8.954  1.00 22.55           C
ATOM   1147  CG  MET A 309      -0.046  -0.266   9.927  1.00 16.77           C
ATOM   1148  SD  MET A 309       0.660   1.306  10.417  1.00 23.63           S
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ATOM   1149  CE  MET A 309       0.810   2.129   8.842  1.00 18.17           C
ATOM   1150  N   LYS A 310       0.779  -4.116   6.943  1.00 24.50           N
ATOM   1151  CA  LYS A 310       1.484  -4.659   5.793  1.00 24.26           C
ATOM   1152  C   LYS A 310       1.080  -4.059   4.456  1.00 26.23           C
ATOM   1153  O   LYS A 310       1.836  -4.134   3.485  1.00 25.95           O
ATOM   1154  CB  LYS A 310       1.346  -6.183   5.752  1.00 23.96           C
ATOM   1155  CG  LYS A 310      -0.061  -6.721   5.567  1.00 22.71           C
ATOM   1156  CD  LYS A 310      -0.012  -8.223   5.272  1.00 21.40           C
ATOM   1157  CE  LYS A 310      -1.224  -8.946   5.820  1.00 21.27           C
ATOM   1158  NZ  LYS A 310      -2.476  -8.353   5.283  1.00 23.68           N
ATOM   1159  N   GLU A 311      -0.099  -3.448   4.396  1.00 28.30           N
ATOM   1160  CA  GLU A 311      -0.557  -2.845   3.141  1.00 27.27           C
ATOM   1161  C   GLU A 311       0.019  -1.441   2.943  1.00 27.90           C
ATOM   1162  O   GLU A 311      -0.263  -0.792   1.934  1.00 26.89           O
ATOM   1163  CB  GLU A 311      -2.094  -2.792   3.091  1.00 27.32           C
ATOM   1164  CG  GLU A 311      -2.767  -4.161   3.172  1.00 31.53           C
ATOM   1165  CD  GLU A 311      -4.246  -4.143   2.782  1.00 34.26           C
ATOM   1166  OE1 GLU A 311      -4.912  -3.101   2.963  1.00 34.24           O
ATOM   1167  OE2 GLU A 311      -4.743  -5.180   2.294  1.00 35.40           O
ATOM   1168  N   TYR A 312       0.825  -0.983   3.904  1.00 27.83           N
ATOM   1169  CA  TYR A 312       1.453   0.337   3.848  1.00 27.15           C
ATOM   1170  C   TYR A 312       2.975   0.255   3.774  1.00 28.69           C
ATOM   1171  O   TYR A 312       3.640   1.265   3.553  1.00 28.85           O
ATOM   1172  CB  TYR A 312       1.078   1.162   5.076  1.00 30.02           C
ATOM   1173  CG  TYR A 312      -0.383   1.516   5.150  1.00 32.50           C
ATOM   1174  CD1 TYR A 312      -0.895   2.587   4.420  1.00 33.12           C
ATOM   1175  CD2 TYR A 312      -1.255   0.781   5.948  1.00 31.56           C
ATOM   1176  CE1 TYR A 312      -2.252   2.921   4.484  1.00 35.97           C
ATOM   1177  CE2 TYR A 312      -2.613   1.104   6.020  1.00 35.65           C
ATOM   1178  CZ  TYR A 312      -3.103   2.175   5.286  1.00 32.98           C
ATOM   1179  OH  TYR A 312      -4.436   2.499   5.358  1.00 33.63           O
ATOM   1180  N   PHE A 313       3.515  -0.943   3.982  1.00 28.47           N
ATOM   1181  CA  PHE A 313       4.959  -1.178   3.943  1.00 28.96           C
ATOM   1182  C   PHE A 313       5.275  -2.088   2.769  1.00 29.82           C
ATOM   1183  O   PHE A 313       4.497  -2.986   2.453  1.00 31.28           O
ATOM   1184  CB  PHE A 313       5.426  -1.866   5.226  1.00 23.80           C
ATOM   1185  CG  PHE A 313       5.572  -0.939   6.396  1.00 27.90           C
ATOM   1186  CD1 PHE A 313       6.668  -0.082   6.491  1.00 27.25           C
ATOM   1187  CD2 PHE A 313       4.625  -0.933   7.416  1.00 23.90           C
ATOM   1188  CE1 PHE A 313       6.818   0.771   7.591  1.00 28.51           C
ATOM   1189  CE2 PHE A 313       4.763  -0.088   8.519  1.00 24.22           C
ATOM   1190  CZ  PHE A 313       5.862   0.767   8.608  1.00 27.65           C
ATOM   1191  N   SER A 314       6.404  -1.854   2.113  1.00 30.18           N
ATOM   1192  CA  SER A 314       6.794  -2.702   0.996  1.00 32.00           C
ATOM   1193  C   SER A 314       7.495  -3.901   1.612  1.00 32.43           C
ATOM   1194  O   SER A 314       7.927  -3.847   2.766  1.00 31.99           O
ATOM   1195  CB  SER A 314       7.760  -1.966   0.068  1.00 33.29           C
ATOM   1196  OG  SER A 314       9.049  -1.896   0.647  1.00 32.43           O
ATOM   1197  N   ASP A 315       7.602  -4.987   0.859  1.00 31.97           N
ATOM   1198  CA  ASP A 315       8.276  -6.168   1.371  1.00 35.06           C
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ATOM   1199  C   ASP A 315       9.720  -5.824   1.735  1.00 36.46           C
ATOM   1200  O   ASP A 315      10.245  -6.285   2.749  1.00 37.15           O
ATOM   1201  CB  ASP A 315       8.229  -7.276   0.329  1.00 33.19           C
ATOM   1202  CG  ASP A 315       6.852  -7.878   0.207  1.00 36.12           C
ATOM   1203  OD1 ASP A 315       6.133  -7.880   1.223  1.00 41.93           O
ATOM   1204  OD2 ASP A 315       6.479  -8.343  -0.889  1.00 35.72           O
ATOM   1205  N   GLU A 316      10.347  -4.990   0.914  1.00 38.52           N
ATOM   1206  CA  GLU A 316      11.724  -4.567   1.145  1.00 41.15           C
ATOM   1207  C   GLU A 316      11.843  -3.875   2.494  1.00 41.08           C
ATOM   1208  O   GLU A 316      12.816  -4.066   3.232  1.00 38.78           O
ATOM   1209  CB  GLU A 316      12.171  -3.597   0.049  1.00 46.26           C
ATOM   1210  CG  GLU A 316      12.760  -4.265  -1.178  1.00 55.79           C
ATOM   1211  CD  GLU A 316      11.698  -4.868  -2.080  1.00 62.26           C
ATOM   1212  OE1 GLU A 316      11.980  -5.054  -3.284  1.00 67.83           O
ATOM   1213  OE2 GLU A 316      10.582  -5.154  -1.592  1.00 64.74           O
ATOM   1214  N   GLU A 317      10.850  -3.055   2.814  1.00 37.15           N
ATOM   1215  CA  GLU A 317      10.869  -2.341   4.074  1.00 34.68           C
ATOM   1216  C   GLU A 317      10.637  -3.320   5.213  1.00 33.17           C
ATOM   1217  O   GLU A 317      11.258  -3.215   6.269  1.00 35.20           O
ATOM   1218  CB  GLU A 317       9.798  -1.250   4.073  1.00 36.52           C
ATOM   1219  CG  GLU A 317      10.287   0.088   3.540  1.00 36.97           C
ATOM   1220  CD  GLU A 317       9.167   0.952   2.987  1.00 39.32           C
ATOM   1221  OE1 GLU A 317       8.079   0.406   2.709  1.00 41.95           O
ATOM   1222  OE2 GLU A 317       9.378   2.175   2.829  1.00 40.29           O
ATOM   1223  N   ILE A 318       9.753  -4.287   4.998  1.00 31.45           N
ATOM   1224  CA  ILE A 318       9.470  -5.263   6.039  1.00 32.38           C
ATOM   1225  C   ILE A 318      10.737  -6.062   6.357  1.00 33.71           C
ATOM   1226  O   ILE A 318      11.146  -6.162   7.519  1.00 29.01           O
ATOM   1227  CB  ILE A 318       8.329  -6.216   5.613  1.00 33.09           C
ATOM   1228  CG1 ILE A 318       6.999  -5.457   5.612  1.00 30.95           C
ATOM   1229  CG2 ILE A 318       8.240  -7.393   6.576  1.00 28.97           C
ATOM   1230  CD1 ILE A 318       5.922  -6.144   4.820  1.00 29.42           C
ATOM   1231  N   LYS A 319      11.357  -6.627   5.323  1.00 33.09           N
ATOM   1232  CA  LYS A 319      12.585  -7.390   5.506  1.00 33.31           C
ATOM   1233  C   LYS A 319      13.592  -6.499   6.230  1.00 30.89           C
ATOM   1234  O   LYS A 319      14.176  -6.882   7.248  1.00 28.57           O
ATOM   1235  CB  LYS A 319      13.148  -7.811   4.149  1.00 35.46           C
ATOM   1236  CG  LYS A 319      13.098  -9.308   3.900  1.00 44.20           C
ATOM   1237  CD  LYS A 319      14.029  -9.717   2.766  1.00 47.92           C
ATOM   1238  CE  LYS A 319      15.255 -10.462   3.288  1.00 51.52           C
ATOM   1239  NZ  LYS A 319      15.146 -11.935   3.069  1.00 53.31           N
ATOM   1240  N   LYS A 320      13.771  -5.295   5.703  1.00 27.58           N
ATOM   1241  CA  LYS A 320      14.692  -4.336   6.282  1.00 27.96           C
ATOM   1242  C   LYS A 320      14.449  -4.129   7.773  1.00 31.43           C
ATOM   1243  O   LYS A 320      15.397  -4.060   8.561  1.00 35.58           O
ATOM   1244  CB  LYS A 320      14.563  -3.000   5.550  1.00 29.40           C
ATOM   1245  CG  LYS A 320      15.140  -1.806   6.295  1.00 29.53           C
ATOM   1246  CD  LYS A 320      15.013  -0.539   5.460  1.00 33.45           C
ATOM   1247  CE  LYS A 320      14.616   0.657   6.313  1.00 36.76           C
ATOM   1248  NZ  LYS A 320      14.268   1.838   5.469  1.00 41.30           N
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ATOM   1249  N   TYR A 321      13.180  -4.035   8.166  1.00 31.13           N
ATOM   1250  CA  TYR A 321      12.839  -3.803   9.566  1.00 26.82           C
ATOM   1251  C   TYR A 321      12.855  -5.035  10.467  1.00 23.51           C
ATOM   1252  O   TYR A 321      12.823  -4.912  11.692  1.00 23.05           O
ATOM   1253  CB  TYR A 321      11.482  -3.107   9.651  1.00 31.65           C
ATOM   1254  CG  TYR A 321      11.526  -1.683   9.155  1.00 31.21           C
ATOM   1255  CD1 TYR A 321      12.405  -0.756   9.716  1.00 29.99           C
ATOM   1256  CD2 TYR A 321      10.703  -1.264   8.116  1.00 30.71           C
ATOM   1257  CE1 TYR A 321      12.459   0.551   9.253  1.00 34.24           C
ATOM   1258  CE2 TYR A 321      10.748   0.037   7.646  1.00 32.88           C
ATOM   1259  CZ  TYR A 321      11.623   0.942   8.216  1.00 33.15           C
ATOM   1260  OH  TYR A 321      11.646   2.240   7.760  1.00 34.10           O
ATOM   1261  N   THR A 322      12.909  -6.220   9.872  1.00 26.16           N
ATOM   1262  CA  THR A 322      12.949  -7.441  10.667  1.00 29.60           C
ATOM   1263  C   THR A 322      14.346  -8.086  10.664  1.00 32.47           C
ATOM   1264  O   THR A 322      14.610  -9.026  11.419  1.00 33.11           O
ATOM   1265  CB  THR A 322      11.898  -8.460  10.179  1.00 26.82           C
ATOM   1266  OG1 THR A 322      12.026  -8.663   8.767  1.00 26.20           O
ATOM   1267  CG2 THR A 322      10.497  -7.947  10.489  1.00 29.63           C
ATOM   1268  N   ASP A 323      15.241  -7.573   9.821  1.00 32.23           N
ATOM   1269  CA  ASP A 323      16.606  -8.092   9.756  1.00 29.43           C
ATOM   1270  C   ASP A 323      17.174  -8.117  11.167  1.00 27.39           C
ATOM   1271  O   ASP A 323      17.685  -9.135  11.620  1.00 31.12           O
ATOM   1272  CB  ASP A 323      17.475  -7.193   8.877  1.00 26.81           C
ATOM   1273  CG  ASP A 323      17.337  -7.508   7.397  1.00 31.62           C
ATOM   1274  OD1 ASP A 323      17.503  -6.573   6.582  1.00 34.44           O
ATOM   1275  OD2 ASP A 323      17.066  -8.681   7.040  1.00 29.48           O
ATOM   1276  N   VAL A 324      17.067  -6.990  11.865  1.00 29.01           N
ATOM   1277  CA  VAL A 324      17.566  -6.877  13.228  1.00 26.65           C
ATOM   1278  C   VAL A 324      17.001  -7.952  14.156  1.00 30.28           C
ATOM   1279  O   VAL A 324      17.657  -8.337  15.123  1.00 31.27           O
ATOM   1280  CB  VAL A 324      17.258  -5.480  13.822  1.00 28.11           C
ATOM   1281  CG1 VAL A 324      15.759  -5.208  13.774  1.00 30.83           C
ATOM   1282  CG2 VAL A 324      17.773  -5.393  15.255  1.00 28.20           C
ATOM   1283  N   ILE A 325      15.789  -8.432  13.875  1.00 29.56           N
ATOM   1284  CA  ILE A 325      15.180  -9.469  14.710  1.00 28.67           C
ATOM   1285  C   ILE A 325      15.929 -10.759  14.433  1.00 27.44           C
ATOM   1286  O   ILE A 325      16.164 -11.563  15.330  1.00 25.26           O
ATOM   1287  CB  ILE A 325      13.679  -9.692  14.371  1.00 32.05           C
ATOM   1288  CG1 ILE A 325      12.812  -8.648  15.072  1.00 30.39           C
ATOM   1289  CG2 ILE A 325      13.231 -11.078  14.828  1.00 30.90           C
ATOM   1290  CD1 ILE A 325      11.430  -8.512  14.445  1.00 30.81           C
ATOM   1291  N   GLU A 326      16.289 -10.951  13.170  1.00 30.85           N
ATOM   1292  CA  GLU A 326      17.029 -12.136  12.754  1.00 33.24           C
ATOM   1293  C   GLU A 326      18.421 -12.090  13.375  1.00 33.80           C
ATOM   1294  O   GLU A 326      19.011 -13.123  13.669  1.00 35.53           O
ATOM   1295  CB  GLU A 326      17.145 -12.186  11.227  1.00 33.41           C
ATOM   1296  CG  GLU A 326      15.847 -12.518  10.520  1.00 35.28           C
ATOM   1297  CD  GLU A 326      15.057 -13.585  11.246  1.00 40.13           C
ATOM   1298  OE1 GLU A 326      15.634 -14.652  11.538  1.00 36.16           O
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ATOM   1299  OE2 GLU A 326      13.861 -13.358  11.527  1.00 41.26           O
ATOM   1300  N   LYS A 327      18.935 -10.882  13.579  1.00 33.52           N
ATOM   1301  CA  LYS A 327      20.249 -10.707  14.174  1.00 32.69           C
ATOM   1302  C   LYS A 327      20.251 -11.104  15.649  1.00 33.84           C
ATOM   1303  O   LYS A 327      21.107 -11.869  16.091  1.00 34.03           O
ATOM   1304  CB  LYS A 327      20.702  -9.254  14.035  1.00 30.36           C
ATOM   1305  CG  LYS A 327      22.121  -8.998  14.522  1.00 33.18           C
ATOM   1306  CD  LYS A 327      22.128  -8.314  15.891  1.00 38.75           C
ATOM   1307  CE  LYS A 327      23.406  -8.619  16.668  1.00 39.29           C
ATOM   1308  NZ  LYS A 327      24.324  -7.448  16.725  1.00 37.76           N
ATOM   1309  N   PHE A 328      19.293 -10.594  16.414  1.00 32.47           N
ATOM   1310  CA  PHE A 328      19.241 -10.909  17.833  1.00 33.53           C
ATOM   1311  C   PHE A 328      18.660 -12.282  18.141  1.00 33.69           C
ATOM   1312  O   PHE A 328      18.996 -12.884  19.166  1.00 36.49           O
ATOM   1313  CB  PHE A 328      18.452  -9.837  18.576  1.00 36.45           C
ATOM   1314  CG  PHE A 328      19.201  -8.552  18.742  1.00 40.37           C
ATOM   1315  CD1 PHE A 328      20.349  -8.500  19.532  1.00 43.60           C
ATOM   1316  CD2 PHE A 328      18.777  -7.396  18.093  1.00 40.48           C
ATOM   1317  CE1 PHE A 328      21.068  -7.310  19.673  1.00 43.23           C
ATOM   1318  CE2 PHE A 328      19.485  -6.202  18.225  1.00 43.14           C
ATOM   1319  CZ  PHE A 328      20.634  -6.158  19.017  1.00 43.34           C
ATOM   1320  N   VAL A 329      17.798 -12.779  17.257  1.00 31.63           N
ATOM   1321  CA  VAL A 329      17.162 -14.080  17.459  1.00 30.16           C
ATOM   1322  C   VAL A 329      17.228 -14.947  16.206  1.00 32.50           C
ATOM   1323  O   VAL A 329      16.232 -15.119  15.505  1.00 32.33           O
ATOM   1324  CB  VAL A 329      15.679 -13.916  17.872  1.00 31.45           C
ATOM   1325  CG1 VAL A 329      15.077 -15.264  18.215  1.00 29.01           C
ATOM   1326  CG2 VAL A 329      15.573 -12.979  19.062  1.00 33.44           C
ATOM   1327  N   PRO A 330      18.419 -15.493  15.899  1.00 35.11           N
ATOM   1328  CA  PRO A 330      18.630 -16.354  14.725  1.00 32.16           C
ATOM   1329  C   PRO A 330      18.316 -17.831  14.992  1.00 30.87           C
ATOM   1330  O   PRO A 330      17.992 -18.594  14.077  1.00 28.44           O
ATOM   1331  CB  PRO A 330      20.109 -16.163  14.423  1.00 33.40           C
ATOM   1332  CG  PRO A 330      20.721 -15.993  15.801  1.00 28.91           C
ATOM   1333  CD  PRO A 330      19.677 -15.279  16.648  1.00 32.30           C
ATOM   1334  N   ASP A 331      18.418 -18.219  16.259  1.00 31.74           N
ATOM   1335  CA  ASP A 331      18.214 -19.595  16.674  1.00 32.42           C
ATOM   1336  C   ASP A 331      16.881 -19.826  17.363  1.00 30.25           C
ATOM   1337  O   ASP A 331      16.656 -19.346  18.475  1.00 31.11           O
ATOM   1338  CB  ASP A 331      19.361 -20.001  17.605  1.00 33.54           C
ATOM   1339  CG  ASP A 331      19.362 -21.479  17.927  1.00 36.90           C
ATOM   1340  OD1 ASP A 331      18.699 -22.254  17.197  1.00 35.71           O
ATOM   1341  OD2 ASP A 331      20.031 -21.861  18.913  1.00 33.28           O
ATOM   1342  N   PRO A 332      15.984 -20.587  16.716  1.00 30.09           N
ATOM   1343  CA  PRO A 332      14.659 -20.889  17.265  1.00 31.45           C
ATOM   1344  C   PRO A 332      14.706 -21.745  18.527  1.00 33.31           C
ATOM   1345  O   PRO A 332      13.692 -21.908  19.208  1.00 36.27           O
ATOM   1346  CB  PRO A 332      13.947 -21.609  16.120  1.00 30.34           C
ATOM   1347  CG  PRO A 332      15.044 -22.213  15.329  1.00 31.55           C
ATOM   1348  CD  PRO A 332      16.182 -21.220  15.401  1.00 31.94           C
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ATOM   1349  N   GLU A 333      15.875 -22.289  18.847  1.00 31.07           N
ATOM   1350  CA  GLU A 333      16.000 -23.128  20.033  1.00 32.24           C
ATOM   1351  C   GLU A 333      16.665 -22.426  21.204  1.00 31.76           C
ATOM   1352  O   GLU A 333      16.537 -22.871  22.345  1.00 32.33           O
ATOM   1353  CB  GLU A 333      16.774 -24.406  19.701  1.00 34.87           C
ATOM   1354  CG  GLU A 333      16.246 -25.139  18.481  1.00 43.92           C
ATOM   1355  CD  GLU A 333      16.728 -26.572  18.402  1.00 51.08           C
ATOM   1356  OE1 GLU A 333      17.845 -26.801  17.889  1.00 56.51           O
ATOM   1357  OE2 GLU A 333      15.989 -27.472  18.852  1.00 55.29           O
ATOM   1358  N   HIS A 334      17.360 -21.323  20.928  1.00 32.12           N
ATOM   1359  CA  HIS A 334      18.067 -20.589  21.978  1.00 30.77           C
ATOM   1360  C   HIS A 334      17.772 -19.100  21.999  1.00 31.11           C
ATOM   1361  O   HIS A 334      17.421 -18.504  20.980  1.00 29.92           O
ATOM   1362  CB  HIS A 334      19.594 -20.770  21.831  1.00 28.34           C
ATOM   1363  CG  HIS A 334      20.064 -22.183  21.999  1.00 23.59           C
ATOM   1364  ND1 HIS A 334      20.019 -23.110  20.978  1.00 23.28           N
ATOM   1365  CD2 HIS A 334      20.567 -22.835  23.075  1.00 23.82           C
ATOM   1366  CE1 HIS A 334      20.472 -24.269  21.417  1.00 21.34           C
ATOM   1367  NE2 HIS A 334      20.812 -24.130  22.686  1.00 24.26           N
ATOM   1368  N   PHE A 335      17.926 -18.512  23.181  1.00 33.36           N
ATOM   1369  CA  PHE A 335      17.747 -17.081  23.379  1.00 37.95           C
ATOM   1370  C   PHE A 335      19.109 -16.562  23.854  1.00 41.56           C
ATOM   1371  O   PHE A 335      19.927 -17.330  24.373  1.00 39.05           O
ATOM   1372  CB  PHE A 335      16.675 -16.802  24.438  1.00 38.28           C
ATOM   1373  CG  PHE A 335      15.290 -16.639  23.873  1.00 39.06           C
ATOM   1374  CD1 PHE A 335      14.998 -15.597  22.997  1.00 38.47           C
ATOM   1375  CD2 PHE A 335      14.275 -17.530  24.216  1.00 35.75           C
ATOM   1376  CE1 PHE A 335      13.717 -15.445  22.469  1.00 37.49           C
ATOM   1377  CE2 PHE A 335      12.994 -17.385  23.694  1.00 34.79           C
ATOM   1378  CZ  PHE A 335      12.715 -16.340  22.819  1.00 35.29           C
ATOM   1379  N   ARG A 336      19.350 -15.267  23.666  1.00 42.06           N
ATOM   1380  CA  ARG A 336      20.611 -14.647  24.056  1.00 39.57           C
ATOM   1381  C   ARG A 336      21.760 -15.243  23.246  1.00 40.87           C
ATOM   1382  O   ARG A 336      22.848 -15.490  23.769  1.00 41.06           O
ATOM   1383  CB  ARG A 336      20.852 -14.851  25.548  1.00 35.08           C
ATOM   1384  CG  ARG A 336      20.046 -13.909  26.408  1.00 35.79           C
ATOM   1385  CD  ARG A 336      20.609 -13.845  27.803  1.00 38.94           C
ATOM   1386  NE  ARG A 336      20.802 -15.182  28.349  1.00 47.23           N
ATOM   1387  CZ  ARG A 336      20.608 -15.500  29.625  1.00 52.52           C
ATOM   1388  NH1 ARG A 336      20.217 -14.569  30.489  1.00 55.62           N
ATOM   1389  NH2 ARG A 336      20.801 -16.749  30.037  1.00 51.76           N
ATOM   1390  N   LYS A 337      21.505 -15.455  21.960  1.00 39.60           N
ATOM   1391  CA  LYS A 337      22.492 -16.030  21.059  1.00 40.76           C
ATOM   1392  C   LYS A 337      23.640 -15.092  20.714  1.00 41.47           C
ATOM   1393  O   LYS A 337      24.677 -15.537  20.228  1.00 40.50           O
ATOM   1394  CB  LYS A 337      21.820 -16.487  19.765  1.00 42.63           C
ATOM   1395  CG  LYS A 337      22.541 -17.629  19.076  1.00 43.82           C
ATOM   1396  CD  LYS A 337      22.886 -18.730  20.065  1.00 41.29           C
ATOM   1397  CE  LYS A 337      23.386 -19.958  19.346  1.00 42.43           C
ATOM   1398  NZ  LYS A 337      22.891 -19.980  17.946  1.00 41.23           N
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ATOM   1399  N   THR A 338      23.452 -13.796  20.941  1.00 40.56           N
ATOM   1400  CA  THR A 338      24.505 -12.835  20.652  1.00 40.67           C
ATOM   1401  C   THR A 338      25.331 -12.585  21.903  1.00 40.89           C
ATOM   1402  O   THR A 338      26.223 -11.742  21.899  1.00 43.07           O
ATOM   1403  CB  THR A 338      23.950 -11.479  20.167  1.00 38.04           C
ATOM   1404  OG1 THR A 338      23.267 -10.824  21.245  1.00 39.99           O
ATOM   1405  CG2 THR A 338      23.010 -11.678  18.994  1.00 37.01           C
ATOM   1406  N   THR A 339      25.028 -13.307  22.977  1.00 40.02           N
ATOM   1407  CA  THR A 339      25.774 -13.143  24.222  1.00 41.23           C
ATOM   1408  C   THR A 339      26.737 -14.304  24.468  1.00 41.58           C
ATOM   1409  O   THR A 339      26.953 -15.155  23.599  1.00 38.34           O
ATOM   1410  CB  THR A 339      24.836 -13.031  25.451  1.00 43.28           C
ATOM   1411  OG1 THR A 339      24.150 -14.276  25.650  1.00 42.61           O
ATOM   1412  CG2 THR A 339      23.832 -11.903  25.258  1.00 41.38           C
ATOM   1413  N   ASP A 340      27.312 -14.325  25.666  1.00 44.27           N
ATOM   1414  CA  ASP A 340      28.249 -15.369  26.054  1.00 48.35           C
ATOM   1415  C   ASP A 340      27.510 -16.503  26.736  1.00 48.94           C
ATOM   1416  O   ASP A 340      27.948 -17.655  26.717  1.00 50.60           O
ATOM   1417  CB  ASP A 340      29.284 -14.800  27.019  1.00 52.10           C
ATOM   1418  CG  ASP A 340      30.389 -14.069  26.306  1.00 53.11           C
ATOM   1419  OD1 ASP A 340      30.886 -13.057  26.849  1.00 55.17           O
ATOM   1420  OD2 ASP A 340      30.751 -14.510  25.197  1.00 53.24           O
ATOM   1421  N   ASN A 341      26.379 -16.161  27.338  1.00 49.07           N
ATOM   1422  CA  ASN A 341      25.580 -17.133  28.056  1.00 48.40           C
ATOM   1423  C   ASN A 341      24.176 -17.321  27.492  1.00 46.91           C
ATOM   1424  O   ASN A 341      23.194 -16.899  28.104  1.00 45.97           O
ATOM   1425  CB  ASN A 341      25.488 -16.731  29.530  1.00 52.64           C
ATOM   1426  CG  ASN A 341      26.697 -15.938  29.994  1.00 57.15           C
ATOM   1427  OD1 ASN A 341      27.540 -16.450  30.731  1.00 59.76           O
ATOM   1428  ND2 ASN A 341      26.787 -14.681  29.565  1.00 56.30           N
ATOM   1429  N   PRO A 342      24.066 -17.931  26.298  1.00 45.10           N
ATOM   1430  CA  PRO A 342      22.747 -18.163  25.696  1.00 43.83           C
ATOM   1431  C   PRO A 342      22.063 -19.294  26.461  1.00 43.36           C
ATOM   1432  O   PRO A 342      22.716 -19.997  27.235  1.00 43.48           O
ATOM   1433  CB  PRO A 342      23.071 -18.568  24.261  1.00 41.92           C
ATOM   1434  CG  PRO A 342      24.437 -19.150  24.343  1.00 41.76           C
ATOM   1435  CD  PRO A 342      25.159 -18.405  25.430  1.00 42.14           C
ATOM   1436  N   PHE A 343      20.760 -19.473  26.259  1.00 41.40           N
ATOM   1437  CA  PHE A 343      20.047 -20.544  26.947  1.00 38.69           C
ATOM   1438  C   PHE A 343      19.010 -21.214  26.056  1.00 35.45           C
ATOM   1439  O   PHE A 343      18.510 -20.604  25.115  1.00 36.40           O
ATOM   1440  CB  PHE A 343      19.396 -20.017  28.240  1.00 36.22           C
ATOM   1441  CG  PHE A 343      18.194 -19.132  28.021  1.00 38.01           C
ATOM   1442  CD1 PHE A 343      16.913 -19.679  27.946  1.00 36.70           C
ATOM   1443  CD2 PHE A 343      18.337 -17.746  27.945  1.00 36.16           C
ATOM   1444  CE1 PHE A 343      15.793 -18.858  27.803  1.00 35.38           C
ATOM   1445  CE2 PHE A 343      17.225 -16.915  27.803  1.00 34.01           C
ATOM   1446  CZ  PHE A 343      15.950 -17.472  27.732  1.00 34.87           C
ATOM   1447  N   LYS A 344      18.713 -22.478  26.344  1.00 33.33           N
ATOM   1448  CA  LYS A 344      17.731 -23.240  25.572  1.00 35.15           C
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ATOM   1449  C   LYS A 344      16.318 -22.775  25.915  1.00 33.59           C
ATOM   1450  O   LYS A 344      15.881 -22.863  27.066  1.00 31.71           O
ATOM   1451  CB  LYS A 344      17.860 -24.740  25.864  1.00 33.30           C
ATOM   1452  CG  LYS A 344      16.768 -25.595  25.239  1.00 32.71           C
ATOM   1453  CD  LYS A 344      17.198 -26.163  23.894  1.00 37.70           C
ATOM   1454  CE  LYS A 344      16.181 -27.157  23.346  1.00 38.23           C
ATOM   1455  NZ  LYS A 344      16.752 -28.014  22.267  1.00 43.55           N
ATOM   1456  N   ALA A 345      15.610 -22.281  24.906  1.00 34.69           N
ATOM   1457  CA  ALA A 345      14.251 -21.788  25.092  1.00 33.04           C
ATOM   1458  C   ALA A 345      13.291 -22.918  25.467  1.00 30.56           C
ATOM   1459  O   ALA A 345      13.207 -23.928  24.765  1.00 29.86           O
ATOM   1460  CB  ALA A 345      13.777 -21.085  23.814  1.00 28.86           C
ATOM   1461  N   LEU A 346      12.587 -22.739  26.585  1.00 31.62           N
ATOM   1462  CA  LEU A 346      11.602 -23.711  27.078  1.00 30.85           C
ATOM   1463  C   LEU A 346      10.355 -22.971  27.575  1.00 31.60           C
ATOM   1464  O   LEU A 346      10.406 -21.768  27.844  1.00 30.61           O
ATOM   1465  CB  LEU A 346      12.170 -24.540  28.242  1.00 27.20           C
ATOM   1466  CG  LEU A 346      13.324 -25.527  28.023  1.00 25.99           C
ATOM   1467  CD1 LEU A 346      13.481 -26.375  29.268  1.00 21.97           C
ATOM   1468  CD2 LEU A 346      13.059 -26.411  26.816  1.00 23.27           C
ATOM   1469  N   GLY A 347       9.245 -23.702  27.687  1.00 32.08           N
ATOM   1470  CA  GLY A 347       7.989 -23.145  28.180  1.00 29.62           C
ATOM   1471  C   GLY A 347       7.508 -21.819  27.612  1.00 26.36           C
ATOM   1472  O   GLY A 347       7.390 -21.656  26.392  1.00 25.44           O
ATOM   1473  N   GLY A 348       7.222 -20.871  28.501  1.00 25.28           N
ATOM   1474  CA  GLY A 348       6.753 -19.564  28.070  1.00 23.07           C
ATOM   1475  C   GLY A 348       7.673 -18.923  27.049  1.00 26.47           C
ATOM   1476  O   GLY A 348       7.218 -18.431  26.011  1.00 25.52           O
ATOM   1477  N   ASN A 349       8.973 -18.934  27.348  1.00 27.41           N
ATOM   1478  CA  ASN A 349       9.989 -18.359  26.470  1.00 26.06           C
ATOM   1479  C   ASN A 349       9.960 -19.038  25.103  1.00 23.42           C
ATOM   1480  O   ASN A 349      10.106 -18.386  24.064  1.00 23.04           O
ATOM   1481  CB  ASN A 349      11.381 -18.522  27.100  1.00 27.00           C
ATOM   1482  CG  ASN A 349      11.579 -17.644  28.332  1.00 26.85           C
ATOM   1483  OD1 ASN A 349      12.283 -18.026  29.273  1.00 31.48           O
ATOM   1484  ND2 ASN A 349      10.960 -16.464  28.333  1.00 25.39           N
ATOM   1485  N   LEU A 350       9.775 -20.353  25.111  1.00 21.13           N
ATOM   1486  CA  LEU A 350       9.717 -21.120  23.874  1.00 20.65           C
ATOM   1487  C   LEU A 350       8.518 -20.660  23.053  1.00 25.82           C
ATOM   1488  O   LEU A 350       8.583 -20.597  21.821  1.00 27.50           O
ATOM   1489  CB  LEU A 350       9.597 -22.617  24.182  1.00 19.46           C
ATOM   1490  CG  LEU A 350       9.634 -23.610  23.017  1.00 22.54           C
ATOM   1491  CD1 LEU A 350      10.709 -23.203  22.014  1.00 26.32           C
ATOM   1492  CD2 LEU A 350       9.902 -25.010  23.551  1.00 19.44           C
ATOM   1493  N   VAL A 351       7.420 -20.334  23.732  1.00 23.76           N
ATOM   1494  CA  VAL A 351       6.232 -19.876  23.025  1.00 24.89           C
ATOM   1495  C   VAL A 351       6.492 -18.466  22.505  1.00 23.12           C
ATOM   1496  O   VAL A 351       6.111 -18.131  21.385  1.00 24.81           O
ATOM   1497  CB  VAL A 351       4.964 -19.890  23.939  1.00 26.62           C
ATOM   1498  CG1 VAL A 351       3.811 -19.139  23.264  1.00 21.20           C
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ATOM   1499  CG2 VAL A 351       4.543 -21.335  24.218  1.00 25.87           C
ATOM   1500  N   ASP A 352       7.150 -17.640  23.309  1.00 21.42           N
ATOM   1501  CA  ASP A 352       7.441 -16.285  22.867  1.00 23.04           C
ATOM   1502  C   ASP A 352       8.358 -16.354  21.645  1.00 25.87           C
ATOM   1503  O   ASP A 352       8.335 -15.468  20.783  1.00 27.02           O
ATOM   1504  CB  ASP A 352       8.080 -15.479  24.003  1.00 22.96           C
ATOM   1505  CG  ASP A 352       7.074 -14.572  24.707  1.00 25.32           C
ATOM   1506  OD1 ASP A 352       6.052 -14.230  24.080  1.00 26.10           O
ATOM   1507  OD2 ASP A 352       7.294 -14.196  25.880  1.00 26.79           O
ATOM   1508  N   MET A 353       9.148 -17.425  21.562  1.00 27.20           N
ATOM   1509  CA  MET A 353      10.053 -17.622  20.432  1.00 27.18           C
ATOM   1510  C   MET A 353       9.238 -17.748  19.146  1.00 26.45           C
ATOM   1511  O   MET A 353       9.665 -17.294  18.083  1.00 25.26           O
ATOM   1512  CB  MET A 353      10.895 -18.890  20.632  1.00 30.17           C
ATOM   1513  CG  MET A 353      11.847 -19.209  19.466  1.00 29.81           C
ATOM   1514  SD  MET A 353      13.202 -18.023  19.364  1.00 30.95           S
ATOM   1515  CE  MET A 353      14.171 -18.512  20.805  1.00 32.76           C
ATOM   1516  N   GLY A 354       8.066 -18.372  19.258  1.00 24.46           N
ATOM   1517  CA  GLY A 354       7.190 -18.551  18.112  1.00 21.96           C
ATOM   1518  C   GLY A 354       6.531 -17.251  17.679  1.00 23.59           C
ATOM   1519  O   GLY A 354       6.430 -16.955  16.487  1.00 26.91           O
ATOM   1520  N   ARG A 355       6.085 -16.462  18.648  1.00 23.15           N
ATOM   1521  CA  ARG A 355       5.443 -15.192  18.341  1.00 25.34           C
ATOM   1522  C   ARG A 355       6.447 -14.241  17.720  1.00 26.85           C
ATOM   1523  O   ARG A 355       6.071 -13.238  17.110  1.00 27.53           O
ATOM   1524  CB  ARG A 355       4.860 -14.577  19.609  1.00 24.06           C
ATOM   1525  CG  ARG A 355       3.649 -15.324  20.117  1.00 25.20           C
ATOM   1526  CD  ARG A 355       2.818 -14.449  21.013  1.00 27.62           C
ATOM   1527  NE  ARG A 355       3.367 -14.378  22.362  1.00 28.85           N
ATOM   1528  CZ  ARG A 355       2.694 -13.894  23.396  1.00 29.80           C
ATOM   1529  NH1 ARG A 355       1.463 -13.454  23.209  1.00 29.03           N
ATOM   1530  NH2 ARG A 355       3.240 -13.849  24.606  1.00 32.06           N
ATOM   1531  N   VAL A 356       7.730 -14.561  17.890  1.00 28.05           N
ATOM   1532  CA  VAL A 356       8.807 -13.751  17.338  1.00 23.66           C
ATOM   1533  C   VAL A 356       9.225 -14.260  15.959  1.00 23.96           C
ATOM   1534  O   VAL A 356       9.118 -13.544  14.963  1.00 25.90           O
ATOM   1535  CB  VAL A 356      10.057 -13.760  18.259  1.00 21.14           C
ATOM   1536  CG1 VAL A 356      11.277 -13.258  17.484  1.00 18.73           C
ATOM   1537  CG2 VAL A 356       9.817 -12.887  19.483  1.00 18.71           C
ATOM   1538  N   LYS A 357       9.677 -15.508  15.901  1.00 27.14           N
ATOM   1539  CA  LYS A 357      10.153 -16.083  14.650  1.00 27.44           C
ATOM   1540  C   LYS A 357       9.104 -16.608  13.666  1.00 25.16           C
ATOM   1541  O   LYS A 357       9.313 -16.543  12.456  1.00 25.29           O
ATOM   1542  CB  LYS A 357      11.214 -17.154  14.961  1.00 26.70           C
ATOM   1543  CG  LYS A 357      12.358 -16.601  15.834  1.00 28.00           C
ATOM   1544  CD  LYS A 357      13.651 -17.426  15.756  1.00 29.38           C
ATOM   1545  CE  LYS A 357      14.129 -17.637  14.325  1.00 25.08           C
ATOM   1546  NZ  LYS A 357      15.013 -16.536  13.847  1.00 28.96           N
ATOM   1547  N   VAL A 358       7.979 -17.125  14.147  1.00 25.59           N
ATOM   1548  CA  VAL A 358       6.961 -17.593  13.205  1.00 21.52           C
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ATOM   1549  C   VAL A 358       6.366 -16.388  12.454  1.00 20.47           C
ATOM   1550  O   VAL A 358       6.209 -16.415  11.230  1.00 22.88           O
ATOM   1551  CB  VAL A 358       5.825 -18.349  13.916  1.00 23.23           C
ATOM   1552  CG1 VAL A 358       4.621 -18.494  12.972  1.00 21.05           C
ATOM   1553  CG2 VAL A 358       6.316 -19.712  14.354  1.00 16.65           C
ATOM   1554  N   ILE A 359       6.052 -15.326  13.190  1.00 18.76           N
ATOM   1555  CA  ILE A 359       5.491 -14.131  12.578  1.00 22.37           C
ATOM   1556  C   ILE A 359       6.530 -13.478  11.679  1.00 25.58           C
ATOM   1557  O   ILE A 359       6.234 -13.114  10.537  1.00 26.24           O
ATOM   1558  CB  ILE A 359       5.037 -13.122  13.640  1.00 23.37           C
ATOM   1559  CG1 ILE A 359       4.088 -13.803  14.632  1.00 22.78           C
ATOM   1560  CG2 ILE A 359       4.332 -11.950  12.970  1.00 26.29           C
ATOM   1561  CD1 ILE A 359       3.012 -14.665  13.982  1.00 16.30           C
ATOM   1562  N   ALA A 360       7.749 -13.328  12.196  1.00 26.25           N
ATOM   1563  CA  ALA A 360       8.834 -12.746  11.411  1.00 24.30           C
ATOM   1564  C   ALA A 360       9.008 -13.620  10.182  1.00 22.75           C
ATOM   1565  O   ALA A 360       9.202 -13.132   9.074  1.00 27.89           O
ATOM   1566  CB  ALA A 360      10.123 -12.719  12.217  1.00 23.35           C
ATOM   1567  N   GLY A 361       8.930 -14.927  10.383  1.00 23.71           N
ATOM   1568  CA  GLY A 361       9.064 -15.835   9.262  1.00 26.02           C
ATOM   1569  C   GLY A 361       8.010 -15.548   8.211  1.00 28.14           C
ATOM   1570  O   GLY A 361       8.305 -15.545   7.020  1.00 32.01           O
ATOM   1571  N   LEU A 362       6.777 -15.308   8.648  1.00 27.95           N
ATOM   1572  CA  LEU A 362       5.682 -15.022   7.724  1.00 25.83           C
ATOM   1573  C   LEU A 362       5.918 -13.712   6.993  1.00 22.75           C
ATOM   1574  O   LEU A 362       5.751 -13.624   5.778  1.00 23.28           O
ATOM   1575  CB  LEU A 362       4.356 -14.946   8.484  1.00 23.48           C
ATOM   1576  CG  LEU A 362       3.849 -16.296   8.975  1.00 23.27           C
ATOM   1577  CD1 LEU A 362       2.712 -16.089   9.955  1.00 24.11           C
ATOM   1578  CD2 LEU A 362       3.409 -17.135   7.788  1.00 21.92           C
ATOM   1579  N   LEU A 363       6.306 -12.695   7.751  1.00 22.27           N
ATOM   1580  CA  LEU A 363       6.560 -11.384   7.183  1.00 25.04           C
ATOM   1581  C   LEU A 363       7.680 -11.429   6.149  1.00 28.03           C
ATOM   1582  O   LEU A 363       7.609 -10.760   5.121  1.00 28.46           O
ATOM   1583  CB  LEU A 363       6.911 -10.395   8.298  1.00 24.00           C
ATOM   1584  CG  LEU A 363       5.747 -10.006   9.212  1.00 22.34           C
ATOM   1585  CD1 LEU A 363       6.257  -9.375  10.487  1.00 20.10           C
ATOM   1586  CD2 LEU A 363       4.844  -9.042   8.468  1.00 26.32           C
ATOM   1587  N   ARG A 364       8.706 -12.235   6.416  1.00 31.89           N
ATOM   1588  CA  ARG A 364       9.854 -12.344   5.517  1.00 30.70           C
ATOM   1589  C   ARG A 364       9.667 -13.421   4.465  1.00 32.07           C
ATOM   1590  O   ARG A 364      10.559 -13.670   3.657  1.00 32.31           O
ATOM   1591  CB  ARG A 364      11.125 -12.626   6.323  1.00 28.84           C
ATOM   1592  CG  ARG A 364      11.478 -11.524   7.312  1.00 29.02           C
ATOM   1593  CD  ARG A 364      12.533 -11.983   8.314  1.00 34.76           C
ATOM   1594  NE  ARG A 364      13.847 -12.118   7.689  1.00 37.07           N
ATOM   1595  CZ  ARG A 364      14.711 -11.117   7.536  1.00 37.74           C
ATOM   1596  NH1 ARG A 364      14.411  -9.895   7.963  1.00 31.21           N
ATOM   1597  NH2 ARG A 364      15.875 -11.337   6.937  1.00 40.23           N
ATOM   1598  N   LYS A 365       8.499 -14.052   4.474  1.00 35.47           N
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ATOM   1599  CA  LYS A 365       8.195 -15.109   3.516  1.00 37.43           C
ATOM   1600  C   LYS A 365       9.335 -16.122   3.491  1.00 40.04           C
ATOM   1601  O   LYS A 365       9.760 -16.571   2.424  1.00 41.91           O
ATOM   1602  CB  LYS A 365       7.995 -14.504   2.127  1.00 35.88           C
ATOM   1603  CG  LYS A 365       7.054 -13.310   2.120  1.00 32.99           C
ATOM   1604  CD  LYS A 365       6.870 -12.741   0.720  1.00 32.58           C
ATOM   1605  CE  LYS A 365       5.940 -11.536   0.739  1.00 35.57           C
ATOM   1606  NZ  LYS A 365       4.515 -11.925   0.522  1.00 38.83           N
ATOM   1607  N   ASP A 366       9.807 -16.482   4.685  1.00 40.39           N
ATOM   1608  CA  ASP A 366      10.916 -17.418   4.874  1.00 38.83           C
ATOM   1609  C   ASP A 366      10.458 -18.766   5.446  1.00 37.36           C
ATOM   1610  O   ASP A 366      10.333 -18.927   6.662  1.00 39.06           O
ATOM   1611  CB  ASP A 366      11.947 -16.769   5.806  1.00 39.00           C
ATOM   1612  CG  ASP A 366      13.173 -17.631   6.027  1.00 39.91           C
ATOM   1613  OD1 ASP A 366      13.209 -18.776   5.532  1.00 40.26           O
ATOM   1614  OD2 ASP A 366      14.105 -17.152   6.706  1.00 39.61           O
ATOM   1615  N   ASP A 367      10.226 -19.734   4.565  1.00 35.93           N
ATOM   1616  CA  ASP A 367       9.772 -21.061   4.976  1.00 40.44           C
ATOM   1617  C   ASP A 367      10.663 -21.734   6.013  1.00 41.19           C
ATOM   1618  O   ASP A 367      10.183 -22.216   7.040  1.00 43.84           O
ATOM   1619  CB  ASP A 367       9.656 -21.980   3.763  1.00 42.58           C
ATOM   1620  CG  ASP A 367       8.801 -21.390   2.674  1.00 46.73           C
ATOM   1621  OD1 ASP A 367       9.347 -20.625   1.856  1.00 53.93           O
ATOM   1622  OD2 ASP A 367       7.587 -21.688   2.637  1.00 48.66           O
ATOM   1623  N   GLN A 368      11.958 -21.779   5.739  1.00 38.60           N
ATOM   1624  CA  GLN A 368      12.881 -22.408   6.662  1.00 37.00           C
ATOM   1625  C   GLN A 368      12.667 -21.896   8.084  1.00 33.45           C
ATOM   1626  O   GLN A 368      12.541 -22.684   9.023  1.00 32.74           O
ATOM   1627  CB  GLN A 368      14.319 -22.141   6.219  1.00 40.84           C
ATOM   1628  CG  GLN A 368      15.235 -23.338   6.386  1.00 46.54           C
ATOM   1629  CD  GLN A 368      15.467 -23.694   7.845  1.00 50.37           C
ATOM   1630  OE1 GLN A 368      15.258 -24.841   8.258  1.00 50.02           O
ATOM   1631  NE2 GLN A 368      15.904 -22.711   8.636  1.00 49.46           N
ATOM   1632  N   GLU A 369      12.614 -20.576   8.236  1.00 30.33           N
ATOM   1633  CA  GLU A 369      12.425 -19.963   9.547  1.00 26.17           C
ATOM   1634  C   GLU A 369      11.177 -20.482  10.224  1.00 30.72           C
ATOM   1635  O   GLU A 369      11.193 -20.809  11.414  1.00 32.47           O
ATOM   1636  CB  GLU A 369      12.322 -18.447   9.429  1.00 17.68           C
ATOM   1637  CG  GLU A 369      12.349 -17.753  10.766  1.00 17.93           C
ATOM   1638  CD  GLU A 369      12.479 -16.256  10.631  1.00 20.95           C
ATOM   1639  OE1 GLU A 369      12.340 -15.752   9.496  1.00 30.56           O
ATOM   1640  OE2 GLU A 369      12.717 -15.577  11.652  1.00 24.65           O
ATOM   1641  N   ILE A 370      10.097 -20.560   9.453  1.00 31.43           N
ATOM   1642  CA  ILE A 370       8.816 -21.031   9.959  1.00 29.36           C
ATOM   1643  C   ILE A 370       8.864 -22.479  10.456  1.00 29.18           C
ATOM   1644  O   ILE A 370       8.585 -22.747  11.629  1.00 28.26           O
ATOM   1645  CB  ILE A 370       7.730 -20.864   8.874  1.00 28.81           C
ATOM   1646  CG1 ILE A 370       7.413 -19.374   8.707  1.00 22.92           C
ATOM   1647  CG2 ILE A 370       6.473 -21.635   9.251  1.00 29.29           C
ATOM   1648  CD1 ILE A 370       7.056 -18.978   7.302  1.00 18.54           C
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ATOM   1649  N   SER A 371       9.229 -23.403   9.571  1.00 30.43           N
ATOM   1650  CA  SER A 371       9.320 -24.822   9.911  1.00 31.18           C
ATOM   1651  C   SER A 371      10.226 -25.099  11.118  1.00 31.50           C
ATOM   1652  O   SER A 371       9.836 -25.797  12.056  1.00 32.57           O
ATOM   1653  CB  SER A 371       9.832 -25.605   8.706  1.00 33.45           C
ATOM   1654  OG  SER A 371      11.160 -25.215   8.396  1.00 36.87           O
ATOM   1655  N   SER A 372      11.437 -24.555  11.093  1.00 31.76           N
ATOM   1656  CA  SER A 372      12.375 -24.758  12.195  1.00 32.23           C
ATOM   1657  C   SER A 372      11.806 -24.243  13.517  1.00 29.38           C
ATOM   1658  O   SER A 372      11.872 -24.926  14.541  1.00 28.28           O
ATOM   1659  CB  SER A 372      13.706 -24.057  11.897  1.00 33.19           C
ATOM   1660  OG  SER A 372      13.509 -22.698  11.540  1.00 37.15           O
ATOM   1661  N   THR A 373      11.251 -23.034  13.491  1.00 28.80           N
ATOM   1662  CA  THR A 373      10.667 -22.439  14.689  1.00 29.38           C
ATOM   1663  C   THR A 373       9.482 -23.270  15.165  1.00 30.35           C
ATOM   1664  O   THR A 373       9.319 -23.490  16.360  1.00 30.57           O
ATOM   1665  CB  THR A 373      10.176 -21.002  14.432  1.00 29.92           C
ATOM   1666  OG1 THR A 373      11.244 -20.219  13.885  1.00 27.58           O
ATOM   1667  CG2 THR A 373       9.698 -20.365  15.730  1.00 24.94           C
ATOM   1668  N   ILE A 374       8.654 -23.729  14.233  1.00 29.22           N
ATOM   1669  CA  ILE A 374       7.506 -24.541  14.605  1.00 30.60           C
ATOM   1670  C   ILE A 374       8.007 -25.867  15.163  1.00 34.59           C
ATOM   1671  O   ILE A 374       7.580 -26.299  16.238  1.00 37.03           O
ATOM   1672  CB  ILE A 374       6.577 -24.801  13.394  1.00 30.70           C
ATOM   1673  CG1 ILE A 374       5.758 -23.540  13.093  1.00 28.94           C
ATOM   1674  CG2 ILE A 374       5.641 -25.975  13.683  1.00 25.27           C
ATOM   1675  CD1 ILE A 374       5.100 -23.535  11.718  1.00 29.78           C
ATOM   1676  N   ARG A 375       8.917 -26.513  14.440  1.00 34.73           N
ATOM   1677  CA  ARG A 375       9.468 -27.783  14.904  1.00 35.43           C
ATOM   1678  C   ARG A 375       9.967 -27.594  16.329  1.00 31.19           C
ATOM   1679  O   ARG A 375       9.748 -28.431  17.202  1.00 31.34           O
ATOM   1680  CB  ARG A 375      10.625 -28.219  14.008  1.00 42.61           C
ATOM   1681  CG  ARG A 375      10.261 -29.328  13.039  1.00 53.44           C
ATOM   1682  CD  ARG A 375      10.882 -29.089  11.672  1.00 61.85           C
ATOM   1683  NE  ARG A 375      10.422 -30.064  10.687  1.00 68.75           N
ATOM   1684  CZ  ARG A 375      10.732 -30.027   9.395  1.00 74.54           C
ATOM   1685  NH1 ARG A 375      11.509 -29.057   8.923  1.00 74.02           N
ATOM   1686  NH2 ARG A 375      10.264 -30.961   8.573  1.00 76.51           N
ATOM   1687  N   SER A 376      10.635 -26.470  16.551  1.00 29.23           N
ATOM   1688  CA  SER A 376      11.173 -26.139  17.857  1.00 25.94           C
ATOM   1689  C   SER A 376      10.048 -25.983  18.886  1.00 26.25           C
ATOM   1690  O   SER A 376      10.151 -26.475  20.014  1.00 23.71           O
ATOM   1691  CB  SER A 376      11.996 -24.844  17.752  1.00 24.92           C
ATOM   1692  OG  SER A 376      12.667 -24.534  18.965  1.00 24.97           O
ATOM   1693  N   ILE A 377       8.969 -25.308  18.496  1.00 27.76           N
ATOM   1694  CA  ILE A 377       7.837 -25.079  19.402  1.00 29.90           C
ATOM   1695  C   ILE A 377       7.247 -26.383  19.922  1.00 29.94           C
ATOM   1696  O   ILE A 377       6.890 -26.485  21.101  1.00 27.72           O
ATOM   1697  CB  ILE A 377       6.710 -24.258  18.710  1.00 31.93           C
ATOM   1698  CG1 ILE A 377       6.854 -22.783  19.074  1.00 33.58           C
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ATOM   1699  CG2 ILE A 377       5.335 -24.753  19.144  1.00 32.31           C
ATOM   1700  CD1 ILE A 377       6.084 -21.859  18.159  1.00 37.34           C
ATOM   1701  N   GLU A 378       7.154 -27.372  19.036  1.00 30.39           N
ATOM   1702  CA  GLU A 378       6.605 -28.677  19.380  1.00 31.93           C
ATOM   1703  C   GLU A 378       7.152 -29.232  20.691  1.00 32.49           C
ATOM   1704  O   GLU A 378       6.484 -30.009  21.374  1.00 31.66           O
ATOM   1705  CB  GLU A 378       6.884 -29.662  18.252  1.00 31.50           C
ATOM   1706  CG  GLU A 378       5.732 -29.815  17.294  1.00 35.24           C
ATOM   1707  CD  GLU A 378       6.160 -30.358  15.947  1.00 39.04           C
ATOM   1708  OE1 GLU A 378       7.184 -31.071  15.879  1.00 42.16           O
ATOM   1709  OE2 GLU A 378       5.468 -30.071  14.952  1.00 40.03           O
ATOM   1710  N   GLN A 379       8.368 -28.824  21.037  1.00 33.95           N
ATOM   1711  CA  GLN A 379       9.031 -29.266  22.259  1.00 33.78           C
ATOM   1712  C   GLN A 379       8.202 -28.910  23.497  1.00 32.21           C
ATOM   1713  O   GLN A 379       8.265 -29.594  24.524  1.00 29.56           O
ATOM   1714  CB  GLN A 379      10.425 -28.618  22.335  1.00 37.94           C
ATOM   1715  CG  GLN A 379      11.104 -28.650  23.704  1.00 44.16           C
ATOM   1716  CD  GLN A 379      12.583 -28.266  23.635  1.00 45.52           C
ATOM   1717  OE1 GLN A 379      12.942 -27.233  23.066  1.00 47.04           O
ATOM   1718  NE2 GLN A 379      13.443 -29.101  24.214  1.00 45.30           N
ATOM   1719  N   VAL A 380       7.411 -27.847  23.390  1.00 29.08           N
ATOM   1720  CA  VAL A 380       6.594 -27.397  24.511  1.00 27.52           C
ATOM   1721  C   VAL A 380       5.552 -28.412  24.960  1.00 24.25           C
ATOM   1722  O   VAL A 380       5.113 -28.390  26.107  1.00 22.87           O
ATOM   1723  CB  VAL A 380       5.870 -26.067  24.178  1.00 28.23           C
ATOM   1724  CG1 VAL A 380       4.564 -26.344  23.437  1.00 27.23           C
ATOM   1725  CG2 VAL A 380       5.604 -25.286  25.463  1.00 29.42           C
ATOM   1726  N   PHE A 381       5.174 -29.309  24.058  1.00 26.58           N
ATOM   1727  CA  PHE A 381       4.147 -30.303  24.355  1.00 29.70           C
ATOM   1728  C   PHE A 381       4.606 -31.501  25.162  1.00 32.39           C
ATOM   1729  O   PHE A 381       3.804 -32.379  25.484  1.00 32.80           O
ATOM   1730  CB  PHE A 381       3.492 -30.777  23.054  1.00 24.29           C
ATOM   1731  CG  PHE A 381       2.846 -29.670  22.274  1.00 24.25           C
ATOM   1732  CD1 PHE A 381       1.800 -28.932  22.828  1.00 25.62           C
ATOM   1733  CD2 PHE A 381       3.305 -29.333  21.007  1.00 23.13           C
ATOM   1734  CE1 PHE A 381       1.226 -27.872  22.128  1.00 27.18           C
ATOM   1735  CE2 PHE A 381       2.738 -28.277  20.300  1.00 24.24           C
ATOM   1736  CZ  PHE A 381       1.699 -27.544  20.861  1.00 26.04           C
ATOM   1737  N   LYS A 382       5.885 -31.544  25.508  1.00 30.93           N
ATOM   1738  CA  LYS A 382       6.378 -32.674  26.275  1.00 29.91           C
ATOM   1739  C   LYS A 382       6.280 -32.425  27.765  1.00 25.34           C
ATOM   1740  O   LYS A 382       6.597 -31.339  28.237  1.00 24.88           O
ATOM   1741  CB  LYS A 382       7.829 -32.977  25.900  1.00 35.88           C
ATOM   1742  CG  LYS A 382       8.062 -33.123  24.405  1.00 44.05           C
ATOM   1743  CD  LYS A 382       8.430 -34.552  24.044  1.00 48.47           C
ATOM   1744  CE  LYS A 382       9.643 -34.591  23.123  1.00 53.05           C
ATOM   1745  NZ  LYS A 382       9.780 -35.914  22.444  1.00 55.69           N
ATOM   1746  N   LEU A 383       5.823 -33.434  28.501  1.00 23.91           N
ATOM   1747  CA  LEU A 383       5.726 -33.336  29.951  1.00 26.91           C
ATOM   1748  C   LEU A 383       7.108 -33.746  30.452  1.00 28.96           C
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ATOM   1749  O   LEU A 383       7.739 -34.625  29.867  1.00 30.62           O
ATOM   1750  CB  LEU A 383       4.665 -34.305  30.484  1.00 27.57           C
ATOM   1751  CG  LEU A 383       3.383 -33.720  31.093  1.00 30.04           C
ATOM   1752  CD1 LEU A 383       2.881 -32.575  30.247  1.00 28.74           C
ATOM   1753  CD2 LEU A 383       2.321 -34.804  31.188  1.00 26.63           C
ATOM   1754  N   VAL A 384       7.585 -33.119  31.521  1.00 28.13           N
ATOM   1755  CA  VAL A 384       8.912 -33.434  32.052  1.00 27.36           C
ATOM   1756  C   VAL A 384       8.847 -34.058  33.443  1.00 29.12           C
ATOM   1757  O   VAL A 384       7.812 -34.000  34.107  1.00 29.12           O
ATOM   1758  CB  VAL A 384       9.798 -32.149  32.138  1.00 20.83           C
ATOM   1759  CG1 VAL A 384       9.833 -31.440  30.797  1.00 23.11           C
ATOM   1760  CG2 VAL A 384       9.253 -31.208  33.195  1.00 15.21           C
ATOM   1761  N   ASP A 385       9.946 -34.674  33.877  1.00 30.31           N
ATOM   1762  CA  ASP A 385       9.998 -35.240  35.224  1.00 28.24           C
ATOM   1763  C   ASP A 385      11.205 -34.641  35.941  1.00 22.57           C
ATOM   1764  O   ASP A 385      11.600 -35.077  37.020  1.00 19.31           O
ATOM   1765  CB  ASP A 385      10.057 -36.772  35.207  1.00 35.78           C
ATOM   1766  CG  ASP A 385      11.192 -37.306  34.387  1.00 37.15           C
ATOM   1767  OD1 ASP A 385      10.923 -38.096  33.460  1.00 45.74           O
ATOM   1768  OD2 ASP A 385      12.348 -36.944  34.670  1.00 44.64           O
ATOM   1769  N   GLN A 386      11.761 -33.604  35.321  1.00 21.36           N
ATOM   1770  CA  GLN A 386      12.894 -32.870  35.867  1.00 21.60           C
ATOM   1771  C   GLN A 386      13.092 -31.592  35.058  1.00 16.60           C
ATOM   1772  O   GLN A 386      12.822 -31.564  33.862  1.00 18.31           O
ATOM   1773  CB  GLN A 386      14.165 -33.726  35.822  1.00 20.85           C
ATOM   1774  CG  GLN A 386      15.338 -33.127  36.576  1.00 25.77           C
ATOM   1775  CD  GLN A 386      16.579 -33.985  36.469  1.00 22.66           C
ATOM   1776  OE1 GLN A 386      16.975 -34.626  37.434  1.00 25.10           O
ATOM   1777  NE2 GLN A 386      17.191 -34.011  35.287  1.00 23.20           N
ATOM   1778  N   GLY A 387      13.546 -30.532  35.719  1.00 17.32           N
ATOM   1779  CA  GLY A 387      13.772 -29.282  35.021  1.00 20.41           C
ATOM   1780  C   GLY A 387      12.557 -28.378  34.899  1.00 21.15           C
ATOM   1781  O   GLY A 387      11.602 -28.487  35.661  1.00 23.95           O
ATOM   1782  N   GLU A 388      12.601 -27.472  33.931  1.00 18.78           N
ATOM   1783  CA  GLU A 388      11.511 -26.540  33.708  1.00 16.93           C
ATOM   1784  C   GLU A 388      10.462 -27.166  32.812  1.00 16.74           C
ATOM   1785  O   GLU A 388      10.783 -27.922  31.899  1.00 16.04           O
ATOM   1786  CB  GLU A 388      12.043 -25.266  33.058  1.00 19.35           C
ATOM   1787  CG  GLU A 388      13.225 -24.645  33.797  1.00 20.91           C
ATOM   1788  CD  GLU A 388      13.781 -23.424  33.089  1.00 17.38           C
ATOM   1789  OE1 GLU A 388      13.808 -23.423  31.839  1.00 19.70           O
ATOM   1790  OE2 GLU A 388      14.193 -22.469  33.783  1.00 18.73           O
ATOM   1791  N   GLY A 389       9.200 -26.849  33.079  1.00 19.80           N
ATOM   1792  CA  GLY A 389       8.121 -27.395  32.275  1.00 16.92           C
ATOM   1793  C   GLY A 389       6.980 -27.932  33.114  1.00 18.57           C
ATOM   1794  O   GLY A 389       6.940 -27.731  34.330  1.00 18.32           O
ATOM   1795  N   PHE A 390       6.054 -28.619  32.449  1.00 20.75           N
ATOM   1796  CA  PHE A 390       4.885 -29.212  33.091  1.00 18.87           C
ATOM   1797  C   PHE A 390       5.199 -30.633  33.519  1.00 17.43           C
ATOM   1798  O   PHE A 390       5.802 -31.395  32.767  1.00 19.70           O
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ATOM   1799  CB  PHE A 390       3.705 -29.267  32.112  1.00 18.56           C
