Supporting Information

Synthesis and Evaluation of 4-Hydroxycoumarin Imines as Inhibitors of Class II Myosins

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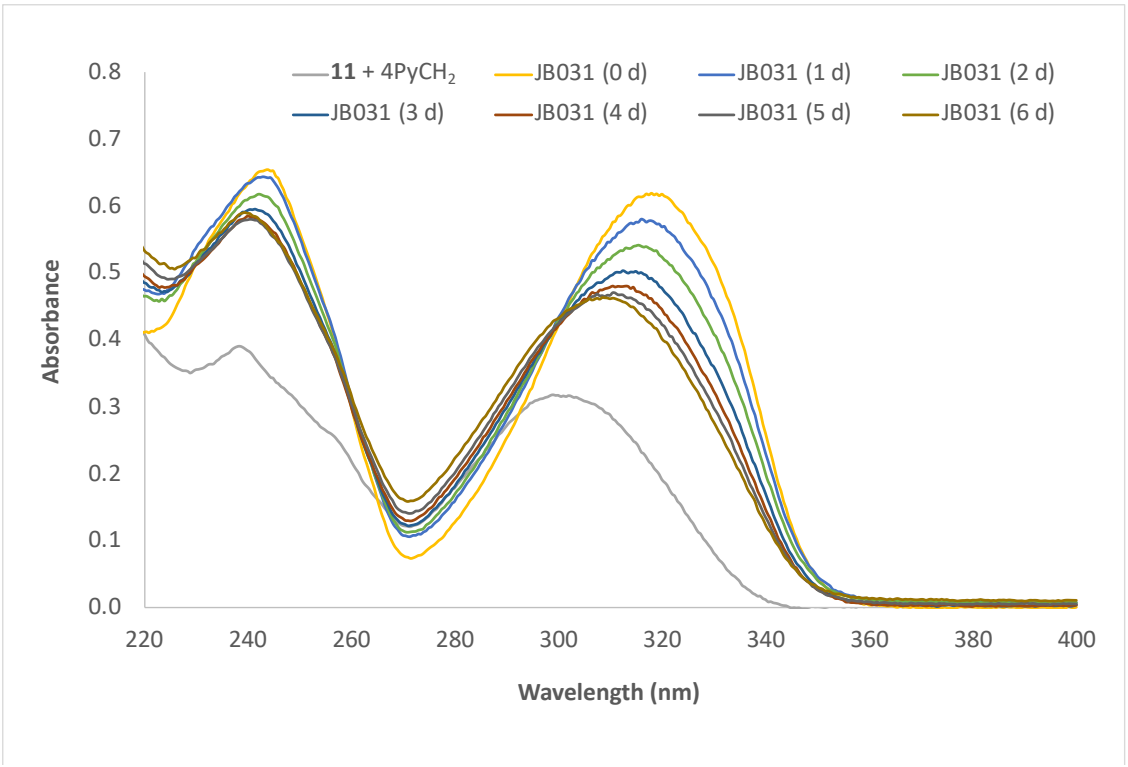
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A.


11 + 4PyCH2
JB031 (0 d)
JB031 (1 d)
JB031 (2 d)
JB031 (3 d)
JB031 (4 d)
JB031 (5 d)
JB031 (6 d)
Absorbance
Wavelength (nm)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
220
240
260
280
300
320
340
360
380
400

B.

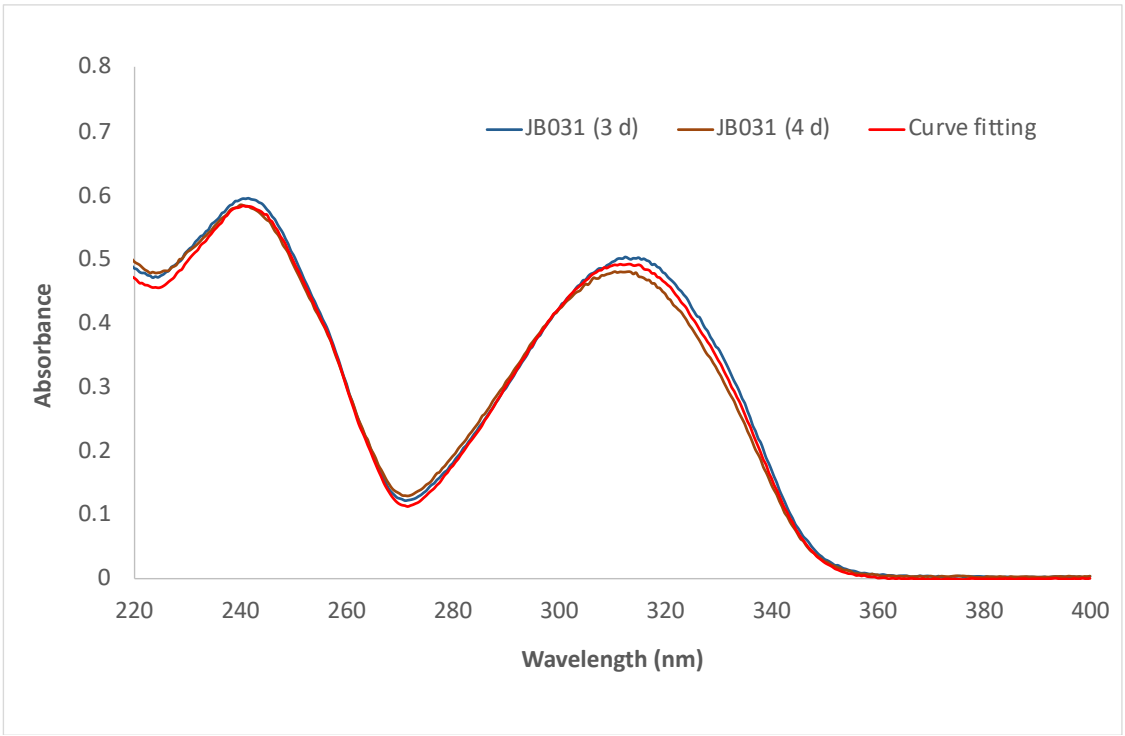

JB031 (3 d)
JB031 (4 d)
Curve fitting
Absorbance
Wavelength (nm)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
220
240
260
280
300
320
340
360
380
400

Figure S-1. UV-Visible spectra for hydrolysis of **7i** in 99:1 (v/v) PBS/methanol. **A.** Spectra of **11** + 4-pyridylmethylamine (curve 1) and **7i** after 0–6 days at room temperature; **B.** Curve fit (weighted average of curve 1 and **7i** at day 0), showing a half-life of 3.5 days.
PDB1. Homology model of bovine cardiac myosin

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ATOM      1  N   ALA A   4      38.551  38.292  77.375  1.00  0.45         N
ATOM      2  CA  ALA A   4       37.058  38.323  77.228  1.00  0.45         C
ATOM      3  C   ALA A   4      36.370  36.975  77.079  1.00  0.45         C
ATOM      4  O   ALA A   4      35.335  36.772  77.693  1.00  0.45         O
ATOM      5  CB  ALA A   4       36.695  39.273  76.068  1.00  0.45         C
ATOM      6  HN1 ALA A   4       38.791  37.664  78.142  1.00  0.00         H
ATOM      7  HN2 ALA A   4       38.951  39.223  77.493  1.00  0.00         H
ATOM      8  HN3 ALA A   4       39.024  38.045  76.506  1.00  0.00         H
ATOM      9  N   GLU A   5      36.941  36.009  76.323  1.00  0.40         N
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ATOM     11  C   GLU A   5       36.015  33.894  77.318  1.00  0.40         C
ATOM     12  O   GLU A   5       34.941  33.316  77.438  1.00  0.40         O
ATOM     13  CB  GLU A   5       37.391  33.920  75.213  1.00  0.40         C
ATOM     14  CG  GLU A   5       37.734  34.593  73.855  1.00  0.40         C
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ATOM     24  CG  MET A   6       38.744  31.677  79.216  1.00  0.35         C
ATOM     25  SD  MET A   6       37.783  30.154  78.947  1.00  0.35         S
ATOM     26  CE  MET A   6       37.910  29.495  80.637  1.00  0.35         C
ATOM     27  HN  MET A   6       37.777  34.427  78.193  1.00  0.00         H
ATOM     28  N   ALA A   7      35.563  35.320  80.295  1.00  0.39         N
ATOM     29  CA  ALA A   7       35.010  36.250  81.258  1.00  0.39         C
ATOM     30  C   ALA A   7      33.529  36.462  81.006  1.00  0.39         C
ATOM     31  O   ALA A   7       33.115  37.127  80.058  1.00  0.39         O
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ATOM     45  CG  PHE A   9      30.870  39.802  84.853  1.00  0.29          C
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ATOM    102  C   LEU A  16      25.636  32.588  77.233  1.00  0.56         C
ATOM    103  O   LEU A  16      26.230  32.147  78.217  1.00  0.56         O
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ATOM    116  NE  ARG A  17      21.088  36.690  79.444  1.00  0.56         N
ATOM    117  CZ  ARG A  17      19.956  37.317  79.775  1.00  0.56         C
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ATOM    131  CG  LYS A  18     25.584  30.580  82.323  1.00  0.60        C
ATOM    132  CD  LYS A  18     26.411  30.420  83.606  1.00  0.60        C
ATOM    133  CE  LYS A  18     27.901  30.268  83.288  1.00  0.60        C
ATOM    134  NZ  LYS A  18     28.690  30.094  84.526  1.00  0.60        N1+
ATOM    135  HN  LYS A  18     23.844  32.730  81.087  1.00  0.00        H
ATOM    136  HZ1 LYS A  18     29.683  29.993  84.314  1.00  0.00        H
ATOM    137  HZ2 LYS A  18     28.343  29.316  85.087  1.00  0.00        H
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ATOM    139  N   SER A  19     20.880  30.377  80.699  1.00  0.63        N
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ATOM    141  C   SER A  19     19.140  29.067  81.877  1.00  0.63        C
ATOM    142  O   SER A  19     18.273  29.151  82.750  1.00  0.63        O
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ATOM    144  OG  SER A  19     19.075  28.925  78.835  1.00  0.63        O
ATOM    145  HN  SER A  19     21.219  30.347  79.737  1.00  0.00        H
ATOM    146  HG  SER A  19     18.577  28.816  78.034  1.00  0.00        H
ATOM    147  N   GLU A  20     19.928  27.993  81.795  1.00  0.60        N
ATOM    148  CA  GLU A  20     19.968  26.872  82.705  1.00  0.60        C
ATOM    149  C   GLU A  20     20.263  27.215  84.170  1.00  0.60        C
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ATOM    151  CB  GLU A  20     21.057  25.911  82.188  1.00  0.60        C
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ATOM    154  OE1 GLU A  20     22.599  23.842  80.719  1.00  0.60        O
ATOM    155  OE2 GLU A  20     22.349  25.243  79.022  1.00  0.60        O1-
ATOM    156  HN  GLU A  20     20.572  27.960  81.004  1.00  0.00        H
ATOM    157  N   LYS A  21     21.209  28.147  84.451  1.00  0.59        N
ATOM    158  CA  LYS A  21     21.439  28.663  85.797  1.00  0.59        C
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ATOM    160  O   LYS A  21     19.875  29.649  87.316  1.00  0.59        O
ATOM    161  CB  LYS A  21     22.865  29.275  85.973  1.00  0.59        C
ATOM    162  CG  LYS A  21     23.178  29.689  87.430  1.00  0.59        C
ATOM    163  CD  LYS A  21     24.561  30.331  87.673  1.00  0.59        C
ATOM    164  CE  LYS A  21     24.705  30.807  89.133  1.00  0.59        C
ATOM    165  NZ  LYS A  21     26.008  31.472  89.385  1.00  0.59        N1+
ATOM    166  HN  LYS A  21     21.785  28.503  83.688  1.00  0.00        H
ATOM    167  HZ1 LYS A  21     26.103  31.787  90.351  1.00  0.00        H
ATOM    168  HZ2 LYS A  21     26.162  32.240  88.731  1.00  0.00        H
ATOM    169  HZ3 LYS A  21     26.786  30.870  89.116  1.00  0.00        H
ATOM    170  N   GLU A  22     20.015  30.619  85.290  1.00  0.61        N
ATOM    171  CA  GLU A  22     19.051  31.689  85.520  1.00  0.61        C
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ATOM   172  C   GLU A  22     17.659  31.170  85.873  1.00  0.61        C
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ATOM   174  CB  GLU A  22     18.943  32.614  84.267  1.00  0.61        C
ATOM   175  CG  GLU A  22     20.220  33.445  83.944  1.00  0.61        C
ATOM   176  CD  GLU A  22     20.164  34.183  82.603  1.00  0.61        C
ATOM   177  OE1 GLU A  22     19.810  33.561  81.571  1.00  0.61        O
ATOM   178  OE2 GLU A  22     20.512  35.395  82.568  1.00  0.61        O1-
ATOM   179  HN  GLU A  22     20.446  30.567  84.367  1.00  0.00        H
ATOM   180  N   ARG A  23     17.230  30.062  85.243  1.00  0.52        N
ATOM   181  CA  ARG A  23     15.931  29.464  85.477  1.00  0.52        C
ATOM   182  C   ARG A  23     15.978  28.249  86.396  1.00  0.52        C
ATOM   183  O   ARG A  23     14.938  27.679  86.715  1.00  0.52        O
ATOM   184  CB  ARG A  23     15.367  29.001  84.111  1.00  0.52        C
ATOM   185  CG  ARG A  23     15.189  30.130  83.069  1.00  0.52        C
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ATOM   187  NE  ARG A  23     12.850  30.444  83.485  1.00  0.52        N
ATOM   188  CZ  ARG A  23     11.727  30.910  84.040  1.00  0.52        C
ATOM   189  NH1 ARG A  23     10.640  30.144  84.044  1.00  0.52        N1+
ATOM   190  NH2 ARG A  23     11.674  32.122  84.585  1.00  0.52        N
ATOM   191  HN  ARG A  23     17.851  29.620  84.565  1.00  0.00        H
ATOM   192  HE  ARG A  23     12.818  29.517  83.060  1.00  0.00        H
ATOM   193 1HH1 ARG A  23     10.681  29.214  83.626  1.00  0.00        H
ATOM   194 2HH1 ARG A  23      9.783  30.500  84.468  1.00  0.00        H
ATOM   195 1HH2 ARG A  23     12.508  32.710  84.582  1.00  0.00        H
ATOM   196 2HH2 ARG A  23     10.817  32.478  85.009  1.00  0.00        H
ATOM   197  N   LEU A  24     17.186  27.825  86.829  1.00  0.47        N
ATOM   198  CA  LEU A  24     17.450  26.634  87.638  1.00  0.47        C
ATOM   199  C   LEU A  24     17.021  25.309  87.015  1.00  0.47        C
ATOM   200  O   LEU A  24     16.857  24.294  87.691  1.00  0.47        O
ATOM   201  CB  LEU A  24     16.917  26.757  89.089  1.00  0.47        C
ATOM   202  CG  LEU A  24     17.589  27.860  89.928  1.00  0.47        C
ATOM   203  CD1 LEU A  24     16.870  28.001  91.278  1.00  0.47        C
ATOM   204  CD2 LEU A  24     19.081  27.566  90.151  1.00  0.47        C
ATOM   205  HN  LEU A  24     17.993  28.391  86.566  1.00  0.00        H
ATOM   206  N   GLU A  25     16.908  25.267  85.675  1.00  0.57        N
ATOM   207  CA  GLU A  25     16.488  24.100  84.930  1.00  0.57        C
ATOM   208  C   GLU A  25     17.472  22.967  84.996  1.00  0.57        C
ATOM   209  O   GLU A  25     17.045  21.822  85.026  1.00  0.57        O
ATOM   210  CB  GLU A  25     16.109  24.424  83.460  1.00  0.57        C
ATOM   211  CG  GLU A  25     14.829  25.300  83.411  1.00  0.57        C
ATOM   212  CD  GLU A  25     14.230  25.542  82.034  1.00  0.57        C
ATOM   213  OE1 GLU A  25     13.927  24.526  81.358  1.00  0.57        O
ATOM   214  OE2 GLU A  25     14.003  26.725  81.671  1.00  0.57        O1-
ATOM   215  HN  GLU A  25     17.133  26.112  85.150  1.00  0.00        H
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ATOM    216  N   ALA A  26     18.799  23.216  85.074  1.00  0.61           N
ATOM    217  CA  ALA A  26     19.833  22.193  85.011  1.00  0.61           C
ATOM    218  C   ALA A  26     19.678  21.052  86.021  1.00  0.61           C
ATOM    219  O   ALA A  26     19.917  19.890  85.708  1.00  0.61           O
ATOM    220  CB  ALA A  26     21.222  22.829  85.165  1.00  0.61           C
ATOM    221  HN  ALA A  26     19.095  24.186  85.184  1.00  0.00           H
ATOM    222  N   GLN A  27     19.235  21.363  87.254  1.00  0.56           N
ATOM    223  CA  GLN A  27     19.014  20.376  88.297  1.00  0.56           C
ATOM    224  C   GLN A  27     17.686  19.634  88.198  1.00  0.56           C
ATOM    225  O   GLN A  27     17.546  18.549  88.753  1.00  0.56           O
ATOM    226  CB  GLN A  27     19.074  21.063  89.688  1.00  0.56           C
ATOM    227  CG  GLN A  27     20.460  21.683  89.993  1.00  0.56           C
ATOM    228  CD  GLN A  27     20.456  22.555  91.252  1.00  0.56           C
ATOM    229  NE2 GLN A  27     21.645  22.710  91.880  1.00  0.56           N
ATOM    230  OE1 GLN A  27     19.445  23.121  91.664  1.00  0.56           O
ATOM    231  HN  GLN A  27     19.045  22.342  87.467  1.00  0.00           H
ATOM    232 1HE2 GLN A  27     22.484  22.241  91.538  1.00  0.00           H
ATOM    233 2HE2 GLN A  27     21.642  23.291  92.719  1.00  0.00           H
ATOM    234  N   THR A  28     16.678  20.195  87.502  1.00  0.57           N
ATOM    235  CA  THR A  28     15.322  19.653  87.487  1.00  0.57           C
ATOM    236  C   THR A  28     14.832  19.211  86.119  1.00  0.57           C
ATOM    237  O   THR A  28     13.715  18.716  86.018  1.00  0.57           O
ATOM    238  CB  THR A  28     14.310  20.682  87.996  1.00  0.57           C
ATOM    239  CG2 THR A  28     14.583  21.023  89.471  1.00  0.57           C
ATOM    240  OG1 THR A  28     14.421  21.903  87.273  1.00  0.57           O
ATOM    241  HN  THR A  28     16.871  21.037  86.960  1.00  0.00           H
ATOM    242  HG1 THR A  28     14.252  21.692  86.362  1.00  0.00           H
ATOM    243  N   ARG A  29     15.610  19.373  85.026  1.00  0.49           N
ATOM    244  CA  ARG A  29     15.129  18.959  83.716  1.00  0.49           C
ATOM    245  C   ARG A  29     16.218  18.416  82.771  1.00  0.49           C
ATOM    246  O   ARG A  29     15.908  17.498  82.015  1.00  0.49           O
ATOM    247  CB  ARG A  29     14.393  20.201  83.122  1.00  0.49           C
ATOM    248  CG  ARG A  29     13.922  20.119  81.658  1.00  0.49           C
ATOM    249  CD  ARG A  29     13.498  21.487  81.106  1.00  0.49           C
ATOM    250  NE  ARG A  29     13.123  21.281  79.666  1.00  0.49           N
ATOM    251  CZ  ARG A  29     13.084  22.274  78.764  1.00  0.49           C
ATOM    252  NH1 ARG A  29     13.024  21.973  77.466  1.00  0.49           N1+
ATOM    253  NH2 ARG A  29     13.167  23.552  79.099  1.00  0.49           N
ATOM    254  HN  ARG A  29     16.538  19.787  85.119  1.00  0.00           H
ATOM    255  HE  ARG A  29     12.886  20.338  79.358  1.00  0.00           H
ATOM    256 1HH1 ARG A  29     12.960  20.988  77.208  1.00  0.00           H
ATOM    257 2HH1 ARG A  29     12.994  22.728  76.780  1.00  0.00           H
ATOM    258 1HH2 ARG A  29     13.213  23.782  80.092  1.00  0.00           H
ATOM    259 2HH2 ARG A  29     13.137  24.307  78.413  1.00  0.00           H
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ATOM    260  N   PRO A  30      17.498  18.806  82.741  1.00  0.58           N
ATOM    261  CA  PRO A  30      18.489  18.090  81.941  1.00  0.58           C
ATOM    262  C   PRO A  30      19.012  16.826  82.559  1.00  0.58           C
ATOM    263  O   PRO A  30      19.634  16.049  81.838  1.00  0.58           O
ATOM    264  CB  PRO A  30      19.625  19.102  81.737  1.00  0.58           C
ATOM    265  CG  PRO A  30      18.879  20.423  81.665  1.00  0.58           C
ATOM    266  CD  PRO A  30      17.839  20.220  82.758  1.00  0.58           C
ATOM    267  N   PHE A  31      18.802  16.607  83.867  1.00  0.44           N
ATOM    268  CA  PHE A  31      19.193  15.371  84.521  1.00  0.44           C
ATOM    269  C   PHE A  31      18.007  14.428  84.695  1.00  0.44           C
ATOM    270  O   PHE A  31      18.127  13.387  85.338  1.00  0.44           O
ATOM    271  CB  PHE A  31      19.863  15.640  85.901  1.00  0.44           C
ATOM    272  CG  PHE A  31      21.285  16.132  85.757  1.00  0.44           C
ATOM    273  CD1 PHE A  31      21.697  17.325  86.374  1.00  0.44           C
ATOM    274  CD2 PHE A  31      22.244  15.370  85.064  1.00  0.44           C
ATOM    275  CE1 PHE A  31      23.024  17.764  86.281  1.00  0.44           C
ATOM    276  CE2 PHE A  31      23.575  15.802  84.971  1.00  0.44           C
ATOM    277  CZ  PHE A  31      23.964  17.001  85.578  1.00  0.44           C
ATOM    278  HN  PHE A  31      18.352  17.335  84.421  1.00  0.00           H
ATOM    279  N   ASP A  32      16.839  14.742  84.094  1.00  0.55           N
ATOM    280  CA  ASP A  32      15.713  13.834  84.017  1.00  0.55           C
ATOM    281  C   ASP A  32      16.011  12.538  83.258  1.00  0.55           C
ATOM    282  O   ASP A  32      16.816  12.472  82.331  1.00  0.55           O
ATOM    283  CB  ASP A  32      14.475  14.517  83.359  1.00  0.55           C
ATOM    284  CG  ASP A  32      13.434  14.997  84.358  1.00  0.55           C
ATOM    285  OD1 ASP A  32      13.608  14.773  85.578  1.00  0.55           O
ATOM    286  OD2 ASP A  32      12.389  15.501  83.874  1.00  0.55           O1-
ATOM    287  HN  ASP A  32      16.745  15.666  83.673  1.00  0.00           H
ATOM    288  N   LEU A  33      15.297  11.459  83.633  1.00  0.51           N
ATOM    289  CA  LEU A  33      15.348  10.183  82.934  1.00  0.51           C
ATOM    290  C   LEU A  33      14.272  10.101  81.856  1.00  0.51           C
ATOM    291  O   LEU A  33      14.151   9.113  81.130  1.00  0.51           O
ATOM    292  CB  LEU A  33      15.080   9.022  83.926  1.00  0.51           C
ATOM    293  CG  LEU A  33      16.165   8.799  84.998  1.00  0.51           C
ATOM    294  CD1 LEU A  33      15.699   7.718  85.986  1.00  0.51           C
ATOM    295  CD2 LEU A  33      17.511   8.399  84.374  1.00  0.51           C
ATOM    296  HN  LEU A  33      14.690  11.540  84.448  1.00  0.00           H
ATOM    297  N   LYS A  34      13.451  11.160  81.733  1.00  0.62           N
ATOM    298  CA  LYS A  34      12.440  11.320  80.712  1.00  0.62           C
ATOM    299  C   LYS A  34      13.012  11.443  79.306  1.00  0.62           C
ATOM    300  O   LYS A  34      14.146  11.863  79.088  1.00  0.62           O
ATOM    301  CB  LYS A  34      11.499  12.497  81.059  1.00  0.62           C
ATOM    302  CG  LYS A  34      10.655  12.212  82.314  1.00  0.62           C
ATOM    303  CD  LYS A  34       9.868  13.450  82.773  1.00  0.62           C
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ATOM    304  CE  LYS A  34      9.008  13.232  84.017  1.00  0.62        C
ATOM    305  NZ  LYS A  34      7.960  12.235  83.708  1.00  0.62        N1+
ATOM    306  HN  LYS A  34     13.550  11.911  82.416  1.00  0.00        H
ATOM    307  HZ1 LYS A  34      7.386  12.089  84.538  1.00  0.00        H
ATOM    308  HZ2 LYS A  34      8.347  11.364  83.346  1.00  0.00        H
ATOM    309  HZ3 LYS A  34      7.405  12.494  82.892  1.00  0.00        H
ATOM    310  N   LYS A  35     12.233  11.003  78.305  1.00  0.68        N
ATOM    311  CA  LYS A  35     12.653  11.006  76.925  1.00  0.68        C
ATOM    312  C   LYS A  35     11.523  11.575  76.104  1.00  0.68        C
ATOM    313  O   LYS A  35     10.374  11.190  76.297  1.00  0.68        O
ATOM    314  CB  LYS A  35     12.961   9.569  76.428  1.00  0.68        C
ATOM    315  CG  LYS A  35     14.142   8.917  77.164  1.00  0.68        C
ATOM    316  CD  LYS A  35     14.461   7.510  76.640  1.00  0.68        C
ATOM    317  CE  LYS A  35     15.652   6.888  77.371  1.00  0.68        C
ATOM    318  NZ  LYS A  35     15.945   5.549  76.815  1.00  0.68        N1+
ATOM    319  HN  LYS A  35     11.303  10.651  78.530  1.00  0.00        H
ATOM    320  HZ1 LYS A  35     16.739   5.134  77.302  1.00  0.00        H
ATOM    321  HZ2 LYS A  35     16.089   5.578  75.806  1.00  0.00        H
ATOM    322  HZ3 LYS A  35     15.126   4.941  76.832  1.00  0.00        H
ATOM    323  N   ASP A  36     11.830  12.494  75.174  1.00  0.76        N
ATOM    324  CA  ASP A  36     10.827  13.216  74.422  1.00  0.76        C
ATOM    325  C   ASP A  36     10.926  12.908  72.929  1.00  0.76        C
ATOM    326  O   ASP A  36     11.975  12.546  72.385  1.00  0.76        O
ATOM    327  CB  ASP A  36     10.967  14.743  74.645  1.00  0.76        C
ATOM    328  CG  ASP A  36     10.795  15.125  76.106  1.00  0.76        C
ATOM    329  OD1 ASP A  36      9.870  14.580  76.755  1.00  0.76        O
ATOM    330  OD2 ASP A  36     11.583  15.990  76.575  1.00  0.76        O1-
ATOM    331  HN  ASP A  36     12.814  12.692  74.990  1.00  0.00        H
ATOM    332  N   VAL A  37      9.797  13.033  72.214  1.00  0.80        N
ATOM    333  CA  VAL A  37      9.725  12.904  70.770  1.00  0.80        C
ATOM    334  C   VAL A  37      9.119  14.161  70.173  1.00  0.80        C
ATOM    335  O   VAL A  37      8.179  14.750  70.708  1.00  0.80        O
ATOM    336  CB  VAL A  37      8.983  11.636  70.330  1.00  0.80        C
ATOM    337  CG1 VAL A  37      7.579  11.543  70.949  1.00  0.80        C
ATOM    338  CG2 VAL A  37      8.880  11.535  68.797  1.00  0.80        C
ATOM    339  HN  VAL A  37      8.933  13.232  72.718  1.00  0.00        H
ATOM    340  N   PHE A  38      9.654  14.621  69.023  1.00  0.76        N
ATOM    341  CA  PHE A  38      9.030  15.665  68.242  1.00  0.76        C
ATOM    342  C   PHE A  38      7.981  15.069  67.325  1.00  0.76        C
ATOM    343  O   PHE A  38      8.278  14.270  66.438  1.00  0.76        O
ATOM    344  CB  PHE A  38     10.049  16.390  67.335  1.00  0.76        C
ATOM    345  CG  PHE A  38     10.981  17.258  68.122  1.00  0.76        C
ATOM    346  CD1 PHE A  38     12.368  17.033  68.107  1.00  0.76        C
ATOM    347  CD2 PHE A  38     10.477  18.363  68.823  1.00  0.76        C
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ATOM    348  CE1 PHE A  38     13.234  17.912  68.768  1.00  0.76        C
ATOM    349  CE2 PHE A  38     11.342  19.247  69.478  1.00  0.76        C
ATOM    350  CZ  PHE A  38     12.720  19.019  69.452  1.00  0.76        C
ATOM    351  HN  PHE A  38     10.531  14.217  68.693  1.00  0.00        H
ATOM    352  N   VAL A  39      6.712  15.460  67.504  1.00  0.81        N
ATOM    353  CA  VAL A  39      5.628  14.965  66.677  1.00  0.81        C
ATOM    354  C   VAL A  39      5.010  16.180  66.024  1.00  0.81        C
ATOM    355  O   VAL A  39      4.497  17.052  66.727  1.00  0.81        O
ATOM    356  CB  VAL A  39      4.592  14.184  67.478  1.00  0.81        C
ATOM    357  CG1 VAL A  39      3.478  13.650  66.554  1.00  0.81        C
ATOM    358  CG2 VAL A  39      5.295  13.005  68.183  1.00  0.81        C
ATOM    359  HN  VAL A  39      6.501  16.127  68.246  1.00  0.00        H
ATOM    360  N   PRO A  40      5.087  16.365  64.713  1.00  0.79        N
ATOM    361  CA  PRO A  40      4.247  17.328  64.025  1.00  0.79        C
ATOM    362  C   PRO A  40      2.751  17.078  64.127  1.00  0.79        C
ATOM    363  O   PRO A  40      2.301  16.018  63.697  1.00  0.79        O
ATOM    364  CB  PRO A  40      4.814  17.380  62.598  1.00  0.79        C
ATOM    365  CG  PRO A  40      6.257  16.890  62.760  1.00  0.79        C
ATOM    366  CD  PRO A  40      6.116  15.814  63.833  1.00  0.79        C
ATOM    367  N   ASP A  41      1.972  18.046  64.651  1.00  0.69        N
ATOM    368  CA  ASP A  41      0.521  18.000  64.670  1.00  0.69        C
ATOM    369  C   ASP A  41     -0.070  18.197  63.270  1.00  0.69        C
ATOM    370  O   ASP A  41     -1.040  17.538  62.886  1.00  0.69        O
ATOM    371  CB  ASP A  41     -0.037  19.044  65.671  1.00  0.69        C
ATOM    372  CG  ASP A  41     -0.026  18.544  67.113  1.00  0.69        C
ATOM    373  OD1 ASP A  41      0.510  17.442  67.391  1.00  0.69        O
ATOM    374  OD2 ASP A  41     -0.610  19.265  67.964  1.00  0.69        O1-
ATOM    375  HN  ASP A  41      2.430  18.861  65.059  1.00  0.00        H
ATOM    376  N   ASP A  42      0.536  19.077  62.447  1.00  0.63        N
ATOM    377  CA  ASP A  42      0.342  19.086  61.013  1.00  0.63        C
ATOM    378  C   ASP A  42      1.688  19.154  60.300  1.00  0.63        C
ATOM    379  O   ASP A  42      2.760  19.050  60.903  1.00  0.63        O
ATOM    380  CB  ASP A  42     -0.694  20.139  60.524  1.00  0.63        C
ATOM    381  CG  ASP A  42     -0.250  21.588  60.673  1.00  0.63        C
ATOM    382  OD1 ASP A  42      0.970  21.861  60.574  1.00  0.63        O
ATOM    383  OD2 ASP A  42     -1.161  22.438  60.813  1.00  0.63        O1-
ATOM    384  HN  ASP A  42      1.162  19.771  62.856  1.00  0.00        H
ATOM    385  N   LYS A  43      1.689  19.271  58.961  1.00  0.61        N
ATOM    386  CA  LYS A  43      2.913  19.294  58.195  1.00  0.61        C
ATOM    387  C   LYS A  43      3.754  20.546  58.438  1.00  0.61        C
ATOM    388  O   LYS A  43      3.382  21.640  58.023  1.00  0.61        O
ATOM    389  CB  LYS A  43      2.623  19.132  56.685  1.00  0.61        C
ATOM    390  CG  LYS A  43      3.888  18.943  55.838  1.00  0.61        C
ATOM    391  CD  LYS A  43      3.611  19.013  54.331  1.00  0.61        C
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ATOM    392  CE  LYS A  43      4.918  19.069  53.539  1.00  0.61        C
ATOM    393  NZ  LYS A  43      4.650  19.119  52.089  1.00  0.61        N1+
ATOM    394  HN  LYS A  43      0.798  19.346  58.471  1.00  0.00        H
ATOM    395  HZ1 LYS A  43      5.522  19.156  51.561  1.00  0.00        H
ATOM    396  HZ2 LYS A  43      4.028  19.890  51.846  1.00  0.00        H
ATOM    397  HZ3 LYS A  43      4.059  18.344  51.787  1.00  0.00        H
ATOM    398  N   GLU A  44      4.918  20.345  59.098  1.00  0.66        N
ATOM    399  CA  GLU A  44      5.978  21.300  59.398  1.00  0.66        C
ATOM    400  C   GLU A  44      5.845  21.917  60.796  1.00  0.66        C
ATOM    401  O   GLU A  44      6.814  22.444  61.348  1.00  0.66        O
ATOM    402  CB  GLU A  44      6.199  22.448  58.370  1.00  0.66        C
ATOM    403  CG  GLU A  44      6.271  22.114  56.852  1.00  0.66        C
ATOM    404  CD  GLU A  44      7.316  21.097  56.455  1.00  0.66        C
ATOM    405  OE1 GLU A  44      8.473  21.207  56.928  1.00  0.66        O
ATOM    406  OE2 GLU A  44      7.030  20.262  55.558  1.00  0.66        O1-
ATOM    407  HN  GLU A  44      5.076  19.394  59.432  1.00  0.00        H
ATOM    408  N   GLU A  45      4.670  21.843  61.456  1.00  0.68        N
ATOM    409  CA  GLU A  45      4.494  22.403  62.788  1.00  0.68        C
ATOM    410  C   GLU A  45      4.558  21.328  63.855  1.00  0.68        C
ATOM    411  O   GLU A  45      3.767  20.390  63.883  1.00  0.68        O
ATOM    412  CB  GLU A  45      3.200  23.233  62.930  1.00  0.68        C
ATOM    413  CG  GLU A  45      3.058  23.862  64.344  1.00  0.68        C
ATOM    414  CD  GLU A  45      2.362  25.222  64.407  1.00  0.68        C
ATOM    415  OE1 GLU A  45      2.199  25.878  63.353  1.00  0.68        O
ATOM    416  OE2 GLU A  45      2.112  25.663  65.560  1.00  0.68        O1-
ATOM    417  HN  GLU A  45      3.880  21.380  61.007  1.00  0.00        H
ATOM    418  N   PHE A  46      5.552  21.426  64.764  1.00  0.72        N
ATOM    419  CA  PHE A  46      5.890  20.392  65.720  1.00  0.72        C
ATOM    420  C   PHE A  46      5.636  20.758  67.169  1.00  0.72        C
ATOM    421  O   PHE A  46      5.896  21.878  67.613  1.00  0.72        O
ATOM    422  CB  PHE A  46      7.362  19.912  65.528  1.00  0.72        C
ATOM    423  CG  PHE A  46      8.375  20.967  65.915  1.00  0.72        C
ATOM    424  CD1 PHE A  46      8.861  21.000  67.232  1.00  0.72        C
ATOM    425  CD2 PHE A  46      8.789  21.964  65.018  1.00  0.72        C
ATOM    426  CE1 PHE A  46      9.739  22.001  67.652  1.00  0.72        C
ATOM    427  CE2 PHE A  46      9.659  22.979  65.442  1.00  0.72        C
ATOM    428  CZ  PHE A  46     10.147  22.991  66.754  1.00  0.72        C
ATOM    429  HN  PHE A  46      6.101  22.285  64.778  1.00  0.00        H
ATOM    430  N   VAL A  47      5.177  19.765  67.952  1.00  0.79        N
ATOM    431  CA  VAL A  47      5.086  19.863  69.393  1.00  0.79        C
ATOM    432  C   VAL A  47      6.001  18.820  70.009  1.00  0.79        C
ATOM    433  O   VAL A  47      6.593  17.984  69.323  1.00  0.79        O
ATOM    434  CB  VAL A  47      3.664  19.745  69.930  1.00  0.79        C
ATOM    435  CG1 VAL A  47      2.818  20.888  69.337  1.00  0.79        C
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ATOM 436 CG2 VAL A 47 3.032 18.377 69.609 1.00 0.79 C
ATOM 437 HN VAL A 47 4.877 18.898 67.507 1.00 0.00 H
ATOM 438 N LYS A 48 6.189 18.877 71.339 1.00 0.77 N
ATOM 439 CA LYS A 48 7.063 17.970 72.056 1.00 0.77 C
ATOM 440 C LYS A 48 6.201 17.038 72.878 1.00 0.77 C
ATOM 441 O LYS A 48 5.308 17.482 73.596 1.00 0.77 O
ATOM 442 CB LYS A 48 8.016 18.737 73.007 1.00 0.77 C
ATOM 443 CG LYS A 48 9.015 19.637 72.261 1.00 0.77 C
ATOM 444 CD LYS A 48 9.979 20.400 73.188 1.00 0.77 C
ATOM 445 CE LYS A 48 9.338 21.566 73.940 1.00 0.77 C
ATOM 446 NZ LYS A 48 10.364 22.271 74.737 1.00 0.77 N1+
ATOM 447 HN LYS A 48 5.693 19.593 71.869 1.00 0.00 H
ATOM 448 HZ1 LYS A 48 9.936 23.049 75.239 1.00 0.00 H
ATOM 449 HZ2 LYS A 48 11.154 22.571 74.166 1.00 0.00 H
ATOM 450 HZ3 LYS A 48 10.865 21.640 75.363 1.00 0.00 H
ATOM 451 N ALA A 49 6.430 15.721 72.767 1.00 0.83 N
ATOM 452 CA ALA A 49 5.604 14.730 73.411 1.00 0.83 C
ATOM 453 C ALA A 49 6.441 13.786 74.257 1.00 0.83 C
ATOM 454 O ALA A 49 7.405 13.194 73.774 1.00 0.83 O
ATOM 455 CB ALA A 49 4.856 13.947 72.313 1.00 0.83 C
ATOM 456 HN ALA A 49 7.221 15.408 72.204 1.00 0.00 H
ATOM 457 N THR A 50 6.092 13.612 75.550 1.00 0.76 N
ATOM 458 CA THR A 50 6.780 12.685 76.451 1.00 0.76 C
ATOM 459 C THR A 50 6.642 11.239 75.999 1.00 0.76 C
ATOM 460 O THR A 50 5.529 10.755 75.797 1.00 0.76 O
ATOM 461 CB THR A 50 6.233 12.702 77.882 1.00 0.76 C
ATOM 462 CG2 THR A 50 7.166 11.920 78.824 1.00 0.76 C
ATOM 463 OG1 THR A 50 6.140 14.021 78.396 1.00 0.76 O
ATOM 464 HN THR A 50 5.310 14.154 75.918 1.00 0.00 H
ATOM 465 HG1 THR A 50 5.801 14.032 79.283 1.00 0.00 H
ATOM 466 N ILE A 51 7.746 10.477 75.861 1.00 0.73 N
ATOM 467 CA ILE A 51 7.706 9.037 75.635 1.00 0.73 C
ATOM 468 C ILE A 51 7.362 8.319 76.933 1.00 0.73 C
ATOM 469 O ILE A 51 8.086 8.411 77.924 1.00 0.73 O
ATOM 470 CB ILE A 51 9.027 8.502 75.074 1.00 0.73 C
ATOM 471 CG1 ILE A 51 9.322 9.180 73.711 1.00 0.73 C
ATOM 472 CG2 ILE A 51 8.993 6.955 74.981 1.00 0.73 C
ATOM 473 CD1 ILE A 51 10.667 8.787 73.084 1.00 0.73 C
ATOM 474 HN ILE A 51 8.657 10.932 75.918 1.00 0.00 H
ATOM 475 N LEU A 52 6.229 7.585 76.967 1.00 0.76 N
ATOM 476 CA LEU A 52 5.774 6.929 78.184 1.00 0.76 C
ATOM 477 C LEU A 52 5.894 5.419 78.114 1.00 0.76 C
ATOM 478 O LEU A 52 5.929 4.745 79.141 1.00 0.76 O
ATOM 479 CB LEU A 52 4.301 7.301 78.483 1.00 0.76 C

