Supporting Information

How Mitogen-Activated Protein Kinases Recognize and Phosphorylate Their Targets: A QM/MM Study

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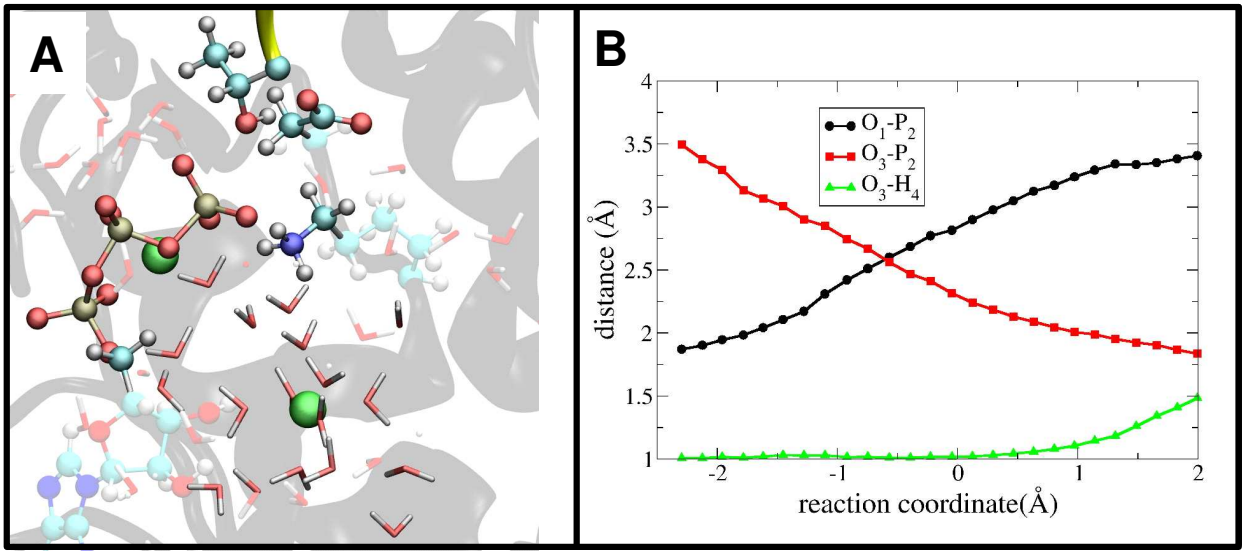

S1 (A) The structure of the system with one Mg in the active site and the second one in the solvent. The quantum subsystem is depicted in ball and stick rendering, the first solvation shell of the second Mg is shown with stick rendering and the rest of the complex is shown as background. (B) The change of relevant bond distances as a function of the reaction coordinate for the system shown in (A).

Structure of ERK2-pp with ATP, Mg and target peptide used for the QM/MM calculations

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ATOM      1  C   STO A   1      16.228  10.123   8.941
ATOM      2  H   STO A   2      16.929   9.617   8.232
ATOM      3  H   STO A   3      15.590   9.327   9.393
ATOM      4  C   STO A   4      15.389  11.101   8.076
ATOM      5  O   STO A   5      15.733  12.343   8.095
ATOM      6  O   STO A   6      14.449  10.590   7.368
ATOM      7  C   STO A   7      11.654  12.463   8.518
ATOM      8  H   STO A   8      11.689  13.277   7.757
ATOM      9  H   STO A   9      12.522  11.788   8.336
ATOM     10  N   STO A  10      10.403  11.675   8.302
ATOM     11  H   STO A  11       9.532  12.114   8.658
ATOM     12  H   STO A  12      10.293  11.536   7.275
ATOM     13  H   STO A  13      10.449  10.656   8.635
ATOM     14  O   STO A  14       9.045   9.272   6.420
ATOM     15  P   STO A  15       9.667   8.250   7.371
ATOM     16  O   STO A  16      10.377   8.950   8.609
ATOM     17  O   STO A  17      10.518   7.075   6.805
ATOM     18  O   STO A  18       8.395   7.469   8.361
ATOM     19  P   STO A  19       7.794   5.895   8.095
ATOM     20  O   STO A  20       7.228   5.820   6.687
ATOM     21  O   STO A  21       8.939   4.916   8.490
ATOM     22  O   STO A  22       6.673   5.793   9.299
ATOM     23  P   STO A  23       7.143   5.832  10.969
ATOM     24  O   STO A  24       7.231   4.450  11.591
ATOM     25  O   STO A  25       8.336   6.833  11.131
ATOM     26  O   STO A  26       5.816   6.575  11.549
ATOM     27  C   STO A  27       5.189   7.588  10.736
ATOM     28  H   STO A  28       4.726   7.117   9.833
ATOM     29  H   STO A  29       5.912   8.374  10.402
ATOM     30  Mg  STO A  30       9.712   7.641  10.028
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ATOM     33  H   STO A  33      11.263  10.189   4.375
ATOM     34  C   STO A  34      13.052   9.105   4.932
ATOM     35  H   STO A  35      14.087   9.283   5.320
ATOM     36  H   STO A  36      12.511   8.485   5.690
ATOM     37  H   STO A  37      13.068   8.515   3.979
ATOM     38  O   STO A  38      12.100  11.034   6.058
ATOM     39  H   STO A  39      13.002  11.024   6.519
ATOM     40  H   STO A  40       4.389   8.015  11.341
ATOM     41  H   STO A  41      11.796  12.897   9.508
ATOM     42  H   STO A  42      16.835  10.614   9.701
ATOM     43  H   STO A  43      12.710  11.175   4.108
ATOM     44  N   NALAA   1     -17.569 -11.621  12.718
ATOM     45  H1  NALAA   1     -18.388 -12.182  12.915
ATOM     46  H2  NALAA   1     -17.676 -11.171  11.816
ATOM     47  H3  NALAA   1     -17.490 -10.901  13.426
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ATOM     49  HA  NALAA   1     -16.263 -12.942  13.687
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ATOM     51  HB1 NALAA   1     -15.572 -14.190  11.670
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ATOM     53  HB3 NALAA   1     -16.600 -13.152  10.663
ATOM     54  C   NALAA   1     -15.107 -11.623  12.471
ATOM     55  O   NALAA   1     -15.007 -10.983  11.429
ATOM     56  N   ALA A   2     -14.148 -11.617  13.402
ATOM     57  H   ALA A   2     -14.261 -12.196  14.227
ATOM     58  CA  ALA A   2     -12.872 -10.914  13.243
ATOM     59  HA  ALA A   2     -13.067  -9.945  12.778
ATOM     60  CB  ALA A   2     -12.267 -10.657  14.631
ATOM     61  HB1 ALA A   2     -11.341 -10.087  14.530
ATOM     62  HB2 ALA A   2     -12.966 -10.079  15.238
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ATOM     77  CG  PRO A   4      -9.238 -12.224   6.292
ATOM     78  HG2 PRO A   4     -10.247 -12.216   5.874
ATOM     79  HG3 PRO A   4      -8.659 -13.059   5.895
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ATOM     82  HB3 PRO A   4      -7.481 -11.003   6.127
ATOM     83  CA  PRO A   4      -9.079  -9.989   7.162
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ATOM    109  CG  MET A   6      -9.942  -2.417   1.535
ATOM    110  HG2 MET A   6      -9.829  -1.530   2.155
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ATOM    123  CB  VAL A   7      -7.796  -0.929   6.813
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ATOM    147  HD3 ARG A   8      -8.600   5.192   3.011
ATOM    148  NE  ARG A   8      -7.931   6.417   4.592
ATOM    149  HE  ARG A   8      -8.745   6.140   5.138
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ATOM    153  HH12ARG A   8      -5.760   8.807   4.655
ATOM    154  NH2 ARG A   8      -7.663   8.141   6.081
ATOM    155  HH21ARG A   8      -8.399   7.761   6.661
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ATOM    164  C   GLY A   9      -6.762  -0.667   0.000
ATOM    165  O   GLY A   9      -6.319  -1.062  -1.077
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ATOM    168  CA  GLN A  10      -5.570  -2.436   1.269
ATOM    169  HA  GLN A  10      -5.512  -2.927   0.297
ATOM    170  CB  GLN A  10      -4.141  -2.118   1.750
ATOM    171  HB2 GLN A  10      -4.189  -1.580   2.698
ATOM    172  HB3 GLN A  10      -3.615  -3.060   1.916
ATOM    173  CG  GLN A  10      -3.345  -1.282   0.732
ATOM    174  HG2 GLN A  10      -3.381  -1.762  -0.246
ATOM    175  HG3 GLN A  10      -3.810  -0.300   0.645
ATOM    176  CD  GLN A  10      -1.875  -1.102   1.120
ATOM    177  OE1 GLN A  10      -1.183  -2.031   1.532
ATOM    178  NE2 GLN A  10      -1.343   0.098   1.017
ATOM    179  HE21GLN A  10      -0.366   0.203   1.219
ATOM    180  HE22GLN A  10      -1.919   0.894   0.757
ATOM    181  C   GLN A  10      -6.250  -3.403   2.247
ATOM    182  O   GLN A  10      -6.926  -2.962   3.174
ATOM    183  N   VAL A  11      -6.068  -4.715   2.065
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ATOM    185  CA  VAL A  11      -6.534  -5.736   3.021
ATOM    186  HA  VAL A  11      -7.504  -5.429   3.408
ATOM    187  CB  VAL A  11      -6.724  -7.120   2.357
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ATOM    189  CG1 VAL A  11      -7.134  -8.209   3.368
ATOM    190  HG11VAL A  11      -6.337  -8.378   4.092
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ATOM    202  HA  PHE A  12      -4.254  -5.849   6.461
ATOM    203  CB  PHE A  12      -5.718  -4.704   7.565
ATOM    204  HB2 PHE A  12      -6.178  -3.925   6.954
ATOM    205  HB3 PHE A  12      -6.486  -5.018   8.274
ATOM    206  CG  PHE A  12      -4.564  -4.074   8.320
ATOM    207  CD1 PHE A  12      -3.911  -2.944   7.789
ATOM    208  HD1 PHE A  12      -4.230  -2.526   6.844
ATOM    209  CE1 PHE A  12      -2.841  -2.356   8.485
ATOM    210  HE1 PHE A  12      -2.339  -1.491   8.074
ATOM    211  CZ  PHE A  12      -2.431  -2.877   9.724
ATOM    212  HZ  PHE A  12      -1.619  -2.408  10.264
ATOM    213  CE2 PHE A  12      -3.077  -4.007  10.254
ATOM    214  HE2 PHE A  12      -2.756  -4.418  11.200
ATOM    215  CD2 PHE A  12      -4.137  -4.609   9.550
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ATOM    217  C   PHE A  12      -5.648  -7.244   7.331
ATOM    218  O   PHE A  12      -6.820  -7.580   7.472
ATOM    219  N   ASP A  13      -4.634  -8.020   7.735
ATOM    220  H   ASP A  13      -3.688  -7.695   7.584
ATOM    221  CA  ASP A  13      -4.789  -9.403   8.220
ATOM    222  HA  ASP A  13      -5.788  -9.531   8.638
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ATOM    223  CB  ASP A  13      -4.656 -10.358   7.015
ATOM    224  HB2 ASP A  13      -5.379 -10.054   6.257
ATOM    225  HB3 ASP A  13      -3.662 -10.241   6.579
ATOM    226  CG  ASP A  13      -4.875 -11.849   7.318
ATOM    227  OD1 ASP A  13      -5.062 -12.625   6.361
ATOM    228  OD2 ASP A  13      -4.751 -12.295   8.486
ATOM    229  C   ASP A  13      -3.754  -9.707   9.319
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ATOM    231  N   VAL A  14      -4.226  -9.923  10.554
ATOM    232  H   VAL A  14      -5.233  -9.921  10.659
ATOM    233  CA  VAL A  14      -3.382 -10.017  11.771
ATOM    234  HA  VAL A  14      -2.409 -10.398  11.463
ATOM    235  CB  VAL A  14      -3.160  -8.624  12.417
ATOM    236  HB  VAL A  14      -2.610  -8.763  13.348
ATOM    237  CG1 VAL A  14      -2.309  -7.688  11.545
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ATOM    239  HG12VAL A  14      -2.079  -6.781  12.104
ATOM    240  HG13VAL A  14      -1.374  -8.182  11.279
ATOM    241  CG2 VAL A  14      -4.487  -7.924  12.759
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ATOM    243  HG22VAL A  14      -5.020  -7.646  11.849
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ATOM    246  O   VAL A  14      -3.191 -11.240  13.835
ATOM    247  N   GLY A  15      -5.093 -11.571  12.690
ATOM    248  H   GLY A  15      -5.606 -11.399  11.832
ATOM    249  CA  GLY A  15      -5.698 -12.523  13.628
ATOM    250  HA2 GLY A  15      -6.204 -13.287  13.039
ATOM    251  HA3 GLY A  15      -4.924 -12.994  14.231
ATOM    252  C   GLY A  15      -6.725 -11.903  14.592
ATOM    253  O   GLY A  15      -6.636 -10.713  14.898
ATOM    254  N   PRO A  16      -7.666 -12.710  15.132
ATOM    255  CD  PRO A  16      -7.738 -14.156  14.964
ATOM    256  HD2 PRO A  16      -6.774 -14.631  15.144
ATOM    257  HD3 PRO A  16      -8.086 -14.384  13.957
ATOM    258  CG  PRO A  16      -8.757 -14.643  15.989
ATOM    259  HG2 PRO A  16      -8.260 -14.777  16.952
ATOM    260  HG3 PRO A  16      -9.250 -15.561  15.667
ATOM    261  CB  PRO A  16      -9.728 -13.469  16.074
ATOM    262  HB2 PRO A  16     -10.276 -13.472  17.018
ATOM    263  HB3 PRO A  16     -10.421 -13.505  15.230
ATOM    264  CA  PRO A  16      -8.806 -12.248  15.934
ATOM    265  HA  PRO A  16      -9.331 -11.470  15.381
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ATOM    268  N   ARG A  17      -7.173 -11.805  17.751
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ATOM    270  CA  ARG A  17      -6.620 -11.097  18.917
ATOM    271  HA  ARG A  17      -7.162 -11.403  19.813
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ATOM    274  HB3 ARG A  17      -4.613 -11.323  18.135
ATOM    275  CG  ARG A  17      -4.403 -10.766  20.201
ATOM    276  HG2 ARG A  17      -4.341  -9.702  19.973
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ATOM    278  CD  ARG A  17      -2.985 -11.319  20.333
ATOM    279  HD2 ARG A  17      -3.037 -12.345  20.704
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ATOM    280  HD3 ARG A  17      -2.523 -11.324  19.342
ATOM    281  NE  ARG A  17      -2.179 -10.497  21.246
ATOM    282  HE  ARG A  17      -2.669  -9.788  21.791
ATOM    283  CZ  ARG A  17      -0.853 -10.527  21.317
ATOM    284  NH1 ARG A  17      -0.133 -11.356  20.598
ATOM    285  HH11ARG A  17      -0.576 -12.019  19.992
ATOM    286  HH12ARG A  17       0.877 -11.257  20.550
ATOM    287  NH2 ARG A  17      -0.216  -9.706  22.113
ATOM    288  HH21ARG A  17      -0.745  -8.965  22.569
ATOM    289  HH22ARG A  17       0.789  -9.688  22.113
ATOM    290  C   ARG A  17      -6.757  -9.572  18.782
ATOM    291  O   ARG A  17      -6.908  -8.884  19.793
ATOM    292  N   TYR A  18      -6.704  -9.038  17.560
ATOM    293  H   TYR A  18      -6.657  -9.658  16.760
ATOM    294  CA  TYR A  18      -6.756  -7.602  17.287
ATOM    295  HA  TYR A  18      -6.622  -7.059  18.217
ATOM    296  CB  TYR A  18      -5.584  -7.218  16.376
ATOM    297  HB2 TYR A  18      -5.717  -7.706  15.411
ATOM    298  HB3 TYR A  18      -5.607  -6.141  16.206
ATOM    299  CG  TYR A  18      -4.227  -7.594  16.945
ATOM    300  CD1 TYR A  18      -3.645  -6.804  17.956
ATOM    301  HD1 TYR A  18      -4.150  -5.915  18.306
ATOM    302  CE1 TYR A  18      -2.405  -7.169  18.513
ATOM    303  HE1 TYR A  18      -1.954  -6.553  19.277
ATOM    304  CZ  TYR A  18      -1.746  -8.338  18.069
ATOM    305  OH  TYR A  18      -0.557  -8.707  18.618
ATOM    306  HH  TYR A  18      -0.247  -8.067  19.282
ATOM    307  CE2 TYR A  18      -2.332  -9.133  17.059
ATOM    308  HE2 TYR A  18      -1.821 -10.018  16.712
ATOM    309  CD2 TYR A  18      -3.569  -8.759  16.500
ATOM    310  HD2 TYR A  18      -4.017  -9.370  15.728
ATOM    311  C   TYR A  18      -8.104  -7.194  16.673
ATOM    312  O   TYR A  18      -8.533  -7.771  15.673
ATOM    313  N   THR A  19      -8.766  -6.186  17.254
ATOM    314  H   THR A  19      -8.362  -5.759  18.082
ATOM    315  CA  THR A  19     -10.037  -5.624  16.754
ATOM    316  HA  THR A  19     -10.271  -6.078  15.790
ATOM    317  CB  THR A  19     -11.203  -5.940  17.706
ATOM    318  HB  THR A  19     -12.099  -5.420  17.359
ATOM    319  CG2 THR A  19     -11.515  -7.436  17.746
ATOM    320  HG21THR A  19     -11.777  -7.781  16.745
ATOM    321  HG22THR A  19     -10.653  -8.004  18.097
ATOM    322  HG23THR A  19     -12.359  -7.618  18.411
ATOM    323  OG1 THR A  19     -10.897  -5.501  19.008
ATOM    324  HG1 THR A  19     -11.705  -5.519  19.532
ATOM    325  C   THR A  19      -9.914  -4.124  16.510
ATOM    326  O   THR A  19      -8.912  -3.507  16.865
ATOM    327  N   ASN A  20     -10.923  -3.537  15.857
ATOM    328  H   ASN A  20     -11.694  -4.122  15.573
ATOM    329  CA  ASN A  20     -11.053  -2.087  15.616
ATOM    330  HA  ASN A  20     -12.014  -1.953  15.119
ATOM    331  CB  ASN A  20     -11.125  -1.342  16.968
ATOM    332  HB2 ASN A  20     -11.811  -1.869  17.633
ATOM    333  HB3 ASN A  20     -10.141  -1.329  17.437
ATOM    334  CG  ASN A  20     -11.614   0.096  16.830
ATOM    335  OD1 ASN A  20     -10.881   1.043  17.080
ATOM    336  ND2 ASN A  20     -12.861   0.313  16.457
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ATOM    337  HD21ASN A  20     -13.193   1.267  16.398
ATOM    338  HD22ASN A  20     -13.495  -0.445  16.263
ATOM    339  C   ASN A  20      -9.989  -1.502  14.648
ATOM    340  O   ASN A  20      -9.857  -0.283  14.544
ATOM    341  N   LEU A  21      -9.261  -2.360  13.919
ATOM    342  H   LEU A  21      -9.452  -3.339  14.053
ATOM    343  CA  LEU A  21      -8.216  -2.034  12.935
ATOM    344  HA  LEU A  21      -7.311  -1.734  13.459
ATOM    345  CB  LEU A  21      -7.912  -3.318  12.131
ATOM    346  HB2 LEU A  21      -8.854  -3.685  11.718
ATOM    347  HB3 LEU A  21      -7.265  -3.077  11.284
ATOM    348  CG  LEU A  21      -7.249  -4.433  12.976
ATOM    349  HG  LEU A  21      -7.610  -4.379  14.005
ATOM    350  CD1 LEU A  21      -7.609  -5.823  12.435
ATOM    351  HD11LEU A  21      -7.262  -5.932  11.407
ATOM    352  HD12LEU A  21      -7.147  -6.590  13.056
ATOM    353  HD13LEU A  21      -8.690  -5.963  12.464
ATOM    354  CD2 LEU A  21      -5.723  -4.274  12.992
ATOM    355  HD21LEU A  21      -5.446  -3.234  13.153
ATOM    356  HD22LEU A  21      -5.303  -4.886  13.788
ATOM    357  HD23LEU A  21      -5.306  -4.592  12.040
ATOM    358  C   LEU A  21      -8.631  -0.867  12.019
ATOM    359  O   LEU A  21      -9.572  -0.991  11.241
ATOM    360  N   SER A  22      -7.968   0.284  12.147
ATOM    361  H   SER A  22      -7.271   0.352  12.888
ATOM    362  CA  SER A  22      -8.346   1.529  11.448
ATOM    363  HA  SER A  22      -8.901   1.290  10.540
ATOM    364  CB  SER A  22      -9.253   2.386  12.346
ATOM    365  HB2 SER A  22      -8.684   2.714  13.217
ATOM    366  HB3 SER A  22      -9.566   3.271  11.791
ATOM    367  OG  SER A  22     -10.408   1.689  12.787
ATOM    368  HG  SER A  22     -10.107   0.862  13.212
ATOM    369  C   SER A  22      -7.124   2.380  11.058
ATOM    370  O   SER A  22      -6.225   2.584  11.873
ATOM    371  N   TYR A  23      -7.090   2.918   9.833
ATOM    372  H   TYR A  23      -7.861   2.738   9.204
ATOM    373  CA  TYR A  23      -5.959   3.704   9.313
ATOM    374  HA  TYR A  23      -5.056   3.097   9.381
ATOM    375  CB  TYR A  23      -6.202   4.018   7.827
ATOM    376  HB2 TYR A  23      -6.341   3.080   7.296
ATOM    377  HB3 TYR A  23      -7.133   4.581   7.729
ATOM    378  CG  TYR A  23      -5.104   4.797   7.123
ATOM    379  CD1 TYR A  23      -4.153   4.123   6.331
ATOM    380  HD1 TYR A  23      -4.171   3.044   6.271
ATOM    381  CE1 TYR A  23      -3.208   4.852   5.581
ATOM    382  HE1 TYR A  23      -2.496   4.342   4.950
ATOM    383  CZ  TYR A  23      -3.196   6.262   5.638
ATOM    384  OH  TYR A  23      -2.308   6.976   4.894
ATOM    385  HH  TYR A  23      -1.787   6.430   4.278
ATOM    386  CE2 TYR A  23      -4.119   6.935   6.468
ATOM    387  HE2 TYR A  23      -4.113   8.014   6.520
ATOM    388  CD2 TYR A  23      -5.075   6.203   7.197
ATOM    389  HD2 TYR A  23      -5.807   6.731   7.791
ATOM    390  C   TYR A  23      -5.716   5.004  10.097
ATOM    391  O   TYR A  23      -6.611   5.849  10.191
ATOM    392  N   ILE A  24      -4.476   5.216  10.560
ATOM    393  H   ILE A  24      -3.799   4.468  10.460
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ATOM    394  CA  ILE A  24      -4.026   6.497  11.144
ATOM    395  HA  ILE A  24      -4.848   7.211  11.091
ATOM    396  CB  ILE A  24      -3.666   6.352  12.644
ATOM    397  HB  ILE A  24      -3.338   7.334  12.995
ATOM    398  CG2 ILE A  24      -4.935   5.991  13.439
ATOM    399  HG21ILE A  24      -4.748   6.082  14.507
ATOM    400  HG22ILE A  24      -5.746   6.673  13.181
ATOM    401  HG23ILE A  24      -5.248   4.971  13.216
ATOM    402  CG1 ILE A  24      -2.518   5.352  12.904
ATOM    403  HG12ILE A  24      -2.857   4.341  12.682
ATOM    404  HG13ILE A  24      -1.684   5.588  12.244
ATOM    405  CD1 ILE A  24      -2.000   5.395  14.348
ATOM    406  HD11ILE A  24      -2.770   5.063  15.043
ATOM    407  HD12ILE A  24      -1.141   4.734  14.449
ATOM    408  HD13ILE A  24      -1.693   6.409  14.605
ATOM    409  C   ILE A  24      -2.908   7.182  10.340
ATOM    410  O   ILE A  24      -2.581   8.333  10.632
ATOM    411  N   GLY C  25      -2.316   6.535   9.329
ATOM    412  H   GLY C  25      -2.570   5.576   9.134
ATOM    413  CA  GLY C  25      -1.346   7.180   8.433
ATOM    414  HA2 GLY C  25      -1.880   7.862   7.772
ATOM    415  HA3 GLY C  25      -0.669   7.800   9.016
ATOM    416  C   GLY C  25      -0.509   6.231   7.575
ATOM    417  O   GLY C  25      -0.622   5.008   7.671
ATOM    418  N   GLU C  26       0.349   6.809   6.735
ATOM    419  H   GLU C  26       0.436   7.821   6.790
ATOM    420  CA  GLU C  26       1.348   6.082   5.940
ATOM    421  HA  GLU C  26       0.872   5.235   5.442
ATOM    422  CB  GLU C  26       1.944   7.010   4.866
ATOM    423  HB2 GLU C  26       2.394   7.868   5.367
ATOM    424  HB3 GLU C  26       2.735   6.475   4.348
ATOM    425  CG  GLU C  26       0.957   7.532   3.814
ATOM    426  HG2 GLU C  26       0.090   7.969   4.304
ATOM    427  HG3 GLU C  26       1.449   8.326   3.250
ATOM    428  CD  GLU C  26       0.518   6.448   2.832
ATOM    429  OE1 GLU C  26       1.325   6.084   1.948
ATOM    430  OE2 GLU C  26      -0.641   5.974   2.912
ATOM    431  C   GLU C  26       2.469   5.561   6.859
ATOM    432  O   GLU C  26       2.776   6.196   7.873
ATOM    433  N   GLY C  27       3.095   4.426   6.525
ATOM    434  H   GLY C  27       2.849   3.965   5.658
ATOM    435  CA  GLY C  27       4.139   3.813   7.358
ATOM    436  HA2 GLY C  27       4.740   4.589   7.831
ATOM    437  HA3 GLY C  27       3.669   3.244   8.154
ATOM    438  C   GLY C  27       5.042   2.853   6.600
ATOM    439  O   GLY C  27       4.630   1.749   6.261
ATOM    440  N   ALA C  28       6.286   3.269   6.369
ATOM    441  H   ALA C  28       6.501   4.225   6.634
ATOM    442  CA  ALA C  28       7.309   2.571   5.591
ATOM    443  HA  ALA C  28       8.148   3.251   5.450
ATOM    444  CB  ALA C  28       7.826   1.356   6.391
ATOM    445  HB1 ALA C  28       8.659   0.884   5.868
ATOM    446  HB2 ALA C  28       8.180   1.682   7.368
ATOM    447  HB3 ALA C  28       7.030   0.624   6.529
ATOM    448  C   ALA C  28       6.788   2.268   4.174
ATOM    449  O   ALA C  28       6.124   3.105   3.555
ATOM    450  N   TYR C  29       7.047   1.068   3.657
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ATOM    451  H   TYR C  29       7.609   0.428   4.194
ATOM    452  CA  TYR C  29       6.460   0.554   2.415
ATOM    453  HA  TYR C  29       6.348   1.380   1.711
ATOM    454  CB  TYR C  29       7.432  -0.462   1.782
ATOM    455  HB2 TYR C  29       7.381  -1.399   2.335
ATOM    456  HB3 TYR C  29       7.112  -0.670   0.758
ATOM    457  CG  TYR C  29       8.879   0.005   1.760
ATOM    458  CD1 TYR C  29       9.274   1.053   0.908
ATOM    459  HD1 TYR C  29       8.553   1.502   0.237
ATOM    460  CE1 TYR C  29      10.600   1.526   0.931
ATOM    461  HE1 TYR C  29      10.895   2.329   0.274
ATOM    462  CZ  TYR C  29      11.541   0.944   1.809
ATOM    463  OH  TYR C  29      12.822   1.400   1.873
ATOM    464  HH  TYR C  29      13.038   2.048   1.183
ATOM    465  CE2 TYR C  29      11.139  -0.100   2.670
ATOM    466  HE2 TYR C  29      11.850  -0.554   3.344
ATOM    467  CD2 TYR C  29       9.815  -0.569   2.643
ATOM    468  HD2 TYR C  29       9.519  -1.372   3.304
ATOM    469  C   TYR C  29       5.044  -0.009   2.683
ATOM    470  O   TYR C  29       4.801  -1.212   2.552
ATOM    471  N   GLY C  30       4.141   0.854   3.170
ATOM    472  H   GLY C  30       4.432   1.821   3.270
ATOM    473  CA  GLY C  30       2.805   0.493   3.661
ATOM    474  HA2 GLY C  30       2.160   0.293   2.805
ATOM    475  HA3 GLY C  30       2.864  -0.437   4.221
ATOM    476  C   GLY C  30       2.135   1.580   4.511
ATOM    477  O   GLY C  30       2.137   2.753   4.130
ATOM    478  N   MET A  31       1.514   1.195   5.630
ATOM    479  H   MET A  31       1.701   0.254   5.966
ATOM    480  CA  MET A  31       0.597   2.035   6.427
ATOM    481  HA  MET A  31       0.926   3.068   6.364
ATOM    482  CB  MET A  31      -0.828   1.981   5.838
ATOM    483  HB2 MET A  31      -1.498   2.544   6.489
ATOM    484  HB3 MET A  31      -0.823   2.465   4.861
ATOM    485  CG  MET A  31      -1.376   0.554   5.682
ATOM    486  HG2 MET A  31      -0.831   0.053   4.881
ATOM    487  HG3 MET A  31      -1.176   0.011   6.604
ATOM    488  SD  MET A  31      -3.157   0.409   5.361
ATOM    489  CE  MET A  31      -3.298   1.344   3.814
ATOM    490  HE1 MET A  31      -3.141   2.405   3.988
ATOM    491  HE2 MET A  31      -2.561   0.999   3.096
ATOM    492  HE3 MET A  31      -4.292   1.212   3.388
ATOM    493  C   MET A  31       0.594   1.662   7.918
ATOM    494  O   MET A  31       0.844   0.511   8.264
ATOM    495  N   VAL C  32       0.267   2.619   8.789
ATOM    496  H   VAL C  32      -0.002   3.525   8.412
ATOM    497  CA  VAL C  32       0.050   2.412  10.231
ATOM    498  HA  VAL C  32       0.439   1.434  10.507
ATOM    499  CB  VAL C  32       0.759   3.466  11.116
ATOM    500  HB  VAL C  32       0.294   4.438  10.946
ATOM    501  CG1 VAL C  32       0.625   3.112  12.609
ATOM    502  HG11VAL C  32       1.069   2.134  12.804
ATOM    503  HG12VAL C  32       1.131   3.862  13.218
ATOM    504  HG13VAL C  32      -0.423   3.087  12.904
ATOM    505  CG2 VAL C  32       2.256   3.585  10.795
ATOM    506  HG21VAL C  32       2.738   2.615  10.906
ATOM    507  HG22VAL C  32       2.388   3.948   9.778
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ATOM    508  HG23VAL C  32       2.729   4.296  11.472
ATOM    509  C   VAL C  32      -1.453   2.453  10.517
ATOM    510  O   VAL C  32      -2.142   3.405  10.136
ATOM    511  N   CYS A  33      -1.943   1.439  11.232
ATOM    512  H   CYS A  33      -1.311   0.676  11.477
ATOM    513  CA  CYS A  33      -3.314   1.371  11.738
ATOM    514  HA  CYS A  33      -3.859   2.262  11.432
ATOM    515  CB  CYS A  33      -4.012   0.153  11.118
ATOM    516  HB2 CYS A  33      -3.402  -0.739  11.282
ATOM    517  HB3 CYS A  33      -4.989   0.008  11.586
ATOM    518  SG  CYS A  33      -4.234   0.454   9.340
ATOM    519  HG  CYS A  33      -4.608  -0.789   9.002
ATOM    520  C   CYS A  33      -3.348   1.328  13.271
ATOM    521  O   CYS A  33      -2.491   0.721  13.908
ATOM    522  N   SER A  34      -4.357   1.953  13.864
ATOM    523  H   SER A  34      -5.080   2.329  13.255
ATOM    524  CA  SER A  34      -4.694   1.778  15.279
ATOM    525  HA  SER A  34      -3.785   1.634  15.864
ATOM    526  CB  SER A  34      -5.391   3.037  15.798
ATOM    527  HB2 SER A  34      -4.768   3.907  15.597
ATOM    528  HB3 SER A  34      -6.346   3.157  15.283
ATOM    529  OG  SER A  34      -5.609   2.948  17.191
ATOM    530  HG  SER A  34      -6.489   3.345  17.371
ATOM    531  C   SER A  34      -5.596   0.546  15.460
ATOM    532  O   SER A  34      -6.372   0.208  14.560
ATOM    533  N   ALA A  35      -5.502  -0.121  16.616
ATOM    534  H   ALA A  35      -4.865   0.235  17.319
ATOM    535  CA  ALA A  35      -6.227  -1.348  16.953
ATOM    536  HA  ALA A  35      -7.273  -1.231  16.663
ATOM    537  CB  ALA A  35      -5.620  -2.518  16.164
ATOM    538  HB1 ALA A  35      -5.646  -2.285  15.104
ATOM    539  HB2 ALA A  35      -4.585  -2.676  16.466
ATOM    540  HB3 ALA A  35      -6.192  -3.429  16.341
ATOM    541  C   ALA A  35      -6.188  -1.637  18.461
ATOM    542  O   ALA A  35      -5.353  -1.099  19.192
ATOM    543  N   TYR A  36      -7.054  -2.536  18.925
ATOM    544  H   TYR A  36      -7.717  -2.941  18.269
ATOM    545  CA  TYR A  36      -7.076  -3.040  20.300
ATOM    546  HA  TYR A  36      -6.404  -2.456  20.922
ATOM    547  CB  TYR A  36      -8.494  -2.853  20.853
ATOM    548  HB2 TYR A  36      -8.761  -1.799  20.760
ATOM    549  HB3 TYR A  36      -9.192  -3.415  20.230
ATOM    550  CG  TYR A  36      -8.670  -3.264  22.303
ATOM    551  CD1 TYR A  36      -8.181  -2.441  23.338
ATOM    552  HD1 TYR A  36      -7.665  -1.522  23.101
ATOM    553  CE1 TYR A  36      -8.398  -2.793  24.685
ATOM    554  HE1 TYR A  36      -8.048  -2.146  25.474
ATOM    555  CZ  TYR A  36      -9.112  -3.970  24.999
ATOM    556  OH  TYR A  36      -9.369  -4.296  26.294
ATOM    557  HH  TYR A  36      -9.162  -3.587  26.916
ATOM    558  CE2 TYR A  36      -9.559  -4.817  23.963
ATOM    559  HE2 TYR A  36     -10.094  -5.724  24.202
ATOM    560  CD2 TYR A  36      -9.341  -4.459  22.621
ATOM    561  HD2 TYR A  36      -9.708  -5.093  21.827
ATOM    562  C   TYR A  36      -6.621  -4.509  20.369
ATOM    563  O   TYR A  36      -7.198  -5.376  19.715
ATOM    564  N   ASP A  37      -5.593  -4.781  21.178
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ATOM    565  H   ASP A  37      -5.190  -4.011  21.694
ATOM    566  CA  ASP A  37      -5.158  -6.122  21.578
ATOM    567  HA  ASP A  37      -5.226  -6.803  20.727
ATOM    568  CB  ASP A  37      -3.686  -6.046  22.033
ATOM    569  HB2 ASP A  37      -3.104  -5.604  21.222
ATOM    570  HB3 ASP A  37      -3.612  -5.373  22.888
ATOM    571  CG  ASP A  37      -3.035  -7.384  22.417
ATOM    572  OD1 ASP A  37      -3.735  -8.385  22.698
ATOM    573  OD2 ASP A  37      -1.784  -7.423  22.470
ATOM    574  C   ASP A  37      -6.079  -6.616  22.701
ATOM    575  O   ASP A  37      -6.059  -6.072  23.808
ATOM    576  N   ASN A  38      -6.887  -7.638  22.407
ATOM    577  H   ASN A  38      -6.843  -8.013  21.464
ATOM    578  CA  ASN A  38      -7.886  -8.206  23.319
ATOM    579  HA  ASN A  38      -8.338  -7.399  23.898
ATOM    580  CB  ASN A  38      -8.996  -8.900  22.513
ATOM    581  HB2 ASN A  38      -8.559  -9.643  21.845
ATOM    582  HB3 ASN A  38      -9.660  -9.423  23.202
ATOM    583  CG  ASN A  38      -9.842  -7.922  21.710
ATOM    584  OD1 ASN A  38     -10.903  -7.492  22.149
ATOM    585  ND2 ASN A  38      -9.385  -7.535  20.536
ATOM    586  HD21ASN A  38      -9.898  -6.836  20.016
ATOM    587  HD22ASN A  38      -8.495  -7.881  20.200
ATOM    588  C   ASN A  38      -7.284  -9.213  24.311
ATOM    589  O   ASN A  38      -7.890  -9.480  25.348
ATOM    590  N   LEU A  39      -6.098  -9.764  24.022
ATOM    591  H   LEU A  39      -5.616  -9.440  23.189
ATOM    592  CA  LEU A  39      -5.386 -10.661  24.938
ATOM    593  HA  LEU A  39      -6.102 -11.348  25.395
ATOM    594  CB  LEU A  39      -4.341 -11.468  24.138
ATOM    595  HB2 LEU A  39      -4.866 -12.083  23.407
ATOM    596  HB3 LEU A  39      -3.696 -10.778  23.595
ATOM    597  CG  LEU A  39      -3.439 -12.384  24.989
ATOM    598  HG  LEU A  39      -2.870 -11.776  25.692
ATOM    599  CD1 LEU A  39      -4.254 -13.408  25.787
ATOM    600  HD11LEU A  39      -4.879 -12.909  26.527
ATOM    601  HD12LEU A  39      -4.880 -13.996  25.115
ATOM    602  HD13LEU A  39      -3.575 -14.075  26.312
ATOM    603  CD2 LEU A  39      -2.436 -13.106  24.078
ATOM    604  HD21LEU A  39      -1.828 -12.375  23.543
ATOM    605  HD22LEU A  39      -1.778 -13.738  24.677
ATOM    606  HD23LEU A  39      -2.966 -13.728  23.356
ATOM    607  C   LEU A  39      -4.756  -9.843  26.064
ATOM    608  O   LEU A  39      -5.031 -10.079  27.241
ATOM    609  N   ASN A  40      -3.962  -8.836  25.695
ATOM    610  H   ASN A  40      -3.788  -8.696  24.703
ATOM    611  CA  ASN A  40      -3.333  -7.930  26.652
ATOM    612  HA  ASN A  40      -3.059  -8.504  27.532
ATOM    613  CB  ASN A  40      -2.053  -7.361  26.033
ATOM    614  HB2 ASN A  40      -2.301  -6.864  25.097
ATOM    615  HB3 ASN A  40      -1.639  -6.608  26.702
ATOM    616  CG  ASN A  40      -0.968  -8.408  25.792
ATOM    617  OD1 ASN A  40      -0.846  -9.401  26.501
ATOM    618  ND2 ASN A  40      -0.130  -8.196  24.798
ATOM    619  HD21ASN A  40       0.681  -8.790  24.720
ATOM    620  HD22ASN A  40      -0.273  -7.410  24.180
ATOM    621  C   ASN A  40      -4.271  -6.809  27.143
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ATOM    622  O   ASN A  40      -3.952  -6.134  28.118
ATOM    623  N   LYS A  41      -5.418  -6.606  26.486
ATOM    624  H   LYS A  41      -5.582  -7.169  25.663
ATOM    625  CA  LYS A  41      -6.495  -5.666  26.846
ATOM    626  HA  LYS A  41      -7.243  -5.723  26.054
ATOM    627  CB  LYS A  41      -7.198  -6.094  28.149
ATOM    628  HB2 LYS A  41      -6.476  -6.144  28.962
ATOM    629  HB3 LYS A  41      -7.958  -5.354  28.408
ATOM    630  CG  LYS A  41      -7.889  -7.453  27.984
ATOM    631  HG2 LYS A  41      -8.576  -7.413  27.140
ATOM    632  HG3 LYS A  41      -7.142  -8.222  27.790
ATOM    633  CD  LYS A  41      -8.678  -7.829  29.238
ATOM    634  HD2 LYS A  41      -8.034  -7.735  30.115
ATOM    635  HD3 LYS A  41      -9.535  -7.163  29.348
ATOM    636  CE  LYS A  41      -9.155  -9.278  29.111
ATOM    637  HE2 LYS A  41      -9.776  -9.385  28.217
ATOM    638  HE3 LYS A  41      -8.277  -9.921  28.993
ATOM    639  NZ  LYS A  41      -9.914  -9.708  30.308
ATOM    640  HZ1 LYS A  41      -9.506  -9.319  31.158
ATOM    641  HZ2 LYS A  41     -10.885  -9.401  30.282
ATOM    642  HZ3 LYS A  41      -9.895 -10.721  30.399
ATOM    643  C   LYS A  41      -6.028  -4.196  26.834
ATOM    644  O   LYS A  41      -6.228  -3.447  27.797
ATOM    645  N   VAL A  42      -5.378  -3.787  25.740
ATOM    646  H   VAL A  42      -5.369  -4.438  24.956
ATOM    647  CA  VAL A  42      -4.733  -2.464  25.542
ATOM    648  HA  VAL A  42      -5.280  -1.715  26.120
ATOM    649  CB  VAL A  42      -3.254  -2.458  26.019
ATOM    650  HB  VAL A  42      -2.801  -1.535  25.662
ATOM    651  CG1 VAL A  42      -3.126  -2.443  27.551
ATOM    652  HG11VAL A  42      -3.509  -3.371  27.979
ATOM    653  HG12VAL A  42      -2.075  -2.333  27.834
ATOM    654  HG13VAL A  42      -3.683  -1.597  27.955
ATOM    655  CG2 VAL A  42      -2.421  -3.626  25.453
ATOM    656  HG21VAL A  42      -1.385  -3.543  25.790
ATOM    657  HG22VAL A  42      -2.824  -4.577  25.798
ATOM    658  HG23VAL A  42      -2.432  -3.607  24.363
ATOM    659  C   VAL A  42      -4.762  -2.031  24.067
ATOM    660  O   VAL A  42      -4.785  -2.888  23.186
ATOM    661  N   ARG A  43      -4.755  -0.720  23.788
ATOM    662  H   ARG A  43      -4.717  -0.060  24.555
ATOM    663  CA  ARG A  43      -4.711  -0.190  22.419
ATOM    664  HA  ARG A  43      -5.277  -0.873  21.790
ATOM    665  CB  ARG A  43      -5.406   1.184  22.360
ATOM    666  HB2 ARG A  43      -6.158   1.232  23.147
ATOM    667  HB3 ARG A  43      -4.678   1.975  22.524
ATOM    668  CG  ARG A  43      -6.111   1.410  21.015
ATOM    669  HG2 ARG A  43      -5.370   1.414  20.218
ATOM    670  HG3 ARG A  43      -6.796   0.587  20.826
ATOM    671  CD  ARG A  43      -6.893   2.733  20.940
ATOM    672  HD2 ARG A  43      -6.202   3.561  21.079
ATOM    673  HD3 ARG A  43      -7.335   2.843  19.949
ATOM    674  NE  ARG A  43      -7.950   2.850  21.962
ATOM    675  HE  ARG A  43      -7.812   3.580  22.656
ATOM    676  CZ  ARG A  43      -9.071   2.145  22.061
ATOM    677  NH1 ARG A  43      -9.405   1.208  21.200
ATOM    678  HH11ARG A  43      -8.881   1.119  20.330
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ATOM    679  HH12ARG A  43     -10.255   0.686  21.320
ATOM    680  NH2 ARG A  43      -9.873   2.364  23.078
ATOM    681  HH21ARG A  43      -9.697   3.130  23.727
ATOM    682  HH22ARG A  43     -10.672   1.770  23.251
ATOM    683  C   ARG A  43      -3.268  -0.151  21.892
ATOM    684  O   ARG A  43      -2.329   0.118  22.649
ATOM    685  N   VAL A  44      -3.087  -0.418  20.604
ATOM    686  H   VAL A  44      -3.923  -0.588  20.043
ATOM    687  CA  VAL A  44      -1.794  -0.563  19.908
ATOM    688  HA  VAL A  44      -1.010  -0.107  20.515
ATOM    689  CB  VAL A  44      -1.427  -2.056  19.683
ATOM    690  HB  VAL A  44      -0.519  -2.094  19.086
ATOM    691  CG1 VAL A  44      -1.113  -2.756  21.014
ATOM    692  HG11VAL A  44      -0.792  -3.783  20.830
ATOM    693  HG12VAL A  44      -0.304  -2.222  21.507
ATOM    694  HG13VAL A  44      -1.992  -2.769  21.661
ATOM    695  CG2 VAL A  44      -2.502  -2.865  18.932
ATOM    696  HG21VAL A  44      -2.735  -2.387  17.981
ATOM    697  HG22VAL A  44      -2.129  -3.871  18.729
ATOM    698  HG23VAL A  44      -3.409  -2.945  19.531
ATOM    699  C   VAL A  44      -1.810   0.149  18.547
ATOM    700  O   VAL A  44      -2.879   0.447  18.014
ATOM    701  N   ALA A  45      -0.623   0.393  17.987
ATOM    702  H   ALA A  45       0.212   0.081  18.482
ATOM    703  CA  ALA A  45      -0.423   0.757  16.588
ATOM    704  HA  ALA A  45      -1.386   0.941  16.114
ATOM    705  CB  ALA A  45       0.416   2.037  16.510
ATOM    706  HB1 ALA A  45      -0.103   2.855  17.003
ATOM    707  HB2 ALA A  45       1.380   1.875  16.994
ATOM    708  HB3 ALA A  45       0.579   2.301  15.465
ATOM    709  C   ALA A  45       0.267  -0.402  15.854
ATOM    710  O   ALA A  45       1.233  -0.976  16.360
ATOM    711  N   ILE A  46      -0.217  -0.743  14.660
ATOM    712  H   ILE A  46      -1.001  -0.210  14.290
ATOM    713  CA  ILE A  46       0.335  -1.821  13.828
ATOM    714  HA  ILE A  46       1.213  -2.235  14.321
ATOM    715  CB  ILE A  46      -0.681  -2.978  13.649
ATOM    716  HB  ILE A  46      -1.532  -2.613  13.072
ATOM    717  CG2 ILE A  46      -0.011  -4.122  12.861
ATOM    718  HG21ILE A  46       0.355  -3.764  11.899
ATOM    719  HG22ILE A  46       0.824  -4.531  13.433
ATOM    720  HG23ILE A  46      -0.730  -4.915  12.660
ATOM    721  CG1 ILE A  46      -1.208  -3.468  15.020
ATOM    722  HG12ILE A  46      -0.361  -3.696  15.660
ATOM    723  HG13ILE A  46      -1.765  -2.661  15.494
ATOM    724  CD1 ILE A  46      -2.135  -4.689  14.976
ATOM    725  HD11ILE A  46      -1.577  -5.580  14.688
ATOM    726  HD12ILE A  46      -2.558  -4.851  15.969
ATOM    727  HD13ILE A  46      -2.942  -4.510  14.266
ATOM    728  C   ILE A  46       0.782  -1.238  12.487
ATOM    729  O   ILE A  46      -0.049  -0.758  11.715
ATOM    730  N   LYS C  47       2.086  -1.298  12.197
ATOM    731  H   LYS C  47       2.698  -1.740  12.877
ATOM    732  CA  LYS C  47       2.654  -0.881  10.908
ATOM    733  HA  LYS C  47       1.998  -0.124  10.476
ATOM    734  CB  LYS C  47       4.041  -0.219  11.134
ATOM    735  HB2 LYS C  47       3.932   0.508  11.941
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ATOM    736  HB3 LYS C  47       4.769  -0.970  11.448
ATOM    737  CG  LYS C  47       4.565   0.524   9.884
ATOM    738  HG2 LYS C  47       4.940  -0.203   9.165
ATOM    739  HG3 LYS C  47       3.723   1.035   9.415
ATOM    740  CD  LYS C  47       5.655   1.587  10.154
ATOM    741  HD2 LYS C  47       5.724   2.217   9.270
ATOM    742  HD3 LYS C  47       5.337   2.229  10.977
ATOM    743  CE  LYS C  47       7.059   1.037  10.454
ATOM    744  HE2 LYS C  47       7.044   0.525  11.420
ATOM    745  HE3 LYS C  47       7.331   0.307   9.687
ATOM    746  NZ  LYS C  47       8.083   2.119  10.471
ATOM    747  HZ1 LYS C  47       7.878   2.840  11.168
ATOM    748  HZ2 LYS C  47       9.018   1.744  10.624
ATOM    749  HZ3 LYS C  47       8.114   2.615   9.596
ATOM    750  C   LYS C  47       2.664  -2.077   9.935
ATOM    751  O   LYS C  47       3.489  -2.987  10.066
ATOM    752  N   LYS A  48       1.742  -2.087   8.966
ATOM    753  H   LYS A  48       1.128  -1.279   8.918
ATOM    754  CA  LYS A  48       1.734  -2.994   7.807
ATOM    755  HA  LYS A  48       1.961  -4.011   8.133
ATOM    756  CB  LYS A  48       0.338  -2.979   7.151
ATOM    757  HB2 LYS A  48      -0.379  -3.344   7.883
ATOM    758  HB3 LYS A  48       0.078  -1.950   6.897
ATOM    759  CG  LYS A  48       0.221  -3.847   5.881
ATOM    760  HG2 LYS A  48       0.972  -3.548   5.151
ATOM    761  HG3 LYS A  48       0.396  -4.890   6.144
ATOM    762  CD  LYS A  48      -1.170  -3.698   5.242
ATOM    763  HD2 LYS A  48      -1.924  -3.861   6.011
ATOM    764  HD3 LYS A  48      -1.288  -2.684   4.853
ATOM    765  CE  LYS A  48      -1.431  -4.714   4.123
ATOM    766  HE2 LYS A  48      -1.289  -5.722   4.522
ATOM    767  HE3 LYS A  48      -2.472  -4.631   3.808
ATOM    768  NZ  LYS A  48      -0.552  -4.542   2.946
ATOM    769  HZ1 LYS A  48      -0.636  -5.354   2.342
ATOM    770  HZ2 LYS A  48      -0.743  -3.683   2.440
ATOM    771  HZ3 LYS A  48       0.424  -4.552   3.225
ATOM    772  C   LYS A  48       2.798  -2.547   6.799
ATOM    773  O   LYS A  48       2.867  -1.369   6.452
ATOM    774  N   ILE A  49       3.601  -3.483   6.301
ATOM    775  H   ILE A  49       3.522  -4.430   6.656
ATOM    776  CA  ILE A  49       4.676  -3.225   5.338
ATOM    777  HA  ILE A  49       4.471  -2.288   4.816
ATOM    778  CB  ILE A  49       6.052  -3.118   6.055
ATOM    779  HB  ILE A  49       6.396  -4.128   6.282
ATOM    780  CG2 ILE A  49       7.070  -2.461   5.102
ATOM    781  HG21ILE A  49       8.073  -2.512   5.523
ATOM    782  HG22ILE A  49       7.091  -2.976   4.145
ATOM    783  HG23ILE A  49       6.800  -1.419   4.938
ATOM    784  CG1 ILE A  49       5.997  -2.342   7.395
ATOM    785  HG12ILE A  49       5.638  -1.330   7.211
ATOM    786  HG13ILE A  49       5.298  -2.836   8.068
ATOM    787  CD1 ILE A  49       7.325  -2.270   8.154
ATOM    788  HD11ILE A  49       7.152  -1.834   9.137
ATOM    789  HD12ILE A  49       7.736  -3.273   8.279
ATOM    790  HD13ILE A  49       8.033  -1.643   7.617
ATOM    791  C   ILE A  49       4.694  -4.360   4.313
ATOM    792  O   ILE A  49       4.619  -5.528   4.695
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ATOM    793  N   SER A  50       4.863  -4.029   3.036
ATOM    794  H   SER A  50       4.827  -3.042   2.790
ATOM    795  CA  SER A  50       5.021  -4.975   1.921
ATOM    796  HA  SER A  50       4.834  -5.994   2.262
ATOM    797  CB  SER A  50       3.974  -4.647   0.831
ATOM    798  HB2 SER A  50       4.289  -3.754   0.289
ATOM    799  HB3 SER A  50       3.924  -5.479   0.125
ATOM    800  OG  SER A  50       2.674  -4.388   1.354
ATOM    801  HG  SER A  50       2.425  -5.131   1.965
ATOM    802  C   SER A  50       6.464  -4.913   1.348
ATOM    803  O   SER A  50       6.654  -4.494   0.206
ATOM    804  N   PRO A  51       7.523  -5.240   2.122
ATOM    805  CD  PRO A  51       7.506  -5.916   3.414
ATOM    806  HD2 PRO A  51       6.991  -6.875   3.361
