Se avete una vecchia versione di *Chime* Potete ricostruire sul vostro PC l'immagine dell'emoglobina che vedete sul sito www.bayes.it con questi due semplici passi:
1) copiate e salvate in un file di testo denominato "emoglobina.*pdb*" le coordinate spaziali degli atomi che compongono la molecola (copiare da HEADER a END tutte le righe riportate qui sotto senza apportare modifiche);
2) copiate e salvate in un file di testo denominato "Emoglobina.*htm*" il codice html che consente di avviare la presentazione della molecola in Explorer (copiare da <html> a </html> tutte le righe riportate qui sotto senza apportare modifiche).

A questo punto facendo doppio click sul file "*Emoglobina.htm*" in Explorer comparirà la molecola in 3d. Facendo click su questa con il tasto destro del mouse potete accedere al menù di *Chime* che consente di modificare le modalità di rappresentazione della molecola.

Sui siti di proteomica potete trovare i file pdb che contengono le ricostruzioni 3d di molecole organiche (emoglobina, immunoglobuline, ormoni, enzimi, eccetera). Ovviamente per ogni file pdb dovete realizzare il corrispondente file html: per questo è sufficiente ricopiare il codice html che vi ho fornito e nella riga
`<p><embed src="emoglobina.pdb" align="left" border="0" hspace="15"`
sostituire `"emoglobina.pdb"` con il nome del file pdb appropriato.

Ora che *Chime* non è più supportato sul web potete trovare altri programmi che leggono direttamente i file .pdb e altri add-on che consentono di gestirli via browser con script html (per i dettagli si rimanda alle specifiche documentazioni).

```
HEADER    OXYGEN TRANSPORT                         22-JAN-98   1A3N
TITLE     DEOXY HUMAN HEMOGLOBIN
COMPND    MOL_ID: 1;
COMPND   2 MOLECULE: HEMOGLOBIN;
COMPND   3 CHAIN: A, B, C, D;
COMPND   4 BIOLOGICAL_UNIT: ALPHA-BETA-ALPHA-BETA TETRAMER
SOURCE    MOL_ID: 1;
SOURCE   2 ORGANISM_SCIENTIFIC: HOMO SAPIENS;
SOURCE   3 ORGANISM_COMMON: HUMAN;
SOURCE   4 TISSUE: BLOOD;
SOURCE   5 CELL: RED CELL
KEYWDS    OXYGEN TRANSPORT, HEME, RESPIRATORY PROTEIN, ERYTHROCYTE
EXPDTA    X-RAY DIFFRACTION
AUTHOR    J.TAME,B.VALLONE
REVDAT   1   29-APR-98 1A3N    0
REMARK   1
REMARK   2
REMARK   2 RESOLUTION. 1.8  ANGSTROMS.
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : REFMAC
REMARK   3   AUTHORS     : MURSHUDOV,VAGIN,DODSON
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) : 1.8
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) : 15.0
REMARK   3   DATA CUTOFF            (SIGMA(F)) : 0.0
REMARK   3   COMPLETENESS FOR RANGE        (%) : 95.78
REMARK   3   NUMBER OF REFLECTIONS             : 49661
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD          : NULL
```

```
REMARK   3   FREE R VALUE TEST SET SELECTION  : NULL
REMARK   3   R VALUE     (WORKING + TEST SET) : NULL
REMARK   3   R VALUE           (WORKING SET) : 0.17076
REMARK   3   FREE R VALUE                    : 0.22038
REMARK   3   FREE R VALUE TEST SET SIZE   (%) : 5.
REMARK   3   FREE R VALUE TEST SET COUNT      : 2000
REMARK   3
REMARK   3  FIT/AGREEMENT OF MODEL WITH ALL DATA.
REMARK   3   R VALUE   (WORKING + TEST SET, NO CUTOFF) : NULL
REMARK   3   R VALUE          (WORKING SET, NO CUTOFF) : 0.17076
REMARK   3   FREE R VALUE                  (NO CUTOFF) : 0.22038
REMARK   3   FREE R VALUE TEST SET SIZE (%, NO CUTOFF) : 5.
REMARK   3   FREE R VALUE TEST SET COUNT   (NO CUTOFF) : 2000
REMARK   3   TOTAL NUMBER OF REFLECTIONS   (NO CUTOFF) : 49661
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   PROTEIN ATOMS            : 4370
REMARK   3   NUCLEIC ACID ATOMS       : 0
REMARK   3   HETEROGEN ATOMS          : 172
REMARK   3   SOLVENT ATOMS            : 455
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT           (A**2) : NULL
REMARK   3   MEAN B VALUE      (OVERALL, A**2) : 16.2
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  RMS DEVIATIONS FROM IDEAL VALUES.
REMARK   3   DISTANCE RESTRAINTS.                    RMS    SIGMA
REMARK   3    BOND LENGTH                   (A) : 0.012 ; 0.020
REMARK   3    ANGLE DISTANCE                (A) : 0.028 ; 0.040
REMARK   3    INTRAPLANAR 1-4 DISTANCE      (A) : 0.034 ; 0.050
REMARK   3    H-BOND OR METAL COORDINATION  (A) : NULL  ; NULL
REMARK   3
REMARK   3   PLANE RESTRAINT                (A) : NULL  ; NULL
REMARK   3   CHIRAL-CENTER RESTRAINT     (A**3) : 0.091 ; 0.150
REMARK   3
REMARK   3   NON-BONDED CONTACT RESTRAINTS.
REMARK   3    SINGLE TORSION                (A) : 0.164 ; 0.300
REMARK   3    MULTIPLE TORSION              (A) : 0.274 ; 0.300
REMARK   3    H-BOND (X...Y)                (A) : 0.112 ; 0.300
REMARK   3    H-BOND (X-H...Y)              (A) : NULL  ; NULL
REMARK   3
REMARK   3   CONFORMATIONAL TORSION ANGLE RESTRAINTS.
REMARK   3    SPECIFIED                (DEGREES) : NULL  ; NULL
REMARK   3    PLANAR                   (DEGREES) : 3.0   ; 7.0
REMARK   3    STAGGERED                (DEGREES) : 13.9  ; 15.0
REMARK   3    TRANSVERSE               (DEGREES) : 32.5  ; 20.0
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS.    RMS    SIGMA
REMARK   3   MAIN-CHAIN BOND             (A**2) : 1.944 ; 2.000
REMARK   3   MAIN-CHAIN ANGLE            (A**2) : 2.417 ; 3.000
```

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REMARK   3   SIDE-CHAIN BOND             (A**2) : 2.613 ; 2.000
REMARK   3   SIDE-CHAIN ANGLE            (A**2) : 3.738 ; 3.000
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS:
REMARK   3  ESTIMATED COORD. ERROR  0.25 ANGSTROMS
REMARK   3  FINAL RMS COORD. SHIFT  0.005 ANGSTROMS
REMARK   4
REMARK   4 1A3N COMPLIES WITH FORMAT V. 2.2, 16-DEC-1996
REMARK   6
REMARK   6 THE N-TERMINAL RESIDUES OF THE BETA SUBUNITS (CHAINS B
REMARK   6 AND D) WERE NOT VISIBLE IN THE ELECTRON DENSITY MAP AND,
REMARK   6 THEREFORE, OMITTED FROM THE MODEL.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200  EXPERIMENT TYPE                : X-RAY DIFFRACTION
REMARK 200  DATE OF DATA COLLECTION        : MAY-1997
REMARK 200  TEMPERATURE           (KELVIN) : 120
REMARK 200  PH                             : NULL
REMARK 200  NUMBER OF CRYSTALS USED        : 1
REMARK 200
REMARK 200  SYNCHROTRON              (Y/N) : N
REMARK 200  RADIATION SOURCE               : NULL
REMARK 200  BEAMLINE                       : NULL
REMARK 200  X-RAY GENERATOR MODEL          : NULL
REMARK 200  MONOCHROMATIC OR LAUE    (M/L) : M
REMARK 200  WAVELENGTH OR RANGE        (A) : 1.5418
REMARK 200  MONOCHROMATOR                  : NI FILTER
REMARK 200  OPTICS                         : MIRROR
REMARK 200
REMARK 200  DETECTOR TYPE                  : R-AXIS II IMAGE PLATE
REMARK 200  DETECTOR MANUFACTURER          : RIGAKU
REMARK 200  INTENSITY-INTEGRATION SOFTWARE : DENZO
REMARK 200  DATA SCALING SOFTWARE          : SCALEPACK
REMARK 200
REMARK 200  NUMBER OF UNIQUE REFLECTIONS   : 49661
REMARK 200  RESOLUTION RANGE HIGH      (A) : 1.8
REMARK 200  RESOLUTION RANGE LOW       (A) : 15.0
REMARK 200  REJECTION CRITERIA  (SIGMA(I)) : 0.0
REMARK 200
REMARK 200 OVERALL.
REMARK 200  COMPLETENESS FOR RANGE     (%) : 95.8
REMARK 200  DATA REDUNDANCY                : 2.4
REMARK 200  R MERGE                    (I) : 0.053
REMARK 200  R SYM                      (I) : NULL
REMARK 200  <I/SIGMA(I)> FOR THE DATA SET  : 15.0
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 1.80
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE LOW  (A) : 1.86
REMARK 200  COMPLETENESS FOR SHELL     (%) : 76.1
REMARK 200  DATA REDUNDANCY IN SHELL       : NULL
REMARK 200  R MERGE FOR SHELL          (I) : 0.162
REMARK 200  R SYM FOR SHELL            (I) : NULL
REMARK 200  <I/SIGMA(I)> FOR SHELL         : 4.0
REMARK 200
REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL
REMARK 200 SOFTWARE USED: NULL
REMARK 200 STARTING MODEL: NULL
REMARK 200
REMARK 200 REMARK: NULL
REMARK 280
REMARK 280 CRYSTAL
```

```
REMARK 280 SOLVENT CONTENT, VS   (%): NULL
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): NULL
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: NULL
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 1 21 1
REMARK 290
REMARK 290      SYMOP   SYMMETRY
REMARK 290     NNNMMM   OPERATOR
REMARK 290       1555   X,Y,Z
REMARK 290       2555   -X,Y+1/2,-Z
REMARK 290
REMARK 290     WHERE NNN -> OPERATOR NUMBER
REMARK 290           MMM -> TRANSLATION VECTOR
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.
REMARK 290   SMTRY1   1  1.000000  0.000000  0.000000        0.00000
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        0.00000
REMARK 290   SMTRY2   2  0.000000  1.000000  0.000000       41.21332
REMARK 290   SMTRY3   2  0.000000  0.000000 -1.000000        0.00000
REMARK 290
REMARK 290 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: CLOSE CONTACTS IN SAME ASYMMETRIC UNIT
REMARK 500
REMARK 500 THE FOLLOWING ATOMS ARE IN CLOSE CONTACT.
REMARK 500
REMARK 500  ATM1  RES C  SSEQI   ATM2  RES C  SSEQI           DISTANCE
REMARK 500   NZ   LYS B    66  -  O    HOH     394             0.958
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS
REMARK 500
REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
REMARK 500 THAN 4*RMSD AND BY MORE THAN 0.150 ANGSTROMS (M=MODEL
REMARK 500 NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE
REMARK 500 NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991
REMARK 500
REMARK 500  M RES CSSEQI ATM1   RES CSSEQI ATM2   DEVIATION
REMARK 500
REMARK 500  0 LYS A  60   CG    LYS A  60   CD      0.621
REMARK 500  0 LYS A  90   CG    LYS A  90   CD      0.231
REMARK 500  0 LYS A  99   CG    LYS A  99   CD      0.195
REMARK 500  0 HIS B   2   CB    HIS B   2   CG      0.097
REMARK 500  0 GLU B   6   CB    GLU B   6   CA      0.153
REMARK 500  0 LYS B  66   CG    LYS B  66   CD      0.487
REMARK 500  0 LYS C  16   CD    LYS C  16   CE      0.480
REMARK 500  0 LYS C  60   CE    LYS C  60   NZ      0.199
REMARK 500  0 HIS D   2   CB    HIS D   2   CG      0.112
REMARK 500  0 LYS D 144   CD    LYS D 144   CE      0.405
REMARK 900
REMARK 900 RELATED ENTRIES
```

```
REMARK 900 THIS ENTRY IS RELATED TO PDB ENTRY 1A3O.
REMARK 999
REMARK 999 SEQUENCE
REMARK 999 1A3N  B    SWS     P02023       1 -     1 NOT IN ATOMS LIST
REMARK 999 1A3N  D    SWS     P02023       1 -     1 NOT IN ATOMS LIST
DBREF  1A3N A    1   141  SWS    P01922   HBA_HUMAN        1    141
DBREF  1A3N B    2   146  SWS    P02023   HBB_HUMAN        2    146
DBREF  1A3N C    1   141  SWS    P01922   HBA_HUMAN        1    141
DBREF  1A3N D    2   146  SWS    P02023   HBB_HUMAN        2    146
SEQRES   1 A  141  VAL LEU SER PRO ALA ASP LYS THR ASN VAL LYS ALA ALA
SEQRES   2 A  141  TRP GLY LYS VAL GLY ALA HIS ALA GLY GLU TYR GLY ALA
SEQRES   3 A  141  GLU ALA LEU GLU ARG MET PHE LEU SER PHE PRO THR THR
SEQRES   4 A  141  LYS THR TYR PHE PRO HIS PHE ASP LEU SER HIS GLY SER
SEQRES   5 A  141  ALA GLN VAL LYS GLY HIS GLY LYS LYS VAL ALA ASP ALA
SEQRES   6 A  141  LEU THR ASN ALA VAL ALA HIS VAL ASP ASP MET PRO ASN
SEQRES   7 A  141  ALA LEU SER ALA LEU SER ASP LEU HIS ALA HIS LYS LEU
SEQRES   8 A  141  ARG VAL ASP PRO VAL ASN PHE LYS LEU LEU SER HIS CYS
SEQRES   9 A  141  LEU LEU VAL THR LEU ALA ALA HIS LEU PRO ALA GLU PHE
SEQRES  10 A  141  THR PRO ALA VAL HIS ALA SER LEU ASP LYS PHE LEU ALA
SEQRES  11 A  141  SER VAL SER THR VAL LEU THR SER LYS TYR ARG
SEQRES   1 B  146  VAL HIS LEU THR PRO GLU GLU LYS SER ALA VAL THR ALA
SEQRES   2 B  146  LEU TRP GLY LYS VAL ASN VAL ASP GLU VAL GLY GLY GLU
SEQRES   3 B  146  ALA LEU GLY ARG LEU LEU VAL VAL TYR PRO TRP THR GLN
SEQRES   4 B  146  ARG PHE PHE GLU SER PHE GLY ASP LEU SER THR PRO ASP
SEQRES   5 B  146  ALA VAL MET GLY ASN PRO LYS VAL LYS ALA HIS GLY LYS
SEQRES   6 B  146  LYS VAL LEU GLY ALA PHE SER ASP GLY LEU ALA HIS LEU
SEQRES   7 B  146  ASP ASN LEU LYS GLY THR PHE ALA THR LEU SER GLU LEU
SEQRES   8 B  146  HIS CYS ASP LYS LEU HIS VAL ASP PRO GLU ASN PHE ARG
SEQRES   9 B  146  LEU LEU GLY ASN VAL LEU VAL CYS VAL LEU ALA HIS HIS
SEQRES  10 B  146  PHE GLY LYS GLU PHE THR PRO PRO VAL GLN ALA ALA TYR
SEQRES  11 B  146  GLN LYS VAL VAL ALA GLY VAL ALA ASN ALA LEU ALA HIS
SEQRES  12 B  146  LYS TYR HIS
SEQRES   1 C  141  VAL LEU SER PRO ALA ASP LYS THR ASN VAL LYS ALA ALA
SEQRES   2 C  141  TRP GLY LYS VAL GLY ALA HIS ALA GLY GLU TYR GLY ALA
SEQRES   3 C  141  GLU ALA LEU GLU ARG MET PHE LEU SER PHE PRO THR THR
SEQRES   4 C  141  LYS THR TYR PHE PRO HIS PHE ASP LEU SER HIS GLY SER
SEQRES   5 C  141  ALA GLN VAL LYS GLY HIS GLY LYS LYS VAL ALA ASP ALA
SEQRES   6 C  141  LEU THR ASN ALA VAL ALA HIS VAL ASP ASP MET PRO ASN
SEQRES   7 C  141  ALA LEU SER ALA LEU SER ASP LEU HIS ALA HIS LYS LEU
SEQRES   8 C  141  ARG VAL ASP PRO VAL ASN PHE LYS LEU LEU SER HIS CYS
SEQRES   9 C  141  LEU LEU VAL THR LEU ALA ALA HIS LEU PRO ALA GLU PHE
SEQRES  10 C  141  THR PRO ALA VAL HIS ALA SER LEU ASP LYS PHE LEU ALA
SEQRES  11 C  141  SER VAL SER THR VAL LEU THR SER LYS TYR ARG
SEQRES   1 D  146  VAL HIS LEU THR PRO GLU GLU LYS SER ALA VAL THR ALA
SEQRES   2 D  146  LEU TRP GLY LYS VAL ASN VAL ASP GLU VAL GLY GLY GLU
SEQRES   3 D  146  ALA LEU GLY ARG LEU LEU VAL VAL TYR PRO TRP THR GLN
SEQRES   4 D  146  ARG PHE PHE GLU SER PHE GLY ASP LEU SER THR PRO ASP
SEQRES   5 D  146  ALA VAL MET GLY ASN PRO LYS VAL LYS ALA HIS GLY LYS
SEQRES   6 D  146  LYS VAL LEU GLY ALA PHE SER ASP GLY LEU ALA HIS LEU
SEQRES   7 D  146  ASP ASN LEU LYS GLY THR PHE ALA THR LEU SER GLU LEU
SEQRES   8 D  146  HIS CYS ASP LYS LEU HIS VAL ASP PRO GLU ASN PHE ARG
SEQRES   9 D  146  LEU LEU GLY ASN VAL LEU VAL CYS VAL LEU ALA HIS HIS
SEQRES  10 D  146  PHE GLY LYS GLU PHE THR PRO PRO VAL GLN ALA ALA TYR
SEQRES  11 D  146  GLN LYS VAL VAL ALA GLY VAL ALA ASN ALA LEU ALA HIS
SEQRES  12 D  146  LYS TYR HIS
HET    HEM  A 142      43
HET    HEM  B 147      43
HET    HEM  C 142      43
HET    HEM  D 147      43
HETNAM     HEM PROTOPORPHYRIN IX CONTAINING FE
HETSYN     HEM HEME
FORMUL   5  HEM    4(C34 H32 N4 O4 FE1)
```

```
FORMUL   6  HOH   *455(H2 O1)
HELIX    1   1 PRO A    4  SER A   35  1                                   32
HELIX    2   2 PRO A   37  TYR A   42  5                                    6
HELIX    3   3 ALA A   53  ALA A   71  1                                   19
HELIX    4   4 MET A   76  ALA A   79  1                                    4
HELIX    5   5 SER A   81  HIS A   89  1                                    9
HELIX    6   6 PRO A   95  HIS A  112  5                                   18
HELIX    7   7 PRO A  119  THR A  137  1                                   19
HELIX    8   8 PRO B    5  LYS B   17  1                                   13
HELIX    9   9 VAL B   20  VAL B   34  1                                   15
HELIX   10  10 PRO B   36  PHE B   41  5                                    6
HELIX   11  11 PRO B   51  GLY B   56  1                                    6
HELIX   12  12 PRO B   58  HIS B   77  1                                   20
HELIX   13  13 LEU B   81  ASP B   94  1                                   14
HELIX   14  14 PRO B  100  GLU B  121  5                                   22
HELIX   15  15 PRO B  124  ALA B  142  1                                   19
HELIX   16  16 PRO C    4  SER C   35  1                                   32
HELIX   17  17 PRO C   37  TYR C   42  5                                    6
HELIX   18  18 ALA C   53  ALA C   71  1                                   19
HELIX   19  19 VAL C   73  ALA C   79  5                                    7
HELIX   20  20 SER C   81  HIS C   89  1                                    9
HELIX   21  21 PRO C   95  HIS C  112  5                                   18
HELIX   22  22 PRO C  119  THR C  137  1                                   19
HELIX   23  23 PRO D    5  LYS D   17  1                                   13
HELIX   24  24 VAL D   20  VAL D   34  1                                   15
HELIX   25  25 PRO D   36  PHE D   41  5                                    6
HELIX   26  26 GLU D   43  PHE D   45  5                                    3
HELIX   27  27 PRO D   51  GLY D   56  1                                    6
HELIX   28  28 PRO D   58  ALA D   76  1                                   19
HELIX   29  29 LEU D   78  ASP D   94  5                                   17
HELIX   30  30 PRO D  100  GLU D  121  5                                   22
HELIX   31  31 PRO D  124  ALA D  142  1                                   19
LINK         FE   HEM A 142                 NE2 HIS A  87
LINK         FE   HEM B 147                 NE2 HIS B  92
LINK         FE   HEM C 142                 NE2 HIS C  87
LINK         FE   HEM D 147                 NE2 HIS D  92
CRYST1   62.650   82.430   53.530  90.00  99.61  90.00 P 1 21 1      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      0.015962  0.000000  0.002703        0.00000
SCALE2      0.000000  0.012132  0.000000        0.00000
SCALE3      0.000000  0.000000  0.018947        0.00000
ATOM      1  N   VAL A   1      10.720  19.523   6.163  1.00 21.36           N
ATOM      2  CA  VAL A   1      10.228  20.761   6.807  1.00 24.26           C
ATOM      3  C   VAL A   1       8.705  20.714   6.878  1.00 18.62           C
ATOM      4  O   VAL A   1       8.164  20.005   6.015  1.00 19.87           O
ATOM      5  CB  VAL A   1      10.602  22.000   5.966  1.00 27.19           C
ATOM      6  CG1 VAL A   1      10.307  23.296   6.700  1.00 31.86           C
ATOM      7  CG2 VAL A   1      12.065  21.951   5.544  1.00 31.74           C
ATOM      8  N   LEU A   2       8.091  21.453   7.775  1.00 16.19           N
ATOM      9  CA  LEU A   2       6.624  21.451   7.763  1.00 17.31           C
ATOM     10  C   LEU A   2       6.176  22.578   6.821  1.00 18.55           C
ATOM     11  O   LEU A   2       6.567  23.730   7.022  1.00 18.72           O
ATOM     12  CB  LEU A   2       6.020  21.707   9.129  1.00 18.34           C
ATOM     13  CG  LEU A   2       6.386  20.649  10.198  1.00 17.39           C
ATOM     14  CD1 LEU A   2       5.998  21.119  11.577  1.00 17.99           C
ATOM     15  CD2 LEU A   2       5.730  19.337   9.795  1.00 16.96           C
ATOM     16  N   SER A   3       5.380  22.237   5.852  1.00 15.02           N
ATOM     17  CA  SER A   3       4.831  23.237   4.928  1.00 16.59           C
ATOM     18  C   SER A   3       3.725  24.027   5.568  1.00 14.84           C
ATOM     19  O   SER A   3       3.095  23.717   6.591  1.00 14.40           O
```

```
ATOM     20  CB  SER A   3       4.308  22.429   3.727  1.00 16.47           C
ATOM     21  OG  SER A   3       3.076  21.786   3.991  1.00 14.91           O
ATOM     22  N   PRO A   4       3.338  25.150   4.896  1.00 16.64           N
ATOM     23  CA  PRO A   4       2.252  25.966   5.311  1.00 15.47           C
ATOM     24  C   PRO A   4       0.991  25.106   5.405  1.00 13.87           C
ATOM     25  O   PRO A   4       0.205  25.227   6.342  1.00 12.32           O
ATOM     26  CB  PRO A   4       2.109  27.013   4.206  1.00 17.86           C
ATOM     27  CG  PRO A   4       3.411  27.027   3.477  1.00 21.38           C
ATOM     28  CD  PRO A   4       4.013  25.651   3.663  1.00 18.26           C
ATOM     29  N   ALA A   5       0.734  24.225   4.422  1.00 11.78           N
ATOM     30  CA  ALA A   5      -0.457  23.367   4.513  1.00 11.09           C
ATOM     31  C   ALA A   5      -0.284  22.393   5.689  1.00 12.95           C
ATOM     32  O   ALA A   5      -1.279  22.151   6.371  1.00  8.55           O
ATOM     33  CB  ALA A   5      -0.667  22.558   3.236  1.00 14.95           C
ATOM     34  N   ASP A   6       0.930  21.875   5.931  1.00 12.09           N
ATOM     35  CA  ASP A   6       1.069  20.972   7.101  1.00 10.29           C
ATOM     36  C   ASP A   6       0.724  21.684   8.393  1.00 11.88           C
ATOM     37  O   ASP A   6       0.086  21.202   9.331  1.00  9.02           O
ATOM     38  CB  ASP A   6       2.501  20.442   7.296  1.00  7.78           C
ATOM     39  CG  ASP A   6       2.980  19.483   6.227  1.00 12.62           C
ATOM     40  OD1 ASP A   6       2.211  18.658   5.693  1.00 13.76           O
ATOM     41  OD2 ASP A   6       4.183  19.586   5.894  1.00 12.05           O
ATOM     42  N   LYS A   7       1.217  22.938   8.524  1.00 10.80           N
ATOM     43  CA  LYS A   7       0.946  23.686   9.764  1.00 12.99           C
ATOM     44  C   LYS A   7      -0.523  23.977   9.936  1.00 12.73           C
ATOM     45  O   LYS A   7      -1.089  23.873  11.062  1.00 12.13           O
ATOM     46  CB  LYS A   7       1.825  24.932   9.734  1.00 14.33           C
ATOM     47  CG  LYS A   7       3.333  24.629   9.835  1.00 17.89           C
ATOM     48  CD  LYS A   7       4.081  25.976   9.710  1.00 21.62           C
ATOM     49  CE  LYS A   7       5.587  25.726   9.630  1.00 25.78           C
ATOM     50  NZ  LYS A   7       6.309  26.985   9.214  1.00 25.24           N
ATOM     51  N   THR A   8      -1.211  24.344   8.838  1.00  7.48           N
ATOM     52  CA  THR A   8      -2.657  24.552   8.903  1.00 10.03           C
ATOM     53  C   THR A   8      -3.360  23.264   9.313  1.00 12.03           C
ATOM     54  O   THR A   8      -4.275  23.277  10.140  1.00 11.34           O
ATOM     55  CB  THR A   8      -3.200  24.957   7.501  1.00 14.49           C
ATOM     56  OG1 THR A   8      -2.557  26.166   7.118  1.00 16.70           O
ATOM     57  CG2 THR A   8      -4.712  25.196   7.482  1.00 12.92           C
ATOM     58  N   ASN A   9      -2.942  22.126   8.740  1.00 10.40           N
ATOM     59  CA  ASN A   9      -3.578  20.829   9.048  1.00 10.21           C
ATOM     60  C   ASN A   9      -3.413  20.424  10.498  1.00 10.99           C
ATOM     61  O   ASN A   9      -4.355  19.935  11.123  1.00 11.48           O
ATOM     62  CB  ASN A   9      -2.964  19.723   8.170  1.00  8.82           C
ATOM     63  CG  ASN A   9      -3.515  19.694   6.767  1.00 10.41           C
ATOM     64  OD1 ASN A   9      -4.576  20.275   6.479  1.00 10.34           O
ATOM     65  ND2 ASN A   9      -2.847  19.049   5.810  1.00 13.10           N
ATOM     66  N   VAL A  10      -2.195  20.627  10.999  1.00 12.57           N
ATOM     67  CA  VAL A  10      -1.868  20.308  12.382  1.00 11.87           C
ATOM     68  C   VAL A  10      -2.710  21.183  13.302  1.00 14.37           C
ATOM     69  O   VAL A  10      -3.320  20.692  14.273  1.00 12.06           O
ATOM     70  CB  VAL A  10      -0.360  20.514  12.623  1.00 13.54           C
ATOM     71  CG1 VAL A  10      -0.046  20.476  14.115  1.00 12.00           C
ATOM     72  CG2 VAL A  10       0.462  19.449  11.876  1.00  9.74           C
ATOM     73  N   LYS A  11      -2.749  22.524  13.038  1.00 13.20           N
ATOM     74  CA  LYS A  11      -3.565  23.346  13.951  1.00 13.87           C
ATOM     75  C   LYS A  11      -5.037  23.013  13.869  1.00 15.99           C
ATOM     76  O   LYS A  11      -5.735  23.032  14.907  1.00 15.95           O
ATOM     77  CB  LYS A  11      -3.396  24.854  13.692  1.00 13.84           C
ATOM     78  CG  LYS A  11      -1.950  25.304  13.998  1.00 17.90           C
ATOM     79  CD  LYS A  11      -1.761  26.707  13.395  1.00 22.80           C
ATOM     80  CE  LYS A  11      -0.533  27.385  14.001  1.00 26.38           C
ATOM     81  NZ  LYS A  11      -0.551  28.834  13.596  1.00 29.25           N
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ATOM     82  N   ALA A  12      -5.543  22.705  12.669  1.00 13.87           N
ATOM     83  CA  ALA A  12      -6.957  22.358  12.597  1.00 14.77           C
ATOM     84  C   ALA A  12      -7.239  21.075  13.376  1.00 15.23           C
ATOM     85  O   ALA A  12      -8.201  20.979  14.143  1.00 15.09           O
ATOM     86  CB  ALA A  12      -7.392  22.205  11.150  1.00 17.54           C
ATOM     87  N   ALA A  13      -6.385  20.049  13.175  1.00 13.51           N
ATOM     88  CA  ALA A  13      -6.647  18.789  13.878  1.00 13.88           C
ATOM     89  C   ALA A  13      -6.503  18.910  15.377  1.00 12.88           C
ATOM     90  O   ALA A  13      -7.361  18.439  16.143  1.00 13.91           O
ATOM     91  CB  ALA A  13      -5.721  17.721  13.275  1.00 12.89           C
ATOM     92  N   TRP A  14      -5.442  19.558  15.864  1.00 12.42           N
ATOM     93  CA  TRP A  14      -5.212  19.711  17.304  1.00 15.53           C
ATOM     94  C   TRP A  14      -6.244  20.651  17.913  1.00 16.62           C
ATOM     95  O   TRP A  14      -6.650  20.509  19.071  1.00 16.89           O
ATOM     96  CB  TRP A  14      -3.792  20.205  17.623  1.00 13.09           C
ATOM     97  CG  TRP A  14      -3.356  19.873  19.024  1.00 13.60           C
ATOM     98  CD1 TRP A  14      -3.130  20.796  20.031  1.00 16.27           C
ATOM     99  CD2 TRP A  14      -3.056  18.594  19.578  1.00 16.36           C
ATOM    100  NE1 TRP A  14      -2.713  20.133  21.167  1.00 17.09           N
ATOM    101  CE2 TRP A  14      -2.668  18.791  20.917  1.00 17.85           C
ATOM    102  CE3 TRP A  14      -3.088  17.288  19.074  1.00 19.04           C
ATOM    103  CZ2 TRP A  14      -2.320  17.739  21.765  1.00 17.28           C
ATOM    104  CZ3 TRP A  14      -2.748  16.224  19.909  1.00 20.81           C
ATOM    105  CH2 TRP A  14      -2.352  16.479  21.243  1.00 21.00           C
ATOM    106  N   GLY A  15      -6.719  21.607  17.124  1.00 17.13           N
ATOM    107  CA  GLY A  15      -7.757  22.528  17.555  1.00 19.38           C
ATOM    108  C   GLY A  15      -9.044  21.738  17.795  1.00 20.72           C
ATOM    109  O   GLY A  15      -9.771  21.971  18.757  1.00 17.03           O
ATOM    110  N   LYS A  16      -9.364  20.735  16.949  1.00 17.94           N
ATOM    111  CA  LYS A  16     -10.567  19.934  17.190  1.00 19.69           C
ATOM    112  C   LYS A  16     -10.395  19.058  18.412  1.00 18.36           C
ATOM    113  O   LYS A  16     -11.322  18.782  19.202  1.00 19.08           O
ATOM    114  CB  LYS A  16     -10.871  19.159  15.902  1.00 22.63           C
ATOM    115  CG  LYS A  16     -11.673  17.912  15.983  1.00 29.85           C
ATOM    116  CD  LYS A  16     -12.969  17.954  16.751  1.00 36.74           C
ATOM    117  CE  LYS A  16     -14.068  18.672  15.993  1.00 37.29           C
ATOM    118  NZ  LYS A  16     -15.417  18.104  16.329  1.00 38.13           N
ATOM    119  N   VAL A  17      -9.174  18.604  18.709  1.00 17.35           N
ATOM    120  CA  VAL A  17      -8.862  17.802  19.902  1.00 17.30           C
ATOM    121  C   VAL A  17      -9.319  18.602  21.125  1.00 19.00           C
ATOM    122  O   VAL A  17      -9.966  18.087  22.050  1.00 16.06           O
ATOM    123  CB  VAL A  17      -7.386  17.430  19.986  1.00 15.28           C
ATOM    124  CG1 VAL A  17      -6.977  16.924  21.353  1.00 13.92           C
ATOM    125  CG2 VAL A  17      -7.092  16.356  18.934  1.00 19.74           C
ATOM    126  N   GLY A  18      -8.944  19.878  21.065  1.00 22.25           N
ATOM    127  CA  GLY A  18      -9.346  20.831  22.076  1.00 24.21           C
ATOM    128  C   GLY A  18      -9.088  20.389  23.494  1.00 22.92           C
ATOM    129  O   GLY A  18      -7.949  20.048  23.831  1.00 24.89           O
ATOM    130  N   ALA A  19     -10.131  20.388  24.325  1.00 19.43           N
ATOM    131  CA  ALA A  19      -9.976  20.020  25.730  1.00 20.14           C
ATOM    132  C   ALA A  19      -9.813  18.543  26.006  1.00 19.66           C
ATOM    133  O   ALA A  19      -9.514  18.181  27.153  1.00 20.14           O
ATOM    134  CB  ALA A  19     -11.159  20.623  26.522  1.00 22.86           C
ATOM    135  N   HIS A  20      -9.843  17.658  25.011  1.00 15.96           N
ATOM    136  CA  HIS A  20      -9.621  16.236  25.200  1.00 16.81           C
ATOM    137  C   HIS A  20      -8.133  15.900  25.026  1.00 16.30           C
ATOM    138  O   HIS A  20      -7.784  14.721  25.109  1.00 14.93           O
ATOM    139  CB  HIS A  20     -10.341  15.399  24.131  1.00 18.27           C
ATOM    140  CG  HIS A  20     -11.817  15.616  24.094  1.00 24.83           C
ATOM    141  ND1 HIS A  20     -12.668  15.061  25.021  1.00 27.77           N
ATOM    142  CD2 HIS A  20     -12.590  16.330  23.231  1.00 26.77           C
ATOM    143  CE1 HIS A  20     -13.926  15.422  24.737  1.00 26.91           C
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ATOM    144  NE2 HIS A  20     -13.890  16.188  23.659  1.00 26.13           N
ATOM    145  N   ALA A  21      -7.304  16.897  24.788  1.00 16.59           N
ATOM    146  CA  ALA A  21      -5.867  16.641  24.592  1.00 18.23           C
ATOM    147  C   ALA A  21      -5.278  15.743  25.649  1.00 15.90           C
ATOM    148  O   ALA A  21      -4.588  14.768  25.306  1.00 14.78           O
ATOM    149  CB  ALA A  21      -5.120  17.981  24.486  1.00 17.60           C
ATOM    150  N   GLY A  22      -5.390  16.054  26.936  1.00 15.42           N
ATOM    151  CA  GLY A  22      -4.880  15.262  28.037  1.00 15.86           C
ATOM    152  C   GLY A  22      -5.392  13.842  28.058  1.00 16.57           C
ATOM    153  O   GLY A  22      -4.651  12.857  28.253  1.00 15.49           O
ATOM    154  N   GLU A  23      -6.688  13.613  27.794  1.00 12.50           N
ATOM    155  CA  GLU A  23      -7.238  12.272  27.730  1.00 14.00           C
ATOM    156  C   GLU A  23      -6.588  11.462  26.584  1.00 13.05           C
ATOM    157  O   GLU A  23      -6.290  10.256  26.716  1.00 10.13           O
ATOM    158  CB  GLU A  23      -8.754  12.363  27.458  1.00 17.64           C
ATOM    159  CG  GLU A  23      -9.405  11.047  27.079  1.00 25.10           C
ATOM    160  CD  GLU A  23     -10.811  11.126  26.524  1.00 30.34           C
ATOM    161  OE1 GLU A  23     -11.448  12.182  26.830  1.00 32.56           O
ATOM    162  OE2 GLU A  23     -11.248  10.178  25.814  1.00 27.95           O
ATOM    163  N   TYR A  24      -6.413  12.144  25.449  1.00 12.33           N
ATOM    164  CA  TYR A  24      -5.834  11.496  24.246  1.00 10.57           C
ATOM    165  C   TYR A  24      -4.357  11.199  24.434  1.00  9.80           C
ATOM    166  O   TYR A  24      -3.848  10.185  23.977  1.00  8.48           O
ATOM    167  CB  TYR A  24      -6.040  12.389  23.018  1.00 10.59           C
ATOM    168  CG  TYR A  24      -7.474  12.598  22.583  1.00 12.45           C
ATOM    169  CD1 TYR A  24      -8.543  11.993  23.206  1.00 13.29           C
ATOM    170  CD2 TYR A  24      -7.733  13.420  21.473  1.00 14.02           C
ATOM    171  CE1 TYR A  24      -9.850  12.200  22.797  1.00 14.98           C
ATOM    172  CE2 TYR A  24      -9.043  13.604  21.033  1.00 15.49           C
ATOM    173  CZ  TYR A  24     -10.079  13.017  21.705  1.00 14.80           C
ATOM    174  OH  TYR A  24     -11.394  13.195  21.300  1.00 16.01           O
ATOM    175  N   GLY A  25      -3.664  12.082  25.144  1.00  8.47           N
ATOM    176  CA  GLY A  25      -2.242  11.796  25.459  1.00 11.93           C
ATOM    177  C   GLY A  25      -2.179  10.543  26.342  1.00 11.85           C
ATOM    178  O   GLY A  25      -1.335   9.659  26.160  1.00 11.09           O
ATOM    179  N   ALA A  26      -3.033  10.387  27.360  1.00 10.03           N
ATOM    180  CA  ALA A  26      -2.984   9.188  28.214  1.00 10.10           C
ATOM    181  C   ALA A  26      -3.336   7.943  27.409  1.00  8.64           C
ATOM    182  O   ALA A  26      -2.798   6.854  27.590  1.00  8.39           O
ATOM    183  CB  ALA A  26      -3.961   9.380  29.385  1.00  8.73           C
ATOM    184  N   GLU A  27      -4.316   8.036  26.506  1.00  9.56           N
ATOM    185  CA  GLU A  27      -4.711   6.900  25.656  1.00 11.04           C
ATOM    186  C   GLU A  27      -3.550   6.533  24.737  1.00 11.51           C
ATOM    187  O   GLU A  27      -3.267   5.346  24.566  1.00  7.98           O
ATOM    188  CB  GLU A  27      -5.955   7.306  24.840  1.00 10.37           C
ATOM    189  CG  GLU A  27      -6.419   6.187  23.907  1.00 12.19           C
ATOM    190  CD  GLU A  27      -7.613   6.586  23.041  1.00 15.10           C
ATOM    191  OE1 GLU A  27      -8.369   7.488  23.446  1.00 12.92           O
ATOM    192  OE2 GLU A  27      -7.795   5.952  21.973  1.00 13.65           O
ATOM    193  N   ALA A  28      -2.849   7.532  24.177  1.00  8.95           N
ATOM    194  CA  ALA A  28      -1.702   7.161  23.318  1.00 10.50           C
ATOM    195  C   ALA A  28      -0.636   6.426  24.130  1.00  6.88           C
ATOM    196  O   ALA A  28      -0.050   5.453  23.648  1.00  9.51           O
ATOM    197  CB  ALA A  28      -1.074   8.387  22.662  1.00 10.20           C
ATOM    198  N   LEU A  29      -0.328   6.872  25.356  1.00  9.15           N
ATOM    199  CA  LEU A  29       0.667   6.141  26.190  1.00  8.87           C
ATOM    200  C   LEU A  29       0.193   4.718  26.436  1.00 10.17           C
ATOM    201  O   LEU A  29       0.961   3.747  26.378  1.00  9.98           O
ATOM    202  CB  LEU A  29       0.857   6.866  27.523  1.00 11.37           C
ATOM    203  CG  LEU A  29       1.611   8.188  27.393  1.00  8.94           C
ATOM    204  CD1 LEU A  29       1.335   9.068  28.633  1.00  9.74           C
ATOM    205  CD2 LEU A  29       3.113   7.976  27.252  1.00  8.99           C
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ATOM    206  N   GLU A  30      -1.087   4.512  26.785  1.00  9.69           N
ATOM    207  CA  GLU A  30      -1.665   3.195  27.034  1.00 11.27           C
ATOM    208  C   GLU A  30      -1.567   2.303  25.808  1.00 11.19           C
ATOM    209  O   GLU A  30      -1.193   1.115  25.890  1.00 10.41           O
ATOM    210  CB  GLU A  30      -3.142   3.283  27.479  1.00 12.35           C
ATOM    211  CG  GLU A  30      -3.740   1.880  27.627  1.00 15.58           C
ATOM    212  CD  GLU A  30      -5.174   1.959  28.172  1.00 22.21           C
ATOM    213  OE1 GLU A  30      -5.836   2.984  28.030  1.00 26.10           O
ATOM    214  OE2 GLU A  30      -5.633   0.953  28.738  1.00 26.21           O
ATOM    215  N   ARG A  31      -1.862   2.886  24.642  1.00  9.23           N
ATOM    216  CA  ARG A  31      -1.704   2.183  23.364  1.00  8.36           C
ATOM    217  C   ARG A  31      -0.252   1.748  23.176  1.00  9.97           C
ATOM    218  O   ARG A  31       0.014   0.593  22.793  1.00 10.30           O
ATOM    219  CB  ARG A  31      -2.135   3.057  22.133  1.00  6.25           C
ATOM    220  CG  ARG A  31      -3.684   3.130  22.122  1.00  7.07           C
ATOM    221  CD  ARG A  31      -4.155   4.091  21.001  1.00  7.50           C
ATOM    222  NE  ARG A  31      -5.608   4.102  20.966  1.00  8.30           N
ATOM    223  CZ  ARG A  31      -6.455   3.202  20.547  1.00  9.38           C
ATOM    224  NH1 ARG A  31      -6.056   2.043  19.993  1.00  9.87           N
ATOM    225  NH2 ARG A  31      -7.764   3.442  20.694  1.00  9.69           N
ATOM    226  N   MET A  32       0.653   2.655  23.464  1.00  9.29           N
ATOM    227  CA  MET A  32       2.089   2.343  23.338  1.00 10.56           C
ATOM    228  C   MET A  32       2.510   1.218  24.273  1.00  9.82           C
ATOM    229  O   MET A  32       3.181   0.301  23.794  1.00  8.74           O
ATOM    230  CB  MET A  32       2.961   3.572  23.685  1.00  8.80           C
ATOM    231  CG  MET A  32       4.457   3.340  23.393  1.00  9.95           C
ATOM    232  SD  MET A  32       5.410   4.833  23.827  1.00 11.73           S
ATOM    233  CE  MET A  32       5.126   4.861  25.610  1.00 10.21           C
ATOM    234  N   PHE A  33       2.106   1.299  25.549  1.00  7.24           N
ATOM    235  CA  PHE A  33       2.556   0.260  26.517  1.00  8.86           C
ATOM    236  C   PHE A  33       2.065  -1.104  26.117  1.00  9.74           C
ATOM    237  O   PHE A  33       2.763  -2.122  26.297  1.00  8.44           O
ATOM    238  CB  PHE A  33       2.148   0.640  27.962  1.00  9.01           C
ATOM    239  CG  PHE A  33       2.746   1.924  28.473  1.00 11.76           C
ATOM    240  CD1 PHE A  33       4.104   2.194  28.259  1.00 12.26           C
ATOM    241  CD2 PHE A  33       1.974   2.855  29.178  1.00 11.21           C
ATOM    242  CE1 PHE A  33       4.687   3.364  28.725  1.00 11.00           C
ATOM    243  CE2 PHE A  33       2.568   4.015  29.654  1.00 10.14           C
ATOM    244  CZ  PHE A  33       3.900   4.272  29.422  1.00  9.51           C
ATOM    245  N   LEU A  34       0.823  -1.249  25.651  1.00 10.28           N
ATOM    246  CA  LEU A  34       0.308  -2.535  25.246  1.00 10.91           C
ATOM    247  C   LEU A  34       0.882  -3.023  23.929  1.00 11.96           C
ATOM    248  O   LEU A  34       1.169  -4.221  23.763  1.00 11.26           O
ATOM    249  CB  LEU A  34      -1.223  -2.427  25.099  1.00 11.39           C
ATOM    250  CG  LEU A  34      -1.995  -2.207  26.415  1.00 13.35           C
ATOM    251  CD1 LEU A  34      -3.475  -2.015  26.054  1.00 14.75           C
ATOM    252  CD2 LEU A  34      -1.770  -3.331  27.408  1.00 16.64           C
ATOM    253  N   SER A  35       1.033  -2.129  22.942  1.00 10.77           N
ATOM    254  CA  SER A  35       1.505  -2.518  21.629  1.00 12.93           C
ATOM    255  C   SER A  35       2.995  -2.792  21.544  1.00 11.36           C
ATOM    256  O   SER A  35       3.450  -3.638  20.790  1.00 11.72           O
ATOM    257  CB  SER A  35       1.246  -1.404  20.599  1.00 11.07           C
ATOM    258  OG  SER A  35      -0.133  -1.498  20.200  1.00 14.96           O
ATOM    259  N   PHE A  36       3.737  -1.951  22.254  1.00  8.36           N
ATOM    260  CA  PHE A  36       5.216  -2.045  22.252  1.00 12.80           C
ATOM    261  C   PHE A  36       5.671  -2.153  23.690  1.00 12.39           C
ATOM    262  O   PHE A  36       6.093  -1.152  24.293  1.00 10.83           O
ATOM    263  CB  PHE A  36       5.769  -0.775  21.580  1.00 11.59           C
ATOM    264  CG  PHE A  36       5.139  -0.515  20.236  1.00 11.80           C
ATOM    265  CD1 PHE A  36       5.455  -1.372  19.164  1.00 12.88           C
ATOM    266  CD2 PHE A  36       4.204   0.500  20.092  1.00 12.85           C
ATOM    267  CE1 PHE A  36       4.817  -1.163  17.940  1.00 11.86           C
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ATOM    268  CE2 PHE A  36       3.613   0.695  18.845  1.00 11.82           C
ATOM    269  CZ  PHE A  36       3.925  -0.119  17.786  1.00 11.99           C
ATOM    270  N   PRO A  37       5.668  -3.361  24.259  1.00 10.87           N
ATOM    271  CA  PRO A  37       5.987  -3.583  25.664  1.00 11.59           C
ATOM    272  C   PRO A  37       7.363  -3.149  26.086  1.00 10.21           C
ATOM    273  O   PRO A  37       7.499  -2.741  27.236  1.00 10.59           O
ATOM    274  CB  PRO A  37       5.810  -5.078  25.908  1.00 15.18           C
ATOM    275  CG  PRO A  37       4.971  -5.548  24.779  1.00 18.86           C
ATOM    276  CD  PRO A  37       5.193  -4.608  23.633  1.00 15.10           C
ATOM    277  N   THR A  38       8.337  -3.083  25.183  1.00  8.50           N
ATOM    278  CA  THR A  38       9.669  -2.622  25.652  1.00 10.63           C
ATOM    279  C   THR A  38       9.611  -1.169  26.131  1.00 11.34           C
ATOM    280  O   THR A  38      10.501  -0.748  26.874  1.00  8.83           O
ATOM    281  CB  THR A  38      10.682  -2.753  24.505  1.00 11.07           C
ATOM    282  OG1 THR A  38      10.227  -1.988  23.359  1.00 12.52           O
ATOM    283  CG2 THR A  38      10.789  -4.203  24.091  1.00 10.32           C
ATOM    284  N   THR A  39       8.652  -0.351  25.721  1.00  9.19           N
ATOM    285  CA  THR A  39       8.566   1.043  26.166  1.00  9.01           C
ATOM    286  C   THR A  39       8.234   1.142  27.659  1.00  9.23           C
ATOM    287  O   THR A  39       8.485   2.179  28.288  1.00  9.00           O
ATOM    288  CB  THR A  39       7.521   1.852  25.412  1.00  9.22           C
ATOM    289  OG1 THR A  39       6.200   1.289  25.581  1.00 10.81           O
ATOM    290  CG2 THR A  39       7.892   1.925  23.913  1.00  8.70           C
ATOM    291  N   LYS A  40       7.722   0.053  28.244  1.00  8.74           N
ATOM    292  CA  LYS A  40       7.437   0.044  29.680  1.00 11.83           C
ATOM    293  C   LYS A  40       8.708   0.062  30.497  1.00 13.24           C
ATOM    294  O   LYS A  40       8.617   0.374  31.687  1.00 11.13           O
ATOM    295  CB  LYS A  40       6.588  -1.167  30.110  1.00 10.39           C
ATOM    296  CG  LYS A  40       5.218  -1.189  29.413  1.00 14.69           C
ATOM    297  CD  LYS A  40       4.263  -2.201  30.024  1.00 15.88           C
ATOM    298  CE  LYS A  40       4.710  -3.630  29.726  1.00 18.71           C
ATOM    299  NZ  LYS A  40       3.779  -4.643  30.344  1.00 15.70           N
ATOM    300  N   THR A  41       9.902  -0.196  29.902  1.00 12.22           N
ATOM    301  CA  THR A  41      11.132  -0.189  30.691  1.00 10.06           C
ATOM    302  C   THR A  41      11.436   1.203  31.205  1.00 12.28           C
ATOM    303  O   THR A  41      12.281   1.306  32.101  1.00 11.72           O
ATOM    304  CB  THR A  41      12.385  -0.629  29.891  1.00 12.00           C
ATOM    305  OG1 THR A  41      12.535   0.143  28.712  1.00 10.28           O
ATOM    306  CG2 THR A  41      12.248  -2.086  29.462  1.00 12.07           C
ATOM    307  N   TYR A  42      10.883   2.287  30.650  1.00  7.75           N
ATOM    308  CA  TYR A  42      11.179   3.619  31.133  1.00 10.97           C
ATOM    309  C   TYR A  42      10.293   4.032  32.301  1.00 11.11           C
ATOM    310  O   TYR A  42      10.469   5.089  32.875  1.00 10.65           O
ATOM    311  CB  TYR A  42      10.981   4.626  29.967  1.00  9.96           C
ATOM    312  CG  TYR A  42      12.047   4.297  28.925  1.00  8.53           C
ATOM    313  CD1 TYR A  42      13.350   4.721  29.177  1.00 12.48           C
ATOM    314  CD2 TYR A  42      11.756   3.560  27.790  1.00 11.99           C
ATOM    315  CE1 TYR A  42      14.354   4.428  28.262  1.00 10.85           C
ATOM    316  CE2 TYR A  42      12.764   3.265  26.867  1.00 12.01           C
ATOM    317  CZ  TYR A  42      14.048   3.699  27.135  1.00 12.49           C
ATOM    318  OH  TYR A  42      15.086   3.424  26.254  1.00  8.90           O
ATOM    319  N   PHE A  43       9.302   3.191  32.670  1.00 12.05           N
ATOM    320  CA  PHE A  43       8.373   3.533  33.736  1.00 14.01           C
ATOM    321  C   PHE A  43       8.180   2.478  34.810  1.00 16.30           C
ATOM    322  O   PHE A  43       7.048   2.072  35.146  1.00 13.86           O
ATOM    323  CB  PHE A  43       6.968   3.824  33.099  1.00 14.40           C
ATOM    324  CG  PHE A  43       6.884   4.911  32.066  1.00 14.21           C
ATOM    325  CD1 PHE A  43       7.257   4.642  30.742  1.00 13.27           C
ATOM    326  CD2 PHE A  43       6.494   6.205  32.350  1.00 11.85           C
ATOM    327  CE1 PHE A  43       7.245   5.639  29.796  1.00 12.24           C
ATOM    328  CE2 PHE A  43       6.445   7.189  31.373  1.00 13.23           C
ATOM    329  CZ  PHE A  43       6.826   6.926  30.074  1.00 10.28           C
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ATOM    330  N   PRO A  44       9.255   2.014  35.458  1.00 13.74           N
ATOM    331  CA  PRO A  44       9.188   1.038  36.518  1.00 17.63           C
ATOM    332  C   PRO A  44       8.558   1.546  37.805  1.00 17.59           C
ATOM    333  O   PRO A  44       8.066   0.776  38.630  1.00 22.40           O
ATOM    334  CB  PRO A  44      10.667   0.667  36.750  1.00 17.49           C
ATOM    335  CG  PRO A  44      11.383   1.959  36.488  1.00 19.44           C
ATOM    336  CD  PRO A  44      10.656   2.470  35.263  1.00 14.51           C
ATOM    337  N   HIS A  45       8.520   2.854  37.963  1.00 17.14           N
ATOM    338  CA  HIS A  45       7.960   3.580  39.076  1.00 16.92           C
ATOM    339  C   HIS A  45       6.473   3.870  38.853  1.00 18.13           C
ATOM    340  O   HIS A  45       5.941   4.567  39.713  1.00 20.08           O
ATOM    341  CB  HIS A  45       8.675   4.916  39.232  1.00 18.99           C
ATOM    342  CG  HIS A  45       8.752   5.844  38.069  1.00 17.30           C
ATOM    343  ND1 HIS A  45       9.201   5.419  36.822  1.00 18.36           N
ATOM    344  CD2 HIS A  45       8.455   7.158  37.929  1.00 19.22           C
ATOM    345  CE1 HIS A  45       9.169   6.458  35.996  1.00 18.18           C
ATOM    346  NE2 HIS A  45       8.715   7.533  36.628  1.00 18.61           N
ATOM    347  N   PHE A  46       5.876   3.382  37.766  1.00 15.10           N
ATOM    348  CA  PHE A  46       4.483   3.632  37.498  1.00 14.80           C
ATOM    349  C   PHE A  46       3.637   2.373  37.524  1.00 14.75           C
ATOM    350  O   PHE A  46       4.081   1.290  37.139  1.00 17.45           O
ATOM    351  CB  PHE A  46       4.217   4.188  36.093  1.00 15.40           C
ATOM    352  CG  PHE A  46       4.328   5.645  35.814  1.00 14.60           C
ATOM    353  CD1 PHE A  46       5.053   6.488  36.628  1.00 16.11           C
ATOM    354  CD2 PHE A  46       3.690   6.210  34.719  1.00 14.96           C
ATOM    355  CE1 PHE A  46       5.175   7.833  36.406  1.00 14.75           C
ATOM    356  CE2 PHE A  46       3.807   7.574  34.478  1.00 12.09           C
ATOM    357  CZ  PHE A  46       4.537   8.364  35.310  1.00 13.26           C
ATOM    358  N   ASP A  47       2.404   2.570  37.982  1.00 14.94           N
ATOM    359  CA  ASP A  47       1.411   1.507  37.889  1.00 17.75           C
ATOM    360  C   ASP A  47       0.905   1.741  36.449  1.00 17.45           C
ATOM    361  O   ASP A  47       0.404   2.851  36.177  1.00 16.44           O
ATOM    362  CB  ASP A  47       0.297   1.662  38.913  1.00 20.42           C
ATOM    363  CG  ASP A  47      -0.842   0.667  38.794  1.00 25.47           C
ATOM    364  OD1 ASP A  47      -1.022   0.019  37.745  1.00 24.48           O
ATOM    365  OD2 ASP A  47      -1.619   0.513  39.778  1.00 20.93           O
ATOM    366  N   LEU A  48       1.113   0.806  35.529  1.00 15.72           N
ATOM    367  CA  LEU A  48       0.704   1.061  34.142  1.00 16.05           C
ATOM    368  C   LEU A  48      -0.632   0.419  33.796  1.00 15.75           C
ATOM    369  O   LEU A  48      -0.999   0.353  32.638  1.00 16.39           O
ATOM    370  CB  LEU A  48       1.810   0.600  33.164  1.00 17.43           C
ATOM    371  CG  LEU A  48       3.194   1.201  33.409  1.00 18.60           C
ATOM    372  CD1 LEU A  48       4.308   0.496  32.623  1.00 16.73           C
ATOM    373  CD2 LEU A  48       3.180   2.691  33.084  1.00 15.20           C
ATOM    374  N   SER A  49      -1.430   0.000  34.808  1.00 16.19           N
ATOM    375  CA  SER A  49      -2.703  -0.614  34.445  1.00 17.98           C
ATOM    376  C   SER A  49      -3.628   0.420  33.831  1.00 18.12           C
ATOM    377  O   SER A  49      -3.477   1.627  34.010  1.00 13.77           O
ATOM    378  CB  SER A  49      -3.400  -1.308  35.620  1.00 24.37           C
ATOM    379  OG  SER A  49      -3.558  -0.393  36.688  1.00 29.03           O
ATOM    380  N   HIS A  50      -4.603  -0.118  33.086  1.00 17.63           N
ATOM    381  CA  HIS A  50      -5.611   0.735  32.469  1.00 17.87           C
ATOM    382  C   HIS A  50      -6.251   1.624  33.525  1.00 17.98           C
ATOM    383  O   HIS A  50      -6.592   1.168  34.623  1.00 17.08           O
ATOM    384  CB  HIS A  50      -6.676  -0.179  31.808  1.00 18.75           C
ATOM    385  CG  HIS A  50      -7.771   0.652  31.219  1.00 22.07           C
ATOM    386  ND1 HIS A  50      -7.629   1.410  30.098  1.00 25.56           N
ATOM    387  CD2 HIS A  50      -9.060   0.852  31.643  1.00 24.67           C
ATOM    388  CE1 HIS A  50      -8.762   2.054  29.823  1.00 26.94           C
ATOM    389  NE2 HIS A  50      -9.642   1.724  30.761  1.00 25.25           N
ATOM    390  N   GLY A  51      -6.383   2.916  33.250  1.00 16.80           N
ATOM    391  CA  GLY A  51      -6.984   3.884  34.128  1.00 15.71           C
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ATOM    392  C   GLY A  51      -6.002   4.513  35.114  1.00 16.41           C
ATOM    393  O   GLY A  51      -6.412   5.325  35.928  1.00 14.66           O
ATOM    394  N   SER A  52      -4.737   4.071  35.081  1.00 14.96           N
ATOM    395  CA  SER A  52      -3.785   4.599  36.061  1.00 16.78           C
ATOM    396  C   SER A  52      -3.766   6.113  36.113  1.00 14.28           C
ATOM    397  O   SER A  52      -3.643   6.751  35.089  1.00 13.96           O
ATOM    398  CB  SER A  52      -2.376   4.147  35.661  1.00 14.94           C
ATOM    399  OG  SER A  52      -1.450   4.808  36.505  1.00 13.80           O
ATOM    400  N   ALA A  53      -3.751   6.713  37.303  1.00 11.79           N
ATOM    401  CA  ALA A  53      -3.651   8.165  37.390  1.00 11.14           C
ATOM    402  C   ALA A  53      -2.259   8.647  37.061  1.00  7.71           C
ATOM    403  O   ALA A  53      -2.116   9.811  36.717  1.00 12.15           O
ATOM    404  CB  ALA A  53      -4.048   8.620  38.801  1.00 13.96           C
ATOM    405  N   GLN A  54      -1.241   7.769  37.184  1.00  9.60           N
ATOM    406  CA  GLN A  54       0.109   8.197  36.837  1.00 12.01           C
ATOM    407  C   GLN A  54       0.215   8.349  35.320  1.00 14.44           C
ATOM    408  O   GLN A  54       0.784   9.336  34.824  1.00 11.84           O
ATOM    409  CB  GLN A  54       1.140   7.191  37.372  1.00 13.36           C
ATOM    410  CG  GLN A  54       1.199   7.255  38.937  1.00 15.51           C
ATOM    411  CD  GLN A  54       1.877   5.957  39.409  1.00 16.62           C
ATOM    412  OE1 GLN A  54       1.498   4.843  39.050  1.00 17.07           O
ATOM    413  NE2 GLN A  54       2.900   6.061  40.231  1.00 19.59           N
ATOM    414  N   VAL A  55      -0.361   7.399  34.599  1.00 12.31           N
ATOM    415  CA  VAL A  55      -0.372   7.466  33.123  1.00 10.77           C
ATOM    416  C   VAL A  55      -1.217   8.653  32.661  1.00 10.97           C
ATOM    417  O   VAL A  55      -0.930   9.394  31.719  1.00 11.21           O
ATOM    418  CB  VAL A  55      -0.873   6.118  32.596  1.00 11.69           C
ATOM    419  CG1 VAL A  55      -1.160   6.179  31.092  1.00 12.56           C
ATOM    420  CG2 VAL A  55       0.133   4.982  32.880  1.00 10.35           C
ATOM    421  N   LYS A  56      -2.354   8.918  33.310  1.00  9.97           N
ATOM    422  CA  LYS A  56      -3.203  10.043  32.985  1.00 11.57           C
ATOM    423  C   LYS A  56      -2.485  11.344  33.271  1.00 13.57           C
ATOM    424  O   LYS A  56      -2.641  12.270  32.464  1.00 13.24           O
ATOM    425  CB  LYS A  56      -4.497  10.046  33.831  1.00 16.10           C
ATOM    426  CG  LYS A  56      -5.516   9.022  33.322  1.00 17.65           C
ATOM    427  CD  LYS A  56      -6.624   8.973  34.396  1.00 24.15           C
ATOM    428  CE  LYS A  56      -7.817   8.161  33.942  1.00 29.12           C
ATOM    429  NZ  LYS A  56      -9.056   8.821  34.490  1.00 34.05           N
ATOM    430  N   GLY A  57      -1.728  11.437  34.377  1.00 11.87           N
ATOM    431  CA  GLY A  57      -1.039  12.714  34.640  1.00 13.61           C
ATOM    432  C   GLY A  57       0.105  12.917  33.636  1.00 14.38           C
ATOM    433  O   GLY A  57       0.351  14.023  33.159  1.00 10.96           O
ATOM    434  N   HIS A  58       0.775  11.813  33.300  1.00 12.32           N
ATOM    435  CA  HIS A  58       1.873  11.888  32.316  1.00 10.94           C
ATOM    436  C   HIS A  58       1.280  12.219  30.954  1.00 12.74           C
ATOM    437  O   HIS A  58       1.774  13.122  30.250  1.00 12.87           O
ATOM    438  CB  HIS A  58       2.633  10.571  32.308  1.00 10.96           C
ATOM    439  CG  HIS A  58       3.770  10.656  31.329  1.00 13.19           C
ATOM    440  ND1 HIS A  58       4.555  11.793  31.253  1.00 17.06           N
ATOM    441  CD2 HIS A  58       4.254   9.779  30.432  1.00 14.34           C
ATOM    442  CE1 HIS A  58       5.459  11.587  30.299  1.00 15.85           C
ATOM    443  NE2 HIS A  58       5.307  10.373  29.794  1.00 15.99           N
ATOM    444  N   GLY A  59       0.136  11.626  30.624  1.00 12.72           N