ATOM   1800  CG  PHE A 390       3.053 -27.940  31.855  1.00 18.49           C
ATOM   1801  CD1 PHE A 390       2.244 -27.347  32.820  1.00 16.74           C
ATOM   1802  CD2 PHE A 390       3.209 -27.304  30.626  1.00 17.43           C
ATOM   1803  CE1 PHE A 390       1.597 -26.144  32.560  1.00 17.51           C
ATOM   1804  CE2 PHE A 390       2.566 -26.100  30.358  1.00 15.83           C
ATOM   1805  CZ  PHE A 390       1.759 -25.520  31.323  1.00 14.74           C
ATOM   1806  N   TYR A 391       4.776 -30.998  34.719  1.00 16.60           N
ATOM   1807  CA  TYR A 391       5.007 -32.345  35.210  1.00 16.09           C
ATOM   1808  C   TYR A 391       3.686 -33.099  35.162  1.00 19.74           C
ATOM   1809  O   TYR A 391       2.625 -32.495  35.043  1.00 17.52           O
ATOM   1810  CB  TYR A 391       5.526 -32.308  36.648  1.00 19.14           C
ATOM   1811  CG  TYR A 391       6.939 -31.792  36.775  1.00 23.55           C
ATOM   1812  CD1 TYR A 391       7.274 -30.496  36.364  1.00 22.65           C
ATOM   1813  CD2 TYR A 391       7.949 -32.604  37.287  1.00 22.78           C
ATOM   1814  CE1 TYR A 391       8.586 -30.025  36.461  1.00 23.30           C
ATOM   1815  CE2 TYR A 391       9.258 -32.146  37.388  1.00 24.58           C
ATOM   1816  CZ  TYR A 391       9.571 -30.859  36.974  1.00 26.56           C
ATOM   1817  OH  TYR A 391      10.869 -30.415  37.082  1.00 25.09           O
ATOM   1818  N   GLN A 392       3.766 -34.421  35.268  1.00 23.01           N
ATOM   1819  CA  GLN A 392       2.597 -35.285  35.234  1.00 24.68           C
ATOM   1820  C   GLN A 392       1.632 -34.996  36.385  1.00 24.31           C
ATOM   1821  O   GLN A 392       0.433 -35.252  36.273  1.00 27.78           O
ATOM   1822  CB  GLN A 392       3.041 -36.761  35.253  1.00 28.55           C
ATOM   1823  CG  GLN A 392       2.707 -37.534  36.536  1.00 41.57           C
ATOM   1824  CD  GLN A 392       3.916 -38.244  37.162  1.00 48.36           C
ATOM   1825  OE1 GLN A 392       4.672 -38.948  36.480  1.00 47.26           O
ATOM   1826  NE2 GLN A 392       4.095 -38.060  38.471  1.00 50.57           N
ATOM   1827  N   ASP A 393       2.148 -34.460  37.487  1.00 19.99           N
ATOM   1828  CA  ASP A 393       1.299 -34.160  38.626  1.00 14.73           C
ATOM   1829  C   ASP A 393       0.682 -32.772  38.552  1.00 13.71           C
ATOM   1830  O   ASP A 393       0.013 -32.331  39.488  1.00 17.40           O
ATOM   1831  CB  ASP A 393       2.063 -34.358  39.947  1.00 14.32           C
ATOM   1832  CG  ASP A 393       2.998 -33.200  40.292  1.00 13.16           C
ATOM   1833  OD1 ASP A 393       3.198 -32.278  39.469  1.00 13.88           O
ATOM   1834  OD2 ASP A 393       3.540 -33.230  41.415  1.00 14.44           O
ATOM   1835  N   GLY A 394       0.904 -32.094  37.432  1.00 13.79           N
ATOM   1836  CA  GLY A 394       0.340 -30.770  37.234  1.00 14.15           C
ATOM   1837  C   GLY A 394       1.243 -29.587  37.530  1.00 18.27           C
ATOM   1838  O   GLY A 394       0.968 -28.469  37.080  1.00 18.13           O
ATOM   1839  N   SER A 395       2.313 -29.816  38.286  1.00 17.44           N
ATOM   1840  CA  SER A 395       3.231 -28.739  38.627  1.00 13.29           C
ATOM   1841  C   SER A 395       3.854 -28.179  37.372  1.00 14.55           C
ATOM   1842  O   SER A 395       3.905 -28.847  36.340  1.00 17.48           O
ATOM   1843  CB  SER A 395       4.350 -29.243  39.533  1.00 14.12           C
ATOM   1844  OG  SER A 395       3.854 -30.075  40.549  1.00 12.80           O
ATOM   1845  N   TYR A 396       4.329 -26.945  37.470  1.00 18.07           N
ATOM   1846  CA  TYR A 396       4.985 -26.273  36.358  1.00 16.11           C
ATOM   1847  C   TYR A 396       6.163 -25.514  36.939  1.00 18.79           C
ATOM   1848  O   TYR A 396       5.996 -24.618  37.777  1.00 17.43           O
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ATOM   1849  CB  TYR A 396       4.050 -25.291  35.658  1.00 15.30           C
ATOM   1850  CG  TYR A 396       4.748 -24.520  34.569  1.00 15.45           C
ATOM   1851  CD1 TYR A 396       5.322 -23.269  34.823  1.00 15.36           C
ATOM   1852  CD2 TYR A 396       4.877 -25.058  33.294  1.00 16.87           C
ATOM   1853  CE1 TYR A 396       6.011 -22.575  33.824  1.00 12.70           C
ATOM   1854  CE2 TYR A 396       5.562 -24.375  32.288  1.00 17.00           C
ATOM   1855  CZ  TYR A 396       6.125 -23.137  32.560  1.00 16.61           C
ATOM   1856  OH  TYR A 396       6.791 -22.470  31.549  1.00 20.37           O
ATOM   1857  N   ILE A 397       7.357 -25.873  36.480  1.00 19.04           N
ATOM   1858  CA  ILE A 397       8.572 -25.250  36.973  1.00 15.80           C
ATOM   1859  C   ILE A 397       9.177 -24.355  35.917  1.00 11.60           C
ATOM   1860  O   ILE A 397       9.145 -24.667  34.735  1.00 14.44           O
ATOM   1861  CB  ILE A 397       9.622 -26.330  37.367  1.00 15.34           C
ATOM   1862  CG1 ILE A 397       9.135 -27.114  38.584  1.00 10.31           C
ATOM   1863  CG2 ILE A 397      10.984 -25.678  37.671  1.00 14.04           C
ATOM   1864  CD1 ILE A 397       9.109 -26.324  39.842  1.00  7.59           C
ATOM   1865  N   ASP A 398       9.708 -23.222  36.350  1.00 17.66           N
ATOM   1866  CA  ASP A 398      10.394 -22.316  35.446  1.00 18.72           C
ATOM   1867  C   ASP A 398      11.519 -21.617  36.189  1.00 15.89           C
ATOM   1868  O   ASP A 398      11.619 -21.704  37.414  1.00 16.27           O
ATOM   1869  CB  ASP A 398       9.451 -21.291  34.821  1.00 20.43           C
ATOM   1870  CG  ASP A 398       9.913 -20.871  33.442  1.00 23.37           C
ATOM   1871  OD1 ASP A 398      11.095 -20.486  33.318  1.00 28.29           O
ATOM   1872  OD2 ASP A 398       9.114 -20.940  32.480  1.00 22.29           O
ATOM   1873  N   HIS A 399      12.353 -20.905  35.445  1.00 20.34           N
ATOM   1874  CA  HIS A 399      13.512 -20.249  36.030  1.00 19.37           C
ATOM   1875  C   HIS A 399      14.228 -21.232  36.949  1.00 16.42           C
ATOM   1876  O   HIS A 399      14.446 -20.980  38.132  1.00 17.80           O
ATOM   1877  CB  HIS A 399      13.102 -18.976  36.753  1.00 22.56           C
ATOM   1878  CG  HIS A 399      12.928 -17.814  35.824  1.00 31.00           C
ATOM   1879  ND1 HIS A 399      12.575 -16.552  36.253  1.00 32.27           N
ATOM   1880  CD2 HIS A 399      13.050 -17.732  34.476  1.00 27.72           C
ATOM   1881  CE1 HIS A 399      12.485 -15.744  35.210  1.00 33.26           C
ATOM   1882  NE2 HIS A 399      12.769 -16.436  34.120  1.00 31.54           N
ATOM   1883  N   THR A 400      14.548 -22.381  36.355  1.00 17.85           N
ATOM   1884  CA  THR A 400      15.264 -23.473  36.993  1.00 18.78           C
ATOM   1885  C   THR A 400      14.507 -24.263  38.036  1.00 15.82           C
ATOM   1886  O   THR A 400      14.385 -25.477  37.920  1.00 16.43           O
ATOM   1887  CB  THR A 400      16.590 -22.969  37.626  1.00 23.37           C
ATOM   1888  OG1 THR A 400      17.376 -22.322  36.618  1.00 27.49           O
ATOM   1889  CG2 THR A 400      17.392 -24.130  38.216  1.00 20.11           C
ATOM   1890  N   ASN A 401      13.993 -23.599  39.059  1.00 16.72           N
ATOM   1891  CA  ASN A 401      13.304 -24.353  40.099  1.00 20.08           C
ATOM   1892  C   ASN A 401      12.198 -23.599  40.835  1.00 16.56           C
ATOM   1893  O   ASN A 401      11.994 -23.810  42.030  1.00 14.23           O
ATOM   1894  CB  ASN A 401      14.342 -24.842  41.108  1.00 16.77           C
ATOM   1895  CG  ASN A 401      15.129 -23.701  41.714  1.00 20.35           C
ATOM   1896  OD1 ASN A 401      15.128 -22.587  41.186  1.00 22.81           O
ATOM   1897  ND2 ASN A 401      15.797 -23.964  42.829  1.00 18.69           N
ATOM   1898  N   VAL A 402      11.481 -22.733  40.125  1.00 20.87           N
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ATOM   1899  CA  VAL A 402      10.414 -21.953  40.754  1.00 19.69           C
ATOM   1900  C   VAL A 402       9.010 -22.391  40.311  1.00 16.00           C
ATOM   1901  O   VAL A 402       8.774 -22.627  39.131  1.00 12.31           O
ATOM   1902  CB  VAL A 402      10.573 -20.447  40.434  1.00 19.00           C
ATOM   1903  CG1 VAL A 402       9.693 -19.617  41.358  1.00 17.41           C
ATOM   1904  CG2 VAL A 402      12.034 -20.032  40.569  1.00 16.17           C
ATOM   1905  N   ALA A 403       8.093 -22.527  41.268  1.00 18.78           N
ATOM   1906  CA  ALA A 403       6.697 -22.876  40.962  1.00 14.94           C
ATOM   1907  C   ALA A 403       6.221 -21.675  40.150  1.00 12.38           C
ATOM   1908  O   ALA A 403       6.143 -20.562  40.676  1.00 16.92           O
ATOM   1909  CB  ALA A 403       5.907 -22.987  42.244  1.00 14.92           C
ATOM   1910  N   TYR A 404       5.913 -21.881  38.875  1.00 13.53           N
ATOM   1911  CA  TYR A 404       5.531 -20.749  38.034  1.00 15.94           C
ATOM   1912  C   TYR A 404       4.338 -20.921  37.086  1.00 15.00           C
ATOM   1913  O   TYR A 404       4.232 -20.207  36.082  1.00 15.63           O
ATOM   1914  CB  TYR A 404       6.760 -20.296  37.221  1.00 12.77           C
ATOM   1915  CG  TYR A 404       7.241 -18.896  37.542  1.00 17.25           C
ATOM   1916  CD1 TYR A 404       6.335 -17.850  37.686  1.00 18.79           C
ATOM   1917  CD2 TYR A 404       8.602 -18.609  37.686  1.00 18.49           C
ATOM   1918  CE1 TYR A 404       6.757 -16.561  37.958  1.00 21.53           C
ATOM   1919  CE2 TYR A 404       9.037 -17.306  37.962  1.00 21.01           C
ATOM   1920  CZ  TYR A 404       8.104 -16.288  38.095  1.00 23.29           C
ATOM   1921  OH  TYR A 404       8.485 -14.988  38.354  1.00 22.41           O
ATOM   1922  N   THR A 405       3.438 -21.847  37.394  1.00 16.04           N
ATOM   1923  CA  THR A 405       2.274 -22.044  36.541  1.00 14.81           C
ATOM   1924  C   THR A 405       1.545 -20.720  36.262  1.00 16.73           C
ATOM   1925  O   THR A 405       1.173 -20.433  35.116  1.00 13.35           O
ATOM   1926  CB  THR A 405       1.243 -22.979  37.198  1.00 13.31           C
ATOM   1927  OG1 THR A 405       1.909 -24.022  37.912  1.00 16.53           O
ATOM   1928  CG2 THR A 405       0.343 -23.585  36.144  1.00 17.23           C
ATOM   1929  N   GLY A 406       1.370 -19.924  37.324  1.00 15.08           N
ATOM   1930  CA  GLY A 406       0.646 -18.666  37.246  1.00 16.18           C
ATOM   1931  C   GLY A 406       1.259 -17.405  36.674  1.00 20.23           C
ATOM   1932  O   GLY A 406       0.726 -16.317  36.886  1.00 21.43           O
ATOM   1933  N   ALA A 407       2.369 -17.519  35.959  1.00 20.96           N
ATOM   1934  CA  ALA A 407       2.985 -16.343  35.358  1.00 16.33           C
ATOM   1935  C   ALA A 407       3.590 -16.785  34.048  1.00 16.74           C
ATOM   1936  O   ALA A 407       3.212 -16.291  32.990  1.00 17.74           O
ATOM   1937  CB  ALA A 407       4.041 -15.762  36.274  1.00 15.52           C
ATOM   1938  N   PHE A 408       4.526 -17.724  34.110  1.00 17.70           N
ATOM   1939  CA  PHE A 408       5.129 -18.231  32.889  1.00 17.31           C
ATOM   1940  C   PHE A 408       4.155 -19.193  32.225  1.00 16.87           C
ATOM   1941  O   PHE A 408       4.115 -19.309  30.995  1.00 16.82           O
ATOM   1942  CB  PHE A 408       6.473 -18.907  33.196  1.00 19.46           C
ATOM   1943  CG  PHE A 408       7.608 -17.933  33.266  1.00 19.00           C
ATOM   1944  CD1 PHE A 408       8.194 -17.455  32.099  1.00 20.98           C
ATOM   1945  CD2 PHE A 408       8.022 -17.412  34.489  1.00 21.09           C
ATOM   1946  CE1 PHE A 408       9.175 -16.461  32.149  1.00 25.16           C
ATOM   1947  CE2 PHE A 408       9.003 -16.417  34.553  1.00 26.47           C
ATOM   1948  CZ  PHE A 408       9.578 -15.940  33.379  1.00 26.76           C
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ATOM   1949  N   GLY A 409       3.362 -19.881  33.039  1.00 16.18           N
ATOM   1950  CA  GLY A 409       2.371 -20.776  32.474  1.00 19.27           C
ATOM   1951  C   GLY A 409       1.375 -19.939  31.680  1.00 17.71           C
ATOM   1952  O   GLY A 409       0.956 -20.319  30.581  1.00 18.46           O
ATOM   1953  N   ASN A 410       0.998 -18.788  32.237  1.00 17.12           N
ATOM   1954  CA  ASN A 410       0.056 -17.896  31.570  1.00 13.95           C
ATOM   1955  C   ASN A 410       0.568 -17.564  30.190  1.00 15.20           C
ATOM   1956  O   ASN A 410      -0.126 -17.774  29.192  1.00 17.95           O
ATOM   1957  CB  ASN A 410      -0.113 -16.587  32.339  1.00 11.83           C
ATOM   1958  CG  ASN A 410      -0.659 -16.790  33.730  1.00 18.30           C
ATOM   1959  OD1 ASN A 410      -0.610 -17.893  34.276  1.00 21.79           O
ATOM   1960  ND2 ASN A 410      -1.179 -15.715  34.324  1.00 18.66           N
ATOM   1961  N   VAL A 411       1.792 -17.039  30.137  1.00 20.64           N
ATOM   1962  CA  VAL A 411       2.419 -16.655  28.867  1.00 19.59           C
ATOM   1963  C   VAL A 411       2.429 -17.814  27.892  1.00 17.21           C
ATOM   1964  O   VAL A 411       2.218 -17.638  26.703  1.00 19.78           O
ATOM   1965  CB  VAL A 411       3.880 -16.180  29.062  1.00 20.02           C
ATOM   1966  CG1 VAL A 411       4.496 -15.850  27.709  1.00 19.04           C
ATOM   1967  CG2 VAL A 411       3.920 -14.960  29.973  1.00 14.39           C
ATOM   1968  N   LEU A 412       2.682 -19.006  28.405  1.00 20.07           N
ATOM   1969  CA  LEU A 412       2.711 -20.191  27.569  1.00 22.22           C
ATOM   1970  C   LEU A 412       1.341 -20.416  26.919  1.00 24.37           C
ATOM   1971  O   LEU A 412       1.218 -20.412  25.693  1.00 24.92           O
ATOM   1972  CB  LEU A 412       3.107 -21.408  28.415  1.00 18.91           C
ATOM   1973  CG  LEU A 412       3.848 -22.562  27.738  1.00 18.00           C
ATOM   1974  CD1 LEU A 412       4.466 -23.440  28.802  1.00 15.11           C
ATOM   1975  CD2 LEU A 412       2.894 -23.370  26.875  1.00 18.02           C
ATOM   1976  N   ILE A 413       0.309 -20.603  27.741  1.00 24.52           N
ATOM   1977  CA  ILE A 413      -1.037 -20.843  27.216  1.00 22.39           C
ATOM   1978  C   ILE A 413      -1.566 -19.651  26.422  1.00 16.41           C
ATOM   1979  O   ILE A 413      -2.108 -19.804  25.335  1.00 19.11           O
ATOM   1980  CB  ILE A 413      -2.035 -21.182  28.357  1.00 23.28           C
ATOM   1981  CG1 ILE A 413      -3.345 -21.681  27.756  1.00 26.45           C
ATOM   1982  CG2 ILE A 413      -2.291 -19.958  29.237  1.00 20.38           C
ATOM   1983  CD1 ILE A 413      -3.759 -23.044  28.254  1.00 33.73           C
ATOM   1984  N   ASP A 414      -1.394 -18.464  26.976  1.00 16.83           N
ATOM   1985  CA  ASP A 414      -1.848 -17.251  26.329  1.00 18.77           C
ATOM   1986  C   ASP A 414      -1.251 -17.125  24.933  1.00 20.57           C
ATOM   1987  O   ASP A 414      -1.967 -16.949  23.943  1.00 21.29           O
ATOM   1988  CB  ASP A 414      -1.450 -16.056  27.186  1.00 22.87           C
ATOM   1989  CG  ASP A 414      -2.167 -14.796  26.792  1.00 25.97           C
ATOM   1990  OD1 ASP A 414      -2.839 -14.790  25.742  1.00 29.25           O
ATOM   1991  OD2 ASP A 414      -2.057 -13.808  27.540  1.00 31.77           O
ATOM   1992  N   GLY A 415       0.070 -17.228  24.851  1.00 21.27           N
ATOM   1993  CA  GLY A 415       0.731 -17.115  23.565  1.00 15.75           C
ATOM   1994  C   GLY A 415       0.510 -18.289  22.634  1.00 14.27           C
ATOM   1995  O   GLY A 415       0.286 -18.114  21.436  1.00 15.13           O
ATOM   1996  N   LEU A 416       0.560 -19.501  23.164  1.00 14.39           N
ATOM   1997  CA  LEU A 416       0.372 -20.649  22.297  1.00 16.03           C
ATOM   1998  C   LEU A 416      -0.995 -20.629  21.628  1.00 19.14           C
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ATOM   1999  O   LEU A 416      -1.101 -20.907  20.438  1.00 21.14           O
ATOM   2000  CB  LEU A 416       0.551 -21.954  23.080  1.00 16.20           C
ATOM   2001  CG  LEU A 416       0.680 -23.213  22.212  1.00 18.43           C
ATOM   2002  CD1 LEU A 416       1.807 -23.045  21.193  1.00 20.34           C
ATOM   2003  CD2 LEU A 416       0.951 -24.413  23.103  1.00 17.18           C
ATOM   2004  N   SER A 417      -2.038 -20.289  22.388  1.00 20.29           N
ATOM   2005  CA  SER A 417      -3.397 -20.256  21.840  1.00 21.02           C
ATOM   2006  C   SER A 417      -3.565 -19.244  20.705  1.00 18.73           C
ATOM   2007  O   SER A 417      -4.396 -19.437  19.820  1.00 19.94           O
ATOM   2008  CB  SER A 417      -4.419 -20.006  22.956  1.00 14.72           C
ATOM   2009  OG  SER A 417      -4.230 -18.750  23.574  1.00 20.20           O
ATOM   2010  N   GLN A 418      -2.769 -18.178  20.711  1.00 19.99           N
ATOM   2011  CA  GLN A 418      -2.837 -17.182  19.633  1.00 21.94           C
ATOM   2012  C   GLN A 418      -2.159 -17.730  18.375  1.00 21.90           C
ATOM   2013  O   GLN A 418      -2.605 -17.499  17.254  1.00 20.00           O
ATOM   2014  CB  GLN A 418      -2.090 -15.906  20.016  1.00 22.94           C
ATOM   2015  CG  GLN A 418      -2.644 -15.135  21.170  1.00 27.64           C
ATOM   2016  CD  GLN A 418      -2.167 -13.703  21.144  1.00 30.09           C
ATOM   2017  OE1 GLN A 418      -0.965 -13.440  21.141  1.00 29.49           O
ATOM   2018  NE2 GLN A 418      -3.105 -12.767  21.112  1.00 36.00           N
ATOM   2019  N   LEU A 419      -1.067 -18.457  18.590  1.00 20.78           N
ATOM   2020  CA  LEU A 419      -0.255 -19.009  17.518  1.00 19.63           C
ATOM   2021  C   LEU A 419      -0.800 -20.236  16.807  1.00 19.46           C
ATOM   2022  O   LEU A 419      -0.731 -20.321  15.588  1.00 21.15           O
ATOM   2023  CB  LEU A 419       1.133 -19.331  18.079  1.00 25.56           C
ATOM   2024  CG  LEU A 419       2.421 -19.044  17.302  1.00 29.75           C
ATOM   2025  CD1 LEU A 419       2.244 -17.883  16.337  1.00 26.51           C
ATOM   2026  CD2 LEU A 419       3.525 -18.745  18.312  1.00 29.28           C
ATOM   2027  N   LEU A 420      -1.330 -21.187  17.568  1.00 21.04           N
ATOM   2028  CA  LEU A 420      -1.848 -22.433  17.005  1.00 23.85           C
ATOM   2029  C   LEU A 420      -2.707 -22.309  15.757  1.00 25.50           C
ATOM   2030  O   LEU A 420      -2.503 -23.031  14.780  1.00 28.06           O
ATOM   2031  CB  LEU A 420      -2.620 -23.198  18.070  1.00 24.37           C
ATOM   2032  CG  LEU A 420      -1.690 -23.937  19.025  1.00 31.14           C
ATOM   2033  CD1 LEU A 420      -2.517 -24.729  20.019  1.00 27.61           C
ATOM   2034  CD2 LEU A 420      -0.751 -24.846  18.232  1.00 32.23           C
ATOM   2035  N   PRO A 421      -3.713 -21.427  15.783  1.00 25.51           N
ATOM   2036  CA  PRO A 421      -4.559 -21.277  14.597  1.00 23.30           C
ATOM   2037  C   PRO A 421      -3.744 -20.924  13.354  1.00 23.84           C
ATOM   2038  O   PRO A 421      -4.021 -21.407  12.259  1.00 23.59           O
ATOM   2039  CB  PRO A 421      -5.531 -20.162  14.988  1.00 22.43           C
ATOM   2040  CG  PRO A 421      -5.556 -20.198  16.475  1.00 25.14           C
ATOM   2041  CD  PRO A 421      -4.161 -20.567  16.889  1.00 22.78           C
ATOM   2042  N   VAL A 422      -2.737 -20.076  13.520  1.00 23.72           N
ATOM   2043  CA  VAL A 422      -1.908 -19.684  12.390  1.00 26.05           C
ATOM   2044  C   VAL A 422      -0.980 -20.820  11.973  1.00 25.52           C
ATOM   2045  O   VAL A 422      -0.916 -21.178  10.800  1.00 26.93           O
ATOM   2046  CB  VAL A 422      -1.055 -18.459  12.727  1.00 26.29           C
ATOM   2047  CG1 VAL A 422      -0.147 -18.129  11.555  1.00 26.69           C
ATOM   2048  CG2 VAL A 422      -1.953 -17.283  13.063  1.00 25.74           C
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ATOM   2049  N   ILE A 423      -0.261 -21.374  12.945  1.00 27.05           N
ATOM   2050  CA  ILE A 423       0.671 -22.478  12.714  1.00 25.11           C
ATOM   2051  C   ILE A 423      -0.040 -23.636  12.028  1.00 27.63           C
ATOM   2052  O   ILE A 423       0.484 -24.247  11.100  1.00 25.33           O
ATOM   2053  CB  ILE A 423       1.245 -23.000  14.052  1.00 23.82           C
ATOM   2054  CG1 ILE A 423       2.409 -22.115  14.501  1.00 24.64           C
ATOM   2055  CG2 ILE A 423       1.683 -24.457  13.909  1.00 26.94           C
ATOM   2056  CD1 ILE A 423       2.763 -22.264  15.959  1.00 18.62           C
ATOM   2057  N   GLN A 424      -1.243 -23.928  12.504  1.00 28.72           N
ATOM   2058  CA  GLN A 424      -2.033 -25.020  11.974  1.00 31.26           C
ATOM   2059  C   GLN A 424      -2.449 -24.837  10.520  1.00 35.47           C
ATOM   2060  O   GLN A 424      -2.928 -25.779   9.880  1.00 35.63           O
ATOM   2061  CB  GLN A 424      -3.257 -25.227  12.860  1.00 30.68           C
ATOM   2062  CG  GLN A 424      -2.918 -25.914  14.170  1.00 33.08           C
ATOM   2063  CD  GLN A 424      -1.846 -26.984  14.003  1.00 32.85           C
ATOM   2064  OE1 GLN A 424      -0.674 -26.678  13.804  1.00 37.29           O
ATOM   2065  NE2 GLN A 424      -2.249 -28.245  14.083  1.00 37.12           N
ATOM   2066  N   LYS A 425      -2.261 -23.634   9.989  1.00 35.93           N
ATOM   2067  CA  LYS A 425      -2.624 -23.377   8.605  1.00 36.90           C
ATOM   2068  C   LYS A 425      -1.397 -23.162   7.728  1.00 39.00           C
ATOM   2069  O   LYS A 425      -1.510 -22.727   6.581  1.00 40.88           O
ATOM   2070  CB  LYS A 425      -3.562 -22.173   8.518  1.00 38.16           C
ATOM   2071  CG  LYS A 425      -5.034 -22.569   8.453  1.00 37.02           C
ATOM   2072  CD  LYS A 425      -5.950 -21.401   8.763  1.00 41.28           C
ATOM   2073  CE  LYS A 425      -7.343 -21.637   8.194  1.00 45.56           C
ATOM   2074  NZ  LYS A 425      -8.353 -20.701   8.780  1.00 51.01           N
ATOM   2075  N   THR A 426      -0.224 -23.471   8.274  1.00 40.17           N
ATOM   2076  CA  THR A 426       1.020 -23.330   7.531  1.00 39.97           C
ATOM   2077  C   THR A 426       1.382 -24.658   6.884  1.00 43.79           C
ATOM   2078  O   THR A 426       0.618 -25.624   6.939  1.00 44.12           O
ATOM   2079  CB  THR A 426       2.194 -22.917   8.440  1.00 36.89           C
ATOM   2080  OG1 THR A 426       2.563 -24.019   9.280  1.00 30.96           O
ATOM   2081  CG2 THR A 426       1.813 -21.724   9.291  1.00 37.12           C
ATOM   2082  N   LYS A 427       2.561 -24.693   6.274  1.00 48.51           N
ATOM   2083  CA  LYS A 427       3.063 -25.888   5.607  1.00 49.16           C
ATOM   2084  C   LYS A 427       3.454 -26.947   6.632  1.00 47.24           C
ATOM   2085  O   LYS A 427       3.631 -28.113   6.284  1.00 47.48           O
ATOM   2086  CB  LYS A 427       4.291 -25.529   4.763  1.00 54.24           C
ATOM   2087  CG  LYS A 427       4.158 -25.815   3.278  1.00 60.26           C
ATOM   2088  CD  LYS A 427       5.271 -25.130   2.478  1.00 65.19           C
ATOM   2089  CE  LYS A 427       6.617 -25.833   2.661  1.00 65.55           C
ATOM   2090  NZ  LYS A 427       6.754 -27.031   1.782  1.00 65.06           N
ATOM   2091  N   ASN A 428       3.586 -26.537   7.894  1.00 45.18           N
ATOM   2092  CA  ASN A 428       3.980 -27.456   8.956  1.00 42.35           C
ATOM   2093  C   ASN A 428       3.039 -27.483  10.155  1.00 40.24           C
ATOM   2094  O   ASN A 428       3.413 -27.084  11.260  1.00 39.83           O
ATOM   2095  CB  ASN A 428       5.392 -27.115   9.435  1.00 47.04           C
ATOM   2096  CG  ASN A 428       6.426 -27.238   8.334  1.00 51.78           C
ATOM   2097  OD1 ASN A 428       6.532 -26.370   7.464  1.00 52.24           O
ATOM   2098  ND2 ASN A 428       7.197 -28.322   8.364  1.00 58.10           N
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ATOM   2099  N   PRO A 429       1.805 -27.965   9.959  1.00 39.82           N
ATOM   2100  CA  PRO A 429       0.858 -28.019  11.075  1.00 37.58           C
ATOM   2101  C   PRO A 429       1.337 -29.037  12.095  1.00 39.40           C
ATOM   2102  O   PRO A 429       2.012 -30.003  11.741  1.00 41.56           O
ATOM   2103  CB  PRO A 429      -0.443 -28.449  10.416  1.00 37.21           C
ATOM   2104  CG  PRO A 429       0.005 -29.225   9.221  1.00 38.72           C
ATOM   2105  CD  PRO A 429       1.213 -28.492   8.718  1.00 36.87           C
ATOM   2106  N   ILE A 430       0.982 -28.826  13.357  1.00 39.57           N
ATOM   2107  CA  ILE A 430       1.387 -29.736  14.420  1.00 38.20           C
ATOM   2108  C   ILE A 430       0.387 -30.880  14.580  1.00 38.66           C
ATOM   2109  O   ILE A 430      -0.823 -30.660  14.581  1.00 39.20           O
ATOM   2110  CB  ILE A 430       1.533 -28.975  15.764  1.00 36.70           C
ATOM   2111  CG1 ILE A 430       2.582 -27.866  15.616  1.00 35.16           C
ATOM   2112  CG2 ILE A 430       1.938 -29.933  16.872  1.00 36.43           C
ATOM   2113  CD1 ILE A 430       2.699 -26.948  16.820  1.00 34.78           C
ATOM   2114  N   ASP A 431       0.907 -32.100  14.707  1.00 38.46           N
ATOM   2115  CA  ASP A 431       0.085 -33.296  14.874  1.00 38.43           C
ATOM   2116  C   ASP A 431      -0.874 -33.171  16.047  1.00 37.51           C
ATOM   2117  O   ASP A 431      -0.497 -32.713  17.119  1.00 35.71           O
ATOM   2118  CB  ASP A 431       0.972 -34.523  15.103  1.00 43.86           C
ATOM   2119  CG  ASP A 431       2.032 -34.688  14.033  1.00 48.34           C
ATOM   2120  OD1 ASP A 431       1.842 -34.150  12.920  1.00 51.51           O
ATOM   2121  OD2 ASP A 431       3.055 -35.356  14.306  1.00 50.41           O
ATOM   2122  N   LYS A 432      -2.113 -33.600  15.840  1.00 40.63           N
ATOM   2123  CA  LYS A 432      -3.133 -33.541  16.881  1.00 42.27           C
ATOM   2124  C   LYS A 432      -2.664 -34.229  18.155  1.00 41.34           C
ATOM   2125  O   LYS A 432      -2.831 -33.701  19.253  1.00 41.26           O
ATOM   2126  CB  LYS A 432      -4.424 -34.207  16.398  1.00 45.66           C
ATOM   2127  CG  LYS A 432      -4.749 -33.956  14.931  1.00 55.97           C
ATOM   2128  CD  LYS A 432      -4.197 -35.066  14.035  1.00 60.22           C
ATOM   2129  CE  LYS A 432      -5.194 -35.453  12.949  1.00 61.31           C
ATOM   2130  NZ  LYS A 432      -4.524 -35.645  11.630  1.00 63.38           N
ATOM   2131  N   ASP A 433      -2.077 -35.409  18.005  1.00 42.31           N
ATOM   2132  CA  ASP A 433      -1.597 -36.168  19.152  1.00 44.86           C
ATOM   2133  C   ASP A 433      -0.600 -35.370  19.968  1.00 41.91           C
ATOM   2134  O   ASP A 433      -0.618 -35.410  21.197  1.00 41.20           O
ATOM   2135  CB  ASP A 433      -0.934 -37.468  18.696  1.00 51.82           C
ATOM   2136  CG  ASP A 433      -1.673 -38.128  17.552  1.00 60.85           C
ATOM   2137  OD1 ASP A 433      -1.845 -37.470  16.499  1.00 66.09           O
ATOM   2138  OD2 ASP A 433      -2.082 -39.304  17.705  1.00 64.72           O
ATOM   2139  N   LYS A 434       0.272 -34.643  19.283  1.00 40.90           N
ATOM   2140  CA  LYS A 434       1.285 -33.854  19.969  1.00 40.42           C
ATOM   2141  C   LYS A 434       0.696 -32.731  20.806  1.00 39.43           C
ATOM   2142  O   LYS A 434       1.289 -32.335  21.804  1.00 42.45           O
ATOM   2143  CB  LYS A 434       2.286 -33.278  18.964  1.00 42.40           C
ATOM   2144  CG  LYS A 434       3.559 -34.091  18.841  1.00 41.24           C
ATOM   2145  CD  LYS A 434       4.190 -33.915  17.480  1.00 44.82           C
ATOM   2146  CE  LYS A 434       5.702 -33.875  17.582  1.00 44.59           C
ATOM   2147  NZ  LYS A 434       6.326 -33.665  16.242  1.00 50.95           N
ATOM   2148  N   MET A 435      -0.468 -32.222  20.408  1.00 37.63           N
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ATOM   2149  CA  MET A 435      -1.111 -31.133  21.141  1.00 36.89           C
ATOM   2150  C   MET A 435      -2.021 -31.643  22.256  1.00 36.14           C
ATOM   2151  O   MET A 435      -2.622 -30.861  22.993  1.00 35.90           O
ATOM   2152  CB  MET A 435      -1.905 -30.256  20.175  1.00 37.66           C
ATOM   2153  CG  MET A 435      -1.047 -29.652  19.080  1.00 40.00           C
ATOM   2154  SD  MET A 435      -2.022 -28.971  17.732  1.00 45.57           S
ATOM   2155  CE  MET A 435      -3.061 -27.846  18.637  1.00 45.65           C
ATOM   2156  N   GLN A 436      -2.100 -32.963  22.376  1.00 36.57           N
ATOM   2157  CA  GLN A 436      -2.922 -33.631  23.385  1.00 36.08           C
ATOM   2158  C   GLN A 436      -2.670 -33.131  24.801  1.00 34.26           C
ATOM   2159  O   GLN A 436      -3.602 -32.878  25.560  1.00 32.57           O
ATOM   2160  CB  GLN A 436      -2.644 -35.136  23.358  1.00 39.55           C
ATOM   2161  CG  GLN A 436      -3.862 -35.990  23.561  1.00 46.35           C
ATOM   2162  CD  GLN A 436      -4.964 -35.623  22.596  1.00 51.52           C
ATOM   2163  OE1 GLN A 436      -6.147 -35.686  22.934  1.00 55.23           O
ATOM   2164  NE2 GLN A 436      -4.581 -35.233  21.382  1.00 50.96           N
ATOM   2165  N   THR A 437      -1.395 -33.013  25.152  1.00 31.79           N
ATOM   2166  CA  THR A 437      -0.997 -32.586  26.480  1.00 28.81           C
ATOM   2167  C   THR A 437      -1.592 -31.256  26.905  1.00 24.29           C
ATOM   2168  O   THR A 437      -1.707 -30.986  28.098  1.00 26.47           O
ATOM   2169  CB  THR A 437       0.541 -32.503  26.588  1.00 32.70           C
ATOM   2170  OG1 THR A 437       1.053 -31.701  25.517  1.00 34.73           O
ATOM   2171  CG2 THR A 437       1.155 -33.892  26.502  1.00 36.27           C
ATOM   2172  N   MET A 438      -1.971 -30.427  25.939  1.00 23.12           N
ATOM   2173  CA  MET A 438      -2.547 -29.123  26.249  1.00 22.70           C
ATOM   2174  C   MET A 438      -3.706 -29.254  27.226  1.00 22.95           C
ATOM   2175  O   MET A 438      -3.823 -28.493  28.185  1.00 23.80           O
ATOM   2176  CB  MET A 438      -3.043 -28.456  24.973  1.00 22.83           C
ATOM   2177  CG  MET A 438      -2.055 -27.510  24.362  1.00 29.18           C
ATOM   2178  SD  MET A 438      -2.845 -26.460  23.149  1.00 32.92           S
ATOM   2179  CE  MET A 438      -3.744 -27.640  22.191  1.00 26.14           C
ATOM   2180  N   TYR A 439      -4.567 -30.229  26.975  1.00 22.91           N
ATOM   2181  CA  TYR A 439      -5.722 -30.445  27.832  1.00 24.71           C
ATOM   2182  C   TYR A 439      -5.286 -30.951  29.189  1.00 25.18           C
ATOM   2183  O   TYR A 439      -6.018 -30.819  30.172  1.00 28.97           O
ATOM   2184  CB  TYR A 439      -6.684 -31.419  27.155  1.00 21.04           C
ATOM   2185  CG  TYR A 439      -6.990 -30.990  25.742  1.00 22.54           C
ATOM   2186  CD1 TYR A 439      -7.779 -29.868  25.495  1.00 25.42           C
ATOM   2187  CD2 TYR A 439      -6.439 -31.660  24.652  1.00 25.04           C
ATOM   2188  CE1 TYR A 439      -8.010 -29.421  24.205  1.00 28.08           C
ATOM   2189  CE2 TYR A 439      -6.662 -31.222  23.353  1.00 28.88           C
ATOM   2190  CZ  TYR A 439      -7.450 -30.100  23.137  1.00 30.28           C
ATOM   2191  OH  TYR A 439      -7.686 -29.657  21.855  1.00 31.49           O
ATOM   2192  N   HIS A 440      -4.080 -31.515  29.247  1.00 24.98           N
ATOM   2193  CA  HIS A 440      -3.544 -32.008  30.509  1.00 20.66           C
ATOM   2194  C   HIS A 440      -3.114 -30.810  31.345  1.00 18.67           C
ATOM   2195  O   HIS A 440      -3.232 -30.826  32.568  1.00 20.24           O
ATOM   2196  CB  HIS A 440      -2.354 -32.937  30.265  1.00 22.79           C
ATOM   2197  CG  HIS A 440      -1.936 -33.707  31.476  1.00 23.79           C
ATOM   2198  ND1 HIS A 440      -1.049 -33.207  32.405  1.00 27.68           N
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ATOM   2199  CD2 HIS A 440      -2.285 -34.939  31.914  1.00 27.02           C
ATOM   2200  CE1 HIS A 440      -0.869 -34.098  33.364  1.00 25.83           C
ATOM   2201  NE2 HIS A 440      -1.608 -35.158  33.090  1.00 27.78           N
ATOM   2202  N   TRP A 441      -2.624 -29.761  30.690  1.00 17.90           N
ATOM   2203  CA  TRP A 441      -2.199 -28.570  31.422  1.00 19.77           C
ATOM   2204  C   TRP A 441      -3.413 -27.890  32.028  1.00 20.15           C
ATOM   2205  O   TRP A 441      -3.427 -27.524  33.200  1.00 23.56           O
ATOM   2206  CB  TRP A 441      -1.527 -27.544  30.507  1.00 22.37           C
ATOM   2207  CG  TRP A 441      -0.400 -28.035  29.658  1.00 23.02           C
ATOM   2208  CD1 TRP A 441       0.419 -29.107  29.892  1.00 20.31           C
ATOM   2209  CD2 TRP A 441       0.047 -27.443  28.436  1.00 23.87           C
ATOM   2210  NE1 TRP A 441       1.352 -29.215  28.885  1.00 22.59           N
ATOM   2211  CE2 TRP A 441       1.146 -28.206  27.979  1.00 22.92           C
ATOM   2212  CE3 TRP A 441      -0.374 -26.339  27.681  1.00 23.83           C
ATOM   2213  CZ2 TRP A 441       1.831 -27.899  26.797  1.00 23.63           C
ATOM   2214  CZ3 TRP A 441       0.308 -26.035  26.507  1.00 27.24           C
ATOM   2215  CH2 TRP A 441       1.400 -26.814  26.078  1.00 24.17           C
ATOM   2216  N   ILE A 442      -4.427 -27.698  31.194  1.00 22.27           N
ATOM   2217  CA  ILE A 442      -5.649 -27.041  31.618  1.00 22.42           C
ATOM   2218  C   ILE A 442      -6.276 -27.741  32.823  1.00 18.56           C
ATOM   2219  O   ILE A 442      -6.490 -27.128  33.872  1.00 18.77           O
ATOM   2220  CB  ILE A 442      -6.651 -26.975  30.429  1.00 23.13           C
ATOM   2221  CG1 ILE A 442      -6.048 -26.124  29.303  1.00 22.83           C
ATOM   2222  CG2 ILE A 442      -7.982 -26.377  30.882  1.00 24.87           C
ATOM   2223  CD1 ILE A 442      -6.752 -26.242  27.954  1.00 20.90           C
ATOM   2224  N   ASP A 443      -6.536 -29.034  32.683  1.00 19.50           N
ATOM   2225  CA  ASP A 443      -7.163 -29.808  33.749  1.00 19.21           C
ATOM   2226  C   ASP A 443      -6.325 -30.061  34.998  1.00 20.71           C
ATOM   2227  O   ASP A 443      -6.813 -29.923  36.117  1.00 19.96           O
ATOM   2228  CB  ASP A 443      -7.629 -31.154  33.193  1.00 19.87           C
ATOM   2229  CG  ASP A 443      -8.818 -31.022  32.266  1.00 22.48           C
ATOM   2230  OD1 ASP A 443      -9.530 -29.999  32.341  1.00 22.32           O
ATOM   2231  OD2 ASP A 443      -9.040 -31.946  31.458  1.00 26.57           O
ATOM   2232  N   LYS A 444      -5.063 -30.433  34.810  1.00 22.66           N
ATOM   2233  CA  LYS A 444      -4.187 -30.751  35.934  1.00 17.15           C
ATOM   2234  C   LYS A 444      -3.388 -29.588  36.507  1.00 16.13           C
ATOM   2235  O   LYS A 444      -3.151 -29.530  37.714  1.00 15.89           O
ATOM   2236  CB  LYS A 444      -3.214 -31.862  35.520  1.00 18.91           C
ATOM   2237  CG  LYS A 444      -3.763 -33.274  35.641  1.00 21.94           C
ATOM   2238  CD  LYS A 444      -3.655 -33.767  37.077  1.00 26.67           C
ATOM   2239  CE  LYS A 444      -2.856 -35.060  37.188  1.00 27.62           C
ATOM   2240  NZ  LYS A 444      -2.739 -35.510  38.617  1.00 28.79           N
ATOM   2241  N   SER A 445      -2.985 -28.657  35.647  1.00 16.44           N
ATOM   2242  CA  SER A 445      -2.165 -27.528  36.077  1.00 18.17           C
ATOM   2243  C   SER A 445      -2.881 -26.223  36.372  1.00 15.50           C
ATOM   2244  O   SER A 445      -2.700 -25.640  37.445  1.00 14.74           O
ATOM   2245  CB  SER A 445      -1.070 -27.245  35.033  1.00 15.47           C
ATOM   2246  OG  SER A 445      -0.162 -28.325  34.920  1.00 19.89           O
ATOM   2247  N   PHE A 446      -3.685 -25.766  35.417  1.00 14.55           N
ATOM   2248  CA  PHE A 446      -4.377 -24.488  35.546  1.00 17.56           C
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ATOM   2249  C   PHE A 446      -5.665 -24.445  36.351  1.00 15.83           C
ATOM   2250  O   PHE A 446      -5.784 -23.669  37.303  1.00 14.50           O
ATOM   2251  CB  PHE A 446      -4.645 -23.922  34.155  1.00 14.73           C
ATOM   2252  CG  PHE A 446      -3.408 -23.478  33.440  1.00 17.93           C
ATOM   2253  CD1 PHE A 446      -2.669 -22.396  33.910  1.00 16.36           C
ATOM   2254  CD2 PHE A 446      -2.987 -24.130  32.288  1.00 16.91           C
ATOM   2255  CE1 PHE A 446      -1.528 -21.965  33.240  1.00 16.54           C
ATOM   2256  CE2 PHE A 446      -1.848 -23.709  31.609  1.00 20.00           C
ATOM   2257  CZ  PHE A 446      -1.117 -22.621  32.086  1.00 18.49           C
ATOM   2258  N   ALA A 447      -6.625 -25.276  35.960  1.00 18.91           N
ATOM   2259  CA  ALA A 447      -7.925 -25.316  36.615  1.00 16.02           C
ATOM   2260  C   ALA A 447      -7.865 -25.265  38.134  1.00 15.41           C
ATOM   2261  O   ALA A 447      -8.536 -24.430  38.748  1.00 18.11           O
ATOM   2262  CB  ALA A 447      -8.703 -26.552  36.148  1.00 14.32           C
ATOM   2263  N   PRO A 448      -7.044 -26.133  38.771  1.00 13.88           N
ATOM   2264  CA  PRO A 448      -6.984 -26.098  40.235  1.00  9.60           C
ATOM   2265  C   PRO A 448      -6.514 -24.793  40.855  1.00 10.87           C
ATOM   2266  O   PRO A 448      -6.819 -24.516  42.014  1.00 10.44           O
ATOM   2267  CB  PRO A 448      -6.067 -27.276  40.594  1.00  7.41           C
ATOM   2268  CG  PRO A 448      -6.048 -28.129  39.404  1.00 10.14           C
ATOM   2269  CD  PRO A 448      -6.173 -27.190  38.236  1.00 11.16           C
ATOM   2270  N   LEU A 449      -5.798 -23.982  40.087  1.00 12.49           N
ATOM   2271  CA  LEU A 449      -5.274 -22.726  40.619  1.00 15.32           C
ATOM   2272  C   LEU A 449      -6.248 -21.571  40.507  1.00 16.27           C
ATOM   2273  O   LEU A 449      -5.978 -20.473  40.997  1.00 16.73           O
ATOM   2274  CB  LEU A 449      -3.970 -22.365  39.906  1.00 13.20           C
ATOM   2275  CG  LEU A 449      -2.843 -23.386  40.103  1.00 11.58           C
ATOM   2276  CD1 LEU A 449      -1.585 -22.962  39.320  1.00  8.48           C
ATOM   2277  CD2 LEU A 449      -2.552 -23.496  41.594  1.00  8.71           C
ATOM   2278  N   LEU A 450      -7.378 -21.823  39.861  1.00 17.49           N
ATOM   2279  CA  LEU A 450      -8.402 -20.795  39.675  1.00 18.34           C
ATOM   2280  C   LEU A 450      -9.542 -20.985  40.668  1.00 18.77           C
ATOM   2281  O   LEU A 450     -10.206 -22.023  40.669  1.00 19.83           O
ATOM   2282  CB  LEU A 450      -8.936 -20.853  38.249  1.00 17.08           C
ATOM   2283  CG  LEU A 450      -7.914 -20.508  37.164  1.00 18.47           C
ATOM   2284  CD1 LEU A 450      -8.297 -21.165  35.859  1.00 15.67           C
ATOM   2285  CD2 LEU A 450      -7.845 -18.995  37.004  1.00 19.69           C
ATOM   2286  N   VAL A 451      -9.748 -19.988  41.525  1.00 15.81           N
ATOM   2287  CA  VAL A 451     -10.802 -20.036  42.530  1.00 20.19           C
ATOM   2288  C   VAL A 451     -11.636 -18.769  42.493  1.00 16.93           C
ATOM   2289  O   VAL A 451     -11.173 -17.697  42.877  1.00 20.61           O
ATOM   2290  CB  VAL A 451     -10.223 -20.195  43.945  1.00 22.25           C
ATOM   2291  CG1 VAL A 451     -11.345 -20.127  44.987  1.00 18.40           C
ATOM   2292  CG2 VAL A 451      -9.492 -21.519  44.045  1.00 25.53           C
ATOM   2293  N   ASN A 452     -12.874 -18.906  42.033  1.00 18.13           N
ATOM   2294  CA  ASN A 452     -13.794 -17.780  41.932  1.00 14.13           C
ATOM   2295  C   ASN A 452     -13.206 -16.696  41.054  1.00 12.61           C
ATOM   2296  O   ASN A 452     -13.257 -15.520  41.389  1.00 13.06           O
ATOM   2297  CB  ASN A 452     -14.121 -17.227  43.324  1.00 11.24           C
ATOM   2298  CG  ASN A 452     -15.036 -18.154  44.115  1.00 16.40           C
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ATOM   2299  OD1 ASN A 452     -15.906 -18.815  43.544  1.00 19.80           O
ATOM   2300  ND2 ASN A 452     -14.836 -18.218  45.427  1.00 13.81           N
ATOM   2301  N   GLY A 453     -12.651 -17.115  39.921  1.00 14.69           N
ATOM   2302  CA  GLY A 453     -12.052 -16.186  38.975  1.00 17.99           C
ATOM   2303  C   GLY A 453     -10.654 -15.675  39.315  1.00 17.12           C
ATOM   2304  O   GLY A 453     -10.088 -14.871  38.566  1.00 14.09           O
ATOM   2305  N   GLU A 454     -10.103 -16.141  40.436  1.00 16.23           N
ATOM   2306  CA  GLU A 454      -8.780 -15.717  40.897  1.00 19.91           C
ATOM   2307  C   GLU A 454      -7.706 -16.776  40.700  1.00 21.01           C
ATOM   2308  O   GLU A 454      -7.913 -17.939  41.035  1.00 20.48           O
ATOM   2309  CB  GLU A 454      -8.832 -15.353  42.384  1.00 15.21           C
ATOM   2310  CG  GLU A 454      -7.516 -14.829  42.934  1.00 18.16           C
ATOM   2311  CD  GLU A 454      -7.667 -14.204  44.300  1.00 21.47           C
ATOM   2312  OE1 GLU A 454      -8.781 -14.275  44.862  1.00 27.30           O
ATOM   2313  OE2 GLU A 454      -6.679 -13.643  44.816  1.00 15.96           O
ATOM   2314  N   LEU A 455      -6.559 -16.361  40.161  1.00 21.58           N
ATOM   2315  CA  LEU A 455      -5.421 -17.262  39.950  1.00 18.45           C
ATOM   2316  C   LEU A 455      -4.572 -17.162  41.211  1.00 15.85           C
ATOM   2317  O   LEU A 455      -4.080 -16.087  41.548  1.00 17.79           O
ATOM   2318  CB  LEU A 455      -4.612 -16.811  38.737  1.00 17.87           C
ATOM   2319  CG  LEU A 455      -3.447 -17.688  38.284  1.00 13.92           C
ATOM   2320  CD1 LEU A 455      -3.861 -19.144  38.184  1.00 14.68           C
ATOM   2321  CD2 LEU A 455      -2.980 -17.176  36.941  1.00 11.48           C
ATOM   2322  N   MET A 456      -4.418 -18.279  41.914  1.00 15.93           N
ATOM   2323  CA  MET A 456      -3.664 -18.309  43.163  1.00 14.51           C
ATOM   2324  C   MET A 456      -2.260 -17.717  43.051  1.00 16.18           C
ATOM   2325  O   MET A 456      -1.436 -18.196  42.280  1.00 14.86           O
ATOM   2326  CB  MET A 456      -3.574 -19.741  43.677  1.00 16.35           C
ATOM   2327  CG  MET A 456      -4.834 -20.229  44.382  1.00 21.54           C
ATOM   2328  SD  MET A 456      -4.710 -21.951  44.897  1.00 21.38           S
ATOM   2329  CE  MET A 456      -6.433 -22.355  45.345  1.00 21.14           C
ATOM   2330  N   ASP A 457      -2.003 -16.687  43.849  1.00 15.17           N
ATOM   2331  CA  ASP A 457      -0.719 -15.983  43.867  1.00 17.63           C
ATOM   2332  C   ASP A 457       0.518 -16.855  44.114  1.00 18.73           C
ATOM   2333  O   ASP A 457       1.612 -16.558  43.613  1.00 19.57           O
ATOM   2334  CB  ASP A 457      -0.761 -14.883  44.930  1.00 15.63           C
ATOM   2335  CG  ASP A 457      -1.684 -13.735  44.555  1.00 15.74           C
ATOM   2336  OD1 ASP A 457      -1.885 -13.486  43.344  1.00 15.90           O
ATOM   2337  OD2 ASP A 457      -2.201 -13.080  45.483  1.00 17.88           O
ATOM   2338  N   MET A 458       0.354 -17.917  44.896  1.00 19.33           N
ATOM   2339  CA  MET A 458       1.471 -18.796  45.210  1.00 19.71           C
ATOM   2340  C   MET A 458       2.102 -19.410  43.969  1.00 20.07           C
ATOM   2341  O   MET A 458       3.157 -20.043  44.053  1.00 22.71           O
ATOM   2342  CB  MET A 458       1.014 -19.898  46.174  1.00 19.63           C
ATOM   2343  CG  MET A 458       0.335 -21.096  45.521  1.00 13.75           C
ATOM   2344  SD  MET A 458      -0.254 -22.294  46.737  1.00 17.93           S
ATOM   2345  CE  MET A 458      -1.181 -23.373  45.682  1.00 12.17           C
ATOM   2346  N   SER A 459       1.472 -19.201  42.816  1.00 14.22           N
ATOM   2347  CA  SER A 459       1.961 -19.767  41.562  1.00 13.89           C
ATOM   2348  C   SER A 459       2.380 -18.711  40.564  1.00 10.66           C
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ATOM   2349  O   SER A 459       2.741 -19.033  39.434  1.00 11.51           O
ATOM   2350  CB  SER A 459       0.869 -20.622  40.917  1.00 17.13           C
ATOM   2351  OG  SER A 459      -0.080 -19.807  40.233  1.00 18.90           O
ATOM   2352  N   ARG A 460       2.332 -17.452  40.981  1.00 15.24           N
ATOM   2353  CA  ARG A 460       2.655 -16.347  40.086  1.00 15.91           C
ATOM   2354  C   ARG A 460       4.028 -15.694  40.276  1.00 16.80           C
ATOM   2355  O   ARG A 460       4.306 -14.637  39.708  1.00 16.57           O
ATOM   2356  CB  ARG A 460       1.545 -15.293  40.180  1.00 17.27           C
ATOM   2357  CG  ARG A 460       0.131 -15.906  40.159  1.00 13.61           C
ATOM   2358  CD  ARG A 460      -0.940 -14.894  39.750  1.00 14.01           C
ATOM   2359  NE  ARG A 460      -1.083 -13.816  40.726  1.00 13.20           N
ATOM   2360  CZ  ARG A 460      -0.716 -12.563  40.498  1.00 11.13           C
ATOM   2361  NH1 ARG A 460      -0.187 -12.243  39.328  1.00 13.77           N
ATOM   2362  NH2 ARG A 460      -0.888 -11.630  41.430  1.00 15.57           N
ATOM   2363  N   GLY A 461       4.883 -16.329  41.067  1.00 18.89           N
ATOM   2364  CA  GLY A 461       6.218 -15.797  41.280  1.00 14.06           C
ATOM   2365  C   GLY A 461       6.286 -14.331  41.645  1.00 13.90           C
ATOM   2366  O   GLY A 461       5.629 -13.895  42.578  1.00 16.29           O
ATOM   2367  N   ARG A 462       7.084 -13.566  40.906  1.00 14.74           N
ATOM   2368  CA  ARG A 462       7.260 -12.151  41.191  1.00 17.87           C
ATOM   2369  C   ARG A 462       6.178 -11.262  40.591  1.00 15.90           C
ATOM   2370  O   ARG A 462       6.136 -10.061  40.856  1.00 18.39           O
ATOM   2371  CB  ARG A 462       8.650 -11.687  40.718  1.00 18.34           C
ATOM   2372  CG  ARG A 462       8.854 -11.702  39.212  1.00 20.30           C
ATOM   2373  CD  ARG A 462      10.278 -11.261  38.820  1.00 19.42           C
ATOM   2374  NE  ARG A 462      10.312 -10.732  37.459  1.00 17.17           N
ATOM   2375  CZ  ARG A 462      10.464 -11.482  36.376  1.00 17.45           C
ATOM   2376  NH1 ARG A 462      10.600 -12.793  36.495  1.00 17.51           N
ATOM   2377  NH2 ARG A 462      10.442 -10.926  35.175  1.00 18.82           N
ATOM   2378  N   SER A 463       5.303 -11.854  39.788  1.00 17.91           N
ATOM   2379  CA  SER A 463       4.216 -11.111  39.160  1.00 17.32           C
ATOM   2380  C   SER A 463       3.289 -10.487  40.191  1.00 16.29           C
ATOM   2381  O   SER A 463       2.616  -9.499  39.911  1.00 21.20           O
ATOM   2382  CB  SER A 463       3.405 -12.038  38.265  1.00 15.79           C
ATOM   2383  OG  SER A 463       3.993 -12.114  36.988  1.00 24.37           O
ATOM   2384  N   ILE A 464       3.262 -11.068  41.385  1.00 15.31           N
ATOM   2385  CA  ILE A 464       2.399 -10.593  42.457  1.00 15.12           C
ATOM   2386  C   ILE A 464       2.722  -9.171  42.873  1.00 20.08           C
ATOM   2387  O   ILE A 464       1.904  -8.505  43.506  1.00 19.60           O
ATOM   2388  CB  ILE A 464       2.506 -11.497  43.718  1.00 16.86           C
ATOM   2389  CG1 ILE A 464       3.911 -11.390  44.312  1.00 15.32           C
ATOM   2390  CG2 ILE A 464       2.191 -12.953  43.357  1.00 14.53           C
ATOM   2391  CD1 ILE A 464       4.075 -12.080  45.634  1.00 12.65           C
ATOM   2392  N   SER A 465       3.915  -8.704  42.520  1.00 18.11           N
ATOM   2393  CA  SER A 465       4.339  -7.362  42.898  1.00 16.99           C
ATOM   2394  C   SER A 465       3.928  -6.341  41.861  1.00 15.16           C
ATOM   2395  O   SER A 465       4.274  -5.171  41.976  1.00 19.49           O
ATOM   2396  CB  SER A 465       5.861  -7.319  43.086  1.00 15.42           C
ATOM   2397  OG  SER A 465       6.527  -7.648  41.875  1.00 20.68           O
ATOM   2398  N   ARG A 466       3.201  -6.787  40.845  1.00 15.66           N
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ATOM   2399  CA  ARG A 466       2.741  -5.895  39.787  1.00 19.61           C
ATOM   2400  C   ARG A 466       1.307  -5.434  40.076  1.00 23.96           C
ATOM   2401  O   ARG A 466       0.400  -6.252  40.266  1.00 23.41           O
ATOM   2402  CB  ARG A 466       2.819  -6.611  38.444  1.00 19.65           C
ATOM   2403  CG  ARG A 466       4.244  -6.882  38.014  1.00 17.76           C
ATOM   2404  CD  ARG A 466       4.305  -7.910  36.910  1.00 22.70           C
ATOM   2405  NE  ARG A 466       5.680  -8.327  36.656  1.00 25.78           N
ATOM   2406  CZ  ARG A 466       6.027  -9.257  35.777  1.00 26.98           C
ATOM   2407  NH1 ARG A 466       5.101  -9.874  35.061  1.00 27.70           N
ATOM   2408  NH2 ARG A 466       7.301  -9.575  35.622  1.00 28.25           N
ATOM   2409  N   ALA A 467       1.114  -4.120  40.113  1.00 21.61           N
ATOM   2410  CA  ALA A 467      -0.187  -3.540  40.417  1.00 21.01           C
ATOM   2411  C   ALA A 467      -1.278  -3.859  39.397  1.00 21.33           C
ATOM   2412  O   ALA A 467      -2.440  -4.037  39.762  1.00 24.96           O
ATOM   2413  CB  ALA A 467      -0.048  -2.031  40.581  1.00 14.43           C
ATOM   2414  N   ASN A 468      -0.903  -3.936  38.127  1.00 22.73           N
ATOM   2415  CA  ASN A 468      -1.852  -4.222  37.059  1.00 19.02           C
ATOM   2416  C   ASN A 468      -2.041  -5.712  36.819  1.00 17.66           C
ATOM   2417  O   ASN A 468      -2.566  -6.110  35.779  1.00 21.52           O
ATOM   2418  CB  ASN A 468      -1.394  -3.560  35.753  1.00 21.47           C
ATOM   2419  CG  ASN A 468      -0.046  -4.096  35.251  1.00 30.47           C
ATOM   2420  OD1 ASN A 468       0.260  -4.021  34.056  1.00 31.56           O
ATOM   2421  ND2 ASN A 468       0.760  -4.635  36.162  1.00 28.68           N
ATOM   2422  N   SER A 469      -1.631  -6.543  37.769  1.00 16.90           N
ATOM   2423  CA  SER A 469      -1.753  -7.980  37.571  1.00 16.86           C
ATOM   2424  C   SER A 469      -2.164  -8.737  38.807  1.00 18.32           C
ATOM   2425  O   SER A 469      -1.616  -9.805  39.089  1.00 21.39           O
ATOM   2426  CB  SER A 469      -0.430  -8.568  37.074  1.00 22.46           C
ATOM   2427  OG  SER A 469       0.123  -7.793  36.030  1.00 29.23           O
ATOM   2428  N   GLU A 470      -3.118  -8.214  39.559  1.00 15.12           N
ATOM   2429  CA  GLU A 470      -3.526  -8.951  40.731  1.00 13.17           C
ATOM   2430  C   GLU A 470      -4.231 -10.245  40.287  1.00 10.80           C
ATOM   2431  O   GLU A 470      -4.504 -10.443  39.103  1.00  9.66           O
ATOM   2432  CB  GLU A 470      -4.380  -8.060  41.620  1.00 17.37           C
ATOM   2433  CG  GLU A 470      -3.546  -6.952  42.255  1.00 15.41           C
ATOM   2434  CD  GLU A 470      -4.371  -5.943  43.017  1.00 19.23           C
ATOM   2435  OE1 GLU A 470      -5.450  -5.560  42.513  1.00 25.87           O
ATOM   2436  OE2 GLU A 470      -3.944  -5.530  44.121  1.00 20.17           O
ATOM   2437  N   GLY A 471      -4.482 -11.133  41.238  1.00 11.94           N
ATOM   2438  CA  GLY A 471      -5.081 -12.429  40.948  1.00 16.67           C
ATOM   2439  C   GLY A 471      -6.163 -12.635  39.902  1.00 14.98           C
ATOM   2440  O   GLY A 471      -6.046 -13.536  39.070  1.00 12.72           O
ATOM   2441  N   HIS A 472      -7.224 -11.832  39.953  1.00 16.99           N
ATOM   2442  CA  HIS A 472      -8.331 -11.963  39.009  1.00 15.44           C
ATOM   2443  C   HIS A 472      -7.921 -11.528  37.611  1.00 14.25           C
ATOM   2444  O   HIS A 472      -8.353 -12.110  36.616  1.00 13.95           O
ATOM   2445  CB  HIS A 472      -9.529 -11.146  39.502  1.00 16.97           C
ATOM   2446  CG  HIS A 472     -10.169 -11.706  40.739  1.00 18.34           C
ATOM   2447  ND1 HIS A 472     -11.220 -12.599  40.696  1.00 17.78           N
ATOM   2448  CD2 HIS A 472      -9.882 -11.529  42.052  1.00 17.32           C
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ATOM   2449  CE1 HIS A 472     -11.550 -12.949  41.928  1.00 17.83           C
ATOM   2450  NE2 HIS A 472     -10.753 -12.313  42.768  1.00 17.14           N
ATOM   2451  N   VAL A 473      -7.063 -10.515  37.541  1.00 16.37           N
ATOM   2452  CA  VAL A 473      -6.569 -10.018  36.261  1.00 15.29           C
ATOM   2453  C   VAL A 473      -5.681 -11.076  35.595  1.00 18.01           C
ATOM   2454  O   VAL A 473      -5.826 -11.373  34.410  1.00 16.17           O