ATOM    807  HD3 PRO A  51       7.039  -5.280   4.157
ATOM    808  CG  PRO A  51       8.967  -6.099   3.817
ATOM    809  HG2 PRO A  51       9.362  -7.019   3.387
ATOM    810  HG3 PRO A  51       9.095  -6.091   4.899
ATOM    811  CB  PRO A  51       9.622  -4.891   3.149
ATOM    812  HB2 PRO A  51      10.697  -5.017   3.039
ATOM    813  HB3 PRO A  51       9.403  -3.988   3.722
ATOM    814  CA  PRO A  51       8.895  -4.831   1.803
ATOM    815  HA  PRO A  51       8.904  -3.805   1.430
ATOM    816  C   PRO A  51       9.600  -5.731   0.776
ATOM    817  O   PRO A  51      10.669  -5.374   0.286
ATOM    818  N   PHE A  52       9.048  -6.910   0.466
ATOM    819  H   PHE A  52       8.151  -7.143   0.869
ATOM    820  CA  PHE A  52       9.745  -7.967  -0.277
ATOM    821  HA  PHE A  52      10.779  -7.994   0.069
ATOM    822  CB  PHE A  52       9.100  -9.321   0.060
ATOM    823  HB2 PHE A  52       8.152  -9.399  -0.474
ATOM    824  HB3 PHE A  52       9.744 -10.118  -0.310
ATOM    825  CG  PHE A  52       8.854  -9.540   1.540
ATOM    826  CD1 PHE A  52       9.934  -9.700   2.428
ATOM    827  HD1 PHE A  52      10.947  -9.707   2.053
ATOM    828  CE1 PHE A  52       9.692  -9.847   3.805
ATOM    829  HE1 PHE A  52      10.516  -9.991   4.485
ATOM    830  CZ  PHE A  52       8.377  -9.815   4.300
ATOM    831  HZ  PHE A  52       8.188  -9.925   5.359
ATOM    832  CE2 PHE A  52       7.300  -9.665   3.412
ATOM    833  HE2 PHE A  52       6.286  -9.657   3.787
ATOM    834  CD2 PHE A  52       7.539  -9.531   2.035
ATOM    835  HD2 PHE A  52       6.712  -9.408   1.355
ATOM    836  C   PHE A  52       9.794  -7.742  -1.799
ATOM    837  O   PHE A  52      10.395  -8.553  -2.506
ATOM    838  N   GLU A  53       9.181  -6.667  -2.298
ATOM    839  H   GLU A  53       8.673  -6.081  -1.651
ATOM    840  CA  GLU A  53       9.089  -6.349  -3.728
ATOM    841  HA  GLU A  53       8.662  -7.205  -4.250
ATOM    842  CB  GLU A  53       8.169  -5.131  -3.940
ATOM    843  HB2 GLU A  53       8.648  -4.250  -3.514
ATOM    844  HB3 GLU A  53       8.055  -4.962  -5.011
ATOM    845  CG  GLU A  53       6.775  -5.255  -3.314
ATOM    846  HG2 GLU A  53       6.863  -5.383  -2.238
ATOM    847  HG3 GLU A  53       6.227  -4.329  -3.493
ATOM    848  CD  GLU A  53       5.985  -6.423  -3.885
ATOM    849  OE1 GLU A  53       6.209  -7.574  -3.453
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ATOM    850  OE2 GLU A  53       5.114  -6.192  -4.756
ATOM    851  C   GLU A  53      10.461  -6.048  -4.348
ATOM    852  O   GLU A  53      10.745  -6.479  -5.463
ATOM    853  N   HIE A  54      11.321  -5.343  -3.606
ATOM    854  H   HIE A  54      11.030  -5.100  -2.670
ATOM    855  CA  HIE A  54      12.619  -4.823  -4.048
ATOM    856  HA  HIE A  54      12.931  -5.341  -4.957
ATOM    857  CB  HIE A  54      12.429  -3.333  -4.373
ATOM    858  HB2 HIE A  54      11.603  -3.231  -5.079
ATOM    859  HB3 HIE A  54      12.155  -2.806  -3.462
ATOM    860  CG  HIE A  54      13.633  -2.648  -4.959
ATOM    861  ND1 HIE A  54      14.712  -2.141  -4.229
ATOM    862  CE1 HIE A  54      15.516  -1.561  -5.137
ATOM    863  HE1 HIE A  54      16.437  -1.046  -4.904
ATOM    864  NE2 HIE A  54      15.006  -1.676  -6.376
ATOM    865  HE2 HIE A  54      15.387  -1.249  -7.217
ATOM    866  CD2 HIE A  54      13.816  -2.361  -6.280
ATOM    867  HD2 HIE A  54      13.138  -2.596  -7.089
ATOM    868  C   HIE A  54      13.701  -5.040  -2.967
ATOM    869  O   HIE A  54      13.407  -5.063  -1.767
ATOM    870  N   GLN A  55      14.961  -5.215  -3.373
ATOM    871  H   GLN A  55      15.157  -5.156  -4.371
ATOM    872  CA  GLN A  55      16.055  -5.584  -2.472
ATOM    873  HA  GLN A  55      15.758  -6.487  -1.939
ATOM    874  CB  GLN A  55      17.301  -5.917  -3.309
ATOM    875  HB2 GLN A  55      17.001  -6.565  -4.135
ATOM    876  HB3 GLN A  55      17.723  -5.003  -3.728
ATOM    877  CG  GLN A  55      18.372  -6.651  -2.487
ATOM    878  HG2 GLN A  55      18.761  -5.980  -1.720
ATOM    879  HG3 GLN A  55      17.924  -7.514  -1.994
ATOM    880  CD  GLN A  55      19.516  -7.152  -3.366
ATOM    881  OE1 GLN A  55      19.315  -7.884  -4.329
ATOM    882  NE2 GLN A  55      20.745  -6.794  -3.066
ATOM    883  HE21GLN A  55      21.491  -7.129  -3.657
ATOM    884  HE22GLN A  55      20.929  -6.241  -2.240
ATOM    885  C   GLN A  55      16.326  -4.522  -1.394
ATOM    886  O   GLN A  55      16.439  -4.886  -0.222
ATOM    887  N   THR A  56      16.358  -3.230  -1.757
ATOM    888  H   THR A  56      16.226  -2.997  -2.735
ATOM    889  CA  THR A  56      16.611  -2.122  -0.816
ATOM    890  HA  THR A  56      17.496  -2.359  -0.226
ATOM    891  CB  THR A  56      16.870  -0.816  -1.567
ATOM    892  HB  THR A  56      15.977  -0.539  -2.129
ATOM    893  CG2 THR A  56      17.263   0.338  -0.642
ATOM    894  HG21THR A  56      16.396   0.653  -0.064
ATOM    895  HG22THR A  56      18.050   0.022   0.040
ATOM    896  HG23THR A  56      17.605   1.189  -1.232
ATOM    897  OG1 THR A  56      17.923  -1.008  -2.473
ATOM    898  HG1 THR A  56      18.454  -1.774  -2.162
ATOM    899  C   THR A  56      15.458  -1.936   0.157
ATOM    900  O   THR A  56      15.693  -1.687   1.337
ATOM    901  N   TYR A  57      14.216  -2.099  -0.307
ATOM    902  H   TYR A  57      14.088  -2.311  -1.285
ATOM    903  CA  TYR A  57      13.033  -2.047   0.562
ATOM    904  HA  TYR A  57      13.020  -1.092   1.080
ATOM    905  CB  TYR A  57      11.743  -2.170  -0.278
ATOM    906  HB2 TYR A  57      11.761  -3.123  -0.808
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ATOM    907  HB3 TYR A  57      10.897  -2.206   0.409
ATOM    908  CG  TYR A  57      11.435  -1.081  -1.301
ATOM    909  CD1 TYR A  57      12.187   0.110  -1.396
ATOM    910  HD1 TYR A  57      13.016   0.294  -0.731
ATOM    911  CE1 TYR A  57      11.842   1.097  -2.338
ATOM    912  HE1 TYR A  57      12.394   2.022  -2.386
ATOM    913  CZ  TYR A  57      10.772   0.888  -3.229
ATOM    914  OH  TYR A  57      10.475   1.843  -4.153
ATOM    915  HH  TYR A  57      11.052   2.618  -4.064
ATOM    916  CE2 TYR A  57      10.020  -0.304  -3.146
ATOM    917  HE2 TYR A  57       9.193  -0.470  -3.821
ATOM    918  CD2 TYR A  57      10.344  -1.271  -2.174
ATOM    919  HD2 TYR A  57       9.754  -2.174  -2.100
ATOM    920  C   TYR A  57      13.122  -3.137   1.646
ATOM    921  O   TYR A  57      13.027  -2.852   2.842
ATOM    922  N   CYS A  58      13.436  -4.369   1.232
ATOM    923  H   CYS A  58      13.486  -4.519   0.229
ATOM    924  CA  CYS A  58      13.641  -5.512   2.121
ATOM    925  HA  CYS A  58      12.749  -5.628   2.736
ATOM    926  CB  CYS A  58      13.788  -6.751   1.224
ATOM    927  HB2 CYS A  58      13.030  -6.720   0.436
ATOM    928  HB3 CYS A  58      14.778  -6.775   0.761
ATOM    929  SG  CYS A  58      13.523  -8.243   2.216
ATOM    930  HG  CYS A  58      12.331  -7.898   2.725
ATOM    931  C   CYS A  58      14.818  -5.301   3.096
ATOM    932  O   CYS A  58      14.665  -5.526   4.297
ATOM    933  N   GLN A  59      15.953  -4.789   2.608
ATOM    934  H   GLN A  59      16.004  -4.626   1.606
ATOM    935  CA  GLN A  59      17.138  -4.452   3.406
ATOM    936  HA  GLN A  59      17.504  -5.352   3.897
ATOM    937  CB  GLN A  59      18.226  -3.928   2.449
ATOM    938  HB2 GLN A  59      18.379  -4.653   1.649
ATOM    939  HB3 GLN A  59      17.875  -3.003   1.996
ATOM    940  CG  GLN A  59      19.585  -3.666   3.119
ATOM    941  HG2 GLN A  59      19.474  -2.943   3.928
ATOM    942  HG3 GLN A  59      19.955  -4.605   3.529
ATOM    943  CD  GLN A  59      20.602  -3.113   2.119
ATOM    944  OE1 GLN A  59      20.318  -2.223   1.328
ATOM    945  NE2 GLN A  59      21.821  -3.603   2.098
ATOM    946  HE21GLN A  59      22.461  -3.261   1.402
ATOM    947  HE22GLN A  59      22.131  -4.288   2.780
ATOM    948  C   GLN A  59      16.821  -3.434   4.513
ATOM    949  O   GLN A  59      17.201  -3.633   5.667
ATOM    950  N   ARG A  60      16.104  -2.358   4.179
ATOM    951  H   ARG A  60      15.842  -2.229   3.205
ATOM    952  CA  ARG A  60      15.771  -1.295   5.127
ATOM    953  HA  ARG A  60      16.684  -1.022   5.656
ATOM    954  CB  ARG A  60      15.304  -0.056   4.339
ATOM    955  HB2 ARG A  60      14.583  -0.355   3.576
ATOM    956  HB3 ARG A  60      14.817   0.641   5.019
ATOM    957  CG  ARG A  60      16.520   0.640   3.699
ATOM    958  HG2 ARG A  60      17.162   1.005   4.503
ATOM    959  HG3 ARG A  60      17.089  -0.074   3.099
ATOM    960  CD  ARG A  60      16.152   1.838   2.811
ATOM    961  HD2 ARG A  60      15.563   1.496   1.960
ATOM    962  HD3 ARG A  60      15.557   2.538   3.396
ATOM    963  NE  ARG A  60      17.377   2.515   2.363
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ATOM    964  HE  ARG A  60      18.245   2.228   2.802
ATOM    965  CZ  ARG A  60      17.501   3.513   1.500
ATOM    966  NH1 ARG A  60      16.503   4.001   0.797
ATOM    967  HH11ARG A  60      15.585   3.571   0.804
ATOM    968  HH12ARG A  60      16.701   4.775   0.168
ATOM    969  NH2 ARG A  60      18.677   4.065   1.329
ATOM    970  HH21ARG A  60      19.470   3.689   1.830
ATOM    971  HH22ARG A  60      18.769   4.831   0.674
ATOM    972  C   ARG A  60      14.767  -1.750   6.200
ATOM    973  O   ARG A  60      14.955  -1.420   7.374
ATOM    974  N   THR A  61      13.747  -2.544   5.843
ATOM    975  H   THR A  61      13.617  -2.742   4.857
ATOM    976  CA  THR A  61      12.779  -3.109   6.810
ATOM    977  HA  THR A  61      12.453  -2.320   7.494
ATOM    978  CB  THR A  61      11.537  -3.630   6.077
ATOM    979  HB  THR A  61      11.819  -4.364   5.313
ATOM    980  CG2 THR A  61      10.513  -4.256   7.028
ATOM    981  HG21THR A  61       9.576  -4.431   6.505
ATOM    982  HG22THR A  61      10.881  -5.211   7.400
ATOM    983  HG23THR A  61      10.323  -3.597   7.875
ATOM    984  OG1 THR A  61      10.924  -2.515   5.472
ATOM    985  HG1 THR A  61      10.688  -1.888   6.189
ATOM    986  C   THR A  61      13.422  -4.165   7.706
ATOM    987  O   THR A  61      13.157  -4.157   8.909
ATOM    988  N   LEU A  62      14.322  -5.009   7.180
ATOM    989  H   LEU A  62      14.492  -4.999   6.178
ATOM    990  CA  LEU A  62      15.109  -5.938   8.000
ATOM    991  HA  LEU A  62      14.415  -6.606   8.514
ATOM    992  CB  LEU A  62      16.020  -6.789   7.087
ATOM    993  HB2 LEU A  62      15.375  -7.318   6.386
ATOM    994  HB3 LEU A  62      16.646  -6.128   6.488
ATOM    995  CG  LEU A  62      16.925  -7.851   7.758
ATOM    996  HG  LEU A  62      17.230  -8.536   6.965
ATOM    997  CD1 LEU A  62      18.219  -7.264   8.340
ATOM    998  HD11LEU A  62      18.887  -8.082   8.609
ATOM    999  HD12LEU A  62      18.718  -6.640   7.597
ATOM   1000  HD13LEU A  62      18.022  -6.677   9.235
ATOM   1001  CD2 LEU A  62      16.213  -8.689   8.833
ATOM   1002  HD21LEU A  62      15.867  -8.064   9.654
ATOM   1003  HD22LEU A  62      15.365  -9.212   8.397
ATOM   1004  HD23LEU A  62      16.905  -9.424   9.239
ATOM   1005  C   LEU A  62      15.866  -5.175   9.091
ATOM   1006  O   LEU A  62      15.712  -5.506  10.262
ATOM   1007  N   ARG A  63      16.611  -4.120   8.735
ATOM   1008  H   ARG A  63      16.700  -3.911   7.747
ATOM   1009  CA  ARG A  63      17.332  -3.283   9.707
ATOM   1010  HA  ARG A  63      18.044  -3.911  10.246
ATOM   1011  CB  ARG A  63      18.112  -2.185   8.979
ATOM   1012  HB2 ARG A  63      17.423  -1.639   8.332
ATOM   1013  HB3 ARG A  63      18.507  -1.483   9.717
ATOM   1014  CG  ARG A  63      19.291  -2.720   8.152
ATOM   1015  HG2 ARG A  63      20.103  -3.015   8.817
ATOM   1016  HG3 ARG A  63      18.991  -3.573   7.546
ATOM   1017  CD  ARG A  63      19.745  -1.577   7.249
ATOM   1018  HD2 ARG A  63      18.898  -1.268   6.632
ATOM   1019  HD3 ARG A  63      20.042  -0.735   7.881
ATOM   1020  NE  ARG A  63      20.859  -1.942   6.365
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ATOM   1021  HE  ARG A  63      21.275  -2.864   6.465
ATOM   1022  CZ  ARG A  63      21.420  -1.093   5.516
ATOM   1023  NH1 ARG A  63      21.017   0.155   5.453
ATOM   1024  HH11ARG A  63      20.274   0.491   6.036
ATOM   1025  HH12ARG A  63      21.510   0.830   4.866
ATOM   1026  NH2 ARG A  63      22.411  -1.467   4.744
ATOM   1027  HH21ARG A  63      22.733  -2.431   4.707
ATOM   1028  HH22ARG A  63      22.912  -0.761   4.199
ATOM   1029  C   ARG A  63      16.402  -2.640  10.750
ATOM   1030  O   ARG A  63      16.737  -2.688  11.936
ATOM   1031  N   GLU C  64      15.260  -2.077  10.325
ATOM   1032  H   GLU C  64      15.074  -2.062   9.329
ATOM   1033  CA  GLU C  64      14.292  -1.430  11.221
ATOM   1034  HA  GLU C  64      14.795  -0.584  11.690
ATOM   1035  CB  GLU C  64      13.075  -0.900  10.429
ATOM   1036  HB2 GLU C  64      13.432  -0.346   9.564
ATOM   1037  HB3 GLU C  64      12.484  -1.739  10.065
ATOM   1038  CG  GLU C  64      12.180   0.021  11.280
ATOM   1039  HG2 GLU C  64      11.692  -0.573  12.055
ATOM   1040  HG3 GLU C  64      12.805   0.767  11.768
ATOM   1041  CD  GLU C  64      11.099   0.745  10.467
ATOM   1042  OE1 GLU C  64      10.203   0.095   9.898
ATOM   1043  OE2 GLU C  64      11.104   1.997  10.391
ATOM   1044  C   GLU C  64      13.860  -2.390  12.337
ATOM   1045  O   GLU C  64      13.968  -2.048  13.512
ATOM   1046  N   ILE A  65      13.440  -3.611  11.984
ATOM   1047  H   ILE A  65      13.391  -3.835  10.994
ATOM   1048  CA  ILE A  65      13.050  -4.635  12.968
ATOM   1049  HA  ILE A  65      12.389  -4.179  13.707
ATOM   1050  CB  ILE A  65      12.295  -5.796  12.267
ATOM   1051  HB  ILE A  65      12.914  -6.167  11.447
ATOM   1052  CG2 ILE A  65      12.046  -6.962  13.247
ATOM   1053  HG21ILE A  65      11.490  -7.762  12.761
ATOM   1054  HG22ILE A  65      12.990  -7.392  13.584
ATOM   1055  HG23ILE A  65      11.488  -6.609  14.116
ATOM   1056  CG1 ILE A  65      10.957  -5.280  11.684
ATOM   1057  HG12ILE A  65      10.313  -4.962  12.504
ATOM   1058  HG13ILE A  65      11.148  -4.412  11.056
ATOM   1059  CD1 ILE A  65      10.194  -6.296  10.824
ATOM   1060  HD11ILE A  65       9.352  -5.799  10.343
ATOM   1061  HD12ILE A  65      10.851  -6.701  10.054
ATOM   1062  HD13ILE A  65       9.805  -7.106  11.440
ATOM   1063  C   ILE A  65      14.265  -5.125  13.764
ATOM   1064  O   ILE A  65      14.228  -5.147  14.990
ATOM   1065  N   LYS A  66      15.347  -5.526  13.094
ATOM   1066  H   LYS A  66      15.343  -5.453  12.082
ATOM   1067  CA  LYS A  66      16.486  -6.205  13.724
ATOM   1068  HA  LYS A  66      16.106  -7.076  14.262
ATOM   1069  CB  LYS A  66      17.414  -6.703  12.601
ATOM   1070  HB2 LYS A  66      16.826  -7.314  11.913
ATOM   1071  HB3 LYS A  66      17.810  -5.848  12.051
ATOM   1072  CG  LYS A  66      18.572  -7.554  13.129
ATOM   1073  HG2 LYS A  66      19.215  -6.933  13.752
ATOM   1074  HG3 LYS A  66      18.169  -8.362  13.740
ATOM   1075  CD  LYS A  66      19.398  -8.147  11.981
ATOM   1076  HD2 LYS A  66      18.802  -8.894  11.454
ATOM   1077  HD3 LYS A  66      19.688  -7.358  11.287
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ATOM   1078  CE  LYS A  66      20.651  -8.787  12.574
ATOM   1079  HE2 LYS A  66      21.263  -8.009  13.038
ATOM   1080  HE3 LYS A  66      20.350  -9.483  13.359
ATOM   1081  NZ  LYS A  66      21.443  -9.524  11.571
ATOM   1082  HZ1 LYS A  66      22.292  -9.864  12.008
ATOM   1083  HZ2 LYS A  66      20.941 -10.350  11.257
ATOM   1084  HZ3 LYS A  66      21.681  -8.940  10.772
ATOM   1085  C   LYS A  66      17.209  -5.338  14.774
ATOM   1086  O   LYS A  66      17.653  -5.871  15.794
ATOM   1087  N   ILE A  67      17.288  -4.015  14.568
ATOM   1088  H   ILE A  67      16.907  -3.654  13.696
ATOM   1089  CA  ILE A  67      17.779  -3.063  15.586
ATOM   1090  HA  ILE A  67      18.654  -3.487  16.083
ATOM   1091  CB  ILE A  67      18.192  -1.716  14.928
ATOM   1092  HB  ILE A  67      17.363  -1.360  14.312
ATOM   1093  CG2 ILE A  67      18.492  -0.638  15.991
ATOM   1094  HG21ILE A  67      19.314  -0.958  16.633
ATOM   1095  HG22ILE A  67      18.755   0.304  15.515
ATOM   1096  HG23ILE A  67      17.613  -0.444  16.604
ATOM   1097  CG1 ILE A  67      19.426  -1.930  14.019
ATOM   1098  HG12ILE A  67      20.260  -2.283  14.627
ATOM   1099  HG13ILE A  67      19.193  -2.703  13.290
ATOM   1100  CD1 ILE A  67      19.885  -0.693  13.235
ATOM   1101  HD11ILE A  67      20.658  -0.987  12.526
ATOM   1102  HD12ILE A  67      19.044  -0.265  12.687
ATOM   1103  HD13ILE A  67      20.305   0.053  13.908
ATOM   1104  C   ILE A  67      16.729  -2.873  16.688
ATOM   1105  O   ILE A  67      17.036  -3.048  17.870
ATOM   1106  N   LEU A  68      15.493  -2.517  16.324
ATOM   1107  H   LEU A  68      15.256  -2.461  15.338
ATOM   1108  CA  LEU A  68      14.477  -2.089  17.287
ATOM   1109  HA  LEU A  68      14.941  -1.343  17.933
ATOM   1110  CB  LEU A  68      13.332  -1.430  16.497
ATOM   1111  HB2 LEU A  68      13.769  -0.683  15.830
ATOM   1112  HB3 LEU A  68      12.859  -2.198  15.881
ATOM   1113  CG  LEU A  68      12.239  -0.741  17.334
ATOM   1114  HG  LEU A  68      11.682  -1.499  17.882
ATOM   1115  CD1 LEU A  68      12.823   0.263  18.339
ATOM   1116  HD11LEU A  68      13.344  -0.259  19.141
ATOM   1117  HD12LEU A  68      13.522   0.927  17.837
ATOM   1118  HD13LEU A  68      12.026   0.856  18.781
ATOM   1119  CD2 LEU A  68      11.269  -0.024  16.383
ATOM   1120  HD21LEU A  68      10.425   0.373  16.943
ATOM   1121  HD22LEU A  68      11.775   0.793  15.870
ATOM   1122  HD23LEU A  68      10.887  -0.724  15.639
ATOM   1123  C   LEU A  68      14.003  -3.224  18.207
ATOM   1124  O   LEU A  68      13.637  -2.951  19.349
ATOM   1125  N   LEU A  69      14.050  -4.479  17.748
ATOM   1126  H   LEU A  69      14.285  -4.611  16.767
ATOM   1127  CA  LEU A  69      13.754  -5.682  18.535
ATOM   1128  HA  LEU A  69      12.859  -5.485  19.130
ATOM   1129  CB  LEU A  69      13.471  -6.831  17.539
ATOM   1130  HB2 LEU A  69      12.725  -6.486  16.818
ATOM   1131  HB3 LEU A  69      14.393  -7.046  16.992
ATOM   1132  CG  LEU A  69      12.959  -8.146  18.160
ATOM   1133  HG  LEU A  69      13.702  -8.523  18.863
ATOM   1134  CD1 LEU A  69      11.626  -7.950  18.900
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ATOM   1135  HD11LEU A  69      11.768  -7.314  19.773
ATOM   1136  HD12LEU A  69      10.888  -7.496  18.238
ATOM   1137  HD13LEU A  69      11.249  -8.911  19.242
ATOM   1138  CD2 LEU A  69      12.782  -9.205  17.061
ATOM   1139  HD21LEU A  69      12.460 -10.149  17.503
ATOM   1140  HD22LEU A  69      12.038  -8.878  16.334
ATOM   1141  HD23LEU A  69      13.732  -9.371  16.552
ATOM   1142  C   LEU A  69      14.874  -6.038  19.533
ATOM   1143  O   LEU A  69      14.608  -6.736  20.511
ATOM   1144  N   ARG A  70      16.109  -5.551  19.329
ATOM   1145  H   ARG A  70      16.269  -4.972  18.514
ATOM   1146  CA  ARG A  70      17.198  -5.689  20.310
ATOM   1147  HA  ARG A  70      17.127  -6.683  20.754
ATOM   1148  CB  ARG A  70      18.563  -5.537  19.610
ATOM   1149  HB2 ARG A  70      18.567  -6.145  18.709
ATOM   1150  HB3 ARG A  70      18.702  -4.499  19.300
ATOM   1151  CG  ARG A  70      19.776  -5.952  20.472
ATOM   1152  HG2 ARG A  70      20.661  -5.955  19.839
ATOM   1153  HG3 ARG A  70      19.937  -5.201  21.246
ATOM   1154  CD  ARG A  70      19.667  -7.329  21.148
ATOM   1155  HD2 ARG A  70      20.646  -7.607  21.545
ATOM   1156  HD3 ARG A  70      18.975  -7.242  21.985
ATOM   1157  NE  ARG A  70      19.199  -8.366  20.214
ATOM   1158  HE  ARG A  70      19.435  -8.237  19.231
ATOM   1159  CZ  ARG A  70      18.460  -9.429  20.499
ATOM   1160  NH1 ARG A  70      18.159  -9.764  21.736
ATOM   1161  HH11ARG A  70      18.507  -9.214  22.498
ATOM   1162  HH12ARG A  70      17.610 -10.589  21.930
ATOM   1163  NH2 ARG A  70      18.013 -10.164  19.510
ATOM   1164  HH21ARG A  70      18.169  -9.838  18.561
ATOM   1165  HH22ARG A  70      17.387 -10.941  19.660
ATOM   1166  C   ARG A  70      17.065  -4.659  21.432
ATOM   1167  O   ARG A  70      17.355  -4.967  22.591
ATOM   1168  N   PHE A  71      16.650  -3.435  21.097
ATOM   1169  H   PHE A  71      16.456  -3.246  20.122
ATOM   1170  CA  PHE A  71      16.429  -2.366  22.065
ATOM   1171  HA  PHE A  71      17.292  -2.319  22.730
ATOM   1172  CB  PHE A  71      16.304  -1.025  21.319
ATOM   1173  HB2 PHE A  71      15.489  -1.114  20.597
ATOM   1174  HB3 PHE A  71      16.014  -0.259  22.040
ATOM   1175  CG  PHE A  71      17.541  -0.509  20.587
ATOM   1176  CD1 PHE A  71      18.831  -1.036  20.823
ATOM   1177  HD1 PHE A  71      18.982  -1.856  21.506
ATOM   1178  CE1 PHE A  71      19.955  -0.482  20.188
ATOM   1179  HE1 PHE A  71      20.934  -0.891  20.388
ATOM   1180  CZ  PHE A  71      19.807   0.596  19.301
ATOM   1181  HZ  PHE A  71      20.673   1.017  18.810
ATOM   1182  CE2 PHE A  71      18.527   1.116  19.049
ATOM   1183  HE2 PHE A  71      18.411   1.937  18.358
ATOM   1184  CD2 PHE A  71      17.400   0.567  19.688
ATOM   1185  HD2 PHE A  71      16.423   0.983  19.486
ATOM   1186  C   PHE A  71      15.203  -2.647  22.950
ATOM   1187  O   PHE A  71      14.209  -3.216  22.503
ATOM   1188  N   ARG A  72      15.274  -2.211  24.213
ATOM   1189  H   ARG A  72      16.144  -1.794  24.514
ATOM   1190  CA  ARG A  72      14.180  -2.310  25.197
ATOM   1191  HA  ARG A  72      13.243  -2.180  24.655
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ATOM   1192  CB  ARG A  72      14.140  -3.722  25.836
ATOM   1193  HB2 ARG A  72      13.254  -3.802  26.469
ATOM   1194  HB3 ARG A  72      14.044  -4.469  25.046
ATOM   1195  CG  ARG A  72      15.384  -4.052  26.677
ATOM   1196  HG2 ARG A  72      16.263  -4.032  26.032
ATOM   1197  HG3 ARG A  72      15.492  -3.297  27.457
ATOM   1198  CD  ARG A  72      15.298  -5.428  27.351
ATOM   1199  HD2 ARG A  72      14.434  -5.440  28.017
ATOM   1200  HD3 ARG A  72      15.163  -6.196  26.588
ATOM   1201  NE  ARG A  72      16.531  -5.715  28.106
ATOM   1202  HE  ARG A  72      17.406  -5.355  27.738
ATOM   1203  CZ  ARG A  72      16.646  -6.383  29.246
ATOM   1204  NH1 ARG A  72      15.635  -6.918  29.896
ATOM   1205  HH11ARG A  72      14.683  -6.856  29.550
ATOM   1206  HH12ARG A  72      15.812  -7.387  30.774
ATOM   1207  NH2 ARG A  72      17.842  -6.528  29.764
ATOM   1208  HH21ARG A  72      18.648  -6.139  29.272
ATOM   1209  HH22ARG A  72      17.973  -7.041  30.617
ATOM   1210  C   ARG A  72      14.214  -1.182  26.247
ATOM   1211  O   ARG A  72      13.525  -1.256  27.261
ATOM   1212  N   HIE A  73      15.046  -0.154  26.044
ATOM   1213  H   HIE A  73      15.538  -0.096  25.169
ATOM   1214  CA  HIE A  73      15.198   0.970  26.974
ATOM   1215  HA  HIE A  73      15.253   0.564  27.986
ATOM   1216  CB  HIE A  73      16.532   1.664  26.694
ATOM   1217  HB2 HIE A  73      17.320   0.926  26.805
ATOM   1218  HB3 HIE A  73      16.552   2.050  25.674
ATOM   1219  CG  HIE A  73      16.813   2.788  27.647
ATOM   1220  ND1 HIE A  73      16.526   4.133  27.416
ATOM   1221  CE1 HIE A  73      16.855   4.766  28.552
ATOM   1222  HE1 HIE A  73      16.789   5.835  28.692
ATOM   1223  NE2 HIE A  73      17.295   3.892  29.476
ATOM   1224  HE2 HIE A  73      17.595   4.113  30.421
ATOM   1225  CD2 HIE A  73      17.273   2.637  28.920
ATOM   1226  HD2 HIE A  73      17.546   1.709  29.402
ATOM   1227  C   HIE A  73      14.018   1.965  26.937
ATOM   1228  O   HIE A  73      13.417   2.195  25.888
ATOM   1229  N   GLU A  74      13.722   2.570  28.089
ATOM   1230  H   GLU A  74      14.295   2.351  28.889
ATOM   1231  CA  GLU A  74      12.518   3.358  28.346
ATOM   1232  HA  GLU A  74      11.663   2.682  28.308
ATOM   1233  CB  GLU A  74      12.636   3.890  29.777
ATOM   1234  HB2 GLU A  74      12.776   3.037  30.440
ATOM   1235  HB3 GLU A  74      13.505   4.544  29.867
ATOM   1236  CG  GLU A  74      11.377   4.648  30.191
ATOM   1237  HG2 GLU A  74      11.385   5.642  29.742
ATOM   1238  HG3 GLU A  74      10.502   4.108  29.844
ATOM   1239  CD  GLU A  74      11.271   4.758  31.697
ATOM   1240  OE1 GLU A  74      11.411   5.880  32.223
ATOM   1241  OE2 GLU A  74      10.998   3.728  32.347
ATOM   1242  C   GLU A  74      12.246   4.499  27.351
ATOM   1243  O   GLU A  74      11.105   4.665  26.920
ATOM   1244  N   ASN A  75      13.269   5.268  26.964
ATOM   1245  H   ASN A  75      14.195   5.051  27.310
ATOM   1246  CA  ASN A  75      13.118   6.459  26.110
ATOM   1247  HA  ASN A  75      12.165   6.928  26.362
ATOM   1248  CB  ASN A  75      14.231   7.471  26.466
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ATOM   1249  HB2 ASN A  75      15.203   7.040  26.226
ATOM   1250  HB3 ASN A  75      14.098   8.371  25.864
ATOM   1251  CG  ASN A  75      14.220   7.884  27.945
ATOM   1252  OD1 ASN A  75      15.186   7.691  28.678
ATOM   1253  ND2 ASN A  75      13.133   8.443  28.442
ATOM   1254  HD21ASN A  75      13.070   8.651  29.429
ATOM   1255  HD22ASN A  75      12.326   8.641  27.853
ATOM   1256  C   ASN A  75      13.029   6.117  24.594
ATOM   1257  O   ASN A  75      13.210   6.975  23.724
ATOM   1258  N   ILE A  76      12.760   4.851  24.251
ATOM   1259  H   ILE A  76      12.536   4.205  25.005
ATOM   1260  CA  ILE A  76      12.670   4.297  22.886
ATOM   1261  HA  ILE A  76      12.621   5.103  22.155
ATOM   1262  CB  ILE A  76      13.921   3.427  22.575
ATOM   1263  HB  ILE A  76      13.898   2.552  23.227
ATOM   1264  CG2 ILE A  76      13.902   2.934  21.112
ATOM   1265  HG21ILE A  76      13.011   2.338  20.920
ATOM   1266  HG22ILE A  76      13.926   3.783  20.429
ATOM   1267  HG23ILE A  76      14.755   2.286  20.914
ATOM   1268  CG1 ILE A  76      15.235   4.202  22.863
ATOM   1269  HG12ILE A  76      15.251   5.119  22.273
ATOM   1270  HG13ILE A  76      15.265   4.482  23.915
ATOM   1271  CD1 ILE A  76      16.531   3.428  22.593
ATOM   1272  HD11ILE A  76      17.370   4.010  22.977
ATOM   1273  HD12ILE A  76      16.501   2.464  23.103
ATOM   1274  HD13ILE A  76      16.677   3.278  21.523
ATOM   1275  C   ILE A  76      11.362   3.493  22.778
ATOM   1276  O   ILE A  76      10.878   2.949  23.772
ATOM   1277  N   ILE A  77      10.740   3.441  21.598
ATOM   1278  H   ILE A  77      11.153   3.925  20.803
ATOM   1279  CA  ILE A  77       9.509   2.657  21.392
ATOM   1280  HA  ILE A  77       8.838   2.930  22.206
ATOM   1281  CB  ILE A  77       8.833   3.066  20.062
ATOM   1282  HB  ILE A  77       8.786   4.156  20.035
ATOM   1283  CG2 ILE A  77       9.656   2.607  18.848
ATOM   1284  HG21ILE A  77      10.672   2.999  18.903
ATOM   1285  HG22ILE A  77       9.691   1.520  18.806
ATOM   1286  HG23ILE A  77       9.195   2.967  17.932
ATOM   1287  CG1 ILE A  77       7.390   2.539  19.903
ATOM   1288  HG12ILE A  77       6.990   2.925  18.966
ATOM   1289  HG13ILE A  77       7.397   1.450  19.840
ATOM   1290  CD1 ILE A  77       6.424   2.963  21.016
ATOM   1291  HD11ILE A  77       6.438   4.047  21.129
ATOM   1292  HD12ILE A  77       5.415   2.645  20.751
ATOM   1293  HD13ILE A  77       6.692   2.489  21.959
ATOM   1294  C   ILE A  77       9.737   1.134  21.517
ATOM   1295  O   ILE A  77      10.760   0.596  21.083
ATOM   1296  N   GLY A  78       8.760   0.429  22.098
ATOM   1297  H   GLY A  78       7.927   0.909  22.404
ATOM   1298  CA  GLY A  78       8.794  -1.023  22.292
ATOM   1299  HA2 GLY A  78       9.817  -1.387  22.262
ATOM   1300  HA3 GLY A  78       8.393  -1.270  23.269
ATOM   1301  C   GLY A  78       7.947  -1.776  21.268
ATOM   1302  O   GLY A  78       6.777  -1.456  21.059
ATOM   1303  N   ILE A  79       8.518  -2.824  20.677
ATOM   1304  H   ILE A  79       9.519  -2.941  20.817
ATOM   1305  CA  ILE A  79       7.783  -3.868  19.941
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ATOM   1306  HA  ILE A  79       6.901  -3.426  19.475
ATOM   1307  CB  ILE A  79       8.671  -4.474  18.823
ATOM   1308  HB  ILE A  79       9.591  -4.847  19.277
ATOM   1309  CG2 ILE A  79       7.958  -5.659  18.137
ATOM   1310  HG21ILE A  79       7.031  -5.325  17.668
ATOM   1311  HG22ILE A  79       8.602  -6.100  17.380
ATOM   1312  HG23ILE A  79       7.736  -6.447  18.856
ATOM   1313  CG1 ILE A  79       9.048  -3.397  17.776
ATOM   1314  HG12ILE A  79       8.148  -3.066  17.258
ATOM   1315  HG13ILE A  79       9.465  -2.528  18.281
ATOM   1316  CD1 ILE A  79      10.081  -3.856  16.738
ATOM   1317  HD11ILE A  79       9.670  -4.643  16.106
ATOM   1318  HD12ILE A  79      10.348  -3.014  16.100
ATOM   1319  HD13ILE A  79      10.977  -4.219  17.245
ATOM   1320  C   ILE A  79       7.305  -4.939  20.936
ATOM   1321  O   ILE A  79       8.102  -5.429  21.738
ATOM   1322  N   ASN A  80       6.028  -5.325  20.873
ATOM   1323  H   ASN A  80       5.425  -4.851  20.213
ATOM   1324  CA  ASN A  80       5.476  -6.469  21.622
ATOM   1325  HA  ASN A  80       6.137  -6.712  22.455
ATOM   1326  CB  ASN A  80       4.108  -6.063  22.203
ATOM   1327  HB2 ASN A  80       4.277  -5.287  22.949
ATOM   1328  HB3 ASN A  80       3.496  -5.644  21.402
ATOM   1329  CG  ASN A  80       3.306  -7.189  22.868
ATOM   1330  OD1 ASN A  80       2.109  -7.322  22.628
ATOM   1331  ND2 ASN A  80       3.887  -7.996  23.737
ATOM   1332  HD21ASN A  80       3.325  -8.679  24.231
ATOM   1333  HD22ASN A  80       4.886  -7.963  23.910
ATOM   1334  C   ASN A  80       5.359  -7.728  20.746
ATOM   1335  O   ASN A  80       5.720  -8.819  21.185
ATOM   1336  N   ASP A  81       4.886  -7.583  19.506
ATOM   1337  H   ASP A  81       4.672  -6.659  19.164
ATOM   1338  CA  ASP A  81       4.542  -8.694  18.615
ATOM   1339  HA  ASP A  81       5.183  -9.548  18.848
ATOM   1340  CB  ASP A  81       3.072  -9.094  18.865
ATOM   1341  HB2 ASP A  81       2.780  -8.799  19.876
ATOM   1342  HB3 ASP A  81       2.425  -8.557  18.172
ATOM   1343  CG  ASP A  81       2.825 -10.599  18.731
ATOM   1344  OD1 ASP A  81       2.556 -11.243  19.775
ATOM   1345  OD2 ASP A  81       2.894 -11.128  17.599
ATOM   1346  C   ASP A  81       4.789  -8.303  17.147
ATOM   1347  O   ASP A  81       4.828  -7.117  16.800
ATOM   1348  N   ILE A  82       4.961  -9.297  16.274
ATOM   1349  H   ILE A  82       4.788 -10.246  16.598
ATOM   1350  CA  ILE A  82       5.144  -9.095  14.828
ATOM   1351  HA  ILE A  82       4.655  -8.163  14.554
ATOM   1352  CB  ILE A  82       6.637  -9.002  14.404
ATOM   1353  HB  ILE A  82       7.071 -10.003  14.444
ATOM   1354  CG2 ILE A  82       6.695  -8.500  12.945
ATOM   1355  HG21ILE A  82       7.716  -8.505  12.570
ATOM   1356  HG22ILE A  82       6.102  -9.143  12.294
ATOM   1357  HG23ILE A  82       6.317  -7.482  12.879
ATOM   1358  CG1 ILE A  82       7.491  -8.091  15.322
ATOM   1359  HG12ILE A  82       7.067  -7.087  15.336
ATOM   1360  HG13ILE A  82       7.466  -8.489  16.336
ATOM   1361  CD1 ILE A  82       8.968  -7.991  14.921
ATOM   1362  HD11ILE A  82       9.529  -7.498  15.715
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ATOM   1363  HD12ILE A  82       9.384  -8.987  14.765
ATOM   1364  HD13ILE A  82       9.074  -7.401  14.011
ATOM   1365  C   ILE A  82       4.432 -10.233  14.095
ATOM   1366  O   ILE A  82       4.819 -11.395  14.228
ATOM   1367  N   ILE A  83       3.394  -9.914  13.324
ATOM   1368  H   ILE A  83       3.219  -8.929  13.149
ATOM   1369  CA  ILE A  83       2.568 -10.904  12.618
ATOM   1370  HA  ILE A  83       2.736 -11.874  13.092
ATOM   1371  CB  ILE A  83       1.045 -10.595  12.714
ATOM   1372  HB  ILE A  83       0.772  -9.876  11.940
ATOM   1373  CG2 ILE A  83       0.261 -11.893  12.433
ATOM   1374  HG21ILE A  83       0.468 -12.259  11.428
ATOM   1375  HG22ILE A  83       0.524 -12.659  13.164
ATOM   1376  HG23ILE A  83      -0.811 -11.703  12.493
ATOM   1377  CG1 ILE A  83       0.564 -10.035  14.075
ATOM   1378  HG12ILE A  83      -0.473 -10.321  14.245
ATOM   1379  HG13ILE A  83       1.149 -10.467  14.887
ATOM   1380  CD1 ILE A  83       0.607  -8.506  14.161
ATOM   1381  HD11ILE A  83       0.046  -8.071  13.335
ATOM   1382  HD12ILE A  83       0.146  -8.194  15.098
ATOM   1383  HD13ILE A  83       1.633  -8.146  14.129
ATOM   1384  C   ILE A  83       3.015 -11.008  11.153
ATOM   1385  O   ILE A  83       3.347 -10.004  10.523
ATOM   1386  N   ARG A  84       2.973 -12.224  10.603
ATOM   1387  H   ARG A  84       2.697 -12.992  11.194
ATOM   1388  CA  ARG A  84       3.154 -12.529   9.180
ATOM   1389  HA  ARG A  84       2.583 -11.786   8.623
ATOM   1390  CB  ARG A  84       4.629 -12.362   8.741
ATOM   1391  HB2 ARG A  84       4.710 -12.595   7.678
ATOM   1392  HB3 ARG A  84       4.887 -11.307   8.841
ATOM   1393  CG  ARG A  84       5.701 -13.164   9.505
ATOM   1394  HG2 ARG A  84       6.667 -12.786   9.175
ATOM   1395  HG3 ARG A  84       5.610 -12.978  10.574
ATOM   1396  CD  ARG A  84       5.663 -14.674   9.244
ATOM   1397  HD2 ARG A  84       4.764 -15.082   9.704
ATOM   1398  HD3 ARG A  84       5.623 -14.837   8.166
ATOM   1399  NE  ARG A  84       6.840 -15.383   9.779
ATOM   1400  HE  ARG A  84       7.618 -14.804  10.084
ATOM   1401  CZ  ARG A  84       6.972 -16.706   9.853
ATOM   1402  NH1 ARG A  84       6.011 -17.541   9.523
ATOM   1403  HH11ARG A  84       5.142 -17.193   9.133
ATOM   1404  HH12ARG A  84       6.169 -18.540   9.598
ATOM   1405  NH2 ARG A  84       8.096 -17.251  10.253
ATOM   1406  HH21ARG A  84       8.915 -16.673  10.418
ATOM   1407  HH22ARG A  84       8.187 -18.256  10.226
ATOM   1408  C   ARG A  84       2.540 -13.891   8.833
ATOM   1409  O   ARG A  84       2.148 -14.646   9.726
ATOM   1410  N   ALA A  85       2.460 -14.211   7.542
ATOM   1411  H   ALA A  85       2.759 -13.518   6.873
ATOM   1412  CA  ALA A  85       1.912 -15.467   7.016
ATOM   1413  HA  ALA A  85       0.894 -15.571   7.396
ATOM   1414  CB  ALA A  85       1.849 -15.288   5.499
ATOM   1415  HB1 ALA A  85       2.858 -15.286   5.086
ATOM   1416  HB2 ALA A  85       1.272 -16.080   5.035
ATOM   1417  HB3 ALA A  85       1.355 -14.345   5.257
ATOM   1418  C   ALA A  85       2.713 -16.728   7.453
ATOM   1419  O   ALA A  85       3.868 -16.597   7.864
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ATOM   1420  N   PRO A  86       2.140 -17.950   7.384
ATOM   1421  CD  PRO A  86       0.840 -18.275   6.808
ATOM   1422  HD2 PRO A  86       0.769 -17.967   5.767
ATOM   1423  HD3 PRO A  86       0.048 -17.810   7.396
ATOM   1424  CG  PRO A  86       0.722 -19.794   6.879
ATOM   1425  HG2 PRO A  86       1.186 -20.240   5.997
ATOM   1426  HG3 PRO A  86      -0.315 -20.119   6.972
ATOM   1427  CB  PRO A  86       1.545 -20.135   8.117
ATOM   1428  HB2 PRO A  86       1.896 -21.166   8.089
ATOM   1429  HB3 PRO A  86       0.951 -19.961   9.016
ATOM   1430  CA  PRO A  86       2.692 -19.122   8.073
ATOM   1431  HA  PRO A  86       2.954 -18.851   9.094
ATOM   1432  C   PRO A  86       3.941 -19.732   7.421
ATOM   1433  O   PRO A  86       4.713 -20.396   8.115
ATOM   1434  N   THR A  87       4.149 -19.515   6.116
ATOM   1435  H   THR A  87       3.486 -18.952   5.604
ATOM   1436  CA  THR A  87       5.256 -20.063   5.320
ATOM   1437  HA  THR A  87       6.042 -20.415   5.984
ATOM   1438  CB  THR A  87       4.782 -21.252   4.475
ATOM   1439  HB  THR A  87       5.598 -21.568   3.831
ATOM   1440  CG2 THR A  87       4.370 -22.447   5.335
ATOM   1441  HG21THR A  87       5.187 -22.719   6.004
ATOM   1442  HG22THR A  87       3.488 -22.208   5.928
ATOM   1443  HG23THR A  87       4.149 -23.301   4.695
ATOM   1444  OG1 THR A  87       3.686 -20.874   3.674
ATOM   1445  HG1 THR A  87       3.445 -21.647   3.152
ATOM   1446  C   THR A  87       5.846 -18.970   4.438
ATOM   1447  O   THR A  87       5.182 -17.971   4.158
ATOM   1448  N   ILE A  88       7.106 -19.112   4.014
ATOM   1449  H   ILE A  88       7.593 -19.980   4.196
ATOM   1450  CA  ILE A  88       7.821 -18.015   3.331
ATOM   1451  HA  ILE A  88       7.647 -17.110   3.915
ATOM   1452  CB  ILE A  88       9.347 -18.270   3.321
ATOM   1453  HB  ILE A  88       9.647 -18.503   4.344
ATOM   1454  CG2 ILE A  88       9.747 -19.462   2.433
ATOM   1455  HG21ILE A  88      10.813 -19.667   2.528
ATOM   1456  HG22ILE A  88       9.216 -20.356   2.751
ATOM   1457  HG23ILE A  88       9.518 -19.256   1.387
ATOM   1458  CG1 ILE A  88      10.087 -16.982   2.901
ATOM   1459  HG12ILE A  88       9.914 -16.791   1.842
ATOM   1460  HG13ILE A  88       9.692 -16.145   3.476
ATOM   1461  CD1 ILE A  88      11.596 -17.038   3.139
ATOM   1462  HD11ILE A  88      11.797 -17.289   4.181
ATOM   1463  HD12ILE A  88      12.053 -17.781   2.487
ATOM   1464  HD13ILE A  88      12.039 -16.070   2.914
ATOM   1465  C   ILE A  88       7.232 -17.713   1.946
ATOM   1466  O   ILE A  88       7.195 -16.552   1.537
ATOM   1467  N   GLU A  89       6.681 -18.733   1.288
ATOM   1468  H   GLU A  89       6.787 -19.655   1.696
ATOM   1469  CA  GLU A  89       5.879 -18.622   0.068
ATOM   1470  HA  GLU A  89       6.487 -18.175  -0.721
ATOM   1471  CB  GLU A  89       5.514 -20.052  -0.362
ATOM   1472  HB2 GLU A  89       6.440 -20.550  -0.656
ATOM   1473  HB3 GLU A  89       5.095 -20.592   0.489
ATOM   1474  CG  GLU A  89       4.517 -20.136  -1.521
ATOM   1475  HG2 GLU A  89       3.497 -20.097  -1.136
ATOM   1476  HG3 GLU A  89       4.665 -19.289  -2.193
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ATOM   1477  CD  GLU A  89       4.732 -21.424  -2.306
ATOM   1478  OE1 GLU A  89       5.250 -21.314  -3.442
ATOM   1479  OE2 GLU A  89       4.482 -22.533  -1.778
ATOM   1480  C   GLU A  89       4.625 -17.747   0.250
ATOM   1481  O   GLU A  89       4.230 -17.053  -0.681
ATOM   1482  N   GLN A  90       4.012 -17.735   1.437
ATOM   1483  H   GLN A  90       4.416 -18.260   2.202
ATOM   1484  CA  GLN A  90       2.800 -16.951   1.709
ATOM   1485  HA  GLN A  90       2.248 -16.805   0.777
ATOM   1486  CB  GLN A  90       1.909 -17.732   2.697
ATOM   1487  HB2 GLN A  90       2.491 -17.964   3.590
ATOM   1488  HB3 GLN A  90       1.072 -17.101   2.997
ATOM   1489  CG  GLN A  90       1.331 -19.039   2.124
ATOM   1490  HG2 GLN A  90       2.106 -19.605   1.609
ATOM   1491  HG3 GLN A  90       0.975 -19.647   2.956
ATOM   1492  CD  GLN A  90       0.166 -18.797   1.165
ATOM   1493  OE1 GLN A  90       0.329 -18.328   0.049
ATOM   1494  NE2 GLN A  90      -1.059 -19.076   1.558
ATOM   1495  HE21GLN A  90      -1.818 -18.886   0.923
ATOM   1496  HE22GLN A  90      -1.240 -19.499   2.451
ATOM   1497  C   GLN A  90       3.109 -15.541   2.250
ATOM   1498  O   GLN A  90       2.186 -14.750   2.437
ATOM   1499  N   MET A  91       4.377 -15.214   2.542
ATOM   1500  H   MET A  91       5.099 -15.891   2.331
ATOM   1501  CA  MET A  91       4.775 -13.940   3.158
ATOM   1502  HA  MET A  91       3.961 -13.609   3.802
ATOM   1503  CB  MET A  91       5.991 -14.158   4.073
ATOM   1504  HB2 MET A  91       5.791 -14.999   4.739
ATOM   1505  HB3 MET A  91       6.872 -14.395   3.475
ATOM   1506  CG  MET A  91       6.255 -12.916   4.933
ATOM   1507  HG2 MET A  91       6.521 -12.081   4.286
ATOM   1508  HG3 MET A  91       5.330 -12.638   5.446
ATOM   1509  SD  MET A  91       7.559 -13.104   6.177
ATOM   1510  CE  MET A  91       8.997 -13.209   5.094
ATOM   1511  HE1 MET A  91       9.016 -14.178   4.600
ATOM   1512  HE2 MET A  91       8.938 -12.420   4.350
ATOM   1513  HE3 MET A  91       9.902 -13.078   5.687
ATOM   1514  C   MET A  91       4.982 -12.834   2.109
ATOM   1515  O   MET A  91       6.050 -12.702   1.508
ATOM   1516  N   LYS A  92       3.941 -12.024   1.916
ATOM   1517  H   LYS A  92       3.096 -12.244   2.432
ATOM   1518  CA  LYS A  92       3.882 -10.845   1.039
ATOM   1519  HA  LYS A  92       4.776 -10.803   0.418
ATOM   1520  CB  LYS A  92       2.645 -11.027   0.137
ATOM   1521  HB2 LYS A  92       2.712 -11.998  -0.356
ATOM   1522  HB3 LYS A  92       1.755 -11.050   0.768
ATOM   1523  CG  LYS A  92       2.424  -9.957  -0.946
ATOM   1524  HG2 LYS A  92       1.476 -10.186  -1.436
ATOM   1525  HG3 LYS A  92       2.328  -8.975  -0.481
ATOM   1526  CD  LYS A  92       3.524  -9.913  -2.020
ATOM   1527  HD2 LYS A  92       4.441  -9.494  -1.600
ATOM   1528  HD3 LYS A  92       3.716 -10.923  -2.389
ATOM   1529  CE  LYS A  92       3.035  -9.035  -3.180
ATOM   1530  HE2 LYS A  92       2.104  -9.452  -3.569