ATOM    445  CA  GLY A  59      -0.551  11.911  29.370  1.00 14.61           C
ATOM    446  C   GLY A  59      -0.937  13.386  29.224  1.00 12.03           C
ATOM    447  O   GLY A  59      -0.829  13.991  28.156  1.00  8.25           O
ATOM    448  N   LYS A  60      -1.358  14.022  30.322  1.00 11.25           N
ATOM    449  CA  LYS A  60      -1.688  15.435  30.275  1.00 13.60           C
ATOM    450  C   LYS A  60      -0.432  16.244  29.989  1.00 11.48           C
ATOM    451  O   LYS A  60      -0.514  17.211  29.226  1.00 12.64           O
ATOM    452  CB  LYS A  60      -2.380  15.837  31.600  1.00 15.45           C
ATOM    453  CG  LYS A  60      -2.216  17.306  31.944  1.00 22.74           C
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ATOM    454  CD  LYS A  60      -4.130  17.028  32.863  0.00 35.06           C
ATOM    455  CE  LYS A  60      -4.922  15.738  33.012  0.00 38.67           C
ATOM    456  NZ  LYS A  60      -5.816  15.672  34.191  0.00 41.68           N
ATOM    457  N   LYS A  61       0.713  15.943  30.578  1.00 11.89           N
ATOM    458  CA  LYS A  61       1.957  16.662  30.357  1.00 12.13           C
ATOM    459  C   LYS A  61       2.422  16.542  28.903  1.00 11.16           C
ATOM    460  O   LYS A  61       2.811  17.525  28.307  1.00  9.67           O
ATOM    461  CB  LYS A  61       3.052  16.169  31.313  1.00 14.37           C
ATOM    462  CG  LYS A  61       2.658  16.502  32.780  1.00 19.31           C
ATOM    463  CD  LYS A  61       3.878  16.170  33.625  1.00 24.26           C
ATOM    464  CE  LYS A  61       3.548  15.959  35.096  1.00 26.16           C
ATOM    465  NZ  LYS A  61       4.735  15.197  35.657  1.00 31.32           N
ATOM    466  N   VAL A  62       2.354  15.325  28.359  1.00 11.64           N
ATOM    467  CA  VAL A  62       2.709  15.096  26.965  1.00 11.53           C
ATOM    468  C   VAL A  62       1.835  15.905  26.020  1.00 12.63           C
ATOM    469  O   VAL A  62       2.262  16.627  25.108  1.00 10.00           O
ATOM    470  CB  VAL A  62       2.551  13.591  26.654  1.00 10.72           C
ATOM    471  CG1 VAL A  62       2.751  13.281  25.186  1.00 13.57           C
ATOM    472  CG2 VAL A  62       3.624  12.804  27.427  1.00 12.30           C
ATOM    473  N   ALA A  63       0.513  15.870  26.267  1.00 11.67           N
ATOM    474  CA  ALA A  63      -0.436  16.613  25.452  1.00 12.79           C
ATOM    475  C   ALA A  63      -0.222  18.109  25.575  1.00 11.52           C
ATOM    476  O   ALA A  63      -0.309  18.781  24.535  1.00 10.22           O
ATOM    477  CB  ALA A  63      -1.841  16.208  25.853  1.00 12.87           C
ATOM    478  N   ASP A  64       0.032  18.613  26.784  1.00 12.64           N
ATOM    479  CA  ASP A  64       0.266  20.056  26.955  1.00 14.09           C
ATOM    480  C   ASP A  64       1.535  20.500  26.225  1.00 13.47           C
ATOM    481  O   ASP A  64       1.624  21.573  25.643  1.00 12.79           O
ATOM    482  CB  ASP A  64       0.413  20.434  28.425  1.00 16.12           C
ATOM    483  CG  ASP A  64      -0.888  20.362  29.188  1.00 20.10           C
ATOM    484  OD1 ASP A  64      -1.940  20.187  28.545  1.00 17.22           O
ATOM    485  OD2 ASP A  64      -0.802  20.490  30.434  1.00 20.84           O
ATOM    486  N   ALA A  65       2.572  19.662  26.194  1.00 11.03           N
ATOM    487  CA  ALA A  65       3.794  19.918  25.463  1.00 12.38           C
ATOM    488  C   ALA A  65       3.510  19.972  23.956  1.00 11.63           C
ATOM    489  O   ALA A  65       4.033  20.775  23.190  1.00 11.30           O
ATOM    490  CB  ALA A  65       4.862  18.838  25.714  1.00 13.16           C
ATOM    491  N   LEU A  66       2.602  19.085  23.490  1.00 10.65           N
ATOM    492  CA  LEU A  66       2.236  19.067  22.074  1.00 10.23           C
ATOM    493  C   LEU A  66       1.441  20.325  21.735  1.00 11.78           C
ATOM    494  O   LEU A  66       1.646  20.974  20.706  1.00 11.64           O
ATOM    495  CB  LEU A  66       1.508  17.793  21.697  1.00 11.34           C
ATOM    496  CG  LEU A  66       2.369  16.537  21.758  1.00 10.47           C
ATOM    497  CD1 LEU A  66       1.464  15.348  21.455  1.00 13.61           C
ATOM    498  CD2 LEU A  66       3.525  16.581  20.756  1.00 10.55           C
ATOM    499  N   THR A  67       0.609  20.767  22.693  1.00 11.13           N
ATOM    500  CA  THR A  67      -0.152  22.003  22.477  1.00 13.21           C
ATOM    501  C   THR A  67       0.782  23.176  22.343  1.00 15.05           C
ATOM    502  O   THR A  67       0.603  24.016  21.465  1.00 14.55           O
ATOM    503  CB  THR A  67      -1.166  22.251  23.614  1.00 13.22           C
ATOM    504  OG1 THR A  67      -2.105  21.179  23.597  1.00 13.00           O
ATOM    505  CG2 THR A  67      -1.972  23.525  23.365  1.00 15.68           C
ATOM    506  N   ASN A  68       1.806  23.240  23.173  1.00 15.85           N
ATOM    507  CA  ASN A  68       2.844  24.248  23.180  1.00 16.56           C
ATOM    508  C   ASN A  68       3.627  24.204  21.874  1.00 17.49           C
ATOM    509  O   ASN A  68       3.895  25.257  21.268  1.00 14.40           O
ATOM    510  CB  ASN A  68       3.762  24.002  24.382  1.00 20.31           C
ATOM    511  CG  ASN A  68       4.808  25.139  24.462  1.00 23.26           C
ATOM    512  OD1 ASN A  68       4.411  26.274  24.263  1.00 26.38           O
ATOM    513  ND2 ASN A  68       6.020  24.768  24.752  1.00 25.31           N
ATOM    514  N   ALA A  69       3.945  22.992  21.400  1.00 13.89           N
ATOM    515  CA  ALA A  69       4.645  22.882  20.109  1.00 13.39           C
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ATOM    516  C   ALA A  69       3.784  23.388  18.959  1.00 11.37           C
ATOM    517  O   ALA A  69       4.273  24.025  18.006  1.00 15.48           O
ATOM    518  CB  ALA A  69       5.011  21.400  19.833  1.00 10.64           C
ATOM    519  N   VAL A  70       2.457  23.101  18.973  1.00 11.45           N
ATOM    520  CA  VAL A  70       1.587  23.548  17.883  1.00 14.76           C
ATOM    521  C   VAL A  70       1.525  25.079  17.865  1.00 15.32           C
ATOM    522  O   VAL A  70       1.598  25.741  16.826  1.00 17.27           O
ATOM    523  CB  VAL A  70       0.153  23.016  18.022  1.00 11.18           C
ATOM    524  CG1 VAL A  70      -0.826  23.590  17.002  1.00 14.35           C
ATOM    525  CG2 VAL A  70       0.165  21.474  17.900  1.00 11.25           C
ATOM    526  N   ALA A  71       1.476  25.651  19.048  1.00 14.88           N
ATOM    527  CA  ALA A  71       1.412  27.092  19.288  1.00 17.31           C
ATOM    528  C   ALA A  71       2.673  27.787  18.829  1.00 20.52           C
ATOM    529  O   ALA A  71       2.640  28.993  18.504  1.00 21.10           O
ATOM    530  CB  ALA A  71       1.186  27.351  20.774  1.00 14.88           C
ATOM    531  N   HIS A  72       3.802  27.084  18.847  1.00 17.98           N
ATOM    532  CA  HIS A  72       5.093  27.629  18.430  1.00 17.61           C
ATOM    533  C   HIS A  72       5.598  26.825  17.266  1.00 19.01           C
ATOM    534  O   HIS A  72       6.788  26.495  17.159  1.00 19.40           O
ATOM    535  CB  HIS A  72       6.101  27.511  19.597  1.00 20.17           C
ATOM    536  CG  HIS A  72       5.656  28.360  20.753  1.00 24.77           C
ATOM    537  ND1 HIS A  72       4.775  27.875  21.712  1.00 26.35           N
ATOM    538  CD2 HIS A  72       5.934  29.639  21.079  1.00 24.99           C
ATOM    539  CE1 HIS A  72       4.547  28.828  22.590  1.00 28.38           C
ATOM    540  NE2 HIS A  72       5.239  29.898  22.224  1.00 29.62           N
ATOM    541  N   VAL A  73       4.717  26.425  16.345  1.00 16.50           N
ATOM    542  CA  VAL A  73       5.142  25.550  15.244  1.00 22.11           C
ATOM    543  C   VAL A  73       6.251  26.115  14.383  1.00 27.40           C
ATOM    544  O   VAL A  73       6.993  25.330  13.769  1.00 26.90           O
ATOM    545  CB  VAL A  73       3.880  25.069  14.514  1.00 23.16           C
ATOM    546  CG1 VAL A  73       3.328  26.209  13.661  1.00 26.17           C
ATOM    547  CG2 VAL A  73       4.196  23.820  13.713  1.00 24.53           C
ATOM    548  N   ASP A  74       6.524  27.412  14.313  1.00 27.80           N
ATOM    549  CA  ASP A  74       7.633  27.973  13.552  1.00 30.48           C
ATOM    550  C   ASP A  74       8.874  28.184  14.418  1.00 31.33           C
ATOM    551  O   ASP A  74       9.929  28.668  13.977  1.00 31.62           O
ATOM    552  CB  ASP A  74       7.227  29.326  12.960  1.00 31.99           C
ATOM    553  CG  ASP A  74       5.944  29.414  12.174  1.00 36.12           C
ATOM    554  OD1 ASP A  74       5.584  28.529  11.372  1.00 38.66           O
ATOM    555  OD2 ASP A  74       5.210  30.429  12.317  1.00 37.83           O
ATOM    556  N   ASP A  75       8.785  27.887  15.716  1.00 30.22           N
ATOM    557  CA  ASP A  75       9.871  28.073  16.661  1.00 29.37           C
ATOM    558  C   ASP A  75       9.911  26.954  17.669  1.00 24.91           C
ATOM    559  O   ASP A  75      10.003  27.175  18.890  1.00 24.11           O
ATOM    560  CB  ASP A  75       9.663  29.432  17.355  1.00 35.11           C
ATOM    561  CG  ASP A  75      10.954  29.956  17.955  1.00 40.20           C
ATOM    562  OD1 ASP A  75      12.056  29.615  17.474  1.00 42.43           O
ATOM    563  OD2 ASP A  75      10.813  30.722  18.935  1.00 43.10           O
ATOM    564  N   MET A  76       9.844  25.717  17.134  1.00 20.06           N
ATOM    565  CA  MET A  76       9.750  24.584  18.058  1.00 17.56           C
ATOM    566  C   MET A  76      10.954  24.286  18.889  1.00 13.35           C
ATOM    567  O   MET A  76      10.773  23.985  20.083  1.00 16.35           O
ATOM    568  CB  MET A  76       9.259  23.304  17.345  1.00 17.92           C
ATOM    569  CG  MET A  76       7.779  23.379  17.023  1.00 20.96           C
ATOM    570  SD  MET A  76       7.073  21.747  16.595  1.00 20.09           S
ATOM    571  CE  MET A  76       8.314  21.106  15.495  1.00 25.95           C
ATOM    572  N   PRO A  77      12.180  24.372  18.392  1.00 15.23           N
ATOM    573  CA  PRO A  77      13.355  24.063  19.190  1.00 14.93           C
ATOM    574  C   PRO A  77      13.400  24.799  20.518  1.00 14.82           C
ATOM    575  O   PRO A  77      13.615  24.205  21.567  1.00 13.01           O
ATOM    576  CB  PRO A  77      14.512  24.450  18.264  1.00 16.08           C
ATOM    577  CG  PRO A  77      13.968  24.140  16.903  1.00 14.49           C
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ATOM    578  CD  PRO A  77      12.533  24.629  16.961  1.00 14.12           C
ATOM    579  N   ASN A  78      13.126  26.138  20.501  1.00 12.78           N
ATOM    580  CA  ASN A  78      13.186  26.840  21.789  1.00 12.28           C
ATOM    581  C   ASN A  78      12.009  26.492  22.674  1.00 12.69           C
ATOM    582  O   ASN A  78      12.145  26.361  23.879  1.00 14.29           O
ATOM    583  CB  ASN A  78      13.275  28.352  21.582  1.00 14.49           C
ATOM    584  CG  ASN A  78      13.317  29.080  22.922  1.00 15.42           C
ATOM    585  OD1 ASN A  78      14.294  28.950  23.641  1.00 14.40           O
ATOM    586  ND2 ASN A  78      12.221  29.815  23.191  1.00 15.91           N
ATOM    587  N   ALA A  79      10.794  26.337  22.127  1.00 13.70           N
ATOM    588  CA  ALA A  79       9.653  25.984  22.972  1.00 13.06           C
ATOM    589  C   ALA A  79       9.861  24.646  23.687  1.00 13.58           C
ATOM    590  O   ALA A  79       9.446  24.514  24.853  1.00 16.22           O
ATOM    591  CB  ALA A  79       8.359  25.814  22.175  1.00 13.36           C
ATOM    592  N   LEU A  80      10.499  23.703  23.003  1.00 12.60           N
ATOM    593  CA  LEU A  80      10.725  22.396  23.629  1.00 11.98           C
ATOM    594  C   LEU A  80      12.106  22.220  24.218  1.00 11.30           C
ATOM    595  O   LEU A  80      12.476  21.081  24.525  1.00  9.26           O
ATOM    596  CB  LEU A  80      10.563  21.365  22.496  1.00 13.58           C
ATOM    597  CG  LEU A  80       9.138  21.273  21.876  1.00 13.56           C
ATOM    598  CD1 LEU A  80       9.195  20.367  20.660  1.00 17.28           C
ATOM    599  CD2 LEU A  80       8.155  20.844  22.961  1.00 14.89           C
ATOM    600  N   SER A  81      12.872  23.292  24.394  1.00  9.99           N
ATOM    601  CA  SER A  81      14.273  23.169  24.814  1.00 12.07           C
ATOM    602  C   SER A  81      14.443  22.517  26.157  1.00 10.80           C
ATOM    603  O   SER A  81      15.312  21.633  26.321  1.00 12.44           O
ATOM    604  CB  SER A  81      14.976  24.553  24.825  1.00 15.61           C
ATOM    605  OG  SER A  81      16.360  24.303  25.127  1.00 20.63           O
ATOM    606  N   ALA A  82      13.598  22.880  27.130  1.00 11.02           N
ATOM    607  CA  ALA A  82      13.733  22.220  28.435  1.00 12.84           C
ATOM    608  C   ALA A  82      13.397  20.746  28.327  1.00 12.63           C
ATOM    609  O   ALA A  82      14.031  19.921  29.023  1.00 12.95           O
ATOM    610  CB  ALA A  82      12.869  22.842  29.518  1.00  9.55           C
ATOM    611  N   LEU A  83      12.383  20.372  27.515  1.00 12.17           N
ATOM    612  CA  LEU A  83      12.103  18.943  27.355  1.00  9.71           C
ATOM    613  C   LEU A  83      13.195  18.239  26.587  1.00 10.13           C
ATOM    614  O   LEU A  83      13.482  17.066  26.839  1.00  9.07           O
ATOM    615  CB  LEU A  83      10.741  18.807  26.622  1.00  9.77           C
ATOM    616  CG  LEU A  83       9.572  19.117  27.556  1.00 11.36           C
ATOM    617  CD1 LEU A  83       8.276  19.014  26.725  1.00 16.14           C
ATOM    618  CD2 LEU A  83       9.488  18.177  28.751  1.00 11.76           C
ATOM    619  N   SER A  84      13.882  18.904  25.635  1.00  9.73           N
ATOM    620  CA  SER A  84      15.001  18.267  24.948  1.00 10.37           C
ATOM    621  C   SER A  84      16.101  17.950  25.957  1.00 10.96           C
ATOM    622  O   SER A  84      16.768  16.920  25.925  1.00 10.93           O
ATOM    623  CB  SER A  84      15.648  19.187  23.889  1.00 12.27           C
ATOM    624  OG  SER A  84      14.695  19.352  22.856  1.00 16.52           O
ATOM    625  N   ASP A  85      16.349  18.910  26.873  1.00  7.77           N
ATOM    626  CA  ASP A  85      17.412  18.738  27.864  1.00 10.07           C
ATOM    627  C   ASP A  85      17.068  17.551  28.781  1.00 11.59           C
ATOM    628  O   ASP A  85      17.904  16.727  29.067  1.00 11.23           O
ATOM    629  CB  ASP A  85      17.575  19.919  28.829  1.00 15.10           C
ATOM    630  CG  ASP A  85      18.138  21.200  28.268  1.00 15.97           C
ATOM    631  OD1 ASP A  85      18.734  21.118  27.171  1.00 15.19           O
ATOM    632  OD2 ASP A  85      17.984  22.292  28.905  1.00 13.03           O
ATOM    633  N   LEU A  86      15.803  17.524  29.230  1.00 10.47           N
ATOM    634  CA  LEU A  86      15.363  16.474  30.139  1.00 12.11           C
ATOM    635  C   LEU A  86      15.451  15.067  29.582  1.00 11.20           C
ATOM    636  O   LEU A  86      15.872  14.097  30.240  1.00 10.33           O
ATOM    637  CB  LEU A  86      13.896  16.775  30.570  1.00 10.02           C
ATOM    638  CG  LEU A  86      13.319  15.836  31.627  1.00 15.28           C
ATOM    639  CD1 LEU A  86      13.917  16.077  33.002  1.00 17.01           C
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ATOM    640  CD2 LEU A  86      11.799  16.030  31.703  1.00 15.53           C
ATOM    641  N   HIS A  87      14.990  14.942  28.330  1.00  7.83           N
ATOM    642  CA  HIS A  87      15.055  13.628  27.709  1.00 10.12           C
ATOM    643  C   HIS A  87      16.523  13.300  27.374  1.00 10.25           C
ATOM    644  O   HIS A  87      16.955  12.175  27.530  1.00  8.75           O
ATOM    645  CB  HIS A  87      14.184  13.524  26.444  1.00  9.50           C
ATOM    646  CG  HIS A  87      12.713  13.545  26.807  1.00 12.08           C
ATOM    647  ND1 HIS A  87      12.011  14.665  27.184  1.00 10.70           N
ATOM    648  CD2 HIS A  87      11.841  12.507  26.827  1.00 10.23           C
ATOM    649  CE1 HIS A  87      10.755  14.334  27.435  1.00 10.80           C
ATOM    650  NE2 HIS A  87      10.633  13.006  27.215  1.00 10.81           N
ATOM    651  N   ALA A  88      17.307  14.255  26.905  1.00  9.93           N
ATOM    652  CA  ALA A  88      18.686  13.905  26.558  1.00 12.88           C
ATOM    653  C   ALA A  88      19.553  13.530  27.753  1.00 14.53           C
ATOM    654  O   ALA A  88      20.416  12.666  27.622  1.00 12.38           O
ATOM    655  CB  ALA A  88      19.325  15.075  25.821  1.00 13.26           C
ATOM    656  N   HIS A  89      19.410  14.277  28.867  1.00 13.54           N
ATOM    657  CA  HIS A  89      20.377  14.105  29.942  1.00 15.70           C
ATOM    658  C   HIS A  89      19.882  13.486  31.236  1.00 15.22           C
ATOM    659  O   HIS A  89      20.714  13.188  32.083  1.00 16.56           O
ATOM    660  CB  HIS A  89      20.939  15.531  30.227  1.00 16.96           C
ATOM    661  CG  HIS A  89      21.524  16.124  28.957  1.00 17.90           C
ATOM    662  ND1 HIS A  89      22.521  15.480  28.245  1.00 20.24           N
ATOM    663  CD2 HIS A  89      21.232  17.261  28.302  1.00 17.26           C
ATOM    664  CE1 HIS A  89      22.812  16.214  27.199  1.00 20.54           C
ATOM    665  NE2 HIS A  89      22.052  17.302  27.213  1.00 21.10           N
ATOM    666  N   LYS A  90      18.604  13.319  31.422  1.00 11.84           N
ATOM    667  CA  LYS A  90      18.061  12.706  32.625  1.00 13.11           C
ATOM    668  C   LYS A  90      17.316  11.436  32.260  1.00 14.76           C
ATOM    669  O   LYS A  90      17.729  10.326  32.607  1.00 13.62           O
ATOM    670  CB  LYS A  90      17.153  13.695  33.388  1.00 13.93           C
ATOM    671  CG  LYS A  90      16.617  13.012  34.671  1.00 18.10           C
ATOM    672  CD  LYS A  90      16.039  11.894  34.947  0.00 31.02           C
ATOM    673  CE  LYS A  90      14.690  12.409  35.488  0.00 35.69           C
ATOM    674  NZ  LYS A  90      13.663  11.345  35.572  0.00 35.90           N
ATOM    675  N   LEU A  91      16.186  11.560  31.545  1.00 11.39           N
ATOM    676  CA  LEU A  91      15.372  10.383  31.231  1.00 11.61           C
ATOM    677  C   LEU A  91      16.106   9.396  30.351  1.00 11.56           C
ATOM    678  O   LEU A  91      16.078   8.163  30.487  1.00 11.52           O
ATOM    679  CB  LEU A  91      14.080  10.875  30.564  1.00 11.79           C
ATOM    680  CG  LEU A  91      13.229  11.875  31.361  1.00 10.11           C
ATOM    681  CD1 LEU A  91      12.065  12.385  30.505  1.00 11.41           C
ATOM    682  CD2 LEU A  91      12.709  11.223  32.644  1.00 14.13           C
ATOM    683  N   ARG A  92      16.778   9.935  29.338  1.00 11.39           N
ATOM    684  CA  ARG A  92      17.586   9.197  28.406  1.00 11.89           C
ATOM    685  C   ARG A  92      16.847   8.042  27.743  1.00 12.57           C
ATOM    686  O   ARG A  92      17.344   6.939  27.691  1.00 12.25           O
ATOM    687  CB  ARG A  92      18.884   8.752  29.146  1.00 15.39           C
ATOM    688  CG  ARG A  92      19.774  10.000  29.267  1.00 16.30           C
ATOM    689  CD  ARG A  92      21.050   9.773  30.074  1.00 18.38           C
ATOM    690  NE  ARG A  92      20.649   9.669  31.478  1.00 24.89           N
ATOM    691  CZ  ARG A  92      21.514   9.711  32.505  1.00 26.84           C
ATOM    692  NH1 ARG A  92      22.815   9.860  32.322  1.00 24.57           N
ATOM    693  NH2 ARG A  92      20.976   9.604  33.719  1.00 25.29           N
ATOM    694  N   VAL A  93      15.655   8.356  27.224  1.00  8.36           N
ATOM    695  CA  VAL A  93      14.862   7.423  26.460  1.00 10.24           C
ATOM    696  C   VAL A  93      15.505   7.133  25.112  1.00 10.16           C
ATOM    697  O   VAL A  93      15.751   8.091  24.357  1.00 11.03           O
ATOM    698  CB  VAL A  93      13.488   8.050  26.119  1.00  8.73           C
ATOM    699  CG1 VAL A  93      12.620   7.188  25.235  1.00  9.93           C
ATOM    700  CG2 VAL A  93      12.765   8.309  27.434  1.00  8.96           C
ATOM    701  N   ASP A  94      15.721   5.867  24.784  1.00 11.50           N
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ATOM    702  CA  ASP A  94      16.341   5.609  23.481  1.00 12.98           C
ATOM    703  C   ASP A  94      15.522   6.275  22.411  1.00 12.21           C
ATOM    704  O   ASP A  94      14.298   6.158  22.353  1.00 10.29           O
ATOM    705  CB  ASP A  94      16.529   4.105  23.207  1.00 11.41           C
ATOM    706  CG  ASP A  94      17.494   3.904  22.036  1.00 12.32           C
ATOM    707  OD1 ASP A  94      17.036   4.066  20.887  1.00 13.77           O
ATOM    708  OD2 ASP A  94      18.689   3.598  22.270  1.00 14.94           O
ATOM    709  N   PRO A  95      16.180   6.969  21.447  1.00 12.71           N
ATOM    710  CA  PRO A  95      15.484   7.627  20.363  1.00 12.56           C
ATOM    711  C   PRO A  95      14.545   6.763  19.574  1.00 10.09           C
ATOM    712  O   PRO A  95      13.561   7.270  19.047  1.00 11.27           O
ATOM    713  CB  PRO A  95      16.622   8.159  19.460  1.00 13.74           C
ATOM    714  CG  PRO A  95      17.725   8.439  20.427  1.00 13.22           C
ATOM    715  CD  PRO A  95      17.628   7.238  21.382  1.00 14.31           C
ATOM    716  N   VAL A  96      14.695   5.407  19.522  1.00 11.85           N
ATOM    717  CA  VAL A  96      13.756   4.595  18.747  1.00 11.35           C
ATOM    718  C   VAL A  96      12.334   4.603  19.279  1.00 10.98           C
ATOM    719  O   VAL A  96      11.346   4.417  18.565  1.00 11.07           O
ATOM    720  CB  VAL A  96      14.298   3.138  18.691  1.00 13.87           C
ATOM    721  CG1 VAL A  96      14.253   2.439  20.053  1.00 10.30           C
ATOM    722  CG2 VAL A  96      13.480   2.371  17.657  1.00 22.36           C
ATOM    723  N   ASN A  97      12.158   4.903  20.583  1.00  9.52           N
ATOM    724  CA  ASN A  97      10.831   4.904  21.175  1.00  7.51           C
ATOM    725  C   ASN A  97       9.963   6.073  20.766  1.00 10.10           C
ATOM    726  O   ASN A  97       8.730   6.000  20.871  1.00 11.62           O
ATOM    727  CB  ASN A  97      11.051   4.931  22.726  1.00  6.63           C
ATOM    728  CG  ASN A  97      11.743   3.636  23.129  1.00 10.07           C
ATOM    729  OD1 ASN A  97      11.098   2.573  23.145  1.00  9.20           O
ATOM    730  ND2 ASN A  97      13.046   3.734  23.423  1.00 10.07           N
ATOM    731  N   PHE A  98      10.592   7.177  20.288  1.00  7.99           N
ATOM    732  CA  PHE A  98       9.765   8.326  19.885  1.00  9.74           C
ATOM    733  C   PHE A  98       8.881   7.964  18.706  1.00  7.84           C
ATOM    734  O   PHE A  98       7.724   8.416  18.643  1.00  8.74           O
ATOM    735  CB  PHE A  98      10.625   9.573  19.643  1.00  7.27           C
ATOM    736  CG  PHE A  98      11.265  10.098  20.900  1.00 10.88           C
ATOM    737  CD1 PHE A  98      12.413   9.538  21.443  1.00 10.05           C
ATOM    738  CD2 PHE A  98      10.680  11.177  21.576  1.00  9.54           C
ATOM    739  CE1 PHE A  98      12.967  10.054  22.612  1.00 11.41           C
ATOM    740  CE2 PHE A  98      11.206  11.687  22.739  1.00 11.77           C
ATOM    741  CZ  PHE A  98      12.382  11.134  23.269  1.00 10.93           C
ATOM    742  N   LYS A  99       9.354   7.154  17.751  1.00  7.36           N
ATOM    743  CA  LYS A  99       8.506   6.757  16.639  1.00 10.60           C
ATOM    744  C   LYS A  99       7.350   5.874  17.100  1.00 11.74           C
ATOM    745  O   LYS A  99       6.285   5.881  16.461  1.00  9.26           O
ATOM    746  CB  LYS A  99       9.368   6.102  15.549  1.00 13.52           C
ATOM    747  CG  LYS A  99       9.769   4.679  15.878  1.00 19.22           C
ATOM    748  CD  LYS A  99       9.428   3.874  14.403  0.00 32.33           C
ATOM    749  CE  LYS A  99       9.088   2.416  14.690  0.00 33.90           C
ATOM    750  NZ  LYS A  99      10.336   1.653  15.012  0.00 38.93           N
ATOM    751  N   LEU A 100       7.517   5.105  18.183  1.00 10.25           N
ATOM    752  CA  LEU A 100       6.417   4.291  18.701  1.00 10.35           C
ATOM    753  C   LEU A 100       5.358   5.151  19.356  1.00 10.64           C
ATOM    754  O   LEU A 100       4.162   4.964  19.115  1.00  9.22           O
ATOM    755  CB  LEU A 100       6.949   3.285  19.747  1.00  8.95           C
ATOM    756  CG  LEU A 100       8.182   2.527  19.236  1.00 11.83           C
ATOM    757  CD1 LEU A 100       8.692   1.600  20.341  1.00  7.98           C
ATOM    758  CD2 LEU A 100       7.809   1.743  17.990  1.00 13.39           C
ATOM    759  N   LEU A 101       5.770   6.126  20.185  1.00 10.88           N
ATOM    760  CA  LEU A 101       4.697   6.975  20.776  1.00  8.44           C
ATOM    761  C   LEU A 101       4.049   7.820  19.677  1.00 11.48           C
ATOM    762  O   LEU A 101       2.826   8.037  19.700  1.00 10.08           O
ATOM    763  CB  LEU A 101       5.227   7.821  21.929  1.00  9.54           C
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ATOM    764  CG  LEU A 101       4.221   8.817  22.556  1.00  8.84           C
ATOM    765  CD1 LEU A 101       2.992   8.122  23.089  1.00 11.51           C
ATOM    766  CD2 LEU A 101       4.980   9.602  23.641  1.00  9.48           C
ATOM    767  N   SER A 102       4.805   8.362  18.707  1.00  7.27           N
ATOM    768  CA  SER A 102       4.208   9.136  17.617  1.00  8.58           C
ATOM    769  C   SER A 102       3.189   8.312  16.896  1.00 10.53           C
ATOM    770  O   SER A 102       2.083   8.783  16.609  1.00 10.03           O
ATOM    771  CB  SER A 102       5.278   9.641  16.622  1.00  8.75           C
ATOM    772  OG  SER A 102       6.254  10.466  17.238  1.00  8.29           O
ATOM    773  N   HIS A 103       3.474   7.040  16.526  1.00  7.45           N
ATOM    774  CA  HIS A 103       2.447   6.217  15.872  1.00  6.68           C
ATOM    775  C   HIS A 103       1.230   6.055  16.771  1.00  6.56           C
ATOM    776  O   HIS A 103       0.088   6.092  16.321  1.00 10.20           O
ATOM    777  CB  HIS A 103       3.076   4.845  15.608  1.00  8.62           C
ATOM    778  CG  HIS A 103       2.126   3.793  15.136  1.00  9.12           C
ATOM    779  ND1 HIS A 103       1.549   3.811  13.905  1.00  9.80           N
ATOM    780  CD2 HIS A 103       1.671   2.690  15.762  1.00 10.17           C
ATOM    781  CE1 HIS A 103       0.734   2.767  13.783  1.00 11.36           C
ATOM    782  NE2 HIS A 103       0.793   2.058  14.899  1.00 13.61           N
ATOM    783  N   CYS A 104       1.450   5.828  18.065  1.00  7.63           N
ATOM    784  CA  CYS A 104       0.260   5.680  18.929  1.00  7.92           C
ATOM    785  C   CYS A 104      -0.506   6.992  19.043  1.00  8.19           C
ATOM    786  O   CYS A 104      -1.740   6.955  19.242  1.00 10.75           O
ATOM    787  CB  CYS A 104       0.696   5.136  20.291  1.00  9.74           C
ATOM    788  SG  CYS A 104       1.271   3.402  20.149  1.00 10.79           S
ATOM    789  N   LEU A 105       0.159   8.161  19.010  1.00  8.80           N
ATOM    790  CA  LEU A 105      -0.571   9.406  19.034  1.00 10.20           C
ATOM    791  C   LEU A 105      -1.412   9.476  17.765  1.00 11.44           C
ATOM    792  O   LEU A 105      -2.561   9.901  17.732  1.00 10.55           O
ATOM    793  CB  LEU A 105       0.359  10.634  19.105  1.00 10.56           C
ATOM    794  CG  LEU A 105       0.946  10.800  20.534  1.00  9.84           C
ATOM    795  CD1 LEU A 105       2.299  11.485  20.551  1.00 11.95           C
ATOM    796  CD2 LEU A 105      -0.084  11.552  21.407  1.00 10.61           C
ATOM    797  N   LEU A 106      -0.767   9.124  16.624  1.00 10.09           N
ATOM    798  CA  LEU A 106      -1.505   9.145  15.353  1.00 11.78           C
ATOM    799  C   LEU A 106      -2.732   8.270  15.376  1.00 12.87           C
ATOM    800  O   LEU A 106      -3.852   8.619  14.952  1.00 11.10           O
ATOM    801  CB  LEU A 106      -0.502   8.734  14.257  1.00 13.01           C
ATOM    802  CG  LEU A 106      -0.584   9.302  12.866  1.00 21.94           C
ATOM    803  CD1 LEU A 106      -0.575  10.820  12.797  1.00 17.61           C
ATOM    804  CD2 LEU A 106       0.611   8.739  12.064  1.00 18.51           C
ATOM    805  N   VAL A 107      -2.607   7.033  15.915  1.00  9.70           N
ATOM    806  CA  VAL A 107      -3.732   6.130  16.042  1.00 12.08           C
ATOM    807  C   VAL A 107      -4.827   6.677  16.946  1.00  8.58           C
ATOM    808  O   VAL A 107      -6.041   6.567  16.659  1.00 10.75           O
ATOM    809  CB  VAL A 107      -3.223   4.778  16.599  1.00  8.36           C
ATOM    810  CG1 VAL A 107      -4.365   3.879  16.973  1.00 11.82           C
ATOM    811  CG2 VAL A 107      -2.268   4.165  15.549  1.00  9.64           C
ATOM    812  N   THR A 108      -4.408   7.254  18.061  1.00  9.83           N
ATOM    813  CA  THR A 108      -5.394   7.840  18.995  1.00  8.50           C
ATOM    814  C   THR A 108      -6.153   8.963  18.298  1.00 11.00           C
ATOM    815  O   THR A 108      -7.365   9.042  18.382  1.00 10.33           O
ATOM    816  CB  THR A 108      -4.683   8.444  20.220  1.00 10.34           C
ATOM    817  OG1 THR A 108      -3.924   7.393  20.864  1.00  9.50           O
ATOM    818  CG2 THR A 108      -5.716   9.036  21.172  1.00  8.57           C
ATOM    819  N   LEU A 109      -5.441   9.840  17.572  1.00  9.47           N
ATOM    820  CA  LEU A 109      -6.110  10.924  16.839  1.00 10.46           C
ATOM    821  C   LEU A 109      -7.074  10.371  15.786  1.00 12.51           C
ATOM    822  O   LEU A 109      -8.203  10.813  15.655  1.00 13.25           O
ATOM    823  CB  LEU A 109      -5.088  11.860  16.210  1.00 10.70           C
ATOM    824  CG  LEU A 109      -4.211  12.634  17.210  1.00 15.66           C
ATOM    825  CD1 LEU A 109      -3.114  13.396  16.472  1.00 14.66           C
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ATOM    826  CD2 LEU A 109      -5.012  13.604  18.050  1.00 19.03           C
ATOM    827  N   ALA A 110      -6.665   9.350  15.041  1.00 12.80           N
ATOM    828  CA  ALA A 110      -7.520   8.724  14.020  1.00 13.83           C
ATOM    829  C   ALA A 110      -8.802   8.179  14.615  1.00 13.73           C
ATOM    830  O   ALA A 110      -9.919   8.356  14.084  1.00 13.92           O
ATOM    831  CB  ALA A 110      -6.739   7.614  13.338  1.00 11.21           C
ATOM    832  N   ALA A 111      -8.697   7.524  15.784  1.00 13.34           N
ATOM    833  CA  ALA A 111      -9.842   6.958  16.488  1.00 11.70           C
ATOM    834  C   ALA A 111     -10.759   8.021  17.074  1.00 13.70           C
ATOM    835  O   ALA A 111     -11.842   7.657  17.551  1.00 13.56           O
ATOM    836  CB  ALA A 111      -9.358   6.089  17.664  1.00 12.48           C
ATOM    837  N   HIS A 112     -10.312   9.258  17.176  1.00 11.96           N
ATOM    838  CA  HIS A 112     -11.156  10.321  17.740  1.00 14.23           C
ATOM    839  C   HIS A 112     -11.509  11.400  16.737  1.00 16.65           C
ATOM    840  O   HIS A 112     -12.292  12.323  17.035  1.00 16.41           O
ATOM    841  CB  HIS A 112     -10.481  10.996  18.934  1.00 13.02           C
ATOM    842  CG  HIS A 112     -10.474  10.117  20.155  1.00 11.25           C
ATOM    843  ND1 HIS A 112     -11.594  10.030  20.971  1.00 12.67           N
ATOM    844  CD2 HIS A 112      -9.500   9.342  20.713  1.00  9.44           C
ATOM    845  CE1 HIS A 112     -11.301   9.200  21.974  1.00 11.71           C
ATOM    846  NE2 HIS A 112     -10.038   8.783  21.831  1.00 10.97           N
ATOM    847  N   LEU A 113     -10.999  11.352  15.501  1.00 14.46           N
ATOM    848  CA  LEU A 113     -11.270  12.383  14.506  1.00 14.79           C
ATOM    849  C   LEU A 113     -11.761  11.838  13.186  1.00 14.39           C
ATOM    850  O   LEU A 113     -11.068  11.906  12.151  1.00 14.42           O
ATOM    851  CB  LEU A 113      -9.967  13.142  14.187  1.00 16.24           C
ATOM    852  CG  LEU A 113      -9.341  13.940  15.326  1.00 15.31           C
ATOM    853  CD1 LEU A 113      -8.052  14.611  14.853  1.00 17.36           C
ATOM    854  CD2 LEU A 113     -10.328  14.940  15.893  1.00 20.03           C
ATOM    855  N   PRO A 114     -12.956  11.270  13.145  1.00 14.56           N
ATOM    856  CA  PRO A 114     -13.525  10.703  11.938  1.00 13.22           C
ATOM    857  C   PRO A 114     -13.531  11.691  10.787  1.00 13.15           C
ATOM    858  O   PRO A 114     -13.098  11.361   9.682  1.00 15.78           O
ATOM    859  CB  PRO A 114     -14.934  10.249  12.317  1.00 15.79           C
ATOM    860  CG  PRO A 114     -15.238  10.969  13.579  1.00 16.12           C
ATOM    861  CD  PRO A 114     -13.917  11.158  14.287  1.00 17.03           C
ATOM    862  N   ALA A 115     -13.981  12.925  10.998  1.00 12.80           N
ATOM    863  CA  ALA A 115     -13.992  13.869   9.897  1.00 13.79           C
ATOM    864  C   ALA A 115     -12.632  14.422   9.511  1.00 13.90           C
ATOM    865  O   ALA A 115     -12.283  14.428   8.346  1.00 15.29           O
ATOM    866  CB  ALA A 115     -14.942  15.040  10.260  1.00 16.52           C
ATOM    867  N   GLU A 116     -11.835  14.841  10.481  1.00 10.88           N
ATOM    868  CA  GLU A 116     -10.566  15.483  10.244  1.00 14.47           C
ATOM    869  C   GLU A 116      -9.413  14.606   9.834  1.00 12.87           C
ATOM    870  O   GLU A 116      -8.579  15.140   9.087  1.00 14.59           O
ATOM    871  CB  GLU A 116     -10.132  16.270  11.514  1.00 15.89           C
ATOM    872  CG  GLU A 116     -11.078  17.473  11.748  1.00 22.17           C
ATOM    873  CD  GLU A 116     -12.333  17.056  12.494  1.00 23.86           C
ATOM    874  OE1 GLU A 116     -12.509  15.899  12.953  1.00 22.57           O
ATOM    875  OE2 GLU A 116     -13.250  17.900  12.645  1.00 27.57           O
ATOM    876  N   PHE A 117      -9.367  13.342  10.241  1.00 12.25           N
ATOM    877  CA  PHE A 117      -8.202  12.520   9.834  1.00 12.76           C
ATOM    878  C   PHE A 117      -8.204  12.056   8.382  1.00 12.31           C
ATOM    879  O   PHE A 117      -8.234  10.853   8.052  1.00 11.68           O
ATOM    880  CB  PHE A 117      -8.126  11.350  10.823  1.00 10.89           C
ATOM    881  CG  PHE A 117      -6.739  10.733  10.905  1.00 11.42           C
ATOM    882  CD1 PHE A 117      -5.721  11.400  11.583  1.00 12.07           C
ATOM    883  CD2 PHE A 117      -6.492   9.494  10.330  1.00  9.53           C
ATOM    884  CE1 PHE A 117      -4.460  10.841  11.698  1.00 11.16           C
ATOM    885  CE2 PHE A 117      -5.230   8.936  10.449  1.00  9.77           C
ATOM    886  CZ  PHE A 117      -4.214   9.596  11.132  1.00  9.51           C
ATOM    887  N   THR A 118      -8.155  13.001   7.446  1.00 10.10           N
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ATOM    888  CA  THR A 118      -8.075  12.687   6.012  1.00 11.92           C
ATOM    889  C   THR A 118      -6.659  12.233   5.707  1.00 10.89           C
ATOM    890  O   THR A 118      -5.752  12.446   6.522  1.00  9.95           O
ATOM    891  CB  THR A 118      -8.332  13.986   5.218  1.00 15.35           C
ATOM    892  OG1 THR A 118      -7.336  14.978   5.529  1.00 11.32           O
ATOM    893  CG2 THR A 118      -9.689  14.590   5.574  1.00 14.66           C
ATOM    894  N   PRO A 119      -6.383  11.674   4.533  1.00 12.56           N
ATOM    895  CA  PRO A 119      -5.029  11.311   4.132  1.00 11.69           C
ATOM    896  C   PRO A 119      -4.070  12.465   4.263  1.00 12.37           C
ATOM    897  O   PRO A 119      -2.957  12.295   4.781  1.00 11.00           O
ATOM    898  CB  PRO A 119      -5.188  10.819   2.695  1.00 12.02           C
ATOM    899  CG  PRO A 119      -6.593  10.239   2.712  1.00 13.71           C
ATOM    900  CD  PRO A 119      -7.378  11.300   3.492  1.00 12.17           C
ATOM    901  N   ALA A 120      -4.440  13.670   3.799  1.00  9.82           N
ATOM    902  CA  ALA A 120      -3.537  14.810   3.918  1.00 12.19           C
ATOM    903  C   ALA A 120      -3.216  15.193   5.359  1.00 10.47           C
ATOM    904  O   ALA A 120      -2.074  15.492   5.727  1.00  9.77           O
ATOM    905  CB  ALA A 120      -4.145  16.011   3.176  1.00 12.26           C
ATOM    906  N   VAL A 121      -4.246  15.168   6.192  1.00  8.51           N
ATOM    907  CA  VAL A 121      -4.072  15.531   7.604  1.00 10.87           C
ATOM    908  C   VAL A 121      -3.218  14.476   8.314  1.00 11.99           C
ATOM    909  O   VAL A 121      -2.346  14.839   9.112  1.00 10.20           O
ATOM    910  CB  VAL A 121      -5.415  15.808   8.256  1.00 11.92           C
ATOM    911  CG1 VAL A 121      -5.275  15.936   9.772  1.00 14.32           C
ATOM    912  CG2 VAL A 121      -6.035  17.094   7.684  1.00 10.18           C
ATOM    913  N   HIS A 122      -3.453  13.211   8.000  1.00  9.76           N
ATOM    914  CA  HIS A 122      -2.621  12.108   8.523  1.00  7.93           C
ATOM    915  C   HIS A 122      -1.154  12.349   8.182  1.00  9.28           C
ATOM    916  O   HIS A 122      -0.238  12.267   9.012  1.00  9.87           O
ATOM    917  CB  HIS A 122      -3.134  10.851   7.865  1.00  7.37           C
ATOM    918  CG  HIS A 122      -2.414   9.558   8.142  1.00  8.54           C
ATOM    919  ND1 HIS A 122      -2.997   8.379   7.748  1.00  8.85           N
ATOM    920  CD2 HIS A 122      -1.243   9.238   8.724  1.00  9.74           C
ATOM    921  CE1 HIS A 122      -2.163   7.381   8.067  1.00  8.74           C
ATOM    922  NE2 HIS A 122      -1.125   7.878   8.664  1.00  8.65           N
ATOM    923  N   ALA A 123      -0.911  12.700   6.901  1.00  8.19           N
ATOM    924  CA  ALA A 123       0.477  12.934   6.507  1.00  9.46           C
ATOM    925  C   ALA A 123       1.080  14.125   7.220  1.00 10.16           C
ATOM    926  O   ALA A 123       2.203  13.973   7.698  1.00  9.45           O
ATOM    927  CB  ALA A 123       0.479  13.171   4.983  1.00 11.30           C
ATOM    928  N   SER A 124       0.321  15.202   7.406  1.00  6.46           N
ATOM    929  CA  SER A 124       0.890  16.372   8.072  1.00  9.42           C
ATOM    930  C   SER A 124       1.148  16.049   9.548  1.00 12.40           C
ATOM    931  O   SER A 124       2.159  16.485  10.111  1.00  8.68           O
ATOM    932  CB  SER A 124      -0.103  17.538   7.984  1.00 10.21           C
ATOM    933  OG  SER A 124      -0.300  17.959   6.634  1.00 11.23           O
ATOM    934  N   LEU A 125       0.216  15.294  10.176  1.00  9.30           N
ATOM    935  CA  LEU A 125       0.385  14.973  11.585  1.00 11.27           C
ATOM    936  C   LEU A 125       1.613  14.074  11.784  1.00 11.41           C
ATOM    937  O   LEU A 125       2.377  14.228  12.738  1.00  8.50           O
ATOM    938  CB  LEU A 125      -0.854  14.287  12.207  1.00 11.63           C
ATOM    939  CG  LEU A 125      -2.030  15.227  12.501  1.00 13.48           C
ATOM    940  CD1 LEU A 125      -3.310  14.393  12.672  1.00 14.64           C
ATOM    941  CD2 LEU A 125      -1.845  16.107  13.723  1.00 12.61           C
ATOM    942  N   ASP A 126       1.828  13.121  10.870  1.00  9.54           N
ATOM    943  CA  ASP A 126       2.991  12.246  10.939  1.00  8.66           C
ATOM    944  C   ASP A 126       4.278  13.044  10.846  1.00  8.73           C
ATOM    945  O   ASP A 126       5.196  12.814  11.638  1.00  8.18           O
ATOM    946  CB  ASP A 126       2.935  11.203   9.789  1.00  9.96           C
ATOM    947  CG  ASP A 126       3.828  10.016  10.120  1.00 13.60           C
ATOM    948  OD1 ASP A 126       3.931   9.629  11.297  1.00 14.48           O
ATOM    949  OD2 ASP A 126       4.442   9.487   9.186  1.00 17.32           O
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ATOM    950  N   LYS A 127       4.325  14.000   9.919  1.00  9.53           N
ATOM    951  CA  LYS A 127       5.484  14.868   9.797  1.00 10.12           C
ATOM    952  C   LYS A 127       5.705  15.699  11.051  1.00 10.50           C
ATOM    953  O   LYS A 127       6.850  15.847  11.544  1.00  8.96           O
ATOM    954  CB  LYS A 127       5.287  15.817   8.583  1.00  9.01           C
ATOM    955  CG  LYS A 127       5.547  15.129   7.238  1.00 11.79           C
ATOM    956  CD  LYS A 127       5.315  16.153   6.098  1.00 10.51           C
ATOM    957  CE  LYS A 127       6.445  17.181   6.055  1.00 12.37           C
ATOM    958  NZ  LYS A 127       6.223  18.189   4.940  1.00  9.12           N
ATOM    959  N   PHE A 128       4.614  16.230  11.598  1.00  9.20           N
ATOM    960  CA  PHE A 128       4.688  17.063  12.794  1.00  9.60           C
ATOM    961  C   PHE A 128       5.266  16.296  13.987  1.00 10.25           C
ATOM    962  O   PHE A 128       6.179  16.773  14.664  1.00  9.35           O
ATOM    963  CB  PHE A 128       3.322  17.687  13.115  1.00  8.76           C
ATOM    964  CG  PHE A 128       3.185  18.324  14.482  1.00 10.36           C
ATOM    965  CD1 PHE A 128       3.752  19.544  14.783  1.00 12.24           C
ATOM    966  CD2 PHE A 128       2.486  17.636  15.459  1.00  9.09           C
ATOM    967  CE1 PHE A 128       3.608  20.085  16.064  1.00 10.65           C
ATOM    968  CE2 PHE A 128       2.340  18.174  16.734  1.00 12.49           C
ATOM    969  CZ  PHE A 128       2.908  19.408  17.032  1.00 13.28           C
ATOM    970  N   LEU A 129       4.733  15.093  14.227  1.00  9.48           N
ATOM    971  CA  LEU A 129       5.235  14.286  15.357  1.00 10.76           C
ATOM    972  C   LEU A 129       6.659  13.839  15.128  1.00  8.33           C
ATOM    973  O   LEU A 129       7.493  13.820  16.055  1.00 10.35           O
ATOM    974  CB  LEU A 129       4.259  13.134  15.591  1.00  9.64           C
ATOM    975  CG  LEU A 129       2.855  13.579  15.975  1.00 10.39           C
ATOM    976  CD1 LEU A 129       1.910  12.403  15.837  1.00 13.38           C
ATOM    977  CD2 LEU A 129       2.775  14.128  17.403  1.00 13.41           C
ATOM    978  N   ALA A 130       7.056  13.558  13.881  1.00  7.62           N
ATOM    979  CA  ALA A 130       8.465  13.256  13.624  1.00  8.27           C
ATOM    980  C   ALA A 130       9.308  14.501  13.894  1.00 10.53           C
ATOM    981  O   ALA A 130      10.461  14.376  14.402  1.00 10.81           O
ATOM    982  CB  ALA A 130       8.652  12.807  12.169  1.00  7.96           C
ATOM    983  N   SER A 131       8.830  15.702  13.556  1.00 12.84           N
ATOM    984  CA  SER A 131       9.638  16.909  13.805  1.00 11.22           C
ATOM    985  C   SER A 131       9.718  17.147  15.308  1.00 10.93           C
ATOM    986  O   SER A 131      10.810  17.512  15.773  1.00 11.10           O
ATOM    987  CB  SER A 131       9.133  18.214  13.152  1.00 16.79           C
ATOM    988  OG  SER A 131       9.043  17.983  11.740  1.00 26.13           O
ATOM    989  N   VAL A 132       8.617  16.962  16.046  1.00 10.18           N
ATOM    990  CA  VAL A 132       8.703  17.113  17.508  1.00 11.77           C
ATOM    991  C   VAL A 132       9.707  16.105  18.040  1.00  9.64           C
ATOM    992  O   VAL A 132      10.547  16.405  18.894  1.00  8.78           O
ATOM    993  CB  VAL A 132       7.326  16.918  18.154  1.00 12.60           C
ATOM    994  CG1 VAL A 132       7.375  16.684  19.654  1.00 12.58           C
ATOM    995  CG2 VAL A 132       6.437  18.136  17.845  1.00 14.16           C
ATOM    996  N   SER A 133       9.615  14.830  17.598  1.00  8.93           N
ATOM    997  CA  SER A 133      10.522  13.785  18.016  1.00 11.66           C
ATOM    998  C   SER A 133      11.987  14.123  17.742  1.00 13.84           C
ATOM    999  O   SER A 133      12.871  13.957  18.615  1.00 10.95           O
ATOM   1000  CB  SER A 133      10.216  12.436  17.352  1.00 10.73           C
ATOM   1001  OG  SER A 133       8.929  12.023  17.785  1.00 12.28           O
ATOM   1002  N   THR A 134      12.289  14.676  16.594  1.00 10.23           N
ATOM   1003  CA  THR A 134      13.621  15.118  16.233  1.00 12.66           C
ATOM   1004  C   THR A 134      14.103  16.210  17.167  1.00 11.67           C
ATOM   1005  O   THR A 134      15.229  16.092  17.674  1.00 10.60           O
ATOM   1006  CB  THR A 134      13.613  15.598  14.764  1.00 15.54           C
ATOM   1007  OG1 THR A 134      13.282  14.482  13.951  1.00 16.15           O
ATOM   1008  CG2 THR A 134      14.975  16.146  14.368  1.00 20.46           C
ATOM   1009  N   VAL A 135      13.257  17.229  17.458  1.00 11.23           N
ATOM   1010  CA  VAL A 135      13.673  18.258  18.422  1.00  7.55           C
ATOM   1011  C   VAL A 135      13.920  17.655  19.816  1.00  8.47           C
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ATOM   1012  O   VAL A 135      14.947  17.983  20.433  1.00 10.68           O
ATOM   1013  CB  VAL A 135      12.564  19.309  18.591  1.00 11.24           C
ATOM   1014  CG1 VAL A 135      12.876  20.298  19.720  1.00 12.73           C
ATOM   1015  CG2 VAL A 135      12.330  20.032  17.266  1.00 12.51           C
ATOM   1016  N   LEU A 136      13.059  16.743  20.248  1.00  7.72           N
ATOM   1017  CA  LEU A 136      13.279  16.124  21.559  1.00  9.76           C
ATOM   1018  C   LEU A 136      14.544  15.287  21.683  1.00  9.98           C
ATOM   1019  O   LEU A 136      14.957  15.065  22.841  1.00 10.61           O
ATOM   1020  CB  LEU A 136      12.036  15.275  21.948  1.00 10.68           C
ATOM   1021  CG  LEU A 136      10.822  16.162  22.296  1.00 10.76           C
ATOM   1022  CD1 LEU A 136       9.582  15.352  22.666  1.00 10.84           C
ATOM   1023  CD2 LEU A 136      11.133  17.114  23.454  1.00 11.83           C
ATOM   1024  N   THR A 137      15.097  14.782  20.583  1.00  9.68           N
ATOM   1025  CA  THR A 137      16.292  13.962  20.678  1.00 11.19           C
ATOM   1026  C   THR A 137      17.495  14.752  20.196  1.00 13.14           C
ATOM   1027  O   THR A 137      18.593  14.208  20.123  1.00  9.14           O
ATOM   1028  CB  THR A 137      16.140  12.674  19.807  1.00 12.52           C
ATOM   1029  OG1 THR A 137      15.792  12.997  18.453  1.00 13.76           O
ATOM   1030  CG2 THR A 137      15.100  11.751  20.409  1.00 13.54           C
ATOM   1031  N   SER A 138      17.366  16.031  19.859  1.00  8.37           N
ATOM   1032  CA  SER A 138      18.426  16.839  19.270  1.00 13.37           C
ATOM   1033  C   SER A 138      19.641  17.106  20.136  1.00 13.51           C
ATOM   1034  O   SER A 138      20.705  17.390  19.577  1.00 10.74           O
ATOM   1035  CB  SER A 138      17.845  18.183  18.737  1.00 12.24           C
ATOM   1036  OG  SER A 138      17.464  18.979  19.866  1.00 15.16           O
ATOM   1037  N   LYS A 139      19.519  16.993  21.461  1.00 13.60           N
ATOM   1038  CA  LYS A 139      20.668  17.229  22.338  1.00 13.40           C
ATOM   1039  C   LYS A 139      21.227  15.957  22.938  1.00 13.37           C
ATOM   1040  O   LYS A 139      21.993  15.981  23.909  1.00 10.66           O
ATOM   1041  CB  LYS A 139      20.223  18.195  23.455  1.00 15.70           C
ATOM   1042  CG  LYS A 139      19.801  19.540  22.854  1.00 17.42           C
ATOM   1043  CD  LYS A 139      19.401  20.533  23.941  1.00 19.55           C
ATOM   1044  CE  LYS A 139      19.152  21.879  23.178  1.00 25.41           C
ATOM   1045  NZ  LYS A 139      17.803  22.284  23.658  1.00 30.20           N
ATOM   1046  N   TYR A 140      20.868  14.785  22.380  1.00 10.08           N
ATOM   1047  CA  TYR A 140      21.286  13.537  23.019  1.00 11.06           C
ATOM   1048  C   TYR A 140      22.779  13.290  22.956  1.00 12.07           C
ATOM   1049  O   TYR A 140      23.322  12.582  23.815  1.00 11.98           O
ATOM   1050  CB  TYR A 140      20.545  12.373  22.352  1.00 11.13           C
ATOM   1051  CG  TYR A 140      19.254  11.961  23.022  1.00 11.04           C
ATOM   1052  CD1 TYR A 140      18.245  12.877  23.288  1.00  8.85           C
ATOM   1053  CD2 TYR A 140      19.067  10.623  23.378  1.00 10.69           C
ATOM   1054  CE1 TYR A 140      17.061  12.450  23.893  1.00  9.06           C
ATOM   1055  CE2 TYR A 140      17.872  10.221  23.984  1.00 10.22           C
ATOM   1056  CZ  TYR A 140      16.883  11.136  24.231  1.00  9.98           C
ATOM   1057  OH  TYR A 140      15.693  10.721  24.814  1.00  8.21           O
ATOM   1058  N   ARG A 141      23.419  13.848  21.911  1.00 11.67           N
ATOM   1059  CA  ARG A 141      24.863  13.702  21.805  1.00 11.79           C
ATOM   1060  C   ARG A 141      25.455  14.780  20.886  1.00 11.55           C
ATOM   1061  O   ARG A 141      24.691  15.448  20.164  1.00 12.49           O
ATOM   1062  CB  ARG A 141      25.269  12.305  21.320  1.00 11.30           C
ATOM   1063  CG  ARG A 141      24.777  11.975  19.926  1.00 10.92           C
ATOM   1064  CD  ARG A 141      25.363  10.622  19.475  1.00 12.08           C
ATOM   1065  NE  ARG A 141      24.866  10.243  18.161  1.00 12.67           N
ATOM   1066  CZ  ARG A 141      25.250   9.227  17.398  1.00 14.39           C
ATOM   1067  NH1 ARG A 141      26.176   8.362  17.810  1.00 11.11           N
ATOM   1068  NH2 ARG A 141      24.650   9.068  16.200  1.00 13.86           N
ATOM   1069  OXT ARG A 141      26.697  14.784  20.720  1.00 10.99           O
TER    1070       ARG A 141
HETATM 1071 FE   HEM A 142       8.657  12.035  27.628  1.00 11.63          FE
HETATM 1072  CHA HEM A 142       8.456  12.968  30.943  1.00 12.71           C
HETATM 1073  CHB HEM A 142       6.923  14.956  26.818  1.00 15.63           C
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HETATM 1074  CHC HEM A 142       8.220  10.950  24.353  1.00  9.88           C
HETATM 1075  CHD HEM A 142       9.359   8.784  28.599  1.00  7.91           C
HETATM 1076  N A HEM A 142       7.853  13.625  28.660  1.00 13.54           N
HETATM 1077  C1A HEM A 142      7.881  13.832  30.024  1.00 12.45           C
HETATM 1078  C2A HEM A 142      7.259  15.104  30.352  1.00 13.35           C
HETATM 1079  C3A HEM A 142      6.835  15.653  29.227  1.00 14.78           C
HETATM 1080  C4A HEM A 142      7.213  14.744  28.146  1.00 14.59           C
HETATM 1081  CMA HEM A 142      6.083  16.983  28.996  1.00 14.58           C
HETATM 1082  CAA HEM A 142      7.111  15.685  31.794  1.00 13.99           C
HETATM 1083  CBA HEM A 142      8.282  16.609  32.184  1.00 19.03           C
HETATM 1084  CGA HEM A 142      8.282  17.179  33.587  1.00 23.98           C
HETATM 1085  O1A HEM A 142      8.929  18.238  33.767  1.00 28.12           O
HETATM 1086  O2A HEM A 142      7.692  16.565  34.490  1.00 22.84           O
HETATM 1087  N B HEM A 142       7.743  12.773  25.956  1.00 11.26           N
HETATM 1088  C1B HEM A 142      7.146  14.028  25.811  1.00 12.58           C
HETATM 1089  C2B HEM A 142      6.783  14.241  24.425  1.00 13.07           C
HETATM 1090  C3B HEM A 142      7.121  13.141  23.746  1.00 11.69           C
HETATM 1091  C4B HEM A 142      7.744  12.220  24.702  1.00  9.89           C
HETATM 1092  CMB HEM A 142      6.110  15.521  23.869  1.00 11.38           C
HETATM 1093  CAB HEM A 142      6.979  12.813  22.251  1.00 14.43           C
HETATM 1094  CBB HEM A 142      5.945  13.264  21.532  1.00 14.85           C
HETATM 1095  N C HEM A 142       8.746  10.259  26.678  1.00  8.38           N
HETATM 1096  C1C HEM A 142      8.590  10.033  25.331  1.00  7.48           C
HETATM 1097  C2C HEM A 142      8.854   8.619  25.050  1.00  9.04           C
HETATM 1098  C3C HEM A 142      9.181   8.037  26.202  1.00  8.23           C
HETATM 1099  C4C HEM A 142      9.095   9.037  27.247  1.00  9.42           C