ATOM   2455  CB  VAL A 473      -5.740  -8.724  36.454  1.00 18.65           C
ATOM   2456  CG1 VAL A 473      -5.329  -8.149  35.098  1.00 16.48           C
ATOM   2457  CG2 VAL A 473      -6.545  -7.707  37.247  1.00 15.30           C
ATOM   2458  N   ALA A 474      -4.761 -11.643  36.367  1.00 21.45           N
ATOM   2459  CA  ALA A 474      -3.854 -12.662  35.851  1.00 18.55           C
ATOM   2460  C   ALA A 474      -4.627 -13.868  35.352  1.00 18.33           C
ATOM   2461  O   ALA A 474      -4.285 -14.451  34.328  1.00 17.48           O
ATOM   2462  CB  ALA A 474      -2.878 -13.086  36.938  1.00 19.68           C
ATOM   2463  N   ALA A 475      -5.673 -14.241  36.083  1.00 21.23           N
ATOM   2464  CA  ALA A 475      -6.510 -15.383  35.714  1.00 17.72           C
ATOM   2465  C   ALA A 475      -7.106 -15.249  34.318  1.00 17.28           C
ATOM   2466  O   ALA A 475      -7.223 -16.237  33.593  1.00 20.14           O
ATOM   2467  CB  ALA A 475      -7.630 -15.565  36.739  1.00 17.04           C
ATOM   2468  N   VAL A 476      -7.479 -14.035  33.930  1.00 17.22           N
ATOM   2469  CA  VAL A 476      -8.069 -13.840  32.611  1.00 17.86           C
ATOM   2470  C   VAL A 476      -7.074 -14.202  31.517  1.00 19.31           C
ATOM   2471  O   VAL A 476      -7.453 -14.580  30.410  1.00 21.69           O
ATOM   2472  CB  VAL A 476      -8.550 -12.389  32.422  1.00 15.78           C
ATOM   2473  CG1 VAL A 476      -9.146 -12.215  31.035  1.00 14.84           C
ATOM   2474  CG2 VAL A 476      -9.577 -12.049  33.489  1.00 19.93           C
ATOM   2475  N   GLU A 477      -5.792 -14.078  31.836  1.00 22.48           N
ATOM   2476  CA  GLU A 477      -4.723 -14.413  30.901  1.00 21.17           C
ATOM   2477  C   GLU A 477      -4.817 -15.898  30.562  1.00 17.16           C
ATOM   2478  O   GLU A 477      -4.684 -16.297  29.408  1.00 18.24           O
ATOM   2479  CB  GLU A 477      -3.382 -14.143  31.557  1.00 26.95           C
ATOM   2480  CG  GLU A 477      -2.359 -13.511  30.674  1.00 30.55           C
ATOM   2481  CD  GLU A 477      -1.283 -12.861  31.494  1.00 30.70           C
ATOM   2482  OE1 GLU A 477      -1.026 -11.662  31.280  1.00 33.24           O
ATOM   2483  OE2 GLU A 477      -0.710 -13.552  32.363  1.00 27.24           O
ATOM   2484  N   VAL A 478      -5.034 -16.711  31.592  1.00 14.74           N
ATOM   2485  CA  VAL A 478      -5.160 -18.149  31.416  1.00 14.40           C
ATOM   2486  C   VAL A 478      -6.505 -18.461  30.752  1.00 18.71           C
ATOM   2487  O   VAL A 478      -6.569 -19.182  29.752  1.00 19.17           O
ATOM   2488  CB  VAL A 478      -5.105 -18.873  32.768  1.00 13.57           C
ATOM   2489  CG1 VAL A 478      -5.286 -20.344  32.556  1.00 15.57           C
ATOM   2490  CG2 VAL A 478      -3.780 -18.615  33.457  1.00 15.62           C
ATOM   2491  N   LEU A 479      -7.577 -17.899  31.311  1.00 20.29           N
ATOM   2492  CA  LEU A 479      -8.924 -18.113  30.793  1.00 17.71           C
ATOM   2493  C   LEU A 479      -9.057 -17.789  29.303  1.00 18.89           C
ATOM   2494  O   LEU A 479      -9.616 -18.590  28.549  1.00 22.14           O
ATOM   2495  CB  LEU A 479      -9.932 -17.299  31.615  1.00 17.55           C
ATOM   2496  CG  LEU A 479     -10.153 -17.844  33.033  1.00 19.23           C
ATOM   2497  CD1 LEU A 479     -10.778 -16.774  33.903  1.00 15.80           C
ATOM   2498  CD2 LEU A 479     -11.045 -19.090  32.990  1.00 17.09           C
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ATOM   2499  N   ARG A 480      -8.547 -16.641  28.856  1.00 17.46           N
ATOM   2500  CA  ARG A 480      -8.656 -16.313  27.434  1.00 16.35           C
ATOM   2501  C   ARG A 480      -7.880 -17.309  26.583  1.00 16.83           C
ATOM   2502  O   ARG A 480      -8.226 -17.571  25.425  1.00 15.98           O
ATOM   2503  CB  ARG A 480      -8.172 -14.886  27.155  1.00 18.64           C
ATOM   2504  CG  ARG A 480      -6.764 -14.577  27.598  1.00 20.72           C
ATOM   2505  CD  ARG A 480      -6.535 -13.075  27.623  1.00 21.96           C
ATOM   2506  NE  ARG A 480      -5.149 -12.739  27.322  1.00 20.80           N
ATOM   2507  CZ  ARG A 480      -4.586 -11.570  27.598  1.00 22.57           C
ATOM   2508  NH1 ARG A 480      -5.292 -10.613  28.182  1.00 16.68           N
ATOM   2509  NH2 ARG A 480      -3.308 -11.361  27.301  1.00 21.96           N
ATOM   2510  N   GLY A 481      -6.828 -17.875  27.160  1.00 18.19           N
ATOM   2511  CA  GLY A 481      -6.050 -18.858  26.430  1.00 16.35           C
ATOM   2512  C   GLY A 481      -6.865 -20.133  26.326  1.00 15.70           C
ATOM   2513  O   GLY A 481      -7.019 -20.712  25.249  1.00 15.53           O
ATOM   2514  N   ILE A 482      -7.391 -20.570  27.462  1.00 16.77           N
ATOM   2515  CA  ILE A 482      -8.218 -21.766  27.511  1.00 21.16           C
ATOM   2516  C   ILE A 482      -9.400 -21.643  26.544  1.00 20.47           C
ATOM   2517  O   ILE A 482      -9.700 -22.578  25.800  1.00 20.98           O
ATOM   2518  CB  ILE A 482      -8.754 -21.996  28.938  1.00 18.22           C
ATOM   2519  CG1 ILE A 482      -7.582 -22.279  29.882  1.00 19.48           C
ATOM   2520  CG2 ILE A 482      -9.749 -23.139  28.940  1.00 21.46           C
ATOM   2521  CD1 ILE A 482      -7.971 -22.450  31.338  1.00 16.55           C
ATOM   2522  N   HIS A 483     -10.057 -20.482  26.549  1.00 23.12           N
ATOM   2523  CA  HIS A 483     -11.206 -20.253  25.677  1.00 22.39           C
ATOM   2524  C   HIS A 483     -10.815 -20.352  24.212  1.00 21.89           C
ATOM   2525  O   HIS A 483     -11.537 -20.942  23.407  1.00 21.17           O
ATOM   2526  CB  HIS A 483     -11.822 -18.880  25.958  1.00 28.75           C
ATOM   2527  CG  HIS A 483     -13.232 -18.736  25.471  1.00 33.99           C
ATOM   2528  ND1 HIS A 483     -13.844 -19.676  24.667  1.00 36.75           N
ATOM   2529  CD2 HIS A 483     -14.147 -17.756  25.664  1.00 34.94           C
ATOM   2530  CE1 HIS A 483     -15.073 -19.282  24.386  1.00 34.79           C
ATOM   2531  NE2 HIS A 483     -15.283 -18.120  24.980  1.00 36.71           N
ATOM   2532  N   ARG A 484      -9.671 -19.776  23.858  1.00 22.63           N
ATOM   2533  CA  ARG A 484      -9.204 -19.833  22.477  1.00 19.09           C
ATOM   2534  C   ARG A 484      -8.974 -21.286  22.075  1.00 19.68           C
ATOM   2535  O   ARG A 484      -9.270 -21.683  20.951  1.00 21.83           O
ATOM   2536  CB  ARG A 484      -7.902 -19.056  22.325  1.00 20.96           C
ATOM   2537  CG  ARG A 484      -8.054 -17.552  22.354  1.00 23.05           C
ATOM   2538  CD  ARG A 484      -6.725 -16.890  22.046  1.00 21.70           C
ATOM   2539  NE  ARG A 484      -6.626 -15.565  22.636  1.00 21.15           N
ATOM   2540  CZ  ARG A 484      -5.691 -15.198  23.500  1.00 16.17           C
ATOM   2541  NH1 ARG A 484      -4.763 -16.059  23.883  1.00 19.08           N
ATOM   2542  NH2 ARG A 484      -5.684 -13.965  23.980  1.00 21.28           N
ATOM   2543  N   ILE A 485      -8.438 -22.077  22.999  1.00 21.78           N
ATOM   2544  CA  ILE A 485      -8.169 -23.490  22.739  1.00 23.68           C
ATOM   2545  C   ILE A 485      -9.477 -24.267  22.546  1.00 24.37           C
ATOM   2546  O   ILE A 485      -9.612 -25.057  21.609  1.00 20.30           O
ATOM   2547  CB  ILE A 485      -7.358 -24.118  23.897  1.00 21.64           C
ATOM   2548  CG1 ILE A 485      -5.929 -23.571  23.871  1.00 24.52           C
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ATOM   2549  CG2 ILE A 485      -7.329 -25.638  23.762  1.00 22.35           C
ATOM   2550  CD1 ILE A 485      -5.186 -23.750  25.167  1.00 26.40           C
ATOM   2551  N   ALA A 486     -10.432 -24.047  23.442  1.00 26.00           N
ATOM   2552  CA  ALA A 486     -11.728 -24.704  23.338  1.00 25.96           C
ATOM   2553  C   ALA A 486     -12.293 -24.403  21.947  1.00 26.47           C
ATOM   2554  O   ALA A 486     -12.824 -25.284  21.269  1.00 26.22           O
ATOM   2555  CB  ALA A 486     -12.668 -24.167  24.419  1.00 22.47           C
ATOM   2556  N   ASP A 487     -12.148 -23.150  21.523  1.00 27.15           N
ATOM   2557  CA  ASP A 487     -12.644 -22.701  20.229  1.00 26.54           C
ATOM   2558  C   ASP A 487     -12.028 -23.411  19.020  1.00 28.97           C
ATOM   2559  O   ASP A 487     -12.663 -23.516  17.970  1.00 28.93           O
ATOM   2560  CB  ASP A 487     -12.447 -21.193  20.093  1.00 28.11           C
ATOM   2561  CG  ASP A 487     -13.116 -20.635  18.858  1.00 36.16           C
ATOM   2562  OD1 ASP A 487     -14.334 -20.863  18.692  1.00 40.80           O
ATOM   2563  OD2 ASP A 487     -12.428 -19.971  18.051  1.00 42.52           O
ATOM   2564  N   MET A 488     -10.792 -23.882  19.143  1.00 28.41           N
ATOM   2565  CA  MET A 488     -10.180 -24.591  18.026  1.00 32.16           C
ATOM   2566  C   MET A 488     -10.353 -26.100  18.202  1.00 30.43           C
ATOM   2567  O   MET A 488      -9.914 -26.891  17.373  1.00 32.73           O
ATOM   2568  CB  MET A 488      -8.698 -24.213  17.879  1.00 33.51           C
ATOM   2569  CG  MET A 488      -7.778 -24.696  18.987  1.00 40.86           C
ATOM   2570  SD  MET A 488      -6.017 -24.312  18.659  1.00 45.33           S
ATOM   2571  CE  MET A 488      -5.864 -24.721  16.856  1.00 38.24           C
ATOM   2572  N   SER A 489     -11.008 -26.486  19.292  1.00 30.20           N
ATOM   2573  CA  SER A 489     -11.273 -27.891  19.578  1.00 31.87           C
ATOM   2574  C   SER A 489     -12.649 -28.204  19.015  1.00 33.27           C
ATOM   2575  O   SER A 489     -13.211 -27.412  18.261  1.00 31.07           O
ATOM   2576  CB  SER A 489     -11.282 -28.149  21.088  1.00 30.95           C
ATOM   2577  OG  SER A 489     -10.056 -27.774  21.690  1.00 36.97           O
ATOM   2578  N   GLU A 490     -13.199 -29.353  19.382  1.00 35.99           N
ATOM   2579  CA  GLU A 490     -14.522 -29.708  18.897  1.00 41.82           C
ATOM   2580  C   GLU A 490     -15.188 -30.778  19.735  1.00 40.22           C
ATOM   2581  O   GLU A 490     -14.530 -31.523  20.457  1.00 39.53           O
ATOM   2582  CB  GLU A 490     -14.448 -30.171  17.443  1.00 46.97           C
ATOM   2583  CG  GLU A 490     -13.744 -31.496  17.250  1.00 58.25           C
ATOM   2584  CD  GLU A 490     -13.804 -31.974  15.811  1.00 68.00           C
ATOM   2585  OE1 GLU A 490     -14.852 -32.532  15.414  1.00 74.46           O
ATOM   2586  OE2 GLU A 490     -12.806 -31.789  15.077  1.00 70.48           O
ATOM   2587  N   GLY A 491     -16.510 -30.834  19.637  1.00 43.21           N
ATOM   2588  CA  GLY A 491     -17.271 -31.822  20.376  1.00 42.99           C
ATOM   2589  C   GLY A 491     -17.235 -31.667  21.882  1.00 43.61           C
ATOM   2590  O   GLY A 491     -17.420 -30.570  22.421  1.00 43.49           O
ATOM   2591  N   GLU A 492     -17.009 -32.788  22.559  1.00 41.76           N
ATOM   2592  CA  GLU A 492     -16.946 -32.819  24.010  1.00 44.00           C
ATOM   2593  C   GLU A 492     -15.876 -31.874  24.533  1.00 40.46           C
ATOM   2594  O   GLU A 492     -16.147 -31.019  25.372  1.00 39.66           O
ATOM   2595  CB  GLU A 492     -16.629 -34.236  24.488  1.00 49.40           C
ATOM   2596  CG  GLU A 492     -17.597 -34.773  25.517  1.00 58.95           C
ATOM   2597  CD  GLU A 492     -18.583 -35.753  24.912  1.00 65.61           C
ATOM   2598  OE1 GLU A 492     -18.185 -36.496  23.984  1.00 67.46           O
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ATOM   2599  OE2 GLU A 492     -19.752 -35.777  25.361  1.00 68.38           O
ATOM   2600  N   THR A 493     -14.655 -32.047  24.033  1.00 38.97           N
ATOM   2601  CA  THR A 493     -13.526 -31.230  24.456  1.00 35.36           C
ATOM   2602  C   THR A 493     -13.861 -29.753  24.383  1.00 31.81           C
ATOM   2603  O   THR A 493     -13.598 -29.007  25.324  1.00 33.38           O
ATOM   2604  CB  THR A 493     -12.281 -31.509  23.598  1.00 33.93           C
ATOM   2605  OG1 THR A 493     -11.986 -32.909  23.630  1.00 35.12           O
ATOM   2606  CG2 THR A 493     -11.084 -30.752  24.141  1.00 38.01           C
ATOM   2607  N   LYS A 494     -14.447 -29.332  23.269  1.00 27.93           N
ATOM   2608  CA  LYS A 494     -14.818 -27.937  23.105  1.00 27.56           C
ATOM   2609  C   LYS A 494     -15.890 -27.592  24.127  1.00 28.91           C
ATOM   2610  O   LYS A 494     -15.821 -26.569  24.805  1.00 28.91           O
ATOM   2611  CB  LYS A 494     -15.350 -27.695  21.693  1.00 26.06           C
ATOM   2612  CG  LYS A 494     -15.980 -26.331  21.501  1.00 23.64           C
ATOM   2613  CD  LYS A 494     -16.186 -26.021  20.035  1.00 24.24           C
ATOM   2614  CE  LYS A 494     -16.784 -24.636  19.860  1.00 31.03           C
ATOM   2615  NZ  LYS A 494     -16.701 -24.149  18.453  1.00 37.55           N
ATOM   2616  N   GLN A 495     -16.879 -28.471  24.233  1.00 33.57           N
ATOM   2617  CA  GLN A 495     -17.992 -28.296  25.157  1.00 32.02           C
ATOM   2618  C   GLN A 495     -17.547 -28.125  26.606  1.00 28.42           C
ATOM   2619  O   GLN A 495     -17.858 -27.111  27.234  1.00 28.14           O
ATOM   2620  CB  GLN A 495     -18.936 -29.496  25.059  1.00 39.78           C
ATOM   2621  CG  GLN A 495     -20.214 -29.235  24.269  1.00 50.68           C
ATOM   2622  CD  GLN A 495     -20.897 -30.527  23.835  1.00 57.28           C
ATOM   2623  OE1 GLN A 495     -20.916 -30.865  22.650  1.00 60.01           O
ATOM   2624  NE2 GLN A 495     -21.459 -31.257  24.797  1.00 56.65           N
ATOM   2625  N   ARG A 496     -16.821 -29.107  27.137  1.00 24.77           N
ATOM   2626  CA  ARG A 496     -16.373 -29.037  28.525  1.00 26.47           C
ATOM   2627  C   ARG A 496     -15.433 -27.877  28.820  1.00 23.09           C
ATOM   2628  O   ARG A 496     -15.471 -27.310  29.910  1.00 25.24           O
ATOM   2629  CB  ARG A 496     -15.731 -30.356  28.962  1.00 28.37           C
ATOM   2630  CG  ARG A 496     -14.555 -30.791  28.142  1.00 38.90           C
ATOM   2631  CD  ARG A 496     -13.889 -32.002  28.782  1.00 45.68           C
ATOM   2632  NE  ARG A 496     -12.453 -32.007  28.527  1.00 49.41           N
ATOM   2633  CZ  ARG A 496     -11.570 -31.323  29.244  1.00 48.69           C
ATOM   2634  NH1 ARG A 496     -11.977 -30.578  30.267  1.00 44.81           N
ATOM   2635  NH2 ARG A 496     -10.283 -31.372  28.930  1.00 50.90           N
ATOM   2636  N   LEU A 497     -14.592 -27.514  27.860  1.00 22.44           N
ATOM   2637  CA  LEU A 497     -13.687 -26.397  28.077  1.00 21.24           C
ATOM   2638  C   LEU A 497     -14.532 -25.131  28.180  1.00 19.62           C
ATOM   2639  O   LEU A 497     -14.298 -24.277  29.037  1.00 20.83           O
ATOM   2640  CB  LEU A 497     -12.684 -26.291  26.925  1.00 20.44           C
ATOM   2641  CG  LEU A 497     -11.615 -27.389  26.912  1.00 20.10           C
ATOM   2642  CD1 LEU A 497     -10.627 -27.146  25.788  1.00 24.33           C
ATOM   2643  CD2 LEU A 497     -10.905 -27.420  28.251  1.00 19.62           C
ATOM   2644  N   GLN A 498     -15.532 -25.025  27.315  1.00 21.60           N
ATOM   2645  CA  GLN A 498     -16.427 -23.869  27.327  1.00 22.23           C
ATOM   2646  C   GLN A 498     -17.095 -23.737  28.688  1.00 19.96           C
ATOM   2647  O   GLN A 498     -17.163 -22.648  29.265  1.00 19.02           O
ATOM   2648  CB  GLN A 498     -17.505 -24.031  26.266  1.00 23.34           C
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ATOM   2649  CG  GLN A 498     -17.010 -23.895  24.856  1.00 23.24           C
ATOM   2650  CD  GLN A 498     -18.125 -24.055  23.857  1.00 22.47           C
ATOM   2651  OE1 GLN A 498     -18.591 -25.166  23.596  1.00 22.41           O
ATOM   2652  NE2 GLN A 498     -18.563 -22.943  23.290  1.00 22.50           N
ATOM   2653  N   SER A 499     -17.592 -24.859  29.194  1.00 20.33           N
ATOM   2654  CA  SER A 499     -18.263 -24.874  30.481  1.00 20.46           C
ATOM   2655  C   SER A 499     -17.284 -24.483  31.563  1.00 21.14           C
ATOM   2656  O   SER A 499     -17.643 -23.790  32.517  1.00 18.93           O
ATOM   2657  CB  SER A 499     -18.829 -26.263  30.762  1.00 19.70           C
ATOM   2658  OG  SER A 499     -19.820 -26.596  29.805  1.00 27.74           O
ATOM   2659  N   LEU A 500     -16.041 -24.938  31.419  1.00 21.68           N
ATOM   2660  CA  LEU A 500     -15.014 -24.610  32.398  1.00 18.97           C
ATOM   2661  C   LEU A 500     -14.807 -23.100  32.449  1.00 13.48           C
ATOM   2662  O   LEU A 500     -14.819 -22.504  33.522  1.00 16.62           O
ATOM   2663  CB  LEU A 500     -13.690 -25.298  32.045  1.00 22.68           C
ATOM   2664  CG  LEU A 500     -12.561 -25.095  33.067  1.00 25.38           C
ATOM   2665  CD1 LEU A 500     -13.015 -25.552  34.442  1.00 25.04           C
ATOM   2666  CD2 LEU A 500     -11.324 -25.880  32.629  1.00 29.46           C
ATOM   2667  N   VAL A 501     -14.607 -22.487  31.286  1.00 13.24           N
ATOM   2668  CA  VAL A 501     -14.405 -21.045  31.217  1.00 15.12           C
ATOM   2669  C   VAL A 501     -15.664 -20.334  31.720  1.00 17.06           C
ATOM   2670  O   VAL A 501     -15.592 -19.438  32.565  1.00 17.59           O
ATOM   2671  CB  VAL A 501     -14.122 -20.585  29.765  1.00 16.19           C
ATOM   2672  CG1 VAL A 501     -14.116 -19.071  29.687  1.00 13.59           C
ATOM   2673  CG2 VAL A 501     -12.796 -21.156  29.282  1.00 20.10           C
ATOM   2674  N   LYS A 502     -16.819 -20.743  31.200  1.00 18.33           N
ATOM   2675  CA  LYS A 502     -18.096 -20.139  31.597  1.00 14.81           C
ATOM   2676  C   LYS A 502     -18.307 -20.113  33.100  1.00 10.55           C
ATOM   2677  O   LYS A 502     -18.497 -19.051  33.688  1.00 17.09           O
ATOM   2678  CB  LYS A 502     -19.266 -20.880  30.949  1.00 15.44           C
ATOM   2679  CG  LYS A 502     -20.530 -20.032  30.859  1.00 17.77           C
ATOM   2680  CD  LYS A 502     -21.649 -20.771  30.149  1.00 20.86           C
ATOM   2681  CE  LYS A 502     -22.948 -19.957  30.184  1.00 19.94           C
ATOM   2682  NZ  LYS A 502     -23.712 -20.097  28.912  1.00 25.39           N
ATOM   2683  N   THR A 503     -18.273 -21.279  33.730  1.00 10.56           N
ATOM   2684  CA  THR A 503     -18.490 -21.340  35.167  1.00 13.47           C
ATOM   2685  C   THR A 503     -17.484 -20.525  36.002  1.00 20.62           C
ATOM   2686  O   THR A 503     -17.862 -19.884  37.000  1.00 16.37           O
ATOM   2687  CB  THR A 503     -18.494 -22.796  35.652  1.00 16.17           C
ATOM   2688  OG1 THR A 503     -18.811 -22.826  37.046  1.00 19.65           O
ATOM   2689  CG2 THR A 503     -17.141 -23.435  35.437  1.00 20.00           C
ATOM   2690  N   ILE A 504     -16.207 -20.545  35.613  1.00 18.91           N
ATOM   2691  CA  ILE A 504     -15.199 -19.787  36.350  1.00 15.68           C
ATOM   2692  C   ILE A 504     -15.530 -18.306  36.229  1.00 14.35           C
ATOM   2693  O   ILE A 504     -15.624 -17.598  37.232  1.00 17.50           O
ATOM   2694  CB  ILE A 504     -13.764 -20.036  35.799  1.00 14.74           C
ATOM   2695  CG1 ILE A 504     -13.320 -21.467  36.112  1.00 14.25           C
ATOM   2696  CG2 ILE A 504     -12.784 -19.061  36.438  1.00 14.19           C
ATOM   2697  CD1 ILE A 504     -12.038 -21.881  35.390  1.00 16.81           C
ATOM   2698  N   VAL A 505     -15.717 -17.848  34.994  1.00 16.81           N
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ATOM   2699  CA  VAL A 505     -16.047 -16.449  34.738  1.00 19.28           C
ATOM   2700  C   VAL A 505     -17.317 -16.033  35.474  1.00 22.16           C
ATOM   2701  O   VAL A 505     -17.386 -14.933  36.012  1.00 24.95           O
ATOM   2702  CB  VAL A 505     -16.273 -16.175  33.226  1.00 20.90           C
ATOM   2703  CG1 VAL A 505     -16.816 -14.759  33.037  1.00 15.39           C
ATOM   2704  CG2 VAL A 505     -14.978 -16.363  32.446  1.00 19.61           C
ATOM   2705  N   GLN A 506     -18.323 -16.909  35.495  1.00 20.45           N
ATOM   2706  CA  GLN A 506     -19.584 -16.584  36.162  1.00 21.56           C
ATOM   2707  C   GLN A 506     -19.512 -16.632  37.683  1.00 20.38           C
ATOM   2708  O   GLN A 506     -20.331 -16.023  38.364  1.00 22.10           O
ATOM   2709  CB  GLN A 506     -20.708 -17.492  35.633  1.00 20.26           C
ATOM   2710  CG  GLN A 506     -20.995 -17.235  34.157  1.00 15.73           C
ATOM   2711  CD  GLN A 506     -22.273 -17.872  33.652  1.00 20.13           C
ATOM   2712  OE1 GLN A 506     -22.639 -18.965  34.063  1.00 22.30           O
ATOM   2713  NE2 GLN A 506     -22.952 -17.188  32.738  1.00 19.02           N
ATOM   2714  N   SER A 507     -18.525 -17.340  38.223  1.00 20.09           N
ATOM   2715  CA  SER A 507     -18.372 -17.414  39.673  1.00 18.51           C
ATOM   2716  C   SER A 507     -17.669 -16.160  40.191  1.00 18.24           C
ATOM   2717  O   SER A 507     -17.627 -15.915  41.389  1.00 21.37           O
ATOM   2718  CB  SER A 507     -17.559 -18.653  40.064  1.00 23.80           C
ATOM   2719  OG  SER A 507     -16.181 -18.497  39.739  1.00 25.60           O
ATOM   2720  N   ASP A 508     -17.134 -15.356  39.278  1.00 20.05           N
ATOM   2721  CA  ASP A 508     -16.405 -14.147  39.652  1.00 20.68           C
ATOM   2722  C   ASP A 508     -17.290 -12.909  39.777  1.00 21.70           C
ATOM   2723  O   ASP A 508     -17.612 -12.253  38.782  1.00 24.19           O
ATOM   2724  CB  ASP A 508     -15.277 -13.885  38.637  1.00 17.83           C
ATOM   2725  CG  ASP A 508     -14.174 -12.992  39.195  1.00 19.67           C
ATOM   2726  OD1 ASP A 508     -14.411 -12.291  40.199  1.00 17.18           O
ATOM   2727  OD2 ASP A 508     -13.064 -12.987  38.622  1.00 19.43           O
ATOM   2728  N   SER A 509     -17.655 -12.582  41.013  1.00 23.75           N
ATOM   2729  CA  SER A 509     -18.502 -11.425  41.292  1.00 25.11           C
ATOM   2730  C   SER A 509     -17.693 -10.164  41.575  1.00 27.54           C
ATOM   2731  O   SER A 509     -18.257  -9.083  41.759  1.00 26.99           O
ATOM   2732  CB  SER A 509     -19.397 -11.718  42.497  1.00 24.60           C
ATOM   2733  OG  SER A 509     -18.628 -11.903  43.676  1.00 25.41           O
ATOM   2734  N   TYR A 510     -16.372 -10.300  41.605  1.00 24.64           N
ATOM   2735  CA  TYR A 510     -15.504  -9.171  41.901  1.00 23.14           C
ATOM   2736  C   TYR A 510     -14.856  -8.514  40.681  1.00 21.48           C
ATOM   2737  O   TYR A 510     -14.819  -7.287  40.573  1.00 22.31           O
ATOM   2738  CB  TYR A 510     -14.424  -9.621  42.888  1.00 21.96           C
ATOM   2739  CG  TYR A 510     -13.286  -8.649  43.027  1.00 24.02           C
ATOM   2740  CD1 TYR A 510     -13.430  -7.486  43.780  1.00 23.46           C
ATOM   2741  CD2 TYR A 510     -12.067  -8.881  42.392  1.00 21.82           C
ATOM   2742  CE1 TYR A 510     -12.390  -6.576  43.896  1.00 25.03           C
ATOM   2743  CE2 TYR A 510     -11.021  -7.979  42.503  1.00 24.58           C
ATOM   2744  CZ  TYR A 510     -11.189  -6.827  43.256  1.00 26.53           C
ATOM   2745  OH  TYR A 510     -10.152  -5.928  43.372  1.00 32.18           O
ATOM   2746  N   TYR A 511     -14.356  -9.320  39.756  1.00 20.51           N
ATOM   2747  CA  TYR A 511     -13.697  -8.772  38.583  1.00 21.81           C
ATOM   2748  C   TYR A 511     -14.456  -8.990  37.288  1.00 22.78           C
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ATOM   2749  O   TYR A 511     -14.915 -10.095  36.994  1.00 25.57           O
ATOM   2750  CB  TYR A 511     -12.291  -9.376  38.454  1.00 23.58           C
ATOM   2751  CG  TYR A 511     -11.440  -8.784  37.349  1.00 20.75           C
ATOM   2752  CD1 TYR A 511     -10.884  -7.504  37.471  1.00 18.70           C
ATOM   2753  CD2 TYR A 511     -11.168  -9.517  36.188  1.00 19.48           C
ATOM   2754  CE1 TYR A 511     -10.076  -6.971  36.458  1.00 18.36           C
ATOM   2755  CE2 TYR A 511     -10.362  -8.996  35.174  1.00 21.29           C
ATOM   2756  CZ  TYR A 511      -9.820  -7.724  35.316  1.00 19.65           C
ATOM   2757  OH  TYR A 511      -9.028  -7.215  34.312  1.00 22.74           O
ATOM   2758  N   ASP A 512     -14.566  -7.923  36.507  1.00 20.69           N
ATOM   2759  CA  ASP A 512     -15.243  -7.967  35.225  1.00 18.96           C
ATOM   2760  C   ASP A 512     -14.283  -8.538  34.190  1.00 19.54           C
ATOM   2761  O   ASP A 512     -13.389  -7.842  33.721  1.00 21.28           O
ATOM   2762  CB  ASP A 512     -15.662  -6.552  34.834  1.00 17.41           C
ATOM   2763  CG  ASP A 512     -16.180  -6.470  33.421  1.00 19.44           C
ATOM   2764  OD1 ASP A 512     -16.489  -7.528  32.832  1.00 25.25           O
ATOM   2765  OD2 ASP A 512     -16.274  -5.342  32.897  1.00 24.90           O
ATOM   2766  N   VAL A 513     -14.477  -9.803  33.831  1.00 19.24           N
ATOM   2767  CA  VAL A 513     -13.610 -10.472  32.873  1.00 16.90           C
ATOM   2768  C   VAL A 513     -13.238  -9.697  31.615  1.00 21.74           C
ATOM   2769  O   VAL A 513     -12.192  -9.958  31.026  1.00 26.72           O
ATOM   2770  CB  VAL A 513     -14.208 -11.818  32.419  1.00 20.06           C
ATOM   2771  CG1 VAL A 513     -15.336 -11.585  31.413  1.00 18.71           C
ATOM   2772  CG2 VAL A 513     -13.122 -12.678  31.782  1.00 16.61           C
ATOM   2773  N   PHE A 514     -14.075  -8.760  31.185  1.00 19.41           N
ATOM   2774  CA  PHE A 514     -13.792  -8.009  29.963  1.00 16.87           C
ATOM   2775  C   PHE A 514     -12.689  -6.968  30.119  1.00 16.16           C
ATOM   2776  O   PHE A 514     -12.123  -6.490  29.139  1.00 19.60           O
ATOM   2777  CB  PHE A 514     -15.072  -7.347  29.444  1.00 16.48           C
ATOM   2778  CG  PHE A 514     -16.031  -8.312  28.815  1.00 13.94           C
ATOM   2779  CD1 PHE A 514     -15.848  -8.741  27.507  1.00 17.23           C
ATOM   2780  CD2 PHE A 514     -17.098  -8.824  29.543  1.00 16.17           C
ATOM   2781  CE1 PHE A 514     -16.712  -9.675  26.926  1.00 18.05           C
ATOM   2782  CE2 PHE A 514     -17.968  -9.756  28.976  1.00 16.82           C
ATOM   2783  CZ  PHE A 514     -17.774 -10.184  27.662  1.00 14.76           C
ATOM   2784  N   LYS A 515     -12.382  -6.621  31.361  1.00 20.09           N
ATOM   2785  CA  LYS A 515     -11.337  -5.652  31.639  1.00 20.89           C
ATOM   2786  C   LYS A 515      -9.973  -6.156  31.167  1.00 23.51           C
ATOM   2787  O   LYS A 515      -9.032  -5.379  31.024  1.00 27.60           O
ATOM   2788  CB  LYS A 515     -11.304  -5.356  33.133  1.00 21.72           C
ATOM   2789  CG  LYS A 515     -12.470  -4.503  33.588  1.00 17.98           C
ATOM   2790  CD  LYS A 515     -12.079  -3.649  34.762  1.00 24.50           C
ATOM   2791  CE  LYS A 515     -13.301  -3.016  35.384  1.00 29.26           C
ATOM   2792  NZ  LYS A 515     -13.218  -3.078  36.865  1.00 35.83           N
ATOM   2793  N   ASN A 516      -9.868  -7.457  30.919  1.00 22.37           N
ATOM   2794  CA  ASN A 516      -8.616  -8.025  30.448  1.00 18.91           C
ATOM   2795  C   ASN A 516      -8.791  -8.929  29.236  1.00 16.23           C
ATOM   2796  O   ASN A 516      -8.157  -9.974  29.131  1.00 18.02           O
ATOM   2797  CB  ASN A 516      -7.904  -8.779  31.578  1.00 20.32           C
ATOM   2798  CG  ASN A 516      -6.395  -8.827  31.388  1.00 22.00           C
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ATOM   2799  OD1 ASN A 516      -5.835  -8.088  30.578  1.00 21.06           O
ATOM   2800  ND2 ASN A 516      -5.734  -9.706  32.128  1.00 17.51           N
ATOM   2801  N   LEU A 517      -9.687  -8.531  28.339  1.00 19.08           N
ATOM   2802  CA  LEU A 517      -9.908  -9.232  27.078  1.00 18.82           C
ATOM   2803  C   LEU A 517      -9.567  -8.069  26.151  1.00 22.51           C
ATOM   2804  O   LEU A 517     -10.356  -7.133  25.996  1.00 24.13           O
ATOM   2805  CB  LEU A 517     -11.369  -9.675  26.936  1.00 18.95           C
ATOM   2806  CG  LEU A 517     -11.758 -10.943  27.717  1.00 24.05           C
ATOM   2807  CD1 LEU A 517     -13.076 -11.504  27.195  1.00 16.21           C
ATOM   2808  CD2 LEU A 517     -10.658 -11.993  27.585  1.00 20.33           C
ATOM   2809  N   LYS A 518      -8.371  -8.121  25.565  1.00 24.61           N
ATOM   2810  CA  LYS A 518      -7.865  -7.028  24.740  1.00 22.80           C
ATOM   2811  C   LYS A 518      -7.868  -7.106  23.224  1.00 24.92           C
ATOM   2812  O   LYS A 518      -7.040  -6.462  22.576  1.00 25.14           O
ATOM   2813  CB  LYS A 518      -6.450  -6.665  25.200  1.00 20.92           C
ATOM   2814  CG  LYS A 518      -6.146  -7.060  26.633  1.00 18.78           C
ATOM   2815  CD  LYS A 518      -6.768  -6.113  27.627  1.00 20.53           C
ATOM   2816  CE  LYS A 518      -6.520  -4.660  27.257  1.00 20.93           C
ATOM   2817  NZ  LYS A 518      -7.067  -3.728  28.290  1.00 26.97           N
ATOM   2818  N   THR A 519      -8.773  -7.894  22.656  1.00 23.01           N
ATOM   2819  CA  THR A 519      -8.910  -7.968  21.207  1.00 22.23           C
ATOM   2820  C   THR A 519     -10.401  -8.190  20.976  1.00 22.79           C
ATOM   2821  O   THR A 519     -11.094  -8.705  21.853  1.00 24.07           O
ATOM   2822  CB  THR A 519      -8.058  -9.105  20.567  1.00 22.79           C
ATOM   2823  OG1 THR A 519      -8.664 -10.379  20.804  1.00 19.48           O
ATOM   2824  CG2 THR A 519      -6.643  -9.091  21.144  1.00 23.12           C
ATOM   2825  N   TYR A 520     -10.904  -7.774  19.824  1.00 20.28           N
ATOM   2826  CA  TYR A 520     -12.320  -7.925  19.541  1.00 21.09           C
ATOM   2827  C   TYR A 520     -12.739  -9.377  19.427  1.00 23.70           C
ATOM   2828  O   TYR A 520     -13.859  -9.733  19.782  1.00 28.81           O
ATOM   2829  CB  TYR A 520     -12.673  -7.156  18.272  1.00 20.67           C
ATOM   2830  CG  TYR A 520     -12.326  -5.695  18.394  1.00 16.82           C
ATOM   2831  CD1 TYR A 520     -12.662  -4.984  19.543  1.00 11.98           C
ATOM   2832  CD2 TYR A 520     -11.595  -5.043  17.401  1.00 18.61           C
ATOM   2833  CE1 TYR A 520     -12.273  -3.666  19.714  1.00 16.98           C
ATOM   2834  CE2 TYR A 520     -11.196  -3.715  17.561  1.00 16.98           C
ATOM   2835  CZ  TYR A 520     -11.535  -3.037  18.723  1.00 18.00           C
ATOM   2836  OH  TYR A 520     -11.101  -1.749  18.930  1.00 20.05           O
ATOM   2837  N   LYS A 521     -11.844 -10.227  18.943  1.00 23.38           N
ATOM   2838  CA  LYS A 521     -12.173 -11.636  18.823  1.00 24.96           C
ATOM   2839  C   LYS A 521     -12.337 -12.266  20.204  1.00 24.36           C
ATOM   2840  O   LYS A 521     -13.193 -13.121  20.420  1.00 22.22           O
ATOM   2841  CB  LYS A 521     -11.076 -12.366  18.055  1.00 32.71           C
ATOM   2842  CG  LYS A 521     -11.593 -13.312  16.993  1.00 36.80           C
ATOM   2843  CD  LYS A 521     -12.499 -14.377  17.574  1.00 42.87           C
ATOM   2844  CE  LYS A 521     -12.062 -15.767  17.129  1.00 50.26           C
ATOM   2845  NZ  LYS A 521     -10.848 -15.744  16.246  1.00 53.81           N
ATOM   2846  N   ASP A 522     -11.505 -11.842  21.143  1.00 22.59           N
ATOM   2847  CA  ASP A 522     -11.559 -12.378  22.491  1.00 19.15           C
ATOM   2848  C   ASP A 522     -12.813 -11.925  23.201  1.00 20.40           C
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ATOM   2849  O   ASP A 522     -13.395 -12.669  23.982  1.00 21.08           O
ATOM   2850  CB  ASP A 522     -10.340 -11.923  23.283  1.00 16.99           C
ATOM   2851  CG  ASP A 522      -9.099 -12.704  22.922  1.00 23.70           C
ATOM   2852  OD1 ASP A 522      -9.214 -13.933  22.707  1.00 21.96           O
ATOM   2853  OD2 ASP A 522      -8.014 -12.088  22.851  1.00 23.01           O
ATOM   2854  N   ILE A 523     -13.205 -10.685  22.944  1.00 22.63           N
ATOM   2855  CA  ILE A 523     -14.395 -10.119  23.550  1.00 20.82           C
ATOM   2856  C   ILE A 523     -15.596 -10.847  22.972  1.00 24.11           C
ATOM   2857  O   ILE A 523     -16.489 -11.283  23.699  1.00 21.46           O
ATOM   2858  CB  ILE A 523     -14.521  -8.622  23.224  1.00 22.21           C
ATOM   2859  CG1 ILE A 523     -13.483  -7.834  24.034  1.00 21.60           C
ATOM   2860  CG2 ILE A 523     -15.949  -8.135  23.530  1.00 18.98           C
ATOM   2861  CD1 ILE A 523     -13.256  -6.416  23.555  1.00 16.65           C
ATOM   2862  N   SER A 524     -15.596 -10.978  21.651  1.00 23.21           N
ATOM   2863  CA  SER A 524     -16.670 -11.643  20.942  1.00 23.99           C
ATOM   2864  C   SER A 524     -16.847 -13.090  21.399  1.00 27.52           C
ATOM   2865  O   SER A 524     -17.964 -13.534  21.647  1.00 31.29           O
ATOM   2866  CB  SER A 524     -16.397 -11.588  19.448  1.00 21.76           C
ATOM   2867  OG  SER A 524     -17.134 -12.584  18.777  1.00 27.29           O
ATOM   2868  N   LEU A 525     -15.749 -13.825  21.518  1.00 26.74           N
ATOM   2869  CA  LEU A 525     -15.806 -15.214  21.961  1.00 26.56           C
ATOM   2870  C   LEU A 525     -16.437 -15.334  23.344  1.00 25.97           C
ATOM   2871  O   LEU A 525     -17.263 -16.210  23.586  1.00 26.97           O
ATOM   2872  CB  LEU A 525     -14.399 -15.809  22.015  1.00 28.17           C
ATOM   2873  CG  LEU A 525     -13.832 -16.363  20.709  1.00 32.91           C
ATOM   2874  CD1 LEU A 525     -12.353 -16.687  20.895  1.00 35.22           C
ATOM   2875  CD2 LEU A 525     -14.602 -17.608  20.304  1.00 30.90           C
ATOM   2876  N   MET A 526     -16.033 -14.453  24.252  1.00 24.48           N
ATOM   2877  CA  MET A 526     -16.539 -14.467  25.616  1.00 26.23           C
ATOM   2878  C   MET A 526     -18.019 -14.105  25.697  1.00 28.23           C
ATOM   2879  O   MET A 526     -18.739 -14.627  26.544  1.00 28.92           O
ATOM   2880  CB  MET A 526     -15.736 -13.502  26.494  1.00 20.42           C
ATOM   2881  CG  MET A 526     -16.152 -13.515  27.952  1.00 21.97           C
ATOM   2882  SD  MET A 526     -16.005 -15.150  28.718  1.00 24.41           S
ATOM   2883  CE  MET A 526     -14.264 -15.512  28.391  1.00 31.72           C
ATOM   2884  N   GLN A 527     -18.470 -13.214  24.819  1.00 27.93           N
ATOM   2885  CA  GLN A 527     -19.866 -12.798  24.824  1.00 24.91           C
ATOM   2886  C   GLN A 527     -20.804 -13.934  24.415  1.00 24.37           C
ATOM   2887  O   GLN A 527     -21.784 -14.219  25.110  1.00 25.75           O
ATOM   2888  CB  GLN A 527     -20.051 -11.582  23.913  1.00 21.78           C
ATOM   2889  CG  GLN A 527     -19.521 -10.299  24.540  1.00 21.91           C
ATOM   2890  CD  GLN A 527     -19.527  -9.117  23.586  1.00 22.99           C
ATOM   2891  OE1 GLN A 527     -19.314  -9.269  22.382  1.00 23.13           O
ATOM   2892  NE2 GLN A 527     -19.770  -7.927  24.125  1.00 23.70           N
ATOM   2893  N   SER A 528     -20.505 -14.595  23.305  1.00 21.70           N
ATOM   2894  CA  SER A 528     -21.348 -15.694  22.857  1.00 27.29           C
ATOM   2895  C   SER A 528     -21.328 -16.884  23.832  1.00 28.44           C
ATOM   2896  O   SER A 528     -22.324 -17.599  23.972  1.00 29.14           O
ATOM   2897  CB  SER A 528     -20.927 -16.147  21.454  1.00 28.21           C
ATOM   2898  OG  SER A 528     -19.776 -16.969  21.504  1.00 37.70           O
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ATOM   2899  N   LEU A 529     -20.201 -17.089  24.508  1.00 26.26           N
ATOM   2900  CA  LEU A 529     -20.066 -18.187  25.465  1.00 22.88           C
ATOM   2901  C   LEU A 529     -21.007 -17.988  26.649  1.00 21.15           C
ATOM   2902  O   LEU A 529     -21.740 -18.893  27.051  1.00 21.55           O
ATOM   2903  CB  LEU A 529     -18.619 -18.268  25.981  1.00 20.23           C
ATOM   2904  CG  LEU A 529     -18.393 -19.230  27.155  1.00 20.79           C
ATOM   2905  CD1 LEU A 529     -18.268 -20.633  26.604  1.00 21.94           C
ATOM   2906  CD2 LEU A 529     -17.153 -18.858  27.946  1.00 16.31           C
ATOM   2907  N   LEU A 530     -20.967 -16.787  27.206  1.00 18.78           N
ATOM   2908  CA  LEU A 530     -21.782 -16.432  28.352  1.00 20.38           C
ATOM   2909  C   LEU A 530     -23.274 -16.378  28.036  1.00 24.02           C
ATOM   2910  O   LEU A 530     -24.103 -16.599  28.912  1.00 23.24           O
ATOM   2911  CB  LEU A 530     -21.336 -15.078  28.887  1.00 19.43           C
ATOM   2912  CG  LEU A 530     -19.935 -15.086  29.497  1.00 19.88           C
ATOM   2913  CD1 LEU A 530     -19.561 -13.677  29.907  1.00 18.79           C
ATOM   2914  CD2 LEU A 530     -19.902 -16.026  30.702  1.00 18.51           C
ATOM   2915  N   SER A 531     -23.607 -16.083  26.783  1.00 25.46           N
ATOM   2916  CA  SER A 531     -24.997 -15.983  26.366  1.00 26.33           C
ATOM   2917  C   SER A 531     -25.546 -17.289  25.808  1.00 25.50           C
ATOM   2918  O   SER A 531     -26.759 -17.469  25.729  1.00 24.84           O
ATOM   2919  CB  SER A 531     -25.146 -14.878  25.322  1.00 24.73           C
ATOM   2920  OG  SER A 531     -24.655 -15.309  24.064  1.00 30.10           O
ATOM   2921  N   ASP A 532     -24.657 -18.200  25.425  1.00 25.37           N
ATOM   2922  CA  ASP A 532     -25.080 -19.479  24.876  1.00 24.64           C
ATOM   2923  C   ASP A 532     -25.602 -20.417  25.964  1.00 27.33           C
ATOM   2924  O   ASP A 532     -24.833 -20.967  26.750  1.00 27.00           O
ATOM   2925  CB  ASP A 532     -23.921 -20.133  24.133  1.00 27.05           C
ATOM   2926  CG  ASP A 532     -24.308 -21.456  23.503  1.00 34.59           C
ATOM   2927  OD1 ASP A 532     -25.336 -22.035  23.911  1.00 39.46           O
ATOM   2928  OD2 ASP A 532     -23.582 -21.920  22.599  1.00 35.02           O
ATOM   2929  N   ALA A 533     -26.917 -20.604  25.998  1.00 27.92           N
ATOM   2930  CA  ALA A 533     -27.541 -21.471  26.997  1.00 28.12           C
ATOM   2931  C   ALA A 533     -27.175 -22.933  26.799  1.00 26.59           C
ATOM   2932  O   ALA A 533     -27.295 -23.737  27.725  1.00 28.89           O
ATOM   2933  CB  ALA A 533     -29.052 -21.309  26.956  1.00 30.50           C
ATOM   2934  N   GLY A 534     -26.738 -23.275  25.590  1.00 23.26           N
ATOM   2935  CA  GLY A 534     -26.356 -24.645  25.300  1.00 22.45           C
ATOM   2936  C   GLY A 534     -25.099 -25.061  26.044  1.00 23.00           C
ATOM   2937  O   GLY A 534     -24.810 -26.253  26.185  1.00 20.86           O
ATOM   2938  N   VAL A 535     -24.353 -24.067  26.524  1.00 23.16           N
ATOM   2939  CA  VAL A 535     -23.120 -24.309  27.267  1.00 20.95           C
ATOM   2940  C   VAL A 535     -23.407 -24.273  28.764  1.00 18.09           C
ATOM   2941  O   VAL A 535     -23.700 -23.216  29.333  1.00 20.61           O
ATOM   2942  CB  VAL A 535     -22.037 -23.246  26.930  1.00 18.75           C
ATOM   2943  CG1 VAL A 535     -20.817 -23.454  27.817  1.00 18.09           C
ATOM   2944  CG2 VAL A 535     -21.662 -23.332  25.457  1.00 14.38           C
ATOM   2945  N   ALA A 536     -23.317 -25.438  29.396  1.00 17.54           N
ATOM   2946  CA  ALA A 536     -23.578 -25.571  30.819  1.00 19.48           C
ATOM   2947  C   ALA A 536     -22.616 -24.763  31.670  1.00 21.52           C
ATOM   2948  O   ALA A 536     -21.428 -24.686  31.379  1.00 30.13           O
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ATOM   2949  CB  ALA A 536     -23.507 -27.037  31.224  1.00 17.12           C
ATOM   2950  N   SER A 537     -23.141 -24.158  32.724  1.00 18.37           N
ATOM   2951  CA  SER A 537     -22.334 -23.390  33.647  1.00 18.20           C
ATOM   2952  C   SER A 537     -22.745 -23.868  35.031  1.00 22.85           C
ATOM   2953  O   SER A 537     -23.620 -23.287  35.674  1.00 29.34           O
ATOM   2954  CB  SER A 537     -22.602 -21.897  33.488  1.00 18.64           C
ATOM   2955  OG  SER A 537     -21.886 -21.154  34.458  1.00 24.43           O
ATOM   2956  N   VAL A 538     -22.123 -24.956  35.471  1.00 24.00           N
ATOM   2957  CA  VAL A 538     -22.410 -25.559  36.767  1.00 21.99           C
ATOM   2958  C   VAL A 538     -21.238 -25.306  37.712  1.00 22.96           C
ATOM   2959  O   VAL A 538     -20.086 -25.396  37.309  1.00 24.34           O
ATOM   2960  CB  VAL A 538     -22.618 -27.091  36.609  1.00 18.65           C
ATOM   2961  CG1 VAL A 538     -22.854 -27.742  37.964  1.00 18.57           C
ATOM   2962  CG2 VAL A 538     -23.775 -27.359  35.675  1.00 19.06           C
ATOM   2963  N   PRO A 539     -21.520 -24.968  38.977  1.00 21.77           N
ATOM   2964  CA  PRO A 539     -20.443 -24.718  39.933  1.00 24.03           C
ATOM   2965  C   PRO A 539     -19.488 -25.899  39.966  1.00 26.11           C
ATOM   2966  O   PRO A 539     -19.920 -27.055  39.992  1.00 22.01           O
ATOM   2967  CB  PRO A 539     -21.172 -24.538  41.258  1.00 25.09           C
ATOM   2968  CG  PRO A 539     -22.517 -24.049  40.864  1.00 25.34           C
ATOM   2969  CD  PRO A 539     -22.842 -24.770  39.586  1.00 27.53           C
ATOM   2970  N   ARG A 540     -18.191 -25.610  39.963  1.00 24.27           N
ATOM   2971  CA  ARG A 540     -17.206 -26.678  39.981  1.00 22.38           C
ATOM   2972  C   ARG A 540     -17.285 -27.437  41.280  1.00 14.34           C
ATOM   2973  O   ARG A 540     -17.563 -26.871  42.336  1.00 14.91           O
ATOM   2974  CB  ARG A 540     -15.780 -26.138  39.804  1.00 27.55           C
ATOM   2975  CG  ARG A 540     -15.663 -24.638  39.613  1.00 33.57           C
ATOM   2976  CD  ARG A 540     -14.567 -24.299  38.606  1.00 37.33           C
ATOM   2977  NE  ARG A 540     -13.600 -25.387  38.464  1.00 38.23           N
ATOM   2978  CZ  ARG A 540     -12.308 -25.292  38.763  1.00 36.05           C
ATOM   2979  NH1 ARG A 540     -11.806 -24.156  39.225  1.00 31.33           N
ATOM   2980  NH2 ARG A 540     -11.517 -26.344  38.606  1.00 40.93           N
ATOM   2981  N   THR A 541     -17.012 -28.728  41.188  1.00 14.62           N
ATOM   2982  CA  THR A 541     -17.034 -29.616  42.332  1.00 17.09           C
ATOM   2983  C   THR A 541     -15.716 -29.538  43.123  1.00 19.23           C
ATOM   2984  O   THR A 541     -14.764 -28.885  42.694  1.00 16.55           O
ATOM   2985  CB  THR A 541     -17.281 -31.054  41.865  1.00 16.64           C
ATOM   2986  OG1 THR A 541     -17.397 -31.918  43.001  1.00 22.82           O
ATOM   2987  CG2 THR A 541     -16.149 -31.517  40.980  1.00 17.97           C
ATOM   2988  N   SER A 542     -15.686 -30.201  44.279  1.00 18.82           N
ATOM   2989  CA  SER A 542     -14.532 -30.221  45.175  1.00 19.54           C
ATOM   2990  C   SER A 542     -13.320 -30.922  44.563  1.00 22.85           C
ATOM   2991  O   SER A 542     -13.460 -31.873  43.790  1.00 23.13           O
ATOM   2992  CB  SER A 542     -14.894 -30.918  46.495  1.00 17.26           C
ATOM   2993  OG  SER A 542     -15.843 -30.187  47.261  1.00 18.82           O
ATOM   2994  N   TYR A 543     -12.130 -30.438  44.911  1.00 21.49           N
ATOM   2995  CA  TYR A 543     -10.886 -31.021  44.419  1.00 20.80           C
ATOM   2996  C   TYR A 543      -9.709 -30.631  45.313  1.00 19.26           C
ATOM   2997  O   TYR A 543      -9.758 -29.639  46.044  1.00 18.06           O
ATOM   2998  CB  TYR A 543     -10.613 -30.593  42.961  1.00 19.71           C
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ATOM   2999  CG  TYR A 543     -10.366 -29.113  42.771  1.00 22.70           C
ATOM   3000  CD1 TYR A 543      -9.167 -28.527  43.180  1.00 27.25           C
ATOM   3001  CD2 TYR A 543     -11.348 -28.287  42.217  1.00 22.96           C
ATOM   3002  CE1 TYR A 543      -8.952 -27.155  43.051  1.00 25.49           C
ATOM   3003  CE2 TYR A 543     -11.146 -26.912  42.082  1.00 23.19           C
ATOM   3004  CZ  TYR A 543      -9.946 -26.352  42.502  1.00 25.27           C
ATOM   3005  OH  TYR A 543      -9.740 -24.996  42.385  1.00 21.60           O
ATOM   3006  N   LEU A 544      -8.661 -31.442  45.268  1.00 19.49           N
ATOM   3007  CA  LEU A 544      -7.456 -31.193  46.047  1.00 14.96           C
ATOM   3008  C   LEU A 544      -6.301 -31.636  45.173  1.00 15.34           C
ATOM   3009  O   LEU A 544      -6.172 -32.815  44.853  1.00 16.12           O
ATOM   3010  CB  LEU A 544      -7.466 -32.000  47.344  1.00 13.53           C
ATOM   3011  CG  LEU A 544      -6.522 -31.452  48.415  1.00  9.05           C
ATOM   3012  CD1 LEU A 544      -6.912 -31.929  49.796  1.00  8.65           C
ATOM   3013  CD2 LEU A 544      -5.113 -31.925  48.087  1.00 20.36           C
ATOM   3014  N   SER A 545      -5.474 -30.680  44.771  1.00 16.49           N
ATOM   3015  CA  SER A 545      -4.326 -30.973  43.924  1.00 15.69           C
ATOM   3016  C   SER A 545      -3.025 -30.897  44.728  1.00 15.37           C
ATOM   3017  O   SER A 545      -2.724 -29.862  45.329  1.00 17.85           O
ATOM   3018  CB  SER A 545      -4.268 -29.969  42.779  1.00  8.71           C
ATOM   3019  OG  SER A 545      -5.069 -30.379  41.695  1.00 19.35           O
ATOM   3020  N   ALA A 546      -2.273 -31.994  44.758  1.00 15.14           N
ATOM   3021  CA  ALA A 546      -0.983 -32.020  45.460  1.00 14.18           C
ATOM   3022  C   ALA A 546       0.109 -31.842  44.399  1.00 14.23           C
ATOM   3023  O   ALA A 546       0.524 -32.813  43.769  1.00 17.46           O
ATOM   3024  CB  ALA A 546      -0.800 -33.343  46.178  1.00  8.02           C
ATOM   3025  N   PHE A 547       0.542 -30.600  44.172  1.00 14.46           N
ATOM   3026  CA  PHE A 547       1.585 -30.327  43.180  1.00 14.90           C
ATOM   3027  C   PHE A 547       2.923 -30.531  43.890  1.00 16.51           C
ATOM   3028  O   PHE A 547       3.620 -29.573  44.205  1.00 14.20           O
ATOM   3029  CB  PHE A 547       1.502 -28.882  42.678  1.00 18.17           C
ATOM   3030  CG  PHE A 547       0.187 -28.518  42.033  1.00 14.95           C
ATOM   3031  CD1 PHE A 547      -0.247 -29.166  40.891  1.00 15.86           C
ATOM   3032  CD2 PHE A 547      -0.586 -27.489  42.548  1.00 13.10           C
ATOM   3033  CE1 PHE A 547      -1.436 -28.792  40.262  1.00 21.71           C
ATOM   3034  CE2 PHE A 547      -1.779 -27.104  41.929  1.00 16.91           C
ATOM   3035  CZ  PHE A 547      -2.203 -27.756  40.785  1.00 15.35           C
ATOM   3036  N   ASN A 548       3.270 -31.786  44.145  1.00 17.83           N
ATOM   3037  CA  ASN A 548       4.500 -32.100  44.856  1.00 19.08           C
ATOM   3038  C   ASN A 548       5.775 -31.754  44.095  1.00 17.37           C
ATOM   3039  O   ASN A 548       6.813 -31.552  44.707  1.00 22.32           O
ATOM   3040  CB  ASN A 548       4.511 -33.575  45.242  1.00 16.18           C
ATOM   3041  CG  ASN A 548       3.659 -33.860  46.457  1.00 18.09           C
ATOM   3042  OD1 ASN A 548       3.782 -33.196  47.486  1.00 15.72           O
ATOM   3043  ND2 ASN A 548       2.789 -34.858  46.347  1.00 15.83           N
ATOM   3044  N   LYS A 549       5.694 -31.680  42.772  1.00 14.88           N
ATOM   3045  CA  LYS A 549       6.856 -31.345  41.967  1.00 18.28           C
ATOM   3046  C   LYS A 549       7.179 -29.858  41.977  1.00 20.80           C
ATOM   3047  O   LYS A 549       8.160 -29.426  41.367  1.00 21.11           O
ATOM   3048  CB  LYS A 549       6.675 -31.830  40.532  1.00 20.77           C
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ATOM   3049  CG  LYS A 549       6.643 -33.346  40.410  1.00 25.40           C
ATOM   3050  CD  LYS A 549       7.958 -33.976  40.843  1.00 22.56           C
ATOM   3051  CE  LYS A 549       8.143 -35.346  40.199  1.00 26.33           C
ATOM   3052  NZ  LYS A 549       8.018 -36.439  41.195  1.00 30.31           N
ATOM   3053  N   MET A 550       6.348 -29.072  42.656  1.00 16.93           N
ATOM   3054  CA  MET A 550       6.604 -27.646  42.784  1.00 12.03           C
ATOM   3055  C   MET A 550       6.270 -27.190  44.193  1.00 11.69           C
ATOM   3056  O   MET A 550       6.188 -25.998  44.487  1.00 14.34           O
ATOM   3057  CB  MET A 550       5.858 -26.847  41.711  1.00 16.07           C
ATOM   3058  CG  MET A 550       4.361 -26.623  41.890  1.00 12.57           C
ATOM   3059  SD  MET A 550       3.837 -25.473  40.613  1.00 17.48           S
ATOM   3060  CE  MET A 550       2.046 -25.251  41.040  1.00 17.26           C
ATOM   3061  N   ASP A 551       6.125 -28.178  45.072  1.00 14.20           N
ATOM   3062  CA  ASP A 551       5.826 -27.974  46.486  1.00 14.20           C
ATOM   3063  C   ASP A 551       4.677 -27.027  46.810  1.00 15.57           C
ATOM   3064  O   ASP A 551       4.779 -26.193  47.710  1.00 13.10           O
ATOM   3065  CB  ASP A 551       7.089 -27.529  47.227  1.00 15.01           C
ATOM   3066  CG  ASP A 551       8.209 -28.542  47.111  1.00 21.08           C
ATOM   3067  OD1 ASP A 551       8.024 -29.688  47.572  1.00 21.55           O
ATOM   3068  OD2 ASP A 551       9.266 -28.197  46.548  1.00 18.28           O
ATOM   3069  N   LYS A 552       3.579 -27.171  46.075  1.00 18.81           N
ATOM   3070  CA  LYS A 552       2.386 -26.365  46.310  1.00 17.38           C
ATOM   3071  C   LYS A 552       1.199 -27.328  46.414  1.00 16.31           C
ATOM   3072  O   LYS A 552       1.240 -28.444  45.889  1.00 12.60           O
ATOM   3073  CB  LYS A 552       2.163 -25.369  45.167  1.00 15.49           C
ATOM   3074  CG  LYS A 552       3.359 -24.459  44.872  1.00 14.61           C
ATOM   3075  CD  LYS A 552       3.777 -23.636  46.089  1.00  8.60           C
ATOM   3076  CE  LYS A 552       4.756 -22.548  45.683  1.00  9.92           C
ATOM   3077  NZ  LYS A 552       5.419 -21.944  46.860  1.00 11.88           N
ATOM   3078  N   THR A 553       0.159 -26.902  47.121  1.00 17.95           N
ATOM   3079  CA  THR A 553      -1.045 -27.715  47.289  1.00 18.57           C
ATOM   3080  C   THR A 553      -2.271 -26.800  47.209  1.00 13.72           C
ATOM   3081  O   THR A 553      -2.364 -25.814  47.937  1.00 15.44           O
ATOM   3082  CB  THR A 553      -1.032 -28.473  48.654  1.00 18.68           C
ATOM   3083  OG1 THR A 553      -0.008 -29.478  48.630  1.00 20.47           O
ATOM   3084  CG2 THR A 553      -2.377 -29.160  48.914  1.00 15.70           C
ATOM   3085  N   ALA A 554      -3.186 -27.118  46.299  1.00 16.18           N
ATOM   3086  CA  ALA A 554      -4.415 -26.334  46.122  1.00 16.30           C
ATOM   3087  C   ALA A 554      -5.625 -27.179  46.516  1.00 16.58           C
ATOM   3088  O   ALA A 554      -5.770 -28.327  46.079  1.00 16.15           O
ATOM   3089  CB  ALA A 554      -4.550 -25.867  44.672  1.00  9.88           C
ATOM   3090  N   MET A 555      -6.489 -26.600  47.345  1.00 17.32           N
ATOM   3091  CA  MET A 555      -7.675 -27.294  47.823  1.00 15.79           C
ATOM   3092  C   MET A 555      -8.936 -26.449  47.650  1.00 15.01           C
ATOM   3093  O   MET A 555      -8.907 -25.236  47.856  1.00 15.88           O
ATOM   3094  CB  MET A 555      -7.483 -27.646  49.294  1.00 14.86           C
ATOM   3095  CG  MET A 555      -8.643 -28.366  49.928  1.00 15.75           C
ATOM   3096  SD  MET A 555      -8.575 -28.198  51.697  1.00 20.46           S
ATOM   3097  CE  MET A 555      -9.884 -29.322  52.202  1.00 28.78           C
ATOM   3098  N   TYR A 556     -10.037 -27.095  47.264  1.00 19.12           N
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ATOM   3099  CA  TYR A 556     -11.322 -26.407  47.092  1.00 19.12           C
ATOM   3100  C   TYR A 556     -12.519 -27.265  47.509  1.00 14.70           C
ATOM   3101  O   TYR A 556     -12.656 -28.401  47.070  1.00 13.71           O
ATOM   3102  CB  TYR A 556     -11.531 -25.959  45.640  1.00 19.50           C
ATOM   3103  CG  TYR A 556     -12.864 -25.264  45.430  1.00 20.19           C
ATOM   3104  CD1 TYR A 556     -13.133 -24.038  46.038  1.00 21.11           C
ATOM   3105  CD2 TYR A 556     -13.868 -25.848  44.653  1.00 22.54           C
ATOM   3106  CE1 TYR A 556     -14.371 -23.407  45.880  1.00 22.19           C
ATOM   3107  CE2 TYR A 556     -15.116 -25.222  44.488  1.00 21.90           C
ATOM   3108  CZ  TYR A 556     -15.354 -24.004  45.107  1.00 20.77           C