ATOM   1531  HE3 LYS A  92       2.823  -8.030  -2.803
ATOM   1532  NZ  LYS A  92       4.019  -8.939  -4.281
ATOM   1533  HZ1 LYS A  92       3.655  -8.358  -5.026
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ATOM   1534  HZ2 LYS A  92       4.860  -8.458  -3.956
ATOM   1535  HZ3 LYS A  92       4.300  -9.847  -4.637
ATOM   1536  C   LYS A  92       3.817  -9.532   1.849
ATOM   1537  O   LYS A  92       4.365  -8.519   1.413
ATOM   1538  N   ASP A  93       3.223  -9.565   3.045
ATOM   1539  H   ASP A  93       2.786 -10.435   3.328
ATOM   1540  CA  ASP A  93       3.259  -8.492   4.046
ATOM   1541  HA  ASP A  93       3.783  -7.623   3.645
ATOM   1542  CB  ASP A  93       1.821  -8.069   4.411
ATOM   1543  HB2 ASP A  93       1.202  -8.959   4.540
ATOM   1544  HB3 ASP A  93       1.838  -7.541   5.365
ATOM   1545  CG  ASP A  93       1.171  -7.123   3.401
ATOM   1546  OD1 ASP A  93       1.805  -6.103   3.042
ATOM   1547  OD2 ASP A  93      -0.017  -7.317   3.065
ATOM   1548  C   ASP A  93       3.994  -8.933   5.329
ATOM   1549  O   ASP A  93       4.151 -10.125   5.604
ATOM   1550  N   VAL A  94       4.396  -7.944   6.131
ATOM   1551  H   VAL A  94       4.313  -6.996   5.756
ATOM   1552  CA  VAL A  94       4.792  -8.084   7.545
ATOM   1553  HA  VAL A  94       4.377  -9.024   7.912
ATOM   1554  CB  VAL A  94       6.332  -8.162   7.703
ATOM   1555  HB  VAL A  94       6.687  -8.995   7.094
ATOM   1556  CG1 VAL A  94       7.071  -6.901   7.218
ATOM   1557  HG11VAL A  94       8.149  -7.056   7.283
ATOM   1558  HG12VAL A  94       6.817  -6.694   6.179
ATOM   1559  HG13VAL A  94       6.803  -6.042   7.833
ATOM   1560  CG2 VAL A  94       6.750  -8.460   9.154
ATOM   1561  HG21VAL A  94       6.230  -9.347   9.516
ATOM   1562  HG22VAL A  94       7.825  -8.644   9.198
ATOM   1563  HG23VAL A  94       6.514  -7.616   9.802
ATOM   1564  C   VAL A  94       4.166  -6.946   8.372
ATOM   1565  O   VAL A  94       4.054  -5.818   7.891
ATOM   1566  N   TYR A  95       3.724  -7.252   9.597
ATOM   1567  H   TYR A  95       3.798  -8.223   9.896
ATOM   1568  CA  TYR A  95       2.972  -6.352  10.483
ATOM   1569  HA  TYR A  95       2.879  -5.369  10.030
ATOM   1570  CB  TYR A  95       1.555  -6.918  10.683
ATOM   1571  HB2 TYR A  95       1.634  -7.920  11.103
ATOM   1572  HB3 TYR A  95       1.040  -6.304  11.420
ATOM   1573  CG  TYR A  95       0.687  -6.999   9.440
ATOM   1574  CD1 TYR A  95       0.820  -8.082   8.547
ATOM   1575  HD1 TYR A  95       1.572  -8.839   8.728
ATOM   1576  CE1 TYR A  95      -0.039  -8.199   7.437
ATOM   1577  HE1 TYR A  95       0.060  -9.041   6.767
ATOM   1578  CZ  TYR A  95      -1.048  -7.232   7.226
ATOM   1579  OH  TYR A  95      -1.893  -7.333   6.165
ATOM   1580  HH  TYR A  95      -1.675  -8.076   5.593
ATOM   1581  CE2 TYR A  95      -1.183  -6.149   8.121
ATOM   1582  HE2 TYR A  95      -1.962  -5.419   7.965
ATOM   1583  CD2 TYR A  95      -0.309  -6.028   9.218
ATOM   1584  HD2 TYR A  95      -0.430  -5.210   9.911
ATOM   1585  C   TYR A  95       3.670  -6.198  11.848
ATOM   1586  O   TYR A  95       3.685  -7.132  12.651
ATOM   1587  N   ILE A  96       4.242  -5.026  12.145
ATOM   1588  H   ILE A  96       4.138  -4.267  11.476
ATOM   1589  CA  ILE A  96       4.941  -4.751  13.424
ATOM   1590  HA  ILE A  96       5.329  -5.682  13.836
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ATOM   1591  CB  ILE A  96       6.135  -3.774  13.228
ATOM   1592  HB  ILE A  96       5.736  -2.770  13.071
ATOM   1593  CG2 ILE A  96       6.978  -3.759  14.522
ATOM   1594  HG21ILE A  96       7.453  -4.729  14.673
ATOM   1595  HG22ILE A  96       7.746  -2.989  14.469
ATOM   1596  HG23ILE A  96       6.355  -3.528  15.386
ATOM   1597  CG1 ILE A  96       7.022  -4.115  12.005
ATOM   1598  HG12ILE A  96       7.488  -5.089  12.152
ATOM   1599  HG13ILE A  96       6.405  -4.170  11.109
ATOM   1600  CD1 ILE A  96       8.108  -3.067  11.725
ATOM   1601  HD11ILE A  96       8.614  -3.310  10.790
ATOM   1602  HD12ILE A  96       7.655  -2.079  11.635
ATOM   1603  HD13ILE A  96       8.848  -3.053  12.525
ATOM   1604  C   ILE A  96       3.952  -4.154  14.434
ATOM   1605  O   ILE A  96       3.340  -3.142  14.107
ATOM   1606  N   VAL A  97       3.817  -4.718  15.642
ATOM   1607  H   VAL A  97       4.325  -5.573  15.863
ATOM   1608  CA  VAL A  97       2.972  -4.155  16.714
ATOM   1609  HA  VAL A  97       2.247  -3.481  16.255
ATOM   1610  CB  VAL A  97       2.167  -5.223  17.494
ATOM   1611  HB  VAL A  97       2.845  -5.796  18.130
ATOM   1612  CG1 VAL A  97       1.126  -4.538  18.396
ATOM   1613  HG11VAL A  97       0.496  -3.870  17.810
ATOM   1614  HG12VAL A  97       0.491  -5.284  18.869
ATOM   1615  HG13VAL A  97       1.621  -3.964  19.179
ATOM   1616  CG2 VAL A  97       1.458  -6.205  16.552
ATOM   1617  HG21VAL A  97       0.839  -5.670  15.834
ATOM   1618  HG22VAL A  97       2.194  -6.802  16.016
ATOM   1619  HG23VAL A  97       0.830  -6.882  17.130
ATOM   1620  C   VAL A  97       3.819  -3.358  17.708
ATOM   1621  O   VAL A  97       4.748  -3.888  18.324
ATOM   1622  N   GLN A  98       3.452  -2.093  17.899
ATOM   1623  H   GLN A  98       2.645  -1.750  17.375
ATOM   1624  CA  GLN A  98       4.021  -1.169  18.882
ATOM   1625  HA  GLN A  98       4.679  -1.699  19.573
ATOM   1626  CB  GLN A  98       4.837  -0.094  18.134
ATOM   1627  HB2 GLN A  98       4.236   0.299  17.310
ATOM   1628  HB3 GLN A  98       5.060   0.728  18.816
ATOM   1629  CG  GLN A  98       6.168  -0.656  17.586
ATOM   1630  HG2 GLN A  98       6.886  -0.725  18.403
ATOM   1631  HG3 GLN A  98       6.011  -1.658  17.193
ATOM   1632  CD  GLN A  98       6.790   0.175  16.461
ATOM   1633  OE1 GLN A  98       7.194  -0.342  15.434
ATOM   1634  NE2 GLN A  98       6.906   1.480  16.592
ATOM   1635  HE21GLN A  98       7.294   1.971  15.802
ATOM   1636  HE22GLN A  98       6.593   1.949  17.416
ATOM   1637  C   GLN A  98       2.877  -0.569  19.717
ATOM   1638  O   GLN A  98       1.721  -0.569  19.302
ATOM   1639  N   ASP A  99       3.154  -0.092  20.928
ATOM   1640  H   ASP A  99       4.110  -0.079  21.268
ATOM   1641  CA  ASP A  99       2.126   0.540  21.764
ATOM   1642  HA  ASP A  99       1.196  -0.007  21.612
ATOM   1643  CB  ASP A  99       2.452   0.362  23.248
ATOM   1644  HB2 ASP A  99       1.695   0.871  23.846
ATOM   1645  HB3 ASP A  99       2.395  -0.694  23.500
ATOM   1646  CG  ASP A  99       3.838   0.858  23.631
ATOM   1647  OD1 ASP A  99       4.843   0.203  23.271
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ATOM   1648  OD2 ASP A  99       3.917   1.891  24.321
ATOM   1649  C   ASP A  99       1.839   1.999  21.355
ATOM   1650  O   ASP A  99       2.705   2.719  20.848
ATOM   1651  N   LEU A 100       0.573   2.407  21.514
ATOM   1652  H   LEU A 100      -0.070   1.776  21.970
ATOM   1653  CA  LEU A 100       0.003   3.581  20.850
ATOM   1654  HA  LEU A 100       0.379   3.592  19.827
ATOM   1655  CB  LEU A 100      -1.531   3.414  20.806
ATOM   1656  HB2 LEU A 100      -1.773   2.440  20.374
ATOM   1657  HB3 LEU A 100      -1.906   3.428  21.832
ATOM   1658  CG  LEU A 100      -2.268   4.503  19.995
ATOM   1659  HG  LEU A 100      -1.985   5.494  20.354
ATOM   1660  CD1 LEU A 100      -1.952   4.406  18.497
ATOM   1661  HD11LEU A 100      -2.189   3.407  18.126
ATOM   1662  HD12LEU A 100      -2.542   5.133  17.941
ATOM   1663  HD13LEU A 100      -0.901   4.619  18.325
ATOM   1664  CD2 LEU A 100      -3.780   4.342  20.187
ATOM   1665  HD21LEU A 100      -4.311   5.132  19.653
ATOM   1666  HD22LEU A 100      -4.101   3.374  19.801
ATOM   1667  HD23LEU A 100      -4.027   4.411  21.246
ATOM   1668  C   LEU A 100       0.421   4.902  21.513
ATOM   1669  O   LEU A 100       0.079   5.156  22.669
ATOM   1670  N   MET A 101       1.085   5.775  20.757
ATOM   1671  H   MET A 101       1.294   5.498  19.802
ATOM   1672  CA  MET A 101       1.434   7.155  21.137
ATOM   1673  HA  MET A 101       1.433   7.243  22.226
ATOM   1674  CB  MET A 101       2.861   7.460  20.640
ATOM   1675  HB2 MET A 101       2.900   7.360  19.554
ATOM   1676  HB3 MET A 101       3.130   8.489  20.884
ATOM   1677  CG  MET A 101       3.887   6.503  21.272
ATOM   1678  HG2 MET A 101       3.549   5.476  21.116
ATOM   1679  HG3 MET A 101       4.840   6.598  20.759
ATOM   1680  SD  MET A 101       4.183   6.759  23.037
ATOM   1681  CE  MET A 101       5.391   8.095  22.979
ATOM   1682  HE1 MET A 101       4.949   8.957  22.487
ATOM   1683  HE2 MET A 101       5.679   8.374  23.995
ATOM   1684  HE3 MET A 101       6.276   7.778  22.429
ATOM   1685  C   MET A 101       0.392   8.160  20.601
ATOM   1686  O   MET A 101      -0.452   7.815  19.774
ATOM   1687  N   GLU A 102       0.433   9.406  21.076
ATOM   1688  H   GLU A 102       1.227   9.694  21.636
ATOM   1689  CA  GLU A 102      -0.618  10.410  20.839
ATOM   1690  HA  GLU A 102      -1.572   9.894  20.717
ATOM   1691  CB  GLU A 102      -0.717  11.309  22.086
ATOM   1692  HB2 GLU A 102      -0.739  10.679  22.977
ATOM   1693  HB3 GLU A 102       0.166  11.946  22.140
ATOM   1694  CG  GLU A 102      -1.974  12.185  22.103
ATOM   1695  HG2 GLU A 102      -2.030  12.777  21.194
ATOM   1696  HG3 GLU A 102      -2.855  11.542  22.152
ATOM   1697  CD  GLU A 102      -1.975  13.153  23.281
ATOM   1698  OE1 GLU A 102      -1.050  13.984  23.395
ATOM   1699  OE2 GLU A 102      -2.950  13.144  24.065
ATOM   1700  C   GLU A 102      -0.375  11.260  19.576
ATOM   1701  O   GLU A 102      -1.337  11.738  18.966
ATOM   1702  N   THR A 103       0.893  11.448  19.179
ATOM   1703  H   THR A 103       1.635  11.064  19.756
ATOM   1704  CA  THR A 103       1.322  12.261  18.030
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ATOM   1705  HA  THR A 103       0.806  11.894  17.145
ATOM   1706  CB  THR A 103       0.919  13.738  18.219
ATOM   1707  HB  THR A 103      -0.151  13.793  18.401
ATOM   1708  CG2 THR A 103       1.626  14.438  19.381
ATOM   1709  HG21THR A 103       2.702  14.454  19.216
ATOM   1710  HG22THR A 103       1.262  15.462  19.464
ATOM   1711  HG23THR A 103       1.414  13.916  20.314
ATOM   1712  OG1 THR A 103       1.166  14.454  17.036
ATOM   1713  HG1 THR A 103       2.116  14.668  17.013
ATOM   1714  C   THR A 103       2.818  12.099  17.782
ATOM   1715  O   THR A 103       3.559  11.629  18.642
ATOM   1716  N   ASP C 104       3.264  12.539  16.613
ATOM   1717  H   ASP C 104       2.580  12.859  15.934
ATOM   1718  CA  ASP C 104       4.629  12.998  16.373
ATOM   1719  HA  ASP C 104       5.333  12.310  16.842
ATOM   1720  CB  ASP C 104       4.877  12.991  14.862
ATOM   1721  HB2 ASP C 104       5.923  13.234  14.699
ATOM   1722  HB3 ASP C 104       4.707  11.988  14.470
ATOM   1723  CG  ASP C 104       3.994  13.996  14.110
ATOM   1724  OD1 ASP C 104       2.781  13.717  13.960
ATOM   1725  OD2 ASP C 104       4.532  15.050  13.704
ATOM   1726  C   ASP C 104       4.856  14.414  16.945
ATOM   1727  O   ASP C 104       3.922  15.221  17.012
ATOM   1728  N   LEU A 105       6.098  14.725  17.338
ATOM   1729  H   LEU A 105       6.805  13.997  17.314
ATOM   1730  CA  LEU A 105       6.474  16.028  17.898
ATOM   1731  HA  LEU A 105       5.759  16.256  18.688
ATOM   1732  CB  LEU A 105       7.885  15.932  18.522
ATOM   1733  HB2 LEU A 105       7.910  15.092  19.219
ATOM   1734  HB3 LEU A 105       8.597  15.720  17.724
ATOM   1735  CG  LEU A 105       8.335  17.211  19.268
ATOM   1736  HG  LEU A 105       8.252  18.068  18.601
ATOM   1737  CD1 LEU A 105       7.482  17.480  20.517
ATOM   1738  HD11LEU A 105       7.535  16.631  21.200
ATOM   1739  HD12LEU A 105       7.850  18.371  21.024
ATOM   1740  HD13LEU A 105       6.444  17.656  20.237
ATOM   1741  CD2 LEU A 105       9.808  17.116  19.680
ATOM   1742  HD21LEU A 105      10.109  18.026  20.200
ATOM   1743  HD22LEU A 105       9.959  16.264  20.341
ATOM   1744  HD23LEU A 105      10.431  17.009  18.792
ATOM   1745  C   LEU A 105       6.374  17.168  16.874
ATOM   1746  O   LEU A 105       6.058  18.294  17.258
ATOM   1747  N   TYR A 106       6.604  16.925  15.579
ATOM   1748  H   TYR A 106       6.827  15.979  15.296
ATOM   1749  CA  TYR A 106       6.470  17.977  14.557
ATOM   1750  HA  TYR A 106       7.095  18.811  14.865
ATOM   1751  CB  TYR A 106       6.995  17.506  13.196
ATOM   1752  HB2 TYR A 106       8.053  17.266  13.292
ATOM   1753  HB3 TYR A 106       6.462  16.601  12.912
ATOM   1754  CG  TYR A 106       6.828  18.540  12.096
ATOM   1755  CD1 TYR A 106       7.542  19.756  12.144
ATOM   1756  HD1 TYR A 106       8.263  19.941  12.932
ATOM   1757  CE1 TYR A 106       7.296  20.761  11.190
ATOM   1758  HE1 TYR A 106       7.832  21.700  11.256
ATOM   1759  CZ  TYR A 106       6.344  20.545  10.167
ATOM   1760  OH  TYR A 106       6.092  21.512   9.244
ATOM   1761  HH  TYR A 106       6.660  22.278   9.349
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ATOM   1762  CE2 TYR A 106       5.646  19.319  10.105
ATOM   1763  HE2 TYR A 106       4.918  19.154   9.325
ATOM   1764  CD2 TYR A 106       5.887  18.323  11.070
ATOM   1765  HD2 TYR A 106       5.327  17.397  11.040
ATOM   1766  C   TYR A 106       5.041  18.544  14.453
ATOM   1767  O   TYR A 106       4.883  19.716  14.117
ATOM   1768  N   LYS A 107       4.002  17.798  14.834
ATOM   1769  H   LYS A 107       4.159  16.806  15.008
ATOM   1770  CA  LYS A 107       2.644  18.345  14.952
ATOM   1771  HA  LYS A 107       2.377  18.775  13.984
ATOM   1772  CB  LYS A 107       1.680  17.183  15.239
ATOM   1773  HB2 LYS A 107       1.978  16.320  14.638
ATOM   1774  HB3 LYS A 107       1.748  16.912  16.293
ATOM   1775  CG  LYS A 107       0.233  17.559  14.884
ATOM   1776  HG2 LYS A 107      -0.075  18.399  15.505
ATOM   1777  HG3 LYS A 107       0.190  17.873  13.840
ATOM   1778  CD  LYS A 107      -0.761  16.413  15.103
ATOM   1779  HD2 LYS A 107      -0.701  16.092  16.144
ATOM   1780  HD3 LYS A 107      -1.764  16.802  14.918
ATOM   1781  CE  LYS A 107      -0.512  15.219  14.172
ATOM   1782  HE2 LYS A 107      -0.571  15.562  13.136
ATOM   1783  HE3 LYS A 107       0.498  14.828  14.343
ATOM   1784  NZ  LYS A 107      -1.506  14.147  14.408
ATOM   1785  HZ1 LYS A 107      -1.341  13.713  15.304
ATOM   1786  HZ2 LYS A 107      -2.452  14.515  14.416
ATOM   1787  HZ3 LYS A 107      -1.444  13.436  13.681
ATOM   1788  C   LYS A 107       2.538  19.492  15.986
ATOM   1789  O   LYS A 107       1.718  20.393  15.799
ATOM   1790  N   LEU A 108       3.389  19.497  17.027
ATOM   1791  H   LEU A 108       4.029  18.715  17.113
ATOM   1792  CA  LEU A 108       3.603  20.655  17.911
ATOM   1793  HA  LEU A 108       2.664  21.194  18.038
ATOM   1794  CB  LEU A 108       4.109  20.209  19.302
ATOM   1795  HB2 LEU A 108       4.979  19.560  19.187
ATOM   1796  HB3 LEU A 108       4.437  21.109  19.826
ATOM   1797  CG  LEU A 108       3.089  19.517  20.233
ATOM   1798  HG  LEU A 108       2.208  20.155  20.348
ATOM   1799  CD1 LEU A 108       2.631  18.135  19.737
ATOM   1800  HD11LEU A 108       2.034  17.641  20.507
ATOM   1801  HD12LEU A 108       2.005  18.241  18.853
ATOM   1802  HD13LEU A 108       3.494  17.510  19.500
ATOM   1803  CD2 LEU A 108       3.737  19.345  21.619
ATOM   1804  HD21LEU A 108       4.635  18.729  21.548
ATOM   1805  HD22LEU A 108       4.009  20.321  22.025
ATOM   1806  HD23LEU A 108       3.034  18.869  22.305
ATOM   1807  C   LEU A 108       4.606  21.629  17.282
ATOM   1808  O   LEU A 108       4.405  22.840  17.371
ATOM   1809  N   LEU A 109       5.664  21.096  16.664
ATOM   1810  H   LEU A 109       5.784  20.094  16.784
ATOM   1811  CA  LEU A 109       6.692  21.808  15.896
ATOM   1812  HA  LEU A 109       7.068  21.102  15.177
ATOM   1813  CB  LEU A 109       7.905  22.203  16.759
ATOM   1814  HB2 LEU A 109       8.622  22.757  16.148
ATOM   1815  HB3 LEU A 109       7.549  22.882  17.521
ATOM   1816  CG  LEU A 109       8.616  21.004  17.424
ATOM   1817  HG  LEU A 109       7.880  20.347  17.887
ATOM   1818  CD1 LEU A 109       9.457  20.188  16.432
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ATOM   1819  HD11LEU A 109      10.258  20.802  16.020
ATOM   1820  HD12LEU A 109       9.896  19.335  16.947
ATOM   1821  HD13LEU A 109       8.841  19.821  15.616
ATOM   1822  CD2 LEU A 109       9.531  21.507  18.538
ATOM   1823  HD21LEU A 109       8.947  22.069  19.265
ATOM   1824  HD22LEU A 109       9.998  20.661  19.040
ATOM   1825  HD23LEU A 109      10.304  22.151  18.123
ATOM   1826  C   LEU A 109       6.102  22.927  15.039
ATOM   1827  O   LEU A 109       6.511  24.079  15.105
ATOM   1828  N   LYS A 110       5.077  22.577  14.266
ATOM   1829  H   LYS A 110       4.819  21.594  14.276
ATOM   1830  CA  LYS A 110       4.426  23.431  13.272
ATOM   1831  HA  LYS A 110       5.198  23.851  12.627
ATOM   1832  CB  LYS A 110       3.532  22.485  12.443
ATOM   1833  HB2 LYS A 110       4.040  21.524  12.347
ATOM   1834  HB3 LYS A 110       2.593  22.308  12.970
ATOM   1835  CG  LYS A 110       3.263  22.982  11.022
ATOM   1836  HG2 LYS A 110       2.762  23.948  11.055
ATOM   1837  HG3 LYS A 110       4.223  23.095  10.518
ATOM   1838  CD  LYS A 110       2.389  21.983  10.247
ATOM   1839  HD2 LYS A 110       2.722  20.966  10.467
ATOM   1840  HD3 LYS A 110       1.352  22.087  10.573
ATOM   1841  CE  LYS A 110       2.481  22.183   8.730
ATOM   1842  HE2 LYS A 110       3.491  21.929   8.395
ATOM   1843  HE3 LYS A 110       1.783  21.499   8.242
ATOM   1844  NZ  LYS A 110       2.170  23.569   8.322
ATOM   1845  HZ1 LYS A 110       2.847  24.224   8.695
ATOM   1846  HZ2 LYS A 110       2.187  23.655   7.311
ATOM   1847  HZ3 LYS A 110       1.256  23.864   8.651
ATOM   1848  C   LYS A 110       3.636  24.634  13.845
ATOM   1849  O   LYS A 110       3.214  25.493  13.063
ATOM   1850  N   THR A 111       3.355  24.686  15.158
ATOM   1851  H   THR A 111       3.750  23.967  15.752
ATOM   1852  CA  THR A 111       2.298  25.545  15.741
ATOM   1853  HA  THR A 111       2.199  26.447  15.135
ATOM   1854  CB  THR A 111       0.942  24.814  15.724
ATOM   1855  HB  THR A 111       0.238  25.368  16.345
ATOM   1856  CG2 THR A 111       0.337  24.691  14.326
ATOM   1857  HG21THR A 111      -0.680  24.303  14.402
ATOM   1858  HG22THR A 111       0.296  25.674  13.856
ATOM   1859  HG23THR A 111       0.926  24.017  13.705
ATOM   1860  OG1 THR A 111       1.116  23.517  16.249
ATOM   1861  HG1 THR A 111       0.391  22.956  15.954
ATOM   1862  C   THR A 111       2.599  26.047  17.154
ATOM   1863  O   THR A 111       2.814  27.244  17.329
ATOM   1864  N   GLN A 112       2.534  25.162  18.151
ATOM   1865  H   GLN A 112       2.391  24.199  17.872
ATOM   1866  CA  GLN A 112       2.376  25.499  19.571
ATOM   1867  HA  GLN A 112       1.587  26.249  19.642
ATOM   1868  CB  GLN A 112       1.930  24.237  20.339
ATOM   1869  HB2 GLN A 112       1.026  23.847  19.868
ATOM   1870  HB3 GLN A 112       2.715  23.484  20.252
ATOM   1871  CG  GLN A 112       1.642  24.482  21.833
ATOM   1872  HG2 GLN A 112       2.545  24.830  22.331
ATOM   1873  HG3 GLN A 112       0.878  25.253  21.933
ATOM   1874  CD  GLN A 112       1.183  23.217  22.558
ATOM   1875  OE1 GLN A 112       1.906  22.239  22.672
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ATOM   1876  NE2 GLN A 112      -0.024  23.174  23.082
ATOM   1877  HE21GLN A 112      -0.309  22.300  23.512
ATOM   1878  HE22GLN A 112      -0.673  23.932  22.962
ATOM   1879  C   GLN A 112       3.647  26.109  20.178
ATOM   1880  O   GLN A 112       4.756  25.664  19.908
ATOM   1881  N   HIE A 113       3.498  27.106  21.051
ATOM   1882  H   HIE A 113       2.565  27.418  21.286
ATOM   1883  CA  HIE A 113       4.613  27.719  21.790
ATOM   1884  HA  HIE A 113       5.409  27.965  21.084
ATOM   1885  CB  HIE A 113       4.073  29.026  22.398
ATOM   1886  HB2 HIE A 113       3.575  29.606  21.620
ATOM   1887  HB3 HIE A 113       3.331  28.788  23.163
ATOM   1888  CG  HIE A 113       5.117  29.915  23.010
ATOM   1889  ND1 HIE A 113       6.495  29.749  22.906
ATOM   1890  CE1 HIE A 113       7.040  30.776  23.570
ATOM   1891  HE1 HIE A 113       8.102  30.961  23.652
ATOM   1892  NE2 HIE A 113       6.083  31.562  24.089
ATOM   1893  HE2 HIE A 113       6.242  32.439  24.569
ATOM   1894  CD2 HIE A 113       4.862  31.028  23.750
ATOM   1895  HD2 HIE A 113       3.887  31.436  23.976
ATOM   1896  C   HIE A 113       5.213  26.789  22.877
ATOM   1897  O   HIE A 113       4.462  26.142  23.614
ATOM   1898  N   LEU A 114       6.545  26.761  23.035
ATOM   1899  H   LEU A 114       7.111  27.347  22.427
ATOM   1900  CA  LEU A 114       7.247  26.036  24.106
ATOM   1901  HA  LEU A 114       6.513  25.568  24.763
ATOM   1902  CB  LEU A 114       8.133  24.928  23.504
ATOM   1903  HB2 LEU A 114       8.874  25.399  22.853
ATOM   1904  HB3 LEU A 114       8.668  24.432  24.315
ATOM   1905  CG  LEU A 114       7.378  23.852  22.694
ATOM   1906  HG  LEU A 114       6.805  24.335  21.904
ATOM   1907  CD1 LEU A 114       8.399  22.912  22.045
ATOM   1908  HD11LEU A 114       9.018  22.436  22.807
ATOM   1909  HD12LEU A 114       7.885  22.142  21.468
ATOM   1910  HD13LEU A 114       9.034  23.488  21.374
ATOM   1911  CD2 LEU A 114       6.416  23.014  23.548
ATOM   1912  HD21LEU A 114       5.902  22.288  22.917
ATOM   1913  HD22LEU A 114       6.977  22.481  24.315
ATOM   1914  HD23LEU A 114       5.665  23.648  24.015
ATOM   1915  C   LEU A 114       8.078  26.994  24.976
ATOM   1916  O   LEU A 114       8.763  27.893  24.486
ATOM   1917  N   SER A 115       8.020  26.805  26.293
ATOM   1918  H   SER A 115       7.521  26.013  26.659
ATOM   1919  CA  SER A 115       8.712  27.654  27.267
ATOM   1920  HA  SER A 115       8.863  28.642  26.832
ATOM   1921  CB  SER A 115       7.808  27.824  28.493
ATOM   1922  HB2 SER A 115       8.247  28.580  29.142
ATOM   1923  HB3 SER A 115       6.830  28.178  28.168
ATOM   1924  OG  SER A 115       7.660  26.612  29.219
ATOM   1925  HG  SER A 115       6.743  26.519  29.525
ATOM   1926  C   SER A 115      10.101  27.102  27.645
ATOM   1927  O   SER A 115      10.371  25.915  27.490
ATOM   1928  N   ASN A 116      10.998  27.952  28.146
ATOM   1929  H   ASN A 116      10.704  28.900  28.328
ATOM   1930  CA  ASN A 116      12.434  27.668  28.304
ATOM   1931  HA  ASN A 116      12.865  27.552  27.307
ATOM   1932  CB  ASN A 116      13.032  28.921  28.965
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ATOM   1933  HB2 ASN A 116      12.624  29.806  28.475
ATOM   1934  HB3 ASN A 116      12.729  28.948  30.015
ATOM   1935  CG  ASN A 116      14.550  29.031  28.883
ATOM   1936  OD1 ASN A 116      15.208  28.400  28.069
ATOM   1937  ND2 ASN A 116      15.125  29.886  29.704
ATOM   1938  HD21ASN A 116      16.125  30.042  29.652
ATOM   1939  HD22ASN A 116      14.554  30.376  30.377
ATOM   1940  C   ASN A 116      12.774  26.387  29.113
ATOM   1941  O   ASN A 116      13.711  25.662  28.777
ATOM   1942  N   ASP A 117      12.026  26.086  30.177
ATOM   1943  H   ASP A 117      11.256  26.713  30.390
ATOM   1944  CA  ASP A 117      12.169  24.890  31.028
ATOM   1945  HA  ASP A 117      13.224  24.632  31.122
ATOM   1946  CB  ASP A 117      11.642  25.260  32.427
ATOM   1947  HB2 ASP A 117      12.289  26.030  32.847
ATOM   1948  HB3 ASP A 117      10.643  25.680  32.330
ATOM   1949  CG  ASP A 117      11.546  24.105  33.422
ATOM   1950  OD1 ASP A 117      12.481  23.280  33.531
ATOM   1951  OD2 ASP A 117      10.524  24.028  34.144
ATOM   1952  C   ASP A 117      11.440  23.660  30.445
ATOM   1953  O   ASP A 117      11.914  22.533  30.583
ATOM   1954  N   HIE A 118      10.338  23.866  29.719
ATOM   1955  H   HIE A 118      10.033  24.820  29.575
ATOM   1956  CA  HIE A 118       9.642  22.812  28.965
ATOM   1957  HA  HIE A 118       9.494  21.952  29.619
ATOM   1958  CB  HIE A 118       8.264  23.370  28.573
ATOM   1959  HB2 HIE A 118       7.771  23.737  29.473
ATOM   1960  HB3 HIE A 118       8.406  24.213  27.898
ATOM   1961  CG  HIE A 118       7.328  22.391  27.913
ATOM   1962  ND1 HIE A 118       7.303  21.008  28.108
ATOM   1963  CE1 HIE A 118       6.331  20.550  27.304
ATOM   1964  HE1 HIE A 118       6.063  19.508  27.200
ATOM   1965  NE2 HIE A 118       5.726  21.558  26.655
ATOM   1966  HE2 HIE A 118       4.966  21.463  25.991
ATOM   1967  CD2 HIE A 118       6.342  22.729  27.033
ATOM   1968  HD2 HIE A 118       6.096  23.724  26.698
ATOM   1969  C   HIE A 118      10.473  22.342  27.745
ATOM   1970  O   HIE A 118      10.562  21.148  27.458
ATOM   1971  N   ILE A 119      11.177  23.277  27.092
ATOM   1972  H   ILE A 119      11.000  24.241  27.365
ATOM   1973  CA  ILE A 119      12.230  23.013  26.093
ATOM   1974  HA  ILE A 119      11.811  22.423  25.277
ATOM   1975  CB  ILE A 119      12.773  24.343  25.504
ATOM   1976  HB  ILE A 119      13.000  25.023  26.324
ATOM   1977  CG2 ILE A 119      14.078  24.137  24.704
ATOM   1978  HG21ILE A 119      14.453  25.086  24.326
ATOM   1979  HG22ILE A 119      14.861  23.721  25.337
ATOM   1980  HG23ILE A 119      13.897  23.464  23.868
ATOM   1981  CG1 ILE A 119      11.680  24.989  24.620
ATOM   1982  HG12ILE A 119      11.432  24.311  23.805
ATOM   1983  HG13ILE A 119      10.774  25.125  25.205
ATOM   1984  CD1 ILE A 119      12.057  26.359  24.042
ATOM   1985  HD11ILE A 119      11.182  26.804  23.573
ATOM   1986  HD12ILE A 119      12.404  27.020  24.836
ATOM   1987  HD13ILE A 119      12.833  26.257  23.284
ATOM   1988  C   ILE A 119      13.333  22.146  26.701
ATOM   1989  O   ILE A 119      13.690  21.136  26.102
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ATOM   1990  N   CYS A 120      13.836  22.488  27.894
ATOM   1991  H   CYS A 120      13.496  23.332  28.334
ATOM   1992  CA  CYS A 120      14.848  21.685  28.591
ATOM   1993  HA  CYS A 120      15.729  21.593  27.952
ATOM   1994  CB  CYS A 120      15.255  22.390  29.894
ATOM   1995  HB2 CYS A 120      14.377  22.617  30.502
ATOM   1996  HB3 CYS A 120      15.916  21.742  30.462
ATOM   1997  SG  CYS A 120      16.184  23.894  29.540
ATOM   1998  HG  CYS A 120      15.276  24.497  28.753
ATOM   1999  C   CYS A 120      14.361  20.250  28.858
ATOM   2000  O   CYS A 120      15.107  19.305  28.626
ATOM   2001  N   TYR A 121      13.118  20.070  29.315
ATOM   2002  H   TYR A 121      12.567  20.894  29.526
ATOM   2003  CA  TYR A 121      12.508  18.753  29.560
ATOM   2004  HA  TYR A 121      13.145  18.199  30.248
ATOM   2005  CB  TYR A 121      11.147  18.981  30.240
ATOM   2006  HB2 TYR A 121      11.312  19.317  31.262
ATOM   2007  HB3 TYR A 121      10.643  19.796  29.723
ATOM   2008  CG  TYR A 121      10.192  17.799  30.287
ATOM   2009  CD1 TYR A 121      10.613  16.529  30.738
ATOM   2010  HD1 TYR A 121      11.636  16.380  31.051
ATOM   2011  CE1 TYR A 121       9.696  15.458  30.792
ATOM   2012  HE1 TYR A 121      10.010  14.484  31.135
ATOM   2013  CZ  TYR A 121       8.348  15.663  30.417
ATOM   2014  OH  TYR A 121       7.442  14.648  30.475
ATOM   2015  HH  TYR A 121       7.838  13.773  30.621
ATOM   2016  CE2 TYR A 121       7.930  16.940  29.987
ATOM   2017  HE2 TYR A 121       6.900  17.109  29.718
ATOM   2018  CD2 TYR A 121       8.851  17.997  29.912
ATOM   2019  HD2 TYR A 121       8.520  18.973  29.583
ATOM   2020  C   TYR A 121      12.372  17.899  28.282
ATOM   2021  O   TYR A 121      12.724  16.713  28.290
ATOM   2022  N   PHE A 122      11.896  18.484  27.177
ATOM   2023  H   PHE A 122      11.603  19.455  27.234
ATOM   2024  CA  PHE A 122      11.829  17.820  25.871
ATOM   2025  HA  PHE A 122      11.307  16.870  25.971
ATOM   2026  CB  PHE A 122      11.045  18.705  24.880
ATOM   2027  HB2 PHE A 122      11.324  19.750  25.031
ATOM   2028  HB3 PHE A 122      11.366  18.439  23.872
ATOM   2029  CG  PHE A 122       9.521  18.602  24.883
ATOM   2030  CD1 PHE A 122       8.805  17.826  25.824
ATOM   2031  HD1 PHE A 122       9.312  17.319  26.630
ATOM   2032  CE1 PHE A 122       7.410  17.686  25.717
ATOM   2033  HE1 PHE A 122       6.873  17.075  26.429
ATOM   2034  CZ  PHE A 122       6.711  18.341  24.688
ATOM   2035  HZ  PHE A 122       5.639  18.229  24.602
ATOM   2036  CE2 PHE A 122       7.409  19.149  23.775
ATOM   2037  HE2 PHE A 122       6.873  19.667  22.992
ATOM   2038  CD2 PHE A 122       8.807  19.269  23.867
ATOM   2039  HD2 PHE A 122       9.340  19.866  23.141
ATOM   2040  C   PHE A 122      13.231  17.465  25.353
ATOM   2041  O   PHE A 122      13.484  16.300  25.042
ATOM   2042  N   LEU A 123      14.158  18.429  25.321
ATOM   2043  H   LEU A 123      13.887  19.364  25.622
ATOM   2044  CA  LEU A 123      15.541  18.239  24.870
ATOM   2045  HA  LEU A 123      15.519  17.930  23.825
ATOM   2046  CB  LEU A 123      16.255  19.599  24.999
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ATOM   2047  HB2 LEU A 123      15.646  20.358  24.510
ATOM   2048  HB3 LEU A 123      16.307  19.865  26.056
ATOM   2049  CG  LEU A 123      17.673  19.674  24.405
ATOM   2050  HG  LEU A 123      18.319  18.978  24.939
ATOM   2051  CD1 LEU A 123      17.711  19.323  22.909
ATOM   2052  HD11LEU A 123      17.453  18.274  22.762
ATOM   2053  HD12LEU A 123      17.012  19.950  22.356
ATOM   2054  HD13LEU A 123      18.716  19.483  22.519
ATOM   2055  CD2 LEU A 123      18.207  21.100  24.606
ATOM   2056  HD21LEU A 123      19.211  21.177  24.193
ATOM   2057  HD22LEU A 123      17.558  21.820  24.108
ATOM   2058  HD23LEU A 123      18.242  21.343  25.667
ATOM   2059  C   LEU A 123      16.248  17.129  25.662
ATOM   2060  O   LEU A 123      16.846  16.229  25.074
ATOM   2061  N   TYR A 124      16.110  17.142  26.989
ATOM   2062  H   TYR A 124      15.630  17.934  27.412
ATOM   2063  CA  TYR A 124      16.644  16.122  27.890
ATOM   2064  HA  TYR A 124      17.729  16.092  27.779
ATOM   2065  CB  TYR A 124      16.316  16.535  29.332
ATOM   2066  HB2 TYR A 124      16.898  17.419  29.587
ATOM   2067  HB3 TYR A 124      15.262  16.808  29.387
ATOM   2068  CG  TYR A 124      16.584  15.466  30.368
ATOM   2069  CD1 TYR A 124      17.895  15.000  30.585
ATOM   2070  HD1 TYR A 124      18.720  15.440  30.042
ATOM   2071  CE1 TYR A 124      18.130  13.952  31.495
ATOM   2072  HE1 TYR A 124      19.135  13.589  31.660
ATOM   2073  CZ  TYR A 124      17.044  13.389  32.201
ATOM   2074  OH  TYR A 124      17.237  12.366  33.070
ATOM   2075  HH  TYR A 124      18.151  12.016  33.065
ATOM   2076  CE2 TYR A 124      15.733  13.869  31.999
ATOM   2077  HE2 TYR A 124      14.911  13.429  32.544
ATOM   2078  CD2 TYR A 124      15.504  14.904  31.077
ATOM   2079  HD2 TYR A 124      14.499  15.265  30.909
ATOM   2080  C   TYR A 124      16.124  14.707  27.585
ATOM   2081  O   TYR A 124      16.922  13.769  27.589
ATOM   2082  N   GLN A 125      14.828  14.527  27.291
ATOM   2083  H   GLN A 125      14.213  15.334  27.280
ATOM   2084  CA  GLN A 125      14.297  13.206  26.917
ATOM   2085  HA  GLN A 125      14.563  12.485  27.691
ATOM   2086  CB  GLN A 125      12.761  13.235  26.780
ATOM   2087  HB2 GLN A 125      12.460  14.100  26.189
ATOM   2088  HB3 GLN A 125      12.456  12.338  26.238
ATOM   2089  CG  GLN A 125      12.021  13.243  28.130
ATOM   2090  HG2 GLN A 125      12.389  12.420  28.744
ATOM   2091  HG3 GLN A 125      12.224  14.176  28.654
ATOM   2092  CD  GLN A 125      10.506  13.070  27.964
ATOM   2093  OE1 GLN A 125       9.977  11.964  27.973
ATOM   2094  NE2 GLN A 125       9.747  14.131  27.799
ATOM   2095  HE21GLN A 125       8.743  13.989  27.690
ATOM   2096  HE22GLN A 125      10.133  15.057  27.858
ATOM   2097  C   GLN A 125      14.947  12.681  25.625
ATOM   2098  O   GLN A 125      15.311  11.507  25.568
ATOM   2099  N   ILE A 126      15.156  13.542  24.620
ATOM   2100  H   ILE A 126      14.851  14.505  24.738
ATOM   2101  CA  ILE A 126      15.797  13.155  23.349
ATOM   2102  HA  ILE A 126      15.284  12.277  22.952
ATOM   2103  CB  ILE A 126      15.721  14.295  22.302
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ATOM   2104  HB  ILE A 126      16.263  15.162  22.682
ATOM   2105  CG2 ILE A 126      16.381  13.845  20.979
ATOM   2106  HG21ILE A 126      17.435  13.611  21.133
ATOM   2107  HG22ILE A 126      15.874  12.963  20.587
ATOM   2108  HG23ILE A 126      16.336  14.639  20.236
ATOM   2109  CG1 ILE A 126      14.256  14.708  22.049
ATOM   2110  HG12ILE A 126      13.739  13.871  21.583
ATOM   2111  HG13ILE A 126      13.757  14.908  22.992
ATOM   2112  CD1 ILE A 126      14.106  15.970  21.189
ATOM   2113  HD11ILE A 126      14.405  15.770  20.162
ATOM   2114  HD12ILE A 126      13.063  16.286  21.190
ATOM   2115  HD13ILE A 126      14.715  16.776  21.599
ATOM   2116  C   ILE A 126      17.245  12.726  23.582
ATOM   2117  O   ILE A 126      17.627  11.622  23.192
ATOM   2118  N   LEU A 127      18.049  13.575  24.230
ATOM   2119  H   LEU A 127      17.662  14.460  24.543
ATOM   2120  CA  LEU A 127      19.468  13.296  24.472
ATOM   2121  HA  LEU A 127      19.949  13.065  23.522
ATOM   2122  CB  LEU A 127      20.143  14.533  25.092
ATOM   2123  HB2 LEU A 127      19.617  14.789  26.014
ATOM   2124  HB3 LEU A 127      21.168  14.268  25.355
ATOM   2125  CG  LEU A 127      20.182  15.779  24.179
ATOM   2126  HG  LEU A 127      19.165  16.081  23.938
ATOM   2127  CD1 LEU A 127      20.846  16.923  24.950
ATOM   2128  HD11LEU A 127      20.303  17.081  25.879
ATOM   2129  HD12LEU A 127      21.884  16.677  25.179
ATOM   2130  HD13LEU A 127      20.812  17.841  24.365
ATOM   2131  CD2 LEU A 127      20.933  15.541  22.861
ATOM   2132  HD21LEU A 127      20.400  14.816  22.248
ATOM   2133  HD22LEU A 127      20.991  16.476  22.304
ATOM   2134  HD23LEU A 127      21.942  15.181  23.062
ATOM   2135  C   LEU A 127      19.658  12.048  25.341
ATOM   2136  O   LEU A 127      20.559  11.257  25.071
ATOM   2137  N   ARG A 128      18.785  11.817  26.331
ATOM   2138  H   ARG A 128      18.056  12.501  26.499
ATOM   2139  CA  ARG A 128      18.823  10.620  27.177
ATOM   2140  HA  ARG A 128      19.822  10.550  27.609
ATOM   2141  CB  ARG A 128      17.816  10.785  28.324
ATOM   2142  HB2 ARG A 128      17.979  11.756  28.794
ATOM   2143  HB3 ARG A 128      16.794  10.742  27.942
ATOM   2144  CG  ARG A 128      18.023   9.703  29.386
ATOM   2145  HG2 ARG A 128      17.783   8.722  28.977
ATOM   2146  HG3 ARG A 128      19.070   9.714  29.685
ATOM   2147  CD  ARG A 128      17.149   9.962  30.612
ATOM   2148  HD2 ARG A 128      17.221  11.016  30.877
ATOM   2149  HD3 ARG A 128      16.107   9.740  30.375
ATOM   2150  NE  ARG A 128      17.608   9.161  31.752
ATOM   2151  HE  ARG A 128      18.248   9.628  32.396
ATOM   2152  CZ  ARG A 128      17.262   7.916  32.034
ATOM   2153  NH1 ARG A 128      16.416   7.236  31.292
ATOM   2154  HH11ARG A 128      15.992   7.637  30.462
ATOM   2155  HH12ARG A 128      16.099   6.344  31.643
ATOM   2156  NH2 ARG A 128      17.773   7.305  33.080
ATOM   2157  HH21ARG A 128      18.446   7.754  33.696
ATOM   2158  HH22ARG A 128      17.428   6.385  33.316
ATOM   2159  C   ARG A 128      18.572   9.326  26.386
ATOM   2160  O   ARG A 128      19.216   8.314  26.663
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ATOM   2161  N   GLY A 129      17.681   9.350  25.386
ATOM   2162  H   GLY A 129      17.165  10.210  25.219
ATOM   2163  CA  GLY A 129      17.454   8.211  24.487
ATOM   2164  HA2 GLY A 129      17.403   7.289  25.069
ATOM   2165  HA3 GLY A 129      16.522   8.363  23.944
ATOM   2166  C   GLY A 129      18.578   8.049  23.461
ATOM   2167  O   GLY A 129      19.014   6.927  23.199
ATOM   2168  N   LEU A 130      19.083   9.157  22.908
ATOM   2169  H   LEU A 130      18.662  10.050  23.152
ATOM   2170  CA  LEU A 130      20.175   9.160  21.929
ATOM   2171  HA  LEU A 130      19.893   8.496  21.113
ATOM   2172  CB  LEU A 130      20.335  10.595  21.386
ATOM   2173  HB2 LEU A 130      19.351  10.972  21.103
ATOM   2174  HB3 LEU A 130      20.718  11.227  22.189
ATOM   2175  CG  LEU A 130      21.268  10.725  20.164
ATOM   2176  HG  LEU A 130      22.266  10.387  20.440
ATOM   2177  CD1 LEU A 130      20.778   9.890  18.968
ATOM   2178  HD11LEU A 130      21.370  10.125  18.084
ATOM   2179  HD12LEU A 130      20.893   8.827  19.178
ATOM   2180  HD13LEU A 130      19.731  10.110  18.759
ATOM   2181  CD2 LEU A 130      21.355  12.203  19.750
ATOM   2182  HD21LEU A 130      20.374  12.563  19.437
ATOM   2183  HD22LEU A 130      21.701  12.805  20.590
ATOM   2184  HD23LEU A 130      22.058  12.317  18.925
ATOM   2185  C   LEU A 130      21.471   8.602  22.528
ATOM   2186  O   LEU A 130      22.156   7.815  21.879
ATOM   2187  N   LYS A 131      21.753   8.905  23.799
ATOM   2188  H   LYS A 131      21.179   9.606  24.256
ATOM   2189  CA  LYS A 131      22.883   8.361  24.564
ATOM   2190  HA  LYS A 131      23.801   8.769  24.144
ATOM   2191  CB  LYS A 131      22.717   8.854  26.012
ATOM   2192  HB2 LYS A 131      22.497   9.919  26.019
ATOM   2193  HB3 LYS A 131      21.873   8.345  26.470
ATOM   2194  CG  LYS A 131      23.964   8.611  26.861
ATOM   2195  HG2 LYS A 131      24.107   7.535  26.946
ATOM   2196  HG3 LYS A 131      24.825   9.068  26.369
ATOM   2197  CD  LYS A 131      23.797   9.211  28.263
ATOM   2198  HD2 LYS A 131      23.498  10.257  28.180
ATOM   2199  HD3 LYS A 131      23.021   8.669  28.803
ATOM   2200  CE  LYS A 131      25.114   9.150  29.041
ATOM   2201  HE2 LYS A 131      25.867   9.712  28.488
ATOM   2202  HE3 LYS A 131      24.995   9.628  30.020
ATOM   2203  NZ  LYS A 131      25.619   7.772  29.213
ATOM   2204  HZ1 LYS A 131      26.537   7.799  29.643
ATOM   2205  HZ2 LYS A 131      25.006   7.221  29.794
ATOM   2206  HZ3 LYS A 131      25.736   7.297  28.317
ATOM   2207  C   LYS A 131      22.981   6.820  24.503
ATOM   2208  O   LYS A 131      24.044   6.257  24.233
ATOM   2209  N   TYR A 132      21.861   6.122  24.705
ATOM   2210  H   TYR A 132      21.017   6.642  24.915
ATOM   2211  CA  TYR A 132      21.767   4.658  24.609
ATOM   2212  HA  TYR A 132      22.536   4.206  25.237
ATOM   2213  CB  TYR A 132      20.400   4.242  25.176
ATOM   2214  HB2 TYR A 132      20.347   4.569  26.216
ATOM   2215  HB3 TYR A 132      19.615   4.773  24.635
ATOM   2216  CG  TYR A 132      20.077   2.760  25.121
ATOM   2217  CD1 TYR A 132      20.226   1.945  26.262
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ATOM   2218  HD1 TYR A 132      20.623   2.362  27.178
ATOM   2219  CE1 TYR A 132      19.814   0.597  26.230
ATOM   2220  HE1 TYR A 132      19.887  -0.008  27.122
ATOM   2221  CZ  TYR A 132      19.238   0.066  25.051
ATOM   2222  OH  TYR A 132      18.726  -1.195  25.034
ATOM   2223  HH  TYR A 132      18.703  -1.591  25.920
ATOM   2224  CE2 TYR A 132      19.125   0.874  23.900
ATOM   2225  HE2 TYR A 132      18.681   0.478  23.003
ATOM   2226  CD2 TYR A 132      19.545   2.214  23.939
ATOM   2227  HD2 TYR A 132      19.429   2.834  23.061
ATOM   2228  C   TYR A 132      21.996   4.139  23.170
ATOM   2229  O   TYR A 132      22.548   3.061  22.984
ATOM   2230  N   ILE A 133      21.628   4.902  22.137
ATOM   2231  H   ILE A 133      21.245   5.817  22.345
ATOM   2232  CA  ILE A 133      21.773   4.511  20.716
ATOM   2233  HA  ILE A 133      21.570   3.445  20.610
ATOM   2234  CB  ILE A 133      20.734   5.287  19.870
ATOM   2235  HB  ILE A 133      20.905   6.353  20.019
ATOM   2236  CG2 ILE A 133      20.883   4.986  18.367
ATOM   2237  HG21ILE A 133      20.674   3.933  18.179
ATOM   2238  HG22ILE A 133      20.191   5.596  17.787
ATOM   2239  HG23ILE A 133      21.890   5.225  18.024
ATOM   2240  CG1 ILE A 133      19.294   4.941  20.329
ATOM   2241  HG12ILE A 133      19.044   3.927  20.019
ATOM   2242  HG13ILE A 133      19.224   4.974  21.415
ATOM   2243  CD1 ILE A 133      18.234   5.908  19.796
ATOM   2244  HD11ILE A 133      17.271   5.665  20.245
ATOM   2245  HD12ILE A 133      18.502   6.929  20.064
ATOM   2246  HD13ILE A 133      18.148   5.829  18.714
ATOM   2247  C   ILE A 133      23.219   4.711  20.229
ATOM   2248  O   ILE A 133      23.793   3.828  19.585
ATOM   2249  N   HIE A 134      23.844   5.830  20.603
ATOM   2250  H   HIE A 134      23.312   6.541  21.098
ATOM   2251  CA  HIE A 134      25.255   6.096  20.322
ATOM   2252  HA  HIE A 134      25.429   5.925  19.257