HETATM 1100  CMC HEM A 142      8.788   8.033  23.630  1.00 11.32           C
HETATM 1101  CAC HEM A 142      9.535   6.570  26.513  1.00  8.91           C
HETATM 1102  CBC HEM A 142      8.876   5.580  25.887  1.00 10.56           C
HETATM 1103  N D HEM A 142       8.827  11.069  29.400  1.00 10.59           N
HETATM 1104  C1D HEM A 142      9.188   9.763  29.570  1.00  8.17           C
HETATM 1105  C2D HEM A 142      9.356   9.518  30.996  1.00 11.33           C
HETATM 1106  C3D HEM A 142      9.096  10.660  31.648  1.00 10.91           C
HETATM 1107  C4D HEM A 142      8.778  11.654  30.662  1.00 10.25           C
HETATM 1108  CMD HEM A 142      9.756   8.172  31.613  1.00  7.70           C
HETATM 1109  CAD HEM A 142      9.140  10.918  33.183  1.00 12.19           C
HETATM 1110  CBD HEM A 142      7.749  10.640  33.784  1.00 14.64           C
HETATM 1111  CGD HEM A 142      7.674  10.715  35.314  1.00 15.56           C
HETATM 1112  O1D HEM A 142      6.793  11.458  35.761  1.00 18.46           O
HETATM 1113  O2D HEM A 142      8.469  10.006  35.940  1.00 17.66           O
ATOM   1114  N   HIS B   2       3.670 -13.643  19.447  1.00 38.58           N
ATOM   1115  CA  HIS B   2       2.695 -14.734  19.744  1.00 32.83           C
ATOM   1116  C   HIS B   2       1.379 -14.140  20.199  1.00 30.79           C
ATOM   1117  O   HIS B   2       1.293 -13.543  21.291  1.00 26.55           O
ATOM   1118  CB  HIS B   2       3.238 -15.701  20.811  1.00 37.55           C
ATOM   1119  CG  HIS B   2       2.366 -16.471  21.590  0.00 64.18           C
ATOM   1120  ND1 HIS B   2       2.127 -16.085  22.891  0.00 66.46           N
ATOM   1121  CD2 HIS B   2       1.576 -17.553  21.370  0.00 66.41           C
ATOM   1122  CE1 HIS B   2       1.242 -16.907  23.430  0.00 67.78           C
ATOM   1123  NE2 HIS B   2       0.890 -17.810  22.531  0.00 67.46           N
ATOM   1124  N   LEU B   3       0.355 -14.283  19.346  1.00 28.08           N
ATOM   1125  CA  LEU B   3      -0.953 -13.775  19.723  1.00 29.45           C
ATOM   1126  C   LEU B   3      -1.516 -14.680  20.822  1.00 28.68           C
ATOM   1127  O   LEU B   3      -1.300 -15.873  20.680  1.00 31.81           O
ATOM   1128  CB  LEU B   3      -1.952 -13.781  18.548  1.00 26.65           C
ATOM   1129  CG  LEU B   3      -1.900 -12.429  17.786  1.00 28.82           C
ATOM   1130  CD1 LEU B   3      -0.688 -12.449  16.856  1.00 28.14           C
ATOM   1131  CD2 LEU B   3      -3.181 -12.201  16.994  1.00 29.50           C
ATOM   1132  N   THR B   4      -2.192 -14.080  21.783  1.00 30.72           N
ATOM   1133  CA  THR B   4      -2.835 -14.842  22.847  1.00 30.20           C
ATOM   1134  C   THR B   4      -4.191 -15.235  22.231  1.00 33.25           C
ATOM   1135  O   THR B   4      -4.468 -14.829  21.102  1.00 28.68           O
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ATOM   1136  CB  THR B   4      -3.121 -14.070  24.125  1.00 30.10           C
ATOM   1137  OG1 THR B   4      -4.087 -13.029  23.832  1.00 27.90           O
ATOM   1138  CG2 THR B   4      -1.919 -13.427  24.816  1.00 26.83           C
ATOM   1139  N   PRO B   5      -5.009 -15.972  22.957  1.00 33.99           N
ATOM   1140  CA  PRO B   5      -6.329 -16.381  22.484  1.00 33.94           C
ATOM   1141  C   PRO B   5      -7.285 -15.206  22.524  1.00 31.35           C
ATOM   1142  O   PRO B   5      -8.121 -15.022  21.637  1.00 29.93           O
ATOM   1143  CB  PRO B   5      -6.737 -17.550  23.369  1.00 35.60           C
ATOM   1144  CG  PRO B   5      -5.556 -17.855  24.232  1.00 37.61           C
ATOM   1145  CD  PRO B   5      -4.765 -16.559  24.297  1.00 37.97           C
ATOM   1146  N   GLU B   6      -7.140 -14.305  23.502  1.00 26.63           N
ATOM   1147  CA  GLU B   6      -7.940 -13.088  23.528  1.00 28.02           C
ATOM   1148  C   GLU B   6      -7.547 -12.280  22.254  1.00 23.06           C
ATOM   1149  O   GLU B   6      -8.422 -11.741  21.597  1.00 25.47           O
ATOM   1150  CB  GLU B   6      -7.758 -12.437  24.728  0.00 35.58           C
ATOM   1151  CG  GLU B   6      -8.015 -13.163  26.046  0.00 41.23           C
ATOM   1152  CD  GLU B   6      -7.130 -14.388  26.182  0.00 43.74           C
ATOM   1153  OE1 GLU B   6      -5.916 -14.234  26.391  0.00 44.98           O
ATOM   1154  OE2 GLU B   6      -7.671 -15.491  25.952  0.00 46.63           O
ATOM   1155  N   GLU B   7      -6.268 -12.221  21.943  1.00 23.87           N
ATOM   1156  CA  GLU B   7      -5.755 -11.509  20.770  1.00 21.99           C
ATOM   1157  C   GLU B   7      -6.245 -12.104  19.463  1.00 21.42           C
ATOM   1158  O   GLU B   7      -6.746 -11.374  18.604  1.00 16.99           O
ATOM   1159  CB  GLU B   7      -4.230 -11.537  20.813  1.00 21.11           C
ATOM   1160  CG  GLU B   7      -3.836 -10.496  21.877  1.00 24.51           C
ATOM   1161  CD  GLU B   7      -2.341 -10.311  21.920  1.00 23.39           C
ATOM   1162  OE1 GLU B   7      -1.619 -11.283  21.678  1.00 24.22           O
ATOM   1163  OE2 GLU B   7      -1.943  -9.140  22.199  1.00 28.38           O
ATOM   1164  N   LYS B   8      -6.111 -13.406  19.293  1.00 20.24           N
ATOM   1165  CA  LYS B   8      -6.686 -14.029  18.082  1.00 24.42           C
ATOM   1166  C   LYS B   8      -8.174 -13.745  17.959  1.00 21.31           C
ATOM   1167  O   LYS B   8      -8.655 -13.390  16.871  1.00 18.73           O
ATOM   1168  CB  LYS B   8      -6.425 -15.537  18.087  1.00 27.54           C
ATOM   1169  CG  LYS B   8      -5.448 -15.959  17.003  1.00 32.62           C
ATOM   1170  CD  LYS B   8      -4.116 -16.512  17.452  1.00 32.81           C
ATOM   1171  CE  LYS B   8      -4.090 -18.022  17.430  1.00 32.19           C
ATOM   1172  NZ  LYS B   8      -2.746 -18.647  17.421  1.00 33.71           N
ATOM   1173  N   SER B   9      -8.985 -13.851  19.020  1.00 21.39           N
ATOM   1174  CA  SER B   9     -10.395 -13.560  18.910  1.00 24.71           C
ATOM   1175  C   SER B   9     -10.662 -12.092  18.567  1.00 22.44           C
ATOM   1176  O   SER B   9     -11.556 -11.840  17.758  1.00 20.81           O
ATOM   1177  CB  SER B   9     -11.224 -13.865  20.182  1.00 28.10           C
ATOM   1178  OG  SER B   9     -11.028 -15.234  20.502  1.00 32.48           O
ATOM   1179  N   ALA B  10      -9.895 -11.191  19.157  1.00 18.03           N
ATOM   1180  CA  ALA B  10     -10.042  -9.771  18.888  1.00 18.75           C
ATOM   1181  C   ALA B  10      -9.744  -9.482  17.416  1.00 14.99           C
ATOM   1182  O   ALA B  10     -10.456  -8.678  16.831  1.00 17.37           O
ATOM   1183  CB  ALA B  10      -9.114  -8.932  19.746  1.00 17.44           C
ATOM   1184  N   VAL B  11      -8.722 -10.130  16.855  1.00 14.04           N
ATOM   1185  CA  VAL B  11      -8.379  -9.922  15.439  1.00 11.29           C
ATOM   1186  C   VAL B  11      -9.498 -10.438  14.544  1.00 13.20           C
ATOM   1187  O   VAL B  11      -9.975  -9.721  13.685  1.00 13.16           O
ATOM   1188  CB  VAL B  11      -7.085 -10.640  15.091  1.00 12.19           C
ATOM   1189  CG1 VAL B  11      -6.837 -10.679  13.583  1.00 15.39           C
ATOM   1190  CG2 VAL B  11      -5.972  -9.894  15.816  1.00  9.56           C
ATOM   1191  N   THR B  12      -9.941 -11.664  14.804  1.00 12.52           N
ATOM   1192  CA  THR B  12     -11.022 -12.254  14.005  1.00 13.63           C
ATOM   1193  C   THR B  12     -12.328 -11.509  14.062  1.00 14.20           C
ATOM   1194  O   THR B  12     -13.042 -11.320  13.053  1.00 14.59           O
ATOM   1195  CB  THR B  12     -11.239 -13.725  14.509  1.00 17.51           C
ATOM   1196  OG1 THR B  12     -10.015 -14.393  14.188  1.00 22.02           O
ATOM   1197  CG2 THR B  12     -12.365 -14.424  13.770  1.00 21.71           C
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ATOM   1198  N   ALA B  13     -12.694 -11.027  15.256  1.00 14.97           N
ATOM   1199  CA  ALA B  13     -13.970 -10.338  15.473  1.00 14.43           C
ATOM   1200  C   ALA B  13     -14.001  -9.026  14.698  1.00 15.36           C
ATOM   1201  O   ALA B  13     -14.956  -8.667  14.003  1.00 16.37           O
ATOM   1202  CB  ALA B  13     -14.176 -10.129  16.969  1.00 16.78           C
ATOM   1203  N   LEU B  14     -12.894  -8.252  14.784  1.00 11.80           N
ATOM   1204  CA  LEU B  14     -12.879  -6.977  14.054  1.00 12.61           C
ATOM   1205  C   LEU B  14     -12.831  -7.244  12.554  1.00  9.74           C
ATOM   1206  O   LEU B  14     -13.484  -6.574  11.740  1.00  9.80           O
ATOM   1207  CB  LEU B  14     -11.669  -6.108  14.507  1.00 12.89           C
ATOM   1208  CG  LEU B  14     -11.640  -4.734  13.805  1.00 17.13           C
ATOM   1209  CD1 LEU B  14     -12.790  -3.839  14.231  1.00 21.01           C
ATOM   1210  CD2 LEU B  14     -10.320  -4.000  14.021  1.00 16.18           C
ATOM   1211  N   TRP B  15     -12.079  -8.269  12.126  1.00 10.04           N
ATOM   1212  CA  TRP B  15     -11.937  -8.561  10.692  1.00 11.09           C
ATOM   1213  C   TRP B  15     -13.269  -8.987  10.109  1.00 12.79           C
ATOM   1214  O   TRP B  15     -13.504  -8.675   8.940  1.00 14.30           O
ATOM   1215  CB  TRP B  15     -10.878  -9.605  10.400  1.00 11.97           C
ATOM   1216  CG  TRP B  15     -10.337  -9.502   9.002  1.00 14.33           C
ATOM   1217  CD1 TRP B  15     -10.578 -10.292   7.932  1.00 15.25           C
ATOM   1218  CD2 TRP B  15      -9.440  -8.460   8.561  1.00 13.38           C
ATOM   1219  NE1 TRP B  15      -9.857  -9.845   6.838  1.00 15.93           N
ATOM   1220  CE2 TRP B  15      -9.160  -8.705   7.216  1.00 13.43           C
ATOM   1221  CE3 TRP B  15      -8.840  -7.362   9.198  1.00 12.78           C
ATOM   1222  CZ2 TRP B  15      -8.317  -7.896   6.470  1.00 12.18           C
ATOM   1223  CZ3 TRP B  15      -7.987  -6.558   8.458  1.00 13.96           C
ATOM   1224  CH2 TRP B  15      -7.719  -6.825   7.091  1.00 12.06           C
ATOM   1225  N   GLY B  16     -14.243  -9.526  10.860  1.00 13.56           N
ATOM   1226  CA  GLY B  16     -15.551  -9.812  10.244  1.00 15.08           C
ATOM   1227  C   GLY B  16     -16.299  -8.582   9.765  1.00 14.96           C
ATOM   1228  O   GLY B  16     -17.244  -8.719   8.963  1.00 15.14           O
ATOM   1229  N   LYS B  17     -15.993  -7.371  10.210  1.00 13.61           N
ATOM   1230  CA  LYS B  17     -16.564  -6.108   9.855  1.00 12.95           C
ATOM   1231  C   LYS B  17     -15.801  -5.335   8.787  1.00 12.33           C
ATOM   1232  O   LYS B  17     -16.242  -4.272   8.361  1.00 16.71           O
ATOM   1233  CB  LYS B  17     -16.557  -5.153  11.090  1.00 11.72           C
ATOM   1234  CG  LYS B  17     -17.224  -5.789  12.286  1.00 12.88           C
ATOM   1235  CD  LYS B  17     -17.209  -4.893  13.505  1.00 13.76           C
ATOM   1236  CE  LYS B  17     -18.282  -3.818  13.485  1.00 16.75           C
ATOM   1237  NZ  LYS B  17     -18.497  -3.214  14.845  1.00 15.69           N
ATOM   1238  N   VAL B  18     -14.635  -5.789   8.403  1.00 12.57           N
ATOM   1239  CA  VAL B  18     -13.789  -5.102   7.433  1.00 12.28           C
ATOM   1240  C   VAL B  18     -14.193  -5.444   6.011  1.00 14.76           C
ATOM   1241  O   VAL B  18     -14.219  -6.611   5.670  1.00 12.60           O
ATOM   1242  CB  VAL B  18     -12.316  -5.528   7.643  1.00 13.81           C
ATOM   1243  CG1 VAL B  18     -11.391  -5.073   6.533  1.00 13.68           C
ATOM   1244  CG2 VAL B  18     -11.830  -5.052   9.023  1.00 10.94           C
ATOM   1245  N   ASN B  19     -14.490  -4.411   5.223  1.00 13.98           N
ATOM   1246  CA  ASN B  19     -14.718  -4.631   3.792  1.00 13.51           C
ATOM   1247  C   ASN B  19     -13.298  -4.621   3.255  1.00 11.26           C
ATOM   1248  O   ASN B  19     -12.675  -3.550   3.178  1.00 11.80           O
ATOM   1249  CB  ASN B  19     -15.595  -3.499   3.292  1.00 18.01           C
ATOM   1250  CG  ASN B  19     -15.735  -3.469   1.790  1.00 23.34           C
ATOM   1251  OD1 ASN B  19     -14.891  -3.894   1.004  1.00 22.02           O
ATOM   1252  ND2 ASN B  19     -16.872  -2.921   1.368  1.00 28.48           N
ATOM   1253  N   VAL B  20     -12.752  -5.787   2.955  1.00 14.20           N
ATOM   1254  CA  VAL B  20     -11.337  -5.900   2.544  1.00 15.05           C
ATOM   1255  C   VAL B  20     -10.991  -5.090   1.305  1.00 15.39           C
ATOM   1256  O   VAL B  20      -9.922  -4.481   1.238  1.00 15.21           O
ATOM   1257  CB  VAL B  20     -11.021  -7.390   2.352  1.00 12.48           C
ATOM   1258  CG1 VAL B  20      -9.590  -7.638   1.904  1.00 14.64           C
ATOM   1259  CG2 VAL B  20     -11.294  -8.073   3.698  1.00 16.93           C
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ATOM   1260  N   ASP B  21     -11.892  -5.111   0.333  1.00 15.62           N
ATOM   1261  CA  ASP B  21     -11.659  -4.312  -0.877  1.00 19.68           C
ATOM   1262  C   ASP B  21     -11.547  -2.824  -0.561  1.00 20.38           C
ATOM   1263  O   ASP B  21     -10.581  -2.174  -1.008  1.00 18.99           O
ATOM   1264  CB  ASP B  21     -12.780  -4.519  -1.884  1.00 21.99           C
ATOM   1265  CG  ASP B  21     -12.874  -5.887  -2.497  1.00 25.99           C
ATOM   1266  OD1 ASP B  21     -12.089  -6.814  -2.240  1.00 23.81           O
ATOM   1267  OD2 ASP B  21     -13.825  -6.056  -3.304  1.00 29.14           O
ATOM   1268  N   GLU B  22     -12.463  -2.268   0.229  1.00 17.14           N
ATOM   1269  CA  GLU B  22     -12.448  -0.850   0.549  1.00 20.51           C
ATOM   1270  C   GLU B  22     -11.288  -0.473   1.479  1.00 19.09           C
ATOM   1271  O   GLU B  22     -10.546   0.482   1.248  1.00 14.78           O
ATOM   1272  CB  GLU B  22     -13.751  -0.392   1.173  1.00 24.97           C
ATOM   1273  CG  GLU B  22     -14.973  -0.320   0.270  1.00 33.29           C
ATOM   1274  CD  GLU B  22     -16.195   0.142   1.055  1.00 36.75           C
ATOM   1275  OE1 GLU B  22     -16.032   0.643   2.193  1.00 38.96           O
ATOM   1276  OE2 GLU B  22     -17.333   0.020   0.553  1.00 40.96           O
ATOM   1277  N   VAL B  23     -11.068  -1.264   2.523  1.00 14.83           N
ATOM   1278  CA  VAL B  23      -9.949  -0.972   3.419  1.00 12.47           C
ATOM   1279  C   VAL B  23      -8.606  -1.114   2.715  1.00 12.46           C
ATOM   1280  O   VAL B  23      -7.661  -0.331   2.989  1.00 11.23           O
ATOM   1281  CB  VAL B  23     -10.140  -1.832   4.675  1.00  9.77           C
ATOM   1282  CG1 VAL B  23      -8.902  -1.736   5.547  1.00 11.64           C
ATOM   1283  CG2 VAL B  23     -11.368  -1.389   5.478  1.00  9.80           C
ATOM   1284  N   GLY B  24      -8.446  -2.076   1.800  1.00  9.18           N
ATOM   1285  CA  GLY B  24      -7.188  -2.278   1.073  1.00 11.00           C
ATOM   1286  C   GLY B  24      -6.900  -1.025   0.229  1.00 12.35           C
ATOM   1287  O   GLY B  24      -5.773  -0.532   0.147  1.00 12.21           O
ATOM   1288  N   GLY B  25      -7.918  -0.563  -0.489  1.00  9.43           N
ATOM   1289  CA  GLY B  25      -7.776   0.641  -1.325  1.00 12.32           C
ATOM   1290  C   GLY B  25      -7.366   1.828  -0.476  1.00 12.34           C
ATOM   1291  O   GLY B  25      -6.504   2.623  -0.879  1.00 14.01           O
ATOM   1292  N   GLU B  26      -7.991   1.986   0.682  1.00  9.66           N
ATOM   1293  CA  GLU B  26      -7.713   3.117   1.582  1.00  9.89           C
ATOM   1294  C   GLU B  26      -6.320   3.055   2.173  1.00 11.20           C
ATOM   1295  O   GLU B  26      -5.565   4.040   2.172  1.00 10.48           O
ATOM   1296  CB  GLU B  26      -8.781   3.138   2.701  1.00 11.78           C
ATOM   1297  CG  GLU B  26      -8.607   4.228   3.749  1.00 14.20           C
ATOM   1298  CD  GLU B  26      -9.079   5.595   3.349  1.00 18.32           C
ATOM   1299  OE1 GLU B  26      -9.760   5.719   2.303  1.00 19.93           O
ATOM   1300  OE2 GLU B  26      -8.798   6.617   4.024  1.00 16.98           O
ATOM   1301  N   ALA B  27      -5.899   1.864   2.603  1.00 10.03           N
ATOM   1302  CA  ALA B  27      -4.583   1.699   3.185  1.00 10.22           C
ATOM   1303  C   ALA B  27      -3.495   1.886   2.142  1.00  9.62           C
ATOM   1304  O   ALA B  27      -2.503   2.587   2.398  1.00 11.42           O
ATOM   1305  CB  ALA B  27      -4.496   0.322   3.865  1.00 13.78           C
ATOM   1306  N   LEU B  28      -3.673   1.263   0.971  1.00 10.83           N
ATOM   1307  CA  LEU B  28      -2.614   1.498  -0.048  1.00 11.70           C
ATOM   1308  C   LEU B  28      -2.589   2.963  -0.476  1.00 10.64           C
ATOM   1309  O   LEU B  28      -1.484   3.508  -0.657  1.00 10.49           O
ATOM   1310  CB  LEU B  28      -2.776   0.612  -1.271  1.00 10.99           C
ATOM   1311  CG  LEU B  28      -1.622   0.715  -2.295  1.00 11.95           C
ATOM   1312  CD1 LEU B  28      -0.308   0.257  -1.663  1.00 12.46           C
ATOM   1313  CD2 LEU B  28      -1.983  -0.166  -3.503  1.00 10.82           C
ATOM   1314  N   GLY B  29      -3.733   3.616  -0.689  1.00 10.77           N
ATOM   1315  CA  GLY B  29      -3.700   5.037  -1.082  1.00 10.06           C
ATOM   1316  C   GLY B  29      -3.021   5.874  -0.001  1.00 10.65           C
ATOM   1317  O   GLY B  29      -2.167   6.756  -0.265  1.00 10.05           O
ATOM   1318  N   ARG B  30      -3.370   5.640   1.275  1.00  8.39           N
ATOM   1319  CA  ARG B  30      -2.728   6.394   2.355  1.00  8.58           C
ATOM   1320  C   ARG B  30      -1.228   6.133   2.446  1.00 12.97           C
ATOM   1321  O   ARG B  30      -0.462   7.038   2.770  1.00  9.63           O
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ATOM   1322  CB  ARG B  30      -3.261   6.096   3.760  1.00  9.92           C
ATOM   1323  CG  ARG B  30      -4.698   6.622   3.870  1.00 11.41           C
ATOM   1324  CD  ARG B  30      -5.121   6.715   5.329  1.00  8.77           C
ATOM   1325  NE  ARG B  30      -6.443   7.350   5.382  1.00 10.57           N
ATOM   1326  CZ  ARG B  30      -6.792   8.398   6.125  1.00  9.82           C
ATOM   1327  NH1 ARG B  30      -5.907   8.960   6.934  1.00  9.88           N
ATOM   1328  NH2 ARG B  30      -8.052   8.827   6.040  1.00 11.15           N
ATOM   1329  N   LEU B  31      -0.789   4.897   2.163  1.00  9.55           N
ATOM   1330  CA  LEU B  31       0.655   4.645   2.155  1.00  9.29           C
ATOM   1331  C   LEU B  31       1.356   5.559   1.149  1.00  9.16           C
ATOM   1332  O   LEU B  31       2.424   6.181   1.419  1.00  9.75           O
ATOM   1333  CB  LEU B  31       0.933   3.175   1.743  1.00 10.16           C
ATOM   1334  CG  LEU B  31       2.412   2.813   1.673  1.00 10.88           C
ATOM   1335  CD1 LEU B  31       3.029   2.664   3.072  1.00 12.50           C
ATOM   1336  CD2 LEU B  31       2.572   1.490   0.887  1.00 11.49           C
ATOM   1337  N   LEU B  32       0.751   5.681  -0.012  1.00 11.56           N
ATOM   1338  CA  LEU B  32       1.321   6.505  -1.105  1.00 12.06           C
ATOM   1339  C   LEU B  32       1.227   7.996  -0.806  1.00 11.98           C
ATOM   1340  O   LEU B  32       2.049   8.775  -1.343  1.00  9.19           O
ATOM   1341  CB  LEU B  32       0.663   6.105  -2.414  1.00 11.28           C
ATOM   1342  CG  LEU B  32       1.193   4.874  -3.183  1.00 15.43           C
ATOM   1343  CD1 LEU B  32       1.393   3.639  -2.343  1.00 19.89           C
ATOM   1344  CD2 LEU B  32       0.189   4.547  -4.303  1.00 17.21           C
ATOM   1345  N   VAL B  33       0.280   8.447  -0.004  1.00 10.85           N
ATOM   1346  CA  VAL B  33       0.147   9.864   0.391  1.00 10.76           C
ATOM   1347  C   VAL B  33       1.104  10.216   1.550  1.00 11.99           C
ATOM   1348  O   VAL B  33       1.809  11.244   1.554  1.00  8.73           O
ATOM   1349  CB  VAL B  33      -1.269  10.260   0.821  1.00 12.45           C
ATOM   1350  CG1 VAL B  33      -1.355  11.698   1.337  1.00 10.90           C
ATOM   1351  CG2 VAL B  33      -2.275  10.063  -0.326  1.00 11.54           C
ATOM   1352  N   VAL B  34       1.047   9.410   2.606  1.00 10.63           N
ATOM   1353  CA  VAL B  34       1.843   9.623   3.819  1.00  9.81           C
ATOM   1354  C   VAL B  34       3.327   9.380   3.635  1.00 10.85           C
ATOM   1355  O   VAL B  34       4.149  10.166   4.144  1.00  7.96           O
ATOM   1356  CB  VAL B  34       1.281   8.797   5.004  1.00  9.44           C
ATOM   1357  CG1 VAL B  34       2.100   9.001   6.267  1.00  8.71           C
ATOM   1358  CG2 VAL B  34      -0.187   9.217   5.217  1.00 10.75           C
ATOM   1359  N   TYR B  35       3.730   8.351   2.885  1.00  8.92           N
ATOM   1360  CA  TYR B  35       5.153   8.060   2.609  1.00  8.60           C
ATOM   1361  C   TYR B  35       5.316   8.044   1.094  1.00 10.36           C
ATOM   1362  O   TYR B  35       5.319   6.978   0.459  1.00  9.86           O
ATOM   1363  CB  TYR B  35       5.508   6.682   3.222  1.00  8.97           C
ATOM   1364  CG  TYR B  35       5.069   6.546   4.670  1.00  9.73           C
ATOM   1365  CD1 TYR B  35       5.744   7.285   5.642  1.00  9.68           C
ATOM   1366  CD2 TYR B  35       4.003   5.788   5.086  1.00 13.83           C
ATOM   1367  CE1 TYR B  35       5.392   7.256   6.977  1.00 11.24           C
ATOM   1368  CE2 TYR B  35       3.637   5.744   6.416  1.00 15.06           C
ATOM   1369  CZ  TYR B  35       4.337   6.468   7.358  1.00 16.12           C
ATOM   1370  OH  TYR B  35       3.995   6.455   8.698  1.00 18.63           O
ATOM   1371  N   PRO B  36       5.346   9.188   0.424  1.00 10.61           N
ATOM   1372  CA  PRO B  36       5.283   9.292  -1.026  1.00 14.14           C
ATOM   1373  C   PRO B  36       6.406   8.664  -1.800  1.00 11.51           C
ATOM   1374  O   PRO B  36       6.193   8.330  -2.967  1.00 10.32           O
ATOM   1375  CB  PRO B  36       5.085  10.781  -1.310  1.00 11.75           C
ATOM   1376  CG  PRO B  36       5.559  11.487  -0.100  1.00 13.58           C
ATOM   1377  CD  PRO B  36       5.321  10.539   1.043  1.00 11.38           C
ATOM   1378  N   TRP B  37       7.540   8.364  -1.181  1.00  9.73           N
ATOM   1379  CA  TRP B  37       8.644   7.676  -1.832  1.00  9.43           C
ATOM   1380  C   TRP B  37       8.175   6.263  -2.212  1.00 11.75           C
ATOM   1381  O   TRP B  37       8.704   5.702  -3.158  1.00  9.59           O
ATOM   1382  CB  TRP B  37       9.848   7.547  -0.931  1.00 11.67           C
ATOM   1383  CG  TRP B  37       9.697   7.070   0.477  1.00  9.87           C
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ATOM   1384  CD1 TRP B  37       9.924   5.786   0.962  1.00 11.95           C
ATOM   1385  CD2 TRP B  37       9.356   7.836   1.623  1.00 11.26           C
ATOM   1386  NE1 TRP B  37       9.758   5.745   2.314  1.00  9.96           N
ATOM   1387  CE2 TRP B  37       9.384   7.006   2.740  1.00  8.62           C
ATOM   1388  CE3 TRP B  37       9.042   9.196   1.808  1.00 10.60           C
ATOM   1389  CZ2 TRP B  37       9.135   7.425   4.059  1.00 10.90           C
ATOM   1390  CZ3 TRP B  37       8.766   9.619   3.102  1.00 12.83           C
ATOM   1391  CH2 TRP B  37       8.803   8.760   4.200  1.00 10.19           C
ATOM   1392  N   THR B  38       7.163   5.695  -1.519  1.00  9.28           N
ATOM   1393  CA  THR B  38       6.589   4.408  -1.828  1.00 11.64           C
ATOM   1394  C   THR B  38       5.946   4.396  -3.223  1.00 13.31           C
ATOM   1395  O   THR B  38       5.754   3.284  -3.776  1.00 10.55           O
ATOM   1396  CB  THR B  38       5.546   3.878  -0.825  1.00 10.48           C
ATOM   1397  OG1 THR B  38       4.378   4.724  -0.797  1.00 10.98           O
ATOM   1398  CG2 THR B  38       6.132   3.754   0.586  1.00  9.21           C
ATOM   1399  N   GLN B  39       5.670   5.558  -3.838  1.00 10.66           N
ATOM   1400  CA  GLN B  39       5.166   5.630  -5.210  1.00  9.54           C
ATOM   1401  C   GLN B  39       6.157   5.106  -6.234  1.00 10.92           C
ATOM   1402  O   GLN B  39       5.783   4.837  -7.390  1.00 13.38           O
ATOM   1403  CB  GLN B  39       4.791   7.070  -5.581  1.00  9.31           C
ATOM   1404  CG  GLN B  39       3.586   7.600  -4.821  1.00 10.45           C
ATOM   1405  CD  GLN B  39       3.426   9.107  -5.024  1.00 15.90           C
ATOM   1406  OE1 GLN B  39       3.847   9.607  -6.084  1.00 12.76           O
ATOM   1407  NE2 GLN B  39       2.815   9.728  -4.026  1.00 13.83           N
ATOM   1408  N   ARG B  40       7.436   4.941  -5.917  1.00 10.74           N
ATOM   1409  CA  ARG B  40       8.470   4.364  -6.736  1.00 10.28           C
ATOM   1410  C   ARG B  40       8.079   2.986  -7.275  1.00 11.94           C
ATOM   1411  O   ARG B  40       8.636   2.633  -8.315  1.00 10.12           O
ATOM   1412  CB  ARG B  40       9.787   4.274  -5.954  1.00 10.08           C
ATOM   1413  CG  ARG B  40       9.893   3.139  -4.928  1.00  9.68           C
ATOM   1414  CD  ARG B  40      11.124   3.321  -4.013  1.00  8.86           C
ATOM   1415  NE  ARG B  40      12.380   3.373  -4.812  1.00 12.62           N
ATOM   1416  CZ  ARG B  40      13.018   2.345  -5.335  1.00 14.66           C
ATOM   1417  NH1 ARG B  40      12.663   1.064  -5.197  1.00 13.26           N
ATOM   1418  NH2 ARG B  40      14.141   2.569  -6.045  1.00 13.95           N
ATOM   1419  N   PHE B  41       7.210   2.188  -6.670  1.00 10.09           N
ATOM   1420  CA  PHE B  41       6.807   0.870  -7.106  1.00 11.19           C
ATOM   1421  C   PHE B  41       5.607   0.855  -8.044  1.00 12.94           C
ATOM   1422  O   PHE B  41       5.149  -0.171  -8.576  1.00 11.30           O
ATOM   1423  CB  PHE B  41       6.466   0.017  -5.838  1.00 10.51           C
ATOM   1424  CG  PHE B  41       7.709  -0.107  -4.972  1.00  8.74           C
ATOM   1425  CD1 PHE B  41       8.794  -0.836  -5.431  1.00 11.32           C
ATOM   1426  CD2 PHE B  41       7.780   0.489  -3.717  1.00 11.83           C
ATOM   1427  CE1 PHE B  41       9.941  -0.973  -4.694  1.00 11.16           C
ATOM   1428  CE2 PHE B  41       8.937   0.371  -2.955  1.00 11.74           C
ATOM   1429  CZ  PHE B  41      10.008  -0.365  -3.440  1.00 11.07           C
ATOM   1430  N   PHE B  42       5.000   2.032  -8.195  1.00 12.62           N
ATOM   1431  CA  PHE B  42       3.746   2.246  -8.905  1.00 10.25           C
ATOM   1432  C   PHE B  42       3.827   3.259 -10.037  1.00 12.28           C
ATOM   1433  O   PHE B  42       2.889   4.015 -10.312  1.00 13.92           O
ATOM   1434  CB  PHE B  42       2.616   2.663  -7.907  1.00 11.51           C
ATOM   1435  CG  PHE B  42       2.528   1.596  -6.823  1.00 11.72           C
ATOM   1436  CD1 PHE B  42       2.057   0.331  -7.096  1.00 12.31           C
ATOM   1437  CD2 PHE B  42       3.054   1.867  -5.561  1.00 11.75           C
ATOM   1438  CE1 PHE B  42       2.009  -0.651  -6.125  1.00 13.62           C
ATOM   1439  CE2 PHE B  42       3.044   0.890  -4.592  1.00 13.12           C
ATOM   1440  CZ  PHE B  42       2.519  -0.362  -4.853  1.00 10.53           C
ATOM   1441  N   GLU B  43       4.937   3.281 -10.768  1.00 13.71           N
ATOM   1442  CA  GLU B  43       5.141   4.182 -11.893  1.00 13.74           C
ATOM   1443  C   GLU B  43       4.085   4.062 -12.985  1.00 12.90           C
ATOM   1444  O   GLU B  43       3.782   5.091 -13.598  1.00 17.31           O
ATOM   1445  CB  GLU B  43       6.507   3.950 -12.559  1.00 14.97           C
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ATOM   1446  CG  GLU B  43       7.656   4.347 -11.641  1.00 18.21           C
ATOM   1447  CD  GLU B  43       7.843   5.821 -11.432  1.00 23.64           C
ATOM   1448  OE1 GLU B  43       7.086   6.648 -11.958  1.00 26.26           O
ATOM   1449  OE2 GLU B  43       8.803   6.203 -10.741  1.00 31.17           O
ATOM   1450  N   SER B  44       3.578   2.875 -13.264  1.00 14.23           N
ATOM   1451  CA  SER B  44       2.586   2.724 -14.310  1.00 18.18           C
ATOM   1452  C   SER B  44       1.150   2.947 -13.899  1.00 17.45           C
ATOM   1453  O   SER B  44       0.251   2.715 -14.733  1.00 17.23           O
ATOM   1454  CB  SER B  44       2.664   1.280 -14.852  1.00 16.47           C
ATOM   1455  OG  SER B  44       2.204   0.343 -13.860  1.00 19.52           O
ATOM   1456  N   PHE B  45       0.859   3.302 -12.653  1.00 14.38           N
ATOM   1457  CA  PHE B  45      -0.485   3.420 -12.099  1.00 15.70           C
ATOM   1458  C   PHE B  45      -1.283   4.675 -12.410  1.00 14.30           C
ATOM   1459  O   PHE B  45      -2.470   4.805 -12.087  1.00 15.82           O
ATOM   1460  CB  PHE B  45      -0.375   3.217 -10.553  1.00 14.76           C
ATOM   1461  CG  PHE B  45      -0.440   1.780 -10.100  1.00 13.80           C
ATOM   1462  CD1 PHE B  45       0.163   0.775 -10.820  1.00 17.39           C
ATOM   1463  CD2 PHE B  45      -1.091   1.440  -8.924  1.00 14.61           C
ATOM   1464  CE1 PHE B  45       0.109  -0.552 -10.419  1.00 19.30           C
ATOM   1465  CE2 PHE B  45      -1.148   0.110  -8.505  1.00 13.98           C
ATOM   1466  CZ  PHE B  45      -0.566  -0.878  -9.252  1.00 16.19           C
ATOM   1467  N   GLY B  46      -0.718   5.613 -13.157  1.00 15.56           N
ATOM   1468  CA  GLY B  46      -1.412   6.825 -13.533  1.00 17.29           C
ATOM   1469  C   GLY B  46      -1.155   7.957 -12.543  1.00 16.59           C
ATOM   1470  O   GLY B  46      -0.150   8.023 -11.852  1.00 17.41           O
ATOM   1471  N   ASP B  47      -2.151   8.797 -12.434  1.00 17.46           N
ATOM   1472  CA  ASP B  47      -2.105  10.011 -11.654  1.00 18.72           C
ATOM   1473  C   ASP B  47      -1.974   9.797 -10.148  1.00 16.10           C
ATOM   1474  O   ASP B  47      -2.936   9.281  -9.586  1.00 13.33           O
ATOM   1475  CB  ASP B  47      -3.396  10.815 -11.876  1.00 20.83           C
ATOM   1476  CG  ASP B  47      -3.302  12.238 -11.380  1.00 21.65           C
ATOM   1477  OD1 ASP B  47      -2.223  12.687 -10.941  1.00 22.37           O
ATOM   1478  OD2 ASP B  47      -4.360  12.917 -11.454  1.00 23.67           O
ATOM   1479  N   LEU B  48      -0.844  10.222  -9.619  1.00 17.13           N
ATOM   1480  CA  LEU B  48      -0.564  10.156  -8.193  1.00 16.75           C
ATOM   1481  C   LEU B  48      -0.139  11.555  -7.713  1.00 17.97           C
ATOM   1482  O   LEU B  48       0.511  11.732  -6.682  1.00 17.74           O
ATOM   1483  CB  LEU B  48       0.520   9.125  -7.878  1.00 14.36           C
ATOM   1484  CG  LEU B  48       0.272   7.669  -8.330  1.00 15.17           C
ATOM   1485  CD1 LEU B  48       1.557   6.858  -8.060  1.00 16.52           C
ATOM   1486  CD2 LEU B  48      -0.917   7.055  -7.625  1.00 14.15           C
ATOM   1487  N   SER B  49      -0.527  12.570  -8.468  1.00 20.83           N
ATOM   1488  CA  SER B  49      -0.095  13.944  -8.255  1.00 23.91           C
ATOM   1489  C   SER B  49      -0.512  14.628  -6.979  1.00 22.70           C
ATOM   1490  O   SER B  49       0.220  15.529  -6.535  1.00 22.60           O
ATOM   1491  CB  SER B  49      -0.552  14.826  -9.453  1.00 25.57           C
ATOM   1492  OG  SER B  49      -1.964  14.881  -9.579  1.00 29.88           O
ATOM   1493  N   THR B  50      -1.662  14.342  -6.405  1.00 19.97           N
ATOM   1494  CA  THR B  50      -2.204  14.922  -5.184  1.00 20.46           C
ATOM   1495  C   THR B  50      -2.883  13.841  -4.360  1.00 16.80           C
ATOM   1496  O   THR B  50      -3.263  12.804  -4.931  1.00 17.01           O
ATOM   1497  CB  THR B  50      -3.325  15.936  -5.520  1.00 20.02           C
ATOM   1498  OG1 THR B  50      -4.406  15.214  -6.148  1.00 18.34           O
ATOM   1499  CG2 THR B  50      -2.919  17.025  -6.498  1.00 21.65           C
ATOM   1500  N   PRO B  51      -3.176  14.070  -3.096  1.00 18.04           N
ATOM   1501  CA  PRO B  51      -3.868  13.097  -2.261  1.00 17.05           C
ATOM   1502  C   PRO B  51      -5.149  12.579  -2.867  1.00 16.11           C
ATOM   1503  O   PRO B  51      -5.437  11.392  -2.928  1.00 14.54           O
ATOM   1504  CB  PRO B  51      -4.170  13.856  -0.966  1.00 19.42           C
ATOM   1505  CG  PRO B  51      -3.100  14.897  -0.900  1.00 19.27           C
ATOM   1506  CD  PRO B  51      -2.778  15.286  -2.322  1.00 19.41           C
ATOM   1507  N   ASP B  52      -6.016  13.496  -3.368  1.00 17.31           N
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ATOM   1508  CA  ASP B  52      -7.280  13.105  -3.952  1.00 16.82           C
ATOM   1509  C   ASP B  52      -7.069  12.237  -5.195  1.00 17.73           C
ATOM   1510  O   ASP B  52      -7.829  11.291  -5.330  1.00 15.18           O
ATOM   1511  CB  ASP B  52      -8.106  14.329  -4.316  1.00 20.59           C
ATOM   1512  CG  ASP B  52      -8.728  15.061  -3.151  1.00 25.66           C
ATOM   1513  OD1 ASP B  52      -8.658  14.598  -1.996  1.00 25.67           O
ATOM   1514  OD2 ASP B  52      -9.306  16.140  -3.431  1.00 26.89           O
ATOM   1515  N   ALA B  53      -6.048  12.540  -5.988  1.00 16.37           N
ATOM   1516  CA  ALA B  53      -5.756  11.766  -7.180  1.00 15.07           C
ATOM   1517  C   ALA B  53      -5.272  10.387  -6.742  1.00 16.36           C
ATOM   1518  O   ALA B  53      -5.701   9.404  -7.337  1.00 15.55           O
ATOM   1519  CB  ALA B  53      -4.725  12.443  -8.072  1.00 19.91           C
ATOM   1520  N   VAL B  54      -4.380  10.321  -5.747  1.00 13.33           N
ATOM   1521  CA  VAL B  54      -3.967   8.975  -5.293  1.00 12.86           C
ATOM   1522  C   VAL B  54      -5.147   8.171  -4.769  1.00 14.69           C
ATOM   1523  O   VAL B  54      -5.384   6.998  -5.121  1.00 13.97           O
ATOM   1524  CB  VAL B  54      -2.923   9.087  -4.152  1.00 13.33           C
ATOM   1525  CG1 VAL B  54      -2.731   7.687  -3.512  1.00 11.43           C
ATOM   1526  CG2 VAL B  54      -1.612   9.694  -4.657  1.00 10.86           C
ATOM   1527  N   MET B  55      -5.938   8.761  -3.860  1.00 13.81           N
ATOM   1528  CA  MET B  55      -7.036   8.052  -3.232  1.00 17.04           C
ATOM   1529  C   MET B  55      -8.107   7.603  -4.222  1.00 19.49           C
ATOM   1530  O   MET B  55      -8.677   6.529  -4.013  1.00 17.92           O
ATOM   1531  CB  MET B  55      -7.628   8.865  -2.079  1.00 16.45           C
ATOM   1532  CG  MET B  55      -6.608   9.305  -1.032  1.00 16.84           C
ATOM   1533  SD  MET B  55      -5.749   7.891  -0.272  1.00 14.37           S
ATOM   1534  CE  MET B  55      -7.111   7.041   0.509  1.00 12.96           C
ATOM   1535  N   GLY B  56      -8.362   8.401  -5.260  1.00 17.55           N
ATOM   1536  CA  GLY B  56      -9.394   7.982  -6.220  1.00 18.17           C
ATOM   1537  C   GLY B  56      -8.845   7.163  -7.382  1.00 16.45           C
ATOM   1538  O   GLY B  56      -9.617   6.679  -8.227  1.00 16.62           O
ATOM   1539  N   ASN B  57      -7.543   6.939  -7.452  1.00 11.86           N
ATOM   1540  CA  ASN B  57      -6.950   6.201  -8.588  1.00 14.51           C
ATOM   1541  C   ASN B  57      -7.406   4.764  -8.646  1.00 15.00           C
ATOM   1542  O   ASN B  57      -7.178   3.924  -7.767  1.00 15.17           O
ATOM   1543  CB  ASN B  57      -5.424   6.393  -8.443  1.00 13.80           C
ATOM   1544  CG  ASN B  57      -4.641   5.797  -9.597  1.00 16.85           C
ATOM   1545  OD1 ASN B  57      -4.855   4.612  -9.871  1.00 16.87           O
ATOM   1546  ND2 ASN B  57      -3.782   6.571 -10.242  1.00 15.08           N
ATOM   1547  N   PRO B  58      -8.064   4.372  -9.740  1.00 17.22           N
ATOM   1548  CA  PRO B  58      -8.625   3.040  -9.888  1.00 16.38           C
ATOM   1549  C   PRO B  58      -7.575   1.956  -9.746  1.00 14.14           C
ATOM   1550  O   PRO B  58      -7.873   0.940  -9.117  1.00 12.11           O
ATOM   1551  CB  PRO B  58      -9.346   3.029 -11.232  1.00 18.17           C
ATOM   1552  CG  PRO B  58      -8.870   4.239 -11.936  1.00 20.65           C
ATOM   1553  CD  PRO B  58      -8.480   5.243 -10.883  1.00 19.18           C
ATOM   1554  N   LYS B  59      -6.364   2.150 -10.268  1.00 12.75           N
ATOM   1555  CA  LYS B  59      -5.292   1.164 -10.169  1.00 12.98           C
ATOM   1556  C   LYS B  59      -4.788   0.988  -8.747  1.00 12.00           C
ATOM   1557  O   LYS B  59      -4.517  -0.134  -8.314  1.00 10.14           O
ATOM   1558  CB  LYS B  59      -4.154   1.568 -11.126  1.00 13.45           C
ATOM   1559  CG  LYS B  59      -4.560   1.228 -12.559  1.00 20.62           C
ATOM   1560  CD  LYS B  59      -3.367   1.642 -13.443  1.00 21.36           C
ATOM   1561  CE  LYS B  59      -3.712   1.117 -14.842  1.00 26.15           C
ATOM   1562  NZ  LYS B  59      -2.625   1.524 -15.763  1.00 27.51           N
ATOM   1563  N   VAL B  60      -4.770   2.095  -8.006  1.00 12.28           N
ATOM   1564  CA  VAL B  60      -4.404   2.065  -6.577  1.00 12.63           C
ATOM   1565  C   VAL B  60      -5.460   1.278  -5.823  1.00 15.47           C
ATOM   1566  O   VAL B  60      -5.245   0.369  -4.988  1.00 13.59           O
ATOM   1567  CB  VAL B  60      -4.291   3.500  -6.017  1.00 14.02           C
ATOM   1568  CG1 VAL B  60      -4.197   3.488  -4.499  1.00 14.84           C
ATOM   1569  CG2 VAL B  60      -3.067   4.191  -6.623  1.00 15.99           C
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ATOM   1570  N   LYS B  61      -6.734   1.595  -6.144  1.00 11.84           N
ATOM   1571  CA  LYS B  61      -7.828   0.887  -5.455  1.00 14.07           C
ATOM   1572  C   LYS B  61      -7.811  -0.601  -5.791  1.00 15.21           C
ATOM   1573  O   LYS B  61      -7.954  -1.448  -4.900  1.00 17.90           O
ATOM   1574  CB  LYS B  61      -9.180   1.512  -5.817  1.00 14.87           C
ATOM   1575  CG  LYS B  61      -9.420   2.887  -5.161  1.00 19.11           C
ATOM   1576  CD  LYS B  61     -10.826   3.317  -5.639  1.00 23.93           C
ATOM   1577  CE  LYS B  61     -11.245   4.644  -5.039  1.00 29.57           C
ATOM   1578  NZ  LYS B  61     -12.632   5.019  -5.475  1.00 32.89           N
ATOM   1579  N   ALA B  62      -7.556  -0.952  -7.031  1.00 13.49           N
ATOM   1580  CA  ALA B  62      -7.513  -2.356  -7.462  1.00 12.02           C
ATOM   1581  C   ALA B  62      -6.379  -3.135  -6.805  1.00 10.56           C
ATOM   1582  O   ALA B  62      -6.570  -4.240  -6.304  1.00 13.11           O
ATOM   1583  CB  ALA B  62      -7.311  -2.418  -8.969  1.00 11.97           C
ATOM   1584  N   HIS B  63      -5.190  -2.526  -6.789  1.00 11.10           N
ATOM   1585  CA  HIS B  63      -4.040  -3.176  -6.152  1.00 11.25           C
ATOM   1586  C   HIS B  63      -4.272  -3.332  -4.652  1.00 12.29           C
ATOM   1587  O   HIS B  63      -3.940  -4.381  -4.049  1.00 11.77           O
ATOM   1588  CB  HIS B  63      -2.767  -2.341  -6.384  1.00 12.61           C
ATOM   1589  CG  HIS B  63      -1.567  -3.208  -6.068  1.00 14.03           C
ATOM   1590  ND1 HIS B  63      -1.436  -4.423  -6.741  1.00 15.65           N
ATOM   1591  CD2 HIS B  63      -0.535  -3.075  -5.232  1.00 13.76           C
ATOM   1592  CE1 HIS B  63      -0.315  -4.986  -6.304  1.00 15.23           C
ATOM   1593  NE2 HIS B  63       0.235  -4.213  -5.368  1.00 14.36           N
ATOM   1594  N   GLY B  64      -4.841  -2.258  -4.065  1.00 10.43           N
ATOM   1595  CA  GLY B  64      -5.127  -2.307  -2.624  1.00 12.53           C
ATOM   1596  C   GLY B  64      -5.999  -3.535  -2.306  1.00 11.91           C
ATOM   1597  O   GLY B  64      -5.778  -4.222  -1.309  1.00 12.24           O
ATOM   1598  N   LYS B  65      -7.033  -3.742  -3.068  1.00 10.86           N
ATOM   1599  CA  LYS B  65      -7.923  -4.883  -2.953  1.00 16.35           C
ATOM   1600  C   LYS B  65      -7.140  -6.174  -3.022  1.00 11.79           C
ATOM   1601  O   LYS B  65      -7.327  -7.099  -2.210  1.00 10.61           O
ATOM   1602  CB  LYS B  65      -8.960  -4.763  -4.087  1.00 17.16           C
ATOM   1603  CG  LYS B  65      -9.808  -5.979  -4.371  1.00 20.51           C
ATOM   1604  CD  LYS B  65     -10.768  -5.688  -5.535  1.00 22.75           C
ATOM   1605  CE  LYS B  65     -11.399  -6.892  -6.140  0.00 36.35           C
ATOM   1606  NZ  LYS B  65     -11.970  -6.738  -7.517  0.00 37.77           N
ATOM   1607  N   LYS B  66      -6.223  -6.298  -3.974  1.00 12.85           N
ATOM   1608  CA  LYS B  66      -5.436  -7.537  -4.086  1.00 13.47           C
ATOM   1609  C   LYS B  66      -4.503  -7.797  -2.926  1.00 12.76           C
ATOM   1610  O   LYS B  66      -4.314  -8.903  -2.385  1.00 11.18           O
ATOM   1611  CB  LYS B  66      -4.671  -7.373  -5.414  1.00 15.81           C
ATOM   1612  CG  LYS B  66      -3.650  -8.441  -5.704  1.00 21.46           C
ATOM   1613  CD  LYS B  66      -2.789  -7.171  -6.998  0.00 30.27           C
ATOM   1614  CE  LYS B  66      -3.099  -6.943  -8.458  0.00 32.20           C
ATOM   1615  NZ  LYS B  66      -2.447  -5.701  -9.038  0.00 32.61           N
ATOM   1616  N   VAL B  67      -3.833  -6.722  -2.526  1.00 10.61           N
ATOM   1617  CA  VAL B  67      -2.863  -6.781  -1.438  1.00 11.18           C
ATOM   1618  C   VAL B  67      -3.550  -7.173  -0.133  1.00 13.29           C
ATOM   1619  O   VAL B  67      -3.116  -8.096   0.577  1.00 13.46           O
ATOM   1620  CB  VAL B  67      -2.143  -5.421  -1.308  1.00 11.45           C
ATOM   1621  CG1 VAL B  67      -1.378  -5.298  -0.002  1.00 11.12           C
ATOM   1622  CG2 VAL B  67      -1.141  -5.222  -2.459  1.00 11.02           C
ATOM   1623  N   LEU B  68      -4.620  -6.447   0.195  1.00  9.85           N
ATOM   1624  CA  LEU B  68      -5.302  -6.742   1.459  1.00 10.30           C
ATOM   1625  C   LEU B  68      -6.073  -8.054   1.384  1.00 13.06           C
ATOM   1626  O   LEU B  68      -6.247  -8.731   2.406  1.00 11.91           O
ATOM   1627  CB  LEU B  68      -6.223  -5.608   1.923  1.00 12.63           C
ATOM   1628  CG  LEU B  68      -6.306  -5.589   3.480  1.00 14.83           C
ATOM   1629  CD1 LEU B  68      -4.979  -5.184   4.100  1.00 13.62           C
ATOM   1630  CD2 LEU B  68      -7.413  -4.642   3.923  1.00 14.82           C
ATOM   1631  N   GLY B  69      -6.472  -8.484   0.170  1.00 13.59           N
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ATOM   1632  CA  GLY B  69      -7.054  -9.799   0.006  1.00 12.94           C
ATOM   1633  C   GLY B  69      -6.066 -10.871   0.427  1.00 12.06           C
ATOM   1634  O   GLY B  69      -6.431 -11.833   1.146  1.00 11.98           O
ATOM   1635  N   ALA B  70      -4.796 -10.765   0.045  1.00 13.30           N
ATOM   1636  CA  ALA B  70      -3.794 -11.785   0.432  1.00  9.69           C
ATOM   1637  C   ALA B  70      -3.527 -11.702   1.918  1.00 13.11           C
ATOM   1638  O   ALA B  70      -3.295 -12.710   2.601  1.00 12.90           O
ATOM   1639  CB  ALA B  70      -2.538 -11.609  -0.395  1.00  8.33           C
ATOM   1640  N   PHE B  71      -3.488 -10.470   2.444  1.00 10.48           N
ATOM   1641  CA  PHE B  71      -3.362 -10.263   3.894  1.00 13.31           C
ATOM   1642  C   PHE B  71      -4.488 -10.953   4.656  1.00 13.47           C
ATOM   1643  O   PHE B  71      -4.262 -11.672   5.629  1.00 13.74           O
ATOM   1644  CB  PHE B  71      -3.466  -8.734   4.164  1.00 10.18           C
ATOM   1645  CG  PHE B  71      -3.307  -8.346   5.625  1.00 11.62           C
ATOM   1646  CD1 PHE B  71      -4.382  -8.291   6.479  1.00 14.43           C
ATOM   1647  CD2 PHE B  71      -2.042  -8.039   6.090  1.00 16.17           C
ATOM   1648  CE1 PHE B  71      -4.224  -7.920   7.820  1.00 13.51           C
ATOM   1649  CE2 PHE B  71      -1.861  -7.677   7.422  1.00 16.61           C
ATOM   1650  CZ  PHE B  71      -2.948  -7.614   8.272  1.00 13.82           C
ATOM   1651  N   SER B  72      -5.728 -10.776   4.200  1.00 11.33           N
ATOM   1652  CA  SER B  72      -6.925 -11.338   4.799  1.00 14.01           C
ATOM   1653  C   SER B  72      -6.802 -12.859   4.793  1.00 15.07           C
ATOM   1654  O   SER B  72      -7.066 -13.474   5.817  1.00 12.15           O
ATOM   1655  CB  SER B  72      -8.153 -10.945   3.975  1.00 13.19           C
ATOM   1656  OG  SER B  72      -9.346 -11.535   4.430  1.00 12.44           O
ATOM   1657  N   ASP B  73      -6.365 -13.391   3.638  1.00 14.57           N
ATOM   1658  CA  ASP B  73      -6.228 -14.853   3.571  1.00 18.11           C
ATOM   1659  C   ASP B  73      -5.237 -15.339   4.602  1.00 17.74           C
ATOM   1660  O   ASP B  73      -5.494 -16.360   5.257  1.00 18.67           O
ATOM   1661  CB  ASP B  73      -5.754 -15.272   2.185  1.00 20.05           C
ATOM   1662  CG  ASP B  73      -6.709 -15.031   1.054  1.00 22.39           C
ATOM   1663  OD1 ASP B  73      -7.914 -14.833   1.331  1.00 20.87           O
ATOM   1664  OD2 ASP B  73      -6.237 -15.053  -0.118  1.00 23.40           O
ATOM   1665  N   GLY B  74      -4.150 -14.590   4.862  1.00 15.93           N
ATOM   1666  CA  GLY B  74      -3.173 -14.947   5.864  1.00 16.20           C
ATOM   1667  C   GLY B  74      -3.694 -14.951   7.295  1.00 19.26           C
ATOM   1668  O   GLY B  74      -3.125 -15.668   8.138  1.00 17.53           O
ATOM   1669  N   LEU B  75      -4.813 -14.272   7.576  1.00 16.89           N
ATOM   1670  CA  LEU B  75      -5.422 -14.236   8.891  1.00 15.54           C
ATOM   1671  C   LEU B  75      -6.023 -15.592   9.281  1.00 15.85           C
ATOM   1672  O   LEU B  75      -6.265 -15.812  10.467  1.00 16.92           O
ATOM   1673  CB  LEU B  75      -6.459 -13.134   9.048  1.00 16.29           C
ATOM   1674  CG  LEU B  75      -5.934 -11.709   8.788  1.00 16.62           C
ATOM   1675  CD1 LEU B  75      -7.058 -10.733   9.070  1.00 16.35           C
ATOM   1676  CD2 LEU B  75      -4.707 -11.346   9.616  1.00 15.60           C
ATOM   1677  N   ALA B  76      -6.239 -16.504   8.337  1.00 17.20           N
ATOM   1678  CA  ALA B  76      -6.739 -17.836   8.679  1.00 19.73           C
ATOM   1679  C   ALA B  76      -5.607 -18.742   9.077  1.00 19.65           C
ATOM   1680  O   ALA B  76      -5.772 -19.931   9.393  1.00 20.60           O
ATOM   1681  CB  ALA B  76      -7.485 -18.325   7.434  1.00 21.05           C
ATOM   1682  N   HIS B  77      -4.331 -18.318   8.983  1.00 18.96           N
ATOM   1683  CA  HIS B  77      -3.135 -19.082   9.216  1.00 20.71           C
ATOM   1684  C   HIS B  77      -2.153 -18.347  10.114  1.00 18.38           C
ATOM   1685  O   HIS B  77      -0.954 -18.344   9.896  1.00 17.88           O
ATOM   1686  CB  HIS B  77      -2.406 -19.376   7.860  1.00 26.96           C
ATOM   1687  CG  HIS B  77      -3.326 -20.108   6.922  1.00 29.51           C
ATOM   1688  ND1 HIS B  77      -3.957 -19.464   5.882  1.00 31.08           N
ATOM   1689  CD2 HIS B  77      -3.799 -21.384   6.949  1.00 30.57           C
ATOM   1690  CE1 HIS B  77      -4.750 -20.320   5.249  1.00 29.80           C
ATOM   1691  NE2 HIS B  77      -4.676 -21.480   5.880  1.00 33.70           N
ATOM   1692  N   LEU B  78      -2.634 -17.739  11.212  1.00 16.99           N
ATOM   1693  CA  LEU B  78      -1.781 -16.957  12.105  1.00 19.44           C
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ATOM   1694  C   LEU B  78      -0.672 -17.712  12.794  1.00 18.79           C
ATOM   1695  O   LEU B  78       0.301 -17.081  13.203  1.00 19.50           O
ATOM   1696  CB  LEU B  78      -2.683 -16.257  13.149  1.00 20.45           C
ATOM   1697  CG  LEU B  78      -3.545 -15.155  12.523  1.00 21.49           C
ATOM   1698  CD1 LEU B  78      -4.669 -14.737  13.452  1.00 23.51           C
ATOM   1699  CD2 LEU B  78      -2.655 -13.962  12.170  1.00 18.70           C
ATOM   1700  N   ASP B  79      -0.742 -19.037  12.910  1.00 17.64           N
ATOM   1701  CA  ASP B  79       0.357 -19.789  13.491  1.00 21.88           C
ATOM   1702  C   ASP B  79       1.387 -20.158  12.437  1.00 22.58           C
ATOM   1703  O   ASP B  79       2.405 -20.788  12.776  1.00 21.53           O
ATOM   1704  CB  ASP B  79      -0.178 -21.098  14.081  1.00 26.08           C
ATOM   1705  CG  ASP B  79      -1.124 -20.930  15.255  1.00 31.40           C
ATOM   1706  OD1 ASP B  79      -0.867 -20.059  16.107  1.00 30.77           O
ATOM   1707  OD2 ASP B  79      -2.124 -21.690  15.282  1.00 34.78           O
ATOM   1708  N   ASN B  80       1.171 -19.914  11.161  1.00 20.42           N
ATOM   1709  CA  ASN B  80       2.091 -20.287  10.072  1.00 21.81           C
ATOM   1710  C   ASN B  80       2.249 -19.198   9.027  1.00 20.95           C
ATOM   1711  O   ASN B  80       2.152 -19.403   7.793  1.00 20.64           O
ATOM   1712  CB  ASN B  80       1.560 -21.535   9.356  1.00 22.39           C
ATOM   1713  CG  ASN B  80       1.673 -22.782  10.214  1.00 28.93           C
ATOM   1714  OD1 ASN B  80       0.668 -23.264  10.744  1.00 29.28           O
ATOM   1715  ND2 ASN B  80       2.908 -23.225  10.365  1.00 30.25           N
ATOM   1716  N   LEU B  81       2.431 -17.944   9.483  1.00 16.59           N
ATOM   1717  CA  LEU B  81       2.557 -16.866   8.500  1.00 14.92           C
ATOM   1718  C   LEU B  81       3.761 -17.068   7.591  1.00 16.25           C
ATOM   1719  O   LEU B  81       3.703 -16.773   6.400  1.00 13.37           O
ATOM   1720  CB  LEU B  81       2.686 -15.513   9.225  1.00 14.08           C
ATOM   1721  CG  LEU B  81       1.402 -15.153   9.990  1.00 13.14           C
ATOM   1722  CD1 LEU B  81       1.689 -13.899  10.830  1.00 15.90           C
ATOM   1723  CD2 LEU B  81       0.206 -14.901   9.083  1.00 11.84           C
ATOM   1724  N   LYS B  82       4.908 -17.534   8.099  1.00 16.56           N
ATOM   1725  CA  LYS B  82       6.071 -17.741   7.251  1.00 18.48           C
ATOM   1726  C   LYS B  82       5.727 -18.655   6.088  1.00 19.52           C
ATOM   1727  O   LYS B  82       6.008 -18.335   4.927  1.00 17.07           O
ATOM   1728  CB  LYS B  82       7.253 -18.307   8.057  1.00 21.76           C
ATOM   1729  CG  LYS B  82       8.080 -17.239   8.762  1.00 25.96           C
ATOM   1730  CD  LYS B  82       9.306 -17.859   9.440  1.00 29.71           C
ATOM   1731  CE  LYS B  82       9.720 -17.079  10.670  1.00 35.94           C
ATOM   1732  NZ  LYS B  82       8.582 -16.412  11.369  1.00 40.38           N
ATOM   1733  N   GLY B  83       5.085 -19.813   6.371  1.00 18.23           N
ATOM   1734  CA  GLY B  83       4.741 -20.706   5.253  1.00 19.60           C
ATOM   1735  C   GLY B  83       3.664 -20.162   4.349  1.00 20.27           C
ATOM   1736  O   GLY B  83       3.701 -20.330   3.123  1.00 19.37           O
ATOM   1737  N   THR B  84       2.699 -19.418   4.922  1.00 19.29           N
ATOM   1738  CA  THR B  84       1.623 -18.870   4.124  1.00 18.93           C
ATOM   1739  C   THR B  84       2.112 -17.836   3.105  1.00 19.67           C
ATOM   1740  O   THR B  84       1.622 -17.810   1.987  1.00 20.89           O
ATOM   1741  CB  THR B  84       0.562 -18.221   5.036  1.00 19.73           C
ATOM   1742  OG1 THR B  84       0.132 -19.250   5.954  1.00 24.50           O
ATOM   1743  CG2 THR B  84      -0.633 -17.689   4.284  1.00 20.50           C
ATOM   1744  N   PHE B  85       3.067 -16.994   3.486  1.00 16.40           N
ATOM   1745  CA  PHE B  85       3.547 -15.932   2.610  1.00 14.07           C
ATOM   1746  C   PHE B  85       4.879 -16.209   1.935  1.00 13.50           C
ATOM   1747  O   PHE B  85       5.441 -15.334   1.265  1.00 13.12           O
ATOM   1748  CB  PHE B  85       3.654 -14.646   3.492  1.00 12.61           C
ATOM   1749  CG  PHE B  85       2.286 -14.101   3.800  1.00 13.53           C
ATOM   1750  CD1 PHE B  85       1.527 -13.472   2.843  1.00 12.00           C
ATOM   1751  CD2 PHE B  85       1.779 -14.247   5.088  1.00 13.17           C
ATOM   1752  CE1 PHE B  85       0.249 -12.991   3.169  1.00 11.88           C
ATOM   1753  CE2 PHE B  85       0.520 -13.774   5.410  1.00 10.24           C
ATOM   1754  CZ  PHE B  85      -0.235 -13.140   4.453  1.00 12.29           C