ATOM   3109  OH  TYR A 556     -16.571 -23.380  44.965  1.00 21.95           O
ATOM   3110  N   ASN A 557     -13.374 -26.686  48.352  1.00 14.99           N
ATOM   3111  CA  ASN A 557     -14.589 -27.322  48.865  1.00 15.68           C
ATOM   3112  C   ASN A 557     -15.803 -26.637  48.200  1.00 15.83           C
ATOM   3113  O   ASN A 557     -16.110 -25.479  48.499  1.00 16.53           O
ATOM   3114  CB  ASN A 557     -14.645 -27.136  50.381  1.00 14.69           C
ATOM   3115  CG  ASN A 557     -15.805 -27.862  51.017  1.00 19.24           C
ATOM   3116  OD1 ASN A 557     -15.671 -28.434  52.101  1.00 18.36           O
ATOM   3117  ND2 ASN A 557     -16.953 -27.848  50.349  1.00 18.49           N
ATOM   3118  N   ALA A 558     -16.476 -27.341  47.290  1.00 16.16           N
ATOM   3119  CA  ALA A 558     -17.627 -26.760  46.590  1.00 15.92           C
ATOM   3120  C   ALA A 558     -18.852 -26.647  47.481  1.00 14.79           C
ATOM   3121  O   ALA A 558     -19.646 -25.727  47.322  1.00 17.61           O
ATOM   3122  CB  ALA A 558     -17.968 -27.574  45.354  1.00  9.11           C
ATOM   3123  N   GLU A 559     -18.998 -27.569  48.426  1.00 17.87           N
ATOM   3124  CA  GLU A 559     -20.145 -27.554  49.328  1.00 18.05           C
ATOM   3125  C   GLU A 559     -20.140 -26.315  50.200  1.00 20.89           C
ATOM   3126  O   GLU A 559     -21.144 -25.622  50.288  1.00 20.22           O
ATOM   3127  CB  GLU A 559     -20.166 -28.798  50.225  1.00 19.49           C
ATOM   3128  CG  GLU A 559     -21.111 -28.671  51.432  1.00 22.65           C
ATOM   3129  CD  GLU A 559     -21.142 -29.910  52.325  1.00 25.92           C
ATOM   3130  OE1 GLU A 559     -20.353 -30.848  52.087  1.00 31.06           O
ATOM   3131  OE2 GLU A 559     -21.955 -29.946  53.276  1.00 22.33           O
ATOM   3132  N   LYS A 560     -19.007 -26.033  50.841  1.00 19.62           N
ATOM   3133  CA  LYS A 560     -18.905 -24.870  51.714  1.00 15.49           C
ATOM   3134  C   LYS A 560     -18.382 -23.648  50.975  1.00 14.98           C
ATOM   3135  O   LYS A 560     -18.464 -22.531  51.483  1.00 18.46           O
ATOM   3136  CB  LYS A 560     -18.036 -25.192  52.925  1.00 15.42           C
ATOM   3137  CG  LYS A 560     -18.853 -25.463  54.180  1.00 21.68           C
ATOM   3138  CD  LYS A 560     -18.685 -26.882  54.654  1.00 25.16           C
ATOM   3139  CE  LYS A 560     -19.339 -27.087  56.012  1.00 34.78           C
ATOM   3140  NZ  LYS A 560     -18.349 -27.172  57.133  1.00 32.40           N
ATOM   3141  N   GLY A 561     -17.855 -23.872  49.774  1.00 13.26           N
ATOM   3142  CA  GLY A 561     -17.372 -22.787  48.939  1.00 15.08           C
ATOM   3143  C   GLY A 561     -16.120 -22.013  49.319  1.00 19.37           C
ATOM   3144  O   GLY A 561     -16.068 -20.798  49.136  1.00 19.23           O
ATOM   3145  N   PHE A 562     -15.107 -22.684  49.849  1.00 18.33           N
ATOM   3146  CA  PHE A 562     -13.875 -21.971  50.175  1.00 16.64           C
ATOM   3147  C   PHE A 562     -12.686 -22.650  49.498  1.00 18.19           C
ATOM   3148  O   PHE A 562     -12.736 -23.838  49.178  1.00 18.01           O
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ATOM   3149  CB  PHE A 562     -13.666 -21.892  51.695  1.00 15.52           C
ATOM   3150  CG  PHE A 562     -13.282 -23.199  52.340  1.00 18.79           C
ATOM   3151  CD1 PHE A 562     -11.958 -23.636  52.336  1.00 19.41           C
ATOM   3152  CD2 PHE A 562     -14.235 -23.968  53.003  1.00 18.21           C
ATOM   3153  CE1 PHE A 562     -11.588 -24.823  52.988  1.00 18.54           C
ATOM   3154  CE2 PHE A 562     -13.881 -25.157  53.659  1.00 18.72           C
ATOM   3155  CZ  PHE A 562     -12.552 -25.585  53.652  1.00 20.77           C
ATOM   3156  N   GLY A 563     -11.636 -21.876  49.246  1.00 18.26           N
ATOM   3157  CA  GLY A 563     -10.440 -22.417  48.625  1.00 17.39           C
ATOM   3158  C   GLY A 563      -9.289 -22.305  49.607  1.00 15.47           C
ATOM   3159  O   GLY A 563      -9.298 -21.425  50.479  1.00 12.34           O
ATOM   3160  N   PHE A 564      -8.308 -23.196  49.486  1.00 14.98           N
ATOM   3161  CA  PHE A 564      -7.150 -23.180  50.382  1.00 15.63           C
ATOM   3162  C   PHE A 564      -5.893 -23.499  49.594  1.00 15.61           C
ATOM   3163  O   PHE A 564      -5.866 -24.460  48.826  1.00 12.40           O
ATOM   3164  CB  PHE A 564      -7.343 -24.206  51.498  1.00 16.53           C
ATOM   3165  CG  PHE A 564      -6.116 -24.443  52.345  1.00 17.53           C
ATOM   3166  CD1 PHE A 564      -5.799 -23.587  53.395  1.00 15.55           C
ATOM   3167  CD2 PHE A 564      -5.317 -25.564  52.135  1.00 17.32           C
ATOM   3168  CE1 PHE A 564      -4.712 -23.845  54.226  1.00 17.48           C
ATOM   3169  CE2 PHE A 564      -4.226 -25.832  52.960  1.00 13.51           C
ATOM   3170  CZ  PHE A 564      -3.924 -24.972  54.007  1.00 15.94           C
ATOM   3171  N   GLY A 565      -4.866 -22.670  49.781  1.00 17.08           N
ATOM   3172  CA  GLY A 565      -3.595 -22.866  49.097  1.00 14.91           C
ATOM   3173  C   GLY A 565      -2.430 -22.988  50.073  1.00 14.94           C
ATOM   3174  O   GLY A 565      -2.274 -22.179  50.994  1.00 14.91           O
ATOM   3175  N   LEU A 566      -1.614 -24.018  49.895  1.00 15.58           N
ATOM   3176  CA  LEU A 566      -0.462 -24.208  50.773  1.00 16.98           C
ATOM   3177  C   LEU A 566       0.781 -23.950  49.949  1.00 14.02           C
ATOM   3178  O   LEU A 566       1.013 -24.632  48.955  1.00 12.08           O
ATOM   3179  CB  LEU A 566      -0.438 -25.627  51.331  1.00 15.16           C
ATOM   3180  CG  LEU A 566       0.599 -25.906  52.422  1.00 12.17           C
ATOM   3181  CD1 LEU A 566       0.521 -24.855  53.532  1.00 10.47           C
ATOM   3182  CD2 LEU A 566       0.360 -27.315  52.960  1.00  8.91           C
ATOM   3183  N   SER A 567       1.560 -22.952  50.362  1.00 18.62           N
ATOM   3184  CA  SER A 567       2.776 -22.554  49.650  1.00 17.62           C
ATOM   3185  C   SER A 567       4.041 -22.926  50.398  1.00 17.72           C
ATOM   3186  O   SER A 567       4.310 -22.422  51.490  1.00 17.98           O
ATOM   3187  CB  SER A 567       2.780 -21.044  49.423  1.00 14.73           C
ATOM   3188  OG  SER A 567       3.852 -20.657  48.589  1.00 14.77           O
ATOM   3189  N   LEU A 568       4.824 -23.810  49.800  1.00 18.94           N
ATOM   3190  CA  LEU A 568       6.071 -24.224  50.423  1.00 19.33           C
ATOM   3191  C   LEU A 568       7.200 -24.267  49.387  1.00 15.24           C
ATOM   3192  O   LEU A 568       7.035 -23.839  48.238  1.00 11.75           O
ATOM   3193  CB  LEU A 568       5.907 -25.616  51.061  1.00 16.46           C
ATOM   3194  CG  LEU A 568       4.543 -26.040  51.605  1.00 15.28           C
ATOM   3195  CD1 LEU A 568       4.545 -27.537  51.843  1.00 12.94           C
ATOM   3196  CD2 LEU A 568       4.245 -25.296  52.899  1.00 12.97           C
ATOM   3197  N   PHE A 569       8.350 -24.768  49.831  1.00 16.23           N
ATOM   3198  CA  PHE A 569       9.520 -24.965  48.989  1.00 16.35           C
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ATOM   3199  C   PHE A 569      10.386 -26.005  49.686  1.00 18.19           C
ATOM   3200  O   PHE A 569      10.151 -26.351  50.847  1.00 12.52           O
ATOM   3201  CB  PHE A 569      10.291 -23.653  48.746  1.00 17.20           C
ATOM   3202  CG  PHE A 569      11.125 -23.180  49.913  1.00 16.12           C
ATOM   3203  CD1 PHE A 569      10.525 -22.721  51.084  1.00 12.15           C
ATOM   3204  CD2 PHE A 569      12.514 -23.118  49.808  1.00 19.07           C
ATOM   3205  CE1 PHE A 569      11.288 -22.202  52.131  1.00 17.79           C
ATOM   3206  CE2 PHE A 569      13.292 -22.599  50.852  1.00 16.10           C
ATOM   3207  CZ  PHE A 569      12.678 -22.139  52.014  1.00 13.43           C
ATOM   3208  N   SER A 570      11.368 -26.531  48.969  1.00 19.70           N
ATOM   3209  CA  SER A 570      12.238 -27.542  49.545  1.00 17.96           C
ATOM   3210  C   SER A 570      13.617 -27.435  48.914  1.00 19.83           C
ATOM   3211  O   SER A 570      13.949 -26.428  48.284  1.00 19.28           O
ATOM   3212  CB  SER A 570      11.669 -28.935  49.270  1.00 14.08           C
ATOM   3213  OG  SER A 570      11.726 -29.214  47.880  1.00 12.60           O
ATOM   3214  N   SER A 571      14.403 -28.494  49.072  1.00 21.62           N
ATOM   3215  CA  SER A 571      15.737 -28.544  48.501  1.00 18.28           C
ATOM   3216  C   SER A 571      15.598 -28.548  46.983  1.00 18.10           C
ATOM   3217  O   SER A 571      16.550 -28.258  46.259  1.00 17.83           O
ATOM   3218  CB  SER A 571      16.447 -29.812  48.967  1.00 16.99           C
ATOM   3219  OG  SER A 571      15.776 -30.966  48.496  1.00 19.67           O
ATOM   3220  N   ARG A 572      14.393 -28.861  46.507  1.00 16.68           N
ATOM   3221  CA  ARG A 572      14.110 -28.917  45.073  1.00 11.33           C
ATOM   3222  C   ARG A 572      13.550 -27.623  44.497  1.00  8.69           C
ATOM   3223  O   ARG A 572      13.477 -27.471  43.294  1.00 12.48           O
ATOM   3224  CB  ARG A 572      13.101 -30.032  44.768  1.00 13.06           C
ATOM   3225  CG  ARG A 572      13.497 -31.421  45.246  1.00 15.81           C
ATOM   3226  CD  ARG A 572      12.314 -32.380  45.203  1.00 15.29           C
ATOM   3227  NE  ARG A 572      11.255 -31.917  46.091  1.00 20.40           N
ATOM   3228  CZ  ARG A 572      11.058 -32.367  47.325  1.00 20.66           C
ATOM   3229  NH1 ARG A 572      11.845 -33.307  47.834  1.00 15.25           N
ATOM   3230  NH2 ARG A 572      10.090 -31.847  48.068  1.00 16.80           N
ATOM   3231  N   THR A 573      13.171 -26.681  45.344  1.00 11.15           N
ATOM   3232  CA  THR A 573      12.567 -25.465  44.831  1.00 11.43           C
ATOM   3233  C   THR A 573      12.990 -24.210  45.569  1.00  9.73           C
ATOM   3234  O   THR A 573      13.314 -24.250  46.751  1.00 12.69           O
ATOM   3235  CB  THR A 573      11.018 -25.564  44.927  1.00 14.05           C
ATOM   3236  OG1 THR A 573      10.664 -26.021  46.237  1.00 14.93           O
ATOM   3237  CG2 THR A 573      10.465 -26.551  43.902  1.00 11.51           C
ATOM   3238  N   LEU A 574      12.960 -23.093  44.852  1.00 11.49           N
ATOM   3239  CA  LEU A 574      13.302 -21.788  45.410  1.00 14.38           C
ATOM   3240  C   LEU A 574      12.107 -21.247  46.215  1.00 18.28           C
ATOM   3241  O   LEU A 574      10.965 -21.389  45.779  1.00 17.28           O
ATOM   3242  CB  LEU A 574      13.622 -20.833  44.260  1.00 15.33           C
ATOM   3243  CG  LEU A 574      14.504 -19.642  44.613  1.00 19.80           C
ATOM   3244  CD1 LEU A 574      15.940 -20.128  44.819  1.00 17.86           C
ATOM   3245  CD2 LEU A 574      14.413 -18.605  43.510  1.00 19.93           C
ATOM   3246  N   ASN A 575      12.352 -20.623  47.366  1.00 15.81           N
ATOM   3247  CA  ASN A 575      11.241 -20.105  48.160  1.00 17.32           C
ATOM   3248  C   ASN A 575      10.529 -18.927  47.499  1.00 22.21           C
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ATOM   3249  O   ASN A 575       9.300 -18.925  47.386  1.00 21.26           O
ATOM   3250  CB  ASN A 575      11.689 -19.724  49.576  1.00 18.34           C
ATOM   3251  CG  ASN A 575      12.953 -18.887  49.601  1.00 18.42           C
ATOM   3252  OD1 ASN A 575      13.443 -18.438  48.564  1.00 17.61           O
ATOM   3253  ND2 ASN A 575      13.483 -18.670  50.800  1.00 14.00           N
ATOM   3254  N   TYR A 576      11.278 -17.920  47.066  1.00 21.06           N
ATOM   3255  CA  TYR A 576      10.651 -16.790  46.391  1.00 21.12           C
ATOM   3256  C   TYR A 576      11.554 -16.215  45.316  1.00 24.17           C
ATOM   3257  O   TYR A 576      12.781 -16.354  45.378  1.00 25.81           O
ATOM   3258  CB  TYR A 576      10.259 -15.703  47.393  1.00 20.31           C
ATOM   3259  CG  TYR A 576      11.391 -14.795  47.814  1.00 23.59           C
ATOM   3260  CD1 TYR A 576      12.354 -15.232  48.729  1.00 19.70           C
ATOM   3261  CD2 TYR A 576      11.498 -13.496  47.310  1.00 21.96           C
ATOM   3262  CE1 TYR A 576      13.395 -14.400  49.133  1.00 20.34           C
ATOM   3263  CE2 TYR A 576      12.542 -12.651  47.710  1.00 22.11           C
ATOM   3264  CZ  TYR A 576      13.486 -13.112  48.622  1.00 22.03           C
ATOM   3265  OH  TYR A 576      14.513 -12.289  49.036  1.00 23.12           O
ATOM   3266  N   GLU A 577      10.941 -15.588  44.316  1.00 24.18           N
ATOM   3267  CA  GLU A 577      11.688 -14.990  43.221  1.00 20.88           C
ATOM   3268  C   GLU A 577      11.705 -13.470  43.260  1.00 24.52           C
ATOM   3269  O   GLU A 577      10.658 -12.823  43.145  1.00 20.99           O
ATOM   3270  CB  GLU A 577      11.126 -15.440  41.877  1.00 20.06           C
ATOM   3271  CG  GLU A 577      12.202 -15.676  40.841  1.00 23.05           C
ATOM   3272  CD  GLU A 577      11.799 -15.234  39.461  1.00 23.44           C
ATOM   3273  OE1 GLU A 577      11.447 -14.055  39.285  1.00 29.43           O
ATOM   3274  OE2 GLU A 577      11.841 -16.071  38.544  1.00 29.27           O
ATOM   3275  N   HIS A 578      12.901 -12.912  43.451  1.00 24.39           N
ATOM   3276  CA  HIS A 578      13.108 -11.471  43.459  1.00 22.40           C
ATOM   3277  C   HIS A 578      14.089 -11.244  42.335  1.00 25.19           C
ATOM   3278  O   HIS A 578      15.279 -11.494  42.497  1.00 26.89           O
ATOM   3279  CB  HIS A 578      13.742 -10.982  44.758  1.00 20.38           C
ATOM   3280  CG  HIS A 578      14.297  -9.593  44.658  1.00 24.34           C
ATOM   3281  ND1 HIS A 578      15.257  -9.104  45.519  1.00 24.91           N
ATOM   3282  CD2 HIS A 578      14.032  -8.590  43.785  1.00 23.77           C
ATOM   3283  CE1 HIS A 578      15.558  -7.863  45.180  1.00 25.40           C
ATOM   3284  NE2 HIS A 578      14.830  -7.527  44.131  1.00 24.97           N
ATOM   3285  N   MET A 579      13.588 -10.776  41.198  1.00 26.42           N
ATOM   3286  CA  MET A 579      14.416 -10.537  40.032  1.00 25.66           C
ATOM   3287  C   MET A 579      13.950  -9.269  39.331  1.00 28.32           C
ATOM   3288  O   MET A 579      12.767  -8.943  39.339  1.00 31.02           O
ATOM   3289  CB  MET A 579      14.320 -11.743  39.088  1.00 25.76           C
ATOM   3290  CG  MET A 579      14.971 -11.563  37.727  1.00 31.65           C
ATOM   3291  SD  MET A 579      14.735 -12.989  36.633  1.00 32.24           S
ATOM   3292  CE  MET A 579      15.314 -14.290  37.692  1.00 35.17           C
ATOM   3293  N   ASN A 580      14.892  -8.547  38.738  1.00 28.20           N
ATOM   3294  CA  ASN A 580      14.588  -7.322  38.019  1.00 26.12           C
ATOM   3295  C   ASN A 580      13.910  -6.272  38.885  1.00 26.65           C
ATOM   3296  O   ASN A 580      13.121  -5.459  38.401  1.00 27.49           O
ATOM   3297  CB  ASN A 580      13.728  -7.643  36.801  1.00 28.03           C
ATOM   3298  CG  ASN A 580      14.515  -8.342  35.715  1.00 36.31           C
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ATOM   3299  OD1 ASN A 580      15.695  -8.650  35.891  1.00 45.13           O
ATOM   3300  ND2 ASN A 580      13.873  -8.596  34.586  1.00 38.44           N
ATOM   3301  N   LYS A 581      14.233  -6.293  40.170  1.00 25.38           N
ATOM   3302  CA  LYS A 581      13.685  -5.338  41.118  1.00 30.90           C
ATOM   3303  C   LYS A 581      12.216  -5.576  41.484  1.00 25.95           C
ATOM   3304  O   LYS A 581      11.583  -4.722  42.107  1.00 25.47           O
ATOM   3305  CB  LYS A 581      13.867  -3.919  40.572  1.00 36.08           C
ATOM   3306  CG  LYS A 581      15.316  -3.454  40.532  1.00 42.17           C
ATOM   3307  CD  LYS A 581      15.903  -3.609  39.143  1.00 48.76           C
ATOM   3308  CE  LYS A 581      15.931  -2.280  38.392  1.00 54.74           C
ATOM   3309  NZ  LYS A 581      16.977  -2.253  37.322  1.00 57.71           N
ATOM   3310  N   GLU A 582      11.683  -6.732  41.104  1.00 23.54           N
ATOM   3311  CA  GLU A 582      10.294  -7.075  41.412  1.00 21.01           C
ATOM   3312  C   GLU A 582      10.229  -8.069  42.559  1.00 19.35           C
ATOM   3313  O   GLU A 582      11.058  -8.964  42.658  1.00 15.42           O
ATOM   3314  CB  GLU A 582       9.612  -7.692  40.196  1.00 17.76           C
ATOM   3315  CG  GLU A 582       9.802  -6.926  38.920  1.00 16.55           C
ATOM   3316  CD  GLU A 582       8.833  -7.361  37.855  1.00 22.35           C
ATOM   3317  OE1 GLU A 582       9.177  -8.284  37.085  1.00 23.46           O
ATOM   3318  OE2 GLU A 582       7.724  -6.782  37.789  1.00 26.02           O
ATOM   3319  N   ASN A 583       9.221  -7.915  43.409  1.00 20.78           N
ATOM   3320  CA  ASN A 583       9.003  -8.780  44.568  1.00 19.49           C
ATOM   3321  C   ASN A 583      10.158  -8.733  45.556  1.00 20.70           C
ATOM   3322  O   ASN A 583      10.687  -9.766  45.965  1.00 21.11           O
ATOM   3323  CB  ASN A 583       8.736 -10.237  44.139  1.00 17.90           C
ATOM   3324  CG  ASN A 583       8.045 -11.054  45.236  1.00 15.55           C
ATOM   3325  OD1 ASN A 583       7.484 -10.488  46.172  1.00 17.87           O
ATOM   3326  ND2 ASN A 583       8.091 -12.385  45.128  1.00 13.15           N
ATOM   3327  N   LYS A 584      10.518  -7.519  45.958  1.00 19.22           N
ATOM   3328  CA  LYS A 584      11.601  -7.294  46.902  1.00 19.21           C
ATOM   3329  C   LYS A 584      11.355  -7.834  48.301  1.00 20.29           C
ATOM   3330  O   LYS A 584      12.302  -8.050  49.043  1.00 20.70           O
ATOM   3331  CB  LYS A 584      11.898  -5.799  47.006  1.00 19.67           C
ATOM   3332  CG  LYS A 584      12.179  -5.131  45.676  1.00 22.73           C
ATOM   3333  CD  LYS A 584      12.289  -3.644  45.847  1.00 25.08           C
ATOM   3334  CE  LYS A 584      13.190  -3.051  44.801  1.00 32.67           C
ATOM   3335  NZ  LYS A 584      13.181  -1.561  44.883  1.00 42.63           N
ATOM   3336  N   ARG A 585      10.100  -8.049  48.682  1.00 17.53           N
ATOM   3337  CA  ARG A 585       9.842  -8.547  50.027  1.00 15.92           C
ATOM   3338  C   ARG A 585       9.029  -9.839  50.136  1.00 18.87           C
ATOM   3339  O   ARG A 585       8.311 -10.053  51.120  1.00 18.34           O
ATOM   3340  CB  ARG A 585       9.178  -7.460  50.864  1.00 18.21           C
ATOM   3341  CG  ARG A 585       9.520  -6.056  50.424  1.00 18.20           C
ATOM   3342  CD  ARG A 585       9.389  -5.085  51.574  1.00 17.84           C
ATOM   3343  NE  ARG A 585      10.240  -3.924  51.370  1.00 22.81           N
ATOM   3344  CZ  ARG A 585      10.008  -2.729  51.892  1.00 29.51           C
ATOM   3345  NH1 ARG A 585       8.945  -2.533  52.656  1.00 30.89           N
ATOM   3346  NH2 ARG A 585      10.837  -1.724  51.643  1.00 36.26           N
ATOM   3347  N   GLY A 586       9.165 -10.714  49.146  1.00 17.02           N
ATOM   3348  CA  GLY A 586       8.436 -11.968  49.185  1.00 18.63           C
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ATOM   3349  C   GLY A 586       9.162 -13.007  50.009  1.00 18.46           C
ATOM   3350  O   GLY A 586       8.850 -14.198  49.931  1.00 18.12           O
ATOM   3351  N   TRP A 587      10.118 -12.546  50.815  1.00 18.03           N
ATOM   3352  CA  TRP A 587      10.943 -13.420  51.654  1.00 15.84           C
ATOM   3353  C   TRP A 587      10.296 -14.676  52.202  1.00 19.57           C
ATOM   3354  O   TRP A 587      10.815 -15.776  52.030  1.00 18.33           O
ATOM   3355  CB  TRP A 587      11.495 -12.659  52.855  1.00 14.21           C
ATOM   3356  CG  TRP A 587      12.090 -11.343  52.535  1.00 17.68           C
ATOM   3357  CD1 TRP A 587      13.091 -11.084  51.651  1.00 16.19           C
ATOM   3358  CD2 TRP A 587      11.725 -10.090  53.113  1.00 18.21           C
ATOM   3359  NE1 TRP A 587      13.378  -9.741  51.640  1.00 19.25           N
ATOM   3360  CE2 TRP A 587      12.552  -9.107  52.530  1.00 15.88           C
ATOM   3361  CE3 TRP A 587      10.779  -9.701  54.070  1.00 16.80           C
ATOM   3362  CZ2 TRP A 587      12.462  -7.760  52.868  1.00 18.62           C
ATOM   3363  CZ3 TRP A 587      10.687  -8.361  54.407  1.00 18.04           C
ATOM   3364  CH2 TRP A 587      11.526  -7.407  53.807  1.00 21.38           C
ATOM   3365  N   TYR A 588       9.156 -14.508  52.864  1.00 22.40           N
ATOM   3366  CA  TYR A 588       8.479 -15.624  53.511  1.00 19.10           C
ATOM   3367  C   TYR A 588       7.216 -16.202  52.864  1.00 18.49           C
ATOM   3368  O   TYR A 588       6.536 -17.035  53.458  1.00 20.41           O
ATOM   3369  CB  TYR A 588       8.179 -15.204  54.949  1.00 22.75           C
ATOM   3370  CG  TYR A 588       9.367 -14.589  55.668  1.00 22.00           C
ATOM   3371  CD1 TYR A 588      10.612 -15.234  55.676  1.00 27.21           C
ATOM   3372  CD2 TYR A 588       9.235 -13.406  56.400  1.00 18.33           C
ATOM   3373  CE1 TYR A 588      11.690 -14.722  56.403  1.00 24.10           C
ATOM   3374  CE2 TYR A 588      10.307 -12.884  57.131  1.00 22.88           C
ATOM   3375  CZ  TYR A 588      11.528 -13.552  57.130  1.00 27.26           C
ATOM   3376  OH  TYR A 588      12.577 -13.076  57.878  1.00 28.43           O
ATOM   3377  N   THR A 589       6.919 -15.787  51.645  1.00 18.72           N
ATOM   3378  CA  THR A 589       5.727 -16.258  50.958  1.00 17.71           C
ATOM   3379  C   THR A 589       5.690 -17.747  50.636  1.00 18.84           C
ATOM   3380  O   THR A 589       4.737 -18.223  50.019  1.00 18.69           O
ATOM   3381  CB  THR A 589       5.500 -15.466  49.663  1.00 16.09           C
ATOM   3382  OG1 THR A 589       6.584 -15.695  48.757  1.00 21.34           O
ATOM   3383  CG2 THR A 589       5.409 -13.980  49.968  1.00 14.41           C
ATOM   3384  N   SER A 590       6.708 -18.494  51.052  1.00 14.84           N
ATOM   3385  CA  SER A 590       6.723 -19.931  50.781  1.00 11.45           C
ATOM   3386  C   SER A 590       7.153 -20.694  52.016  1.00 10.48           C
ATOM   3387  O   SER A 590       7.352 -21.906  51.974  1.00 15.15           O
ATOM   3388  CB  SER A 590       7.678 -20.262  49.632  1.00 15.98           C
ATOM   3389  OG  SER A 590       7.072 -20.086  48.364  1.00 16.66           O
ATOM   3390  N   ASP A 591       7.295 -19.982  53.122  1.00 11.63           N
ATOM   3391  CA  ASP A 591       7.719 -20.606  54.362  1.00 11.23           C
ATOM   3392  C   ASP A 591       6.554 -21.248  55.086  1.00 15.46           C
ATOM   3393  O   ASP A 591       6.402 -21.102  56.303  1.00 14.78           O
ATOM   3394  CB  ASP A 591       8.373 -19.574  55.260  1.00 12.27           C
ATOM   3395  CG  ASP A 591       9.764 -19.201  54.790  1.00 14.47           C
ATOM   3396  OD1 ASP A 591      10.164 -19.636  53.688  1.00 10.47           O
ATOM   3397  OD2 ASP A 591      10.448 -18.467  55.524  1.00 19.51           O
ATOM   3398  N   GLY A 592       5.747 -21.990  54.341  1.00 18.06           N
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ATOM   3399  CA  GLY A 592       4.594 -22.611  54.955  1.00 17.39           C
ATOM   3400  C   GLY A 592       3.504 -21.562  55.024  1.00 15.47           C
ATOM   3401  O   GLY A 592       2.767 -21.482  56.003  1.00 18.47           O
ATOM   3402  N   MET A 593       3.421 -20.741  53.983  1.00 14.99           N
ATOM   3403  CA  MET A 593       2.399 -19.705  53.911  1.00 15.88           C
ATOM   3404  C   MET A 593       1.108 -20.348  53.394  1.00 16.44           C
ATOM   3405  O   MET A 593       1.145 -21.182  52.480  1.00 17.10           O
ATOM   3406  CB  MET A 593       2.815 -18.595  52.946  1.00 12.17           C
ATOM   3407  CG  MET A 593       1.856 -17.422  52.949  1.00 15.68           C
ATOM   3408  SD  MET A 593       2.144 -16.179  51.699  1.00 18.88           S
ATOM   3409  CE  MET A 593       0.488 -15.360  51.655  1.00 22.14           C
ATOM   3410  N   PHE A 594      -0.023 -19.973  53.986  1.00 14.31           N
ATOM   3411  CA  PHE A 594      -1.311 -20.512  53.548  1.00 15.28           C
ATOM   3412  C   PHE A 594      -2.195 -19.398  52.994  1.00 16.91           C
ATOM   3413  O   PHE A 594      -2.087 -18.229  53.385  1.00 14.86           O
ATOM   3414  CB  PHE A 594      -2.029 -21.233  54.698  1.00 13.08           C
ATOM   3415  CG  PHE A 594      -2.863 -20.324  55.567  1.00 16.70           C
ATOM   3416  CD1 PHE A 594      -2.302 -19.688  56.669  1.00 15.95           C
ATOM   3417  CD2 PHE A 594      -4.207 -20.087  55.269  1.00 14.60           C
ATOM   3418  CE1 PHE A 594      -3.060 -18.820  57.468  1.00 19.60           C
ATOM   3419  CE2 PHE A 594      -4.972 -19.222  56.057  1.00 14.15           C
ATOM   3420  CZ  PHE A 594      -4.398 -18.588  57.157  1.00 18.73           C
ATOM   3421  N   TYR A 595      -3.063 -19.779  52.069  1.00 15.95           N
ATOM   3422  CA  TYR A 595      -3.987 -18.855  51.444  1.00 17.48           C
ATOM   3423  C   TYR A 595      -5.415 -19.362  51.673  1.00 15.85           C
ATOM   3424  O   TYR A 595      -5.674 -20.564  51.554  1.00 13.03           O
ATOM   3425  CB  TYR A 595      -3.725 -18.806  49.943  1.00 17.10           C
ATOM   3426  CG  TYR A 595      -2.492 -18.036  49.532  1.00 18.25           C
ATOM   3427  CD1 TYR A 595      -1.238 -18.650  49.477  1.00 18.49           C
ATOM   3428  CD2 TYR A 595      -2.594 -16.709  49.125  1.00 18.57           C
ATOM   3429  CE1 TYR A 595      -0.108 -17.948  49.011  1.00 17.62           C
ATOM   3430  CE2 TYR A 595      -1.488 -16.006  48.662  1.00 18.97           C
ATOM   3431  CZ  TYR A 595      -0.254 -16.630  48.603  1.00 17.22           C
ATOM   3432  OH  TYR A 595       0.798 -15.924  48.093  1.00 13.58           O
ATOM   3433  N   LEU A 596      -6.327 -18.454  52.017  1.00 14.45           N
ATOM   3434  CA  LEU A 596      -7.734 -18.822  52.196  1.00 15.23           C
ATOM   3435  C   LEU A 596      -8.567 -17.984  51.236  1.00 14.23           C
ATOM   3436  O   LEU A 596      -8.554 -16.752  51.303  1.00 15.84           O
ATOM   3437  CB  LEU A 596      -8.218 -18.574  53.633  1.00 12.95           C
ATOM   3438  CG  LEU A 596      -9.741 -18.750  53.839  1.00 12.43           C
ATOM   3439  CD1 LEU A 596     -10.101 -20.208  53.666  1.00  8.33           C
ATOM   3440  CD2 LEU A 596     -10.166 -18.276  55.219  1.00 10.19           C
ATOM   3441  N   TYR A 597      -9.264 -18.658  50.326  1.00 16.88           N
ATOM   3442  CA  TYR A 597     -10.125 -17.989  49.359  1.00 17.47           C
ATOM   3443  C   TYR A 597     -11.571 -18.171  49.810  1.00 18.82           C
ATOM   3444  O   TYR A 597     -12.094 -19.285  49.801  1.00 15.24           O
ATOM   3445  CB  TYR A 597      -9.923 -18.587  47.970  1.00 16.85           C
ATOM   3446  CG  TYR A 597      -8.541 -18.313  47.456  1.00 18.51           C
ATOM   3447  CD1 TYR A 597      -8.236 -17.101  46.843  1.00 15.47           C
ATOM   3448  CD2 TYR A 597      -7.521 -19.239  47.637  1.00 18.35           C
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ATOM   3449  CE1 TYR A 597      -6.944 -16.815  46.424  1.00 20.31           C
ATOM   3450  CE2 TYR A 597      -6.226 -18.965  47.222  1.00 23.13           C
ATOM   3451  CZ  TYR A 597      -5.943 -17.753  46.617  1.00 21.95           C
ATOM   3452  OH  TYR A 597      -4.661 -17.487  46.205  1.00 22.20           O
ATOM   3453  N   ASN A 598     -12.204 -17.079  50.222  1.00 17.53           N
ATOM   3454  CA  ASN A 598     -13.579 -17.153  50.694  1.00 17.03           C
ATOM   3455  C   ASN A 598     -14.509 -16.123  50.032  1.00 20.14           C
ATOM   3456  O   ASN A 598     -14.252 -15.666  48.913  1.00 18.93           O
ATOM   3457  CB  ASN A 598     -13.593 -17.005  52.221  1.00 11.88           C
ATOM   3458  CG  ASN A 598     -13.112 -15.647  52.682  1.00  5.65           C
ATOM   3459  OD1 ASN A 598     -12.838 -14.765  51.872  1.00 13.36           O
ATOM   3460  ND2 ASN A 598     -13.010 -15.470  53.990  1.00  7.66           N
ATOM   3461  N   GLY A 599     -15.590 -15.772  50.727  1.00 19.32           N
ATOM   3462  CA  GLY A 599     -16.549 -14.823  50.192  1.00 17.77           C
ATOM   3463  C   GLY A 599     -15.935 -13.546  49.664  1.00 19.67           C
ATOM   3464  O   GLY A 599     -16.475 -12.930  48.743  1.00 19.30           O
ATOM   3465  N   ASP A 600     -14.807 -13.142  50.247  1.00 22.09           N
ATOM   3466  CA  ASP A 600     -14.117 -11.925  49.825  1.00 18.71           C
ATOM   3467  C   ASP A 600     -13.198 -12.201  48.640  1.00 20.68           C
ATOM   3468  O   ASP A 600     -12.025 -12.513  48.817  1.00 22.51           O
ATOM   3469  CB  ASP A 600     -13.299 -11.363  50.982  1.00 18.22           C
ATOM   3470  CG  ASP A 600     -12.706 -10.006  50.664  1.00 19.77           C
ATOM   3471  OD1 ASP A 600     -12.999  -9.479  49.566  1.00 19.40           O
ATOM   3472  OD2 ASP A 600     -11.953  -9.467  51.511  1.00 18.83           O
ATOM   3473  N   LEU A 601     -13.731 -12.077  47.433  1.00 18.15           N
ATOM   3474  CA  LEU A 601     -12.960 -12.327  46.228  1.00 14.76           C
ATOM   3475  C   LEU A 601     -11.839 -11.304  46.008  1.00 20.13           C
ATOM   3476  O   LEU A 601     -10.944 -11.526  45.193  1.00 17.19           O
ATOM   3477  CB  LEU A 601     -13.885 -12.327  45.011  1.00 11.72           C
ATOM   3478  CG  LEU A 601     -14.620 -13.628  44.675  1.00 12.86           C
ATOM   3479  CD1 LEU A 601     -15.455 -14.078  45.856  1.00 15.69           C
ATOM   3480  CD2 LEU A 601     -15.497 -13.411  43.473  1.00 13.75           C
ATOM   3481  N   SER A 602     -11.883 -10.192  46.734  1.00 18.88           N
ATOM   3482  CA  SER A 602     -10.884  -9.131  46.587  1.00 17.54           C
ATOM   3483  C   SER A 602      -9.796  -9.148  47.657  1.00 17.19           C
ATOM   3484  O   SER A 602      -8.969  -8.226  47.726  1.00 15.47           O
ATOM   3485  CB  SER A 602     -11.569  -7.772  46.656  1.00 18.90           C
ATOM   3486  OG  SER A 602     -11.713  -7.371  48.012  1.00 16.63           O
ATOM   3487  N   HIS A 603      -9.797 -10.179  48.493  1.00 17.05           N
ATOM   3488  CA  HIS A 603      -8.831 -10.248  49.574  1.00 18.25           C
ATOM   3489  C   HIS A 603      -7.393 -10.023  49.158  1.00 18.16           C
ATOM   3490  O   HIS A 603      -6.723  -9.151  49.695  1.00 20.48           O
ATOM   3491  CB  HIS A 603      -8.902 -11.577  50.320  1.00 14.00           C
ATOM   3492  CG  HIS A 603      -7.977 -11.635  51.496  1.00 13.32           C
ATOM   3493  ND1 HIS A 603      -6.706 -12.165  51.419  1.00 15.87           N
ATOM   3494  CD2 HIS A 603      -8.112 -11.168  52.760  1.00 15.31           C
ATOM   3495  CE1 HIS A 603      -6.101 -12.024  52.585  1.00 14.82           C
ATOM   3496  NE2 HIS A 603      -6.932 -11.421  53.417  1.00 18.55           N
ATOM   3497  N   TYR A 604      -6.919 -10.808  48.205  1.00 16.49           N
ATOM   3498  CA  TYR A 604      -5.537 -10.677  47.785  1.00 18.48           C
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ATOM   3499  C   TYR A 604      -5.364  -9.634  46.701  1.00 20.07           C
ATOM   3500  O   TYR A 604      -4.348  -9.605  46.007  1.00 22.13           O
ATOM   3501  CB  TYR A 604      -5.003 -12.044  47.343  1.00 13.80           C
ATOM   3502  CG  TYR A 604      -5.060 -13.061  48.463  1.00 10.96           C
ATOM   3503  CD1 TYR A 604      -4.126 -13.040  49.497  1.00 11.35           C
ATOM   3504  CD2 TYR A 604      -6.077 -14.020  48.513  1.00  9.59           C
ATOM   3505  CE1 TYR A 604      -4.204 -13.946  50.555  1.00  9.70           C
ATOM   3506  CE2 TYR A 604      -6.163 -14.925  49.563  1.00  7.41           C
ATOM   3507  CZ  TYR A 604      -5.229 -14.883  50.579  1.00 13.44           C
ATOM   3508  OH  TYR A 604      -5.324 -15.771  51.628  1.00 15.63           O
ATOM   3509  N   SER A 605      -6.361  -8.764  46.570  1.00 20.71           N
ATOM   3510  CA  SER A 605      -6.316  -7.697  45.578  1.00 16.31           C
ATOM   3511  C   SER A 605      -6.503  -6.362  46.290  1.00 14.54           C
ATOM   3512  O   SER A 605      -6.422  -6.301  47.520  1.00 17.46           O
ATOM   3513  CB  SER A 605      -7.413  -7.901  44.534  1.00 20.59           C
ATOM   3514  OG  SER A 605      -7.297  -9.174  43.922  1.00 19.32           O
ATOM   3515  N   ASP A 606      -6.751  -5.298  45.529  1.00 14.97           N
ATOM   3516  CA  ASP A 606      -6.938  -3.966  46.115  1.00 19.04           C
ATOM   3517  C   ASP A 606      -5.717  -3.536  46.920  1.00 20.72           C
ATOM   3518  O   ASP A 606      -5.861  -2.893  47.962  1.00 20.78           O
ATOM   3519  CB  ASP A 606      -8.144  -3.931  47.067  1.00 29.09           C
ATOM   3520  CG  ASP A 606      -9.478  -4.105  46.357  1.00 32.39           C
ATOM   3521  OD1 ASP A 606      -9.598  -3.747  45.162  1.00 28.89           O
ATOM   3522  OD2 ASP A 606     -10.413  -4.608  47.020  1.00 39.11           O
ATOM   3523  N   GLY A 607      -4.524  -3.908  46.464  1.00 22.30           N
ATOM   3524  CA  GLY A 607      -3.318  -3.508  47.174  1.00 20.32           C
ATOM   3525  C   GLY A 607      -2.951  -4.348  48.380  1.00 19.50           C
ATOM   3526  O   GLY A 607      -2.358  -3.849  49.343  1.00 21.37           O
ATOM   3527  N   TYR A 608      -3.304  -5.627  48.346  1.00 16.42           N
ATOM   3528  CA  TYR A 608      -2.958  -6.515  49.448  1.00 16.72           C
ATOM   3529  C   TYR A 608      -1.429  -6.610  49.574  1.00 19.96           C
ATOM   3530  O   TYR A 608      -0.858  -6.422  50.652  1.00 19.58           O
ATOM   3531  CB  TYR A 608      -3.513  -7.912  49.180  1.00 12.48           C
ATOM   3532  CG  TYR A 608      -2.920  -8.999  50.052  1.00 13.57           C
ATOM   3533  CD1 TYR A 608      -3.387  -9.216  51.347  1.00 12.23           C
ATOM   3534  CD2 TYR A 608      -1.896  -9.820  49.578  1.00 13.62           C
ATOM   3535  CE1 TYR A 608      -2.850 -10.228  52.156  1.00 11.08           C
ATOM   3536  CE2 TYR A 608      -1.353 -10.831  50.377  1.00 12.50           C
ATOM   3537  CZ  TYR A 608      -1.833 -11.028  51.658  1.00 12.65           C
ATOM   3538  OH  TYR A 608      -1.294 -12.019  52.441  1.00 11.20           O
ATOM   3539  N   TRP A 609      -0.780  -6.896  48.449  1.00 20.74           N
ATOM   3540  CA  TRP A 609       0.664  -7.076  48.411  1.00 22.75           C
ATOM   3541  C   TRP A 609       1.516  -5.901  48.897  1.00 24.08           C
ATOM   3542  O   TRP A 609       2.410  -6.096  49.720  1.00 29.48           O
ATOM   3543  CB  TRP A 609       1.072  -7.558  47.014  1.00 16.97           C
ATOM   3544  CG  TRP A 609       0.733  -9.043  46.847  1.00 21.13           C
ATOM   3545  CD1 TRP A 609      -0.190  -9.593  45.990  1.00 19.25           C
ATOM   3546  CD2 TRP A 609       1.259 -10.141  47.620  1.00 19.14           C
ATOM   3547  NE1 TRP A 609      -0.270 -10.956  46.189  1.00 17.09           N
ATOM   3548  CE2 TRP A 609       0.606 -11.317  47.180  1.00 19.52           C
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ATOM   3549  CE3 TRP A 609       2.217 -10.241  48.642  1.00 16.58           C
ATOM   3550  CZ2 TRP A 609       0.882 -12.579  47.728  1.00 18.61           C
ATOM   3551  CZ3 TRP A 609       2.488 -11.496  49.186  1.00 19.55           C
ATOM   3552  CH2 TRP A 609       1.821 -12.648  48.726  1.00 17.83           C
ATOM   3553  N   PRO A 610       1.291  -4.681  48.385  1.00 21.01           N
ATOM   3554  CA  PRO A 610       2.128  -3.597  48.905  1.00 20.42           C
ATOM   3555  C   PRO A 610       1.750  -3.124  50.309  1.00 22.64           C
ATOM   3556  O   PRO A 610       2.417  -2.244  50.858  1.00 24.85           O
ATOM   3557  CB  PRO A 610       1.957  -2.482  47.880  1.00 22.44           C
ATOM   3558  CG  PRO A 610       0.620  -2.726  47.294  1.00 22.93           C
ATOM   3559  CD  PRO A 610       0.409  -4.221  47.299  1.00 20.00           C
ATOM   3560  N   THR A 611       0.695  -3.687  50.904  1.00 17.89           N
ATOM   3561  CA  THR A 611       0.291  -3.244  52.245  1.00 15.25           C
ATOM   3562  C   THR A 611       0.421  -4.315  53.309  1.00 14.42           C
ATOM   3563  O   THR A 611       0.454  -4.027  54.513  1.00 14.17           O
ATOM   3564  CB  THR A 611      -1.165  -2.703  52.263  1.00 18.68           C
ATOM   3565  OG1 THR A 611      -2.065  -3.691  51.746  1.00 18.52           O
ATOM   3566  CG2 THR A 611      -1.266  -1.451  51.417  1.00 16.51           C
ATOM   3567  N   VAL A 612       0.491  -5.560  52.867  1.00 15.34           N
ATOM   3568  CA  VAL A 612       0.638  -6.667  53.795  1.00 16.58           C
ATOM   3569  C   VAL A 612       2.026  -6.558  54.464  1.00 19.77           C
ATOM   3570  O   VAL A 612       3.005  -6.212  53.800  1.00 21.95           O
ATOM   3571  CB  VAL A 612       0.491  -8.007  53.024  1.00 13.17           C
ATOM   3572  CG1 VAL A 612       1.620  -8.162  52.033  1.00 16.36           C
ATOM   3573  CG2 VAL A 612       0.442  -9.173  53.986  1.00 14.35           C
ATOM   3574  N   ASN A 613       2.104  -6.818  55.771  1.00 18.79           N
ATOM   3575  CA  ASN A 613       3.381  -6.771  56.494  1.00 21.02           C
ATOM   3576  C   ASN A 613       4.182  -7.993  56.038  1.00 20.32           C
ATOM   3577  O   ASN A 613       3.880  -9.119  56.424  1.00 19.24           O
ATOM   3578  CB  ASN A 613       3.141  -6.832  58.003  1.00 19.19           C
ATOM   3579  CG  ASN A 613       4.429  -6.800  58.796  1.00 20.63           C
ATOM   3580  OD1 ASN A 613       5.509  -6.936  58.234  1.00 22.51           O
ATOM   3581  ND2 ASN A 613       4.320  -6.626  60.105  1.00 19.89           N
ATOM   3582  N   PRO A 614       5.244  -7.779  55.241  1.00 22.02           N
ATOM   3583  CA  PRO A 614       6.056  -8.896  54.735  1.00 19.06           C
ATOM   3584  C   PRO A 614       6.750  -9.769  55.773  1.00 15.35           C
ATOM   3585  O   PRO A 614       7.210 -10.871  55.456  1.00 17.62           O
ATOM   3586  CB  PRO A 614       7.035  -8.225  53.766  1.00 19.44           C
ATOM   3587  CG  PRO A 614       7.117  -6.817  54.227  1.00 19.49           C
ATOM   3588  CD  PRO A 614       5.777  -6.471  54.823  1.00 21.70           C
ATOM   3589  N   TYR A 615       6.798  -9.288  57.009  1.00 15.35           N
ATOM   3590  CA  TYR A 615       7.427 -10.022  58.100  1.00 19.56           C
ATOM   3591  C   TYR A 615       6.494 -11.032  58.760  1.00 21.87           C
ATOM   3592  O   TYR A 615       6.945 -11.928  59.480  1.00 21.39           O
ATOM   3593  CB  TYR A 615       7.939  -9.041  59.169  1.00 21.14           C
ATOM   3594  CG  TYR A 615       9.178  -8.299  58.739  1.00 19.67           C
ATOM   3595  CD1 TYR A 615      10.439  -8.881  58.859  1.00 20.50           C
ATOM   3596  CD2 TYR A 615       9.085  -7.045  58.146  1.00 20.46           C
ATOM   3597  CE1 TYR A 615      11.572  -8.236  58.391  1.00 22.20           C
ATOM   3598  CE2 TYR A 615      10.213  -6.390  57.672  1.00 23.80           C
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ATOM   3599  CZ  TYR A 615      11.453  -6.995  57.794  1.00 24.69           C
ATOM   3600  OH  TYR A 615      12.564  -6.372  57.281  1.00 24.36           O
ATOM   3601  N   LYS A 616       5.193 -10.893  58.522  1.00 21.73           N
ATOM   3602  CA  LYS A 616       4.233 -11.799  59.140  1.00 20.89           C
ATOM   3603  C   LYS A 616       3.303 -12.486  58.154  1.00 20.22           C
ATOM   3604  O   LYS A 616       2.093 -12.452  58.322  1.00 21.82           O
ATOM   3605  CB  LYS A 616       3.395 -11.046  60.179  1.00 17.61           C
ATOM   3606  CG  LYS A 616       4.096  -9.866  60.826  1.00 17.22           C
ATOM   3607  CD  LYS A 616       3.881  -9.865  62.328  1.00 19.43           C
ATOM   3608  CE  LYS A 616       4.267  -8.528  62.924  1.00 26.16           C
ATOM   3609  NZ  LYS A 616       3.674  -8.322  64.272  1.00 31.36           N
ATOM   3610  N   MET A 617       3.856 -13.101  57.118  1.00 19.87           N
ATOM   3611  CA  MET A 617       3.014 -13.788  56.161  1.00 18.60           C
ATOM   3612  C   MET A 617       2.245 -14.844  56.969  1.00 21.87           C
ATOM   3613  O   MET A 617       2.810 -15.488  57.862  1.00 21.13           O
ATOM   3614  CB  MET A 617       3.870 -14.418  55.062  1.00 16.19           C
ATOM   3615  CG  MET A 617       4.523 -13.399  54.124  1.00 18.67           C
ATOM   3616  SD  MET A 617       3.589 -11.869  53.819  1.00 21.28           S
ATOM   3617  CE  MET A 617       2.644 -12.321  52.355  1.00 20.53           C
ATOM   3618  N   PRO A 618       0.942 -15.026  56.674  1.00 18.57           N
ATOM   3619  CA  PRO A 618       0.084 -15.990  57.375  1.00 15.96           C
ATOM   3620  C   PRO A 618       0.517 -17.452  57.349  1.00 13.94           C
ATOM   3621  O   PRO A 618       0.781 -18.019  56.291  1.00 12.10           O
ATOM   3622  CB  PRO A 618      -1.293 -15.798  56.728  1.00 16.22           C
ATOM   3623  CG  PRO A 618      -1.223 -14.510  56.005  1.00 19.64           C
ATOM   3624  CD  PRO A 618       0.209 -14.323  55.607  1.00 20.23           C
ATOM   3625  N   GLY A 619       0.559 -18.058  58.532  1.00 12.81           N
ATOM   3626  CA  GLY A 619       0.948 -19.450  58.645  1.00 17.11           C
ATOM   3627  C   GLY A 619       2.443 -19.681  58.821  1.00 17.66           C
ATOM   3628  O   GLY A 619       2.860 -20.783  59.193  1.00 17.57           O
ATOM   3629  N   THR A 620       3.250 -18.652  58.572  1.00 18.67           N
ATOM   3630  CA  THR A 620       4.705 -18.790  58.680  1.00 12.85           C
ATOM   3631  C   THR A 620       5.241 -18.603  60.084  1.00 15.54           C
ATOM   3632  O   THR A 620       4.697 -17.845  60.885  1.00 17.15           O
ATOM   3633  CB  THR A 620       5.436 -17.808  57.740  1.00 12.83           C
ATOM   3634  OG1 THR A 620       5.209 -16.460  58.165  1.00 14.62           O
ATOM   3635  CG2 THR A 620       4.948 -17.965  56.317  1.00  9.97           C
ATOM   3636  N   THR A 621       6.319 -19.324  60.374  1.00 18.82           N
ATOM   3637  CA  THR A 621       7.000 -19.269  61.660  1.00 19.15           C
ATOM   3638  C   THR A 621       8.317 -18.553  61.342  1.00 21.56           C
ATOM   3639  O   THR A 621       9.061 -18.993  60.463  1.00 21.93           O
ATOM   3640  CB  THR A 621       7.268 -20.697  62.182  1.00 20.31           C
ATOM   3641  OG1 THR A 621       6.015 -21.353  62.412  1.00 21.20           O
ATOM   3642  CG2 THR A 621       8.049 -20.667  63.479  1.00 15.46           C
ATOM   3643  N   GLU A 622       8.586 -17.439  62.024  1.00 18.53           N
ATOM   3644  CA  GLU A 622       9.795 -16.660  61.761  1.00 20.04           C
ATOM   3645  C   GLU A 622      10.268 -15.843  62.946  1.00 20.78           C
ATOM   3646  O   GLU A 622       9.528 -15.633  63.908  1.00 22.65           O
ATOM   3647  CB  GLU A 622       9.562 -15.684  60.601  1.00 14.62           C
ATOM   3648  CG  GLU A 622       8.760 -16.228  59.438  1.00 17.78           C
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ATOM   3649  CD  GLU A 622       9.603 -17.028  58.469  1.00 18.87           C
ATOM   3650  OE1 GLU A 622      10.813 -17.209  58.731  1.00 22.95           O
ATOM   3651  OE2 GLU A 622       9.059 -17.481  57.443  1.00 14.22           O
ATOM   3652  N   THR A 623      11.517 -15.385  62.875  1.00 20.13           N
ATOM   3653  CA  THR A 623      12.058 -14.528  63.924  1.00 16.73           C
ATOM   3654  C   THR A 623      11.821 -13.128  63.367  1.00 15.25           C
ATOM   3655  O   THR A 623      11.586 -12.966  62.164  1.00 13.26           O
ATOM   3656  CB  THR A 623      13.587 -14.737  64.151  1.00 18.68           C
ATOM   3657  OG1 THR A 623      14.306 -14.327  62.982  1.00 20.05           O
ATOM   3658  CG2 THR A 623      13.892 -16.190  64.465  1.00 13.22           C
ATOM   3659  N   ASP A 624      11.890 -12.115  64.221  1.00 17.72           N
ATOM   3660  CA  ASP A 624      11.643 -10.752  63.767  1.00 22.08           C
ATOM   3661  C   ASP A 624      12.867  -9.984  63.286  1.00 25.02           C
ATOM   3662  O   ASP A 624      12.889  -8.751  63.321  1.00 26.22           O
ATOM   3663  CB  ASP A 624      10.959  -9.954  64.871  1.00 26.45           C
ATOM   3664  CG  ASP A 624      11.858  -9.722  66.049  1.00 30.54           C
ATOM   3665  OD1 ASP A 624      12.804 -10.515  66.234  1.00 36.63           O
ATOM   3666  OD2 ASP A 624      11.622  -8.747  66.791  1.00 36.46           O
ATOM   3667  N   ALA A 625      13.886 -10.702  62.833  1.00 26.06           N
ATOM   3668  CA  ALA A 625      15.085 -10.045  62.331  1.00 24.66           C
ATOM   3669  C   ALA A 625      14.751  -9.256  61.069  1.00 24.42           C
ATOM   3670  O   ALA A 625      13.890  -9.652  60.282  1.00 23.95           O
ATOM   3671  CB  ALA A 625      16.150 -11.071  62.029  1.00 21.97           C
ATOM   3672  N   LYS A 626      15.432  -8.134  60.880  1.00 22.39           N
ATOM   3673  CA  LYS A 626      15.211  -7.304  59.706  1.00 22.39           C
ATOM   3674  C   LYS A 626      15.703  -8.054  58.477  1.00 23.17           C
ATOM   3675  O   LYS A 626      16.606  -8.887  58.573  1.00 24.84           O
ATOM   3676  CB  LYS A 626      15.968  -5.978  59.844  1.00 24.95           C
ATOM   3677  CG  LYS A 626      16.076  -5.201  58.541  1.00 34.89           C
ATOM   3678  CD  LYS A 626      16.435  -3.741  58.774  1.00 42.23           C
ATOM   3679  CE  LYS A 626      16.153  -2.894  57.534  1.00 47.08           C
ATOM   3680  NZ  LYS A 626      15.862  -3.723  56.320  1.00 44.83           N
ATOM   3681  N   ARG A 627      15.101  -7.773  57.326  1.00 19.94           N
ATOM   3682  CA  ARG A 627      15.504  -8.419  56.087  1.00 20.35           C
ATOM   3683  C   ARG A 627      15.805  -7.332  55.075  1.00 22.79           C
ATOM   3684  O   ARG A 627      15.272  -6.229  55.173  1.00 24.87           O
ATOM   3685  CB  ARG A 627      14.397  -9.342  55.573  1.00 19.14           C
ATOM   3686  CG  ARG A 627      14.131 -10.537  56.484  1.00 18.91           C
ATOM   3687  CD  ARG A 627      15.320 -11.493  56.523  1.00 17.98           C
ATOM   3688  NE  ARG A 627      15.783 -11.837  55.182  1.00 15.43           N
ATOM   3689  CZ  ARG A 627      15.420 -12.934  54.528  1.00 13.77           C
ATOM   3690  NH1 ARG A 627      14.590 -13.795  55.094  1.00 17.18           N
ATOM   3691  NH2 ARG A 627      15.873 -13.165  53.303  1.00 15.09           N
ATOM   3692  N   ALA A 628      16.662  -7.640  54.106  1.00 22.03           N
ATOM   3693  CA  ALA A 628      17.043  -6.669  53.096  1.00 20.45           C
ATOM   3694  C   ALA A 628      16.336  -6.913  51.779  1.00 21.86           C
ATOM   3695  O   ALA A 628      16.269  -8.040  51.297  1.00 25.18           O
ATOM   3696  CB  ALA A 628      18.553  -6.705  52.891  1.00 23.13           C
ATOM   3697  N   ASP A 629      15.822  -5.842  51.189  1.00 21.52           N
ATOM   3698  CA  ASP A 629      15.120  -5.948  49.924  1.00 21.16           C
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ATOM   3699  C   ASP A 629      16.029  -6.561  48.884  1.00 22.60           C
ATOM   3700  O   ASP A 629      15.560  -7.223  47.954  1.00 20.73           O
ATOM   3701  CB  ASP A 629      14.675  -4.571  49.430  1.00 18.91           C
ATOM   3702  CG  ASP A 629      13.659  -3.919  50.342  1.00 19.38           C
ATOM   3703  OD1 ASP A 629      13.213  -4.562  51.312  1.00 18.38           O
ATOM   3704  OD2 ASP A 629      13.308  -2.752  50.086  1.00 21.96           O
ATOM   3705  N   SER A 630      17.332  -6.342  49.033  1.00 21.13           N
ATOM   3706  CA  SER A 630      18.271  -6.868  48.054  1.00 24.24           C
ATOM   3707  C   SER A 630      18.457  -8.387  48.109  1.00 22.18           C
ATOM   3708  O   SER A 630      19.029  -8.971  47.190  1.00 23.73           O
ATOM   3709  CB  SER A 630      19.628  -6.148  48.165  1.00 23.32           C
ATOM   3710  OG  SER A 630      20.247  -6.379  49.417  1.00 26.34           O
ATOM   3711  N   ASP A 631      17.961  -9.035  49.161  1.00 22.98           N
ATOM   3712  CA  ASP A 631      18.088 -10.489  49.265  1.00 22.20           C
ATOM   3713  C   ASP A 631      17.417 -11.185  48.081  1.00 23.49           C
ATOM   3714  O   ASP A 631      16.596 -10.592  47.386  1.00 27.89           O
ATOM   3715  CB  ASP A 631      17.445 -10.995  50.553  1.00 20.78           C
ATOM   3716  CG  ASP A 631      18.388 -10.955  51.725  1.00 25.72           C
ATOM   3717  OD1 ASP A 631      18.177 -11.695  52.705  1.00 25.64           O
ATOM   3718  OD2 ASP A 631      19.350 -10.172  51.668  1.00 31.01           O
ATOM   3719  N   THR A 632      17.788 -12.441  47.846  1.00 22.90           N
ATOM   3720  CA  THR A 632      17.199 -13.236  46.777  1.00 20.84           C
ATOM   3721  C   THR A 632      16.870 -14.618  47.342  1.00 19.18           C
ATOM   3722  O   THR A 632      17.289 -14.961  48.452  1.00 18.77           O
ATOM   3723  CB  THR A 632      18.139 -13.371  45.535  1.00 26.27           C
ATOM   3724  OG1 THR A 632      19.388 -13.963  45.913  1.00 26.96           O
ATOM   3725  CG2 THR A 632      18.400 -12.011  44.920  1.00 23.05           C
ATOM   3726  N   GLY A 633      16.114 -15.399  46.577  1.00 21.09           N
ATOM   3727  CA  GLY A 633      15.692 -16.714  47.029  1.00 22.45           C
ATOM   3728  C   GLY A 633      16.743 -17.751  47.359  1.00 22.91           C
ATOM   3729  O   GLY A 633      17.890 -17.656  46.934  1.00 26.94           O
ATOM   3730  N   LYS A 634      16.325 -18.754  48.127  1.00 21.11           N
ATOM   3731  CA  LYS A 634      17.185 -19.860  48.548  1.00 22.16           C
ATOM   3732  C   LYS A 634      16.368 -21.142  48.493  1.00 22.87           C
ATOM   3733  O   LYS A 634      15.146 -21.094  48.598  1.00 26.78           O
ATOM   3734  CB  LYS A 634      17.652 -19.665  49.997  1.00 17.59           C
ATOM   3735  CG  LYS A 634      18.304 -18.323  50.296  1.00 22.99           C
ATOM   3736  CD  LYS A 634      19.766 -18.312  49.881  1.00 32.38           C
ATOM   3737  CE  LYS A 634      20.312 -16.890  49.795  1.00 35.16           C
ATOM   3738  NZ  LYS A 634      20.196 -16.319  48.422  1.00 31.31           N
ATOM   3739  N   VAL A 635      17.020 -22.288  48.315  1.00 20.24           N
ATOM   3740  CA  VAL A 635      16.286 -23.547  48.333  1.00 14.72           C
ATOM   3741  C   VAL A 635      16.315 -23.942  49.799  1.00 17.08           C
ATOM   3742  O   VAL A 635      17.028 -23.326  50.593  1.00 20.14           O
ATOM   3743  CB  VAL A 635      16.953 -24.643  47.499  1.00 12.28           C
ATOM   3744  CG1 VAL A 635      16.986 -24.229  46.045  1.00 11.36           C
ATOM   3745  CG2 VAL A 635      18.344 -24.931  48.028  1.00 12.97           C
ATOM   3746  N   LEU A 636      15.532 -24.941  50.181  1.00 15.90           N
ATOM   3747  CA  LEU A 636      15.511 -25.347  51.573  1.00 15.95           C
ATOM   3748  C   LEU A 636      16.522 -26.462  51.806  1.00 15.32           C
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ATOM   3749  O   LEU A 636      16.767 -27.281  50.919  1.00 13.12           O
ATOM   3750  CB  LEU A 636      14.107 -25.834  51.957  1.00 13.28           C
ATOM   3751  CG  LEU A 636      13.898 -26.220  53.421  1.00 13.56           C
ATOM   3752  CD1 LEU A 636      13.738 -24.972  54.253  1.00 10.44           C
ATOM   3753  CD2 LEU A 636      12.673 -27.117  53.560  1.00 15.87           C
ATOM   3754  N   PRO A 637      17.157 -26.481  52.988  1.00 15.92           N
ATOM   3755  CA  PRO A 637      18.131 -27.538  53.275  1.00 18.30           C
ATOM   3756  C   PRO A 637      17.522 -28.934  53.136  1.00 21.15           C
ATOM   3757  O   PRO A 637      18.113 -29.823  52.518  1.00 22.74           O
ATOM   3758  CB  PRO A 637      18.558 -27.259  54.718  1.00 14.98           C
ATOM   3759  CG  PRO A 637      18.277 -25.807  54.925  1.00 14.03           C
ATOM   3760  CD  PRO A 637      17.071 -25.497  54.084  1.00 16.16           C
ATOM   3761  N   SER A 638      16.329 -29.109  53.706  1.00 19.93           N
ATOM   3762  CA  SER A 638      15.633 -30.392  53.699  1.00 16.13           C
ATOM   3763  C   SER A 638      14.785 -30.715  52.474  1.00 15.83           C