ATOM   2253  CB  HIE A 134      25.563   7.577  20.624
ATOM   2254  HB2 HIE A 134      25.190   7.827  21.618
ATOM   2255  HB3 HIE A 134      26.646   7.705  20.640
ATOM   2256  CG  HIE A 134      25.010   8.577  19.626
ATOM   2257  ND1 HIE A 134      25.180   9.968  19.691
ATOM   2258  CE1 HIE A 134      24.579  10.460  18.592
ATOM   2259  HE1 HIE A 134      24.539  11.509  18.325
ATOM   2260  NE2 HIE A 134      24.075   9.466  17.840
ATOM   2261  HE2 HIE A 134      23.621   9.570  16.930
ATOM   2262  CD2 HIE A 134      24.332   8.277  18.479
ATOM   2263  HD2 HIE A 134      24.062   7.294  18.122
ATOM   2264  C   HIE A 134      26.187   5.124  21.077
ATOM   2265  O   HIE A 134      27.122   4.599  20.469
ATOM   2266  N   SER A 135      25.909   4.788  22.342
ATOM   2267  H   SER A 135      25.151   5.268  22.809
ATOM   2268  CA  SER A 135      26.661   3.731  23.053
ATOM   2269  HA  SER A 135      27.726   3.900  22.870
ATOM   2270  CB  SER A 135      26.483   3.830  24.575
ATOM   2271  HB2 SER A 135      26.963   2.973  25.046
ATOM   2272  HB3 SER A 135      27.005   4.720  24.924
ATOM   2273  OG  SER A 135      25.134   3.898  24.993
ATOM   2274  HG  SER A 135      24.845   4.823  24.875
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ATOM   2275  C   SER A 135      26.372   2.308  22.530
ATOM   2276  O   SER A 135      27.269   1.467  22.569
ATOM   2277  N   ALA A 136      25.196   2.046  21.942
ATOM   2278  H   ALA A 136      24.462   2.744  21.995
ATOM   2279  CA  ALA A 136      24.921   0.839  21.148
ATOM   2280  HA  ALA A 136      25.342  -0.022  21.666
ATOM   2281  CB  ALA A 136      23.403   0.640  21.049
ATOM   2282  HB1 ALA A 136      23.200  -0.292  20.529
ATOM   2283  HB2 ALA A 136      22.962   0.588  22.043
ATOM   2284  HB3 ALA A 136      22.951   1.461  20.496
ATOM   2285  C   ALA A 136      25.584   0.876  19.757
ATOM   2286  O   ALA A 136      25.388  -0.030  18.950
ATOM   2287  N   ASN A 137      26.350   1.930  19.454
ATOM   2288  H   ASN A 137      26.439   2.648  20.159
ATOM   2289  CA  ASN A 137      27.185   2.089  18.262
ATOM   2290  HA  ASN A 137      27.729   3.024  18.401
ATOM   2291  CB  ASN A 137      28.236   0.961  18.188
ATOM   2292  HB2 ASN A 137      27.745   0.008  18.012
ATOM   2293  HB3 ASN A 137      28.894   1.115  17.336
ATOM   2294  CG  ASN A 137      29.103   0.895  19.446
ATOM   2295  OD1 ASN A 137      29.780   1.851  19.815
ATOM   2296  ND2 ASN A 137      29.096  -0.224  20.149
ATOM   2297  HD21ASN A 137      29.726  -0.315  20.932
ATOM   2298  HD22ASN A 137      28.462  -0.978  19.901
ATOM   2299  C   ASN A 137      26.362   2.269  16.967
ATOM   2300  O   ASN A 137      26.875   2.042  15.869
ATOM   2301  N   VAL A 138      25.095   2.689  17.092
ATOM   2302  H   VAL A 138      24.760   2.918  18.029
ATOM   2303  CA  VAL A 138      24.181   2.947  15.967
ATOM   2304  HA  VAL A 138      24.538   2.399  15.101
ATOM   2305  CB  VAL A 138      22.758   2.424  16.287
ATOM   2306  HB  VAL A 138      22.473   2.792  17.271
ATOM   2307  CG1 VAL A 138      21.676   2.862  15.282
ATOM   2308  HG11VAL A 138      20.721   2.403  15.542
ATOM   2309  HG12VAL A 138      21.544   3.943  15.316
ATOM   2310  HG13VAL A 138      21.953   2.558  14.272
ATOM   2311  CG2 VAL A 138      22.752   0.885  16.340
ATOM   2312  HG21VAL A 138      23.445   0.530  17.103
ATOM   2313  HG22VAL A 138      21.753   0.526  16.592
ATOM   2314  HG23VAL A 138      23.043   0.474  15.372
ATOM   2315  C   VAL A 138      24.191   4.436  15.602
ATOM   2316  O   VAL A 138      24.287   5.296  16.476
ATOM   2317  N   LEU A 139      24.096   4.729  14.302
ATOM   2318  H   LEU A 139      24.075   3.953  13.645
ATOM   2319  CA  LEU A 139      23.802   6.053  13.742
ATOM   2320  HA  LEU A 139      23.989   6.839  14.476
ATOM   2321  CB  LEU A 139      24.666   6.281  12.483
ATOM   2322  HB2 LEU A 139      24.385   5.537  11.737
ATOM   2323  HB3 LEU A 139      24.427   7.268  12.082
ATOM   2324  CG  LEU A 139      26.189   6.189  12.694
ATOM   2325  HG  LEU A 139      26.450   5.190  13.048
ATOM   2326  CD1 LEU A 139      26.914   6.433  11.362
ATOM   2327  HD11LEU A 139      27.990   6.332  11.505
ATOM   2328  HD12LEU A 139      26.591   5.699  10.624
ATOM   2329  HD13LEU A 139      26.698   7.436  10.991
ATOM   2330  CD2 LEU A 139      26.657   7.219  13.723
ATOM   2331  HD21LEU A 139      27.741   7.195  13.783
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ATOM   2332  HD22LEU A 139      26.334   8.213  13.415
ATOM   2333  HD23LEU A 139      26.247   6.994  14.707
ATOM   2334  C   LEU A 139      22.319   6.099  13.366
ATOM   2335  O   LEU A 139      21.856   5.216  12.639
ATOM   2336  N   HIE C 140      21.571   7.113  13.815
ATOM   2337  H   HIE C 140      22.005   7.869  14.345
ATOM   2338  CA  HIE C 140      20.130   7.188  13.527
ATOM   2339  HA  HIE C 140      19.712   6.183  13.620
ATOM   2340  CB  HIE C 140      19.429   8.062  14.578
ATOM   2341  HB2 HIE C 140      19.664   7.689  15.575
ATOM   2342  HB3 HIE C 140      19.783   9.091  14.502
ATOM   2343  CG  HIE C 140      17.936   8.048  14.388
ATOM   2344  ND1 HIE C 140      17.253   8.832  13.461
ATOM   2345  CE1 HIE C 140      15.980   8.406  13.500
ATOM   2346  HE1 HIE C 140      15.186   8.778  12.866
ATOM   2347  NE2 HIE C 140      15.832   7.415  14.396
ATOM   2348  HE2 HIE C 140      14.977   6.876  14.530
ATOM   2349  CD2 HIE C 140      17.064   7.170  14.964
ATOM   2350  HD2 HIE C 140      17.307   6.391  15.669
ATOM   2351  C   HIE C 140      19.840   7.648  12.082
ATOM   2352  O   HIE C 140      19.053   7.010  11.382
ATOM   2353  N   ARG C 141      20.512   8.712  11.615
ATOM   2354  H   ARG C 141      21.072   9.230  12.292
ATOM   2355  CA  ARG C 141      20.613   9.135  10.199
ATOM   2356  HA  ARG C 141      21.418   9.869  10.164
ATOM   2357  CB  ARG C 141      21.036   7.974   9.256
ATOM   2358  HB2 ARG C 141      20.260   7.208   9.231
ATOM   2359  HB3 ARG C 141      21.134   8.360   8.241
ATOM   2360  CG  ARG C 141      22.384   7.338   9.641
ATOM   2361  HG2 ARG C 141      23.190   8.041   9.438
ATOM   2362  HG3 ARG C 141      22.383   7.123  10.707
ATOM   2363  CD  ARG C 141      22.666   6.013   8.919
ATOM   2364  HD2 ARG C 141      23.438   5.485   9.481
ATOM   2365  HD3 ARG C 141      21.769   5.401   8.951
ATOM   2366  NE  ARG C 141      23.159   6.180   7.537
ATOM   2367  HE  ARG C 141      23.726   6.991   7.356
ATOM   2368  CZ  ARG C 141      23.172   5.220   6.613
ATOM   2369  NH1 ARG C 141      22.392   4.163   6.668
ATOM   2370  HH11ARG C 141      21.603   4.144   7.305
ATOM   2371  HH12ARG C 141      22.413   3.506   5.885
ATOM   2372  NH2 ARG C 141      23.992   5.293   5.592
ATOM   2373  HH21ARG C 141      24.502   6.122   5.341
ATOM   2374  HH22ARG C 141      24.104   4.461   5.011
ATOM   2375  C   ARG C 141      19.366   9.862   9.649
ATOM   2376  O   ARG C 141      19.427  10.326   8.514
ATOM   2377  N   ASB C 142      18.261   9.995  10.402
ATOM   2378  H   ASB C 142      18.228   9.501  11.288
ATOM   2379  CA  ASB C 142      17.090  10.821  10.020
ATOM   2380  HA  ASB C 142      17.474  11.753   9.597
ATOM   2381  C   ASB C 142      16.216  11.240  11.225
ATOM   2382  O   ASB C 142      15.009  11.013  11.234
ATOM   2383  N   LEU C 143      16.829  11.824  12.264
ATOM   2384  H   LEU C 143      17.816  12.008  12.155
ATOM   2385  CA  LEU C 143      16.250  12.100  13.597
ATOM   2386  HA  LEU C 143      15.755  11.184  13.916
ATOM   2387  CB  LEU C 143      17.440  12.378  14.554
ATOM   2388  HB2 LEU C 143      18.218  11.640  14.347
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ATOM   2389  HB3 LEU C 143      17.847  13.357  14.307
ATOM   2390  CG  LEU C 143      17.174  12.339  16.079
ATOM   2391  HG  LEU C 143      16.456  13.110  16.351
ATOM   2392  CD1 LEU C 143      16.633  10.983  16.559
ATOM   2393  HD11LEU C 143      17.328  10.187  16.294
ATOM   2394  HD12LEU C 143      16.507  10.999  17.642
ATOM   2395  HD13LEU C 143      15.662  10.783  16.106
ATOM   2396  CD2 LEU C 143      18.476  12.656  16.831
ATOM   2397  HD21LEU C 143      18.285  12.690  17.905
ATOM   2398  HD22LEU C 143      19.225  11.890  16.628
ATOM   2399  HD23LEU C 143      18.861  13.627  16.517
ATOM   2400  C   LEU C 143      15.149  13.194  13.608
ATOM   2401  O   LEU C 143      14.858  13.796  14.639
ATOM   2402  N   LYB C 144      14.526  13.502  12.468
ATOM   2403  H   LYB C 144      14.721  12.925  11.659
ATOM   2404  CA  LYB C 144      13.547  14.589  12.346
ATOM   2405  HA  LYB C 144      14.025  15.445  12.822
ATOM   2406  CB  LYB C 144      13.358  14.983  10.869
ATOM   2407  HB2 LYB C 144      12.536  15.696  10.788
ATOM   2408  HB3 LYB C 144      14.262  15.519  10.577
ATOM   2409  CG  LYB C 144      13.163  13.870   9.823
ATOM   2410  HG2 LYB C 144      13.190  14.377   8.858
ATOM   2411  HG3 LYB C 144      14.008  13.183   9.856
ATOM   2412  CD  LYB C 144      11.853  13.072   9.905
ATOM   2413  HD2 LYB C 144      11.951  12.280  10.646
ATOM   2414  HD3 LYB C 144      11.056  13.750  10.187
ATOM   2415  C   LYB C 144      12.226  14.353  13.129
ATOM   2416  O   LYB C 144      11.722  13.225  13.193
ATOM   2417  N   PRO C 145      11.623  15.411  13.717
ATOM   2418  CD  PRO C 145      12.059  16.798  13.629
ATOM   2419  HD2 PRO C 145      12.118  17.136  12.594
ATOM   2420  HD3 PRO C 145      13.029  16.908  14.115
ATOM   2421  CG  PRO C 145      11.022  17.624  14.382
ATOM   2422  HG2 PRO C 145      10.212  17.887  13.704
ATOM   2423  HG3 PRO C 145      11.453  18.521  14.825
ATOM   2424  CB  PRO C 145      10.523  16.652  15.445
ATOM   2425  HB2 PRO C 145       9.513  16.902  15.770
ATOM   2426  HB3 PRO C 145      11.204  16.665  16.298
ATOM   2427  CA  PRO C 145      10.603  15.280  14.761
ATOM   2428  HA  PRO C 145      10.965  14.565  15.500
ATOM   2429  C   PRO C 145       9.226  14.773  14.308
ATOM   2430  O   PRO C 145       8.441  14.394  15.171
ATOM   2431  N   SER C 146       8.919  14.668  13.009
ATOM   2432  H   SER C 146       9.569  14.962  12.296
ATOM   2433  CA  SER C 146       7.681  14.020  12.516
ATOM   2434  HA  SER C 146       6.824  14.418  13.071
ATOM   2435  CB  SER C 146       7.481  14.371  11.033
ATOM   2436  HB2 SER C 146       6.650  13.786  10.619
ATOM   2437  HB3 SER C 146       7.236  15.438  10.967
ATOM   2438  OG  SER C 146       8.663  14.133  10.286
ATOM   2439  HG  SER C 146       8.787  14.908   9.687
ATOM   2440  C   SER C 146       7.671  12.495  12.731
ATOM   2441  O   SER C 146       6.741  11.795  12.336
ATOM   2442  N   ASN C 147       8.714  11.945  13.358
ATOM   2443  H   ASN C 147       9.496  12.558  13.566
ATOM   2444  CA  ASN C 147       8.809  10.544  13.790
ATOM   2445  HA  ASN C 147       7.918   9.983  13.501
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ATOM   2446  CB  ASN C 147      10.054   9.947  13.145
ATOM   2447  HB2 ASN C 147      10.889  10.626  13.252
ATOM   2448  HB3 ASN C 147      10.307   9.019  13.640
ATOM   2449  CG  ASN C 147       9.890   9.635  11.681
ATOM   2450  OD1 ASN C 147      10.644   8.833  11.165
ATOM   2451  ND2 ASN C 147       8.893  10.129  10.963
ATOM   2452  HD21ASN C 147       8.803  10.041   9.949
ATOM   2453  HD22ASN C 147       8.217  10.734  11.421
ATOM   2454  C   ASN C 147       8.959  10.386  15.303
ATOM   2455  O   ASN C 147       8.873   9.276  15.827
ATOM   2456  N   LEU A 148       9.285  11.471  16.006
ATOM   2457  H   LEU A 148       9.222  12.377  15.555
ATOM   2458  CA  LEU A 148       9.651  11.450  17.416
ATOM   2459  HA  LEU A 148      10.190  10.527  17.622
ATOM   2460  CB  LEU A 148      10.566  12.663  17.640
ATOM   2461  HB2 LEU A 148      11.342  12.666  16.870
ATOM   2462  HB3 LEU A 148       9.955  13.558  17.511
ATOM   2463  CG  LEU A 148      11.238  12.694  19.013
ATOM   2464  HG  LEU A 148      10.476  12.567  19.778
ATOM   2465  CD1 LEU A 148      12.288  11.588  19.178
ATOM   2466  HD11LEU A 148      12.759  11.672  20.158
ATOM   2467  HD12LEU A 148      11.815  10.614  19.106
ATOM   2468  HD13LEU A 148      13.052  11.670  18.405
ATOM   2469  CD2 LEU A 148      11.898  14.060  19.182
ATOM   2470  HD21LEU A 148      11.225  14.849  18.861
ATOM   2471  HD22LEU A 148      12.112  14.216  20.232
ATOM   2472  HD23LEU A 148      12.816  14.122  18.598
ATOM   2473  C   LEU A 148       8.350  11.454  18.224
ATOM   2474  O   LEU A 148       7.613  12.437  18.196
ATOM   2475  N   LEU C 149       8.034  10.326  18.861
ATOM   2476  H   LEU C 149       8.728   9.595  18.940
ATOM   2477  CA  LEU C 149       6.677  10.035  19.318
ATOM   2478  HA  LEU C 149       5.964  10.512  18.643
ATOM   2479  CB  LEU C 149       6.430   8.515  19.321
ATOM   2480  HB2 LEU C 149       7.128   8.065  20.031
ATOM   2481  HB3 LEU C 149       5.420   8.367  19.697
ATOM   2482  CG  LEU C 149       6.560   7.792  17.965
ATOM   2483  HG  LEU C 149       7.570   7.940  17.585
ATOM   2484  CD1 LEU C 149       6.352   6.290  18.183
ATOM   2485  HD11LEU C 149       5.353   6.093  18.563
ATOM   2486  HD12LEU C 149       6.477   5.767  17.242
ATOM   2487  HD13LEU C 149       7.087   5.909  18.888
ATOM   2488  CD2 LEU C 149       5.553   8.322  16.936
ATOM   2489  HD21LEU C 149       5.743   9.372  16.723
ATOM   2490  HD22LEU C 149       5.661   7.766  16.008
ATOM   2491  HD23LEU C 149       4.534   8.208  17.307
ATOM   2492  C   LEU C 149       6.429  10.621  20.708
ATOM   2493  O   LEU C 149       7.203  10.377  21.633
ATOM   2494  N   LEU A 150       5.298  11.308  20.866
ATOM   2495  H   LEU A 150       4.702  11.428  20.050
ATOM   2496  CA  LEU A 150       4.848  11.953  22.100
ATOM   2497  HA  LEU A 150       5.603  11.819  22.875
ATOM   2498  CB  LEU A 150       4.707  13.456  21.783
ATOM   2499  HB2 LEU A 150       5.649  13.809  21.355
ATOM   2500  HB3 LEU A 150       3.946  13.561  21.009
ATOM   2501  CG  LEU A 150       4.336  14.365  22.969
ATOM   2502  HG  LEU A 150       3.405  14.007  23.408
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ATOM   2503  CD1 LEU A 150       5.424  14.386  24.051
ATOM   2504  HD11LEU A 150       5.158  15.113  24.815
ATOM   2505  HD12LEU A 150       5.518  13.407  24.517
ATOM   2506  HD13LEU A 150       6.381  14.678  23.622
ATOM   2507  CD2 LEU A 150       4.115  15.786  22.441
ATOM   2508  HD21LEU A 150       5.028  16.167  21.986
ATOM   2509  HD22LEU A 150       3.320  15.784  21.698
ATOM   2510  HD23LEU A 150       3.822  16.441  23.258
ATOM   2511  C   LEU A 150       3.536  11.305  22.572
ATOM   2512  O   LEU A 150       2.629  11.059  21.774
ATOM   2513  N   ASN A 151       3.425  11.022  23.869
ATOM   2514  H   ASN A 151       4.239  11.178  24.454
ATOM   2515  CA  ASN A 151       2.196  10.533  24.511
ATOM   2516  HA  ASN A 151       1.517  10.166  23.743
ATOM   2517  CB  ASN A 151       2.542   9.330  25.417
ATOM   2518  HB2 ASN A 151       3.379   8.787  24.979
ATOM   2519  HB3 ASN A 151       2.875   9.678  26.392
ATOM   2520  CG  ASN A 151       1.386   8.341  25.594
ATOM   2521  OD1 ASN A 151       0.281   8.697  25.976
ATOM   2522  ND2 ASN A 151       1.583   7.074  25.295
ATOM   2523  HD21ASN A 151       0.816   6.428  25.377
ATOM   2524  HD22ASN A 151       2.514   6.726  25.092
ATOM   2525  C   ASN A 151       1.467  11.674  25.262
ATOM   2526  O   ASN A 151       2.043  12.737  25.515
ATOM   2527  N   THR A 152       0.213  11.444  25.677
ATOM   2528  H   THR A 152      -0.197  10.545  25.449
ATOM   2529  CA  THR A 152      -0.622  12.319  26.529
ATOM   2530  HA  THR A 152      -0.874  13.232  25.991
ATOM   2531  CB  THR A 152      -1.919  11.564  26.859
ATOM   2532  HB  THR A 152      -1.687  10.695  27.477
ATOM   2533  CG2 THR A 152      -2.951  12.417  27.594
ATOM   2534  HG21THR A 152      -3.911  11.898  27.617
ATOM   2535  HG22THR A 152      -2.626  12.590  28.621
ATOM   2536  HG23THR A 152      -3.072  13.375  27.095
ATOM   2537  OG1 THR A 152      -2.494  11.102  25.663
ATOM   2538  HG1 THR A 152      -2.768  11.880  25.130
ATOM   2539  C   THR A 152       0.079  12.729  27.827
ATOM   2540  O   THR A 152      -0.161  13.817  28.346
ATOM   2541  N   THR A 153       0.977  11.870  28.320
ATOM   2542  H   THR A 153       1.095  10.990  27.840
ATOM   2543  CA  THR A 153       1.785  12.020  29.536
ATOM   2544  HA  THR A 153       1.173  12.482  30.306
ATOM   2545  CB  THR A 153       2.217  10.628  30.010
ATOM   2546  HB  THR A 153       2.933  10.731  30.826
ATOM   2547  CG2 THR A 153       1.034   9.792  30.496
ATOM   2548  HG21THR A 153       1.395   8.829  30.856
ATOM   2549  HG22THR A 153       0.542  10.314  31.316
ATOM   2550  HG23THR A 153       0.322   9.625  29.689
ATOM   2551  OG1 THR A 153       2.822   9.962  28.924
ATOM   2552  HG1 THR A 153       3.464   9.321  29.287
ATOM   2553  C   THR A 153       3.034  12.890  29.384
ATOM   2554  O   THR A 153       3.768  13.039  30.361
ATOM   2555  N   CYS A 154       3.308  13.398  28.177
ATOM   2556  H   CYS A 154       2.613  13.257  27.456
ATOM   2557  CA  CYS A 154       4.540  14.093  27.757
ATOM   2558  HA  CYS A 154       4.369  14.437  26.739
ATOM   2559  CB  CYS A 154       4.810  15.346  28.609
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ATOM   2560  HB2 CYS A 154       4.866  15.084  29.664
ATOM   2561  HB3 CYS A 154       5.774  15.763  28.312
ATOM   2562  SG  CYS A 154       3.520  16.597  28.335
ATOM   2563  HG  CYS A 154       4.105  17.597  29.021
ATOM   2564  C   CYS A 154       5.775  13.169  27.646
ATOM   2565  O   CYS A 154       6.899  13.646  27.466
ATOM   2566  N   ASP A 155       5.578  11.850  27.716
ATOM   2567  H   ASP A 155       4.648  11.521  27.925
ATOM   2568  CA  ASP A 155       6.613  10.858  27.412
ATOM   2569  HA  ASP A 155       7.505  11.098  27.988
ATOM   2570  CB  ASP A 155       6.160   9.451  27.835
ATOM   2571  HB2 ASP A 155       5.247   9.191  27.297
ATOM   2572  HB3 ASP A 155       6.932   8.734  27.554
ATOM   2573  CG  ASP A 155       5.916   9.324  29.344
ATOM   2574  OD1 ASP A 155       6.615   9.995  30.132
ATOM   2575  OD2 ASP A 155       5.006   8.553  29.735
ATOM   2576  C   ASP A 155       6.988  10.924  25.924
ATOM   2577  O   ASP A 155       6.158  10.656  25.052
ATOM   2578  N   LEU A 156       8.232  11.333  25.655
ATOM   2579  H   LEU A 156       8.824  11.552  26.449
ATOM   2580  CA  LEU A 156       8.783  11.605  24.325
ATOM   2581  HA  LEU A 156       7.983  11.559  23.589
ATOM   2582  CB  LEU A 156       9.350  13.040  24.358
ATOM   2583  HB2 LEU A 156       8.553  13.723  24.655
ATOM   2584  HB3 LEU A 156      10.120  13.089  25.128
ATOM   2585  CG  LEU A 156       9.965  13.557  23.044
ATOM   2586  HG  LEU A 156      10.801  12.915  22.762
ATOM   2587  CD1 LEU A 156       8.949  13.576  21.894
ATOM   2588  HD11LEU A 156       8.690  12.557  21.608
ATOM   2589  HD12LEU A 156       8.050  14.110  22.194
ATOM   2590  HD13LEU A 156       9.377  14.079  21.029
ATOM   2591  CD2 LEU A 156      10.512  14.975  23.275
ATOM   2592  HD21LEU A 156      11.013  15.332  22.374
ATOM   2593  HD22LEU A 156       9.695  15.656  23.524
ATOM   2594  HD23LEU A 156      11.233  14.966  24.093
ATOM   2595  C   LEU A 156       9.851  10.556  23.981
ATOM   2596  O   LEU A 156      10.870  10.473  24.667
ATOM   2597  N   LYS A 157       9.618   9.727  22.960
ATOM   2598  H   LYS A 157       8.766   9.872  22.425
ATOM   2599  CA  LYS A 157      10.400   8.513  22.685
ATOM   2600  HA  LYS A 157      11.263   8.497  23.350
ATOM   2601  CB  LYS A 157       9.544   7.267  22.985
ATOM   2602  HB2 LYS A 157       8.708   7.241  22.284
ATOM   2603  HB3 LYS A 157      10.161   6.382  22.818
ATOM   2604  CG  LYS A 157       8.995   7.218  24.421
ATOM   2605  HG2 LYS A 157       9.814   7.328  25.134
ATOM   2606  HG3 LYS A 157       8.274   8.023  24.576
ATOM   2607  CD  LYS A 157       8.308   5.870  24.663
ATOM   2608  HD2 LYS A 157       7.576   5.687  23.875
ATOM   2609  HD3 LYS A 157       9.065   5.086  24.626
ATOM   2610  CE  LYS A 157       7.607   5.827  26.024
ATOM   2611  HE2 LYS A 157       8.347   6.016  26.806
ATOM   2612  HE3 LYS A 157       6.843   6.610  26.068
ATOM   2613  NZ  LYS A 157       6.988   4.499  26.236
ATOM   2614  HZ1 LYS A 157       7.692   3.766  26.206
ATOM   2615  HZ2 LYS A 157       6.482   4.434  27.110
ATOM   2616  HZ3 LYS A 157       6.333   4.286  25.492
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ATOM   2617  C   LYS A 157      10.936   8.441  21.245
ATOM   2618  O   LYS A 157      10.269   8.838  20.285
ATOM   2619  N   ILE A 158      12.135   7.872  21.078
ATOM   2620  H   ILE A 158      12.619   7.554  21.911
ATOM   2621  CA  ILE A 158      12.777   7.658  19.765
ATOM   2622  HA  ILE A 158      12.571   8.526  19.137
ATOM   2623  CB  ILE A 158      14.319   7.569  19.915
ATOM   2624  HB  ILE A 158      14.558   6.725  20.563
ATOM   2625  CG2 ILE A 158      14.987   7.336  18.543
ATOM   2626  HG21ILE A 158      14.714   8.135  17.851
ATOM   2627  HG22ILE A 158      16.070   7.311  18.638
ATOM   2628  HG23ILE A 158      14.684   6.375  18.127
ATOM   2629  CG1 ILE A 158      14.857   8.872  20.565
ATOM   2630  HG12ILE A 158      14.611   9.718  19.925
ATOM   2631  HG13ILE A 158      14.363   9.027  21.523
ATOM   2632  CD1 ILE A 158      16.359   8.883  20.840
ATOM   2633  HD11ILE A 158      16.919   8.937  19.910
ATOM   2634  HD12ILE A 158      16.603   9.758  21.436
ATOM   2635  HD13ILE A 158      16.635   7.986  21.390
ATOM   2636  C   ILE A 158      12.133   6.458  19.033
ATOM   2637  O   ILE A 158      11.721   5.479  19.665
ATOM   2638  N   CYS C 159      12.055   6.558  17.699
ATOM   2639  H   CYS C 159      12.527   7.337  17.256
ATOM   2640  CA  CYS C 159      11.403   5.646  16.749
ATOM   2641  HA  CYS C 159      11.477   4.621  17.120
ATOM   2642  CB  CYS C 159       9.917   6.055  16.671
ATOM   2643  HB2 CYS C 159       9.532   6.217  17.681
ATOM   2644  HB3 CYS C 159       9.832   6.994  16.119
ATOM   2645  SG  CYS C 159       8.901   4.780  15.858
ATOM   2646  HG  CYS C 159       7.770   5.490  15.719
ATOM   2647  C   CYS C 159      12.121   5.717  15.368
ATOM   2648  O   CYS C 159      13.082   6.472  15.230
ATOM   2649  N   ASP C 160      11.641   4.934  14.394
ATOM   2650  H   ASP C 160      10.787   4.446  14.632
ATOM   2651  CA  ASP C 160      12.102   4.804  13.001
ATOM   2652  HA  ASP C 160      11.601   3.925  12.592
ATOM   2653  CB  ASP C 160      11.642   5.989  12.136
ATOM   2654  HB2 ASP C 160      10.584   6.149  12.341
ATOM   2655  HB3 ASP C 160      12.176   6.890  12.445
ATOM   2656  CG  ASP C 160      11.804   5.762  10.626
ATOM   2657  OD1 ASP C 160      12.739   5.070  10.155
ATOM   2658  OD2 ASP C 160      10.967   6.315   9.854
ATOM   2659  C   ASP C 160      13.608   4.548  12.876
ATOM   2660  O   ASP C 160      14.418   5.457  12.707
ATOM   2661  N   PHE A 161      13.973   3.267  12.865
ATOM   2662  H   PHE A 161      13.258   2.566  12.989
ATOM   2663  CA  PHE A 161      15.334   2.812  12.587
ATOM   2664  HA  PHE A 161      16.008   3.665  12.681
ATOM   2665  CB  PHE A 161      15.740   1.792  13.667
ATOM   2666  HB2 PHE A 161      15.000   0.989  13.708
ATOM   2667  HB3 PHE A 161      16.698   1.346  13.397
ATOM   2668  CG  PHE A 161      15.879   2.435  15.039
ATOM   2669  CD1 PHE A 161      14.760   2.554  15.886
ATOM   2670  HD1 PHE A 161      13.807   2.150  15.578
ATOM   2671  CE1 PHE A 161      14.874   3.215  17.121
ATOM   2672  HE1 PHE A 161      14.010   3.315  17.761
ATOM   2673  CZ  PHE A 161      16.108   3.757  17.517
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ATOM   2674  HZ  PHE A 161      16.193   4.261  18.468
ATOM   2675  CE2 PHE A 161      17.227   3.644  16.673
ATOM   2676  HE2 PHE A 161      18.174   4.070  16.967
ATOM   2677  CD2 PHE A 161      17.113   2.984  15.438
ATOM   2678  HD2 PHE A 161      17.975   2.908  14.791
ATOM   2679  C   PHE A 161      15.478   2.312  11.134
ATOM   2680  O   PHE A 161      16.385   1.541  10.824
ATOM   2681  N   GLY C 162      14.594   2.750  10.221
ATOM   2682  H   GLY C 162      13.875   3.405  10.525
ATOM   2683  CA  GLY C 162      14.525   2.276   8.831
ATOM   2684  HA2 GLY C 162      14.675   1.199   8.817
ATOM   2685  HA3 GLY C 162      13.542   2.513   8.433
ATOM   2686  C   GLY C 162      15.565   2.864   7.876
ATOM   2687  O   GLY C 162      15.738   2.328   6.782
ATOM   2688  N   LEU C 163      16.269   3.928   8.282
ATOM   2689  H   LEU C 163      15.982   4.361   9.147
ATOM   2690  CA  LEU C 163      17.501   4.408   7.630
ATOM   2691  HA  LEU C 163      17.682   3.794   6.749
ATOM   2692  CB  LEU C 163      17.292   5.874   7.187
ATOM   2693  HB2 LEU C 163      16.295   5.967   6.752
ATOM   2694  HB3 LEU C 163      17.326   6.518   8.069
ATOM   2695  CG  LEU C 163      18.310   6.395   6.145
ATOM   2696  HG  LEU C 163      19.315   6.365   6.565
ATOM   2697  CD1 LEU C 163      18.295   5.564   4.849
ATOM   2698  HD11LEU C 163      18.895   6.052   4.082
ATOM   2699  HD12LEU C 163      18.721   4.577   5.025
ATOM   2700  HD13LEU C 163      17.273   5.456   4.486
ATOM   2701  CD2 LEU C 163      17.988   7.859   5.814
ATOM   2702  HD21LEU C 163      18.117   8.468   6.707
ATOM   2703  HD22LEU C 163      18.669   8.225   5.048
ATOM   2704  HD23LEU C 163      16.964   7.951   5.453
ATOM   2705  C   LEU C 163      18.744   4.236   8.527
ATOM   2706  O   LEU C 163      19.869   4.338   8.038
ATOM   2707  N   ALA C 164      18.551   3.952   9.819
ATOM   2708  H   ALA C 164      17.611   3.790  10.133
ATOM   2709  CA  ALA C 164      19.610   3.769  10.807
ATOM   2710  HA  ALA C 164      20.243   4.658  10.800
ATOM   2711  CB  ALA C 164      18.961   3.655  12.193
ATOM   2712  HB1 ALA C 164      18.319   4.519  12.376
ATOM   2713  HB2 ALA C 164      18.373   2.740  12.251
ATOM   2714  HB3 ALA C 164      19.731   3.627  12.964
ATOM   2715  C   ALA C 164      20.502   2.555  10.494
ATOM   2716  O   ALA C 164      20.105   1.626   9.782
ATOM   2717  N   ARG A 165      21.716   2.552  11.053
ATOM   2718  H   ARG A 165      21.977   3.335  11.646
ATOM   2719  CA  ARG A 165      22.682   1.463  10.871
ATOM   2720  HA  ARG A 165      22.126   0.529  10.965
ATOM   2721  CB  ARG A 165      23.300   1.528   9.455
ATOM   2722  HB2 ARG A 165      22.563   1.911   8.747
ATOM   2723  HB3 ARG A 165      24.155   2.207   9.451
ATOM   2724  CG  ARG A 165      23.736   0.137   8.976
ATOM   2725  HG2 ARG A 165      24.542  -0.232   9.611
ATOM   2726  HG3 ARG A 165      22.886  -0.544   9.055
ATOM   2727  CD  ARG A 165      24.220   0.149   7.522
ATOM   2728  HD2 ARG A 165      23.473   0.631   6.889
ATOM   2729  HD3 ARG A 165      25.138   0.729   7.445
ATOM   2730  NE  ARG A 165      24.425  -1.230   7.052
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ATOM   2731  HE  ARG A 165      23.598  -1.760   6.827
ATOM   2732  CZ  ARG A 165      25.570  -1.877   6.896
ATOM   2733  NH1 ARG A 165      26.745  -1.340   7.127
ATOM   2734  HH11ARG A 165      26.827  -0.367   7.417
ATOM   2735  HH12ARG A 165      27.596  -1.838   6.895
ATOM   2736  NH2 ARG A 165      25.510  -3.129   6.513
ATOM   2737  HH21ARG A 165      24.605  -3.554   6.344
ATOM   2738  HH22ARG A 165      26.331  -3.717   6.532
ATOM   2739  C   ARG A 165      23.758   1.483  11.958
ATOM   2740  O   ARG A 165      24.162   2.553  12.406
ATOM   2741  N   VAL A 166      24.222   0.301  12.359
ATOM   2742  H   VAL A 166      23.855  -0.515  11.904
ATOM   2743  CA  VAL A 166      25.408   0.137  13.215
ATOM   2744  HA  VAL A 166      25.311   0.835  14.041
ATOM   2745  CB  VAL A 166      25.476  -1.289  13.819
ATOM   2746  HB  VAL A 166      24.457  -1.576  14.088
ATOM   2747  CG1 VAL A 166      25.986  -2.354  12.830
ATOM   2748  HG11VAL A 166      25.388  -2.334  11.919
ATOM   2749  HG12VAL A 166      27.033  -2.178  12.580
ATOM   2750  HG13VAL A 166      25.905  -3.342  13.279
ATOM   2751  CG2 VAL A 166      26.301  -1.306  15.114
ATOM   2752  HG21VAL A 166      27.316  -0.960  14.925
ATOM   2753  HG22VAL A 166      25.836  -0.656  15.855
ATOM   2754  HG23VAL A 166      26.337  -2.318  15.516
ATOM   2755  C   VAL A 166      26.667   0.497  12.414
ATOM   2756  O   VAL A 166      26.728   0.205  11.219
ATOM   2757  N   ALA A 167      27.662   1.114  13.057
ATOM   2758  H   ALA A 167      27.534   1.354  14.038
ATOM   2759  CA  ALA A 167      28.942   1.456  12.428
ATOM   2760  HA  ALA A 167      29.190   0.674  11.706
ATOM   2761  CB  ALA A 167      28.789   2.778  11.659
ATOM   2762  HB1 ALA A 167      29.725   3.029  11.161
ATOM   2763  HB2 ALA A 167      28.016   2.673  10.897
ATOM   2764  HB3 ALA A 167      28.511   3.585  12.337
ATOM   2765  C   ALA A 167      30.076   1.500  13.464
ATOM   2766  O   ALA A 167      29.898   2.022  14.566
ATOM   2767  N   ASP A 168      31.239   0.957  13.090
ATOM   2768  H   ASP A 168      31.291   0.633  12.126
ATOM   2769  CA  ASP A 168      32.285   0.452  13.993
ATOM   2770  HA  ASP A 168      31.888  -0.460  14.435
ATOM   2771  CB  ASP A 168      33.489   0.038  13.137
ATOM   2772  HB2 ASP A 168      33.158  -0.623  12.335
ATOM   2773  HB3 ASP A 168      33.915   0.932  12.684
ATOM   2774  CG  ASP A 168      34.561  -0.686  13.954
ATOM   2775  OD1 ASP A 168      34.561  -1.936  13.962
ATOM   2776  OD2 ASP A 168      35.378   0.001  14.601
ATOM   2777  C   ASP A 168      32.741   1.425  15.114
ATOM   2778  O   ASP A 168      32.879   2.624  14.839
ATOM   2779  N   PRO A 169      33.039   0.929  16.338
ATOM   2780  CD  PRO A 169      32.737  -0.427  16.793
ATOM   2781  HD2 PRO A 169      33.495  -1.119  16.423
ATOM   2782  HD3 PRO A 169      31.740  -0.744  16.482
ATOM   2783  CG  PRO A 169      32.790  -0.389  18.315
ATOM   2784  HG2 PRO A 169      33.096  -1.348  18.732
ATOM   2785  HG3 PRO A 169      31.822  -0.082  18.711
ATOM   2786  CB  PRO A 169      33.823   0.696  18.573
ATOM   2787  HB2 PRO A 169      34.820   0.274  18.444
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ATOM   2788  HB3 PRO A 169      33.714   1.126  19.569
ATOM   2789  CA  PRO A 169      33.541   1.716  17.467
ATOM   2790  HA  PRO A 169      32.729   2.362  17.794
ATOM   2791  C   PRO A 169      34.794   2.583  17.247
ATOM   2792  O   PRO A 169      34.925   3.594  17.936
ATOM   2793  N   ASP A 170      35.721   2.227  16.347
ATOM   2794  H   ASP A 170      35.585   1.362  15.822
ATOM   2795  CA  ASP A 170      36.991   2.958  16.140
ATOM   2796  HA  ASP A 170      36.875   3.974  16.508
ATOM   2797  CB  ASP A 170      38.105   2.318  16.983
ATOM   2798  HB2 ASP A 170      37.671   1.829  17.856
ATOM   2799  HB3 ASP A 170      38.624   1.551  16.408
ATOM   2800  CG  ASP A 170      39.096   3.374  17.484
ATOM   2801  OD1 ASP A 170      38.914   3.830  18.634
ATOM   2802  OD2 ASP A 170      40.029   3.760  16.743
ATOM   2803  C   ASP A 170      37.436   3.077  14.669
ATOM   2804  O   ASP A 170      38.026   4.086  14.289
ATOM   2805  N   HIE A 171      37.119   2.102  13.815
ATOM   2806  H   HIE A 171      36.567   1.323  14.176
ATOM   2807  CA  HIE A 171      37.471   2.062  12.384
ATOM   2808  HA  HIE A 171      38.558   2.126  12.296
ATOM   2809  CB  HIE A 171      37.017   0.695  11.849
ATOM   2810  HB2 HIE A 171      37.364  -0.084  12.531
ATOM   2811  HB3 HIE A 171      35.928   0.673  11.819
ATOM   2812  CG  HIE A 171      37.525   0.351  10.479
ATOM   2813  ND1 HIE A 171      38.829  -0.039  10.179
ATOM   2814  CE1 HIE A 171      38.834  -0.285   8.857
ATOM   2815  HE1 HIE A 171      39.701  -0.607   8.294
ATOM   2816  NE2 HIE A 171      37.619  -0.071   8.326
ATOM   2817  HE2 HIE A 171      37.362  -0.202   7.355
ATOM   2818  CD2 HIE A 171      36.780   0.330   9.339
ATOM   2819  HD2 HIE A 171      35.734   0.581   9.250
ATOM   2820  C   HIE A 171      36.896   3.233  11.548
ATOM   2821  O   HIE A 171      35.886   3.848  11.904
ATOM   2822  N   ASP A 172      37.555   3.567  10.442
ATOM   2823  H   ASP A 172      38.354   3.001  10.193
ATOM   2824  CA  ASP A 172      37.146   4.631   9.512
ATOM   2825  HA  ASP A 172      36.828   5.513  10.086
ATOM   2826  CB  ASP A 172      38.374   5.026   8.678
ATOM   2827  HB2 ASP A 172      39.178   5.350   9.344
ATOM   2828  HB3 ASP A 172      38.734   4.166   8.115
ATOM   2829  CG  ASP A 172      38.037   6.143   7.700
ATOM   2830  OD1 ASP A 172      38.076   7.325   8.112
ATOM   2831  OD2 ASP A 172      37.680   5.858   6.537
ATOM   2832  C   ASP A 172      35.984   4.177   8.595
ATOM   2833  O   ASP A 172      36.005   3.076   8.049
ATOM   2834  N   HIE A 173      34.968   5.027   8.409
ATOM   2835  H   HIE A 173      34.998   5.930   8.863
ATOM   2836  CA  HIE A 173      33.747   4.690   7.659
ATOM   2837  HA  HIE A 173      33.680   3.604   7.586
ATOM   2838  CB  HIE A 173      32.528   5.194   8.454
ATOM   2839  HB2 HIE A 173      32.534   6.290   8.458
ATOM   2840  HB3 HIE A 173      31.623   4.847   7.947
ATOM   2841  CG  HIE A 173      32.463   4.706   9.882
ATOM   2842  ND1 HIE A 173      32.155   5.508  10.983
ATOM   2843  CE1 HIE A 173      32.137   4.691  12.045
ATOM   2844  HE1 HIE A 173      31.889   5.001  13.051
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ATOM   2845  NE2 HIE A 173      32.460   3.440  11.679
ATOM   2846  HE2 HIE A 173      32.486   2.637  12.298
ATOM   2847  CD2 HIE A 173      32.665   3.427  10.316
ATOM   2848  HD2 HIE A 173      32.906   2.569   9.701
ATOM   2849  C   HIE A 173      33.725   5.225   6.209
ATOM   2850  O   HIE A 173      32.747   5.003   5.487
ATOM   2851  N   THR A 174      34.780   5.944   5.785
ATOM   2852  H   THR A 174      35.579   6.005   6.404
ATOM   2853  CA  THR A 174      34.874   6.633   4.482
ATOM   2854  HA  THR A 174      34.062   7.349   4.402
ATOM   2855  CB  THR A 174      36.193   7.397   4.327
ATOM   2856  HB  THR A 174      36.978   6.699   4.045
ATOM   2857  CG2 THR A 174      36.111   8.497   3.282
ATOM   2858  HG21THR A 174      37.065   9.022   3.226
ATOM   2859  HG22THR A 174      35.888   8.068   2.306
ATOM   2860  HG23THR A 174      35.329   9.199   3.568
ATOM   2861  OG1 THR A 174      36.545   8.012   5.537
ATOM   2862  HG1 THR A 174      37.071   7.333   6.010
ATOM   2863  C   THR A 174      34.730   5.638   3.345
ATOM   2864  O   THR A 174      35.412   4.612   3.351
ATOM   2865  N   GLY A 175      33.856   5.950   2.386
ATOM   2866  H   GLY A 175      33.424   6.868   2.417
ATOM   2867  CA  GLY A 175      33.584   5.113   1.213
ATOM   2868  HA2 GLY A 175      33.106   5.730   0.451
ATOM   2869  HA3 GLY A 175      34.530   4.725   0.826
ATOM   2870  C   GLY A 175      32.671   3.904   1.467
ATOM   2871  O   GLY A 175      32.533   3.096   0.551
ATOM   2872  N   PHE A 176      32.064   3.750   2.657
ATOM   2873  H   PHE A 176      32.263   4.422   3.388
ATOM   2874  CA  PHE A 176      31.259   2.564   3.008
ATOM   2875  HA  PHE A 176      31.194   1.903   2.143
ATOM   2876  CB  PHE A 176      31.971   1.782   4.122
ATOM   2877  HB2 PHE A 176      32.175   2.443   4.965
ATOM   2878  HB3 PHE A 176      31.290   1.010   4.476
ATOM   2879  CG  PHE A 176      33.247   1.095   3.679
ATOM   2880  CD1 PHE A 176      33.176  -0.039   2.846
ATOM   2881  HD1 PHE A 176      32.215  -0.415   2.521
ATOM   2882  CE1 PHE A 176      34.353  -0.679   2.423
ATOM   2883  HE1 PHE A 176      34.294  -1.547   1.778
ATOM   2884  CZ  PHE A 176      35.605  -0.185   2.828
ATOM   2885  HZ  PHE A 176      36.510  -0.668   2.483
ATOM   2886  CE2 PHE A 176      35.680   0.936   3.673
ATOM   2887  HE2 PHE A 176      36.643   1.310   3.996
ATOM   2888  CD2 PHE A 176      34.502   1.579   4.095
ATOM   2889  HD2 PHE A 176      34.564   2.449   4.732
ATOM   2890  C   PHE A 176      29.799   2.830   3.421
ATOM   2891  O   PHE A 176      28.974   1.925   3.280
ATOM   2892  N   LEU A 177      29.452   4.021   3.923
ATOM   2893  H   LEU A 177      30.150   4.745   4.011
ATOM   2894  CA  LEU A 177      28.060   4.357   4.257
ATOM   2895  HA  LEU A 177      27.580   3.478   4.688
ATOM   2896  CB  LEU A 177      28.012   5.497   5.292
ATOM   2897  HB2 LEU A 177      28.705   6.275   4.980
ATOM   2898  HB3 LEU A 177      27.015   5.940   5.291
ATOM   2899  CG  LEU A 177      28.346   5.025   6.722
ATOM   2900  HG  LEU A 177      29.117   4.253   6.685
ATOM   2901  CD1 LEU A 177      28.879   6.192   7.560
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ATOM   2902  HD11LEU A 177      29.786   6.591   7.105
ATOM   2903  HD12LEU A 177      28.132   6.981   7.624
ATOM   2904  HD13LEU A 177      29.120   5.845   8.566
ATOM   2905  CD2 LEU A 177      27.090   4.453   7.402
ATOM   2906  HD21LEU A 177      26.669   3.647   6.802
ATOM   2907  HD22LEU A 177      27.347   4.069   8.389
ATOM   2908  HD23LEU A 177      26.336   5.232   7.516
ATOM   2909  C   LEU A 177      27.251   4.712   3.005
ATOM   2910  O   LEU A 177      27.754   5.340   2.070
ATOM   2911  N   THP A 178      25.969   4.344   3.029
ATOM   2912  H   THP A 178      25.655   3.728   3.777
ATOM   2913  CA  THP A 178      24.947   4.780   2.075
ATOM   2914  HA  THP A 178      25.268   4.432   1.089
ATOM   2915  CB  THP A 178      23.580   4.131   2.377
ATOM   2916  HB  THP A 178      23.149   4.577   3.271
ATOM   2917  CG2 THP A 178      22.604   4.334   1.216
ATOM   2918  HG21THP A 178      22.334   5.386   1.135
ATOM   2919  HG22THP A 178      23.052   3.994   0.282
ATOM   2920  HG23THP A 178      21.698   3.763   1.401
ATOM   2921  OG1 THP A 178      23.717   2.735   2.553
ATOM   2922  PS  THP A 178      23.609   2.052   3.994
ATOM   2923  OPA THP A 178      23.839   0.630   3.687
ATOM   2924  OPB THP A 178      24.649   2.689   4.807
ATOM   2925  OPC THP A 178      22.236   2.358   4.424
ATOM   2926  C   THP A 178      24.860   6.314   2.044
ATOM   2927  O   THP A 178      24.976   7.009   3.061
ATOM   2928  N   GLU A 179      24.705   6.801   0.820
ATOM   2929  H   GLU A 179      24.592   6.099   0.110
ATOM   2930  CA  GLU A 179      24.992   8.154   0.363
ATOM   2931  HA  GLU A 179      25.944   8.476   0.784
ATOM   2932  CB  GLU A 179      25.164   8.044  -1.159
ATOM   2933  HB2 GLU A 179      25.948   7.309  -1.356
ATOM   2934  HB3 GLU A 179      24.235   7.674  -1.601
ATOM   2935  CG  GLU A 179      25.553   9.351  -1.849
ATOM   2936  HG2 GLU A 179      24.804  10.116  -1.644
ATOM   2937  HG3 GLU A 179      26.511   9.693  -1.457
ATOM   2938  CD  GLU A 179      25.665   9.172  -3.361
ATOM   2939  OE1 GLU A 179      25.793   8.027  -3.853
ATOM   2940  OE2 GLU A 179      25.673  10.199  -4.071
ATOM   2941  C   GLU A 179      23.918   9.173   0.776
ATOM   2942  O   GLU A 179      24.125   9.998   1.666
ATOM   2943  N   TYP A 180      22.770   9.178   0.101
ATOM   2944  H   TYP A 180      22.609   8.469  -0.596
ATOM   2945  CA  TYP A 180      21.801  10.272   0.199
ATOM   2946  HA  TYP A 180      22.358  11.204   0.316
ATOM   2947  CB  TYP A 180      21.039  10.388  -1.130
ATOM   2948  HB2 TYP A 180      20.204   9.689  -1.152
ATOM   2949  HB3 TYP A 180      21.702  10.104  -1.947
ATOM   2950  CG  TYP A 180      20.555  11.789  -1.431
ATOM   2951  CD1 TYP A 180      21.463  12.762  -1.885
ATOM   2952  HD1 TYP A 180      22.508  12.520  -1.993
ATOM   2953  CE1 TYP A 180      21.012  14.052  -2.207
ATOM   2954  HE1 TYP A 180      21.702  14.792  -2.591
ATOM   2955  CZ  TYP A 180      19.658  14.399  -2.014
ATOM   2956  CE2 TYP A 180      18.750  13.420  -1.551
ATOM   2957  HE2 TYP A 180      17.708  13.661  -1.411
ATOM   2958  CD2 TYP A 180      19.199  12.118  -1.286
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ATOM   2959  HD2 TYP A 180      18.500  11.363  -0.978
ATOM   2960  OG  TYP A 180      19.307  15.666  -2.270
ATOM   2961  PS  TYP A 180      17.851  16.359  -2.090
ATOM   2962  OPA TYP A 180      18.100  17.778  -2.404
ATOM   2963  OPB TYP A 180      16.921  15.700  -3.044
ATOM   2964  OPC TYP A 180      17.458  16.154  -0.679
ATOM   2965  C   TYP A 180      20.911  10.112   1.447
ATOM   2966  O   TYP A 180      19.770   9.663   1.365
ATOM   2967  N   VAL C 181      21.485  10.386   2.620
ATOM   2968  H   VAL C 181      22.477  10.613   2.568
ATOM   2969  CA  VAL C 181      20.854  10.197   3.943
ATOM   2970  HA  VAL C 181      19.895   9.703   3.784
ATOM   2971  CB  VAL C 181      21.674   9.260   4.855
ATOM   2972  HB  VAL C 181      21.117   9.132   5.784
ATOM   2973  CG1 VAL C 181      21.784   7.872   4.207
ATOM   2974  HG11VAL C 181      22.219   7.176   4.917