ATOM   1755  N   ALA B  86       5.401 -17.430   1.961  1.00 11.01           N
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ATOM   1756  CA  ALA B  86       6.672 -17.771   1.371  1.00 14.08           C
ATOM   1757  C   ALA B  86       6.717 -17.465  -0.130  1.00 11.46           C
ATOM   1758  O   ALA B  86       7.663 -16.842  -0.588  1.00 13.91           O
ATOM   1759  CB  ALA B  86       7.004 -19.252   1.602  1.00 17.77           C
ATOM   1760  N   THR B  87       5.699 -17.902  -0.865  1.00 12.12           N
ATOM   1761  CA  THR B  87       5.678 -17.672  -2.321  1.00 12.10           C
ATOM   1762  C   THR B  87       5.657 -16.185  -2.661  1.00 11.86           C
ATOM   1763  O   THR B  87       6.423 -15.740  -3.523  1.00 11.29           O
ATOM   1764  CB  THR B  87       4.492 -18.429  -2.945  1.00 12.14           C
ATOM   1765  OG1 THR B  87       4.802 -19.832  -2.723  1.00 13.68           O
ATOM   1766  CG2 THR B  87       4.368 -18.185  -4.436  1.00 13.33           C
ATOM   1767  N   LEU B  88       4.806 -15.422  -1.970  1.00 12.23           N
ATOM   1768  CA  LEU B  88       4.786 -13.981  -2.208  1.00 11.18           C
ATOM   1769  C   LEU B  88       6.077 -13.333  -1.723  1.00 11.74           C
ATOM   1770  O   LEU B  88       6.440 -12.295  -2.290  1.00 11.39           O
ATOM   1771  CB  LEU B  88       3.590 -13.326  -1.525  1.00 13.51           C
ATOM   1772  CG  LEU B  88       2.221 -13.700  -2.102  1.00 12.56           C
ATOM   1773  CD1 LEU B  88       1.150 -12.997  -1.304  1.00 11.47           C
ATOM   1774  CD2 LEU B  88       2.089 -13.296  -3.571  1.00 15.63           C
ATOM   1775  N   SER B  89       6.739 -13.849  -0.692  1.00 11.07           N
ATOM   1776  CA  SER B  89       7.990 -13.246  -0.224  1.00  9.97           C
ATOM   1777  C   SER B  89       9.013 -13.361  -1.352  1.00 10.91           C
ATOM   1778  O   SER B  89       9.649 -12.379  -1.706  1.00 11.03           O
ATOM   1779  CB  SER B  89       8.509 -13.968   1.009  1.00  8.84           C
ATOM   1780  OG  SER B  89       9.790 -13.489   1.443  1.00 10.03           O
ATOM   1781  N   GLU B  90       9.151 -14.571  -1.891  1.00 10.44           N
ATOM   1782  CA  GLU B  90      10.116 -14.738  -2.983  1.00 16.47           C
ATOM   1783  C   GLU B  90       9.809 -13.808  -4.154  1.00 14.21           C
ATOM   1784  O   GLU B  90      10.717 -13.227  -4.748  1.00 15.97           O
ATOM   1785  CB  GLU B  90      10.103 -16.180  -3.490  1.00 23.47           C
ATOM   1786  CG  GLU B  90      10.610 -17.187  -2.487  1.00 31.95           C
ATOM   1787  CD  GLU B  90      10.632 -18.576  -3.129  1.00 39.52           C
ATOM   1788  OE1 GLU B  90      11.169 -18.685  -4.259  1.00 43.71           O
ATOM   1789  OE2 GLU B  90      10.103 -19.474  -2.460  1.00 41.86           O
ATOM   1790  N   LEU B  91       8.553 -13.647  -4.491  1.00 12.24           N
ATOM   1791  CA  LEU B  91       8.103 -12.798  -5.572  1.00 14.64           C
ATOM   1792  C   LEU B  91       8.521 -11.346  -5.345  1.00 11.23           C
ATOM   1793  O   LEU B  91       9.100 -10.676  -6.189  1.00 10.82           O
ATOM   1794  CB  LEU B  91       6.558 -12.813  -5.674  1.00 14.78           C
ATOM   1795  CG  LEU B  91       5.949 -11.902  -6.755  1.00 16.44           C
ATOM   1796  CD1 LEU B  91       6.323 -12.376  -8.143  1.00 20.94           C
ATOM   1797  CD2 LEU B  91       4.433 -11.836  -6.585  1.00 16.16           C
ATOM   1798  N   HIS B  92       8.227 -10.865  -4.135  1.00 11.91           N
ATOM   1799  CA  HIS B  92       8.579  -9.482  -3.779  1.00 11.35           C
ATOM   1800  C   HIS B  92      10.076  -9.249  -3.782  1.00 12.58           C
ATOM   1801  O   HIS B  92      10.512  -8.132  -4.085  1.00 10.15           O
ATOM   1802  CB  HIS B  92       7.955  -9.154  -2.405  1.00  9.42           C
ATOM   1803  CG  HIS B  92       6.510  -8.807  -2.560  1.00  8.96           C
ATOM   1804  ND1 HIS B  92       5.544  -9.796  -2.671  1.00 10.20           N
ATOM   1805  CD2 HIS B  92       5.865  -7.615  -2.635  1.00  7.91           C
ATOM   1806  CE1 HIS B  92       4.344  -9.212  -2.811  1.00 11.17           C
ATOM   1807  NE2 HIS B  92       4.529  -7.906  -2.797  1.00 12.60           N
ATOM   1808  N   CYS B  93      10.843 -10.288  -3.423  1.00  9.99           N
ATOM   1809  CA  CYS B  93      12.299 -10.125  -3.452  1.00 11.23           C
ATOM   1810  C   CYS B  93      12.830 -10.240  -4.893  1.00 13.38           C
ATOM   1811  O   CYS B  93      13.415  -9.311  -5.429  1.00 13.82           O
ATOM   1812  CB  CYS B  93      12.998 -11.147  -2.565  1.00 11.87           C
ATOM   1813  SG  CYS B  93      14.830 -10.977  -2.640  1.00 13.47           S
ATOM   1814  N   ASP B  94      12.681 -11.406  -5.474  1.00 12.70           N
ATOM   1815  CA  ASP B  94      13.278 -11.706  -6.787  1.00 12.72           C
ATOM   1816  C   ASP B  94      12.726 -10.998  -7.987  1.00 16.19           C
ATOM   1817  O   ASP B  94      13.437 -10.702  -8.962  1.00 19.08           O
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ATOM   1818  CB  ASP B  94      13.099 -13.223  -6.967  1.00 13.83           C
ATOM   1819  CG  ASP B  94      13.910 -14.038  -5.983  1.00 18.23           C
ATOM   1820  OD1 ASP B  94      14.796 -13.461  -5.322  1.00 17.39           O
ATOM   1821  OD2 ASP B  94      13.666 -15.266  -5.856  1.00 18.37           O
ATOM   1822  N   LYS B  95      11.428 -10.751  -8.000  1.00 13.34           N
ATOM   1823  CA  LYS B  95      10.847 -10.125  -9.186  1.00 16.60           C
ATOM   1824  C   LYS B  95      10.432  -8.683  -8.966  1.00 14.89           C
ATOM   1825  O   LYS B  95      10.613  -7.909  -9.889  1.00 15.83           O
ATOM   1826  CB  LYS B  95       9.611 -10.916  -9.615  1.00 19.33           C
ATOM   1827  CG  LYS B  95       9.823 -12.412  -9.838  1.00 27.73           C
ATOM   1828  CD  LYS B  95      10.946 -12.649 -10.845  1.00 33.67           C
ATOM   1829  CE  LYS B  95      11.392 -14.095 -10.897  1.00 37.83           C
ATOM   1830  NZ  LYS B  95      12.782 -14.188 -11.449  1.00 40.80           N
ATOM   1831  N   LEU B  96       9.874  -8.350  -7.808  1.00 12.07           N
ATOM   1832  CA  LEU B  96       9.394  -6.973  -7.644  1.00  9.00           C
ATOM   1833  C   LEU B  96      10.408  -6.021  -7.038  1.00 13.34           C
ATOM   1834  O   LEU B  96      10.211  -4.805  -7.176  1.00 11.58           O
ATOM   1835  CB  LEU B  96       8.120  -7.024  -6.781  1.00 10.22           C
ATOM   1836  CG  LEU B  96       7.012  -7.941  -7.356  1.00 13.11           C
ATOM   1837  CD1 LEU B  96       5.825  -7.926  -6.358  1.00 11.83           C
ATOM   1838  CD2 LEU B  96       6.556  -7.526  -8.742  1.00 11.80           C
ATOM   1839  N   HIS B  97      11.448  -6.566  -6.452  1.00 12.72           N
ATOM   1840  CA  HIS B  97      12.526  -5.804  -5.788  1.00 12.14           C
ATOM   1841  C   HIS B  97      11.958  -4.818  -4.770  1.00 11.23           C
ATOM   1842  O   HIS B  97      12.318  -3.653  -4.799  1.00 10.77           O
ATOM   1843  CB  HIS B  97      13.424  -5.114  -6.846  1.00 14.03           C
ATOM   1844  CG  HIS B  97      13.854  -6.087  -7.914  1.00 15.82           C
ATOM   1845  ND1 HIS B  97      14.668  -7.153  -7.671  1.00 18.66           N
ATOM   1846  CD2 HIS B  97      13.509  -6.130  -9.241  1.00 18.23           C
ATOM   1847  CE1 HIS B  97      14.867  -7.849  -8.790  1.00 19.11           C
ATOM   1848  NE2 HIS B  97      14.167  -7.236  -9.729  1.00 19.92           N
ATOM   1849  N   VAL B  98      11.040  -5.302  -3.886  1.00 10.95           N
ATOM   1850  CA  VAL B  98      10.441  -4.383  -2.914  1.00 10.77           C
ATOM   1851  C   VAL B  98      11.136  -4.460  -1.563  1.00  9.39           C
ATOM   1852  O   VAL B  98      11.102  -5.542  -0.936  1.00  9.16           O
ATOM   1853  CB  VAL B  98       8.944  -4.726  -2.713  1.00 11.53           C
ATOM   1854  CG1 VAL B  98       8.329  -3.912  -1.549  1.00 10.33           C
ATOM   1855  CG2 VAL B  98       8.184  -4.533  -4.020  1.00  9.10           C
ATOM   1856  N   ASP B  99      11.673  -3.331  -1.124  1.00  9.59           N
ATOM   1857  CA  ASP B  99      12.310  -3.350   0.209  1.00  9.55           C
ATOM   1858  C   ASP B  99      11.257  -3.756   1.216  1.00  8.75           C
ATOM   1859  O   ASP B  99      10.165  -3.144   1.201  1.00  8.50           O
ATOM   1860  CB  ASP B  99      12.771  -1.904   0.473  1.00 11.34           C
ATOM   1861  CG  ASP B  99      13.427  -1.572   1.797  1.00 13.27           C
ATOM   1862  OD1 ASP B  99      13.505  -2.468   2.652  1.00 13.97           O
ATOM   1863  OD2 ASP B  99      13.910  -0.422   1.999  1.00 10.77           O
ATOM   1864  N   PRO B 100      11.483  -4.727   2.074  1.00  8.75           N
ATOM   1865  CA  PRO B 100      10.585  -5.143   3.136  1.00  9.81           C
ATOM   1866  C   PRO B 100      10.220  -4.055   4.116  1.00 10.27           C
ATOM   1867  O   PRO B 100       9.117  -4.165   4.734  1.00  9.56           O
ATOM   1868  CB  PRO B 100      11.246  -6.354   3.820  1.00 11.81           C
ATOM   1869  CG  PRO B 100      12.185  -6.839   2.742  1.00 12.09           C
ATOM   1870  CD  PRO B 100      12.736  -5.560   2.157  1.00  8.22           C
ATOM   1871  N   GLU B 101      10.935  -2.936   4.271  1.00  9.63           N
ATOM   1872  CA  GLU B 101      10.471  -1.835   5.111  1.00 10.07           C
ATOM   1873  C   GLU B 101       9.095  -1.360   4.597  1.00  9.21           C
ATOM   1874  O   GLU B 101       8.259  -0.935   5.394  1.00 11.97           O
ATOM   1875  CB  GLU B 101      11.491  -0.717   5.142  1.00 12.74           C
ATOM   1876  CG  GLU B 101      11.066   0.524   5.952  1.00 15.29           C
ATOM   1877  CD  GLU B 101      10.968   0.200   7.435  1.00 21.23           C
ATOM   1878  OE1 GLU B 101      11.548  -0.796   7.883  1.00 21.32           O
ATOM   1879  OE2 GLU B 101      10.254   1.024   8.079  1.00 26.47           O
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ATOM   1880  N   ASN B 102       8.769  -1.440   3.306  1.00  9.78           N
ATOM   1881  CA  ASN B 102       7.434  -1.068   2.813  1.00  8.44           C
ATOM   1882  C   ASN B 102       6.319  -1.876   3.472  1.00 11.12           C
ATOM   1883  O   ASN B 102       5.230  -1.342   3.694  1.00  7.97           O
ATOM   1884  CB  ASN B 102       7.398  -1.281   1.298  1.00 10.28           C
ATOM   1885  CG  ASN B 102       8.311  -0.270   0.629  1.00 10.27           C
ATOM   1886  OD1 ASN B 102       7.894   0.898   0.646  1.00 12.54           O
ATOM   1887  ND2 ASN B 102       9.467  -0.705   0.115  1.00  9.96           N
ATOM   1888  N   PHE B 103       6.523  -3.146   3.797  1.00 11.19           N
ATOM   1889  CA  PHE B 103       5.529  -3.955   4.477  1.00  9.61           C
ATOM   1890  C   PHE B 103       5.280  -3.428   5.882  1.00  9.22           C
ATOM   1891  O   PHE B 103       4.113  -3.463   6.332  1.00  8.02           O
ATOM   1892  CB  PHE B 103       5.893  -5.449   4.598  1.00 11.64           C
ATOM   1893  CG  PHE B 103       6.349  -6.025   3.267  1.00 11.99           C
ATOM   1894  CD1 PHE B 103       5.658  -5.808   2.101  1.00 13.56           C
ATOM   1895  CD2 PHE B 103       7.481  -6.833   3.269  1.00  9.86           C
ATOM   1896  CE1 PHE B 103       6.121  -6.359   0.896  1.00 14.34           C
ATOM   1897  CE2 PHE B 103       7.930  -7.374   2.082  1.00 13.30           C
ATOM   1898  CZ  PHE B 103       7.272  -7.140   0.909  1.00 11.72           C
ATOM   1899  N   ARG B 104       6.302  -2.912   6.556  1.00  9.96           N
ATOM   1900  CA  ARG B 104       6.151  -2.339   7.885  1.00 10.40           C
ATOM   1901  C   ARG B 104       5.379  -1.034   7.824  1.00 11.03           C
ATOM   1902  O   ARG B 104       4.460  -0.815   8.619  1.00 11.42           O
ATOM   1903  CB  ARG B 104       7.561  -2.163   8.471  1.00 16.21           C
ATOM   1904  CG  ARG B 104       8.191  -3.563   8.571  1.00 22.88           C
ATOM   1905  CD  ARG B 104       9.644  -3.537   8.972  1.00 29.11           C
ATOM   1906  NE  ARG B 104      10.404  -4.705   8.522  1.00 35.73           N
ATOM   1907  CZ  ARG B 104      10.212  -5.954   8.935  1.00 38.99           C
ATOM   1908  NH1 ARG B 104       9.268  -6.258   9.829  1.00 38.50           N
ATOM   1909  NH2 ARG B 104      10.944  -6.960   8.481  1.00 41.33           N
ATOM   1910  N   LEU B 105       5.720  -0.169   6.856  1.00 13.41           N
ATOM   1911  CA  LEU B 105       4.980   1.084   6.638  1.00  8.65           C
ATOM   1912  C   LEU B 105       3.520   0.776   6.301  1.00  9.73           C
ATOM   1913  O   LEU B 105       2.634   1.447   6.833  1.00  9.97           O
ATOM   1914  CB  LEU B 105       5.547   1.915   5.499  1.00  9.62           C
ATOM   1915  CG  LEU B 105       7.013   2.376   5.744  1.00 12.21           C
ATOM   1916  CD1 LEU B 105       7.602   3.032   4.491  1.00 13.16           C
ATOM   1917  CD2 LEU B 105       7.044   3.359   6.907  1.00 13.45           C
ATOM   1918  N   LEU B 106       3.231  -0.225   5.441  1.00  6.15           N
ATOM   1919  CA  LEU B 106       1.821  -0.528   5.144  1.00  8.38           C
ATOM   1920  C   LEU B 106       1.084  -0.977   6.393  1.00 10.54           C
ATOM   1921  O   LEU B 106      -0.069  -0.602   6.610  1.00  7.91           O
ATOM   1922  CB  LEU B 106       1.701  -1.593   4.052  1.00  7.19           C
ATOM   1923  CG  LEU B 106       0.256  -1.870   3.578  1.00 10.55           C
ATOM   1924  CD1 LEU B 106      -0.478  -0.666   3.002  1.00 10.76           C
ATOM   1925  CD2 LEU B 106       0.325  -2.985   2.535  1.00 10.50           C
ATOM   1926  N   GLY B 107       1.752  -1.800   7.221  1.00 10.98           N
ATOM   1927  CA  GLY B 107       1.164  -2.258   8.496  1.00 12.46           C
ATOM   1928  C   GLY B 107       0.773  -1.073   9.365  1.00 12.90           C
ATOM   1929  O   GLY B 107      -0.358  -1.020   9.900  1.00 12.91           O
ATOM   1930  N   ASN B 108       1.630  -0.069   9.563  1.00 11.27           N
ATOM   1931  CA  ASN B 108       1.260   1.078  10.386  1.00 15.12           C
ATOM   1932  C   ASN B 108       0.100   1.870   9.774  1.00 12.82           C
ATOM   1933  O   ASN B 108      -0.790   2.294  10.524  1.00 10.52           O
ATOM   1934  CB  ASN B 108       2.461   1.976  10.648  1.00 18.32           C
ATOM   1935  CG  ASN B 108       3.580   1.203  11.359  1.00 21.49           C
ATOM   1936  OD1 ASN B 108       3.319   0.175  12.024  1.00 25.75           O
ATOM   1937  ND2 ASN B 108       4.754   1.770  11.146  1.00 25.39           N
ATOM   1938  N   VAL B 109       0.089   2.066   8.468  1.00  9.69           N
ATOM   1939  CA  VAL B 109      -1.024   2.801   7.830  1.00  9.58           C
ATOM   1940  C   VAL B 109      -2.300   1.994   7.974  1.00 10.23           C
ATOM   1941  O   VAL B 109      -3.379   2.519   8.275  1.00 10.60           O
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ATOM   1942  CB  VAL B 109      -0.673   3.056   6.349  1.00 15.08           C
ATOM   1943  CG1 VAL B 109      -1.860   3.490   5.527  1.00 15.29           C
ATOM   1944  CG2 VAL B 109       0.430   4.145   6.340  1.00 15.51           C
ATOM   1945  N   LEU B 110      -2.253   0.660   7.825  1.00  9.18           N
ATOM   1946  CA  LEU B 110      -3.447  -0.158   7.992  1.00  8.22           C
ATOM   1947  C   LEU B 110      -3.956  -0.038   9.449  1.00  6.88           C
ATOM   1948  O   LEU B 110      -5.165   0.103   9.627  1.00  8.19           O
ATOM   1949  CB  LEU B 110      -3.229  -1.640   7.655  1.00  9.50           C
ATOM   1950  CG  LEU B 110      -4.351  -2.613   8.019  1.00  6.70           C
ATOM   1951  CD1 LEU B 110      -5.578  -2.337   7.153  1.00  8.10           C
ATOM   1952  CD2 LEU B 110      -3.953  -4.092   7.871  1.00 11.73           C
ATOM   1953  N   VAL B 111      -3.088   0.039  10.444  1.00  7.22           N
ATOM   1954  CA  VAL B 111      -3.568   0.188  11.844  1.00  7.04           C
ATOM   1955  C   VAL B 111      -4.266   1.539  11.969  1.00  9.51           C
ATOM   1956  O   VAL B 111      -5.327   1.635  12.603  1.00  7.80           O
ATOM   1957  CB  VAL B 111      -2.416   0.037  12.840  1.00  7.84           C
ATOM   1958  CG1 VAL B 111      -2.735   0.506  14.244  1.00  8.35           C
ATOM   1959  CG2 VAL B 111      -2.007  -1.454  12.924  1.00  8.96           C
ATOM   1960  N   CYS B 112      -3.657   2.590  11.372  1.00 11.45           N
ATOM   1961  CA  CYS B 112      -4.291   3.902  11.403  1.00 10.63           C
ATOM   1962  C   CYS B 112      -5.634   3.919  10.697  1.00 11.79           C
ATOM   1963  O   CYS B 112      -6.556   4.598  11.190  1.00  8.01           O
ATOM   1964  CB  CYS B 112      -3.414   4.980  10.720  1.00  9.20           C
ATOM   1965  SG  CYS B 112      -1.942   5.396  11.684  1.00 11.38           S
ATOM   1966  N   VAL B 113      -5.779   3.212   9.568  1.00  9.80           N
ATOM   1967  CA  VAL B 113      -7.067   3.158   8.857  1.00 10.11           C
ATOM   1968  C   VAL B 113      -8.133   2.453   9.683  1.00 10.60           C
ATOM   1969  O   VAL B 113      -9.308   2.842   9.788  1.00 12.44           O
ATOM   1970  CB  VAL B 113      -6.921   2.459   7.492  1.00 10.81           C
ATOM   1971  CG1 VAL B 113      -8.284   2.202   6.852  1.00 10.30           C
ATOM   1972  CG2 VAL B 113      -6.073   3.310   6.515  1.00  8.99           C
ATOM   1973  N   LEU B 114      -7.795   1.337  10.336  1.00  8.90           N
ATOM   1974  CA  LEU B 114      -8.721   0.616  11.185  1.00 10.53           C
ATOM   1975  C   LEU B 114      -9.128   1.547  12.326  1.00  9.78           C
ATOM   1976  O   LEU B 114     -10.320   1.552  12.664  1.00  7.85           O
ATOM   1977  CB  LEU B 114      -8.122  -0.682  11.783  1.00 10.48           C
ATOM   1978  CG  LEU B 114      -7.737  -1.710  10.712  1.00 12.52           C
ATOM   1979  CD1 LEU B 114      -7.073  -2.900  11.395  1.00 11.20           C
ATOM   1980  CD2 LEU B 114      -8.978  -2.192   9.939  1.00 12.85           C
ATOM   1981  N   ALA B 115      -8.119   2.233  12.922  1.00 10.33           N
ATOM   1982  CA  ALA B 115      -8.526   3.152  14.009  1.00  9.85           C
ATOM   1983  C   ALA B 115      -9.456   4.238  13.497  1.00 11.26           C
ATOM   1984  O   ALA B 115     -10.465   4.567  14.126  1.00  9.51           O
ATOM   1985  CB  ALA B 115      -7.319   3.822  14.681  1.00  4.65           C
ATOM   1986  N   HIS B 116      -9.166   4.847  12.336  1.00  9.17           N
ATOM   1987  CA  HIS B 116     -10.019   5.894  11.795  1.00 10.74           C
ATOM   1988  C   HIS B 116     -11.422   5.383  11.450  1.00 12.72           C
ATOM   1989  O   HIS B 116     -12.418   6.040  11.768  1.00 11.81           O
ATOM   1990  CB  HIS B 116      -9.336   6.444  10.517  1.00 10.68           C
ATOM   1991  CG  HIS B 116     -10.066   7.601   9.895  1.00 12.42           C
ATOM   1992  ND1 HIS B 116     -10.251   7.732   8.527  1.00 12.84           N
ATOM   1993  CD2 HIS B 116     -10.626   8.678  10.471  1.00 14.31           C
ATOM   1994  CE1 HIS B 116     -10.946   8.843   8.301  1.00 14.14           C
ATOM   1995  NE2 HIS B 116     -11.165   9.452   9.475  1.00 13.76           N
ATOM   1996  N   HIS B 117     -11.495   4.214  10.808  1.00  9.25           N
ATOM   1997  CA  HIS B 117     -12.769   3.648  10.397  1.00 13.97           C
ATOM   1998  C   HIS B 117     -13.650   3.150  11.546  1.00 14.44           C
ATOM   1999  O   HIS B 117     -14.865   3.397  11.548  1.00 14.36           O
ATOM   2000  CB  HIS B 117     -12.478   2.445   9.480  1.00 17.24           C
ATOM   2001  CG  HIS B 117     -13.804   1.945   8.960  1.00 22.09           C
ATOM   2002  ND1 HIS B 117     -14.573   2.780   8.179  1.00 26.53           N
ATOM   2003  CD2 HIS B 117     -14.488   0.794   9.118  1.00 23.18           C
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ATOM   2004  CE1 HIS B 117     -15.699   2.131   7.851  1.00 26.68           C
ATOM   2005  NE2 HIS B 117     -15.647   0.926   8.394  1.00 25.72           N
ATOM   2006  N   PHE B 118     -13.050   2.445  12.494  1.00 12.24           N
ATOM   2007  CA  PHE B 118     -13.783   1.838  13.593  1.00 13.23           C
ATOM   2008  C   PHE B 118     -13.916   2.694  14.838  1.00 12.71           C
ATOM   2009  O   PHE B 118     -14.857   2.454  15.626  1.00 13.37           O
ATOM   2010  CB  PHE B 118     -13.161   0.457  13.932  1.00 16.08           C
ATOM   2011  CG  PHE B 118     -13.524  -0.502  12.826  1.00 16.06           C
ATOM   2012  CD1 PHE B 118     -14.811  -1.001  12.669  1.00 15.65           C
ATOM   2013  CD2 PHE B 118     -12.549  -0.878  11.916  1.00 18.15           C
ATOM   2014  CE1 PHE B 118     -15.088  -1.869  11.627  1.00 17.43           C
ATOM   2015  CE2 PHE B 118     -12.847  -1.737  10.882  1.00 19.09           C
ATOM   2016  CZ  PHE B 118     -14.123  -2.243  10.725  1.00 18.18           C
ATOM   2017  N   GLY B 119     -13.096   3.697  15.018  1.00 12.13           N
ATOM   2018  CA  GLY B 119     -13.198   4.595  16.179  1.00 13.26           C
ATOM   2019  C   GLY B 119     -12.897   3.884  17.489  1.00 13.97           C
ATOM   2020  O   GLY B 119     -12.022   3.031  17.622  1.00 11.79           O
ATOM   2021  N   LYS B 120     -13.720   4.180  18.496  1.00 13.02           N
ATOM   2022  CA  LYS B 120     -13.619   3.639  19.841  1.00 15.46           C
ATOM   2023  C   LYS B 120     -13.516   2.139  19.928  1.00 14.27           C
ATOM   2024  O   LYS B 120     -12.747   1.602  20.752  1.00 11.52           O
ATOM   2025  CB  LYS B 120     -14.829   4.205  20.604  1.00 20.56           C
ATOM   2026  CG  LYS B 120     -14.891   3.882  22.093  1.00 28.34           C
ATOM   2027  CD  LYS B 120     -16.354   3.898  22.536  1.00 32.54           C
ATOM   2028  CE  LYS B 120     -17.100   2.605  22.213  1.00 36.77           C
ATOM   2029  NZ  LYS B 120     -17.960   2.709  20.998  1.00 35.16           N
ATOM   2030  N   GLU B 121     -14.177   1.334  19.107  1.00 13.61           N
ATOM   2031  CA  GLU B 121     -14.067  -0.111  19.061  1.00 14.97           C
ATOM   2032  C   GLU B 121     -12.643  -0.612  18.824  1.00 14.56           C
ATOM   2033  O   GLU B 121     -12.308  -1.734  19.244  1.00 13.22           O
ATOM   2034  CB  GLU B 121     -14.865  -0.743  17.908  1.00 20.86           C
ATOM   2035  CG  GLU B 121     -16.326  -0.356  17.861  1.00 26.98           C
ATOM   2036  CD  GLU B 121     -16.927  -0.876  16.548  1.00 25.70           C
ATOM   2037  OE1 GLU B 121     -16.435  -1.877  15.971  1.00 20.01           O
ATOM   2038  OE2 GLU B 121     -17.907  -0.207  16.184  1.00 31.27           O
ATOM   2039  N   PHE B 122     -11.797   0.197  18.178  1.00 11.15           N
ATOM   2040  CA  PHE B 122     -10.393  -0.236  17.978  1.00 13.79           C
ATOM   2041  C   PHE B 122      -9.652   0.149  19.246  1.00 13.37           C
ATOM   2042  O   PHE B 122      -8.887   1.118  19.244  1.00 11.01           O
ATOM   2043  CB  PHE B 122      -9.853   0.501  16.754  1.00 11.37           C
ATOM   2044  CG  PHE B 122      -8.550  -0.065  16.248  1.00 10.60           C
ATOM   2045  CD1 PHE B 122      -8.522  -1.321  15.660  1.00 11.49           C
ATOM   2046  CD2 PHE B 122      -7.384   0.644  16.390  1.00 12.29           C
ATOM   2047  CE1 PHE B 122      -7.315  -1.827  15.198  1.00 13.83           C
ATOM   2048  CE2 PHE B 122      -6.167   0.152  15.925  1.00 11.74           C
ATOM   2049  CZ  PHE B 122      -6.161  -1.105  15.335  1.00 14.64           C
ATOM   2050  N   THR B 123      -9.871  -0.582  20.345  1.00  8.68           N
ATOM   2051  CA  THR B 123      -9.308  -0.229  21.627  1.00 11.29           C
ATOM   2052  C   THR B 123      -7.805  -0.496  21.691  1.00  7.81           C
ATOM   2053  O   THR B 123      -7.293  -1.242  20.866  1.00 11.33           O
ATOM   2054  CB  THR B 123     -10.023  -1.143  22.652  1.00  9.89           C
ATOM   2055  OG1 THR B 123      -9.740  -2.515  22.299  1.00 10.70           O
ATOM   2056  CG2 THR B 123     -11.564  -0.988  22.630  1.00 12.33           C
ATOM   2057  N   PRO B 124      -7.162  -0.052  22.771  1.00  9.94           N
ATOM   2058  CA  PRO B 124      -5.731  -0.325  22.981  1.00  8.18           C
ATOM   2059  C   PRO B 124      -5.417  -1.782  22.846  1.00 11.09           C
ATOM   2060  O   PRO B 124      -4.488  -2.156  22.100  1.00 10.69           O
ATOM   2061  CB  PRO B 124      -5.457   0.354  24.311  1.00 10.20           C
ATOM   2062  CG  PRO B 124      -6.362   1.577  24.224  1.00 11.97           C
ATOM   2063  CD  PRO B 124      -7.683   0.873  23.789  1.00  8.54           C
ATOM   2064  N   PRO B 125      -6.109  -2.714  23.495  1.00 10.53           N
ATOM   2065  CA  PRO B 125      -5.842  -4.127  23.365  1.00 10.37           C
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ATOM   2066  C   PRO B 125      -6.061  -4.654  21.954  1.00 10.95           C
ATOM   2067  O   PRO B 125      -5.348  -5.531  21.440  1.00 10.44           O
ATOM   2068  CB  PRO B 125      -6.803  -4.753  24.356  1.00 15.08           C
ATOM   2069  CG  PRO B 125      -7.134  -3.693  25.357  1.00 13.69           C
ATOM   2070  CD  PRO B 125      -7.175  -2.429  24.515  1.00 10.19           C
ATOM   2071  N   VAL B 126      -7.134  -4.187  21.278  1.00 10.34           N
ATOM   2072  CA  VAL B 126      -7.361  -4.621  19.894  1.00 11.99           C
ATOM   2073  C   VAL B 126      -6.199  -4.149  19.014  1.00 10.27           C
ATOM   2074  O   VAL B 126      -5.698  -4.911  18.153  1.00 10.72           O
ATOM   2075  CB  VAL B 126      -8.713  -4.138  19.365  1.00 14.45           C
ATOM   2076  CG1 VAL B 126      -8.854  -4.349  17.858  1.00 14.57           C
ATOM   2077  CG2 VAL B 126      -9.817  -4.925  20.037  1.00  9.71           C
ATOM   2078  N   GLN B 127      -5.782  -2.880  19.220  1.00 10.30           N
ATOM   2079  CA  GLN B 127      -4.633  -2.406  18.435  1.00  8.82           C
ATOM   2080  C   GLN B 127      -3.422  -3.301  18.680  1.00  9.36           C
ATOM   2081  O   GLN B 127      -2.672  -3.680  17.772  1.00  9.68           O
ATOM   2082  CB  GLN B 127      -4.213  -0.993  18.899  1.00  6.86           C
ATOM   2083  CG  GLN B 127      -2.936  -0.541  18.181  1.00  7.81           C
ATOM   2084  CD  GLN B 127      -2.490   0.855  18.600  1.00  9.76           C
ATOM   2085  OE1 GLN B 127      -3.207   1.539  19.306  1.00  8.34           O
ATOM   2086  NE2 GLN B 127      -1.313   1.264  18.127  1.00 12.05           N
ATOM   2087  N   ALA B 128      -3.140  -3.615  19.954  1.00 10.45           N
ATOM   2088  CA  ALA B 128      -1.953  -4.433  20.256  1.00 11.69           C
ATOM   2089  C   ALA B 128      -1.995  -5.777  19.518  1.00 10.02           C
ATOM   2090  O   ALA B 128      -0.955  -6.235  19.011  1.00 10.45           O
ATOM   2091  CB  ALA B 128      -1.811  -4.561  21.770  1.00 10.07           C
ATOM   2092  N   ALA B 129      -3.166  -6.369  19.423  1.00  9.62           N
ATOM   2093  CA  ALA B 129      -3.310  -7.644  18.689  1.00 11.72           C
ATOM   2094  C   ALA B 129      -3.015  -7.390  17.203  1.00 11.79           C
ATOM   2095  O   ALA B 129      -2.258  -8.166  16.588  1.00 14.04           O
ATOM   2096  CB  ALA B 129      -4.701  -8.172  18.898  1.00 13.66           C
ATOM   2097  N   TYR B 130      -3.541  -6.327  16.612  1.00  9.11           N
ATOM   2098  CA  TYR B 130      -3.248  -5.998  15.210  1.00  9.63           C
ATOM   2099  C   TYR B 130      -1.796  -5.608  14.977  1.00  9.96           C
ATOM   2100  O   TYR B 130      -1.302  -5.901  13.892  1.00  8.31           O
ATOM   2101  CB  TYR B 130      -4.164  -4.888  14.677  1.00  9.21           C
ATOM   2102  CG  TYR B 130      -5.405  -5.599  14.132  1.00 11.88           C
ATOM   2103  CD1 TYR B 130      -5.416  -6.001  12.808  1.00 10.47           C
ATOM   2104  CD2 TYR B 130      -6.519  -5.824  14.936  1.00 10.52           C
ATOM   2105  CE1 TYR B 130      -6.540  -6.656  12.275  1.00 10.54           C
ATOM   2106  CE2 TYR B 130      -7.623  -6.460  14.410  1.00 10.45           C
ATOM   2107  CZ  TYR B 130      -7.635  -6.872  13.095  1.00 15.22           C
ATOM   2108  OH  TYR B 130      -8.730  -7.525  12.547  1.00 13.84           O
ATOM   2109  N   GLN B 131      -1.134  -5.011  15.965  1.00 11.75           N
ATOM   2110  CA  GLN B 131       0.301  -4.708  15.782  1.00 11.50           C
ATOM   2111  C   GLN B 131       1.106  -5.995  15.650  1.00  8.65           C
ATOM   2112  O   GLN B 131       2.057  -6.153  14.856  1.00 10.23           O
ATOM   2113  CB  GLN B 131       0.809  -3.862  16.952  1.00 13.64           C
ATOM   2114  CG  GLN B 131       0.210  -2.479  16.990  1.00 13.78           C
ATOM   2115  CD  GLN B 131       0.757  -1.437  16.002  1.00 18.13           C
ATOM   2116  OE1 GLN B 131       0.162  -0.354  16.004  1.00 13.12           O
ATOM   2117  NE2 GLN B 131       1.807  -1.714  15.226  1.00 11.19           N
ATOM   2118  N   LYS B 132       0.776  -6.992  16.459  1.00  9.28           N
ATOM   2119  CA  LYS B 132       1.447  -8.291  16.375  1.00 12.68           C
ATOM   2120  C   LYS B 132       1.220  -8.903  14.994  1.00 12.57           C
ATOM   2121  O   LYS B 132       2.169  -9.418  14.402  1.00 11.92           O
ATOM   2122  CB  LYS B 132       0.933  -9.230  17.461  1.00 15.20           C
ATOM   2123  CG  LYS B 132       1.431  -8.842  18.866  1.00 15.73           C
ATOM   2124  CD  LYS B 132       1.132 -10.096  19.732  1.00 21.17           C
ATOM   2125  CE  LYS B 132       1.513  -9.839  21.177  1.00 26.08           C
ATOM   2126  NZ  LYS B 132       1.260 -11.026  22.056  1.00 27.77           N
ATOM   2127  N   VAL B 133       0.001  -8.849  14.489  1.00  9.60           N
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ATOM   2128  CA  VAL B 133      -0.336  -9.374  13.166  1.00 11.02           C
ATOM   2129  C   VAL B 133       0.389  -8.622  12.048  1.00 13.48           C
ATOM   2130  O   VAL B 133       0.996  -9.300  11.176  1.00 12.45           O
ATOM   2131  CB  VAL B 133      -1.856  -9.264  12.908  1.00 13.54           C
ATOM   2132  CG1 VAL B 133      -2.199  -9.648  11.469  1.00 12.88           C
ATOM   2133  CG2 VAL B 133      -2.667 -10.079  13.906  1.00 11.70           C
ATOM   2134  N   VAL B 134       0.357  -7.282  12.065  1.00 10.48           N
ATOM   2135  CA  VAL B 134       1.075  -6.589  10.945  1.00 10.09           C
ATOM   2136  C   VAL B 134       2.567  -6.854  11.036  1.00  9.47           C
ATOM   2137  O   VAL B 134       3.252  -7.026   9.992  1.00 11.07           O
ATOM   2138  CB  VAL B 134       0.713  -5.105  10.796  1.00  9.60           C
ATOM   2139  CG1 VAL B 134      -0.795  -4.970  10.517  1.00  9.56           C
ATOM   2140  CG2 VAL B 134       1.111  -4.365  12.086  1.00  9.13           C
ATOM   2141  N   ALA B 135       3.171  -6.922  12.218  1.00 10.93           N
ATOM   2142  CA  ALA B 135       4.578  -7.243  12.356  1.00 11.16           C
ATOM   2143  C   ALA B 135       4.848  -8.677  11.855  1.00 13.43           C
ATOM   2144  O   ALA B 135       5.843  -8.902  11.169  1.00 14.50           O
ATOM   2145  CB  ALA B 135       5.081  -7.150  13.786  1.00 14.19           C
ATOM   2146  N   GLY B 136       3.975  -9.617  12.195  1.00 13.38           N
ATOM   2147  CA  GLY B 136       4.137 -11.003  11.756  1.00 12.46           C
ATOM   2148  C   GLY B 136       4.039 -11.156  10.240  1.00 11.94           C
ATOM   2149  O   GLY B 136       4.858 -11.854   9.628  1.00 14.93           O
ATOM   2150  N   VAL B 137       3.047 -10.488   9.629  1.00 11.99           N
ATOM   2151  CA  VAL B 137       2.914 -10.547   8.177  1.00 13.16           C
ATOM   2152  C   VAL B 137       4.110  -9.877   7.511  1.00 13.32           C
ATOM   2153  O   VAL B 137       4.632 -10.414   6.531  1.00 10.29           O
ATOM   2154  CB  VAL B 137       1.578  -9.931   7.716  1.00 13.65           C
ATOM   2155  CG1 VAL B 137       1.545  -9.711   6.214  1.00 11.10           C
ATOM   2156  CG2 VAL B 137       0.454 -10.861   8.186  1.00 11.97           C
ATOM   2157  N   ALA B 138       4.595  -8.714   8.012  1.00 14.08           N
ATOM   2158  CA  ALA B 138       5.748  -8.112   7.324  1.00 10.92           C
ATOM   2159  C   ALA B 138       6.966  -9.012   7.475  1.00 13.19           C
ATOM   2160  O   ALA B 138       7.772  -9.168   6.553  1.00 10.35           O
ATOM   2161  CB  ALA B 138       6.070  -6.704   7.815  1.00 13.58           C
ATOM   2162  N   ASN B 139       7.167  -9.626   8.654  1.00 12.65           N
ATOM   2163  CA  ASN B 139       8.304 -10.519   8.831  1.00 14.58           C
ATOM   2164  C   ASN B 139       8.191 -11.752   7.933  1.00 14.05           C
ATOM   2165  O   ASN B 139       9.227 -12.190   7.399  1.00 13.89           O
ATOM   2166  CB  ASN B 139       8.449 -10.952  10.301  1.00 19.66           C
ATOM   2167  CG  ASN B 139       8.930  -9.751  11.112  1.00 23.15           C
ATOM   2168  OD1 ASN B 139       9.618  -8.838  10.672  1.00 25.10           O
ATOM   2169  ND2 ASN B 139       8.485  -9.829  12.364  1.00 23.81           N
ATOM   2170  N   ALA B 140       6.985 -12.269   7.734  1.00 11.62           N
ATOM   2171  CA  ALA B 140       6.785 -13.450   6.872  1.00 10.79           C
ATOM   2172  C   ALA B 140       7.105 -13.101   5.416  1.00 11.74           C
ATOM   2173  O   ALA B 140       7.790 -13.843   4.686  1.00 11.50           O
ATOM   2174  CB  ALA B 140       5.348 -13.932   6.966  1.00 10.58           C
ATOM   2175  N   LEU B 141       6.617 -11.928   4.985  1.00 11.71           N
ATOM   2176  CA  LEU B 141       6.909 -11.487   3.611  1.00 11.77           C
ATOM   2177  C   LEU B 141       8.365 -11.119   3.400  1.00 12.06           C
ATOM   2178  O   LEU B 141       8.836 -11.130   2.257  1.00 12.27           O
ATOM   2179  CB  LEU B 141       6.094 -10.222   3.281  1.00 13.65           C
ATOM   2180  CG  LEU B 141       4.643 -10.531   2.907  1.00 15.31           C
ATOM   2181  CD1 LEU B 141       3.872  -9.225   2.907  1.00 16.58           C
ATOM   2182  CD2 LEU B 141       4.547 -11.245   1.562  1.00 16.53           C
ATOM   2183  N   ALA B 142       9.107 -10.808   4.467  1.00 11.37           N
ATOM   2184  CA  ALA B 142      10.526 -10.502   4.309  1.00 12.26           C
ATOM   2185  C   ALA B 142      11.410 -11.732   4.440  1.00 12.29           C
ATOM   2186  O   ALA B 142      12.613 -11.708   4.170  1.00 12.15           O
ATOM   2187  CB  ALA B 142      10.957  -9.557   5.436  1.00 12.69           C
ATOM   2188  N   HIS B 143      10.834 -12.831   4.928  1.00 14.02           N
ATOM   2189  CA  HIS B 143      11.620 -14.021   5.279  1.00 15.09           C
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ATOM   2190  C   HIS B 143      12.410 -14.719   4.204  1.00 14.29           C
ATOM   2191  O   HIS B 143      13.547 -15.167   4.477  1.00 12.30           O
ATOM   2192  CB  HIS B 143      10.672 -14.987   6.046  1.00 15.34           C
ATOM   2193  CG  HIS B 143      11.435 -16.174   6.563  1.00 22.48           C
ATOM   2194  ND1 HIS B 143      11.356 -17.415   5.991  1.00 22.49           N
ATOM   2195  CD2 HIS B 143      12.269 -16.299   7.620  1.00 25.34           C
ATOM   2196  CE1 HIS B 143      12.129 -18.249   6.664  1.00 25.59           C
ATOM   2197  NE2 HIS B 143      12.686 -17.602   7.666  1.00 26.23           N
ATOM   2198  N   LYS B 144      11.945 -14.692   2.961  1.00 13.14           N
ATOM   2199  CA  LYS B 144      12.674 -15.341   1.875  1.00 16.46           C
ATOM   2200  C   LYS B 144      13.561 -14.390   1.109  1.00 16.45           C
ATOM   2201  O   LYS B 144      14.042 -14.764   0.017  1.00 14.79           O
ATOM   2202  CB  LYS B 144      11.699 -16.041   0.910  1.00 19.28           C
ATOM   2203  CG  LYS B 144      10.794 -17.056   1.586  1.00 22.50           C
ATOM   2204  CD  LYS B 144      11.607 -18.230   2.109  1.00 25.50           C
ATOM   2205  CE  LYS B 144      10.703 -19.443   2.251  1.00 29.48           C
ATOM   2206  NZ  LYS B 144      10.408 -19.672   3.694  1.00 36.60           N
ATOM   2207  N   TYR B 145      13.811 -13.182   1.644  1.00 14.54           N
ATOM   2208  CA  TYR B 145      14.688 -12.267   0.909  1.00 13.25           C
ATOM   2209  C   TYR B 145      16.124 -12.769   1.033  1.00 16.41           C
ATOM   2210  O   TYR B 145      16.437 -13.343   2.067  1.00 16.22           O
ATOM   2211  CB  TYR B 145      14.600 -10.842   1.486  1.00 11.12           C
ATOM   2212  CG  TYR B 145      13.445 -10.080   0.884  1.00 10.06           C
ATOM   2213  CD1 TYR B 145      12.147 -10.531   1.006  1.00 10.27           C
ATOM   2214  CD2 TYR B 145      13.706  -8.889   0.182  1.00 11.51           C
ATOM   2215  CE1 TYR B 145      11.093  -9.804   0.441  1.00  8.03           C
ATOM   2216  CE2 TYR B 145      12.653  -8.190  -0.396  1.00 10.36           C
ATOM   2217  CZ  TYR B 145      11.368  -8.661  -0.251  1.00  9.07           C
ATOM   2218  OH  TYR B 145      10.339  -7.943  -0.805  1.00 10.71           O
ATOM   2219  N   HIS B 146      16.951 -12.500   0.040  1.00 13.98           N
ATOM   2220  CA  HIS B 146      18.341 -12.945   0.060  1.00 15.89           C
ATOM   2221  C   HIS B 146      19.181 -12.067  -0.836  1.00 14.80           C
ATOM   2222  O   HIS B 146      18.635 -11.109  -1.432  1.00 13.26           O
ATOM   2223  CB  HIS B 146      18.429 -14.420  -0.449  1.00 15.85           C
ATOM   2224  CG  HIS B 146      17.931 -14.412  -1.879  1.00 20.03           C
ATOM   2225  ND1 HIS B 146      18.824 -14.438  -2.950  1.00 16.94           N
ATOM   2226  CD2 HIS B 146      16.690 -14.321  -2.393  1.00 19.37           C
ATOM   2227  CE1 HIS B 146      18.110 -14.386  -4.068  1.00 21.80           C
ATOM   2228  NE2 HIS B 146      16.824 -14.310  -3.765  1.00 19.17           N
ATOM   2229  OXT HIS B 146      20.436 -12.170  -0.789  1.00 15.88           O
TER    2230      HIS B 146
HETATM 2231 FE   HEM B 147       2.699  -6.580  -2.893  1.00 12.59          FE
HETATM 2232  CHA HEM B 147       1.991  -7.396  -6.174  1.00 12.71           C
HETATM 2233  CHB HEM B 147       0.583  -8.997  -1.822  1.00 10.80           C
HETATM 2234  CHC HEM B 147       2.653  -5.130   0.258  1.00 11.43           C
HETATM 2235  CHD HEM B 147       4.426  -3.761  -4.055  1.00  9.48           C
HETATM 2236  N A HEM B 147       1.527  -7.942  -3.816  1.00 12.82           N
HETATM 2237  C1A HEM B 147       1.364  -8.132  -5.168  1.00 15.28           C
HETATM 2238  C2A HEM B 147       0.429  -9.207  -5.395  1.00 15.21           C
HETATM 2239  C3A HEM B 147       0.012  -9.662  -4.221  1.00 14.81           C
HETATM 2240  C4A HEM B 147       0.700  -8.867  -3.193  1.00 14.23           C
HETATM 2241  CMA HEM B 147      -0.994 -10.794  -3.912  1.00 10.48           C
HETATM 2242  CAA HEM B 147       0.023  -9.704  -6.823  1.00 22.65           C
HETATM 2243  CBA HEM B 147       0.910 -10.896  -7.256  1.00 30.34           C
HETATM 2244  CGA HEM B 147       1.066 -11.359  -8.674  1.00 35.08           C
HETATM 2245  O1A HEM B 147       1.502 -12.532  -8.916  1.00 36.82           O
HETATM 2246  O2A HEM B 147       0.780 -10.562  -9.613  1.00 37.14           O
HETATM 2247  N B HEM B 147       1.761  -6.937  -1.142  1.00 11.31           N
HETATM 2248  C1B HEM B 147       1.042  -8.108  -0.857  1.00  9.88           C
HETATM 2249  C2B HEM B 147       0.860  -8.218   0.565  1.00  9.98           C
HETATM 2250  C3B HEM B 147       1.440  -7.153   1.149  1.00  9.07           C
HETATM 2251  C4B HEM B 147       2.011  -6.342   0.090  1.00 10.55           C
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HETATM 2252  CMB HEM B 147       0.100  -9.395   1.213  1.00  9.29           C
HETATM 2253  CAB HEM B 147       1.522  -6.763   2.636  1.00 11.92           C
HETATM 2254  CBB HEM B 147       0.468  -6.904   3.452  1.00 18.11           C
HETATM 2255  N C HEM B 147       3.383  -4.818  -2.082  1.00 11.79           N
HETATM 2256  C1C HEM B 147       3.237  -4.412  -0.764  1.00  9.55           C
HETATM 2257  C2C HEM B 147       3.832  -3.090  -0.582  1.00 10.78           C
HETATM 2258  C3C HEM B 147       4.347  -2.711  -1.772  1.00 10.74           C
HETATM 2259  C4C HEM B 147       4.066  -3.775  -2.709  1.00 10.14           C
HETATM 2260  CMC HEM B 147       3.851  -2.339   0.765  1.00 11.33           C
HETATM 2261  CAC HEM B 147       5.085  -1.403  -2.112  1.00 11.48           C
HETATM 2262  CBC HEM B 147       4.864  -0.249  -1.509  1.00 14.50           C
HETATM 2263  N D HEM B 147       3.079  -5.754  -4.735  1.00 11.29           N
HETATM 2264  C1D HEM B 147       3.854  -4.621  -4.977  1.00 13.25           C
HETATM 2265  C2D HEM B 147       4.021  -4.453  -6.426  1.00 13.28           C
HETATM 2266  C3D HEM B 147       3.357  -5.445  -7.006  1.00 12.08           C
HETATM 2267  C4D HEM B 147       2.749  -6.261  -5.967  1.00 12.47           C
HETATM 2268  CMD HEM B 147       4.833  -3.283  -7.052  1.00 11.97           C
HETATM 2269  CAD HEM B 147       3.178  -5.664  -8.532  1.00 16.18           C
HETATM 2270  CBD HEM B 147       2.130  -4.614  -9.059  1.00 17.66           C
HETATM 2271  CGD HEM B 147       2.043  -4.573 -10.574  1.00 22.71           C
HETATM 2272  O1D HEM B 147       1.520  -5.589 -11.047  1.00 21.64           O
HETATM 2273  O2D HEM B 147       2.485  -3.569 -11.191  1.00 24.48           O
ATOM   2274  N   VAL C   1      23.511  18.234  16.459  1.00 24.65           N
ATOM   2275  CA  VAL C   1      24.280  19.120  15.550  1.00 27.95           C
ATOM   2276  C   VAL C   1      25.725  18.655  15.616  1.00 22.92           C
ATOM   2277  O   VAL C   1      26.059  17.979  16.573  1.00 24.47           O
ATOM   2278  CB  VAL C   1      24.176  20.612  15.878  1.00 31.43           C
ATOM   2279  CG1 VAL C   1      24.994  21.523  14.974  1.00 36.26           C
ATOM   2280  CG2 VAL C   1      22.727  21.074  15.829  1.00 33.29           C
ATOM   2281  N   LEU C   2      26.528  18.998  14.629  1.00 20.64           N
ATOM   2282  CA  LEU C   2      27.937  18.637  14.685  1.00 21.65           C
ATOM   2283  C   LEU C   2      28.697  19.713  15.451  1.00 21.38           C
ATOM   2284  O   LEU C   2      28.779  20.853  14.965  1.00 24.03           O
ATOM   2285  CB  LEU C   2      28.509  18.479  13.283  1.00 20.23           C
ATOM   2286  CG  LEU C   2      27.868  17.315  12.514  1.00 20.60           C
ATOM   2287  CD1 LEU C   2      28.320  17.366  11.063  1.00 22.36           C
ATOM   2288  CD2 LEU C   2      28.224  15.985  13.174  1.00 22.95           C
ATOM   2289  N   SER C   3      29.254  19.334  16.585  1.00 18.88           N
ATOM   2290  CA  SER C   3      30.025  20.348  17.325  1.00 19.56           C
ATOM   2291  C   SER C   3      31.258  20.693  16.526  1.00 18.88           C
ATOM   2292  O   SER C   3      31.687  20.024  15.593  1.00 18.44           O
ATOM   2293  CB  SER C   3      30.417  19.728  18.670  1.00 17.82           C
ATOM   2294  OG  SER C   3      31.439  18.765  18.514  1.00 18.66           O
ATOM   2295  N   PRO C   4      31.970  21.757  16.939  1.00 20.88           N
ATOM   2296  CA  PRO C   4      33.214  22.139  16.315  1.00 22.46           C
ATOM   2297  C   PRO C   4      34.214  20.999  16.456  1.00 17.20           C
ATOM   2298  O   PRO C   4      34.964  20.689  15.526  1.00 16.03           O
ATOM   2299  CB  PRO C   4      33.658  23.382  17.076  1.00 24.66           C
ATOM   2300  CG  PRO C   4      32.392  23.929  17.642  1.00 23.32           C
ATOM   2301  CD  PRO C   4      31.594  22.676  18.046  1.00 21.56           C
ATOM   2302  N   ALA C   5      34.222  20.318  17.605  1.00 16.63           N
ATOM   2303  CA  ALA C   5      35.132  19.196  17.835  1.00 18.18           C
ATOM   2304  C   ALA C   5      34.801  18.032  16.908  1.00 16.20           C
ATOM   2305  O   ALA C   5      35.683  17.349  16.369  1.00 16.13           O
ATOM   2306  CB  ALA C   5      35.101  18.745  19.295  1.00 18.24           C
ATOM   2307  N   ASP C   6      33.505  17.801  16.665  1.00 13.96           N
ATOM   2308  CA  ASP C   6      33.083  16.764  15.737  1.00 13.29           C
ATOM   2309  C   ASP C   6      33.635  17.066  14.356  1.00 12.85           C
ATOM   2310  O   ASP C   6      34.126  16.217  13.615  1.00 13.68           O
ATOM   2311  CB  ASP C   6      31.541  16.671  15.594  1.00 10.64           C
ATOM   2312  CG  ASP C   6      30.828  16.063  16.774  1.00 13.46           C
ATOM   2313  OD1 ASP C   6      31.368  15.096  17.383  1.00 14.52           O
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ATOM   2314  OD2 ASP C   6      29.706  16.549  17.107  1.00 11.60           O
ATOM   2315  N   LYS C   7      33.513  18.342  13.952  1.00 11.91           N
ATOM   2316  CA  LYS C   7      33.963  18.724  12.614  1.00 15.49           C
ATOM   2317  C   LYS C   7      35.467  18.521  12.493  1.00 16.96           C
ATOM   2318  O   LYS C   7      35.962  18.008  11.489  1.00 14.87           O
ATOM   2319  CB  LYS C   7      33.537  20.162  12.307  1.00 17.19           C
ATOM   2320  CG  LYS C   7      32.023  20.353  12.362  1.00 21.84           C
ATOM   2321  CD  LYS C   7      31.669  21.782  11.951  1.00 25.59           C
ATOM   2322  CE  LYS C   7      30.154  21.987  12.077  1.00 28.22           C
ATOM   2323  NZ  LYS C   7      29.820  23.433  12.190  1.00 29.72           N
ATOM   2324  N   THR C   8      36.202  18.931  13.529  1.00 18.27           N
ATOM   2325  CA  THR C   8      37.652  18.710  13.545  1.00 18.61           C
ATOM   2326  C   THR C   8      37.979  17.231  13.443  1.00 16.44           C
ATOM   2327  O   THR C   8      38.859  16.833  12.664  1.00 16.74           O
ATOM   2328  CB  THR C   8      38.280  19.307  14.828  1.00 18.69           C
ATOM   2329  OG1 THR C   8      38.015  20.717  14.810  1.00 19.87           O
ATOM   2330  CG2 THR C   8      39.767  19.029  14.845  1.00 21.50           C
ATOM   2331  N   ASN C   9      37.299  16.381  14.200  1.00 16.85           N
ATOM   2332  CA  ASN C   9      37.534  14.930  14.177  1.00 15.89           C
ATOM   2333  C   ASN C   9      37.253  14.321  12.815  1.00 13.63           C
ATOM   2334  O   ASN C   9      37.975  13.477  12.321  1.00 13.35           O
ATOM   2335  CB  ASN C   9      36.675  14.243  15.252  1.00 14.29           C
ATOM   2336  CG  ASN C   9      37.116  14.514  16.661  1.00 19.01           C
ATOM   2337  OD1 ASN C   9      38.253  14.950  16.903  1.00 18.64           O
ATOM   2338  ND2 ASN C   9      36.278  14.257  17.655  1.00 15.72           N
ATOM   2339  N   VAL C  10      36.132  14.699  12.175  1.00 13.59           N
ATOM   2340  CA  VAL C  10      35.755  14.214  10.849  1.00 13.41           C
ATOM   2341  C   VAL C  10      36.743  14.655   9.773  1.00 15.85           C
ATOM   2342  O   VAL C  10      37.167  13.848   8.944  1.00 16.23           O
ATOM   2343  CB  VAL C  10      34.326  14.641  10.457  1.00 13.09           C
ATOM   2344  CG1 VAL C  10      33.939  14.071   9.083  1.00 14.46           C
ATOM   2345  CG2 VAL C  10      33.353  14.119  11.510  1.00 16.99           C
ATOM   2346  N   LYS C  11      37.137  15.921   9.792  1.00 13.77           N
ATOM   2347  CA  LYS C  11      38.103  16.416   8.789  1.00 14.91           C
ATOM   2348  C   LYS C  11      39.415  15.649   8.916  1.00 16.74           C
ATOM   2349  O   LYS C  11      39.977  15.221   7.901  1.00 18.42           O
ATOM   2350  CB  LYS C  11      38.317  17.928   8.959  1.00 15.97           C
ATOM   2351  CG  LYS C  11      37.157  18.684   8.340  1.00 19.14           C
ATOM   2352  CD  LYS C  11      37.236  20.183   8.646  1.00 24.83           C
ATOM   2353  CE  LYS C  11      36.192  20.929   7.824  1.00 29.49           C
ATOM   2354  NZ  LYS C  11      36.180  22.381   8.168  1.00 34.78           N
ATOM   2355  N   ALA C  12      39.867  15.359  10.114  1.00 17.08           N
ATOM   2356  CA  ALA C  12      41.132  14.643  10.268  1.00 19.54           C
ATOM   2357  C   ALA C  12      41.026  13.207   9.801  1.00 19.09           C
ATOM   2358  O   ALA C  12      41.839  12.670   9.034  1.00 16.07           O
ATOM   2359  CB  ALA C  12      41.534  14.717  11.740  1.00 20.94           C
ATOM   2360  N   ALA C  13      39.988  12.502  10.252  1.00 18.51           N
ATOM   2361  CA  ALA C  13      39.833  11.094   9.884  1.00 16.72           C
ATOM   2362  C   ALA C  13      39.580  10.879   8.406  1.00 19.70           C
ATOM   2363  O   ALA C  13      40.164   9.997   7.749  1.00 19.60           O
ATOM   2364  CB  ALA C  13      38.686  10.565  10.756  1.00 17.96           C
ATOM   2365  N   TRP C  14      38.653  11.643   7.805  1.00 20.86           N
ATOM   2366  CA  TRP C  14      38.294  11.559   6.391  1.00 21.14           C
ATOM   2367  C   TRP C  14      39.427  12.049   5.514  1.00 23.85           C
ATOM   2368  O   TRP C  14      39.702  11.551   4.416  1.00 20.32           O
ATOM   2369  CB  TRP C  14      36.981  12.337   6.072  1.00 22.58           C
ATOM   2370  CG  TRP C  14      36.523  11.952   4.696  1.00 23.05           C
ATOM   2371  CD1 TRP C  14      36.712  12.662   3.541  1.00 23.61           C
ATOM   2372  CD2 TRP C  14      35.841  10.756   4.332  1.00 21.84           C
ATOM   2373  NE1 TRP C  14      36.174  11.974   2.477  1.00 22.71           N
ATOM   2374  CE2 TRP C  14      35.633  10.799   2.939  1.00 23.72           C
ATOM   2375  CE3 TRP C  14      35.380   9.646   5.044  1.00 24.33           C
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ATOM   2376  CZ2 TRP C  14      34.985   9.777   2.246  1.00 24.89           C
ATOM   2377  CZ3 TRP C  14      34.732   8.640   4.347  1.00 25.17           C
ATOM   2378  CH2 TRP C  14      34.544   8.698   2.961  1.00 25.23           C
ATOM   2379  N   GLY C  15      40.227  12.996   6.003  1.00 25.44           N
ATOM   2380  CA  GLY C  15      41.392  13.514   5.313  1.00 27.25           C
ATOM   2381  C   GLY C  15      42.392  12.377   5.126  1.00 28.02           C
ATOM   2382  O   GLY C  15      43.083  12.296   4.119  1.00 26.61           O
ATOM   2383  N   LYS C  16      42.472  11.449   6.073  1.00 31.11           N
ATOM   2384  CA  LYS C  16      43.341  10.294   6.034  1.00 33.21           C
ATOM   2385  C   LYS C  16      42.891   9.246   5.036  1.00 33.21           C
ATOM   2386  O   LYS C  16      43.678   8.453   4.533  1.00 35.63           O
ATOM   2387  CB  LYS C  16      43.462   9.620   7.413  1.00 32.85           C
ATOM   2388  CG  LYS C  16      44.743   9.995   8.123  1.00 35.10           C
ATOM   2389  CD  LYS C  16      45.995   9.591   7.336  1.00 32.76           C
ATOM   2390  CE  LYS C  16      45.840   7.759   8.122  0.00 39.57           C
ATOM   2391  NZ  LYS C  16      46.045   6.549   7.300  0.00 40.28           N
ATOM   2392  N   VAL C  17      41.609   9.239   4.680  1.00 32.48           N
ATOM   2393  CA  VAL C  17      41.077   8.343   3.679  1.00 28.88           C
ATOM   2394  C   VAL C  17      41.771   8.718   2.369  1.00 32.34           C
ATOM   2395  O   VAL C  17      42.216   7.869   1.610  1.00 29.64           O
ATOM   2396  CB  VAL C  17      39.556   8.467   3.515  1.00 29.47           C
ATOM   2397  CG1 VAL C  17      39.079   7.853   2.209  1.00 25.98           C
ATOM   2398  CG2 VAL C  17      38.874   7.826   4.718  1.00 28.69           C
ATOM   2399  N   GLY C  18      41.805  10.031   2.131  1.00 32.23           N
ATOM   2400  CA  GLY C  18      42.400  10.606   0.956  1.00 33.24           C
ATOM   2401  C   GLY C  18      42.043   9.944  -0.352  1.00 31.20           C
ATOM   2402  O   GLY C  18      40.922   9.844  -0.837  1.00 30.52           O
ATOM   2403  N   ALA C  19      43.075   9.403  -1.003  1.00 31.82           N
ATOM   2404  CA  ALA C  19      42.967   8.728  -2.288  1.00 31.59           C
ATOM   2405  C   ALA C  19      42.238   7.391  -2.259  1.00 29.08           C
ATOM   2406  O   ALA C  19      41.874   6.877  -3.325  1.00 28.37           O
ATOM   2407  CB  ALA C  19      44.369   8.517  -2.864  1.00 32.61           C
ATOM   2408  N   HIS C  20      41.987   6.792  -1.096  1.00 25.73           N
ATOM   2409  CA  HIS C  20      41.279   5.532  -1.007  1.00 24.38           C