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ATOM    480  CG  LEU A  52      4.068   8.797  78.788  1.00  0.76        C
ATOM    481  CD1 LEU A  52      2.578   9.068  79.040  1.00  0.76        C
ATOM    482  CD2 LEU A  52      4.882   9.295  79.994  1.00  0.76        C
ATOM    483  HN  LEU A  52      5.676   7.488  76.115  1.00  0.00        H
ATOM    484  N   SER A  53      6.016   4.834  76.909  1.00  0.78        N
ATOM    485  CA  SER A  53      6.293   3.414  76.783  1.00  0.78        C
ATOM    486  C   SER A  53      6.839   3.108  75.409  1.00  0.78        C
ATOM    487  O   SER A  53      6.849   3.953  74.513  1.00  0.78        O
ATOM    488  CB  SER A  53      5.101   2.462  77.124  1.00  0.78        C
ATOM    489  OG  SER A  53      4.015   2.550  76.200  1.00  0.78        O
ATOM    490  HN  SER A  53      5.912   5.399  76.066  1.00  0.00        H
ATOM    491  HG  SER A  53      3.291   1.971  76.407  1.00  0.00        H
ATOM    492  N   ARG A  54      7.348   1.881  75.217  1.00  0.68        N
ATOM    493  CA  ARG A  54      7.848   1.443  73.939  1.00  0.68        C
ATOM    494  C   ARG A  54      7.705  -0.058  73.851  1.00  0.68        C
ATOM    495  O   ARG A  54      7.669  -0.754  74.867  1.00  0.68        O
ATOM    496  CB  ARG A  54      9.334   1.831  73.699  1.00  0.68        C
ATOM    497  CG  ARG A  54     10.327   1.207  74.699  1.00  0.68        C
ATOM    498  CD  ARG A  54     11.786   1.500  74.354  1.00  0.68        C
ATOM    499  NE  ARG A  54     12.601   0.824  75.424  1.00  0.68        N
ATOM    500  CZ  ARG A  54     13.061  -0.431  75.321  1.00  0.68        C
ATOM    501  NH1 ARG A  54     13.711  -0.964  76.356  1.00  0.68        N1+
ATOM    502  NH2 ARG A  54     12.881  -1.162  74.227  1.00  0.68        N
ATOM    503  HN  ARG A  54      7.382   1.235  76.005  1.00  0.00        H
ATOM    504  HE  ARG A  54     12.815   1.349  76.272  1.00  0.00        H
ATOM    505 1HH1 ARG A  54     13.849  -0.403  77.196  1.00  0.00        H
ATOM    506 2HH1 ARG A  54     14.061  -1.919  76.278  1.00  0.00        H
ATOM    507 1HH2 ARG A  54     12.384  -0.754  73.435  1.00  0.00        H
ATOM    508 2HH2 ARG A  54     13.231  -2.117  74.149  1.00  0.00        H
ATOM    509  N   GLU A  55      7.622  -0.574  72.617  1.00  0.60        N
ATOM    510  CA  GLU A  55      7.717  -1.984  72.304  1.00  0.60        C
ATOM    511  C   GLU A  55      9.160  -2.296  71.891  1.00  0.60        C
ATOM    512  O   GLU A  55     10.128  -1.768  72.447  1.00  0.60        O
ATOM    513  CB  GLU A  55      6.706  -2.353  71.181  1.00  0.60        C
ATOM    514  CG  GLU A  55      5.209  -2.237  71.580  1.00  0.60        C
ATOM    515  CD  GLU A  55      4.271  -2.375  70.376  1.00  0.60        C
ATOM    516  OE1 GLU A  55      4.766  -2.573  69.234  1.00  0.60        O
ATOM    517  OE2 GLU A  55      3.035  -2.243  70.560  1.00  0.60        O1-
ATOM    518  HN  GLU A  55      7.482   0.074  71.842  1.00  0.00        H
ATOM    519  N   GLY A  56      9.348  -3.196  70.903  1.00  0.61        N
ATOM    520  CA  GLY A  56     10.624  -3.385  70.215  1.00  0.61        C
ATOM    521  C   GLY A  56     10.632  -2.797  68.831  1.00  0.61        C
ATOM    522  O   GLY A  56     11.616  -2.927  68.115  1.00  0.61        O
ATOM    523  HN  GLY A  56      8.557  -3.775  70.621  1.00  0.00        H
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ATOM    524  N   GLY A  57      9.497  -2.218  68.384  1.00  0.67        N
ATOM    525  CA  GLY A  57      9.412  -1.524  67.101  1.00  0.67        C
ATOM    526  C   GLY A  57      8.702  -0.198  67.150  1.00  0.67        C
ATOM    527  O   GLY A  57      8.476   0.427  66.114  1.00  0.67        O
ATOM    528  HN  GLY A  57      8.662  -2.267  68.968  1.00  0.00        H
ATOM    529  N   LYS A  58      8.246   0.246  68.336  1.00  0.71        N
ATOM    530  CA  LYS A  58      7.315   1.357  68.440  1.00  0.71        C
ATOM    531  C   LYS A  58      7.477   2.131  69.730  1.00  0.71        C
ATOM    532  O   LYS A  58      7.815   1.579  70.773  1.00  0.71        O
ATOM    533  CB  LYS A  58      5.828   0.912  68.414  1.00  0.71        C
ATOM    534  CG  LYS A  58      5.334   0.316  67.090  1.00  0.71        C
ATOM    535  CD  LYS A  58      3.850  -0.044  67.208  1.00  0.71        C
ATOM    536  CE  LYS A  58      3.300  -0.817  66.019  1.00  0.71        C
ATOM    537  NZ  LYS A  58      1.947  -1.280  66.375  1.00  0.71        N1+
ATOM    538  HN  LYS A  58      8.564  -0.212  69.190  1.00  0.00        H
ATOM    539  HZ1 LYS A  58      1.578  -1.798  65.578  1.00  0.00        H
ATOM    540  HZ2 LYS A  58      1.334  -0.522  66.673  1.00  0.00        H
ATOM    541  HZ3 LYS A  58      1.927  -1.818  67.242  1.00  0.00        H
ATOM    542  N   VAL A  59      7.159   3.436  69.672  1.00  0.80        N
ATOM    543  CA  VAL A  59      7.140   4.364  70.786  1.00  0.80        C
ATOM    544  C   VAL A  59      5.708   4.812  71.007  1.00  0.80        C
ATOM    545  O   VAL A  59      4.993   5.138  70.059  1.00  0.80        O
ATOM    546  CB  VAL A  59      8.010   5.588  70.478  1.00  0.80        C
ATOM    547  CG1 VAL A  59      7.704   6.807  71.373  1.00  0.80        C
ATOM    548  CG2 VAL A  59      9.490   5.192  70.613  1.00  0.80        C
ATOM    549  HN  VAL A  59      6.907   3.809  68.757  1.00  0.00        H
ATOM    550  N   THR A  60      5.269   4.862  72.281  1.00  0.85        N
ATOM    551  CA  THR A  60      3.981   5.421  72.674  1.00  0.85        C
ATOM    552  C   THR A  60      4.251   6.672  73.478  1.00  0.85        C
ATOM    553  O   THR A  60      5.030   6.671  74.435  1.00  0.85        O
ATOM    554  CB  THR A  60      3.128   4.492  73.525  1.00  0.85        C
ATOM    555  CG2 THR A  60      1.777   5.130  73.893  1.00  0.85        C
ATOM    556  OG1 THR A  60      2.823   3.310  72.799  1.00  0.85        O
ATOM    557  HN  THR A  60      5.873   4.487  73.012  1.00  0.00        H
ATOM    558  HG1 THR A  60      3.657   2.916  72.572  1.00  0.00        H
ATOM    559  N   ALA A  61      3.619   7.795  73.096  1.00  0.86        N
ATOM    560  CA  ALA A  61      3.903   9.091  73.671  1.00  0.86        C
ATOM    561  C   ALA A  61      2.648   9.896  73.957  1.00  0.86        C
ATOM    562  O   ALA A  61      1.565   9.614  73.447  1.00  0.86        O
ATOM    563  CB  ALA A  61      4.827   9.889  72.728  1.00  0.86        C
ATOM    564  HN  ALA A  61      2.907   7.730  72.368  1.00  0.00        H
ATOM    565  N   GLU A  62      2.779  10.924  74.809  1.00  0.78        N
ATOM    566  CA  GLU A  62      1.708  11.797  75.251  1.00  0.78        C
ATOM    567  C   GLU A  62      1.690  13.080  74.438  1.00  0.78        C
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ATOM    568  O   GLU A  62      2.692  13.781  74.346  1.00  0.78         O
ATOM    569  CB  GLU A  62      1.957  12.134  76.740  1.00  0.78         C
ATOM    570  CG  GLU A  62      0.903  13.011  77.457  1.00  0.78         C
ATOM    571  CD  GLU A  62      1.315  13.329  78.899  1.00  0.78         C
ATOM    572  OE1 GLU A  62      2.464  12.990  79.295  1.00  0.78         O
ATOM    573  OE2 GLU A  62      0.467  13.921  79.612  1.00  0.78         O1-
ATOM    574  HN  GLU A  62      3.712  11.108  75.178  1.00  0.00         H
ATOM    575  N   THR A  63      0.559  13.442  73.799  1.00  0.78         N
ATOM    576  CA  THR A  63      0.435  14.728  73.104  1.00  0.78         C
ATOM    577  C   THR A  63      0.217  15.872  74.081  1.00  0.78         C
ATOM    578  O   THR A  63     -0.102  15.664  75.248  1.00  0.78         O
ATOM    579  CB  THR A  63     -0.658  14.797  72.029  1.00  0.78         C
ATOM    580  CG2 THR A  63     -0.454  13.687  70.994  1.00  0.78         C
ATOM    581  OG1 THR A  63     -1.969  14.601  72.549  1.00  0.78         O
ATOM    582  HN  THR A  63     -0.235  12.802  73.799  1.00  0.00         H
ATOM    583  HG1 THR A  63     -2.096  15.290  73.191  1.00  0.00         H
ATOM    584  N   GLU A  64      0.339  17.137  73.619  1.00  0.68         N
ATOM    585  CA  GLU A  64      0.141  18.340  74.426  1.00  0.68         C
ATOM    586  C   GLU A  64     -1.255  18.433  75.052  1.00  0.68         C
ATOM    587  O   GLU A  64     -1.461  18.999  76.122  1.00  0.68         O
ATOM    588  CB  GLU A  64      0.461  19.593  73.570  1.00  0.68         C
ATOM    589  CG  GLU A  64      0.495  20.921  74.372  1.00  0.68         C
ATOM    590  CD  GLU A  64      1.061  22.108  73.589  1.00  0.68         C
ATOM    591  OE1 GLU A  64      1.654  21.890  72.504  1.00  0.68         O
ATOM    592  OE2 GLU A  64      0.931  23.246  74.110  1.00  0.68         O1-
ATOM    593  HN  GLU A  64      0.587  17.261  72.637  1.00  0.00         H
ATOM    594  N   HIS A  65     -2.252  17.784  74.418  1.00  0.63         N
ATOM    595  CA  HIS A  65     -3.608  17.693  74.930  1.00  0.63         C
ATOM    596  C   HIS A  65     -3.861  16.447  75.774  1.00  0.63         C
ATOM    597  O   HIS A  65     -5.009  16.129  76.075  1.00  0.63         O
ATOM    598  CB  HIS A  65     -4.610  17.620  73.757  1.00  0.63         C
ATOM    599  CG  HIS A  65     -4.552  18.815  72.865  1.00  0.63         C
ATOM    600  CD2 HIS A  65     -3.877  19.023  71.705  1.00  0.63         C
ATOM    601  ND1 HIS A  65     -5.234  19.954  73.236  1.00  0.63         N
ATOM    602  CE1 HIS A  65     -4.955  20.840  72.302  1.00  0.63         C
ATOM    603  NE2 HIS A  65     -4.138  20.327  71.349  1.00  0.63         N
ATOM    604  HN  HIS A  65     -2.042  17.331  73.528  1.00  0.00         H
ATOM    605  HD1 HIS A  65     -5.826  20.083  74.056  1.00  0.00         H
ATOM    606  HE2 HIS A  65     -3.784  20.814  70.526  1.00  0.00         H
ATOM    607  N   GLY A  66     -2.820  15.675  76.159  1.00  0.79         N
ATOM    608  CA  GLY A  66     -2.977  14.526  77.054  1.00  0.79         C
ATOM    609  C   GLY A  66     -3.507  13.272  76.409  1.00  0.79         C
ATOM    610  O   GLY A  66     -3.848  12.303  77.081  1.00  0.79         O
ATOM    611  HN  GLY A  66     -1.888  15.902  75.812  1.00  0.00         H
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ATOM    612  N   LYS A  67     -3.604  13.234  75.069  1.00  0.70        N
ATOM    613  CA  LYS A  67     -4.018  12.037  74.359  1.00  0.70        C
ATOM    614  C   LYS A  67     -2.796  11.258  73.927  1.00  0.70        C
ATOM    615  O   LYS A  67     -1.830  11.837  73.428  1.00  0.70        O
ATOM    616  CB  LYS A  67     -4.858  12.356  73.099  1.00  0.70        C
ATOM    617  CG  LYS A  67     -6.197  13.043  73.408  1.00  0.70        C
ATOM    618  CD  LYS A  67     -7.018  13.313  72.134  1.00  0.70        C
ATOM    619  CE  LYS A  67     -8.357  13.999  72.424  1.00  0.70        C
ATOM    620  NZ  LYS A  67     -9.089  14.253  71.162  1.00  0.70        N1+
ATOM    621  HN  LYS A  67     -3.380  14.073  74.534  1.00  0.00        H
ATOM    622  HZ1 LYS A  67     -9.980  14.710  71.355  1.00  0.00        H
ATOM    623  HZ2 LYS A  67     -9.209  13.401  70.614  1.00  0.00        H
ATOM    624  HZ3 LYS A  67     -8.527  14.783  70.496  1.00  0.00        H
ATOM    625  N   THR A  68     -2.798   9.925  74.109  1.00  0.82        N
ATOM    626  CA  THR A  68     -1.680   9.079  73.720  1.00  0.82        C
ATOM    627  C   THR A  68     -1.652   8.803  72.228  1.00  0.82        C
ATOM    628  O   THR A  68     -2.683   8.716  71.563  1.00  0.82        O
ATOM    629  CB  THR A  68     -1.602   7.762  74.488  1.00  0.82        C
ATOM    630  CG2 THR A  68     -1.346   8.069  75.971  1.00  0.82        C
ATOM    631  OG1 THR A  68     -2.829   7.047  74.425  1.00  0.82        O
ATOM    632  HN  THR A  68     -3.616   9.490  74.537  1.00  0.00        H
ATOM    633  HG1 THR A  68     -2.780   6.227  74.903  1.00  0.00        H
ATOM    634  N   VAL A  69     -0.439   8.679  71.657  1.00  0.85        N
ATOM    635  CA  VAL A  69     -0.230   8.355  70.255  1.00  0.85        C
ATOM    636  C   VAL A  69      0.889   7.342  70.148  1.00  0.85        C
ATOM    637  O   VAL A  69      1.731   7.235  71.041  1.00  0.85        O
ATOM    638  CB  VAL A  69      0.129   9.556  69.374  1.00  0.85        C
ATOM    639  CG1 VAL A  69     -1.065  10.527  69.321  1.00  0.85        C
ATOM    640  CG2 VAL A  69      1.407  10.268  69.872  1.00  0.85        C
ATOM    641  HN  VAL A  69      0.383   8.821  72.244  1.00  0.00        H
ATOM    642  N   THR A  70      0.927   6.576  69.040  1.00  0.87        N
ATOM    643  CA  THR A  70      1.865   5.472  68.854  1.00  0.87        C
ATOM    644  C   THR A  70      2.533   5.601  67.503  1.00  0.87        C
ATOM    645  O   THR A  70      1.868   5.817  66.492  1.00  0.87        O
ATOM    646  CB  THR A  70      1.213   4.092  68.902  1.00  0.87        C
ATOM    647  CG2 THR A  70      2.266   2.975  68.914  1.00  0.87        C
ATOM    648  OG1 THR A  70      0.457   3.929  70.089  1.00  0.87        O
ATOM    649  HN  THR A  70      0.265   6.778  68.291  1.00  0.00        H
ATOM    650  HG1 THR A  70     -0.195   4.620  70.082  1.00  0.00        H
ATOM    651  N   VAL A  71      3.871   5.466  67.437  1.00  0.81        N
ATOM    652  CA  VAL A  71      4.644   5.671  66.220  1.00  0.81        C
ATOM    653  C   VAL A  71      5.737   4.611  66.099  1.00  0.81        C
ATOM    654  O   VAL A  71      6.347   4.202  67.084  1.00  0.81        O
ATOM    655  CB  VAL A  71      5.210   7.094  66.179  1.00  0.81        C
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ATOM    656  CG1 VAL A  71      6.053   7.402  67.434  1.00  0.81        C
ATOM    657  CG2 VAL A  71      6.003   7.368  64.884  1.00  0.81        C
ATOM    658  HN  VAL A  71      4.371   5.206  68.287  1.00  0.00        H
ATOM    659  N   LYS A  72      5.990   4.080  64.876  1.00  0.72        N
ATOM    660  CA  LYS A  72      7.089   3.154  64.600  1.00  0.72        C
ATOM    661  C   LYS A  72      8.451   3.791  64.827  1.00  0.72        C
ATOM    662  O   LYS A  72      8.639   4.919  64.381  1.00  0.72        O
ATOM    663  CB  LYS A  72      7.102   2.700  63.114  1.00  0.72        C
ATOM    664  CG  LYS A  72      5.870   1.926  62.623  1.00  0.72        C
ATOM    665  CD  LYS A  72      6.041   1.546  61.137  1.00  0.72        C
ATOM    666  CE  LYS A  72      4.888   0.724  60.554  1.00  0.72        C
ATOM    667  NZ  LYS A  72      5.168   0.393  59.136  1.00  0.72        N1+
ATOM    668  HN  LYS A  72      5.378   4.342  64.103  1.00  0.00        H
ATOM    669  HZ1 LYS A  72      4.400  -0.155  58.748  1.00  0.00        H
ATOM    670  HZ2 LYS A  72      6.067  -0.075  59.023  1.00  0.00        H
ATOM    671  HZ3 LYS A  72      5.363   1.226  58.580  1.00  0.00        H
ATOM    672  N   GLU A  73      9.437   3.084  65.432  1.00  0.65        N
ATOM    673  CA  GLU A  73     10.758   3.617  65.784  1.00  0.65        C
ATOM    674  C   GLU A  73     11.529   4.211  64.602  1.00  0.65        C
ATOM    675  O   GLU A  73     12.074   5.310  64.694  1.00  0.65        O
ATOM    676  CB  GLU A  73     11.598   2.598  66.601  1.00  0.65        C
ATOM    677  CG  GLU A  73     11.098   2.491  68.073  1.00  0.65        C
ATOM    678  CD  GLU A  73     11.814   1.475  68.971  1.00  0.65        C
ATOM    679  OE1 GLU A  73     12.732   0.772  68.492  1.00  0.65        O
ATOM    680  OE2 GLU A  73     11.420   1.400  70.169  1.00  0.65        O1-
ATOM    681  HN  GLU A  73      9.246   2.108  65.660  1.00  0.00        H
ATOM    682  N   ASP A  74     11.480   3.563  63.421  1.00  0.64        N
ATOM    683  CA  ASP A  74     12.010   4.054  62.157  1.00  0.64        C
ATOM    684  C   ASP A  74     11.452   5.404  61.683  1.00  0.64        C
ATOM    685  O   ASP A  74     12.045   6.086  60.851  1.00  0.64        O
ATOM    686  CB  ASP A  74     11.683   3.031  61.041  1.00  0.64        C
ATOM    687  CG  ASP A  74     12.260   1.656  61.323  1.00  0.64        C
ATOM    688  OD1 ASP A  74     13.243   1.555  62.093  1.00  0.64        O
ATOM    689  OD2 ASP A  74     11.675   0.691  60.769  1.00  0.64        O1-
ATOM    690  HN  ASP A  74     11.032   2.647  63.412  1.00  0.00        H
ATOM    691  N   GLN A  75     10.272   5.823  62.186  1.00  0.65        N
ATOM    692  CA  GLN A  75      9.646   7.082  61.824  1.00  0.65        C
ATOM    693  C   GLN A  75      9.743   8.097  62.961  1.00  0.65        C
ATOM    694  O   GLN A  75      9.137   9.167  62.913  1.00  0.65        O
ATOM    695  CB  GLN A  75      8.145   6.863  61.491  1.00  0.65        C
ATOM    696  CG  GLN A  75      7.867   5.840  60.362  1.00  0.65        C
ATOM    697  CD  GLN A  75      8.360   6.317  58.994  1.00  0.65        C
ATOM    698  NE2 GLN A  75      9.330   5.589  58.397  1.00  0.65        N
ATOM    699  OE1 GLN A  75      7.854   7.290  58.437  1.00  0.65        O
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ATOM    700  HN  GLN A  75      9.794   5.222  62.857  1.00  0.00        H
ATOM    701 1HE2 GLN A  75      9.750   4.782  58.859  1.00  0.00        H
ATOM    702 2HE2 GLN A  75      9.659   5.907  57.485  1.00  0.00        H
ATOM    703  N   VAL A  76     10.506   7.802  64.036  1.00  0.71        N
ATOM    704  CA  VAL A  76     10.548   8.660  65.212  1.00  0.71        C
ATOM    705  C   VAL A  76     11.587   9.761  65.099  1.00  0.71        C
ATOM    706  O   VAL A  76     12.799   9.549  65.082  1.00  0.71        O
ATOM    707  CB  VAL A  76     10.779   7.891  66.513  1.00  0.71        C
ATOM    708  CG1 VAL A  76     10.811   8.819  67.734  1.00  0.71        C
ATOM    709  CG2 VAL A  76      9.616   6.924  66.731  1.00  0.71        C
ATOM    710  HN  VAL A  76     11.070   6.952  64.024  1.00  0.00        H
ATOM    711  N   LEU A  77     11.109  11.016  65.092  1.00  0.73        N
ATOM    712  CA  LEU A  77     11.927  12.200  65.242  1.00  0.73        C
ATOM    713  C   LEU A  77     12.210  12.471  66.719  1.00  0.73        C
ATOM    714  O   LEU A  77     11.614  13.350  67.339  1.00  0.73        O
ATOM    715  CB  LEU A  77     11.225  13.423  64.600  1.00  0.73        C
ATOM    716  CG  LEU A  77     10.834  13.226  63.117  1.00  0.73        C
ATOM    717  CD1 LEU A  77      9.799  14.274  62.681  1.00  0.73        C
ATOM    718  CD2 LEU A  77     12.042  13.228  62.170  1.00  0.73        C
ATOM    719  HN  LEU A  77     10.104  11.143  64.973  1.00  0.00        H
ATOM    720  N   GLN A  78     13.114  11.693  67.354  1.00  0.74        N
ATOM    721  CA  GLN A  78     13.433  11.867  68.766  1.00  0.74        C
ATOM    722  C   GLN A  78     14.008  13.234  69.103  1.00  0.74        C
ATOM    723  O   GLN A  78     14.760  13.838  68.336  1.00  0.74        O
ATOM    724  CB  GLN A  78     14.389  10.789  69.343  1.00  0.74        C
ATOM    725  CG  GLN A  78     13.786   9.368  69.387  1.00  0.74        C
ATOM    726  CD  GLN A  78     14.625   8.404  70.225  1.00  0.74        C
ATOM    727  NE2 GLN A  78     14.618   8.612  71.562  1.00  0.74        N
ATOM    728  OE1 GLN A  78     15.260   7.475  69.732  1.00  0.74        O
ATOM    729  HN  GLN A  78     13.589  10.960  66.828  1.00  0.00        H
ATOM    730 1HE2 GLN A  78     14.091   9.383  71.971  1.00  0.00        H
ATOM    731 2HE2 GLN A  78     15.178   7.969  72.121  1.00  0.00        H
ATOM    732  N   GLN A  79     13.659  13.759  70.290  1.00  0.72        N
ATOM    733  CA  GLN A  79     14.244  14.985  70.771  1.00  0.72        C
ATOM    734  C   GLN A  79     15.595  14.704  71.409  1.00  0.72        C
ATOM    735  O   GLN A  79     15.817  13.683  72.058  1.00  0.72        O
ATOM    736  CB  GLN A  79     13.286  15.692  71.755  1.00  0.72        C
ATOM    737  CG  GLN A  79     13.788  17.061  72.269  1.00  0.72        C
ATOM    738  CD  GLN A  79     12.743  17.772  73.123  1.00  0.72        C
ATOM    739  NE2 GLN A  79     13.226  18.606  74.074  1.00  0.72        N
ATOM    740  OE1 GLN A  79     11.535  17.623  72.954  1.00  0.72        O
ATOM    741  HN  GLN A  79     12.965  13.279  70.863  1.00  0.00        H
ATOM    742 1HE2 GLN A  79     14.229  18.730  74.214  1.00  0.00        H
ATOM    743 2HE2 GLN A  79     12.527  19.081  74.645  1.00  0.00        H
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ATOM    744  N   ASN A  80     16.570  15.610  71.210  1.00  0.74        N
ATOM    745  CA  ASN A  80     17.835  15.535  71.908  1.00  0.74        C
ATOM    746  C   ASN A  80     17.697  15.747  73.413  1.00  0.74        C
ATOM    747  O   ASN A  80     16.832  16.513  73.835  1.00  0.74        O
ATOM    748  CB  ASN A  80     18.857  16.537  71.329  1.00  0.74        C
ATOM    749  CG  ASN A  80     19.363  15.958  70.022  1.00  0.74        C
ATOM    750  ND2 ASN A  80     18.967  16.546  68.876  1.00  0.74        N
ATOM    751  OD1 ASN A  80     20.086  14.960  70.022  1.00  0.74        O
ATOM    752  HN  ASN A  80     16.413  16.371  70.549  1.00  0.00        H
ATOM    753 1HD2 ASN A  80     18.369  17.372  68.876  1.00  0.00        H
ATOM    754 2HD2 ASN A  80     19.307  16.157  67.997  1.00  0.00        H
ATOM    755  N   PRO A  81     18.509  15.123  74.269  1.00  0.72        N
ATOM    756  CA  PRO A  81     18.641  15.519  75.666  1.00  0.72        C
ATOM    757  C   PRO A  81     18.876  17.019  75.838  1.00  0.72        C
ATOM    758  O   PRO A  81     19.777  17.492  75.141  1.00  0.72        O
ATOM    759  CB  PRO A  81     19.830  14.682  76.171  1.00  0.72        C
ATOM    760  CG  PRO A  81     19.790  13.419  75.305  1.00  0.72        C
ATOM    761  CD  PRO A  81     19.317  13.945  73.950  1.00  0.72        C
ATOM    762  N   PRO A  82     18.192  17.797  76.681  1.00  0.71        N
ATOM    763  CA  PRO A  82     18.192  19.261  76.599  1.00  0.71        C
ATOM    764  C   PRO A  82     19.519  19.908  76.970  1.00  0.71        C
ATOM    765  O   PRO A  82     19.648  21.123  76.880  1.00  0.71        O
ATOM    766  CB  PRO A  82     17.012  19.701  77.482  1.00  0.71        C
ATOM    767  CG  PRO A  82     16.776  18.526  78.427  1.00  0.71        C
ATOM    768  CD  PRO A  82     17.124  17.315  77.563  1.00  0.71        C
ATOM    769  N   LYS A  83     20.545  19.126  77.355  1.00  0.65        N
ATOM    770  CA  LYS A  83     21.922  19.584  77.425  1.00  0.65        C
ATOM    771  C   LYS A  83     22.515  19.930  76.053  1.00  0.65        C
ATOM    772  O   LYS A  83     23.524  20.621  75.951  1.00  0.65        O
ATOM    773  CB  LYS A  83     22.823  18.504  78.087  1.00  0.65        C
ATOM    774  CG  LYS A  83     22.981  17.188  77.296  1.00  0.65        C
ATOM    775  CD  LYS A  83     24.094  16.297  77.874  1.00  0.65        C
ATOM    776  CE  LYS A  83     24.330  15.019  77.062  1.00  0.65        C
ATOM    777  NZ  LYS A  83     25.522  14.299  77.570  1.00  0.65        N1+
ATOM    778  HN  LYS A  83     20.345  18.159  77.612  1.00  0.00        H
ATOM    779  HZ1 LYS A  83     25.679  13.448  77.030  1.00  0.00        H
ATOM    780  HZ2 LYS A  83     25.453  14.107  78.569  1.00  0.00        H
ATOM    781  HZ3 LYS A  83     26.348  14.897  77.587  1.00  0.00        H
ATOM    782  N   PHE A  84     21.900  19.443  74.953  1.00  0.66        N
ATOM    783  CA  PHE A  84     22.297  19.805  73.607  1.00  0.66        C
ATOM    784  C   PHE A  84     21.579  21.046  73.102  1.00  0.66        C
ATOM    785  O   PHE A  84     21.994  21.634  72.104  1.00  0.66        O
ATOM    786  CB  PHE A  84     21.947  18.677  72.610  1.00  0.66        C
ATOM    787  CG  PHE A  84     22.850  17.492  72.767  1.00  0.66        C
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ATOM    788  CD1 PHE A  84     24.176  17.546  72.307  1.00  0.66        C
ATOM    789  CD2 PHE A  84     22.360  16.290  73.297  1.00  0.66        C
ATOM    790  CE1 PHE A  84     24.993  16.410  72.364  1.00  0.66        C
ATOM    791  CE2 PHE A  84     23.170  15.150  73.348  1.00  0.66        C
ATOM    792  CZ  PHE A  84     24.487  15.209  72.875  1.00  0.66        C
ATOM    793  HN  PHE A  84     21.123  18.793  75.075  1.00  0.00        H
ATOM    794  N   ASP A  85     20.502  21.497  73.776  1.00  0.73        N
ATOM    795  CA  ASP A  85     19.756  22.681  73.397  1.00  0.73        C
ATOM    796  C   ASP A  85     20.631  23.927  73.561  1.00  0.73        C
ATOM    797  O   ASP A  85     21.028  24.276  74.672  1.00  0.73        O
ATOM    798  CB  ASP A  85     18.422  22.797  74.197  1.00  0.73        C
ATOM    799  CG  ASP A  85     17.453  21.658  73.890  1.00  0.73        C
ATOM    800  OD1 ASP A  85     17.654  20.948  72.873  1.00  0.73        O
ATOM    801  OD2 ASP A  85     16.480  21.484  74.675  1.00  0.73        O1-
ATOM    802  HN  ASP A  85     20.195  20.977  74.598  1.00  0.00        H
ATOM    803  N   LYS A  86     20.989  24.567  72.420  1.00  0.69        N
ATOM    804  CA  LYS A  86     21.834  25.740  72.210  1.00  0.69        C
ATOM    805  C   LYS A  86     23.221  25.388  71.670  1.00  0.69        C
ATOM    806  O   LYS A  86     24.054  26.285  71.517  1.00  0.69        O
ATOM    807  CB  LYS A  86     22.049  26.699  73.423  1.00  0.69        C
ATOM    808  CG  LYS A  86     20.781  27.337  74.018  1.00  0.69        C
ATOM    809  CD  LYS A  86     21.003  27.961  75.414  1.00  0.69        C
ATOM    810  CE  LYS A  86     20.814  27.024  76.622  1.00  0.69        C
ATOM    811  NZ  LYS A  86     21.788  25.927  76.633  1.00  0.69        N1+
ATOM    812  HN  LYS A  86     20.604  24.162  71.567  1.00  0.00        H
ATOM    813  HZ1 LYS A  86     21.663  25.307  77.433  1.00  0.00        H
ATOM    814  HZ2 LYS A  86     22.743  26.282  76.588  1.00  0.00        H
ATOM    815  HZ3 LYS A  86     21.767  25.406  75.756  1.00  0.00        H
ATOM    816  N   ILE A  87     23.518  24.109  71.339  1.00  0.66        N
ATOM    817  CA  ILE A  87     24.845  23.662  70.916  1.00  0.66        C
ATOM    818  C   ILE A  87     25.403  24.401  69.699  1.00  0.66        C
ATOM    819  O   ILE A  87     24.716  24.689  68.718  1.00  0.66        O
ATOM    820  CB  ILE A  87     24.932  22.141  70.733  1.00  0.66        C
ATOM    821  CG1 ILE A  87     26.375  21.585  70.650  1.00  0.66        C
ATOM    822  CG2 ILE A  87     24.117  21.679  69.506  1.00  0.66        C
ATOM    823  CD1 ILE A  87     27.163  21.678  71.960  1.00  0.66        C
ATOM    824  HN  ILE A  87     22.772  23.416  71.388  1.00  0.00        H
ATOM    825  N   GLU A  88     26.688  24.789  69.784  1.00  0.67        N
ATOM    826  CA  GLU A  88     27.368  25.610  68.809  1.00  0.67        C
ATOM    827  C   GLU A  88     27.630  24.958  67.469  1.00  0.67        C
ATOM    828  O   GLU A  88     27.557  25.625  66.440  1.00  0.67        O
ATOM    829  CB  GLU A  88     28.655  26.176  69.428  1.00  0.67        C
ATOM    830  CG  GLU A  88     28.298  27.068  70.637  1.00  0.67        C
ATOM    831  CD  GLU A  88     29.353  28.110  70.951  1.00  0.67        C
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ATOM    832  OE1 GLU A  88     30.534  27.744  71.137  1.00  0.67        O
ATOM    833  OE2 GLU A  88     28.955  29.306  70.948  1.00  0.67        O1-
ATOM    834  HN  GLU A  88     27.222  24.481  70.597  1.00  0.00        H
ATOM    835  N   ASP A  89     27.911  23.642  67.449  1.00  0.70        N
ATOM    836  CA  ASP A  89     27.956  22.855  66.236  1.00  0.70        C
ATOM    837  C   ASP A  89     26.910  21.759  66.355  1.00  0.70        C
ATOM    838  O   ASP A  89     26.828  21.035  67.348  1.00  0.70        O
ATOM    839  CB  ASP A  89     29.379  22.284  65.979  1.00  0.70        C
ATOM    840  CG  ASP A  89     29.556  21.741  64.566  1.00  0.70        C
ATOM    841  OD1 ASP A  89     28.558  21.289  63.946  1.00  0.70        O
ATOM    842  OD2 ASP A  89     30.706  21.790  64.065  1.00  0.70        O1-
ATOM    843  HN  ASP A  89     28.102  23.175  68.335  1.00  0.00        H
ATOM    844  N   MET A  90     26.076  21.601  65.315  1.00  0.71        N
ATOM    845  CA  MET A  90     24.992  20.647  65.305  1.00  0.71        C
ATOM    846  C   MET A  90     25.432  19.296  64.775  1.00  0.71        C
ATOM    847  O   MET A  90     24.663  18.335  64.755  1.00  0.71        O
ATOM    848  CB  MET A  90     23.820  21.201  64.471  1.00  0.71        C
ATOM    849  CG  MET A  90     23.272  22.497  65.093  1.00  0.71        C
ATOM    850  SD  MET A  90     21.723  23.110  64.373  1.00  0.71        S
ATOM    851  CE  MET A  90     22.425  23.589  62.769  1.00  0.71        C
ATOM    852  HN  MET A  90     26.215  22.184  64.490  1.00  0.00        H
ATOM    853  N   ALA A  91     26.730  19.138  64.444  1.00  0.76        N
ATOM    854  CA  ALA A  91     27.309  17.835  64.207  1.00  0.76        C
ATOM    855  C   ALA A  91     27.438  17.009  65.482  1.00  0.76        C
ATOM    856  O   ALA A  91     27.514  15.781  65.425  1.00  0.76        O
ATOM    857  CB  ALA A  91     28.671  17.989  63.507  1.00  0.76        C
ATOM    858  HN  ALA A  91     27.322  19.964  64.358  1.00  0.00        H
ATOM    859  N   MET A  92     27.389  17.668  66.655  1.00  0.64        N
ATOM    860  CA  MET A  92     27.446  17.055  67.967  1.00  0.64        C
ATOM    861  C   MET A  92     26.135  16.461  68.476  1.00  0.64        C
ATOM    862  O   MET A  92     26.148  15.708  69.445  1.00  0.64        O
ATOM    863  CB  MET A  92     27.909  18.114  68.999  1.00  0.64        C
ATOM    864  CG  MET A  92     29.363  18.591  68.806  1.00  0.64        C
ATOM    865  SD  MET A  92     30.621  17.275  68.916  1.00  0.64        S
ATOM    866  CE  MET A  92     30.359  16.811  70.655  1.00  0.64        C
ATOM    867  HN  MET A  92     27.305  18.684  66.617  1.00  0.00        H
ATOM    868  N   LEU A  93     24.966  16.765  67.865  1.00  0.71        N
ATOM    869  CA  LEU A  93     23.670  16.269  68.332  1.00  0.71        C
ATOM    870  C   LEU A  93     23.557  14.743  68.353  1.00  0.71        C
ATOM    871  O   LEU A  93     24.016  14.066  67.438  1.00  0.71        O
ATOM    872  CB  LEU A  93     22.523  16.788  67.421  1.00  0.71        C
ATOM    873  CG  LEU A  93     22.323  18.318  67.414  1.00  0.71        C
ATOM    874  CD1 LEU A  93     21.266  18.715  66.371  1.00  0.71        C
ATOM    875  CD2 LEU A  93     21.924  18.857  68.792  1.00  0.71        C
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ATOM    876  HN  LEU A  93     24.989  17.367  67.042  1.00  0.00        H
ATOM    877  N   THR A  94     22.916  14.115  69.358  1.00  0.73        N
ATOM    878  CA  THR A  94     22.683  12.665  69.296  1.00  0.73        C
ATOM    879  C   THR A  94     21.747  12.291  68.160  1.00  0.73        C
ATOM    880  O   THR A  94     22.051  11.436  67.327  1.00  0.73        O
ATOM    881  CB  THR A  94     22.073  12.083  70.569  1.00  0.73        C
ATOM    882  CG2 THR A  94     21.890  10.559  70.484  1.00  0.73        C
ATOM    883  OG1 THR A  94     22.924  12.304  71.678  1.00  0.73        O
ATOM    884  HN  THR A  94     22.591  14.648  70.165  1.00  0.00        H
ATOM    885  HG1 THR A  94     23.037  13.246  71.731  1.00  0.00        H
ATOM    886  N   PHE A  95     20.609  12.997  68.054  1.00  0.71        N
ATOM    887  CA  PHE A  95     19.571  12.709  67.086  1.00  0.71        C
ATOM    888  C   PHE A  95     19.559  13.788  66.022  1.00  0.71        C
ATOM    889  O   PHE A  95     19.269  14.957  66.284  1.00  0.71        O
ATOM    890  CB  PHE A  95     18.170  12.646  67.745  1.00  0.71        C
ATOM    891  CG  PHE A  95     18.159  11.609  68.831  1.00  0.71        C
ATOM    892  CD1 PHE A  95     18.317  11.994  70.170  1.00  0.71        C
ATOM    893  CD2 PHE A  95     17.995  10.247  68.534  1.00  0.71        C
ATOM    894  CE1 PHE A  95     18.311  11.047  71.199  1.00  0.71        C
ATOM    895  CE2 PHE A  95     17.988   9.292  69.559  1.00  0.71        C
ATOM    896  CZ  PHE A  95     18.146   9.693  70.892  1.00  0.71        C
ATOM    897  HN  PHE A  95     20.468  13.781  68.692  1.00  0.00        H
ATOM    898  N   LEU A  96     19.895  13.415  64.773  1.00  0.78        N
ATOM    899  CA  LEU A  96     20.009  14.350  63.674  1.00  0.78        C
ATOM    900  C   LEU A  96     18.833  14.232  62.719  1.00  0.78        C
ATOM    901  O   LEU A  96     18.795  13.392  61.813  1.00  0.78        O
ATOM    902  CB  LEU A  96     21.342  14.104  62.941  1.00  0.78        C
ATOM    903  CG  LEU A  96     21.625  15.019  61.736  1.00  0.78        C
ATOM    904  CD1 LEU A  96     21.625  16.505  62.112  1.00  0.78        C
ATOM    905  CD2 LEU A  96     22.971  14.624  61.133  1.00  0.78        C
ATOM    906  HN  LEU A  96     20.078  12.428  64.593  1.00  0.00        H
ATOM    907  N   HIS A  97     17.853  15.131  62.904  1.00  0.79        N
ATOM    908  CA  HIS A  97     16.573  15.090  62.238  1.00  0.79        C
ATOM    909  C   HIS A  97     16.009  16.491  62.199  1.00  0.79        C
ATOM    910  O   HIS A  97     16.421  17.355  62.972  1.00  0.79        O
ATOM    911  CB  HIS A  97     15.585  14.180  62.997  1.00  0.79        C
ATOM    912  CG  HIS A  97     15.767  12.733  62.681  1.00  0.79        C
ATOM    913  CD2 HIS A  97     15.994  11.664  63.487  1.00  0.79        C
ATOM    914  ND1 HIS A  97     15.548  12.323  61.381  1.00  0.79        N
ATOM    915  CE1 HIS A  97     15.639  11.007  61.421  1.00  0.79        C
ATOM    916  NE2 HIS A  97     15.907  10.556  62.671  1.00  0.79        N
ATOM    917  HN  HIS A  97     18.024  15.894  63.559  1.00  0.00        H
ATOM    918  HD1 HIS A  97     15.358  12.909  60.568  1.00  0.00        H
ATOM    919  HE2 HIS A  97     16.022   9.583  62.954  1.00  0.00        H
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ATOM   920  N   GLU A  98     15.067  16.763  61.274  1.00  0.76        N
ATOM   921  CA  GLU A  98     14.618  18.110  60.952  1.00  0.76        C
ATOM   922  C   GLU A  98     14.048  18.949  62.096  1.00  0.76        C
ATOM   923  O   GLU A  98     14.517  20.081  62.241  1.00  0.76        O
ATOM   924  CB  GLU A  98     13.627  18.072  59.768  1.00  0.76        C
ATOM   925  CG  GLU A  98     14.281  17.611  58.447  1.00  0.76        C
ATOM   926  CD  GLU A  98     13.305  17.622  57.278  1.00  0.76        C
ATOM   927  OE1 GLU A  98     12.309  18.387  57.322  1.00  0.76        O
ATOM   928  OE2 GLU A  98     13.566  16.880  56.301  1.00  0.76        O1-
ATOM   929  HN  GLU A  98     14.645  15.982  60.772  1.00  0.00        H
ATOM   930  N   PRO A  99     13.139  18.526  62.983  1.00  0.86        N
ATOM   931  CA  PRO A  99     12.711  19.373  64.088  1.00  0.86        C
ATOM   932  C   PRO A  99     13.805  19.551  65.119  1.00  0.86        C
ATOM   933  O   PRO A  99     13.836  20.592  65.755  1.00  0.86        O
ATOM   934  CB  PRO A  99     11.487  18.656  64.669  1.00  0.86        C
ATOM   935  CG  PRO A  99     11.723  17.189  64.311  1.00  0.86        C
ATOM   936  CD  PRO A  99     12.367  17.281  62.928  1.00  0.86        C
ATOM   937  N   ALA A 100     14.710  18.574  65.316  1.00  0.83        N
ATOM   938  CA  ALA A 100     15.819  18.682  66.241  1.00  0.83        C
ATOM   939  C   ALA A 100     16.860  19.722  65.837  1.00  0.83        C
ATOM   940  O   ALA A 100     17.318  20.520  66.655  1.00  0.83        O
ATOM   941  CB  ALA A 100     16.463  17.294  66.389  1.00  0.83        C
ATOM   942  HN  ALA A 100     14.609  17.710  64.784  1.00  0.00        H
ATOM   943  N   VAL A 101     17.223  19.767  64.538  1.00  0.85        N
ATOM   944  CA  VAL A 101     18.066  20.815  63.974  1.00  0.85        C
ATOM   945  C   VAL A 101     17.397  22.175  64.081  1.00  0.85        C
ATOM   946  O   VAL A 101     17.992  23.146  64.547  1.00  0.85        O
ATOM   947  CB  VAL A 101     18.425  20.495  62.524  1.00  0.85        C
ATOM   948  CG1 VAL A 101     19.160  21.659  61.826  1.00  0.85        C
ATOM   949  CG2 VAL A 101     19.334  19.253  62.527  1.00  0.85        C
ATOM   950  HN  VAL A 101     16.890  19.029  63.918  1.00  0.00        H
ATOM   951  N   LEU A 102     16.097  22.261  63.730  1.00  0.84        N
ATOM   952  CA  LEU A 102     15.326  23.478  63.883  1.00  0.84        C
ATOM   953  C   LEU A 102     15.198  23.944  65.326  1.00  0.84        C
ATOM   954  O   LEU A 102     15.333  25.128  65.616  1.00  0.84        O
ATOM   955  CB  LEU A 102     13.918  23.298  63.276  1.00  0.84        C
ATOM   956  CG  LEU A 102     13.031  24.560  63.337  1.00  0.84        C
ATOM   957  CD1 LEU A 102     13.641  25.736  62.569  1.00  0.84        C
ATOM   958  CD2 LEU A 102     11.638  24.272  62.783  1.00  0.84        C
ATOM   959  HN  LEU A 102     15.639  21.437  63.342  1.00  0.00        H
ATOM   960  N   TYR A 103     14.967  23.031  66.285  1.00  0.81        N
ATOM   961  CA  TYR A 103     14.860  23.345  67.697  1.00  0.81        C
ATOM   962  C   TYR A 103     16.128  23.973  68.253  1.00  0.81        C
ATOM   963  O   TYR A 103     16.072  25.002  68.920  1.00  0.81        O
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ATOM 964 CB TYR A 103 14.509 22.061 68.493 1.00 0.81 C
ATOM 965 CG TYR A 103 13.965 22.379 69.855 1.00 0.81 C
ATOM 966 CD1 TYR A 103 12.628 22.785 69.989 1.00 0.81 C
ATOM 967 CD2 TYR A 103 14.772 22.298 70.999 1.00 0.81 C
ATOM 968 CE1 TYR A 103 12.112 23.151 71.238 1.00 0.81 C
ATOM 969 CE2 TYR A 103 14.261 22.676 72.249 1.00 0.81 C
ATOM 970 CZ TYR A 103 12.938 23.123 72.360 1.00 0.81 C
ATOM 971 OH TYR A 103 12.471 23.709 73.550 1.00 0.81 O
ATOM 972 HN TYR A 103 14.860 22.057 66.002 1.00 0.00 H
ATOM 973 HH TYR A 103 13.034 23.690 74.315 1.00 0.00 H
ATOM 974 N ASN A 104 17.315 23.425 67.913 1.00 0.76 N
ATOM 975 CA ASN A 104 18.576 24.024 68.308 1.00 0.76 C
ATOM 976 C ASN A 104 18.768 25.431 67.736 1.00 0.76 C
ATOM 977 O ASN A 104 19.197 26.353 68.427 1.00 0.76 O
ATOM 978 CB ASN A 104 19.751 23.107 67.886 1.00 0.76 C
ATOM 979 CG ASN A 104 21.018 23.585 68.576 1.00 0.76 C
ATOM 980 ND2 ASN A 104 22.034 24.015 67.800 1.00 0.76 N
ATOM 981 OD1 ASN A 104 21.078 23.606 69.805 1.00 0.76 O
ATOM 982 HN ASN A 104 17.325 22.566 67.363 1.00 0.00 H
ATOM 983 1HD2 ASN A 104 22.884 24.336 68.263 1.00 0.00 H
ATOM 984 2HD2 ASN A 104 21.984 23.998 66.781 1.00 0.00 H
ATOM 985 N LEU A 105 18.412 25.634 66.453 1.00 0.80 N
ATOM 986 CA LEU A 105 18.396 26.944 65.835 1.00 0.80 C
ATOM 987 C LEU A 105 17.418 27.916 66.499 1.00 0.80 C
ATOM 988 O LEU A 105 17.746 29.080 66.722 1.00 0.80 O
ATOM 989 CB LEU A 105 18.075 26.809 64.328 1.00 0.80 C
ATOM 990 CG LEU A 105 19.176 26.130 63.480 1.00 0.80 C
ATOM 991 CD1 LEU A 105 18.705 25.993 62.026 1.00 0.80 C
ATOM 992 CD2 LEU A 105 20.527 26.864 63.524 1.00 0.80 C
ATOM 993 HN LEU A 105 18.141 24.828 65.890 1.00 0.00 H
ATOM 994 N LYS A 106 16.203 27.461 66.869 1.00 0.77 N
ATOM 995 CA LYS A 106 15.228 28.248 67.607 1.00 0.77 C
ATOM 996 C LYS A 106 15.680 28.668 68.999 1.00 0.77 C
ATOM 997 O LYS A 106 15.557 29.840 69.348 1.00 0.77 O
ATOM 998 CB LYS A 106 13.867 27.507 67.718 1.00 0.77 C
ATOM 999 CG LYS A 106 13.113 27.423 66.380 1.00 0.77 C
ATOM 1000 CD LYS A 106 11.842 26.552 66.413 1.00 0.77 C
ATOM 1001 CE LYS A 106 10.669 27.171 67.180 1.00 0.77 C
ATOM 1002 NZ LYS A 106 9.428 26.394 66.947 1.00 0.77 N1+
ATOM 1003 HN LYS A 106 15.953 26.505 66.615 1.00 0.00 H
ATOM 1004 HZ1 LYS A 106 8.647 26.806 67.458 1.00 0.00 H
ATOM 1005 HZ2 LYS A 106 9.550 25.407 67.173 1.00 0.00 H
ATOM 1006 HZ3 LYS A 106 9.222 26.297 65.953 1.00 0.00 H
ATOM 1007 N GLU A 107 16.260 27.747 69.799 1.00 0.71 N