ATOM   3764  O   SER A 638      14.253 -29.825  51.808  1.00 19.43           O
ATOM   3765  CB  SER A 638      14.757 -30.503  54.949  1.00 15.49           C
ATOM   3766  OG  SER A 638      14.127 -31.769  54.992  1.00 16.71           O
ATOM   3767  N   ALA A 639      14.662 -32.010  52.193  1.00 14.58           N
ATOM   3768  CA  ALA A 639      13.869 -32.498  51.069  1.00 15.34           C
ATOM   3769  C   ALA A 639      12.575 -33.099  51.618  1.00 14.34           C
ATOM   3770  O   ALA A 639      11.726 -33.579  50.863  1.00 16.75           O
ATOM   3771  CB  ALA A 639      14.635 -33.558  50.303  1.00 11.43           C
ATOM   3772  N   PHE A 640      12.455 -33.095  52.941  1.00 14.53           N
ATOM   3773  CA  PHE A 640      11.281 -33.632  53.608  1.00 15.34           C
ATOM   3774  C   PHE A 640      10.177 -32.579  53.593  1.00 16.07           C
ATOM   3775  O   PHE A 640       9.866 -31.961  54.615  1.00 18.01           O
ATOM   3776  CB  PHE A 640      11.616 -34.013  55.045  1.00 13.61           C
ATOM   3777  CG  PHE A 640      10.643 -34.975  55.650  1.00 18.61           C
ATOM   3778  CD1 PHE A 640      10.387 -36.203  55.040  1.00 20.39           C
ATOM   3779  CD2 PHE A 640       9.981 -34.663  56.833  1.00 18.05           C
ATOM   3780  CE1 PHE A 640       9.485 -37.108  55.605  1.00 23.30           C
ATOM   3781  CE2 PHE A 640       9.079 -35.557  57.403  1.00 21.93           C
ATOM   3782  CZ  PHE A 640       8.830 -36.782  56.791  1.00 21.89           C
ATOM   3783  N   VAL A 641       9.608 -32.378  52.410  1.00 16.99           N
ATOM   3784  CA  VAL A 641       8.536 -31.412  52.197  1.00 17.61           C
ATOM   3785  C   VAL A 641       7.625 -32.081  51.164  1.00 18.11           C
ATOM   3786  O   VAL A 641       8.089 -32.491  50.098  1.00 17.61           O
ATOM   3787  CB  VAL A 641       9.098 -30.061  51.630  1.00 18.26           C
ATOM   3788  CG1 VAL A 641       7.963 -29.060  51.411  1.00 19.17           C
ATOM   3789  CG2 VAL A 641      10.134 -29.465  52.597  1.00 12.94           C
ATOM   3790  N   GLY A 642       6.341 -32.223  51.485  1.00 15.83           N
ATOM   3791  CA  GLY A 642       5.442 -32.865  50.542  1.00 15.49           C
ATOM   3792  C   GLY A 642       4.024 -33.114  51.027  1.00 13.20           C
ATOM   3793  O   GLY A 642       3.729 -33.006  52.219  1.00 14.34           O
ATOM   3794  N   THR A 643       3.154 -33.483  50.092  1.00 18.05           N
ATOM   3795  CA  THR A 643       1.743 -33.737  50.397  1.00 15.89           C
ATOM   3796  C   THR A 643       1.258 -35.137  50.043  1.00 13.58           C
ATOM   3797  O   THR A 643       1.454 -35.598  48.926  1.00 13.31           O
ATOM   3798  CB  THR A 643       0.830 -32.744  49.640  1.00 15.75           C
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ATOM   3799  OG1 THR A 643       1.175 -31.402  50.001  1.00 12.58           O
ATOM   3800  CG2 THR A 643      -0.651 -33.002  49.978  1.00 15.98           C
ATOM   3801  N   SER A 644       0.626 -35.808  51.001  1.00 15.12           N
ATOM   3802  CA  SER A 644       0.041 -37.121  50.757  1.00 14.46           C
ATOM   3803  C   SER A 644      -1.479 -36.893  50.628  1.00 16.59           C
ATOM   3804  O   SER A 644      -2.152 -36.569  51.611  1.00 17.58           O
ATOM   3805  CB  SER A 644       0.306 -38.059  51.926  1.00 12.22           C
ATOM   3806  OG  SER A 644      -0.155 -39.358  51.613  1.00 21.34           O
ATOM   3807  N   LYS A 645      -2.006 -37.050  49.418  1.00 15.83           N
ATOM   3808  CA  LYS A 645      -3.431 -36.849  49.146  1.00 17.28           C
ATOM   3809  C   LYS A 645      -4.231 -38.157  49.181  1.00 19.12           C
ATOM   3810  O   LYS A 645      -3.887 -39.109  48.483  1.00 21.82           O
ATOM   3811  CB  LYS A 645      -3.589 -36.196  47.767  1.00 14.10           C
ATOM   3812  CG  LYS A 645      -4.940 -36.407  47.123  1.00 16.72           C
ATOM   3813  CD  LYS A 645      -4.957 -35.927  45.700  1.00 12.66           C
ATOM   3814  CE  LYS A 645      -6.386 -35.903  45.161  1.00 14.19           C
ATOM   3815  NZ  LYS A 645      -6.418 -35.478  43.730  1.00 22.69           N
ATOM   3816  N   LEU A 646      -5.288 -38.217  49.990  1.00 19.83           N
ATOM   3817  CA  LEU A 646      -6.118 -39.431  50.039  1.00 16.47           C
ATOM   3818  C   LEU A 646      -7.187 -39.348  48.943  1.00 17.57           C
ATOM   3819  O   LEU A 646      -7.327 -40.253  48.124  1.00 16.25           O
ATOM   3820  CB  LEU A 646      -6.782 -39.583  51.409  1.00 15.71           C
ATOM   3821  CG  LEU A 646      -7.814 -40.710  51.533  1.00 19.57           C
ATOM   3822  CD1 LEU A 646      -7.170 -42.031  51.151  1.00 22.63           C
ATOM   3823  CD2 LEU A 646      -8.349 -40.776  52.953  1.00 18.23           C
ATOM   3824  N   ASP A 647      -7.935 -38.251  48.919  1.00 17.27           N
ATOM   3825  CA  ASP A 647      -8.959 -38.063  47.905  1.00 19.07           C
ATOM   3826  C   ASP A 647      -9.111 -36.579  47.600  1.00 21.01           C
ATOM   3827  O   ASP A 647      -8.212 -35.805  47.900  1.00 27.03           O
ATOM   3828  CB  ASP A 647     -10.291 -38.673  48.367  1.00 21.60           C
ATOM   3829  CG  ASP A 647     -10.736 -38.173  49.729  1.00 21.83           C
ATOM   3830  OD1 ASP A 647     -10.410 -37.025  50.095  1.00 24.69           O
ATOM   3831  OD2 ASP A 647     -11.427 -38.938  50.436  1.00 30.33           O
ATOM   3832  N   ASP A 648     -10.233 -36.173  47.012  1.00 19.47           N
ATOM   3833  CA  ASP A 648     -10.436 -34.765  46.672  1.00 19.02           C
ATOM   3834  C   ASP A 648     -10.743 -33.866  47.856  1.00 11.90           C
ATOM   3835  O   ASP A 648     -10.856 -32.655  47.697  1.00 13.50           O
ATOM   3836  CB  ASP A 648     -11.570 -34.609  45.662  1.00 29.87           C
ATOM   3837  CG  ASP A 648     -11.469 -35.583  44.519  1.00 42.61           C
ATOM   3838  OD1 ASP A 648     -10.334 -35.836  44.054  1.00 51.02           O
ATOM   3839  OD2 ASP A 648     -12.529 -36.092  44.083  1.00 46.46           O
ATOM   3840  N   ALA A 649     -10.881 -34.439  49.043  1.00 11.95           N
ATOM   3841  CA  ALA A 649     -11.202 -33.627  50.205  1.00 15.36           C
ATOM   3842  C   ALA A 649     -10.219 -33.756  51.356  1.00 15.00           C
ATOM   3843  O   ALA A 649     -10.235 -32.946  52.286  1.00 13.56           O
ATOM   3844  CB  ALA A 649     -12.612 -33.971  50.696  1.00 17.09           C
ATOM   3845  N   ASN A 650      -9.364 -34.769  51.299  1.00 14.90           N
ATOM   3846  CA  ASN A 650      -8.420 -34.992  52.379  1.00 16.14           C
ATOM   3847  C   ASN A 650      -6.974 -35.225  51.943  1.00 17.44           C
ATOM   3848  O   ASN A 650      -6.698 -35.976  51.006  1.00 17.38           O
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ATOM   3849  CB  ASN A 650      -8.897 -36.172  53.215  1.00 16.81           C
ATOM   3850  CG  ASN A 650     -10.319 -35.998  53.688  1.00 21.06           C
ATOM   3851  OD1 ASN A 650     -10.567 -35.382  54.727  1.00 18.14           O
ATOM   3852  ND2 ASN A 650     -11.266 -36.525  52.921  1.00 20.25           N
ATOM   3853  N   ALA A 651      -6.053 -34.574  52.640  1.00 15.84           N
ATOM   3854  CA  ALA A 651      -4.637 -34.723  52.334  1.00 16.26           C
ATOM   3855  C   ALA A 651      -3.830 -34.236  53.517  1.00 16.74           C
ATOM   3856  O   ALA A 651      -4.328 -33.480  54.361  1.00 16.56           O
ATOM   3857  CB  ALA A 651      -4.281 -33.931  51.085  1.00 13.74           C
ATOM   3858  N   THR A 652      -2.589 -34.691  53.596  1.00 17.21           N
ATOM   3859  CA  THR A 652      -1.719 -34.274  54.678  1.00 17.44           C
ATOM   3860  C   THR A 652      -0.411 -33.772  54.094  1.00 15.53           C
ATOM   3861  O   THR A 652       0.056 -34.277  53.075  1.00 13.60           O
ATOM   3862  CB  THR A 652      -1.475 -35.417  55.645  1.00 16.83           C
ATOM   3863  OG1 THR A 652      -2.744 -35.957  56.038  1.00 19.83           O
ATOM   3864  CG2 THR A 652      -0.732 -34.918  56.883  1.00  9.21           C
ATOM   3865  N   ALA A 653       0.156 -32.756  54.732  1.00 15.05           N
ATOM   3866  CA  ALA A 653       1.395 -32.162  54.254  1.00 17.60           C
ATOM   3867  C   ALA A 653       2.351 -31.860  55.396  1.00 16.53           C
ATOM   3868  O   ALA A 653       1.940 -31.756  56.544  1.00 15.96           O
ATOM   3869  CB  ALA A 653       1.086 -30.873  53.489  1.00 11.89           C
ATOM   3870  N   THR A 654       3.634 -31.724  55.071  1.00 19.90           N
ATOM   3871  CA  THR A 654       4.638 -31.400  56.081  1.00 19.62           C
ATOM   3872  C   THR A 654       5.810 -30.644  55.482  1.00 18.31           C
ATOM   3873  O   THR A 654       6.084 -30.753  54.292  1.00 15.97           O
ATOM   3874  CB  THR A 654       5.191 -32.659  56.765  1.00 20.06           C
ATOM   3875  OG1 THR A 654       5.858 -32.281  57.975  1.00 19.14           O
ATOM   3876  CG2 THR A 654       6.163 -33.374  55.853  1.00 19.52           C
ATOM   3877  N   MET A 655       6.489 -29.871  56.317  1.00 17.47           N
ATOM   3878  CA  MET A 655       7.649 -29.116  55.876  1.00 19.43           C
ATOM   3879  C   MET A 655       8.686 -29.124  56.993  1.00 20.42           C
ATOM   3880  O   MET A 655       8.439 -28.633  58.089  1.00 20.10           O
ATOM   3881  CB  MET A 655       7.268 -27.671  55.533  1.00 18.52           C
ATOM   3882  CG  MET A 655       8.389 -26.873  54.862  1.00 20.10           C
ATOM   3883  SD  MET A 655       8.006 -25.132  54.709  1.00 19.06           S
ATOM   3884  CE  MET A 655       9.070 -24.624  53.376  1.00 23.28           C
ATOM   3885  N   ASP A 656       9.836 -29.725  56.705  1.00 20.82           N
ATOM   3886  CA  ASP A 656      10.956 -29.804  57.639  1.00 17.43           C
ATOM   3887  C   ASP A 656      11.564 -28.416  57.486  1.00 18.74           C
ATOM   3888  O   ASP A 656      12.478 -28.207  56.678  1.00 19.57           O
ATOM   3889  CB  ASP A 656      11.911 -30.886  57.139  1.00 20.88           C
ATOM   3890  CG  ASP A 656      13.017 -31.198  58.109  1.00 21.53           C
ATOM   3891  OD1 ASP A 656      12.991 -30.706  59.260  1.00 19.53           O
ATOM   3892  OD2 ASP A 656      13.924 -31.953  57.699  1.00 24.91           O
ATOM   3893  N   PHE A 657      11.033 -27.466  58.249  1.00 12.67           N
ATOM   3894  CA  PHE A 657      11.444 -26.078  58.149  1.00 14.06           C
ATOM   3895  C   PHE A 657      12.678 -25.570  58.875  1.00 13.37           C
ATOM   3896  O   PHE A 657      12.919 -25.896  60.035  1.00 17.71           O
ATOM   3897  CB  PHE A 657      10.277 -25.180  58.544  1.00 11.47           C
ATOM   3898  CG  PHE A 657      10.554 -23.711  58.374  1.00  7.10           C
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ATOM   3899  CD1 PHE A 657      10.562 -23.138  57.113  1.00 11.58           C
ATOM   3900  CD2 PHE A 657      10.773 -22.900  59.482  1.00 10.10           C
ATOM   3901  CE1 PHE A 657      10.779 -21.773  56.950  1.00 11.22           C
ATOM   3902  CE2 PHE A 657      10.991 -21.535  59.336  1.00 10.61           C
ATOM   3903  CZ  PHE A 657      10.994 -20.969  58.068  1.00 10.31           C
ATOM   3904  N   THR A 658      13.418 -24.722  58.162  1.00 15.43           N
ATOM   3905  CA  THR A 658      14.615 -24.046  58.655  1.00 16.22           C
ATOM   3906  C   THR A 658      14.568 -22.666  58.008  1.00 11.10           C
ATOM   3907  O   THR A 658      14.407 -22.558  56.788  1.00 12.53           O
ATOM   3908  CB  THR A 658      15.905 -24.765  58.218  1.00 17.42           C
ATOM   3909  OG1 THR A 658      15.970 -26.045  58.852  1.00 16.60           O
ATOM   3910  CG2 THR A 658      17.122 -23.956  58.640  1.00 21.87           C
ATOM   3911  N   ASN A 659      14.695 -21.607  58.799  1.00 14.43           N
ATOM   3912  CA  ASN A 659      14.623 -20.273  58.213  1.00 17.83           C
ATOM   3913  C   ASN A 659      15.858 -19.864  57.418  1.00 23.23           C
ATOM   3914  O   ASN A 659      16.913 -20.505  57.481  1.00 23.51           O
ATOM   3915  CB  ASN A 659      14.301 -19.218  59.277  1.00 19.05           C
ATOM   3916  CG  ASN A 659      15.441 -18.982  60.241  1.00 19.61           C
ATOM   3917  OD1 ASN A 659      16.335 -19.815  60.379  1.00 23.51           O
ATOM   3918  ND2 ASN A 659      15.407 -17.841  60.930  1.00 11.75           N
ATOM   3919  N   TRP A 660      15.695 -18.782  56.667  1.00 22.38           N
ATOM   3920  CA  TRP A 660      16.716 -18.233  55.788  1.00 22.69           C
ATOM   3921  C   TRP A 660      18.157 -18.185  56.307  1.00 23.34           C
ATOM   3922  O   TRP A 660      19.092 -18.307  55.524  1.00 23.65           O
ATOM   3923  CB  TRP A 660      16.281 -16.835  55.344  1.00 17.21           C
ATOM   3924  CG  TRP A 660      16.339 -15.836  56.441  1.00 19.30           C
ATOM   3925  CD1 TRP A 660      15.474 -15.712  57.488  1.00 18.06           C
ATOM   3926  CD2 TRP A 660      17.356 -14.852  56.639  1.00 20.74           C
ATOM   3927  NE1 TRP A 660      15.891 -14.711  58.332  1.00 17.68           N
ATOM   3928  CE2 TRP A 660      17.045 -14.165  57.834  1.00 18.89           C
ATOM   3929  CE3 TRP A 660      18.503 -14.484  55.923  1.00 22.51           C
ATOM   3930  CZ2 TRP A 660      17.838 -13.132  58.331  1.00 19.27           C
ATOM   3931  CZ3 TRP A 660      19.294 -13.455  56.418  1.00 21.11           C
ATOM   3932  CH2 TRP A 660      18.956 -12.790  57.613  1.00 23.84           C
ATOM   3933  N   ASN A 661      18.338 -18.016  57.614  1.00 23.28           N
ATOM   3934  CA  ASN A 661      19.677 -17.926  58.184  1.00 22.57           C
ATOM   3935  C   ASN A 661      19.973 -19.005  59.214  1.00 24.18           C
ATOM   3936  O   ASN A 661      20.773 -18.802  60.122  1.00 27.82           O
ATOM   3937  CB  ASN A 661      19.869 -16.555  58.825  1.00 21.47           C
ATOM   3938  CG  ASN A 661      18.973 -16.343  60.027  1.00 25.75           C
ATOM   3939  OD1 ASN A 661      18.233 -17.238  60.439  1.00 25.02           O
ATOM   3940  ND2 ASN A 661      19.037 -15.152  60.603  1.00 26.44           N
ATOM   3941  N   GLN A 662      19.319 -20.148  59.068  1.00 23.07           N
ATOM   3942  CA  GLN A 662      19.500 -21.279  59.970  1.00 21.70           C
ATOM   3943  C   GLN A 662      19.609 -20.945  61.446  1.00 20.78           C
ATOM   3944  O   GLN A 662      20.568 -21.334  62.104  1.00 22.24           O
ATOM   3945  CB  GLN A 662      20.720 -22.103  59.553  1.00 22.74           C
ATOM   3946  CG  GLN A 662      20.595 -22.726  58.173  1.00 18.04           C
ATOM   3947  CD  GLN A 662      20.961 -21.751  57.074  1.00 24.69           C
ATOM   3948  OE1 GLN A 662      21.707 -20.794  57.295  1.00 28.43           O
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ATOM   3949  NE2 GLN A 662      20.437 -21.986  55.880  1.00 27.73           N
ATOM   3950  N   THR A 663      18.632 -20.213  61.964  1.00 19.81           N
ATOM   3951  CA  THR A 663      18.598 -19.899  63.386  1.00 20.20           C
ATOM   3952  C   THR A 663      17.276 -20.411  63.962  1.00 20.40           C
ATOM   3953  O   THR A 663      17.095 -20.461  65.176  1.00 21.34           O
ATOM   3954  CB  THR A 663      18.705 -18.393  63.659  1.00 19.22           C
ATOM   3955  OG1 THR A 663      17.710 -17.692  62.907  1.00 22.01           O
ATOM   3956  CG2 THR A 663      20.081 -17.887  63.261  1.00 19.06           C
ATOM   3957  N   LEU A 664      16.361 -20.808  63.083  1.00 20.69           N
ATOM   3958  CA  LEU A 664      15.065 -21.311  63.526  1.00 21.04           C
ATOM   3959  C   LEU A 664      14.630 -22.536  62.744  1.00 19.48           C
ATOM   3960  O   LEU A 664      14.820 -22.619  61.532  1.00 18.10           O
ATOM   3961  CB  LEU A 664      13.988 -20.230  63.393  1.00 22.69           C
ATOM   3962  CG  LEU A 664      12.646 -20.571  64.061  1.00 24.60           C
ATOM   3963  CD1 LEU A 664      11.941 -19.307  64.496  1.00 19.91           C
ATOM   3964  CD2 LEU A 664      11.782 -21.340  63.093  1.00 24.25           C
ATOM   3965  N   THR A 665      14.041 -23.487  63.459  1.00 20.07           N
ATOM   3966  CA  THR A 665      13.548 -24.710  62.851  1.00 21.87           C
ATOM   3967  C   THR A 665      12.148 -24.997  63.375  1.00 20.19           C
ATOM   3968  O   THR A 665      11.738 -24.472  64.412  1.00 19.86           O
ATOM   3969  CB  THR A 665      14.427 -25.920  63.201  1.00 20.96           C
ATOM   3970  OG1 THR A 665      14.216 -26.278  64.573  1.00 21.04           O
ATOM   3971  CG2 THR A 665      15.904 -25.599  62.974  1.00 28.54           C
ATOM   3972  N   ALA A 666      11.431 -25.848  62.656  1.00 19.47           N
ATOM   3973  CA  ALA A 666      10.088 -26.230  63.045  1.00 17.36           C
ATOM   3974  C   ALA A 666       9.557 -27.328  62.141  1.00 15.68           C
ATOM   3975  O   ALA A 666       9.766 -27.297  60.928  1.00 16.93           O
ATOM   3976  CB  ALA A 666       9.164 -25.020  62.974  1.00 18.38           C
ATOM   3977  N   HIS A 667       8.900 -28.315  62.739  1.00 16.33           N
ATOM   3978  CA  HIS A 667       8.273 -29.371  61.957  1.00 17.73           C
ATOM   3979  C   HIS A 667       6.856 -28.832  61.747  1.00 17.68           C
ATOM   3980  O   HIS A 667       6.015 -28.895  62.643  1.00 17.47           O
ATOM   3981  CB  HIS A 667       8.226 -30.684  62.740  1.00 19.60           C
ATOM   3982  CG  HIS A 667       9.559 -31.347  62.888  1.00 23.93           C
ATOM   3983  ND1 HIS A 667      10.730 -30.777  62.429  1.00 24.70           N
ATOM   3984  CD2 HIS A 667       9.910 -32.529  63.448  1.00 23.79           C
ATOM   3985  CE1 HIS A 667      11.743 -31.582  62.701  1.00 21.53           C
ATOM   3986  NE2 HIS A 667      11.273 -32.651  63.318  1.00 26.39           N
ATOM   3987  N   LYS A 668       6.612 -28.268  60.574  1.00 16.93           N
ATOM   3988  CA  LYS A 668       5.309 -27.703  60.268  1.00 19.43           C
ATOM   3989  C   LYS A 668       4.503 -28.685  59.445  1.00 20.61           C
ATOM   3990  O   LYS A 668       4.940 -29.121  58.371  1.00 20.05           O
ATOM   3991  CB  LYS A 668       5.470 -26.388  59.504  1.00 14.22           C
ATOM   3992  CG  LYS A 668       5.984 -25.236  60.366  1.00 12.25           C
ATOM   3993  CD  LYS A 668       6.395 -24.053  59.504  1.00 11.56           C
ATOM   3994  CE  LYS A 668       5.206 -23.167  59.181  1.00 12.10           C
ATOM   3995  NZ  LYS A 668       4.540 -22.694  60.423  1.00 12.00           N
ATOM   3996  N   SER A 669       3.326 -29.041  59.951  1.00 16.11           N
ATOM   3997  CA  SER A 669       2.477 -29.983  59.244  1.00 16.65           C
ATOM   3998  C   SER A 669       1.061 -29.454  59.083  1.00 15.56           C
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ATOM   3999  O   SER A 669       0.573 -28.689  59.914  1.00 15.88           O
ATOM   4000  CB  SER A 669       2.471 -31.318  59.984  1.00 17.56           C
ATOM   4001  OG  SER A 669       3.756 -31.923  59.913  1.00 17.74           O
ATOM   4002  N   TRP A 670       0.409 -29.855  58.000  1.00 16.02           N
ATOM   4003  CA  TRP A 670      -0.952 -29.421  57.731  1.00 12.45           C
ATOM   4004  C   TRP A 670      -1.841 -30.617  57.437  1.00 14.21           C
ATOM   4005  O   TRP A 670      -1.474 -31.517  56.674  1.00 13.28           O
ATOM   4006  CB  TRP A 670      -0.980 -28.465  56.544  1.00 13.03           C
ATOM   4007  CG  TRP A 670      -0.196 -27.219  56.752  1.00 14.94           C
ATOM   4008  CD1 TRP A 670      -0.672 -26.011  57.151  1.00 14.63           C
ATOM   4009  CD2 TRP A 670       1.209 -27.045  56.521  1.00 17.93           C
ATOM   4010  NE1 TRP A 670       0.346 -25.086  57.182  1.00 20.67           N
ATOM   4011  CE2 TRP A 670       1.512 -25.698  56.799  1.00 20.41           C
ATOM   4012  CE3 TRP A 670       2.240 -27.900  56.104  1.00 21.10           C
ATOM   4013  CZ2 TRP A 670       2.809 -25.179  56.673  1.00 20.28           C
ATOM   4014  CZ3 TRP A 670       3.532 -27.383  55.978  1.00 20.38           C
ATOM   4015  CH2 TRP A 670       3.801 -26.037  56.263  1.00 18.91           C
ATOM   4016  N   PHE A 671      -3.024 -30.614  58.038  1.00 16.67           N
ATOM   4017  CA  PHE A 671      -3.970 -31.706  57.854  1.00 16.90           C
ATOM   4018  C   PHE A 671      -5.258 -31.178  57.242  1.00 17.56           C
ATOM   4019  O   PHE A 671      -6.084 -30.580  57.929  1.00 18.26           O
ATOM   4020  CB  PHE A 671      -4.219 -32.377  59.203  1.00 14.37           C
ATOM   4021  CG  PHE A 671      -2.952 -32.728  59.926  1.00 17.03           C
ATOM   4022  CD1 PHE A 671      -2.216 -31.745  60.583  1.00 19.47           C
ATOM   4023  CD2 PHE A 671      -2.454 -34.027  59.894  1.00 24.20           C
ATOM   4024  CE1 PHE A 671      -0.992 -32.050  61.193  1.00 17.24           C
ATOM   4025  CE2 PHE A 671      -1.228 -34.344  60.504  1.00 22.48           C
ATOM   4026  CZ  PHE A 671      -0.501 -33.354  61.151  1.00 16.35           C
ATOM   4027  N   MET A 672      -5.395 -31.374  55.935  1.00 16.26           N
ATOM   4028  CA  MET A 672      -6.568 -30.914  55.212  1.00 18.50           C
ATOM   4029  C   MET A 672      -7.653 -31.974  55.354  1.00 18.66           C
ATOM   4030  O   MET A 672      -7.543 -33.088  54.834  1.00 13.97           O
ATOM   4031  CB  MET A 672      -6.220 -30.673  53.743  1.00 15.63           C
ATOM   4032  CG  MET A 672      -5.351 -29.426  53.503  1.00 19.39           C
ATOM   4033  SD  MET A 672      -4.227 -29.561  52.071  1.00 18.28           S
ATOM   4034  CE  MET A 672      -2.881 -30.512  52.795  1.00 23.68           C
ATOM   4035  N   LEU A 673      -8.703 -31.610  56.075  1.00 17.57           N
ATOM   4036  CA  LEU A 673      -9.791 -32.527  56.332  1.00 18.69           C
ATOM   4037  C   LEU A 673     -11.157 -32.058  55.840  1.00 19.41           C
ATOM   4038  O   LEU A 673     -12.042 -31.739  56.639  1.00 19.47           O
ATOM   4039  CB  LEU A 673      -9.840 -32.824  57.827  1.00 12.86           C
ATOM   4040  CG  LEU A 673      -8.554 -33.472  58.333  1.00 10.02           C
ATOM   4041  CD1 LEU A 673      -8.425 -33.260  59.814  1.00 12.96           C
ATOM   4042  CD2 LEU A 673      -8.568 -34.944  58.012  1.00 10.35           C
ATOM   4043  N   LYS A 674     -11.306 -32.007  54.519  1.00 18.12           N
ATOM   4044  CA  LYS A 674     -12.569 -31.637  53.872  1.00 19.38           C
ATOM   4045  C   LYS A 674     -13.065 -30.205  54.012  1.00 13.53           C
ATOM   4046  O   LYS A 674     -13.027 -29.435  53.055  1.00 13.10           O
ATOM   4047  CB  LYS A 674     -13.682 -32.587  54.337  1.00 18.67           C
ATOM   4048  CG  LYS A 674     -15.020 -32.368  53.634  1.00 21.72           C
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ATOM   4049  CD  LYS A 674     -15.651 -33.689  53.231  1.00 27.58           C
ATOM   4050  CE  LYS A 674     -16.946 -33.928  53.976  1.00 29.97           C
ATOM   4051  NZ  LYS A 674     -16.886 -33.368  55.357  1.00 33.44           N
ATOM   4052  N   ASP A 675     -13.552 -29.863  55.198  1.00 15.08           N
ATOM   4053  CA  ASP A 675     -14.101 -28.534  55.456  1.00 19.03           C
ATOM   4054  C   ASP A 675     -13.293 -27.742  56.481  1.00 20.81           C
ATOM   4055  O   ASP A 675     -13.753 -26.720  56.996  1.00 19.12           O
ATOM   4056  CB  ASP A 675     -15.564 -28.667  55.930  1.00 16.90           C
ATOM   4057  CG  ASP A 675     -15.712 -29.544  57.176  1.00 21.61           C
ATOM   4058  OD1 ASP A 675     -14.694 -30.040  57.702  1.00 21.72           O
ATOM   4059  OD2 ASP A 675     -16.860 -29.739  57.641  1.00 23.75           O
ATOM   4060  N   LYS A 676     -12.086 -28.214  56.771  1.00 18.40           N
ATOM   4061  CA  LYS A 676     -11.222 -27.564  57.748  1.00 18.29           C
ATOM   4062  C   LYS A 676      -9.775 -28.002  57.509  1.00 18.05           C
ATOM   4063  O   LYS A 676      -9.527 -28.994  56.816  1.00 14.58           O
ATOM   4064  CB  LYS A 676     -11.639 -27.976  59.155  1.00 16.56           C
ATOM   4065  CG  LYS A 676     -11.671 -29.488  59.339  1.00 17.00           C
ATOM   4066  CD  LYS A 676     -12.407 -29.884  60.607  1.00 17.48           C
ATOM   4067  CE  LYS A 676     -12.691 -31.371  60.629  1.00 16.07           C
ATOM   4068  NZ  LYS A 676     -13.119 -31.857  59.291  1.00 18.59           N
ATOM   4069  N   ILE A 677      -8.837 -27.256  58.089  1.00 17.44           N
ATOM   4070  CA  ILE A 677      -7.408 -27.549  57.969  1.00 16.21           C
ATOM   4071  C   ILE A 677      -6.734 -27.374  59.331  1.00 16.28           C
ATOM   4072  O   ILE A 677      -6.823 -26.310  59.953  1.00 19.53           O
ATOM   4073  CB  ILE A 677      -6.718 -26.608  56.945  1.00 15.68           C
ATOM   4074  CG1 ILE A 677      -7.290 -26.830  55.543  1.00 15.11           C
ATOM   4075  CG2 ILE A 677      -5.231 -26.889  56.909  1.00 18.43           C
ATOM   4076  CD1 ILE A 677      -8.248 -25.742  55.080  1.00 12.33           C
ATOM   4077  N   ALA A 678      -6.079 -28.424  59.811  1.00 16.13           N
ATOM   4078  CA  ALA A 678      -5.394 -28.348  61.094  1.00 14.70           C
ATOM   4079  C   ALA A 678      -3.936 -27.951  60.846  1.00 18.04           C
ATOM   4080  O   ALA A 678      -3.276 -28.506  59.968  1.00 19.60           O
ATOM   4081  CB  ALA A 678      -5.458 -29.694  61.802  1.00 11.75           C
ATOM   4082  N   PHE A 679      -3.449 -26.978  61.604  1.00 17.71           N
ATOM   4083  CA  PHE A 679      -2.067 -26.523  61.485  1.00 16.53           C
ATOM   4084  C   PHE A 679      -1.319 -27.018  62.715  1.00 16.55           C
ATOM   4085  O   PHE A 679      -1.669 -26.654  63.836  1.00 18.94           O
ATOM   4086  CB  PHE A 679      -1.989 -24.995  61.467  1.00 11.89           C
ATOM   4087  CG  PHE A 679      -2.513 -24.360  60.214  1.00 12.14           C
ATOM   4088  CD1 PHE A 679      -3.849 -24.481  59.858  1.00 16.26           C
ATOM   4089  CD2 PHE A 679      -1.674 -23.593  59.410  1.00 15.06           C
ATOM   4090  CE1 PHE A 679      -4.341 -23.848  58.720  1.00 14.99           C
ATOM   4091  CE2 PHE A 679      -2.157 -22.955  58.273  1.00 13.22           C
ATOM   4092  CZ  PHE A 679      -3.489 -23.082  57.926  1.00 16.52           C
ATOM   4093  N   LEU A 680      -0.301 -27.851  62.519  1.00 16.99           N
ATOM   4094  CA  LEU A 680       0.481 -28.350  63.653  1.00 17.10           C
ATOM   4095  C   LEU A 680       1.954 -27.963  63.498  1.00 16.76           C
ATOM   4096  O   LEU A 680       2.522 -28.041  62.408  1.00 18.53           O
ATOM   4097  CB  LEU A 680       0.374 -29.877  63.764  1.00 18.67           C
ATOM   4098  CG  LEU A 680      -0.955 -30.528  64.162  1.00 17.73           C
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ATOM   4099  CD1 LEU A 680      -0.696 -31.981  64.562  1.00 13.98           C
ATOM   4100  CD2 LEU A 680      -1.607 -29.752  65.304  1.00 16.35           C
ATOM   4101  N   GLY A 681       2.565 -27.541  64.594  1.00 18.95           N
ATOM   4102  CA  GLY A 681       3.966 -27.166  64.554  1.00 17.72           C
ATOM   4103  C   GLY A 681       4.646 -27.646  65.813  1.00 18.63           C
ATOM   4104  O   GLY A 681       4.152 -27.394  66.908  1.00 19.19           O
ATOM   4105  N   SER A 682       5.769 -28.346  65.666  1.00 16.14           N
ATOM   4106  CA  SER A 682       6.504 -28.846  66.820  1.00 13.27           C
ATOM   4107  C   SER A 682       8.005 -28.678  66.613  1.00 15.95           C
ATOM   4108  O   SER A 682       8.456 -28.300  65.527  1.00 15.30           O
ATOM   4109  CB  SER A 682       6.206 -30.327  67.036  1.00 13.32           C
ATOM   4110  OG  SER A 682       6.548 -31.087  65.882  1.00 17.69           O
ATOM   4111  N   ASN A 683       8.773 -28.952  67.662  1.00 18.68           N
ATOM   4112  CA  ASN A 683      10.225 -28.863  67.570  1.00 21.47           C
ATOM   4113  C   ASN A 683      10.639 -27.463  67.142  1.00 20.47           C
ATOM   4114  O   ASN A 683      11.541 -27.305  66.327  1.00 23.32           O
ATOM   4115  CB  ASN A 683      10.715 -29.881  66.538  1.00 21.93           C
ATOM   4116  CG  ASN A 683      12.162 -30.264  66.730  1.00 26.67           C
ATOM   4117  OD1 ASN A 683      12.950 -30.243  65.783  1.00 28.58           O
ATOM   4118  ND2 ASN A 683      12.520 -30.624  67.953  1.00 24.35           N
ATOM   4119  N   ILE A 684       9.969 -26.445  67.666  1.00 18.14           N
ATOM   4120  CA  ILE A 684      10.311 -25.082  67.290  1.00 19.34           C
ATOM   4121  C   ILE A 684      11.553 -24.667  68.080  1.00 21.92           C
ATOM   4122  O   ILE A 684      11.567 -24.721  69.315  1.00 18.13           O
ATOM   4123  CB  ILE A 684       9.141 -24.116  67.574  1.00 18.33           C
ATOM   4124  CG1 ILE A 684       7.946 -24.473  66.672  1.00 20.19           C
ATOM   4125  CG2 ILE A 684       9.567 -22.686  67.313  1.00 13.06           C
ATOM   4126  CD1 ILE A 684       6.694 -23.646  66.941  1.00 21.05           C
ATOM   4127  N   GLN A 685      12.602 -24.268  67.365  1.00 23.39           N
ATOM   4128  CA  GLN A 685      13.848 -23.886  68.026  1.00 22.53           C
ATOM   4129  C   GLN A 685      14.462 -22.613  67.480  1.00 20.52           C
ATOM   4130  O   GLN A 685      14.407 -22.334  66.282  1.00 24.38           O
ATOM   4131  CB  GLN A 685      14.834 -25.050  67.951  1.00 21.38           C
ATOM   4132  CG  GLN A 685      14.204 -26.329  68.453  1.00 21.91           C
ATOM   4133  CD  GLN A 685      15.156 -27.503  68.508  1.00 28.30           C
ATOM   4134  OE1 GLN A 685      15.439 -28.137  67.492  1.00 28.83           O
ATOM   4135  NE2 GLN A 685      15.643 -27.812  69.706  1.00 35.22           N
ATOM   4136  N   ASN A 686      15.039 -21.839  68.390  1.00 21.70           N
ATOM   4137  CA  ASN A 686      15.642 -20.560  68.056  1.00 23.06           C
ATOM   4138  C   ASN A 686      16.985 -20.406  68.760  1.00 24.36           C
ATOM   4139  O   ASN A 686      17.055 -20.408  69.991  1.00 23.62           O
ATOM   4140  CB  ASN A 686      14.707 -19.443  68.496  1.00 21.45           C
ATOM   4141  CG  ASN A 686      15.161 -18.095  68.030  1.00 19.42           C
ATOM   4142  OD1 ASN A 686      15.981 -17.989  67.129  1.00 24.98           O
ATOM   4143  ND2 ASN A 686      14.628 -17.048  68.638  1.00 19.43           N
ATOM   4144  N   THR A 687      18.046 -20.278  67.972  1.00 27.05           N
ATOM   4145  CA  THR A 687      19.400 -20.126  68.507  1.00 28.17           C
ATOM   4146  C   THR A 687      19.827 -18.664  68.433  1.00 30.84           C
ATOM   4147  O   THR A 687      20.904 -18.302  68.902  1.00 32.98           O
ATOM   4148  CB  THR A 687      20.427 -20.956  67.701  1.00 25.82           C
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ATOM   4149  OG1 THR A 687      20.462 -20.471  66.354  1.00 21.45           O
ATOM   4150  CG2 THR A 687      20.061 -22.449  67.704  1.00 23.44           C
ATOM   4151  N   SER A 688      18.973 -17.833  67.841  1.00 30.11           N
ATOM   4152  CA  SER A 688      19.253 -16.411  67.688  1.00 30.33           C
ATOM   4153  C   SER A 688      18.717 -15.596  68.854  1.00 32.46           C
ATOM   4154  O   SER A 688      18.114 -16.141  69.783  1.00 33.53           O
ATOM   4155  CB  SER A 688      18.643 -15.890  66.381  1.00 31.88           C
ATOM   4156  OG  SER A 688      17.373 -15.296  66.603  1.00 30.85           O
ATOM   4157  N   THR A 689      18.943 -14.286  68.801  1.00 34.00           N
ATOM   4158  CA  THR A 689      18.479 -13.388  69.853  1.00 37.51           C
ATOM   4159  C   THR A 689      17.126 -12.773  69.502  1.00 37.21           C
ATOM   4160  O   THR A 689      16.448 -12.225  70.370  1.00 40.70           O
ATOM   4161  CB  THR A 689      19.489 -12.241  70.106  1.00 37.17           C
ATOM   4162  OG1 THR A 689      20.139 -11.886  68.876  1.00 34.31           O
ATOM   4163  CG2 THR A 689      20.532 -12.669  71.142  1.00 38.58           C
ATOM   4164  N   ASP A 690      16.740 -12.864  68.231  1.00 35.87           N
ATOM   4165  CA  ASP A 690      15.465 -12.317  67.773  1.00 34.73           C
ATOM   4166  C   ASP A 690      14.308 -13.173  68.266  1.00 34.05           C
ATOM   4167  O   ASP A 690      14.481 -14.367  68.510  1.00 37.31           O
ATOM   4168  CB  ASP A 690      15.439 -12.264  66.251  1.00 34.82           C
ATOM   4169  CG  ASP A 690      16.766 -11.851  65.666  1.00 34.39           C
ATOM   4170  OD1 ASP A 690      17.040 -10.636  65.638  1.00 36.34           O
ATOM   4171  OD2 ASP A 690      17.531 -12.737  65.233  1.00 29.84           O
ATOM   4172  N   THR A 691      13.129 -12.570  68.410  1.00 31.91           N
ATOM   4173  CA  THR A 691      11.959 -13.312  68.879  1.00 28.71           C
ATOM   4174  C   THR A 691      11.365 -14.151  67.770  1.00 24.30           C
ATOM   4175  O   THR A 691      11.358 -13.756  66.606  1.00 25.60           O
ATOM   4176  CB  THR A 691      10.840 -12.392  69.405  1.00 29.98           C
ATOM   4177  OG1 THR A 691      11.106 -11.035  69.036  1.00 32.81           O
ATOM   4178  CG2 THR A 691      10.738 -12.500  70.907  1.00 33.00           C
ATOM   4179  N   ALA A 692      10.857 -15.313  68.146  1.00 23.88           N
ATOM   4180  CA  ALA A 692      10.250 -16.219  67.189  1.00 25.11           C
ATOM   4181  C   ALA A 692       8.735 -16.283  67.428  1.00 22.37           C
ATOM   4182  O   ALA A 692       8.268 -16.301  68.566  1.00 19.84           O
ATOM   4183  CB  ALA A 692      10.872 -17.605  67.326  1.00 24.26           C
ATOM   4184  N   ALA A 693       7.973 -16.304  66.345  1.00 22.99           N
ATOM   4185  CA  ALA A 693       6.522 -16.374  66.447  1.00 21.64           C
ATOM   4186  C   ALA A 693       5.969 -16.893  65.138  1.00 22.27           C
ATOM   4187  O   ALA A 693       6.603 -16.756  64.091  1.00 20.80           O
ATOM   4188  CB  ALA A 693       5.948 -14.994  66.743  1.00 19.15           C
ATOM   4189  N   THR A 694       4.792 -17.504  65.208  1.00 21.67           N
ATOM   4190  CA  THR A 694       4.120 -18.021  64.021  1.00 19.48           C
ATOM   4191  C   THR A 694       2.927 -17.101  63.765  1.00 19.62           C
ATOM   4192  O   THR A 694       2.191 -16.767  64.700  1.00 21.08           O
ATOM   4193  CB  THR A 694       3.600 -19.438  64.259  1.00 19.10           C
ATOM   4194  OG1 THR A 694       4.706 -20.334  64.416  1.00 19.03           O
ATOM   4195  CG2 THR A 694       2.748 -19.896  63.091  1.00 19.71           C
ATOM   4196  N   THR A 695       2.749 -16.660  62.523  1.00 18.12           N
ATOM   4197  CA  THR A 695       1.615 -15.796  62.203  1.00 17.42           C
ATOM   4198  C   THR A 695       0.420 -16.702  61.900  1.00 15.76           C
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ATOM   4199  O   THR A 695       0.406 -17.390  60.881  1.00 13.54           O
ATOM   4200  CB  THR A 695       1.893 -14.904  60.973  1.00 17.55           C
ATOM   4201  OG1 THR A 695       2.854 -13.895  61.314  1.00 17.17           O
ATOM   4202  CG2 THR A 695       0.602 -14.215  60.510  1.00 18.90           C
ATOM   4203  N   ILE A 696      -0.562 -16.728  62.798  1.00 16.80           N
ATOM   4204  CA  ILE A 696      -1.749 -17.559  62.587  1.00 16.80           C
ATOM   4205  C   ILE A 696      -2.500 -16.995  61.389  1.00 13.79           C
ATOM   4206  O   ILE A 696      -2.999 -17.733  60.553  1.00 16.27           O
ATOM   4207  CB  ILE A 696      -2.644 -17.588  63.845  1.00 17.75           C
ATOM   4208  CG1 ILE A 696      -1.953 -18.417  64.930  1.00 17.07           C
ATOM   4209  CG2 ILE A 696      -4.001 -18.216  63.525  1.00 17.01           C
ATOM   4210  CD1 ILE A 696      -2.291 -18.006  66.348  1.00 19.75           C
ATOM   4211  N   ASP A 697      -2.547 -15.676  61.285  1.00 15.35           N
ATOM   4212  CA  ASP A 697      -3.198 -15.059  60.147  1.00 15.00           C
ATOM   4213  C   ASP A 697      -2.954 -13.557  60.095  1.00 10.78           C
ATOM   4214  O   ASP A 697      -2.658 -12.920  61.104  1.00 14.44           O
ATOM   4215  CB  ASP A 697      -4.714 -15.327  60.203  1.00 21.38           C
ATOM   4216  CG  ASP A 697      -5.385 -15.287  58.825  1.00 22.73           C
ATOM   4217  OD1 ASP A 697      -4.750 -14.844  57.846  1.00 17.52           O
ATOM   4218  OD2 ASP A 697      -6.563 -15.706  58.722  1.00 21.73           O
ATOM   4219  N   GLN A 698      -3.059 -13.015  58.891  1.00 11.91           N
ATOM   4220  CA  GLN A 698      -2.966 -11.585  58.632  1.00 13.87           C
ATOM   4221  C   GLN A 698      -3.998 -11.442  57.523  1.00 15.08           C
ATOM   4222  O   GLN A 698      -3.695 -11.621  56.337  1.00 14.48           O
ATOM   4223  CB  GLN A 698      -1.584 -11.150  58.125  1.00 14.67           C
ATOM   4224  CG  GLN A 698      -1.403  -9.633  58.206  1.00 18.74           C
ATOM   4225  CD  GLN A 698      -0.122  -9.119  57.556  1.00 22.87           C
ATOM   4226  OE1 GLN A 698       0.884  -9.829  57.480  1.00 24.26           O
ATOM   4227  NE2 GLN A 698      -0.156  -7.871  57.091  1.00 18.45           N
ATOM   4228  N   ARG A 699      -5.236 -11.165  57.927  1.00 16.92           N
ATOM   4229  CA  ARG A 699      -6.348 -11.044  56.991  1.00 14.70           C
ATOM   4230  C   ARG A 699      -6.646  -9.605  56.608  1.00  9.40           C
ATOM   4231  O   ARG A 699      -6.729  -8.741  57.469  1.00 14.43           O
ATOM   4232  CB  ARG A 699      -7.597 -11.687  57.612  1.00 17.46           C
ATOM   4233  CG  ARG A 699      -8.657 -12.108  56.616  1.00 13.09           C
ATOM   4234  CD  ARG A 699      -8.258 -13.349  55.842  1.00 10.16           C
ATOM   4235  NE  ARG A 699      -9.177 -13.562  54.726  1.00 15.23           N
ATOM   4236  CZ  ARG A 699      -8.939 -14.350  53.684  1.00 17.42           C
ATOM   4237  NH1 ARG A 699      -7.797 -15.021  53.600  1.00 19.93           N
ATOM   4238  NH2 ARG A 699      -9.842 -14.459  52.714  1.00 13.20           N
ATOM   4239  N   LYS A 700      -6.801  -9.354  55.313  1.00 14.72           N
ATOM   4240  CA  LYS A 700      -7.106  -8.012  54.821  1.00 19.64           C
ATOM   4241  C   LYS A 700      -8.600  -7.779  55.003  1.00 24.46           C
ATOM   4242  O   LYS A 700      -9.410  -8.577  54.530  1.00 24.66           O
ATOM   4243  CB  LYS A 700      -6.764  -7.887  53.335  1.00 16.70           C
ATOM   4244  CG  LYS A 700      -6.299  -6.498  52.911  1.00 19.35           C
ATOM   4245  CD  LYS A 700      -7.246  -5.856  51.937  1.00 23.17           C
ATOM   4246  CE  LYS A 700      -6.825  -6.085  50.508  1.00 25.61           C
ATOM   4247  NZ  LYS A 700      -7.995  -6.496  49.671  1.00 25.07           N
ATOM   4248  N   LEU A 701      -8.956  -6.686  55.675  1.00 25.84           N
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ATOM   4249  CA  LEU A 701     -10.356  -6.349  55.935  1.00 23.49           C
ATOM   4250  C   LEU A 701     -11.029  -5.491  54.864  1.00 24.99           C
ATOM   4251  O   LEU A 701     -10.368  -4.847  54.045  1.00 26.59           O
ATOM   4252  CB  LEU A 701     -10.469  -5.619  57.267  1.00 17.26           C
ATOM   4253  CG  LEU A 701      -9.764  -6.250  58.454  1.00 13.98           C
ATOM   4254  CD1 LEU A 701     -10.191  -5.517  59.693  1.00 17.40           C
ATOM   4255  CD2 LEU A 701     -10.113  -7.714  58.563  1.00 17.51           C
ATOM   4256  N   GLU A 702     -12.361  -5.501  54.884  1.00 25.99           N
ATOM   4257  CA  GLU A 702     -13.177  -4.707  53.970  1.00 24.59           C
ATOM   4258  C   GLU A 702     -13.855  -3.692  54.883  1.00 26.61           C
ATOM   4259  O   GLU A 702     -14.489  -4.068  55.868  1.00 28.57           O
ATOM   4260  CB  GLU A 702     -14.248  -5.567  53.302  1.00 26.53           C
ATOM   4261  CG  GLU A 702     -13.731  -6.645  52.367  1.00 26.06           C
ATOM   4262  CD  GLU A 702     -14.850  -7.543  51.858  1.00 25.99           C
ATOM   4263  OE1 GLU A 702     -15.233  -8.494  52.574  1.00 23.17           O
ATOM   4264  OE2 GLU A 702     -15.346  -7.298  50.742  1.00 23.48           O
ATOM   4265  N   SER A 703     -13.711  -2.411  54.583  1.00 30.19           N
ATOM   4266  CA  SER A 703     -14.329  -1.396  55.421  1.00 32.24           C
ATOM   4267  C   SER A 703     -15.841  -1.569  55.393  1.00 33.61           C
ATOM   4268  O   SER A 703     -16.534  -1.195  56.334  1.00 37.11           O
ATOM   4269  CB  SER A 703     -13.954   0.007  54.932  1.00 32.63           C
ATOM   4270  OG  SER A 703     -14.540   0.290  53.672  1.00 38.54           O
ATOM   4271  N   SER A 704     -16.344  -2.159  54.315  1.00 36.30           N
ATOM   4272  CA  SER A 704     -17.775  -2.370  54.154  1.00 39.62           C
ATOM   4273  C   SER A 704     -18.323  -3.581  54.910  1.00 41.97           C
ATOM   4274  O   SER A 704     -19.468  -3.557  55.367  1.00 44.26           O
ATOM   4275  CB  SER A 704     -18.122  -2.490  52.661  1.00 37.43           C
ATOM   4276  OG  SER A 704     -17.683  -3.725  52.123  1.00 41.22           O
ATOM   4277  N   ASN A 705     -17.512  -4.630  55.053  1.00 41.46           N
ATOM   4278  CA  ASN A 705     -17.945  -5.851  55.741  1.00 40.14           C
ATOM   4279  C   ASN A 705     -17.149  -6.124  57.009  1.00 36.07           C
ATOM   4280  O   ASN A 705     -16.398  -7.096  57.081  1.00 38.57           O
ATOM   4281  CB  ASN A 705     -17.807  -7.056  54.805  1.00 47.14           C
ATOM   4282  CG  ASN A 705     -19.078  -7.343  54.021  1.00 51.73           C
ATOM   4283  OD1 ASN A 705     -19.765  -8.344  54.268  1.00 52.59           O
ATOM   4284  ND2 ASN A 705     -19.395  -6.469  53.066  1.00 47.28           N
ATOM   4285  N   PRO A 706     -17.317  -5.282  58.037  1.00 32.42           N
ATOM   4286  CA  PRO A 706     -16.572  -5.494  59.279  1.00 30.01           C
ATOM   4287  C   PRO A 706     -16.802  -6.839  59.954  1.00 30.05           C
ATOM   4288  O   PRO A 706     -17.840  -7.489  59.783  1.00 28.53           O
ATOM   4289  CB  PRO A 706     -16.997  -4.325  60.164  1.00 30.64           C
ATOM   4290  CG  PRO A 706     -18.274  -3.822  59.559  1.00 29.03           C
ATOM   4291  CD  PRO A 706     -18.189  -4.098  58.103  1.00 30.40           C
ATOM   4292  N   TYR A 707     -15.805  -7.250  60.725  1.00 26.03           N
ATOM   4293  CA  TYR A 707     -15.857  -8.502  61.451  1.00 22.79           C
ATOM   4294  C   TYR A 707     -16.095  -8.184  62.910  1.00 22.69           C
ATOM   4295  O   TYR A 707     -15.683  -7.135  63.401  1.00 24.54           O
ATOM   4296  CB  TYR A 707     -14.522  -9.233  61.356  1.00 22.44           C
ATOM   4297  CG  TYR A 707     -14.304 -10.063  60.117  1.00 23.80           C
ATOM   4298  CD1 TYR A 707     -15.014 -11.249  59.908  1.00 17.98           C
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ATOM   4299  CD2 TYR A 707     -13.331  -9.706  59.188  1.00 20.80           C
ATOM   4300  CE1 TYR A 707     -14.750 -12.058  58.803  1.00 20.55           C
ATOM   4301  CE2 TYR A 707     -13.063 -10.510  58.084  1.00 21.25           C
ATOM   4302  CZ  TYR A 707     -13.769 -11.681  57.897  1.00 16.54           C
ATOM   4303  OH  TYR A 707     -13.477 -12.486  56.816  1.00 15.58           O
ATOM   4304  N   LYS A 708     -16.767  -9.093  63.598  1.00 22.80           N
ATOM   4305  CA  LYS A 708     -17.009  -8.953  65.024  1.00 26.01           C
ATOM   4306  C   LYS A 708     -16.054 -10.019  65.550  1.00 24.91           C
ATOM   4307  O   LYS A 708     -16.182 -11.191  65.204  1.00 22.82           O
ATOM   4308  CB  LYS A 708     -18.461  -9.305  65.363  1.00 31.04           C
ATOM   4309  CG  LYS A 708     -18.965  -8.702  66.658  1.00 35.97           C
ATOM   4310  CD  LYS A 708     -20.314  -8.020  66.465  1.00 47.47           C
ATOM   4311  CE  LYS A 708     -20.167  -6.497  66.367  1.00 52.77           C
ATOM   4312  NZ  LYS A 708     -21.067  -5.768  67.320  1.00 53.20           N
ATOM   4313  N   VAL A 709     -15.081  -9.617  66.358  1.00 26.00           N
ATOM   4314  CA  VAL A 709     -14.093 -10.564  66.858  1.00 22.25           C
ATOM   4315  C   VAL A 709     -14.420 -11.187  68.191  1.00 20.36           C
ATOM   4316  O   VAL A 709     -14.666 -10.496  69.175  1.00 20.12           O
ATOM   4317  CB  VAL A 709     -12.702  -9.901  66.964  1.00 26.95           C
ATOM   4318  CG1 VAL A 709     -11.652 -10.935  67.373  1.00 26.92           C
ATOM   4319  CG2 VAL A 709     -12.341  -9.262  65.635  1.00 23.89           C
ATOM   4320  N   TYR A 710     -14.409 -12.510  68.222  1.00 20.52           N
ATOM   4321  CA  TYR A 710     -14.689 -13.224  69.447  1.00 20.96           C
ATOM   4322  C   TYR A 710     -13.474 -14.030  69.855  1.00 21.56           C
ATOM   4323  O   TYR A 710     -12.844 -14.685  69.026  1.00 22.20           O
ATOM   4324  CB  TYR A 710     -15.861 -14.195  69.269  1.00 23.32           C
ATOM   4325  CG  TYR A 710     -17.180 -13.552  68.922  1.00 27.30           C
ATOM   4326  CD1 TYR A 710     -17.505 -13.265  67.597  1.00 31.04           C
ATOM   4327  CD2 TYR A 710     -18.122 -13.254  69.916  1.00 29.45           C
ATOM   4328  CE1 TYR A 710     -18.737 -12.698  67.261  1.00 34.56           C
ATOM   4329  CE2 TYR A 710     -19.362 -12.684  69.589  1.00 29.88           C
ATOM   4330  CZ  TYR A 710     -19.659 -12.412  68.260  1.00 32.80           C
ATOM   4331  OH  TYR A 710     -20.868 -11.860  67.914  1.00 37.04           O
ATOM   4332  N   VAL A 711     -13.154 -13.980  71.138  1.00 18.50           N
ATOM   4333  CA  VAL A 711     -12.057 -14.749  71.667  1.00 22.20           C
ATOM   4334  C   VAL A 711     -12.705 -15.574  72.750  1.00 19.61           C
ATOM   4335  O   VAL A 711     -13.198 -15.033  73.735  1.00 23.91           O
ATOM   4336  CB  VAL A 711     -10.959 -13.858  72.277  1.00 22.97           C
ATOM   4337  CG1 VAL A 711      -9.899 -14.725  72.932  1.00 22.31           C
ATOM   4338  CG2 VAL A 711     -10.341 -13.004  71.197  1.00 15.51           C
ATOM   4339  N   ASN A 712     -12.716 -16.885  72.561  1.00 20.86           N
ATOM   4340  CA  ASN A 712     -13.336 -17.767  73.529  1.00 24.77           C
ATOM   4341  C   ASN A 712     -14.837 -17.469  73.559  1.00 28.20           C
ATOM   4342  O   ASN A 712     -15.480 -17.556  74.606  1.00 29.15           O
ATOM   4343  CB  ASN A 712     -12.719 -17.542  74.907  1.00 23.46           C
ATOM   4344  CG  ASN A 712     -11.308 -18.093  75.005  1.00 28.82           C
ATOM   4345  OD1 ASN A 712     -10.862 -18.851  74.140  1.00 31.37           O
ATOM   4346  ND2 ASN A 712     -10.598 -17.718  76.060  1.00 28.39           N
ATOM   4347  N   ASP A 713     -15.377 -17.114  72.395  1.00 29.05           N
ATOM   4348  CA  ASP A 713     -16.798 -16.791  72.233  1.00 33.51           C
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ATOM   4349  C   ASP A 713     -17.244 -15.549  73.002  1.00 32.79           C
ATOM   4350  O   ASP A 713     -18.413 -15.430  73.371  1.00 32.73           O
ATOM   4351  CB  ASP A 713     -17.675 -17.981  72.642  1.00 33.21           C
ATOM   4352  CG  ASP A 713     -19.078 -17.897  72.059  1.00 34.56           C
ATOM   4353  OD1 ASP A 713     -19.214 -17.418  70.912  1.00 27.61           O
ATOM   4354  OD2 ASP A 713     -20.039 -18.310  72.744  1.00 33.83           O
ATOM   4355  N   LYS A 714     -16.310 -14.633  73.243  1.00 31.63           N
ATOM   4356  CA  LYS A 714     -16.606 -13.394  73.951  1.00 32.04           C
ATOM   4357  C   LYS A 714     -16.124 -12.247  73.092  1.00 31.61           C
ATOM   4358  O   LYS A 714     -14.956 -12.195  72.719  1.00 33.06           O
ATOM   4359  CB  LYS A 714     -15.890 -13.345  75.298  1.00 33.93           C
ATOM   4360  CG  LYS A 714     -16.495 -14.245  76.360  1.00 42.56           C
ATOM   4361  CD  LYS A 714     -16.067 -13.809  77.758  1.00 50.44           C
ATOM   4362  CE  LYS A 714     -15.278 -14.903  78.474  1.00 55.36           C
ATOM   4363  NZ  LYS A 714     -14.970 -14.535  79.895  1.00 57.87           N
ATOM   4364  N   GLU A 715     -17.027 -11.330  72.776  1.00 31.20           N
ATOM   4365  CA  GLU A 715     -16.690 -10.183  71.950  1.00 32.44           C
ATOM   4366  C   GLU A 715     -15.386  -9.543  72.410  1.00 33.17           C
ATOM   4367  O   GLU A 715     -15.171  -9.326  73.606  1.00 32.11           O
ATOM   4368  CB  GLU A 715     -17.817  -9.158  72.006  1.00 35.91           C
ATOM   4369  CG  GLU A 715     -17.467  -7.818  71.407  1.00 43.49           C
ATOM   4370  CD  GLU A 715     -18.184  -7.584  70.104  1.00 47.20           C
ATOM   4371  OE1 GLU A 715     -18.386  -6.410  69.728  1.00 46.49           O
ATOM   4372  OE2 GLU A 715     -18.549  -8.585  69.455  1.00 54.44           O
ATOM   4373  N   ALA A 716     -14.516  -9.246  71.452  1.00 32.26           N
ATOM   4374  CA  ALA A 716     -13.233  -8.627  71.751  1.00 34.06           C
ATOM   4375  C   ALA A 716     -13.061  -7.395  70.894  1.00 32.91           C
ATOM   4376  O   ALA A 716     -13.457  -7.375  69.728  1.00 36.85           O
ATOM   4377  CB  ALA A 716     -12.092  -9.605  71.485  1.00 34.43           C
ATOM   4378  N   SER A 717     -12.475  -6.361  71.475  1.00 29.82           N
ATOM   4379  CA  SER A 717     -12.247  -5.137  70.736  1.00 31.92           C
ATOM   4380  C   SER A 717     -10.761  -5.053  70.429  1.00 31.63           C
ATOM   4381  O   SER A 717      -9.943  -4.864  71.324  1.00 32.26           O
ATOM   4382  CB  SER A 717     -12.696  -3.943  71.567  1.00 31.70           C
ATOM   4383  OG  SER A 717     -13.410  -4.390  72.707  1.00 43.11           O
ATOM   4384  N   LEU A 718     -10.420  -5.219  69.157  1.00 32.06           N
ATOM   4385  CA  LEU A 718      -9.034  -5.169  68.727  1.00 32.08           C
ATOM   4386  C   LEU A 718      -8.600  -3.745  68.440  1.00 35.44           C
ATOM   4387  O   LEU A 718      -9.397  -2.907  68.010  1.00 36.86           O
ATOM   4388  CB  LEU A 718      -8.843  -6.023  67.481  1.00 27.06           C
ATOM   4389  CG  LEU A 718      -9.232  -7.486  67.659  1.00 26.11           C
ATOM   4390  CD1 LEU A 718      -8.815  -8.256  66.424  1.00 23.76           C
ATOM   4391  CD2 LEU A 718      -8.579  -8.057  68.911  1.00 23.07           C
ATOM   4392  N   THR A 719      -7.322  -3.482  68.675  1.00 36.15           N
ATOM   4393  CA  THR A 719      -6.758  -2.166  68.460  1.00 34.20           C
ATOM   4394  C   THR A 719      -5.498  -2.259  67.626  1.00 33.31           C
ATOM   4395  O   THR A 719      -5.006  -3.352  67.336  1.00 29.14           O
ATOM   4396  CB  THR A 719      -6.383  -1.523  69.786  1.00 36.69           C
ATOM   4397  OG1 THR A 719      -5.645  -2.471  70.565  1.00 38.23           O
ATOM   4398  CG2 THR A 719      -7.629  -1.112  70.556  1.00 39.61           C
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ATOM   4399  N   GLU A 720      -4.987  -1.097  67.238  1.00 34.11           N
ATOM   4400  CA  GLU A 720      -3.760  -1.018  66.463  1.00 37.40           C
ATOM   4401  C   GLU A 720      -2.687  -1.656  67.332  1.00 35.10           C
ATOM   4402  O   GLU A 720      -1.872  -2.445  66.864  1.00 34.80           O
ATOM   4403  CB  GLU A 720      -3.404   0.442  66.195  1.00 41.61           C
ATOM   4404  CG  GLU A 720      -3.131   0.756  64.740  1.00 52.75           C
ATOM   4405  CD  GLU A 720      -1.782   1.430  64.523  1.00 59.04           C
ATOM   4406  OE1 GLU A 720      -1.322   2.160  65.429  1.00 62.67           O
ATOM   4407  OE2 GLU A 720      -1.180   1.230  63.444  1.00 63.40           O
ATOM   4408  N   GLN A 721      -2.713  -1.306  68.612  1.00 34.74           N
ATOM   4409  CA  GLN A 721      -1.769  -1.843  69.575  1.00 38.20           C
ATOM   4410  C   GLN A 721      -2.120  -3.293  69.859  1.00 36.44           C
ATOM   4411  O   GLN A 721      -3.272  -3.624  70.128  1.00 36.35           O
ATOM   4412  CB  GLN A 721      -1.816  -1.040  70.877  1.00 43.89           C
ATOM   4413  CG  GLN A 721      -0.499  -0.359  71.230  1.00 52.56           C
ATOM   4414  CD  GLN A 721      -0.077  -0.605  72.669  1.00 55.95           C
ATOM   4415  OE1 GLN A 721      -0.303  -1.684  73.221  1.00 63.00           O
ATOM   4416  NE2 GLN A 721       0.540   0.400  73.285  1.00 58.80           N
ATOM   4417  N   GLU A 722      -1.113  -4.153  69.795  1.00 37.10           N