ATOM   2410  C   HIS C  20      39.760   5.703  -0.963  1.00 24.04           C
ATOM   2411  O   HIS C  20      39.069   4.688  -0.895  1.00 20.69           O
ATOM   2412  CB  HIS C  20      41.649   4.824   0.305  1.00 23.15           C
ATOM   2413  CG  HIS C  20      43.104   4.511   0.444  1.00 28.30           C
ATOM   2414  ND1 HIS C  20      43.626   3.354  -0.087  1.00 32.66           N
ATOM   2415  CD2 HIS C  20      44.125   5.166   1.036  1.00 30.89           C
ATOM   2416  CE1 HIS C  20      44.936   3.310   0.169  1.00 34.35           C
ATOM   2417  NE2 HIS C  20      45.258   4.398   0.846  1.00 33.75           N
ATOM   2418  N   ALA C  21      39.228   6.932  -0.960  1.00 27.76           N
ATOM   2419  CA  ALA C  21      37.751   7.060  -0.861  1.00 30.40           C
ATOM   2420  C   ALA C  21      37.062   6.143  -1.849  1.00 30.17           C
ATOM   2421  O   ALA C  21      36.142   5.410  -1.407  1.00 30.89           O
ATOM   2422  CB  ALA C  21      37.324   8.505  -0.934  1.00 33.70           C
ATOM   2423  N   GLY C  22      37.365   6.073  -3.125  1.00 28.06           N
ATOM   2424  CA  GLY C  22      36.757   5.126  -4.043  1.00 26.18           C
ATOM   2425  C   GLY C  22      36.716   3.709  -3.534  1.00 28.15           C
ATOM   2426  O   GLY C  22      35.689   3.016  -3.467  1.00 30.77           O
ATOM   2427  N   GLU C  23      37.860   3.155  -3.118  1.00 24.77           N
ATOM   2428  CA  GLU C  23      37.982   1.829  -2.591  1.00 20.05           C
ATOM   2429  C   GLU C  23      37.164   1.624  -1.312  1.00 16.13           C
ATOM   2430  O   GLU C  23      36.550   0.584  -1.131  1.00 15.02           O
ATOM   2431  CB  GLU C  23      39.478   1.609  -2.275  1.00 25.03           C
ATOM   2432  CG  GLU C  23      39.745   0.331  -1.502  1.00 24.25           C
ATOM   2433  CD  GLU C  23      41.113   0.299  -0.852  1.00 29.37           C
ATOM   2434  OE1 GLU C  23      42.000   1.074  -1.292  1.00 31.50           O
ATOM   2435  OE2 GLU C  23      41.289  -0.513   0.068  1.00 27.34           O
ATOM   2436  N   TYR C  24      37.178   2.613  -0.418  1.00 15.66           N
ATOM   2437  CA  TYR C  24      36.454   2.450   0.850  1.00 11.21           C
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ATOM   2438  C   TYR C  24      34.946   2.535   0.615  1.00 14.27           C
ATOM   2439  O   TYR C  24      34.172   1.865   1.304  1.00 14.78           O
ATOM   2440  CB  TYR C  24      36.887   3.492   1.871  1.00 13.59           C
ATOM   2441  CG  TYR C  24      38.342   3.311   2.338  1.00 16.47           C
ATOM   2442  CD1 TYR C  24      39.203   2.340   1.868  1.00 16.62           C
ATOM   2443  CD2 TYR C  24      38.829   4.216   3.285  1.00 20.27           C
ATOM   2444  CE1 TYR C  24      40.508   2.260   2.330  1.00 16.85           C
ATOM   2445  CE2 TYR C  24      40.134   4.146   3.750  1.00 17.46           C
ATOM   2446  CZ  TYR C  24      40.958   3.170   3.269  1.00 19.85           C
ATOM   2447  OH  TYR C  24      42.273   3.075   3.714  1.00 19.35           O
ATOM   2448  N   GLY C  25      34.558   3.404  -0.318  1.00 12.68           N
ATOM   2449  CA  GLY C  25      33.117   3.506  -0.625  1.00 15.57           C
ATOM   2450  C   GLY C  25      32.647   2.163  -1.175  1.00 13.59           C
ATOM   2451  O   GLY C  25      31.558   1.683  -0.796  1.00 13.69           O
ATOM   2452  N   ALA C  26      33.383   1.569  -2.112  1.00 14.06           N
ATOM   2453  CA  ALA C  26      32.995   0.281  -2.659  1.00 15.84           C
ATOM   2454  C   ALA C  26      32.943  -0.812  -1.595  1.00 16.03           C
ATOM   2455  O   ALA C  26      32.038  -1.638  -1.611  1.00 13.74           O
ATOM   2456  CB  ALA C  26      33.954  -0.196  -3.759  1.00 15.69           C
ATOM   2457  N   GLU C  27      33.918  -0.848  -0.675  1.00 16.20           N
ATOM   2458  CA  GLU C  27      33.927  -1.873   0.376  1.00 13.01           C
ATOM   2459  C   GLU C  27      32.740  -1.689   1.305  1.00 10.07           C
ATOM   2460  O   GLU C  27      32.112  -2.637   1.752  1.00 10.90           O
ATOM   2461  CB  GLU C  27      35.253  -1.772   1.157  1.00 13.55           C
ATOM   2462  CG  GLU C  27      35.419  -2.753   2.291  1.00 14.22           C
ATOM   2463  CD  GLU C  27      36.666  -2.527   3.150  1.00 14.21           C
ATOM   2464  OE1 GLU C  27      37.650  -2.054   2.537  1.00 13.81           O
ATOM   2465  OE2 GLU C  27      36.638  -2.796   4.362  1.00 14.93           O
ATOM   2466  N   ALA C  28      32.375  -0.431   1.607  1.00 11.51           N
ATOM   2467  CA  ALA C  28      31.220  -0.172   2.474  1.00 12.02           C
ATOM   2468  C   ALA C  28      29.936  -0.679   1.800  1.00 10.80           C
ATOM   2469  O   ALA C  28      29.083  -1.309   2.458  1.00  7.42           O
ATOM   2470  CB  ALA C  28      31.098   1.307   2.805  1.00 10.01           C
ATOM   2471  N   LEU C  29      29.804  -0.495   0.489  1.00 12.99           N
ATOM   2472  CA  LEU C  29      28.623  -0.997  -0.220  1.00 11.77           C
ATOM   2473  C   LEU C  29      28.567  -2.511  -0.185  1.00 14.86           C
ATOM   2474  O   LEU C  29      27.529  -3.127   0.144  1.00 12.81           O
ATOM   2475  CB  LEU C  29      28.644  -0.424  -1.657  1.00  7.86           C
ATOM   2476  CG  LEU C  29      28.462   1.067  -1.866  1.00  7.82           C
ATOM   2477  CD1 LEU C  29      28.850   1.416  -3.313  1.00 12.10           C
ATOM   2478  CD2 LEU C  29      27.039   1.535  -1.624  1.00  9.47           C
ATOM   2479  N   GLU C  30      29.672  -3.197  -0.471  1.00 14.48           N
ATOM   2480  CA  GLU C  30      29.747  -4.655  -0.430  1.00 14.08           C
ATOM   2481  C   GLU C  30      29.403  -5.149   0.965  1.00 14.15           C
ATOM   2482  O   GLU C  30      28.630  -6.096   1.165  1.00 14.29           O
ATOM   2483  CB  GLU C  30      31.139  -5.182  -0.792  1.00 15.81           C
ATOM   2484  CG  GLU C  30      31.185  -6.713  -0.704  1.00 22.75           C
ATOM   2485  CD  GLU C  30      32.455  -7.189  -1.404  1.00 23.81           C
ATOM   2486  OE1 GLU C  30      33.518  -6.643  -1.053  1.00 26.41           O
ATOM   2487  OE2 GLU C  30      32.355  -8.045  -2.281  1.00 26.34           O
ATOM   2488  N   ARG C  31      29.970  -4.460   1.983  1.00 12.54           N
ATOM   2489  CA  ARG C  31      29.657  -4.788   3.371  1.00 11.83           C
ATOM   2490  C   ARG C  31      28.127  -4.694   3.591  1.00 11.68           C
ATOM   2491  O   ARG C  31      27.533  -5.566   4.205  1.00 12.44           O
ATOM   2492  CB  ARG C  31      30.361  -3.906   4.402  1.00 10.33           C
ATOM   2493  CG  ARG C  31      31.890  -4.223   4.448  1.00 12.47           C
ATOM   2494  CD  ARG C  31      32.568  -3.336   5.535  1.00 11.06           C
ATOM   2495  NE  ARG C  31      34.005  -3.693   5.585  1.00  9.83           N
ATOM   2496  CZ  ARG C  31      34.477  -4.737   6.255  1.00 13.47           C
ATOM   2497  NH1 ARG C  31      33.696  -5.558   6.958  1.00 12.90           N
ATOM   2498  NH2 ARG C  31      35.799  -4.971   6.156  1.00 11.00           N
ATOM   2499  N   MET C  32      27.520  -3.617   3.116  1.00 12.32           N
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ATOM   2500  CA  MET C  32      26.080  -3.445   3.267  1.00 11.88           C
ATOM   2501  C   MET C  32      25.260  -4.515   2.557  1.00  8.80           C
ATOM   2502  O   MET C  32      24.273  -5.084   3.043  1.00  9.91           O
ATOM   2503  CB  MET C  32      25.668  -2.081   2.708  1.00  8.37           C
ATOM   2504  CG  MET C  32      24.154  -1.839   2.866  1.00 11.24           C
ATOM   2505  SD  MET C  32      23.736  -0.210   2.165  1.00 12.26           S
ATOM   2506  CE  MET C  32      23.906  -0.566   0.420  1.00 10.23           C
ATOM   2507  N   PHE C  33      25.590  -4.785   1.294  1.00 13.48           N
ATOM   2508  CA  PHE C  33      24.851  -5.823   0.543  1.00 12.02           C
ATOM   2509  C   PHE C  33      24.929  -7.202   1.144  1.00 11.52           C
ATOM   2510  O   PHE C  33      23.975  -7.979   1.097  1.00 13.47           O
ATOM   2511  CB  PHE C  33      25.436  -5.914  -0.881  1.00 14.28           C
ATOM   2512  CG  PHE C  33      25.286  -4.657  -1.677  1.00 16.16           C
ATOM   2513  CD1 PHE C  33      24.159  -3.830  -1.609  1.00 16.38           C
ATOM   2514  CD2 PHE C  33      26.310  -4.309  -2.554  1.00 17.29           C
ATOM   2515  CE1 PHE C  33      24.084  -2.690  -2.365  1.00 18.41           C
ATOM   2516  CE2 PHE C  33      26.234  -3.159  -3.315  1.00 18.51           C
ATOM   2517  CZ  PHE C  33      25.117  -2.353  -3.218  1.00 16.66           C
ATOM   2518  N   LEU C  34      26.094  -7.573   1.717  1.00 12.10           N
ATOM   2519  CA  LEU C  34      26.247  -8.856   2.341  1.00 12.07           C
ATOM   2520  C   LEU C  34      25.608  -8.920   3.720  1.00 12.60           C
ATOM   2521  O   LEU C  34      24.984  -9.926   4.087  1.00 14.46           O
ATOM   2522  CB  LEU C  34      27.747  -9.171   2.538  1.00 15.11           C
ATOM   2523  CG  LEU C  34      28.552  -9.367   1.272  1.00 17.21           C
ATOM   2524  CD1 LEU C  34      30.012  -9.760   1.557  1.00 18.21           C
ATOM   2525  CD2 LEU C  34      27.914 -10.451   0.411  1.00 16.10           C
ATOM   2526  N   SER C  35      25.764  -7.871   4.520  1.00 12.73           N
ATOM   2527  CA  SER C  35      25.222  -7.879   5.869  1.00 13.50           C
ATOM   2528  C   SER C  35      23.724  -7.646   5.935  1.00 14.41           C
ATOM   2529  O   SER C  35      22.986  -8.112   6.806  1.00 11.85           O
ATOM   2530  CB  SER C  35      25.899  -6.789   6.721  1.00 17.59           C
ATOM   2531  OG  SER C  35      27.155  -7.249   7.220  1.00 18.61           O
ATOM   2532  N   PHE C  36      23.242  -6.790   5.040  1.00 11.75           N
ATOM   2533  CA  PHE C  36      21.839  -6.365   4.965  1.00 10.84           C
ATOM   2534  C   PHE C  36      21.326  -6.547   3.549  1.00 10.60           C
ATOM   2535  O   PHE C  36      21.181  -5.613   2.721  1.00 11.32           O
ATOM   2536  CB  PHE C  36      21.795  -4.862   5.387  1.00 10.05           C
ATOM   2537  CG  PHE C  36      22.472  -4.569   6.704  1.00 13.96           C
ATOM   2538  CD1 PHE C  36      21.915  -4.998   7.905  1.00 18.00           C
ATOM   2539  CD2 PHE C  36      23.689  -3.907   6.741  1.00 13.97           C
ATOM   2540  CE1 PHE C  36      22.551  -4.756   9.109  1.00 18.83           C
ATOM   2541  CE2 PHE C  36      24.306  -3.651   7.952  1.00 17.04           C
ATOM   2542  CZ  PHE C  36      23.763  -4.080   9.147  1.00 16.89           C
ATOM   2543  N   PRO C  37      20.987  -7.765   3.168  1.00 12.35           N
ATOM   2544  CA  PRO C  37      20.596  -8.101   1.799  1.00 12.16           C
ATOM   2545  C   PRO C  37      19.382  -7.393   1.282  1.00 13.13           C
ATOM   2546  O   PRO C  37      19.244  -7.229   0.054  1.00 12.88           O
ATOM   2547  CB  PRO C  37      20.368  -9.607   1.787  1.00 13.77           C
ATOM   2548  CG  PRO C  37      21.068 -10.099   2.987  1.00 16.56           C
ATOM   2549  CD  PRO C  37      20.992  -8.992   3.994  1.00 12.71           C
ATOM   2550  N   THR C  38      18.510  -6.894   2.173  1.00 10.49           N
ATOM   2551  CA  THR C  38      17.347  -6.137   1.651  1.00 11.67           C
ATOM   2552  C   THR C  38      17.781  -4.854   0.963  1.00 12.59           C
ATOM   2553  O   THR C  38      17.077  -4.297   0.135  1.00  9.50           O
ATOM   2554  CB  THR C  38      16.381  -5.742   2.768  1.00 14.54           C
ATOM   2555  OG1 THR C  38      17.054  -4.927   3.729  1.00 14.58           O
ATOM   2556  CG2 THR C  38      15.810  -7.011   3.377  1.00 12.77           C
ATOM   2557  N   THR C  39      19.027  -4.363   1.188  1.00 11.74           N
ATOM   2558  CA  THR C  39      19.473  -3.151   0.509  1.00  8.99           C
ATOM   2559  C   THR C  39      19.744  -3.424  -0.965  1.00 10.06           C
ATOM   2560  O   THR C  39      19.726  -2.482  -1.759  1.00  8.99           O
ATOM   2561  CB  THR C  39      20.734  -2.547   1.157  1.00 11.54           C
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ATOM   2562  OG1 THR C  39      21.799  -3.473   1.053  1.00 11.84           O
ATOM   2563  CG2 THR C  39      20.387  -2.219   2.599  1.00  9.15           C
ATOM   2564  N   LYS C  40      19.904  -4.699  -1.314  1.00  8.96           N
ATOM   2565  CA  LYS C  40      20.129  -5.082  -2.715  1.00 10.36           C
ATOM   2566  C   LYS C  40      18.855  -4.828  -3.516  1.00 14.18           C
ATOM   2567  O   LYS C  40      18.969  -4.710  -4.742  1.00  9.96           O
ATOM   2568  CB  LYS C  40      20.544  -6.528  -2.951  1.00 12.18           C
ATOM   2569  CG  LYS C  40      21.888  -6.809  -2.219  1.00 13.34           C
ATOM   2570  CD  LYS C  40      22.341  -8.213  -2.543  1.00 15.94           C
ATOM   2571  CE  LYS C  40      21.426  -9.327  -2.123  1.00 17.19           C
ATOM   2572  NZ  LYS C  40      22.037 -10.690  -2.383  1.00 16.56           N
ATOM   2573  N   THR C  41      17.670  -4.686  -2.891  1.00 10.96           N
ATOM   2574  CA  THR C  41      16.473  -4.341  -3.656  1.00 11.34           C
ATOM   2575  C   THR C  41      16.580  -3.018  -4.399  1.00 11.05           C
ATOM   2576  O   THR C  41      15.799  -2.787  -5.338  1.00 10.74           O
ATOM   2577  CB  THR C  41      15.187  -4.289  -2.786  1.00 11.25           C
ATOM   2578  OG1 THR C  41      15.294  -3.285  -1.798  1.00 12.40           O
ATOM   2579  CG2 THR C  41      14.978  -5.621  -2.093  1.00 11.40           C
ATOM   2580  N   TYR C  42      17.458  -2.084  -4.072  1.00  8.83           N
ATOM   2581  CA  TYR C  42      17.645  -0.825  -4.759  1.00 10.78           C
ATOM   2582  C   TYR C  42      18.655  -0.910  -5.894  1.00 11.51           C
ATOM   2583  O   TYR C  42      18.852   0.042  -6.634  1.00 12.17           O
ATOM   2584  CB  TYR C  42      18.132   0.250  -3.762  1.00  9.67           C
ATOM   2585  CG  TYR C  42      17.021   0.483  -2.743  1.00 10.53           C
ATOM   2586  CD1 TYR C  42      15.921   1.258  -3.079  1.00 11.36           C
ATOM   2587  CD2 TYR C  42      17.087  -0.103  -1.487  1.00 12.23           C
ATOM   2588  CE1 TYR C  42      14.902   1.458  -2.166  1.00 11.86           C
ATOM   2589  CE2 TYR C  42      16.046   0.100  -0.584  1.00 13.17           C
ATOM   2590  CZ  TYR C  42      14.971   0.878  -0.905  1.00 10.59           C
ATOM   2591  OH  TYR C  42      13.935   1.086  -0.012  1.00 10.23           O
ATOM   2592  N   PHE C  43      19.340  -2.072  -6.053  1.00  9.87           N
ATOM   2593  CA  PHE C  43      20.347  -2.244  -7.090  1.00 13.08           C
ATOM   2594  C   PHE C  43      20.165  -3.481  -7.920  1.00 11.90           C
ATOM   2595  O   PHE C  43      21.123  -4.200  -8.254  1.00 12.25           O
ATOM   2596  CB  PHE C  43      21.744  -2.352  -6.418  1.00 10.87           C
ATOM   2597  CG  PHE C  43      22.154  -1.099  -5.657  1.00 13.39           C
ATOM   2598  CD1 PHE C  43      21.800  -0.941  -4.320  1.00 13.42           C
ATOM   2599  CD2 PHE C  43      22.855  -0.109  -6.286  1.00 14.45           C
ATOM   2600  CE1 PHE C  43      22.160   0.207  -3.635  1.00 15.36           C
ATOM   2601  CE2 PHE C  43      23.238   1.059  -5.611  1.00 15.34           C
ATOM   2602  CZ  PHE C  43      22.868   1.194  -4.291  1.00 14.71           C
ATOM   2603  N   PRO C  44      18.948  -3.818  -8.370  1.00 13.64           N
ATOM   2604  CA  PRO C  44      18.731  -4.984  -9.202  1.00 15.98           C
ATOM   2605  C   PRO C  44      19.322  -4.817 -10.598  1.00 15.38           C
ATOM   2606  O   PRO C  44      19.524  -5.795 -11.285  1.00 18.21           O
ATOM   2607  CB  PRO C  44      17.216  -5.090  -9.259  1.00 17.98           C
ATOM   2608  CG  PRO C  44      16.769  -3.669  -9.251  1.00 18.13           C
ATOM   2609  CD  PRO C  44      17.698  -3.067  -8.226  1.00 13.27           C
ATOM   2610  N   HIS C  45      19.650  -3.589 -10.976  1.00 14.53           N
ATOM   2611  CA  HIS C  45      20.229  -3.260 -12.256  1.00 18.07           C
ATOM   2612  C   HIS C  45      21.747  -3.262 -12.236  1.00 18.42           C
ATOM   2613  O   HIS C  45      22.382  -2.937 -13.250  1.00 16.91           O
ATOM   2614  CB  HIS C  45      19.772  -1.866 -12.721  1.00 18.10           C
ATOM   2615  CG  HIS C  45      20.085  -0.798 -11.710  1.00 19.19           C
ATOM   2616  ND1 HIS C  45      19.672  -0.898 -10.396  1.00 17.79           N
ATOM   2617  CD2 HIS C  45      20.774   0.350 -11.848  1.00 18.49           C
ATOM   2618  CE1 HIS C  45      20.101   0.184  -9.756  1.00 17.39           C
ATOM   2619  NE2 HIS C  45      20.766   0.958 -10.602  1.00 20.17           N
ATOM   2620  N   PHE C  46      22.343  -3.607 -11.089  1.00 15.86           N
ATOM   2621  CA  PHE C  46      23.780  -3.662 -11.007  1.00 15.27           C
ATOM   2622  C   PHE C  46      24.304  -5.096 -10.925  1.00 17.17           C
ATOM   2623  O   PHE C  46      23.611  -5.959 -10.401  1.00 15.52           O
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ATOM   2624  CB  PHE C  46      24.313  -3.065  -9.697  1.00 16.61           C
ATOM   2625  CG  PHE C  46      24.594  -1.607  -9.625  1.00 17.54           C
ATOM   2626  CD1 PHE C  46      24.068  -0.681 -10.494  1.00 18.49           C
ATOM   2627  CD2 PHE C  46      25.468  -1.165  -8.635  1.00 18.31           C
ATOM   2628  CE1 PHE C  46      24.386   0.664 -10.378  1.00 19.23           C
ATOM   2629  CE2 PHE C  46      25.786   0.181  -8.497  1.00 17.15           C
ATOM   2630  CZ  PHE C  46      25.258   1.093  -9.382  1.00 18.32           C
ATOM   2631  N   ASP C  47      25.537  -5.263 -11.423  1.00 16.59           N
ATOM   2632  CA  ASP C  47      26.198  -6.556 -11.256  1.00 18.77           C
ATOM   2633  C   ASP C  47      26.782  -6.312  -9.836  1.00 16.04           C
ATOM   2634  O   ASP C  47      27.579  -5.373  -9.752  1.00 17.14           O
ATOM   2635  CB  ASP C  47      27.385  -6.818 -12.145  1.00 18.31           C
ATOM   2636  CG  ASP C  47      28.193  -8.044 -11.822  1.00 22.53           C
ATOM   2637  OD1 ASP C  47      27.802  -8.872 -10.967  1.00 15.90           O
ATOM   2638  OD2 ASP C  47      29.259  -8.172 -12.466  1.00 25.54           O
ATOM   2639  N   LEU C  48      26.305  -7.069  -8.865  1.00 18.66           N
ATOM   2640  CA  LEU C  48      26.795  -6.827  -7.508  1.00 16.59           C
ATOM   2641  C   LEU C  48      27.922  -7.789  -7.125  1.00 22.39           C
ATOM   2642  O   LEU C  48      28.393  -7.718  -5.983  1.00 18.63           O
ATOM   2643  CB  LEU C  48      25.655  -6.898  -6.495  1.00 16.15           C
ATOM   2644  CG  LEU C  48      24.603  -5.799  -6.657  1.00 15.95           C
ATOM   2645  CD1 LEU C  48      23.417  -6.164  -5.741  1.00 16.73           C
ATOM   2646  CD2 LEU C  48      25.103  -4.402  -6.318  1.00 16.95           C
ATOM   2647  N   SER C  49      28.401  -8.618  -8.078  1.00 20.06           N
ATOM   2648  CA  SER C  49      29.539  -9.481  -7.717  1.00 22.56           C
ATOM   2649  C   SER C  49      30.727  -8.656  -7.226  1.00 20.65           C
ATOM   2650  O   SER C  49      30.970  -7.493  -7.545  1.00 19.40           O
ATOM   2651  CB  SER C  49      30.007 -10.347  -8.878  1.00 25.28           C
ATOM   2652  OG  SER C  49      30.108  -9.615 -10.057  1.00 31.69           O
ATOM   2653  N   HIS C  50      31.532  -9.319  -6.387  1.00 18.34           N
ATOM   2654  CA  HIS C  50      32.733  -8.694  -5.848  1.00 21.79           C
ATOM   2655  C   HIS C  50      33.635  -8.108  -6.924  1.00 20.70           C
ATOM   2656  O   HIS C  50      33.939  -8.750  -7.938  1.00 22.55           O
ATOM   2657  CB  HIS C  50      33.527  -9.772  -5.095  1.00 22.33           C
ATOM   2658  CG  HIS C  50      34.764  -9.224  -4.472  1.00 24.18           C
ATOM   2659  ND1 HIS C  50      34.772  -8.447  -3.345  1.00 26.25           N
ATOM   2660  CD2 HIS C  50      36.054  -9.361  -4.874  1.00 26.66           C
ATOM   2661  CE1 HIS C  50      36.019  -8.128  -3.056  1.00 28.51           C
ATOM   2662  NE2 HIS C  50      36.813  -8.665  -3.979  1.00 28.70           N
ATOM   2663  N   GLY C  51      34.034  -6.862  -6.728  1.00 16.10           N
ATOM   2664  CA  GLY C  51      34.916  -6.165  -7.651  1.00 20.99           C
ATOM   2665  C   GLY C  51      34.297  -5.586  -8.909  1.00 20.76           C
ATOM   2666  O   GLY C  51      34.988  -5.029  -9.797  1.00 18.81           O
ATOM   2667  N   SER C  52      32.976  -5.689  -9.023  1.00 18.67           N
ATOM   2668  CA  SER C  52      32.311  -5.164 -10.219  1.00 17.55           C
ATOM   2669  C   SER C  52      32.570  -3.691 -10.406  1.00 16.80           C
ATOM   2670  O   SER C  52      32.648  -2.847  -9.512  1.00 16.30           O
ATOM   2671  CB  SER C  52      30.817  -5.465 -10.108  1.00 21.92           C
ATOM   2672  OG  SER C  52      30.192  -4.390  -9.408  1.00 23.53           O
ATOM   2673  N   ALA C  53      32.673  -3.289 -11.687  1.00 16.56           N
ATOM   2674  CA  ALA C  53      32.892  -1.922 -12.086  1.00 15.17           C
ATOM   2675  C   ALA C  53      31.786  -0.994 -11.567  1.00 14.51           C
ATOM   2676  O   ALA C  53      32.070   0.113 -11.135  1.00 13.43           O
ATOM   2677  CB  ALA C  53      32.906  -1.825 -13.623  1.00 17.78           C
ATOM   2678  N   GLN C  54      30.540  -1.471 -11.623  1.00 15.33           N
ATOM   2679  CA  GLN C  54      29.423  -0.667 -11.133  1.00 11.49           C
ATOM   2680  C   GLN C  54      29.530  -0.380  -9.634  1.00 14.77           C
ATOM   2681  O   GLN C  54      29.291   0.782  -9.274  1.00 16.56           O
ATOM   2682  CB  GLN C  54      28.122  -1.411 -11.416  1.00 12.93           C
ATOM   2683  CG  GLN C  54      27.656  -1.199 -12.877  1.00 14.23           C
ATOM   2684  CD  GLN C  54      26.575  -2.198 -13.218  1.00 14.63           C
ATOM   2685  OE1 GLN C  54      26.733  -3.414 -13.060  1.00 17.09           O
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ATOM   2686  NE2 GLN C  54      25.430  -1.734 -13.744  1.00 16.66           N
ATOM   2687  N   VAL C  55      29.884  -1.381  -8.835  1.00 15.17           N
ATOM   2688  CA  VAL C  55      30.010  -1.125  -7.378  1.00 15.26           C
ATOM   2689  C   VAL C  55      31.179  -0.208  -7.085  1.00 16.17           C
ATOM   2690  O   VAL C  55      31.127   0.727  -6.278  1.00 16.30           O
ATOM   2691  CB  VAL C  55      30.031  -2.444  -6.615  1.00 17.66           C
ATOM   2692  CG1 VAL C  55      30.375  -2.270  -5.126  1.00 16.53           C
ATOM   2693  CG2 VAL C  55      28.645  -3.097  -6.682  1.00 21.50           C
ATOM   2694  N   LYS C  56      32.311  -0.387  -7.764  1.00 15.96           N
ATOM   2695  CA  LYS C  56      33.470   0.455  -7.627  1.00 18.93           C
ATOM   2696  C   LYS C  56      33.167   1.888  -8.024  1.00 17.13           C
ATOM   2697  O   LYS C  56      33.590   2.856  -7.363  1.00 16.20           O
ATOM   2698  CB  LYS C  56      34.614  -0.066  -8.524  1.00 20.72           C
ATOM   2699  CG  LYS C  56      34.993  -1.485  -8.144  1.00 30.16           C
ATOM   2700  CD  LYS C  56      36.006  -2.066  -9.130  1.00 35.93           C
ATOM   2701  CE  LYS C  56      37.413  -1.800  -8.607  1.00 39.73           C
ATOM   2702  NZ  LYS C  56      38.266  -3.014  -8.781  1.00 40.80           N
ATOM   2703  N   GLY C  57      32.427   2.074  -9.120  1.00 14.70           N
ATOM   2704  CA  GLY C  57      32.086   3.397  -9.618  1.00 14.47           C
ATOM   2705  C   GLY C  57      31.121   4.118  -8.641  1.00 15.26           C
ATOM   2706  O   GLY C  57      31.299   5.298  -8.329  1.00 14.71           O
ATOM   2707  N   HIS C  58      30.129   3.348  -8.212  1.00 11.60           N
ATOM   2708  CA  HIS C  58      29.129   3.894  -7.256  1.00 15.18           C
ATOM   2709  C   HIS C  58      29.802   4.183  -5.931  1.00 15.44           C
ATOM   2710  O   HIS C  58      29.619   5.242  -5.308  1.00 15.30           O
ATOM   2711  CB  HIS C  58      27.936   2.943  -7.228  1.00 14.66           C
ATOM   2712  CG  HIS C  58      26.880   3.492  -6.306  1.00 16.85           C
ATOM   2713  ND1 HIS C  58      26.293   4.713  -6.574  1.00 16.08           N
ATOM   2714  CD2 HIS C  58      26.336   3.013  -5.154  1.00 15.57           C
ATOM   2715  CE1 HIS C  58      25.425   4.949  -5.598  1.00 18.32           C
ATOM   2716  NE2 HIS C  58      25.429   3.955  -4.732  1.00 14.31           N
ATOM   2717  N   GLY C  59      30.709   3.307  -5.494  1.00 15.35           N
ATOM   2718  CA  GLY C  59      31.516   3.524  -4.285  1.00 15.55           C
ATOM   2719  C   GLY C  59      32.270   4.829  -4.347  1.00 15.36           C
ATOM   2720  O   GLY C  59      32.269   5.670  -3.431  1.00 13.56           O
ATOM   2721  N   LYS C  60      32.923   5.144  -5.481  1.00 14.08           N
ATOM   2722  CA  LYS C  60      33.601   6.413  -5.664  1.00 15.75           C
ATOM   2723  C   LYS C  60      32.632   7.583  -5.597  1.00 18.58           C
ATOM   2724  O   LYS C  60      32.958   8.614  -5.001  1.00 20.65           O
ATOM   2725  CB  LYS C  60      34.311   6.462  -7.032  1.00 18.36           C
ATOM   2726  CG  LYS C  60      35.251   7.653  -7.178  1.00 23.54           C
ATOM   2727  CD  LYS C  60      36.089   7.513  -8.444  1.00 27.57           C
ATOM   2728  CE  LYS C  60      37.527   7.953  -8.222  1.00 28.31           C
ATOM   2729  NZ  LYS C  60      38.762   8.232  -8.469  0.00 42.18           N
ATOM   2730  N   LYS C  61      31.445   7.460  -6.208  1.00 14.00           N
ATOM   2731  CA  LYS C  61      30.504   8.578  -6.156  1.00 14.20           C
ATOM   2732  C   LYS C  61      30.086   8.900  -4.732  1.00  9.28           C
ATOM   2733  O   LYS C  61      30.045  10.096  -4.393  1.00 15.01           O
ATOM   2734  CB  LYS C  61      29.273   8.274  -7.049  1.00 18.38           C
ATOM   2735  CG  LYS C  61      29.646   8.599  -8.510  1.00 26.12           C
ATOM   2736  CD  LYS C  61      28.440   8.781  -9.410  1.00 32.80           C
ATOM   2737  CE  LYS C  61      28.300   7.712 -10.479  1.00 36.83           C
ATOM   2738  NZ  LYS C  61      26.872   7.546 -10.926  1.00 37.17           N
ATOM   2739  N   VAL C  62      29.775   7.885  -3.974  1.00 11.32           N
ATOM   2740  CA  VAL C  62      29.333   7.995  -2.584  1.00 13.65           C
ATOM   2741  C   VAL C  62      30.455   8.610  -1.749  1.00 20.30           C
ATOM   2742  O   VAL C  62      30.229   9.566  -1.017  1.00 14.77           O
ATOM   2743  CB  VAL C  62      28.916   6.658  -1.946  1.00 15.39           C
ATOM   2744  CG1 VAL C  62      28.661   6.760  -0.450  1.00 16.37           C
ATOM   2745  CG2 VAL C  62      27.631   6.145  -2.622  1.00 12.99           C
ATOM   2746  N   ALA C  63      31.665   8.073  -1.933  1.00 20.52           N
ATOM   2747  CA  ALA C  63      32.792   8.650  -1.167  1.00 21.88           C
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ATOM   2748  C   ALA C  63      33.108  10.056  -1.591  1.00 20.45           C
ATOM   2749  O   ALA C  63      33.395  10.861  -0.687  1.00 18.65           O
ATOM   2750  CB  ALA C  63      33.936   7.667  -1.299  1.00 21.52           C
ATOM   2751  N   ASP C  64      33.030  10.460  -2.864  1.00 22.18           N
ATOM   2752  CA  ASP C  64      33.311  11.827  -3.274  1.00 23.30           C
ATOM   2753  C   ASP C  64      32.242  12.781  -2.755  1.00 20.46           C
ATOM   2754  O   ASP C  64      32.536  13.932  -2.412  1.00 20.19           O
ATOM   2755  CB  ASP C  64      33.472  11.934  -4.790  1.00 25.97           C
ATOM   2756  CG  ASP C  64      34.666  11.177  -5.346  1.00 29.75           C
ATOM   2757  OD1 ASP C  64      35.557  10.720  -4.588  1.00 31.82           O
ATOM   2758  OD2 ASP C  64      34.716  11.022  -6.593  1.00 28.67           O
ATOM   2759  N   ALA C  65      30.986  12.302  -2.648  1.00 16.14           N
ATOM   2760  CA  ALA C  65      29.931  13.121  -2.078  1.00 15.03           C
ATOM   2761  C   ALA C  65      30.232  13.385  -0.599  1.00 13.64           C
ATOM   2762  O   ALA C  65      30.097  14.487  -0.098  1.00 14.66           O
ATOM   2763  CB  ALA C  65      28.560  12.442  -2.213  1.00 14.54           C
ATOM   2764  N   LEU C  66      30.739  12.367   0.126  1.00 14.35           N
ATOM   2765  CA  LEU C  66      31.108  12.564   1.520  1.00 13.63           C
ATOM   2766  C   LEU C  66      32.286  13.531   1.643  1.00 17.00           C
ATOM   2767  O   LEU C  66      32.342  14.384   2.522  1.00 17.18           O
ATOM   2768  CB  LEU C  66      31.439  11.203   2.133  1.00 12.59           C
ATOM   2769  CG  LEU C  66      30.264  10.238   2.280  1.00 13.08           C
ATOM   2770  CD1 LEU C  66      30.765   8.846   2.638  1.00 16.68           C
ATOM   2771  CD2 LEU C  66      29.295  10.778   3.340  1.00 15.36           C
ATOM   2772  N   THR C  67      33.248  13.439   0.706  1.00 17.65           N
ATOM   2773  CA  THR C  67      34.357  14.400   0.701  1.00 19.04           C
ATOM   2774  C   THR C  67      33.838  15.820   0.578  1.00 20.16           C
ATOM   2775  O   THR C  67      34.268  16.733   1.318  1.00 21.46           O
ATOM   2776  CB  THR C  67      35.345  14.103  -0.444  1.00 19.51           C
ATOM   2777  OG1 THR C  67      35.849  12.781  -0.206  1.00 18.86           O
ATOM   2778  CG2 THR C  67      36.464  15.139  -0.462  1.00 21.32           C
ATOM   2779  N   ASN C  68      32.904  16.054  -0.333  1.00 17.24           N
ATOM   2780  CA  ASN C  68      32.234  17.318  -0.571  1.00 18.93           C
ATOM   2781  C   ASN C  68      31.570  17.762   0.738  1.00 15.68           C
ATOM   2782  O   ASN C  68      31.719  18.905   1.167  1.00 16.99           O
ATOM   2783  CB  ASN C  68      31.163  17.186  -1.657  1.00 15.87           C
ATOM   2784  CG  ASN C  68      30.280  18.376  -1.893  1.00 18.42           C
ATOM   2785  OD1 ASN C  68      30.640  19.520  -1.608  1.00 21.92           O
ATOM   2786  ND2 ASN C  68      29.102  18.202  -2.492  1.00 21.90           N
ATOM   2787  N   ALA C  69      30.828  16.835   1.353  1.00 15.54           N
ATOM   2788  CA  ALA C  69      30.177  17.165   2.633  1.00 15.69           C
ATOM   2789  C   ALA C  69      31.182  17.523   3.735  1.00 16.98           C
ATOM   2790  O   ALA C  69      30.909  18.460   4.490  1.00 19.16           O
ATOM   2791  CB  ALA C  69      29.335  16.001   3.110  1.00 16.11           C
ATOM   2792  N   VAL C  70      32.283  16.794   3.858  1.00 18.47           N
ATOM   2793  CA  VAL C  70      33.291  17.112   4.905  1.00 19.06           C
ATOM   2794  C   VAL C  70      33.863  18.510   4.667  1.00 21.01           C
ATOM   2795  O   VAL C  70      34.037  19.329   5.566  1.00 19.38           O
ATOM   2796  CB  VAL C  70      34.416  16.079   4.939  1.00 18.83           C
ATOM   2797  CG1 VAL C  70      35.570  16.476   5.867  1.00 19.93           C
ATOM   2798  CG2 VAL C  70      33.881  14.723   5.415  1.00 19.84           C
ATOM   2799  N   ALA C  71      34.158  18.804   3.413  1.00 18.90           N
ATOM   2800  CA  ALA C  71      34.681  20.077   2.955  1.00 21.18           C
ATOM   2801  C   ALA C  71      33.747  21.249   3.174  1.00 23.54           C
ATOM   2802  O   ALA C  71      34.202  22.400   3.242  1.00 24.71           O
ATOM   2803  CB  ALA C  71      35.010  20.049   1.469  1.00 20.61           C
ATOM   2804  N   HIS C  72      32.431  21.021   3.195  1.00 20.50           N
ATOM   2805  CA  HIS C  72      31.447  22.062   3.416  1.00 22.28           C
ATOM   2806  C   HIS C  72      30.618  21.662   4.630  1.00 19.53           C
ATOM   2807  O   HIS C  72      29.391  21.807   4.637  1.00 18.18           O
ATOM   2808  CB  HIS C  72      30.470  22.187   2.210  1.00 21.79           C
ATOM   2809  CG  HIS C  72      31.267  22.476   0.970  1.00 26.73           C
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ATOM   2810  ND1 HIS C  72      31.739  21.453   0.168  1.00 26.05           N
ATOM   2811  CD2 HIS C  72      31.688  23.649   0.447  1.00 25.95           C
ATOM   2812  CE1 HIS C  72      32.413  21.988  -0.834  1.00 30.40           C
ATOM   2813  NE2 HIS C  72      32.403  23.309  -0.687  1.00 30.86           N
ATOM   2814  N   VAL C  73      31.257  21.092   5.651  1.00 19.70           N
ATOM   2815  CA  VAL C  73      30.526  20.623   6.835  1.00 22.57           C
ATOM   2816  C   VAL C  73      29.711  21.703   7.493  1.00 23.29           C
ATOM   2817  O   VAL C  73      28.732  21.327   8.161  1.00 25.37           O
ATOM   2818  CB  VAL C  73      31.494  19.905   7.809  1.00 23.74           C
ATOM   2819  CG1 VAL C  73      32.366  20.915   8.541  1.00 23.37           C
ATOM   2820  CG2 VAL C  73      30.677  19.003   8.730  1.00 26.53           C
ATOM   2821  N   ASP C  74      29.936  23.010   7.377  1.00 22.48           N
ATOM   2822  CA  ASP C  74      29.093  24.008   8.014  1.00 27.49           C
ATOM   2823  C   ASP C  74      27.803  24.287   7.237  1.00 27.48           C
ATOM   2824  O   ASP C  74      26.931  24.990   7.766  1.00 28.25           O
ATOM   2825  CB  ASP C  74      29.817  25.336   8.179  1.00 28.18           C
ATOM   2826  CG  ASP C  74      31.077  25.361   8.994  1.00 30.32           C
ATOM   2827  OD1 ASP C  74      31.343  24.541   9.884  1.00 27.06           O
ATOM   2828  OD2 ASP C  74      31.853  26.324   8.714  1.00 34.29           O
ATOM   2829  N   ASP C  75      27.684  23.813   6.011  1.00 25.03           N
ATOM   2830  CA  ASP C  75      26.484  23.999   5.216  1.00 26.50           C
ATOM   2831  C   ASP C  75      26.221  22.785   4.308  1.00 22.97           C
ATOM   2832  O   ASP C  75      26.159  22.879   3.078  1.00 20.92           O
ATOM   2833  CB  ASP C  75      26.558  25.297   4.414  1.00 30.51           C
ATOM   2834  CG  ASP C  75      25.222  25.715   3.824  1.00 35.90           C
ATOM   2835  OD1 ASP C  75      24.230  24.931   3.969  1.00 33.77           O
ATOM   2836  OD2 ASP C  75      25.062  26.781   3.184  1.00 35.00           O
ATOM   2837  N   MET C  76      25.975  21.625   4.933  1.00 21.63           N
ATOM   2838  CA  MET C  76      25.696  20.397   4.186  1.00 21.67           C
ATOM   2839  C   MET C  76      24.404  20.430   3.385  1.00 21.66           C
ATOM   2840  O   MET C  76      24.366  20.005   2.208  1.00 19.70           O
ATOM   2841  CB  MET C  76      25.799  19.153   5.082  1.00 22.09           C
ATOM   2842  CG  MET C  76      27.256  18.955   5.514  1.00 22.47           C
ATOM   2843  SD  MET C  76      27.542  17.373   6.322  1.00 24.50           S
ATOM   2844  CE  MET C  76      26.735  17.556   7.905  1.00 26.17           C
ATOM   2845  N   PRO C  77      23.319  20.960   3.911  1.00 22.23           N
ATOM   2846  CA  PRO C  77      22.090  21.113   3.140  1.00 23.64           C
ATOM   2847  C   PRO C  77      22.340  21.761   1.795  1.00 23.79           C
ATOM   2848  O   PRO C  77      21.861  21.284   0.755  1.00 19.89           O
ATOM   2849  CB  PRO C  77      21.187  21.962   4.033  1.00 23.27           C
ATOM   2850  CG  PRO C  77      21.634  21.593   5.421  1.00 21.77           C
ATOM   2851  CD  PRO C  77      23.148  21.499   5.290  1.00 22.29           C
ATOM   2852  N   ASN C  78      23.078  22.886   1.725  1.00 25.85           N
ATOM   2853  CA  ASN C  78      23.316  23.493   0.421  1.00 26.33           C
ATOM   2854  C   ASN C  78      24.299  22.687  -0.404  1.00 26.25           C
ATOM   2855  O   ASN C  78      24.044  22.541  -1.606  1.00 28.37           O
ATOM   2856  CB  ASN C  78      23.789  24.954   0.519  1.00 32.56           C
ATOM   2857  CG  ASN C  78      22.552  25.839   0.552  1.00 36.55           C
ATOM   2858  OD1 ASN C  78      22.312  26.552   1.528  1.00 43.41           O
ATOM   2859  ND2 ASN C  78      21.742  25.789  -0.491  1.00 38.68           N
ATOM   2860  N   ALA C  79      25.358  22.125   0.168  1.00 26.17           N
ATOM   2861  CA  ALA C  79      26.328  21.372  -0.623  1.00 23.01           C
ATOM   2862  C   ALA C  79      25.801  20.072  -1.214  1.00 23.05           C
ATOM   2863  O   ALA C  79      26.250  19.608  -2.285  1.00 22.26           O
ATOM   2864  CB  ALA C  79      27.543  21.047   0.260  1.00 23.53           C
ATOM   2865  N   LEU C  80      24.840  19.443  -0.533  1.00 17.52           N
ATOM   2866  CA  LEU C  80      24.260  18.194  -1.001  1.00 17.41           C
ATOM   2867  C   LEU C  80      22.870  18.380  -1.597  1.00 17.99           C
ATOM   2868  O   LEU C  80      22.121  17.421  -1.750  1.00 16.97           O
ATOM   2869  CB  LEU C  80      24.156  17.220   0.168  1.00 19.57           C
ATOM   2870  CG  LEU C  80      25.458  16.979   0.952  1.00 21.32           C
ATOM   2871  CD1 LEU C  80      25.158  16.131   2.161  1.00 19.54           C
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ATOM   2872  CD2 LEU C  80      26.502  16.370   0.028  1.00 22.06           C
ATOM   2873  N   SER C  81      22.518  19.620  -1.914  1.00 19.38           N
ATOM   2874  CA  SER C  81      21.194  19.936  -2.419  1.00 20.69           C
ATOM   2875  C   SER C  81      20.792  19.106  -3.618  1.00 19.46           C
ATOM   2876  O   SER C  81      19.682  18.549  -3.650  1.00 19.13           O
ATOM   2877  CB  SER C  81      21.168  21.433  -2.779  1.00 22.47           C
ATOM   2878  OG  SER C  81      19.818  21.827  -2.976  1.00 25.02           O
ATOM   2879  N   ALA C  82      21.684  18.962  -4.622  1.00 17.78           N
ATOM   2880  CA  ALA C  82      21.254  18.161  -5.787  1.00 16.75           C
ATOM   2881  C   ALA C  82      21.055  16.699  -5.443  1.00 14.19           C
ATOM   2882  O   ALA C  82      20.149  16.024  -5.977  1.00 13.98           O
ATOM   2883  CB  ALA C  82      22.231  18.277  -6.948  1.00 18.77           C
ATOM   2884  N   LEU C  83      21.876  16.162  -4.545  1.00 14.69           N
ATOM   2885  CA  LEU C  83      21.787  14.766  -4.132  1.00 14.55           C
ATOM   2886  C   LEU C  83      20.585  14.530  -3.227  1.00 13.87           C
ATOM   2887  O   LEU C  83      19.983  13.466  -3.289  1.00 14.39           O
ATOM   2888  CB  LEU C  83      23.116  14.431  -3.456  1.00 19.35           C
ATOM   2889  CG  LEU C  83      23.759  13.072  -3.603  1.00 24.75           C
ATOM   2890  CD1 LEU C  83      23.792  12.587  -5.046  1.00 24.28           C
ATOM   2891  CD2 LEU C  83      25.177  13.127  -2.995  1.00 24.04           C
ATOM   2892  N   SER C  84      20.195  15.533  -2.421  1.00 15.53           N
ATOM   2893  CA  SER C  84      18.984  15.342  -1.600  1.00 16.74           C
ATOM   2894  C   SER C  84      17.798  15.363  -2.568  1.00 15.11           C
ATOM   2895  O   SER C  84      16.822  14.631  -2.388  1.00 15.02           O
ATOM   2896  CB  SER C  84      18.769  16.347  -0.475  1.00 17.77           C
ATOM   2897  OG  SER C  84      18.997  17.661  -0.914  1.00 25.68           O
ATOM   2898  N   ASP C  85      17.835  16.185  -3.625  1.00 14.54           N
ATOM   2899  CA  ASP C  85      16.746  16.163  -4.598  1.00 15.97           C
ATOM   2900  C   ASP C  85      16.649  14.814  -5.305  1.00 15.82           C
ATOM   2901  O   ASP C  85      15.553  14.266  -5.497  1.00 13.11           O
ATOM   2902  CB  ASP C  85      16.909  17.189  -5.717  1.00 17.98           C
ATOM   2903  CG  ASP C  85      16.708  18.636  -5.372  1.00 22.21           C
ATOM   2904  OD1 ASP C  85      16.148  18.933  -4.303  1.00 21.47           O
ATOM   2905  OD2 ASP C  85      17.123  19.487  -6.198  1.00 23.70           O
ATOM   2906  N   LEU C  86      17.785  14.266  -5.715  1.00 15.05           N
ATOM   2907  CA  LEU C  86      17.819  13.001  -6.449  1.00 15.70           C
ATOM   2908  C   LEU C  86      17.240  11.863  -5.609  1.00 13.61           C
ATOM   2909  O   LEU C  86      16.453  11.020  -6.078  1.00 13.44           O
ATOM   2910  CB  LEU C  86      19.284  12.701  -6.828  1.00 12.56           C
ATOM   2911  CG  LEU C  86      19.524  11.310  -7.450  1.00 15.76           C
ATOM   2912  CD1 LEU C  86      18.927  11.198  -8.837  1.00 18.62           C
ATOM   2913  CD2 LEU C  86      21.020  11.035  -7.527  1.00 17.65           C
ATOM   2914  N   HIS C  87      17.658  11.844  -4.330  1.00 11.74           N
ATOM   2915  CA  HIS C  87      17.160  10.737  -3.479  1.00 11.76           C
ATOM   2916  C   HIS C  87      15.664  10.903  -3.171  1.00 11.74           C
ATOM   2917  O   HIS C  87      14.929   9.912  -3.198  1.00 13.15           O
ATOM   2918  CB  HIS C  87      17.931  10.587  -2.164  1.00 10.18           C
ATOM   2919  CG  HIS C  87      19.271   9.952  -2.450  1.00 12.26           C
ATOM   2920  ND1 HIS C  87      20.274  10.715  -3.011  1.00 10.79           N
ATOM   2921  CD2 HIS C  87      19.771   8.712  -2.290  1.00 12.02           C
ATOM   2922  CE1 HIS C  87      21.341   9.963  -3.192  1.00 13.09           C
ATOM   2923  NE2 HIS C  87      21.083   8.736  -2.765  1.00 12.79           N
ATOM   2924  N   ALA C  88      15.237  12.135  -2.854  1.00 10.58           N
ATOM   2925  CA  ALA C  88      13.834  12.334  -2.516  1.00 10.88           C
ATOM   2926  C   ALA C  88      12.891  12.127  -3.688  1.00 11.26           C
ATOM   2927  O   ALA C  88      11.800  11.601  -3.495  1.00 11.29           O
ATOM   2928  CB  ALA C  88      13.663  13.779  -2.013  1.00 11.91           C
ATOM   2929  N   HIS C  89      13.284  12.597  -4.892  1.00 11.27           N
ATOM   2930  CA  HIS C  89      12.324  12.574  -5.993  1.00 13.72           C
ATOM   2931  C   HIS C  89      12.426  11.460  -7.013  1.00 12.87           C
ATOM   2932  O   HIS C  89      11.455  11.164  -7.715  1.00 10.68           O
ATOM   2933  CB  HIS C  89      12.493  13.895  -6.782  1.00 18.83           C
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ATOM   2934  CG  HIS C  89      12.298  15.091  -5.908  1.00 22.12           C
ATOM   2935  ND1 HIS C  89      11.309  15.116  -4.943  1.00 26.60           N
ATOM   2936  CD2 HIS C  89      12.949  16.280  -5.861  1.00 25.29           C
ATOM   2937  CE1 HIS C  89      11.356  16.285  -4.321  1.00 25.55           C
ATOM   2938  NE2 HIS C  89      12.334  16.990  -4.850  1.00 26.44           N
ATOM   2939  N   LYS C  90      13.612  10.862  -7.130  1.00 10.36           N
ATOM   2940  CA  LYS C  90      13.831   9.809  -8.095  1.00 13.43           C
ATOM   2941  C   LYS C  90      14.206   8.478  -7.473  1.00 13.32           C
ATOM   2942  O   LYS C  90      13.436   7.531  -7.657  1.00 13.58           O
ATOM   2943  CB  LYS C  90      14.968  10.251  -9.048  1.00 11.44           C
ATOM   2944  CG  LYS C  90      14.659  11.579  -9.768  1.00 14.82           C
ATOM   2945  CD  LYS C  90      13.463  11.935 -10.482  0.00 30.64           C
ATOM   2946  CE  LYS C  90      13.776  12.937 -11.585  0.00 33.16           C
ATOM   2947  NZ  LYS C  90      15.216  12.857 -12.046  0.00 29.22           N
ATOM   2948  N   LEU C  91      15.328   8.380  -6.768  1.00 10.99           N
ATOM   2949  CA  LEU C  91      15.740   7.102  -6.190  1.00 10.91           C
ATOM   2950  C   LEU C  91      14.736   6.598  -5.156  1.00 10.87           C
ATOM   2951  O   LEU C  91      14.333   5.452  -5.183  1.00  9.94           O
ATOM   2952  CB  LEU C  91      17.152   7.232  -5.592  1.00  9.26           C
ATOM   2953  CG  LEU C  91      18.216   7.624  -6.623  1.00 11.13           C
ATOM   2954  CD1 LEU C  91      19.495   7.835  -5.811  1.00 12.97           C
ATOM   2955  CD2 LEU C  91      18.388   6.574  -7.699  1.00 12.36           C
ATOM   2956  N   ARG C  92      14.343   7.492  -4.273  1.00 10.24           N
ATOM   2957  CA  ARG C  92      13.305   7.218  -3.287  1.00  8.07           C
ATOM   2958  C   ARG C  92      13.620   6.006  -2.438  1.00 11.96           C
ATOM   2959  O   ARG C  92      12.800   5.148  -2.181  1.00 11.80           O
ATOM   2960  CB  ARG C  92      11.974   7.083  -4.050  1.00  9.44           C
ATOM   2961  CG  ARG C  92      11.596   8.521  -4.471  1.00  7.19           C
ATOM   2962  CD  ARG C  92      10.330   8.488  -5.358  1.00 12.07           C
ATOM   2963  NE  ARG C  92      10.618   7.890  -6.662  1.00 13.68           N
ATOM   2964  CZ  ARG C  92       9.713   7.666  -7.616  1.00 15.66           C
ATOM   2965  NH1 ARG C  92       8.434   8.006  -7.499  1.00 12.18           N
ATOM   2966  NH2 ARG C  92      10.161   7.092  -8.744  1.00 17.52           N
ATOM   2967  N   VAL C  93      14.871   5.939  -1.991  1.00 11.56           N
ATOM   2968  CA  VAL C  93      15.322   4.833  -1.141  1.00 11.66           C
ATOM   2969  C   VAL C  93      14.713   4.983   0.251  1.00  8.97           C
ATOM   2970  O   VAL C  93      14.848   6.076   0.798  1.00  9.96           O
ATOM   2971  CB  VAL C  93      16.855   4.905  -1.015  1.00  9.58           C
ATOM   2972  CG1 VAL C  93      17.368   3.918   0.037  1.00 14.63           C
ATOM   2973  CG2 VAL C  93      17.545   4.679  -2.351  1.00 11.92           C
ATOM   2974  N   ASP C  94      14.095   3.944   0.828  1.00 10.60           N
ATOM   2975  CA  ASP C  94      13.499   4.139   2.141  1.00 12.09           C
ATOM   2976  C   ASP C  94      14.557   4.635   3.115  1.00  9.86           C
ATOM   2977  O   ASP C  94      15.710   4.169   3.224  1.00  8.85           O
ATOM   2978  CB  ASP C  94      12.837   2.850   2.665  1.00  9.36           C
ATOM   2979  CG  ASP C  94      11.985   3.227   3.881  1.00 11.03           C
ATOM   2980  OD1 ASP C  94      12.523   3.339   5.011  1.00 12.48           O
ATOM   2981  OD2 ASP C  94      10.764   3.397   3.615  1.00 12.36           O
ATOM   2982  N   PRO C  95      14.207   5.648   3.915  1.00 12.53           N
ATOM   2983  CA  PRO C  95      15.123   6.223   4.886  1.00 14.14           C
ATOM   2984  C   PRO C  95      15.739   5.225   5.825  1.00 12.37           C
ATOM   2985  O   PRO C  95      16.897   5.472   6.274  1.00 11.19           O
ATOM   2986  CB  PRO C  95      14.263   7.235   5.654  1.00 14.63           C
ATOM   2987  CG  PRO C  95      13.322   7.723   4.587  1.00 11.53           C
ATOM   2988  CD  PRO C  95      12.949   6.424   3.868  1.00 11.78           C
ATOM   2989  N   VAL C  96      15.115   4.085   6.164  1.00 10.65           N
ATOM   2990  CA  VAL C  96      15.789   3.146   7.066  1.00 13.05           C
ATOM   2991  C   VAL C  96      17.129   2.662   6.552  1.00 11.95           C
ATOM   2992  O   VAL C  96      18.022   2.289   7.344  1.00 11.29           O
ATOM   2993  CB  VAL C  96      14.915   1.908   7.368  1.00 15.21           C
ATOM   2994  CG1 VAL C  96      13.602   2.379   7.986  1.00 18.11           C
ATOM   2995  CG2 VAL C  96      14.658   1.037   6.144  1.00 14.57           C
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ATOM   2996  N   ASN C  97      17.355   2.607   5.218  1.00 10.91           N
ATOM   2997  CA  ASN C  97      18.594   2.106   4.670  1.00 12.02           C
ATOM   2998  C   ASN C  97      19.797   3.013   4.837  1.00 12.59           C
ATOM   2999  O   ASN C  97      20.924   2.513   4.745  1.00 11.39           O
ATOM   3000  CB  ASN C  97      18.430   1.796   3.177  1.00  9.86           C
ATOM   3001  CG  ASN C  97      17.317   0.767   2.970  1.00 11.85           C
ATOM   3002  OD1 ASN C  97      17.579  -0.429   3.098  1.00 11.47           O
ATOM   3003  ND2 ASN C  97      16.142   1.326   2.678  1.00 12.05           N
ATOM   3004  N   PHE C  98      19.606   4.305   5.103  1.00 11.30           N
ATOM   3005  CA  PHE C  98      20.726   5.213   5.294  1.00 13.28           C
ATOM   3006  C   PHE C  98      21.478   4.828   6.568  1.00 11.27           C
ATOM   3007  O   PHE C  98      22.692   4.951   6.631  1.00 10.42           O
ATOM   3008  CB  PHE C  98      20.278   6.673   5.352  1.00 13.02           C
ATOM   3009  CG  PHE C  98      19.854   7.177   3.984  1.00 11.86           C
ATOM   3010  CD1 PHE C  98      18.617   6.814   3.468  1.00 12.24           C
ATOM   3011  CD2 PHE C  98      20.706   7.966   3.220  1.00 12.14           C
ATOM   3012  CE1 PHE C  98      18.239   7.271   2.231  1.00 13.12           C
ATOM   3013  CE2 PHE C  98      20.317   8.433   1.979  1.00 12.17           C
ATOM   3014  CZ  PHE C  98      19.074   8.082   1.489  1.00 14.47           C
ATOM   3015  N   LYS C  99      20.776   4.339   7.607  1.00 10.55           N
ATOM   3016  CA  LYS C  99      21.463   3.903   8.814  1.00 14.87           C
ATOM   3017  C   LYS C  99      22.325   2.668   8.537  1.00 13.65           C
ATOM   3018  O   LYS C  99      23.380   2.486   9.152  1.00  9.06           O
ATOM   3019  CB  LYS C  99      20.439   3.608   9.928  1.00 19.37           C
ATOM   3020  CG  LYS C  99      19.700   4.881  10.325  1.00 26.25           C
ATOM   3021  CD  LYS C  99      18.938   4.729  11.636  1.00 32.24           C
ATOM   3022  CE  LYS C  99      18.488   6.118  12.135  1.00 35.19           C
ATOM   3023  NZ  LYS C  99      17.077   6.030  12.611  1.00 38.96           N
ATOM   3024  N   LEU C 100      21.845   1.813   7.642  1.00 10.48           N
ATOM   3025  CA  LEU C 100      22.576   0.585   7.283  1.00 13.01           C
ATOM   3026  C   LEU C 100      23.864   0.882   6.549  1.00 14.42           C
ATOM   3027  O   LEU C 100      24.934   0.328   6.881  1.00 12.68           O
ATOM   3028  CB  LEU C 100      21.666  -0.308   6.450  1.00 13.25           C
ATOM   3029  CG  LEU C 100      20.321  -0.637   7.133  1.00 13.94           C
ATOM   3030  CD1 LEU C 100      19.486  -1.533   6.214  1.00 12.81           C
ATOM   3031  CD2 LEU C 100      20.586  -1.342   8.461  1.00 13.63           C
ATOM   3032  N   LEU C 101      23.795   1.739   5.516  1.00 11.57           N
ATOM   3033  CA  LEU C 101      25.041   2.124   4.833  1.00  8.70           C
ATOM   3034  C   LEU C 101      25.922   2.919   5.775  1.00 11.09           C
ATOM   3035  O   LEU C 101      27.154   2.758   5.731  1.00 11.36           O
ATOM   3036  CB  LEU C 101      24.745   2.977   3.598  1.00  9.31           C
ATOM   3037  CG  LEU C 101      25.963   3.399   2.764  1.00 12.26           C
ATOM   3038  CD1 LEU C 101      26.780   2.210   2.273  1.00 10.20           C
ATOM   3039  CD2 LEU C 101      25.531   4.269   1.579  1.00 13.75           C
ATOM   3040  N   SER C 102      25.348   3.792   6.618  1.00  8.87           N
ATOM   3041  CA  SER C 102      26.181   4.557   7.555  1.00  9.78           C
ATOM   3042  C   SER C 102      26.976   3.632   8.476  1.00 11.92           C
ATOM   3043  O   SER C 102      28.180   3.866   8.706  1.00 11.22           O
ATOM   3044  CB  SER C 102      25.359   5.528   8.418  1.00  8.53           C
ATOM   3045  OG  SER C 102      24.824   6.552   7.580  1.00 10.62           O
ATOM   3046  N   HIS C 103      26.314   2.600   9.002  1.00 10.66           N
ATOM   3047  CA  HIS C 103      27.020   1.648   9.872  1.00 10.16           C
ATOM   3048  C   HIS C 103      28.156   1.007   9.089  1.00 11.70           C
ATOM   3049  O   HIS C 103      29.257   0.755   9.577  1.00  9.97           O
ATOM   3050  CB  HIS C 103      26.055   0.583  10.407  1.00 13.09           C
ATOM   3051  CG  HIS C 103      26.678  -0.585  11.108  1.00 14.61           C
ATOM   3052  ND1 HIS C 103      27.348  -0.512  12.309  1.00 11.08           N
ATOM   3053  CD2 HIS C 103      26.676  -1.886  10.714  1.00 11.12           C
ATOM   3054  CE1 HIS C 103      27.773  -1.734  12.612  1.00 12.02           C
ATOM   3055  NE2 HIS C 103      27.365  -2.595  11.686  1.00 13.45           N
ATOM   3056  N   CYS C 104      27.887   0.576   7.847  1.00 11.48           N
ATOM   3057  CA  CYS C 104      28.931  -0.081   7.048  1.00 13.28           C
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ATOM   3058  C   CYS C 104      30.058   0.850   6.681  1.00 11.69           C
ATOM   3059  O   CYS C 104      31.201   0.373   6.602  1.00 12.62           O
ATOM   3060  CB  CYS C 104      28.277  -0.743   5.827  1.00 11.39           C
ATOM   3061  SG  CYS C 104      27.224  -2.165   6.262  1.00 12.99           S
ATOM   3062  N   LEU C 105      29.796   2.153   6.481  1.00 11.08           N
ATOM   3063  CA  LEU C 105      30.896   3.092   6.203  1.00 12.83           C