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ATOM   1008  CA  GLU A 107     16.808  28.038  71.118  1.00  0.71        C
ATOM   1009  C   GLU A 107     17.946  29.052  71.041  1.00  0.71        C
ATOM   1010  O   GLU A 107     18.028  29.996  71.823  1.00  0.71        O
ATOM   1011  CB  GLU A 107     17.297  26.732  71.804  1.00  0.71        C
ATOM   1012  CG  GLU A 107     16.160  25.745  72.206  1.00  0.71        C
ATOM   1013  CD  GLU A 107     15.334  26.158  73.431  1.00  0.71        C
ATOM   1014  OE1 GLU A 107     15.738  27.102  74.150  1.00  0.71        O
ATOM   1015  OE2 GLU A 107     14.274  25.514  73.672  1.00  0.71        O1-
ATOM   1016  HN  GLU A 107     16.318  26.787  69.459  1.00  0.00        H
ATOM   1017  N   ARG A 108     18.847  28.919  70.042  1.00  0.66        N
ATOM   1018  CA  ARG A 108     19.870  29.921  69.794  1.00  0.66        C
ATOM   1019  C   ARG A 108     19.338  31.280  69.330  1.00  0.66        C
ATOM   1020  O   ARG A 108     19.715  32.316  69.869  1.00  0.66        O
ATOM   1021  CB  ARG A 108     20.937  29.371  68.812  1.00  0.66        C
ATOM   1022  CG  ARG A 108     21.770  28.239  69.450  1.00  0.66        C
ATOM   1023  CD  ARG A 108     22.891  27.645  68.588  1.00  0.66        C
ATOM   1024  NE  ARG A 108     23.891  28.715  68.275  1.00  0.66        N
ATOM   1025  CZ  ARG A 108     24.893  29.106  69.073  1.00  0.66        C
ATOM   1026  NH1 ARG A 108     25.103  28.588  70.278  1.00  0.66        N1+
ATOM   1027  NH2 ARG A 108     25.737  30.037  68.634  1.00  0.66        N
ATOM   1028  HN  ARG A 108     18.808  28.092  69.446  1.00  0.00        H
ATOM   1029  HE  ARG A 108     23.801  29.187  67.375  1.00  0.00        H
ATOM   1030 1HH1 ARG A 108     25.866  28.886  70.886  1.00  0.00        H
ATOM   1031 2HH1 ARG A 108     24.456  27.875  70.614  1.00  0.00        H
ATOM   1032 1HH2 ARG A 108     26.500  30.335  69.242  1.00  0.00        H
ATOM   1033 2HH2 ARG A 108     25.576  30.435  67.709  1.00  0.00        H
ATOM   1034  N   TYR A 109     18.405  31.336  68.359  1.00  0.70        N
ATOM   1035  CA  TYR A 109     17.824  32.584  67.872  1.00  0.70        C
ATOM   1036  C   TYR A 109     17.029  33.333  68.943  1.00  0.70        C
ATOM   1037  O   TYR A 109     17.045  34.562  69.001  1.00  0.70        O
ATOM   1038  CB  TYR A 109     16.964  32.304  66.610  1.00  0.70        C
ATOM   1039  CG  TYR A 109     16.479  33.553  65.904  1.00  0.70        C
ATOM   1040  CD1 TYR A 109     17.169  34.084  64.802  1.00  0.70        C
ATOM   1041  CD2 TYR A 109     15.295  34.189  66.314  1.00  0.70        C
ATOM   1042  CE1 TYR A 109     16.632  35.160  64.076  1.00  0.70        C
ATOM   1043  CE2 TYR A 109     14.776  35.281  65.618  1.00  0.70        C
ATOM   1044  CZ  TYR A 109     15.427  35.748  64.483  1.00  0.70        C
ATOM   1045  OH  TYR A 109     14.826  36.804  63.777  1.00  0.70        O
ATOM   1046  HN  TYR A 109     18.088  30.461  67.942  1.00  0.00        H
ATOM   1047  HH  TYR A 109     14.009  37.203  64.053  1.00  0.00        H
ATOM   1048  N   ALA A 110     16.337  32.611  69.846  1.00  0.74        N
ATOM   1049  CA  ALA A 110     15.605  33.179  70.963  1.00  0.74        C
ATOM   1050  C   ALA A 110     16.462  34.013  71.920  1.00  0.74        C
ATOM   1051  O   ALA A 110     16.023  35.043  72.428  1.00  0.74        O
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ATOM 1052 CB ALA A 110 14.894 32.049 71.731 1.00 0.74 C
ATOM 1053 HN ALA A 110 16.327 31.597 69.737 1.00 0.00 H
ATOM 1054 N SER A 111 17.734 33.617 72.146 1.00 0.69 N
ATOM 1055 CA SER A 111 18.697 34.387 72.928 1.00 0.69 C
ATOM 1056 C SER A 111 19.558 35.305 72.069 1.00 0.69 C
ATOM 1057 O SER A 111 20.481 35.950 72.566 1.00 0.69 O
ATOM 1058 CB SER A 111 19.658 33.466 73.727 1.00 0.69 C
ATOM 1059 OG SER A 111 20.339 32.543 72.877 1.00 0.69 O
ATOM 1060 HN SER A 111 18.039 32.729 71.747 1.00 0.00 H
ATOM 1061 HG SER A 111 20.927 31.979 73.366 1.00 0.00 H
ATOM 1062 N TRP A 112 19.239 35.381 70.761 1.00 0.59 N
ATOM 1063 CA TRP A 112 19.785 36.268 69.747 1.00 0.59 C
ATOM 1064 C TRP A 112 21.068 35.753 69.120 1.00 0.59 C
ATOM 1065 O TRP A 112 21.762 36.465 68.398 1.00 0.59 O
ATOM 1066 CB TRP A 112 19.899 37.758 70.178 1.00 0.59 C
ATOM 1067 CG TRP A 112 18.604 38.361 70.729 1.00 0.59 C
ATOM 1068 CD1 TRP A 112 17.331 38.256 70.239 1.00 0.59 C
ATOM 1069 CD2 TRP A 112 18.524 39.065 71.970 1.00 0.59 C
ATOM 1070 CE2 TRP A 112 17.139 39.373 72.176 1.00 0.59 C
ATOM 1071 CE3 TRP A 112 19.471 39.419 72.919 1.00 0.59 C
ATOM 1072 NE1 TRP A 112 16.451 38.885 71.097 1.00 0.59 N
ATOM 1073 CZ2 TRP A 112 16.732 40.027 73.320 1.00 0.59 C
ATOM 1074 CZ3 TRP A 112 19.050 40.088 74.073 1.00 0.59 C
ATOM 1075 CH2 TRP A 112 17.690 40.388 74.275 1.00 0.59 C
ATOM 1076 HN TRP A 112 18.521 34.731 70.441 1.00 0.00 H
ATOM 1077 HE1 TRP A 112 15.445 38.973 70.950 1.00 0.00 H
ATOM 1078 N MET A 113 21.386 34.461 69.300 1.00 0.68 N
ATOM 1079 CA MET A 113 22.555 33.846 68.714 1.00 0.68 C
ATOM 1080 C MET A 113 22.275 33.390 67.298 1.00 0.68 C
ATOM 1081 O MET A 113 21.902 32.250 67.028 1.00 0.68 O
ATOM 1082 CB MET A 113 23.031 32.634 69.534 1.00 0.68 C
ATOM 1083 CG MET A 113 23.410 32.993 70.972 1.00 0.68 C
ATOM 1084 SD MET A 113 24.418 31.700 71.749 1.00 0.68 S
ATOM 1085 CE MET A 113 23.056 30.630 72.273 1.00 0.68 C
ATOM 1086 HN MET A 113 20.773 33.886 69.878 1.00 0.00 H
ATOM 1087 N ILE A 114 22.472 34.298 66.332 1.00 0.74 N
ATOM 1088 CA ILE A 114 22.085 34.079 64.951 1.00 0.74 C
ATOM 1089 C ILE A 114 22.996 33.152 64.176 1.00 0.74 C
ATOM 1090 O ILE A 114 22.625 32.648 63.118 1.00 0.74 O
ATOM 1091 CB ILE A 114 21.999 35.401 64.216 1.00 0.74 C
ATOM 1092 CG1 ILE A 114 23.328 36.188 64.218 1.00 0.74 C
ATOM 1093 CG2 ILE A 114 20.853 36.200 64.861 1.00 0.74 C
ATOM 1094 CD1 ILE A 114 23.291 37.411 63.299 1.00 0.74 C
ATOM 1095 HN ILE A 114 22.914 35.183 66.579 1.00 0.00 H