ATOM   2975  HG12VAL C 181      20.794   7.512   3.928
ATOM   2976  HG13VAL C 181      22.410   7.917   3.316
ATOM   2977  CG2 VAL C 181      23.071   9.787   5.228
ATOM   2978  HG21VAL C 181      23.675   9.929   4.333
ATOM   2979  HG22VAL C 181      22.986  10.737   5.757
ATOM   2980  HG23VAL C 181      23.571   9.071   5.882
ATOM   2981  C   VAL C 181      20.541  11.517   4.659
ATOM   2982  O   VAL C 181      21.173  12.539   4.400
ATOM   2983  N   ALA C 182      19.540  11.455   5.549
ATOM   2984  H   ALA C 182      19.168  10.536   5.734
ATOM   2985  CA  ALA C 182      18.904  12.546   6.300
ATOM   2986  HA  ALA C 182      18.252  12.071   7.038
ATOM   2987  CB  ALA C 182      19.934  13.362   7.100
ATOM   2988  HB1 ALA C 182      20.569  13.935   6.432
ATOM   2989  HB2 ALA C 182      19.413  14.051   7.766
ATOM   2990  HB3 ALA C 182      20.552  12.695   7.702
ATOM   2991  C   ALA C 182      18.003  13.434   5.416
ATOM   2992  O   ALA C 182      18.375  13.836   4.307
ATOM   2993  N   THR C 183      16.811  13.753   5.936
ATOM   2994  H   THR C 183      16.579  13.354   6.842
ATOM   2995  CA  THR C 183      15.807  14.638   5.324
ATOM   2996  HA  THR C 183      15.436  14.184   4.407
ATOM   2997  CB  THR C 183      14.612  14.820   6.267
ATOM   2998  HB  THR C 183      14.952  15.200   7.232
ATOM   2999  CG2 THR C 183      13.535  15.751   5.708
ATOM   3000  HG21THR C 183      13.905  16.774   5.661
ATOM   3001  HG22THR C 183      13.240  15.422   4.711
ATOM   3002  HG23THR C 183      12.661  15.729   6.359
ATOM   3003  OG1 THR C 183      14.006  13.566   6.440
ATOM   3004  HG1 THR C 183      14.573  13.032   7.039
ATOM   3005  C   THR C 183      16.448  15.972   4.980
ATOM   3006  O   THR C 183      17.169  16.538   5.800
ATOM   3007  N   ARG A 184      16.167  16.479   3.778
ATOM   3008  H   ARG A 184      15.546  15.946   3.184
ATOM   3009  CA  ARG A 184      16.791  17.669   3.181
ATOM   3010  HA  ARG A 184      17.779  17.387   2.815
ATOM   3011  CB  ARG A 184      15.929  18.061   1.973
ATOM   3012  HB2 ARG A 184      15.812  17.182   1.337
ATOM   3013  HB3 ARG A 184      14.939  18.359   2.321
ATOM   3014  CG  ARG A 184      16.532  19.196   1.135
ATOM   3015  HG2 ARG A 184      16.657  20.083   1.757
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ATOM   3016  HG3 ARG A 184      17.506  18.892   0.747
ATOM   3017  CD  ARG A 184      15.603  19.553  -0.028
ATOM   3018  HD2 ARG A 184      14.609  19.779   0.363
ATOM   3019  HD3 ARG A 184      15.992  20.451  -0.495
ATOM   3020  NE  ARG A 184      15.526  18.475  -1.029
ATOM   3021  HE  ARG A 184      16.303  17.813  -1.037
ATOM   3022  CZ  ARG A 184      14.553  18.270  -1.910
ATOM   3023  NH1 ARG A 184      13.552  19.114  -2.034
ATOM   3024  HH11ARG A 184      13.683  20.056  -1.702
ATOM   3025  HH12ARG A 184      12.743  18.913  -2.618
ATOM   3026  NH2 ARG A 184      14.567  17.204  -2.677
ATOM   3027  HH21ARG A 184      15.402  16.611  -2.703
ATOM   3028  HH22ARG A 184      13.844  17.057  -3.354
ATOM   3029  C   ARG A 184      16.973  18.839   4.165
ATOM   3030  O   ARG A 184      18.073  19.370   4.309
ATOM   3031  N   TRP A 185      15.908  19.213   4.882
ATOM   3032  H   TRP A 185      15.038  18.731   4.719
ATOM   3033  CA  TRP A 185      15.888  20.351   5.812
ATOM   3034  HA  TRP A 185      16.421  21.173   5.344
ATOM   3035  CB  TRP A 185      14.432  20.798   5.995
ATOM   3036  HB2 TRP A 185      13.849  19.963   6.391
ATOM   3037  HB3 TRP A 185      14.414  21.597   6.739
ATOM   3038  CG  TRP A 185      13.748  21.330   4.767
ATOM   3039  CD1 TRP A 185      14.340  21.622   3.585
ATOM   3040  HD1 TRP A 185      15.392  21.503   3.360
ATOM   3041  NE1 TRP A 185      13.424  22.168   2.715
ATOM   3042  HE1 TRP A 185      13.694  22.532   1.804
ATOM   3043  CE2 TRP A 185      12.181  22.279   3.298
ATOM   3044  CZ2 TRP A 185      10.959  22.801   2.852
ATOM   3045  HZ2 TRP A 185      10.876  23.222   1.861
ATOM   3046  CH2 TRP A 185       9.851  22.782   3.715
ATOM   3047  HH2 TRP A 185       8.905  23.192   3.388
ATOM   3048  CZ3 TRP A 185       9.980  22.238   5.006
ATOM   3049  HZ3 TRP A 185       9.124  22.231   5.665
ATOM   3050  CE3 TRP A 185      11.214  21.720   5.450
ATOM   3051  HE3 TRP A 185      11.299  21.323   6.452
ATOM   3052  CD2 TRP A 185      12.350  21.731   4.608
ATOM   3053  C   TRP A 185      16.596  20.112   7.163
ATOM   3054  O   TRP A 185      16.763  21.045   7.943
ATOM   3055  N   TYR C 186      17.016  18.874   7.437
ATOM   3056  H   TYR C 186      16.843  18.154   6.745
ATOM   3057  CA  TYR C 186      17.714  18.447   8.658
ATOM   3058  HA  TYR C 186      17.813  19.289   9.347
ATOM   3059  CB  TYR C 186      16.858  17.361   9.339
ATOM   3060  HB2 TYR C 186      16.226  16.860   8.604
ATOM   3061  HB3 TYR C 186      17.517  16.597   9.754
ATOM   3062  CG  TYR C 186      15.982  17.888  10.461
ATOM   3063  CD1 TYR C 186      14.975  18.844  10.209
ATOM   3064  HD1 TYR C 186      14.799  19.194   9.202
ATOM   3065  CE1 TYR C 186      14.214  19.370  11.271
ATOM   3066  HE1 TYR C 186      13.454  20.119  11.088
ATOM   3067  CZ  TYR C 186      14.457  18.935  12.592
ATOM   3068  OH  TYR C 186      13.755  19.456  13.632
ATOM   3069  HH  TYR C 186      13.036  20.065  13.347
ATOM   3070  CE2 TYR C 186      15.434  17.944  12.835
ATOM   3071  HE2 TYR C 186      15.612  17.597  13.839
ATOM   3072  CD2 TYR C 186      16.196  17.428  11.774
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ATOM   3073  HD2 TYR C 186      16.958  16.688  11.971
ATOM   3074  C   TYR C 186      19.149  17.937   8.399
ATOM   3075  O   TYR C 186      19.906  17.747   9.348
ATOM   3076  N   ARG C 187      19.539  17.718   7.136
ATOM   3077  H   ARG C 187      18.848  17.858   6.411
ATOM   3078  CA  ARG C 187      20.837  17.146   6.744
ATOM   3079  HA  ARG C 187      20.910  16.164   7.217
ATOM   3080  CB  ARG C 187      20.833  16.950   5.215
ATOM   3081  HB2 ARG C 187      19.897  16.459   4.943
ATOM   3082  HB3 ARG C 187      20.861  17.924   4.722
ATOM   3083  CG  ARG C 187      22.001  16.089   4.703
ATOM   3084  HG2 ARG C 187      22.937  16.607   4.904
ATOM   3085  HG3 ARG C 187      22.018  15.145   5.239
ATOM   3086  CD  ARG C 187      21.923  15.788   3.199
ATOM   3087  HD2 ARG C 187      21.958  16.734   2.656
ATOM   3088  HD3 ARG C 187      22.793  15.195   2.911
ATOM   3089  NE  ARG C 187      20.695  15.060   2.839
ATOM   3090  HE  ARG C 187      20.156  14.635   3.586
ATOM   3091  CZ  ARG C 187      20.199  14.954   1.615
ATOM   3092  NH1 ARG C 187      20.895  15.262   0.549
ATOM   3093  HH11ARG C 187      21.901  15.358   0.613
ATOM   3094  HH12ARG C 187      20.491  15.054  -0.367
ATOM   3095  NH2 ARG C 187      18.973  14.530   1.445
ATOM   3096  HH21ARG C 187      18.432  14.239   2.244
ATOM   3097  HH22ARG C 187      18.571  14.595   0.511
ATOM   3098  C   ARG C 187      22.027  18.003   7.224
ATOM   3099  O   ARG C 187      22.050  19.218   7.026
ATOM   3100  N   ALA A 188      23.025  17.365   7.843
ATOM   3101  H   ALA A 188      22.934  16.372   7.969
ATOM   3102  CA  ALA A 188      24.267  17.995   8.304
ATOM   3103  HA  ALA A 188      24.004  18.907   8.841
ATOM   3104  CB  ALA A 188      24.959  17.037   9.282
ATOM   3105  HB1 ALA A 188      24.276  16.766  10.087
ATOM   3106  HB2 ALA A 188      25.277  16.137   8.756
ATOM   3107  HB3 ALA A 188      25.842  17.513   9.712
ATOM   3108  C   ALA A 188      25.190  18.371   7.122
ATOM   3109  O   ALA A 188      25.256  17.605   6.155
ATOM   3110  N   PRO A 189      25.915  19.508   7.186
ATOM   3111  CD  PRO A 189      26.058  20.379   8.344
ATOM   3112  HD2 PRO A 189      26.281  19.815   9.251
ATOM   3113  HD3 PRO A 189      25.144  20.960   8.467
ATOM   3114  CG  PRO A 189      27.215  21.318   8.014
ATOM   3115  HG2 PRO A 189      28.160  20.849   8.293
ATOM   3116  HG3 PRO A 189      27.102  22.282   8.509
ATOM   3117  CB  PRO A 189      27.133  21.450   6.494
ATOM   3118  HB2 PRO A 189      28.107  21.678   6.057
ATOM   3119  HB3 PRO A 189      26.418  22.230   6.233
ATOM   3120  CA  PRO A 189      26.587  20.095   6.027
ATOM   3121  HA  PRO A 189      25.849  20.270   5.246
ATOM   3122  C   PRO A 189      27.691  19.216   5.439
ATOM   3123  O   PRO A 189      27.875  19.219   4.223
ATOM   3124  N   GLU A 190      28.407  18.442   6.261
ATOM   3125  H   GLU A 190      28.247  18.465   7.269
ATOM   3126  CA  GLU A 190      29.498  17.596   5.782
ATOM   3127  HA  GLU A 190      30.016  18.158   5.008
ATOM   3128  CB  GLU A 190      30.526  17.350   6.899
ATOM   3129  HB2 GLU A 190      31.457  17.044   6.419
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ATOM   3130  HB3 GLU A 190      30.726  18.286   7.424
ATOM   3131  CG  GLU A 190      30.153  16.255   7.910
ATOM   3132  HG2 GLU A 190      29.909  15.330   7.387
ATOM   3133  HG3 GLU A 190      31.035  16.039   8.510
ATOM   3134  CD  GLU A 190      29.012  16.598   8.866
ATOM   3135  OE1 GLU A 190      28.590  15.669   9.581
ATOM   3136  OE2 GLU A 190      28.577  17.768   8.983
ATOM   3137  C   GLU A 190      29.030  16.290   5.120
ATOM   3138  O   GLU A 190      29.857  15.592   4.533
ATOM   3139  N   ILE A 191      27.733  15.948   5.160
ATOM   3140  H   ILE A 191      27.083  16.578   5.625
ATOM   3141  CA  ILE A 191      27.200  14.769   4.443
ATOM   3142  HA  ILE A 191      27.775  13.890   4.727
ATOM   3143  CB  ILE A 191      25.715  14.519   4.817
ATOM   3144  HB  ILE A 191      25.171  15.458   4.717
ATOM   3145  CG2 ILE A 191      25.046  13.493   3.879
ATOM   3146  HG21ILE A 191      25.045  13.864   2.855
ATOM   3147  HG22ILE A 191      25.575  12.540   3.918
ATOM   3148  HG23ILE A 191      24.006  13.335   4.158
ATOM   3149  CG1 ILE A 191      25.628  14.038   6.286
ATOM   3150  HG12ILE A 191      26.095  13.056   6.369
ATOM   3151  HG13ILE A 191      26.188  14.721   6.923
ATOM   3152  CD1 ILE A 191      24.204  13.951   6.850
ATOM   3153  HD11ILE A 191      23.616  13.205   6.317
ATOM   3154  HD12ILE A 191      24.244  13.663   7.898
ATOM   3155  HD13ILE A 191      23.725  14.924   6.775
ATOM   3156  C   ILE A 191      27.429  14.922   2.935
ATOM   3157  O   ILE A 191      27.834  13.969   2.268
ATOM   3158  N   MET A 192      27.279  16.141   2.414
ATOM   3159  H   MET A 192      26.925  16.875   3.014
ATOM   3160  CA  MET A 192      27.561  16.490   1.020
ATOM   3161  HA  MET A 192      27.094  15.749   0.371
ATOM   3162  CB  MET A 192      26.935  17.865   0.712
ATOM   3163  HB2 MET A 192      27.322  18.612   1.405
ATOM   3164  HB3 MET A 192      27.240  18.164  -0.291
ATOM   3165  CG  MET A 192      25.397  17.863   0.742
ATOM   3166  HG2 MET A 192      25.046  18.739   0.194
ATOM   3167  HG3 MET A 192      25.055  16.981   0.199
ATOM   3168  SD  MET A 192      24.594  17.879   2.371
ATOM   3169  CE  MET A 192      24.702  19.639   2.757
ATOM   3170  HE1 MET A 192      25.751  19.926   2.827
ATOM   3171  HE2 MET A 192      24.211  20.217   1.973
ATOM   3172  HE3 MET A 192      24.206  19.823   3.711
ATOM   3173  C   MET A 192      29.063  16.496   0.668
ATOM   3174  O   MET A 192      29.392  16.679  -0.501
ATOM   3175  N   LEU A 193      29.978  16.351   1.642
ATOM   3176  H   LEU A 193      29.640  16.135   2.572
ATOM   3177  CA  LEU A 193      31.406  16.677   1.477
ATOM   3178  HA  LEU A 193      31.612  16.908   0.429
ATOM   3179  CB  LEU A 193      31.734  17.925   2.332
ATOM   3180  HB2 LEU A 193      31.641  17.654   3.385
ATOM   3181  HB3 LEU A 193      32.778  18.193   2.153
ATOM   3182  CG  LEU A 193      30.860  19.176   2.080
ATOM   3183  HG  LEU A 193      29.815  18.934   2.278
ATOM   3184  CD1 LEU A 193      31.279  20.285   3.055
ATOM   3185  HD11LEU A 193      32.323  20.547   2.889
ATOM   3186  HD12LEU A 193      30.658  21.168   2.902
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ATOM   3187  HD13LEU A 193      31.154  19.946   4.083
ATOM   3188  CD2 LEU A 193      30.973  19.709   0.644
ATOM   3189  HD21LEU A 193      30.645  18.957  -0.071
ATOM   3190  HD22LEU A 193      30.338  20.587   0.529
ATOM   3191  HD23LEU A 193      32.002  19.986   0.422
ATOM   3192  C   LEU A 193      32.367  15.537   1.860
ATOM   3193  O   LEU A 193      33.319  15.265   1.132
ATOM   3194  N   ASN A 194      32.173  14.884   3.009
ATOM   3195  H   ASN A 194      31.343  15.117   3.546
ATOM   3196  CA  ASN A 194      33.220  14.109   3.697
ATOM   3197  HA  ASN A 194      34.165  14.616   3.499
ATOM   3198  CB  ASN A 194      32.971  14.202   5.216
ATOM   3199  HB2 ASN A 194      32.596  15.195   5.458
ATOM   3200  HB3 ASN A 194      32.207  13.483   5.514
ATOM   3201  CG  ASN A 194      34.243  14.000   6.036
ATOM   3202  OD1 ASN A 194      35.150  14.823   6.018
ATOM   3203  ND2 ASN A 194      34.350  12.937   6.806
ATOM   3204  HD21ASN A 194      35.187  12.796   7.351
ATOM   3205  HD22ASN A 194      33.612  12.243   6.855
ATOM   3206  C   ASN A 194      33.394  12.659   3.175
ATOM   3207  O   ASN A 194      33.542  11.724   3.959
ATOM   3208  N   SER A 195      33.337  12.456   1.854
ATOM   3209  H   SER A 195      33.266  13.293   1.281
ATOM   3210  CA  SER A 195      33.622  11.172   1.168
ATOM   3211  HA  SER A 195      33.328  11.278   0.124
ATOM   3212  CB  SER A 195      35.136  10.882   1.167
ATOM   3213  HB2 SER A 195      35.512  10.928   2.188
ATOM   3214  HB3 SER A 195      35.307   9.880   0.774
ATOM   3215  OG  SER A 195      35.874  11.787   0.364
ATOM   3216  HG  SER A 195      36.744  11.382   0.231
ATOM   3217  C   SER A 195      32.809   9.961   1.699
ATOM   3218  O   SER A 195      33.313   8.840   1.778
ATOM   3219  N   LYS A 196      31.560  10.176   2.137
ATOM   3220  H   LYS A 196      31.189  11.113   2.066
ATOM   3221  CA  LYS A 196      30.683   9.138   2.722
ATOM   3222  HA  LYS A 196      29.756   9.627   2.999
ATOM   3223  CB  LYS A 196      30.291   8.064   1.681
ATOM   3224  HB2 LYS A 196      31.170   7.500   1.368
ATOM   3225  HB3 LYS A 196      29.597   7.366   2.152
ATOM   3226  CG  LYS A 196      29.591   8.690   0.464
ATOM   3227  HG2 LYS A 196      28.788   9.336   0.820
ATOM   3228  HG3 LYS A 196      30.304   9.301  -0.094
ATOM   3229  CD  LYS A 196      28.979   7.653  -0.484
ATOM   3230  HD2 LYS A 196      28.244   7.058   0.062
ATOM   3231  HD3 LYS A 196      28.467   8.201  -1.276
ATOM   3232  CE  LYS A 196      30.032   6.731  -1.109
ATOM   3233  HE2 LYS A 196      30.856   7.340  -1.491
ATOM   3234  HE3 LYS A 196      30.430   6.062  -0.342
ATOM   3235  NZ  LYS A 196      29.446   5.953  -2.222
ATOM   3236  HZ1 LYS A 196      28.742   5.311  -1.898
ATOM   3237  HZ2 LYS A 196      29.028   6.580  -2.907
ATOM   3238  HZ3 LYS A 196      30.148   5.435  -2.746
ATOM   3239  C   LYS A 196      31.210   8.547   4.051
ATOM   3240  O   LYS A 196      30.793   7.468   4.463
ATOM   3241  N   GLY A 197      32.130   9.241   4.732
ATOM   3242  H   GLY A 197      32.486  10.087   4.301
ATOM   3243  CA  GLY A 197      32.607   8.922   6.083
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ATOM   3244  HA2 GLY A 197      32.312   7.912   6.372
ATOM   3245  HA3 GLY A 197      33.694   9.015   6.114
ATOM   3246  C   GLY A 197      32.041   9.896   7.109
ATOM   3247  O   GLY A 197      32.792  10.690   7.661
ATOM   3248  N   TYR A 198      30.730   9.862   7.351
ATOM   3249  H   TYR A 198      30.180   9.158   6.877
ATOM   3250  CA  TYR A 198      30.060  10.659   8.397
ATOM   3251  HA  TYR A 198      30.742  11.443   8.729
ATOM   3252  CB  TYR A 198      28.806  11.375   7.857
ATOM   3253  HB2 TYR A 198      28.038  11.395   8.632
ATOM   3254  HB3 TYR A 198      29.080  12.412   7.651
ATOM   3255  CG  TYR A 198      28.203  10.793   6.596
ATOM   3256  CD1 TYR A 198      27.378   9.652   6.655
ATOM   3257  HD1 TYR A 198      27.162   9.196   7.612
ATOM   3258  CE1 TYR A 198      26.851   9.102   5.470
ATOM   3259  HE1 TYR A 198      26.231   8.218   5.503
ATOM   3260  CZ  TYR A 198      27.146   9.708   4.226
ATOM   3261  OH  TYR A 198      26.699   9.167   3.065
ATOM   3262  HH  TYR A 198      26.097   8.418   3.187
ATOM   3263  CE2 TYR A 198      27.943  10.871   4.175
ATOM   3264  HE2 TYR A 198      28.135  11.345   3.221
ATOM   3265  CD2 TYR A 198      28.493  11.394   5.357
ATOM   3266  HD2 TYR A 198      29.136  12.262   5.315
ATOM   3267  C   TYR A 198      29.739   9.812   9.640
ATOM   3268  O   TYR A 198      29.497   8.609   9.544
ATOM   3269  N   THR A 199      29.747  10.455  10.811
ATOM   3270  H   THR A 199      29.860  11.462  10.785
ATOM   3271  CA  THR A 199      29.640   9.825  12.140
ATOM   3272  HA  THR A 199      29.334   8.785  12.018
ATOM   3273  CB  THR A 199      31.018   9.812  12.835
ATOM   3274  HB  THR A 199      30.906   9.576  13.892
ATOM   3275  CG2 THR A 199      31.914   8.746  12.206
ATOM   3276  HG21THR A 199      32.899   8.767  12.667
ATOM   3277  HG22THR A 199      31.469   7.766  12.372
ATOM   3278  HG23THR A 199      32.022   8.911  11.135
ATOM   3279  OG1 THR A 199      31.705  11.039  12.723
ATOM   3280  HG1 THR A 199      32.613  10.813  12.472
ATOM   3281  C   THR A 199      28.531  10.471  12.971
ATOM   3282  O   THR A 199      27.832  11.361  12.493
ATOM   3283  N   LYS A 200      28.349  10.030  14.220
ATOM   3284  H   LYS A 200      28.947   9.268  14.528
ATOM   3285  CA  LYS A 200      27.269  10.418  15.156
ATOM   3286  HA  LYS A 200      26.326  10.016  14.783
ATOM   3287  CB  LYS A 200      27.558   9.747  16.514
ATOM   3288  HB2 LYS A 200      26.739   9.965  17.192
ATOM   3289  HB3 LYS A 200      27.609   8.664  16.383
ATOM   3290  CG  LYS A 200      28.860  10.252  17.152
ATOM   3291  HG2 LYS A 200      29.697  10.021  16.496
ATOM   3292  HG3 LYS A 200      28.798  11.331  17.259
ATOM   3293  CD  LYS A 200      29.132   9.642  18.527
ATOM   3294  HD2 LYS A 200      28.329   9.902  19.215
ATOM   3295  HD3 LYS A 200      29.200   8.559  18.434
ATOM   3296  CE  LYS A 200      30.460  10.213  19.027
ATOM   3297  HE2 LYS A 200      31.217  10.025  18.262
ATOM   3298  HE3 LYS A 200      30.374  11.296  19.154
ATOM   3299  NZ  LYS A 200      30.913   9.583  20.283
ATOM   3300  HZ1 LYS A 200      30.486  10.007  21.100
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ATOM   3301  HZ2 LYS A 200      30.734   8.583  20.284
ATOM   3302  HZ3 LYS A 200      31.918   9.718  20.362
ATOM   3303  C   LYS A 200      27.031  11.936  15.318
ATOM   3304  O   LYS A 200      25.963  12.366  15.751
ATOM   3305  N   SER A 201      27.994  12.757  14.912
ATOM   3306  H   SER A 201      28.803  12.328  14.490
ATOM   3307  CA  SER A 201      27.878  14.208  14.784
ATOM   3308  HA  SER A 201      27.696  14.634  15.770
ATOM   3309  CB  SER A 201      29.219  14.747  14.263
ATOM   3310  HB2 SER A 201      29.178  15.834  14.185
ATOM   3311  HB3 SER A 201      29.999  14.481  14.975
ATOM   3312  OG  SER A 201      29.553  14.192  13.003
ATOM   3313  HG  SER A 201      30.528  14.257  12.887
ATOM   3314  C   SER A 201      26.724  14.672  13.872
ATOM   3315  O   SER A 201      26.286  15.816  13.995
ATOM   3316  N   ILE A 202      26.208  13.833  12.963
ATOM   3317  H   ILE A 202      26.685  12.945  12.807
ATOM   3318  CA  ILE A 202      25.024  14.152  12.133
ATOM   3319  HA  ILE A 202      25.125  15.173  11.763
ATOM   3320  CB  ILE A 202      24.937  13.219  10.899
ATOM   3321  HB  ILE A 202      24.107  13.576  10.288
ATOM   3322  CG2 ILE A 202      26.215  13.367  10.053
ATOM   3323  HG21ILE A 202      27.068  12.924  10.564
ATOM   3324  HG22ILE A 202      26.095  12.879   9.087
ATOM   3325  HG23ILE A 202      26.412  14.421   9.877
ATOM   3326  CG1 ILE A 202      24.621  11.747  11.260
ATOM   3327  HG12ILE A 202      25.316  11.390  12.015
ATOM   3328  HG13ILE A 202      23.623  11.700  11.691
ATOM   3329  CD1 ILE A 202      24.648  10.773  10.077
ATOM   3330  HD11ILE A 202      24.307   9.797  10.420
ATOM   3331  HD12ILE A 202      23.985  11.132   9.289
ATOM   3332  HD13ILE A 202      25.663  10.670   9.692
ATOM   3333  C   ILE A 202      23.712  14.150  12.932
ATOM   3334  O   ILE A 202      22.835  14.983  12.694
ATOM   3335  N   ASP C 203      23.590  13.261  13.919
ATOM   3336  H   ASP C 203      24.351  12.620  14.090
ATOM   3337  CA  ASP C 203      22.419  13.186  14.798
ATOM   3338  HA  ASP C 203      21.512  13.220  14.192
ATOM   3339  CB  ASP C 203      22.432  11.850  15.567
ATOM   3340  HB2 ASP C 203      23.326  11.827  16.191
ATOM   3341  HB3 ASP C 203      21.572  11.834  16.234
ATOM   3342  CG  ASP C 203      22.394  10.570  14.706
ATOM   3343  OD1 ASP C 203      21.773  10.560  13.618
ATOM   3344  OD2 ASP C 203      22.978   9.560  15.166
ATOM   3345  C   ASP C 203      22.410  14.391  15.764
ATOM   3346  O   ASP C 203      21.352  14.924  16.105
ATOM   3347  N   ILE A 204      23.601  14.883  16.132
ATOM   3348  H   ILE A 204      24.411  14.372  15.804
ATOM   3349  CA  ILE A 204      23.808  16.119  16.911
ATOM   3350  HA  ILE A 204      23.218  16.066  17.822
ATOM   3351  CB  ILE A 204      25.292  16.258  17.310
ATOM   3352  HB  ILE A 204      25.893  16.218  16.406
ATOM   3353  CG2 ILE A 204      25.583  17.620  17.961
ATOM   3354  HG21ILE A 204      26.612  17.638  18.317
ATOM   3355  HG22ILE A 204      25.468  18.420  17.230
ATOM   3356  HG23ILE A 204      24.901  17.799  18.792
ATOM   3357  CG1 ILE A 204      25.765  15.102  18.215
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ATOM   3358  HG12ILE A 204      25.575  14.149  17.722
ATOM   3359  HG13ILE A 204      26.841  15.194  18.323
ATOM   3360  CD1 ILE A 204      25.147  15.050  19.619
ATOM   3361  HD11ILE A 204      24.074  14.869  19.561
ATOM   3362  HD12ILE A 204      25.613  14.235  20.167
ATOM   3363  HD13ILE A 204      25.337  15.973  20.163
ATOM   3364  C   ILE A 204      23.314  17.357  16.155
ATOM   3365  O   ILE A 204      22.510  18.117  16.690
ATOM   3366  N   TRP A 205      23.738  17.540  14.900
ATOM   3367  H   TRP A 205      24.401  16.884  14.509
ATOM   3368  CA  TRP A 205      23.202  18.602  14.039
ATOM   3369  HA  TRP A 205      23.393  19.571  14.499
ATOM   3370  CB  TRP A 205      23.921  18.554  12.682
ATOM   3371  HB2 TRP A 205      24.973  18.791  12.830
ATOM   3372  HB3 TRP A 205      23.863  17.538  12.291
ATOM   3373  CG  TRP A 205      23.365  19.482  11.645
ATOM   3374  CD1 TRP A 205      22.268  19.229  10.901
ATOM   3375  HD1 TRP A 205      21.676  18.323  10.963
ATOM   3376  NE1 TRP A 205      21.997  20.300  10.078
ATOM   3377  HE1 TRP A 205      21.223  20.310   9.426
ATOM   3378  CE2 TRP A 205      22.909  21.316  10.254
ATOM   3379  CZ2 TRP A 205      23.057  22.584   9.675
ATOM   3380  HZ2 TRP A 205      22.348  22.936   8.941
ATOM   3381  CH2 TRP A 205      24.142  23.388  10.058
ATOM   3382  HH2 TRP A 205      24.266  24.368   9.621
ATOM   3383  CZ3 TRP A 205      25.072  22.910  10.997
ATOM   3384  HZ3 TRP A 205      25.922  23.520  11.263
ATOM   3385  CE3 TRP A 205      24.906  21.639  11.580
ATOM   3386  HE3 TRP A 205      25.626  21.277  12.296
ATOM   3387  CD2 TRP A 205      23.818  20.811  11.233
ATOM   3388  C   TRP A 205      21.674  18.472  13.885
ATOM   3389  O   TRP A 205      20.951  19.468  13.913
ATOM   3390  N   SER C 206      21.172  17.238  13.781
ATOM   3391  H   SER C 206      21.827  16.466  13.711
ATOM   3392  CA  SER C 206      19.735  16.963  13.676
ATOM   3393  HA  SER C 206      19.331  17.543  12.844
ATOM   3394  CB  SER C 206      19.493  15.481  13.352
ATOM   3395  HB2 SER C 206      19.817  14.855  14.180
ATOM   3396  HB3 SER C 206      18.422  15.329  13.211
ATOM   3397  OG  SER C 206      20.165  15.084  12.168
ATOM   3398  HG  SER C 206      21.127  15.017  12.337
ATOM   3399  C   SER C 206      18.960  17.397  14.937
ATOM   3400  O   SER C 206      17.984  18.135  14.811
ATOM   3401  N   VAL A 207      19.398  17.041  16.154
ATOM   3402  H   VAL A 207      20.223  16.440  16.222
ATOM   3403  CA  VAL A 207      18.744  17.526  17.394
ATOM   3404  HA  VAL A 207      17.675  17.371  17.248
ATOM   3405  CB  VAL A 207      19.118  16.689  18.643
ATOM   3406  HB  VAL A 207      18.925  15.643  18.398
ATOM   3407  CG1 VAL A 207      20.593  16.799  19.040
ATOM   3408  HG11VAL A 207      21.204  16.468  18.210
ATOM   3409  HG12VAL A 207      20.846  17.828  19.293
ATOM   3410  HG13VAL A 207      20.800  16.155  19.895
ATOM   3411  CG2 VAL A 207      18.240  17.032  19.859
ATOM   3412  HG21VAL A 207      18.473  18.032  20.224
ATOM   3413  HG22VAL A 207      17.186  16.988  19.584
ATOM   3414  HG23VAL A 207      18.423  16.317  20.663
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ATOM   3415  C   VAL A 207      18.941  19.042  17.606
ATOM   3416  O   VAL A 207      18.065  19.693  18.175
ATOM   3417  N   GLY A 208      20.004  19.642  17.048
ATOM   3418  H   GLY A 208      20.739  19.059  16.653
ATOM   3419  CA  GLY A 208      20.164  21.101  16.970
ATOM   3420  HA2 GLY A 208      20.121  21.522  17.976
ATOM   3421  HA3 GLY A 208      21.126  21.329  16.514
ATOM   3422  C   GLY A 208      19.080  21.777  16.127
ATOM   3423  O   GLY A 208      18.608  22.856  16.487
ATOM   3424  N   CYS A 209      18.631  21.128  15.046
ATOM   3425  H   CYS A 209      19.064  20.243  14.804
ATOM   3426  CA  CYS A 209      17.497  21.594  14.242
ATOM   3427  HA  CYS A 209      17.650  22.647  14.003
ATOM   3428  CB  CYS A 209      17.435  20.813  12.918
ATOM   3429  HB2 CYS A 209      17.356  19.746  13.115
ATOM   3430  HB3 CYS A 209      16.543  21.115  12.364
ATOM   3431  SG  CYS A 209      18.901  21.137  11.894
ATOM   3432  HG  CYS A 209      19.817  20.608  12.725
ATOM   3433  C   CYS A 209      16.177  21.518  15.033
ATOM   3434  O   CYS A 209      15.377  22.450  14.956
ATOM   3435  N   ILE A 210      15.989  20.485  15.868
ATOM   3436  H   ILE A 210      16.667  19.732  15.840
ATOM   3437  CA  ILE A 210      14.840  20.414  16.801
ATOM   3438  HA  ILE A 210      13.923  20.543  16.220
ATOM   3439  CB  ILE A 210      14.747  19.057  17.553
ATOM   3440  HB  ILE A 210      15.600  18.965  18.226
ATOM   3441  CG2 ILE A 210      13.458  19.011  18.402
ATOM   3442  HG21ILE A 210      12.580  19.058  17.756
ATOM   3443  HG22ILE A 210      13.423  18.098  18.995
ATOM   3444  HG23ILE A 210      13.424  19.842  19.103
ATOM   3445  CG1 ILE A 210      14.775  17.867  16.573
ATOM   3446  HG12ILE A 210      13.953  17.970  15.868
ATOM   3447  HG13ILE A 210      15.708  17.900  16.019
ATOM   3448  CD1 ILE A 210      14.693  16.478  17.216
ATOM   3449  HD11ILE A 210      13.704  16.313  17.640
ATOM   3450  HD12ILE A 210      14.871  15.722  16.452
ATOM   3451  HD13ILE A 210      15.453  16.381  17.991
ATOM   3452  C   ILE A 210      14.883  21.585  17.790
ATOM   3453  O   ILE A 210      13.855  22.218  18.010
ATOM   3454  N   LEU A 211      16.052  21.912  18.356
ATOM   3455  H   LEU A 211      16.861  21.338  18.151
ATOM   3456  CA  LEU A 211      16.208  23.044  19.282
ATOM   3457  HA  LEU A 211      15.492  22.905  20.090
ATOM   3458  CB  LEU A 211      17.641  23.043  19.869
ATOM   3459  HB2 LEU A 211      18.078  22.049  19.751
ATOM   3460  HB3 LEU A 211      18.258  23.733  19.294
ATOM   3461  CG  LEU A 211      17.731  23.397  21.371
ATOM   3462  HG  LEU A 211      17.275  22.582  21.933
ATOM   3463  CD1 LEU A 211      19.207  23.503  21.787
ATOM   3464  HD11LEU A 211      19.279  23.680  22.861
ATOM   3465  HD12LEU A 211      19.725  22.574  21.554
ATOM   3466  HD13LEU A 211      19.690  24.326  21.259
ATOM   3467  CD2 LEU A 211      17.012  24.695  21.766
ATOM   3468  HD21LEU A 211      17.194  24.916  22.819
ATOM   3469  HD22LEU A 211      17.380  25.521  21.159
ATOM   3470  HD23LEU A 211      15.937  24.590  21.631
ATOM   3471  C   LEU A 211      15.846  24.378  18.603
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ATOM   3472  O   LEU A 211      15.128  25.188  19.183
ATOM   3473  N   ALA A 212      16.265  24.583  17.350
ATOM   3474  H   ALA A 212      16.881  23.895  16.933
ATOM   3475  CA  ALA A 212      15.856  25.739  16.548
ATOM   3476  HA  ALA A 212      16.101  26.649  17.099
ATOM   3477  CB  ALA A 212      16.663  25.739  15.246
ATOM   3478  HB1 ALA A 212      17.723  25.854  15.474
ATOM   3479  HB2 ALA A 212      16.509  24.809  14.700
ATOM   3480  HB3 ALA A 212      16.344  26.573  14.622
ATOM   3481  C   ALA A 212      14.335  25.782  16.292
ATOM   3482  O   ALA A 212      13.738  26.853  16.418
ATOM   3483  N   GLU A 213      13.686  24.651  15.987
ATOM   3484  H   GLU A 213      14.221  23.795  15.865
ATOM   3485  CA  GLU A 213      12.222  24.595  15.862
ATOM   3486  HA  GLU A 213      11.915  25.396  15.188
ATOM   3487  CB  GLU A 213      11.759  23.260  15.243
ATOM   3488  HB2 GLU A 213      12.303  22.427  15.687
ATOM   3489  HB3 GLU A 213      10.704  23.135  15.462
ATOM   3490  CG  GLU A 213      11.919  23.245  13.716
ATOM   3491  HG2 GLU A 213      11.508  24.172  13.320
ATOM   3492  HG3 GLU A 213      12.975  23.206  13.462
ATOM   3493  CD  GLU A 213      11.193  22.083  13.030
ATOM   3494  OE1 GLU A 213      10.097  22.333  12.485
ATOM   3495  OE2 GLU A 213      11.749  20.962  12.982
ATOM   3496  C   GLU A 213      11.517  24.875  17.205
ATOM   3497  O   GLU A 213      10.552  25.642  17.232
ATOM   3498  N   MET A 214      12.033  24.367  18.333
ATOM   3499  H   MET A 214      12.817  23.725  18.256
ATOM   3500  CA  MET A 214      11.539  24.697  19.683
ATOM   3501  HA  MET A 214      10.479  24.457  19.734
ATOM   3502  CB  MET A 214      12.278  23.868  20.749
ATOM   3503  HB2 MET A 214      13.355  23.950  20.614
ATOM   3504  HB3 MET A 214      12.033  24.279  21.725
ATOM   3505  CG  MET A 214      11.861  22.393  20.740
ATOM   3506  HG2 MET A 214      10.776  22.356  20.693
ATOM   3507  HG3 MET A 214      12.243  21.914  19.841
ATOM   3508  SD  MET A 214      12.345  21.415  22.187
ATOM   3509  CE  MET A 214      14.126  21.306  21.913
ATOM   3510  HE1 MET A 214      14.576  22.290  22.030
ATOM   3511  HE2 MET A 214      14.553  20.626  22.647
ATOM   3512  HE3 MET A 214      14.323  20.926  20.912
ATOM   3513  C   MET A 214      11.641  26.194  20.017
ATOM   3514  O   MET A 214      10.866  26.699  20.828
ATOM   3515  N   LEU A 215      12.558  26.921  19.375
ATOM   3516  H   LEU A 215      13.195  26.430  18.757
ATOM   3517  CA  LEU A 215      12.751  28.364  19.526
ATOM   3518  HA  LEU A 215      12.282  28.695  20.452
ATOM   3519  CB  LEU A 215      14.269  28.636  19.609
ATOM   3520  HB2 LEU A 215      14.743  28.200  18.729
ATOM   3521  HB3 LEU A 215      14.448  29.711  19.570
ATOM   3522  CG  LEU A 215      14.957  28.088  20.878
ATOM   3523  HG  LEU A 215      14.734  27.028  20.991
ATOM   3524  CD1 LEU A 215      16.479  28.234  20.724
ATOM   3525  HD11LEU A 215      16.980  27.926  21.643
ATOM   3526  HD12LEU A 215      16.827  27.601  19.906
ATOM   3527  HD13LEU A 215      16.743  29.265  20.499
ATOM   3528  CD2 LEU A 215      14.469  28.810  22.145
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ATOM   3529  HD21LEU A 215      14.562  29.888  22.025
ATOM   3530  HD22LEU A 215      13.424  28.567  22.335
ATOM   3531  HD23LEU A 215      15.056  28.488  23.006
ATOM   3532  C   LEU A 215      12.073  29.193  18.419
ATOM   3533  O   LEU A 215      12.329  30.392  18.337
ATOM   3534  N   SER A 216      11.229  28.623  17.550
ATOM   3535  H   SER A 216      11.035  27.631  17.628
ATOM   3536  CA  SER A 216      10.684  29.409  16.420
ATOM   3537  HA  SER A 216      10.406  30.397  16.789
ATOM   3538  CB  SER A 216      11.788  29.596  15.369
ATOM   3539  HB2 SER A 216      11.399  30.205  14.552
ATOM   3540  HB3 SER A 216      12.631  30.127  15.811
ATOM   3541  OG  SER A 216      12.228  28.350  14.852
ATOM   3542  HG  SER A 216      12.698  27.859  15.564
ATOM   3543  C   SER A 216       9.434  28.888  15.696
ATOM   3544  O   SER A 216       8.832  29.642  14.930
ATOM   3545  N   ASN A 217       9.062  27.615  15.860
ATOM   3546  H   ASN A 217       9.590  27.033  16.500
ATOM   3547  CA  ASN A 217       8.000  26.950  15.093
ATOM   3548  HA  ASN A 217       8.069  25.898  15.358
ATOM   3549  CB  ASN A 217       6.606  27.446  15.515
ATOM   3550  HB2 ASN A 217       6.524  28.514  15.338
ATOM   3551  HB3 ASN A 217       5.849  26.951  14.908
ATOM   3552  CG  ASN A 217       6.293  27.149  16.971
ATOM   3553  OD1 ASN A 217       6.254  28.031  17.818
ATOM   3554  ND2 ASN A 217       6.035  25.902  17.302
ATOM   3555  HD21ASN A 217       5.747  25.723  18.257
ATOM   3556  HD22ASN A 217       6.106  25.167  16.608
ATOM   3557  C   ASN A 217       8.227  27.002  13.563
ATOM   3558  O   ASN A 217       7.281  27.131  12.776
ATOM   3559  N   ARG A 218       9.493  26.915  13.128
ATOM   3560  H   ARG A 218      10.230  26.885  13.822
ATOM   3561  CA  ARG A 218       9.889  26.785  11.719
ATOM   3562  HA  ARG A 218       9.177  26.102  11.256
ATOM   3563  CB  ARG A 218       9.793  28.136  10.978
ATOM   3564  HB2 ARG A 218      10.030  27.971   9.926
ATOM   3565  HB3 ARG A 218       8.768  28.501  11.026
ATOM   3566  CG  ARG A 218      10.731  29.223  11.531
ATOM   3567  HG2 ARG A 218      10.461  29.430  12.566
ATOM   3568  HG3 ARG A 218      11.762  28.879  11.499
ATOM   3569  CD  ARG A 218      10.633  30.527  10.735
ATOM   3570  HD2 ARG A 218       9.586  30.815  10.668
ATOM   3571  HD3 ARG A 218      11.162  31.316  11.271
ATOM   3572  NE  ARG A 218      11.186  30.394   9.377
ATOM   3573  HE  ARG A 218      10.521  30.277   8.629
ATOM   3574  CZ  ARG A 218      12.456  30.548   9.022
ATOM   3575  NH1 ARG A 218      13.416  30.843   9.872
ATOM   3576  HH11ARG A 218      13.220  31.007  10.851
ATOM   3577  HH12ARG A 218      14.329  31.065   9.500
ATOM   3578  NH2 ARG A 218      12.801  30.434   7.764
ATOM   3579  HH21ARG A 218      12.116  30.276   7.036
ATOM   3580  HH22ARG A 218      13.751  30.687   7.513
ATOM   3581  C   ARG A 218      11.300  26.185  11.574
ATOM   3582  O   ARG A 218      12.162  26.467  12.415
ATOM   3583  N   PRO A 219      11.579  25.413  10.506
ATOM   3584  CD  PRO A 219      10.651  24.959   9.480
ATOM   3585  HD2 PRO A 219       9.951  25.739   9.180
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ATOM   3586  HD3 PRO A 219      10.110  24.087   9.852
ATOM   3587  CG  PRO A 219      11.525  24.562   8.294
ATOM   3588  HG2 PRO A 219      11.735  25.453   7.702
ATOM   3589  HG3 PRO A 219      11.056  23.791   7.683
ATOM   3590  CB  PRO A 219      12.809  24.071   8.962
ATOM   3591  HB2 PRO A 219      13.669  24.164   8.297
ATOM   3592  HB3 PRO A 219      12.681  23.034   9.275
ATOM   3593  CA  PRO A 219      12.931  24.971  10.197
ATOM   3594  HA  PRO A 219      13.326  24.390  11.032
ATOM   3595  C   PRO A 219      13.826  26.188   9.941
ATOM   3596  O   PRO A 219      13.450  27.103   9.213
ATOM   3597  N   ILE A 220      15.017  26.190  10.543
ATOM   3598  H   ILE A 220      15.229  25.428  11.173
ATOM   3599  CA  ILE A 220      16.068  27.202  10.314
ATOM   3600  HA  ILE A 220      15.603  28.190  10.286
ATOM   3601  CB  ILE A 220      17.072  27.176  11.500
ATOM   3602  HB  ILE A 220      16.529  27.515  12.383
ATOM   3603  CG2 ILE A 220      17.583  25.755  11.819
ATOM   3604  HG21ILE A 220      18.021  25.300  10.936
ATOM   3605  HG22ILE A 220      18.337  25.796  12.605
ATOM   3606  HG23ILE A 220      16.770  25.123  12.177
ATOM   3607  CG1 ILE A 220      18.286  28.119  11.336
ATOM   3608  HG12ILE A 220      18.935  28.006  12.206
ATOM   3609  HG13ILE A 220      18.867  27.837  10.457
ATOM   3610  CD1 ILE A 220      17.909  29.602  11.239
ATOM   3611  HD11ILE A 220      18.820  30.201  11.199
ATOM   3612  HD12ILE A 220      17.328  29.793  10.337
ATOM   3613  HD13ILE A 220      17.330  29.898  12.114
ATOM   3614  C   ILE A 220      16.747  27.027   8.943
ATOM   3615  O   ILE A 220      17.124  28.008   8.300
ATOM   3616  N   PHE A 221      16.839  25.785   8.456
ATOM   3617  H   PHE A 221      16.495  25.030   9.027
ATOM   3618  CA  PHE A 221      17.482  25.445   7.186
ATOM   3619  HA  PHE A 221      17.824  26.359   6.717
ATOM   3620  CB  PHE A 221      18.746  24.608   7.488
ATOM   3621  HB2 PHE A 221      18.450  23.672   7.967
ATOM   3622  HB3 PHE A 221      19.224  24.352   6.547
ATOM   3623  CG  PHE A 221      19.804  25.301   8.338
ATOM   3624  CD1 PHE A 221      20.413  26.489   7.889
ATOM   3625  HD1 PHE A 221      20.137  26.916   6.940
ATOM   3626  CE1 PHE A 221      21.388  27.133   8.668
ATOM   3627  HE1 PHE A 221      21.838  28.048   8.316
ATOM   3628  CZ  PHE A 221      21.772  26.590   9.905
ATOM   3629  HZ  PHE A 221      22.520  27.087  10.506
ATOM   3630  CE2 PHE A 221      21.182  25.396  10.352
ATOM   3631  HE2 PHE A 221      21.482  24.970  11.296
ATOM   3632  CD2 PHE A 221      20.207  24.749   9.570
ATOM   3633  HD2 PHE A 221      19.764  23.829   9.924
ATOM   3634  C   PHE A 221      16.500  24.788   6.179
ATOM   3635  O   PHE A 221      16.622  23.592   5.913
ATOM   3636  N   PRO A 222      15.515  25.524   5.613
ATOM   3637  CD  PRO A 222      15.102  26.867   6.010
ATOM   3638  HD2 PRO A 222      15.884  27.599   5.819
ATOM   3639  HD3 PRO A 222      14.832  26.860   7.065
ATOM   3640  CG  PRO A 222      13.850  27.206   5.199
ATOM   3641  HG2 PRO A 222      14.127  27.728   4.282
ATOM   3642  HG3 PRO A 222      13.142  27.801   5.778
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ATOM   3643  CB  PRO A 222      13.287  25.829   4.861
ATOM   3644  HB2 PRO A 222      12.618  25.850   3.999
ATOM   3645  HB3 PRO A 222      12.752  25.434   5.720
ATOM   3646  CA  PRO A 222      14.555  24.997   4.639
ATOM   3647  HA  PRO A 222      14.329  23.958   4.871
ATOM   3648  C   PRO A 222      15.085  25.066   3.190
ATOM   3649  O   PRO A 222      14.450  25.659   2.318
ATOM   3650  N   GLY A 223      16.253  24.472   2.911
ATOM   3651  H   GLY A 223      16.766  24.019   3.658
ATOM   3652  CA  GLY A 223      16.880  24.509   1.580
ATOM   3653  HA2 GLY A 223      16.994  25.551   1.280
ATOM   3654  HA3 GLY A 223      17.871  24.058   1.627
ATOM   3655  C   GLY A 223      16.072  23.791   0.489
ATOM   3656  O   GLY A 223      15.431  22.766   0.732
ATOM   3657  N   LYS A 224      16.128  24.307  -0.742
ATOM   3658  H   LYS A 224      16.713  25.125  -0.883
ATOM   3659  CA  LYS A 224      15.438  23.751  -1.918
ATOM   3660  HA  LYS A 224      14.380  23.639  -1.685
ATOM   3661  CB  LYS A 224      15.587  24.749  -3.084
ATOM   3662  HB2 LYS A 224      15.193  25.715  -2.762
ATOM   3663  HB3 LYS A 224      16.648  24.862  -3.319
ATOM   3664  CG  LYS A 224      14.841  24.294  -4.353
ATOM   3665  HG2 LYS A 224      15.189  23.303  -4.647
ATOM   3666  HG3 LYS A 224      13.772  24.232  -4.148
ATOM   3667  CD  LYS A 224      15.083  25.232  -5.538
ATOM   3668  HD2 LYS A 224      16.156  25.378  -5.661
ATOM   3669  HD3 LYS A 224      14.706  24.756  -6.444
ATOM   3670  CE  LYS A 224      14.385  26.582  -5.363
ATOM   3671  HE2 LYS A 224      13.302  26.428  -5.385
ATOM   3672  HE3 LYS A 224      14.653  27.008  -4.392
ATOM   3673  NZ  LYS A 224      14.783  27.521  -6.431
ATOM   3674  HZ1 LYS A 224      15.751  27.799  -6.312
ATOM   3675  HZ2 LYS A 224      14.725  27.085  -7.348
ATOM   3676  HZ3 LYS A 224      14.200  28.351  -6.411
ATOM   3677  C   LYS A 224      15.964  22.358  -2.303
ATOM   3678  O   LYS A 224      15.177  21.479  -2.647
ATOM   3679  N   HIE A 225      17.280  22.161  -2.203
ATOM   3680  H   HIE A 225      17.835  22.942  -1.882
ATOM   3681  CA  HIE A 225      18.015  20.923  -2.492
ATOM   3682  HA  HIE A 225      17.441  20.081  -2.116
ATOM   3683  CB  HIE A 225      18.158  20.740  -4.012
ATOM   3684  HB2 HIE A 225      18.672  19.800  -4.207
ATOM   3685  HB3 HIE A 225      17.165  20.644  -4.445
ATOM   3686  CG  HIE A 225      18.899  21.842  -4.719
ATOM   3687  ND1 HIE A 225      20.259  22.128  -4.578
ATOM   3688  CE1 HIE A 225      20.496  23.148  -5.419
ATOM   3689  HE1 HIE A 225      21.456  23.626  -5.555
ATOM   3690  NE2 HIE A 225      19.374  23.514  -6.062
ATOM   3691  HE2 HIE A 225      19.306  24.254  -6.749
ATOM   3692  CD2 HIE A 225      18.355  22.696  -5.634
ATOM   3693  HD2 HIE A 225      17.328  22.704  -5.968
ATOM   3694  C   HIE A 225      19.375  20.893  -1.766
ATOM   3695  O   HIE A 225      19.799  21.910  -1.216
ATOM   3696  N   TYR A 226      20.072  19.755  -1.762
ATOM   3697  H   TYR A 226      19.596  18.939  -2.152