ATOM   4418  CA  GLU A 722      -1.300  -5.573  70.033  1.00 36.26           C
ATOM   4419  C   GLU A 722      -1.867  -5.842  71.413  1.00 34.90           C
ATOM   4420  O   GLU A 722      -1.487  -5.200  72.390  1.00 37.55           O
ATOM   4421  CB  GLU A 722       0.034  -6.294  69.904  1.00 38.14           C
ATOM   4422  CG  GLU A 722       0.063  -7.385  68.875  1.00 43.93           C
ATOM   4423  CD  GLU A 722       1.456  -7.959  68.714  1.00 49.34           C
ATOM   4424  OE1 GLU A 722       1.922  -8.655  69.640  1.00 49.06           O
ATOM   4425  OE2 GLU A 722       2.088  -7.708  67.665  1.00 52.76           O
ATOM   4426  N   LYS A 723      -2.783  -6.797  71.487  1.00 32.25           N
ATOM   4427  CA  LYS A 723      -3.377  -7.183  72.757  1.00 31.26           C
ATOM   4428  C   LYS A 723      -3.100  -8.674  72.922  1.00 29.31           C
ATOM   4429  O   LYS A 723      -3.178  -9.432  71.954  1.00 29.15           O
ATOM   4430  CB  LYS A 723      -4.885  -6.922  72.740  1.00 34.80           C
ATOM   4431  CG  LYS A 723      -5.261  -5.477  73.002  1.00 36.08           C
ATOM   4432  CD  LYS A 723      -6.579  -5.123  72.335  1.00 39.87           C
ATOM   4433  CE  LYS A 723      -7.631  -4.782  73.361  1.00 33.94           C
ATOM   4434  NZ  LYS A 723      -7.410  -5.560  74.599  1.00 41.84           N
ATOM   4435  N   ASP A 724      -2.764  -9.105  74.131  1.00 28.35           N
ATOM   4436  CA  ASP A 724      -2.488 -10.519  74.336  1.00 30.84           C
ATOM   4437  C   ASP A 724      -3.676 -11.257  74.924  1.00 29.74           C
ATOM   4438  O   ASP A 724      -4.359 -10.761  75.818  1.00 31.41           O
ATOM   4439  CB  ASP A 724      -1.278 -10.712  75.248  1.00 35.21           C
ATOM   4440  CG  ASP A 724      -0.058  -9.964  74.765  1.00 38.04           C
ATOM   4441  OD1 ASP A 724       0.685  -9.465  75.628  1.00 45.36           O
ATOM   4442  OD2 ASP A 724       0.165  -9.871  73.538  1.00 36.86           O
ATOM   4443  N   TYR A 725      -3.917 -12.453  74.414  1.00 26.21           N
ATOM   4444  CA  TYR A 725      -5.017 -13.251  74.896  1.00 24.33           C
ATOM   4445  C   TYR A 725      -4.476 -14.587  75.367  1.00 22.58           C
ATOM   4446  O   TYR A 725      -4.251 -15.498  74.575  1.00 23.55           O
ATOM   4447  CB  TYR A 725      -6.060 -13.431  73.784  1.00 26.35           C
ATOM   4448  CG  TYR A 725      -6.713 -12.125  73.368  1.00 26.90           C
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ATOM   4449  CD1 TYR A 725      -6.170 -11.340  72.355  1.00 27.63           C
ATOM   4450  CD2 TYR A 725      -7.844 -11.647  74.030  1.00 31.87           C
ATOM   4451  CE1 TYR A 725      -6.734 -10.106  72.014  1.00 29.23           C
ATOM   4452  CE2 TYR A 725      -8.414 -10.417  73.698  1.00 29.07           C
ATOM   4453  CZ  TYR A 725      -7.855  -9.653  72.693  1.00 31.55           C
ATOM   4454  OH  TYR A 725      -8.417  -8.435  72.375  1.00 37.99           O
ATOM   4455  N   PRO A 726      -4.221 -14.707  76.674  1.00 26.35           N
ATOM   4456  CA  PRO A 726      -3.703 -15.960  77.225  1.00 28.84           C
ATOM   4457  C   PRO A 726      -4.845 -16.953  77.399  1.00 31.51           C
ATOM   4458  O   PRO A 726      -6.012 -16.571  77.484  1.00 32.31           O
ATOM   4459  CB  PRO A 726      -3.092 -15.551  78.565  1.00 27.97           C
ATOM   4460  CG  PRO A 726      -3.368 -14.062  78.719  1.00 28.47           C
ATOM   4461  CD  PRO A 726      -4.391 -13.679  77.712  1.00 27.50           C
ATOM   4462  N   GLU A 727      -4.511 -18.232  77.438  1.00 33.80           N
ATOM   4463  CA  GLU A 727      -5.525 -19.256  77.606  1.00 32.09           C
ATOM   4464  C   GLU A 727      -6.624 -19.170  76.553  1.00 30.05           C
ATOM   4465  O   GLU A 727      -7.792 -19.385  76.860  1.00 35.12           O
ATOM   4466  CB  GLU A 727      -6.141 -19.140  78.996  1.00 32.86           C
ATOM   4467  CG  GLU A 727      -5.117 -19.070  80.101  1.00 35.45           C
ATOM   4468  CD  GLU A 727      -4.562 -20.429  80.451  1.00 41.45           C
ATOM   4469  OE1 GLU A 727      -4.427 -21.281  79.545  1.00 42.76           O
ATOM   4470  OE2 GLU A 727      -4.261 -20.648  81.640  1.00 48.63           O
ATOM   4471  N   THR A 728      -6.251 -18.857  75.316  1.00 25.41           N
ATOM   4472  CA  THR A 728      -7.221 -18.769  74.238  1.00 22.62           C
ATOM   4473  C   THR A 728      -7.508 -20.156  73.687  1.00 23.73           C
ATOM   4474  O   THR A 728      -6.598 -20.883  73.294  1.00 20.15           O
ATOM   4475  CB  THR A 728      -6.711 -17.876  73.101  1.00 19.11           C
ATOM   4476  OG1 THR A 728      -6.702 -16.514  73.541  1.00 20.50           O
ATOM   4477  CG2 THR A 728      -7.605 -17.993  71.873  1.00 21.10           C
ATOM   4478  N   GLN A 729      -8.783 -20.529  73.671  1.00 23.18           N
ATOM   4479  CA  GLN A 729      -9.177 -21.833  73.155  1.00 22.63           C
ATOM   4480  C   GLN A 729      -9.685 -21.656  71.735  1.00 19.95           C
ATOM   4481  O   GLN A 729      -9.685 -22.590  70.940  1.00 19.91           O
ATOM   4482  CB  GLN A 729     -10.270 -22.457  74.033  1.00 28.03           C
ATOM   4483  CG  GLN A 729     -10.503 -23.949  73.776  1.00 36.04           C
ATOM   4484  CD  GLN A 729      -9.711 -24.852  74.721  1.00 39.79           C
ATOM   4485  OE1 GLN A 729      -9.772 -24.699  75.944  1.00 46.10           O
ATOM   4486  NE2 GLN A 729      -8.963 -25.799  74.154  1.00 35.30           N
ATOM   4487  N   SER A 730     -10.112 -20.443  71.412  1.00 18.51           N
ATOM   4488  CA  SER A 730     -10.612 -20.180  70.081  1.00 16.55           C
ATOM   4489  C   SER A 730     -10.738 -18.711  69.800  1.00 14.21           C
ATOM   4490  O   SER A 730     -10.778 -17.889  70.708  1.00 19.36           O
ATOM   4491  CB  SER A 730     -11.981 -20.829  69.889  1.00 21.14           C
ATOM   4492  OG  SER A 730     -12.996 -20.020  70.461  1.00 20.11           O
ATOM   4493  N   VAL A 731     -10.789 -18.398  68.516  1.00 17.51           N
ATOM   4494  CA  VAL A 731     -10.958 -17.037  68.044  1.00 19.90           C
ATOM   4495  C   VAL A 731     -11.937 -17.166  66.875  1.00 21.72           C
ATOM   4496  O   VAL A 731     -11.830 -18.096  66.067  1.00 19.70           O
ATOM   4497  CB  VAL A 731      -9.615 -16.422  67.549  1.00 21.14           C
ATOM   4498  CG1 VAL A 731      -9.885 -15.131  66.765  1.00 17.89           C
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ATOM   4499  CG2 VAL A 731      -8.692 -16.142  68.748  1.00 13.43           C
ATOM   4500  N   PHE A 732     -12.904 -16.259  66.794  1.00 21.50           N
ATOM   4501  CA  PHE A 732     -13.876 -16.315  65.711  1.00 17.96           C
ATOM   4502  C   PHE A 732     -14.076 -14.956  65.065  1.00 15.43           C
ATOM   4503  O   PHE A 732     -14.322 -13.962  65.751  1.00 18.57           O
ATOM   4504  CB  PHE A 732     -15.223 -16.845  66.228  1.00 19.56           C
ATOM   4505  CG  PHE A 732     -16.215 -17.147  65.133  1.00 19.85           C
ATOM   4506  CD1 PHE A 732     -16.008 -18.220  64.265  1.00 18.38           C
ATOM   4507  CD2 PHE A 732     -17.321 -16.327  64.930  1.00 18.25           C
ATOM   4508  CE1 PHE A 732     -16.881 -18.469  63.211  1.00 20.12           C
ATOM   4509  CE2 PHE A 732     -18.200 -16.568  63.879  1.00 17.89           C
ATOM   4510  CZ  PHE A 732     -17.980 -17.640  63.018  1.00 18.66           C
ATOM   4511  N   LEU A 733     -13.944 -14.922  63.742  1.00 15.16           N
ATOM   4512  CA  LEU A 733     -14.131 -13.708  62.960  1.00 15.32           C
ATOM   4513  C   LEU A 733     -15.523 -13.818  62.353  1.00 15.72           C
ATOM   4514  O   LEU A 733     -15.750 -14.617  61.442  1.00 15.15           O
ATOM   4515  CB  LEU A 733     -13.093 -13.625  61.841  1.00 14.34           C
ATOM   4516  CG  LEU A 733     -11.635 -13.684  62.310  1.00 19.29           C
ATOM   4517  CD1 LEU A 733     -10.716 -13.262  61.180  1.00 16.55           C
ATOM   4518  CD2 LEU A 733     -11.459 -12.783  63.526  1.00 20.90           C
ATOM   4519  N   GLU A 734     -16.444 -13.005  62.852  1.00 16.57           N
ATOM   4520  CA  GLU A 734     -17.831 -13.044  62.397  1.00 17.21           C
ATOM   4521  C   GLU A 734     -18.250 -11.922  61.457  1.00 16.80           C
ATOM   4522  O   GLU A 734     -18.238 -10.739  61.822  1.00 18.22           O
ATOM   4523  CB  GLU A 734     -18.750 -13.054  63.615  1.00 17.72           C
ATOM   4524  CG  GLU A 734     -20.227 -13.137  63.293  1.00 18.22           C
ATOM   4525  CD  GLU A 734     -21.072 -13.168  64.546  1.00 14.89           C
ATOM   4526  OE1 GLU A 734     -21.120 -12.133  65.248  1.00 20.77           O
ATOM   4527  OE2 GLU A 734     -21.679 -14.226  64.827  1.00 18.02           O
ATOM   4528  N   SER A 735     -18.626 -12.307  60.243  1.00 16.88           N
ATOM   4529  CA  SER A 735     -19.076 -11.354  59.239  1.00 18.19           C
ATOM   4530  C   SER A 735     -20.583 -11.520  59.090  1.00 20.63           C
ATOM   4531  O   SER A 735     -21.163 -12.464  59.625  1.00 19.67           O
ATOM   4532  CB  SER A 735     -18.418 -11.646  57.895  1.00 15.27           C
ATOM   4533  OG  SER A 735     -19.081 -10.964  56.842  1.00 18.17           O
ATOM   4534  N   SER A 736     -21.206 -10.605  58.358  1.00 21.62           N
ATOM   4535  CA  SER A 736     -22.639 -10.676  58.113  1.00 23.02           C
ATOM   4536  C   SER A 736     -22.827 -11.805  57.114  1.00 24.71           C
ATOM   4537  O   SER A 736     -23.885 -12.429  57.045  1.00 25.51           O
ATOM   4538  CB  SER A 736     -23.129  -9.371  57.505  1.00 20.98           C
ATOM   4539  OG  SER A 736     -22.401  -9.084  56.326  1.00 26.95           O
ATOM   4540  N   ASP A 737     -21.778 -12.062  56.341  1.00 22.98           N
ATOM   4541  CA  ASP A 737     -21.796 -13.116  55.341  1.00 18.83           C
ATOM   4542  C   ASP A 737     -21.056 -14.323  55.882  1.00 21.98           C
ATOM   4543  O   ASP A 737     -19.840 -14.294  56.019  1.00 22.79           O
ATOM   4544  CB  ASP A 737     -21.124 -12.635  54.061  1.00 17.92           C
ATOM   4545  CG  ASP A 737     -21.245 -13.633  52.942  1.00 18.79           C
ATOM   4546  OD1 ASP A 737     -20.952 -13.284  51.780  1.00 23.36           O
ATOM   4547  OD2 ASP A 737     -21.639 -14.777  53.230  1.00 20.96           O
ATOM   4548  N   SER A 738     -21.793 -15.383  56.190  1.00 21.56           N
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ATOM   4549  CA  SER A 738     -21.207 -16.606  56.729  1.00 23.25           C
ATOM   4550  C   SER A 738     -20.068 -17.150  55.876  1.00 20.53           C
ATOM   4551  O   SER A 738     -19.203 -17.852  56.380  1.00 21.43           O
ATOM   4552  CB  SER A 738     -22.280 -17.690  56.872  1.00 23.95           C
ATOM   4553  OG  SER A 738     -22.847 -17.670  58.171  1.00 35.00           O
ATOM   4554  N   LYS A 739     -20.081 -16.835  54.586  1.00 19.79           N
ATOM   4555  CA  LYS A 739     -19.049 -17.306  53.669  1.00 21.14           C
ATOM   4556  C   LYS A 739     -17.765 -16.480  53.770  1.00 19.15           C
ATOM   4557  O   LYS A 739     -16.908 -16.554  52.898  1.00 20.74           O
ATOM   4558  CB  LYS A 739     -19.563 -17.266  52.232  1.00 19.19           C
ATOM   4559  CG  LYS A 739     -19.517 -18.607  51.525  1.00 25.94           C
ATOM   4560  CD  LYS A 739     -20.481 -19.597  52.151  1.00 21.88           C
ATOM   4561  CE  LYS A 739     -21.517 -20.043  51.137  1.00 25.87           C
ATOM   4562  NZ  LYS A 739     -21.352 -21.466  50.752  1.00 22.63           N
ATOM   4563  N   LYS A 740     -17.655 -15.685  54.827  1.00 16.02           N
ATOM   4564  CA  LYS A 740     -16.470 -14.862  55.059  1.00 18.36           C
ATOM   4565  C   LYS A 740     -16.021 -15.068  56.498  1.00 17.79           C
ATOM   4566  O   LYS A 740     -15.117 -14.399  56.984  1.00 21.45           O
ATOM   4567  CB  LYS A 740     -16.781 -13.381  54.839  1.00 11.46           C
ATOM   4568  CG  LYS A 740     -16.787 -12.973  53.385  1.00  8.36           C
ATOM   4569  CD  LYS A 740     -17.164 -11.520  53.253  1.00 10.91           C
ATOM   4570  CE  LYS A 740     -17.479 -11.174  51.820  1.00 13.46           C
ATOM   4571  NZ  LYS A 740     -17.632  -9.702  51.674  1.00 20.28           N
ATOM   4572  N   ASN A 741     -16.672 -15.997  57.183  1.00 18.77           N
ATOM   4573  CA  ASN A 741     -16.342 -16.277  58.569  1.00 20.42           C
ATOM   4574  C   ASN A 741     -15.072 -17.121  58.675  1.00 18.19           C
ATOM   4575  O   ASN A 741     -14.801 -17.970  57.816  1.00 18.42           O
ATOM   4576  CB  ASN A 741     -17.498 -17.024  59.239  1.00 19.45           C
ATOM   4577  CG  ASN A 741     -18.690 -16.141  59.502  1.00 19.08           C
ATOM   4578  OD1 ASN A 741     -18.651 -14.936  59.265  1.00 17.96           O
ATOM   4579  ND2 ASN A 741     -19.763 -16.739  60.005  1.00 20.04           N
ATOM   4580  N   ILE A 742     -14.291 -16.873  59.722  1.00 16.78           N
ATOM   4581  CA  ILE A 742     -13.066 -17.629  59.955  1.00 14.73           C
ATOM   4582  C   ILE A 742     -12.941 -17.949  61.426  1.00 11.50           C
ATOM   4583  O   ILE A 742     -12.936 -17.050  62.270  1.00 18.00           O
ATOM   4584  CB  ILE A 742     -11.794 -16.852  59.538  1.00 17.46           C
ATOM   4585  CG1 ILE A 742     -11.938 -16.302  58.125  1.00 16.16           C
ATOM   4586  CG2 ILE A 742     -10.597 -17.781  59.575  1.00 12.75           C
ATOM   4587  CD1 ILE A 742     -10.967 -15.175  57.824  1.00 21.25           C
ATOM   4588  N   GLY A 743     -12.861 -19.234  61.740  1.00 11.61           N
ATOM   4589  CA  GLY A 743     -12.708 -19.636  63.123  1.00 12.78           C
ATOM   4590  C   GLY A 743     -11.386 -20.364  63.314  1.00 17.17           C
ATOM   4591  O   GLY A 743     -10.895 -21.028  62.395  1.00 18.22           O
ATOM   4592  N   TYR A 744     -10.802 -20.227  64.499  1.00 19.29           N
ATOM   4593  CA  TYR A 744      -9.546 -20.887  64.827  1.00 17.49           C
ATOM   4594  C   TYR A 744      -9.710 -21.566  66.168  1.00 14.30           C
ATOM   4595  O   TYR A 744      -9.891 -20.906  67.190  1.00 19.62           O
ATOM   4596  CB  TYR A 744      -8.398 -19.883  64.924  1.00 15.97           C
ATOM   4597  CG  TYR A 744      -8.327 -18.893  63.792  1.00 18.76           C
ATOM   4598  CD1 TYR A 744      -8.989 -17.668  63.878  1.00 24.09           C
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ATOM   4599  CD2 TYR A 744      -7.566 -19.155  62.655  1.00 18.99           C
ATOM   4600  CE1 TYR A 744      -8.894 -16.726  62.864  1.00 23.92           C
ATOM   4601  CE2 TYR A 744      -7.462 -18.216  61.631  1.00 20.17           C
ATOM   4602  CZ  TYR A 744      -8.129 -17.005  61.747  1.00 23.23           C
ATOM   4603  OH  TYR A 744      -8.032 -16.062  60.755  1.00 26.83           O
ATOM   4604  N   PHE A 745      -9.649 -22.891  66.155  1.00 14.29           N
ATOM   4605  CA  PHE A 745      -9.779 -23.678  67.367  1.00 14.12           C
ATOM   4606  C   PHE A 745      -8.400 -24.174  67.777  1.00 15.22           C
ATOM   4607  O   PHE A 745      -7.760 -24.913  67.033  1.00 15.31           O
ATOM   4608  CB  PHE A 745     -10.680 -24.885  67.119  1.00 12.00           C
ATOM   4609  CG  PHE A 745     -10.653 -25.896  68.232  1.00 14.77           C
ATOM   4610  CD1 PHE A 745     -10.854 -25.502  69.548  1.00 10.58           C
ATOM   4611  CD2 PHE A 745     -10.430 -27.245  67.962  1.00 14.07           C
ATOM   4612  CE1 PHE A 745     -10.835 -26.433  70.586  1.00 11.95           C
ATOM   4613  CE2 PHE A 745     -10.407 -28.187  68.994  1.00 13.17           C
ATOM   4614  CZ  PHE A 745     -10.609 -27.783  70.305  1.00 13.17           C
ATOM   4615  N   PHE A 746      -7.953 -23.765  68.956  1.00 15.82           N
ATOM   4616  CA  PHE A 746      -6.651 -24.180  69.478  1.00 18.36           C
ATOM   4617  C   PHE A 746      -6.792 -25.459  70.295  1.00 17.44           C
ATOM   4618  O   PHE A 746      -7.352 -25.439  71.390  1.00 19.21           O
ATOM   4619  CB  PHE A 746      -6.077 -23.057  70.335  1.00 14.91           C
ATOM   4620  CG  PHE A 746      -5.852 -21.799  69.571  1.00 17.89           C
ATOM   4621  CD1 PHE A 746      -6.840 -20.826  69.507  1.00 18.85           C
ATOM   4622  CD2 PHE A 746      -4.670 -21.605  68.861  1.00 18.69           C
ATOM   4623  CE1 PHE A 746      -6.659 -19.677  68.743  1.00 21.36           C
ATOM   4624  CE2 PHE A 746      -4.479 -20.458  68.093  1.00 17.10           C
ATOM   4625  CZ  PHE A 746      -5.478 -19.491  68.034  1.00 18.60           C
ATOM   4626  N   PHE A 747      -6.280 -26.567  69.762  1.00 19.43           N
ATOM   4627  CA  PHE A 747      -6.370 -27.861  70.434  1.00 18.66           C
ATOM   4628  C   PHE A 747      -6.039 -27.757  71.906  1.00 18.35           C
ATOM   4629  O   PHE A 747      -6.668 -28.406  72.742  1.00 21.39           O
ATOM   4630  CB  PHE A 747      -5.468 -28.877  69.744  1.00 18.00           C
ATOM   4631  CG  PHE A 747      -5.794 -29.076  68.291  1.00 18.84           C
ATOM   4632  CD1 PHE A 747      -7.016 -29.626  67.908  1.00 22.35           C
ATOM   4633  CD2 PHE A 747      -4.891 -28.702  67.301  1.00 16.97           C
ATOM   4634  CE1 PHE A 747      -7.332 -29.798  66.562  1.00 19.95           C
ATOM   4635  CE2 PHE A 747      -5.193 -28.869  65.952  1.00 17.50           C
ATOM   4636  CZ  PHE A 747      -6.419 -29.418  65.580  1.00 20.93           C
ATOM   4637  N   LYS A 748      -5.056 -26.931  72.232  1.00 19.50           N
ATOM   4638  CA  LYS A 748      -4.691 -26.716  73.626  1.00 21.46           C
ATOM   4639  C   LYS A 748      -4.718 -25.211  73.840  1.00 19.82           C
ATOM   4640  O   LYS A 748      -4.315 -24.454  72.963  1.00 21.76           O
ATOM   4641  CB  LYS A 748      -3.294 -27.281  73.913  1.00 27.45           C
ATOM   4642  CG  LYS A 748      -3.060 -28.669  73.317  1.00 34.35           C
ATOM   4643  CD  LYS A 748      -2.489 -29.641  74.341  1.00 39.98           C
ATOM   4644  CE  LYS A 748      -2.330 -31.042  73.758  1.00 39.29           C
ATOM   4645  NZ  LYS A 748      -0.980 -31.255  73.158  1.00 45.33           N
ATOM   4646  N   LYS A 749      -5.225 -24.771  74.986  1.00 24.25           N
ATOM   4647  CA  LYS A 749      -5.289 -23.342  75.264  1.00 26.33           C
ATOM   4648  C   LYS A 749      -3.906 -22.747  75.003  1.00 28.05           C
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ATOM   4649  O   LYS A 749      -2.916 -23.264  75.511  1.00 29.15           O
ATOM   4650  CB  LYS A 749      -5.709 -23.116  76.717  1.00 28.01           C
ATOM   4651  CG  LYS A 749      -7.215 -23.164  76.931  1.00 35.51           C
ATOM   4652  CD  LYS A 749      -7.570 -23.175  78.410  1.00 41.10           C
ATOM   4653  CE  LYS A 749      -8.537 -24.307  78.741  1.00 46.73           C
ATOM   4654  NZ  LYS A 749      -8.187 -25.584  78.046  1.00 48.55           N
ATOM   4655  N   SER A 750      -3.834 -21.681  74.204  1.00 26.99           N
ATOM   4656  CA  SER A 750      -2.553 -21.053  73.885  1.00 28.28           C
ATOM   4657  C   SER A 750      -2.539 -19.539  74.029  1.00 28.21           C
ATOM   4658  O   SER A 750      -3.590 -18.893  74.074  1.00 25.53           O
ATOM   4659  CB  SER A 750      -2.131 -21.410  72.465  1.00 29.79           C
ATOM   4660  OG  SER A 750      -3.169 -22.091  71.795  1.00 37.14           O
ATOM   4661  N   SER A 751      -1.330 -18.985  74.096  1.00 25.05           N
ATOM   4662  CA  SER A 751      -1.131 -17.547  74.238  1.00 24.84           C
ATOM   4663  C   SER A 751      -0.943 -16.922  72.877  1.00 23.49           C
ATOM   4664  O   SER A 751       0.034 -17.203  72.183  1.00 25.10           O
ATOM   4665  CB  SER A 751       0.102 -17.259  75.088  1.00 22.86           C
ATOM   4666  OG  SER A 751      -0.209 -17.337  76.461  1.00 33.64           O
ATOM   4667  N   ILE A 752      -1.877 -16.063  72.499  1.00 22.59           N
ATOM   4668  CA  ILE A 752      -1.812 -15.416  71.203  1.00 20.10           C
ATOM   4669  C   ILE A 752      -1.952 -13.910  71.323  1.00 18.88           C
ATOM   4670  O   ILE A 752      -2.311 -13.385  72.375  1.00 21.88           O
ATOM   4671  CB  ILE A 752      -2.917 -15.956  70.269  1.00 25.31           C
ATOM   4672  CG1 ILE A 752      -4.294 -15.521  70.780  1.00 22.84           C
ATOM   4673  CG2 ILE A 752      -2.841 -17.485  70.194  1.00 20.58           C
ATOM   4674  CD1 ILE A 752      -5.356 -15.504  69.701  1.00 20.29           C
ATOM   4675  N   SER A 753      -1.649 -13.216  70.237  1.00 20.23           N
ATOM   4676  CA  SER A 753      -1.748 -11.769  70.203  1.00 19.49           C
ATOM   4677  C   SER A 753      -2.528 -11.411  68.966  1.00 18.53           C
ATOM   4678  O   SER A 753      -2.446 -12.103  67.950  1.00 20.97           O
ATOM   4679  CB  SER A 753      -0.363 -11.135  70.115  1.00 20.47           C
ATOM   4680  OG  SER A 753       0.308 -11.246  71.352  1.00 37.48           O
ATOM   4681  N   MET A 754      -3.283 -10.325  69.052  1.00 20.08           N
ATOM   4682  CA  MET A 754      -4.078  -9.876  67.929  1.00 20.45           C
ATOM   4683  C   MET A 754      -4.063  -8.377  67.905  1.00 18.68           C
ATOM   4684  O   MET A 754      -3.868  -7.739  68.937  1.00 22.57           O
ATOM   4685  CB  MET A 754      -5.520 -10.355  68.074  1.00 24.04           C
ATOM   4686  CG  MET A 754      -5.713 -11.827  67.774  1.00 33.24           C
ATOM   4687  SD  MET A 754      -7.453 -12.245  67.706  1.00 35.63           S
ATOM   4688  CE  MET A 754      -7.921 -11.886  69.373  1.00 27.30           C
ATOM   4689  N   SER A 755      -4.267  -7.820  66.721  1.00 16.69           N
ATOM   4690  CA  SER A 755      -4.317  -6.385  66.561  1.00 17.90           C
ATOM   4691  C   SER A 755      -4.942  -6.128  65.209  1.00 18.47           C
ATOM   4692  O   SER A 755      -4.880  -6.975  64.325  1.00 19.05           O
ATOM   4693  CB  SER A 755      -2.912  -5.790  66.614  1.00 23.08           C
ATOM   4694  OG  SER A 755      -2.202  -6.066  65.420  1.00 25.78           O
ATOM   4695  N   LYS A 756      -5.578  -4.976  65.061  1.00 19.87           N
ATOM   4696  CA  LYS A 756      -6.196  -4.607  63.793  1.00 23.99           C
ATOM   4697  C   LYS A 756      -5.600  -3.252  63.512  1.00 23.98           C
ATOM   4698  O   LYS A 756      -5.622  -2.377  64.376  1.00 27.26           O
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ATOM   4699  CB  LYS A 756      -7.718  -4.487  63.929  1.00 28.51           C
ATOM   4700  CG  LYS A 756      -8.379  -3.726  62.779  1.00 32.05           C
ATOM   4701  CD  LYS A 756      -9.889  -3.925  62.752  1.00 34.69           C
ATOM   4702  CE  LYS A 756     -10.596  -2.952  63.683  1.00 39.73           C
ATOM   4703  NZ  LYS A 756     -12.079  -3.140  63.656  1.00 49.10           N
ATOM   4704  N   ALA A 757      -5.058  -3.062  62.320  1.00 23.09           N
ATOM   4705  CA  ALA A 757      -4.438  -1.784  62.039  1.00 22.98           C
ATOM   4706  C   ALA A 757      -4.348  -1.461  60.572  1.00 21.24           C
ATOM   4707  O   ALA A 757      -4.306  -2.350  59.720  1.00 23.23           O
ATOM   4708  CB  ALA A 757      -3.044  -1.750  62.659  1.00 25.30           C
ATOM   4709  N   LEU A 758      -4.310  -0.167  60.288  1.00 19.41           N
ATOM   4710  CA  LEU A 758      -4.197   0.308  58.928  1.00 22.52           C
ATOM   4711  C   LEU A 758      -2.728   0.162  58.552  1.00 26.23           C
ATOM   4712  O   LEU A 758      -1.848   0.608  59.289  1.00 28.39           O
ATOM   4713  CB  LEU A 758      -4.619   1.774  58.855  1.00 22.57           C
ATOM   4714  CG  LEU A 758      -4.669   2.427  57.474  1.00 27.44           C
ATOM   4715  CD1 LEU A 758      -5.533   1.618  56.532  1.00 29.86           C
ATOM   4716  CD2 LEU A 758      -5.228   3.820  57.614  1.00 31.47           C
ATOM   4717  N   GLN A 759      -2.460  -0.480  57.422  1.00 25.56           N
ATOM   4718  CA  GLN A 759      -1.091  -0.670  56.977  1.00 23.86           C
ATOM   4719  C   GLN A 759      -0.879   0.028  55.638  1.00 23.70           C
ATOM   4720  O   GLN A 759      -1.497  -0.326  54.642  1.00 26.25           O
ATOM   4721  CB  GLN A 759      -0.788  -2.170  56.883  1.00 21.50           C
ATOM   4722  CG  GLN A 759      -0.701  -2.829  58.263  1.00 18.12           C
ATOM   4723  CD  GLN A 759      -0.465  -4.328  58.214  1.00 16.47           C
ATOM   4724  OE1 GLN A 759      -0.291  -4.919  57.140  1.00 18.10           O
ATOM   4725  NE2 GLN A 759      -0.460  -4.953  59.382  1.00 14.65           N
ATOM   4726  N   LYS A 760      -0.014   1.038  55.628  1.00 26.29           N
ATOM   4727  CA  LYS A 760       0.277   1.801  54.414  1.00 27.65           C
ATOM   4728  C   LYS A 760       1.483   1.261  53.652  1.00 23.01           C
ATOM   4729  O   LYS A 760       2.372   0.639  54.229  1.00 25.87           O
ATOM   4730  CB  LYS A 760       0.522   3.271  54.761  1.00 30.67           C
ATOM   4731  CG  LYS A 760      -0.664   3.962  55.421  1.00 36.43           C
ATOM   4732  CD  LYS A 760      -0.304   5.371  55.881  1.00 40.40           C
ATOM   4733  CE  LYS A 760      -0.964   5.710  57.212  1.00 45.73           C
ATOM   4734  NZ  LYS A 760      -0.878   4.565  58.171  1.00 49.51           N
ATOM   4735  N   GLY A 761       1.504   1.513  52.351  1.00 18.71           N
ATOM   4736  CA  GLY A 761       2.594   1.053  51.517  1.00 18.89           C
ATOM   4737  C   GLY A 761       2.392   1.496  50.085  1.00 23.37           C
ATOM   4738  O   GLY A 761       1.388   2.122  49.761  1.00 28.51           O
ATOM   4739  N   ALA A 762       3.348   1.183  49.223  1.00 22.68           N
ATOM   4740  CA  ALA A 762       3.263   1.547  47.820  1.00 22.91           C
ATOM   4741  C   ALA A 762       3.778   0.373  47.027  1.00 24.21           C
ATOM   4742  O   ALA A 762       4.611  -0.390  47.508  1.00 26.43           O
ATOM   4743  CB  ALA A 762       4.117   2.776  47.534  1.00 24.11           C
ATOM   4744  N   TRP A 763       3.284   0.220  45.810  1.00 24.70           N
ATOM   4745  CA  TRP A 763       3.734  -0.882  44.978  1.00 26.44           C
ATOM   4746  C   TRP A 763       5.239  -0.771  44.696  1.00 28.11           C
ATOM   4747  O   TRP A 763       5.931  -1.777  44.579  1.00 26.72           O
ATOM   4748  CB  TRP A 763       2.942  -0.898  43.672  1.00 23.89           C
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ATOM   4749  CG  TRP A 763       1.538  -1.418  43.850  1.00 27.88           C
ATOM   4750  CD1 TRP A 763       0.412  -0.679  44.086  1.00 26.92           C
ATOM   4751  CD2 TRP A 763       1.116  -2.789  43.807  1.00 27.19           C
ATOM   4752  NE1 TRP A 763      -0.686  -1.505  44.191  1.00 24.08           N
ATOM   4753  CE2 TRP A 763      -0.282  -2.805  44.024  1.00 28.58           C
ATOM   4754  CE3 TRP A 763       1.781  -4.005  43.606  1.00 21.18           C
ATOM   4755  CZ2 TRP A 763      -1.026  -3.991  44.046  1.00 26.51           C
ATOM   4756  CZ3 TRP A 763       1.041  -5.185  43.629  1.00 22.45           C
ATOM   4757  CH2 TRP A 763      -0.348  -5.167  43.846  1.00 24.51           C
ATOM   4758  N   LYS A 764       5.739   0.458  44.603  1.00 28.29           N
ATOM   4759  CA  LYS A 764       7.152   0.685  44.330  1.00 26.73           C
ATOM   4760  C   LYS A 764       8.019   0.074  45.422  1.00 26.34           C
ATOM   4761  O   LYS A 764       9.155  -0.321  45.174  1.00 28.30           O
ATOM   4762  CB  LYS A 764       7.436   2.180  44.230  1.00 27.67           C
ATOM   4763  CG  LYS A 764       8.738   2.504  43.514  1.00 31.67           C
ATOM   4764  CD  LYS A 764       9.187   3.921  43.810  1.00 30.40           C
ATOM   4765  CE  LYS A 764       9.619   4.628  42.546  1.00 37.62           C
ATOM   4766  NZ  LYS A 764      11.087   4.495  42.343  1.00 40.95           N
ATOM   4767  N   ASP A 765       7.479   0.009  46.631  1.00 24.44           N
ATOM   4768  CA  ASP A 765       8.196  -0.562  47.758  1.00 25.96           C
ATOM   4769  C   ASP A 765       8.603  -2.004  47.470  1.00 28.22           C
ATOM   4770  O   ASP A 765       9.622  -2.480  47.973  1.00 29.21           O
ATOM   4771  CB  ASP A 765       7.320  -0.573  49.014  1.00 29.01           C
ATOM   4772  CG  ASP A 765       7.014   0.815  49.543  1.00 36.09           C
ATOM   4773  OD1 ASP A 765       7.586   1.800  49.035  1.00 33.32           O
ATOM   4774  OD2 ASP A 765       6.189   0.915  50.481  1.00 36.85           O
ATOM   4775  N   ILE A 766       7.803  -2.703  46.667  1.00 22.81           N
ATOM   4776  CA  ILE A 766       8.073  -4.103  46.371  1.00 17.46           C
ATOM   4777  C   ILE A 766       8.394  -4.361  44.918  1.00 15.45           C
ATOM   4778  O   ILE A 766       8.720  -5.475  44.535  1.00 17.76           O
ATOM   4779  CB  ILE A 766       6.871  -4.986  46.774  1.00 19.17           C
ATOM   4780  CG1 ILE A 766       5.593  -4.451  46.123  1.00 19.16           C
ATOM   4781  CG2 ILE A 766       6.720  -4.998  48.282  1.00 14.19           C
ATOM   4782  CD1 ILE A 766       4.508  -5.495  45.985  1.00 23.30           C
ATOM   4783  N   ASN A 767       8.290  -3.332  44.098  1.00 17.20           N
ATOM   4784  CA  ASN A 767       8.591  -3.480  42.684  1.00 20.62           C
ATOM   4785  C   ASN A 767       9.018  -2.120  42.164  1.00 26.61           C
ATOM   4786  O   ASN A 767       8.192  -1.251  41.872  1.00 24.90           O
ATOM   4787  CB  ASN A 767       7.373  -3.993  41.919  1.00 17.22           C
ATOM   4788  CG  ASN A 767       7.691  -4.316  40.485  1.00 16.56           C
ATOM   4789  OD1 ASN A 767       8.461  -3.609  39.834  1.00 23.24           O
ATOM   4790  ND2 ASN A 767       7.104  -5.389  39.975  1.00 17.34           N
ATOM   4791  N   GLU A 768      10.333  -1.950  42.078  1.00 27.59           N
ATOM   4792  CA  GLU A 768      10.956  -0.716  41.622  1.00 28.41           C
ATOM   4793  C   GLU A 768      10.240  -0.009  40.485  1.00 26.53           C
ATOM   4794  O   GLU A 768      10.117   1.215  40.499  1.00 27.23           O
ATOM   4795  CB  GLU A 768      12.396  -0.998  41.188  1.00 32.76           C
ATOM   4796  CG  GLU A 768      13.439  -0.469  42.136  1.00 37.74           C
ATOM   4797  CD  GLU A 768      13.189   0.966  42.506  1.00 38.79           C
ATOM   4798  OE1 GLU A 768      13.039   1.241  43.713  1.00 46.83           O
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ATOM   4799  OE2 GLU A 768      13.137   1.815  41.590  1.00 41.74           O
ATOM   4800  N   GLY A 769       9.783  -0.780  39.501  1.00 24.64           N
ATOM   4801  CA  GLY A 769       9.110  -0.199  38.349  1.00 25.60           C
ATOM   4802  C   GLY A 769       7.642   0.164  38.510  1.00 21.45           C
ATOM   4803  O   GLY A 769       7.001   0.577  37.548  1.00 20.75           O
ATOM   4804  N   GLN A 770       7.108   0.027  39.717  1.00 21.14           N
ATOM   4805  CA  GLN A 770       5.703   0.338  39.957  1.00 20.93           C
ATOM   4806  C   GLN A 770       5.524   1.752  40.497  1.00 22.76           C
ATOM   4807  O   GLN A 770       6.504   2.455  40.730  1.00 23.49           O
ATOM   4808  CB  GLN A 770       5.112  -0.681  40.933  1.00 19.58           C
ATOM   4809  CG  GLN A 770       5.086  -2.088  40.377  1.00 17.60           C
ATOM   4810  CD  GLN A 770       4.087  -2.253  39.250  1.00 21.53           C
ATOM   4811  OE1 GLN A 770       2.887  -2.023  39.428  1.00 27.27           O
ATOM   4812  NE2 GLN A 770       4.572  -2.657  38.080  1.00 16.98           N
ATOM   4813  N   SER A 771       4.271   2.164  40.697  1.00 22.65           N
ATOM   4814  CA  SER A 771       3.970   3.501  41.195  1.00 19.70           C
ATOM   4815  C   SER A 771       4.252   3.644  42.677  1.00 24.67           C
ATOM   4816  O   SER A 771       4.062   2.708  43.454  1.00 26.91           O
ATOM   4817  CB  SER A 771       2.503   3.855  40.937  1.00 21.72           C
ATOM   4818  OG  SER A 771       2.023   4.793  41.896  1.00 21.51           O
ATOM   4819  N   ASP A 772       4.704   4.830  43.065  1.00 26.85           N
ATOM   4820  CA  ASP A 772       5.002   5.109  44.457  1.00 30.17           C
ATOM   4821  C   ASP A 772       3.778   5.704  45.138  1.00 29.48           C
ATOM   4822  O   ASP A 772       3.854   6.127  46.287  1.00 30.40           O
ATOM   4823  CB  ASP A 772       6.176   6.079  44.565  1.00 37.62           C
ATOM   4824  CG  ASP A 772       5.862   7.443  43.979  1.00 49.38           C
ATOM   4825  OD1 ASP A 772       5.037   7.527  43.037  1.00 54.59           O
ATOM   4826  OD2 ASP A 772       6.445   8.439  44.463  1.00 55.14           O
ATOM   4827  N   LYS A 773       2.652   5.749  44.430  1.00 27.80           N
ATOM   4828  CA  LYS A 773       1.428   6.287  45.019  1.00 29.53           C
ATOM   4829  C   LYS A 773       1.141   5.470  46.272  1.00 26.94           C
ATOM   4830  O   LYS A 773       1.292   4.250  46.265  1.00 28.38           O
ATOM   4831  CB  LYS A 773       0.263   6.167  44.031  1.00 36.10           C
ATOM   4832  CG  LYS A 773      -1.033   6.809  44.513  1.00 45.95           C
ATOM   4833  CD  LYS A 773      -2.157   6.650  43.491  1.00 51.42           C
ATOM   4834  CE  LYS A 773      -2.614   8.006  42.950  1.00 59.61           C
ATOM   4835  NZ  LYS A 773      -4.030   7.998  42.460  1.00 62.61           N
ATOM   4836  N   GLU A 774       0.738   6.129  47.349  1.00 27.54           N
ATOM   4837  CA  GLU A 774       0.465   5.422  48.597  1.00 28.86           C
ATOM   4838  C   GLU A 774      -0.829   4.614  48.583  1.00 30.09           C
ATOM   4839  O   GLU A 774      -1.868   5.093  48.138  1.00 30.41           O
ATOM   4840  CB  GLU A 774       0.426   6.408  49.755  1.00 34.46           C
ATOM   4841  CG  GLU A 774      -0.310   5.891  50.977  1.00 44.80           C
ATOM   4842  CD  GLU A 774       0.187   6.533  52.249  1.00 51.21           C
ATOM   4843  OE1 GLU A 774       1.425   6.578  52.437  1.00 53.17           O
ATOM   4844  OE2 GLU A 774      -0.657   6.993  53.052  1.00 52.11           O
ATOM   4845  N   VAL A 775      -0.747   3.388  49.088  1.00 28.10           N
ATOM   4846  CA  VAL A 775      -1.887   2.479  49.164  1.00 28.48           C
ATOM   4847  C   VAL A 775      -2.090   2.105  50.630  1.00 27.95           C
ATOM   4848  O   VAL A 775      -1.156   2.179  51.433  1.00 25.98           O
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ATOM   4849  CB  VAL A 775      -1.624   1.164  48.370  1.00 27.98           C
ATOM   4850  CG1 VAL A 775      -2.862   0.295  48.378  1.00 32.93           C
ATOM   4851  CG2 VAL A 775      -1.217   1.472  46.946  1.00 29.11           C
ATOM   4852  N   GLU A 776      -3.304   1.711  50.993  1.00 24.64           N
ATOM   4853  CA  GLU A 776      -3.536   1.305  52.368  1.00 24.84           C
ATOM   4854  C   GLU A 776      -4.700   0.342  52.511  1.00 23.00           C
ATOM   4855  O   GLU A 776      -5.630   0.352  51.711  1.00 28.23           O
ATOM   4856  CB  GLU A 776      -3.743   2.521  53.261  1.00 27.18           C
ATOM   4857  CG  GLU A 776      -4.970   3.308  52.949  1.00 34.48           C
ATOM   4858  CD  GLU A 776      -5.078   4.508  53.843  1.00 44.72           C
ATOM   4859  OE1 GLU A 776      -6.125   4.660  54.507  1.00 47.00           O
ATOM   4860  OE2 GLU A 776      -4.104   5.295  53.886  1.00 50.87           O
ATOM   4861  N   ASN A 777      -4.624  -0.495  53.539  1.00 20.76           N
ATOM   4862  CA  ASN A 777      -5.638  -1.495  53.815  1.00 18.71           C
ATOM   4863  C   ASN A 777      -5.586  -1.823  55.286  1.00 19.47           C
ATOM   4864  O   ASN A 777      -4.549  -1.666  55.927  1.00 21.30           O
ATOM   4865  CB  ASN A 777      -5.364  -2.766  53.014  1.00 20.38           C
ATOM   4866  CG  ASN A 777      -5.880  -2.685  51.614  1.00 17.25           C
ATOM   4867  OD1 ASN A 777      -7.054  -2.424  51.404  1.00 22.80           O
ATOM   4868  ND2 ASN A 777      -5.007  -2.908  50.639  1.00 16.29           N
ATOM   4869  N   GLU A 778      -6.709  -2.278  55.824  1.00 19.97           N
ATOM   4870  CA  GLU A 778      -6.772  -2.648  57.224  1.00 20.28           C
ATOM   4871  C   GLU A 778      -6.496  -4.147  57.321  1.00 21.78           C
ATOM   4872  O   GLU A 778      -6.963  -4.929  56.489  1.00 22.66           O
ATOM   4873  CB  GLU A 778      -8.152  -2.326  57.793  1.00 22.68           C
ATOM   4874  CG  GLU A 778      -8.208  -2.359  59.294  1.00 31.99           C
ATOM   4875  CD  GLU A 778      -8.240  -0.973  59.893  1.00 40.22           C
ATOM   4876  OE1 GLU A 778      -8.688  -0.839  61.053  1.00 47.50           O
ATOM   4877  OE2 GLU A 778      -7.818  -0.018  59.204  1.00 40.60           O
ATOM   4878  N   PHE A 779      -5.735  -4.545  58.336  1.00 17.19           N
ATOM   4879  CA  PHE A 779      -5.389  -5.948  58.515  1.00 16.85           C
ATOM   4880  C   PHE A 779      -5.621  -6.373  59.950  1.00 15.85           C
ATOM   4881  O   PHE A 779      -5.453  -5.589  60.885  1.00 17.92           O
ATOM   4882  CB  PHE A 779      -3.910  -6.189  58.147  1.00 14.87           C
ATOM   4883  CG  PHE A 779      -3.646  -6.234  56.664  1.00  9.05           C
ATOM   4884  CD1 PHE A 779      -3.464  -5.062  55.938  1.00 12.45           C
ATOM   4885  CD2 PHE A 779      -3.579  -7.448  55.992  1.00  8.76           C
ATOM   4886  CE1 PHE A 779      -3.216  -5.097  54.564  1.00 12.64           C
ATOM   4887  CE2 PHE A 779      -3.334  -7.490  54.618  1.00 11.71           C
ATOM   4888  CZ  PHE A 779      -3.152  -6.313  53.903  1.00 11.57           C
ATOM   4889  N   LEU A 780      -6.036  -7.620  60.111  1.00 16.09           N
ATOM   4890  CA  LEU A 780      -6.265  -8.199  61.425  1.00 20.21           C
ATOM   4891  C   LEU A 780      -5.148  -9.244  61.505  1.00 21.69           C
ATOM   4892  O   LEU A 780      -5.056 -10.147  60.664  1.00 18.96           O
ATOM   4893  CB  LEU A 780      -7.658  -8.849  61.481  1.00 23.51           C
ATOM   4894  CG  LEU A 780      -8.168  -9.707  62.651  1.00 27.07           C
ATOM   4895  CD1 LEU A 780      -7.083 -10.024  63.654  1.00 29.35           C
ATOM   4896  CD2 LEU A 780      -9.303  -8.967  63.314  1.00 28.98           C
ATOM   4897  N   THR A 781      -4.286  -9.097  62.502  1.00 22.47           N
ATOM   4898  CA  THR A 781      -3.153  -9.993  62.662  1.00 17.25           C
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ATOM   4899  C   THR A 781      -3.274 -10.813  63.931  1.00 15.22           C
ATOM   4900  O   THR A 781      -3.603 -10.286  64.995  1.00 19.48           O
ATOM   4901  CB  THR A 781      -1.847  -9.170  62.700  1.00 20.52           C
ATOM   4902  OG1 THR A 781      -1.732  -8.410  61.489  1.00 17.85           O
ATOM   4903  CG2 THR A 781      -0.641 -10.076  62.855  1.00 20.74           C
ATOM   4904  N   ILE A 782      -3.016 -12.109  63.806  1.00 13.99           N
ATOM   4905  CA  ILE A 782      -3.072 -13.027  64.935  1.00 15.40           C
ATOM   4906  C   ILE A 782      -1.762 -13.811  64.925  1.00 17.17           C
ATOM   4907  O   ILE A 782      -1.341 -14.302  63.883  1.00 17.06           O
ATOM   4908  CB  ILE A 782      -4.215 -14.055  64.780  1.00 15.13           C
ATOM   4909  CG1 ILE A 782      -5.554 -13.338  64.569  1.00 18.57           C
ATOM   4910  CG2 ILE A 782      -4.255 -14.960  65.997  1.00 15.13           C
ATOM   4911  CD1 ILE A 782      -6.620 -14.216  63.937  1.00 14.88           C
ATOM   4912  N   SER A 783      -1.113 -13.939  66.071  1.00 20.04           N
ATOM   4913  CA  SER A 783       0.135 -14.693  66.096  1.00 22.27           C
ATOM   4914  C   SER A 783       0.421 -15.296  67.455  1.00 20.98           C
ATOM   4915  O   SER A 783      -0.127 -14.865  68.470  1.00 21.31           O
ATOM   4916  CB  SER A 783       1.310 -13.811  65.662  1.00 23.19           C
ATOM   4917  OG  SER A 783       1.364 -12.623  66.423  1.00 22.95           O
ATOM   4918  N   GLN A 784       1.281 -16.310  67.456  1.00 21.64           N
ATOM   4919  CA  GLN A 784       1.666 -17.002  68.677  1.00 18.97           C
ATOM   4920  C   GLN A 784       3.190 -16.957  68.832  1.00 20.23           C
ATOM   4921  O   GLN A 784       3.927 -17.450  67.977  1.00 16.44           O
ATOM   4922  CB  GLN A 784       1.193 -18.456  68.626  1.00 15.93           C
ATOM   4923  CG  GLN A 784       1.469 -19.241  69.888  1.00 16.44           C
ATOM   4924  CD  GLN A 784       0.970 -20.655  69.790  1.00 20.23           C
ATOM   4925  OE1 GLN A 784       0.046 -20.940  69.039  1.00 24.36           O
ATOM   4926  NE2 GLN A 784       1.577 -21.553  70.549  1.00 23.74           N
ATOM   4927  N   ALA A 785       3.654 -16.359  69.921  1.00 20.74           N
ATOM   4928  CA  ALA A 785       5.085 -16.261  70.160  1.00 22.52           C
ATOM   4929  C   ALA A 785       5.613 -17.583  70.682  1.00 23.63           C
ATOM   4930  O   ALA A 785       4.914 -18.311  71.395  1.00 20.30           O
ATOM   4931  CB  ALA A 785       5.381 -15.149  71.158  1.00 22.18           C
ATOM   4932  N   HIS A 786       6.853 -17.888  70.310  1.00 25.35           N
ATOM   4933  CA  HIS A 786       7.517 -19.112  70.732  1.00 24.43           C
ATOM   4934  C   HIS A 786       8.769 -18.682  71.477  1.00 26.87           C
ATOM   4935  O   HIS A 786       9.821 -18.477  70.877  1.00 25.92           O
ATOM   4936  CB  HIS A 786       7.881 -19.942  69.511  1.00 21.42           C
ATOM   4937  CG  HIS A 786       6.734 -20.169  68.583  1.00 22.16           C
ATOM   4938  ND1 HIS A 786       5.631 -20.917  68.936  1.00 26.68           N
ATOM   4939  CD2 HIS A 786       6.511 -19.742  67.318  1.00 23.68           C
ATOM   4940  CE1 HIS A 786       4.779 -20.941  67.928  1.00 25.36           C
ATOM   4941  NE2 HIS A 786       5.289 -20.236  66.933  1.00 26.32           N
ATOM   4942  N   LYS A 787       8.647 -18.547  72.790  1.00 27.26           N
ATOM   4943  CA  LYS A 787       9.753 -18.092  73.611  1.00 28.29           C
ATOM   4944  C   LYS A 787      10.709 -19.168  74.132  1.00 30.18           C
ATOM   4945  O   LYS A 787      11.697 -18.852  74.796  1.00 32.91           O
ATOM   4946  CB  LYS A 787       9.198 -17.273  74.779  1.00 28.78           C
ATOM   4947  CG  LYS A 787       8.647 -15.911  74.363  1.00 30.77           C
ATOM   4948  CD  LYS A 787       7.789 -15.298  75.463  1.00 40.69           C
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ATOM   4949  CE  LYS A 787       7.820 -13.760  75.447  1.00 44.69           C
ATOM   4950  NZ  LYS A 787       8.071 -13.161  74.095  1.00 45.70           N
ATOM   4951  N   GLN A 788      10.443 -20.433  73.834  1.00 28.39           N
ATOM   4952  CA  GLN A 788      11.322 -21.487  74.321  1.00 29.88           C
ATOM   4953  C   GLN A 788      11.609 -22.534  73.266  1.00 28.56           C
ATOM   4954  O   GLN A 788      10.867 -22.668  72.300  1.00 29.49           O
ATOM   4955  CB  GLN A 788      10.709 -22.172  75.539  1.00 35.93           C
ATOM   4956  CG  GLN A 788      10.700 -21.342  76.800  1.00 43.42           C
ATOM   4957  CD  GLN A 788       9.832 -21.969  77.875  1.00 54.09           C
ATOM   4958  OE1 GLN A 788       8.907 -22.732  77.577  1.00 58.30           O
ATOM   4959  NE2 GLN A 788      10.125 -21.654  79.133  1.00 58.78           N
ATOM   4960  N   ASN A 789      12.694 -23.276  73.457  1.00 24.71           N
ATOM   4961  CA  ASN A 789      13.062 -24.324  72.522  1.00 23.55           C
ATOM   4962  C   ASN A 789      12.137 -25.497  72.784  1.00 19.52           C
ATOM   4963  O   ASN A 789      11.829 -25.794  73.935  1.00 19.86           O
ATOM   4964  CB  ASN A 789      14.516 -24.765  72.734  1.00 23.96           C
ATOM   4965  CG  ASN A 789      15.521 -23.774  72.175  1.00 26.89           C
ATOM   4966  OD1 ASN A 789      15.278 -23.110  71.163  1.00 27.15           O
ATOM   4967  ND2 ASN A 789      16.665 -23.670  72.837  1.00 28.79           N
ATOM   4968  N   GLY A 790      11.708 -26.161  71.715  1.00 19.65           N
ATOM   4969  CA  GLY A 790      10.813 -27.294  71.850  1.00 22.04           C
ATOM   4970  C   GLY A 790       9.375 -26.827  71.946  1.00 22.56           C
ATOM   4971  O   GLY A 790       8.513 -27.541  72.447  1.00 25.11           O
ATOM   4972  N   ASP A 791       9.123 -25.615  71.466  1.00 21.78           N
ATOM   4973  CA  ASP A 791       7.791 -25.030  71.493  1.00 21.60           C
ATOM   4974  C   ASP A 791       6.954 -25.627  70.371  1.00 20.85           C
ATOM   4975  O   ASP A 791       7.468 -26.342  69.520  1.00 17.54           O
ATOM   4976  CB  ASP A 791       7.877 -23.506  71.334  1.00 19.39           C
ATOM   4977  CG  ASP A 791       7.779 -22.771  72.665  1.00 21.44           C
ATOM   4978  OD1 ASP A 791       7.643 -23.440  73.714  1.00 26.80           O
ATOM   4979  OD2 ASP A 791       7.838 -21.524  72.664  1.00 23.58           O
ATOM   4980  N   SER A 792       5.660 -25.334  70.374  1.00 23.35           N
ATOM   4981  CA  SER A 792       4.778 -25.862  69.348  1.00 20.09           C
ATOM   4982  C   SER A 792       3.489 -25.060  69.248  1.00 19.73           C
ATOM   4983  O   SER A 792       3.228 -24.169  70.057  1.00 16.93           O
ATOM   4984  CB  SER A 792       4.435 -27.311  69.673  1.00 19.62           C
ATOM   4985  OG  SER A 792       3.887 -27.399  70.975  1.00 16.96           O
ATOM   4986  N   TYR A 793       2.704 -25.381  68.228  1.00 19.67           N
ATOM   4987  CA  TYR A 793       1.415 -24.744  68.016  1.00 19.50           C
ATOM   4988  C   TYR A 793       0.502 -25.763  67.379  1.00 20.29           C
ATOM   4989  O   TYR A 793       0.953 -26.689  66.707  1.00 20.16           O
ATOM   4990  CB  TYR A 793       1.527 -23.499  67.123  1.00 16.30           C
ATOM   4991  CG  TYR A 793       1.933 -23.755  65.687  1.00 20.53           C
ATOM   4992  CD1 TYR A 793       1.043 -24.330  64.776  1.00 17.89           C
ATOM   4993  CD2 TYR A 793       3.215 -23.421  65.235  1.00 17.59           C
ATOM   4994  CE1 TYR A 793       1.419 -24.568  63.457  1.00 19.95           C
ATOM   4995  CE2 TYR A 793       3.600 -23.656  63.918  1.00 15.41           C
ATOM   4996  CZ  TYR A 793       2.703 -24.229  63.035  1.00 20.33           C
ATOM   4997  OH  TYR A 793       3.088 -24.470  61.735  1.00 16.23           O
ATOM   4998  N   GLY A 794      -0.791 -25.589  67.607  1.00 20.27           N
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ATOM   4999  CA  GLY A 794      -1.759 -26.505  67.049  1.00 18.07           C
ATOM   5000  C   GLY A 794      -3.131 -25.879  67.055  1.00 13.04           C
ATOM   5001  O   GLY A 794      -3.671 -25.532  68.100  1.00 11.99           O
ATOM   5002  N   TYR A 795      -3.686 -25.696  65.873  1.00 15.42           N
ATOM   5003  CA  TYR A 795      -5.008 -25.135  65.785  1.00 16.94           C
ATOM   5004  C   TYR A 795      -5.673 -25.600  64.521  1.00 16.65           C
ATOM   5005  O   TYR A 795      -5.009 -25.988  63.560  1.00 13.36           O
ATOM   5006  CB  TYR A 795      -4.958 -23.612  65.830  1.00 16.03           C
ATOM   5007  CG  TYR A 795      -4.041 -22.984  64.820  1.00 19.96           C
ATOM   5008  CD1 TYR A 795      -4.491 -22.679  63.538  1.00 21.76           C
ATOM   5009  CD2 TYR A 795      -2.725 -22.675  65.150  1.00 22.35           C
ATOM   5010  CE1 TYR A 795      -3.657 -22.083  62.610  1.00 23.18           C
ATOM   5011  CE2 TYR A 795      -1.876 -22.075  64.228  1.00 23.27           C
ATOM   5012  CZ  TYR A 795      -2.347 -21.784  62.963  1.00 26.33           C
ATOM   5013  OH  TYR A 795      -1.505 -21.204  62.050  1.00 24.06           O
ATOM   5014  N   MET A 796      -7.001 -25.579  64.542  1.00 19.66           N
ATOM   5015  CA  MET A 796      -7.799 -25.984  63.397  1.00 17.36           C
ATOM   5016  C   MET A 796      -8.425 -24.736  62.793  1.00 16.53           C
ATOM   5017  O   MET A 796      -8.991 -23.911  63.510  1.00 16.74           O
ATOM   5018  CB  MET A 796      -8.885 -26.963  63.844  1.00 17.33           C
ATOM   5019  CG  MET A 796      -9.740 -27.488  62.715  1.00 16.30           C
ATOM   5020  SD  MET A 796      -9.031 -28.913  61.893  1.00 20.60           S
ATOM   5021  CE  MET A 796      -9.369 -30.196  63.094  1.00 10.95           C
ATOM   5022  N   LEU A 797      -8.288 -24.576  61.482  1.00 13.96           N
ATOM   5023  CA  LEU A 797      -8.877 -23.430  60.812  1.00 15.85           C
ATOM   5024  C   LEU A 797     -10.229 -23.879  60.258  1.00 16.16           C
ATOM   5025  O   LEU A 797     -10.289 -24.786  59.434  1.00 16.97           O
ATOM   5026  CB  LEU A 797      -7.979 -22.959  59.668  1.00 14.01           C
ATOM   5027  CG  LEU A 797      -8.501 -21.803  58.810  1.00 21.69           C
ATOM   5028  CD1 LEU A 797      -8.571 -20.543  59.628  1.00 19.45           C
ATOM   5029  CD2 LEU A 797      -7.583 -21.596  57.616  1.00 25.56           C
ATOM   5030  N   ILE A 798     -11.311 -23.256  60.717  1.00 16.54           N
ATOM   5031  CA  ILE A 798     -12.648 -23.616  60.243  1.00 12.94           C
ATOM   5032  C   ILE A 798     -13.344 -22.417  59.603  1.00 10.11           C
ATOM   5033  O   ILE A 798     -13.791 -21.507  60.297  1.00 16.79           O
ATOM   5034  CB  ILE A 798     -13.525 -24.130  61.401  1.00 14.38           C
ATOM   5035  CG1 ILE A 798     -12.879 -25.354  62.042  1.00 10.67           C
ATOM   5036  CG2 ILE A 798     -14.912 -24.512  60.888  1.00 14.61           C
ATOM   5037  CD1 ILE A 798     -13.244 -25.533  63.500  1.00 10.33           C
ATOM   5038  N   PRO A 799     -13.419 -22.380  58.269  1.00 11.97           N
ATOM   5039  CA  PRO A 799     -14.077 -21.260  57.594  1.00 17.02           C
ATOM   5040  C   PRO A 799     -15.533 -21.561  57.167  1.00 17.84           C
ATOM   5041  O   PRO A 799     -15.991 -22.704  57.209  1.00 14.65           O
ATOM   5042  CB  PRO A 799     -13.198 -21.044  56.373  1.00 14.70           C
ATOM   5043  CG  PRO A 799     -12.725 -22.458  56.027  1.00 13.27           C
ATOM   5044  CD  PRO A 799     -12.858 -23.321  57.286  1.00 14.94           C
ATOM   5045  N   ASN A 800     -16.232 -20.510  56.748  1.00 18.52           N
ATOM   5046  CA  ASN A 800     -17.604 -20.579  56.243  1.00 18.74           C
ATOM   5047  C   ASN A 800     -18.711 -21.266  57.056  1.00 17.49           C
ATOM   5048  O   ASN A 800     -19.565 -21.949  56.490  1.00 22.76           O
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ATOM   5049  CB  ASN A 800     -17.572 -21.158  54.825  1.00 15.11           C
ATOM   5050  CG  ASN A 800     -16.741 -20.314  53.873  1.00 17.36           C
ATOM   5051  OD1 ASN A 800     -16.038 -19.393  54.290  1.00 19.38           O
ATOM   5052  ND2 ASN A 800     -16.822 -20.620  52.588  1.00 14.08           N
ATOM   5053  N   VAL A 801     -18.698 -21.088  58.375  1.00 16.05           N
ATOM   5054  CA  VAL A 801     -19.743 -21.630  59.238  1.00 18.93           C
ATOM   5055  C   VAL A 801     -20.091 -20.484  60.167  1.00 20.42           C
ATOM   5056  O   VAL A 801     -19.237 -19.642  60.445  1.00 18.27           O
ATOM   5057  CB  VAL A 801     -19.274 -22.837  60.086  1.00 20.06           C
ATOM   5058  CG1 VAL A 801     -18.796 -23.948  59.185  1.00 22.64           C
ATOM   5059  CG2 VAL A 801     -18.196 -22.417  61.053  1.00 18.40           C
ATOM   5060  N   ASP A 802     -21.332 -20.418  60.638  1.00 20.32           N
ATOM   5061  CA  ASP A 802     -21.689 -19.325  61.535  1.00 20.67           C
ATOM   5062  C   ASP A 802     -21.179 -19.602  62.939  1.00 19.31           C
ATOM   5063  O   ASP A 802     -20.735 -20.711  63.240  1.00 18.86           O
ATOM   5064  CB  ASP A 802     -23.208 -19.072  61.539  1.00 25.44           C
ATOM   5065  CG  ASP A 802     -24.006 -20.235  62.086  1.00 24.20           C
ATOM   5066  OD1 ASP A 802     -23.628 -20.820  63.120  1.00 25.94           O
ATOM   5067  OD2 ASP A 802     -25.035 -20.563  61.471  1.00 36.20           O
ATOM   5068  N   ARG A 803     -21.237 -18.587  63.793  1.00 17.20           N
ATOM   5069  CA  ARG A 803     -20.758 -18.706  65.159  1.00 18.46           C
ATOM   5070  C   ARG A 803     -21.264 -19.915  65.938  1.00 24.99           C
ATOM   5071  O   ARG A 803     -20.471 -20.664  66.520  1.00 22.09           O
ATOM   5072  CB  ARG A 803     -21.105 -17.444  65.923  1.00 20.21           C