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ATOM   1096  N   TYR A 115     24.206  32.898  64.700  1.00  0.80        N
ATOM   1097  CA  TYR A 115     25.202  32.074  64.058  1.00  0.80        C
ATOM   1098  C   TYR A 115     25.285  30.725  64.748  1.00  0.80        C
ATOM   1099  O   TYR A 115     25.351  30.626  65.977  1.00  0.80        O
ATOM   1100  CB  TYR A 115     26.605  32.724  64.138  1.00  0.80        C
ATOM   1101  CG  TYR A 115     26.682  34.022  63.385  1.00  0.80        C
ATOM   1102  CD1 TYR A 115     26.590  34.025  61.986  1.00  0.80        C
ATOM   1103  CD2 TYR A 115     26.910  35.240  64.054  1.00  0.80        C
ATOM   1104  CE1 TYR A 115     26.693  35.225  61.271  1.00  0.80        C
ATOM   1105  CE2 TYR A 115     27.009  36.443  63.336  1.00  0.80        C
ATOM   1106  CZ  TYR A 115     26.879  36.432  61.943  1.00  0.80        C
ATOM   1107  OH  TYR A 115     26.915  37.624  61.197  1.00  0.80        O
ATOM   1108  HN  TYR A 115     24.434  33.311  65.604  1.00  0.00        H
ATOM   1109  HH  TYR A 115     26.827  37.617  60.251  1.00  0.00        H
ATOM   1110  N   THR A 116     25.299  29.639  63.957  1.00  0.80        N
ATOM   1111  CA  THR A 116     25.413  28.278  64.471  1.00  0.80        C
ATOM   1112  C   THR A 116     26.221  27.494  63.467  1.00  0.80        C
ATOM   1113  O   THR A 116     26.041  27.661  62.264  1.00  0.80        O
ATOM   1114  CB  THR A 116     24.066  27.571  64.630  1.00  0.80        C
ATOM   1115  CG2 THR A 116     24.216  26.246  65.387  1.00  0.80        C
ATOM   1116  OG1 THR A 116     23.166  28.351  65.408  1.00  0.80        O
ATOM   1117  HN  THR A 116     25.226  29.772  62.948  1.00  0.00        H
ATOM   1118  HG1 THR A 116     23.073  29.172  64.939  1.00  0.00        H
ATOM   1119  N   TYR A 117     27.147  26.616  63.896  1.00  0.80        N
ATOM   1120  CA  TYR A 117     27.826  25.720  62.979  1.00  0.80        C
ATOM   1121  C   TYR A 117     27.014  24.475  62.700  1.00  0.80        C
ATOM   1122  O   TYR A 117     26.167  24.024  63.470  1.00  0.80        O
ATOM   1123  CB  TYR A 117     29.228  25.266  63.451  1.00  0.80        C
ATOM   1124  CG  TYR A 117     30.172  26.420  63.546  1.00  0.80        C
ATOM   1125  CD1 TYR A 117     30.402  27.271  62.451  1.00  0.80        C
ATOM   1126  CD2 TYR A 117     30.860  26.644  64.746  1.00  0.80        C
ATOM   1127  CE1 TYR A 117     31.275  28.360  62.575  1.00  0.80        C
ATOM   1128  CE2 TYR A 117     31.739  27.726  64.871  1.00  0.80        C
ATOM   1129  CZ  TYR A 117     31.938  28.583  63.786  1.00  0.80        C
ATOM   1130  OH  TYR A 117     32.819  29.665  63.933  1.00  0.80        O
ATOM   1131  HN  TYR A 117     27.377  26.580  64.889  1.00  0.00        H
ATOM   1132  HH  TYR A 117     32.954  30.248  63.195  1.00  0.00        H
ATOM   1133  N   SER A 118     27.272  23.897  61.531  1.00  0.84        N
ATOM   1134  CA  SER A 118     26.516  22.786  61.014  1.00  0.84        C
ATOM   1135  C   SER A 118     27.521  21.884  60.348  1.00  0.84        C
ATOM   1136  O   SER A 118     27.627  21.792  59.126  1.00  0.84        O
ATOM   1137  CB  SER A 118     25.456  23.331  60.037  1.00  0.84        C
ATOM   1138  OG  SER A 118     24.588  22.329  59.526  1.00  0.84        O
ATOM   1139  HN  SER A 118     28.045  24.259  60.972  1.00  0.00        H
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ATOM   1140  HG  SER A 118     23.935  22.665  58.924  1.00  0.00        H
ATOM   1141  N   GLY A 119     28.384  21.244  61.165  1.00  0.82        N
ATOM   1142  CA  GLY A 119     29.599  20.611  60.682  1.00  0.82        C
ATOM   1143  C   GLY A 119     30.584  21.618  60.157  1.00  0.82        C
ATOM   1144  O   GLY A 119     30.984  22.544  60.851  1.00  0.82        O
ATOM   1145  HN  GLY A 119     28.174  21.203  62.162  1.00  0.00        H
ATOM   1146  N   LEU A 120     31.034  21.482  58.901  1.00  0.78        N
ATOM   1147  CA  LEU A 120     32.075  22.336  58.356  1.00  0.78        C
ATOM   1148  C   LEU A 120     31.632  23.762  58.030  1.00  0.78        C
ATOM   1149  O   LEU A 120     32.457  24.672  57.979  1.00  0.78        O
ATOM   1150  CB  LEU A 120     32.678  21.675  57.094  1.00  0.78        C
ATOM   1151  CG  LEU A 120     33.447  20.367  57.389  1.00  0.78        C
ATOM   1152  CD1 LEU A 120     33.764  19.615  56.088  1.00  0.78        C
ATOM   1153  CD2 LEU A 120     34.736  20.612  58.189  1.00  0.78        C
ATOM   1154  HN  LEU A 120     30.632  20.755  58.309  1.00  0.00        H
ATOM   1155  N   PHE A 121     30.321  24.010  57.852  1.00  0.83        N
ATOM   1156  CA  PHE A 121     29.803  25.284  57.384  1.00  0.83        C
ATOM   1157  C   PHE A 121     29.007  26.026  58.449  1.00  0.83        C
ATOM   1158  O   PHE A 121     28.613  25.478  59.479  1.00  0.83        O
ATOM   1159  CB  PHE A 121     29.001  25.125  56.062  1.00  0.83        C
ATOM   1160  CG  PHE A 121     27.895  24.114  56.150  1.00  0.83        C
ATOM   1161  CD1 PHE A 121     28.153  22.759  55.893  1.00  0.83        C
ATOM   1162  CD2 PHE A 121     26.586  24.512  56.461  1.00  0.83        C
ATOM   1163  CE1 PHE A 121     27.127  21.814  55.977  1.00  0.83        C
ATOM   1164  CE2 PHE A 121     25.544  23.576  56.495  1.00  0.83        C
ATOM   1165  CZ  PHE A 121     25.819  22.221  56.272  1.00  0.83        C
ATOM   1166  HN  PHE A 121     29.656  23.264  58.057  1.00  0.00        H
ATOM   1167  N   CYS A 122     28.782  27.336  58.225  1.00  0.89        N
ATOM   1168  CA  CYS A 122     28.055  28.191  59.146  1.00  0.89        C
ATOM   1169  C   CYS A 122     26.621  28.382  58.678  1.00  0.89        C
ATOM   1170  O   CYS A 122     26.352  28.492  57.482  1.00  0.89        O
ATOM   1171  CB  CYS A 122     28.753  29.573  59.276  1.00  0.89        C
ATOM   1172  SG  CYS A 122     28.154  30.580  60.685  1.00  0.89        S
ATOM   1173  HN  CYS A 122     29.141  27.748  57.364  1.00  0.00        H
ATOM   1174  N   VAL A 123     25.663  28.425  59.618  1.00  0.89        N
ATOM   1175  CA  VAL A 123     24.275  28.750  59.358  1.00  0.89        C
ATOM   1176  C   VAL A 123     24.006  30.077  60.035  1.00  0.89        C
ATOM   1177  O   VAL A 123     24.278  30.248  61.225  1.00  0.89        O
ATOM   1178  CB  VAL A 123     23.316  27.690  59.900  1.00  0.89        C
ATOM   1179  CG1 VAL A 123     21.845  28.115  59.713  1.00  0.89        C
ATOM   1180  CG2 VAL A 123     23.576  26.364  59.160  1.00  0.89        C
ATOM   1181  HN  VAL A 123     25.930  28.215  60.580  1.00  0.00        H
ATOM   1182  N   THR A 124     23.471  31.050  59.274  1.00  0.88        N
ATOM   1183  CA  THR A 124     23.218  32.404  59.749  1.00  0.88        C
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ATOM   1184  C   THR A 124     21.747  32.694  59.609  1.00  0.88           C
ATOM   1185  O   THR A 124     21.217  32.740  58.506  1.00  0.88           O
ATOM   1186  CB  THR A 124     23.932  33.490  58.944  1.00  0.88           C
ATOM   1187  CG2 THR A 124     23.661  34.878  59.548  1.00  0.88           C
ATOM   1188  OG1 THR A 124     25.338  33.305  58.969  1.00  0.88           O
ATOM   1189  HN  THR A 124     23.229  30.826  58.309  1.00  0.00           H
ATOM   1190  HG1 THR A 124     25.782  33.980  58.469  1.00  0.00           H
ATOM   1191  N   ILE A 125     21.017  32.923  60.710  1.00  0.82           N
ATOM   1192  CA  ILE A 125     19.597  33.249  60.631  1.00  0.82           C
ATOM   1193  C   ILE A 125     19.428  34.751  60.772  1.00  0.82           C
ATOM   1194  O   ILE A 125     19.896  35.347  61.736  1.00  0.82           O
ATOM   1195  CB  ILE A 125     18.770  32.510  61.678  1.00  0.82           C
ATOM   1196  CG1 ILE A 125     19.052  30.991  61.607  1.00  0.82           C
ATOM   1197  CG2 ILE A 125     17.265  32.804  61.459  1.00  0.82           C
ATOM   1198  CD1 ILE A 125     18.394  30.189  62.729  1.00  0.82           C
ATOM   1199  HN  ILE A 125     21.465  32.868  61.625  1.00  0.00           H
ATOM   1200  N   ASN A 126     18.778  35.431  59.801  1.00  0.80           N
ATOM   1201  CA  ASN A 126     18.625  36.884  59.819  1.00  0.80           C
ATOM   1202  C   ASN A 126     17.857  37.401  61.053  1.00  0.80           C
ATOM   1203  O   ASN A 126     16.709  36.997  61.217  1.00  0.80           O
ATOM   1204  CB  ASN A 126     17.912  37.355  58.516  1.00  0.80           C
ATOM   1205  CG  ASN A 126     18.026  38.861  58.289  1.00  0.80           C
ATOM   1206  ND2 ASN A 126     17.627  39.327  57.087  1.00  0.80           N
ATOM   1207  OD1 ASN A 126     18.459  39.635  59.145  1.00  0.80           O
ATOM   1208  HN  ASN A 126     18.377  34.907  59.023  1.00  0.00           H
ATOM   1209 1HD2 ASN A 126     17.703  40.333  56.935  1.00  0.00           H
ATOM   1210 2HD2 ASN A 126     17.269  38.686  56.379  1.00  0.00           H
ATOM   1211  N   PRO A 127     18.373  38.275  61.925  1.00  0.75           N
ATOM   1212  CA  PRO A 127     17.667  38.666  63.142  1.00  0.75           C
ATOM   1213  C   PRO A 127     16.615  39.716  62.887  1.00  0.75           C
ATOM   1214  O   PRO A 127     15.797  39.949  63.774  1.00  0.75           O
ATOM   1215  CB  PRO A 127     18.770  39.260  64.038  1.00  0.75           C
ATOM   1216  CG  PRO A 127     19.854  39.730  63.063  1.00  0.75           C
ATOM   1217  CD  PRO A 127     19.779  38.691  61.947  1.00  0.75           C
ATOM   1218  N   TYR A 128     16.693  40.433  61.747  1.00  0.64           N
ATOM   1219  CA  TYR A 128     15.885  41.602  61.422  1.00  0.64           C
ATOM   1220  C   TYR A 128     15.910  42.723  62.460  1.00  0.64           C
ATOM   1221  O   TYR A 128     14.979  43.514  62.602  1.00  0.64           O
ATOM   1222  CB  TYR A 128     14.433  41.224  61.026  1.00  0.64           C
ATOM   1223  CG  TYR A 128     14.392  40.687  59.628  1.00  0.64           C
ATOM   1224  CD1 TYR A 128     13.925  39.392  59.353  1.00  0.64           C
ATOM   1225  CD2 TYR A 128     14.775  41.519  58.562  1.00  0.64           C
ATOM   1226  CE1 TYR A 128     13.854  38.935  58.029  1.00  0.64           C
ATOM   1227  CE2 TYR A 128     14.721  41.059  57.242  1.00  0.64           C
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ATOM   1228  CZ  TYR A 128     14.265  39.766  56.983  1.00  0.64         C
ATOM   1229  OH  TYR A 128     14.188  39.306  55.664  1.00  0.64         O
ATOM   1230  HN  TYR A 128     17.376  40.131  61.052  1.00  0.00         H
ATOM   1231  HH  TYR A 128     14.467  39.871  54.953  1.00  0.00         H
ATOM   1232  N   LYS A 129     17.035  42.854  63.175  1.00  0.60         N
ATOM   1233  CA  LYS A 129     17.285  43.947  64.077  1.00  0.60         C
ATOM   1234  C   LYS A 129     18.776  44.006  64.313  1.00  0.60         C
ATOM   1235  O   LYS A 129     19.504  43.047  64.057  1.00  0.60         O
ATOM   1236  CB  LYS A 129     16.549  43.805  65.440  1.00  0.60         C
ATOM   1237  CG  LYS A 129     16.947  42.560  66.256  1.00  0.60         C
ATOM   1238  CD  LYS A 129     16.415  42.593  67.700  1.00  0.60         C
ATOM   1239  CE  LYS A 129     17.079  41.530  68.581  1.00  0.60         C
ATOM   1240  NZ  LYS A 129     16.675  41.659  69.998  1.00  0.60         N1+
ATOM   1241  HN  LYS A 129     17.755  42.139  63.074  1.00  0.00         H
ATOM   1242  HZ1 LYS A 129     17.117  40.951  70.585  1.00  0.00         H
ATOM   1243  HZ2 LYS A 129     15.660  41.642  70.098  1.00  0.00         H
ATOM   1244  HZ3 LYS A 129     16.855  42.599  70.351  1.00  0.00         H
ATOM   1245  N   TRP A 130     19.283  45.147  64.808  1.00  0.50         N
ATOM   1246  CA  TRP A 130     20.665  45.273  65.218  1.00  0.50         C
ATOM   1247  C   TRP A 130     21.038  44.399  66.415  1.00  0.50         C
ATOM   1248  O   TRP A 130     20.294  44.267  67.387  1.00  0.50         O
ATOM   1249  CB  TRP A 130     21.022  46.753  65.504  1.00  0.50         C
ATOM   1250  CG  TRP A 130     20.872  47.645  64.283  1.00  0.50         C
ATOM   1251  CD1 TRP A 130     19.826  48.446  63.909  1.00  0.50         C
ATOM   1252  CD2 TRP A 130     21.861  47.761  63.245  1.00  0.50         C
ATOM   1253  CE2 TRP A 130     21.338  48.639  62.272  1.00  0.50         C
ATOM   1254  CE3 TRP A 130     23.123  47.190  63.098  1.00  0.50         C
ATOM   1255  NE1 TRP A 130     20.093  49.043  62.694  1.00  0.50         N
ATOM   1256  CZ2 TRP A 130     22.065  48.958  61.133  1.00  0.50         C
ATOM   1257  CZ3 TRP A 130     23.861  47.530  61.956  1.00  0.50         C
ATOM   1258  CH2 TRP A 130     23.343  48.398  60.984  1.00  0.50         C
ATOM   1259  HN  TRP A 130     18.670  45.957  64.899  1.00  0.00         H
ATOM   1260  HE1 TRP A 130     19.471  49.678  62.193  1.00  0.00         H
ATOM   1261  N   LEU A 131     22.238  43.793  66.357  1.00  0.60         N
ATOM   1262  CA  LEU A 131     22.826  43.034  67.437  1.00  0.60         C
ATOM   1263  C   LEU A 131     24.270  43.506  67.557  1.00  0.60         C
ATOM   1264  O   LEU A 131     24.900  43.709  66.513  1.00  0.60         O
ATOM   1265  CB  LEU A 131     22.795  41.507  67.165  1.00  0.60         C
ATOM   1266  CG  LEU A 131     21.381  40.889  67.206  1.00  0.60         C
ATOM   1267  CD1 LEU A 131     21.407  39.428  66.738  1.00  0.60         C
ATOM   1268  CD2 LEU A 131     20.778  40.977  68.614  1.00  0.60         C
ATOM   1269  HN  LEU A 131     22.770  43.875  65.490  1.00  0.00         H
ATOM   1270  N   PRO A 132     24.873  43.714  68.729  1.00  0.68         N
ATOM   1271  CA  PRO A 132     26.058  44.571  68.816  1.00  0.68         C
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ATOM 1272 C PRO A 132 27.298 43.693 68.812 1.00 0.68 C
ATOM 1273 O PRO A 132 28.139 43.767 69.699 1.00 0.68 O
ATOM 1274 CB PRO A 132 25.864 45.273 70.175 1.00 0.68 C
ATOM 1275 CG PRO A 132 25.135 44.237 71.034 1.00 0.68 C
ATOM 1276 CD PRO A 132 24.187 43.598 70.024 1.00 0.68 C
ATOM 1277 N VAL A 133 27.441 42.842 67.783 1.00 0.72 N
ATOM 1278 CA VAL A 133 28.476 41.821 67.723 1.00 0.72 C
ATOM 1279 C VAL A 133 29.416 42.076 66.563 1.00 0.72 C
ATOM 1280 O VAL A 133 30.062 41.170 66.040 1.00 0.72 O
ATOM 1281 CB VAL A 133 27.912 40.403 67.703 1.00 0.72 C
ATOM 1282 CG1 VAL A 133 27.238 40.184 69.076 1.00 0.72 C
ATOM 1283 CG2 VAL A 133 26.978 40.193 66.489 1.00 0.72 C
ATOM 1284 HN VAL A 133 26.789 42.915 67.002 1.00 0.00 H
ATOM 1285 N TYR A 134 29.512 43.332 66.099 1.00 0.73 N
ATOM 1286 CA TYR A 134 30.288 43.674 64.919 1.00 0.73 C
ATOM 1287 C TYR A 134 31.203 44.842 65.208 1.00 0.73 C
ATOM 1288 O TYR A 134 31.664 45.535 64.305 1.00 0.73 O
ATOM 1289 CB TYR A 134 29.374 44.015 63.720 1.00 0.73 C
ATOM 1290 CG TYR A 134 28.423 42.881 63.441 1.00 0.73 C
ATOM 1291 CD1 TYR A 134 28.899 41.655 62.946 1.00 0.73 C
ATOM 1292 CD2 TYR A 134 27.042 43.036 63.660 1.00 0.73 C
ATOM 1293 CE1 TYR A 134 28.010 40.611 62.655 1.00 0.73 C
ATOM 1294 CE2 TYR A 134 26.151 41.997 63.362 1.00 0.73 C
ATOM 1295 CZ TYR A 134 26.638 40.792 62.849 1.00 0.73 C
ATOM 1296 OH TYR A 134 25.740 39.763 62.522 1.00 0.73 O
ATOM 1297 HN TYR A 134 29.021 44.076 66.594 1.00 0.00 H
ATOM 1298 HH TYR A 134 26.071 38.944 62.173 1.00 0.00 H
ATOM 1299 N ASN A 135 31.478 45.080 66.499 1.00 0.77 N
ATOM 1300 CA ASN A 135 32.312 46.162 66.975 1.00 0.77 C
ATOM 1301 C ASN A 135 33.791 45.842 66.756 1.00 0.77 C
ATOM 1302 O ASN A 135 34.161 44.708 66.451 1.00 0.77 O
ATOM 1303 CB ASN A 135 32.073 46.448 68.478 1.00 0.77 C
ATOM 1304 CG ASN A 135 30.610 46.660 68.868 1.00 0.77 C
ATOM 1305 ND2 ASN A 135 30.395 46.833 70.187 1.00 0.77 N
ATOM 1306 OD1 ASN A 135 29.675 46.633 68.054 1.00 0.77 O
ATOM 1307 HN ASN A 135 31.071 44.454 67.194 1.00 0.00 H
ATOM 1308 1HD2 ASN A 135 29.419 46.974 70.447 1.00 0.00 H
ATOM 1309 2HD2 ASN A 135 31.164 46.855 70.857 1.00 0.00 H
ATOM 1310 N ALA A 136 34.697 46.828 66.910 1.00 0.79 N
ATOM 1311 CA ALA A 136 36.127 46.629 66.740 1.00 0.79 C
ATOM 1312 C ALA A 136 36.703 45.695 67.798 1.00 0.79 C
ATOM 1313 O ALA A 136 37.546 44.844 67.526 1.00 0.79 O
ATOM 1314 CB ALA A 136 36.851 47.987 66.756 1.00 0.79 C
ATOM 1315 HN ALA A 136 34.363 47.759 67.158 1.00 0.00 H