ATOM   3698  CA  TYR A 226      21.358  19.534  -1.070
ATOM   3699  HA  TYR A 226      21.151  19.464  -0.001
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ATOM   3700  CB  TYR A 226      21.927  18.173  -1.513
ATOM   3701  HB2 TYR A 226      22.788  17.936  -0.888
ATOM   3702  HB3 TYR A 226      21.179  17.403  -1.332
ATOM   3703  CG  TYR A 226      22.344  18.110  -2.972
ATOM   3704  CD1 TYR A 226      21.369  17.952  -3.974
ATOM   3705  HD1 TYR A 226      20.335  17.795  -3.700
ATOM   3706  CE1 TYR A 226      21.727  18.005  -5.332
ATOM   3707  HE1 TYR A 226      20.966  17.895  -6.091
ATOM   3708  CZ  TYR A 226      23.078  18.191  -5.697
ATOM   3709  OH  TYR A 226      23.412  18.268  -7.015
ATOM   3710  HH  TYR A 226      22.630  18.261  -7.575
ATOM   3711  CE2 TYR A 226      24.066  18.306  -4.693
ATOM   3712  HE2 TYR A 226      25.102  18.437  -4.970
ATOM   3713  CD2 TYR A 226      23.697  18.272  -3.333
ATOM   3714  HD2 TYR A 226      24.455  18.382  -2.570
ATOM   3715  C   TYR A 226      22.420  20.649  -1.244
ATOM   3716  O   TYR A 226      23.086  21.007  -0.270
ATOM   3717  N   LEU A 227      22.577  21.230  -2.443
ATOM   3718  H   LEU A 227      21.992  20.915  -3.207
ATOM   3719  CA  LEU A 227      23.598  22.256  -2.720
ATOM   3720  HA  LEU A 227      24.439  22.075  -2.053
ATOM   3721  CB  LEU A 227      24.070  22.092  -4.177
ATOM   3722  HB2 LEU A 227      24.159  21.031  -4.408
ATOM   3723  HB3 LEU A 227      23.305  22.505  -4.833
ATOM   3724  CG  LEU A 227      25.423  22.765  -4.491
ATOM   3725  HG  LEU A 227      25.391  23.808  -4.180
ATOM   3726  CD1 LEU A 227      26.588  22.070  -3.767
ATOM   3727  HD11LEU A 227      26.497  22.200  -2.689
ATOM   3728  HD12LEU A 227      26.600  21.005  -4.004
ATOM   3729  HD13LEU A 227      27.533  22.513  -4.079
ATOM   3730  CD2 LEU A 227      25.671  22.732  -6.006
ATOM   3731  HD21LEU A 227      25.712  21.701  -6.362
ATOM   3732  HD22LEU A 227      24.869  23.259  -6.523
ATOM   3733  HD23LEU A 227      26.615  23.228  -6.236
ATOM   3734  C   LEU A 227      23.114  23.687  -2.431
ATOM   3735  O   LEU A 227      23.914  24.555  -2.085
ATOM   3736  N   ASP A 228      21.808  23.931  -2.525
ATOM   3737  H   ASP A 228      21.211  23.190  -2.873
ATOM   3738  CA  ASP A 228      21.162  25.157  -2.048
ATOM   3739  HA  ASP A 228      21.720  26.024  -2.402
ATOM   3740  CB  ASP A 228      19.750  25.212  -2.636
ATOM   3741  HB2 ASP A 228      19.820  25.259  -3.723
ATOM   3742  HB3 ASP A 228      19.206  24.305  -2.368
ATOM   3743  CG  ASP A 228      18.971  26.427  -2.147
ATOM   3744  OD1 ASP A 228      19.151  27.525  -2.721
ATOM   3745  OD2 ASP A 228      18.104  26.254  -1.265
ATOM   3746  C   ASP A 228      21.120  25.212  -0.511
ATOM   3747  O   ASP A 228      21.276  26.275   0.077
ATOM   3748  N   GLN A 229      20.976  24.056   0.137
ATOM   3749  H   GLN A 229      20.794  23.231  -0.423
ATOM   3750  CA  GLN A 229      21.071  23.893   1.583
ATOM   3751  HA  GLN A 229      20.405  24.610   2.065
ATOM   3752  CB  GLN A 229      20.628  22.458   1.924
ATOM   3753  HB2 GLN A 229      19.622  22.288   1.538
ATOM   3754  HB3 GLN A 229      21.297  21.759   1.425
ATOM   3755  CG  GLN A 229      20.638  22.123   3.421
ATOM   3756  HG2 GLN A 229      20.541  21.041   3.522
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ATOM   3757  HG3 GLN A 229      21.588  22.403   3.871
ATOM   3758  CD  GLN A 229      19.504  22.787   4.197
ATOM   3759  OE1 GLN A 229      19.211  23.966   4.071
ATOM   3760  NE2 GLN A 229      18.794  22.044   5.012
ATOM   3761  HE21GLN A 229      18.046  22.510   5.509
ATOM   3762  HE22GLN A 229      18.905  21.038   5.022
ATOM   3763  C   GLN A 229      22.493  24.186   2.074
ATOM   3764  O   GLN A 229      22.656  24.884   3.071
ATOM   3765  N   LEU A 230      23.528  23.710   1.367
ATOM   3766  H   LEU A 230      23.344  23.109   0.573
ATOM   3767  CA  LEU A 230      24.918  24.046   1.684
ATOM   3768  HA  LEU A 230      25.103  23.764   2.722
ATOM   3769  CB  LEU A 230      25.848  23.240   0.754
ATOM   3770  HB2 LEU A 230      25.542  22.192   0.755
ATOM   3771  HB3 LEU A 230      25.731  23.620  -0.263
ATOM   3772  CG  LEU A 230      27.338  23.318   1.150
ATOM   3773  HG  LEU A 230      27.608  24.359   1.323
ATOM   3774  CD1 LEU A 230      27.641  22.517   2.426
ATOM   3775  HD11LEU A 230      28.695  22.619   2.682
ATOM   3776  HD12LEU A 230      27.049  22.887   3.263
ATOM   3777  HD13LEU A 230      27.418  21.461   2.268
ATOM   3778  CD2 LEU A 230      28.211  22.794   0.002
ATOM   3779  HD21LEU A 230      28.047  23.396  -0.892
ATOM   3780  HD22LEU A 230      29.264  22.865   0.277
ATOM   3781  HD23LEU A 230      27.964  21.754  -0.216
ATOM   3782  C   LEU A 230      25.149  25.564   1.581
ATOM   3783  O   LEU A 230      25.707  26.157   2.504
ATOM   3784  N   ASN A 231      24.666  26.195   0.504
ATOM   3785  H   ASN A 231      24.232  25.630  -0.215
ATOM   3786  CA  ASN A 231      24.689  27.650   0.308
ATOM   3787  HA  ASN A 231      25.727  27.988   0.324
ATOM   3788  CB  ASN A 231      24.098  27.951  -1.078
ATOM   3789  HB2 ASN A 231      24.705  27.446  -1.825
ATOM   3790  HB3 ASN A 231      23.087  27.553  -1.144
ATOM   3791  CG  ASN A 231      24.041  29.439  -1.401
ATOM   3792  OD1 ASN A 231      23.065  30.117  -1.099
ATOM   3793  ND2 ASN A 231      25.060  29.985  -2.035
ATOM   3794  HD21ASN A 231      24.996  30.938  -2.369
ATOM   3795  HD22ASN A 231      25.836  29.398  -2.319
ATOM   3796  C   ASN A 231      23.931  28.411   1.414
ATOM   3797  O   ASN A 231      24.417  29.430   1.897
ATOM   3798  N   HIE A 232      22.769  27.915   1.849
ATOM   3799  H   HIE A 232      22.390  27.099   1.379
ATOM   3800  CA  HIE A 232      21.963  28.511   2.917
ATOM   3801  HA  HIE A 232      21.868  29.579   2.724
ATOM   3802  CB  HIE A 232      20.559  27.890   2.860
ATOM   3803  HB2 HIE A 232      20.141  28.022   1.864
ATOM   3804  HB3 HIE A 232      20.636  26.820   3.045
ATOM   3805  CG  HIE A 232      19.600  28.484   3.852
ATOM   3806  ND1 HIE A 232      19.312  29.841   3.999
ATOM   3807  CE1 HIE A 232      18.486  29.918   5.053
ATOM   3808  HE1 HIE A 232      18.092  30.840   5.454
ATOM   3809  NE2 HIE A 232      18.257  28.703   5.578
ATOM   3810  HE2 HIE A 232      17.751  28.524   6.445
ATOM   3811  CD2 HIE A 232      18.930  27.780   4.805
ATOM   3812  HD2 HIE A 232      18.983  26.709   4.940
ATOM   3813  C   HIE A 232      22.609  28.358   4.308
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ATOM   3814  O   HIE A 232      22.574  29.287   5.114
ATOM   3815  N   ILE A 233      23.263  27.222   4.578
ATOM   3816  H   ILE A 233      23.200  26.470   3.891
ATOM   3817  CA  ILE A 233      24.084  27.021   5.784
ATOM   3818  HA  ILE A 233      23.492  27.297   6.657
ATOM   3819  CB  ILE A 233      24.490  25.533   5.927
ATOM   3820  HB  ILE A 233      24.896  25.189   4.974
ATOM   3821  CG2 ILE A 233      25.571  25.362   7.010
ATOM   3822  HG21ILE A 233      25.811  24.311   7.153
ATOM   3823  HG22ILE A 233      26.491  25.870   6.721
ATOM   3824  HG23ILE A 233      25.210  25.776   7.950
ATOM   3825  CG1 ILE A 233      23.249  24.680   6.291
ATOM   3826  HG12ILE A 233      22.949  24.899   7.316
ATOM   3827  HG13ILE A 233      22.413  24.951   5.647
ATOM   3828  CD1 ILE A 233      23.463  23.166   6.152
ATOM   3829  HD11ILE A 233      22.513  22.656   6.310
ATOM   3830  HD12ILE A 233      23.831  22.930   5.153
ATOM   3831  HD13ILE A 233      24.171  22.807   6.898
ATOM   3832  C   ILE A 233      25.273  27.990   5.785
ATOM   3833  O   ILE A 233      25.383  28.781   6.720
ATOM   3834  N   LEU A 234      26.097  28.007   4.728
ATOM   3835  H   LEU A 234      25.933  27.341   3.980
ATOM   3836  CA  LEU A 234      27.222  28.946   4.576
ATOM   3837  HA  LEU A 234      27.926  28.791   5.394
ATOM   3838  CB  LEU A 234      27.923  28.679   3.226
ATOM   3839  HB2 LEU A 234      27.158  28.621   2.451
ATOM   3840  HB3 LEU A 234      28.566  29.526   2.983
ATOM   3841  CG  LEU A 234      28.783  27.397   3.195
ATOM   3842  HG  LEU A 234      28.257  26.594   3.713
ATOM   3843  CD1 LEU A 234      29.029  26.952   1.745
ATOM   3844  HD11LEU A 234      29.598  26.022   1.737
ATOM   3845  HD12LEU A 234      28.078  26.782   1.241
ATOM   3846  HD13LEU A 234      29.585  27.718   1.204
ATOM   3847  CD2 LEU A 234      30.145  27.619   3.873
ATOM   3848  HD21LEU A 234      30.729  28.352   3.313
ATOM   3849  HD22LEU A 234      30.009  27.984   4.887
ATOM   3850  HD23LEU A 234      30.696  26.679   3.910
ATOM   3851  C   LEU A 234      26.762  30.409   4.670
ATOM   3852  O   LEU A 234      27.421  31.222   5.312
ATOM   3853  N   GLY A 235      25.603  30.737   4.092
ATOM   3854  H   GLY A 235      25.137  30.021   3.546
ATOM   3855  CA  GLY A 235      24.983  32.065   4.118
ATOM   3856  HA2 GLY A 235      25.732  32.818   3.885
ATOM   3857  HA3 GLY A 235      24.191  32.100   3.370
ATOM   3858  C   GLY A 235      24.367  32.456   5.462
ATOM   3859  O   GLY A 235      23.915  33.591   5.597
ATOM   3860  N   ILE A 236      24.341  31.563   6.454
ATOM   3861  H   ILE A 236      24.676  30.625   6.250
ATOM   3862  CA  ILE A 236      23.928  31.879   7.830
ATOM   3863  HA  ILE A 236      23.632  32.926   7.896
ATOM   3864  CB  ILE A 236      22.700  31.017   8.221
ATOM   3865  HB  ILE A 236      22.872  29.995   7.881
ATOM   3866  CG2 ILE A 236      22.470  30.986   9.742
ATOM   3867  HG21ILE A 236      21.654  30.312   9.999
ATOM   3868  HG22ILE A 236      23.349  30.612  10.249
ATOM   3869  HG23ILE A 236      22.252  31.988  10.105
ATOM   3870  CG1 ILE A 236      21.445  31.589   7.518
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ATOM   3871  HG12ILE A 236      21.310  32.628   7.823
ATOM   3872  HG13ILE A 236      21.603  31.572   6.439
ATOM   3873  CD1 ILE A 236      20.139  30.839   7.809
ATOM   3874  HD11ILE A 236      20.230  29.795   7.509
ATOM   3875  HD12ILE A 236      19.873  30.897   8.863
ATOM   3876  HD13ILE A 236      19.334  31.309   7.249
ATOM   3877  C   ILE A 236      25.117  31.754   8.787
ATOM   3878  O   ILE A 236      25.406  32.710   9.502
ATOM   3879  N   LEU A 237      25.841  30.633   8.786
ATOM   3880  H   LEU A 237      25.600  29.902   8.125
ATOM   3881  CA  LEU A 237      26.966  30.385   9.695
ATOM   3882  HA  LEU A 237      26.713  30.769  10.685
ATOM   3883  CB  LEU A 237      27.215  28.870   9.779
ATOM   3884  HB2 LEU A 237      27.541  28.539   8.798
ATOM   3885  HB3 LEU A 237      28.036  28.707  10.481
ATOM   3886  CG  LEU A 237      26.030  27.980  10.193
ATOM   3887  HG  LEU A 237      25.293  27.960   9.389
ATOM   3888  CD1 LEU A 237      26.538  26.547  10.409
ATOM   3889  HD11LEU A 237      25.721  25.911  10.741
ATOM   3890  HD12LEU A 237      26.930  26.156   9.472
ATOM   3891  HD13LEU A 237      27.336  26.526  11.150
ATOM   3892  CD2 LEU A 237      25.339  28.491  11.459
ATOM   3893  HD21LEU A 237      24.726  29.348  11.217
ATOM   3894  HD22LEU A 237      24.698  27.715  11.874
ATOM   3895  HD23LEU A 237      26.070  28.816  12.192
ATOM   3896  C   LEU A 237      28.267  31.088   9.271
ATOM   3897  O   LEU A 237      29.228  31.103  10.040
ATOM   3898  N   GLY A 238      28.326  31.626   8.050
ATOM   3899  H   GLY A 238      27.527  31.509   7.439
ATOM   3900  CA  GLY A 238      29.522  32.222   7.456
ATOM   3901  HA2 GLY A 238      29.209  32.874   6.644
ATOM   3902  HA3 GLY A 238      30.054  32.809   8.203
ATOM   3903  C   GLY A 238      30.487  31.182   6.877
ATOM   3904  O   GLY A 238      30.324  29.975   7.056
ATOM   3905  N   SER A 239      31.514  31.656   6.176
ATOM   3906  H   SER A 239      31.566  32.653   6.016
ATOM   3907  CA  SER A 239      32.533  30.817   5.526
ATOM   3908  HA  SER A 239      32.027  30.083   4.901
ATOM   3909  CB  SER A 239      33.381  31.705   4.619
ATOM   3910  HB2 SER A 239      33.855  32.478   5.216
ATOM   3911  HB3 SER A 239      34.168  31.114   4.156
ATOM   3912  OG  SER A 239      32.595  32.300   3.612
ATOM   3913  HG  SER A 239      33.023  32.049   2.760
ATOM   3914  C   SER A 239      33.487  30.079   6.496
ATOM   3915  O   SER A 239      33.660  30.514   7.642
ATOM   3916  N   PRO A 240      34.159  28.997   6.048
ATOM   3917  CD  PRO A 240      33.906  28.281   4.802
ATOM   3918  HD2 PRO A 240      34.005  28.936   3.938
ATOM   3919  HD3 PRO A 240      32.910  27.830   4.830
ATOM   3920  CG  PRO A 240      34.959  27.177   4.729
ATOM   3921  HG2 PRO A 240      35.857  27.553   4.236
ATOM   3922  HG3 PRO A 240      34.583  26.295   4.214
ATOM   3923  CB  PRO A 240      35.261  26.887   6.196
ATOM   3924  HB2 PRO A 240      36.246  26.439   6.331
ATOM   3925  HB3 PRO A 240      34.493  26.232   6.608
ATOM   3926  CA  PRO A 240      35.153  28.272   6.841
ATOM   3927  HA  PRO A 240      34.806  28.157   7.861
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ATOM   3928  C   PRO A 240      36.510  28.979   6.881
ATOM   3929  O   PRO A 240      36.879  29.706   5.958
ATOM   3930  N   SER A 241      37.285  28.727   7.938
ATOM   3931  H   SER A 241      36.929  28.130   8.682
ATOM   3932  CA  SER A 241      38.715  29.068   7.980
ATOM   3933  HA  SER A 241      38.907  29.889   7.292
ATOM   3934  CB  SER A 241      39.094  29.550   9.387
ATOM   3935  HB2 SER A 241      40.037  30.092   9.330
ATOM   3936  HB3 SER A 241      38.329  30.241   9.743
ATOM   3937  OG  SER A 241      39.229  28.484  10.316
ATOM   3938  HG  SER A 241      38.366  28.011  10.385
ATOM   3939  C   SER A 241      39.610  27.900   7.525
ATOM   3940  O   SER A 241      39.148  26.765   7.400
ATOM   3941  N   GLN A 242      40.905  28.147   7.304
ATOM   3942  H   GLN A 242      41.240  29.098   7.412
ATOM   3943  CA  GLN A 242      41.858  27.117   6.860
ATOM   3944  HA  GLN A 242      41.537  26.723   5.898
ATOM   3945  CB  GLN A 242      43.258  27.739   6.708
ATOM   3946  HB2 GLN A 242      43.483  28.329   7.599
ATOM   3947  HB3 GLN A 242      43.999  26.943   6.651
ATOM   3948  CG  GLN A 242      43.428  28.632   5.466
ATOM   3949  HG2 GLN A 242      42.598  29.329   5.382
ATOM   3950  HG3 GLN A 242      44.334  29.218   5.611
ATOM   3951  CD  GLN A 242      43.566  27.867   4.145
ATOM   3952  OE1 GLN A 242      43.064  26.767   3.959
ATOM   3953  NE2 GLN A 242      44.264  28.408   3.170
ATOM   3954  HE21GLN A 242      44.346  27.888   2.316
ATOM   3955  HE22GLN A 242      44.697  29.310   3.280
ATOM   3956  C   GLN A 242      41.915  25.902   7.800
ATOM   3957  O   GLN A 242      42.173  24.792   7.336
ATOM   3958  N   GLU A 243      41.647  26.081   9.095
ATOM   3959  H   GLU A 243      41.433  27.018   9.419
ATOM   3960  CA  GLU A 243      41.596  24.987  10.073
ATOM   3961  HA  GLU A 243      42.444  24.318   9.919
ATOM   3962  CB  GLU A 243      41.698  25.591  11.479
ATOM   3963  HB2 GLU A 243      40.914  26.341  11.591
ATOM   3964  HB3 GLU A 243      41.536  24.807  12.213
ATOM   3965  CG  GLU A 243      43.064  26.229  11.767
ATOM   3966  HG2 GLU A 243      43.781  25.443  11.995
ATOM   3967  HG3 GLU A 243      43.416  26.769  10.888
ATOM   3968  CD  GLU A 243      42.988  27.209  12.934
ATOM   3969  OE1 GLU A 243      42.442  26.858  14.008
ATOM   3970  OE2 GLU A 243      43.395  28.372  12.729
ATOM   3971  C   GLU A 243      40.306  24.151   9.958
ATOM   3972  O   GLU A 243      40.334  22.928  10.121
ATOM   3973  N   ASP A 244      39.174  24.788   9.632
ATOM   3974  H   ASP A 244      39.239  25.769   9.389
ATOM   3975  CA  ASP A 244      37.886  24.110   9.432
ATOM   3976  HA  ASP A 244      37.743  23.379  10.230
ATOM   3977  CB  ASP A 244      36.726  25.115   9.478
ATOM   3978  HB2 ASP A 244      36.778  25.753   8.595
ATOM   3979  HB3 ASP A 244      35.784  24.565   9.432
ATOM   3980  CG  ASP A 244      36.723  26.002  10.720
ATOM   3981  OD1 ASP A 244      36.355  25.538  11.825
ATOM   3982  OD2 ASP A 244      36.992  27.215  10.566
ATOM   3983  C   ASP A 244      37.857  23.371   8.087
ATOM   3984  O   ASP A 244      37.300  22.277   7.991
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ATOM   3985  N   LEU A 245      38.509  23.939   7.063
ATOM   3986  H   LEU A 245      38.907  24.862   7.218
ATOM   3987  CA  LEU A 245      38.791  23.263   5.795
ATOM   3988  HA  LEU A 245      37.853  22.938   5.348
ATOM   3989  CB  LEU A 245      39.524  24.233   4.841
ATOM   3990  HB2 LEU A 245      40.390  24.644   5.359
ATOM   3991  HB3 LEU A 245      39.899  23.668   3.987
ATOM   3992  CG  LEU A 245      38.662  25.397   4.311
ATOM   3993  HG  LEU A 245      38.205  25.923   5.146
ATOM   3994  CD1 LEU A 245      39.529  26.397   3.538
ATOM   3995  HD11LEU A 245      40.062  25.889   2.734
ATOM   3996  HD12LEU A 245      38.904  27.185   3.115
ATOM   3997  HD13LEU A 245      40.249  26.862   4.206
ATOM   3998  CD2 LEU A 245      37.548  24.906   3.381
ATOM   3999  HD21LEU A 245      37.003  25.764   2.991
ATOM   4000  HD22LEU A 245      37.981  24.355   2.548
ATOM   4001  HD23LEU A 245      36.850  24.268   3.922
ATOM   4002  C   LEU A 245      39.610  21.992   6.048
ATOM   4003  O   LEU A 245      39.218  20.912   5.605
ATOM   4004  N   ASN A 246      40.701  22.097   6.816
ATOM   4005  H   ASN A 246      40.957  23.014   7.166
ATOM   4006  CA  ASN A 246      41.562  20.965   7.163
ATOM   4007  HA  ASN A 246      41.981  20.568   6.239
ATOM   4008  CB  ASN A 246      42.731  21.475   8.019
ATOM   4009  HB2 ASN A 246      43.237  22.285   7.496
ATOM   4010  HB3 ASN A 246      42.360  21.866   8.962
ATOM   4011  CG  ASN A 246      43.736  20.370   8.312
ATOM   4012  OD1 ASN A 246      43.571  19.592   9.242
ATOM   4013  ND2 ASN A 246      44.799  20.258   7.542
ATOM   4014  HD21ASN A 246      45.409  19.453   7.671
ATOM   4015  HD22ASN A 246      45.004  20.927   6.811
ATOM   4016  C   ASN A 246      40.805  19.808   7.854
ATOM   4017  O   ASN A 246      41.180  18.646   7.680
ATOM   4018  N   CYS A 247      39.722  20.087   8.593
ATOM   4019  H   CYS A 247      39.458  21.060   8.701
ATOM   4020  CA  CYS A 247      38.930  19.059   9.290
ATOM   4021  HA  CYS A 247      39.595  18.497   9.949
ATOM   4022  CB  CYS A 247      37.853  19.745  10.146
ATOM   4023  HB2 CYS A 247      37.220  20.394   9.536
ATOM   4024  HB3 CYS A 247      37.220  18.982  10.601
ATOM   4025  SG  CYS A 247      38.608  20.702  11.481
ATOM   4026  HG  CYS A 247      39.126  21.707  10.751
ATOM   4027  C   CYS A 247      38.263  18.036   8.347
ATOM   4028  O   CYS A 247      38.023  16.895   8.748
ATOM   4029  N   ILE A 248      37.934  18.438   7.116
ATOM   4030  H   ILE A 248      38.238  19.363   6.827
ATOM   4031  CA  ILE A 248      37.161  17.636   6.147
ATOM   4032  HA  ILE A 248      36.494  16.961   6.687
ATOM   4033  CB  ILE A 248      36.295  18.587   5.279
ATOM   4034  HB  ILE A 248      36.959  19.313   4.806
ATOM   4035  CG2 ILE A 248      35.554  17.824   4.161
ATOM   4036  HG21ILE A 248      34.862  17.101   4.593
ATOM   4037  HG22ILE A 248      34.997  18.518   3.534
ATOM   4038  HG23ILE A 248      36.263  17.307   3.516
ATOM   4039  CG1 ILE A 248      35.286  19.358   6.172
ATOM   4040  HG12ILE A 248      34.561  18.656   6.586
ATOM   4041  HG13ILE A 248      35.810  19.820   7.008
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ATOM   4042  CD1 ILE A 248      34.533  20.486   5.456
ATOM   4043  HD11ILE A 248      35.244  21.176   5.001
ATOM   4044  HD12ILE A 248      33.870  20.080   4.694
ATOM   4045  HD13ILE A 248      33.930  21.031   6.184
ATOM   4046  C   ILE A 248      38.119  16.774   5.311
ATOM   4047  O   ILE A 248      39.096  17.292   4.773
ATOM   4048  N   ILE A 249      37.877  15.465   5.186
ATOM   4049  H   ILE A 249      37.055  15.082   5.651
ATOM   4050  CA  ILE A 249      38.832  14.531   4.542
ATOM   4051  HA  ILE A 249      39.816  14.738   4.964
ATOM   4052  CB  ILE A 249      38.460  13.064   4.886
ATOM   4053  HB  ILE A 249      38.269  13.012   5.958
ATOM   4054  CG2 ILE A 249      37.181  12.593   4.165
ATOM   4055  HG21ILE A 249      36.381  13.317   4.292
ATOM   4056  HG22ILE A 249      37.371  12.466   3.099
ATOM   4057  HG23ILE A 249      36.856  11.637   4.578
ATOM   4058  CG1 ILE A 249      39.579  12.044   4.583
ATOM   4059  HG12ILE A 249      39.241  11.057   4.902
ATOM   4060  HG13ILE A 249      39.758  11.994   3.510
ATOM   4061  CD1 ILE A 249      40.909  12.332   5.288
ATOM   4062  HD11ILE A 249      41.576  11.480   5.157
ATOM   4063  HD12ILE A 249      41.382  13.222   4.873
ATOM   4064  HD13ILE A 249      40.741  12.488   6.349
ATOM   4065  C   ILE A 249      38.980  14.737   3.025
ATOM   4066  O   ILE A 249      40.031  14.440   2.455
ATOM   4067  N   ASN A 250      37.937  15.239   2.362
ATOM   4068  H   ASN A 250      37.127  15.509   2.896
ATOM   4069  CA  ASN A 250      37.897  15.375   0.910
ATOM   4070  HA  ASN A 250      38.407  14.514   0.473
ATOM   4071  CB  ASN A 250      36.441  15.324   0.430
ATOM   4072  HB2 ASN A 250      35.946  14.462   0.876
ATOM   4073  HB3 ASN A 250      35.901  16.216   0.742
ATOM   4074  CG  ASN A 250      36.392  15.201  -1.086
ATOM   4075  OD1 ASN A 250      36.678  16.150  -1.804
ATOM   4076  ND2 ASN A 250      36.125  14.017  -1.600
ATOM   4077  HD21ASN A 250      36.180  13.884  -2.596
ATOM   4078  HD22ASN A 250      35.894  13.243  -0.989
ATOM   4079  C   ASN A 250      38.622  16.651   0.439
ATOM   4080  O   ASN A 250      38.146  17.770   0.637
ATOM   4081  N   LEU A 251      39.763  16.485  -0.237
ATOM   4082  H   LEU A 251      40.129  15.548  -0.323
ATOM   4083  CA  LEU A 251      40.595  17.600  -0.708
ATOM   4084  HA  LEU A 251      40.777  18.271   0.134
ATOM   4085  CB  LEU A 251      41.953  17.061  -1.205
ATOM   4086  HB2 LEU A 251      41.782  16.415  -2.069
ATOM   4087  HB3 LEU A 251      42.554  17.910  -1.539
ATOM   4088  CG  LEU A 251      42.763  16.276  -0.149
ATOM   4089  HG  LEU A 251      42.204  15.385   0.141
ATOM   4090  CD1 LEU A 251      44.093  15.816  -0.757
ATOM   4091  HD11LEU A 251      43.904  15.200  -1.637
ATOM   4092  HD12LEU A 251      44.696  16.676  -1.043
ATOM   4093  HD13LEU A 251      44.643  15.219  -0.029
ATOM   4094  CD2 LEU A 251      43.027  17.109   1.113
ATOM   4095  HD21LEU A 251      43.696  16.566   1.779
ATOM   4096  HD22LEU A 251      43.484  18.064   0.852
ATOM   4097  HD23LEU A 251      42.095  17.288   1.646
ATOM   4098  C   LEU A 251      39.902  18.457  -1.779
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ATOM   4099  O   LEU A 251      40.052  19.679  -1.772
ATOM   4100  N   LYS A 252      39.100  17.869  -2.672
ATOM   4101  H   LYS A 252      38.973  16.868  -2.627
ATOM   4102  CA  LYS A 252      38.313  18.630  -3.656
ATOM   4103  HA  LYS A 252      38.983  19.304  -4.192
ATOM   4104  CB  LYS A 252      37.716  17.665  -4.697
ATOM   4105  HB2 LYS A 252      38.547  17.169  -5.193
ATOM   4106  HB3 LYS A 252      37.121  16.896  -4.207
ATOM   4107  CG  LYS A 252      36.851  18.390  -5.747
ATOM   4108  HG2 LYS A 252      35.831  18.471  -5.366
ATOM   4109  HG3 LYS A 252      37.237  19.401  -5.886
ATOM   4110  CD  LYS A 252      36.836  17.725  -7.135
ATOM   4111  HD2 LYS A 252      36.009  18.137  -7.717
ATOM   4112  HD3 LYS A 252      37.765  18.005  -7.636
ATOM   4113  CE  LYS A 252      36.764  16.193  -7.154
ATOM   4114  HE2 LYS A 252      36.749  15.854  -8.193
ATOM   4115  HE3 LYS A 252      37.677  15.793  -6.702
ATOM   4116  NZ  LYS A 252      35.589  15.645  -6.440
ATOM   4117  HZ1 LYS A 252      35.539  15.992  -5.497
ATOM   4118  HZ2 LYS A 252      34.705  15.855  -6.900
ATOM   4119  HZ3 LYS A 252      35.681  14.631  -6.381
ATOM   4120  C   LYS A 252      37.269  19.531  -2.976
ATOM   4121  O   LYS A 252      37.128  20.690  -3.361
ATOM   4122  N   ALA A 253      36.607  19.057  -1.915
ATOM   4123  H   ALA A 253      36.741  18.083  -1.663
ATOM   4124  CA  ALA A 253      35.702  19.876  -1.105
ATOM   4125  HA  ALA A 253      34.925  20.278  -1.759
ATOM   4126  CB  ALA A 253      35.026  18.990  -0.052
ATOM   4127  HB1 ALA A 253      34.294  19.581   0.498
ATOM   4128  HB2 ALA A 253      34.517  18.154  -0.534
ATOM   4129  HB3 ALA A 253      35.760  18.611   0.658
ATOM   4130  C   ALA A 253      36.413  21.085  -0.464
ATOM   4131  O   ALA A 253      35.850  22.180  -0.463
ATOM   4132  N   ARG A 254      37.665  20.923   0.002
ATOM   4133  H   ARG A 254      38.066  19.994  -0.004
ATOM   4134  CA  ARG A 254      38.472  22.043   0.515
ATOM   4135  HA  ARG A 254      37.898  22.522   1.308
ATOM   4136  CB  ARG A 254      39.811  21.585   1.121
ATOM   4137  HB2 ARG A 254      40.433  21.132   0.348
ATOM   4138  HB3 ARG A 254      40.331  22.472   1.489
ATOM   4139  CG  ARG A 254      39.663  20.597   2.286
ATOM   4140  HG2 ARG A 254      38.960  20.998   3.017
ATOM   4141  HG3 ARG A 254      39.281  19.652   1.909
ATOM   4142  CD  ARG A 254      41.025  20.365   2.952
ATOM   4143  HD2 ARG A 254      41.773  20.216   2.172
ATOM   4144  HD3 ARG A 254      41.293  21.246   3.537
ATOM   4145  NE  ARG A 254      41.016  19.181   3.822
ATOM   4146  HE  ARG A 254      40.111  18.795   4.079
ATOM   4147  CZ  ARG A 254      42.078  18.515   4.252
ATOM   4148  NH1 ARG A 254      43.304  18.956   4.089
ATOM   4149  HH11ARG A 254      43.467  19.878   3.702
ATOM   4150  HH12ARG A 254      44.101  18.343   4.241
ATOM   4151  NH2 ARG A 254      41.890  17.377   4.869
ATOM   4152  HH21ARG A 254      40.930  17.079   5.013
ATOM   4153  HH22ARG A 254      42.653  16.887   5.316
ATOM   4154  C   ARG A 254      38.722  23.101  -0.568
ATOM   4155  O   ARG A 254      38.413  24.270  -0.347
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ATOM   4156  N   ASN A 255      39.228  22.710  -1.745
ATOM   4157  H   ASN A 255      39.472  21.735  -1.870
ATOM   4158  CA  ASN A 255      39.455  23.646  -2.859
ATOM   4159  HA  ASN A 255      40.159  24.409  -2.525
ATOM   4160  CB  ASN A 255      40.082  22.907  -4.052
ATOM   4161  HB2 ASN A 255      41.073  22.553  -3.773
ATOM   4162  HB3 ASN A 255      39.467  22.048  -4.321
ATOM   4163  CG  ASN A 255      40.199  23.825  -5.266
ATOM   4164  OD1 ASN A 255      39.287  23.937  -6.073
ATOM   4165  ND2 ASN A 255      41.282  24.565  -5.389
ATOM   4166  HD21ASN A 255      41.319  25.229  -6.149
ATOM   4167  HD22ASN A 255      42.061  24.465  -4.760
ATOM   4168  C   ASN A 255      38.164  24.365  -3.294
ATOM   4169  O   ASN A 255      38.173  25.582  -3.495
ATOM   4170  N   TYR A 256      37.051  23.630  -3.396
ATOM   4171  H   TYR A 256      37.126  22.627  -3.263
ATOM   4172  CA  TYR A 256      35.731  24.172  -3.719
ATOM   4173  HA  TYR A 256      35.772  24.639  -4.705
ATOM   4174  CB  TYR A 256      34.728  23.010  -3.780
ATOM   4175  HB2 TYR A 256      35.036  22.327  -4.574
ATOM   4176  HB3 TYR A 256      34.766  22.452  -2.845
ATOM   4177  CG  TYR A 256      33.293  23.423  -4.039
ATOM   4178  CD1 TYR A 256      32.875  23.738  -5.347
ATOM   4179  HD1 TYR A 256      33.581  23.692  -6.164
ATOM   4180  CE1 TYR A 256      31.537  24.101  -5.596
ATOM   4181  HE1 TYR A 256      31.218  24.337  -6.601
ATOM   4182  CZ  TYR A 256      30.611  24.150  -4.529
ATOM   4183  OH  TYR A 256      29.317  24.501  -4.756
ATOM   4184  HH  TYR A 256      29.138  24.699  -5.677
ATOM   4185  CE2 TYR A 256      31.032  23.835  -3.218
ATOM   4186  HE2 TYR A 256      30.320  23.872  -2.406
ATOM   4187  CD2 TYR A 256      32.371  23.474  -2.975
ATOM   4188  HD2 TYR A 256      32.685  23.227  -1.971
ATOM   4189  C   TYR A 256      35.316  25.260  -2.716
ATOM   4190  O   TYR A 256      35.145  26.413  -3.108
ATOM   4191  N   LEU A 257      35.256  24.934  -1.418
ATOM   4192  H   LEU A 257      35.474  23.978  -1.153
ATOM   4193  CA  LEU A 257      34.909  25.881  -0.350
ATOM   4194  HA  LEU A 257      33.899  26.254  -0.521
ATOM   4195  CB  LEU A 257      34.971  25.158   1.006
ATOM   4196  HB2 LEU A 257      35.917  24.615   1.056
ATOM   4197  HB3 LEU A 257      34.972  25.908   1.799
ATOM   4198  CG  LEU A 257      33.814  24.176   1.276
ATOM   4199  HG  LEU A 257      33.684  23.518   0.416
ATOM   4200  CD1 LEU A 257      34.166  23.312   2.494
ATOM   4201  HD11LEU A 257      34.324  23.940   3.371
ATOM   4202  HD12LEU A 257      33.354  22.615   2.696
ATOM   4203  HD13LEU A 257      35.073  22.740   2.295
ATOM   4204  CD2 LEU A 257      32.491  24.916   1.533
ATOM   4205  HD21LEU A 257      32.191  25.477   0.649
ATOM   4206  HD22LEU A 257      31.705  24.196   1.763
ATOM   4207  HD23LEU A 257      32.600  25.603   2.373
ATOM   4208  C   LEU A 257      35.825  27.114  -0.344
ATOM   4209  O   LEU A 257      35.315  28.232  -0.306
ATOM   4210  N   LEU A 258      37.145  26.912  -0.449
ATOM   4211  H   LEU A 258      37.472  25.951  -0.457
ATOM   4212  CA  LEU A 258      38.172  27.964  -0.499
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ATOM   4213  HA  LEU A 258      38.052  28.599   0.378
ATOM   4214  CB  LEU A 258      39.547  27.256  -0.441
ATOM   4215  HB2 LEU A 258      39.541  26.552   0.393
ATOM   4216  HB3 LEU A 258      39.665  26.676  -1.358
ATOM   4217  CG  LEU A 258      40.787  28.161  -0.279
ATOM   4218  HG  LEU A 258      40.773  28.932  -1.045
ATOM   4219  CD1 LEU A 258      40.840  28.843   1.094
ATOM   4220  HD11LEU A 258      39.932  29.416   1.272
ATOM   4221  HD12LEU A 258      40.960  28.102   1.883
ATOM   4222  HD13LEU A 258      41.690  29.521   1.123
ATOM   4223  CD2 LEU A 258      42.064  27.328  -0.465
ATOM   4224  HD21LEU A 258      42.125  26.550   0.297
ATOM   4225  HD22LEU A 258      42.063  26.862  -1.450
ATOM   4226  HD23LEU A 258      42.941  27.972  -0.389
ATOM   4227  C   LEU A 258      38.042  28.879  -1.732
ATOM   4228  O   LEU A 258      38.489  30.025  -1.690
ATOM   4229  N   SER A 259      37.434  28.399  -2.818
ATOM   4230  H   SER A 259      37.113  27.439  -2.791
ATOM   4231  CA  SER A 259      37.215  29.157  -4.062
ATOM   4232  HA  SER A 259      37.939  29.970  -4.127
ATOM   4233  CB  SER A 259      37.413  28.222  -5.264
ATOM   4234  HB2 SER A 259      36.654  27.438  -5.240
ATOM   4235  HB3 SER A 259      37.291  28.795  -6.184
ATOM   4236  OG  SER A 259      38.703  27.629  -5.253
ATOM   4237  HG  SER A 259      38.658  26.856  -4.654
ATOM   4238  C   SER A 259      35.823  29.800  -4.177
ATOM   4239  O   SER A 259      35.607  30.669  -5.029
ATOM   4240  N   LEU A 260      34.872  29.398  -3.332
ATOM   4241  H   LEU A 260      35.112  28.692  -2.645
ATOM   4242  CA  LEU A 260      33.537  29.990  -3.259
ATOM   4243  HA  LEU A 260      33.190  30.162  -4.277
ATOM   4244  CB  LEU A 260      32.588  28.989  -2.565
ATOM   4245  HB2 LEU A 260      33.163  28.248  -2.006
ATOM   4246  HB3 LEU A 260      31.990  29.541  -1.847
ATOM   4247  CG  LEU A 260      31.609  28.263  -3.512
ATOM   4248  HG  LEU A 260      30.968  29.007  -3.986
ATOM   4249  CD1 LEU A 260      32.299  27.457  -4.622
ATOM   4250  HD11LEU A 260      32.862  26.632  -4.192
ATOM   4251  HD12LEU A 260      31.545  27.052  -5.297
ATOM   4252  HD13LEU A 260      32.970  28.090  -5.201
ATOM   4253  CD2 LEU A 260      30.723  27.325  -2.680
ATOM   4254  HD21LEU A 260      29.968  26.867  -3.319
ATOM   4255  HD22LEU A 260      31.330  26.545  -2.220
ATOM   4256  HD23LEU A 260      30.218  27.885  -1.895
ATOM   4257  C   LEU A 260      33.581  31.371  -2.564
ATOM   4258  O   LEU A 260      34.496  31.630  -1.771
ATOM   4259  N   PRO A 261      32.620  32.273  -2.849
ATOM   4260  CD  PRO A 261      31.452  32.077  -3.699
ATOM   4261  HD2 PRO A 261      30.900  31.179  -3.421
ATOM   4262  HD3 PRO A 261      31.764  32.026  -4.742
ATOM   4263  CG  PRO A 261      30.566  33.305  -3.486
ATOM   4264  HG2 PRO A 261      29.895  33.134  -2.643
ATOM   4265  HG3 PRO A 261      30.000  33.555  -4.384
ATOM   4266  CB  PRO A 261      31.576  34.393  -3.129
ATOM   4267  HB2 PRO A 261      31.124  35.197  -2.549
ATOM   4268  HB3 PRO A 261      32.026  34.785  -4.041
ATOM   4269  CA  PRO A 261      32.639  33.636  -2.333
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ATOM   4270  HA  PRO A 261      33.614  34.089  -2.523
ATOM   4271  C   PRO A 261      32.361  33.672  -0.829
ATOM   4272  O   PRO A 261      31.734  32.767  -0.273
ATOM   4273  N   HIE A 262      32.832  34.727  -0.165
ATOM   4274  H   HIE A 262      33.287  35.472  -0.693
ATOM   4275  CA  HIE A 262      32.732  34.876   1.285
ATOM   4276  HA  HIE A 262      33.016  33.928   1.735
ATOM   4277  CB  HIE A 262      33.748  35.916   1.759
ATOM   4278  HB2 HIE A 262      34.739  35.623   1.415
ATOM   4279  HB3 HIE A 262      33.494  36.886   1.329
ATOM   4280  CG  HIE A 262      33.797  36.038   3.255
ATOM   4281  ND1 HIE A 262      33.199  37.057   3.993
ATOM   4282  CE1 HIE A 262      33.466  36.773   5.277
ATOM   4283  HE1 HIE A 262      33.164  37.380   6.119
ATOM   4284  NE2 HIE A 262      34.168  35.633   5.377
ATOM   4285  HE2 HIE A 262      34.472  35.207   6.247
ATOM   4286  CD2 HIE A 262      34.386  35.154   4.107
ATOM   4287  HD2 HIE A 262      34.924  34.259   3.830
ATOM   4288  C   HIE A 262      31.302  35.204   1.753
ATOM   4289  O   HIE A 262      30.621  36.063   1.182
ATOM   4290  N   LYS A 263      30.856  34.526   2.812
ATOM   4291  H   LYS A 263      31.483  33.846   3.229
ATOM   4292  CA  LYS A 263      29.532  34.665   3.418
ATOM   4293  HA  LYS A 263      28.938  35.385   2.852
ATOM   4294  CB  LYS A 263      28.835  33.292   3.378
ATOM   4295  HB2 LYS A 263      29.479  32.561   3.873
ATOM   4296  HB3 LYS A 263      27.920  33.366   3.965
ATOM   4297  CG  LYS A 263      28.470  32.747   1.980
ATOM   4298  HG2 LYS A 263      29.364  32.665   1.362
ATOM   4299  HG3 LYS A 263      28.064  31.745   2.120
ATOM   4300  CD  LYS A 263      27.417  33.604   1.261
ATOM   4301  HD2 LYS A 263      26.678  33.904   1.999
ATOM   4302  HD3 LYS A 263      27.891  34.499   0.858
ATOM   4303  CE  LYS A 263      26.714  32.830   0.132
ATOM   4304  HE2 LYS A 263      27.427  32.636  -0.673
ATOM   4305  HE3 LYS A 263      26.381  31.864   0.524
ATOM   4306  NZ  LYS A 263      25.535  33.565  -0.393
ATOM   4307  HZ1 LYS A 263      24.828  33.675   0.334
ATOM   4308  HZ2 LYS A 263      25.775  34.488  -0.722
ATOM   4309  HZ3 LYS A 263      25.098  33.075  -1.165
ATOM   4310  C   LYS A 263      29.630  35.187   4.867
ATOM   4311  O   LYS A 263      30.512  34.785   5.632
ATOM   4312  N   ASN A 264      28.697  36.064   5.246
ATOM   4313  H   ASN A 264      27.987  36.309   4.574
ATOM   4314  CA  ASN A 264      28.601  36.703   6.567
ATOM   4315  HA  ASN A 264      29.599  36.986   6.894
ATOM   4316  CB  ASN A 264      27.773  37.993   6.393
ATOM   4317  HB2 ASN A 264      28.249  38.618   5.636
ATOM   4318  HB3 ASN A 264      26.777  37.732   6.032
ATOM   4319  CG  ASN A 264      27.615  38.809   7.675
ATOM   4320  OD1 ASN A 264      26.725  38.561   8.479
ATOM   4321  ND2 ASN A 264      28.434  39.816   7.898
ATOM   4322  HD21ASN A 264      28.369  40.356   8.750
ATOM   4323  HD22ASN A 264      29.133  40.073   7.205
ATOM   4324  C   ASN A 264      27.978  35.763   7.625
ATOM   4325  O   ASN A 264      26.933  35.164   7.374
ATOM   4326  N   LYS A 265      28.573  35.652   8.821
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ATOM   4327  H   LYS A 265      29.461  36.116   8.974
ATOM   4328  CA  LYS A 265      27.974  34.899   9.937
ATOM   4329  HA  LYS A 265      27.596  33.953   9.548
ATOM   4330  CB  LYS A 265      29.049  34.559  10.991
ATOM   4331  HB2 LYS A 265      29.804  33.917  10.533
ATOM   4332  HB3 LYS A 265      29.529  35.477  11.339
ATOM   4333  CG  LYS A 265      28.414  33.829  12.192
ATOM   4334  HG2 LYS A 265      27.693  34.482  12.683
ATOM   4335  HG3 LYS A 265      27.879  32.950  11.832
ATOM   4336  CD  LYS A 265      29.420  33.407  13.262
ATOM   4337  HD2 LYS A 265      30.169  34.184  13.398
ATOM   4338  HD3 LYS A 265      28.888  33.275  14.203
ATOM   4339  CE  LYS A 265      30.083  32.089  12.880
ATOM   4340  HE2 LYS A 265      29.312  31.320  12.783
ATOM   4341  HE3 LYS A 265      30.562  32.202  11.903
ATOM   4342  NZ  LYS A 265      31.083  31.670  13.886
ATOM   4343  HZ1 LYS A 265      31.428  30.745  13.650
ATOM   4344  HZ2 LYS A 265      31.874  32.305  13.891
ATOM   4345  HZ3 LYS A 265      30.712  31.638  14.828
ATOM   4346  C   LYS A 265      26.776  35.660  10.547
ATOM   4347  O   LYS A 265      26.966  36.546  11.386
ATOM   4348  N   VAL A 266      25.552  35.305  10.166
ATOM   4349  H   VAL A 266      25.492  34.456   9.600
ATOM   4350  CA  VAL A 266      24.296  35.883  10.674
ATOM   4351  HA  VAL A 266      24.368  36.962  10.560
ATOM   4352  CB  VAL A 266      23.071  35.418   9.852
ATOM   4353  HB  VAL A 266      22.986  34.332   9.911
ATOM   4354  CG1 VAL A 266      21.782  36.048  10.405
ATOM   4355  HG11VAL A 266      21.867  37.135  10.406
ATOM   4356  HG12VAL A 266      20.929  35.752   9.794
ATOM   4357  HG13VAL A 266      21.604  35.712  11.425
ATOM   4358  CG2 VAL A 266      23.219  35.809   8.371
ATOM   4359  HG21VAL A 266      24.094  35.325   7.938
ATOM   4360  HG22VAL A 266      22.339  35.483   7.814
ATOM   4361  HG23VAL A 266      23.324  36.890   8.277
ATOM   4362  C   VAL A 266      24.122  35.475  12.150
ATOM   4363  O   VAL A 266      24.052  34.273  12.414
ATOM   4364  N   PRO A 267      24.068  36.418  13.113
ATOM   4365  CD  PRO A 267      24.116  37.861  12.928
ATOM   4366  HD2 PRO A 267      23.099  38.237  12.814
ATOM   4367  HD3 PRO A 267      24.734  38.168  12.086
ATOM   4368  CG  PRO A 267      24.725  38.410  14.209
ATOM   4369  HG2 PRO A 267      24.384  39.423  14.404
ATOM   4370  HG3 PRO A 267      25.811  38.390  14.138
ATOM   4371  CB  PRO A 267      24.264  37.429  15.280
ATOM   4372  HB2 PRO A 267      23.294  37.738  15.661
ATOM   4373  HB3 PRO A 267      24.981  37.368  16.096
ATOM   4374  CA  PRO A 267      24.143  36.096  14.537
ATOM   4375  HA  PRO A 267      25.054  35.521  14.704
ATOM   4376  C   PRO A 267      22.938  35.305  15.048
ATOM   4377  O   PRO A 267      21.788  35.626  14.739
ATOM   4378  N   TRP A 268      23.197  34.314  15.905
ATOM   4379  H   TRP A 268      24.165  34.093  16.121
ATOM   4380  CA  TRP A 268      22.154  33.532  16.570
ATOM   4381  HA  TRP A 268      21.537  33.055  15.812
ATOM   4382  CB  TRP A 268      22.800  32.436  17.424
ATOM   4383  HB2 TRP A 268      23.485  32.905  18.127
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ATOM   4384  HB3 TRP A 268      22.013  31.960  18.010
ATOM   4385  CG  TRP A 268      23.533  31.339  16.709
ATOM   4386  CD1 TRP A 268      24.812  30.970  16.949
ATOM   4387  HD1 TRP A 268      25.472  31.451  17.663
ATOM   4388  NE1 TRP A 268      25.132  29.855  16.204
ATOM   4389  HE1 TRP A 268      26.042  29.402  16.254
ATOM   4390  CE2 TRP A 268      24.068  29.454  15.424
ATOM   4391  CZ2 TRP A 268      23.879  28.395  14.528
ATOM   4392  HZ2 TRP A 268      24.665  27.676  14.370
ATOM   4393  CH2 TRP A 268      22.659  28.286  13.838
ATOM   4394  HH2 TRP A 268      22.508  27.486  13.128
ATOM   4395  CZ3 TRP A 268      21.636  29.219  14.070
ATOM   4396  HZ3 TRP A 268      20.699  29.128  13.539
ATOM   4397  CE3 TRP A 268      21.821  30.257  15.002
ATOM   4398  HE3 TRP A 268      21.020  30.955  15.188
ATOM   4399  CD2 TRP A 268      23.039  30.406  15.700
ATOM   4400  C   TRP A 268      21.227  34.410  17.426
ATOM   4401  O   TRP A 268      20.016  34.195  17.411
ATOM   4402  N   ASN A 269      21.747  35.448  18.096
ATOM   4403  H   ASN A 269      22.757  35.568  18.084
ATOM   4404  CA  ASN A 269      20.923  36.385  18.877
ATOM   4405  HA  ASN A 269      20.268  35.784  19.513
ATOM   4406  CB  ASN A 269      21.812  37.216  19.817
ATOM   4407  HB2 ASN A 269      21.180  37.625  20.603
ATOM   4408  HB3 ASN A 269      22.538  36.564  20.305
ATOM   4409  CG  ASN A 269      22.555  38.360  19.129
ATOM   4410  OD1 ASN A 269      23.535  38.150  18.429
ATOM   4411  ND2 ASN A 269      22.142  39.598  19.319
ATOM   4412  HD21ASN A 269      22.700  40.356  18.950
ATOM   4413  HD22ASN A 269      21.392  39.789  19.974
ATOM   4414  C   ASN A 269      20.013  37.280  18.002
ATOM   4415  O   ASN A 269      18.989  37.770  18.483
ATOM   4416  N   ARG A 270      20.348  37.463  16.713
ATOM   4417  H   ARG A 270      21.198  37.025  16.382
ATOM   4418  CA  ARG A 270      19.501  38.153  15.723
ATOM   4419  HA  ARG A 270      18.974  38.959  16.227