ATOM   3064  C   LEU C 105      31.729   3.194   7.477  1.00 14.13           C
ATOM   3065  O   LEU C 105      32.958   3.225   7.493  1.00 11.31           O
ATOM   3066  CB  LEU C 105      30.372   4.477   5.798  1.00 16.12           C
ATOM   3067  CG  LEU C 105      29.861   4.615   4.347  1.00 13.76           C
ATOM   3068  CD1 LEU C 105      28.908   5.804   4.213  1.00 10.59           C
ATOM   3069  CD2 LEU C 105      31.049   4.734   3.405  1.00 12.69           C
ATOM   3070  N   LEU C 106      31.036   3.242   8.646  1.00  8.12           N
ATOM   3071  CA  LEU C 106      31.785   3.321   9.911  1.00 12.71           C
ATOM   3072  C   LEU C 106      32.662   2.100  10.148  1.00 13.59           C
ATOM   3073  O   LEU C 106      33.809   2.278  10.568  1.00 13.60           O
ATOM   3074  CB  LEU C 106      30.754   3.523  11.043  1.00 14.77           C
ATOM   3075  CG  LEU C 106      31.186   4.123  12.367  1.00 20.51           C
ATOM   3076  CD1 LEU C 106      31.669   5.564  12.211  1.00 15.99           C
ATOM   3077  CD2 LEU C 106      29.984   4.071  13.328  1.00 15.06           C
ATOM   3078  N   VAL C 107      32.208   0.866   9.821  1.00 11.38           N
ATOM   3079  CA  VAL C 107      33.016  -0.331  10.004  1.00 10.72           C
ATOM   3080  C   VAL C 107      34.223  -0.300   9.084  1.00  9.00           C
ATOM   3081  O   VAL C 107      35.353  -0.692   9.385  1.00 10.05           O
ATOM   3082  CB  VAL C 107      32.130  -1.560   9.711  1.00 12.83           C
ATOM   3083  CG1 VAL C 107      32.844  -2.879   9.457  1.00 12.91           C
ATOM   3084  CG2 VAL C 107      31.173  -1.691  10.920  1.00 13.61           C
ATOM   3085  N   THR C 108      33.911   0.211   7.852  1.00 11.14           N
ATOM   3086  CA  THR C 108      34.998   0.288   6.840  1.00 12.13           C
ATOM   3087  C   THR C 108      36.134   1.164   7.340  1.00 12.71           C
ATOM   3088  O   THR C 108      37.342   0.887   7.267  1.00 12.76           O
ATOM   3089  CB  THR C 108      34.442   0.805   5.491  1.00 12.36           C
ATOM   3090  OG1 THR C 108      33.492  -0.160   5.002  1.00 10.33           O
ATOM   3091  CG2 THR C 108      35.586   0.949   4.487  1.00 12.48           C
ATOM   3092  N   LEU C 109      35.750   2.352   7.860  1.00 13.11           N
ATOM   3093  CA  LEU C 109      36.728   3.297   8.379  1.00 12.06           C
ATOM   3094  C   LEU C 109      37.474   2.711   9.575  1.00 13.05           C
ATOM   3095  O   LEU C 109      38.690   2.839   9.737  1.00 13.92           O
ATOM   3096  CB  LEU C 109      36.006   4.599   8.756  1.00 13.87           C
ATOM   3097  CG  LEU C 109      35.566   5.472   7.581  1.00 16.36           C
ATOM   3098  CD1 LEU C 109      34.845   6.716   8.071  1.00 13.84           C
ATOM   3099  CD2 LEU C 109      36.763   5.888   6.727  1.00 16.84           C
ATOM   3100  N   ALA C 110      36.742   1.993  10.453  1.00 13.65           N
ATOM   3101  CA  ALA C 110      37.382   1.374  11.606  1.00 15.71           C
ATOM   3102  C   ALA C 110      38.431   0.355  11.147  1.00 12.04           C
ATOM   3103  O   ALA C 110      39.539   0.285  11.700  1.00 12.72           O
ATOM   3104  CB  ALA C 110      36.350   0.674  12.483  1.00 11.29           C
ATOM   3105  N   ALA C 111      38.111  -0.427  10.138  1.00 12.28           N
ATOM   3106  CA  ALA C 111      38.983  -1.458   9.615  1.00 11.75           C
ATOM   3107  C   ALA C 111      40.175  -0.846   8.864  1.00 14.81           C
ATOM   3108  O   ALA C 111      41.130  -1.584   8.670  1.00 13.20           O
ATOM   3109  CB  ALA C 111      38.275  -2.450   8.689  1.00 11.15           C
ATOM   3110  N   HIS C 112      40.102   0.406   8.401  1.00 14.02           N
ATOM   3111  CA  HIS C 112      41.220   0.948   7.673  1.00 14.40           C
ATOM   3112  C   HIS C 112      41.927   2.079   8.395  1.00 13.19           C
ATOM   3113  O   HIS C 112      43.061   2.359   7.955  1.00 14.78           O
ATOM   3114  CB  HIS C 112      40.821   1.532   6.308  1.00 15.02           C
ATOM   3115  CG  HIS C 112      40.539   0.491   5.271  1.00 16.55           C
ATOM   3116  ND1 HIS C 112      41.497  -0.103   4.504  1.00 15.90           N
ATOM   3117  CD2 HIS C 112      39.333  -0.022   4.903  1.00 16.36           C
ATOM   3118  CE1 HIS C 112      40.893  -0.972   3.673  1.00 14.99           C
ATOM   3119  NE2 HIS C 112      39.587  -0.927   3.893  1.00 16.59           N
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ATOM   3120  N   LEU C 113      41.425   2.614   9.483  1.00 14.03           N
ATOM   3121  CA  LEU C 113      42.081   3.702  10.223  1.00 17.31           C
ATOM   3122  C   LEU C 113      42.309   3.343  11.679  1.00 16.41           C
ATOM   3123  O   LEU C 113      41.750   3.882  12.652  1.00 19.08           O
ATOM   3124  CB  LEU C 113      41.272   4.988  10.128  1.00 23.62           C
ATOM   3125  CG  LEU C 113      40.742   5.517   8.809  1.00 26.18           C
ATOM   3126  CD1 LEU C 113      39.735   6.649   9.061  1.00 26.77           C
ATOM   3127  CD2 LEU C 113      41.864   6.024   7.903  1.00 28.11           C
ATOM   3128  N   PRO C 114      43.217   2.384  11.913  1.00 14.08           N
ATOM   3129  CA  PRO C 114      43.555   1.923  13.252  1.00 14.53           C
ATOM   3130  C   PRO C 114      44.058   3.044  14.147  1.00 14.89           C
ATOM   3131  O   PRO C 114      43.666   3.076  15.316  1.00 17.84           O
ATOM   3132  CB  PRO C 114      44.580   0.828  13.068  1.00 13.09           C
ATOM   3133  CG  PRO C 114      45.180   1.058  11.711  1.00 14.98           C
ATOM   3134  CD  PRO C 114      44.045   1.646  10.927  1.00 12.43           C
ATOM   3135  N   ALA C 115      44.903   3.931  13.653  1.00 16.37           N
ATOM   3136  CA  ALA C 115      45.414   4.980  14.552  1.00 15.08           C
ATOM   3137  C   ALA C 115      44.369   6.034  14.872  1.00 19.87           C
ATOM   3138  O   ALA C 115      44.360   6.609  15.960  1.00 21.18           O
ATOM   3139  CB  ALA C 115      46.646   5.638  13.908  1.00 13.43           C
ATOM   3140  N   GLU C 116      43.507   6.330  13.908  1.00 14.41           N
ATOM   3141  CA  GLU C 116      42.561   7.431  14.026  1.00 18.99           C
ATOM   3142  C   GLU C 116      41.208   7.117  14.634  1.00 17.35           C
ATOM   3143  O   GLU C 116      40.562   8.068  15.131  1.00 16.01           O
ATOM   3144  CB  GLU C 116      42.437   8.062  12.624  1.00 20.17           C
ATOM   3145  CG  GLU C 116      43.782   8.564  12.053  1.00 24.70           C
ATOM   3146  CD  GLU C 116      44.628   7.534  11.336  1.00 26.69           C
ATOM   3147  OE1 GLU C 116      44.184   6.361  11.261  1.00 24.84           O
ATOM   3148  OE2 GLU C 116      45.747   7.782  10.798  1.00 23.17           O
ATOM   3149  N   PHE C 117      40.776   5.864  14.631  1.00 13.99           N
ATOM   3150  CA  PHE C 117      39.427   5.540  15.140  1.00 14.02           C
ATOM   3151  C   PHE C 117      39.312   5.419  16.652  1.00 13.42           C
ATOM   3152  O   PHE C 117      39.061   4.323  17.182  1.00 14.20           O
ATOM   3153  CB  PHE C 117      38.959   4.254  14.430  1.00 12.13           C
ATOM   3154  CG  PHE C 117      37.479   3.952  14.452  1.00 11.21           C
ATOM   3155  CD1 PHE C 117      36.659   4.596  13.557  1.00 13.84           C
ATOM   3156  CD2 PHE C 117      36.928   3.039  15.326  1.00 12.72           C
ATOM   3157  CE1 PHE C 117      35.286   4.361  13.508  1.00 15.70           C
ATOM   3158  CE2 PHE C 117      35.557   2.775  15.298  1.00 15.06           C
ATOM   3159  CZ  PHE C 117      34.761   3.436  14.398  1.00 14.03           C
ATOM   3160  N   THR C 118      39.487   6.515  17.367  1.00 13.57           N
ATOM   3161  CA  THR C 118      39.358   6.544  18.817  1.00 12.61           C
ATOM   3162  C   THR C 118      37.891   6.586  19.159  1.00 12.89           C
ATOM   3163  O   THR C 118      37.078   6.868  18.292  1.00 13.61           O
ATOM   3164  CB  THR C 118      40.000   7.837  19.381  1.00 17.38           C
ATOM   3165  OG1 THR C 118      39.375   8.997  18.768  1.00 16.25           O
ATOM   3166  CG2 THR C 118      41.495   7.845  19.095  1.00 19.66           C
ATOM   3167  N   PRO C 119      37.523   6.429  20.425  1.00 13.92           N
ATOM   3168  CA  PRO C 119      36.130   6.493  20.851  1.00 11.19           C
ATOM   3169  C   PRO C 119      35.528   7.825  20.461  1.00 12.99           C
ATOM   3170  O   PRO C 119      34.421   7.926  19.943  1.00 13.22           O
ATOM   3171  CB  PRO C 119      36.179   6.277  22.355  1.00 14.46           C
ATOM   3172  CG  PRO C 119      37.391   5.371  22.502  1.00 15.90           C
ATOM   3173  CD  PRO C 119      38.410   5.998  21.542  1.00 15.80           C
ATOM   3174  N   ALA C 120      36.243   8.922  20.723  1.00 15.42           N
ATOM   3175  CA  ALA C 120      35.742  10.247  20.352  1.00 13.95           C
ATOM   3176  C   ALA C 120      35.527  10.395  18.856  1.00 11.81           C
ATOM   3177  O   ALA C 120      34.518  10.972  18.423  1.00 14.70           O
ATOM   3178  CB  ALA C 120      36.720  11.338  20.816  1.00 15.67           C
ATOM   3179  N   VAL C 121      36.459   9.905  18.043  1.00 12.58           N
ATOM   3180  CA  VAL C 121      36.365  10.036  16.584  1.00 12.82           C
ATOM   3181  C   VAL C 121      35.231   9.148  16.076  1.00 11.69           C
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ATOM   3182  O   VAL C 121      34.470   9.519  15.195  1.00 10.87           O
ATOM   3183  CB  VAL C 121      37.705   9.730  15.920  1.00 15.02           C
ATOM   3184  CG1 VAL C 121      37.641   9.430  14.436  1.00 17.15           C
ATOM   3185  CG2 VAL C 121      38.623  10.948  16.166  1.00 16.22           C
ATOM   3186  N   HIS C 122      35.117   7.964  16.640  1.00 11.40           N
ATOM   3187  CA  HIS C 122      34.004   7.051  16.308  1.00 13.19           C
ATOM   3188  C   HIS C 122      32.687   7.779  16.568  1.00 12.14           C
ATOM   3189  O   HIS C 122      31.774   7.708  15.727  1.00 13.38           O
ATOM   3190  CB  HIS C 122      34.183   5.798  17.151  1.00 11.36           C
ATOM   3191  CG  HIS C 122      33.107   4.761  17.133  1.00 13.35           C
ATOM   3192  ND1 HIS C 122      33.295   3.589  17.826  1.00 11.31           N
ATOM   3193  CD2 HIS C 122      31.880   4.681  16.557  1.00 11.55           C
ATOM   3194  CE1 HIS C 122      32.192   2.823  17.687  1.00 12.39           C
ATOM   3195  NE2 HIS C 122      31.324   3.457  16.908  1.00 11.66           N
ATOM   3196  N   ALA C 123      32.510   8.463  17.712  1.00 12.04           N
ATOM   3197  CA  ALA C 123      31.242   9.164  17.952  1.00 12.67           C
ATOM   3198  C   ALA C 123      31.043  10.271  16.914  1.00 12.07           C
ATOM   3199  O   ALA C 123      29.947  10.406  16.350  1.00 11.42           O
ATOM   3200  CB  ALA C 123      31.214   9.748  19.357  1.00 13.38           C
ATOM   3201  N   SER C 124      32.098  11.058  16.641  1.00 10.82           N
ATOM   3202  CA  SER C 124      31.971  12.149  15.673  1.00 10.24           C
ATOM   3203  C   SER C 124      31.598  11.627  14.291  1.00  9.65           C
ATOM   3204  O   SER C 124      30.777  12.236  13.611  1.00 10.24           O
ATOM   3205  CB  SER C 124      33.282  12.966  15.572  1.00 12.95           C
ATOM   3206  OG  SER C 124      33.462  13.563  16.851  1.00 12.40           O
ATOM   3207  N   LEU C 125      32.254  10.548  13.858  1.00 12.67           N
ATOM   3208  CA  LEU C 125      31.986   9.973  12.555  1.00 11.77           C
ATOM   3209  C   LEU C 125      30.547   9.455  12.478  1.00 12.71           C
ATOM   3210  O   LEU C 125      29.891   9.645  11.463  1.00 11.83           O
ATOM   3211  CB  LEU C 125      32.948   8.836  12.221  1.00 11.48           C
ATOM   3212  CG  LEU C 125      34.373   9.270  11.841  1.00 10.50           C
ATOM   3213  CD1 LEU C 125      35.311   8.077  11.811  1.00 11.56           C
ATOM   3214  CD2 LEU C 125      34.361  10.008  10.504  1.00 12.73           C
ATOM   3215  N   ASP C 126      30.070   8.806  13.563  1.00 10.51           N
ATOM   3216  CA  ASP C 126      28.705   8.298  13.571  1.00 13.03           C
ATOM   3217  C   ASP C 126      27.705   9.445  13.464  1.00 10.14           C
ATOM   3218  O   ASP C 126      26.703   9.334  12.749  1.00 10.55           O
ATOM   3219  CB  ASP C 126      28.432   7.514  14.855  1.00 11.72           C
ATOM   3220  CG  ASP C 126      27.215   6.614  14.780  1.00 16.03           C
ATOM   3221  OD1 ASP C 126      26.993   5.929  13.746  1.00 15.19           O
ATOM   3222  OD2 ASP C 126      26.500   6.598  15.807  1.00 16.77           O
ATOM   3223  N   LYS C 127      27.958  10.541  14.184  1.00 10.24           N
ATOM   3224  CA  LYS C 127      27.105  11.717  14.166  1.00  9.98           C
ATOM   3225  C   LYS C 127      27.147  12.348  12.782  1.00 12.70           C
ATOM   3226  O   LYS C 127      26.127  12.762  12.239  1.00 12.80           O
ATOM   3227  CB  LYS C 127      27.566  12.768  15.200  1.00 11.02           C
ATOM   3228  CG  LYS C 127      27.118  12.509  16.616  1.00  9.76           C
ATOM   3229  CD  LYS C 127      27.580  13.608  17.600  1.00 11.74           C
ATOM   3230  CE  LYS C 127      26.845  14.932  17.349  1.00 13.16           C
ATOM   3231  NZ  LYS C 127      27.341  15.996  18.306  1.00 11.79           N
ATOM   3232  N   PHE C 128      28.338  12.446  12.175  1.00  9.93           N
ATOM   3233  CA  PHE C 128      28.428  13.022  10.824  1.00 11.24           C
ATOM   3234  C   PHE C 128      27.664  12.226   9.782  1.00 10.74           C
ATOM   3235  O   PHE C 128      26.888  12.801   8.990  1.00  9.90           O
ATOM   3236  CB  PHE C 128      29.898  13.142  10.414  1.00 10.17           C
ATOM   3237  CG  PHE C 128      30.161  13.406   8.934  1.00 10.80           C
ATOM   3238  CD1 PHE C 128      29.957  14.675   8.427  1.00 11.44           C
ATOM   3239  CD2 PHE C 128      30.588  12.394   8.114  1.00 11.71           C
ATOM   3240  CE1 PHE C 128      30.216  14.937   7.078  1.00 13.92           C
ATOM   3241  CE2 PHE C 128      30.844  12.620   6.767  1.00 13.48           C
ATOM   3242  CZ  PHE C 128      30.654  13.895   6.264  1.00 12.87           C
ATOM   3243  N   LEU C 129      27.735  10.891   9.831  1.00 10.17           N
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ATOM   3244  CA  LEU C 129      27.032  10.092   8.816  1.00 12.75           C
ATOM   3245  C   LEU C 129      25.541  10.177   9.021  1.00 12.23           C
ATOM   3246  O   LEU C 129      24.731  10.117   8.072  1.00 10.51           O
ATOM   3247  CB  LEU C 129      27.539   8.643   8.764  1.00 11.00           C
ATOM   3248  CG  LEU C 129      29.030   8.552   8.364  1.00 11.70           C
ATOM   3249  CD1 LEU C 129      29.580   7.168   8.667  1.00 12.86           C
ATOM   3250  CD2 LEU C 129      29.196   8.881   6.868  1.00 16.04           C
ATOM   3251  N   ALA C 130      25.155  10.301  10.301  1.00 12.21           N
ATOM   3252  CA  ALA C 130      23.726  10.472  10.583  1.00 11.19           C
ATOM   3253  C   ALA C 130      23.273  11.830  10.067  1.00 11.55           C
ATOM   3254  O   ALA C 130      22.142  11.928   9.569  1.00 10.72           O
ATOM   3255  CB  ALA C 130      23.533  10.322  12.103  1.00 13.58           C
ATOM   3256  N   SER C 131      24.081  12.885  10.177  1.00 10.55           N
ATOM   3257  CA  SER C 131      23.711  14.209   9.695  1.00 15.35           C
ATOM   3258  C   SER C 131      23.672  14.247   8.167  1.00 14.65           C
ATOM   3259  O   SER C 131      22.756  14.843   7.599  1.00 13.47           O
ATOM   3260  CB  SER C 131      24.624  15.350  10.196  1.00 15.10           C
ATOM   3261  OG  SER C 131      24.521  15.368  11.632  1.00 23.26           O
ATOM   3262  N   VAL C 132      24.616  13.531   7.530  1.00 13.08           N
ATOM   3263  CA  VAL C 132      24.565  13.452   6.064  1.00 12.40           C
ATOM   3264  C   VAL C 132      23.253  12.752   5.672  1.00 11.16           C
ATOM   3265  O   VAL C 132      22.549  13.227   4.777  1.00 12.10           O
ATOM   3266  CB  VAL C 132      25.755  12.716   5.454  1.00 13.15           C
ATOM   3267  CG1 VAL C 132      25.562  12.414   3.962  1.00 11.01           C
ATOM   3268  CG2 VAL C 132      27.044  13.517   5.576  1.00 13.52           C
ATOM   3269  N   SER C 133      22.916  11.659   6.346  1.00 11.29           N
ATOM   3270  CA  SER C 133      21.702  10.908   6.074  1.00 11.22           C
ATOM   3271  C   SER C 133      20.465  11.765   6.254  1.00 14.62           C
ATOM   3272  O   SER C 133      19.543  11.658   5.439  1.00 14.03           O
ATOM   3273  CB  SER C 133      21.636   9.651   6.970  1.00 13.98           C
ATOM   3274  OG  SER C 133      22.725   8.808   6.647  1.00 14.98           O
ATOM   3275  N   THR C 134      20.414  12.597   7.295  1.00 14.48           N
ATOM   3276  CA  THR C 134      19.304  13.509   7.537  1.00 13.37           C
ATOM   3277  C   THR C 134      19.164  14.483   6.380  1.00 15.38           C
ATOM   3278  O   THR C 134      18.073  14.654   5.827  1.00 13.99           O
ATOM   3279  CB  THR C 134      19.492  14.263   8.867  1.00 13.05           C
ATOM   3280  OG1 THR C 134      19.369  13.209   9.843  1.00 16.05           O
ATOM   3281  CG2 THR C 134      18.434  15.312   9.110  1.00 16.82           C
ATOM   3282  N   VAL C 135      20.258  15.094   5.948  1.00 13.43           N
ATOM   3283  CA  VAL C 135      20.198  15.967   4.778  1.00 12.60           C
ATOM   3284  C   VAL C 135      19.735  15.195   3.541  1.00 13.29           C
ATOM   3285  O   VAL C 135      18.863  15.745   2.854  1.00 14.83           O
ATOM   3286  CB  VAL C 135      21.572  16.584   4.488  1.00 14.99           C
ATOM   3287  CG1 VAL C 135      21.559  17.386   3.197  1.00 15.65           C
ATOM   3288  CG2 VAL C 135      21.960  17.466   5.693  1.00 13.08           C
ATOM   3289  N   LEU C 136      20.257  14.001   3.277  1.00 11.47           N
ATOM   3290  CA  LEU C 136      19.787  13.284   2.070  1.00 11.64           C
ATOM   3291  C   LEU C 136      18.328  12.864   2.106  1.00 13.98           C
ATOM   3292  O   LEU C 136      17.799  12.563   1.016  1.00 12.66           O
ATOM   3293  CB  LEU C 136      20.670  12.054   1.792  1.00 14.02           C
ATOM   3294  CG  LEU C 136      22.139  12.415   1.447  1.00 14.17           C
ATOM   3295  CD1 LEU C 136      22.992  11.185   1.219  1.00 16.79           C
ATOM   3296  CD2 LEU C 136      22.165  13.307   0.211  1.00 15.46           C
ATOM   3297  N   THR C 137      17.673  12.782   3.256  1.00 11.08           N
ATOM   3298  CA  THR C 137      16.269  12.406   3.322  1.00 12.62           C
ATOM   3299  C   THR C 137      15.412  13.628   3.658  1.00 11.39           C
ATOM   3300  O   THR C 137      14.175  13.497   3.807  1.00 11.36           O
ATOM   3301  CB  THR C 137      16.005  11.303   4.377  1.00 13.98           C
ATOM   3302  OG1 THR C 137      16.472  11.673   5.686  1.00 12.30           O
ATOM   3303  CG2 THR C 137      16.749  10.018   4.014  1.00 13.92           C
ATOM   3304  N   SER C 138      15.994  14.817   3.756  1.00 12.45           N
ATOM   3305  CA  SER C 138      15.240  16.013   4.157  1.00 12.81           C
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ATOM   3306  C   SER C 138      14.103  16.461   3.249  1.00 15.04           C
ATOM   3307  O   SER C 138      13.146  17.130   3.710  1.00 13.06           O
ATOM   3308  CB  SER C 138      16.208  17.204   4.376  1.00 13.87           C
ATOM   3309  OG  SER C 138      16.808  17.604   3.143  1.00 15.95           O
ATOM   3310  N   LYS C 139      14.066  16.077   1.987  1.00  9.16           N
ATOM   3311  CA  LYS C 139      13.019  16.519   1.095  1.00 10.58           C
ATOM   3312  C   LYS C 139      12.081  15.421   0.684  1.00 10.36           C
ATOM   3313  O   LYS C 139      11.349  15.569  -0.272  1.00  9.47           O
ATOM   3314  CB  LYS C 139      13.668  17.099  -0.194  1.00 14.66           C
ATOM   3315  CG  LYS C 139      14.629  18.228   0.107  1.00 11.65           C
ATOM   3316  CD  LYS C 139      15.497  18.563  -1.089  1.00 16.06           C
ATOM   3317  CE  LYS C 139      16.488  19.696  -0.863  1.00 18.22           C
ATOM   3318  NZ  LYS C 139      17.162  20.019  -2.191  1.00 20.20           N
ATOM   3319  N   TYR C 140      12.130  14.256   1.325  1.00  8.74           N
ATOM   3320  CA  TYR C 140      11.318  13.125   0.959  1.00  9.49           C
ATOM   3321  C   TYR C 140       9.814  13.373   1.017  1.00 12.63           C
ATOM   3322  O   TYR C 140       9.073  12.772   0.211  1.00 11.61           O
ATOM   3323  CB  TYR C 140      11.666  11.955   1.911  1.00  8.56           C
ATOM   3324  CG  TYR C 140      12.708  11.012   1.338  1.00 11.47           C
ATOM   3325  CD1 TYR C 140      13.934  11.511   0.930  1.00 12.33           C
ATOM   3326  CD2 TYR C 140      12.470   9.643   1.246  1.00 13.09           C
ATOM   3327  CE1 TYR C 140      14.902  10.634   0.415  1.00 10.85           C
ATOM   3328  CE2 TYR C 140      13.430   8.783   0.735  1.00 15.28           C
ATOM   3329  CZ  TYR C 140      14.644   9.299   0.326  1.00 14.34           C
ATOM   3330  OH  TYR C 140      15.622   8.473  -0.167  1.00 11.87           O
ATOM   3331  N   ARG C 141       9.368  14.256   1.903  1.00 13.67           N
ATOM   3332  CA  ARG C 141       7.940  14.591   2.004  1.00 12.80           C
ATOM   3333  C   ARG C 141       7.761  15.930   2.727  1.00 16.80           C
ATOM   3334  O   ARG C 141       8.751  16.448   3.313  1.00 12.55           O
ATOM   3335  CB  ARG C 141       7.167  13.468   2.710  1.00 12.88           C
ATOM   3336  CG  ARG C 141       7.531  13.378   4.217  1.00 15.16           C
ATOM   3337  CD  ARG C 141       6.638  12.336   4.888  1.00 15.41           C
ATOM   3338  NE  ARG C 141       7.097  12.080   6.257  1.00 12.19           N
ATOM   3339  CZ  ARG C 141       6.373  11.365   7.112  1.00 14.99           C
ATOM   3340  NH1 ARG C 141       5.199  10.778   6.855  1.00 11.91           N
ATOM   3341  NH2 ARG C 141       6.928  11.226   8.322  1.00 16.88           N
ATOM   3342  OXT ARG C 141       6.616  16.433   2.746  1.00 15.08           O
TER    3343       ARG C 141
HETATM 3344 FE   HEM C 142      22.670   7.002  -2.912  1.00 14.25          FE
HETATM 3345  CHA HEM C 142      23.033   7.205  -6.313  1.00 12.37           C
HETATM 3346  CHB HEM C 142      25.359   9.226  -2.577  1.00 12.84           C
HETATM 3347  CHC HEM C 142      22.729   6.477   0.457  1.00 10.26           C
HETATM 3348  CHD HEM C 142      20.941   4.007  -3.311  1.00  8.72           C
HETATM 3349  N A HEM C 142      23.944   7.975  -4.193  1.00 11.88           N
HETATM 3350  C1A HEM C 142      23.882   7.971  -5.545  1.00 12.03           C
HETATM 3351  C2A HEM C 142      24.875   8.891  -6.096  1.00 15.44           C
HETATM 3352  C3A HEM C 142      25.525   9.443  -5.074  1.00 14.89           C
HETATM 3353  C4A HEM C 142      24.955   8.889  -3.859  1.00 13.55           C
HETATM 3354  CMA HEM C 142      26.667  10.483  -5.085  1.00 16.16           C
HETATM 3355  CAA HEM C 142      25.064   9.109  -7.630  1.00 15.23           C
HETATM 3356  CBA HEM C 142      24.416  10.395  -8.144  1.00 21.87           C
HETATM 3357  CGA HEM C 142      24.782  10.812  -9.562  1.00 27.55           C
HETATM 3358  O1A HEM C 142      24.532  12.007  -9.854  1.00 29.86           O
HETATM 3359  O2A HEM C 142      25.282   9.957 -10.324  1.00 27.12           O
HETATM 3360  N B HEM C 142      23.849   7.681  -1.396  1.00 14.13           N
HETATM 3361  C1B HEM C 142      24.841   8.638  -1.437  1.00 14.04           C
HETATM 3362  C2B HEM C 142      25.260   8.939  -0.088  1.00 14.22           C
HETATM 3363  C3B HEM C 142      24.528   8.195   0.741  1.00 14.02           C
HETATM 3364  C4B HEM C 142      23.633   7.389  -0.070  1.00 12.89           C
HETATM 3365  CMB HEM C 142      26.353   9.971   0.283  1.00 13.91           C
HETATM 3366  CAB HEM C 142      24.559   8.112   2.289  1.00 15.61           C
HETATM 3367  CBB HEM C 142      25.745   8.143   2.939  1.00 16.73           C
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HETATM 3368  N C HEM C 142      22.003   5.542  -1.686  1.00 13.01           N
HETATM 3369  C1C HEM C 142      22.082   5.523  -0.307  1.00 12.61           C
HETATM 3370  C2C HEM C 142      21.416   4.342   0.192  1.00  9.71           C
HETATM 3371  C3C HEM C 142      20.939   3.654  -0.844  1.00 10.01           C
HETATM 3372  C4C HEM C 142      21.294   4.401  -2.046  1.00  8.01           C
HETATM 3373  CMC HEM C 142      21.328   4.002   1.700  1.00 12.57           C
HETATM 3374  CAC HEM C 142      20.167   2.325  -0.894  1.00 10.81           C
HETATM 3375  CBC HEM C 142      20.484   1.333  -0.036  1.00 13.17           C
HETATM 3376  N D HEM C 142      22.122   5.827  -4.466  1.00 10.75           N
HETATM 3377  C1D HEM C 142      21.370   4.674  -4.447  1.00 10.04           C
HETATM 3378  C2D HEM C 142      21.095   4.250  -5.790  1.00 11.28           C
HETATM 3379  C3D HEM C 142      21.664   5.141  -6.622  1.00 11.29           C
HETATM 3380  C4D HEM C 142      22.353   6.121  -5.810  1.00 13.17           C
HETATM 3381  CMD HEM C 142      20.268   2.998  -6.191  1.00  9.78           C
HETATM 3382  CAD HEM C 142      21.707   5.122  -8.178  1.00 14.59           C
HETATM 3383  CBD HEM C 142      22.858   4.131  -8.582  1.00 16.49           C
HETATM 3384  CGD HEM C 142      23.075   4.029 -10.087  1.00 20.02           C
HETATM 3385  O1D HEM C 142      24.172   4.437 -10.549  1.00 20.01           O
HETATM 3386  O2D HEM C 142      22.130   3.569 -10.749  1.00 16.79           O
ATOM   3387  N   HIS D   2      19.642 -17.404   9.675  1.00 29.72           N
ATOM   3388  CA  HIS D   2      20.502 -18.441  10.306  1.00 31.24           C
ATOM   3389  C   HIS D   2      21.903 -18.408   9.702  1.00 28.18           C
ATOM   3390  O   HIS D   2      22.038 -18.097   8.516  1.00 26.78           O
ATOM   3391  CB  HIS D   2      19.938 -19.869  10.176  1.00 31.00           C
ATOM   3392  CG  HIS D   2      19.016 -20.054   8.871  0.00 64.00           C
ATOM   3393  ND1 HIS D   2      17.691 -20.335   8.800  0.00 66.53           N
ATOM   3394  CD2 HIS D   2      19.559 -20.151   7.585  0.00 66.35           C
ATOM   3395  CE1 HIS D   2      17.443 -20.593   7.501  0.00 67.85           C
ATOM   3396  NE2 HIS D   2      18.543 -20.490   6.751  0.00 67.85           N
ATOM   3397  N   LEU D   3      22.918 -18.716  10.518  1.00 28.56           N
ATOM   3398  CA  LEU D   3      24.266 -18.726   9.982  1.00 25.40           C
ATOM   3399  C   LEU D   3      24.478 -20.001   9.185  1.00 25.28           C
ATOM   3400  O   LEU D   3      23.951 -21.031   9.578  1.00 22.32           O
ATOM   3401  CB  LEU D   3      25.330 -18.757  11.096  1.00 26.62           C
ATOM   3402  CG  LEU D   3      25.447 -17.396  11.783  1.00 27.93           C
ATOM   3403  CD1 LEU D   3      24.738 -17.483  13.113  1.00 29.44           C
ATOM   3404  CD2 LEU D   3      26.902 -16.996  11.909  1.00 31.95           C
ATOM   3405  N   THR D   4      25.293 -19.928   8.149  1.00 25.19           N
ATOM   3406  CA  THR D   4      25.598 -21.133   7.383  1.00 24.57           C
ATOM   3407  C   THR D   4      26.715 -21.807   8.148  1.00 27.17           C
ATOM   3408  O   THR D   4      27.325 -21.176   9.029  1.00 24.83           O
ATOM   3409  CB  THR D   4      26.080 -20.715   5.981  1.00 25.20           C
ATOM   3410  OG1 THR D   4      27.233 -19.860   6.144  1.00 22.59           O
ATOM   3411  CG2 THR D   4      24.958 -19.992   5.248  1.00 24.96           C
ATOM   3412  N   PRO D   5      27.060 -23.037   7.825  1.00 27.41           N
ATOM   3413  CA  PRO D   5      28.173 -23.743   8.422  1.00 27.34           C
ATOM   3414  C   PRO D   5      29.480 -22.963   8.289  1.00 26.13           C
ATOM   3415  O   PRO D   5      30.251 -22.889   9.258  1.00 24.14           O
ATOM   3416  CB  PRO D   5      28.214 -25.083   7.686  1.00 28.60           C
ATOM   3417  CG  PRO D   5      26.807 -25.270   7.197  1.00 30.26           C
ATOM   3418  CD  PRO D   5      26.397 -23.864   6.767  1.00 31.06           C
ATOM   3419  N   GLU D   6      29.754 -22.357   7.124  1.00 22.68           N
ATOM   3420  CA  GLU D   6      30.964 -21.567   6.933  1.00 25.71           C
ATOM   3421  C   GLU D   6      30.959 -20.332   7.855  1.00 22.45           C
ATOM   3422  O   GLU D   6      32.015 -19.964   8.371  1.00 24.43           O
ATOM   3423  CB  GLU D   6      31.165 -20.979   5.542  1.00 25.91           C
ATOM   3424  CG  GLU D   6      30.667 -21.520   4.259  1.00 32.07           C
ATOM   3425  CD  GLU D   6      29.199 -21.746   4.005  1.00 33.41           C
ATOM   3426  OE1 GLU D   6      28.706 -22.752   4.561  1.00 33.96           O
ATOM   3427  OE2 GLU D   6      28.520 -20.988   3.266  1.00 32.73           O
ATOM   3428  N   GLU D   7      29.799 -19.703   8.001  1.00 21.12           N
ATOM   3429  CA  GLU D   7      29.678 -18.530   8.866  1.00 20.94           C
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ATOM   3430  C   GLU D   7      29.930 -18.890  10.327  1.00 18.83           C
ATOM   3431  O   GLU D   7      30.585 -18.122  11.034  1.00 14.96           O
ATOM   3432  CB  GLU D   7      28.288 -17.898   8.749  1.00 21.07           C
ATOM   3433  CG  GLU D   7      28.250 -17.015   7.496  1.00 19.95           C
ATOM   3434  CD  GLU D   7      26.882 -16.447   7.219  1.00 21.33           C
ATOM   3435  OE1 GLU D   7      25.874 -17.144   7.525  1.00 20.99           O
ATOM   3436  OE2 GLU D   7      26.897 -15.304   6.692  1.00 21.72           O
ATOM   3437  N   LYS D   8      29.415 -20.048  10.752  1.00 17.12           N
ATOM   3438  CA  LYS D   8      29.697 -20.469  12.138  1.00 20.38           C
ATOM   3439  C   LYS D   8      31.197 -20.648  12.318  1.00 17.91           C
ATOM   3440  O   LYS D   8      31.832 -20.233  13.307  1.00 16.14           O
ATOM   3441  CB  LYS D   8      28.978 -21.783  12.469  1.00 23.76           C
ATOM   3442  CG  LYS D   8      27.489 -21.594  12.791  1.00 29.44           C
ATOM   3443  CD  LYS D   8      26.874 -22.951  13.132  1.00 34.96           C
ATOM   3444  CE  LYS D   8      25.651 -22.824  14.027  1.00 39.81           C
ATOM   3445  NZ  LYS D   8      25.983 -23.111  15.468  1.00 43.57           N
ATOM   3446  N   SER D   9      31.847 -21.357  11.381  1.00 17.77           N
ATOM   3447  CA  SER D   9      33.283 -21.552  11.425  1.00 17.67           C
ATOM   3448  C   SER D   9      34.080 -20.243  11.449  1.00 17.79           C
ATOM   3449  O   SER D   9      35.054 -20.125  12.213  1.00 15.60           O
ATOM   3450  CB  SER D   9      33.756 -22.300  10.164  1.00 19.26           C
ATOM   3451  OG  SER D   9      33.281 -23.642  10.324  1.00 26.76           O
ATOM   3452  N   ALA D  10      33.665 -19.282  10.624  1.00 16.54           N
ATOM   3453  CA  ALA D  10      34.375 -17.999  10.613  1.00 16.80           C
ATOM   3454  C   ALA D  10      34.179 -17.242  11.926  1.00 16.73           C
ATOM   3455  O   ALA D  10      35.108 -16.557  12.398  1.00 17.38           O
ATOM   3456  CB  ALA D  10      33.886 -17.137   9.455  1.00 17.91           C
ATOM   3457  N   VAL D  11      32.977 -17.288  12.506  1.00 13.75           N
ATOM   3458  CA  VAL D  11      32.776 -16.619  13.810  1.00 14.62           C
ATOM   3459  C   VAL D  11      33.669 -17.240  14.884  1.00 11.62           C
ATOM   3460  O   VAL D  11      34.335 -16.550  15.649  1.00 13.04           O
ATOM   3461  CB  VAL D  11      31.330 -16.733  14.271  1.00 16.51           C
ATOM   3462  CG1 VAL D  11      31.141 -16.294  15.736  1.00 15.01           C
ATOM   3463  CG2 VAL D  11      30.432 -15.884  13.388  1.00 17.12           C
ATOM   3464  N   THR D  12      33.664 -18.571  14.930  1.00 13.66           N
ATOM   3465  CA  THR D  12      34.427 -19.323  15.935  1.00 16.60           C
ATOM   3466  C   THR D  12      35.916 -19.040  15.787  1.00 16.05           C
ATOM   3467  O   THR D  12      36.650 -18.793  16.733  1.00 14.05           O
ATOM   3468  CB  THR D  12      34.130 -20.829  15.833  1.00 20.06           C
ATOM   3469  OG1 THR D  12      32.714 -21.041  16.068  1.00 21.26           O
ATOM   3470  CG2 THR D  12      34.878 -21.648  16.877  1.00 23.36           C
ATOM   3471  N   ALA D  13      36.423 -19.042  14.559  1.00 13.75           N
ATOM   3472  CA  ALA D  13      37.833 -18.798  14.277  1.00 15.50           C
ATOM   3473  C   ALA D  13      38.294 -17.410  14.694  1.00 14.51           C
ATOM   3474  O   ALA D  13      39.345 -17.250  15.332  1.00 13.70           O
ATOM   3475  CB  ALA D  13      38.058 -19.072  12.773  1.00 14.35           C
ATOM   3476  N   LEU D  14      37.521 -16.366  14.351  1.00 14.21           N
ATOM   3477  CA  LEU D  14      37.906 -15.018  14.776  1.00 12.98           C
ATOM   3478  C   LEU D  14      37.788 -14.843  16.275  1.00 12.18           C
ATOM   3479  O   LEU D  14      38.651 -14.207  16.892  1.00 12.81           O
ATOM   3480  CB  LEU D  14      37.038 -13.936  14.156  1.00 14.13           C
ATOM   3481  CG  LEU D  14      37.646 -12.521  14.164  1.00 15.02           C
ATOM   3482  CD1 LEU D  14      38.710 -12.380  13.111  1.00 15.83           C
ATOM   3483  CD2 LEU D  14      36.494 -11.540  13.982  1.00 16.15           C
ATOM   3484  N   TRP D  15      36.776 -15.459  16.902  1.00 10.10           N
ATOM   3485  CA  TRP D  15      36.593 -15.290  18.337  1.00 11.43           C
ATOM   3486  C   TRP D  15      37.711 -15.940  19.147  1.00 10.70           C
ATOM   3487  O   TRP D  15      38.078 -15.393  20.190  1.00 12.32           O
ATOM   3488  CB  TRP D  15      35.251 -15.802  18.840  1.00 11.91           C
ATOM   3489  CG  TRP D  15      34.857 -15.179  20.157  1.00 10.74           C
ATOM   3490  CD1 TRP D  15      34.891 -15.784  21.393  1.00 11.54           C
ATOM   3491  CD2 TRP D  15      34.368 -13.859  20.372  1.00 10.77           C
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ATOM   3492  NE1 TRP D  15      34.460 -14.900  22.351  1.00 11.88           N
ATOM   3493  CE2 TRP D  15      34.130 -13.716  21.755  1.00 11.51           C
ATOM   3494  CE3 TRP D  15      34.098 -12.793  19.499  1.00  9.39           C
ATOM   3495  CZ2 TRP D  15      33.618 -12.546  22.342  1.00 13.18           C
ATOM   3496  CZ3 TRP D  15      33.600 -11.626  20.074  1.00 11.93           C
ATOM   3497  CH2 TRP D  15      33.380 -11.510  21.463  1.00 10.63           C
ATOM   3498  N   GLY D  16      38.374 -16.960  18.573  1.00  9.98           N
ATOM   3499  CA  GLY D  16      39.541 -17.577  19.204  1.00 13.29           C
ATOM   3500  C   GLY D  16      40.694 -16.635  19.414  1.00 14.31           C
ATOM   3501  O   GLY D  16      41.611 -16.937  20.190  1.00 14.97           O
ATOM   3502  N   LYS D  17      40.736 -15.517  18.665  1.00 10.60           N
ATOM   3503  CA  LYS D  17      41.792 -14.535  18.792  1.00 12.00           C
ATOM   3504  C   LYS D  17      41.445 -13.341  19.672  1.00 13.04           C
ATOM   3505  O   LYS D  17      42.249 -12.410  19.849  1.00 12.72           O
ATOM   3506  CB  LYS D  17      42.097 -14.028  17.368  1.00 13.05           C
ATOM   3507  CG  LYS D  17      42.349 -15.140  16.356  1.00 12.54           C
ATOM   3508  CD  LYS D  17      42.818 -14.573  15.026  1.00 15.00           C
ATOM   3509  CE  LYS D  17      43.042 -15.696  14.024  1.00 17.85           C
ATOM   3510  NZ  LYS D  17      43.631 -15.176  12.741  1.00 19.70           N
ATOM   3511  N   VAL D  18      40.245 -13.299  20.232  1.00 12.52           N
ATOM   3512  CA  VAL D  18      39.755 -12.211  21.047  1.00 10.96           C
ATOM   3513  C   VAL D  18      40.099 -12.329  22.521  1.00 11.32           C
ATOM   3514  O   VAL D  18      39.956 -13.368  23.144  1.00 13.26           O
ATOM   3515  CB  VAL D  18      38.199 -12.140  20.908  1.00 12.71           C
ATOM   3516  CG1 VAL D  18      37.525 -11.211  21.924  1.00 13.81           C
ATOM   3517  CG2 VAL D  18      37.848 -11.702  19.505  1.00 11.03           C
ATOM   3518  N   ASN D  19      40.535 -11.194  23.047  1.00 13.63           N
ATOM   3519  CA  ASN D  19      40.773 -11.038  24.477  1.00 12.92           C
ATOM   3520  C   ASN D  19      39.394 -10.563  24.949  1.00 13.28           C
ATOM   3521  O   ASN D  19      39.055  -9.404  24.728  1.00 12.04           O
ATOM   3522  CB  ASN D  19      41.878 -10.036  24.792  1.00 17.14           C
ATOM   3523  CG  ASN D  19      42.108  -9.861  26.282  1.00 19.39           C
ATOM   3524  OD1 ASN D  19      41.165  -9.866  27.068  1.00 15.25           O
ATOM   3525  ND2 ASN D  19      43.377  -9.697  26.678  1.00 18.38           N
ATOM   3526  N   VAL D  20      38.604 -11.468  25.501  1.00 11.36           N
ATOM   3527  CA  VAL D  20      37.229 -11.065  25.883  1.00 13.83           C
ATOM   3528  C   VAL D  20      37.189  -9.933  26.888  1.00 15.56           C
ATOM   3529  O   VAL D  20      36.342  -9.016  26.720  1.00 13.62           O
ATOM   3530  CB  VAL D  20      36.491 -12.335  26.333  1.00 12.43           C
ATOM   3531  CG1 VAL D  20      35.069 -11.977  26.778  1.00 14.26           C
ATOM   3532  CG2 VAL D  20      36.447 -13.301  25.149  1.00 13.01           C
ATOM   3533  N   ASP D  21      37.994  -9.946  27.941  1.00 13.38           N
ATOM   3534  CA  ASP D  21      37.930  -8.823  28.906  1.00 13.40           C
ATOM   3535  C   ASP D  21      38.267  -7.488  28.247  1.00 13.88           C
ATOM   3536  O   ASP D  21      37.632  -6.462  28.444  1.00 10.60           O
ATOM   3537  CB  ASP D  21      38.881  -8.996  30.082  1.00 18.56           C
ATOM   3538  CG  ASP D  21      38.392  -9.951  31.155  1.00 18.64           C
ATOM   3539  OD1 ASP D  21      37.261 -10.422  31.102  1.00 21.17           O
ATOM   3540  OD2 ASP D  21      39.245 -10.183  32.037  1.00 23.03           O
ATOM   3541  N   GLU D  22      39.338  -7.469  27.449  1.00 11.17           N
ATOM   3542  CA  GLU D  22      39.767  -6.258  26.755  1.00 15.81           C
ATOM   3543  C   GLU D  22      38.700  -5.722  25.802  1.00 15.24           C
ATOM   3544  O   GLU D  22      38.333  -4.545  25.839  1.00 12.00           O
ATOM   3545  CB  GLU D  22      41.043  -6.555  25.978  1.00 18.50           C
ATOM   3546  CG  GLU D  22      41.388  -5.659  24.817  1.00 27.66           C
ATOM   3547  CD  GLU D  22      42.366  -6.368  23.863  1.00 30.55           C
ATOM   3548  OE1 GLU D  22      43.460  -6.719  24.390  1.00 31.22           O
ATOM   3549  OE2 GLU D  22      41.994  -6.534  22.689  1.00 23.67           O
ATOM   3550  N   VAL D  23      38.229  -6.584  24.901  1.00 13.85           N
ATOM   3551  CA  VAL D  23      37.200  -6.166  23.943  1.00 15.03           C
ATOM   3552  C   VAL D  23      35.904  -5.783  24.662  1.00 13.49           C
ATOM   3553  O   VAL D  23      35.198  -4.819  24.283  1.00 12.71           O
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ATOM   3554  CB  VAL D  23      37.050  -7.269  22.874  1.00 12.94           C
ATOM   3555  CG1 VAL D  23      35.821  -6.997  22.022  1.00 13.81           C
ATOM   3556  CG2 VAL D  23      38.300  -7.340  21.996  1.00 14.00           C
ATOM   3557  N   GLY D  24      35.544  -6.465  25.745  1.00  9.74           N
ATOM   3558  CA  GLY D  24      34.321  -6.144  26.489  1.00 12.00           C
ATOM   3559  C   GLY D  24      34.386  -4.742  27.068  1.00 15.42           C
ATOM   3560  O   GLY D  24      33.455  -3.928  26.968  1.00 11.17           O
ATOM   3561  N   GLY D  25      35.521  -4.457  27.738  1.00 12.60           N
ATOM   3562  CA  GLY D  25      35.713  -3.119  28.345  1.00 11.14           C
ATOM   3563  C   GLY D  25      35.673  -2.063  27.242  1.00 13.54           C
ATOM   3564  O   GLY D  25      35.090  -0.986  27.435  1.00 16.11           O
ATOM   3565  N   GLU D  26      36.274  -2.296  26.089  1.00 11.11           N
ATOM   3566  CA  GLU D  26      36.327  -1.350  24.988  1.00 12.44           C
ATOM   3567  C   GLU D  26      34.937  -1.116  24.381  1.00 12.61           C
ATOM   3568  O   GLU D  26      34.480  -0.004  24.123  1.00 10.84           O
ATOM   3569  CB  GLU D  26      37.234  -1.895  23.891  1.00 15.71           C
ATOM   3570  CG  GLU D  26      37.479  -1.100  22.644  1.00 18.48           C
ATOM   3571  CD  GLU D  26      38.368   0.096  22.820  1.00 22.24           C
ATOM   3572  OE1 GLU D  26      39.020   0.259  23.894  1.00 20.35           O
ATOM   3573  OE2 GLU D  26      38.438   0.904  21.890  1.00 26.09           O
ATOM   3574  N   ALA D  27      34.194  -2.195  24.190  1.00 11.65           N
ATOM   3575  CA  ALA D  27      32.869  -2.093  23.565  1.00 12.18           C
ATOM   3576  C   ALA D  27      31.870  -1.407  24.493  1.00 12.01           C
ATOM   3577  O   ALA D  27      31.035  -0.589  24.042  1.00 10.91           O
ATOM   3578  CB  ALA D  27      32.429  -3.501  23.165  1.00 11.23           C
ATOM   3579  N   LEU D  28      31.935  -1.751  25.778  1.00 11.27           N
ATOM   3580  CA  LEU D  28      31.006  -1.068  26.701  1.00 10.09           C
ATOM   3581  C   LEU D  28      31.376   0.400  26.845  1.00 10.39           C
ATOM   3582  O   LEU D  28      30.531   1.321  26.906  1.00 11.31           O
ATOM   3583  CB  LEU D  28      30.942  -1.759  28.067  1.00 10.81           C
ATOM   3584  CG  LEU D  28      29.769  -1.258  28.919  1.00 12.38           C
ATOM   3585  CD1 LEU D  28      28.397  -1.629  28.293  1.00 11.81           C
ATOM   3586  CD2 LEU D  28      29.840  -1.761  30.350  1.00 18.70           C
ATOM   3587  N   GLY D  29      32.692   0.677  26.924  1.00  9.99           N
ATOM   3588  CA  GLY D  29      33.040   2.120  27.054  1.00 11.47           C
ATOM   3589  C   GLY D  29      32.606   2.871  25.787  1.00 10.07           C
ATOM   3590  O   GLY D  29      32.107   4.013  25.866  1.00 11.22           O
ATOM   3591  N   ARG D  30      32.870   2.288  24.612  1.00 10.87           N
ATOM   3592  CA  ARG D  30      32.465   2.940  23.367  1.00 11.20           C
ATOM   3593  C   ARG D  30      30.952   3.112  23.309  1.00 10.79           C
ATOM   3594  O   ARG D  30      30.495   4.121  22.795  1.00 10.49           O
ATOM   3595  CB  ARG D  30      32.967   2.204  22.102  1.00 10.05           C
ATOM   3596  CG  ARG D  30      34.445   2.516  21.855  1.00 11.84           C
ATOM   3597  CD  ARG D  30      34.914   1.880  20.542  1.00  9.48           C
ATOM   3598  NE  ARG D  30      36.374   2.019  20.447  1.00 11.08           N
ATOM   3599  CZ  ARG D  30      36.967   2.775  19.516  1.00 14.34           C
ATOM   3600  NH1 ARG D  30      36.268   3.465  18.622  1.00 12.03           N
ATOM   3601  NH2 ARG D  30      38.315   2.857  19.495  1.00 14.00           N
ATOM   3602  N   LEU D  31      30.174   2.165  23.861  1.00  9.71           N
ATOM   3603  CA  LEU D  31      28.718   2.344  23.878  1.00 10.82           C
ATOM   3604  C   LEU D  31      28.342   3.597  24.639  1.00 11.33           C
ATOM   3605  O   LEU D  31      27.514   4.418  24.209  1.00 13.22           O
ATOM   3606  CB  LEU D  31      28.048   1.145  24.573  1.00 10.25           C
ATOM   3607  CG  LEU D  31      26.498   1.202  24.610  1.00 11.36           C
ATOM   3608  CD1 LEU D  31      25.948   1.007  23.204  1.00 11.10           C
ATOM   3609  CD2 LEU D  31      25.979   0.166  25.595  1.00 13.74           C
ATOM   3610  N   LEU D  32      28.971   3.757  25.812  1.00 12.56           N
ATOM   3611  CA  LEU D  32      28.706   4.930  26.642  1.00 11.63           C
ATOM   3612  C   LEU D  32      29.223   6.225  26.064  1.00 12.85           C
ATOM   3613  O   LEU D  32      28.718   7.307  26.395  1.00 11.81           O
ATOM   3614  CB  LEU D  32      29.298   4.660  28.038  1.00 10.58           C
ATOM   3615  CG  LEU D  32      28.276   3.906  28.897  1.00 13.32           C
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ATOM   3616  CD1 LEU D  32      27.851   2.537  28.421  1.00 15.93           C
ATOM   3617  CD2 LEU D  32      28.868   3.823  30.331  1.00 13.36           C
ATOM   3618  N   VAL D  33      30.250   6.149  25.203  1.00 10.73           N
ATOM   3619  CA  VAL D  33      30.772   7.369  24.572  1.00 11.03           C
ATOM   3620  C   VAL D  33      29.948   7.757  23.350  1.00 12.23           C
ATOM   3621  O   VAL D  33      29.594   8.931  23.110  1.00 11.96           O
ATOM   3622  CB  VAL D  33      32.237   7.175  24.151  1.00 10.97           C
ATOM   3623  CG1 VAL D  33      32.786   8.306  23.293  1.00 12.05           C
ATOM   3624  CG2 VAL D  33      33.085   7.038  25.432  1.00 11.11           C
ATOM   3625  N   VAL D  34      29.707   6.779  22.475  1.00 11.49           N
ATOM   3626  CA  VAL D  34      29.058   6.993  21.202  1.00 11.42           C
ATOM   3627  C   VAL D  34      27.563   7.234  21.312  1.00 11.42           C
ATOM   3628  O   VAL D  34      26.973   8.063  20.607  1.00 11.22           O
ATOM   3629  CB  VAL D  34      29.367   5.854  20.210  1.00 12.53           C
ATOM   3630  CG1 VAL D  34      28.645   6.062  18.864  1.00 10.71           C
ATOM   3631  CG2 VAL D  34      30.871   5.759  19.980  1.00  9.83           C
ATOM   3632  N   TYR D  35      26.913   6.566  22.245  1.00 10.79           N
ATOM   3633  CA  TYR D  35      25.470   6.661  22.549  1.00 11.15           C
ATOM   3634  C   TYR D  35      25.322   6.968  24.012  1.00  8.80           C
ATOM   3635  O   TYR D  35      24.952   6.095  24.817  1.00 10.40           O
ATOM   3636  CB  TYR D  35      24.788   5.288  22.251  1.00  8.91           C
ATOM   3637  CG  TYR D  35      25.101   4.847  20.833  1.00 11.03           C
ATOM   3638  CD1 TYR D  35      24.619   5.581  19.750  1.00 10.51           C
ATOM   3639  CD2 TYR D  35      25.909   3.748  20.585  1.00 14.04           C
ATOM   3640  CE1 TYR D  35      24.917   5.209  18.457  1.00 16.37           C
ATOM   3641  CE2 TYR D  35      26.209   3.383  19.282  1.00 15.96           C
ATOM   3642  CZ  TYR D  35      25.712   4.116  18.228  1.00 15.05           C
ATOM   3643  OH  TYR D  35      26.023   3.753  16.928  1.00 17.67           O
ATOM   3644  N   PRO D  36      25.580   8.210  24.446  1.00 10.15           N
ATOM   3645  CA  PRO D  36      25.666   8.571  25.848  1.00  9.98           C
ATOM   3646  C   PRO D  36      24.437   8.409  26.681  1.00 11.17           C
ATOM   3647  O   PRO D  36      24.494   8.267  27.921  1.00 10.17           O
ATOM   3648  CB  PRO D  36      26.200  10.018  25.868  1.00 12.53           C
ATOM   3649  CG  PRO D  36      26.176  10.511  24.469  1.00 14.39           C
ATOM   3650  CD  PRO D  36      26.020   9.322  23.564  1.00 12.12           C
ATOM   3651  N   TRP D  37      23.273   8.288  26.038  1.00  9.22           N
ATOM   3652  CA  TRP D  37      22.062   8.013  26.810  1.00 13.80           C
ATOM   3653  C   TRP D  37      22.108   6.633  27.446  1.00 13.27           C
ATOM   3654  O   TRP D  37      21.357   6.400  28.397  1.00 12.92           O
ATOM   3655  CB  TRP D  37      20.878   8.146  25.888  1.00 13.41           C
ATOM   3656  CG  TRP D  37      20.856   7.394  24.599  1.00 12.79           C
ATOM   3657  CD1 TRP D  37      20.237   6.181  24.394  1.00 11.63           C
ATOM   3658  CD2 TRP D  37      21.382   7.795  23.339  1.00 10.69           C
ATOM   3659  NE1 TRP D  37      20.380   5.811  23.063  1.00 11.95           N
ATOM   3660  CE2 TRP D  37      21.080   6.780  22.403  1.00 12.57           C
ATOM   3661  CE3 TRP D  37      22.106   8.913  22.910  1.00 11.51           C
ATOM   3662  CZ2 TRP D  37      21.445   6.842  21.061  1.00  9.52           C
ATOM   3663  CZ3 TRP D  37      22.501   8.966  21.574  1.00 11.98           C
ATOM   3664  CH2 TRP D  37      22.164   7.951  20.646  1.00  9.61           C
ATOM   3665  N   THR D  38      23.004   5.732  27.003  1.00 11.77           N
ATOM   3666  CA  THR D  38      23.151   4.421  27.601  1.00 11.75           C
ATOM   3667  C   THR D  38      23.841   4.464  28.963  1.00 11.29           C
ATOM   3668  O   THR D  38      23.863   3.488  29.731  1.00 14.15           O
ATOM   3669  CB  THR D  38      23.995   3.480  26.726  1.00 13.06           C
ATOM   3670  OG1 THR D  38      25.319   4.015  26.582  1.00 11.85           O
ATOM   3671  CG2 THR D  38      23.313   3.239  25.397  1.00  9.95           C
ATOM   3672  N   GLN D  39      24.363   5.633  29.339  1.00 11.56           N
ATOM   3673  CA  GLN D  39      24.934   5.869  30.656  1.00 10.16           C
ATOM   3674  C   GLN D  39      23.836   5.874  31.716  1.00 11.79           C
ATOM   3675  O   GLN D  39      24.182   5.806  32.914  1.00 11.62           O
ATOM   3676  CB  GLN D  39      25.672   7.206  30.774  1.00 10.92           C
ATOM   3677  CG  GLN D  39      26.943   7.242  29.889  1.00 11.12           C
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ATOM   3678  CD  GLN D  39      27.539   8.637  29.825  1.00 14.84           C
ATOM   3679  OE1 GLN D  39      27.295   9.415  30.760  1.00 17.46           O
ATOM   3680  NE2 GLN D  39      28.300   8.976  28.794  1.00 13.33           N
ATOM   3681  N   ARG D  40      22.570   5.948  31.353  1.00 11.95           N
ATOM   3682  CA  ARG D  40      21.473   5.996  32.312  1.00 13.56           C
ATOM   3683  C   ARG D  40      21.469   4.865  33.315  1.00 15.66           C
ATOM   3684  O   ARG D  40      20.932   5.080  34.407  1.00 14.43           O
ATOM   3685  CB  ARG D  40      20.127   6.081  31.543  1.00 15.53           C
ATOM   3686  CG  ARG D  40      19.655   4.791  30.922  1.00 17.29           C
ATOM   3687  CD  ARG D  40      18.414   4.918  30.018  1.00 19.91           C
ATOM   3688  NE  ARG D  40      17.274   5.516  30.646  1.00 22.45           N
ATOM   3689  CZ  ARG D  40      16.292   5.028  31.394  1.00 24.06           C
ATOM   3690  NH1 ARG D  40      16.216   3.734  31.716  1.00 18.86           N
ATOM   3691  NH2 ARG D  40      15.335   5.883  31.848  1.00 21.10           N
ATOM   3692  N   PHE D  41      22.003   3.684  33.047  1.00 12.78           N
ATOM   3693  CA  PHE D  41      22.032   2.555  33.931  1.00 14.70           C
ATOM   3694  C   PHE D  41      23.232   2.584  34.853  1.00 13.21           C
ATOM   3695  O   PHE D  41      23.373   1.718  35.718  1.00 17.84           O
ATOM   3696  CB  PHE D  41      22.129   1.221  33.087  1.00 11.48           C
ATOM   3697  CG  PHE D  41      20.969   1.112  32.145  1.00 13.98           C
ATOM   3698  CD1 PHE D  41      19.699   0.754  32.602  1.00 13.20           C
ATOM   3699  CD2 PHE D  41      21.130   1.395  30.802  1.00 12.59           C
ATOM   3700  CE1 PHE D  41      18.620   0.669  31.737  1.00 12.27           C
ATOM   3701  CE2 PHE D  41      20.044   1.314  29.947  1.00 13.74           C
ATOM   3702  CZ  PHE D  41      18.782   0.972  30.397  1.00 12.76           C
ATOM   3703  N   PHE D  42      24.189   3.498  34.648  1.00 11.10           N
ATOM   3704  CA  PHE D  42      25.468   3.474  35.334  1.00 10.85           C
ATOM   3705  C   PHE D  42      25.791   4.706  36.132  1.00 16.58           C
ATOM   3706  O   PHE D  42      26.965   5.065  36.229  1.00 18.02           O
ATOM   3707  CB  PHE D  42      26.569   3.250  34.217  1.00 12.66           C
ATOM   3708  CG  PHE D  42      26.244   2.022  33.400  1.00 14.01           C
ATOM   3709  CD1 PHE D  42      26.296   0.746  33.953  1.00 13.13           C
ATOM   3710  CD2 PHE D  42      25.819   2.145  32.097  1.00 13.81           C
ATOM   3711  CE1 PHE D  42      25.971  -0.352  33.197  1.00 17.41           C
ATOM   3712  CE2 PHE D  42      25.506   1.053  31.317  1.00 15.48           C
ATOM   3713  CZ  PHE D  42      25.577  -0.219  31.867  1.00 16.40           C
ATOM   3714  N   GLU D  43      24.811   5.319  36.788  1.00 17.81           N
ATOM   3715  CA  GLU D  43      25.040   6.496  37.619  1.00 20.91           C
ATOM   3716  C   GLU D  43      25.877   6.151  38.854  1.00 20.80           C
ATOM   3717  O   GLU D  43      26.599   7.032  39.345  1.00 22.77           O
ATOM   3718  CB  GLU D  43      23.716   7.173  37.992  1.00 26.27           C