ATOM 1316 N GLU A 137 36.187 45.808 69.029 1.00 0.71 N
ATOM 1317 CA GLU A 137 36.414 44.962 70.179 1.00 0.71 C
ATOM 1318 C GLU A 137 36.032 43.511 69.916 1.00 0.71 C
ATOM 1319 O GLU A 137 36.759 42.575 70.250 1.00 0.71 O
ATOM 1320 CB GLU A 137 35.586 45.496 71.384 1.00 0.71 C
ATOM 1321 CG GLU A 137 35.574 47.044 71.552 1.00 0.71 C
ATOM 1322 CD GLU A 137 34.550 47.729 70.646 1.00 0.71 C
ATOM 1323 OE1 GLU A 137 33.348 47.733 70.993 1.00 0.71 O
ATOM 1324 OE2 GLU A 137 34.951 48.165 69.533 1.00 0.71 O1-
ATOM 1325 HN GLU A 137 35.552 46.593 69.174 1.00 0.00 H
ATOM 1326 N VAL A 138 34.878 43.291 69.251 1.00 0.73 N
ATOM 1327 CA VAL A 138 34.450 41.976 68.798 1.00 0.73 C
ATOM 1328 C VAL A 138 35.360 41.428 67.713 1.00 0.73 C
ATOM 1329 O VAL A 138 35.796 40.282 67.786 1.00 0.73 O
ATOM 1330 CB VAL A 138 33.004 41.967 68.321 1.00 0.73 C
ATOM 1331 CG1 VAL A 138 32.596 40.540 67.903 1.00 0.73 C
ATOM 1332 CG2 VAL A 138 32.091 42.471 69.455 1.00 0.73 C
ATOM 1333 HN VAL A 138 34.274 44.089 69.056 1.00 0.00 H
ATOM 1334 N VAL A 139 35.748 42.253 66.710 1.00 0.79 N
ATOM 1335 CA VAL A 139 36.727 41.871 65.692 1.00 0.79 C
ATOM 1336 C VAL A 139 38.047 41.467 66.330 1.00 0.79 C
ATOM 1337 O VAL A 139 38.618 40.433 65.999 1.00 0.79 O
ATOM 1338 CB VAL A 139 36.997 43.004 64.694 1.00 0.79 C
ATOM 1339 CG1 VAL A 139 38.191 42.681 63.771 1.00 0.79 C
ATOM 1340 CG2 VAL A 139 35.750 43.266 63.831 1.00 0.79 C
ATOM 1341 HN VAL A 139 35.337 43.186 66.663 1.00 0.00 H
ATOM 1342 N ALA A 140 38.519 42.248 67.322 1.00 0.79 N
ATOM 1343 CA ALA A 140 39.759 42.053 68.033 1.00 0.79 C
ATOM 1344 C ALA A 140 39.888 40.708 68.723 1.00 0.79 C
ATOM 1345 O ALA A 140 40.970 40.118 68.696 1.00 0.79 O
ATOM 1346 CB ALA A 140 39.969 43.193 69.051 1.00 0.79 C
ATOM 1347 HN ALA A 140 37.948 43.048 67.594 1.00 0.00 H
ATOM 1348 N ALA A 141 38.787 40.212 69.322 1.00 0.76 N
ATOM 1349 CA ALA A 141 38.686 38.912 69.950 1.00 0.76 C
ATOM 1350 C ALA A 141 38.879 37.719 69.020 1.00 0.76 C
ATOM 1351 O ALA A 141 39.554 36.759 69.375 1.00 0.76 O
ATOM 1352 CB ALA A 141 37.306 38.794 70.627 1.00 0.76 C
ATOM 1353 HN ALA A 141 37.955 40.802 69.334 1.00 0.00 H
ATOM 1354 N TYR A 142 38.298 37.752 67.804 1.00 0.75 N
ATOM 1355 CA TYR A 142 38.360 36.632 66.877 1.00 0.75 C
ATOM 1356 C TYR A 142 39.688 36.500 66.142 1.00 0.75 C
ATOM 1357 O TYR A 142 39.976 35.438 65.595 1.00 0.75 O
ATOM 1358 CB TYR A 142 37.223 36.736 65.823 1.00 0.75 C
ATOM 1359 CG TYR A 142 35.892 36.397 66.439 1.00 0.75 C

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ATOM   1360  CD1 TYR A 142     34.937  37.391  66.701  1.00  0.75        C
ATOM   1361  CD2 TYR A 142     35.572  35.062  66.734  1.00  0.75        C
ATOM   1362  CE1 TYR A 142     33.684  37.061  67.239  1.00  0.75        C
ATOM   1363  CE2 TYR A 142     34.331  34.733  67.297  1.00  0.75        C
ATOM   1364  CZ  TYR A 142     33.387  35.730  67.540  1.00  0.75        C
ATOM   1365  OH  TYR A 142     32.124  35.371  68.039  1.00  0.75        O
ATOM   1366  HN  TYR A 142     37.796  38.594  67.523  1.00  0.00        H
ATOM   1367  HH  TYR A 142     31.481  36.050  68.205  1.00  0.00        H
ATOM   1368  N   ARG A 143     40.537  37.551  66.119  1.00  0.75        N
ATOM   1369  CA  ARG A 143     41.768  37.568  65.339  1.00  0.75        C
ATOM   1370  C   ARG A 143     42.762  36.465  65.650  1.00  0.75        C
ATOM   1371  O   ARG A 143     43.395  36.457  66.708  1.00  0.75        O
ATOM   1372  CB  ARG A 143     42.516  38.913  65.474  1.00  0.75        C
ATOM   1373  CG  ARG A 143     41.743  40.110  64.892  1.00  0.75        C
ATOM   1374  CD  ARG A 143     42.501  41.434  64.961  1.00  0.75        C
ATOM   1375  NE  ARG A 143     42.807  41.625  66.412  1.00  0.75        N
ATOM   1376  CZ  ARG A 143     43.441  42.672  66.948  1.00  0.75        C
ATOM   1377  NH1 ARG A 143     43.644  42.687  68.264  1.00  0.75       N1+
ATOM   1378  NH2 ARG A 143     43.862  43.691  66.209  1.00  0.75        N
ATOM   1379  HN  ARG A 143     40.305  38.374  66.675  1.00  0.00        H
ATOM   1380  HE  ARG A 143     42.504  40.889  67.051  1.00  0.00        H
ATOM   1381 1HH1 ARG A 143     44.128  43.486  68.673  1.00  0.00        H
ATOM   1382 2HH1 ARG A 143     43.320  41.904  68.832  1.00  0.00        H
ATOM   1383 1HH2 ARG A 143     44.346  44.490  66.618  1.00  0.00        H
ATOM   1384 2HH2 ARG A 143     43.707  43.680  65.201  1.00  0.00        H
ATOM   1385  N   GLY A 144     42.951  35.528  64.699  1.00  0.85        N
ATOM   1386  CA  GLY A 144     43.893  34.429  64.844  1.00  0.85        C
ATOM   1387  C   GLY A 144     43.383  33.281  65.666  1.00  0.85        C
ATOM   1388  O   GLY A 144     44.152  32.407  66.060  1.00  0.85        O
ATOM   1389  HN  GLY A 144     42.408  35.593  63.838  1.00  0.00        H
ATOM   1390  N   LYS A 145     42.076  33.256  65.970  1.00  0.74        N
ATOM   1391  CA  LYS A 145     41.474  32.197  66.748  1.00  0.74        C
ATOM   1392  C   LYS A 145     40.981  31.073  65.877  1.00  0.74        C
ATOM   1393  O   LYS A 145     40.259  31.263  64.899  1.00  0.74        O
ATOM   1394  CB  LYS A 145     40.263  32.708  67.562  1.00  0.74        C
ATOM   1395  CG  LYS A 145     40.639  33.731  68.638  1.00  0.74        C
ATOM   1396  CD  LYS A 145     41.560  33.107  69.688  1.00  0.74        C
ATOM   1397  CE  LYS A 145     41.843  34.021  70.868  1.00  0.74        C
ATOM   1398  NZ  LYS A 145     42.278  33.164  71.980  1.00  0.74       N1+
ATOM   1399  HN  LYS A 145     41.483  34.016  65.638  1.00  0.00        H
ATOM   1400  HZ1 LYS A 145     42.468  33.778  72.772  1.00  0.00        H
ATOM   1401  HZ2 LYS A 145     43.067  32.564  71.739  1.00  0.00        H
ATOM   1402  HZ3 LYS A 145     41.613  32.422  72.198  1.00  0.00        H
ATOM   1403  N   LYS A 146     41.329  29.825  66.239  1.00  0.73        N
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ATOM 1404 CA LYS A 146 40.756 28.670 65.588 1.00 0.73 C
ATOM 1405 C LYS A 146 39.257 28.550 65.816 1.00 0.73 C
ATOM 1406 O LYS A 146 38.711 28.973 66.833 1.00 0.73 O
ATOM 1407 CB LYS A 146 41.433 27.361 66.037 1.00 0.73 C
ATOM 1408 CG LYS A 146 42.932 27.320 65.718 1.00 0.73 C
ATOM 1409 CD LYS A 146 43.573 26.047 66.283 1.00 0.73 C
ATOM 1410 CE LYS A 146 45.075 25.986 66.034 1.00 0.73 C
ATOM 1411 NZ LYS A 146 45.614 24.767 66.670 1.00 0.73 N1+
ATOM 1412 HN LYS A 146 42.010 29.692 66.987 1.00 0.00 H
ATOM 1413 HZ1 LYS A 146 46.619 24.726 66.503 1.00 0.00 H
ATOM 1414 HZ2 LYS A 146 45.133 23.922 66.362 1.00 0.00 H
ATOM 1415 HZ3 LYS A 146 45.381 24.709 67.661 1.00 0.00 H
ATOM 1416 N ARG A 147 38.535 27.932 64.861 1.00 0.71 N
ATOM 1417 CA ARG A 147 37.084 27.835 64.883 1.00 0.71 C
ATOM 1418 C ARG A 147 36.458 27.241 66.145 1.00 0.71 C
ATOM 1419 O ARG A 147 35.317 27.538 66.485 1.00 0.71 O
ATOM 1420 CB ARG A 147 36.582 27.007 63.676 1.00 0.71 C
ATOM 1421 CG ARG A 147 35.140 27.377 63.285 1.00 0.71 C
ATOM 1422 CD ARG A 147 34.499 26.484 62.225 1.00 0.71 C
ATOM 1423 NE ARG A 147 34.025 25.258 62.927 1.00 0.71 N
ATOM 1424 CZ ARG A 147 33.081 24.455 62.425 1.00 0.71 C
ATOM 1425 NH1 ARG A 147 32.626 24.600 61.190 1.00 0.71 N1+
ATOM 1426 NH2 ARG A 147 32.594 23.477 63.180 1.00 0.71 N
ATOM 1427 HN ARG A 147 39.034 27.508 64.079 1.00 0.00 H
ATOM 1428 HE ARG A 147 34.438 25.021 63.829 1.00 0.00 H
ATOM 1429 1HH1 ARG A 147 33.000 25.351 60.610 1.00 0.00 H
ATOM 1430 2HH1 ARG A 147 31.906 23.987 60.807 1.00 0.00 H
ATOM 1431 1HH2 ARG A 147 32.944 23.365 64.131 1.00 0.00 H
ATOM 1432 2HH2 ARG A 147 31.874 22.864 62.797 1.00 0.00 H
ATOM 1433 N SER A 148 37.190 26.368 66.856 1.00 0.74 N
ATOM 1434 CA SER A 148 36.751 25.746 68.091 1.00 0.74 C
ATOM 1435 C SER A 148 37.267 26.438 69.343 1.00 0.74 C
ATOM 1436 O SER A 148 37.022 25.955 70.445 1.00 0.74 O
ATOM 1437 CB SER A 148 37.220 24.270 68.149 1.00 0.74 C
ATOM 1438 OG SER A 148 38.611 24.155 67.828 1.00 0.74 O
ATOM 1439 HN SER A 148 38.116 26.126 66.504 1.00 0.00 H
ATOM 1440 HG SER A 148 38.898 23.250 67.864 1.00 0.00 H
ATOM 1441 N GLU A 149 37.957 27.593 69.229 1.00 0.67 N
ATOM 1442 CA GLU A 149 38.347 28.384 70.390 1.00 0.67 C
ATOM 1443 C GLU A 149 37.318 29.455 70.718 1.00 0.67 C
ATOM 1444 O GLU A 149 37.330 30.024 71.807 1.00 0.67 O
ATOM 1445 CB GLU A 149 39.661 29.172 70.128 1.00 0.67 C
ATOM 1446 CG GLU A 149 40.949 28.321 70.067 1.00 0.67 C
ATOM 1447 CD GLU A 149 42.164 29.188 69.740 1.00 0.67 C

ATOM 1448 OE1 GLU A 149 42.518 30.080 70.559 1.00 0.67 O
ATOM 1449 OE2 GLU A 149 42.750 28.963 68.646 1.00 0.67 O1-
ATOM 1450 HN GLU A 149 38.214 27.923 68.299 1.00 0.00 H
ATOM 1451 N ALA A 150 36.392 29.761 69.789 1.00 0.77 N
ATOM 1452 CA ALA A 150 35.583 30.953 69.882 1.00 0.77 C
ATOM 1453 C ALA A 150 34.198 30.695 69.297 1.00 0.77 C
ATOM 1454 O ALA A 150 34.080 29.873 68.385 1.00 0.77 O
ATOM 1455 CB ALA A 150 36.277 32.090 69.099 1.00 0.77 C
ATOM 1456 HN ALA A 150 36.259 29.132 68.997 1.00 0.00 H
ATOM 1457 N PRO A 151 33.125 31.339 69.778 1.00 0.77 N
ATOM 1458 CA PRO A 151 31.753 30.998 69.406 1.00 0.77 C
ATOM 1459 C PRO A 151 31.447 31.238 67.924 1.00 0.77 C
ATOM 1460 O PRO A 151 32.165 32.031 67.302 1.00 0.77 O
ATOM 1461 CB PRO A 151 30.893 31.885 70.329 1.00 0.77 C
ATOM 1462 CG PRO A 151 31.788 33.066 70.702 1.00 0.77 C
ATOM 1463 CD PRO A 151 33.174 32.428 70.759 1.00 0.77 C
ATOM 1464 N PRO A 152 30.433 30.609 67.314 1.00 0.82 N
ATOM 1465 CA PRO A 152 30.052 30.804 65.924 1.00 0.82 C
ATOM 1466 C PRO A 152 29.878 32.242 65.500 1.00 0.82 C
ATOM 1467 O PRO A 152 29.147 32.991 66.147 1.00 0.82 O
ATOM 1468 CB PRO A 152 28.749 30.008 65.753 1.00 0.82 C
ATOM 1469 CG PRO A 152 28.817 28.927 66.828 1.00 0.82 C
ATOM 1470 CD PRO A 152 29.588 29.609 67.958 1.00 0.82 C
ATOM 1471 N HIS A 153 30.538 32.650 64.408 1.00 0.81 N
ATOM 1472 CA HIS A 153 30.432 34.003 63.925 1.00 0.81 C
ATOM 1473 C HIS A 153 30.883 34.005 62.482 1.00 0.81 C
ATOM 1474 O HIS A 153 31.631 33.125 62.049 1.00 0.81 O
ATOM 1475 CB HIS A 153 31.292 34.964 64.789 1.00 0.81 C
ATOM 1476 CG HIS A 153 30.912 36.418 64.779 1.00 0.81 C
ATOM 1477 CD2 HIS A 153 30.479 37.221 65.788 1.00 0.81 C
ATOM 1478 ND1 HIS A 153 31.082 37.159 63.629 1.00 0.81 N
ATOM 1479 CE1 HIS A 153 30.757 38.392 63.955 1.00 0.81 C
ATOM 1480 NE2 HIS A 153 30.384 38.487 65.250 1.00 0.81 N
ATOM 1481 HN HIS A 153 31.129 31.987 63.907 1.00 0.00 H
ATOM 1482 HD1 HIS A 153 31.394 36.823 62.718 1.00 0.00 H
ATOM 1483 HE2 HIS A 153 30.089 39.333 65.737 1.00 0.00 H
ATOM 1484 N ILE A 154 30.455 35.009 61.697 1.00 0.82 N
ATOM 1485 CA ILE A 154 30.938 35.272 60.352 1.00 0.82 C
ATOM 1486 C ILE A 154 32.426 35.621 60.356 1.00 0.82 C
ATOM 1487 O ILE A 154 33.198 35.185 59.503 1.00 0.82 O
ATOM 1488 CB ILE A 154 30.072 36.326 59.653 1.00 0.82 C
ATOM 1489 CG1 ILE A 154 30.413 36.515 58.161 1.00 0.82 C
ATOM 1490 CG2 ILE A 154 30.097 37.685 60.385 1.00 0.82 C
ATOM 1491 CD1 ILE A 154 30.203 35.248 57.328 1.00 0.82 C