ATOM   4420  CB  ARG A 270      20.355  38.771  14.597
ATOM   4421  HB2 ARG A 270      20.915  37.984  14.095
ATOM   4422  HB3 ARG A 270      19.692  39.218  13.852
ATOM   4423  CG  ARG A 270      21.345  39.846  15.080
ATOM   4424  HG2 ARG A 270      21.959  39.439  15.884
ATOM   4425  HG3 ARG A 270      21.988  40.131  14.244
ATOM   4426  CD  ARG A 270      20.642  41.097  15.605
ATOM   4427  HD2 ARG A 270      20.055  41.546  14.800
ATOM   4428  HD3 ARG A 270      19.973  40.819  16.417
ATOM   4429  NE  ARG A 270      21.611  42.072  16.120
ATOM   4430  HE  ARG A 270      22.570  41.755  16.226
ATOM   4431  CZ  ARG A 270      21.314  43.308  16.496
ATOM   4432  NH1 ARG A 270      20.073  43.735  16.486
ATOM   4433  HH11ARG A 270      19.321  43.093  16.293
ATOM   4434  HH12ARG A 270      19.859  44.703  16.685
ATOM   4435  NH2 ARG A 270      22.254  44.145  16.861
ATOM   4436  HH21ARG A 270      23.219  43.848  16.944
ATOM   4437  HH22ARG A 270      22.008  45.072  17.173
ATOM   4438  C   ARG A 270      18.426  37.229  15.134
ATOM   4439  O   ARG A 270      17.303  37.679  14.921
ATOM   4440  N   LEU A 271      18.755  35.949  14.919
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ATOM   4441  H   LEU A 271      19.717  35.686  15.086
ATOM   4442  CA  LEU A 271      17.842  34.902  14.431
ATOM   4443  HA  LEU A 271      17.292  35.270  13.562
ATOM   4444  CB  LEU A 271      18.681  33.671  14.027
ATOM   4445  HB2 LEU A 271      19.338  33.413  14.858
ATOM   4446  HB3 LEU A 271      18.018  32.819  13.863
ATOM   4447  CG  LEU A 271      19.524  33.895  12.756
ATOM   4448  HG  LEU A 271      19.974  34.887  12.795
ATOM   4449  CD1 LEU A 271      20.660  32.868  12.686
ATOM   4450  HD11LEU A 271      21.261  33.059  11.799
ATOM   4451  HD12LEU A 271      21.305  32.969  13.557
ATOM   4452  HD13LEU A 271      20.257  31.856  12.645
ATOM   4453  CD2 LEU A 271      18.663  33.798  11.488
ATOM   4454  HD21LEU A 271      17.888  34.564  11.496
ATOM   4455  HD22LEU A 271      19.286  33.948  10.605
ATOM   4456  HD23LEU A 271      18.193  32.815  11.425
ATOM   4457  C   LEU A 271      16.787  34.516  15.477
ATOM   4458  O   LEU A 271      15.615  34.367  15.132
ATOM   4459  N   PHE A 272      17.200  34.392  16.745
ATOM   4460  H   PHE A 272      18.190  34.493  16.924
ATOM   4461  CA  PHE A 272      16.360  33.971  17.872
ATOM   4462  HA  PHE A 272      15.317  33.925  17.554
ATOM   4463  CB  PHE A 272      16.781  32.549  18.295
ATOM   4464  HB2 PHE A 272      17.774  32.586  18.745
ATOM   4465  HB3 PHE A 272      16.088  32.207  19.062
ATOM   4466  CG  PHE A 272      16.802  31.510  17.192
ATOM   4467  CD1 PHE A 272      15.605  30.906  16.765
ATOM   4468  HD1 PHE A 272      14.663  31.193  17.213
ATOM   4469  CE1 PHE A 272      15.634  29.924  15.759
ATOM   4470  HE1 PHE A 272      14.721  29.446  15.442
ATOM   4471  CZ  PHE A 272      16.854  29.557  15.167
ATOM   4472  HZ  PHE A 272      16.872  28.812  14.388
ATOM   4473  CE2 PHE A 272      18.050  30.153  15.596
ATOM   4474  HE2 PHE A 272      18.986  29.853  15.154
ATOM   4475  CD2 PHE A 272      18.026  31.128  16.609
ATOM   4476  HD2 PHE A 272      18.949  31.583  16.941
ATOM   4477  C   PHE A 272      16.442  34.961  19.062
ATOM   4478  O   PHE A 272      17.016  34.615  20.103
ATOM   4479  N   PRO A 273      15.892  36.191  18.958
ATOM   4480  CD  PRO A 273      15.308  36.796  17.769
ATOM   4481  HD2 PRO A 273      14.281  36.446  17.646
ATOM   4482  HD3 PRO A 273      15.888  36.592  16.872
ATOM   4483  CG  PRO A 273      15.317  38.297  18.040
ATOM   4484  HG2 PRO A 273      14.534  38.809  17.486
ATOM   4485  HG3 PRO A 273      16.293  38.712  17.791
ATOM   4486  CB  PRO A 273      15.085  38.366  19.544
ATOM   4487  HB2 PRO A 273      14.016  38.268  19.738
ATOM   4488  HB3 PRO A 273      15.466  39.295  19.971
ATOM   4489  CA  PRO A 273      15.836  37.141  20.078
ATOM   4490  HA  PRO A 273      16.853  37.431  20.340
ATOM   4491  C   PRO A 273      15.120  36.581  21.317
ATOM   4492  O   PRO A 273      15.470  36.915  22.443
ATOM   4493  N   ASN A 274      14.151  35.686  21.103
ATOM   4494  H   ASN A 274      13.942  35.435  20.145
ATOM   4495  CA  ASN A 274      13.354  35.004  22.125
ATOM   4496  HA  ASN A 274      12.982  35.755  22.821
ATOM   4497  CB  ASN A 274      12.159  34.341  21.414
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ATOM   4498  HB2 ASN A 274      11.480  33.940  22.167
ATOM   4499  HB3 ASN A 274      11.610  35.084  20.837
ATOM   4500  CG  ASN A 274      12.582  33.225  20.461
ATOM   4501  OD1 ASN A 274      13.425  33.411  19.590
ATOM   4502  ND2 ASN A 274      12.035  32.037  20.604
ATOM   4503  HD21ASN A 274      12.262  31.348  19.896
ATOM   4504  HD22ASN A 274      11.305  31.853  21.276
ATOM   4505  C   ASN A 274      14.114  33.941  22.946
ATOM   4506  O   ASN A 274      13.599  33.486  23.975
ATOM   4507  N   ALA A 275      15.288  33.501  22.481
ATOM   4508  H   ALA A 275      15.665  33.948  21.655
ATOM   4509  CA  ALA A 275      16.056  32.407  23.069
ATOM   4510  HA  ALA A 275      15.365  31.688  23.508
ATOM   4511  CB  ALA A 275      16.825  31.705  21.949
ATOM   4512  HB1 ALA A 275      17.360  30.841  22.351
ATOM   4513  HB2 ALA A 275      16.130  31.375  21.177
ATOM   4514  HB3 ALA A 275      17.544  32.396  21.511
ATOM   4515  C   ALA A 275      17.007  32.886  24.170
ATOM   4516  O   ALA A 275      17.718  33.877  23.989
ATOM   4517  N   ASP A 276      17.060  32.144  25.275
ATOM   4518  H   ASP A 276      16.460  31.340  25.346
ATOM   4519  CA  ASP A 276      17.995  32.367  26.377
ATOM   4520  HA  ASP A 276      17.866  33.382  26.752
ATOM   4521  CB  ASP A 276      17.640  31.387  27.509
ATOM   4522  HB2 ASP A 276      16.555  31.373  27.622
ATOM   4523  HB3 ASP A 276      17.959  30.382  27.236
ATOM   4524  CG  ASP A 276      18.252  31.761  28.859
ATOM   4525  OD1 ASP A 276      19.441  32.143  28.908
ATOM   4526  OD2 ASP A 276      17.533  31.669  29.881
ATOM   4527  C   ASP A 276      19.448  32.197  25.901
ATOM   4528  O   ASP A 276      19.784  31.213  25.245
ATOM   4529  N   SER A 277      20.336  33.125  26.250
ATOM   4530  H   SER A 277      20.030  33.925  26.791
ATOM   4531  CA  SER A 277      21.773  33.048  25.954
ATOM   4532  HA  SER A 277      21.906  33.020  24.875
ATOM   4533  CB  SER A 277      22.468  34.325  26.450
ATOM   4534  HB2 SER A 277      23.552  34.203  26.398
ATOM   4535  HB3 SER A 277      22.181  35.147  25.793
ATOM   4536  OG  SER A 277      22.080  34.658  27.774
ATOM   4537  HG  SER A 277      21.962  35.630  27.812
ATOM   4538  C   SER A 277      22.438  31.777  26.524
ATOM   4539  O   SER A 277      23.454  31.309  25.999
ATOM   4540  N   LYS A 278      21.840  31.149  27.546
ATOM   4541  H   LYS A 278      21.021  31.592  27.962
ATOM   4542  CA  LYS A 278      22.232  29.837  28.070
ATOM   4543  HA  LYS A 278      23.317  29.819  28.190
ATOM   4544  CB  LYS A 278      21.573  29.667  29.453
ATOM   4545  HB2 LYS A 278      21.666  30.605  30.006
ATOM   4546  HB3 LYS A 278      20.510  29.442  29.333
ATOM   4547  CG  LYS A 278      22.257  28.563  30.266
ATOM   4548  HG2 LYS A 278      22.165  27.611  29.744
ATOM   4549  HG3 LYS A 278      23.317  28.804  30.356
ATOM   4550  CD  LYS A 278      21.648  28.433  31.667
ATOM   4551  HD2 LYS A 278      21.633  29.405  32.160
ATOM   4552  HD3 LYS A 278      20.630  28.051  31.590
ATOM   4553  CE  LYS A 278      22.520  27.465  32.459
ATOM   4554  HE2 LYS A 278      22.564  26.529  31.908
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ATOM   4555  HE3 LYS A 278      23.529  27.875  32.519
ATOM   4556  NZ  LYS A 278      22.015  27.210  33.822
ATOM   4557  HZ1 LYS A 278      21.112  26.746  33.810
ATOM   4558  HZ2 LYS A 278      22.637  26.586  34.323
ATOM   4559  HZ3 LYS A 278      21.917  28.074  34.348
ATOM   4560  C   LYS A 278      21.857  28.686  27.114
ATOM   4561  O   LYS A 278      22.652  27.772  26.905
ATOM   4562  N   ALA A 279      20.674  28.750  26.490
ATOM   4563  H   ALA A 279      20.114  29.578  26.642
ATOM   4564  CA  ALA A 279      20.231  27.811  25.449
ATOM   4565  HA  ALA A 279      20.343  26.786  25.808
ATOM   4566  CB  ALA A 279      18.748  28.081  25.141
ATOM   4567  HB1 ALA A 279      18.346  27.264  24.541
ATOM   4568  HB2 ALA A 279      18.173  28.161  26.061
ATOM   4569  HB3 ALA A 279      18.630  29.010  24.583
ATOM   4570  C   ALA A 279      21.071  27.963  24.173
ATOM   4571  O   ALA A 279      21.468  26.982  23.544
ATOM   4572  N   LEU A 280      21.367  29.213  23.814
ATOM   4573  H   LEU A 280      20.965  29.964  24.363
ATOM   4574  CA  LEU A 280      22.123  29.574  22.623
ATOM   4575  HA  LEU A 280      21.693  29.063  21.765
ATOM   4576  CB  LEU A 280      21.990  31.095  22.429
ATOM   4577  HB2 LEU A 280      22.233  31.589  23.365
ATOM   4578  HB3 LEU A 280      22.740  31.414  21.722
ATOM   4579  CG  LEU A 280      20.619  31.589  21.917
ATOM   4580  HG  LEU A 280      19.871  31.413  22.684
ATOM   4581  CD1 LEU A 280      20.680  33.096  21.645
ATOM   4582  HD11LEU A 280      20.934  33.632  22.559
ATOM   4583  HD12LEU A 280      21.423  33.308  20.878
ATOM   4584  HD13LEU A 280      19.711  33.442  21.291
ATOM   4585  CD2 LEU A 280      20.168  30.867  20.639
ATOM   4586  HD21LEU A 280      19.895  29.838  20.867
ATOM   4587  HD22LEU A 280      19.294  31.360  20.217
ATOM   4588  HD23LEU A 280      20.973  30.883  19.905
ATOM   4589  C   LEU A 280      23.583  29.099  22.668
ATOM   4590  O   LEU A 280      24.134  28.774  21.614
ATOM   4591  N   ASP A 281      24.201  28.986  23.849
ATOM   4592  H   ASP A 281      23.725  29.314  24.680
ATOM   4593  CA  ASP A 281      25.537  28.385  23.988
ATOM   4594  HA  ASP A 281      26.220  28.934  23.336
ATOM   4595  CB  ASP A 281      26.037  28.515  25.437
ATOM   4596  HB2 ASP A 281      25.913  29.551  25.761
ATOM   4597  HB3 ASP A 281      25.449  27.865  26.090
ATOM   4598  CG  ASP A 281      27.520  28.139  25.521
ATOM   4599  OD1 ASP A 281      27.856  27.009  25.950
ATOM   4600  OD2 ASP A 281      28.346  28.973  25.087
ATOM   4601  C   ASP A 281      25.562  26.907  23.549
ATOM   4602  O   ASP A 281      26.547  26.455  22.963
ATOM   4603  N   LEU A 282      24.468  26.171  23.785
ATOM   4604  H   LEU A 282      23.680  26.613  24.242
ATOM   4605  CA  LEU A 282      24.296  24.797  23.314
ATOM   4606  HA  LEU A 282      25.251  24.284  23.410
ATOM   4607  CB  LEU A 282      23.260  24.086  24.207
ATOM   4608  HB2 LEU A 282      23.560  24.187  25.248
ATOM   4609  HB3 LEU A 282      22.298  24.585  24.096
ATOM   4610  CG  LEU A 282      23.070  22.588  23.899
ATOM   4611  HG  LEU A 282      22.720  22.478  22.872
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ATOM   4612  CD1 LEU A 282      24.371  21.789  24.065
ATOM   4613  HD11LEU A 282      25.107  22.103  23.325
ATOM   4614  HD12LEU A 282      24.776  21.933  25.067
ATOM   4615  HD13LEU A 282      24.174  20.730  23.913
ATOM   4616  CD2 LEU A 282      21.993  22.017  24.830
ATOM   4617  HD21LEU A 282      21.809  20.971  24.585
ATOM   4618  HD22LEU A 282      22.317  22.090  25.868
ATOM   4619  HD23LEU A 282      21.067  22.576  24.703
ATOM   4620  C   LEU A 282      23.911  24.758  21.829
ATOM   4621  O   LEU A 282      24.440  23.922  21.098
ATOM   4622  N   LEU A 283      23.037  25.667  21.372
ATOM   4623  H   LEU A 283      22.615  26.293  22.050
ATOM   4624  CA  LEU A 283      22.598  25.742  19.971
ATOM   4625  HA  LEU A 283      22.098  24.803  19.727
ATOM   4626  CB  LEU A 283      21.613  26.917  19.791
ATOM   4627  HB2 LEU A 283      20.833  26.857  20.552
ATOM   4628  HB3 LEU A 283      22.162  27.848  19.940
ATOM   4629  CG  LEU A 283      20.952  26.957  18.393
ATOM   4630  HG  LEU A 283      21.715  26.837  17.624
ATOM   4631  CD1 LEU A 283      19.911  25.840  18.228
ATOM   4632  HD11LEU A 283      19.142  25.933  18.996
ATOM   4633  HD12LEU A 283      19.439  25.914  17.249
ATOM   4634  HD13LEU A 283      20.385  24.862  18.306
ATOM   4635  CD2 LEU A 283      20.275  28.313  18.155
ATOM   4636  HD21LEU A 283      19.488  28.477  18.891
ATOM   4637  HD22LEU A 283      21.015  29.111  18.225
ATOM   4638  HD23LEU A 283      19.840  28.336  17.156
ATOM   4639  C   LEU A 283      23.790  25.876  19.015
ATOM   4640  O   LEU A 283      23.878  25.121  18.055
ATOM   4641  N   ASP A 284      24.722  26.788  19.301
ATOM   4642  H   ASP A 284      24.584  27.346  20.136
ATOM   4643  CA  ASP A 284      25.937  27.036  18.503
ATOM   4644  HA  ASP A 284      25.651  27.215  17.465
ATOM   4645  CB  ASP A 284      26.579  28.320  19.055
ATOM   4646  HB2 ASP A 284      25.915  29.158  18.852
ATOM   4647  HB3 ASP A 284      26.663  28.233  20.137
ATOM   4648  CG  ASP A 284      27.956  28.634  18.467
ATOM   4649  OD1 ASP A 284      28.027  29.096  17.304
ATOM   4650  OD2 ASP A 284      28.962  28.441  19.192
ATOM   4651  C   ASP A 284      26.932  25.851  18.494
ATOM   4652  O   ASP A 284      27.784  25.763  17.610
ATOM   4653  N   LYS A 285      26.811  24.925  19.453
ATOM   4654  H   LYS A 285      26.073  25.047  20.136
ATOM   4655  CA  LYS A 285      27.599  23.685  19.526
ATOM   4656  HA  LYS A 285      28.513  23.801  18.943
ATOM   4657  CB  LYS A 285      28.005  23.431  20.987
ATOM   4658  HB2 LYS A 285      27.116  23.368  21.617
ATOM   4659  HB3 LYS A 285      28.529  22.483  21.033
ATOM   4660  CG  LYS A 285      28.955  24.502  21.532
ATOM   4661  HG2 LYS A 285      29.811  24.600  20.865
ATOM   4662  HG3 LYS A 285      28.428  25.447  21.574
ATOM   4663  CD  LYS A 285      29.458  24.125  22.931
ATOM   4664  HD2 LYS A 285      28.619  24.010  23.618
ATOM   4665  HD3 LYS A 285      29.977  23.169  22.859
ATOM   4666  CE  LYS A 285      30.447  25.160  23.473
ATOM   4667  HE2 LYS A 285      31.013  24.711  24.293
ATOM   4668  HE3 LYS A 285      31.157  25.412  22.681
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ATOM   4669  NZ  LYS A 285      29.785  26.390  23.957
ATOM   4670  HZ1 LYS A 285      29.133  26.219  24.717
ATOM   4671  HZ2 LYS A 285      30.471  27.058  24.295
ATOM   4672  HZ3 LYS A 285      29.285  26.860  23.210
ATOM   4673  C   LYS A 285      26.876  22.457  18.931
ATOM   4674  O   LYS A 285      27.504  21.417  18.714
ATOM   4675  N   MET A 286      25.567  22.554  18.667
ATOM   4676  H   MET A 286      25.111  23.420  18.935
ATOM   4677  CA  MET A 286      24.782  21.545  17.937
ATOM   4678  HA  MET A 286      25.276  20.574  17.989
ATOM   4679  CB  MET A 286      23.379  21.405  18.545
ATOM   4680  HB2 MET A 286      22.889  22.379  18.596
ATOM   4681  HB3 MET A 286      22.795  20.756  17.893
ATOM   4682  CG  MET A 286      23.379  20.763  19.931
ATOM   4683  HG2 MET A 286      23.864  19.790  19.860
ATOM   4684  HG3 MET A 286      23.945  21.387  20.625
ATOM   4685  SD  MET A 286      21.702  20.534  20.570
ATOM   4686  CE  MET A 286      22.032  19.278  21.820
ATOM   4687  HE1 MET A 286      22.749  19.656  22.543
ATOM   4688  HE2 MET A 286      21.105  19.029  22.329
ATOM   4689  HE3 MET A 286      22.430  18.384  21.345
ATOM   4690  C   MET A 286      24.669  21.903  16.453
ATOM   4691  O   MET A 286      25.015  21.097  15.594
ATOM   4692  N   LEU A 287      24.229  23.120  16.133
ATOM   4693  H   LEU A 287      24.013  23.764  16.887
ATOM   4694  CA  LEU A 287      24.271  23.674  14.785
ATOM   4695  HA  LEU A 287      24.121  22.882  14.048
ATOM   4696  CB  LEU A 287      23.158  24.728  14.618
ATOM   4697  HB2 LEU A 287      23.306  25.521  15.353
ATOM   4698  HB3 LEU A 287      23.260  25.172  13.628
ATOM   4699  CG  LEU A 287      21.721  24.191  14.765
ATOM   4700  HG  LEU A 287      21.575  23.833  15.785
ATOM   4701  CD1 LEU A 287      20.724  25.331  14.520
ATOM   4702  HD11LEU A 287      19.709  24.967  14.676
ATOM   4703  HD12LEU A 287      20.915  26.149  15.215
ATOM   4704  HD13LEU A 287      20.816  25.702  13.500
ATOM   4705  CD2 LEU A 287      21.445  23.034  13.795
ATOM   4706  HD21LEU A 287      20.379  22.819  13.776
ATOM   4707  HD22LEU A 287      21.769  23.297  12.789
ATOM   4708  HD23LEU A 287      21.975  22.138  14.118
ATOM   4709  C   LEU A 287      25.666  24.262  14.564
ATOM   4710  O   LEU A 287      25.918  25.426  14.875
ATOM   4711  N   THR A 288      26.579  23.448  14.030
ATOM   4712  H   THR A 288      26.304  22.490  13.866
ATOM   4713  CA  THR A 288      27.994  23.790  13.823
ATOM   4714  HA  THR A 288      28.122  24.869  13.832
ATOM   4715  CB  THR A 288      28.849  23.198  14.950
ATOM   4716  HB  THR A 288      28.989  22.136  14.770
ATOM   4717  CG2 THR A 288      30.217  23.852  15.030
ATOM   4718  HG21THR A 288      30.117  24.915  15.253
ATOM   4719  HG22THR A 288      30.798  23.375  15.818
ATOM   4720  HG23THR A 288      30.751  23.729  14.089
ATOM   4721  OG1 THR A 288      28.220  23.358  16.202
ATOM   4722  HG1 THR A 288      28.215  24.300  16.442
ATOM   4723  C   THR A 288      28.446  23.257  12.469
ATOM   4724  O   THR A 288      28.188  22.092  12.160
ATOM   4725  N   PHE A 289      29.098  24.088  11.650
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ATOM   4726  H   PHE A 289      29.318  25.026  11.966
ATOM   4727  CA  PHE A 289      29.589  23.647  10.339
ATOM   4728  HA  PHE A 289      28.784  23.123   9.824
ATOM   4729  CB  PHE A 289      29.998  24.850   9.475
ATOM   4730  HB2 PHE A 289      29.117  25.463   9.295
ATOM   4731  HB3 PHE A 289      30.707  25.469  10.018
ATOM   4732  CG  PHE A 289      30.615  24.479   8.137
ATOM   4733  CD1 PHE A 289      29.804  24.366   6.992
ATOM   4734  HD1 PHE A 289      28.740  24.545   7.060
ATOM   4735  CE1 PHE A 289      30.376  24.045   5.748
ATOM   4736  HE1 PHE A 289      29.749  23.967   4.870
ATOM   4737  CZ  PHE A 289      31.761  23.831   5.644
ATOM   4738  HZ  PHE A 289      32.197  23.581   4.687
ATOM   4739  CE2 PHE A 289      32.576  23.938   6.784
ATOM   4740  HE2 PHE A 289      33.641  23.764   6.707
ATOM   4741  CD2 PHE A 289      32.005  24.265   8.028
ATOM   4742  HD2 PHE A 289      32.639  24.351   8.899
ATOM   4743  C   PHE A 289      30.733  22.642  10.510
ATOM   4744  O   PHE A 289      30.651  21.534   9.988
ATOM   4745  N   ASN A 290      31.768  23.002  11.276
ATOM   4746  H   ASN A 290      31.773  23.934  11.678
ATOM   4747  CA  ASN A 290      32.881  22.112  11.597
ATOM   4748  HA  ASN A 290      33.297  21.744  10.660
ATOM   4749  CB  ASN A 290      33.987  22.938  12.272
ATOM   4750  HB2 ASN A 290      34.246  23.768  11.615
ATOM   4751  HB3 ASN A 290      33.621  23.353  13.211
ATOM   4752  CG  ASN A 290      35.250  22.129  12.548
ATOM   4753  OD1 ASN A 290      35.216  20.918  12.716
ATOM   4754  ND2 ASN A 290      36.396  22.777  12.588
ATOM   4755  HD21ASN A 290      37.241  22.240  12.724
ATOM   4756  HD22ASN A 290      36.436  23.768  12.373
ATOM   4757  C   ASN A 290      32.397  20.925  12.473
ATOM   4758  O   ASN A 290      32.038  21.147  13.635
ATOM   4759  N   PRO A 291      32.399  19.671  11.966
ATOM   4760  CD  PRO A 291      32.798  19.261  10.626
ATOM   4761  HD2 PRO A 291      33.871  19.076  10.610
ATOM   4762  HD3 PRO A 291      32.539  19.990   9.860
ATOM   4763  CG  PRO A 291      32.039  17.971  10.361
ATOM   4764  HG2 PRO A 291      32.570  17.334   9.655
ATOM   4765  HG3 PRO A 291      31.042  18.219   9.998
ATOM   4766  CB  PRO A 291      31.931  17.325  11.738
ATOM   4767  HB2 PRO A 291      32.807  16.696  11.906
ATOM   4768  HB3 PRO A 291      31.023  16.728  11.825
ATOM   4769  CA  PRO A 291      31.919  18.509  12.716
ATOM   4770  HA  PRO A 291      30.895  18.694  13.044
ATOM   4771  C   PRO A 291      32.793  18.187  13.929
ATOM   4772  O   PRO A 291      32.284  17.741  14.952
ATOM   4773  N   HIE A 292      34.103  18.431  13.840
ATOM   4774  H   HIE A 292      34.468  18.898  13.018
ATOM   4775  CA  HIE A 292      35.086  18.057  14.861
ATOM   4776  HA  HIE A 292      34.850  17.056  15.214
ATOM   4777  CB  HIE A 292      36.481  18.016  14.206
ATOM   4778  HB2 HIE A 292      36.723  18.997  13.797
ATOM   4779  HB3 HIE A 292      37.217  17.797  14.979
ATOM   4780  CG  HIE A 292      36.635  16.985  13.114
ATOM   4781  ND1 HIE A 292      37.475  15.868  13.165
ATOM   4782  CE1 HIE A 292      37.262  15.202  12.016
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ATOM   4783  HE1 HIE A 292      37.744  14.275  11.741
ATOM   4784  NE2 HIE A 292      36.359  15.839  11.254
ATOM   4785  HE2 HIE A 292      35.979  15.511  10.367
ATOM   4786  CD2 HIE A 292      35.969  16.972  11.923
ATOM   4787  HD2 HIE A 292      35.245  17.690  11.586
ATOM   4788  C   HIE A 292      35.036  18.990  16.089
ATOM   4789  O   HIE A 292      35.447  18.610  17.189
ATOM   4790  N   LYS A 293      34.476  20.194  15.911
ATOM   4791  H   LYS A 293      34.229  20.431  14.958
ATOM   4792  CA  LYS A 293      34.123  21.149  16.972
ATOM   4793  HA  LYS A 293      34.769  20.987  17.837
ATOM   4794  CB  LYS A 293      34.369  22.573  16.446
ATOM   4795  HB2 LYS A 293      33.837  22.689  15.499
ATOM   4796  HB3 LYS A 293      33.946  23.283  17.159
ATOM   4797  CG  LYS A 293      35.851  22.940  16.259
ATOM   4798  HG2 LYS A 293      36.350  22.900  17.225
ATOM   4799  HG3 LYS A 293      36.328  22.228  15.585
ATOM   4800  CD  LYS A 293      35.955  24.356  15.681
ATOM   4801  HD2 LYS A 293      35.433  24.355  14.728
ATOM   4802  HD3 LYS A 293      35.478  25.054  16.372
ATOM   4803  CE  LYS A 293      37.399  24.798  15.454
ATOM   4804  HE2 LYS A 293      37.937  23.972  14.994
ATOM   4805  HE3 LYS A 293      37.866  25.000  16.418
ATOM   4806  NZ  LYS A 293      37.488  26.001  14.590
ATOM   4807  HZ1 LYS A 293      38.448  26.314  14.488
ATOM   4808  HZ2 LYS A 293      37.139  25.810  13.658
ATOM   4809  HZ3 LYS A 293      36.950  26.766  14.985
ATOM   4810  C   LYS A 293      32.659  21.014  17.460
ATOM   4811  O   LYS A 293      32.325  21.572  18.513
ATOM   4812  N   ARG A 294      31.789  20.306  16.726
ATOM   4813  H   ARG A 294      32.143  19.892  15.873
ATOM   4814  CA  ARG A 294      30.377  20.038  17.071
ATOM   4815  HA  ARG A 294      29.913  20.988  17.339
ATOM   4816  CB  ARG A 294      29.688  19.507  15.798
ATOM   4817  HB2 ARG A 294      30.074  20.087  14.960
ATOM   4818  HB3 ARG A 294      29.971  18.472  15.625
ATOM   4819  CG  ARG A 294      28.157  19.618  15.766
ATOM   4820  HG2 ARG A 294      27.705  18.785  16.303
ATOM   4821  HG3 ARG A 294      27.861  20.547  16.248
ATOM   4822  CD  ARG A 294      27.644  19.667  14.316
ATOM   4823  HD2 ARG A 294      26.609  19.993  14.313
ATOM   4824  HD3 ARG A 294      28.227  20.403  13.775
ATOM   4825  NE  ARG A 294      27.701  18.381  13.613
ATOM   4826  HE  ARG A 294      27.374  17.571  14.127
ATOM   4827  CZ  ARG A 294      27.956  18.186  12.322
ATOM   4828  NH1 ARG A 294      28.336  19.122  11.476
ATOM   4829  HH11ARG A 294      28.416  20.095  11.750
ATOM   4830  HH12ARG A 294      28.497  18.845  10.504
ATOM   4831  NH2 ARG A 294      27.805  16.977  11.848
ATOM   4832  HH21ARG A 294      27.433  16.250  12.435
ATOM   4833  HH22ARG A 294      28.043  16.757  10.874
ATOM   4834  C   ARG A 294      30.273  19.090  18.285
ATOM   4835  O   ARG A 294      31.212  18.339  18.548
ATOM   4836  N   ILE A 295      29.201  19.149  19.079
ATOM   4837  H   ILE A 295      28.488  19.834  18.842
ATOM   4838  CA  ILE A 295      29.165  18.540  20.434
ATOM   4839  HA  ILE A 295      30.157  18.691  20.862
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ATOM   4840  CB  ILE A 295      28.182  19.340  21.334
ATOM   4841  HB  ILE A 295      28.337  20.385  21.091
ATOM   4842  CG2 ILE A 295      26.706  19.034  21.032
ATOM   4843  HG21ILE A 295      26.476  17.991  21.248
ATOM   4844  HG22ILE A 295      26.055  19.674  21.627
ATOM   4845  HG23ILE A 295      26.502  19.245  19.986
ATOM   4846  CG1 ILE A 295      28.496  19.211  22.842
ATOM   4847  HG12ILE A 295      28.078  18.283  23.226
ATOM   4848  HG13ILE A 295      29.578  19.195  22.987
ATOM   4849  CD1 ILE A 295      27.938  20.365  23.683
ATOM   4850  HD11ILE A 295      28.342  21.314  23.331
ATOM   4851  HD12ILE A 295      26.852  20.387  23.628
ATOM   4852  HD13ILE A 295      28.227  20.228  24.725
ATOM   4853  C   ILE A 295      28.969  17.007  20.454
ATOM   4854  O   ILE A 295      28.739  16.373  19.426
ATOM   4855  N   GLU A 296      29.079  16.391  21.630
ATOM   4856  H   GLU A 296      29.226  16.961  22.447
ATOM   4857  CA  GLU A 296      28.793  14.972  21.886
ATOM   4858  HA  GLU A 296      28.391  14.509  20.992
ATOM   4859  CB  GLU A 296      30.080  14.234  22.293
ATOM   4860  HB2 GLU A 296      30.461  14.678  23.211
ATOM   4861  HB3 GLU A 296      29.811  13.201  22.503
ATOM   4862  CG  GLU A 296      31.196  14.240  21.223
ATOM   4863  HG2 GLU A 296      30.823  13.750  20.325
ATOM   4864  HG3 GLU A 296      31.464  15.267  20.970
ATOM   4865  CD  GLU A 296      32.468  13.507  21.669
ATOM   4866  OE1 GLU A 296      32.471  12.897  22.759
ATOM   4867  OE2 GLU A 296      33.484  13.491  20.935
ATOM   4868  C   GLU A 296      27.726  14.861  22.990
ATOM   4869  O   GLU A 296      27.661  15.738  23.849
ATOM   4870  N   VAL A 297      26.884  13.819  22.993
ATOM   4871  H   VAL A 297      27.026  13.078  22.300
ATOM   4872  CA  VAL A 297      25.675  13.748  23.852
ATOM   4873  HA  VAL A 297      25.019  14.563  23.539
ATOM   4874  CB  VAL A 297      24.896  12.427  23.635
ATOM   4875  HB  VAL A 297      25.606  11.601  23.623
ATOM   4876  CG1 VAL A 297      23.851  12.145  24.727
ATOM   4877  HG11VAL A 297      24.342  11.889  25.667
ATOM   4878  HG12VAL A 297      23.214  13.018  24.871
ATOM   4879  HG13VAL A 297      23.233  11.304  24.425
ATOM   4880  CG2 VAL A 297      24.148  12.457  22.293
ATOM   4881  HG21VAL A 297      23.628  11.512  22.136
ATOM   4882  HG22VAL A 297      23.422  13.270  22.294
ATOM   4883  HG23VAL A 297      24.842  12.604  21.473
ATOM   4884  C   VAL A 297      25.987  13.943  25.347
ATOM   4885  O   VAL A 297      25.267  14.666  26.032
ATOM   4886  N   GLU A 298      27.070  13.340  25.846
ATOM   4887  H   GLU A 298      27.581  12.722  25.217
ATOM   4888  CA  GLU A 298      27.534  13.476  27.238
ATOM   4889  HA  GLU A 298      26.731  13.177  27.914
ATOM   4890  CB  GLU A 298      28.765  12.589  27.534
ATOM   4891  HB2 GLU A 298      29.667  13.072  27.160
ATOM   4892  HB3 GLU A 298      28.879  12.525  28.617
ATOM   4893  CG  GLU A 298      28.723  11.165  26.972
ATOM   4894  HG2 GLU A 298      29.367  10.524  27.574
ATOM   4895  HG3 GLU A 298      27.706  10.774  27.020
ATOM   4896  CD  GLU A 298      29.243  11.161  25.541
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ATOM   4897  OE1 GLU A 298      30.477  11.178  25.348
ATOM   4898  OE2 GLU A 298      28.422  11.256  24.605
ATOM   4899  C   GLU A 298      27.914  14.927  27.555
ATOM   4900  O   GLU A 298      27.593  15.442  28.620
ATOM   4901  N   GLN A 299      28.562  15.597  26.601
ATOM   4902  H   GLN A 299      28.649  15.153  25.697
ATOM   4903  CA  GLN A 299      29.036  16.974  26.726
ATOM   4904  HA  GLN A 299      29.532  17.100  27.690
ATOM   4905  CB  GLN A 299      30.039  17.266  25.590
ATOM   4906  HB2 GLN A 299      29.546  17.169  24.627
ATOM   4907  HB3 GLN A 299      30.388  18.291  25.677
ATOM   4908  CG  GLN A 299      31.263  16.337  25.613
ATOM   4909  HG2 GLN A 299      31.796  16.475  26.551
ATOM   4910  HG3 GLN A 299      30.935  15.300  25.561
ATOM   4911  CD  GLN A 299      32.246  16.582  24.472
ATOM   4912  OE1 GLN A 299      32.307  17.641  23.858
ATOM   4913  NE2 GLN A 299      33.073  15.620  24.142
ATOM   4914  HE21GLN A 299      33.760  15.810  23.419
ATOM   4915  HE22GLN A 299      32.999  14.706  24.562
ATOM   4916  C   GLN A 299      27.852  17.950  26.692
ATOM   4917  O   GLN A 299      27.857  18.947  27.415
ATOM   4918  N   ALA A 300      26.823  17.638  25.892
ATOM   4919  H   ALA A 300      26.925  16.827  25.287
ATOM   4920  CA  ALA A 300      25.551  18.356  25.831
ATOM   4921  HA  ALA A 300      25.752  19.425  25.771
ATOM   4922  CB  ALA A 300      24.832  17.919  24.546
ATOM   4923  HB1 ALA A 300      24.646  16.845  24.567
ATOM   4924  HB2 ALA A 300      23.876  18.437  24.470
ATOM   4925  HB3 ALA A 300      25.442  18.159  23.675
ATOM   4926  C   ALA A 300      24.654  18.137  27.066
ATOM   4927  O   ALA A 300      23.865  19.015  27.392
ATOM   4928  N   LEU A 301      24.774  17.004  27.768
ATOM   4929  H   LEU A 301      25.407  16.298  27.420
ATOM   4930  CA  LEU A 301      24.053  16.735  29.023
ATOM   4931  HA  LEU A 301      23.078  17.220  28.991
ATOM   4932  CB  LEU A 301      23.877  15.216  29.198
ATOM   4933  HB2 LEU A 301      24.829  14.726  28.981
ATOM   4934  HB3 LEU A 301      23.632  15.013  30.241
ATOM   4935  CG  LEU A 301      22.763  14.614  28.318
ATOM   4936  HG  LEU A 301      22.883  14.955  27.290
ATOM   4937  CD1 LEU A 301      22.875  13.085  28.340
ATOM   4938  HD11LEU A 301      23.850  12.784  27.958
ATOM   4939  HD12LEU A 301      22.761  12.715  29.359
ATOM   4940  HD13LEU A 301      22.102  12.647  27.708
ATOM   4941  CD2 LEU A 301      21.367  15.026  28.817
ATOM   4942  HD21LEU A 301      21.226  16.101  28.713
ATOM   4943  HD22LEU A 301      20.600  14.522  28.231
ATOM   4944  HD23LEU A 301      21.248  14.750  29.865
ATOM   4945  C   LEU A 301      24.770  17.350  30.229
ATOM   4946  O   LEU A 301      24.118  17.880  31.126
ATOM   4947  N   ALA A 302      26.106  17.327  30.234
ATOM   4948  H   ALA A 302      26.583  16.781  29.522
ATOM   4949  CA  ALA A 302      26.921  18.036  31.217
ATOM   4950  HA  ALA A 302      26.582  17.764  32.214
ATOM   4951  CB  ALA A 302      28.373  17.571  31.050
ATOM   4952  HB1 ALA A 302      28.743  17.818  30.054
ATOM   4953  HB2 ALA A 302      29.000  18.054  31.799
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ATOM   4954  HB3 ALA A 302      28.440  16.492  31.189
ATOM   4955  C   ALA A 302      26.805  19.568  31.102
ATOM   4956  O   ALA A 302      27.133  20.272  32.057
ATOM   4957  N   HIE A 303      26.368  20.081  29.946
ATOM   4958  H   HIE A 303      26.098  19.428  29.225
ATOM   4959  CA  HIE A 303      26.224  21.507  29.629
ATOM   4960  HA  HIE A 303      27.223  21.940  29.619
ATOM   4961  CB  HIE A 303      25.650  21.619  28.206
ATOM   4962  HB2 HIE A 303      26.245  21.011  27.525
ATOM   4963  HB3 HIE A 303      24.628  21.240  28.211
ATOM   4964  CG  HIE A 303      25.616  23.021  27.670
ATOM   4965  ND1 HIE A 303      24.644  23.971  27.982
ATOM   4966  CE1 HIE A 303      25.030  25.100  27.370
ATOM   4967  HE1 HIE A 303      24.501  26.044  27.422
ATOM   4968  NE2 HIE A 303      26.172  24.899  26.694
ATOM   4969  HE2 HIE A 303      26.691  25.619  26.198
ATOM   4970  CD2 HIE A 303      26.564  23.593  26.876
ATOM   4971  HD2 HIE A 303      27.459  23.119  26.499
ATOM   4972  C   HIE A 303      25.335  22.279  30.641
ATOM   4973  O   HIE A 303      24.300  21.745  31.063
ATOM   4974  N   PRO A 304      25.678  23.542  30.985
ATOM   4975  CD  PRO A 304      26.913  24.227  30.611
ATOM   4976  HD2 PRO A 304      26.912  24.442  29.545
ATOM   4977  HD3 PRO A 304      27.789  23.633  30.872
ATOM   4978  CG  PRO A 304      26.931  25.545  31.381
ATOM   4979  HG2 PRO A 304      27.414  26.334  30.810
ATOM   4980  HG3 PRO A 304      27.427  25.413  32.342
ATOM   4981  CB  PRO A 304      25.450  25.820  31.607
ATOM   4982  HB2 PRO A 304      25.016  26.245  30.699
ATOM   4983  HB3 PRO A 304      25.288  26.479  32.457
ATOM   4984  CA  PRO A 304      24.898  24.414  31.861
ATOM   4985  HA  PRO A 304      25.116  24.137  32.890
ATOM   4986  C   PRO A 304      23.382  24.384  31.661
ATOM   4987  O   PRO A 304      22.644  24.380  32.639
ATOM   4988  N   TYR A 305      22.892  24.370  30.419
ATOM   4989  H   TYR A 305      23.538  24.364  29.635
ATOM   4990  CA  TYR A 305      21.458  24.440  30.106
ATOM   4991  HA  TYR A 305      21.037  25.283  30.653
ATOM   4992  CB  TYR A 305      21.332  24.713  28.598
ATOM   4993  HB2 TYR A 305      21.992  25.540  28.336
ATOM   4994  HB3 TYR A 305      21.680  23.831  28.055
ATOM   4995  CG  TYR A 305      19.941  25.080  28.119
ATOM   4996  CD1 TYR A 305      19.278  26.193  28.673
ATOM   4997  HD1 TYR A 305      19.750  26.780  29.445
ATOM   4998  CE1 TYR A 305      17.996  26.552  28.219
ATOM   4999  HE1 TYR A 305      17.490  27.402  28.651
ATOM   5000  CZ  TYR A 305      17.377  25.806  27.189
ATOM   5001  OH  TYR A 305      16.145  26.159  26.733
ATOM   5002  HH  TYR A 305      15.798  26.941  27.189
ATOM   5003  CE2 TYR A 305      18.049  24.700  26.622
ATOM   5004  HE2 TYR A 305      17.578  24.138  25.831
ATOM   5005  CD2 TYR A 305      19.326  24.337  27.092
ATOM   5006  HD2 TYR A 305      19.838  23.493  26.655
ATOM   5007  C   TYR A 305      20.648  23.192  30.522
ATOM   5008  O   TYR A 305      19.419  23.266  30.624
ATOM   5009  N   LEU A 306      21.316  22.055  30.761
ATOM   5010  H   LEU A 306      22.324  22.087  30.658
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ATOM   5011  CA  LEU A 306      20.694  20.751  31.042
ATOM   5012  HA  LEU A 306      19.634  20.886  31.245
ATOM   5013  CB  LEU A 306      20.866  19.874  29.791
ATOM   5014  HB2 LEU A 306      21.926  19.855  29.528
ATOM   5015  HB3 LEU A 306      20.572  18.851  30.031
ATOM   5016  CG  LEU A 306      20.045  20.351  28.573
ATOM   5017  HG  LEU A 306      20.252  21.401  28.369
ATOM   5018  CD1 LEU A 306      20.478  19.546  27.348
ATOM   5019  HD11LEU A 306      20.406  18.482  27.565
ATOM   5020  HD12LEU A 306      19.852  19.791  26.495
ATOM   5021  HD13LEU A 306      21.505  19.798  27.092
ATOM   5022  CD2 LEU A 306      18.533  20.180  28.794
ATOM   5023  HD21LEU A 306      17.993  20.474  27.895
ATOM   5024  HD22LEU A 306      18.306  19.139  29.019
ATOM   5025  HD23LEU A 306      18.193  20.811  29.613
ATOM   5026  C   LEU A 306      21.243  20.042  32.292
ATOM   5027  O   LEU A 306      20.646  19.064  32.750
ATOM   5028  N   GLU A 307      22.321  20.558  32.885
ATOM   5029  H   GLU A 307      22.797  21.308  32.399
ATOM   5030  CA  GLU A 307      22.985  20.009  34.070
ATOM   5031  HA  GLU A 307      23.363  19.025  33.793
ATOM   5032  CB  GLU A 307      24.193  20.891  34.415
ATOM   5033  HB2 GLU A 307      24.797  20.371  35.152
ATOM   5034  HB3 GLU A 307      24.804  20.994  33.518
ATOM   5035  CG  GLU A 307      23.857  22.303  34.933
ATOM   5036  HG2 GLU A 307      24.675  22.962  34.654
ATOM   5037  HG3 GLU A 307      22.946  22.667  34.462
ATOM   5038  CD  GLU A 307      23.713  22.406  36.448
ATOM   5039  OE1 GLU A 307      22.843  23.164  36.941
ATOM   5040  OE2 GLU A 307      24.517  21.800  37.184
ATOM   5041  C   GLU A 307      22.078  19.827  35.302
ATOM   5042  O   GLU A 307      22.420  19.058  36.203
ATOM   5043  N   GLN A 308      20.932  20.512  35.349
ATOM   5044  H   GLN A 308      20.742  21.164  34.594
ATOM   5045  CA  GLN A 308      19.922  20.387  36.400
ATOM   5046  HA  GLN A 308      20.446  20.421  37.355
ATOM   5047  CB  GLN A 308      18.957  21.591  36.356
ATOM   5048  HB2 GLN A 308      18.363  21.559  37.266
ATOM   5049  HB3 GLN A 308      19.535  22.514  36.393
ATOM   5050  CG  GLN A 308      17.961  21.671  35.179
ATOM   5051  HG2 GLN A 308      17.475  20.708  35.031
ATOM   5052  HG3 GLN A 308      17.179  22.382  35.450
ATOM   5053  CD  GLN A 308      18.555  22.139  33.852
ATOM   5054  OE1 GLN A 308      19.731  22.456  33.724
ATOM   5055  NE2 GLN A 308      17.762  22.216  32.808
ATOM   5056  HE21GLN A 308      18.175  22.539  31.941
ATOM   5057  HE22GLN A 308      16.767  22.052  32.912
ATOM   5058  C   GLN A 308      19.166  19.046  36.374
ATOM   5059  O   GLN A 308      18.610  18.632  37.394
ATOM   5060  N   TYR A 309      19.157  18.334  35.243
ATOM   5061  H   TYR A 309      19.613  18.725  34.422
ATOM   5062  CA  TYR A 309      18.695  16.942  35.166
ATOM   5063  HA  TYR A 309      17.948  16.747  35.935
ATOM   5064  CB  TYR A 309      18.079  16.666  33.792
ATOM   5065  HB2 TYR A 309      18.829  16.819  33.016
ATOM   5066  HB3 TYR A 309      17.783  15.618  33.761
ATOM   5067  CG  TYR A 309      16.863  17.490  33.473
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ATOM   5068  CD1 TYR A 309      15.680  17.287  34.203
ATOM   5069  HD1 TYR A 309      15.650  16.547  34.988
ATOM   5070  CE1 TYR A 309      14.540  18.051  33.914
ATOM   5071  HE1 TYR A 309      13.638  17.893  34.477
ATOM   5072  CZ  TYR A 309      14.581  19.018  32.888
ATOM   5073  OH  TYR A 309      13.500  19.804  32.643
ATOM   5074  HH  TYR A 309      12.748  19.604  33.212
ATOM   5075  CE2 TYR A 309      15.760  19.189  32.133
ATOM   5076  HE2 TYR A 309      15.782  19.886  31.317
ATOM   5077  CD2 TYR A 309      16.905  18.434  32.432
ATOM   5078  HD2 TYR A 309      17.811  18.572  31.858
ATOM   5079  C   TYR A 309      19.841  15.952  35.354
ATOM   5080  O   TYR A 309      19.736  14.996  36.124
ATOM   5081  N   TYR A 310      20.939  16.181  34.638
ATOM   5082  H   TYR A 310      20.966  17.028  34.083
ATOM   5083  CA  TYR A 310      21.980  15.193  34.384
ATOM   5084  HA  TYR A 310      21.536  14.376  33.817
ATOM   5085  CB  TYR A 310      23.034  15.858  33.497
ATOM   5086  HB2 TYR A 310      22.559  16.153  32.561
ATOM   5087  HB3 TYR A 310      23.374  16.765  33.998
ATOM   5088  CG  TYR A 310      24.246  15.008  33.157
ATOM   5089  CD1 TYR A 310      24.097  13.733  32.581
ATOM   5090  HD1 TYR A 310      23.108  13.338  32.408
ATOM   5091  CE1 TYR A 310      25.233  12.988  32.206
ATOM   5092  HE1 TYR A 310      25.115  12.016  31.747
ATOM   5093  CZ  TYR A 310      26.528  13.520  32.421
ATOM   5094  OH  TYR A 310      27.644  12.836  32.051
ATOM   5095  HH  TYR A 310      27.422  12.044  31.538
ATOM   5096  CE2 TYR A 310      26.671  14.787  33.021
ATOM   5097  HE2 TYR A 310      27.658  15.196  33.180
ATOM   5098  CD2 TYR A 310      25.531  15.523  33.386
ATOM   5099  HD2 TYR A 310      25.641  16.502  33.819
ATOM   5100  C   TYR A 310      22.605  14.598  35.656
ATOM   5101  O   TYR A 310      22.843  15.301  36.643
ATOM   5102  N   ASP A 311      22.899  13.303  35.626
ATOM   5103  H   ASP A 311      22.489  12.743  34.876
ATOM   5104  CA  ASP A 311      23.869  12.641  36.499
ATOM   5105  HA  ASP A 311      24.601  13.371  36.831
ATOM   5106  CB  ASP A 311      23.161  12.093  37.748
ATOM   5107  HB2 ASP A 311      22.515  12.875  38.150
ATOM   5108  HB3 ASP A 311      22.530  11.248  37.477
ATOM   5109  CG  ASP A 311      24.133  11.660  38.848
ATOM   5110  OD1 ASP A 311      23.913  12.065  40.015
ATOM   5111  OD2 ASP A 311      25.113  10.937  38.564
ATOM   5112  C   ASP A 311      24.564  11.527  35.695
ATOM   5113  O   ASP A 311      23.859  10.641  35.199
ATOM   5114  N   PRO A 312      25.910  11.530  35.560
ATOM   5115  CD  PRO A 312      26.841  12.510  36.103
ATOM   5116  HD2 PRO A 312      26.932  12.357  37.178
ATOM   5117  HD3 PRO A 312      26.523  13.530  35.886
ATOM   5118  CG  PRO A 312      28.189  12.247  35.439
ATOM   5119  HG2 PRO A 312      29.015  12.427  36.126
ATOM   5120  HG3 PRO A 312      28.300  12.887  34.569
ATOM   5121  CB  PRO A 312      28.124  10.785  35.003
ATOM   5122  HB2 PRO A 312      28.556  10.156  35.782
ATOM   5123  HB3 PRO A 312      28.658  10.631  34.065
ATOM   5124  CA  PRO A 312      26.630  10.480  34.843
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ATOM   5125  HA  PRO A 312      26.365  10.535  33.787
ATOM   5126  C   PRO A 312      26.316   9.073  35.369
ATOM   5127  O   PRO A 312      26.442   8.106  34.625
ATOM   5128  N   SER A 313      25.893   8.943  36.629
ATOM   5129  H   SER A 313      25.775   9.778  37.206
ATOM   5130  CA  SER A 313      25.636   7.660  37.290
ATOM   5131  HA  SER A 313      26.248   6.886  36.823
ATOM   5132  CB  SER A 313      26.052   7.796  38.761
ATOM   5133  HB2 SER A 313      25.376   8.498  39.253
ATOM   5134  HB3 SER A 313      25.959   6.835  39.260
ATOM   5135  OG  SER A 313      27.390   8.253  38.899
ATOM   5136  HG  SER A 313      27.386   8.859  39.667
ATOM   5137  C   SER A 313      24.171   7.182  37.235
ATOM   5138  O   SER A 313      23.914   6.046  37.642
ATOM   5139  N   ASP A 314      23.234   8.028  36.771
ATOM   5140  H   ASP A 314      23.554   8.946  36.492
ATOM   5141  CA  ASP A 314      21.779   7.759  36.697
ATOM   5142  HA  ASP A 314      21.616   6.720  36.969