ATOM   3719  CG  GLU D  43      22.898   7.503  36.749  1.00 32.47           C
ATOM   3720  CD  GLU D  43      22.469   8.913  36.484  1.00 37.31           C
ATOM   3721  OE1 GLU D  43      23.215   9.729  35.883  1.00 38.28           O
ATOM   3722  OE2 GLU D  43      21.319   9.247  36.873  1.00 41.57           O
ATOM   3723  N   SER D  44      25.903   4.911  39.324  1.00 18.62           N
ATOM   3724  CA  SER D  44      26.742   4.511  40.454  1.00 20.74           C
ATOM   3725  C   SER D  44      28.186   4.246  40.063  1.00 20.29           C
ATOM   3726  O   SER D  44      29.021   4.036  40.949  1.00 20.52           O
ATOM   3727  CB  SER D  44      26.269   3.202  41.100  1.00 18.69           C
ATOM   3728  OG  SER D  44      26.201   2.071  40.233  1.00 19.29           O
ATOM   3729  N   PHE D  45      28.520   4.270  38.772  1.00 17.72           N
ATOM   3730  CA  PHE D  45      29.854   3.942  38.296  1.00 18.10           C
ATOM   3731  C   PHE D  45      30.935   4.985  38.408  1.00 19.45           C
ATOM   3732  O   PHE D  45      32.072   4.679  38.037  1.00 19.79           O
ATOM   3733  CB  PHE D  45      29.681   3.477  36.828  1.00 17.42           C
ATOM   3734  CG  PHE D  45      29.217   2.051  36.689  1.00 17.03           C
ATOM   3735  CD1 PHE D  45      28.361   1.439  37.580  1.00 19.45           C
ATOM   3736  CD2 PHE D  45      29.662   1.286  35.626  1.00 17.05           C
ATOM   3737  CE1 PHE D  45      27.963   0.122  37.430  1.00 20.64           C
ATOM   3738  CE2 PHE D  45      29.267  -0.021  35.456  1.00 18.41           C
ATOM   3739  CZ  PHE D  45      28.416  -0.624  36.365  1.00 20.06           C
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ATOM   3740  N   GLY D  46      30.640   6.178  38.902  1.00 19.36           N
ATOM   3741  CA  GLY D  46      31.688   7.181  39.051  1.00 21.44           C
ATOM   3742  C   GLY D  46      31.834   8.115  37.862  1.00 18.24           C
ATOM   3743  O   GLY D  46      30.859   8.522  37.240  1.00 17.75           O
ATOM   3744  N   ASP D  47      33.084   8.444  37.555  1.00 18.03           N
ATOM   3745  CA  ASP D  47      33.343   9.409  36.493  1.00 18.34           C
ATOM   3746  C   ASP D  47      33.088   8.925  35.084  1.00 18.50           C
ATOM   3747  O   ASP D  47      33.794   8.021  34.644  1.00 19.40           O
ATOM   3748  CB  ASP D  47      34.799   9.872  36.592  1.00 18.14           C
ATOM   3749  CG  ASP D  47      35.148  11.067  35.740  1.00 20.26           C
ATOM   3750  OD1 ASP D  47      34.251  11.593  35.068  1.00 21.52           O
ATOM   3751  OD2 ASP D  47      36.338  11.475  35.744  1.00 22.55           O
ATOM   3752  N   LEU D  48      32.146   9.591  34.407  1.00 16.96           N
ATOM   3753  CA  LEU D  48      31.862   9.288  32.988  1.00 15.74           C
ATOM   3754  C   LEU D  48      31.863  10.647  32.261  1.00 15.47           C
ATOM   3755  O   LEU D  48      31.166  10.883  31.260  1.00 16.49           O
ATOM   3756  CB  LEU D  48      30.502   8.618  32.812  1.00 15.29           C
ATOM   3757  CG  LEU D  48      30.165   7.356  33.613  1.00 15.96           C
ATOM   3758  CD1 LEU D  48      28.688   6.979  33.560  1.00 14.99           C
ATOM   3759  CD2 LEU D  48      31.051   6.196  33.175  1.00 16.30           C
ATOM   3760  N   SER D  49      32.666  11.594  32.751  1.00 17.35           N
ATOM   3761  CA  SER D  49      32.609  12.977  32.280  1.00 19.67           C
ATOM   3762  C   SER D  49      33.156  13.249  30.903  1.00 20.13           C
ATOM   3763  O   SER D  49      32.775  14.224  30.218  1.00 20.95           O
ATOM   3764  CB  SER D  49      33.294  13.866  33.348  1.00 20.53           C
ATOM   3765  OG  SER D  49      34.696  13.683  33.372  1.00 21.75           O
ATOM   3766  N   THR D  50      34.096  12.439  30.433  1.00 17.28           N
ATOM   3767  CA  THR D  50      34.739  12.574  29.145  1.00 16.58           C
ATOM   3768  C   THR D  50      34.930  11.185  28.534  1.00 14.65           C
ATOM   3769  O   THR D  50      34.909  10.212  29.279  1.00 14.63           O
ATOM   3770  CB  THR D  50      36.167  13.138  29.287  1.00 18.29           C
ATOM   3771  OG1 THR D  50      36.998  12.209  30.055  1.00 16.63           O
ATOM   3772  CG2 THR D  50      36.281  14.464  30.025  1.00 19.29           C
ATOM   3773  N   PRO D  51      35.240  11.113  27.262  1.00 16.31           N
ATOM   3774  CA  PRO D  51      35.568   9.885  26.585  1.00 16.61           C
ATOM   3775  C   PRO D  51      36.692   9.170  27.324  1.00 14.99           C
ATOM   3776  O   PRO D  51      36.549   7.981  27.614  1.00 13.67           O
ATOM   3777  CB  PRO D  51      36.030  10.302  25.189  1.00 17.91           C
ATOM   3778  CG  PRO D  51      35.207  11.540  24.964  1.00 17.69           C
ATOM   3779  CD  PRO D  51      35.263  12.261  26.300  1.00 18.57           C
ATOM   3780  N   ASP D  52      37.790   9.873  27.647  1.00 14.58           N
ATOM   3781  CA  ASP D  52      38.874   9.197  28.375  1.00 16.93           C
ATOM   3782  C   ASP D  52      38.428   8.681  29.741  1.00 14.95           C
ATOM   3783  O   ASP D  52      38.856   7.598  30.170  1.00 12.95           O
ATOM   3784  CB  ASP D  52      40.108  10.085  28.525  1.00 19.75           C
ATOM   3785  CG  ASP D  52      40.941  10.285  27.275  1.00 23.19           C
ATOM   3786  OD1 ASP D  52      40.748   9.579  26.264  1.00 19.36           O
ATOM   3787  OD2 ASP D  52      41.830  11.187  27.283  1.00 21.78           O
ATOM   3788  N   ALA D  53      37.586   9.430  30.453  1.00 15.09           N
ATOM   3789  CA  ALA D  53      37.126   9.000  31.777  1.00 13.46           C
ATOM   3790  C   ALA D  53      36.256   7.749  31.664  1.00 15.37           C
ATOM   3791  O   ALA D  53      36.431   6.821  32.489  1.00 15.18           O
ATOM   3792  CB  ALA D  53      36.376  10.139  32.433  1.00 14.89           C
ATOM   3793  N   VAL D  54      35.358   7.731  30.667  1.00 12.46           N
ATOM   3794  CA  VAL D  54      34.551   6.516  30.481  1.00 14.52           C
ATOM   3795  C   VAL D  54      35.403   5.312  30.138  1.00 13.79           C
ATOM   3796  O   VAL D  54      35.261   4.241  30.750  1.00 15.63           O
ATOM   3797  CB  VAL D  54      33.522   6.699  29.350  1.00 16.27           C
ATOM   3798  CG1 VAL D  54      32.711   5.428  29.083  1.00 18.53           C
ATOM   3799  CG2 VAL D  54      32.594   7.870  29.657  1.00 18.36           C
ATOM   3800  N   MET D  55      36.315   5.449  29.178  1.00 14.49           N
ATOM   3801  CA  MET D  55      37.144   4.307  28.766  1.00 14.25           C
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ATOM   3802  C   MET D  55      38.073   3.820  29.882  1.00 19.03           C
ATOM   3803  O   MET D  55      38.316   2.604  29.947  1.00 19.68           O
ATOM   3804  CB  MET D  55      37.974   4.598  27.521  1.00 14.18           C
ATOM   3805  CG  MET D  55      37.177   5.120  26.324  1.00 11.25           C
ATOM   3806  SD  MET D  55      35.880   4.013  25.778  1.00 14.15           S
ATOM   3807  CE  MET D  55      36.794   2.573  25.240  1.00 14.82           C
ATOM   3808  N   GLY D  56      38.541   4.737  30.725  1.00 12.89           N
ATOM   3809  CA  GLY D  56      39.434   4.406  31.804  1.00 16.28           C
ATOM   3810  C   GLY D  56      38.733   3.990  33.096  1.00 16.63           C
ATOM   3811  O   GLY D  56      39.410   3.585  34.047  1.00 18.35           O
ATOM   3812  N   ASN D  57      37.412   4.082  33.149  1.00 14.30           N
ATOM   3813  CA  ASN D  57      36.665   3.765  34.351  1.00 14.00           C
ATOM   3814  C   ASN D  57      36.700   2.285  34.647  1.00 15.14           C
ATOM   3815  O   ASN D  57      36.239   1.457  33.832  1.00 14.01           O
ATOM   3816  CB  ASN D  57      35.211   4.260  34.112  1.00 14.36           C
ATOM   3817  CG  ASN D  57      34.380   4.237  35.374  1.00 15.45           C
ATOM   3818  OD1 ASN D  57      34.272   3.182  36.011  1.00 14.43           O
ATOM   3819  ND2 ASN D  57      33.795   5.367  35.771  1.00 12.81           N
ATOM   3820  N   PRO D  58      37.223   1.865  35.798  1.00 17.88           N
ATOM   3821  CA  PRO D  58      37.295   0.472  36.190  1.00 17.47           C
ATOM   3822  C   PRO D  58      35.939  -0.200  36.350  1.00 15.32           C
ATOM   3823  O   PRO D  58      35.875  -1.403  36.091  1.00 12.92           O
ATOM   3824  CB  PRO D  58      38.054   0.430  37.511  1.00 22.33           C
ATOM   3825  CG  PRO D  58      38.105   1.828  37.990  1.00 25.15           C
ATOM   3826  CD  PRO D  58      37.802   2.750  36.842  1.00 21.27           C
ATOM   3827  N   LYS D  59      34.899   0.527  36.745  1.00 14.56           N
ATOM   3828  CA  LYS D  59      33.562  -0.073  36.874  1.00 13.69           C
ATOM   3829  C   LYS D  59      32.963  -0.344  35.499  1.00 13.30           C
ATOM   3830  O   LYS D  59      32.315  -1.384  35.321  1.00 11.89           O
ATOM   3831  CB  LYS D  59      32.692   0.799  37.761  1.00 12.72           C
ATOM   3832  CG  LYS D  59      33.151   0.680  39.219  1.00 15.91           C
ATOM   3833  CD  LYS D  59      32.327   1.582  40.099  1.00 20.50           C
ATOM   3834  CE  LYS D  59      32.952   1.688  41.494  1.00 25.78           C
ATOM   3835  NZ  LYS D  59      31.945   2.382  42.355  1.00 26.89           N
ATOM   3836  N   VAL D  60      33.199   0.553  34.529  1.00 12.70           N
ATOM   3837  CA  VAL D  60      32.791   0.350  33.138  1.00 14.29           C
ATOM   3838  C   VAL D  60      33.496  -0.868  32.570  1.00 15.79           C
ATOM   3839  O   VAL D  60      32.900  -1.775  31.994  1.00 15.21           O
ATOM   3840  CB  VAL D  60      33.119   1.569  32.266  1.00 16.35           C
ATOM   3841  CG1 VAL D  60      32.900   1.340  30.785  1.00 15.52           C
ATOM   3842  CG2 VAL D  60      32.269   2.746  32.752  1.00 11.94           C
ATOM   3843  N   LYS D  61      34.845  -0.924  32.767  1.00 12.31           N
ATOM   3844  CA  LYS D  61      35.568  -2.097  32.277  1.00 15.21           C
ATOM   3845  C   LYS D  61      35.058  -3.378  32.916  1.00 14.63           C
ATOM   3846  O   LYS D  61      34.841  -4.397  32.213  1.00 15.21           O
ATOM   3847  CB  LYS D  61      37.065  -1.969  32.563  1.00 15.52           C
ATOM   3848  CG  LYS D  61      37.703  -0.838  31.757  1.00 18.54           C
ATOM   3849  CD  LYS D  61      39.171  -0.756  32.247  1.00 23.52           C
ATOM   3850  CE  LYS D  61      39.952   0.152  31.296  1.00 26.78           C
ATOM   3851  NZ  LYS D  61      41.421  -0.036  31.499  1.00 26.54           N
ATOM   3852  N   ALA D  62      34.806  -3.335  34.222  1.00 13.33           N
ATOM   3853  CA  ALA D  62      34.300  -4.521  34.918  1.00 13.04           C
ATOM   3854  C   ALA D  62      32.958  -4.975  34.363  1.00 14.43           C
ATOM   3855  O   ALA D  62      32.742  -6.186  34.211  1.00 15.78           O
ATOM   3856  CB  ALA D  62      34.127  -4.295  36.416  1.00 13.60           C
ATOM   3857  N   HIS D  63      32.047  -4.052  34.115  1.00 12.96           N
ATOM   3858  CA  HIS D  63      30.744  -4.435  33.551  1.00 11.94           C
ATOM   3859  C   HIS D  63      30.947  -4.943  32.117  1.00 12.01           C
ATOM   3860  O   HIS D  63      30.282  -5.921  31.717  1.00 12.83           O
ATOM   3861  CB  HIS D  63      29.744  -3.295  33.627  1.00 12.37           C
ATOM   3862  CG  HIS D  63      28.353  -3.803  33.302  1.00 15.40           C
ATOM   3863  ND1 HIS D  63      27.802  -4.843  34.049  1.00 17.29           N
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ATOM   3864  CD2 HIS D  63      27.482  -3.479  32.337  1.00 14.56           C
ATOM   3865  CE1 HIS D  63      26.596  -5.092  33.540  1.00 16.37           C
ATOM   3866  NE2 HIS D  63      26.377  -4.285  32.518  1.00 15.93           N
ATOM   3867  N   GLY D  64      31.878  -4.404  31.376  1.00 11.89           N
ATOM   3868  CA  GLY D  64      32.152  -4.876  30.008  1.00 12.14           C
ATOM   3869  C   GLY D  64      32.625  -6.331  30.062  1.00 15.14           C
ATOM   3870  O   GLY D  64      32.274  -7.173  29.226  1.00 14.60           O
ATOM   3871  N   LYS D  65      33.503  -6.631  31.018  1.00 15.26           N
ATOM   3872  CA  LYS D  65      34.004  -8.002  31.146  1.00 16.36           C
ATOM   3873  C   LYS D  65      32.836  -8.957  31.422  1.00 17.11           C
ATOM   3874  O   LYS D  65      32.834 -10.064  30.910  1.00 15.70           O
ATOM   3875  CB  LYS D  65      34.958  -8.115  32.327  1.00 18.31           C
ATOM   3876  CG  LYS D  65      36.239  -7.301  32.201  1.00 19.01           C
ATOM   3877  CD  LYS D  65      37.097  -7.655  33.424  1.00 23.81           C
ATOM   3878  CE  LYS D  65      38.358  -6.813  33.519  1.00 24.73           C
ATOM   3879  NZ  LYS D  65      39.088  -7.248  34.779  1.00 25.23           N
ATOM   3880  N   LYS D  66      31.911  -8.528  32.268  1.00 13.14           N
ATOM   3881  CA  LYS D  66      30.764  -9.352  32.591  1.00 14.55           C
ATOM   3882  C   LYS D  66      29.832  -9.608  31.407  1.00 12.63           C
ATOM   3883  O   LYS D  66      29.412 -10.740  31.188  1.00 12.40           O
ATOM   3884  CB  LYS D  66      29.999  -8.643  33.715  1.00 14.52           C
ATOM   3885  CG  LYS D  66      28.794  -9.470  34.182  1.00 17.29           C
ATOM   3886  CD  LYS D  66      28.061  -8.668  35.278  1.00 20.79           C
ATOM   3887  CE  LYS D  66      28.807  -8.940  36.607  1.00 26.14           C
ATOM   3888  NZ  LYS D  66      28.368  -7.984  37.651  1.00 27.44           N
ATOM   3889  N   VAL D  67      29.442  -8.539  30.703  1.00 11.24           N
ATOM   3890  CA  VAL D  67      28.542  -8.659  29.569  1.00 13.13           C
ATOM   3891  C   VAL D  67      29.180  -9.444  28.445  1.00 11.77           C
ATOM   3892  O   VAL D  67      28.573 -10.382  27.888  1.00 10.73           O
ATOM   3893  CB  VAL D  67      28.242  -7.181  29.156  1.00 16.29           C
ATOM   3894  CG1 VAL D  67      27.895  -7.066  27.707  1.00 17.02           C
ATOM   3895  CG2 VAL D  67      27.208  -6.583  30.144  1.00 12.38           C
ATOM   3896  N   LEU D  68      30.433  -9.100  28.081  1.00 10.41           N
ATOM   3897  CA  LEU D  68      31.010  -9.847  26.961  1.00  9.53           C
ATOM   3898  C   LEU D  68      31.390 -11.277  27.332  1.00 11.36           C
ATOM   3899  O   LEU D  68      31.468 -12.133  26.438  1.00 12.45           O
ATOM   3900  CB  LEU D  68      32.218  -9.164  26.298  1.00 13.58           C
ATOM   3901  CG  LEU D  68      32.383  -9.519  24.820  1.00 17.83           C
ATOM   3902  CD1 LEU D  68      31.244  -8.962  23.980  1.00 17.20           C
ATOM   3903  CD2 LEU D  68      33.727  -9.028  24.285  1.00 19.60           C
ATOM   3904  N   GLY D  69      31.680 -11.541  28.602  1.00 11.05           N
ATOM   3905  CA  GLY D  69      31.944 -12.940  29.023  1.00 12.55           C
ATOM   3906  C   GLY D  69      30.689 -13.760  28.770  1.00 13.01           C
ATOM   3907  O   GLY D  69      30.758 -14.912  28.285  1.00 14.16           O
ATOM   3908  N   ALA D  70      29.501 -13.241  29.109  1.00 13.11           N
ATOM   3909  CA  ALA D  70      28.244 -13.953  28.825  1.00 13.50           C
ATOM   3910  C   ALA D  70      28.013 -14.104  27.325  1.00 13.44           C
ATOM   3911  O   ALA D  70      27.588 -15.134  26.799  1.00 12.39           O
ATOM   3912  CB  ALA D  70      27.059 -13.236  29.453  1.00 11.45           C
ATOM   3913  N   PHE D  71      28.289 -13.038  26.554  1.00  9.68           N
ATOM   3914  CA  PHE D  71      28.210 -13.094  25.098  1.00 12.91           C
ATOM   3915  C   PHE D  71      29.082 -14.235  24.552  1.00 12.48           C
ATOM   3916  O   PHE D  71      28.657 -15.070  23.746  1.00 15.00           O
ATOM   3917  CB  PHE D  71      28.705 -11.758  24.529  1.00 11.16           C
ATOM   3918  CG  PHE D  71      28.599 -11.639  23.036  1.00 12.65           C
ATOM   3919  CD1 PHE D  71      27.428 -11.152  22.461  1.00 12.46           C
ATOM   3920  CD2 PHE D  71      29.667 -12.020  22.229  1.00 14.41           C
ATOM   3921  CE1 PHE D  71      27.338 -11.033  21.073  1.00 12.80           C
ATOM   3922  CE2 PHE D  71      29.571 -11.917  20.840  1.00 13.86           C
ATOM   3923  CZ  PHE D  71      28.396 -11.432  20.289  1.00 12.38           C
ATOM   3924  N   SER D  72      30.343 -14.262  24.967  1.00 12.57           N
ATOM   3925  CA  SER D  72      31.348 -15.210  24.582  1.00 12.82           C
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ATOM   3926  C   SER D  72      30.847 -16.631  24.847  1.00 11.77           C
ATOM   3927  O   SER D  72      30.817 -17.466  23.945  1.00 14.01           O
ATOM   3928  CB  SER D  72      32.670 -14.977  25.377  1.00 14.59           C
ATOM   3929  OG  SER D  72      33.627 -15.905  24.914  1.00 13.11           O
ATOM   3930  N   ASP D  73      30.373 -16.870  26.083  1.00 12.06           N
ATOM   3931  CA  ASP D  73      29.834 -18.209  26.387  1.00 15.42           C
ATOM   3932  C   ASP D  73      28.663 -18.597  25.503  1.00 16.83           C
ATOM   3933  O   ASP D  73      28.448 -19.741  25.083  1.00 14.69           O
ATOM   3934  CB  ASP D  73      29.419 -18.250  27.859  1.00 15.25           C
ATOM   3935  CG  ASP D  73      30.609 -18.268  28.799  1.00 19.19           C
ATOM   3936  OD1 ASP D  73      31.781 -18.470  28.408  1.00 15.98           O
ATOM   3937  OD2 ASP D  73      30.350 -18.087  30.011  1.00 18.49           O
ATOM   3938  N   GLY D  74      27.837 -17.617  25.141  1.00 15.68           N
ATOM   3939  CA  GLY D  74      26.685 -17.812  24.285  1.00 16.19           C
ATOM   3940  C   GLY D  74      27.062 -18.239  22.891  1.00 18.14           C
ATOM   3941  O   GLY D  74      26.235 -18.842  22.211  1.00 13.55           O
ATOM   3942  N   LEU D  75      28.308 -17.979  22.445  1.00 14.44           N
ATOM   3943  CA  LEU D  75      28.747 -18.391  21.112  1.00 13.37           C
ATOM   3944  C   LEU D  75      28.927 -19.894  21.001  1.00 13.63           C
ATOM   3945  O   LEU D  75      29.097 -20.355  19.866  1.00 14.06           O
ATOM   3946  CB  LEU D  75      30.037 -17.689  20.668  1.00 11.87           C
ATOM   3947  CG  LEU D  75      29.976 -16.160  20.653  1.00 12.25           C
ATOM   3948  CD1 LEU D  75      31.334 -15.542  20.325  1.00 11.30           C
ATOM   3949  CD2 LEU D  75      28.971 -15.634  19.625  1.00 15.10           C
ATOM   3950  N   ALA D  76      28.852 -20.651  22.052  1.00 14.16           N
ATOM   3951  CA  ALA D  76      28.902 -22.117  22.011  1.00 16.10           C
ATOM   3952  C   ALA D  76      27.512 -22.697  21.777  1.00 18.32           C
ATOM   3953  O   ALA D  76      27.233 -23.918  21.713  1.00 16.85           O
ATOM   3954  CB  ALA D  76      29.393 -22.586  23.377  1.00 15.37           C
ATOM   3955  N   HIS D  77      26.508 -21.796  21.821  1.00 15.73           N
ATOM   3956  CA  HIS D  77      25.102 -22.149  21.708  1.00 16.34           C
ATOM   3957  C   HIS D  77      24.372 -21.388  20.621  1.00 14.02           C
ATOM   3958  O   HIS D  77      23.207 -21.004  20.806  1.00 15.65           O
ATOM   3959  CB  HIS D  77      24.409 -21.838  23.055  1.00 17.98           C
ATOM   3960  CG  HIS D  77      25.036 -22.657  24.150  1.00 20.88           C
ATOM   3961  ND1 HIS D  77      24.886 -24.037  24.192  1.00 22.01           N
ATOM   3962  CD2 HIS D  77      25.874 -22.302  25.144  1.00 19.98           C
ATOM   3963  CE1 HIS D  77      25.578 -24.488  25.215  1.00 23.28           C
ATOM   3964  NE2 HIS D  77      26.181 -23.467  25.811  1.00 22.47           N
ATOM   3965  N   LEU D  78      24.992 -21.300  19.444  1.00 13.55           N
ATOM   3966  CA  LEU D  78      24.449 -20.542  18.333  1.00 18.49           C
ATOM   3967  C   LEU D  78      23.120 -21.109  17.840  1.00 20.27           C
ATOM   3968  O   LEU D  78      22.291 -20.342  17.357  1.00 19.38           O
ATOM   3969  CB  LEU D  78      25.435 -20.405  17.168  1.00 19.62           C
ATOM   3970  CG  LEU D  78      26.643 -19.504  17.458  1.00 23.39           C
ATOM   3971  CD1 LEU D  78      27.760 -19.687  16.443  1.00 22.93           C
ATOM   3972  CD2 LEU D  78      26.205 -18.041  17.530  1.00 23.73           C
ATOM   3973  N   ASP D  79      22.880 -22.394  18.058  1.00 19.65           N
ATOM   3974  CA  ASP D  79      21.621 -23.019  17.706  1.00 24.60           C
ATOM   3975  C   ASP D  79      20.558 -22.963  18.787  1.00 23.64           C
ATOM   3976  O   ASP D  79      19.502 -23.584  18.614  1.00 19.84           O
ATOM   3977  CB  ASP D  79      21.927 -24.498  17.366  1.00 29.98           C
ATOM   3978  CG  ASP D  79      22.511 -24.629  15.966  1.00 34.58           C
ATOM   3979  OD1 ASP D  79      22.185 -23.780  15.109  1.00 35.98           O
ATOM   3980  OD2 ASP D  79      23.286 -25.579  15.741  1.00 36.21           O
ATOM   3981  N   ASN D  80      20.784 -22.291  19.897  1.00 17.97           N
ATOM   3982  CA  ASN D  80      19.812 -22.178  20.985  1.00 18.75           C
ATOM   3983  C   ASN D  80      20.064 -20.863  21.748  1.00 16.85           C
ATOM   3984  O   ASN D  80      20.183 -20.854  22.963  1.00 17.05           O
ATOM   3985  CB  ASN D  80      19.893 -23.367  21.922  1.00 18.35           C
ATOM   3986  CG  ASN D  80      18.864 -23.354  23.040  1.00 21.78           C
ATOM   3987  OD1 ASN D  80      17.732 -22.930  22.822  1.00 20.83           O
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ATOM   3988  ND2 ASN D  80      19.291 -23.764  24.227  1.00 22.40           N
ATOM   3989  N   LEU D  81      20.135 -19.761  21.022  1.00 18.21           N
ATOM   3990  CA  LEU D  81      20.351 -18.485  21.738  1.00 17.81           C
ATOM   3991  C   LEU D  81      19.147 -18.142  22.590  1.00 19.26           C
ATOM   3992  O   LEU D  81      19.350 -17.672  23.711  1.00 18.83           O
ATOM   3993  CB  LEU D  81      20.646 -17.376  20.750  1.00 16.51           C
ATOM   3994  CG  LEU D  81      21.951 -17.507  19.944  1.00 17.08           C
ATOM   3995  CD1 LEU D  81      22.027 -16.499  18.829  1.00 17.44           C
ATOM   3996  CD2 LEU D  81      23.137 -17.339  20.917  1.00 19.35           C
ATOM   3997  N   LYS D  82      17.892 -18.365  22.105  1.00 20.50           N
ATOM   3998  CA  LYS D  82      16.777 -18.022  22.989  1.00 19.44           C
ATOM   3999  C   LYS D  82      16.819 -18.747  24.308  1.00 19.52           C
ATOM   4000  O   LYS D  82      16.655 -18.209  25.405  1.00 18.83           O
ATOM   4001  CB  LYS D  82      15.413 -18.291  22.305  1.00 22.41           C
ATOM   4002  CG  LYS D  82      15.107 -17.266  21.215  1.00 26.59           C
ATOM   4003  CD  LYS D  82      13.735 -17.590  20.610  1.00 29.63           C
ATOM   4004  CE  LYS D  82      13.462 -16.852  19.317  1.00 35.66           C
ATOM   4005  NZ  LYS D  82      12.205 -17.329  18.653  1.00 39.39           N
ATOM   4006  N   GLY D  83      17.018 -20.072  24.273  1.00 18.76           N
ATOM   4007  CA  GLY D  83      17.108 -20.891  25.467  1.00 20.76           C
ATOM   4008  C   GLY D  83      18.292 -20.485  26.343  1.00 21.92           C
ATOM   4009  O   GLY D  83      18.190 -20.399  27.578  1.00 20.38           O
ATOM   4010  N   THR D  84      19.431 -20.218  25.699  1.00 23.60           N
ATOM   4011  CA  THR D  84      20.601 -19.828  26.485  1.00 21.91           C
ATOM   4012  C   THR D  84      20.449 -18.486  27.191  1.00 20.10           C
ATOM   4013  O   THR D  84      21.010 -18.375  28.277  1.00 18.59           O
ATOM   4014  CB  THR D  84      21.871 -19.752  25.610  1.00 23.55           C
ATOM   4015  OG1 THR D  84      22.032 -21.008  24.967  1.00 25.09           O
ATOM   4016  CG2 THR D  84      23.115 -19.511  26.447  1.00 23.82           C
ATOM   4017  N   PHE D  85      19.746 -17.518  26.608  1.00 20.35           N
ATOM   4018  CA  PHE D  85      19.614 -16.198  27.214  1.00 16.56           C
ATOM   4019  C   PHE D  85      18.266 -15.922  27.856  1.00 17.23           C
ATOM   4020  O   PHE D  85      17.935 -14.816  28.284  1.00 15.16           O
ATOM   4021  CB  PHE D  85      19.898 -15.161  26.092  1.00 19.93           C
ATOM   4022  CG  PHE D  85      21.384 -15.055  25.831  1.00 17.33           C
ATOM   4023  CD1 PHE D  85      22.212 -14.508  26.793  1.00 17.50           C
ATOM   4024  CD2 PHE D  85      21.928 -15.516  24.648  1.00 16.92           C
ATOM   4025  CE1 PHE D  85      23.572 -14.436  26.532  1.00 18.58           C
ATOM   4026  CE2 PHE D  85      23.278 -15.428  24.392  1.00 18.43           C
ATOM   4027  CZ  PHE D  85      24.122 -14.880  25.354  1.00 16.85           C
ATOM   4028  N   ALA D  86      17.412 -16.952  27.950  1.00 15.18           N
ATOM   4029  CA  ALA D  86      16.079 -16.778  28.535  1.00 15.64           C
ATOM   4030  C   ALA D  86      16.051 -16.167  29.913  1.00 14.81           C
ATOM   4031  O   ALA D  86      15.363 -15.172  30.134  1.00 15.18           O
ATOM   4032  CB  ALA D  86      15.349 -18.129  28.523  1.00 17.80           C
ATOM   4033  N   THR D  87      16.766 -16.693  30.902  1.00 16.11           N
ATOM   4034  CA  THR D  87      16.729 -16.177  32.277  1.00 15.89           C
ATOM   4035  C   THR D  87      17.376 -14.788  32.280  1.00 13.41           C
ATOM   4036  O   THR D  87      16.854 -13.961  33.032  1.00 16.80           O
ATOM   4037  CB  THR D  87      17.361 -17.123  33.305  1.00 20.27           C
ATOM   4038  OG1 THR D  87      16.821 -18.477  33.090  1.00 22.15           O
ATOM   4039  CG2 THR D  87      17.035 -16.743  34.743  1.00 22.33           C
ATOM   4040  N   LEU D  88      18.402 -14.547  31.467  1.00 12.74           N
ATOM   4041  CA  LEU D  88      18.987 -13.200  31.409  1.00 16.05           C
ATOM   4042  C   LEU D  88      17.995 -12.225  30.749  1.00 16.36           C
ATOM   4043  O   LEU D  88      17.957 -11.031  31.087  1.00 15.29           O
ATOM   4044  CB  LEU D  88      20.282 -13.078  30.631  1.00 18.25           C
ATOM   4045  CG  LEU D  88      21.627 -13.402  31.299  1.00 19.32           C
ATOM   4046  CD1 LEU D  88      22.776 -13.233  30.316  1.00 19.22           C
ATOM   4047  CD2 LEU D  88      21.887 -12.536  32.522  1.00 19.81           C
ATOM   4048  N   SER D  89      17.179 -12.712  29.810  1.00 14.19           N
ATOM   4049  CA  SER D  89      16.150 -11.881  29.202  1.00 16.27           C
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ATOM   4050  C   SER D  89      15.140 -11.436  30.254  1.00 15.61           C
ATOM   4051  O   SER D  89      14.862 -10.241  30.407  1.00 12.66           O
ATOM   4052  CB  SER D  89      15.410 -12.617  28.079  1.00 13.11           C
ATOM   4053  OG  SER D  89      14.485 -11.758  27.453  1.00 13.38           O
ATOM   4054  N   GLU D  90      14.618 -12.420  31.024  1.00 14.31           N
ATOM   4055  CA  GLU D  90      13.669 -12.056  32.074  1.00 17.27           C
ATOM   4056  C   GLU D  90      14.283 -11.107  33.090  1.00 13.41           C
ATOM   4057  O   GLU D  90      13.620 -10.199  33.566  1.00 12.67           O
ATOM   4058  CB  GLU D  90      13.130 -13.296  32.812  1.00 21.95           C
ATOM   4059  CG  GLU D  90      12.709 -14.410  31.884  1.00 31.98           C
ATOM   4060  CD  GLU D  90      12.326 -15.678  32.642  1.00 39.54           C
ATOM   4061  OE1 GLU D  90      11.984 -15.598  33.836  1.00 43.93           O
ATOM   4062  OE2 GLU D  90      12.374 -16.762  32.032  1.00 44.60           O
ATOM   4063  N   LEU D  91      15.567 -11.277  33.474  1.00 14.05           N
ATOM   4064  CA  LEU D  91      16.197 -10.376  34.423  1.00 12.35           C
ATOM   4065  C   LEU D  91      16.332  -8.981  33.843  1.00  9.62           C
ATOM   4066  O   LEU D  91      16.015  -7.997  34.487  1.00 10.65           O
ATOM   4067  CB  LEU D  91      17.623 -10.848  34.797  1.00 14.07           C
ATOM   4068  CG  LEU D  91      18.369 -10.000  35.825  1.00 16.14           C
ATOM   4069  CD1 LEU D  91      17.846 -10.265  37.227  1.00 18.26           C
ATOM   4070  CD2 LEU D  91      19.870 -10.293  35.756  1.00 17.69           C
ATOM   4071  N   HIS D  92      16.812  -8.867  32.603  1.00  9.21           N
ATOM   4072  CA  HIS D  92      16.951  -7.516  32.016  1.00  9.06           C
ATOM   4073  C   HIS D  92      15.619  -6.808  31.886  1.00 10.91           C
ATOM   4074  O   HIS D  92      15.585  -5.563  31.908  1.00 10.53           O
ATOM   4075  CB  HIS D  92      17.618  -7.667  30.638  1.00  9.14           C
ATOM   4076  CG  HIS D  92      19.113  -7.761  30.790  1.00 14.45           C
ATOM   4077  ND1 HIS D  92      19.736  -8.964  31.075  1.00 11.52           N
ATOM   4078  CD2 HIS D  92      20.065  -6.802  30.667  1.00 12.62           C
ATOM   4079  CE1 HIS D  92      21.068  -8.727  31.122  1.00 11.13           C
ATOM   4080  NE2 HIS D  92      21.283  -7.422  30.879  1.00 11.20           N
ATOM   4081  N   CYS D  93      14.499  -7.482  31.695  1.00 12.09           N
ATOM   4082  CA  CYS D  93      13.193  -6.857  31.580  1.00 11.36           C
ATOM   4083  C   CYS D  93      12.606  -6.513  32.954  1.00 13.01           C
ATOM   4084  O   CYS D  93      12.368  -5.359  33.300  1.00 13.88           O
ATOM   4085  CB  CYS D  93      12.211  -7.801  30.857  1.00 10.34           C
ATOM   4086  SG  CYS D  93      10.499  -7.158  30.800  1.00 13.28           S
ATOM   4087  N   ASP D  94      12.414  -7.539  33.764  1.00 13.26           N
ATOM   4088  CA  ASP D  94      11.749  -7.454  35.050  1.00 14.42           C
ATOM   4089  C   ASP D  94      12.501  -6.703  36.138  1.00 14.94           C
ATOM   4090  O   ASP D  94      11.905  -5.940  36.905  1.00 13.82           O
ATOM   4091  CB  ASP D  94      11.495  -8.878  35.600  1.00 16.53           C
ATOM   4092  CG  ASP D  94      10.537  -9.674  34.759  1.00 20.78           C
ATOM   4093  OD1 ASP D  94       9.945  -9.075  33.848  1.00 17.00           O
ATOM   4094  OD2 ASP D  94      10.404 -10.894  34.968  1.00 19.02           O
ATOM   4095  N   LYS D  95      13.822  -6.871  36.157  1.00 12.90           N
ATOM   4096  CA  LYS D  95      14.529  -6.179  37.253  1.00 14.02           C
ATOM   4097  C   LYS D  95      15.380  -5.005  36.817  1.00 13.86           C
ATOM   4098  O   LYS D  95      15.338  -3.942  37.479  1.00 13.19           O
ATOM   4099  CB  LYS D  95      15.405  -7.204  38.016  1.00 12.16           C
ATOM   4100  CG  LYS D  95      14.659  -8.409  38.600  1.00 15.83           C
ATOM   4101  CD  LYS D  95      13.634  -7.931  39.644  1.00 19.86           C
ATOM   4102  CE  LYS D  95      12.966  -9.139  40.316  1.00 22.81           C
ATOM   4103  NZ  LYS D  95      11.931  -8.685  41.284  1.00 25.01           N
ATOM   4104  N   LEU D  96      16.092  -5.173  35.693  1.00 11.31           N
ATOM   4105  CA  LEU D  96      17.013  -4.121  35.265  1.00 10.27           C
ATOM   4106  C   LEU D  96      16.419  -3.044  34.365  1.00 12.96           C
ATOM   4107  O   LEU D  96      16.970  -1.952  34.274  1.00 11.59           O
ATOM   4108  CB  LEU D  96      18.234  -4.733  34.542  1.00 11.59           C
ATOM   4109  CG  LEU D  96      18.908  -5.895  35.309  1.00 10.86           C
ATOM   4110  CD1 LEU D  96      19.929  -6.638  34.476  1.00 13.60           C
ATOM   4111  CD2 LEU D  96      19.508  -5.365  36.632  1.00 11.59           C
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ATOM   4112  N   HIS D  97      15.261  -3.312  33.774  1.00  9.16           N
ATOM   4113  CA  HIS D  97      14.531  -2.360  32.941  1.00 11.76           C
ATOM   4114  C   HIS D  97      15.368  -1.812  31.792  1.00  9.86           C
ATOM   4115  O   HIS D  97      15.356  -0.614  31.516  1.00 10.50           O
ATOM   4116  CB  HIS D  97      13.943  -1.182  33.751  1.00 13.98           C
ATOM   4117  CG  HIS D  97      13.311  -1.700  35.013  1.00 14.94           C
ATOM   4118  ND1 HIS D  97      12.187  -2.482  34.999  1.00 17.59           N
ATOM   4119  CD2 HIS D  97      13.718  -1.570  36.298  1.00 17.26           C
ATOM   4120  CE1 HIS D  97      11.890  -2.827  36.252  1.00 17.35           C
ATOM   4121  NE2 HIS D  97      12.803  -2.275  37.038  1.00 17.19           N
ATOM   4122  N   VAL D  98      16.100  -2.729  31.143  1.00  8.56           N
ATOM   4123  CA  VAL D  98      16.951  -2.296  30.028  1.00  9.34           C
ATOM   4124  C   VAL D  98      16.199  -2.414  28.718  1.00  9.44           C
ATOM   4125  O   VAL D  98      15.887  -3.492  28.227  1.00 10.43           O
ATOM   4126  CB  VAL D  98      18.243  -3.148  30.032  1.00 10.79           C
ATOM   4127  CG1 VAL D  98      19.076  -2.798  28.794  1.00  7.41           C
ATOM   4128  CG2 VAL D  98      19.005  -2.937  31.332  1.00  9.42           C
ATOM   4129  N   ASP D  99      15.910  -1.298  28.065  1.00 11.42           N
ATOM   4130  CA  ASP D  99      15.263  -1.309  26.755  1.00 11.45           C
ATOM   4131  C   ASP D  99      16.128  -2.169  25.856  1.00 10.20           C
ATOM   4132  O   ASP D  99      17.317  -1.912  25.745  1.00  7.71           O
ATOM   4133  CB  ASP D  99      15.232   0.119  26.227  1.00 11.19           C
ATOM   4134  CG  ASP D  99      14.668   0.386  24.861  1.00 10.75           C
ATOM   4135  OD1 ASP D  99      14.460  -0.567  24.082  1.00 10.46           O
ATOM   4136  OD2 ASP D  99      14.451   1.580  24.544  1.00  9.07           O
ATOM   4137  N   PRO D 100      15.605  -3.160  25.159  1.00  8.59           N
ATOM   4138  CA  PRO D 100      16.377  -4.031  24.252  1.00  8.59           C
ATOM   4139  C   PRO D 100      17.058  -3.305  23.128  1.00 10.97           C
ATOM   4140  O   PRO D 100      18.036  -3.841  22.585  1.00  9.27           O
ATOM   4141  CB  PRO D 100      15.374  -5.068  23.723  1.00 10.67           C
ATOM   4142  CG  PRO D 100      14.318  -5.084  24.832  1.00 11.01           C
ATOM   4143  CD  PRO D 100      14.208  -3.616  25.209  1.00  9.51           C
ATOM   4144  N   GLU D 101      16.681  -2.054  22.781  1.00 10.03           N
ATOM   4145  CA  GLU D 101      17.470  -1.315  21.810  1.00 12.54           C
ATOM   4146  C   GLU D 101      18.927  -1.208  22.281  1.00 12.42           C
ATOM   4147  O   GLU D 101      19.843  -1.193  21.430  1.00 12.56           O
ATOM   4148  CB  GLU D 101      16.878   0.076  21.596  1.00 13.56           C
ATOM   4149  CG  GLU D 101      17.630   0.869  20.544  1.00 17.91           C
ATOM   4150  CD  GLU D 101      17.520   0.401  19.105  1.00 20.59           C
ATOM   4151  OE1 GLU D 101      16.739  -0.518  18.772  1.00 17.16           O
ATOM   4152  OE2 GLU D 101      18.272   1.006  18.284  1.00 23.08           O
ATOM   4153  N   ASN D 102      19.258  -1.137  23.578  1.00  9.47           N
ATOM   4154  CA  ASN D 102      20.610  -1.081  24.063  1.00  9.94           C
ATOM   4155  C   ASN D 102      21.428  -2.294  23.620  1.00 11.25           C
ATOM   4156  O   ASN D 102      22.602  -2.114  23.330  1.00 10.41           O
ATOM   4157  CB  ASN D 102      20.596  -1.049  25.611  1.00 13.13           C
ATOM   4158  CG  ASN D 102      20.060   0.268  26.131  1.00 13.82           C
ATOM   4159  OD1 ASN D 102      20.729   1.275  25.972  1.00 15.96           O
ATOM   4160  ND2 ASN D 102      18.873   0.255  26.729  1.00 10.98           N
ATOM   4161  N   PHE D 103      20.817  -3.482  23.464  1.00 10.47           N
ATOM   4162  CA  PHE D 103      21.507  -4.664  22.991  1.00 11.00           C
ATOM   4163  C   PHE D 103      21.895  -4.546  21.522  1.00 11.39           C
ATOM   4164  O   PHE D 103      22.923  -5.071  21.129  1.00 10.27           O
ATOM   4165  CB  PHE D 103      20.637  -5.928  23.144  1.00  8.60           C
ATOM   4166  CG  PHE D 103      20.101  -6.123  24.547  1.00  9.34           C
ATOM   4167  CD1 PHE D 103      20.851  -5.909  25.680  1.00  9.01           C
ATOM   4168  CD2 PHE D 103      18.788  -6.543  24.698  1.00 12.06           C
ATOM   4169  CE1 PHE D 103      20.277  -6.112  26.939  1.00 12.34           C
ATOM   4170  CE2 PHE D 103      18.212  -6.748  25.946  1.00 13.28           C
ATOM   4171  CZ  PHE D 103      18.971  -6.538  27.085  1.00 11.26           C
ATOM   4172  N   ARG D 104      21.085  -3.817  20.750  1.00 11.78           N
ATOM   4173  CA  ARG D 104      21.385  -3.633  19.336  1.00 12.47           C
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ATOM   4174  C   ARG D 104      22.513  -2.610  19.191  1.00 10.64           C
ATOM   4175  O   ARG D 104      23.372  -2.838  18.340  1.00 11.35           O
ATOM   4176  CB  ARG D 104      20.111  -3.206  18.591  1.00 17.28           C
ATOM   4177  CG  ARG D 104      19.137  -4.381  18.633  1.00 25.90           C
ATOM   4178  CD  ARG D 104      17.653  -4.075  18.541  1.00 35.80           C
ATOM   4179  NE  ARG D 104      16.979  -5.260  19.051  1.00 43.43           N
ATOM   4180  CZ  ARG D 104      15.771  -5.749  19.013  1.00 45.92           C
ATOM   4181  NH1 ARG D 104      14.790  -5.110  18.391  1.00 48.22           N
ATOM   4182  NH2 ARG D 104      15.546  -6.919  19.612  1.00 45.62           N
ATOM   4183  N   LEU D 105      22.477  -1.569  20.014  1.00 10.19           N
ATOM   4184  CA  LEU D 105      23.547  -0.566  19.958  1.00 10.89           C
ATOM   4185  C   LEU D 105      24.864  -1.183  20.375  1.00  9.10           C
ATOM   4186  O   LEU D 105      25.904  -0.914  19.762  1.00  9.29           O
ATOM   4187  CB  LEU D 105      23.248   0.613  20.854  1.00  9.59           C
ATOM   4188  CG  LEU D 105      22.076   1.515  20.433  1.00 11.78           C
ATOM   4189  CD1 LEU D 105      21.790   2.521  21.556  1.00 14.74           C
ATOM   4190  CD2 LEU D 105      22.440   2.277  19.166  1.00 15.26           C
ATOM   4191  N   LEU D 106      24.801  -2.015  21.429  1.00  7.55           N
ATOM   4192  CA  LEU D 106      26.078  -2.657  21.822  1.00  8.60           C
ATOM   4193  C   LEU D 106      26.547  -3.586  20.713  1.00 10.54           C
ATOM   4194  O   LEU D 106      27.774  -3.646  20.461  1.00  9.68           O
ATOM   4195  CB  LEU D 106      25.899  -3.399  23.150  1.00 10.42           C
ATOM   4196  CG  LEU D 106      27.114  -4.187  23.646  1.00  9.61           C
ATOM   4197  CD1 LEU D 106      28.316  -3.256  23.917  1.00 11.56           C
ATOM   4198  CD2 LEU D 106      26.741  -5.034  24.854  1.00 10.87           C
ATOM   4199  N   GLY D 107      25.637  -4.310  20.036  1.00  9.20           N
ATOM   4200  CA  GLY D 107      26.071  -5.188  18.922  1.00  8.59           C
ATOM   4201  C   GLY D 107      26.696  -4.343  17.819  1.00 13.72           C
ATOM   4202  O   GLY D 107      27.732  -4.786  17.273  1.00 11.92           O
ATOM   4203  N   ASN D 108      26.156  -3.142  17.551  1.00 10.37           N
ATOM   4204  CA  ASN D 108      26.781  -2.308  16.541  1.00 14.59           C
ATOM   4205  C   ASN D 108      28.177  -1.848  16.979  1.00 11.47           C
ATOM   4206  O   ASN D 108      29.065  -1.869  16.131  1.00  9.00           O
ATOM   4207  CB  ASN D 108      25.954  -1.068  16.198  1.00 18.03           C
ATOM   4208  CG  ASN D 108      24.740  -1.523  15.372  1.00 19.57           C
ATOM   4209  OD1 ASN D 108      24.699  -2.661  14.885  1.00 26.47           O
ATOM   4210  ND2 ASN D 108      23.807  -0.594  15.277  1.00 24.56           N
ATOM   4211  N   VAL D 109      28.325  -1.449  18.247  1.00 11.38           N
ATOM   4212  CA  VAL D 109      29.658  -1.071  18.724  1.00 12.31           C
ATOM   4213  C   VAL D 109      30.615  -2.251  18.702  1.00 12.79           C
ATOM   4214  O   VAL D 109      31.788  -2.053  18.353  1.00 11.11           O
ATOM   4215  CB  VAL D 109      29.609  -0.484  20.145  1.00 12.32           C
ATOM   4216  CG1 VAL D 109      30.983  -0.208  20.700  1.00 10.50           C
ATOM   4217  CG2 VAL D 109      28.832   0.837  20.063  1.00 12.30           C
ATOM   4218  N   LEU D 110      30.131  -3.448  19.049  1.00  9.86           N
ATOM   4219  CA  LEU D 110      30.991  -4.624  19.033  1.00 12.21           C
ATOM   4220  C   LEU D 110      31.545  -4.881  17.617  1.00 10.19           C
ATOM   4221  O   LEU D 110      32.730  -5.146  17.465  1.00  8.49           O
ATOM   4222  CB  LEU D 110      30.219  -5.873  19.472  1.00  8.88           C
ATOM   4223  CG  LEU D 110      31.089  -7.132  19.560  1.00 10.68           C
ATOM   4224  CD1 LEU D 110      32.357  -7.013  20.411  1.00 10.39           C
ATOM   4225  CD2 LEU D 110      30.214  -8.299  20.034  1.00 10.99           C
ATOM   4226  N   VAL D 111      30.675  -4.771  16.628  1.00  9.40           N
ATOM   4227  CA  VAL D 111      31.133  -4.960  15.243  1.00 10.82           C
ATOM   4228  C   VAL D 111      32.205  -3.929  14.911  1.00 10.84           C
ATOM   4229  O   VAL D 111      33.221  -4.291  14.293  1.00  9.16           O
ATOM   4230  CB  VAL D 111      29.934  -4.896  14.277  1.00  9.32           C
ATOM   4231  CG1 VAL D 111      30.396  -4.797  12.851  1.00 11.57           C
ATOM   4232  CG2 VAL D 111      29.031  -6.129  14.538  1.00 10.30           C
ATOM   4233  N   CYS D 112      32.006  -2.658  15.257  1.00  9.97           N
ATOM   4234  CA  CYS D 112      33.002  -1.620  15.004  1.00 10.44           C
ATOM   4235  C   CYS D 112      34.311  -1.933  15.714  1.00 12.26           C
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ATOM   4236  O   CYS D 112      35.396  -1.769  15.119  1.00 12.53           O
ATOM   4237  CB  CYS D 112      32.544  -0.206  15.392  1.00 12.05           C
ATOM   4238  SG  CYS D 112      31.197   0.407  14.324  1.00 13.66           S
ATOM   4239  N   VAL D 113      34.250  -2.438  16.948  1.00  9.12           N
ATOM   4240  CA  VAL D 113      35.469  -2.772  17.698  1.00 11.99           C
ATOM   4241  C   VAL D 113      36.169  -3.956  17.051  1.00  9.95           C
ATOM   4242  O   VAL D 113      37.408  -3.894  16.953  1.00 12.57           O
ATOM   4243  CB  VAL D 113      35.202  -3.080  19.189  1.00 14.03           C
ATOM   4244  CG1 VAL D 113      36.439  -3.603  19.920  1.00 13.61           C
ATOM   4245  CG2 VAL D 113      34.762  -1.805  19.914  1.00 12.57           C
ATOM   4246  N   LEU D 114      35.429  -4.991  16.635  1.00  7.01           N
ATOM   4247  CA  LEU D 114      36.108  -6.107  15.963  1.00  9.18           C
ATOM   4248  C   LEU D 114      36.765  -5.635  14.664  1.00 10.88           C
ATOM   4249  O   LEU D 114      37.900  -6.019  14.329  1.00  9.38           O
ATOM   4250  CB  LEU D 114      35.034  -7.163  15.685  1.00  7.33           C
ATOM   4251  CG  LEU D 114      34.502  -7.900  16.920  1.00  8.48           C
ATOM   4252  CD1 LEU D 114      33.373  -8.856  16.555  1.00 10.67           C
ATOM   4253  CD2 LEU D 114      35.629  -8.706  17.572  1.00 11.86           C
ATOM   4254  N   ALA D 115      36.083  -4.723  13.941  1.00  9.77           N
ATOM   4255  CA  ALA D 115      36.670  -4.152  12.726  1.00 11.41           C
ATOM   4256  C   ALA D 115      37.962  -3.377  13.046  1.00 10.69           C
ATOM   4257  O   ALA D 115      38.988  -3.488  12.342  1.00  9.83           O
ATOM   4258  CB  ALA D 115      35.653  -3.246  12.029  1.00  8.93           C
ATOM   4259  N   HIS D 116      37.928  -2.543  14.064  1.00  9.22           N
ATOM   4260  CA  HIS D 116      39.106  -1.757  14.466  1.00 10.93           C
ATOM   4261  C   HIS D 116      40.226  -2.681  14.902  1.00 11.71           C
ATOM   4262  O   HIS D 116      41.418  -2.540  14.540  1.00 12.99           O
ATOM   4263  CB  HIS D 116      38.656  -0.846  15.641  1.00 13.95           C
ATOM   4264  CG  HIS D 116      39.736   0.152  15.981  1.00 16.75           C
ATOM   4265  ND1 HIS D 116      40.072   0.476  17.280  1.00 19.38           N
ATOM   4266  CD2 HIS D 116      40.537   0.873  15.160  1.00 15.46           C
ATOM   4267  CE1 HIS D 116      41.057   1.381  17.246  1.00 19.13           C
ATOM   4268  NE2 HIS D 116      41.347   1.632  15.972  1.00 18.61           N
ATOM   4269  N   HIS D 117      39.848  -3.681  15.719  1.00  9.18           N
ATOM   4270  CA  HIS D 117      40.851  -4.613  16.218  1.00 11.40           C
ATOM   4271  C   HIS D 117      41.454  -5.521  15.160  1.00 12.47           C
ATOM   4272  O   HIS D 117      42.694  -5.678  15.200  1.00 12.05           O
ATOM   4273  CB  HIS D 117      40.257  -5.469  17.370  1.00 13.54           C
ATOM   4274  CG  HIS D 117      41.234  -6.449  17.917  1.00 19.69           C
ATOM   4275  ND1 HIS D 117      42.206  -6.149  18.826  1.00 19.43           N
ATOM   4276  CD2 HIS D 117      41.389  -7.768  17.636  1.00 21.68           C
ATOM   4277  CE1 HIS D 117      42.922  -7.230  19.104  1.00 20.73           C
ATOM   4278  NE2 HIS D 117      42.452  -8.233  18.384  1.00 20.09           N
ATOM   4279  N   PHE D 118      40.675  -6.169  14.286  1.00 10.57           N
ATOM   4280  CA  PHE D 118      41.208  -7.110  13.329  1.00 10.07           C
ATOM   4281  C   PHE D 118      41.572  -6.567  11.968  1.00  9.16           C
ATOM   4282  O   PHE D 118      42.217  -7.243  11.147  1.00 10.10           O
ATOM   4283  CB  PHE D 118      40.149  -8.232  13.147  1.00 11.72           C
ATOM   4284  CG  PHE D 118      40.168  -9.120  14.368  1.00 13.49           C
ATOM   4285  CD1 PHE D 118      41.248  -9.949  14.624  1.00 15.94           C
ATOM   4286  CD2 PHE D 118      39.113  -9.132  15.247  1.00 15.38           C
ATOM   4287  CE1 PHE D 118      41.282 -10.760  15.739  1.00 15.27           C
ATOM   4288  CE2 PHE D 118      39.120  -9.965  16.368  1.00 14.68           C
ATOM   4289  CZ  PHE D 118      40.213 -10.771  16.619  1.00 17.59           C
ATOM   4290  N   GLY D 119      41.119  -5.325  11.723  1.00 11.15           N
ATOM   4291  CA  GLY D 119      41.460  -4.662  10.449  1.00 11.66           C
ATOM   4292  C   GLY D 119      40.953  -5.466   9.280  1.00 14.30           C
ATOM   4293  O   GLY D 119      39.815  -5.965   9.269  1.00 13.55           O
ATOM   4294  N   LYS D 120      41.808  -5.633   8.256  1.00 12.87           N
ATOM   4295  CA  LYS D 120      41.424  -6.348   7.052  1.00 15.35           C
ATOM   4296  C   LYS D 120      40.944  -7.780   7.238  1.00 12.80           C
ATOM   4297  O   LYS D 120      40.176  -8.288   6.391  1.00 11.94           O
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ATOM   4298  CB  LYS D 120      42.596  -6.380   6.044  1.00 19.04           C
ATOM   4299  CG  LYS D 120      43.739  -7.317   6.453  1.00 20.68           C
ATOM   4300  CD  LYS D 120      44.929  -7.103   5.521  1.00 24.34           C
ATOM   4301  CE  LYS D 120      45.056  -8.222   4.491  1.00 30.64           C
ATOM   4302  NZ  LYS D 120      46.490  -8.683   4.416  1.00 33.77           N
ATOM   4303  N   GLU D 121      41.326  -8.438   8.329  1.00 10.31           N
ATOM   4304  CA  GLU D 121      40.839  -9.774   8.639  1.00 13.47           C
ATOM   4305  C   GLU D 121      39.335  -9.801   8.877  1.00 12.50           C
ATOM   4306  O   GLU D 121      38.674 -10.829   8.628  1.00 13.43           O
ATOM   4307  CB  GLU D 121      41.609 -10.322   9.856  1.00 15.38           C
ATOM   4308  CG  GLU D 121      41.351 -11.795  10.139  1.00 19.39           C
ATOM   4309  CD  GLU D 121      42.216 -12.413  11.221  1.00 19.51           C
ATOM   4310  OE1 GLU D 121      43.077 -11.739  11.820  1.00 22.11           O
ATOM   4311  OE2 GLU D 121      42.029 -13.625  11.509  1.00 20.47           O
ATOM   4312  N   PHE D 122      38.728  -8.690   9.308  1.00 11.49           N
ATOM   4313  CA  PHE D 122      37.300  -8.562   9.531  1.00 10.66           C
ATOM   4314  C   PHE D 122      36.675  -8.225   8.173  1.00  9.81           C
ATOM   4315  O   PHE D 122      36.242  -7.100   7.897  1.00 12.75           O
ATOM   4316  CB  PHE D 122      36.955  -7.495  10.592  1.00 12.32           C
ATOM   4317  CG  PHE D 122      35.552  -7.530  11.100  1.00 12.46           C
ATOM   4318  CD1 PHE D 122      35.166  -8.588  11.921  1.00 13.26           C
ATOM   4319  CD2 PHE D 122      34.636  -6.526  10.774  1.00 11.39           C
ATOM   4320  CE1 PHE D 122      33.860  -8.648  12.404  1.00 12.87           C
ATOM   4321  CE2 PHE D 122      33.331  -6.581  11.276  1.00 11.41           C
ATOM   4322  CZ  PHE D 122      32.966  -7.646  12.058  1.00 12.23           C
ATOM   4323  N   THR D 123      36.664  -9.201   7.277  1.00  9.65           N
ATOM   4324  CA  THR D 123      36.204  -8.984   5.915  1.00 13.26           C
ATOM   4325  C   THR D 123      34.691  -8.795   5.853  1.00 12.44           C
ATOM   4326  O   THR D 123      33.996  -9.117   6.799  1.00 13.02           O
ATOM   4327  CB  THR D 123      36.556 -10.223   5.076  1.00 14.87           C
ATOM   4328  OG1 THR D 123      35.870 -11.381   5.587  1.00 11.86           O
ATOM   4329  CG2 THR D 123      38.051 -10.573   5.127  1.00 15.13           C
ATOM   4330  N   PRO D 124      34.185  -8.392   4.699  1.00 13.36           N
ATOM   4331  CA  PRO D 124      32.727  -8.236   4.477  1.00 14.07           C
ATOM   4332  C   PRO D 124      31.991  -9.495   4.844  1.00 12.98           C
ATOM   4333  O   PRO D 124      31.044  -9.415   5.651  1.00 13.05           O
ATOM   4334  CB  PRO D 124      32.612  -7.750   3.046  1.00 14.51           C
ATOM   4335  CG  PRO D 124      33.909  -7.006   2.855  1.00 14.91           C
ATOM   4336  CD  PRO D 124      34.943  -7.922   3.508  1.00 13.96           C
ATOM   4337  N   PRO D 125      32.355 -10.687   4.388  1.00 15.35           N
ATOM   4338  CA  PRO D 125      31.670 -11.914   4.766  1.00 13.52           C
ATOM   4339  C   PRO D 125      31.766 -12.196   6.259  1.00 14.53           C
ATOM   4340  O   PRO D 125      30.812 -12.676   6.851  1.00 13.72           O
ATOM   4341  CB  PRO D 125      32.329 -13.020   3.970  1.00 17.44           C
ATOM   4342  CG  PRO D 125      33.024 -12.315   2.842  1.00 20.23           C
ATOM   4343  CD  PRO D 125      33.413 -10.940   3.362  1.00 14.41           C
ATOM   4344  N   VAL D 126      32.902 -11.939   6.919  1.00 12.87           N
ATOM   4345  CA  VAL D 126      33.056 -12.165   8.366  1.00 13.19           C
ATOM   4346  C   VAL D 126      32.126 -11.224   9.099  1.00 12.30           C
ATOM   4347  O   VAL D 126      31.437 -11.590  10.075  1.00 15.14           O
ATOM   4348  CB  VAL D 126      34.521 -12.007   8.810  1.00 10.37           C
ATOM   4349  CG1 VAL D 126      34.654 -12.011  10.330  1.00 12.00           C
ATOM   4350  CG2 VAL D 126      35.367 -13.194   8.341  1.00 13.66           C
ATOM   4351  N   GLN D 127      32.069  -9.962   8.645  1.00 10.52           N
ATOM   4352  CA  GLN D 127      31.168  -8.987   9.229  1.00 11.82           C
ATOM   4353  C   GLN D 127      29.731  -9.504   9.101  1.00 14.37           C
ATOM   4354  O   GLN D 127      28.991  -9.463  10.089  1.00 14.20           O
ATOM   4355  CB  GLN D 127      31.272  -7.612   8.549  1.00 11.51           C
ATOM   4356  CG  GLN D 127      30.095  -6.726   9.031  1.00 11.62           C
ATOM   4357  CD  GLN D 127      30.102  -5.364   8.383  1.00 13.69           C
ATOM   4358  OE1 GLN D 127      30.975  -5.011   7.605  1.00 11.86           O
ATOM   4359  NE2 GLN D 127      29.090  -4.549   8.689  1.00 11.54           N
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ATOM   4360  N   ALA D 128      29.320  -9.969   7.918  1.00 15.46           N
ATOM   4361  CA  ALA D 128      27.943 -10.465   7.702  1.00 13.22           C
ATOM   4362  C   ALA D 128      27.609 -11.535   8.728  1.00 14.16           C
ATOM   4363  O   ALA D 128      26.534 -11.569   9.359  1.00 16.03           O
ATOM   4364  CB  ALA D 128      27.805 -10.997   6.275  1.00 11.91           C
ATOM   4365  N   ALA D 129      28.540 -12.479   8.952  1.00 11.66           N
ATOM   4366  CA  ALA D 129      28.378 -13.499   9.971  1.00  8.64           C
ATOM   4367  C   ALA D 129      28.187 -12.888  11.359  1.00 11.47           C
ATOM   4368  O   ALA D 129      27.268 -13.288  12.098  1.00 11.98           O
ATOM   4369  CB  ALA D 129      29.588 -14.430   9.962  1.00 10.95           C
ATOM   4370  N   TYR D 130      29.073 -11.957  11.754  1.00 10.42           N
ATOM   4371  CA  TYR D 130      28.919 -11.336  13.090  1.00 10.84           C
ATOM   4372  C   TYR D 130      27.625 -10.545  13.198  1.00 12.28           C