ATOM 1492 HN ILE A 154 29.739 35.631 62.073 1.00 0.00 H
ATOM 1493 N PHE A 155 32.884 36.356 61.394 1.00 0.80 N
ATOM 1494 CA PHE A 155 34.271 36.712 61.636 1.00 0.80 C
ATOM 1495 C PHE A 155 35.178 35.494 61.797 1.00 0.80 C
ATOM 1496 O PHE A 155 36.265 35.439 61.231 1.00 0.80 O
ATOM 1497 CB PHE A 155 34.382 37.604 62.906 1.00 0.80 C
ATOM 1498 CG PHE A 155 33.771 38.990 62.790 1.00 0.80 C
ATOM 1499 CD1 PHE A 155 33.348 39.587 61.584 1.00 0.80 C
ATOM 1500 CD2 PHE A 155 33.667 39.748 63.970 1.00 0.80 C
ATOM 1501 CE1 PHE A 155 32.868 40.904 61.563 1.00 0.80 C
ATOM 1502 CE2 PHE A 155 33.171 41.056 63.958 1.00 0.80 C
ATOM 1503 CZ PHE A 155 32.784 41.640 62.748 1.00 0.80 C
ATOM 1504 HN PHE A 155 32.194 36.690 62.067 1.00 0.00 H
ATOM 1505 N SER A 156 34.728 34.451 62.523 1.00 0.83 N
ATOM 1506 CA SER A 156 35.458 33.201 62.702 1.00 0.83 C
ATOM 1507 C SER A 156 35.721 32.446 61.410 1.00 0.83 C
ATOM 1508 O SER A 156 36.815 31.945 61.164 1.00 0.83 O
ATOM 1509 CB SER A 156 34.686 32.216 63.615 1.00 0.83 C
ATOM 1510 OG SER A 156 34.252 32.865 64.807 1.00 0.83 O
ATOM 1511 HN SER A 156 33.819 34.542 62.976 1.00 0.00 H
ATOM 1512 HG SER A 156 33.779 32.261 65.367 1.00 0.00 H
ATOM 1513 N ILE A 157 34.713 32.348 60.517 1.00 0.81 N
ATOM 1514 CA ILE A 157 34.877 31.754 59.194 1.00 0.81 C
ATOM 1515 C ILE A 157 35.811 32.573 58.312 1.00 0.81 C
ATOM 1516 O ILE A 157 36.676 32.023 57.629 1.00 0.81 O
ATOM 1517 CB ILE A 157 33.530 31.452 58.540 1.00 0.81 C
ATOM 1518 CG1 ILE A 157 32.734 30.403 59.365 1.00 0.81 C
ATOM 1519 CG2 ILE A 157 33.702 30.971 57.081 1.00 0.81 C
ATOM 1520 CD1 ILE A 157 33.436 29.047 59.550 1.00 0.81 C
ATOM 1521 HN ILE A 157 33.794 32.706 60.779 1.00 0.00 H
ATOM 1522 N SER A 158 35.722 33.918 58.368 1.00 0.86 N
ATOM 1523 CA SER A 158 36.673 34.810 57.711 1.00 0.86 C
ATOM 1524 C SER A 158 38.111 34.619 58.180 1.00 0.86 C
ATOM 1525 O SER A 158 39.025 34.556 57.362 1.00 0.86 O
ATOM 1526 CB SER A 158 36.322 36.303 57.921 1.00 0.86 C
ATOM 1527 OG SER A 158 35.047 36.608 57.362 1.00 0.86 O
ATOM 1528 HN SER A 158 34.953 34.332 58.895 1.00 0.00 H
ATOM 1529 HG SER A 158 34.832 37.524 57.491 1.00 0.00 H
ATOM 1530 N ASP A 159 38.357 34.477 59.503 1.00 0.81 N
ATOM 1531 CA ASP A 159 39.674 34.178 60.053 1.00 0.81 C
ATOM 1532 C ASP A 159 40.226 32.812 59.619 1.00 0.81 C
ATOM 1533 O ASP A 159 41.375 32.697 59.195 1.00 0.81 O
ATOM 1534 CB ASP A 159 39.670 34.337 61.594 1.00 0.81 C
ATOM 1535 CG ASP A 159 41.043 34.775 62.070 1.00 0.81 C

ATOM 1536 OD1 ASP A 159 41.969 33.940 62.143 1.00 0.81 O
ATOM 1537 OD2 ASP A 159 41.194 35.993 62.350 1.00 0.81 O1-
ATOM 1538 HN ASP A 159 37.578 34.585 60.152 1.00 0.00 H
ATOM 1539 N ASN A 160 39.391 31.742 59.603 1.00 0.79 N
ATOM 1540 CA ASN A 160 39.804 30.448 59.057 1.00 0.79 C
ATOM 1541 C ASN A 160 40.243 30.542 57.594 1.00 0.79 C
ATOM 1542 O ASN A 160 41.299 30.041 57.216 1.00 0.79 O
ATOM 1543 CB ASN A 160 38.666 29.389 59.096 1.00 0.79 C
ATOM 1544 CG ASN A 160 38.295 28.980 60.516 1.00 0.79 C
ATOM 1545 ND2 ASN A 160 36.968 28.925 60.771 1.00 0.79 N
ATOM 1546 OD1 ASN A 160 39.106 28.643 61.376 1.00 0.79 O
ATOM 1547 HN ASN A 160 38.449 31.842 59.982 1.00 0.00 H
ATOM 1548 1HD2 ASN A 160 36.295 29.205 60.057 1.00 0.00 H
ATOM 1549 2HD2 ASN A 160 36.720 28.651 61.722 1.00 0.00 H
ATOM 1550 N ALA A 161 39.467 31.252 56.746 1.00 0.83 N
ATOM 1551 CA ALA A 161 39.834 31.524 55.369 1.00 0.83 C
ATOM 1552 C ALA A 161 41.119 32.344 55.239 1.00 0.83 C
ATOM 1553 O ALA A 161 41.976 32.065 54.404 1.00 0.83 O
ATOM 1554 CB ALA A 161 38.661 32.227 54.658 1.00 0.83 C
ATOM 1555 HN ALA A 161 38.579 31.615 57.091 1.00 0.00 H
ATOM 1556 N TYR A 162 41.316 33.361 56.107 1.00 0.79 N
ATOM 1557 CA TYR A 162 42.550 34.126 56.179 1.00 0.79 C
ATOM 1558 C TYR A 162 43.762 33.258 56.487 1.00 0.79 C
ATOM 1559 O TYR A 162 44.767 33.288 55.777 1.00 0.79 O
ATOM 1560 CB TYR A 162 42.429 35.196 57.307 1.00 0.79 C
ATOM 1561 CG TYR A 162 43.538 36.218 57.297 1.00 0.79 C
ATOM 1562 CD1 TYR A 162 43.926 36.887 56.121 1.00 0.79 C
ATOM 1563 CD2 TYR A 162 44.208 36.507 58.497 1.00 0.79 C
ATOM 1564 CE1 TYR A 162 44.985 37.806 56.145 1.00 0.79 C
ATOM 1565 CE2 TYR A 162 45.259 37.433 58.524 1.00 0.79 C
ATOM 1566 CZ TYR A 162 45.651 38.074 57.345 1.00 0.79 C
ATOM 1567 OH TYR A 162 46.721 38.986 57.365 1.00 0.79 O
ATOM 1568 HN TYR A 162 40.559 33.605 56.745 1.00 0.00 H
ATOM 1569 HH TYR A 162 47.173 39.168 58.180 1.00 0.00 H
ATOM 1570 N GLN A 163 43.671 32.412 57.529 1.00 0.74 N
ATOM 1571 CA GLN A 163 44.752 31.538 57.926 1.00 0.74 C
ATOM 1572 C GLN A 163 45.081 30.472 56.895 1.00 0.74 C
ATOM 1573 O GLN A 163 46.251 30.249 56.600 1.00 0.74 O
ATOM 1574 CB GLN A 163 44.496 30.916 59.320 1.00 0.74 C
ATOM 1575 CG GLN A 163 45.717 30.173 59.923 1.00 0.74 C
ATOM 1576 CD GLN A 163 46.934 31.094 60.055 1.00 0.74 C
ATOM 1577 NE2 GLN A 163 47.968 30.872 59.211 1.00 0.74 N
ATOM 1578 OE1 GLN A 163 46.983 31.996 60.889 1.00 0.74 O
ATOM 1579 HN GLN A 163 42.802 32.386 58.062 1.00 0.00 H

ATOM 1580 1HE2 GLN A 163 48.778 31.485 59.299 1.00 0.00 H
ATOM 1581 2HE2 GLN A 163 47.927 30.124 58.519 1.00 0.00 H
ATOM 1582 N TYR A 164 44.074 29.827 56.268 1.00 0.69 N
ATOM 1583 CA TYR A 164 44.298 28.896 55.166 1.00 0.69 C
ATOM 1584 C TYR A 164 44.958 29.549 53.953 1.00 0.69 C
ATOM 1585 O TYR A 164 45.876 29.009 53.343 1.00 0.69 O
ATOM 1586 CB TYR A 164 42.987 28.201 54.711 1.00 0.69 C
ATOM 1587 CG TYR A 164 42.346 27.337 55.774 1.00 0.69 C
ATOM 1588 CD1 TYR A 164 43.089 26.620 56.732 1.00 0.69 C
ATOM 1589 CD2 TYR A 164 40.947 27.204 55.775 1.00 0.69 C
ATOM 1590 CE1 TYR A 164 42.442 25.827 57.691 1.00 0.69 C
ATOM 1591 CE2 TYR A 164 40.297 26.400 56.723 1.00 0.69 C
ATOM 1592 CZ TYR A 164 41.050 25.714 57.683 1.00 0.69 C
ATOM 1593 OH TYR A 164 40.409 24.887 58.627 1.00 0.69 O
ATOM 1594 HN TYR A 164 43.117 29.997 56.577 1.00 0.00 H
ATOM 1595 HH TYR A 164 40.920 24.421 59.279 1.00 0.00 H
ATOM 1596 N MET A 165 44.573 30.791 53.598 1.00 0.73 N
ATOM 1597 CA MET A 165 45.251 31.529 52.543 1.00 0.73 C
ATOM 1598 C MET A 165 46.745 31.733 52.801 1.00 0.73 C
ATOM 1599 O MET A 165 47.579 31.534 51.921 1.00 0.73 O
ATOM 1600 CB MET A 165 44.599 32.919 52.377 1.00 0.73 C
ATOM 1601 CG MET A 165 45.122 33.727 51.176 1.00 0.73 C
ATOM 1602 SD MET A 165 44.651 35.474 51.226 1.00 0.73 S
ATOM 1603 CE MET A 165 45.765 35.972 52.573 1.00 0.73 C
ATOM 1604 HN MET A 165 43.786 31.225 54.081 1.00 0.00 H
ATOM 1605 N LEU A 166 47.122 32.112 54.037 1.00 0.73 N
ATOM 1606 CA LEU A 166 48.513 32.239 54.434 1.00 0.73 C
ATOM 1607 C LEU A 166 49.266 30.921 54.542 1.00 0.73 C
ATOM 1608 O LEU A 166 50.385 30.793 54.044 1.00 0.73 O
ATOM 1609 CB LEU A 166 48.609 32.951 55.804 1.00 0.73 C
ATOM 1610 CG LEU A 166 47.994 34.361 55.826 1.00 0.73 C
ATOM 1611 CD1 LEU A 166 48.033 34.936 57.248 1.00 0.73 C
ATOM 1612 CD2 LEU A 166 48.683 35.317 54.847 1.00 0.73 C
ATOM 1613 HN LEU A 166 46.398 32.319 54.725 1.00 0.00 H
ATOM 1614 N THR A 167 48.670 29.909 55.204 1.00 0.72 N
ATOM 1615 CA THR A 167 49.303 28.614 55.448 1.00 0.72 C
ATOM 1616 C THR A 167 49.514 27.822 54.183 1.00 0.72 C
ATOM 1617 O THR A 167 50.613 27.335 53.914 1.00 0.72 O
ATOM 1618 CB THR A 167 48.485 27.736 56.395 1.00 0.72 C
ATOM 1619 CG2 THR A 167 49.151 26.379 56.667 1.00 0.72 C
ATOM 1620 OG1 THR A 167 48.354 28.355 57.667 1.00 0.72 O
ATOM 1621 HN THR A 167 47.723 30.055 55.555 1.00 0.00 H
ATOM 1622 HG1 THR A 167 47.846 27.809 58.256 1.00 0.00 H
ATOM 1623 N ASP A 168 48.468 27.714 53.348 1.00 0.67 N

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ATOM   1624  CA  ASP A 168     48.452  26.762  52.259  1.00  0.67        C
ATOM   1625  C   ASP A 168     48.820  27.443  50.945  1.00  0.67        C
ATOM   1626  O   ASP A 168     49.089  26.799  49.933  1.00  0.67        O
ATOM   1627  CB  ASP A 168     47.031  26.144  52.201  1.00  0.67        C
ATOM   1628  CG  ASP A 168     46.689  25.577  53.573  1.00  0.67        C
ATOM   1629  OD1 ASP A 168     47.413  24.652  54.023  1.00  0.67        O
ATOM   1630  OD2 ASP A 168     45.749  26.101  54.224  1.00  0.67        O1-
ATOM   1631  HN  ASP A 168     47.660  28.322  53.486  1.00  0.00        H
ATOM   1632  N   ARG A 169     48.893  28.796  50.960  1.00  0.65        N
ATOM   1633  CA  ARG A 169     49.215  29.657  49.828  1.00  0.65        C
ATOM   1634  C   ARG A 169     48.208  29.537  48.692  1.00  0.65        C
ATOM   1635  O   ARG A 169     48.540  29.592  47.508  1.00  0.65        O
ATOM   1636  CB  ARG A 169     50.677  29.493  49.336  1.00  0.65        C
ATOM   1637  CG  ARG A 169     51.718  29.849  50.415  1.00  0.65        C
ATOM   1638  CD  ARG A 169     53.152  29.751  49.899  1.00  0.65        C
ATOM   1639  NE  ARG A 169     54.036  30.179  51.029  1.00  0.65        N
ATOM   1640  CZ  ARG A 169     55.374  30.185  50.978  1.00  0.65        C
ATOM   1641  NH1 ARG A 169     56.068  30.594  52.036  1.00  0.65        N1+
ATOM   1642  NH2 ARG A 169     56.026  29.789  49.889  1.00  0.65        N
ATOM   1643  HN  ARG A 169     48.704  29.257  51.850  1.00  0.00        H
ATOM   1644  HE  ARG A 169     53.590  30.486  51.894  1.00  0.00        H
ATOM   1645 1HH1 ARG A 169     57.087  30.599  51.997  1.00  0.00        H
ATOM   1646 2HH1 ARG A 169     55.568  30.898  52.871  1.00  0.00        H
ATOM   1647 1HH2 ARG A 169     57.045  29.794  49.850  1.00  0.00        H
ATOM   1648 2HH2 ARG A 169     55.494  29.475  49.077  1.00  0.00        H
ATOM   1649  N   GLU A 170     46.924  29.399  49.058  1.00  0.68        N
ATOM   1650  CA  GLU A 170     45.848  29.106  48.141  1.00  0.68        C
ATOM   1651  C   GLU A 170     44.771  30.168  48.234  1.00  0.68        C
ATOM   1652  O   GLU A 170     44.387  30.615  49.315  1.00  0.68        O
ATOM   1653  CB  GLU A 170     45.252  27.714  48.457  1.00  0.68        C
ATOM   1654  CG  GLU A 170     44.119  27.267  47.497  1.00  0.68        C
ATOM   1655  CD  GLU A 170     43.512  25.909  47.846  1.00  0.68        C
ATOM   1656  OE1 GLU A 170     44.076  25.186  48.699  1.00  0.68        O
ATOM   1657  OE2 GLU A 170     42.442  25.604  47.257  1.00  0.68        O1-
ATOM   1658  HN  GLU A 170     46.694  29.508  50.046  1.00  0.00        H
ATOM   1659  N   ASN A 171     44.243  30.626  47.080  1.00  0.78        N
ATOM   1660  CA  ASN A 171     43.119  31.546  47.032  1.00  0.78        C
ATOM   1661  C   ASN A 171     41.854  30.960  47.649  1.00  0.78        C
ATOM   1662  O   ASN A 171     41.595  29.762  47.584  1.00  0.78        O
ATOM   1663  CB  ASN A 171     42.817  32.016  45.589  1.00  0.78        C
ATOM   1664  CG  ASN A 171     44.028  32.765  45.060  1.00  0.78        C
ATOM   1665  ND2 ASN A 171     44.467  32.438  43.825  1.00  0.78        N
ATOM   1666  OD1 ASN A 171     44.577  33.637  45.731  1.00  0.78        O
ATOM   1667  HN  ASN A 171     44.652  30.312  46.200  1.00  0.00        H
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ATOM 1668 1HD2 ASN A 171 44.012 31.715 43.268 1.00 0.00 H
ATOM 1669 2HD2 ASN A 171 45.280 32.941 43.470 1.00 0.00 H
ATOM 1670 N GLN A 172 41.028 31.796 48.291 1.00 0.79 N
ATOM 1671 CA GLN A 172 39.897 31.304 49.055 1.00 0.79 C
ATOM 1672 C GLN A 172 38.626 31.946 48.551 1.00 0.79 C
ATOM 1673 O GLN A 172 38.638 33.033 47.973 1.00 0.79 O
ATOM 1674 CB GLN A 172 40.036 31.630 50.560 1.00 0.79 C
ATOM 1675 CG GLN A 172 41.408 31.272 51.177 1.00 0.79 C
ATOM 1676 CD GLN A 172 41.528 29.792 51.529 1.00 0.79 C
ATOM 1677 NE2 GLN A 172 42.547 29.101 50.981 1.00 0.79 N
ATOM 1678 OE1 GLN A 172 40.723 29.282 52.312 1.00 0.79 O
ATOM 1679 HN GLN A 172 41.198 32.801 48.242 1.00 0.00 H
ATOM 1680 1HE2 GLN A 172 42.627 28.112 51.216 1.00 0.00 H
ATOM 1681 2HE2 GLN A 172 43.213 29.523 50.333 1.00 0.00 H
ATOM 1682 N SER A 173 37.472 31.297 48.758 1.00 0.88 N
ATOM 1683 CA SER A 173 36.195 31.925 48.476 1.00 0.88 C
ATOM 1684 C SER A 173 35.245 31.760 49.631 1.00 0.88 C
ATOM 1685 O SER A 173 35.235 30.759 50.339 1.00 0.88 O
ATOM 1686 CB SER A 173 35.521 31.496 47.145 1.00 0.88 C
ATOM 1687 OG SER A 173 35.165 30.113 47.119 1.00 0.88 O
ATOM 1688 HN SER A 173 37.492 30.344 49.121 1.00 0.00 H
ATOM 1689 HG SER A 173 34.753 29.850 46.304 1.00 0.00 H
ATOM 1690 N ILE A 174 34.426 32.792 49.876 1.00 0.87 N
ATOM 1691 CA ILE A 174 33.404 32.773 50.899 1.00 0.87 C
ATOM 1692 C ILE A 174 32.099 32.897 50.158 1.00 0.87 C
ATOM 1693 O ILE A 174 31.816 33.887 49.480 1.00 0.87 O
ATOM 1694 CB ILE A 174 33.582 33.861 51.953 1.00 0.87 C
ATOM 1695 CG1 ILE A 174 34.887 33.588 52.742 1.00 0.87 C
ATOM 1696 CG2 ILE A 174 32.362 33.893 52.903 1.00 0.87 C
ATOM 1697 CD1 ILE A 174 35.308 34.727 53.669 1.00 0.87 C
ATOM 1698 HN ILE A 174 34.529 33.635 49.311 1.00 0.00 H
ATOM 1699 N LEU A 175 31.289 31.834 50.231 1.00 0.90 N
ATOM 1700 CA LEU A 175 30.114 31.677 49.415 1.00 0.90 C
ATOM 1701 C LEU A 175 28.910 31.731 50.309 1.00 0.90 C
ATOM 1702 O LEU A 175 28.651 30.836 51.116 1.00 0.90 O
ATOM 1703 CB LEU A 175 30.166 30.340 48.649 1.00 0.90 C
ATOM 1704 CG LEU A 175 31.410 30.220 47.747 1.00 0.90 C
ATOM 1705 CD1 LEU A 175 31.452 28.854 47.064 1.00 0.90 C
ATOM 1706 CD2 LEU A 175 31.475 31.323 46.686 1.00 0.90 C
ATOM 1707 HN LEU A 175 31.516 31.098 50.899 1.00 0.00 H
ATOM 1708 N ILE A 176 28.152 32.833 50.196 1.00 0.89 N
ATOM 1709 CA ILE A 176 27.081 33.128 51.116 1.00 0.89 C
ATOM 1710 C ILE A 176 25.771 32.869 50.397 1.00 0.89 C
ATOM 1711 O ILE A 176 25.367 33.580 49.480 1.00 0.89 O

ATOM 1712 CB ILE A 176 27.207 34.542 51.680 1.00 0.89 C
ATOM 1713 CG1 ILE A 176 28.659 34.770 52.186 1.00 0.89 C
ATOM 1714 CG2 ILE A 176 26.180 34.720 52.814 1.00 0.89 C
ATOM 1715 CD1 ILE A 176 28.888 36.091 52.926 1.00 0.89 C
ATOM 1716 HN ILE A 176 28.340 33.484 49.434 1.00 0.00 H
ATOM 1717 N THR A 177 25.079 31.776 50.773 1.00 0.91 N
ATOM 1718 CA THR A 177 23.850 31.347 50.108 1.00 0.91 C
ATOM 1719 C THR A 177 22.646 31.878 50.836 1.00 0.91 C
ATOM 1720 O THR A 177 22.729 32.292 51.985 1.00 0.91 O
ATOM 1721 CB THR A 177 23.663 29.836 49.899 1.00 0.91 C
ATOM 1722 CG2 THR A 177 24.971 29.248 49.359 1.00 0.91 C
ATOM 1723 OG1 THR A 177 23.310 29.112 51.075 1.00 0.91 O
ATOM 1724 HN THR A 177 25.428 31.224 51.556 1.00 0.00 H
ATOM 1725 HG1 THR A 177 22.499 29.477 51.410 1.00 0.00 H
ATOM 1726 N GLY A 178 21.465 31.849 50.197 1.00 0.90 N
ATOM 1727 CA GLY A 178 20.224 32.188 50.880 1.00 0.90 C
ATOM 1728 C GLY A 178 19.310 32.925 49.965 1.00 0.90 C
ATOM 1729 O GLY A 178 19.750 33.676 49.095 1.00 0.90 O
ATOM 1730 HN GLY A 178 21.437 31.584 49.212 1.00 0.00 H
ATOM 1731 N GLU A 179 17.995 32.745 50.126 1.00 0.77 N
ATOM 1732 CA GLU A 179 16.995 33.449 49.353 1.00 0.77 C
ATOM 1733 C GLU A 179 16.973 34.973 49.496 1.00 0.77 C
ATOM 1734 O GLU A 179 17.811 35.603 50.156 1.00 0.77 O
ATOM 1735 CB GLU A 179 15.618 32.784 49.508 1.00 0.77 C
ATOM 1736 CG GLU A 179 14.970 32.816 50.905 1.00 0.77 C
ATOM 1737 CD GLU A 179 13.707 31.962 50.821 1.00 0.77 C
ATOM 1738 OE1 GLU A 179 13.670 30.903 51.498 1.00 0.77 O
ATOM 1739 OE2 GLU A 179 12.822 32.327 50.004 1.00 0.77 O1-
ATOM 1740 HN GLU A 179 17.681 32.077 50.830 1.00 0.00 H
ATOM 1741 N SER A 180 16.060 35.650 48.780 1.00 0.82 N
ATOM 1742 CA SER A 180 15.912 37.097 48.872 1.00 0.82 C
ATOM 1743 C SER A 180 15.509 37.550 50.269 1.00 0.82 C
ATOM 1744 O SER A 180 14.570 37.039 50.860 1.00 0.82 O
ATOM 1745 CB SER A 180 14.925 37.653 47.822 1.00 0.82 C
ATOM 1746 OG SER A 180 15.029 39.073 47.693 1.00 0.82 O
ATOM 1747 HN SER A 180 15.448 35.133 48.149 1.00 0.00 H
ATOM 1748 HG SER A 180 14.422 39.415 47.047 1.00 0.00 H
ATOM 1749 N GLY A 181 16.261 38.507 50.853 1.00 0.82 N
ATOM 1750 CA GLY A 181 16.069 38.961 52.232 1.00 0.82 C
ATOM 1751 C GLY A 181 16.758 38.154 53.303 1.00 0.82 C
ATOM 1752 O GLY A 181 16.773 38.556 54.460 1.00 0.82 O
ATOM 1753 HN GLY A 181 17.004 38.938 50.303 1.00 0.00 H
ATOM 1754 N ALA A 182 17.433 37.039 52.965 1.00 0.86 N
ATOM 1755 CA ALA A 182 18.005 36.157 53.971 1.00 0.86 C