ATOM   5073  CG  ARG A 803     -20.550 -17.411  67.317  1.00 24.89           C
ATOM   5074  CD  ARG A 803     -20.805 -16.054  67.929  1.00 29.90           C
ATOM   5075  NE  ARG A 803     -20.934 -16.129  69.379  1.00 38.44           N
ATOM   5076  CZ  ARG A 803     -21.529 -15.201  70.118  1.00 39.50           C
ATOM   5077  NH1 ARG A 803     -22.049 -14.131  69.531  1.00 44.66           N
ATOM   5078  NH2 ARG A 803     -21.592 -15.334  71.439  1.00 44.03           N
ATOM   5079  N   ALA A 804     -22.586 -20.093  65.966  1.00 27.18           N
ATOM   5080  CA  ALA A 804     -23.206 -21.204  66.684  1.00 22.96           C
ATOM   5081  C   ALA A 804     -22.712 -22.548  66.164  1.00 20.85           C
ATOM   5082  O   ALA A 804     -22.478 -23.478  66.937  1.00 22.24           O
ATOM   5083  CB  ALA A 804     -24.732 -21.125  66.563  1.00 26.99           C
ATOM   5084  N   THR A 805     -22.555 -22.657  64.853  1.00 19.36           N
ATOM   5085  CA  THR A 805     -22.078 -23.904  64.275  1.00 21.15           C
ATOM   5086  C   THR A 805     -20.597 -24.100  64.627  1.00 23.71           C
ATOM   5087  O   THR A 805     -20.170 -25.210  64.942  1.00 22.70           O
ATOM   5088  CB  THR A 805     -22.279 -23.902  62.750  1.00 22.75           C
ATOM   5089  OG1 THR A 805     -23.621 -23.488  62.455  1.00 27.14           O
ATOM   5090  CG2 THR A 805     -22.050 -25.288  62.173  1.00 20.24           C
ATOM   5091  N   PHE A 806     -19.825 -23.015  64.594  1.00 25.70           N
ATOM   5092  CA  PHE A 806     -18.396 -23.076  64.934  1.00 23.75           C
ATOM   5093  C   PHE A 806     -18.239 -23.570  66.364  1.00 25.04           C
ATOM   5094  O   PHE A 806     -17.517 -24.531  66.623  1.00 25.12           O
ATOM   5095  CB  PHE A 806     -17.743 -21.691  64.813  1.00 21.49           C
ATOM   5096  CG  PHE A 806     -16.335 -21.626  65.373  1.00 20.72           C
ATOM   5097  CD1 PHE A 806     -15.280 -22.271  64.727  1.00 23.86           C
ATOM   5098  CD2 PHE A 806     -16.067 -20.922  66.537  1.00 14.35           C
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ATOM   5099  CE1 PHE A 806     -13.979 -22.216  65.236  1.00 16.84           C
ATOM   5100  CE2 PHE A 806     -14.773 -20.858  67.055  1.00 18.50           C
ATOM   5101  CZ  PHE A 806     -13.728 -21.508  66.400  1.00 18.29           C
ATOM   5102  N   ASN A 807     -18.928 -22.913  67.290  1.00 24.82           N
ATOM   5103  CA  ASN A 807     -18.848 -23.281  68.695  1.00 26.72           C
ATOM   5104  C   ASN A 807     -19.203 -24.741  68.928  1.00 26.99           C
ATOM   5105  O   ASN A 807     -18.687 -25.374  69.848  1.00 26.27           O
ATOM   5106  CB  ASN A 807     -19.761 -22.385  69.523  1.00 27.81           C
ATOM   5107  CG  ASN A 807     -19.181 -21.008  69.729  1.00 32.27           C
ATOM   5108  OD1 ASN A 807     -17.974 -20.851  69.920  1.00 26.16           O
ATOM   5109  ND2 ASN A 807     -20.037 -19.995  69.690  1.00 32.97           N
ATOM   5110  N   GLN A 808     -20.080 -25.276  68.088  1.00 28.04           N
ATOM   5111  CA  GLN A 808     -20.488 -26.661  68.220  1.00 30.61           C
ATOM   5112  C   GLN A 808     -19.421 -27.577  67.641  1.00 30.71           C
ATOM   5113  O   GLN A 808     -19.076 -28.598  68.230  1.00 31.40           O
ATOM   5114  CB  GLN A 808     -21.812 -26.894  67.492  1.00 35.72           C
ATOM   5115  CG  GLN A 808     -22.518 -28.181  67.885  1.00 40.31           C
ATOM   5116  CD  GLN A 808     -24.028 -28.037  67.895  1.00 47.80           C
ATOM   5117  OE1 GLN A 808     -24.570 -26.968  67.592  1.00 50.49           O
ATOM   5118  NE2 GLN A 808     -24.718 -29.116  68.244  1.00 50.89           N
ATOM   5119  N   MET A 809     -18.898 -27.197  66.482  1.00 30.40           N
ATOM   5120  CA  MET A 809     -17.875 -27.979  65.796  1.00 27.40           C
ATOM   5121  C   MET A 809     -16.599 -28.169  66.609  1.00 25.26           C
ATOM   5122  O   MET A 809     -15.970 -29.223  66.533  1.00 24.08           O
ATOM   5123  CB  MET A 809     -17.525 -27.317  64.468  1.00 27.87           C
ATOM   5124  CG  MET A 809     -17.467 -28.269  63.294  1.00 34.81           C
ATOM   5125  SD  MET A 809     -17.467 -27.385  61.726  1.00 36.75           S
ATOM   5126  CE  MET A 809     -18.861 -26.341  61.933  1.00 36.19           C
ATOM   5127  N   ILE A 810     -16.213 -27.158  67.381  1.00 21.86           N
ATOM   5128  CA  ILE A 810     -14.994 -27.267  68.166  1.00 25.62           C
ATOM   5129  C   ILE A 810     -15.168 -28.140  69.406  1.00 29.06           C
ATOM   5130  O   ILE A 810     -14.186 -28.603  69.988  1.00 30.70           O
ATOM   5131  CB  ILE A 810     -14.423 -25.866  68.556  1.00 22.95           C
ATOM   5132  CG1 ILE A 810     -15.305 -25.175  69.589  1.00 20.53           C
ATOM   5133  CG2 ILE A 810     -14.281 -25.003  67.311  1.00 23.26           C
ATOM   5134  CD1 ILE A 810     -14.824 -23.769  69.948  1.00 16.47           C
ATOM   5135  N   LYS A 811     -16.411 -28.386  69.804  1.00 29.62           N
ATOM   5136  CA  LYS A 811     -16.650 -29.241  70.956  1.00 29.17           C
ATOM   5137  C   LYS A 811     -16.416 -30.672  70.507  1.00 28.21           C
ATOM   5138  O   LYS A 811     -15.827 -31.479  71.229  1.00 30.99           O
ATOM   5139  CB  LYS A 811     -18.079 -29.074  71.466  1.00 34.36           C
ATOM   5140  CG  LYS A 811     -18.260 -27.865  72.372  1.00 40.08           C
ATOM   5141  CD  LYS A 811     -18.051 -28.228  73.833  1.00 46.36           C
ATOM   5142  CE  LYS A 811     -17.500 -27.047  74.620  1.00 51.49           C
ATOM   5143  NZ  LYS A 811     -16.636 -26.170  73.773  1.00 52.64           N
ATOM   5144  N   GLU A 812     -16.876 -30.985  69.303  1.00 27.17           N
ATOM   5145  CA  GLU A 812     -16.698 -32.321  68.747  1.00 32.59           C
ATOM   5146  C   GLU A 812     -15.208 -32.563  68.487  1.00 32.60           C
ATOM   5147  O   GLU A 812     -14.700 -33.674  68.655  1.00 28.34           O
ATOM   5148  CB  GLU A 812     -17.475 -32.456  67.432  1.00 33.86           C
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ATOM   5149  CG  GLU A 812     -18.590 -31.426  67.252  1.00 47.86           C
ATOM   5150  CD  GLU A 812     -19.788 -31.965  66.477  1.00 53.16           C
ATOM   5151  OE1 GLU A 812     -19.800 -31.840  65.229  1.00 53.39           O
ATOM   5152  OE2 GLU A 812     -20.720 -32.509  67.117  1.00 58.27           O
ATOM   5153  N   LEU A 813     -14.525 -31.497  68.079  1.00 32.59           N
ATOM   5154  CA  LEU A 813     -13.102 -31.525  67.760  1.00 29.45           C
ATOM   5155  C   LEU A 813     -12.224 -31.530  69.006  1.00 30.79           C
ATOM   5156  O   LEU A 813     -11.000 -31.488  68.911  1.00 27.56           O
ATOM   5157  CB  LEU A 813     -12.753 -30.311  66.900  1.00 22.99           C
ATOM   5158  CG  LEU A 813     -12.674 -30.474  65.381  1.00 23.23           C
ATOM   5159  CD1 LEU A 813     -13.434 -31.695  64.922  1.00 25.83           C
ATOM   5160  CD2 LEU A 813     -13.221 -29.221  64.727  1.00 23.26           C
ATOM   5161  N   GLU A 814     -12.855 -31.596  70.172  1.00 36.28           N
ATOM   5162  CA  GLU A 814     -12.125 -31.587  71.433  1.00 39.16           C
ATOM   5163  C   GLU A 814     -11.060 -32.656  71.578  1.00 37.99           C
ATOM   5164  O   GLU A 814     -10.219 -32.568  72.465  1.00 41.69           O
ATOM   5165  CB  GLU A 814     -13.084 -31.709  72.615  1.00 40.62           C
ATOM   5166  CG  GLU A 814     -12.555 -31.024  73.850  1.00 48.34           C
ATOM   5167  CD  GLU A 814     -11.761 -29.777  73.500  1.00 54.89           C
ATOM   5168  OE1 GLU A 814     -12.357 -28.839  72.925  1.00 57.47           O
ATOM   5169  OE2 GLU A 814     -10.545 -29.736  73.787  1.00 57.65           O
ATOM   5170  N   SER A 815     -11.088 -33.667  70.724  1.00 33.98           N
ATOM   5171  CA  SER A 815     -10.104 -34.725  70.828  1.00 31.64           C
ATOM   5172  C   SER A 815      -9.541 -35.136  69.477  1.00 27.62           C
ATOM   5173  O   SER A 815      -9.111 -36.274  69.299  1.00 27.20           O
ATOM   5174  CB  SER A 815     -10.734 -35.934  71.516  1.00 36.76           C
ATOM   5175  OG  SER A 815     -12.090 -36.068  71.132  1.00 42.21           O
ATOM   5176  N   SER A 816      -9.542 -34.211  68.525  1.00 25.23           N
ATOM   5177  CA  SER A 816      -9.031 -34.497  67.192  1.00 23.62           C
ATOM   5178  C   SER A 816      -7.498 -34.567  67.152  1.00 22.24           C
ATOM   5179  O   SER A 816      -6.936 -35.258  66.307  1.00 19.56           O
ATOM   5180  CB  SER A 816      -9.520 -33.441  66.207  1.00 22.07           C
ATOM   5181  OG  SER A 816      -9.258 -32.140  66.703  1.00 27.87           O
ATOM   5182  N   LEU A 817      -6.823 -33.858  68.053  1.00 20.48           N
ATOM   5183  CA  LEU A 817      -5.359 -33.883  68.077  1.00 21.89           C
ATOM   5184  C   LEU A 817      -4.877 -35.213  68.616  1.00 20.14           C
ATOM   5185  O   LEU A 817      -5.046 -35.500  69.798  1.00 21.62           O
ATOM   5186  CB  LEU A 817      -4.806 -32.764  68.963  1.00 22.44           C
ATOM   5187  CG  LEU A 817      -3.310 -32.412  68.857  1.00 22.66           C
ATOM   5188  CD1 LEU A 817      -2.517 -33.356  69.716  1.00 27.24           C
ATOM   5189  CD2 LEU A 817      -2.834 -32.493  67.420  1.00 19.44           C
ATOM   5190  N   ILE A 818      -4.283 -36.030  67.756  1.00 19.99           N
ATOM   5191  CA  ILE A 818      -3.780 -37.323  68.199  1.00 23.03           C
ATOM   5192  C   ILE A 818      -2.385 -37.161  68.800  1.00 24.83           C
ATOM   5193  O   ILE A 818      -2.056 -37.780  69.809  1.00 26.14           O
ATOM   5194  CB  ILE A 818      -3.702 -38.333  67.037  1.00 24.76           C
ATOM   5195  CG1 ILE A 818      -5.091 -38.530  66.420  1.00 27.41           C
ATOM   5196  CG2 ILE A 818      -3.166 -39.667  67.544  1.00 21.70           C
ATOM   5197  CD1 ILE A 818      -6.103 -39.169  67.358  1.00 19.80           C
ATOM   5198  N   GLU A 819      -1.568 -36.314  68.182  1.00 25.69           N
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ATOM   5199  CA  GLU A 819      -0.211 -36.088  68.659  1.00 24.44           C
ATOM   5200  C   GLU A 819       0.453 -34.929  67.935  1.00 21.64           C
ATOM   5201  O   GLU A 819       0.098 -34.590  66.807  1.00 19.88           O
ATOM   5202  CB  GLU A 819       0.633 -37.352  68.461  1.00 24.87           C
ATOM   5203  CG  GLU A 819       2.017 -37.268  69.074  1.00 33.16           C
ATOM   5204  CD  GLU A 819       1.981 -36.892  70.546  1.00 38.89           C
ATOM   5205  OE1 GLU A 819       1.762 -37.795  71.384  1.00 38.93           O
ATOM   5206  OE2 GLU A 819       2.171 -35.694  70.863  1.00 38.13           O
ATOM   5207  N   ASN A 820       1.430 -34.326  68.595  1.00 21.61           N
ATOM   5208  CA  ASN A 820       2.163 -33.220  68.009  1.00 22.88           C
ATOM   5209  C   ASN A 820       3.481 -33.024  68.747  1.00 21.82           C
ATOM   5210  O   ASN A 820       3.592 -32.153  69.606  1.00 19.93           O
ATOM   5211  CB  ASN A 820       1.344 -31.933  68.081  1.00 18.23           C
ATOM   5212  CG  ASN A 820       2.047 -30.766  67.426  1.00 16.25           C
ATOM   5213  OD1 ASN A 820       1.879 -29.614  67.831  1.00 19.25           O
ATOM   5214  ND2 ASN A 820       2.836 -31.056  66.403  1.00 14.95           N
ATOM   5215  N   ASN A 821       4.465 -33.862  68.437  1.00 21.52           N
ATOM   5216  CA  ASN A 821       5.782 -33.734  69.060  1.00 20.73           C
ATOM   5217  C   ASN A 821       6.864 -33.702  67.977  1.00 22.04           C
ATOM   5218  O   ASN A 821       6.560 -33.491  66.796  1.00 22.42           O
ATOM   5219  CB  ASN A 821       6.028 -34.872  70.055  1.00 15.79           C
ATOM   5220  CG  ASN A 821       5.852 -36.238  69.440  1.00 17.20           C
ATOM   5221  OD1 ASN A 821       6.230 -36.467  68.296  1.00 24.72           O
ATOM   5222  ND2 ASN A 821       5.275 -37.162  70.203  1.00 18.04           N
ATOM   5223  N   GLU A 822       8.118 -33.914  68.368  1.00 23.41           N
ATOM   5224  CA  GLU A 822       9.236 -33.864  67.425  1.00 24.08           C
ATOM   5225  C   GLU A 822       9.323 -34.980  66.383  1.00 24.10           C
ATOM   5226  O   GLU A 822      10.039 -34.831  65.389  1.00 24.50           O
ATOM   5227  CB  GLU A 822      10.565 -33.773  68.193  1.00 30.48           C
ATOM   5228  CG  GLU A 822      10.969 -35.040  68.938  1.00 37.13           C
ATOM   5229  CD  GLU A 822      10.122 -35.295  70.172  1.00 43.88           C
ATOM   5230  OE1 GLU A 822       9.700 -36.458  70.379  1.00 47.59           O
ATOM   5231  OE2 GLU A 822       9.875 -34.333  70.933  1.00 46.57           O
ATOM   5232  N   THR A 823       8.612 -36.091  66.592  1.00 21.56           N
ATOM   5233  CA  THR A 823       8.640 -37.198  65.627  1.00 20.47           C
ATOM   5234  C   THR A 823       7.298 -37.577  65.004  1.00 19.74           C
ATOM   5235  O   THR A 823       7.268 -38.135  63.904  1.00 14.93           O
ATOM   5236  CB  THR A 823       9.201 -38.482  66.249  1.00 20.67           C
ATOM   5237  OG1 THR A 823       8.600 -38.692  67.530  1.00 17.70           O
ATOM   5238  CG2 THR A 823      10.705 -38.384  66.399  1.00 23.22           C
ATOM   5239  N   LEU A 824       6.202 -37.288  65.706  1.00 23.06           N
ATOM   5240  CA  LEU A 824       4.855 -37.631  65.228  1.00 23.76           C
ATOM   5241  C   LEU A 824       3.825 -36.508  65.360  1.00 20.84           C
ATOM   5242  O   LEU A 824       3.673 -35.902  66.423  1.00 21.44           O
ATOM   5243  CB  LEU A 824       4.338 -38.861  65.980  1.00 23.57           C
ATOM   5244  CG  LEU A 824       2.953 -39.383  65.590  1.00 23.36           C
ATOM   5245  CD1 LEU A 824       2.990 -39.940  64.178  1.00 19.46           C
ATOM   5246  CD2 LEU A 824       2.523 -40.462  66.570  1.00 23.64           C
ATOM   5247  N   GLN A 825       3.118 -36.243  64.268  1.00 20.15           N
ATOM   5248  CA  GLN A 825       2.080 -35.213  64.239  1.00 19.57           C
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ATOM   5249  C   GLN A 825       0.849 -35.826  63.573  1.00 21.51           C
ATOM   5250  O   GLN A 825       0.926 -36.311  62.440  1.00 19.73           O
ATOM   5251  CB  GLN A 825       2.561 -34.001  63.447  1.00 15.86           C
ATOM   5252  CG  GLN A 825       3.611 -33.188  64.178  1.00 10.41           C
ATOM   5253  CD  GLN A 825       4.065 -32.015  63.369  1.00 14.16           C
ATOM   5254  OE1 GLN A 825       4.046 -30.877  63.839  1.00 20.58           O
ATOM   5255  NE2 GLN A 825       4.474 -32.275  62.134  1.00 10.97           N
ATOM   5256  N   SER A 826      -0.282 -35.811  64.275  1.00 21.64           N
ATOM   5257  CA  SER A 826      -1.497 -36.414  63.734  1.00 22.50           C
ATOM   5258  C   SER A 826      -2.801 -35.825  64.259  1.00 22.03           C
ATOM   5259  O   SER A 826      -2.942 -35.520  65.447  1.00 19.08           O
ATOM   5260  CB  SER A 826      -1.492 -37.925  64.011  1.00 20.31           C
ATOM   5261  OG  SER A 826      -2.662 -38.563  63.522  1.00 21.70           O
ATOM   5262  N   VAL A 827      -3.755 -35.682  63.348  1.00 18.84           N
ATOM   5263  CA  VAL A 827      -5.071 -35.167  63.683  1.00 20.59           C
ATOM   5264  C   VAL A 827      -6.091 -36.170  63.150  1.00 20.48           C
ATOM   5265  O   VAL A 827      -5.916 -36.734  62.072  1.00 19.27           O
ATOM   5266  CB  VAL A 827      -5.303 -33.795  63.051  1.00 18.09           C
ATOM   5267  CG1 VAL A 827      -6.734 -33.327  63.328  1.00 17.75           C
ATOM   5268  CG2 VAL A 827      -4.295 -32.800  63.619  1.00 15.22           C
ATOM   5269  N   TYR A 828      -7.154 -36.389  63.912  1.00 21.18           N
ATOM   5270  CA  TYR A 828      -8.181 -37.353  63.537  1.00 17.78           C
ATOM   5271  C   TYR A 828      -9.562 -36.717  63.388  1.00 19.50           C
ATOM   5272  O   TYR A 828     -10.001 -35.962  64.259  1.00 20.02           O
ATOM   5273  CB  TYR A 828      -8.226 -38.448  64.598  1.00 19.17           C
ATOM   5274  CG  TYR A 828      -9.361 -39.422  64.453  1.00 21.93           C
ATOM   5275  CD1 TYR A 828      -9.506 -40.184  63.294  1.00 21.90           C
ATOM   5276  CD2 TYR A 828     -10.279 -39.603  65.486  1.00 23.47           C
ATOM   5277  CE1 TYR A 828     -10.540 -41.107  63.166  1.00 25.41           C
ATOM   5278  CE2 TYR A 828     -11.318 -40.522  65.372  1.00 24.95           C
ATOM   5279  CZ  TYR A 828     -11.445 -41.273  64.209  1.00 28.31           C
ATOM   5280  OH  TYR A 828     -12.482 -42.181  64.081  1.00 32.49           O
ATOM   5281  N   ASP A 829     -10.225 -37.021  62.273  1.00 17.92           N
ATOM   5282  CA  ASP A 829     -11.573 -36.527  61.977  1.00 19.81           C
ATOM   5283  C   ASP A 829     -12.567 -37.669  62.243  1.00 17.69           C
ATOM   5284  O   ASP A 829     -12.791 -38.519  61.384  1.00 20.45           O
ATOM   5285  CB  ASP A 829     -11.665 -36.097  60.509  1.00 18.13           C
ATOM   5286  CG  ASP A 829     -12.930 -35.315  60.204  1.00 20.82           C
ATOM   5287  OD1 ASP A 829     -13.871 -35.342  61.030  1.00 26.30           O
ATOM   5288  OD2 ASP A 829     -12.982 -34.674  59.132  1.00 19.89           O
ATOM   5289  N   ALA A 830     -13.145 -37.687  63.439  1.00 21.77           N
ATOM   5290  CA  ALA A 830     -14.091 -38.735  63.825  1.00 23.40           C
ATOM   5291  C   ALA A 830     -15.307 -38.835  62.907  1.00 23.99           C
ATOM   5292  O   ALA A 830     -15.791 -39.929  62.628  1.00 25.02           O
ATOM   5293  CB  ALA A 830     -14.544 -38.514  65.260  1.00 19.43           C
ATOM   5294  N   LYS A 831     -15.803 -37.695  62.443  1.00 25.89           N
ATOM   5295  CA  LYS A 831     -16.963 -37.675  61.561  1.00 25.63           C
ATOM   5296  C   LYS A 831     -16.647 -38.423  60.272  1.00 26.72           C
ATOM   5297  O   LYS A 831     -17.465 -39.193  59.763  1.00 24.07           O
ATOM   5298  CB  LYS A 831     -17.344 -36.229  61.223  1.00 27.74           C
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ATOM   5299  CG  LYS A 831     -18.360 -35.586  62.163  1.00 35.88           C
ATOM   5300  CD  LYS A 831     -19.189 -34.541  61.417  1.00 40.55           C
ATOM   5301  CE  LYS A 831     -19.610 -33.384  62.317  1.00 44.35           C
ATOM   5302  NZ  LYS A 831     -18.569 -33.034  63.322  1.00 44.01           N
ATOM   5303  N   GLN A 832     -15.445 -38.195  59.752  1.00 23.33           N
ATOM   5304  CA  GLN A 832     -15.013 -38.811  58.505  1.00 19.17           C
ATOM   5305  C   GLN A 832     -14.327 -40.153  58.665  1.00 16.84           C
ATOM   5306  O   GLN A 832     -14.336 -40.970  57.741  1.00 20.32           O
ATOM   5307  CB  GLN A 832     -14.050 -37.878  57.783  1.00 22.26           C
ATOM   5308  CG  GLN A 832     -14.688 -36.987  56.775  1.00 23.70           C
ATOM   5309  CD  GLN A 832     -13.667 -36.233  55.964  1.00 21.29           C
ATOM   5310  OE1 GLN A 832     -12.936 -35.391  56.489  1.00 23.79           O
ATOM   5311  NE2 GLN A 832     -13.607 -36.528  54.678  1.00 19.07           N
ATOM   5312  N   GLY A 833     -13.727 -40.386  59.826  1.00 17.55           N
ATOM   5313  CA  GLY A 833     -13.004 -41.628  60.029  1.00 20.07           C
ATOM   5314  C   GLY A 833     -11.708 -41.499  59.245  1.00 22.22           C
ATOM   5315  O   GLY A 833     -11.207 -42.465  58.662  1.00 24.45           O
ATOM   5316  N   VAL A 834     -11.175 -40.279  59.220  1.00 21.04           N
ATOM   5317  CA  VAL A 834      -9.943 -39.987  58.492  1.00 21.63           C
ATOM   5318  C   VAL A 834      -8.847 -39.538  59.453  1.00 22.00           C
ATOM   5319  O   VAL A 834      -9.104 -38.800  60.410  1.00 21.16           O
ATOM   5320  CB  VAL A 834     -10.170 -38.881  57.418  1.00 21.68           C
ATOM   5321  CG1 VAL A 834      -8.840 -38.407  56.845  1.00 17.92           C
ATOM   5322  CG2 VAL A 834     -11.038 -39.417  56.290  1.00 17.24           C
ATOM   5323  N   TRP A 835      -7.626 -40.007  59.195  1.00 23.06           N
ATOM   5324  CA  TRP A 835      -6.464 -39.662  60.015  1.00 22.17           C
ATOM   5325  C   TRP A 835      -5.421 -38.967  59.152  1.00 20.47           C
ATOM   5326  O   TRP A 835      -5.143 -39.412  58.038  1.00 22.05           O
ATOM   5327  CB  TRP A 835      -5.794 -40.916  60.595  1.00 21.20           C
ATOM   5328  CG  TRP A 835      -6.456 -41.527  61.785  1.00 17.17           C
ATOM   5329  CD1 TRP A 835      -6.210 -41.247  63.094  1.00 18.37           C
ATOM   5330  CD2 TRP A 835      -7.423 -42.581  61.772  1.00 18.17           C
ATOM   5331  NE1 TRP A 835      -6.962 -42.068  63.902  1.00 19.29           N
ATOM   5332  CE2 TRP A 835      -7.715 -42.897  63.113  1.00 16.62           C
ATOM   5333  CE3 TRP A 835      -8.070 -43.292  60.754  1.00 17.21           C
ATOM   5334  CZ2 TRP A 835      -8.630 -43.893  63.467  1.00 21.20           C
ATOM   5335  CZ3 TRP A 835      -8.981 -44.286  61.106  1.00 19.29           C
ATOM   5336  CH2 TRP A 835      -9.251 -44.575  62.454  1.00 18.40           C
ATOM   5337  N   GLY A 836      -4.857 -37.878  59.666  1.00 20.28           N
ATOM   5338  CA  GLY A 836      -3.790 -37.178  58.965  1.00 21.41           C
ATOM   5339  C   GLY A 836      -2.567 -37.487  59.817  1.00 21.61           C
ATOM   5340  O   GLY A 836      -2.621 -37.269  61.026  1.00 21.22           O
ATOM   5341  N   ILE A 837      -1.484 -38.007  59.229  1.00 21.33           N
ATOM   5342  CA  ILE A 837      -0.287 -38.350  60.021  1.00 21.40           C
ATOM   5343  C   ILE A 837       1.041 -38.000  59.356  1.00 17.59           C
ATOM   5344  O   ILE A 837       1.230 -38.236  58.164  1.00 16.28           O
ATOM   5345  CB  ILE A 837      -0.212 -39.876  60.344  1.00 23.39           C
ATOM   5346  CG1 ILE A 837      -1.467 -40.342  61.081  1.00 23.76           C
ATOM   5347  CG2 ILE A 837       1.007 -40.166  61.209  1.00 22.31           C
ATOM   5348  CD1 ILE A 837      -1.566 -41.855  61.207  1.00 25.91           C
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ATOM   5349  N   VAL A 838       1.957 -37.444  60.139  1.00 19.19           N
ATOM   5350  CA  VAL A 838       3.289 -37.107  59.639  1.00 18.15           C
ATOM   5351  C   VAL A 838       4.312 -37.714  60.589  1.00 17.25           C
ATOM   5352  O   VAL A 838       4.324 -37.403  61.784  1.00 16.77           O
ATOM   5353  CB  VAL A 838       3.540 -35.587  59.578  1.00 16.35           C
ATOM   5354  CG1 VAL A 838       5.011 -35.329  59.252  1.00 13.51           C
ATOM   5355  CG2 VAL A 838       2.660 -34.945  58.514  1.00 14.26           C
ATOM   5356  N   LYS A 839       5.159 -38.589  60.059  1.00 16.92           N
ATOM   5357  CA  LYS A 839       6.200 -39.231  60.862  1.00 18.88           C
ATOM   5358  C   LYS A 839       7.587 -38.721  60.447  1.00 17.81           C
ATOM   5359  O   LYS A 839       7.920 -38.710  59.256  1.00 15.98           O
ATOM   5360  CB  LYS A 839       6.152 -40.749  60.676  1.00 18.55           C
ATOM   5361  CG  LYS A 839       5.185 -41.468  61.585  1.00 19.45           C
ATOM   5362  CD  LYS A 839       4.975 -42.901  61.109  1.00 20.15           C
ATOM   5363  CE  LYS A 839       6.163 -43.780  61.461  1.00 19.57           C
ATOM   5364  NZ  LYS A 839       6.783 -43.390  62.761  1.00 19.63           N
ATOM   5365  N   TYR A 840       8.394 -38.300  61.419  1.00 18.79           N
ATOM   5366  CA  TYR A 840       9.736 -37.814  61.096  1.00 21.33           C
ATOM   5367  C   TYR A 840      10.799 -38.898  61.262  1.00 19.25           C
ATOM   5368  O   TYR A 840      11.951 -38.696  60.895  1.00 25.78           O
ATOM   5369  CB  TYR A 840      10.089 -36.567  61.927  1.00 20.67           C
ATOM   5370  CG  TYR A 840       9.674 -35.268  61.247  1.00 22.64           C
ATOM   5371  CD1 TYR A 840       8.351 -34.818  61.307  1.00 23.72           C
ATOM   5372  CD2 TYR A 840      10.583 -34.526  60.486  1.00 21.75           C
ATOM   5373  CE1 TYR A 840       7.937 -33.667  60.620  1.00 24.10           C
ATOM   5374  CE2 TYR A 840      10.181 -33.369  59.791  1.00 22.91           C
ATOM   5375  CZ  TYR A 840       8.851 -32.949  59.862  1.00 23.94           C
ATOM   5376  OH  TYR A 840       8.424 -31.833  59.171  1.00 19.59           O
ATOM   5377  N   ASP A 841      10.418 -40.049  61.807  1.00 21.45           N
ATOM   5378  CA  ASP A 841      11.359 -41.157  61.959  1.00 25.82           C
ATOM   5379  C   ASP A 841      10.674 -42.498  61.698  1.00 26.16           C
ATOM   5380  O   ASP A 841       9.456 -42.562  61.577  1.00 27.75           O
ATOM   5381  CB  ASP A 841      12.025 -41.136  63.341  1.00 22.93           C
ATOM   5382  CG  ASP A 841      11.076 -41.490  64.457  1.00 30.30           C
ATOM   5383  OD1 ASP A 841      10.018 -42.092  64.182  1.00 30.31           O
ATOM   5384  OD2 ASP A 841      11.395 -41.163  65.622  1.00 29.59           O
ATOM   5385  N   ASP A 842      11.456 -43.569  61.616  1.00 27.59           N
ATOM   5386  CA  ASP A 842      10.908 -44.888  61.319  1.00 28.66           C
ATOM   5387  C   ASP A 842      10.469 -45.746  62.501  1.00 27.04           C
ATOM   5388  O   ASP A 842      10.399 -46.970  62.390  1.00 28.19           O
ATOM   5389  CB  ASP A 842      11.899 -45.681  60.458  1.00 30.21           C
ATOM   5390  CG  ASP A 842      12.000 -45.143  59.041  1.00 35.50           C
ATOM   5391  OD1 ASP A 842      12.819 -45.658  58.254  1.00 42.24           O
ATOM   5392  OD2 ASP A 842      11.259 -44.201  58.709  1.00 36.96           O
ATOM   5393  N   SER A 843      10.162 -45.121  63.628  1.00 26.95           N
ATOM   5394  CA  SER A 843       9.708 -45.883  64.781  1.00 24.83           C
ATOM   5395  C   SER A 843       8.286 -46.380  64.506  1.00 27.69           C
ATOM   5396  O   SER A 843       7.633 -45.920  63.569  1.00 26.08           O
ATOM   5397  CB  SER A 843       9.709 -45.000  66.020  1.00 24.93           C
ATOM   5398  OG  SER A 843       8.863 -43.884  65.826  1.00 29.96           O
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ATOM   5399  N   VAL A 844       7.818 -47.326  65.313  1.00 26.40           N
ATOM   5400  CA  VAL A 844       6.472 -47.865  65.158  1.00 27.68           C
ATOM   5401  C   VAL A 844       5.479 -46.989  65.919  1.00 28.93           C
ATOM   5402  O   VAL A 844       5.536 -46.908  67.145  1.00 29.74           O
ATOM   5403  CB  VAL A 844       6.370 -49.290  65.718  1.00 26.49           C
ATOM   5404  CG1 VAL A 844       4.901 -49.687  65.858  1.00 28.15           C
ATOM   5405  CG2 VAL A 844       7.086 -50.250  64.802  1.00 22.89           C
ATOM   5406  N   SER A 845       4.570 -46.344  65.192  1.00 26.54           N
ATOM   5407  CA  SER A 845       3.578 -45.471  65.813  1.00 24.36           C
ATOM   5408  C   SER A 845       2.196 -46.104  65.785  1.00 25.75           C
ATOM   5409  O   SER A 845       1.637 -46.343  64.718  1.00 24.65           O
ATOM   5410  CB  SER A 845       3.524 -44.131  65.081  1.00 22.47           C
ATOM   5411  OG  SER A 845       4.704 -43.388  65.289  1.00 23.38           O
ATOM   5412  N   THR A 846       1.649 -46.373  66.963  1.00 29.88           N
ATOM   5413  CA  THR A 846       0.321 -46.967  67.067  1.00 30.92           C
ATOM   5414  C   THR A 846      -0.691 -45.833  67.120  1.00 28.42           C
ATOM   5415  O   THR A 846      -0.599 -44.958  67.976  1.00 27.97           O
ATOM   5416  CB  THR A 846       0.204 -47.812  68.334  1.00 31.53           C
ATOM   5417  OG1 THR A 846       1.206 -48.833  68.307  1.00 32.15           O
ATOM   5418  CG2 THR A 846      -1.163 -48.457  68.414  1.00 32.03           C
ATOM   5419  N   ILE A 847      -1.654 -45.848  66.206  1.00 27.45           N
ATOM   5420  CA  ILE A 847      -2.641 -44.778  66.154  1.00 27.73           C
ATOM   5421  C   ILE A 847      -4.037 -45.174  66.605  1.00 27.75           C
ATOM   5422  O   ILE A 847      -4.594 -46.161  66.137  1.00 27.41           O
ATOM   5423  CB  ILE A 847      -2.748 -44.188  64.724  1.00 29.30           C
ATOM   5424  CG1 ILE A 847      -1.350 -43.866  64.179  1.00 25.58           C
ATOM   5425  CG2 ILE A 847      -3.624 -42.936  64.739  1.00 25.71           C
ATOM   5426  CD1 ILE A 847      -0.560 -42.880  65.022  1.00 21.94           C
ATOM   5427  N   SER A 848      -4.592 -44.379  67.514  1.00 29.10           N
ATOM   5428  CA  SER A 848      -5.934 -44.605  68.038  1.00 31.31           C
ATOM   5429  C   SER A 848      -6.187 -46.068  68.376  1.00 32.06           C
ATOM   5430  O   SER A 848      -7.323 -46.526  68.349  1.00 33.64           O
ATOM   5431  CB  SER A 848      -6.982 -44.123  67.025  1.00 30.59           C
ATOM   5432  OG  SER A 848      -6.900 -42.719  66.832  1.00 31.61           O
ATOM   5433  N   ASN A 849      -5.123 -46.797  68.688  1.00 33.38           N
ATOM   5434  CA  ASN A 849      -5.242 -48.205  69.033  1.00 35.43           C
ATOM   5435  C   ASN A 849      -5.913 -49.036  67.949  1.00 34.88           C
ATOM   5436  O   ASN A 849      -6.498 -50.075  68.243  1.00 35.34           O
ATOM   5437  CB  ASN A 849      -6.031 -48.364  70.333  1.00 41.08           C
ATOM   5438  CG  ASN A 849      -5.160 -48.234  71.561  1.00 48.92           C
ATOM   5439  OD1 ASN A 849      -5.497 -47.512  72.503  1.00 53.00           O
ATOM   5440  ND2 ASN A 849      -4.030 -48.936  71.562  1.00 52.54           N
ATOM   5441  N   GLN A 850      -5.839 -48.588  66.701  1.00 33.41           N
ATOM   5442  CA  GLN A 850      -6.451 -49.334  65.605  1.00 32.13           C
ATOM   5443  C   GLN A 850      -5.396 -49.844  64.647  1.00 31.47           C
ATOM   5444  O   GLN A 850      -5.454 -50.986  64.185  1.00 31.74           O
ATOM   5445  CB  GLN A 850      -7.414 -48.454  64.814  1.00 35.98           C
ATOM   5446  CG  GLN A 850      -8.148 -47.434  65.636  1.00 41.56           C
ATOM   5447  CD  GLN A 850      -9.631 -47.534  65.433  1.00 44.48           C
ATOM   5448  OE1 GLN A 850     -10.157 -48.624  65.217  1.00 49.06           O
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ATOM   5449  NE2 GLN A 850     -10.321 -46.399  65.495  1.00 44.59           N
ATOM   5450  N   PHE A 851      -4.437 -48.981  64.337  1.00 27.84           N
ATOM   5451  CA  PHE A 851      -3.387 -49.351  63.414  1.00 27.32           C
ATOM   5452  C   PHE A 851      -2.019 -48.831  63.815  1.00 24.01           C
ATOM   5453  O   PHE A 851      -1.864 -48.112  64.804  1.00 20.52           O
ATOM   5454  CB  PHE A 851      -3.731 -48.862  62.006  1.00 23.46           C
ATOM   5455  CG  PHE A 851      -3.910 -47.371  61.906  1.00 27.70           C
ATOM   5456  CD1 PHE A 851      -2.843 -46.549  61.560  1.00 21.58           C
ATOM   5457  CD2 PHE A 851      -5.155 -46.786  62.137  1.00 28.45           C
ATOM   5458  CE1 PHE A 851      -3.009 -45.172  61.444  1.00 19.29           C
ATOM   5459  CE2 PHE A 851      -5.330 -45.405  62.023  1.00 27.85           C
ATOM   5460  CZ  PHE A 851      -4.250 -44.597  61.675  1.00 23.58           C
ATOM   5461  N   GLN A 852      -1.031 -49.220  63.021  1.00 23.99           N
ATOM   5462  CA  GLN A 852       0.346 -48.833  63.237  1.00 23.33           C
ATOM   5463  C   GLN A 852       0.915 -48.327  61.927  1.00 21.53           C
ATOM   5464  O   GLN A 852       0.724 -48.951  60.888  1.00 24.77           O
ATOM   5465  CB  GLN A 852       1.161 -50.040  63.700  1.00 20.40           C
ATOM   5466  CG  GLN A 852       1.395 -50.078  65.191  1.00 26.34           C
ATOM   5467  CD  GLN A 852       1.702 -51.471  65.696  1.00 28.14           C
ATOM   5468  OE1 GLN A 852       1.844 -52.412  64.914  1.00 31.71           O
ATOM   5469  NE2 GLN A 852       1.804 -51.612  67.014  1.00 29.64           N
ATOM   5470  N   VAL A 853       1.588 -47.183  61.978  1.00 21.34           N
ATOM   5471  CA  VAL A 853       2.224 -46.614  60.803  1.00 21.13           C
ATOM   5472  C   VAL A 853       3.702 -46.831  61.098  1.00 23.28           C
ATOM   5473  O   VAL A 853       4.164 -46.569  62.213  1.00 20.80           O
ATOM   5474  CB  VAL A 853       1.877 -45.122  60.630  1.00 21.95           C
ATOM   5475  CG1 VAL A 853       0.576 -45.007  59.856  1.00 20.48           C
ATOM   5476  CG2 VAL A 853       1.741 -44.438  61.979  1.00 21.39           C
ATOM   5477  N   LEU A 854       4.438 -47.318  60.105  1.00 24.13           N
ATOM   5478  CA  LEU A 854       5.840 -47.669  60.307  1.00 24.65           C
ATOM   5479  C   LEU A 854       6.967 -46.880  59.660  1.00 25.62           C
ATOM   5480  O   LEU A 854       8.112 -47.013  60.075  1.00 27.45           O
ATOM   5481  CB  LEU A 854       6.015 -49.142  59.932  1.00 23.00           C
ATOM   5482  CG  LEU A 854       4.762 -49.988  60.158  1.00 20.11           C
ATOM   5483  CD1 LEU A 854       4.864 -51.305  59.398  1.00 16.25           C
ATOM   5484  CD2 LEU A 854       4.588 -50.215  61.658  1.00 18.16           C
ATOM   5485  N   LYS A 855       6.675 -46.066  58.657  1.00 26.51           N
ATOM   5486  CA  LYS A 855       7.742 -45.342  57.987  1.00 26.65           C
ATOM   5487  C   LYS A 855       7.707 -43.825  58.071  1.00 29.55           C
ATOM   5488  O   LYS A 855       6.643 -43.206  58.149  1.00 30.62           O
ATOM   5489  CB  LYS A 855       7.784 -45.747  56.512  1.00 32.42           C
ATOM   5490  CG  LYS A 855       8.548 -47.035  56.222  1.00 38.22           C
ATOM   5491  CD  LYS A 855       8.846 -47.171  54.723  1.00 45.94           C
ATOM   5492  CE  LYS A 855       9.476 -45.889  54.149  1.00 51.27           C
ATOM   5493  NZ  LYS A 855       9.312 -45.720  52.664  1.00 47.51           N
ATOM   5494  N   ARG A 856       8.894 -43.233  58.044  1.00 25.13           N
ATOM   5495  CA  ARG A 856       9.041 -41.789  58.064  1.00 21.36           C
ATOM   5496  C   ARG A 856       8.303 -41.323  56.802  1.00 19.89           C
ATOM   5497  O   ARG A 856       8.459 -41.912  55.728  1.00 17.35           O
ATOM   5498  CB  ARG A 856      10.543 -41.431  58.024  1.00 20.09           C
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ATOM   5499  CG  ARG A 856      10.928 -40.105  57.353  1.00 26.32           C
ATOM   5500  CD  ARG A 856      12.281 -39.591  57.883  1.00 25.10           C
ATOM   5501  NE  ARG A 856      12.837 -38.467  57.124  1.00 20.68           N
ATOM   5502  CZ  ARG A 856      13.125 -37.283  57.659  1.00 16.26           C
ATOM   5503  NH1 ARG A 856      12.907 -37.074  58.947  1.00 16.81           N
ATOM   5504  NH2 ARG A 856      13.656 -36.315  56.921  1.00 18.85           N
ATOM   5505  N   GLY A 857       7.474 -40.292  56.939  1.00 19.06           N
ATOM   5506  CA  GLY A 857       6.727 -39.796  55.797  1.00 17.89           C
ATOM   5507  C   GLY A 857       5.379 -39.184  56.159  1.00 16.82           C
ATOM   5508  O   GLY A 857       5.099 -38.910  57.326  1.00 16.12           O
ATOM   5509  N   VAL A 858       4.540 -38.986  55.146  1.00 19.71           N
ATOM   5510  CA  VAL A 858       3.226 -38.374  55.322  1.00 19.21           C
ATOM   5511  C   VAL A 858       2.101 -39.333  54.950  1.00 19.51           C
ATOM   5512  O   VAL A 858       2.143 -39.982  53.905  1.00 19.68           O
ATOM   5513  CB  VAL A 858       3.123 -37.096  54.475  1.00 21.24           C
ATOM   5514  CG1 VAL A 858       1.802 -36.387  54.743  1.00 22.86           C
ATOM   5515  CG2 VAL A 858       4.281 -36.173  54.814  1.00 17.93           C
ATOM   5516  N   TYR A 859       1.096 -39.413  55.818  1.00 20.90           N
ATOM   5517  CA  TYR A 859      -0.033 -40.315  55.616  1.00 19.66           C
ATOM   5518  C   TYR A 859      -1.400 -39.649  55.710  1.00 19.04           C
ATOM   5519  O   TYR A 859      -1.595 -38.687  56.450  1.00 18.21           O
ATOM   5520  CB  TYR A 859      -0.046 -41.432  56.672  1.00 19.58           C
ATOM   5521  CG  TYR A 859       1.225 -42.233  56.865  1.00 26.01           C
ATOM   5522  CD1 TYR A 859       2.375 -41.655  57.406  1.00 23.77           C
ATOM   5523  CD2 TYR A 859       1.248 -43.603  56.584  1.00 24.93           C
ATOM   5524  CE1 TYR A 859       3.514 -42.428  57.666  1.00 23.77           C
ATOM   5525  CE2 TYR A 859       2.374 -44.379  56.839  1.00 21.88           C
ATOM   5526  CZ  TYR A 859       3.499 -43.792  57.379  1.00 23.71           C
ATOM   5527  OH  TYR A 859       4.600 -44.577  57.632  1.00 19.41           O
ATOM   5528  N   THR A 860      -2.337 -40.189  54.942  1.00 20.59           N
ATOM   5529  CA  THR A 860      -3.735 -39.775  54.975  1.00 19.08           C
ATOM   5530  C   THR A 860      -4.454 -41.119  54.832  1.00 18.49           C
ATOM   5531  O   THR A 860      -4.406 -41.763  53.776  1.00 17.60           O
ATOM   5532  CB  THR A 860      -4.135 -38.817  53.835  1.00 18.17           C
ATOM   5533  OG1 THR A 860      -3.203 -37.726  53.758  1.00 17.33           O
ATOM   5534  CG2 THR A 860      -5.538 -38.234  54.131  1.00 15.33           C
ATOM   5535  N   ILE A 861      -5.076 -41.543  55.931  1.00 19.17           N
ATOM   5536  CA  ILE A 861      -5.775 -42.820  56.024  1.00 21.35           C
ATOM   5537  C   ILE A 861      -7.262 -42.674  56.349  1.00 20.77           C
ATOM   5538  O   ILE A 861      -7.652 -41.828  57.154  1.00 19.72           O
ATOM   5539  CB  ILE A 861      -5.128 -43.691  57.130  1.00 23.32           C
ATOM   5540  CG1 ILE A 861      -3.736 -44.150  56.678  1.00 26.40           C
ATOM   5541  CG2 ILE A 861      -6.026 -44.878  57.470  1.00 22.34           C
ATOM   5542  CD1 ILE A 861      -2.750 -44.327  57.815  1.00 21.59           C
ATOM   5543  N   ARG A 862      -8.080 -43.518  55.730  1.00 20.97           N
ATOM   5544  CA  ARG A 862      -9.522 -43.504  55.975  1.00 23.76           C
ATOM   5545  C   ARG A 862     -10.012 -44.898  56.337  1.00 24.02           C
ATOM   5546  O   ARG A 862      -9.712 -45.869  55.643  1.00 22.21           O
ATOM   5547  CB  ARG A 862     -10.278 -43.024  54.735  1.00 25.26           C
ATOM   5548  CG  ARG A 862     -11.794 -42.978  54.918  1.00 31.48           C
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ATOM   5549  CD  ARG A 862     -12.522 -43.025  53.576  1.00 36.73           C
ATOM   5550  NE  ARG A 862     -12.941 -41.699  53.133  1.00 46.82           N
ATOM   5551  CZ  ARG A 862     -13.757 -40.902  53.820  1.00 53.45           C
ATOM   5552  NH1 ARG A 862     -14.247 -41.298  54.989  1.00 54.65           N
ATOM   5553  NH2 ARG A 862     -14.085 -39.704  53.342  1.00 56.05           N
ATOM   5554  N   LYS A 863     -10.755 -45.008  57.432  1.00 27.72           N
ATOM   5555  CA  LYS A 863     -11.294 -46.305  57.818  1.00 28.22           C
ATOM   5556  C   LYS A 863     -12.689 -46.437  57.239  1.00 30.45           C
ATOM   5557  O   LYS A 863     -13.544 -45.584  57.461  1.00 30.77           O
ATOM   5558  CB  LYS A 863     -11.375 -46.450  59.330  1.00 25.74           C
ATOM   5559  CG  LYS A 863     -11.996 -47.762  59.761  1.00 25.92           C
ATOM   5560  CD  LYS A 863     -12.091 -47.842  61.263  1.00 28.58           C
ATOM   5561  CE  LYS A 863     -11.774 -49.237  61.753  1.00 30.31           C
ATOM   5562  NZ  LYS A 863     -13.016 -50.003  62.020  1.00 38.01           N
ATOM   5563  N   GLU A 864     -12.902 -47.498  56.473  1.00 35.93           N
ATOM   5564  CA  GLU A 864     -14.199 -47.770  55.865  1.00 42.48           C
ATOM   5565  C   GLU A 864     -14.599 -49.167  56.328  1.00 44.02           C
ATOM   5566  O   GLU A 864     -14.258 -50.169  55.694  1.00 45.22           O
ATOM   5567  CB  GLU A 864     -14.092 -47.715  54.338  1.00 45.47           C
ATOM   5568  CG  GLU A 864     -14.198 -46.307  53.771  1.00 52.67           C
ATOM   5569  CD  GLU A 864     -13.974 -46.254  52.271  1.00 59.07           C
ATOM   5570  OE1 GLU A 864     -13.424 -45.239  51.785  1.00 62.79           O
ATOM   5571  OE2 GLU A 864     -14.351 -47.225  51.577  1.00 64.69           O
ATOM   5572  N   GLY A 865     -15.314 -49.225  57.448  1.00 44.14           N
ATOM   5573  CA  GLY A 865     -15.713 -50.504  57.996  1.00 43.54           C
ATOM   5574  C   GLY A 865     -14.490 -51.100  58.655  1.00 44.52           C
ATOM   5575  O   GLY A 865     -13.852 -50.447  59.482  1.00 46.18           O
ATOM   5576  N   ASP A 866     -14.154 -52.332  58.292  1.00 44.81           N
ATOM   5577  CA  ASP A 866     -12.979 -52.994  58.847  1.00 47.47           C
ATOM   5578  C   ASP A 866     -11.820 -52.777  57.878  1.00 46.89           C
ATOM   5579  O   ASP A 866     -10.723 -53.301  58.074  1.00 49.97           O
ATOM   5580  CB  ASP A 866     -13.229 -54.499  59.011  1.00 51.14           C
ATOM   5581  CG  ASP A 866     -14.540 -54.808  59.721  1.00 55.71           C
ATOM   5582  OD1 ASP A 866     -15.082 -53.914  60.409  1.00 56.15           O
ATOM   5583  OD2 ASP A 866     -15.029 -55.953  59.590  1.00 56.68           O
ATOM   5584  N   GLU A 867     -12.080 -52.001  56.828  1.00 44.39           N
ATOM   5585  CA  GLU A 867     -11.085 -51.713  55.803  1.00 39.93           C
ATOM   5586  C   GLU A 867     -10.434 -50.346  55.977  1.00 36.11           C
ATOM   5587  O   GLU A 867     -11.039 -49.412  56.505  1.00 35.80           O
ATOM   5588  CB  GLU A 867     -11.727 -51.797  54.417  1.00 42.19           C
ATOM   5589  CG  GLU A 867     -12.171 -53.193  54.023  1.00 49.00           C
ATOM   5590  CD  GLU A 867     -11.145 -54.251  54.387  1.00 56.03           C
ATOM   5591  OE1 GLU A 867     -10.261 -54.532  53.544  1.00 62.33           O
ATOM   5592  OE2 GLU A 867     -11.219 -54.802  55.511  1.00 56.53           O
ATOM   5593  N   TYR A 868      -9.191 -50.239  55.519  1.00 34.09           N
ATOM   5594  CA  TYR A 868      -8.441 -48.997  55.614  1.00 27.67           C
ATOM   5595  C   TYR A 868      -7.933 -48.587  54.242  1.00 27.16           C
ATOM   5596  O   TYR A 868      -7.348 -49.387  53.514  1.00 28.57           O
ATOM   5597  CB  TYR A 868      -7.259 -49.161  56.574  1.00 24.68           C
ATOM   5598  CG  TYR A 868      -7.643 -49.173  58.039  1.00 20.74           C
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ATOM   5599  CD1 TYR A 868      -7.813 -47.985  58.741  1.00 23.04           C
ATOM   5600  CD2 TYR A 868      -7.818 -50.371  58.725  1.00 18.07           C
ATOM   5601  CE1 TYR A 868      -8.148 -47.984  60.101  1.00 26.13           C
ATOM   5602  CE2 TYR A 868      -8.153 -50.387  60.087  1.00 21.71           C
ATOM   5603  CZ  TYR A 868      -8.315 -49.189  60.772  1.00 24.64           C
ATOM   5604  OH  TYR A 868      -8.630 -49.184  62.122  1.00 26.33           O
ATOM   5605  N   LYS A 869      -8.197 -47.338  53.888  1.00 25.23           N
ATOM   5606  CA  LYS A 869      -7.760 -46.776  52.624  1.00 27.43           C
ATOM   5607  C   LYS A 869      -6.493 -46.040  53.023  1.00 27.36           C
ATOM   5608  O   LYS A 869      -6.505 -45.253  53.973  1.00 26.11           O
ATOM   5609  CB  LYS A 869      -8.805 -45.791  52.092  1.00 35.21           C
ATOM   5610  CG  LYS A 869      -9.442 -46.189  50.769  1.00 41.91           C
ATOM   5611  CD  LYS A 869      -9.471 -44.997  49.815  1.00 47.93           C
ATOM   5612  CE  LYS A 869     -10.274 -45.293  48.554  1.00 48.37           C
ATOM   5613  NZ  LYS A 869     -10.810 -44.035  47.956  1.00 51.01           N
ATOM   5614  N   ILE A 870      -5.406 -46.285  52.304  1.00 25.04           N
ATOM   5615  CA  ILE A 870      -4.135 -45.671  52.656  1.00 24.11           C
ATOM   5616  C   ILE A 870      -3.513 -44.803  51.585  1.00 18.66           C
ATOM   5617  O   ILE A 870      -3.432 -45.201  50.427  1.00 20.50           O
ATOM   5618  CB  ILE A 870      -3.103 -46.759  53.031  1.00 25.48           C
ATOM   5619  CG1 ILE A 870      -3.648 -47.626  54.163  1.00 28.16           C
ATOM   5620  CG2 ILE A 870      -1.796 -46.125  53.442  1.00 28.04           C
ATOM   5621  CD1 ILE A 870      -3.202 -49.077  54.083  1.00 27.76           C
ATOM   5622  N   ALA A 871      -3.074 -43.615  51.986  1.00 17.08           N
ATOM   5623  CA  ALA A 871      -2.393 -42.698  51.080  1.00 17.43           C
ATOM   5624  C   ALA A 871      -1.051 -42.331  51.727  1.00 18.41           C
ATOM   5625  O   ALA A 871      -0.990 -41.464  52.600  1.00 19.04           O
ATOM   5626  CB  ALA A 871      -3.233 -41.452  50.849  1.00 17.96           C
ATOM   5627  N   TYR A 872       0.019 -43.009  51.312  1.00 22.73           N
ATOM   5628  CA  TYR A 872       1.356 -42.761  51.869  1.00 19.98           C
ATOM   5629  C   TYR A 872       2.313 -42.099  50.890  1.00 19.21           C
ATOM   5630  O   TYR A 872       2.400 -42.484  49.723  1.00 15.97           O
ATOM   5631  CB  TYR A 872       2.003 -44.063  52.349  1.00 20.65           C
ATOM   5632  CG  TYR A 872       3.482 -43.906  52.647  1.00 23.73           C
ATOM   5633  CD1 TYR A 872       3.913 -43.339  53.849  1.00 21.79           C
ATOM   5634  CD2 TYR A 872       4.448 -44.277  51.713  1.00 20.83           C
ATOM   5635  CE1 TYR A 872       5.270 -43.142  54.111  1.00 22.36           C
ATOM   5636  CE2 TYR A 872       5.811 -44.081  51.965  1.00 21.48           C
ATOM   5637  CZ  TYR A 872       6.207 -43.513  53.164  1.00 20.00           C
ATOM   5638  OH  TYR A 872       7.536 -43.312  53.422  1.00 23.43           O
ATOM   5639  N   TYR A 873       3.056 -41.120  51.389  1.00 20.26           N
ATOM   5640  CA  TYR A 873       4.013 -40.402  50.564  1.00 20.37           C
ATOM   5641  C   TYR A 873       5.331 -40.099  51.279  1.00 19.33           C
ATOM   5642  O   TYR A 873       5.344 -39.548  52.382  1.00 17.41           O
ATOM   5643  CB  TYR A 873       3.401 -39.089  50.078  1.00 16.14           C
ATOM   5644  CG  TYR A 873       4.264 -38.355  49.082  1.00 17.85           C
ATOM   5645  CD1 TYR A 873       4.574 -38.929  47.857  1.00 17.84           C
ATOM   5646  CD2 TYR A 873       4.776 -37.091  49.365  1.00 15.89           C
ATOM   5647  CE1 TYR A 873       5.370 -38.270  46.932  1.00 22.39           C
ATOM   5648  CE2 TYR A 873       5.579 -36.419  48.439  1.00 16.42           C
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ATOM   5649  CZ  TYR A 873       5.870 -37.017  47.224  1.00 17.27           C
ATOM   5650  OH  TYR A 873       6.649 -36.375  46.283  1.00 17.82           O
ATOM   5651  N   ASN A 874       6.436 -40.480  50.645  1.00 19.51           N
ATOM   5652  CA  ASN A 874       7.765 -40.201  51.183  1.00 21.29           C
ATOM   5653  C   ASN A 874       8.226 -38.981  50.387  1.00 16.09           C
ATOM   5654  O   ASN A 874       8.573 -39.093  49.212  1.00 18.63           O
ATOM   5655  CB  ASN A 874       8.702 -41.381  50.935  1.00 23.04           C
ATOM   5656  CG  ASN A 874      10.135 -41.085  51.344  1.00 27.72           C
ATOM   5657  OD1 ASN A 874      11.031 -41.879  51.084  1.00 35.69           O
ATOM   5658  ND2 ASN A 874      10.354 -39.941  51.981  1.00 27.78           N
ATOM   5659  N   PRO A 875       8.218 -37.795  51.012  1.00 15.76           N
ATOM   5660  CA  PRO A 875       8.632 -36.574  50.314  1.00 17.57           C
ATOM   5661  C   PRO A 875      10.090 -36.476  49.873  1.00 20.98           C
ATOM   5662  O   PRO A 875      10.403 -35.729  48.943  1.00 23.80           O
ATOM   5663  CB  PRO A 875       8.247 -35.454  51.282  1.00 17.33           C
ATOM   5664  CG  PRO A 875       8.170 -36.088  52.599  1.00 12.81           C
ATOM   5665  CD  PRO A 875       7.812 -37.530  52.402  1.00 13.70           C
ATOM   5666  N   GLU A 876      10.977 -37.221  50.526  1.00 22.70           N
ATOM   5667  CA  GLU A 876      12.394 -37.183  50.171  1.00 22.37           C
ATOM   5668  C   GLU A 876      12.689 -37.939  48.881  1.00 21.23           C
ATOM   5669  O   GLU A 876      13.325 -37.400  47.979  1.00 22.18           O
ATOM   5670  CB  GLU A 876      13.233 -37.746  51.310  1.00 21.11           C
ATOM   5671  CG  GLU A 876      13.718 -36.674  52.257  1.00 26.92           C
ATOM   5672  CD  GLU A 876      13.880 -37.178  53.666  1.00 25.65           C
ATOM   5673  OE1 GLU A 876      13.621 -38.375  53.907  1.00 27.25           O
ATOM   5674  OE2 GLU A 876      14.268 -36.375  54.538  1.00 31.79           O
ATOM   5675  N   THR A 877      12.221 -39.180  48.787  1.00 20.40           N
ATOM   5676  CA  THR A 877      12.436 -39.976  47.583  1.00 18.63           C
ATOM   5677  C   THR A 877      11.352 -39.681  46.556  1.00 19.94           C
ATOM   5678  O   THR A 877      11.446 -40.108  45.412  1.00 17.88           O
ATOM   5679  CB  THR A 877      12.402 -41.474  47.889  1.00 19.94           C
ATOM   5680  OG1 THR A 877      11.083 -41.839  48.304  1.00 20.28           O
ATOM   5681  CG2 THR A 877      13.375 -41.810  49.003  1.00 16.87           C
ATOM   5682  N   GLN A 878      10.331 -38.936  46.969  1.00 19.02           N
ATOM   5683  CA  GLN A 878       9.216 -38.598  46.093  1.00 17.22           C
ATOM   5684  C   GLN A 878       8.540 -39.863  45.580  1.00 19.56           C
ATOM   5685  O   GLN A 878       8.275 -39.991  44.388  1.00 22.55           O
ATOM   5686  CB  GLN A 878       9.697 -37.753  44.913  1.00 17.06           C
ATOM   5687  CG  GLN A 878      10.218 -36.392  45.328  1.00 19.05           C
ATOM   5688  CD  GLN A 878      10.222 -35.396  44.194  1.00 22.70           C
ATOM   5689  OE1 GLN A 878      10.661 -35.698  43.083  1.00 28.79           O
ATOM   5690  NE2 GLN A 878       9.734 -34.195  44.467  1.00 21.61           N
ATOM   5691  N   GLU A 879       8.274 -40.798  46.485  1.00 20.09           N
ATOM   5692  CA  GLU A 879       7.625 -42.058  46.131  1.00 20.50           C
ATOM   5693  C   GLU A 879       6.631 -42.490  47.191  1.00 22.44           C
ATOM   5694  O   GLU A 879       6.657 -42.022  48.332  1.00 20.07           O
ATOM   5695  CB  GLU A 879       8.640 -43.193  46.008  1.00 19.07           C
ATOM   5696  CG  GLU A 879       9.792 -42.952  45.079  1.00 22.07           C
ATOM   5697  CD  GLU A 879      10.617 -44.207  44.874  1.00 17.88           C
ATOM   5698  OE1 GLU A 879      10.527 -45.143  45.701  1.00 21.19           O
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ATOM   5699  OE2 GLU A 879      11.352 -44.258  43.874  1.00 27.64           O
ATOM   5700  N   SER A 880       5.755 -43.404  46.802  1.00 25.23           N
ATOM   5701  CA  SER A 880       4.795 -43.952  47.742  1.00 27.86           C
ATOM   5702  C   SER A 880       5.478 -45.236  48.182  1.00 28.75           C
ATOM   5703  O   SER A 880       6.706 -45.337  48.117  1.00 29.61           O
ATOM   5704  CB  SER A 880       3.465 -44.270  47.060  1.00 26.50           C
ATOM   5705  OG  SER A 880       2.534 -44.739  48.015  1.00 28.87           O
ATOM   5706  N   ALA A 881       4.700 -46.217  48.616  1.00 28.13           N
ATOM   5707  CA  ALA A 881       5.275 -47.485  49.044  1.00 28.47           C
ATOM   5708  C   ALA A 881       4.180 -48.506  49.283  1.00 30.47           C
ATOM   5709  O   ALA A 881       3.033 -48.144  49.544  1.00 27.59           O
ATOM   5710  CB  ALA A 881       6.083 -47.293  50.314  1.00 26.95           C
ATOM   5711  N   PRO A 882       4.517 -49.801  49.163  1.00 31.15           N
ATOM   5712  CA  PRO A 882       3.535 -50.867  49.382  1.00 29.83           C
ATOM   5713  C   PRO A 882       2.935 -50.720  50.772  1.00 28.12           C
ATOM   5714  O   PRO A 882       3.648 -50.435  51.731  1.00 25.75           O
ATOM   5715  CB  PRO A 882       4.355 -52.149  49.246  1.00 30.45           C
ATOM   5716  CG  PRO A 882       5.516 -51.757  48.387  1.00 29.57           C
ATOM   5717  CD  PRO A 882       5.833 -50.338  48.776  1.00 30.11           C
ATOM   5718  N   ASP A 883       1.624 -50.912  50.866  1.00 27.98           N
ATOM   5719  CA  ASP A 883       0.912 -50.791  52.129  1.00 25.80           C
ATOM   5720  C   ASP A 883       1.591 -51.489  53.308  1.00 25.78           C
ATOM   5721  O   ASP A 883       1.707 -50.909  54.392  1.00 20.05           O
ATOM   5722  CB  ASP A 883      -0.516 -51.347  51.992  1.00 28.04           C
ATOM   5723  CG  ASP A 883      -1.321 -50.658  50.907  1.00 28.74           C
ATOM   5724  OD1 ASP A 883      -1.113 -49.449  50.678  1.00 30.22           O
ATOM   5725  OD2 ASP A 883      -2.171 -51.331  50.282  1.00 30.95           O
ATOM   5726  N   GLN A 884       2.041 -52.727  53.110  1.00 24.74           N