ATOM   4373  O   TYR D 130      27.031 -10.497  14.291  1.00 10.78           O
ATOM   4374  CB  TYR D 130      30.142 -10.476  13.452  1.00 10.20           C
ATOM   4375  CG  TYR D 130      31.154 -11.359  14.195  1.00 11.31           C
ATOM   4376  CD1 TYR D 130      32.106 -12.064  13.480  1.00 10.62           C
ATOM   4377  CD2 TYR D 130      31.135 -11.485  15.568  1.00 10.73           C
ATOM   4378  CE1 TYR D 130      33.038 -12.874  14.123  1.00 11.26           C
ATOM   4379  CE2 TYR D 130      32.044 -12.310  16.239  1.00 12.18           C
ATOM   4380  CZ  TYR D 130      32.986 -12.994  15.492  1.00 12.06           C
ATOM   4381  OH  TYR D 130      33.920 -13.803  16.123  1.00 11.81           O
ATOM   4382  N   GLN D 131      27.175  -9.868  12.127  1.00 10.77           N
ATOM   4383  CA  GLN D 131      25.884  -9.186  12.182  1.00 15.36           C
ATOM   4384  C   GLN D 131      24.772 -10.155  12.537  1.00 14.30           C
ATOM   4385  O   GLN D 131      23.926  -9.822  13.372  1.00 13.64           O
ATOM   4386  CB  GLN D 131      25.602  -8.516  10.833  1.00 12.53           C
ATOM   4387  CG  GLN D 131      26.630  -7.415  10.656  1.00 11.47           C
ATOM   4388  CD  GLN D 131      26.416  -6.103  11.368  1.00 13.37           C
ATOM   4389  OE1 GLN D 131      27.234  -5.212  11.096  1.00 12.32           O
ATOM   4390  NE2 GLN D 131      25.385  -5.909  12.206  1.00 13.12           N
ATOM   4391  N   LYS D 132      24.746 -11.352  11.945  1.00 12.16           N
ATOM   4392  CA  LYS D 132      23.736 -12.337  12.330  1.00 11.84           C
ATOM   4393  C   LYS D 132      23.870 -12.684  13.810  1.00 15.49           C
ATOM   4394  O   LYS D 132      22.833 -12.804  14.504  1.00 15.42           O
ATOM   4395  CB  LYS D 132      23.902 -13.609  11.498  1.00 12.99           C
ATOM   4396  CG  LYS D 132      23.396 -13.435  10.056  1.00 18.11           C
ATOM   4397  CD  LYS D 132      23.742 -14.702   9.255  1.00 18.43           C
ATOM   4398  CE  LYS D 132      23.167 -14.585   7.856  1.00 20.61           C
ATOM   4399  NZ  LYS D 132      23.301 -15.881   7.138  1.00 19.19           N
ATOM   4400  N   VAL D 133      25.102 -12.862  14.303  1.00 13.00           N
ATOM   4401  CA  VAL D 133      25.283 -13.189  15.712  1.00 12.72           C
ATOM   4402  C   VAL D 133      24.815 -12.080  16.628  1.00 11.57           C
ATOM   4403  O   VAL D 133      24.098 -12.412  17.617  1.00 12.87           O
ATOM   4404  CB  VAL D 133      26.772 -13.509  16.037  1.00 15.40           C
ATOM   4405  CG1 VAL D 133      26.992 -13.713  17.538  1.00 15.40           C
ATOM   4406  CG2 VAL D 133      27.257 -14.722  15.257  1.00 13.45           C
ATOM   4407  N   VAL D 134      25.199 -10.820  16.356  1.00 11.96           N
ATOM   4408  CA  VAL D 134      24.764  -9.760  17.283  1.00 11.03           C
ATOM   4409  C   VAL D 134      23.239  -9.526  17.147  1.00 13.01           C
ATOM   4410  O   VAL D 134      22.677  -9.271  18.209  1.00 12.93           O
ATOM   4411  CB  VAL D 134      25.515  -8.441  17.166  1.00 11.41           C
ATOM   4412  CG1 VAL D 134      27.016  -8.688  17.419  1.00 11.25           C
ATOM   4413  CG2 VAL D 134      25.324  -7.808  15.802  1.00 10.01           C
ATOM   4414  N   ALA D 135      22.629  -9.693  15.973  1.00 11.95           N
ATOM   4415  CA  ALA D 135      21.162  -9.559  15.956  1.00 15.24           C
ATOM   4416  C   ALA D 135      20.547 -10.755  16.698  1.00 14.56           C
ATOM   4417  O   ALA D 135      19.551 -10.576  17.398  1.00 16.50           O
ATOM   4418  CB  ALA D 135      20.562  -9.489  14.583  1.00 16.28           C
ATOM   4419  N   GLY D 136      21.098 -11.955  16.538  1.00 12.36           N
ATOM   4420  CA  GLY D 136      20.588 -13.144  17.233  1.00 14.26           C
ATOM   4421  C   GLY D 136      20.640 -12.998  18.742  1.00 13.24           C
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ATOM   4422  O   GLY D 136      19.699 -13.323  19.460  1.00 11.16           O
ATOM   4423  N   VAL D 137      21.743 -12.542  19.342  1.00 11.58           N
ATOM   4424  CA  VAL D 137      21.871 -12.358  20.783  1.00 12.48           C
ATOM   4425  C   VAL D 137      20.882 -11.282  21.273  1.00 13.14           C
ATOM   4426  O   VAL D 137      20.205 -11.436  22.284  1.00 12.20           O
ATOM   4427  CB  VAL D 137      23.306 -11.960  21.142  1.00 12.02           C
ATOM   4428  CG1 VAL D 137      23.488 -11.593  22.603  1.00 14.49           C
ATOM   4429  CG2 VAL D 137      24.255 -13.124  20.755  1.00 17.37           C
ATOM   4430  N   ALA D 138      20.822 -10.171  20.571  1.00 13.67           N
ATOM   4431  CA  ALA D 138      19.907  -9.067  20.903  1.00 13.21           C
ATOM   4432  C   ALA D 138      18.471  -9.573  20.924  1.00 13.02           C
ATOM   4433  O   ALA D 138      17.697  -9.318  21.863  1.00 14.08           O
ATOM   4434  CB  ALA D 138      20.058  -7.907  19.945  1.00 13.82           C
ATOM   4435  N   ASN D 139      18.106 -10.305  19.869  1.00 12.06           N
ATOM   4436  CA  ASN D 139      16.754 -10.860  19.788  1.00 12.43           C
ATOM   4437  C   ASN D 139      16.496 -11.872  20.889  1.00 14.49           C
ATOM   4438  O   ASN D 139      15.381 -11.893  21.452  1.00 12.25           O
ATOM   4439  CB  ASN D 139      16.533 -11.435  18.390  1.00 19.88           C
ATOM   4440  CG  ASN D 139      16.392 -10.340  17.336  1.00 23.36           C
ATOM   4441  OD1 ASN D 139      16.183  -9.172  17.601  1.00 28.10           O
ATOM   4442  ND2 ASN D 139      16.495 -10.814  16.098  1.00 28.30           N
ATOM   4443  N   ALA D 140      17.499 -12.687  21.244  1.00 12.29           N
ATOM   4444  CA  ALA D 140      17.354 -13.640  22.322  1.00 14.22           C
ATOM   4445  C   ALA D 140      17.230 -12.911  23.650  1.00 13.12           C
ATOM   4446  O   ALA D 140      16.401 -13.266  24.492  1.00 12.43           O
ATOM   4447  CB  ALA D 140      18.530 -14.601  22.398  1.00 13.38           C
ATOM   4448  N   LEU D 141      18.014 -11.853  23.873  1.00 12.61           N
ATOM   4449  CA  LEU D 141      17.893 -11.118  25.140  1.00 13.87           C
ATOM   4450  C   LEU D 141      16.577 -10.341  25.201  1.00 13.73           C
ATOM   4451  O   LEU D 141      16.150 -10.048  26.318  1.00 15.05           O
ATOM   4452  CB  LEU D 141      19.065 -10.134  25.340  1.00 14.70           C
ATOM   4453  CG  LEU D 141      20.366 -10.835  25.771  1.00 17.01           C
ATOM   4454  CD1 LEU D 141      21.596  -9.939  25.578  1.00 17.97           C
ATOM   4455  CD2 LEU D 141      20.251 -11.302  27.220  1.00 15.54           C
ATOM   4456  N   ALA D 142      15.948 -10.005  24.082  1.00 12.39           N
ATOM   4457  CA  ALA D 142      14.682  -9.301  24.114  1.00 13.36           C
ATOM   4458  C   ALA D 142      13.478 -10.231  24.124  1.00 14.06           C
ATOM   4459  O   ALA D 142      12.327  -9.789  24.257  1.00 11.59           O
ATOM   4460  CB  ALA D 142      14.500  -8.457  22.835  1.00 13.47           C
ATOM   4461  N   HIS D 143      13.691 -11.524  23.919  1.00 12.88           N
ATOM   4462  CA  HIS D 143      12.540 -12.422  23.739  1.00 16.07           C
ATOM   4463  C   HIS D 143      11.577 -12.627  24.876  1.00 14.63           C
ATOM   4464  O   HIS D 143      10.368 -12.821  24.601  1.00 13.47           O
ATOM   4465  CB  HIS D 143      13.118 -13.786  23.271  1.00 18.93           C
ATOM   4466  CG  HIS D 143      12.035 -14.697  22.778  1.00 22.77           C
ATOM   4467  ND1 HIS D 143      11.748 -15.889  23.392  1.00 26.31           N
ATOM   4468  CD2 HIS D 143      11.174 -14.554  21.744  1.00 25.70           C
ATOM   4469  CE1 HIS D 143      10.736 -16.471  22.748  1.00 28.64           C
ATOM   4470  NE2 HIS D 143      10.377 -15.675  21.736  1.00 28.11           N
ATOM   4471  N   LYS D 144      12.005 -12.514  26.126  1.00 13.26           N
ATOM   4472  CA  LYS D 144      11.125 -12.670  27.267  1.00 14.30           C
ATOM   4473  C   LYS D 144      10.568 -11.354  27.790  1.00 13.81           C
ATOM   4474  O   LYS D 144       9.914 -11.363  28.854  1.00 14.36           O
ATOM   4475  CB  LYS D 144      11.873 -13.413  28.398  1.00 14.70           C
ATOM   4476  CG  LYS D 144      12.396 -14.795  27.919  1.00 13.95           C
ATOM   4477  CD  LYS D 144      11.185 -15.686  27.672  1.00 17.95           C
ATOM   4478  CE  LYS D 144      10.862 -16.538  28.314  0.00 31.30           C
ATOM   4479  NZ  LYS D 144       9.862 -15.820  29.163  0.00 34.22           N
ATOM   4480  N   TYR D 145      10.788 -10.260  27.065  1.00 12.47           N
ATOM   4481  CA  TYR D 145      10.216  -8.984  27.514  1.00 13.22           C
ATOM   4482  C   TYR D 145       8.705  -9.106  27.399  1.00 13.03           C
ATOM   4483  O   TYR D 145       8.116  -9.831  26.552  1.00 13.37           O
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ATOM   4484  CB  TYR D 145      10.781  -7.783  26.728  1.00  8.66           C
ATOM   4485  CG  TYR D 145      12.118  -7.285  27.254  1.00 11.79           C
ATOM   4486  CD1 TYR D 145      13.218  -8.135  27.267  1.00 12.55           C
ATOM   4487  CD2 TYR D 145      12.280  -5.995  27.749  1.00 10.60           C
ATOM   4488  CE1 TYR D 145      14.443  -7.731  27.780  1.00  8.81           C
ATOM   4489  CE2 TYR D 145      13.502  -5.568  28.256  1.00 10.60           C
ATOM   4490  CZ  TYR D 145      14.570  -6.431  28.243  1.00  9.72           C
ATOM   4491  OH  TYR D 145      15.826  -6.038  28.732  1.00  9.47           O
ATOM   4492  N   HIS D 146       8.017  -8.391  28.269  1.00 11.76           N
ATOM   4493  CA  HIS D 146       6.556  -8.395  28.359  1.00 13.72           C
ATOM   4494  C   HIS D 146       6.095  -7.148  29.081  1.00 10.85           C
ATOM   4495  O   HIS D 146       6.927  -6.390  29.613  1.00 13.95           O
ATOM   4496  CB  HIS D 146       6.089  -9.702  29.047  1.00 13.64           C
ATOM   4497  CG  HIS D 146       6.548  -9.658  30.489  1.00 17.68           C
ATOM   4498  ND1 HIS D 146       5.716  -9.212  31.497  1.00 16.56           N
ATOM   4499  CD2 HIS D 146       7.731  -9.936  31.069  1.00 17.67           C
ATOM   4500  CE1 HIS D 146       6.387  -9.241  32.655  1.00 20.04           C
ATOM   4501  NE2 HIS D 146       7.623  -9.674  32.407  1.00 18.57           N
ATOM   4502  OXT HIS D 146       4.887  -6.815  29.117  1.00 12.80           O
TER    4503      HIS D 146
HETATM 4504 FE   HEM D 147      23.422  -6.796  30.821  1.00 11.73          FE
HETATM 4505  CHA HEM D 147      23.731  -7.321  34.251  1.00 11.08           C
HETATM 4506  CHB HEM D 147      24.726  -9.855  30.205  1.00 11.65           C
HETATM 4507  CHC HEM D 147      23.923  -5.936  27.471  1.00 13.94           C
HETATM 4508  CHD HEM D 147      22.776  -3.417  31.460  1.00 11.08           C
HETATM 4509  N A HEM D 147      24.097  -8.279  31.992  1.00  9.47           N
HETATM 4510  C1A HEM D 147      24.113  -8.327  33.366  1.00 12.49           C
HETATM 4511  C2A HEM D 147      24.655  -9.616  33.776  1.00 10.05           C
HETATM 4512  C3A HEM D 147      24.931 -10.324  32.675  1.00 10.39           C
HETATM 4513  C4A HEM D 147      24.589  -9.497  31.546  1.00  9.25           C
HETATM 4514  CMA HEM D 147      25.536 -11.744  32.634  1.00  9.47           C
HETATM 4515  CAA HEM D 147      24.789  -9.982  35.278  1.00 15.49           C
HETATM 4516  CBA HEM D 147      23.492 -10.716  35.691  1.00 17.68           C
HETATM 4517  CGA HEM D 147      23.286 -11.029  37.147  1.00 24.59           C
HETATM 4518  O1A HEM D 147      22.490 -11.946  37.457  1.00 21.08           O
HETATM 4519  O2A HEM D 147      23.918 -10.355  37.984  1.00 25.06           O
HETATM 4520  N B HEM D 147      24.214  -7.687  29.180  1.00 11.72           N
HETATM 4521  C1B HEM D 147      24.559  -9.029  29.108  1.00 10.12           C
HETATM 4522  C2B HEM D 147      24.698  -9.408  27.720  1.00 10.33           C
HETATM 4523  C3B HEM D 147      24.493  -8.330  26.967  1.00 10.41           C
HETATM 4524  C4B HEM D 147      24.177  -7.234  27.880  1.00 10.13           C
HETATM 4525  CMB HEM D 147      25.055 -10.837  27.254  1.00 10.30           C
HETATM 4526  CAB HEM D 147      24.518  -8.150  25.434  1.00 12.91           C
HETATM 4527  CBB HEM D 147      25.423  -8.781  24.683  1.00 15.90           C
HETATM 4528  N C HEM D 147      23.369  -5.064  29.735  1.00 11.27           N
HETATM 4529  C1C HEM D 147      23.605  -4.932  28.358  1.00  9.86           C
HETATM 4530  C2C HEM D 147      23.444  -3.549  27.950  1.00 10.56           C
HETATM 4531  C3C HEM D 147      23.119  -2.849  29.033  1.00 12.51           C
HETATM 4532  C4C HEM D 147      23.075  -3.788  30.160  1.00 13.22           C
HETATM 4533  CMC HEM D 147      23.630  -3.040  26.485  1.00 11.74           C
HETATM 4534  CAC HEM D 147      22.834  -1.346  29.166  1.00 13.30           C
HETATM 4535  CBC HEM D 147      23.458  -0.413  28.447  1.00 16.01           C
HETATM 4536  N D HEM D 147      23.286  -5.617  32.484  1.00 12.91           N
HETATM 4537  C1D HEM D 147      22.994  -4.273  32.529  1.00 11.66           C
HETATM 4538  C2D HEM D 147      22.929  -3.834  33.914  1.00 11.88           C
HETATM 4539  C3D HEM D 147      23.207  -4.885  34.683  1.00 10.99           C
HETATM 4540  C4D HEM D 147      23.434  -6.024  33.798  1.00 12.18           C
HETATM 4541  CMD HEM D 147      22.657  -2.372  34.338  1.00 12.31           C
HETATM 4542  CAD HEM D 147      23.321  -4.972  36.226  1.00 11.60           C
HETATM 4543  CBD HEM D 147      24.794  -4.798  36.670  1.00 12.99           C
HETATM 4544  CGD HEM D 147      25.174  -4.880  38.108  1.00 20.00           C
HETATM 4545  O1D HEM D 147      26.384  -4.627  38.377  1.00 15.12           O
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HETATM 4546  O2D HEM D 147      24.256  -5.170  38.915  1.00 16.74           O
HETATM 4547  O   HOH     1     -12.329   6.650  20.088  1.00  9.38           O
HETATM 4548  O   HOH     2      17.357  16.215  23.242  1.00  9.61           O
HETATM 4549  O   HOH     3       2.624 -16.742  -0.515  1.00 10.75           O
HETATM 4550  O   HOH     4      13.042  -1.454  -2.996  1.00 11.85           O
HETATM 4551  O   HOH     5      15.878  -2.492   3.871  1.00 11.90           O
HETATM 4552  O   HOH     6      -6.658  14.127   2.014  1.00 12.27           O
HETATM 4553  O   HOH     7      15.807  14.474   0.330  1.00 12.37           O
HETATM 4554  O   HOH     8     -14.337   8.128  16.137  1.00 12.69           O
HETATM 4555  O   HOH     9      29.638  -3.789 -13.289  1.00 12.71           O
HETATM 4556  O   HOH    10      33.102 -18.570  22.754  1.00 12.73           O
HETATM 4557  O   HOH    11       9.893   2.745   1.072  1.00 12.85           O
HETATM 4558  O   HOH    12      -0.429  16.630   3.678  1.00 12.89           O
HETATM 4559  O   HOH    13       1.172   6.324   9.306  1.00 13.16           O
HETATM 4560  O   HOH    14      33.364  13.056  20.143  1.00 13.23           O
HETATM 4561  O   HOH    15       6.259   6.798  13.860  1.00 13.38           O
HETATM 4562  O   HOH    16      11.340   1.396  -0.917  1.00 13.50           O
HETATM 4563  O   HOH    17     -12.555   7.830  14.033  1.00 13.51           O
HETATM 4564  O   HOH    18      28.666   2.602  16.349  1.00 13.62           O
HETATM 4565  O   HOH    19       8.888  -4.626  28.834  1.00 13.66           O
HETATM 4566  O   HOH    20      38.419 -15.869  23.013  1.00 13.89           O
HETATM 4567  O   HOH    21      38.425  -6.836   4.759  1.00 13.91           O
HETATM 4568  O   HOH    22       9.830  11.012  -1.744  1.00 14.02           O
HETATM 4569  O   HOH    23      16.502  22.526  31.107  1.00 14.10           O
HETATM 4570  O   HOH    24      12.066   0.001  22.707  1.00 14.16           O
HETATM 4571  O   HOH    25      -1.800   1.333  42.105  1.00 14.22           O
HETATM 4572  O   HOH    26      43.915  -9.209  12.133  1.00 14.56           O
HETATM 4573  O   HOH    27      29.098 -14.265   5.489  1.00 14.72           O
HETATM 4574  O   HOH    28      38.887   7.936  24.774  1.00 14.76           O
HETATM 4575  O   HOH    29      16.890  24.548  27.774  1.00 14.81           O
HETATM 4576  O   HOH    30     -18.781  -3.878   8.096  1.00 14.85           O
HETATM 4577  O   HOH    31      22.283  11.437  26.008  1.00 14.91           O
HETATM 4578  O   HOH    32      14.738  20.353  31.642  1.00 14.95           O
HETATM 4579  O   HOH    33      27.344   1.549  14.278  1.00 15.02           O
HETATM 4580  O   HOH    34      39.013  -4.110   4.861  1.00 15.05           O
HETATM 4581  O   HOH    35      41.871  -1.132  12.016  1.00 15.36           O
HETATM 4582  O   HOH    36      20.959  -1.996  37.352  1.00 15.55           O
HETATM 4583  O   HOH    37       1.795   6.661 -14.469  1.00 15.60           O
HETATM 4584  O   HOH    38      17.185  -8.876  -1.109  1.00 15.64           O
HETATM 4585  O   HOH    39       2.122   5.433  11.750  1.00 15.69           O
HETATM 4586  O   HOH    40       2.032  -4.206  27.970  1.00 15.72           O
HETATM 4587  O   HOH    41      -7.362  12.796  -0.324  1.00 15.75           O
HETATM 4588  O   HOH    42      13.826  27.466  26.085  1.00 15.76           O
HETATM 4589  O   HOH    43      16.621   1.633  -7.194  1.00 15.80           O
HETATM 4590  O   HOH    44       5.415  10.681  13.292  1.00 15.84           O
HETATM 4591  O   HOH    45       6.172 -13.987  10.720  1.00 15.85           O
HETATM 4592  O   HOH    46      18.803  -6.537   5.190  1.00 16.02           O
HETATM 4593  O   HOH    47      23.872   3.625  11.651  1.00 16.07           O
HETATM 4594  O   HOH    48      36.046 -19.522  19.300  1.00 16.10           O
HETATM 4595  O   HOH    49       3.786  -2.205  10.968  1.00 16.14           O
HETATM 4596  O   HOH    50      24.158 -10.277  -0.400  1.00 16.17           O
HETATM 4597  O   HOH    51      11.220  -3.266  32.520  1.00 16.17           O
HETATM 4598  O   HOH    52       3.794  -3.916  14.865  1.00 16.18           O
HETATM 4599  O   HOH    53     -10.736   2.800  22.247  1.00 16.22           O
HETATM 4600  O   HOH    54      10.182  22.487  26.852  1.00 16.35           O
HETATM 4601  O   HOH    55      37.120   0.758  28.264  1.00 16.40           O
HETATM 4602  O   HOH    56      23.451  -4.749  16.492  1.00 16.40           O
HETATM 4603  O   HOH    57      25.781   7.171  11.485  1.00 16.46           O
HETATM 4604  O   HOH    58      41.102  -3.057   6.235  1.00 16.47           O
HETATM 4605  O   HOH    59       7.919 -16.536   4.250  1.00 16.59           O
HETATM 4606  O   HOH    60      38.586   9.089  22.376  1.00 16.72           O
HETATM 4607  O   HOH    61       1.894  24.024   1.696  1.00 16.85           O
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HETATM 4608  O   HOH    62      18.850  -0.872  35.909  1.00 16.86           O
HETATM 4609  O   HOH    63     -17.441  -9.265  14.492  1.00 16.90           O
HETATM 4610  O   HOH    64      17.513   2.832  27.661  1.00 16.99           O
HETATM 4611  O   HOH    65      21.881   4.540  36.965  1.00 17.01           O
HETATM 4612  O   HOH    66      17.625 -15.280  18.669  1.00 17.22           O
HETATM 4613  O   HOH    67      22.885  -7.378  12.713  1.00 17.23           O
HETATM 4614  O   HOH    68      15.123  22.001  21.570  1.00 17.27           O
HETATM 4615  O   HOH    69       2.419  11.077  36.470  1.00 17.32           O
HETATM 4616  O   HOH    70      -0.263  16.203  34.916  1.00 17.33           O
HETATM 4617  O   HOH    71      43.953  -2.034  10.247  1.00 17.36           O
HETATM 4618  O   HOH    72       3.504 -19.532   0.276  1.00 17.42           O
HETATM 4619  O   HOH    73       7.829  -1.068  33.932  1.00 17.42           O
HETATM 4620  O   HOH    74       8.034  -3.161  22.318  1.00 17.46           O
HETATM 4621  O   HOH    75     -11.985  -7.083  18.239  1.00 17.55           O
HETATM 4622  O   HOH    76      41.486  -9.016  21.454  1.00 17.64           O
HETATM 4623  O   HOH    77      45.461   4.540  10.625  1.00 17.67           O
HETATM 4624  O   HOH    78      18.382  26.037  24.539  1.00 17.74           O
HETATM 4625  O   HOH    79      24.213   2.598  38.612  1.00 17.89           O
HETATM 4626  O   HOH    80      25.724 -12.454   3.337  1.00 17.95           O
HETATM 4627  O   HOH    81     -10.438   5.469  21.736  1.00 18.00           O
HETATM 4628  O   HOH    82      15.463  -7.591  -5.170  1.00 18.00           O
HETATM 4629  O   HOH    83      -9.535  10.748   0.718  1.00 18.16           O
HETATM 4630  O   HOH    84      -8.434  15.892  28.388  1.00 18.16           O
HETATM 4631  O   HOH    85      15.275   1.384  29.450  1.00 18.24           O
HETATM 4632  O   HOH    86     -10.803  -4.310  23.823  1.00 18.40           O
HETATM 4633  O   HOH    87       9.112  15.837   9.830  1.00 18.41           O
HETATM 4634  O   HOH    88       3.819  19.754  29.580  1.00 18.46           O
HETATM 4635  O   HOH    89      -1.728  25.211  20.379  1.00 18.49           O
HETATM 4636  O   HOH    90       2.313   6.689 -11.641  1.00 18.53           O
HETATM 4637  O   HOH    91      33.764 -17.895  26.515  1.00 18.53           O
HETATM 4638  O   HOH    92      -4.088  -7.283  23.273  1.00 18.63           O
HETATM 4639  O   HOH    93      14.338   2.515  33.249  1.00 18.82           O
HETATM 4640  O   HOH    94      -4.891  12.423  31.003  1.00 18.87           O
HETATM 4641  O   HOH    95      -5.922  25.433  10.709  1.00 18.93           O
HETATM 4642  O   HOH    96      15.476  14.188   7.197  1.00 19.01           O
HETATM 4643  O   HOH    97      22.508   3.025 -13.355  1.00 19.01           O
HETATM 4644  O   HOH    98      -5.058  24.811  16.976  1.00 19.13           O
HETATM 4645  O   HOH    99      38.587  12.491  26.598  1.00 19.30           O
HETATM 4646  O   HOH   100     -14.882  -1.983   6.449  1.00 19.39           O
HETATM 4647  O   HOH   101     -10.820   8.486   4.797  1.00 19.40           O
HETATM 4648  O   HOH   102      -9.355   5.734   6.889  1.00 19.41           O
HETATM 4649  O   HOH   103      39.408  -0.099  26.605  1.00 19.43           O
HETATM 4650  O   HOH   104      23.475 -11.553   5.914  1.00 19.56           O
HETATM 4651  O   HOH   105      12.598   6.598  33.457  1.00 19.58           O
HETATM 4652  O   HOH   106      13.377  27.736  18.118  1.00 19.58           O
HETATM 4653  O   HOH   107      19.282  16.249  -8.505  1.00 19.59           O
HETATM 4654  O   HOH   108     -10.336   4.806  -0.260  1.00 19.60           O
HETATM 4655  O   HOH   109       7.438   9.135  13.583  1.00 19.68           O
HETATM 4656  O   HOH   110      -1.977 -15.005   1.594  1.00 19.72           O
HETATM 4657  O   HOH   111      21.916 -13.499   1.033  1.00 19.75           O
HETATM 4658  O   HOH   112      -0.061 -15.926   0.106  1.00 19.76           O
HETATM 4659  O   HOH   113      -7.725  17.427   4.327  1.00 19.78           O
HETATM 4660  O   HOH   114      30.439  15.780  30.555  1.00 19.84           O
HETATM 4661  O   HOH   115      26.273   5.442  -9.371  1.00 19.89           O
HETATM 4662  O   HOH   116      40.380   5.475  24.515  1.00 19.93           O
HETATM 4663  O   HOH   117      36.873 -13.287  29.948  1.00 19.96           O
HETATM 4664  O   HOH   118      28.532 -13.072   3.145  1.00 19.97           O
HETATM 4665  O   HOH   119     -10.053  -0.750  -3.339  1.00 19.98           O
HETATM 4666  O   HOH   120      18.609 -10.806  -4.223  1.00 20.02           O
HETATM 4667  O   HOH   121       3.083 -17.540  12.213  1.00 20.03           O
HETATM 4668  O   HOH   122      13.978  -1.123  -6.551  1.00 20.05           O
HETATM 4669  O   HOH   123      37.299 -15.659  10.739  1.00 20.33           O
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HETATM 4670  O   HOH   124      -3.241  20.638  26.012  1.00 20.33           O
HETATM 4671  O   HOH   125      12.998 -11.192  20.395  1.00 20.39           O
HETATM 4672  O   HOH   126      30.945  14.317  19.859  1.00 20.40           O
HETATM 4673  O   HOH   127      19.190   3.138  24.947  1.00 20.44           O
HETATM 4674  O   HOH   128       4.960   9.247  -8.313  1.00 20.51           O
HETATM 4675  O   HOH   129      44.908 -11.554  15.918  1.00 20.54           O
HETATM 4676  O   HOH   130      40.925  18.422  11.492  1.00 20.55           O
HETATM 4677  O   HOH   131       7.266   9.734  -5.707  1.00 20.58           O
HETATM 4678  O   HOH   132      24.608   4.389  -2.002  1.00 20.67           O
HETATM 4679  O   HOH   133      -3.928  -2.044 -10.384  1.00 20.78           O
HETATM 4680  O   HOH   134       5.843  -0.585  35.771  1.00 20.82           O
HETATM 4681  O   HOH   135       9.018  -3.190  31.315  1.00 20.83           O
HETATM 4682  O   HOH   136      11.899  25.260  26.842  1.00 20.87           O
HETATM 4683  O   HOH   137       7.650 -17.167  -5.738  1.00 20.90           O
HETATM 4684  O   HOH   138      -2.166  -0.740  21.515  1.00 20.96           O
HETATM 4685  O   HOH   139     -13.862  -9.639   6.196  1.00 21.05           O
HETATM 4686  O   HOH   140      11.506  -2.043  -7.628  1.00 21.16           O
HETATM 4687  O   HOH   141      18.903   3.925  18.930  1.00 21.24           O
HETATM 4688  O   HOH   142      23.999  13.702  13.796  1.00 21.26           O
HETATM 4689  O   HOH   143      17.443   3.437  -9.873  1.00 21.34           O
HETATM 4690  O   HOH   144      37.131  17.211   2.361  1.00 21.36           O
HETATM 4691  O   HOH   145      -5.071   4.946 -12.938  1.00 21.50           O
HETATM 4692  O   HOH   146      -8.058  -0.389 -12.421  1.00 21.59           O
HETATM 4693  O   HOH   147       3.066  -7.968  27.474  1.00 21.60           O
HETATM 4694  O   HOH   148      44.292  13.774   8.685  1.00 21.61           O
HETATM 4695  O   HOH   149      -5.512 -18.238  12.217  1.00 21.62           O
HETATM 4696  O   HOH   150      -4.001  23.793  19.485  1.00 21.66           O
HETATM 4697  O   HOH   151      17.573   8.565 -11.306  1.00 21.68           O
HETATM 4698  O   HOH   152      40.458  11.382  19.501  1.00 21.69           O
HETATM 4699  O   HOH   153      29.545 -12.956  32.730  1.00 21.71           O
HETATM 4700  O   HOH   154      27.577 -22.557  18.670  1.00 21.75           O
HETATM 4701  O   HOH   155      43.708 -10.693  18.444  1.00 21.79           O
HETATM 4702  O   HOH   156      36.774  12.041  -2.401  1.00 21.80           O
HETATM 4703  O   HOH   157     -10.381  -0.022  -9.113  1.00 21.85           O
HETATM 4704  O   HOH   158       4.520   0.446 -12.386  1.00 21.86           O
HETATM 4705  O   HOH   159       0.866  24.029  26.639  1.00 21.90           O
HETATM 4706  O   HOH   160      11.867 -12.168   8.249  1.00 21.95           O
HETATM 4707  O   HOH   161      19.838   7.151 -11.270  1.00 22.02           O
HETATM 4708  O   HOH   162      15.181 -15.755  25.338  1.00 22.04           O
HETATM 4709  O   HOH   163      17.454  14.465  16.702  1.00 22.07           O
HETATM 4710  O   HOH   164      12.209  -1.133  20.165  1.00 22.23           O
HETATM 4711  O   HOH   165      40.756   2.031  20.941  1.00 22.28           O
HETATM 4712  O   HOH   166      19.778  19.629   0.888  1.00 22.28           O
HETATM 4713  O   HOH   167      29.617  21.611  -2.439  1.00 22.32           O
HETATM 4714  O   HOH   168      28.911  13.276  21.408  1.00 22.36           O
HETATM 4715  O   HOH   169      17.578  -8.114  -3.754  1.00 22.39           O
HETATM 4716  O   HOH   170      -6.759  21.820   7.432  1.00 22.43           O
HETATM 4717  O   HOH   171      23.437   6.324  11.324  1.00 22.51           O
HETATM 4718  O   HOH   172      19.344  -7.038  -6.613  1.00 22.57           O
HETATM 4719  O   HOH   173       3.708   7.419  13.019  1.00 22.65           O
HETATM 4720  O   HOH   174      23.989 -10.659   8.340  1.00 22.70           O
HETATM 4721  O   HOH   175       6.063   7.023  -9.236  1.00 22.71           O
HETATM 4722  O   HOH   176      41.976  17.927   9.196  1.00 22.73           O
HETATM 4723  O   HOH   177     -14.405  14.470  13.631  1.00 22.74           O
HETATM 4724  O   HOH   178      17.089  14.630  -9.249  1.00 22.75           O
HETATM 4725  O   HOH   179      23.089  19.480  25.620  1.00 22.83           O
HETATM 4726  O   HOH   180       8.437   9.420 -11.135  1.00 22.88           O
HETATM 4727  O   HOH   181      15.751  10.859  16.746  1.00 22.88           O
HETATM 4728  O   HOH   182      20.192 -16.654  30.445  1.00 22.95           O
HETATM 4729  O   HOH   183      -2.501  19.324   2.684  1.00 22.97           O
HETATM 4730  O   HOH   184      38.135   6.994  34.509  1.00 22.97           O
HETATM 4731  O   HOH   185      16.664  19.061  32.941  1.00 22.99           O
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HETATM 4732  O   HOH   186       6.248   7.091  41.579  1.00 22.99           O
HETATM 4733  O   HOH   187       5.742  -4.660  16.740  1.00 23.06           O
HETATM 4734  O   HOH   188     -14.556   8.182  21.039  1.00 23.09           O
HETATM 4735  O   HOH   189       7.739  11.679  -3.689  1.00 23.16           O
HETATM 4736  O   HOH   190      21.970   7.220   9.064  1.00 23.18           O
HETATM 4737  O   HOH   191      21.374 -13.730  36.116  1.00 23.24           O
HETATM 4738  O   HOH   192     -10.943  11.038   4.876  1.00 23.26           O
HETATM 4739  O   HOH   193      25.550  21.454   7.814  1.00 23.27           O
HETATM 4740  O   HOH   194      -6.030  18.727  27.819  1.00 23.31           O
HETATM 4741  O   HOH   195      48.323   7.530  10.277  1.00 23.32           O
HETATM 4742  O   HOH   196      24.654  17.793  -4.269  1.00 23.34           O
HETATM 4743  O   HOH   197      -5.932  16.506  -3.120  1.00 23.35           O
HETATM 4744  O   HOH   198       0.973  -6.379  27.373  1.00 23.36           O
HETATM 4745  O   HOH   199      21.907   0.464  37.785  1.00 23.39           O
HETATM 4746  O   HOH   200      34.779   3.923  38.936  1.00 23.46           O
HETATM 4747  O   HOH   201      15.604  -2.913   6.612  1.00 23.47           O
HETATM 4748  O   HOH   202      10.742   4.300   6.946  1.00 23.55           O
HETATM 4749  O   HOH   203       1.362  11.471 -10.771  1.00 23.70           O
HETATM 4750  O   HOH   204      29.942 -16.472   4.018  1.00 23.78           O
HETATM 4751  O   HOH   205      26.446   3.618  12.624  1.00 23.85           O
HETATM 4752  O   HOH   206      33.450  -8.087  35.924  1.00 23.97           O
HETATM 4753  O   HOH   207     -13.788 -12.070   8.001  1.00 24.01           O
HETATM 4754  O   HOH   208     -13.751  -3.545  20.738  1.00 24.01           O
HETATM 4755  O   HOH   209      43.625 -16.073  21.794  1.00 24.03           O
HETATM 4756  O   HOH   210      18.109 -19.251  30.715  1.00 24.07           O
HETATM 4757  O   HOH   211      30.785  -4.976  37.488  1.00 24.15           O
HETATM 4758  O   HOH   212     -13.771 -13.673  17.326  1.00 24.17           O
HETATM 4759  O   HOH   213       6.702  11.084  38.389  1.00 24.18           O
HETATM 4760  O   HOH   214     -17.647  -0.639   8.275  1.00 24.22           O
HETATM 4761  O   HOH   215     -15.408   6.397  18.032  1.00 24.23           O
HETATM 4762  O   HOH   216      28.752   7.538  40.681  1.00 24.23           O
HETATM 4763  O   HOH   217       2.269  -5.712   7.266  1.00 24.35           O
HETATM 4764  O   HOH   218      -7.066  -1.315  35.463  1.00 24.44           O
HETATM 4765  O   HOH   219       1.814  -5.828  19.937  1.00 24.51           O
HETATM 4766  O   HOH   220       7.037  -5.273  32.199  1.00 24.54           O
HETATM 4767  O   HOH   221       3.759   8.760  41.003  1.00 24.59           O
HETATM 4768  O   HOH   222      30.515  -6.179 -13.384  1.00 24.62           O
HETATM 4769  O   HOH   223       8.880  10.005  15.607  1.00 24.63           O
HETATM 4770  O   HOH   224      -9.641 -13.798   6.767  1.00 24.66           O
HETATM 4771  O   HOH   225      11.047  -7.529  23.004  1.00 24.79           O
HETATM 4772  O   HOH   226      23.834  -7.842  20.792  1.00 24.82           O
HETATM 4773  O   HOH   227      -5.391 -11.233  -3.458  1.00 24.83           O
HETATM 4774  O   HOH   228      29.772 -11.013 -12.988  1.00 24.90           O
HETATM 4775  O   HOH   229      -8.092  -6.063  -7.825  1.00 24.91           O
HETATM 4776  O   HOH   230      49.523   5.789   6.541  1.00 25.10           O
HETATM 4777  O   HOH   231     -11.791   6.339  24.156  1.00 25.11           O
HETATM 4778  O   HOH   232      33.333 -15.993  29.691  1.00 25.11           O
HETATM 4779  O   HOH   233      33.511 -19.289  20.048  1.00 25.16           O
HETATM 4780  O   HOH   234      18.065  20.018   2.578  1.00 25.27           O
HETATM 4781  O   HOH   235      21.737  11.279  18.130  1.00 25.28           O
HETATM 4782  O   HOH   236      24.543   8.222  34.436  1.00 25.46           O
HETATM 4783  O   HOH   237      21.946   8.207 -10.109  1.00 25.51           O
HETATM 4784  O   HOH   238      33.472  21.318  20.361  1.00 25.52           O
HETATM 4785  O   HOH   239      41.809   4.219  20.120  1.00 25.53           O
HETATM 4786  O   HOH   240      -7.444   8.365  28.415  1.00 25.55           O
HETATM 4787  O   HOH   241     -12.767 -12.638  10.536  1.00 25.58           O
HETATM 4788  O   HOH   242      11.576  14.340   4.651  1.00 25.58           O
HETATM 4789  O   HOH   243      39.370 -13.227   7.688  1.00 25.59           O
HETATM 4790  O   HOH   244       2.300  17.036   3.834  1.00 25.61           O
HETATM 4791  O   HOH   245       1.978  12.622  -4.439  1.00 25.64           O
HETATM 4792  O   HOH   246      -3.670  -0.960  29.918  1.00 25.65           O
HETATM 4793  O   HOH   247      -4.535  -5.745  27.542  1.00 25.81           O
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HETATM 4794  O   HOH   248      34.261  15.424  -3.958  1.00 25.83           O
HETATM 4795  O   HOH   249       5.474 -18.441  10.833  1.00 25.90           O
HETATM 4796  O   HOH   250      42.945  18.100  13.309  1.00 25.97           O
HETATM 4797  O   HOH   251      25.188 -14.479   4.631  1.00 26.08           O
HETATM 4798  O   HOH   252     -10.158 -13.880   9.628  1.00 26.16           O
HETATM 4799  O   HOH   253      22.703 -16.117   4.538  1.00 26.22           O
HETATM 4800  O   HOH   254       1.587  13.413  -0.025  1.00 26.32           O
HETATM 4801  O   HOH   255      -0.114 -19.390   0.773  1.00 26.36           O
HETATM 4802  O   HOH   256     -14.702  -8.174   2.193  1.00 26.37           O
HETATM 4803  O   HOH   257       9.085  22.889  29.167  1.00 26.41           O
HETATM 4804  O   HOH   258     -14.088  10.722  19.943  1.00 26.43           O
HETATM 4805  O   HOH   259      -8.184   4.541  -2.146  1.00 26.50           O
HETATM 4806  O   HOH   260     -12.799 -11.149   4.524  1.00 26.57           O
HETATM 4807  O   HOH   261      41.251 -18.738  15.968  1.00 26.57           O
HETATM 4808  O   HOH   262     -11.167   2.382  -0.662  1.00 26.58           O
HETATM 4809  O   HOH   263      28.339  15.758  -3.812  1.00 26.62           O
HETATM 4810  O   HOH   264      17.172 -19.940  19.826  1.00 26.66           O
HETATM 4811  O   HOH   265     -14.261   0.541   5.070  1.00 26.68           O
HETATM 4812  O   HOH   266      18.080  20.467   5.477  1.00 26.79           O
HETATM 4813  O   HOH   267     -10.784  12.340   2.394  1.00 26.80           O
HETATM 4814  O   HOH   268       4.733  12.698  34.347  1.00 26.82           O
HETATM 4815  O   HOH   269      30.246  11.485  35.378  1.00 26.82           O
HETATM 4816  O   HOH   270      41.964   5.974  22.424  1.00 26.85           O
HETATM 4817  O   HOH   271      17.703   0.805   9.539  1.00 26.95           O
HETATM 4818  O   HOH   272       6.281 -21.599  -4.474  1.00 27.04           O
HETATM 4819  O   HOH   273      -6.031  20.988  21.808  1.00 27.05           O
HETATM 4820  O   HOH   274      25.937 -17.165  28.274  1.00 27.06           O
HETATM 4821  O   HOH   275      35.138   6.874  38.837  1.00 27.12           O
HETATM 4822  O   HOH   276       8.306  -4.109  -8.883  1.00 27.12           O
HETATM 4823  O   HOH   277      20.676  -8.296   8.345  1.00 27.13           O
HETATM 4824  O   HOH   278      41.080   6.518  29.414  1.00 27.16           O
HETATM 4825  O   HOH   279      20.927   5.876  17.641  1.00 27.19           O
HETATM 4826  O   HOH   280      39.817  16.591   5.381  1.00 27.20           O
HETATM 4827  O   HOH   281      14.630 -11.775  36.913  1.00 27.21           O
HETATM 4828  O   HOH   282      39.354  -2.708  27.520  1.00 27.21           O
HETATM 4829  O   HOH   283      26.146 -20.094  27.753  1.00 27.22           O
HETATM 4830  O   HOH   284      28.167  -4.849  36.722  1.00 27.40           O
HETATM 4831  O   HOH   285       4.963 -21.397   8.827  1.00 27.42           O
HETATM 4832  O   HOH   286      24.401  10.676  30.267  1.00 27.43           O
HETATM 4833  O   HOH   287       1.638  -1.923  36.068  1.00 27.44           O
HETATM 4834  O   HOH   288      24.083  -9.010  -9.027  1.00 27.47           O
HETATM 4835  O   HOH   289       4.148  -1.521 -10.512  1.00 27.51           O
HETATM 4836  O   HOH   290      21.341  14.020  19.341  1.00 27.51           O
HETATM 4837  O   HOH   291     -10.954 -18.044  21.433  1.00 27.53           O
HETATM 4838  O   HOH   292      14.684  -9.862   5.081  1.00 27.55           O
HETATM 4839  O   HOH   293       8.030   6.665   9.890  1.00 27.70           O
HETATM 4840  O   HOH   294     -10.258  11.346  -4.295  1.00 27.82           O
HETATM 4841  O   HOH   295     -12.206  11.817   6.980  1.00 27.86           O
HETATM 4842  O   HOH   296      24.681   1.082 -14.206  1.00 27.87           O
HETATM 4843  O   HOH   297       4.861 -15.330  12.975  1.00 27.91           O
HETATM 4844  O   HOH   298      29.778  12.120  -6.148  1.00 27.93           O
HETATM 4845  O   HOH   299      16.573  26.302  21.094  1.00 27.95           O
HETATM 4846  O   HOH   300      -8.062   8.930  37.671  1.00 28.04           O
HETATM 4847  O   HOH   301      29.245  -7.257   5.765  1.00 28.05           O
HETATM 4848  O   HOH   302      -5.534   9.436  41.845  1.00 28.06           O
HETATM 4849  O   HOH   303      21.851   7.301  13.527  1.00 28.14           O
HETATM 4850  O   HOH   304     -18.293   0.335   5.320  1.00 28.17           O
HETATM 4851  O   HOH   305      40.913  -4.423   2.557  1.00 28.33           O
HETATM 4852  O   HOH   306      36.499 -22.394  12.999  1.00 28.36           O
HETATM 4853  O   HOH   307      11.512  13.712  35.508  1.00 28.50           O
HETATM 4854  O   HOH   308      23.477 -24.538  19.709  1.00 28.68           O
HETATM 4855  O   HOH   309      38.477  -7.732   2.158  1.00 28.72           O
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HETATM 4856  O   HOH   310      -5.733  23.631  21.314  1.00 28.81           O
HETATM 4857  O   HOH   311       2.976  -8.600  31.521  1.00 28.88           O
HETATM 4858  O   HOH   312     -14.250  -7.034   0.067  1.00 28.91           O
HETATM 4859  O   HOH   313      16.820 -11.717  -6.118  1.00 29.15           O
HETATM 4860  O   HOH   314      -9.443   5.745  35.984  1.00 29.18           O
HETATM 4861  O   HOH   315       9.239  13.120   8.454  1.00 29.33           O
HETATM 4862  O   HOH   316      30.692  11.163  23.799  1.00 29.42           O
HETATM 4863  O   HOH   317      -8.333   9.353  30.476  1.00 29.52           O
HETATM 4864  O   HOH   318      -3.801 -15.339  -0.535  1.00 29.54           O
HETATM 4865  O   HOH   319      37.040  -1.835  -2.220  1.00 29.60           O
HETATM 4866  O   HOH   320      28.181 -18.546   3.976  1.00 29.72           O
HETATM 4867  O   HOH   321      12.897 -17.025  25.702  1.00 29.77           O
HETATM 4868  O   HOH   322      -0.312  -6.022  25.279  1.00 29.78           O
HETATM 4869  O   HOH   323      20.854  -7.699  10.954  1.00 29.78           O
HETATM 4870  O   HOH   324      16.548  21.436  19.590  1.00 29.78           O
HETATM 4871  O   HOH   325      28.305   2.934 -11.257  1.00 29.81           O
HETATM 4872  O   HOH   326      21.475  13.775  12.417  1.00 29.82           O
HETATM 4873  O   HOH   327       0.331  -7.602  -9.503  1.00 29.84           O
HETATM 4874  O   HOH   328       7.897  -5.704  21.090  1.00 29.87           O
HETATM 4875  O   HOH   329       7.176   9.051  10.252  1.00 30.01           O
HETATM 4876  O   HOH   330       8.403  -6.610  34.347  1.00 30.05           O
HETATM 4877  O   HOH   331      32.594   6.534 -10.598  1.00 30.08           O
HETATM 4878  O   HOH   332      40.159  21.028  11.227  1.00 30.10           O
HETATM 4879  O   HOH   333      -8.522  14.094  -8.388  1.00 30.10           O
HETATM 4880  O   HOH   334      21.468 -14.667  -2.972  1.00 30.13           O
HETATM 4881  O   HOH   335      10.008  24.702  14.312  1.00 30.29           O
HETATM 4882  O   HOH   336      36.752  15.108  20.462  1.00 30.31           O
HETATM 4883  O   HOH   337      26.975  18.360  19.891  1.00 30.41           O
HETATM 4884  O   HOH   338      39.602 -15.589  11.520  1.00 30.46           O
HETATM 4885  O   HOH   339      20.196  18.812  31.898  1.00 30.48           O
HETATM 4886  O   HOH   340       6.212   4.797  42.924  1.00 30.49           O
HETATM 4887  O   HOH   341      33.938  -9.974   0.141  1.00 30.50           O
HETATM 4888  O   HOH   342      37.754  -3.242  36.195  1.00 30.59           O
HETATM 4889  O   HOH   343       5.271  -3.188  12.865  1.00 30.60           O
HETATM 4890  O   HOH   344      28.877  17.704  21.681  1.00 30.76           O
HETATM 4891  O   HOH   345      14.496 -17.031  -1.359  1.00 30.76           O
HETATM 4892  O   HOH   346      14.980  -0.054  -8.641  1.00 30.77           O
HETATM 4893  O   HOH   347      -3.207  -5.758  25.232  1.00 30.80           O
HETATM 4894  O   HOH   348       9.059  -3.439  35.081  1.00 30.83           O
HETATM 4895  O   HOH   349      -2.234  -1.882 -12.693  1.00 30.90           O
HETATM 4896  O   HOH   350      34.470 -20.500   7.093  1.00 30.94           O
HETATM 4897  O   HOH   351       6.962  27.955  25.110  1.00 30.94           O
HETATM 4898  O   HOH   352       7.659  -4.647  12.730  1.00 31.10           O
HETATM 4899  O   HOH   353     -12.020  15.181  19.650  1.00 31.15           O
HETATM 4900  O   HOH   354      36.082 -13.572   4.526  1.00 31.32           O
HETATM 4901  O   HOH   355       0.500  -2.103  29.942  1.00 31.33           O
HETATM 4902  O   HOH   356      -0.421  15.234   1.257  1.00 31.42           O
HETATM 4903  O   HOH   357      25.973  -9.293  -2.628  1.00 31.45           O
HETATM 4904  O   HOH   358      40.238   4.045  -4.113  1.00 31.46           O
HETATM 4905  O   HOH   359      17.637  23.890  21.468  1.00 31.62           O
HETATM 4906  O   HOH   360      35.135  -3.706  -2.723  1.00 31.76           O
HETATM 4907  O   HOH   361      -9.715 -13.697   3.223  1.00 31.78           O
HETATM 4908  O   HOH   362       8.756 -20.852   4.992  1.00 31.79           O
HETATM 4909  O   HOH   363      19.807 -19.744  18.102  1.00 31.99           O
HETATM 4910  O   HOH   364      11.556  15.217  11.249  1.00 32.02           O
HETATM 4911  O   HOH   365      22.486 -19.912  13.192  1.00 32.03           O
HETATM 4912  O   HOH   366      22.959 -13.874  39.353  1.00 32.06           O
HETATM 4913  O   HOH   367      45.201 -12.628  13.128  1.00 32.07           O
HETATM 4914  O   HOH   368      15.769 -13.759  35.709  1.00 32.27           O
HETATM 4915  O   HOH   369      12.963   4.902  -8.711  1.00 32.51           O
HETATM 4916  O   HOH   370      32.641  12.167  22.550  1.00 32.52           O
HETATM 4917  O   HOH   371      35.968  -7.517  37.101  1.00 32.66           O
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HETATM 4918  O   HOH   372      12.102  -6.024  21.016  1.00 32.76           O
HETATM 4919  O   HOH   373      -5.022   7.739 -13.189  1.00 32.86           O
HETATM 4920  O   HOH   374      -3.985  11.985  37.354  1.00 32.93           O
HETATM 4921  O   HOH   375       2.690   3.307  41.496  1.00 32.95           O
HETATM 4922  O   HOH   376      22.748   2.507  13.478  1.00 33.01           O
HETATM 4923  O   HOH   377      31.590 -20.571  18.690  1.00 33.03           O
HETATM 4924  O   HOH   378      10.435  12.139   6.162  1.00 33.18           O
HETATM 4925  O   HOH   379      20.751 -14.203   3.082  1.00 33.19           O
HETATM 4926  O   HOH   380      -1.195   0.035  28.958  1.00 33.31           O
HETATM 4927  O   HOH   381      -4.936  -2.935  32.882  1.00 33.43           O
HETATM 4928  O   HOH   382       6.684  22.248  26.315  1.00 33.60           O
HETATM 4929  O   HOH   383      -9.869  23.059  14.338  1.00 33.64           O
HETATM 4930  O   HOH   384       5.672  19.525  31.357  1.00 33.77           O
HETATM 4931  O   HOH   385       4.459   1.422  41.194  1.00 33.79           O
HETATM 4932  O   HOH   386      44.906 -11.930  28.865  1.00 33.83           O
HETATM 4933  O   HOH   387      -7.077  -0.596  27.450  1.00 33.91           O
HETATM 4934  O   HOH   388      26.020 -26.843   4.154  1.00 33.93           O
HETATM 4935  O   HOH   389      40.872  -6.978   2.351  1.00 34.00           O
HETATM 4936  O   HOH   390       4.052  15.185   2.551  1.00 34.15           O
HETATM 4937  O   HOH   391      13.039 -19.653  25.111  1.00 34.32           O
HETATM 4938  O   HOH   392       3.968  -9.475  25.588  1.00 34.62           O
HETATM 4939  O   HOH   393      38.942  -0.792  19.430  1.00 34.64           O
HETATM 4940  O   HOH   394      -2.634  -4.839  -9.413  1.00 34.69           O
HETATM 4941  O   HOH   395      38.637  15.461   3.221  1.00 34.69           O
HETATM 4942  O   HOH   396      38.591 -22.476  17.080  1.00 34.69           O
HETATM 4943  O   HOH   397      38.741  17.887   0.586  1.00 34.74           O
HETATM 4944  O   HOH   398      -4.526 -10.735  25.688  1.00 34.76           O
HETATM 4945  O   HOH   399     -10.501 -10.365  -0.060  1.00 34.99           O
HETATM 4946  O   HOH   400       0.824  28.191  10.790  1.00 35.00           O
HETATM 4947  O   HOH   401      -9.702 -12.782  -0.848  1.00 35.14           O
HETATM 4948  O   HOH   402      39.147  13.084  31.467  1.00 35.21           O
HETATM 4949  O   HOH   403      35.116 -11.584  30.296  1.00 35.34           O
HETATM 4950  O   HOH   404      23.349  -3.065  12.444  1.00 35.54           O
HETATM 4951  O   HOH   405      37.995  18.837   4.300  1.00 35.63           O
HETATM 4952  O   HOH   406     -12.088   2.178   4.711  1.00 35.74           O
HETATM 4953  O   HOH   407      -2.490 -12.136  -7.409  1.00 35.79           O
HETATM 4954  O   HOH   408      17.154 -10.061   4.747  1.00 35.79           O
HETATM 4955  O   HOH   409       3.818  22.128  28.539  1.00 35.85           O
HETATM 4956  O   HOH   410      32.150  16.032  28.180  1.00 36.04           O
HETATM 4957  O   HOH   411       8.288  -7.251  23.522  1.00 36.54           O
HETATM 4958  O   HOH   412      -7.653  25.898  12.787  1.00 36.61           O
HETATM 4959  O   HOH   413      26.388   2.748 -12.897  1.00 36.71           O
HETATM 4960  O   HOH   414       9.840 -24.145   5.799  1.00 36.76           O
HETATM 4961  O   HOH   415       4.112  -4.741  33.155  1.00 36.87           O
HETATM 4962  O   HOH   416      42.321 -14.637  23.383  1.00 37.06           O
HETATM 4963  O   HOH   417      21.953   4.670  15.393  1.00 37.58           O
HETATM 4964  O   HOH   418      46.461 -14.996  13.799  1.00 37.67           O
HETATM 4965  O   HOH   419      26.866  13.174  27.590  1.00 37.74           O
HETATM 4966  O   HOH   420     -15.418  10.434  17.475  1.00 38.20           O
HETATM 4967  O   HOH   421       3.048  14.020  -1.960  1.00 38.26           O
HETATM 4968  O   HOH   422      47.297  -5.917  16.894  1.00 38.43           O
HETATM 4969  O   HOH   423      42.287  10.305  16.060  1.00 38.74           O
HETATM 4970  O   HOH   424      18.381  -9.110   6.787  1.00 38.76           O
HETATM 4971  O   HOH   425      26.319  -6.880  40.402  1.00 38.83           O
HETATM 4972  O   HOH   426      12.438   8.580  35.294  1.00 38.86           O
HETATM 4973  O   HOH   427      24.921  17.648  23.880  1.00 39.02           O
HETATM 4974  O   HOH   428       6.283   2.453  14.189  1.00 39.27           O
HETATM 4975  O   HOH   429      22.890  11.386  15.474  1.00 39.40           O
HETATM 4976  O   HOH   430      -8.671 -14.516  11.821  1.00 39.68           O
HETATM 4977  O   HOH   431      22.422  -1.332  12.018  1.00 39.82           O
HETATM 4978  O   HOH   432      21.859   4.717 -14.927  1.00 40.36           O
HETATM 4979  O   HOH   433      -3.173 -17.557   3.043  1.00 40.67           O
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HETATM 4980  O   HOH   434      44.593  -4.564  17.415  1.00 40.70           O
HETATM 4981  O   HOH   435       0.272  13.268  -2.580  1.00 40.93           O
HETATM 4982  O   HOH   436      21.612  16.902  12.337  1.00 45.19           O
HETATM 4983  O   HOH   437      10.163  -0.532  -9.010  1.00 45.70           O
HETATM 4984  O   HOH   438      38.328  -1.988 -12.290  1.00 46.50           O
HETATM 4985  O   HOH   439      24.444 -26.006  28.830  1.00 46.66           O
HETATM 4986  O   HOH   440      24.710  19.444  11.710  1.00 52.26           O
HETATM 4987  O  AHOH   441     -19.361  -3.877   3.072  0.50 10.96           O
HETATM 4988  O  BHOH   441     -19.080  -2.904   5.076  0.50  8.43           O
HETATM 4989  O  AHOH   442      -2.884   2.989  31.217  0.50 12.42           O
HETATM 4990  O  BHOH   442      -4.515   3.836  31.026  0.50  9.80           O
HETATM 4991  O  AHOH   443       9.408  22.850   9.798  0.50 12.36           O
HETATM 4992  O  BHOH   443      10.139  21.424  10.908  0.50 19.56           O
HETATM 4993  O  AHOH   444      17.851   2.939  35.640  0.40 35.17           O
HETATM 4994  O  BHOH   444      16.286   1.723  35.398  0.60 24.69           O
HETATM 4995  O   HOH   445       5.352  -4.875  19.245  0.50 14.77           O
HETATM 4996  O   HOH   446      30.303  11.256  28.629  0.50 15.85           O
HETATM 4997  O   HOH   447      -9.594   8.470  25.651  0.50 17.81           O
HETATM 4998  O   HOH   448       4.689   4.109  10.312  0.50 20.14           O
HETATM 4999  O   HOH   449      31.495  11.176  27.006  0.50 24.73           O
HETATM 5000  O   HOH   450      13.084  -2.992   7.294  0.50 27.43           O
HETATM 5001  O   HOH   451      29.951  12.820  27.412  0.50 35.69           O
CONECT  650  648  649 1071
CONECT 1071  650 1076 1087 1095
CONECT 1071 1103
CONECT 1072 1077 1107
CONECT 1073 1080 1088
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CONECT 1075 1099 1104
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CONECT 1107 1072 1103 1106
CONECT 1108 1105
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CONECT 4530 4529 4531 4533
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select carbon
color green
select phosphorus
color magenta
select chlorine
color [153,255,102]
select not hetero and not nucleic and not protein and not water and not ligand
wireframe 50
select all
background [255,255,255]
set hydrogen off
restrict not water
rotate z 180
set transparent on
select protein or dna or rna
backbone dash
color backbone [153, 153, 153]
define prev selected
select prev and (helix or sheet)
cartoon
select prev and not (helix or sheet)
trace 100
select prev
color cartoon [153, 153, 153]
```

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select turn
color ribbons [255,255,0]
color backbone [255,255,0]
select helix
color ribbons [255,0,0]
color backbone [255,0,0]
select sheet
color ribbons [0,0,255]
color backbone [0,0,255]
select hetero and not water and not ligand
dots 300
select ligand
cpk
select (a,t,g,c,u,i)
trace on
wireframe on
select purine and a and not backbone
color red
select purine and g and not backbone
color green
select not protein and i and not backbone
color cyan
select pyrimidine and t and not backbone
color yellow
select not protein and u and not backbone
color magenta
select pyrimidine and c and not backbone
color blue
select (a,t,g,c,u,i) and *a and backbone
color trace green
select (a,t,g,c,u,i) and *b and backbone
color trace [255,0,255]
select (a,t,g,c,u,i) and *c and backbone
color trace [0,102,0]
select (a,t,g,c,u,i) and *d and backbone
color trace [255,0,102]
select all
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move 180 180 0 0 0 0 0 0 15
move 0 180 180 0 0 0 0 0 15
show info
select protein or dna or rna
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