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ATOM   1756  C   ALA A 182     19.253  36.678  54.687  1.00  0.86        C
ATOM   1757  O   ALA A 182     19.640  36.163  55.729  1.00  0.86        O
ATOM   1758  CB  ALA A 182     18.301  34.785  53.341  1.00  0.86        C
ATOM   1759  HN  ALA A 182     17.546  36.807  51.978  1.00  0.00        H
ATOM   1760  N   GLY A 183     19.909  37.742  54.172  1.00  0.86        N
ATOM   1761  CA  GLY A 183     20.990  38.419  54.898  1.00  0.86        C
ATOM   1762  C   GLY A 183     22.369  38.297  54.310  1.00  0.86        C
ATOM   1763  O   GLY A 183     23.349  38.649  54.961  1.00  0.86        O
ATOM   1764  HN  GLY A 183     19.644  38.085  53.249  1.00  0.00        H
ATOM   1765  N   LYS A 184     22.492  37.839  53.046  1.00  0.81        N
ATOM   1766  CA  LYS A 184     23.773  37.697  52.355  1.00  0.81        C
ATOM   1767  C   LYS A 184     24.580  38.989  52.272  1.00  0.81        C
ATOM   1768  O   LYS A 184     25.733  39.037  52.691  1.00  0.81        O
ATOM   1769  CB  LYS A 184     23.566  37.203  50.902  1.00  0.81        C
ATOM   1770  CG  LYS A 184     22.896  35.828  50.756  1.00  0.81        C
ATOM   1771  CD  LYS A 184     22.758  35.413  49.278  1.00  0.81        C
ATOM   1772  CE  LYS A 184     21.823  36.288  48.447  1.00  0.81        C
ATOM   1773  NZ  LYS A 184     20.475  36.259  49.036  1.00  0.81        N1+
ATOM   1774  HN  LYS A 184     21.643  37.577  52.544  1.00  0.00        H
ATOM   1775  HZ1 LYS A 184     19.850  36.844  48.481  1.00  0.00        H
ATOM   1776  HZ2 LYS A 184     20.478  36.524  50.021  1.00  0.00        H
ATOM   1777  HZ3 LYS A 184     20.121  35.308  49.143  1.00  0.00        H
ATOM   1778  N   THR A 185     23.946  40.098  51.840  1.00  0.79        N
ATOM   1779  CA  THR A 185     24.548  41.418  51.698  1.00  0.79        C
ATOM   1780  C   THR A 185     25.145  41.952  52.981  1.00  0.79        C
ATOM   1781  O   THR A 185     26.230  42.531  53.012  1.00  0.79        O
ATOM   1782  CB  THR A 185     23.512  42.438  51.225  1.00  0.79        C
ATOM   1783  CG2 THR A 185     24.195  43.704  50.694  1.00  0.79        C
ATOM   1784  OG1 THR A 185     22.728  41.890  50.176  1.00  0.79        O
ATOM   1785  HN  THR A 185     22.961  40.005  51.591  1.00  0.00        H
ATOM   1786  HG1 THR A 185     22.305  41.106  50.505  1.00  0.00        H
ATOM   1787  N   VAL A 186     24.440  41.751  54.110  1.00  0.83        N
ATOM   1788  CA  VAL A 186     24.917  42.123  55.429  1.00  0.83        C
ATOM   1789  C   VAL A 186     26.109  41.288  55.867  1.00  0.83        C
ATOM   1790  O   VAL A 186     27.114  41.828  56.326  1.00  0.83        O
ATOM   1791  CB  VAL A 186     23.791  42.021  56.451  1.00  0.83        C
ATOM   1792  CG1 VAL A 186     24.281  42.386  57.868  1.00  0.83        C
ATOM   1793  CG2 VAL A 186     22.649  42.971  56.037  1.00  0.83        C
ATOM   1794  HN  VAL A 186     23.522  41.314  54.034  1.00  0.00        H
ATOM   1795  N   ASN A 187     26.056  39.949  55.682  1.00  0.83        N
ATOM   1796  CA  ASN A 187     27.155  39.047  56.006  1.00  0.83        C
ATOM   1797  C   ASN A 187     28.394  39.336  55.163  1.00  0.83        C
ATOM   1798  O   ASN A 187     29.500  39.402  55.691  1.00  0.83        O
ATOM   1799  CB  ASN A 187     26.757  37.551  55.854  1.00  0.83        C
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ATOM   1800  CG  ASN A 187     25.944  37.031  57.035  1.00  0.83        C
ATOM   1801  ND2 ASN A 187     24.702  37.526  57.199  1.00  0.83        N
ATOM   1802  OD1 ASN A 187     26.391  36.155  57.781  1.00  0.83        O
ATOM   1803  HN  ASN A 187     25.201  39.549  55.295  1.00  0.00        H
ATOM   1804 1HD2 ASN A 187     24.333  38.250  56.583  1.00  0.00        H
ATOM   1805 2HD2 ASN A 187     24.158  37.178  57.989  1.00  0.00        H
ATOM   1806  N   THR A 188     28.227  39.601  53.851  1.00  0.85        N
ATOM   1807  CA  THR A 188     29.288  40.013  52.932  1.00  0.85        C
ATOM   1808  C   THR A 188     30.007  41.253  53.407  1.00  0.85        C
ATOM   1809  O   THR A 188     31.231  41.277  53.487  1.00  0.85        O
ATOM   1810  CB  THR A 188     28.728  40.281  51.539  1.00  0.85        C
ATOM   1811  CG2 THR A 188     29.767  40.872  50.572  1.00  0.85        C
ATOM   1812  OG1 THR A 188     28.310  39.049  50.978  1.00  0.85        O
ATOM   1813  HN  THR A 188     27.286  39.507  53.469  1.00  0.00        H
ATOM   1814  HG1 THR A 188     27.961  39.216  50.110  1.00  0.00        H
ATOM   1815  N   LYS A 189     29.275  42.301  53.834  1.00  0.81        N
ATOM   1816  CA  LYS A 189     29.878  43.486  54.426  1.00  0.81        C
ATOM   1817  C   LYS A 189     30.660  43.209  55.709  1.00  0.81        C
ATOM   1818  O   LYS A 189     31.723  43.782  55.933  1.00  0.81        O
ATOM   1819  CB  LYS A 189     28.823  44.599  54.653  1.00  0.81        C
ATOM   1820  CG  LYS A 189     28.351  45.205  53.322  1.00  0.81        C
ATOM   1821  CD  LYS A 189     27.399  46.408  53.455  1.00  0.81        C
ATOM   1822  CE  LYS A 189     25.961  46.055  53.857  1.00  0.81        C
ATOM   1823  NZ  LYS A 189     25.057  47.175  53.521  1.00  0.81        N1+
ATOM   1824  HN  LYS A 189     28.260  42.262  53.739  1.00  0.00        H
ATOM   1825  HZ1 LYS A 189     24.101  46.940  53.788  1.00  0.00        H
ATOM   1826  HZ2 LYS A 189     25.126  47.442  52.539  1.00  0.00        H
ATOM   1827  HZ3 LYS A 189     25.366  48.054  53.935  1.00  0.00        H
ATOM   1828  N   ARG A 190     30.184  42.296  56.579  1.00  0.77        N
ATOM   1829  CA  ARG A 190     30.938  41.849  57.742  1.00  0.77        C
ATOM   1830  C   ARG A 190     32.211  41.094  57.428  1.00  0.77        C
ATOM   1831  O   ARG A 190     33.227  41.280  58.097  1.00  0.77        O
ATOM   1832  CB  ARG A 190     30.070  40.999  58.695  1.00  0.77        C
ATOM   1833  CG  ARG A 190     28.848  41.758  59.239  1.00  0.77        C
ATOM   1834  CD  ARG A 190     29.192  43.155  59.758  1.00  0.77        C
ATOM   1835  NE  ARG A 190     27.941  43.743  60.301  1.00  0.77        N
ATOM   1836  CZ  ARG A 190     27.870  45.005  60.736  1.00  0.77        C
ATOM   1837  NH1 ARG A 190     26.726  45.442  61.254  1.00  0.77        N1+
ATOM   1838  NH2 ARG A 190     28.914  45.828  60.693  1.00  0.77        N
ATOM   1839  HN  ARG A 190     29.257  41.902  56.416  1.00  0.00        H
ATOM   1840  HE  ARG A 190     27.104  43.162  60.344  1.00  0.00        H
ATOM   1841 1HH1 ARG A 190     25.925  44.811  61.287  1.00  0.00        H
ATOM   1842 2HH1 ARG A 190     26.672  46.405  61.586  1.00  0.00        H
ATOM   1843 1HH2 ARG A 190     29.792  45.493  60.296  1.00  0.00        H
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ATOM   1844 2HH2 ARG A 190     28.860  46.791  61.025  1.00  0.00        H
ATOM   1845  N   VAL A 191     32.206  40.246  56.386  1.00  0.89        N
ATOM   1846  CA  VAL A 191     33.410  39.610  55.873  1.00  0.89        C
ATOM   1847  C   VAL A 191     34.438  40.638  55.409  1.00  0.89        C
ATOM   1848  O   VAL A 191     35.597  40.604  55.820  1.00  0.89        O
ATOM   1849  CB  VAL A 191     33.069  38.660  54.728  1.00  0.89        C
ATOM   1850  CG1 VAL A 191     34.332  38.064  54.097  1.00  0.89        C
ATOM   1851  CG2 VAL A 191     32.227  37.494  55.266  1.00  0.89        C
ATOM   1852  HN  VAL A 191     31.316  40.038  55.933  1.00  0.00        H
ATOM   1853  N   ILE A 192     34.016  41.638  54.602  1.00  0.85        N
ATOM   1854  CA  ILE A 192     34.890  42.711  54.133  1.00  0.85        C
ATOM   1855  C   ILE A 192     35.426  43.569  55.274  1.00  0.85        C
ATOM   1856  O   ILE A 192     36.621  43.856  55.342  1.00  0.85        O
ATOM   1857  CB  ILE A 192     34.218  43.591  53.075  1.00  0.85        C
ATOM   1858  CG1 ILE A 192     33.665  42.786  51.869  1.00  0.85        C
ATOM   1859  CG2 ILE A 192     35.205  44.665  52.568  1.00  0.85        C
ATOM   1860  CD1 ILE A 192     34.579  41.675  51.344  1.00  0.85        C
ATOM   1861  HN  ILE A 192     33.040  41.643  54.306  1.00  0.00        H
ATOM   1862  N   GLN A 193     34.562  43.933  56.248  1.00  0.77        N
ATOM   1863  CA  GLN A 193     34.937  44.645  57.460  1.00  0.77        C
ATOM   1864  C   GLN A 193     35.987  43.903  58.274  1.00  0.77        C
ATOM   1865  O   GLN A 193     36.970  44.483  58.720  1.00  0.77        O
ATOM   1866  CB  GLN A 193     33.684  44.845  58.361  1.00  0.77        C
ATOM   1867  CG  GLN A 193     33.949  45.617  59.678  1.00  0.77        C
ATOM   1868  CD  GLN A 193     32.791  45.510  60.676  1.00  0.77        C
ATOM   1869  NE2 GLN A 193     33.145  45.738  61.964  1.00  0.77        N
ATOM   1870  OE1 GLN A 193     31.628  45.236  60.363  1.00  0.77        O
ATOM   1871  HN  GLN A 193     33.579  43.692  56.125  1.00  0.00        H
ATOM   1872 1HE2 GLN A 193     34.105  45.964  62.222  1.00  0.00        H
ATOM   1873 2HE2 GLN A 193     32.374  45.667  62.628  1.00  0.00        H
ATOM   1874  N   TYR A 194     35.823  42.580  58.468  1.00  0.81        N
ATOM   1875  CA  TYR A 194     36.778  41.772  59.196  1.00  0.81        C
ATOM   1876  C   TYR A 194     38.153  41.710  58.534  1.00  0.81        C
ATOM   1877  O   TYR A 194     39.173  41.976  59.171  1.00  0.81        O
ATOM   1878  CB  TYR A 194     36.195  40.344  59.347  1.00  0.81        C
ATOM   1879  CG  TYR A 194     37.011  39.558  60.325  1.00  0.81        C
ATOM   1880  CD1 TYR A 194     36.859  39.805  61.695  1.00  0.81        C
ATOM   1881  CD2 TYR A 194     37.998  38.656  59.890  1.00  0.81        C
ATOM   1882  CE1 TYR A 194     37.668  39.147  62.623  1.00  0.81        C
ATOM   1883  CE2 TYR A 194     38.809  37.992  60.821  1.00  0.81        C
ATOM   1884  CZ  TYR A 194     38.626  38.238  62.185  1.00  0.81        C
ATOM   1885  OH  TYR A 194     39.378  37.598  63.169  1.00  0.81        O
ATOM   1886  HN  TYR A 194     34.992  42.129  58.086  1.00  0.00        H
ATOM   1887  HH  TYR A 194     39.254  37.765  64.096  1.00  0.00        H
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ATOM 1888 N PHE A 195 38.205 41.422 57.216 1.00 0.80 N
ATOM 1889 CA PHE A 195 39.445 41.362 56.456 1.00 0.80 C
ATOM 1890 C PHE A 195 40.184 42.686 56.432 1.00 0.80 C
ATOM 1891 O PHE A 195 41.400 42.737 56.618 1.00 0.80 O
ATOM 1892 CB PHE A 195 39.193 40.889 55.001 1.00 0.80 C
ATOM 1893 CG PHE A 195 39.056 39.392 54.970 1.00 0.80 C
ATOM 1894 CD1 PHE A 195 37.868 38.775 54.546 1.00 0.80 C
ATOM 1895 CD2 PHE A 195 40.135 38.578 55.354 1.00 0.80 C
ATOM 1896 CE1 PHE A 195 37.754 37.380 54.520 1.00 0.80 C
ATOM 1897 CE2 PHE A 195 40.003 37.189 55.347 1.00 0.80 C
ATOM 1898 CZ PHE A 195 38.817 36.583 54.936 1.00 0.80 C
ATOM 1899 HN PHE A 195 37.329 41.237 56.727 1.00 0.00 H
ATOM 1900 N ALA A 196 39.445 43.796 56.268 1.00 0.80 N
ATOM 1901 CA ALA A 196 40.007 45.124 56.240 1.00 0.80 C
ATOM 1902 C ALA A 196 40.452 45.620 57.615 1.00 0.80 C
ATOM 1903 O ALA A 196 41.187 46.595 57.713 1.00 0.80 O
ATOM 1904 CB ALA A 196 38.976 46.074 55.603 1.00 0.80 C
ATOM 1905 HN ALA A 196 38.436 43.694 56.158 1.00 0.00 H
ATOM 1906 N VAL A 197 40.053 44.970 58.724 1.00 0.76 N
ATOM 1907 CA VAL A 197 40.627 45.246 60.035 1.00 0.76 C
ATOM 1908 C VAL A 197 41.823 44.347 60.334 1.00 0.76 C
ATOM 1909 O VAL A 197 42.875 44.825 60.753 1.00 0.76 O
ATOM 1910 CB VAL A 197 39.583 45.161 61.149 1.00 0.76 C
ATOM 1911 CG1 VAL A 197 40.229 45.331 62.543 1.00 0.76 C
ATOM 1912 CG2 VAL A 197 38.545 46.284 60.944 1.00 0.76 C
ATOM 1913 HN VAL A 197 39.325 44.261 58.644 1.00 0.00 H
ATOM 1914 N ILE A 198 41.728 43.007 60.144 1.00 0.73 N
ATOM 1915 CA ILE A 198 42.831 42.109 60.498 1.00 0.73 C
ATOM 1916 C ILE A 198 44.089 42.253 59.645 1.00 0.73 C
ATOM 1917 O ILE A 198 45.206 42.203 60.158 1.00 0.73 O
ATOM 1918 CB ILE A 198 42.417 40.641 60.657 1.00 0.73 C
ATOM 1919 CG1 ILE A 198 43.531 39.820 61.360 1.00 0.73 C
ATOM 1920 CG2 ILE A 198 41.997 40.010 59.312 1.00 0.73 C
ATOM 1921 CD1 ILE A 198 43.097 38.409 61.757 1.00 0.73 C
ATOM 1922 HN ILE A 198 40.873 42.617 59.747 1.00 0.00 H
ATOM 1923 N ALA A 199 43.952 42.456 58.321 1.00 0.78 N
ATOM 1924 CA ALA A 199 45.076 42.402 57.407 1.00 0.78 C
ATOM 1925 C ALA A 199 45.575 43.771 56.970 1.00 0.78 C
ATOM 1926 O ALA A 199 46.358 43.894 56.030 1.00 0.78 O
ATOM 1927 CB ALA A 199 44.640 41.611 56.166 1.00 0.78 C
ATOM 1928 HN ALA A 199 43.024 42.655 57.948 1.00 0.00 H
ATOM 1929 N ALA A 200 45.125 44.847 57.626 1.00 0.72 N
ATOM 1930 CA ALA A 200 45.418 46.191 57.187 1.00 0.72 C
ATOM 1931 C ALA A 200 46.652 46.840 57.817 1.00 0.72 C

ATOM 1932 O ALA A 200 47.641 46.222 58.226 1.00 0.72 O
ATOM 1933 CB ALA A 200 44.173 47.042 57.456 1.00 0.72 C
ATOM 1934 HN ALA A 200 44.557 44.714 58.463 1.00 0.00 H
ATOM 1935 N ILE A 201 46.605 48.176 57.886 1.00 0.59 N
ATOM 1936 CA ILE A 201 47.674 49.065 58.265 1.00 0.59 C
ATOM 1937 C ILE A 201 47.152 49.947 59.387 1.00 0.59 C
ATOM 1938 O ILE A 201 45.966 49.941 59.700 1.00 0.59 O
ATOM 1939 CB ILE A 201 48.170 49.885 57.072 1.00 0.59 C
ATOM 1940 CG1 ILE A 201 47.007 50.624 56.360 1.00 0.59 C
ATOM 1941 CG2 ILE A 201 48.898 48.907 56.120 1.00 0.59 C
ATOM 1942 CD1 ILE A 201 47.388 51.341 55.057 1.00 0.59 C
ATOM 1943 HN ILE A 201 45.715 48.612 57.644 1.00 0.00 H
ATOM 1944 N GLY A 202 48.029 50.687 60.105 1.00 0.63 N
ATOM 1945 CA GLY A 202 47.554 51.583 61.165 1.00 0.63 C
ATOM 1946 C GLY A 202 47.081 52.907 60.620 1.00 0.63 C
ATOM 1947 O GLY A 202 47.152 53.148 59.421 1.00 0.63 O
ATOM 1948 HN GLY A 202 49.028 50.621 59.908 1.00 0.00 H
ATOM 1949 N ASP A 203 46.645 53.831 61.492 1.00 0.53 N
ATOM 1950 CA ASP A 203 46.241 55.162 61.108 1.00 0.53 C
ATOM 1951 C ASP A 203 47.265 56.156 61.682 1.00 0.53 C
ATOM 1952 O ASP A 203 48.244 55.756 62.305 1.00 0.53 O
ATOM 1953 CB ASP A 203 44.753 55.369 61.530 1.00 0.53 C
ATOM 1954 CG ASP A 203 44.547 55.755 62.985 1.00 0.53 C
ATOM 1955 OD1 ASP A 203 45.131 55.076 63.864 1.00 0.53 O
ATOM 1956 OD2 ASP A 203 43.826 56.761 63.244 1.00 0.53 O1-
ATOM 1957 HN ASP A 203 46.597 53.578 62.479 1.00 0.00 H
ATOM 1958 N ARG A 204 47.113 57.473 61.430 1.00 0.40 N
ATOM 1959 CA ARG A 204 47.883 58.561 62.038 1.00 0.40 C
ATOM 1960 C ARG A 204 49.396 58.500 61.866 1.00 0.40 C
ATOM 1961 O ARG A 204 50.114 58.914 62.766 1.00 0.40 O
ATOM 1962 CB ARG A 204 47.626 58.663 63.566 1.00 0.40 C
ATOM 1963 CG ARG A 204 46.166 58.796 63.994 1.00 0.40 C
ATOM 1964 CD ARG A 204 46.017 58.532 65.488 1.00 0.40 C
ATOM 1965 NE ARG A 204 44.563 58.444 65.799 1.00 0.40 N
ATOM 1966 CZ ARG A 204 44.076 58.622 67.036 1.00 0.40 C
ATOM 1967 NH1 ARG A 204 42.763 58.618 67.231 1.00 0.40 N1+
ATOM 1968 NH2 ARG A 204 44.881 58.810 68.080 1.00 0.40 N
ATOM 1969 HN ARG A 204 46.396 57.735 60.754 1.00 0.00 H
ATOM 1970 HE ARG A 204 43.912 58.240 65.041 1.00 0.00 H
ATOM 1971 1HH1 ARG A 204 42.393 58.753 68.172 1.00 0.00 H
ATOM 1972 2HH1 ARG A 204 42.146 58.474 66.431 1.00 0.00 H
ATOM 1973 1HH2 ARG A 204 44.511 58.945 69.021 1.00 0.00 H
ATOM 1974 2HH2 ARG A 204 45.890 58.813 67.930 1.00 0.00 H
ATOM 1975 N SER A 205 49.908 57.961 60.737 1.00 0.52 N

ATOM 1976 CA SER A 205 51.336 57.712 60.519 1.00 0.52 C
ATOM 1977 C SER A 205 51.995 56.734 61.489 1.00 0.52 C
ATOM 1978 O SER A 205 53.215 56.643 61.571 1.00 0.52 O
ATOM 1979 CB SER A 205 52.217 58.984 60.276 1.00 0.52 C
ATOM 1980 OG SER A 205 52.545 59.692 61.470 1.00 0.52 O
ATOM 1981 HN SER A 205 49.260 57.712 59.990 1.00 0.00 H
ATOM 1982 HG SER A 205 53.079 60.464 61.323 1.00 0.00 H
ATOM 1983 N LYS A 206 51.188 55.880 62.167 1.00 0.52 N
ATOM 1984 CA LYS A 206 51.632 54.886 63.140 1.00 0.52 C
ATOM 1985 C LYS A 206 52.480 53.782 62.527 1.00 0.52 C
ATOM 1986 O LYS A 206 53.246 53.090 63.196 1.00 0.52 O
ATOM 1987 CB LYS A 206 50.383 54.229 63.797 1.00 0.52 C
ATOM 1988 CG LYS A 206 50.651 53.263 64.964 1.00 0.52 C
ATOM 1989 CD LYS A 206 49.360 52.663 65.549 1.00 0.52 C
ATOM 1990 CE LYS A 206 49.638 51.793 66.778 1.00 0.52 C
ATOM 1991 NZ LYS A 206 48.367 51.293 67.348 1.00 0.52 N1+
ATOM 1992 HN LYS A 206 50.187 55.937 61.981 1.00 0.00 H
ATOM 1993 HZ1 LYS A 206 48.552 50.713 68.167 1.00 0.00 H
ATOM 1994 HZ2 LYS A 206 47.805 50.802 66.653 1.00 0.00 H
ATOM 1995 HZ3 LYS A 206 47.718 52.052 67.557 1.00 0.00 H
ATOM 1996 N LYS A 207 52.356 53.580 61.208 1.00 0.55 N
ATOM 1997 CA LYS A 207 53.224 52.702 60.469 1.00 0.55 C
ATOM 1998 C LYS A 207 53.534 53.434 59.183 1.00 0.55 C
ATOM 1999 O LYS A 207 52.663 54.114 58.638 1.00 0.55 O
ATOM 2000 CB LYS A 207 52.540 51.340 60.126 1.00 0.55 C
ATOM 2001 CG LYS A 207 52.119 50.523 61.365 1.00 0.55 C
ATOM 2002 CD LYS A 207 51.465 49.164 61.040 1.00 0.55 C
ATOM 2003 CE LYS A 207 51.031 48.403 62.304 1.00 0.55 C
ATOM 2004 NZ LYS A 207 50.368 47.116 61.971 1.00 0.55 N1+
ATOM 2005 HN LYS A 207 51.615 54.069 60.707 1.00 0.00 H
ATOM 2006 HZ1 LYS A 207 50.080 46.611 62.809 1.00 0.00 H
ATOM 2007 HZ2 LYS A 207 50.958 46.538 61.373 1.00 0.00 H
ATOM 2008 HZ3 LYS A 207 49.584 47.256 61.334 1.00 0.00 H
ATOM 2009 N GLU A 208 54.756 53.270 58.626 1.00 0.53 N
ATOM 2010 CA GLU A 208 55.227 53.820 57.354 1.00 0.53 C
ATOM 2011 C GLU A 208 54.478 53.334 56.109 1.00 0.53 C
ATOM 2012 O GLU A 208 54.934 53.421 54.976 1.00 0.53 O
ATOM 2013 CB GLU A 208 56.716 53.464 57.178 1.00 0.53 C
ATOM 2014 CG GLU A 208 57.634 54.097 58.249 1.00 0.53 C
ATOM 2015 CD GLU A 208 59.081 53.625 58.112 1.00 0.53 C
ATOM 2016 OE1 GLU A 208 59.324 52.659 57.345 1.00 0.53 O
ATOM 2017 OE2 GLU A 208 59.941 54.226 58.802 1.00 0.53 O1-
ATOM 2018 HN GLU A 208 55.421 52.701 59.149 1.00 0.00 H
ATOM 2019 N GLN A 209 53.276 52.783 56.303 1.00 0.55 N

ATOM 2020 CA GLN A 209 52.403 52.284 55.276 1.00 0.55 C
ATOM 2021 C GLN A 209 51.164 53.169 55.171 1.00 0.55 C
ATOM 2022 O GLN A 209 50.330 52.983 54.293 1.00 0.55 O
ATOM 2023 CB GLN A 209 51.947 50.865 55.689 1.00 0.55 C
ATOM 2024 CG GLN A 209 53.070 49.904 56.144 1.00 0.55 C
ATOM 2025 CD GLN A 209 53.891 49.258 55.033 1.00 0.55 C
ATOM 2026 NE2 GLN A 209 54.874 49.950 54.454 1.00 0.55 N
ATOM 2027 OE1 GLN A 209 53.730 48.040 54.834 1.00 0.55 O
ATOM 2028 HN GLN A 209 52.949 52.710 57.266 1.00 0.00 H
ATOM 2029 1HE2 GLN A 209 55.423 49.518 53.711 1.00 0.00 H
ATOM 2030 2HE2 GLN A 209 55.006 50.948 54.617 1.00 0.00 H
ATOM 2031 N ALA A 210 51.022 54.160 56.079 1.00 0.59 N
ATOM 2032 CA ALA A 210 49.798 54.915 56.245 1.00 0.59 C
ATOM 2033 C ALA A 210 50.061 56.289 56.839 1.00 0.59 C
ATOM 2034 O ALA A 210 49.447 56.707 57.824 1.00 0.59 O
ATOM 2035 CB ALA A 210 48.875 54.176 57.220 1.00 0.59 C
ATOM 2036 HN ALA A 210 51.817 54.387 56.677 1.00 0.00 H
ATOM 2037 N THR A 211 50.977 57.063 56.233 1.00 0.49 N
ATOM 2038 CA THR A 211 51.343 58.401 56.693 1.00 0.49 C
ATOM 2039 C THR A 211 50.203 59.404 56.613 1.00 0.49 C
ATOM 2040 O THR A 211 50.158 60.355 57.387 1.00 0.49 O
ATOM 2041 CB THR A 211 52.588 58.953 56.012 1.00 0.49 C
ATOM 2042 CG2 THR A 211 53.805 58.099 56.411 1.00 0.49 C
ATOM 2043 OG1 THR A 211 52.463 58.868 54.601 1.00 0.49 O
ATOM 2044 HN THR A 211 51.444 56.695 55.404 1.00 0.00 H
ATOM 2045 HG1 THR A 211 51.712 59.395 54.355 1.00 0.00 H
ATOM 2046 N GLY A 212 49.226 59.181 55.708 1.00 0.50 N
ATOM 2047 CA GLY A 212 47.996 59.964 55.602 1.00 0.50 C
ATOM 2048 C GLY A 212 46.823 59.561 56.473 1.00 0.50 C
ATOM 2049 O GLY A 212 45.796 60.219 56.382 1.00 0.50 O
ATOM 2050 HN GLY A 212 49.355 58.411 55.051 1.00 0.00 H
ATOM 2051 N LYS A 213 46.936 58.491 57.303 1.00 0.50 N
ATOM 2052 CA LYS A 213 45.880 57.997 58.201 1.00 0.50 C
ATOM 2053 C LYS A 213 44.860 57.041 57.572 1.00 0.50 C
ATOM 2054 O LYS A 213 43.650 57.235 57.669 1.00 0.50 O
ATOM 2055 CB LYS A 213 45.174 59.122 59.031 1.00 0.50 C
ATOM 2056 CG LYS A 213 44.257 58.672 60.186 1.00 0.50 C
ATOM 2057 CD LYS A 213 43.192 59.708 60.568 1.00 0.50 C
ATOM 2058 CE LYS A 213 42.040 59.050 61.338 1.00 0.50 C
ATOM 2059 NZ LYS A 213 41.024 60.050 61.733 1.00 0.50 N1+
ATOM 2060 HN LYS A 213 47.824 57.990 57.304 1.00 0.00 H
ATOM 2061 HZ1 LYS A 213 40.258 59.612 62.245 1.00 0.00 H
ATOM 2062 HZ2 LYS A 213 40.685 60.579 60.929 1.00 0.00 H
ATOM 2063 HZ3 LYS A 213 41.438 60.818 62.261 1.00 0.00 H