ATOM   5727  CA  GLN A 884       2.645 -53.475  54.211  1.00 27.30           C
ATOM   5728  C   GLN A 884       3.979 -52.933  54.717  1.00 25.70           C
ATOM   5729  O   GLN A 884       4.463 -53.343  55.770  1.00 23.01           O
ATOM   5730  CB  GLN A 884       2.782 -54.958  53.837  1.00 30.12           C
ATOM   5731  CG  GLN A 884       4.040 -55.324  53.064  1.00 35.88           C
ATOM   5732  CD  GLN A 884       4.017 -54.793  51.653  1.00 41.97           C
ATOM   5733  OE1 GLN A 884       2.975 -54.338  51.169  1.00 42.85           O
ATOM   5734  NE2 GLN A 884       5.168 -54.843  50.977  1.00 42.65           N
ATOM   5735  N   GLU A 885       4.563 -52.001  53.976  1.00 26.75           N
ATOM   5736  CA  GLU A 885       5.835 -51.408  54.368  1.00 28.09           C
ATOM   5737  C   GLU A 885       5.636 -50.236  55.328  1.00 26.78           C
ATOM   5738  O   GLU A 885       6.496 -49.947  56.162  1.00 26.46           O
ATOM   5739  CB  GLU A 885       6.584 -50.908  53.128  1.00 28.07           C
ATOM   5740  CG  GLU A 885       7.410 -51.963  52.411  1.00 31.45           C
ATOM   5741  CD  GLU A 885       8.186 -51.385  51.238  1.00 33.40           C
ATOM   5742  OE1 GLU A 885       8.401 -50.153  51.212  1.00 34.05           O
ATOM   5743  OE2 GLU A 885       8.581 -52.159  50.340  1.00 36.14           O
ATOM   5744  N   VAL A 886       4.491 -49.574  55.218  1.00 23.37           N
ATOM   5745  CA  VAL A 886       4.216 -48.400  56.032  1.00 22.01           C
ATOM   5746  C   VAL A 886       3.022 -48.484  56.971  1.00 22.99           C
ATOM   5747  O   VAL A 886       2.897 -47.670  57.888  1.00 22.36           O
ATOM   5748  CB  VAL A 886       4.009 -47.188  55.114  1.00 20.78           C
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ATOM   5749  CG1 VAL A 886       5.048 -47.205  54.008  1.00 21.70           C
ATOM   5750  CG2 VAL A 886       2.619 -47.242  54.490  1.00 20.86           C
ATOM   5751  N   PHE A 887       2.156 -49.468  56.754  1.00 24.33           N
ATOM   5752  CA  PHE A 887       0.946 -49.596  57.555  1.00 23.81           C
ATOM   5753  C   PHE A 887       0.674 -51.008  58.044  1.00 24.10           C
ATOM   5754  O   PHE A 887       0.801 -51.972  57.298  1.00 24.96           O
ATOM   5755  CB  PHE A 887      -0.240 -49.096  56.720  1.00 27.39           C
ATOM   5756  CG  PHE A 887      -1.580 -49.295  57.363  1.00 25.74           C
ATOM   5757  CD1 PHE A 887      -2.194 -48.252  58.052  1.00 29.40           C
ATOM   5758  CD2 PHE A 887      -2.249 -50.507  57.247  1.00 27.86           C
ATOM   5759  CE1 PHE A 887      -3.459 -48.412  58.617  1.00 26.08           C
ATOM   5760  CE2 PHE A 887      -3.511 -50.679  57.807  1.00 28.45           C
ATOM   5761  CZ  PHE A 887      -4.117 -49.627  58.494  1.00 28.48           C
ATOM   5762  N   LYS A 888       0.275 -51.119  59.305  1.00 27.66           N
ATOM   5763  CA  LYS A 888      -0.038 -52.417  59.887  1.00 31.22           C
ATOM   5764  C   LYS A 888      -1.336 -52.363  60.696  1.00 29.97           C
ATOM   5765  O   LYS A 888      -1.432 -51.649  61.693  1.00 26.43           O
ATOM   5766  CB  LYS A 888       1.118 -52.883  60.778  1.00 32.00           C
ATOM   5767  CG  LYS A 888       0.744 -53.965  61.767  1.00 39.41           C
ATOM   5768  CD  LYS A 888       1.626 -55.184  61.611  1.00 41.70           C
ATOM   5769  CE  LYS A 888       0.789 -56.452  61.525  1.00 48.64           C
ATOM   5770  NZ  LYS A 888       1.633 -57.683  61.454  1.00 48.97           N
ATOM   5771  N   LYS A 889      -2.344 -53.107  60.252  1.00 32.65           N
ATOM   5772  CA  LYS A 889      -3.605 -53.139  60.973  1.00 34.68           C
ATOM   5773  C   LYS A 889      -3.344 -53.892  62.275  1.00 35.25           C
ATOM   5774  O   LYS A 889      -2.703 -54.946  62.266  1.00 33.74           O
ATOM   5775  CB  LYS A 889      -4.672 -53.856  60.141  1.00 36.41           C
ATOM   5776  CG  LYS A 889      -6.015 -54.005  60.846  1.00 40.99           C
ATOM   5777  CD  LYS A 889      -6.613 -55.394  60.617  1.00 46.28           C
ATOM   5778  CE  LYS A 889      -6.853 -56.131  61.939  1.00 49.02           C
ATOM   5779  NZ  LYS A 889      -6.216 -57.488  61.980  1.00 45.97           N
ATOM   5780  N   LEU A 890      -3.820 -53.346  63.393  1.00 36.71           N
ATOM   5781  CA  LEU A 890      -3.616 -53.984  64.696  1.00 38.76           C
ATOM   5782  C   LEU A 890      -4.547 -55.188  64.887  1.00 42.65           C
ATOM   5783  O   LEU A 890      -4.041 -56.334  65.004  1.00 43.48           O
ATOM   5784  CB  LEU A 890      -3.831 -52.966  65.820  1.00 32.78           C
ATOM   5785  OXT LEU A 890      -5.778 -54.967  64.914  1.00 43.67           O
TER    5786      LEU A 890
HETATM 5787  C1  NAG B   1      18.584 -15.887  33.735  1.00 17.59           C
HETATM 5788  C2  NAG B   1      18.112 -14.542  33.092  1.00 24.26           C
HETATM 5789  C3  NAG B   1      16.593 -14.687  32.737  1.00 24.40           C
HETATM 5790  C4  NAG B   1      16.428 -15.873  31.714  1.00 17.29           C
HETATM 5791  C5  NAG B   1      16.955 -17.212  32.384  1.00 25.35           C
HETATM 5792  C6  NAG B   1      16.849 -18.434  31.428  1.00 18.80           C
HETATM 5793  C7  NAG B   1      18.543 -12.071  33.705  1.00 17.74           C
HETATM 5794  C8  NAG B   1      18.689 -11.146  34.888  1.00 20.63           C
HETATM 5795  N2  NAG B   1      18.311 -13.409  34.092  1.00 25.44           N
HETATM 5796  O1  NAG B   1      19.962 -15.807  34.060  1.00 20.34           O
HETATM 5797  O3  NAG B   1      16.118 -13.448  32.110  1.00 13.46           O
HETATM 5798  O4  NAG B   1      15.028 -16.071  31.361  1.00 23.48           O
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HETATM 5799  O5  NAG B   1      18.393 -17.056  32.775  1.00 28.51           O
HETATM 5800  O6  NAG B   1      16.331 -19.635  32.074  1.00 19.93           O
HETATM 5801  O7  NAG B   1      18.616 -11.659  32.530  1.00 13.78           O
HETATM 5802  C1  BDP B   2      14.823 -13.005  32.453  1.00 24.85           C
HETATM 5803  C2  BDP B   2      14.636 -11.459  32.225  1.00 16.75           C
HETATM 5804  C3  BDP B   2      13.169 -11.142  32.664  1.00 20.49           C
HETATM 5805  C4  BDP B   2      12.176 -11.942  31.740  1.00 24.41           C
HETATM 5806  C5  BDP B   2      12.367 -13.562  31.770  1.00 25.24           C
HETATM 5807  C6  BDP B   2      11.630 -14.355  30.949  1.00 16.24           C
HETATM 5808  O2  BDP B   2      15.575 -10.715  33.054  1.00 22.87           O
HETATM 5809  O3  BDP B   2      12.911  -9.722  32.507  1.00 25.37           O
HETATM 5810  O4  BDP B   2      10.768 -11.753  32.147  1.00 17.94           O
HETATM 5811  O5  BDP B   2      13.881 -13.770  31.641  1.00 18.19           O
HETATM 5812  O6A BDP B   2      11.997 -15.560  30.926  1.00 27.78           O
HETATM 5813  O6B BDP B   2      10.715 -13.771  30.290  1.00 15.64           O
HETATM 5814  C1  NAG B   3       9.871 -10.885  31.481  1.00 16.82           C
HETATM 5815  C2  NAG B   3       8.458 -10.940  32.182  1.00 18.62           C
HETATM 5816  C3  NAG B   3       7.511  -9.982  31.424  1.00 18.43           C
HETATM 5817  C4  NAG B   3       8.098  -8.520  31.484  1.00 13.74           C
HETATM 5818  C5  NAG B   3       9.530  -8.516  30.803  1.00 10.81           C
HETATM 5819  C6  NAG B   3      10.188  -7.130  30.842  1.00 22.07           C
HETATM 5820  C7  NAG B   3       7.197 -12.844  33.290  1.00 25.62           C
HETATM 5821  C8  NAG B   3       6.650 -14.218  33.062  1.00 22.36           C
HETATM 5822  N2  NAG B   3       7.864 -12.335  32.155  1.00 26.61           N
HETATM 5823  O3  NAG B   3       6.133 -10.059  32.019  1.00 16.03           O
HETATM 5824  O4  NAG B   3       7.260  -7.578  30.771  1.00 23.61           O
HETATM 5825  O5  NAG B   3      10.432  -9.471  31.498  1.00 18.24           O
HETATM 5826  O6  NAG B   3      10.094  -6.495  32.134  1.00 18.39           O
HETATM 5827  O7  NAG B   3       7.047 -12.250  34.360  1.00 28.34           O
HETATM 5828  C1  BDP B   4       5.207 -10.217  30.946  1.00 20.97           C
HETATM 5829  C2  BDP B   4       3.694 -10.401  31.332  1.00 26.66           C
HETATM 5830  C3  BDP B   4       2.932 -10.545  29.945  1.00 21.47           C
HETATM 5831  C4  BDP B   4       3.137  -9.160  29.197  1.00 17.66           C
HETATM 5832  C5  BDP B   4       4.653  -8.801  28.858  1.00 23.18           C
HETATM 5833  C6  BDP B   4       4.950  -7.640  28.245  1.00 14.82           C
HETATM 5834  O2  BDP B   4       3.569 -11.609  32.120  1.00 16.18           O
HETATM 5835  O3  BDP B   4       1.532 -10.750  30.216  1.00 29.04           O
HETATM 5836  O4  BDP B   4       2.656  -8.869  27.821  1.00 13.75           O
HETATM 5837  O5  BDP B   4       5.394  -9.035  30.142  1.00 15.39           O
HETATM 5838  O6A BDP B   4       5.268  -7.773  27.043  1.00 22.61           O
HETATM 5839  O6B BDP B   4       4.827  -6.597  28.958  1.00 14.92           O
HETATM 5840  C1  NAG B   5       1.452  -8.971  27.095  1.00 12.57           C
HETATM 5841  C2  NAG B   5       1.789  -8.336  25.708  1.00 14.21           C
HETATM 5842  C3  NAG B   5       0.573  -8.457  24.774  1.00 17.60           C
HETATM 5843  C4  NAG B   5       0.238  -9.999  24.605  1.00 19.79           C
HETATM 5844  C5  NAG B   5      -0.092 -10.601  26.041  1.00 17.74           C
HETATM 5845  C6  NAG B   5      -0.400 -12.106  25.926  1.00 20.87           C
HETATM 5846  C7  NAG B   5       1.625  -5.944  26.877  1.00 20.27           C
HETATM 5847  C8  NAG B   5       2.150  -4.531  26.730  1.00 23.54           C
HETATM 5848  N2  NAG B   5       2.134  -6.830  25.859  1.00 23.07           N
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HETATM 5849  O3  NAG B   5       0.926  -7.864  23.467  1.00 28.67           O
HETATM 5850  O4  NAG B   5      -0.935 -10.213  23.732  1.00 21.50           O
HETATM 5851  O5  NAG B   5       1.112 -10.420  26.905  1.00 23.36           O
HETATM 5852  O6  NAG B   5      -0.337 -12.608  24.573  1.00 18.18           O
HETATM 5853  O7  NAG B   5       0.837  -6.245  27.796  1.00 17.65           O
HETATM 5854  C1  BDP B   6      -0.110  -7.440  22.615  1.00 13.31           C
HETATM 5855  C2  BDP B   6       0.507  -6.902  21.379  1.00 25.60           C
HETATM 5856  C3  BDP B   6      -0.705  -6.525  20.514  1.00 21.59           C
HETATM 5857  C4  BDP B   6      -2.030  -7.153  20.366  1.00 18.41           C
HETATM 5858  C5  BDP B   6      -2.096  -8.135  21.289  1.00 21.71           C
HETATM 5859  C6  BDP B   6      -2.784  -9.373  21.081  1.00 19.44           C
HETATM 5860  O2  BDP B   6       1.318  -5.791  21.734  1.00 18.68           O
HETATM 5861  O3  BDP B   6      -0.193  -6.084  19.210  1.00 27.11           O
HETATM 5862  O4  BDP B   6      -2.617  -7.244  19.466  1.00 17.96           O
HETATM 5863  O5  BDP B   6      -0.946  -8.523  22.189  1.00 19.33           O
HETATM 5864  O6A BDP B   6      -2.413 -10.054  20.066  1.00 22.75           O
HETATM 5865  O6B BDP B   6      -3.642  -9.638  21.986  1.00  8.26           O
HETATM 5866  O   HOH A1001     -23.366 -26.135  19.010  1.00 53.46           O
HETATM 5867  O   HOH A1002     -23.421 -25.627  22.500  1.00 37.58           O
HETATM 5868  O   HOH A1003     -21.637 -27.408  27.836  1.00 29.33           O
HETATM 5869  O   HOH A1004     -19.716 -26.017  34.258  1.00 33.56           O
HETATM 5870  O   HOH A1005     -18.396 -27.389  36.058  1.00 33.30           O
HETATM 5871  O   HOH A1006     -19.157 -28.805  38.071  1.00 39.70           O
HETATM 5872  O   HOH A1007     -13.330 -29.004  39.811  1.00 39.37           O
HETATM 5873  O   HOH A1008     -12.068 -31.805  40.258  1.00 36.88           O
HETATM 5874  O   HOH A1009      -9.087 -33.732  43.327  1.00 18.47           O
HETATM 5875  O   HOH A1010      -7.316 -31.995  41.345  1.00 47.15           O
HETATM 5876  O   HOH A1011      -4.060 -31.211  39.557  1.00 22.55           O
HETATM 5877  O   HOH A1012      -2.274 -32.763  40.905  1.00 20.97           O
HETATM 5878  O   HOH A1013      -2.799 -34.215  42.978  1.00 17.84           O
HETATM 5879  O   HOH A1015      -5.116 -36.370  41.199  1.00 20.59           O
HETATM 5880  O   HOH A1016       8.464  12.880   6.471  1.00 52.11           O
HETATM 5881  O   HOH A1017     -12.871 -38.226  46.262  1.00 33.83           O
HETATM 5882  O   HOH A1018     -12.536 -41.976  46.455  1.00 67.83           O
HETATM 5883  O   HOH A1019     -11.655 -41.953  50.236  1.00 39.42           O
HETATM 5884  O   HOH A1020     -12.845 -46.840  47.884  1.00 50.04           O
HETATM 5885  O   HOH A1021      -6.317 -45.258  48.952  1.00 39.13           O
HETATM 5886  O   HOH A1022      -5.569 -47.782  50.057  1.00 30.61           O
HETATM 5887  O   HOH A1023      -2.890 -48.472  48.821  1.00 28.37           O
HETATM 5888  O   HOH A1024      -2.319 -46.083  47.799  1.00 30.73           O
HETATM 5889  O   HOH A1025      -0.106 -45.115  49.172  1.00 20.71           O
HETATM 5890  O   HOH A1026       0.512 -47.206  50.372  1.00 37.22           O
HETATM 5891  O   HOH A1027       0.383 -41.698  46.924  1.00 64.47           O
HETATM 5892  O   HOH A1028       5.573 -39.997  43.447  1.00 20.18           O
HETATM 5893  O   HOH A1029       6.401 -36.594  43.742  1.00 30.51           O
HETATM 5894  O   HOH A1031       8.250 -34.512  47.171  1.00 20.11           O
HETATM 5895  O   HOH A1032       6.945 -32.671  46.794  1.00 35.64           O
HETATM 5896  O   HOH A1033       6.141 -30.973  48.352  1.00 54.19           O
HETATM 5897  O   HOH A1034       2.865 -30.213  47.866  1.00 31.06           O
HETATM 5898  O   HOH A1035       9.371 -30.297  44.697  1.00 13.77           O
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HETATM 5899  O   HOH A1036      11.193 -30.142  40.912  1.00 34.83           O
HETATM 5900  O   HOH A1037      11.616 -32.721  41.029  1.00 48.87           O
HETATM 5901  O   HOH A1038      13.380 -28.369  39.761  1.00 28.04           O
HETATM 5902  O   HOH A1039      16.227 -27.241  36.576  1.00 24.26           O
HETATM 5903  O   HOH A1040      15.111 -27.192  32.394  1.00 43.49           O
HETATM 5904  O   HOH A1041      13.071 -29.671  31.536  1.00 26.29           O
HETATM 5905  O   HOH A1042       9.998 -27.698  29.419  1.00 34.89           O
HETATM 5906  O   HOH A1043       9.276 -29.837  27.469  1.00 33.31           O
HETATM 5907  O   HOH A1044       6.852 -29.130  29.615  1.00 26.12           O
HETATM 5908  O   HOH A1045       6.132 -27.147  28.070  1.00 17.79           O
HETATM 5909  O   HOH A1046       4.172 -30.305  28.289  1.00 38.97           O
HETATM 5910  O   HOH A1047       4.785 -35.816  27.175  1.00 41.54           O
HETATM 5911  O   HOH A1048       6.157 -32.563  20.841  1.00 34.71           O
HETATM 5912  O   HOH A1049      15.480 -30.181  21.216  1.00 38.80           O
HETATM 5913  O   HOH A1050      19.935 -27.005  22.175  1.00 56.20           O
HETATM 5914  O   HOH A1051      16.765 -28.696  25.590  1.00 60.01           O
HETATM 5915  O   HOH A1052      16.532 -26.052  29.539  1.00 52.91           O
HETATM 5916  O   HOH A1053      16.322 -23.570  29.887  1.00 44.90           O
HETATM 5917  O   HOH A1054      13.320 -21.154  28.934  1.00 28.70           O
HETATM 5918  O   HOH A1055      11.757 -22.292  30.521  1.00 27.54           O
HETATM 5919  O   HOH A1056       9.669 -20.036  29.893  1.00 24.93           O
HETATM 5920  O   HOH A1057       9.736 -25.068  30.704  1.00 61.25           O
HETATM 5921  O   HOH A1058      14.472 -24.766  22.862  1.00 27.68           O
HETATM 5922  O   HOH A1059      18.346 -17.127  18.727  1.00 33.89           O
HETATM 5923  O   HOH A1060      18.761 -15.294  20.483  1.00 26.57           O
HETATM 5924  O   HOH A1061      23.884  -8.215  21.928  1.00 36.57           O
HETATM 5925  O   HOH A1062      25.079  -8.735  13.824  1.00 44.36           O
HETATM 5926  O   HOH A1063      21.632  -2.745   9.879  1.00 51.04           O
HETATM 5927  O   HOH A1064      19.544  -3.624  11.102  1.00 36.92           O
HETATM 5928  O   HOH A1065      16.497  -4.081  11.058  1.00 33.64           O
HETATM 5929  O   HOH A1066      16.333  -2.170  12.654  1.00 26.18           O
HETATM 5930  O   HOH A1067      13.215  -2.536  12.557  1.00 27.79           O
HETATM 5931  O   HOH A1068      12.590  -0.254  13.571  1.00 26.58           O
HETATM 5932  O   HOH A1069       9.359   3.516   6.874  1.00 23.17           O
HETATM 5933  O   HOH A1070       6.793   1.781   0.527  1.00 46.76           O
HETATM 5934  O   HOH A1071      11.176   3.226   0.659  1.00 43.60           O
HETATM 5935  O   HOH A1072      10.648   0.255  -0.872  1.00 37.05           O
HETATM 5936  O   HOH A1073       8.095  -4.576  -1.482  1.00 70.41           O
HETATM 5937  O   HOH A1074       3.645  -5.442  -2.164  1.00 63.99           O
HETATM 5938  O   HOH A1075       3.358  -5.425   0.463  1.00 41.48           O
HETATM 5939  O   HOH A1076       2.256  -2.873   0.113  1.00 36.09           O
HETATM 5940  O   HOH A1077      -2.511  -3.425   6.298  1.00 19.97           O
HETATM 5941  O   HOH A1078      -3.529  -6.027   6.057  1.00 33.01           O
HETATM 5942  O   HOH A1079      -5.412  -7.842   7.806  1.00 34.55           O
HETATM 5943  O   HOH A1080      -4.749  -5.082   9.152  1.00 28.66           O
HETATM 5944  O   HOH A1081      -6.433  -3.892   7.272  1.00 24.16           O
HETATM 5945  O   HOH A1082      -4.840  -2.247   5.526  1.00 30.30           O
HETATM 5946  O   HOH A1083      -5.877   0.780   7.017  1.00 39.42           O
HETATM 5947  O   HOH A1084     -10.156  -2.126   5.169  1.00 38.03           O
HETATM 5948  O   HOH A1085      -8.366  -3.213   3.523  1.00 53.11           O
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HETATM 5949  O   HOH A1086      -9.275  -6.179   9.235  1.00 40.10           O
HETATM 5950  O   HOH A1087      -9.035  -8.550  11.526  1.00 17.55           O
HETATM 5951  O   HOH A1088      -7.019  -6.513  13.048  1.00 19.66           O
HETATM 5952  O   HOH A1089      -6.460  -4.789  11.089  1.00 20.97           O
HETATM 5953  O   HOH A1091      -8.536  -1.973  17.256  1.00 32.16           O
HETATM 5954  O   HOH A1092      -7.843  -4.395  18.822  1.00 29.11           O
HETATM 5955  O   HOH A1093      -6.244  -4.959  20.628  1.00 22.25           O
HETATM 5956  O   HOH A1094      -3.074  -5.636  23.635  1.00 41.90           O
HETATM 5957  O   HOH A1096      -1.990  -2.891  21.854  1.00 26.52           O
HETATM 5958  O   HOH A1097       0.804  -2.374  22.012  1.00 35.84           O
HETATM 5959  O   HOH A1099      -3.224 -12.371  23.655  1.00 68.91           O
HETATM 5960  O   HOH A1101      -4.104 -10.175  24.228  1.00 22.17           O
HETATM 5961  O   HOH A1102      -7.172 -10.579  25.100  1.00 19.00           O
HETATM 5962  O   HOH A1103      -3.261  -8.238  29.089  1.00 37.21           O
HETATM 5963  O   HOH A1104      -1.056  -9.449  28.841  1.00 61.41           O
HETATM 5964  O   HOH A1105       0.698 -13.328  28.692  1.00 26.65           O
HETATM 5965  O   HOH A1106       2.588 -12.613  27.177  1.00 31.12           O
HETATM 5966  O   HOH A1108       7.327  -5.454  28.879  1.00 31.95           O
HETATM 5967  O   HOH A1109      10.035  -4.089  28.962  1.00 28.82           O
HETATM 5968  O   HOH A1110      10.546  -3.826  31.361  1.00 49.83           O
HETATM 5969  O   HOH A1111       8.373  -1.816  28.296  1.00 27.10           O
HETATM 5970  O   HOH A1112       5.889  -3.809  30.384  1.00 40.44           O
HETATM 5971  O   HOH A1113       7.201  -5.250  35.115  1.00 37.13           O
HETATM 5972  O   HOH A1114       7.215  -3.146  37.090  1.00 24.55           O
HETATM 5973  O   HOH A1115       6.221  -0.519  34.866  1.00 62.99           O
HETATM 5974  O   HOH A1116       3.115  -3.643  35.616  1.00 42.70           O
HETATM 5975  O   HOH A1117       2.301  -9.608  34.745  1.00 25.07           O
HETATM 5976  O   HOH A1119       2.260 -13.159  33.827  1.00 45.41           O
HETATM 5977  O   HOH A1120       0.773 -13.631  37.006  1.00 18.38           O
HETATM 5978  O   HOH A1121       6.660 -13.396  36.728  1.00 14.00           O
HETATM 5979  O   HOH A1122      10.563  -8.100  34.370  1.00 28.13           O
HETATM 5980  O   HOH A1123      12.657  -1.283  37.107  1.00 37.58           O
HETATM 5981  O   HOH A1124      17.354  -1.143  40.519  1.00 52.68           O
HETATM 5982  O   HOH A1125      17.899  -5.011  37.763  1.00 38.59           O
HETATM 5983  O   HOH A1126      16.712  -7.207  41.270  1.00 31.04           O
HETATM 5984  O   HOH A1127      16.986  -4.812  44.240  1.00 19.24           O
HETATM 5985  O   HOH A1128      17.813  -3.227  47.896  1.00 38.69           O
HETATM 5986  O   HOH A1129      18.197  -3.212  50.798  1.00 19.88           O
HETATM 5987  O   HOH A1130      18.851  -3.568  55.251  1.00 46.74           O
HETATM 5988  O   HOH A1131      16.990  -3.305  52.600  1.00 59.15           O
HETATM 5989  O   HOH A1132      12.083  -1.311  48.416  1.00 31.91           O
HETATM 5990  O   HOH A1133       8.579   3.209  47.146  1.00 35.47           O
HETATM 5991  O   HOH A1134       9.738   6.919  44.895  1.00 36.29           O
HETATM 5992  O   HOH A1135       5.321   6.614  40.435  1.00 40.59           O
HETATM 5993  O   HOH A1136       2.690   7.554  39.911  1.00 42.04           O
HETATM 5994  O   HOH A1137      -0.457   1.488  40.499  1.00 20.52           O
HETATM 5995  O   HOH A1138      -0.673   2.654  42.942  1.00 24.28           O
HETATM 5996  O   HOH A1139      -3.355   1.655  43.258  1.00 36.27           O
HETATM 5997  O   HOH A1140      -3.751  -0.930  44.437  1.00 25.63           O
HETATM 5998  O   HOH A1141      -5.307  -2.495  42.645  1.00 32.01           O
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HETATM 5999  O   HOH A1142      -4.558  -1.992  40.289  1.00 29.80           O
HETATM 6000  O   HOH A1143      -3.108   0.401  40.271  1.00 33.90           O
HETATM 6001  O   HOH A1144      -2.333  -1.335  37.090  1.00 38.02           O
HETATM 6002  O   HOH A1145      -1.911  -1.718  33.389  1.00 46.28           O
HETATM 6003  O   HOH A1146      -4.060  -2.381  29.918  1.00 59.86           O
HETATM 6004  O   HOH A1147      -5.450  -4.509  35.745  1.00 41.81           O
HETATM 6005  O   HOH A1148      -8.174  -4.957  34.929  1.00 19.28           O
HETATM 6006  O   HOH A1149      -7.268  -5.894  40.445  1.00 26.78           O
HETATM 6007  O   HOH A1150      -4.391  -5.762  38.987  1.00 20.01           O
HETATM 6008  O   HOH A1151      -7.594  -9.117  41.224  1.00 19.08           O
HETATM 6009  O   HOH A1152      -7.976 -11.252  45.571  1.00 20.12           O
HETATM 6010  O   HOH A1153      -9.427 -13.574  47.501  1.00 23.37           O
HETATM 6011  O   HOH A1154     -10.531 -14.832  49.725  1.00 14.11           O
HETATM 6012  O   HOH A1155     -12.737 -16.775  46.500  1.00 12.40           O
HETATM 6013  O   HOH A1156     -11.275 -15.436  44.615  1.00 17.08           O
HETATM 6014  O   HOH A1157      -4.215 -15.076  45.472  1.00 13.44           O
HETATM 6015  O   HOH A1158      -3.353 -10.977  43.812  1.00 18.47           O
HETATM 6016  O   HOH A1159      -0.535  -8.454  41.875  1.00 15.37           O
HETATM 6017  O   HOH A1160      -2.437  -7.306  45.834  1.00 12.80           O
HETATM 6018  O   HOH A1161      -7.772  -1.332  43.435  1.00 41.63           O
HETATM 6019  O   HOH A1162     -12.190  -2.932  43.847  1.00 46.07           O
HETATM 6020  O   HOH A1163     -14.605  -3.661  44.155  1.00 38.16           O
HETATM 6021  O   HOH A1164     -15.957  -5.417  42.533  1.00 43.30           O
HETATM 6022  O   HOH A1165     -17.354  -6.722  44.469  1.00 37.55           O
HETATM 6023  O   HOH A1166     -17.464  -9.856  45.142  1.00 35.52           O
HETATM 6024  O   HOH A1167     -16.042  -9.871  47.341  1.00 30.95           O
HETATM 6025  O   HOH A1168     -18.201  -9.096  48.563  1.00 37.65           O
HETATM 6026  O   HOH A1169     -20.173  -9.662  46.888  1.00 56.05           O
HETATM 6027  O   HOH A1170     -19.035 -13.400  48.033  1.00 29.56           O
HETATM 6028  O   HOH A1171     -20.749 -14.852  49.529  1.00 31.60           O
HETATM 6029  O   HOH A1172     -23.265 -13.723  48.401  1.00 53.41           O
HETATM 6030  O   HOH A1173     -24.941 -13.285  51.375  1.00 49.77           O
HETATM 6031  O   HOH A1174     -24.045 -16.072  51.881  1.00 29.59           O
HETATM 6032  O   HOH A1175     -23.516 -17.139  49.725  1.00 37.23           O
HETATM 6033  O   HOH A1176     -21.800 -20.857  54.799  1.00 22.37           O
HETATM 6034  O   HOH A1177     -20.829 -24.343  55.984  1.00 26.14           O
HETATM 6035  O   HOH A1178     -23.081 -22.135  59.257  1.00 33.35           O
HETATM 6036  O   HOH A1179     -26.587 -20.184  58.974  1.00 43.66           O
HETATM 6037  O   HOH A1180     -27.287 -17.716  59.267  1.00 34.90           O
HETATM 6038  O   HOH A1181     -27.014 -13.448  56.318  1.00 48.54           O
HETATM 6039  O   HOH A1182     -26.211 -12.833  58.710  1.00 49.86           O
HETATM 6040  O   HOH A1183     -22.034 -14.947  60.473  1.00 22.88           O
HETATM 6041  O   HOH A1184     -22.345 -16.065  62.837  1.00 22.05           O
HETATM 6042  O   HOH A1185     -24.064 -13.891  66.517  1.00 23.56           O
HETATM 6043  O   HOH A1186     -24.390 -14.177  72.201  1.00 37.12           O
HETATM 6044  O   HOH A1187     -22.913 -12.328  72.552  1.00 44.91           O
HETATM 6045  O   HOH A1188     -21.230 -14.258  75.009  1.00 65.92           O
HETATM 6046  O   HOH A1189     -21.004 -16.633  74.861  1.00 45.33           O
HETATM 6047  O   HOH A1190     -22.770 -17.696  72.213  1.00 42.76           O
HETATM 6048  O   HOH A1191      17.673 -33.706  32.477  1.00 47.41           O
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HETATM 6049  O   HOH A1192     -23.127 -21.963  70.340  1.00 40.46           O
HETATM 6050  O   HOH A1193     -17.731 -24.084  72.098  1.00 24.17           O
HETATM 6051  O   HOH A1194     -17.104 -21.616  72.022  1.00 32.48           O
HETATM 6052  O   HOH A1195     -14.267 -20.963  72.516  1.00 34.85           O
HETATM 6053  O   HOH A1196     -17.756 -21.561  74.916  1.00 33.92           O
HETATM 6054  O   HOH A1197      21.561 -26.913  24.465  1.00 25.04           O
HETATM 6055  O   HOH A1198     -21.892 -28.283  72.396  1.00 24.82           O
HETATM 6056  O   HOH A1199     -21.795 -29.932  70.383  1.00 54.72           O
HETATM 6057  O   HOH A1200      21.335 -13.648  33.124  1.00 51.45           O
HETATM 6058  O   HOH A1201     -18.349 -39.665  65.710  1.00 45.36           O
HETATM 6059  O   HOH A1202      20.199 -15.275  37.117  1.00 54.98           O
HETATM 6060  O   HOH A1203     -14.975 -34.863  64.327  1.00 42.77           O
HETATM 6061  O   HOH A1204     -12.695 -35.639  65.400  1.00 27.46           O
HETATM 6062  O   HOH A1205     -15.719 -33.544  60.205  1.00 37.55           O
HETATM 6063  O   HOH A1206     -16.836 -31.433  59.767  1.00 31.05           O
HETATM 6064  O   HOH A1207     -18.105 -34.577  57.644  1.00 35.72           O
HETATM 6065  O   HOH A1208     -19.004 -31.760  55.884  1.00 46.93           O
HETATM 6066  O   HOH A1209     -21.691 -30.259  55.871  1.00 35.33           O
HETATM 6067  O   HOH A1210     -17.889 -29.841  53.683  1.00 20.94           O
HETATM 6068  O   HOH A1211     -18.504 -31.940  50.312  1.00 25.32           O
HETATM 6069  O   HOH A1212     -15.877 -31.586  49.672  1.00 20.60           O
HETATM 6070  O   HOH A1213     -13.409 -30.477  50.570  1.00 16.96           O
HETATM 6071  O   HOH A1214     -11.503 -30.385  48.830  1.00 15.33           O
HETATM 6072  O   HOH A1215     -15.814 -34.115  48.966  1.00 29.12           O
HETATM 6073  O   HOH A1216     -14.747 -34.175  44.427  1.00 48.09           O
HETATM 6074  O   HOH A1217     -18.160 -24.575  43.194  1.00 20.40           O
HETATM 6075  O   HOH A1218     -18.190 -22.359  41.694  1.00 20.51           O
HETATM 6076  O   HOH A1219     -17.690 -22.831  39.464  1.00 24.37           O
HETATM 6077  O   HOH A1220     -15.271 -21.047  39.610  1.00 28.81           O
HETATM 6078  O   HOH A1221     -12.727 -20.158  39.289  1.00 40.27           O
HETATM 6079  O   HOH A1222     -14.143 -21.787  42.211  1.00 16.02           O
HETATM 6080  O   HOH A1223     -12.192 -23.541  42.503  1.00 15.04           O
HETATM 6081  O   HOH A1224     -16.512 -21.149  43.506  1.00 23.54           O
HETATM 6082  O   HOH A1225     -17.135 -20.639  46.450  1.00 45.13           O
HETATM 6083  O   HOH A1226     -18.819 -17.287  44.163  1.00 40.70           O
HETATM 6084  O   HOH A1227     -23.429 -19.006  38.918  1.00 47.78           O
HETATM 6085  O   HOH A1228     -20.501 -20.385  38.334  1.00 28.55           O
HETATM 6086  O   HOH A1229     -15.408 -12.201  35.443  1.00 36.16           O
HETATM 6087  O   HOH A1230     -18.050 -10.254  33.767  1.00 35.13           O
HETATM 6088  O   HOH A1231     -20.223  -8.338  32.754  1.00 47.40           O
HETATM 6089  O   HOH A1232     -17.884  -9.093  37.826  1.00 37.09           O
HETATM 6090  O   HOH A1233     -17.104  -5.333  38.042  1.00 33.41           O
HETATM 6091  O   HOH A1234     -14.157  -5.209  38.037  1.00 36.10           O
HETATM 6092  O   HOH A1235     -12.484  -5.236  40.466  1.00 29.77           O
HETATM 6093  O   HOH A1236     -18.230  -2.758  44.384  1.00 71.95           O
HETATM 6094  O   HOH A1237     -15.089  -2.523  51.539  1.00 32.06           O
HETATM 6095  O   HOH A1238     -10.510  -3.938  51.212  1.00 24.76           O
HETATM 6096  O   HOH A1239     -10.031  -1.646  50.869  1.00 45.61           O
HETATM 6097  O   HOH A1240      -8.775  -2.672  53.986  1.00 25.70           O
HETATM 6098  O   HOH A1241     -11.637  -2.312  57.513  1.00 37.84           O
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HETATM 6099  O   HOH A1242     -13.533  -3.816  58.660  1.00 28.15           O
HETATM 6100  O   HOH A1243     -13.305  -5.554  60.461  1.00 27.62           O
HETATM 6101  O   HOH A1244     -13.509  -7.380  56.602  1.00 25.30           O
HETATM 6102  O   HOH A1245     -14.198  -9.469  54.656  1.00 20.20           O
HETATM 6103  O   HOH A1246     -11.714 -10.088  53.938  1.00 13.30           O
HETATM 6104  O   HOH A1247     -12.001 -12.560  54.718  1.00 18.31           O
HETATM 6105  O   HOH A1248     -13.897 -17.802  55.344  1.00 19.09           O
HETATM 6106  O   HOH A1249     -16.276 -19.981  60.032  1.00 37.62           O
HETATM 6107  O   HOH A1250     -16.143 -25.424  57.104  1.00 15.64           O
HETATM 6108  O   HOH A1251     -20.917 -30.154  61.485  1.00 45.32           O
HETATM 6109  O   HOH A1252     -27.204 -21.653  62.922  1.00 25.66           O
HETATM 6110  O   HOH A1253     -22.771 -23.636  51.486  1.00 15.61           O
HETATM 6111  O   HOH A1254     -20.413 -23.097  48.532  1.00 39.20           O
HETATM 6112  O   HOH A1255     -21.669 -10.883  51.121  1.00 40.55           O
HETATM 6113  O   HOH A1256     -16.862  -9.490  56.229  1.00 25.68           O
HETATM 6114  O   HOH A1257     -19.904  -8.241  57.988  1.00 39.68           O
HETATM 6115  O   HOH A1258     -20.095  -8.752  62.100  1.00 36.38           O
HETATM 6116  O   HOH A1259     -14.961  -6.933  67.567  1.00 28.85           O
HETATM 6117  O   HOH A1260     -12.575  -5.380  66.571  1.00 33.10           O
HETATM 6118  O   HOH A1261      -8.048  -1.323  65.416  1.00 48.25           O
HETATM 6119  O   HOH A1262      -6.326   1.941  68.065  1.00 41.04           O
HETATM 6120  O   HOH A1263      -4.291   1.648  62.443  1.00 32.36           O
HETATM 6121  O   HOH A1264      -8.059   2.625  59.504  1.00 45.54           O
HETATM 6122  O   HOH A1265       0.601  -0.443  61.202  1.00 38.65           O
HETATM 6123  O   HOH A1266       1.755   1.746  57.956  1.00 35.90           O
HETATM 6124  O   HOH A1267       2.903  -2.684  58.468  1.00 39.02           O
HETATM 6125  O   HOH A1268       3.360  -3.101  55.983  1.00 31.25           O
HETATM 6126  O   HOH A1269       6.787  -3.919  58.364  1.00 44.32           O
HETATM 6127  O   HOH A1270       6.828  -5.828  61.555  1.00 43.31           O
HETATM 6128  O   HOH A1271       8.050  -9.705  63.010  1.00 32.62           O
HETATM 6129  O   HOH A1272      10.663  -6.848  62.346  1.00 33.55           O
HETATM 6130  O   HOH A1273      12.966  -6.033  64.383  1.00 47.26           O
HETATM 6131  O   HOH A1274      15.115  -9.111  66.391  1.00 29.75           O
HETATM 6132  O   HOH A1275      18.045  -7.089  63.080  1.00 40.34           O
HETATM 6133  O   HOH A1276      20.645 -12.341  60.624  1.00 43.88           O
HETATM 6134  O   HOH A1277      18.218 -10.154  54.641  1.00 22.41           O
HETATM 6135  O   HOH A1278      19.481 -14.110  51.896  1.00 24.79           O
HETATM 6136  O   HOH A1279      20.149 -13.340  49.340  1.00 25.41           O
HETATM 6137  O   HOH A1280      21.882 -12.228  46.482  1.00 52.42           O
HETATM 6138  O   HOH A1281      19.053  -8.565  44.824  1.00 31.96           O
HETATM 6139  O   HOH A1282      21.109  -8.640  50.221  1.00 28.35           O
HETATM 6140  O   HOH A1283      14.413  -9.653  48.541  1.00 21.79           O
HETATM 6141  O   HOH A1284      16.995 -15.057  50.996  1.00 20.01           O
HETATM 6142  O   HOH A1285      15.502 -17.008  51.820  1.00 19.16           O
HETATM 6143  O   HOH A1286      13.454 -16.075  53.430  1.00 18.61           O
HETATM 6144  O   HOH A1287      12.904 -18.888  53.875  1.00 16.90           O
HETATM 6145  O   HOH A1288      14.678 -20.824  54.691  1.00 13.59           O
HETATM 6146  O   HOH A1289      17.111 -22.018  52.954  1.00 19.29           O
HETATM 6147  O   HOH A1290      17.483 -22.849  55.627  1.00 29.88           O
HETATM 6148  O   HOH A1291      15.140 -27.687  56.504  1.00 15.90           O
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HETATM 6149  O   HOH A1292      16.974 -29.486  57.407  1.00 25.24           O
HETATM 6150  O   HOH A1293      18.895 -31.733  55.043  1.00 59.23           O
HETATM 6151  O   HOH A1294      16.189 -33.943  53.336  1.00 20.74           O
HETATM 6152  O   HOH A1295      14.565 -34.708  60.406  1.00 34.37           O
HETATM 6153  O   HOH A1296      13.882 -34.035  64.717  1.00 38.09           O
HETATM 6154  O   HOH A1297      14.204 -33.188  68.421  1.00 36.42           O
HETATM 6155  O   HOH A1298      12.242 -29.916  70.470  1.00 28.61           O
HETATM 6156  O   HOH A1299       8.503 -25.799  75.058  1.00 33.70           O
HETATM 6157  O   HOH A1300       5.555 -27.562  73.254  1.00 33.40           O
HETATM 6158  O   HOH A1301       4.523 -24.328  72.961  1.00 28.54           O
HETATM 6159  O   HOH A1302       1.844 -24.358  73.277  1.00 46.21           O
HETATM 6160  O   HOH A1303       1.222 -20.880  73.797  1.00 38.61           O
HETATM 6161  O   HOH A1304       2.755 -18.439  72.923  1.00 28.65           O
HETATM 6162  O   HOH A1305       4.138 -21.628  71.426  1.00 32.48           O
HETATM 6163  O   HOH A1306       6.291 -19.561  74.296  1.00 27.56           O
HETATM 6164  O   HOH A1307       5.144 -23.523  78.927  1.00 59.16           O
HETATM 6165  O   HOH A1308      11.621 -20.938  70.336  1.00 30.48           O
HETATM 6166  O   HOH A1309      15.177 -15.168  71.248  1.00 38.90           O
HETATM 6167  O   HOH A1310      15.490 -14.205  73.525  1.00 69.79           O
HETATM 6168  O   HOH A1311       8.255 -12.516  66.542  1.00 43.36           O
HETATM 6169  O   HOH A1312       6.907 -14.254  63.225  1.00 30.96           O
HETATM 6170  O   HOH A1313       5.468 -14.803  60.718  1.00 18.81           O
HETATM 6171  O   HOH A1314       6.409 -14.063  57.875  1.00 23.66           O
HETATM 6172  O   HOH A1315       7.655 -11.927  53.220  1.00 18.84           O
HETATM 6173  O   HOH A1316       5.324 -10.288  51.289  1.00 19.04           O
HETATM 6174  O   HOH A1317       5.176  -7.890  49.678  1.00 22.65           O
HETATM 6175  O   HOH A1318       4.633  -6.027  51.722  1.00 21.15           O
HETATM 6176  O   HOH A1319       5.006  -1.667  51.233  1.00 23.61           O
HETATM 6177  O   HOH A1320       9.799   0.220  55.208  1.00 34.20           O
HETATM 6178  O   HOH A1321      11.410   1.061  53.536  1.00 54.43           O
HETATM 6179  O   HOH A1322      13.343  -4.450  53.686  1.00 28.97           O
HETATM 6180  O   HOH A1324      12.250  -4.009  56.127  1.00 22.26           O
HETATM 6181  O   HOH A1325      12.539 -11.824  59.899  1.00 22.15           O
HETATM 6182  O   HOH A1326      13.038 -16.014  60.261  1.00 23.10           O
HETATM 6183  O   HOH A1327      13.032 -17.794  56.706  1.00 21.99           O
HETATM 6184  O   HOH A1328       9.419 -18.309  51.558  1.00 15.10           O
HETATM 6185  O   HOH A1329       7.728 -20.484  45.444  1.00 17.88           O
HETATM 6186  O   HOH A1330       7.149 -18.267  44.376  1.00 20.42           O
HETATM 6187  O   HOH A1331       5.257 -18.784  42.489  1.00 16.16           O
HETATM 6188  O   HOH A1332       4.380 -15.580  44.349  1.00 18.78           O
HETATM 6189  O   HOH A1333       5.066 -17.718  46.425  1.00 25.58           O
HETATM 6190  O   HOH A1334       2.935 -17.583  48.104  1.00 15.19           O
HETATM 6191  O   HOH A1335      -1.847 -18.886  46.536  1.00 20.22           O
HETATM 6192  O   HOH A1336      -3.630 -15.717  53.710  1.00 16.47           O
HETATM 6193  O   HOH A1337      -3.516 -13.103  54.271  1.00 18.65           O
HETATM 6194  O   HOH A1338      -5.763 -15.817  55.488  1.00 21.10           O
HETATM 6195  O   HOH A1339      -7.561 -17.174  56.893  1.00 17.17           O
HETATM 6196  O   HOH A1340      -2.197 -19.993  60.102  1.00 24.41           O
HETATM 6197  O   HOH A1341       1.126 -22.293  60.968  1.00 22.56           O
HETATM 6198  O   HOH A1342       1.214 -22.746  58.004  1.00 25.28           O
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HETATM 6199  O   HOH A1343       1.435 -25.845  60.333  1.00 18.23           O
HETATM 6200  O   HOH A1344       7.775 -21.083  58.645  1.00 13.56           O
HETATM 6201  O   HOH A1345      12.957 -28.603  60.801  1.00 29.60           O
HETATM 6202  O   HOH A1346       7.310 -34.019  64.006  1.00 28.92           O
HETATM 6203  O   HOH A1347       7.881 -40.512  63.417  1.00 20.63           O
HETATM 6204  O   HOH A1348      14.201 -44.131  62.931  1.00 32.85           O
HETATM 6205  O   HOH A1349      14.288 -42.090  59.877  1.00 27.86           O
HETATM 6206  O   HOH A1350      16.049 -40.214  55.938  1.00 50.48           O
HETATM 6207  O   HOH A1351      13.798 -49.054  53.627  1.00 47.91           O
HETATM 6208  O   HOH A1352       8.993 -45.427  49.646  1.00 23.93           O
HETATM 6209  O   HOH A1353       7.998 -55.804  52.872  1.00 36.55           O
HETATM 6210  O   HOH A1354       2.689 -54.408  57.781  1.00 38.45           O
HETATM 6211  O   HOH A1355      -0.670 -53.234  55.328  1.00 33.47           O
HETATM 6212  O   HOH A1356      -2.455 -54.958  57.986  1.00 32.05           O
HETATM 6213  O   HOH A1357      -4.647 -55.107  55.454  1.00 52.91           O
HETATM 6214  O   HOH A1358      -4.249 -53.751  52.785  1.00 48.47           O
HETATM 6215  O   HOH A1359      -7.429 -53.140  54.445  1.00 36.14           O
HETATM 6216  O   HOH A1360      -5.012 -51.624  51.300  1.00 36.89           O
HETATM 6217  O   HOH A1361      -6.584 -56.668  53.943  1.00 50.60           O
HETATM 6218  O   HOH A1362     -18.390 -53.281  60.029  1.00 41.34           O
HETATM 6219  O   HOH A1363     -15.757 -48.171  62.803  1.00 48.25           O
HETATM 6220  O   HOH A1364     -17.176 -45.141  56.572  1.00 49.57           O
HETATM 6221  O   HOH A1365     -14.666 -43.578  56.429  1.00 38.96           O
HETATM 6222  O   HOH A1366     -16.461 -39.783  54.936  1.00 52.56           O
HETATM 6223  O   HOH A1367      -5.157 -34.775  57.147  1.00 13.36           O
HETATM 6224  O   HOH A1368      -3.806 -29.180  55.927  1.00 74.66           O
HETATM 6225  O   HOH A1369      -0.619 -28.727  69.859  1.00 18.06           O
HETATM 6226  O   HOH A1370      -2.921 -26.329  70.360  1.00 24.41           O
HETATM 6227  O   HOH A1371      -2.396 -24.260  71.445  1.00 69.20           O
HETATM 6228  O   HOH A1372      -1.359 -23.108  69.088  1.00 18.02           O
HETATM 6229  O   HOH A1373       1.596 -30.582  71.731  1.00 41.90           O
HETATM 6230  O   HOH A1374      -0.581 -33.696  72.137  1.00 46.98           O
HETATM 6231  O   HOH A1375       2.387 -34.456  72.773  1.00 29.61           O
HETATM 6232  O   HOH A1376       0.691 -42.595  69.246  1.00 37.82           O
HETATM 6233  O   HOH A1377       2.531 -44.537  69.114  1.00 39.40           O
HETATM 6234  O   HOH A1378      -3.136 -42.479  69.183  1.00 28.47           O
HETATM 6235  O   HOH A1379      -9.582 -38.716  68.346  1.00 44.14           O
HETATM 6236  O   HOH A1380      -8.075 -32.285  70.233  1.00 30.73           O
HETATM 6237  O   HOH A1381      -6.103 -27.181  77.289  1.00 22.82           O
HETATM 6238  O   HOH A1382      -7.156 -26.235  81.462  1.00 57.61           O
HETATM 6239  O   HOH A1383      -6.778 -16.619  81.622  1.00 44.42           O
HETATM 6240  O   HOH A1384      -7.545 -15.393  75.649  1.00 33.52           O
HETATM 6241  O   HOH A1385     -12.441 -12.993  75.508  1.00 24.01           O
HETATM 6242  O   HOH A1386     -12.625 -10.379  75.290  1.00 44.37           O
HETATM 6243  O   HOH A1387     -10.669  -7.343  74.725  1.00 22.71           O
HETATM 6244  O   HOH A1388     -13.006  -6.312  74.929  1.00 49.94           O
HETATM 6245  O   HOH A1389      -6.732 -10.403  77.183  1.00 41.55           O
HETATM 6246  O   HOH A1390      -3.190  -6.586  76.711  1.00 45.47           O
HETATM 6247  O   HOH A1391       3.660  -8.881  77.016  1.00 55.37           O
HETATM 6248  O   HOH A1392       4.874 -10.912  75.679  1.00 55.23           O
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HETATM 6249  O   HOH A1393       2.014 -14.396  71.707  1.00 42.16           O
HETATM 6250  O   HOH A1394       4.610  -8.776  68.519  1.00 51.07           O
HETATM 6251  O   HOH A1395       1.903  -9.775  66.031  1.00 37.32           O
HETATM 6252  O   HOH A1396       2.014  -6.444  62.766  1.00 40.56           O
HETATM 6253  O   HOH A1397       0.482  -7.222  60.660  1.00 17.95           O
HETATM 6254  O   HOH A1398      -2.859  -6.065  61.980  1.00 24.24           O
HETATM 6255  O   HOH A1399      -1.176  -4.720  63.728  1.00 51.90           O
HETATM 6256  O   HOH A1400       1.838  -3.347  68.953  1.00 40.85           O
HETATM 6257  O   HOH A1401      -5.527  -5.357  69.621  1.00 33.05           O
HETATM 6258  O   HOH A1402     -14.614 -17.731  69.796  1.00 24.45           O
HETATM 6259  O   HOH A1403     -17.040 -18.423  69.201  1.00 20.18           O
HETATM 6260  O   HOH A1404     -18.114 -17.240  77.169  1.00 62.01           O
HETATM 6261  O   HOH A1405     -20.472  -1.266  57.362  1.00 41.40           O
HETATM 6262  O   HOH A1406     -10.088  -7.509  51.787  1.00 19.92           O
HETATM 6263  O   HOH A1407      -6.875  -0.521  48.622  1.00 36.98           O
HETATM 6264  O   HOH A1408      -5.788   2.418  49.259  1.00 23.02           O
HETATM 6265  O   HOH A1409       1.444   2.353  44.640  1.00 19.97           O
HETATM 6266  O   HOH A1410       2.064   0.515  39.924  1.00 25.31           O
HETATM 6267  O   HOH A1411       0.488   9.324  47.274  1.00 32.91           O
HETATM 6268  O   HOH A1412       1.937   7.373  58.653  1.00 39.52           O
HETATM 6269  O   HOH A1413       7.357  -8.311  47.725  1.00 17.15           O
HETATM 6270  O   HOH A1414       6.585 -14.536  46.079  1.00 18.60           O
HETATM 6271  O   HOH A1415       8.121 -15.844  44.164  1.00 14.64           O
HETATM 6272  O   HOH A1416       8.932 -22.360  43.942  1.00 20.35           O
HETATM 6273  O   HOH A1417       7.949 -24.279  45.468  1.00 20.17           O
HETATM 6274  O   HOH A1418      16.988 -26.592  43.628  1.00 29.68           O
HETATM 6275  O   HOH A1419      19.251 -28.352  46.897  1.00 29.32           O
HETATM 6276  O   HOH A1420      13.664 -34.921  46.831  1.00 28.35           O
HETATM 6277  O   HOH A1421      14.503 -38.863  35.668  1.00 68.02           O
HETATM 6278  O   HOH A1422      12.634 -34.598  31.504  1.00 29.19           O
HETATM 6279  O   HOH A1424       6.385 -35.657  35.801  1.00 22.30           O
HETATM 6280  O   HOH A1425       4.925 -35.286  38.195  1.00 21.56           O
HETATM 6281  O   HOH A1426       0.667 -30.655  33.404  1.00 20.23           O
HETATM 6282  O   HOH A1427       0.106 -26.052  38.380  1.00 17.98           O
HETATM 6283  O   HOH A1428     -11.351 -29.315  34.298  1.00 44.57           O
HETATM 6284  O   HOH A1429     -13.613 -29.892  32.527  1.00 34.18           O
HETATM 6285  O   HOH A1430     -15.907 -28.580  32.489  1.00 27.69           O
HETATM 6286  O   HOH A1431     -11.739 -33.842  26.516  1.00 39.20           O
HETATM 6287  O   HOH A1432     -13.679 -34.234  21.731  1.00 41.86           O
HETATM 6288  O   HOH A1433      -5.894 -30.315  19.106  1.00 46.18           O
HETATM 6289  O   HOH A1434      -6.060 -21.815  19.797  1.00 32.13           O
HETATM 6290  O   HOH A1435      -8.678 -20.208  18.468  1.00 34.64           O
HETATM 6291  O   HOH A1436      -6.552 -17.917  18.735  1.00 37.08           O
HETATM 6292  O   HOH A1500      -8.089 -14.123  19.984  1.00 46.87           O
HETATM 6293  O   HOH A1501     -12.218 -15.067  25.432  1.00 25.79           O
HETATM 6294  O   HOH A1502     -16.970 -15.225  17.710  1.00 37.98           O
HETATM 6295  O   HOH A1503     -20.537 -12.285  20.455  1.00 32.67           O
HETATM 6296  O   HOH A1504     -24.498 -11.144  24.024  1.00 37.82           O
HETATM 6297  O   HOH A1505     -23.025 -12.402  26.550  1.00 22.82           O
HETATM 6298  O   HOH A1506     -21.282 -10.684  27.910  1.00 28.93           O
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HETATM 6299  O   HOH A1507     -21.343  -8.329  26.714  1.00 30.30           O
HETATM 6300  O   HOH A1508     -21.587  -5.536  25.179  1.00 32.52           O
HETATM 6301  O   HOH A1509     -22.426  -5.471  27.686  1.00 40.75           O
HETATM 6302  O   HOH A1510     -23.603  -4.189  23.573  1.00 41.59           O
HETATM 6303  O   HOH A1511     -17.317   3.596  25.354  1.00 38.78           O
HETATM 6304  O   HOH A1512     -15.807   3.382  20.463  1.00 33.38           O
HETATM 6305  O   HOH A1513     -16.808   2.624  17.552  1.00 28.72           O
HETATM 6306  O   HOH A1514     -17.795   8.401  15.646  1.00 63.03           O
HETATM 6307  O   HOH A1515     -14.277  10.436  17.936  1.00 44.60           O
HETATM 6308  O   HOH A1516     -13.739  10.310  11.809  1.00 44.19           O
HETATM 6309  O   HOH A1517     -11.875  12.160  12.253  1.00 45.42           O
HETATM 6310  O   HOH A1518     -13.363   6.074  10.893  1.00 29.44           O
HETATM 6311  O   HOH A1519     -14.284   3.525   8.004  1.00 43.68           O
HETATM 6312  O   HOH A1520     -13.843   1.270   5.255  1.00 49.01           O
HETATM 6313  O   HOH A1521     -12.753   2.305   2.827  1.00 35.87           O
HETATM 6314  O   HOH A1522     -19.944  -1.882  12.947  1.00 41.53           O
HETATM 6315  O   HOH A1523     -15.693 -11.366  10.209  1.00 51.34           O
HETATM 6316  O   HOH A1524     -14.440 -15.554  10.582  1.00 37.79           O
HETATM 6317  O   HOH A1525     -13.361 -17.195  13.164  1.00 41.96           O
HETATM 6318  O   HOH A1526      -7.779 -15.066  12.811  1.00 22.91           O
HETATM 6319  O   HOH A1527      -6.477 -15.590   5.456  1.00 31.82           O
HETATM 6320  O   HOH A1528      -7.201 -19.379   4.211  1.00 30.93           O
HETATM 6321  O   HOH A1529      -3.822 -19.376   2.628  1.00 38.08           O
HETATM 6322  O   HOH A1530      -6.477 -23.041  12.277  1.00 34.29           O
HETATM 6323  O   HOH A1531       8.173 -27.727  11.484  1.00 35.84           O
HETATM 6324  O   HOH A1532       7.880 -30.237   5.686  1.00 49.02           O
HETATM 6325  O   HOH A1533      10.803 -25.685   4.524  1.00 32.81           O
HETATM 6326  O   HOH A1534      12.113 -28.347   2.479  1.00 51.10           O
HETATM 6327  O   HOH A1535       4.282 -12.178   3.674  1.00 39.53           O
HETATM 6328  O   HOH A1536       8.801  -9.491   2.943  1.00 36.03           O
HETATM 6329  O   HOH A1537       4.334 -11.145  17.639  1.00 24.25           O
HETATM 6330  O   HOH A1538       3.067 -10.797  20.059  1.00 33.35           O
HETATM 6331  O   HOH A1539       0.141 -11.135  20.915  1.00 37.45           O
HETATM 6332  O   HOH A1542       5.633  -6.727  22.751  1.00 22.16           O
HETATM 6333  O   HOH A1543       3.715   1.555  25.660  1.00 39.77           O
HETATM 6334  O   HOH A1544       0.587   3.842  24.940  1.00 45.81           O
HETATM 6335  O   HOH A1545       0.171   4.573  20.794  1.00 21.20           O
HETATM 6336  O   HOH A1546      10.450   6.854  22.884  1.00 24.60           O
HETATM 6337  O   HOH A1547      13.229   7.407  30.140  1.00 30.06           O
HETATM 6338  O   HOH A1548      14.856  -1.984  31.095  1.00 28.24           O
HETATM 6339  O   HOH A1549      17.523  -1.997  30.949  1.00 30.28           O
HETATM 6340  O   HOH A1550      18.044  -9.325  38.499  1.00 32.08           O
HETATM 6341  O   HOH A1551      15.008 -14.890  44.127  1.00 22.48           O
HETATM 6342  O   HOH A1552      16.004 -20.007  40.532  1.00 27.54           O
HETATM 6343  O   HOH A1553      21.823 -18.862  47.637  1.00 25.61           O
HETATM 6344  O   HOH A1554      21.981 -17.214  55.164  1.00 36.83           O
HETATM 6345  O   HOH A1555      23.585 -20.356  55.154  1.00 23.61           O
HETATM 6346  O   HOH A1556      23.301 -19.525  62.895  1.00 47.37           O
HETATM 6347  O   HOH A1557      22.674 -19.594  30.027  1.00 33.70           O
HETATM 6348  O   HOH A1558       7.865 -12.939  29.559  1.00 42.83           O
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HETATM 6349  O   HOH A1559      -2.540  -9.365  32.050  1.00 29.07           O
HETATM 6350  O   HOH A1560     -10.892 -13.608  36.081  1.00 27.60           O
HETATM 6351  O   HOH A1561     -15.738  -3.943  30.684  1.00 25.70           O
HETATM 6352  O   HOH A1562     -13.875  -4.085  27.054  1.00 26.42           O
HETATM 6353  O   HOH A1563     -10.577  -4.158  27.718  1.00 44.00           O
HETATM 6354  O   HOH A1564     -16.626  -3.426  35.230  1.00 53.79           O
HETATM 6355  O   HOH A1565     -26.606 -18.962  30.303  1.00 31.97           O
HETATM 6356  O   HOH A1566     -28.070 -17.811  28.771  1.00 32.26           O
HETATM 6357  O   HOH A1567     -28.692 -19.978  23.839  1.00 32.74           O
HETATM 6358  O   HOH A1568     -24.282 -17.103  22.200  1.00 29.09           O
HETATM 6359  O   HOH A1569      -7.014 -33.897  31.101  1.00 34.07           O
HETATM 6360  O   HOH A1570       8.942 -49.261  61.681  1.00 25.54           O
HETATM 6361  O   HOH A1571       2.039 -59.664  62.931  1.00 49.54           O
HETATM 6362  O   HOH A1572      -2.968 -50.195  74.269  1.00 53.30           O
HETATM 6363  O   HOH A1573      -9.562   9.679  22.603  1.00 30.91           O
HETATM 6364  O   HOH A1574       0.641  14.232  16.259  1.00 26.17           O
HETATM 6365  O   HOH A1575       3.503  13.286  14.778  1.00 42.67           O
HETATM 6366  O   HOH A1576       0.774  15.724   9.938  1.00 32.22           O
HETATM 6367  O   HOH A1577      -0.068  16.223   7.655  1.00 24.30           O
HETATM 6368  O   HOH A1578      -3.873  15.850   8.275  1.00 23.75           O
HETATM 6369  O   HOH A1579       3.431   7.291   4.719  1.00 56.30           O
HETATM 6370  O   HOH A1580      11.801  15.647  11.809  1.00 58.77           O
HETATM 6371  O   HOH A1581      10.357  15.319  13.900  1.00 45.42           O
HETATM 6372  O   HOH A1582     -15.494 -29.345  37.974  1.00 54.73           O
HETATM 6373  O   HOH A1583      22.926 -18.029  65.392  1.00 42.30           O
HETATM 6374  O   HOH A1584      22.848   6.915  19.049  1.00 45.16           O
HETATM 6375  O   HOH A1585      23.292   5.516  17.051  1.00 29.05           O
HETATM 6376  O   HOH A1586      23.309   4.260  14.957  1.00 32.00           O
HETATM 6377  O   HOH A1587      20.551   6.685  20.394  1.00 56.15           O
HETATM 6378  O   HOH A1588      22.599   0.898   7.709  1.00 44.02           O
HETATM 6379  O   HOH A1589      18.690   2.478   5.802  1.00 46.61           O
HETATM 6380  O   HOH A1590      27.730   0.798   8.496  1.00 54.73           O
CONECT 5787 5788 5796 5799
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