ATOM   5143  CB  ASP A 314      21.063   8.643  37.741
ATOM   5144  HB2 ASP A 314      21.706   8.755  38.616
ATOM   5145  HB3 ASP A 314      20.904   9.637  37.321
ATOM   5146  CG  ASP A 314      19.726   8.082  38.245
ATOM   5147  OD1 ASP A 314      18.749   8.863  38.354
ATOM   5148  OD2 ASP A 314      19.650   6.892  38.631
ATOM   5149  C   ASP A 314      21.180   7.940  35.277
ATOM   5150  O   ASP A 314      20.057   7.506  35.006
ATOM   5151  N   GLU A 315      21.939   8.527  34.347
ATOM   5152  H   GLU A 315      22.820   8.926  34.648
ATOM   5153  CA  GLU A 315      21.680   8.481  32.906
ATOM   5154  HA  GLU A 315      20.605   8.535  32.742
ATOM   5155  CB  GLU A 315      22.332   9.698  32.222
ATOM   5156  HB2 GLU A 315      23.146  10.086  32.830
ATOM   5157  HB3 GLU A 315      22.776   9.394  31.274
ATOM   5158  CG  GLU A 315      21.331  10.819  31.920
ATOM   5159  HG2 GLU A 315      21.871  11.685  31.544
ATOM   5160  HG3 GLU A 315      20.673  10.480  31.121
ATOM   5161  CD  GLU A 315      20.473  11.237  33.115
ATOM   5162  OE1 GLU A 315      20.894  12.085  33.927
ATOM   5163  OE2 GLU A 315      19.311  10.779  33.191
ATOM   5164  C   GLU A 315      22.181   7.150  32.306
ATOM   5165  O   GLU A 315      23.143   6.564  32.816
ATOM   5166  N   PRO A 316      21.572   6.670  31.205
ATOM   5167  CD  PRO A 316      20.560   7.354  30.411
ATOM   5168  HD2 PRO A 316      20.944   8.277  29.968
ATOM   5169  HD3 PRO A 316      19.705   7.554  31.046
ATOM   5170  CG  PRO A 316      20.132   6.379  29.314
ATOM   5171  HG2 PRO A 316      20.753   6.519  28.426
ATOM   5172  HG3 PRO A 316      19.073   6.487  29.074
ATOM   5173  CB  PRO A 316      20.438   5.024  29.953
ATOM   5174  HB2 PRO A 316      20.560   4.233  29.211
ATOM   5175  HB3 PRO A 316      19.647   4.762  30.653
ATOM   5176  CA  PRO A 316      21.725   5.300  30.732
ATOM   5177  HA  PRO A 316      21.797   4.623  31.584
ATOM   5178  C   PRO A 316      22.937   5.100  29.815
ATOM   5179  O   PRO A 316      23.417   6.037  29.183
ATOM   5180  N   ILE A 317      23.369   3.844  29.678
ATOM   5181  H   ILE A 317      22.899   3.122  30.216
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ATOM   5182  CA  ILE A 317      24.324   3.357  28.665
ATOM   5183  HA  ILE A 317      24.485   4.127  27.905
ATOM   5184  CB  ILE A 317      25.695   3.001  29.311
ATOM   5185  HB  ILE A 317      25.558   2.149  29.981
ATOM   5186  CG2 ILE A 317      26.715   2.578  28.236
ATOM   5187  HG21ILE A 317      27.696   2.415  28.684
ATOM   5188  HG22ILE A 317      26.419   1.642  27.767
ATOM   5189  HG23ILE A 317      26.797   3.354  27.477
ATOM   5190  CG1 ILE A 317      26.312   4.172  30.115
ATOM   5191  HG12ILE A 317      27.399   4.144  30.049
ATOM   5192  HG13ILE A 317      25.987   5.121  29.694
ATOM   5193  CD1 ILE A 317      25.968   4.122  31.607
ATOM   5194  HD11ILE A 317      26.443   4.956  32.119
ATOM   5195  HD12ILE A 317      24.894   4.185  31.769
ATOM   5196  HD13ILE A 317      26.349   3.193  32.030
ATOM   5197  C   ILE A 317      23.687   2.123  27.998
ATOM   5198  O   ILE A 317      22.890   1.432  28.637
ATOM   5199  N   ALA A 318      24.018   1.804  26.745
ATOM   5200  H   ALA A 318      24.640   2.419  26.231
ATOM   5201  CA  ALA A 318      23.605   0.555  26.096
ATOM   5202  HA  ALA A 318      22.521   0.557  25.988
ATOM   5203  CB  ALA A 318      24.237   0.513  24.709
ATOM   5204  HB1 ALA A 318      23.952  -0.400  24.185
ATOM   5205  HB2 ALA A 318      23.897   1.373  24.142
ATOM   5206  HB3 ALA A 318      25.324   0.552  24.795
ATOM   5207  C   ALA A 318      24.013  -0.694  26.895
ATOM   5208  O   ALA A 318      25.153  -0.792  27.344
ATOM   5209  N   GLU A 319      23.121  -1.681  27.018
ATOM   5210  H   GLU A 319      22.195  -1.543  26.646
ATOM   5211  CA  GLU A 319      23.368  -2.847  27.876
ATOM   5212  HA  GLU A 319      23.831  -2.478  28.792
ATOM   5213  CB  GLU A 319      22.046  -3.499  28.284
ATOM   5214  HB2 GLU A 319      22.268  -4.194  29.087
ATOM   5215  HB3 GLU A 319      21.400  -2.718  28.681
ATOM   5216  CG  GLU A 319      21.276  -4.272  27.205
ATOM   5217  HG2 GLU A 319      20.877  -3.580  26.464
ATOM   5218  HG3 GLU A 319      21.930  -4.987  26.705
ATOM   5219  CD  GLU A 319      20.132  -5.033  27.867
ATOM   5220  OE1 GLU A 319      19.166  -4.386  28.329
ATOM   5221  OE2 GLU A 319      20.217  -6.268  28.029
ATOM   5222  C   GLU A 319      24.331  -3.891  27.290
ATOM   5223  O   GLU A 319      24.963  -4.632  28.046
ATOM   5224  N   ALA A 320      24.455  -3.957  25.964
ATOM   5225  H   ALA A 320      23.902  -3.325  25.405
ATOM   5226  CA  ALA A 320      25.348  -4.853  25.228
ATOM   5227  HA  ALA A 320      26.332  -4.820  25.699
ATOM   5228  CB  ALA A 320      24.808  -6.293  25.296
ATOM   5229  HB1 ALA A 320      24.644  -6.593  26.329
ATOM   5230  HB2 ALA A 320      23.858  -6.365  24.764
ATOM   5231  HB3 ALA A 320      25.520  -6.979  24.834
ATOM   5232  C   ALA A 320      25.468  -4.391  23.760
ATOM   5233  O   ALA A 320      24.453  -3.941  23.211
ATOM   5234  N   PRO A 321      26.646  -4.523  23.120
ATOM   5235  CD  PRO A 321      27.912  -4.960  23.699
ATOM   5236  HD2 PRO A 321      27.824  -5.941  24.170
ATOM   5237  HD3 PRO A 321      28.249  -4.214  24.420
ATOM   5238  CG  PRO A 321      28.910  -5.021  22.541
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ATOM   5239  HG2 PRO A 321      28.916  -6.020  22.110
ATOM   5240  HG3 PRO A 321      29.916  -4.737  22.846
ATOM   5241  CB  PRO A 321      28.337  -4.037  21.525
ATOM   5242  HB2 PRO A 321      28.648  -4.272  20.506
ATOM   5243  HB3 PRO A 321      28.640  -3.023  21.782
ATOM   5244  CA  PRO A 321      26.826  -4.177  21.717
ATOM   5245  HA  PRO A 321      26.343  -3.222  21.508
ATOM   5246  C   PRO A 321      26.251  -5.244  20.780
ATOM   5247  O   PRO A 321      26.063  -6.405  21.150
ATOM   5248  N   PHE A 322      26.038  -4.841  19.527
ATOM   5249  H   PHE A 322      26.240  -3.870  19.313
ATOM   5250  CA  PHE A 322      25.723  -5.728  18.411
ATOM   5251  HA  PHE A 322      24.997  -6.469  18.742
ATOM   5252  CB  PHE A 322      25.101  -4.920  17.264
ATOM   5253  HB2 PHE A 322      25.780  -4.115  16.986
ATOM   5254  HB3 PHE A 322      25.020  -5.573  16.398
ATOM   5255  CG  PHE A 322      23.726  -4.340  17.533
ATOM   5256  CD1 PHE A 322      23.589  -3.000  17.940
ATOM   5257  HD1 PHE A 322      24.464  -2.389  18.097
ATOM   5258  CE1 PHE A 322      22.311  -2.445  18.125
ATOM   5259  HE1 PHE A 322      22.217  -1.411  18.422
ATOM   5260  CZ  PHE A 322      21.162  -3.225  17.902
ATOM   5261  HZ  PHE A 322      20.180  -2.792  18.034
ATOM   5262  CE2 PHE A 322      21.297  -4.561  17.485
ATOM   5263  HE2 PHE A 322      20.419  -5.158  17.283
ATOM   5264  CD2 PHE A 322      22.575  -5.121  17.309
ATOM   5265  HD2 PHE A 322      22.665  -6.144  16.972
ATOM   5266  C   PHE A 322      26.969  -6.475  17.910
ATOM   5267  O   PHE A 322      28.088  -5.949  17.924
ATOM   5268  N   LYS A 323      26.748  -7.695  17.410
ATOM   5269  H   LYS A 323      25.800  -8.042  17.410
ATOM   5270  CA  LYS A 323      27.760  -8.533  16.757
ATOM   5271  HA  LYS A 323      28.728  -8.317  17.202
ATOM   5272  CB  LYS A 323      27.440 -10.017  17.032
ATOM   5273  HB2 LYS A 323      26.478 -10.256  16.579
ATOM   5274  HB3 LYS A 323      28.204 -10.639  16.563
ATOM   5275  CG  LYS A 323      27.379 -10.374  18.529
ATOM   5276  HG2 LYS A 323      28.338 -10.144  18.998
ATOM   5277  HG3 LYS A 323      26.590  -9.796  19.014
ATOM   5278  CD  LYS A 323      27.075 -11.871  18.693
ATOM   5279  HD2 LYS A 323      26.144 -12.114  18.180
ATOM   5280  HD3 LYS A 323      27.872 -12.440  18.215
ATOM   5281  CE  LYS A 323      26.978 -12.313  20.159
ATOM   5282  HE2 LYS A 323      26.938 -13.405  20.186
ATOM   5283  HE3 LYS A 323      27.883 -11.998  20.687
ATOM   5284  NZ  LYS A 323      25.780 -11.761  20.836
ATOM   5285  HZ1 LYS A 323      25.685 -12.141  21.770
ATOM   5286  HZ2 LYS A 323      25.841 -10.750  20.942
ATOM   5287  HZ3 LYS A 323      24.918 -11.945  20.334
ATOM   5288  C   LYS A 323      27.883  -8.225  15.246
ATOM   5289  O   LYS A 323      27.174  -7.362  14.710
ATOM   5290  N   PHE A 324      28.793  -8.924  14.550
ATOM   5291  H   PHE A 324      29.342  -9.605  15.051
ATOM   5292  CA  PHE A 324      29.116  -8.736  13.123
ATOM   5293  HA  PHE A 324      29.582  -7.759  13.013
ATOM   5294  CB  PHE A 324      30.140  -9.807  12.701
ATOM   5295  HB2 PHE A 324      30.546  -9.516  11.729
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ATOM   5296  HB3 PHE A 324      30.972  -9.801  13.405
ATOM   5297  CG  PHE A 324      29.587 -11.225  12.589
ATOM   5298  CD1 PHE A 324      29.254 -11.755  11.326
ATOM   5299  HD1 PHE A 324      29.402 -11.164  10.433
ATOM   5300  CE1 PHE A 324      28.739 -13.060  11.215
ATOM   5301  HE1 PHE A 324      28.484 -13.460  10.244
ATOM   5302  CZ  PHE A 324      28.554 -13.845  12.366
ATOM   5303  HZ  PHE A 324      28.163 -14.849  12.282
ATOM   5304  CE2 PHE A 324      28.871 -13.319  13.630
ATOM   5305  HE2 PHE A 324      28.723 -13.920  14.517
ATOM   5306  CD2 PHE A 324      29.381 -12.013  13.740
ATOM   5307  HD2 PHE A 324      29.618 -11.626  14.717
ATOM   5308  C   PHE A 324      27.903  -8.776  12.174
ATOM   5309  O   PHE A 324      27.866  -8.064  11.170
ATOM   5310  N   ASP A 325      26.902  -9.591  12.507
ATOM   5311  H   ASP A 325      26.959 -10.091  13.385
ATOM   5312  CA  ASP A 325      25.711  -9.851  11.703
ATOM   5313  HA  ASP A 325      26.033 -10.158  10.709
ATOM   5314  CB  ASP A 325      24.939 -11.025  12.325
ATOM   5315  HB2 ASP A 325      24.183 -11.360  11.612
ATOM   5316  HB3 ASP A 325      25.617 -11.863  12.500
ATOM   5317  CG  ASP A 325      24.253 -10.638  13.637
ATOM   5318  OD1 ASP A 325      22.999 -10.681  13.672
ATOM   5319  OD2 ASP A 325      24.970 -10.243  14.578
ATOM   5320  C   ASP A 325      24.805  -8.619  11.555
ATOM   5321  O   ASP A 325      24.055  -8.537  10.591
ATOM   5322  N   MET A 326      24.873  -7.647  12.471
ATOM   5323  H   MET A 326      25.461  -7.806  13.285
ATOM   5324  CA  MET A 326      24.093  -6.404  12.372
ATOM   5325  HA  MET A 326      23.069  -6.672  12.112
ATOM   5326  CB  MET A 326      24.076  -5.731  13.750
ATOM   5327  HB2 MET A 326      23.788  -6.473  14.498
ATOM   5328  HB3 MET A 326      25.083  -5.385  13.986
ATOM   5329  CG  MET A 326      23.100  -4.551  13.853
ATOM   5330  HG2 MET A 326      23.286  -4.056  14.805
ATOM   5331  HG3 MET A 326      23.310  -3.820  13.074
ATOM   5332  SD  MET A 326      21.337  -4.980  13.822
ATOM   5333  CE  MET A 326      20.936  -4.681  12.082
ATOM   5334  HE1 MET A 326      21.266  -3.687  11.785
ATOM   5335  HE2 MET A 326      21.419  -5.421  11.447
ATOM   5336  HE3 MET A 326      19.859  -4.750  11.936
ATOM   5337  C   MET A 326      24.615  -5.464  11.264
ATOM   5338  O   MET A 326      23.860  -4.652  10.728
ATOM   5339  N   GLU A 327      25.886  -5.597  10.874
ATOM   5340  H   GLU A 327      26.438  -6.313  11.329
ATOM   5341  CA  GLU A 327      26.495  -4.890   9.737
ATOM   5342  HA  GLU A 327      25.929  -3.979   9.540
ATOM   5343  CB  GLU A 327      27.927  -4.479  10.134
ATOM   5344  HB2 GLU A 327      27.933  -4.182  11.182
ATOM   5345  HB3 GLU A 327      28.589  -5.336  10.017
ATOM   5346  CG  GLU A 327      28.482  -3.290   9.342
ATOM   5347  HG2 GLU A 327      28.442  -3.495   8.277
ATOM   5348  HG3 GLU A 327      27.873  -2.409   9.541
ATOM   5349  CD  GLU A 327      29.932  -3.003   9.723
ATOM   5350  OE1 GLU A 327      30.847  -3.718   9.249
ATOM   5351  OE2 GLU A 327      30.195  -2.095  10.541
ATOM   5352  C   GLU A 327      26.461  -5.754   8.451
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ATOM   5353  O   GLU A 327      26.997  -5.342   7.420
ATOM   5354  N   LEU A 328      25.851  -6.949   8.492
ATOM   5355  H   LEU A 328      25.375  -7.211   9.346
ATOM   5356  CA  LEU A 328      25.797  -7.923   7.395
ATOM   5357  HA  LEU A 328      26.555  -7.665   6.660
ATOM   5358  CB  LEU A 328      26.135  -9.311   7.989
ATOM   5359  HB2 LEU A 328      27.016  -9.222   8.626
ATOM   5360  HB3 LEU A 328      25.306  -9.619   8.625
ATOM   5361  CG  LEU A 328      26.396 -10.438   6.973
ATOM   5362  HG  LEU A 328      25.558 -10.499   6.279
ATOM   5363  CD1 LEU A 328      27.690 -10.206   6.182
ATOM   5364  HD11LEU A 328      27.610  -9.292   5.599
ATOM   5365  HD12LEU A 328      28.539 -10.127   6.863
ATOM   5366  HD13LEU A 328      27.860 -11.036   5.495
ATOM   5367  CD2 LEU A 328      26.510 -11.771   7.727
ATOM   5368  HD21LEU A 328      26.681 -12.585   7.021
ATOM   5369  HD22LEU A 328      27.340 -11.730   8.434
ATOM   5370  HD23LEU A 328      25.587 -11.969   8.274
ATOM   5371  C   LEU A 328      24.415  -7.889   6.708
ATOM   5372  O   LEU A 328      23.428  -8.361   7.272
ATOM   5373  N   ASP A 329      24.345  -7.338   5.492
ATOM   5374  H   ASP A 329      25.219  -6.998   5.103
ATOM   5375  CA  ASP A 329      23.109  -7.133   4.706
ATOM   5376  HA  ASP A 329      22.553  -8.070   4.758
ATOM   5377  CB  ASP A 329      22.211  -6.073   5.377
ATOM   5378  HB2 ASP A 329      21.274  -5.998   4.825
ATOM   5379  HB3 ASP A 329      21.951  -6.411   6.379
ATOM   5380  CG  ASP A 329      22.836  -4.682   5.471
ATOM   5381  OD1 ASP A 329      23.325  -4.147   4.454
ATOM   5382  OD2 ASP A 329      22.783  -4.050   6.552
ATOM   5383  C   ASP A 329      23.304  -6.873   3.187
ATOM   5384  O   ASP A 329      22.337  -6.567   2.483
ATOM   5385  N   ASP A 330      24.513  -7.068   2.645
ATOM   5386  H   ASP A 330      25.271  -7.288   3.282
ATOM   5387  CA  ASP A 330      24.814  -7.182   1.198
ATOM   5388  HA  ASP A 330      24.220  -6.440   0.664
ATOM   5389  CB  ASP A 330      26.294  -6.840   0.946
ATOM   5390  HB2 ASP A 330      26.481  -5.826   1.295
ATOM   5391  HB3 ASP A 330      26.916  -7.508   1.535
ATOM   5392  CG  ASP A 330      26.715  -6.920  -0.527
ATOM   5393  OD1 ASP A 330      26.096  -6.250  -1.380
ATOM   5394  OD2 ASP A 330      27.701  -7.631  -0.837
ATOM   5395  C   ASP A 330      24.389  -8.571   0.662
ATOM   5396  O   ASP A 330      25.134  -9.297  -0.003
ATOM   5397  N   LEU A 331      23.170  -8.960   1.035
ATOM   5398  H   LEU A 331      22.652  -8.292   1.593
ATOM   5399  CA  LEU A 331      22.479 -10.199   0.697
ATOM   5400  HA  LEU A 331      23.199 -10.932   0.328
ATOM   5401  CB  LEU A 331      21.805 -10.739   1.977
ATOM   5402  HB2 LEU A 331      21.392  -9.900   2.539
ATOM   5403  HB3 LEU A 331      20.960 -11.363   1.684
ATOM   5404  CG  LEU A 331      22.692 -11.585   2.917
ATOM   5405  HG  LEU A 331      22.942 -12.516   2.407
ATOM   5406  CD1 LEU A 331      24.002 -10.909   3.352
ATOM   5407  HD11LEU A 331      23.793  -9.937   3.800
ATOM   5408  HD12LEU A 331      24.516 -11.534   4.083
ATOM   5409  HD13LEU A 331      24.663 -10.783   2.494
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ATOM   5410  CD2 LEU A 331      21.872 -11.925   4.171
ATOM   5411  HD21LEU A 331      21.634 -11.008   4.711
ATOM   5412  HD22LEU A 331      20.946 -12.429   3.890
ATOM   5413  HD23LEU A 331      22.446 -12.586   4.823
ATOM   5414  C   LEU A 331      21.421  -9.911  -0.393
ATOM   5415  O   LEU A 331      20.883  -8.795  -0.424
ATOM   5416  N   PRO A 332      21.099 -10.891  -1.262
ATOM   5417  CD  PRO A 332      21.749 -12.192  -1.379
ATOM   5418  HD2 PRO A 332      21.752 -12.725  -0.428
ATOM   5419  HD3 PRO A 332      22.772 -12.057  -1.735
ATOM   5420  CG  PRO A 332      20.950 -12.971  -2.423
ATOM   5421  HG2 PRO A 332      20.140 -13.516  -1.943
ATOM   5422  HG3 PRO A 332      21.583 -13.646  -2.996
ATOM   5423  CB  PRO A 332      20.365 -11.867  -3.298
ATOM   5424  HB2 PRO A 332      19.475 -12.199  -3.832
ATOM   5425  HB3 PRO A 332      21.123 -11.523  -4.003
ATOM   5426  CA  PRO A 332      20.066 -10.758  -2.286
ATOM   5427  HA  PRO A 332      20.168  -9.796  -2.786
ATOM   5428  C   PRO A 332      18.649 -10.867  -1.697
ATOM   5429  O   PRO A 332      18.458 -11.259  -0.543
ATOM   5430  N   LYS A 333      17.639 -10.525  -2.509
ATOM   5431  H   LYS A 333      17.877 -10.237  -3.450
ATOM   5432  CA  LYS A 333      16.255 -10.297  -2.064
ATOM   5433  HA  LYS A 333      16.274  -9.462  -1.361
ATOM   5434  CB  LYS A 333      15.424  -9.864  -3.291
ATOM   5435  HB2 LYS A 333      15.987  -9.100  -3.831
ATOM   5436  HB3 LYS A 333      15.279 -10.715  -3.960
ATOM   5437  CG  LYS A 333      14.060  -9.267  -2.898
ATOM   5438  HG2 LYS A 333      13.421 -10.039  -2.468
ATOM   5439  HG3 LYS A 333      14.232  -8.504  -2.137
ATOM   5440  CD  LYS A 333      13.345  -8.593  -4.082
ATOM   5441  HD2 LYS A 333      12.590  -7.914  -3.689
ATOM   5442  HD3 LYS A 333      14.066  -7.975  -4.620
ATOM   5443  CE  LYS A 333      12.676  -9.536  -5.096
ATOM   5444  HE2 LYS A 333      12.437  -8.931  -5.976
ATOM   5445  HE3 LYS A 333      13.375 -10.312  -5.414
ATOM   5446  NZ  LYS A 333      11.409 -10.129  -4.601
ATOM   5447  HZ1 LYS A 333      11.557 -10.937  -4.001
ATOM   5448  HZ2 LYS A 333      10.882  -9.438  -4.074
ATOM   5449  HZ3 LYS A 333      10.838 -10.430  -5.378
ATOM   5450  C   LYS A 333      15.613 -11.471  -1.295
ATOM   5451  O   LYS A 333      14.988 -11.231  -0.263
ATOM   5452  N   GLU A 334      15.769 -12.721  -1.750
ATOM   5453  H   GLU A 334      16.305 -12.868  -2.591
ATOM   5454  CA  GLU A 334      15.169 -13.879  -1.063
ATOM   5455  HA  GLU A 334      14.131 -13.622  -0.845
ATOM   5456  CB  GLU A 334      15.143 -15.117  -1.982
ATOM   5457  HB2 GLU A 334      14.715 -14.828  -2.943
ATOM   5458  HB3 GLU A 334      16.158 -15.482  -2.145
ATOM   5459  CG  GLU A 334      14.279 -16.241  -1.386
ATOM   5460  HG2 GLU A 334      14.773 -16.651  -0.504
ATOM   5461  HG3 GLU A 334      13.321 -15.827  -1.069
ATOM   5462  CD  GLU A 334      14.011 -17.368  -2.386
ATOM   5463  OE1 GLU A 334      14.715 -18.406  -2.343
ATOM   5464  OE2 GLU A 334      13.049 -17.250  -3.179
ATOM   5465  C   GLU A 334      15.858 -14.170   0.285
ATOM   5466  O   GLU A 334      15.188 -14.467   1.269
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ATOM   5467  N   LYS A 335      17.180 -13.998   0.387
ATOM   5468  H   LYS A 335      17.701 -13.710  -0.427
ATOM   5469  CA  LYS A 335      17.914 -14.188   1.650
ATOM   5470  HA  LYS A 335      17.645 -15.153   2.083
ATOM   5471  CB  LYS A 335      19.428 -14.188   1.369
ATOM   5472  HB2 LYS A 335      19.714 -13.212   0.975
ATOM   5473  HB3 LYS A 335      19.962 -14.334   2.310
ATOM   5474  CG  LYS A 335      19.887 -15.267   0.372
ATOM   5475  HG2 LYS A 335      19.387 -15.105  -0.582
ATOM   5476  HG3 LYS A 335      20.957 -15.133   0.210
ATOM   5477  CD  LYS A 335      19.623 -16.715   0.808
ATOM   5478  HD2 LYS A 335      20.074 -16.895   1.785
ATOM   5479  HD3 LYS A 335      18.550 -16.896   0.871
ATOM   5480  CE  LYS A 335      20.243 -17.640  -0.245
ATOM   5481  HE2 LYS A 335      19.778 -17.438  -1.214
ATOM   5482  HE3 LYS A 335      21.307 -17.407  -0.334
ATOM   5483  NZ  LYS A 335      20.083 -19.068   0.099
ATOM   5484  HZ1 LYS A 335      20.436 -19.674  -0.635
ATOM   5485  HZ2 LYS A 335      20.583 -19.313   0.945
ATOM   5486  HZ3 LYS A 335      19.116 -19.319   0.270
ATOM   5487  C   LYS A 335      17.521 -13.132   2.701
ATOM   5488  O   LYS A 335      17.288 -13.462   3.862
ATOM   5489  N   LEU A 336      17.347 -11.865   2.301
ATOM   5490  H   LEU A 336      17.548 -11.640   1.335
ATOM   5491  CA  LEU A 336      16.779 -10.821   3.172
ATOM   5492  HA  LEU A 336      17.358 -10.774   4.095
ATOM   5493  CB  LEU A 336      16.853  -9.456   2.459
ATOM   5494  HB2 LEU A 336      16.361  -9.548   1.489
ATOM   5495  HB3 LEU A 336      16.291  -8.729   3.050
ATOM   5496  CG  LEU A 336      18.281  -8.904   2.255
ATOM   5497  HG  LEU A 336      18.900  -9.659   1.770
ATOM   5498  CD1 LEU A 336      18.209  -7.683   1.331
ATOM   5499  HD11LEU A 336      17.537  -6.936   1.750
ATOM   5500  HD12LEU A 336      19.200  -7.247   1.210
ATOM   5501  HD13LEU A 336      17.838  -7.985   0.353
ATOM   5502  CD2 LEU A 336      18.939  -8.504   3.586
ATOM   5503  HD21LEU A 336      19.094  -9.383   4.209
ATOM   5504  HD22LEU A 336      19.910  -8.047   3.397
ATOM   5505  HD23LEU A 336      18.311  -7.791   4.121
ATOM   5506  C   LEU A 336      15.338 -11.162   3.603
ATOM   5507  O   LEU A 336      14.990 -11.004   4.776
ATOM   5508  N   LYS A 337      14.520 -11.717   2.697
ATOM   5509  H   LYS A 337      14.832 -11.787   1.735
ATOM   5510  CA  LYS A 337      13.195 -12.254   3.041
ATOM   5511  HA  LYS A 337      12.638 -11.462   3.546
ATOM   5512  CB  LYS A 337      12.422 -12.616   1.750
ATOM   5513  HB2 LYS A 337      12.376 -11.731   1.112
ATOM   5514  HB3 LYS A 337      12.952 -13.396   1.208
ATOM   5515  CG  LYS A 337      10.991 -13.102   2.035
ATOM   5516  HG2 LYS A 337      11.041 -14.018   2.620
ATOM   5517  HG3 LYS A 337      10.479 -12.350   2.631
ATOM   5518  CD  LYS A 337      10.173 -13.370   0.763
ATOM   5519  HD2 LYS A 337      10.012 -12.434   0.228
ATOM   5520  HD3 LYS A 337      10.711 -14.069   0.119
ATOM   5521  CE  LYS A 337       8.830 -13.976   1.184
ATOM   5522  HE2 LYS A 337       9.021 -14.912   1.706
ATOM   5523  HE3 LYS A 337       8.335 -13.302   1.888
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ATOM   5524  NZ  LYS A 337       7.909 -14.247   0.056
ATOM   5525  HZ1 LYS A 337       8.388 -14.371  -0.831
ATOM   5526  HZ2 LYS A 337       7.376 -15.088   0.260
ATOM   5527  HZ3 LYS A 337       7.238 -13.494  -0.028
ATOM   5528  C   LYS A 337      13.291 -13.415   4.056
ATOM   5529  O   LYS A 337      12.466 -13.452   4.968
ATOM   5530  N   GLU A 338      14.285 -14.310   3.960
ATOM   5531  H   GLU A 338      14.875 -14.279   3.133
ATOM   5532  CA  GLU A 338      14.536 -15.352   4.971
ATOM   5533  HA  GLU A 338      13.611 -15.911   5.113
ATOM   5534  CB  GLU A 338      15.621 -16.354   4.537
ATOM   5535  HB2 GLU A 338      16.525 -15.835   4.231
ATOM   5536  HB3 GLU A 338      15.871 -16.966   5.405
ATOM   5537  CG  GLU A 338      15.168 -17.289   3.413
ATOM   5538  HG2 GLU A 338      14.151 -17.616   3.607
ATOM   5539  HG3 GLU A 338      15.200 -16.772   2.457
ATOM   5540  CD  GLU A 338      16.040 -18.532   3.354
ATOM   5541  OE1 GLU A 338      15.707 -19.533   4.026
ATOM   5542  OE2 GLU A 338      17.099 -18.527   2.692
ATOM   5543  C   GLU A 338      14.911 -14.774   6.344
ATOM   5544  O   GLU A 338      14.395 -15.259   7.351
ATOM   5545  N   LEU A 339      15.741 -13.721   6.417
ATOM   5546  H   LEU A 339      16.195 -13.393   5.571
ATOM   5547  CA  LEU A 339      16.067 -13.080   7.701
ATOM   5548  HA  LEU A 339      16.466 -13.842   8.371
ATOM   5549  CB  LEU A 339      17.122 -11.966   7.544
ATOM   5550  HB2 LEU A 339      16.702 -11.165   6.936
ATOM   5551  HB3 LEU A 339      17.297 -11.565   8.544
ATOM   5552  CG  LEU A 339      18.492 -12.355   6.951
ATOM   5553  HG  LEU A 339      18.378 -12.557   5.888
ATOM   5554  CD1 LEU A 339      19.445 -11.161   7.108
ATOM   5555  HD11LEU A 339      19.572 -10.909   8.163
ATOM   5556  HD12LEU A 339      20.419 -11.406   6.689
ATOM   5557  HD13LEU A 339      19.046 -10.295   6.581
ATOM   5558  CD2 LEU A 339      19.115 -13.592   7.611
ATOM   5559  HD21LEU A 339      19.224 -13.431   8.684
ATOM   5560  HD22LEU A 339      18.491 -14.466   7.431
ATOM   5561  HD23LEU A 339      20.096 -13.786   7.178
ATOM   5562  C   LEU A 339      14.806 -12.536   8.387
ATOM   5563  O   LEU A 339      14.564 -12.836   9.555
ATOM   5564  N   ILE A 340      13.961 -11.795   7.657
ATOM   5565  H   ILE A 340      14.222 -11.601   6.696
ATOM   5566  CA  ILE A 340      12.664 -11.309   8.180
ATOM   5567  HA  ILE A 340      12.847 -10.755   9.100
ATOM   5568  CB  ILE A 340      11.978 -10.347   7.172
ATOM   5569  HB  ILE A 340      11.892 -10.856   6.212
ATOM   5570  CG2 ILE A 340      10.555  -9.973   7.649
ATOM   5571  HG21ILE A 340       9.926 -10.861   7.719
ATOM   5572  HG22ILE A 340      10.604  -9.490   8.626
ATOM   5573  HG23ILE A 340      10.070  -9.299   6.944
ATOM   5574  CG1 ILE A 340      12.841  -9.073   6.981
ATOM   5575  HG12ILE A 340      12.932  -8.557   7.939
ATOM   5576  HG13ILE A 340      13.839  -9.368   6.655
ATOM   5577  CD1 ILE A 340      12.318  -8.073   5.940
ATOM   5578  HD11ILE A 340      13.032  -7.258   5.832
ATOM   5579  HD12ILE A 340      12.212  -8.564   4.975
ATOM   5580  HD13ILE A 340      11.365  -7.646   6.248
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ATOM   5581  C   ILE A 340      11.763 -12.485   8.595
ATOM   5582  O   ILE A 340      11.155 -12.443   9.666
ATOM   5583  N   PHE A 341      11.709 -13.555   7.798
ATOM   5584  H   PHE A 341      12.260 -13.552   6.947
ATOM   5585  CA  PHE A 341      10.915 -14.746   8.095
ATOM   5586  HA  PHE A 341       9.872 -14.446   8.215
ATOM   5587  CB  PHE A 341      11.008 -15.719   6.912
ATOM   5588  HB2 PHE A 341      10.745 -15.204   5.991
ATOM   5589  HB3 PHE A 341      12.036 -16.060   6.806
ATOM   5590  CG  PHE A 341      10.109 -16.926   7.050
ATOM   5591  CD1 PHE A 341       8.735 -16.812   6.772
ATOM   5592  HD1 PHE A 341       8.319 -15.864   6.467
ATOM   5593  CE1 PHE A 341       7.897 -17.929   6.905
ATOM   5594  HE1 PHE A 341       6.839 -17.833   6.709
ATOM   5595  CZ  PHE A 341       8.433 -19.164   7.310
ATOM   5596  HZ  PHE A 341       7.793 -20.027   7.415
ATOM   5597  CE2 PHE A 341       9.803 -19.276   7.599
ATOM   5598  HE2 PHE A 341      10.214 -20.221   7.921
ATOM   5599  CD2 PHE A 341      10.642 -18.157   7.472
ATOM   5600  HD2 PHE A 341      11.695 -18.248   7.702
ATOM   5601  C   PHE A 341      11.358 -15.425   9.399
ATOM   5602  O   PHE A 341      10.511 -15.782  10.218
ATOM   5603  N   GLU A 342      12.667 -15.585   9.608
ATOM   5604  H   GLU A 342      13.317 -15.295   8.878
ATOM   5605  CA  GLU A 342      13.204 -16.250  10.793
ATOM   5606  HA  GLU A 342      12.584 -17.127  10.987
ATOM   5607  CB  GLU A 342      14.629 -16.746  10.508
ATOM   5608  HB2 GLU A 342      14.685 -17.117   9.484
ATOM   5609  HB3 GLU A 342      15.333 -15.919  10.613
ATOM   5610  CG  GLU A 342      15.012 -17.895  11.447
ATOM   5611  HG2 GLU A 342      14.953 -17.549  12.476
ATOM   5612  HG3 GLU A 342      14.317 -18.726  11.311
ATOM   5613  CD  GLU A 342      16.433 -18.370  11.180
ATOM   5614  OE1 GLU A 342      16.639 -19.412  10.514
ATOM   5615  OE2 GLU A 342      17.384 -17.659  11.575
ATOM   5616  C   GLU A 342      13.131 -15.352  12.039
ATOM   5617  O   GLU A 342      12.766 -15.838  13.107
ATOM   5618  N   GLU A 343      13.378 -14.041  11.921
ATOM   5619  H   GLU A 343      13.718 -13.680  11.032
ATOM   5620  CA  GLU A 343      13.190 -13.094  13.032
ATOM   5621  HA  GLU A 343      13.787 -13.431  13.879
ATOM   5622  CB  GLU A 343      13.665 -11.686  12.631
ATOM   5623  HB2 GLU A 343      13.223 -11.428  11.667
ATOM   5624  HB3 GLU A 343      13.295 -10.962  13.360
ATOM   5625  CG  GLU A 343      15.194 -11.541  12.533
ATOM   5626  HG2 GLU A 343      15.589 -12.305  11.864
ATOM   5627  HG3 GLU A 343      15.412 -10.566  12.094
ATOM   5628  CD  GLU A 343      15.936 -11.633  13.869
ATOM   5629  OE1 GLU A 343      15.307 -11.626  14.953
ATOM   5630  OE2 GLU A 343      17.184 -11.698  13.849
ATOM   5631  C   GLU A 343      11.723 -13.037  13.503
ATOM   5632  O   GLU A 343      11.461 -12.925  14.702
ATOM   5633  N   THR A 344      10.752 -13.171  12.590
ATOM   5634  H   THR A 344      11.024 -13.252  11.616
ATOM   5635  CA  THR A 344       9.311 -13.151  12.914
ATOM   5636  HA  THR A 344       9.169 -12.489  13.768
ATOM   5637  CB  THR A 344       8.494 -12.583  11.751
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ATOM   5638  HB  THR A 344       7.433 -12.688  11.981
ATOM   5639  CG2 THR A 344       8.783 -11.100  11.538
ATOM   5640  HG21THR A 344       9.817 -10.939  11.239
ATOM   5641  HG22THR A 344       8.116 -10.706  10.771
ATOM   5642  HG23THR A 344       8.608 -10.572  12.473
ATOM   5643  OG1 THR A 344       8.787 -13.291  10.570
ATOM   5644  HG1 THR A 344       9.626 -12.931  10.218
ATOM   5645  C   THR A 344       8.729 -14.495  13.345
ATOM   5646  O   THR A 344       7.577 -14.529  13.780
ATOM   5647  N   ALA A 345       9.477 -15.599  13.254
ATOM   5648  H   ALA A 345      10.431 -15.513  12.923
ATOM   5649  CA  ALA A 345       8.961 -16.940  13.548
ATOM   5650  HA  ALA A 345       8.082 -17.120  12.931
ATOM   5651  CB  ALA A 345      10.034 -17.966  13.163
ATOM   5652  HB1 ALA A 345       9.659 -18.974  13.349
ATOM   5653  HB2 ALA A 345      10.287 -17.872  12.107
ATOM   5654  HB3 ALA A 345      10.936 -17.806  13.754
ATOM   5655  C   ALA A 345       8.497 -17.105  15.006
ATOM   5656  O   ALA A 345       7.441 -17.691  15.247
ATOM   5657  N   ARG A 346       9.220 -16.516  15.969
ATOM   5658  H   ARG A 346      10.072 -16.050  15.690
ATOM   5659  CA  ARG A 346       8.962 -16.670  17.410
ATOM   5660  HA  ARG A 346       9.036 -17.737  17.625
ATOM   5661  CB  ARG A 346      10.076 -15.971  18.212
ATOM   5662  HB2 ARG A 346      10.009 -16.302  19.245
ATOM   5663  HB3 ARG A 346      11.041 -16.307  17.835
ATOM   5664  CG  ARG A 346      10.023 -14.431  18.169
ATOM   5665  HG2 ARG A 346      10.210 -14.091  17.151
ATOM   5666  HG3 ARG A 346       9.026 -14.103  18.458
ATOM   5667  CD  ARG A 346      11.013 -13.738  19.121
ATOM   5668  HD2 ARG A 346      10.890 -12.662  19.003
ATOM   5669  HD3 ARG A 346      10.759 -13.985  20.152
ATOM   5670  NE  ARG A 346      12.421 -14.072  18.837
ATOM   5671  HE  ARG A 346      12.866 -13.562  18.081
ATOM   5672  CZ  ARG A 346      13.150 -15.030  19.395
ATOM   5673  NH1 ARG A 346      12.699 -15.757  20.391
ATOM   5674  HH11ARG A 346      11.853 -15.493  20.888
ATOM   5675  HH12ARG A 346      13.258 -16.514  20.755
ATOM   5676  NH2 ARG A 346      14.363 -15.287  18.959
ATOM   5677  HH21ARG A 346      14.768 -14.786  18.175
ATOM   5678  HH22ARG A 346      14.909 -16.007  19.417
ATOM   5679  C   ARG A 346       7.562 -16.233  17.894
ATOM   5680  O   ARG A 346       7.219 -16.513  19.041
ATOM   5681  N   PHE A 347       6.768 -15.539  17.066
ATOM   5682  H   PHE A 347       7.134 -15.326  16.148
ATOM   5683  CA  PHE A 347       5.420 -15.039  17.388
ATOM   5684  HA  PHE A 347       5.256 -15.105  18.467
ATOM   5685  CB  PHE A 347       5.329 -13.561  16.964
ATOM   5686  HB2 PHE A 347       5.232 -13.516  15.880
ATOM   5687  HB3 PHE A 347       4.410 -13.151  17.380
ATOM   5688  CG  PHE A 347       6.479 -12.665  17.387
ATOM   5689  CD1 PHE A 347       6.609 -12.274  18.731
ATOM   5690  HD1 PHE A 347       5.884 -12.603  19.463
ATOM   5691  CE1 PHE A 347       7.678 -11.454  19.125
ATOM   5692  HE1 PHE A 347       7.769 -11.169  20.159
ATOM   5693  CZ  PHE A 347       8.621 -11.015  18.179
ATOM   5694  HZ  PHE A 347       9.437 -10.373  18.480
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ATOM   5695  CE2 PHE A 347       8.502 -11.412  16.837
ATOM   5696  HE2 PHE A 347       9.241 -11.096  16.113
ATOM   5697  CD2 PHE A 347       7.426 -12.226  16.440
ATOM   5698  HD2 PHE A 347       7.325 -12.509  15.403
ATOM   5699  C   PHE A 347       4.275 -15.830  16.715
ATOM   5700  O   PHE A 347       3.103 -15.462  16.856
ATOM   5701  N   GLN A 348       4.586 -16.875  15.942
ATOM   5702  H   GLN A 348       5.560 -17.153  15.865
ATOM   5703  CA  GLN A 348       3.614 -17.624  15.138
ATOM   5704  HA  GLN A 348       2.959 -16.904  14.649
ATOM   5705  CB  GLN A 348       4.398 -18.406  14.068
ATOM   5706  HB2 GLN A 348       5.253 -18.876  14.546
ATOM   5707  HB3 GLN A 348       3.781 -19.201  13.652
ATOM   5708  CG  GLN A 348       4.918 -17.539  12.912
ATOM   5709  HG2 GLN A 348       5.462 -16.677  13.300
ATOM   5710  HG3 GLN A 348       5.615 -18.136  12.325
ATOM   5711  CD  GLN A 348       3.789 -17.084  11.993
ATOM   5712  OE1 GLN A 348       3.163 -17.869  11.303
ATOM   5713  NE2 GLN A 348       3.458 -15.816  11.960
ATOM   5714  HE21GLN A 348       2.774 -15.543  11.265
ATOM   5715  HE22GLN A 348       3.990 -15.128  12.491
ATOM   5716  C   GLN A 348       2.711 -18.566  15.975
ATOM   5717  O   GLN A 348       3.010 -18.830  17.148
ATOM   5718  N   PRO A 349       1.611 -19.094  15.391
ATOM   5719  CD  PRO A 349       1.001 -18.662  14.138
ATOM   5720  HD2 PRO A 349       1.535 -19.106  13.298
ATOM   5721  HD3 PRO A 349       0.981 -17.576  14.047
ATOM   5722  CG  PRO A 349      -0.428 -19.201  14.170
ATOM   5723  HG2 PRO A 349      -0.823 -19.368  13.166
ATOM   5724  HG3 PRO A 349      -1.070 -18.519  14.732
ATOM   5725  CB  PRO A 349      -0.266 -20.510  14.940
ATOM   5726  HB2 PRO A 349       0.089 -21.286  14.260
ATOM   5727  HB3 PRO A 349      -1.197 -20.819  15.417
ATOM   5728  CA  PRO A 349       0.812 -20.168  15.975
ATOM   5729  HA  PRO A 349       0.319 -19.792  16.868
ATOM   5730  C   PRO A 349       1.674 -21.382  16.334
ATOM   5731  O   PRO A 349       2.440 -21.870  15.507
ATOM   5732  N   GLY A 350       1.558 -21.851  17.580
ATOM   5733  H   GLY A 350       0.879 -21.412  18.189
ATOM   5734  CA  GLY A 350       2.331 -22.968  18.134
ATOM   5735  HA2 GLY A 350       1.726 -23.480  18.880
ATOM   5736  HA3 GLY A 350       2.581 -23.662  17.331
ATOM   5737  C   GLY A 350       3.645 -22.563  18.809
ATOM   5738  O   GLY A 350       4.092 -23.273  19.709
ATOM   5739  N   TYR A 351       4.254 -21.437  18.422
ATOM   5740  H   TYR A 351       3.800 -20.880  17.710
ATOM   5741  CA  TYR A 351       5.585 -21.003  18.888
ATOM   5742  HA  TYR A 351       6.219 -21.886  18.987
ATOM   5743  CB  TYR A 351       6.243 -20.092  17.833
ATOM   5744  HB2 TYR A 351       5.560 -19.284  17.573
ATOM   5745  HB3 TYR A 351       7.124 -19.618  18.266
ATOM   5746  CG  TYR A 351       6.687 -20.791  16.561
ATOM   5747  CD1 TYR A 351       5.737 -21.190  15.604
ATOM   5748  HD1 TYR A 351       4.691 -21.014  15.789
ATOM   5749  CE1 TYR A 351       6.139 -21.765  14.386
ATOM   5750  HE1 TYR A 351       5.396 -22.038  13.651
ATOM   5751  CZ  TYR A 351       7.513 -21.959  14.124
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ATOM   5752  OH  TYR A 351       7.918 -22.474  12.933
ATOM   5753  HH  TYR A 351       7.184 -22.653  12.343
ATOM   5754  CE2 TYR A 351       8.468 -21.596  15.098
ATOM   5755  HE2 TYR A 351       9.518 -21.749  14.898
ATOM   5756  CD2 TYR A 351       8.055 -21.010  16.310
ATOM   5757  HD2 TYR A 351       8.797 -20.708  17.035
ATOM   5758  C   TYR A 351       5.567 -20.319  20.272
ATOM   5759  O   TYR A 351       4.508 -20.037  20.841
ATOM   5760  N   ARG A 352       6.760 -20.063  20.821
ATOM   5761  H   ARG A 352       7.581 -20.308  20.283
ATOM   5762  CA  ARG A 352       7.007 -19.351  22.082
ATOM   5763  HA  ARG A 352       6.100 -18.838  22.399
ATOM   5764  CB  ARG A 352       7.430 -20.354  23.170
ATOM   5765  HB2 ARG A 352       8.355 -20.836  22.855
ATOM   5766  HB3 ARG A 352       7.652 -19.803  24.080
ATOM   5767  CG  ARG A 352       6.401 -21.463  23.483
ATOM   5768  HG2 ARG A 352       6.197 -22.033  22.575
ATOM   5769  HG3 ARG A 352       6.859 -22.144  24.201
ATOM   5770  CD  ARG A 352       5.068 -20.965  24.071
ATOM   5771  HD2 ARG A 352       5.263 -20.486  25.033
ATOM   5772  HD3 ARG A 352       4.626 -20.217  23.415
ATOM   5773  NE  ARG A 352       4.113 -22.073  24.279
ATOM   5774  HE  ARG A 352       4.094 -22.480  25.205
ATOM   5775  CZ  ARG A 352       3.194 -22.521  23.429
ATOM   5776  NH1 ARG A 352       3.002 -21.992  22.242
ATOM   5777  HH11ARG A 352       3.569 -21.215  21.932
ATOM   5778  HH12ARG A 352       2.310 -22.372  21.622
ATOM   5779  NH2 ARG A 352       2.428 -23.534  23.762
ATOM   5780  HH21ARG A 352       2.492 -23.947  24.688
ATOM   5781  HH22ARG A 352       1.689 -23.841  23.157
ATOM   5782  C   ARG A 352       8.097 -18.291  21.854
ATOM   5783  O   ARG A 352       9.008 -18.519  21.053
ATOM   5784  N   CSERA 353       7.994 -17.131  22.510
ATOM   5785  H   CSERA 353       7.292 -17.061  23.236
ATOM   5786  CA  CSERA 353       8.735 -15.904  22.137
ATOM   5787  HA  CSERA 353       9.145 -16.033  21.143
ATOM   5788  CB  CSERA 353       7.800 -14.701  22.088
ATOM   5789  HB2 CSERA 353       7.364 -14.517  23.069
ATOM   5790  HB3 CSERA 353       8.358 -13.813  21.780
ATOM   5791  OG  CSERA 353       6.773 -14.965  21.159
ATOM   5792  HG  CSERA 353       7.081 -15.624  20.502
ATOM   5793  C   CSERA 353       9.938 -15.587  23.009
ATOM   5794  O   CSERA 353      10.927 -15.066  22.455
ATOM   5795  OXT CSERA 353       9.905 -15.776  24.243
ATOM   5796  C4* ATB C 354       4.078   8.181  11.577
ATOM   5797  H40 ATB C 354       3.443   8.727  10.880
ATOM   5798  O4* ATB C 354       3.281   7.154  12.150
ATOM   5799  C1* ATB C 354       2.873   7.527  13.457
ATOM   5800  H10 ATB C 354       1.786   7.558  13.524
ATOM   5801  N9  ATB C 354       3.349   6.523  14.437
ATOM   5802  C8  ATB C 354       4.445   5.691  14.378
ATOM   5803  H80 ATB C 354       5.149   5.689  13.554
ATOM   5804  N7  ATB C 354       4.567   4.896  15.412
ATOM   5805  C5  ATB C 354       3.448   5.211  16.201
ATOM   5806  C6  ATB C 354       2.922   4.746  17.435
ATOM   5807  N6  ATB C 354       3.455   3.791  18.166
ATOM   5808  H60 ATB C 354       2.997   3.503  19.023
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ATOM   5809  H61 ATB C 354       4.251   3.312  17.792
ATOM   5810  N1  ATB C 354       1.807   5.272  17.949
ATOM   5811  C2  ATB C 354       1.206   6.226  17.254
ATOM   5812  H2  ATB C 354       0.304   6.637  17.679
ATOM   5813  N3  ATB C 354       1.567   6.752  16.092
ATOM   5814  C4  ATB C 354       2.712   6.193  15.613
ATOM   5815  C3* ATB C 354       4.476   9.176  12.670
ATOM   5816  H30 ATB C 354       5.466   8.928  13.063
ATOM   5817  O3* ATB C 354       4.421  10.523  12.180
ATOM   5818  H3' ATB C 354       5.304  10.945  12.280
ATOM   5819  C2* ATB C 354       3.396   8.939  13.742
ATOM   5820  H20 ATB C 354       3.827   9.013  14.744
ATOM   5821  O2* ATB C 354       2.316   9.856  13.610
ATOM   5822  H2' ATB C 354       2.716  10.697  13.337
ATOM   5823  HH31ACE C 355      12.354  18.582   1.388
ATOM   5824  CH3 ACE C 355      12.092  17.688   0.828
ATOM   5825  HH32ACE C 355      12.959  17.327   0.279
ATOM   5826  HH33ACE C 355      11.289  17.915   0.129
ATOM   5827  C   ACE C 355      11.634  16.615   1.783
ATOM   5828  O   ACE C 355      11.544  16.857   2.984
ATOM   5829  N   ALA C 356      11.347  15.435   1.240
ATOM   5830  H   ALA C 356      11.472  15.334   0.246
ATOM   5831  CA  ALA C 356      10.959  14.237   1.987
ATOM   5832  HA  ALA C 356      10.249  14.515   2.769
ATOM   5833  CB  ALA C 356      10.256  13.297   0.992
ATOM   5834  HB1 ALA C 356      10.957  13.001   0.208
ATOM   5835  HB2 ALA C 356       9.904  12.398   1.498
ATOM   5836  HB3 ALA C 356       9.399  13.800   0.541
ATOM   5837  C   ALA C 356      12.161  13.539   2.666
ATOM   5838  O   ALA C 356      13.320  13.916   2.459
ATOM   5839  N   THB C 357      11.887  12.487   3.445
ATOM   5840  H   THB C 357      10.923  12.256   3.619
ATOM   5841  CA  THB C 357      12.891  11.485   3.824
ATOM   5842  HA  THB C 357      13.699  11.996   4.348
ATOM   5843  C   THB C 357      13.451  10.805   2.555
ATOM   5844  O   THB C 357      12.665  10.280   1.755
ATOM   5845  N   PRO C 358      14.785  10.779   2.339
ATOM   5846  CD  PRO C 358      15.811  11.437   3.143
ATOM   5847  HD2 PRO C 358      15.761  11.133   4.188
ATOM   5848  HD3 PRO C 358      15.693  12.518   3.061
ATOM   5849  CG  PRO C 358      17.149  11.028   2.534
ATOM   5850  HG2 PRO C 358      17.481  10.084   2.972
ATOM   5851  HG3 PRO C 358      17.908  11.800   2.654
ATOM   5852  CB  PRO C 358      16.769  10.827   1.069
ATOM   5853  HB2 PRO C 358      17.474  10.182   0.552
ATOM   5854  HB3 PRO C 358      16.703  11.799   0.574
ATOM   5855  CA  PRO C 358      15.386  10.189   1.143
ATOM   5856  HA  PRO C 358      14.815  10.471   0.257
ATOM   5857  C   PRO C 358      15.496   8.654   1.190
ATOM   5858  O   PRO C 358      15.810   8.040   0.171
ATOM   5859  N   NME C 359      15.252   8.034   2.351
ATOM   5860  H   NME C 359      14.996   8.606   3.143
ATOM   5861  CH3 NME C 359      15.307   6.592   2.539
ATOM   5862  HH31NME C 359      14.698   6.104   1.777
ATOM   5863  HH32NME C 359      16.338   6.250   2.445
ATOM   5864  HH33NME C 359      14.925   6.330   3.524
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