ATOM 2064 N GLY A 214 45.318 55.933 56.953 1.00 0.63 N
ATOM 2065 CA GLY A 214 44.428 54.963 56.306 1.00 0.63 C
ATOM 2066 C GLY A 214 43.800 55.483 55.033 1.00 0.63 C
ATOM 2067 O GLY A 214 43.470 56.656 54.907 1.00 0.63 O
ATOM 2068 HN GLY A 214 46.324 55.763 56.934 1.00 0.00 H
ATOM 2069 N THR A 215 43.612 54.614 54.023 1.00 0.68 N
ATOM 2070 CA THR A 215 43.058 55.114 52.763 1.00 0.68 C
ATOM 2071 C THR A 215 42.317 54.026 52.041 1.00 0.68 C
ATOM 2072 O THR A 215 41.112 54.110 51.810 1.00 0.68 O
ATOM 2073 CB THR A 215 44.088 55.677 51.767 1.00 0.68 C
ATOM 2074 CG2 THR A 215 43.381 56.319 50.564 1.00 0.68 C
ATOM 2075 OG1 THR A 215 44.887 56.693 52.346 1.00 0.68 O
ATOM 2076 HN THR A 215 43.850 53.628 54.133 1.00 0.00 H
ATOM 2077 HG1 THR A 215 45.324 56.296 53.090 1.00 0.00 H
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ATOM 2079 CA LEU A 216 42.529 51.898 50.794 1.00 0.71 C
ATOM 2080 C LEU A 216 41.369 51.151 51.430 1.00 0.71 C
ATOM 2081 O LEU A 216 40.346 50.894 50.801 1.00 0.71 O
ATOM 2082 CB LEU A 216 43.706 50.938 50.501 1.00 0.71 C
ATOM 2083 CG LEU A 216 43.392 49.744 49.581 1.00 0.71 C
ATOM 2084 CD1 LEU A 216 43.095 50.178 48.136 1.00 0.71 C
ATOM 2085 CD2 LEU A 216 44.568 48.760 49.630 1.00 0.71 C
ATOM 2086 HN LEU A 216 44.000 52.891 51.960 1.00 0.00 H
ATOM 2087 N GLU A 217 41.484 50.844 52.728 1.00 0.71 N
ATOM 2088 CA GLU A 217 40.514 50.166 53.551 1.00 0.71 C
ATOM 2089 C GLU A 217 39.191 50.898 53.645 1.00 0.71 C
ATOM 2090 O GLU A 217 38.127 50.326 53.403 1.00 0.71 O
ATOM 2091 CB GLU A 217 41.097 50.048 54.979 1.00 0.71 C
ATOM 2092 CG GLU A 217 42.392 49.203 55.079 1.00 0.71 C
ATOM 2093 CD GLU A 217 43.684 49.832 54.547 1.00 0.71 C
ATOM 2094 OE1 GLU A 217 43.711 51.051 54.215 1.00 0.71 O
ATOM 2095 OE2 GLU A 217 44.667 49.058 54.447 1.00 0.71 O1-
ATOM 2096 HN GLU A 217 42.353 51.120 53.185 1.00 0.00 H
ATOM 2097 N ASP A 218 39.239 52.216 53.915 1.00 0.73 N
ATOM 2098 CA ASP A 218 38.079 53.078 53.908 1.00 0.73 C
ATOM 2099 C ASP A 218 37.439 53.142 52.530 1.00 0.73 C
ATOM 2100 O ASP A 218 36.227 53.018 52.392 1.00 0.73 O
ATOM 2101 CB ASP A 218 38.457 54.501 54.384 1.00 0.73 C
ATOM 2102 CG ASP A 218 38.581 54.566 55.899 1.00 0.73 C
ATOM 2103 OD1 ASP A 218 38.438 53.513 56.567 1.00 0.73 O
ATOM 2104 OD2 ASP A 218 38.777 55.702 56.399 1.00 0.73 O1-
ATOM 2105 HN ASP A 218 40.145 52.629 54.137 1.00 0.00 H
ATOM 2106 N GLN A 219 38.233 53.259 51.450 1.00 0.74 N
ATOM 2107 CA GLN A 219 37.732 53.215 50.087 1.00 0.74 C

ATOM 2108 C GLN A 219 37.035 51.904 49.716 1.00 0.74 C
ATOM 2109 O GLN A 219 35.996 51.916 49.062 1.00 0.74 O
ATOM 2110 CB GLN A 219 38.862 53.558 49.091 1.00 0.74 C
ATOM 2111 CG GLN A 219 39.309 55.031 49.224 1.00 0.74 C
ATOM 2112 CD GLN A 219 40.498 55.360 48.325 1.00 0.74 C
ATOM 2113 NE2 GLN A 219 40.505 56.600 47.788 1.00 0.74 N
ATOM 2114 OE1 GLN A 219 41.407 54.556 48.110 1.00 0.74 O
ATOM 2115 HN GLN A 219 39.235 53.385 51.595 1.00 0.00 H
ATOM 2116 1HE2 GLN A 219 39.753 57.265 47.966 1.00 0.00 H
ATOM 2117 2HE2 GLN A 219 41.299 56.820 47.187 1.00 0.00 H
ATOM 2118 N ILE A 220 37.542 50.733 50.159 1.00 0.79 N
ATOM 2119 CA ILE A 220 36.856 49.449 49.993 1.00 0.79 C
ATOM 2120 C ILE A 220 35.506 49.425 50.709 1.00 0.79 C
ATOM 2121 O ILE A 220 34.493 49.029 50.136 1.00 0.79 O
ATOM 2122 CB ILE A 220 37.722 48.273 50.465 1.00 0.79 C
ATOM 2123 CG1 ILE A 220 39.011 48.174 49.618 1.00 0.79 C
ATOM 2124 CG2 ILE A 220 36.950 46.934 50.381 1.00 0.79 C
ATOM 2125 CD1 ILE A 220 40.055 47.223 50.210 1.00 0.79 C
ATOM 2126 HN ILE A 220 38.446 50.743 50.632 1.00 0.00 H
ATOM 2127 N ILE A 221 35.430 49.904 51.969 1.00 0.77 N
ATOM 2128 CA ILE A 221 34.174 50.005 52.711 1.00 0.77 C
ATOM 2129 C ILE A 221 33.196 50.995 52.076 1.00 0.77 C
ATOM 2130 O ILE A 221 32.005 50.720 51.921 1.00 0.77 O
ATOM 2131 CB ILE A 221 34.432 50.347 54.183 1.00 0.77 C
ATOM 2132 CG1 ILE A 221 35.236 49.202 54.854 1.00 0.77 C
ATOM 2133 CG2 ILE A 221 33.103 50.605 54.937 1.00 0.77 C
ATOM 2134 CD1 ILE A 221 35.734 49.533 56.267 1.00 0.77 C
ATOM 2135 HN ILE A 221 36.290 50.210 52.425 1.00 0.00 H
ATOM 2136 N GLN A 222 33.694 52.165 51.633 1.00 0.75 N
ATOM 2137 CA GLN A 222 32.891 53.217 51.035 1.00 0.75 C
ATOM 2138 C GLN A 222 32.426 52.910 49.617 1.00 0.75 C
ATOM 2139 O GLN A 222 31.547 53.580 49.080 1.00 0.75 O
ATOM 2140 CB GLN A 222 33.619 54.583 51.084 1.00 0.75 C
ATOM 2141 CG GLN A 222 33.851 55.118 52.522 1.00 0.75 C
ATOM 2142 CD GLN A 222 32.556 55.336 53.303 1.00 0.75 C
ATOM 2143 NE2 GLN A 222 32.633 55.151 54.641 1.00 0.75 N
ATOM 2144 OE1 GLN A 222 31.499 55.668 52.769 1.00 0.75 O
ATOM 2145 HN GLN A 222 34.698 52.322 51.723 1.00 0.00 H
ATOM 2146 1HE2 GLN A 222 33.510 54.876 55.084 1.00 0.00 H
ATOM 2147 2HE2 GLN A 222 31.768 55.297 55.162 1.00 0.00 H
ATOM 2148 N ALA A 223 32.936 51.842 48.975 1.00 0.86 N
ATOM 2149 CA ALA A 223 32.359 51.312 47.755 1.00 0.86 C
ATOM 2150 C ALA A 223 30.905 50.862 47.918 1.00 0.86 C
ATOM 2151 O ALA A 223 30.056 51.100 47.061 1.00 0.86 O

ATOM 2152 CB ALA A 223 33.213 50.128 47.265 1.00 0.86 C
ATOM 2153 HN ALA A 223 33.762 51.387 49.363 1.00 0.00 H
ATOM 2154 N ASN A 224 30.569 50.209 49.047 1.00 0.80 N
ATOM 2155 CA ASN A 224 29.244 49.660 49.279 1.00 0.80 C
ATOM 2156 C ASN A 224 28.066 50.646 49.350 1.00 0.80 C
ATOM 2157 O ASN A 224 27.061 50.314 48.723 1.00 0.80 O
ATOM 2158 CB ASN A 224 29.258 48.664 50.472 1.00 0.80 C
ATOM 2159 CG ASN A 224 29.086 47.243 49.949 1.00 0.80 C
ATOM 2160 ND2 ASN A 224 27.820 46.841 49.710 1.00 0.80 N
ATOM 2161 OD1 ASN A 224 30.029 46.482 49.735 1.00 0.80 O
ATOM 2162 HN ASN A 224 31.277 50.095 49.772 1.00 0.00 H
ATOM 2163 1HD2 ASN A 224 27.038 47.472 49.887 1.00 0.00 H
ATOM 2164 2HD2 ASN A 224 27.705 45.890 49.360 1.00 0.00 H
ATOM 2165 N PRO A 225 28.050 51.829 49.985 1.00 0.85 N
ATOM 2166 CA PRO A 225 26.938 52.778 49.867 1.00 0.85 C
ATOM 2167 C PRO A 225 26.705 53.247 48.445 1.00 0.85 C
ATOM 2168 O PRO A 225 25.561 53.465 48.052 1.00 0.85 O
ATOM 2169 CB PRO A 225 27.325 53.952 50.784 1.00 0.85 C
ATOM 2170 CG PRO A 225 28.281 53.333 51.808 1.00 0.85 C
ATOM 2171 CD PRO A 225 29.003 52.243 51.014 1.00 0.85 C
ATOM 2172 N ALA A 226 27.777 53.415 47.646 1.00 0.86 N
ATOM 2173 CA ALA A 226 27.662 53.712 46.235 1.00 0.86 C
ATOM 2174 C ALA A 226 27.023 52.573 45.443 1.00 0.86 C
ATOM 2175 O ALA A 226 26.077 52.780 44.685 1.00 0.86 O
ATOM 2176 CB ALA A 226 29.057 54.062 45.676 1.00 0.86 C
ATOM 2177 HN ALA A 226 28.708 53.329 48.053 1.00 0.00 H
ATOM 2178 N LEU A 227 27.465 51.318 45.657 1.00 0.83 N
ATOM 2179 CA LEU A 227 26.853 50.161 45.026 1.00 0.83 C
ATOM 2180 C LEU A 227 25.394 49.947 45.419 1.00 0.83 C
ATOM 2181 O LEU A 227 24.547 49.713 44.564 1.00 0.83 O
ATOM 2182 CB LEU A 227 27.618 48.859 45.367 1.00 0.83 C
ATOM 2183 CG LEU A 227 29.068 48.767 44.853 1.00 0.83 C
ATOM 2184 CD1 LEU A 227 29.737 47.519 45.448 1.00 0.83 C
ATOM 2185 CD2 LEU A 227 29.157 48.733 43.321 1.00 0.83 C
ATOM 2186 HN LEU A 227 28.257 51.175 46.284 1.00 0.00 H
ATOM 2187 N GLU A 228 25.058 50.042 46.721 1.00 0.75 N
ATOM 2188 CA GLU A 228 23.699 49.871 47.211 1.00 0.75 C
ATOM 2189 C GLU A 228 22.743 50.970 46.777 1.00 0.75 C
ATOM 2190 O GLU A 228 21.613 50.694 46.383 1.00 0.75 O
ATOM 2191 CB GLU A 228 23.669 49.630 48.743 1.00 0.75 C
ATOM 2192 CG GLU A 228 24.317 48.262 49.078 1.00 0.75 C
ATOM 2193 CD GLU A 228 24.461 47.943 50.553 1.00 0.75 C
ATOM 2194 OE1 GLU A 228 23.468 47.800 51.306 1.00 0.75 O
ATOM 2195 OE2 GLU A 228 25.622 47.737 50.999 1.00 0.75 O1-

ATOM 2196 HN GLU A 228 25.794 50.244 47.397 1.00 0.00 H
ATOM 2197 N ALA A 229 23.162 52.250 46.760 1.00 0.80 N
ATOM 2198 CA ALA A 229 22.312 53.329 46.288 1.00 0.80 C
ATOM 2199 C ALA A 229 21.856 53.174 44.838 1.00 0.80 C
ATOM 2200 O ALA A 229 20.693 53.394 44.503 1.00 0.80 O
ATOM 2201 CB ALA A 229 23.050 54.669 46.448 1.00 0.80 C
ATOM 2202 HN ALA A 229 24.103 52.468 47.088 1.00 0.00 H
ATOM 2203 N PHE A 230 22.769 52.749 43.944 1.00 0.77 N
ATOM 2204 CA PHE A 230 22.452 52.632 42.533 1.00 0.77 C
ATOM 2205 C PHE A 230 22.065 51.218 42.123 1.00 0.77 C
ATOM 2206 O PHE A 230 21.583 51.023 40.990 1.00 0.77 O
ATOM 2207 CB PHE A 230 23.678 53.050 41.681 1.00 0.77 C
ATOM 2208 CG PHE A 230 23.904 54.538 41.711 1.00 0.77 C
ATOM 2209 CD1 PHE A 230 24.672 55.144 42.716 1.00 0.77 C
ATOM 2210 CD2 PHE A 230 23.389 55.341 40.684 1.00 0.77 C
ATOM 2211 CE1 PHE A 230 24.950 56.515 42.682 1.00 0.77 C
ATOM 2212 CE2 PHE A 230 23.665 56.714 40.636 1.00 0.77 C
ATOM 2213 CZ PHE A 230 24.455 57.298 41.635 1.00 0.77 C
ATOM 2214 HN PHE A 230 23.705 52.504 44.266 1.00 0.00 H
ATOM 2215 N GLY A 231 22.230 50.194 42.972 1.00 0.81 N
ATOM 2216 CA GLY A 231 21.983 48.807 42.592 1.00 0.81 C
ATOM 2217 C GLY A 231 21.090 48.020 43.514 1.00 0.81 C
ATOM 2218 O GLY A 231 20.786 46.860 43.254 1.00 0.81 O
ATOM 2219 HN GLY A 231 22.541 50.392 43.923 1.00 0.00 H
ATOM 2220 N ASN A 232 20.592 48.649 44.594 1.00 0.75 N
ATOM 2221 CA ASN A 232 19.643 48.018 45.487 1.00 0.75 C
ATOM 2222 C ASN A 232 18.346 48.809 45.499 1.00 0.75 C
ATOM 2223 O ASN A 232 18.290 50.003 45.201 1.00 0.75 O
ATOM 2224 CB ASN A 232 20.136 47.880 46.950 1.00 0.75 C
ATOM 2225 CG ASN A 232 21.277 46.878 47.097 1.00 0.75 C
ATOM 2226 ND2 ASN A 232 21.299 46.206 48.273 1.00 0.75 N
ATOM 2227 OD1 ASN A 232 22.132 46.657 46.242 1.00 0.75 O
ATOM 2228 HN ASN A 232 20.893 49.603 44.790 1.00 0.00 H
ATOM 2229 1HD2 ASN A 232 20.590 46.389 48.982 1.00 0.00 H
ATOM 2230 2HD2 ASN A 232 22.062 45.536 48.371 1.00 0.00 H
ATOM 2231 N ALA A 233 17.244 48.119 45.834 1.00 0.75 N
ATOM 2232 CA ALA A 233 15.929 48.708 45.812 1.00 0.75 C
ATOM 2233 C ALA A 233 15.012 47.974 46.767 1.00 0.75 C
ATOM 2234 O ALA A 233 15.311 46.869 47.219 1.00 0.75 O
ATOM 2235 CB ALA A 233 15.338 48.595 44.396 1.00 0.75 C
ATOM 2236 HN ALA A 233 17.341 47.143 46.114 1.00 0.00 H
ATOM 2237 N LYS A 234 13.847 48.564 47.090 1.00 0.68 N
ATOM 2238 CA LYS A 234 12.810 47.849 47.810 1.00 0.68 C
ATOM 2239 C LYS A 234 12.070 46.895 46.888 1.00 0.68 C

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ATOM   2240  O   LYS A 234     11.446  47.320  45.916  1.00  0.68        O
ATOM   2241  CB  LYS A 234     11.776  48.813  48.447  1.00  0.68        C
ATOM   2242  CG  LYS A 234     10.649  48.116  49.232  1.00  0.68        C
ATOM   2243  CD  LYS A 234      9.527  49.065  49.690  1.00  0.68        C
ATOM   2244  CE  LYS A 234      8.472  48.336  50.534  1.00  0.68        C
ATOM   2245  NZ  LYS A 234      7.183  49.055  50.529  1.00  0.68        N1+
ATOM   2246  HN  LYS A 234     13.689  49.536  46.823  1.00  0.00        H
ATOM   2247  HZ1 LYS A 234      6.482  48.571  51.090  1.00  0.00        H
ATOM   2248  HZ2 LYS A 234      6.852  49.220  49.579  1.00  0.00        H
ATOM   2249  HZ3 LYS A 234      7.295  50.024  50.828  1.00  0.00        H
ATOM   2250  N   THR A 235     12.093  45.591  47.208  1.00  0.72        N
ATOM   2251  CA  THR A 235     11.205  44.597  46.631  1.00  0.72        C
ATOM   2252  C   THR A 235     10.231  44.186  47.702  1.00  0.72        C
ATOM   2253  O   THR A 235     10.372  44.548  48.872  1.00  0.72        O
ATOM   2254  CB  THR A 235     11.853  43.339  46.040  1.00  0.72        C
ATOM   2255  CG2 THR A 235     12.890  43.759  44.994  1.00  0.72        C
ATOM   2256  OG1 THR A 235     12.517  42.518  47.000  1.00  0.72        O
ATOM   2257  HN  THR A 235     12.776  45.280  47.899  1.00  0.00        H
ATOM   2258  HG1 THR A 235     12.918  41.739  46.634  1.00  0.00        H
ATOM   2259  N   VAL A 236      9.194  43.399  47.357  1.00  0.69        N
ATOM   2260  CA  VAL A 236      8.268  42.881  48.359  1.00  0.69        C
ATOM   2261  C   VAL A 236      8.976  42.057  49.446  1.00  0.69        C
ATOM   2262  O   VAL A 236      8.706  42.208  50.638  1.00  0.69        O
ATOM   2263  CB  VAL A 236      7.081  42.123  47.755  1.00  0.69        C
ATOM   2264  CG1 VAL A 236      6.278  43.072  46.842  1.00  0.69        C
ATOM   2265  CG2 VAL A 236      7.516  40.886  46.950  1.00  0.69        C
ATOM   2266  HN  VAL A 236      9.053  43.160  46.375  1.00  0.00        H
ATOM   2267  N   ARG A 237      9.971  41.229  49.058  1.00  0.69        N
ATOM   2268  CA  ARG A 237     10.735  40.376  49.956  1.00  0.69        C
ATOM   2269  C   ARG A 237     11.881  41.066  50.695  1.00  0.69        C
ATOM   2270  O   ARG A 237     12.292  40.615  51.760  1.00  0.69        O
ATOM   2271  CB  ARG A 237     11.346  39.192  49.159  1.00  0.69        C
ATOM   2272  CG  ARG A 237     10.316  38.140  48.697  1.00  0.69        C
ATOM   2273  CD  ARG A 237     10.920  37.093  47.746  1.00  0.69        C
ATOM   2274  NE  ARG A 237      9.864  36.089  47.400  1.00  0.69        N
ATOM   2275  CZ  ARG A 237      9.478  35.117  48.239  1.00  0.69        C
ATOM   2276  NH1 ARG A 237     10.198  34.680  49.257  1.00  0.69        N1+
ATOM   2277  NH2 ARG A 237      8.291  34.547  48.049  1.00  0.69        N
ATOM   2278  HN  ARG A 237     10.203  41.200  48.065  1.00  0.00        H
ATOM   2279  HE  ARG A 237      9.418  36.147  46.484  1.00  0.00        H
ATOM   2280 1HH1 ARG A 237      9.904  33.941  49.895  1.00  0.00        H
ATOM   2281 2HH1 ARG A 237     11.108  35.117  49.403  1.00  0.00        H
ATOM   2282 1HH2 ARG A 237      7.997  33.808  48.687  1.00  0.00        H
ATOM   2283 2HH2 ARG A 237      7.735  34.884  47.263  1.00  0.00        H
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ATOM   2284  N   ASN A 238     12.454  42.173  50.180  1.00  0.73        N
ATOM   2285  CA  ASN A 238     13.571  42.809  50.859  1.00  0.73        C
ATOM   2286  C   ASN A 238     13.569  44.304  50.586  1.00  0.73        C
ATOM   2287  O   ASN A 238     13.506  44.747  49.445  1.00  0.73        O
ATOM   2288  CB  ASN A 238     14.901  42.135  50.413  1.00  0.73        C
ATOM   2289  CG  ASN A 238     16.122  42.624  51.184  1.00  0.73        C
ATOM   2290  ND2 ASN A 238     17.312  42.130  50.773  1.00  0.73        N
ATOM   2291  OD1 ASN A 238     16.057  43.432  52.108  1.00  0.73        O
ATOM   2292  HN  ASN A 238     12.101  42.567  49.308  1.00  0.00        H
ATOM   2293 1HD2 ASN A 238     18.129  42.457  51.289  1.00  0.00        H
ATOM   2294 2HD2 ASN A 238     17.366  41.460  50.006  1.00  0.00        H
ATOM   2295  N   ASP A 239     13.685  45.128  51.644  1.00  0.71        N
ATOM   2296  CA  ASP A 239     13.671  46.575  51.536  1.00  0.71        C
ATOM   2297  C   ASP A 239     15.003  47.137  51.052  1.00  0.71        C
ATOM   2298  O   ASP A 239     15.095  48.267  50.572  1.00  0.71        O
ATOM   2299  CB  ASP A 239     13.300  47.174  52.905  1.00  0.71        C
ATOM   2300  CG  ASP A 239     11.896  46.743  53.241  1.00  0.71        C
ATOM   2301  OD1 ASP A 239     10.952  46.936  52.433  1.00  0.71        O
ATOM   2302  OD2 ASP A 239     11.725  46.062  54.273  1.00  0.71        O1-
ATOM   2303  HN  ASP A 239     13.788  44.714  52.570  1.00  0.00        H
ATOM   2304  N   ASN A 240     16.062  46.313  51.112  1.00  0.73        N
ATOM   2305  CA  ASN A 240     17.354  46.631  50.550  1.00  0.73        C
ATOM   2306  C   ASN A 240     17.796  45.447  49.706  1.00  0.73        C
ATOM   2307  O   ASN A 240     18.808  44.791  49.957  1.00  0.73        O
ATOM   2308  CB  ASN A 240     18.362  46.968  51.678  1.00  0.73        C
ATOM   2309  CG  ASN A 240     19.633  47.564  51.088  1.00  0.73        C
ATOM   2310  ND2 ASN A 240     20.775  47.337  51.767  1.00  0.73        N
ATOM   2311  OD1 ASN A 240     19.595  48.188  50.025  1.00  0.73        O
ATOM   2312  HN  ASN A 240     15.948  45.414  51.580  1.00  0.00        H
ATOM   2313 1HD2 ASN A 240     21.626  47.736  51.372  1.00  0.00        H
ATOM   2314 2HD2 ASN A 240     20.806  46.821  52.646  1.00  0.00        H
ATOM   2315  N   SER A 241     17.001  45.120  48.675  1.00  0.80        N
ATOM   2316  CA  SER A 241     17.259  44.000  47.792  1.00  0.80        C
ATOM   2317  C   SER A 241     18.332  44.306  46.779  1.00  0.80        C
ATOM   2318  O   SER A 241     18.161  45.190  45.942  1.00  0.80        O
ATOM   2319  CB  SER A 241     15.989  43.585  47.008  1.00  0.80        C
ATOM   2320  OG  SER A 241     16.136  42.291  46.417  1.00  0.80        O
ATOM   2321  HN  SER A 241     16.172  45.689  48.504  1.00  0.00        H
ATOM   2322  HG  SER A 241     15.357  42.037  45.936  1.00  0.00        H
ATOM   2323  N   SER A 242     19.455  43.557  46.810  1.00  0.80        N
ATOM   2324  CA  SER A 242     20.468  43.568  45.763  1.00  0.80        C
ATOM   2325  C   SER A 242     19.878  43.141  44.432  1.00  0.80        C
ATOM   2326  O   SER A 242     19.386  42.023  44.297  1.00  0.80        O
ATOM   2327  CB  SER A 242     21.658  42.601  46.041  1.00  0.80        C
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ATOM 2328 OG SER A 242 22.216 42.789 47.346 1.00 0.80 O
ATOM 2329 HN SER A 242 19.603 42.947 47.614 1.00 0.00 H
ATOM 2330 HG SER A 242 22.941 42.200 47.515 1.00 0.00 H
ATOM 2331 N ARG A 243 19.880 44.024 43.413 1.00 0.72 N
ATOM 2332 CA ARG A 243 19.278 43.695 42.127 1.00 0.72 C
ATOM 2333 C ARG A 243 20.337 43.413 41.087 1.00 0.72 C
ATOM 2334 O ARG A 243 20.058 43.297 39.897 1.00 0.72 O
ATOM 2335 CB ARG A 243 18.347 44.811 41.617 1.00 0.72 C
ATOM 2336 CG ARG A 243 17.244 45.249 42.603 1.00 0.72 C
ATOM 2337 CD ARG A 243 16.442 44.122 43.273 1.00 0.72 C
ATOM 2338 NE ARG A 243 15.806 43.276 42.217 1.00 0.72 N
ATOM 2339 CZ ARG A 243 15.377 42.023 42.413 1.00 0.72 C
ATOM 2340 NH1 ARG A 243 15.706 41.321 43.493 1.00 0.72 N1+
ATOM 2341 NH2 ARG A 243 14.584 41.453 41.516 1.00 0.72 N
ATOM 2342 HN ARG A 243 20.311 44.939 43.545 1.00 0.00 H
ATOM 2343 HE ARG A 243 15.692 43.679 41.287 1.00 0.00 H
ATOM 2344 1HH1 ARG A 243 16.316 41.759 44.183 1.00 0.00 H
ATOM 2345 2HH1 ARG A 243 15.379 40.366 43.642 1.00 0.00 H
ATOM 2346 1HH2 ARG A 243 14.332 41.992 40.687 1.00 0.00 H
ATOM 2347 2HH2 ARG A 243 14.257 40.498 41.665 1.00 0.00 H
ATOM 2348 N PHE A 244 21.580 43.266 41.559 1.00 0.77 N
ATOM 2349 CA PHE A 244 22.721 42.803 40.821 1.00 0.77 C
ATOM 2350 C PHE A 244 23.404 41.784 41.705 1.00 0.77 C
ATOM 2351 O PHE A 244 23.202 41.766 42.921 1.00 0.77 O
ATOM 2352 CB PHE A 244 23.701 43.947 40.406 1.00 0.77 C
ATOM 2353 CG PHE A 244 24.421 44.607 41.555 1.00 0.77 C
ATOM 2354 CD1 PHE A 244 23.737 45.428 42.463 1.00 0.77 C
ATOM 2355 CD2 PHE A 244 25.797 44.398 41.734 1.00 0.77 C
ATOM 2356 CE1 PHE A 244 24.395 45.977 43.570 1.00 0.77 C
ATOM 2357 CE2 PHE A 244 26.468 44.963 42.825 1.00 0.77 C
ATOM 2358 CZ PHE A 244 25.760 45.730 43.758 1.00 0.77 C
ATOM 2359 HN PHE A 244 21.732 43.506 42.539 1.00 0.00 H
ATOM 2360 N GLY A 245 24.236 40.907 41.122 1.00 0.84 N
ATOM 2361 CA GLY A 245 25.107 40.043 41.905 1.00 0.84 C
ATOM 2362 C GLY A 245 26.504 40.575 41.857 1.00 0.84 C
ATOM 2363 O GLY A 245 26.868 41.312 40.945 1.00 0.84 O
ATOM 2364 HN GLY A 245 24.258 40.844 40.104 1.00 0.00 H
ATOM 2365 N LYS A 246 27.350 40.188 42.818 1.00 0.81 N
ATOM 2366 CA LYS A 246 28.722 40.633 42.824 1.00 0.81 C
ATOM 2367 C LYS A 246 29.657 39.619 43.446 1.00 0.81 C
ATOM 2368 O LYS A 246 29.295 38.830 44.318 1.00 0.81 O
ATOM 2369 CB LYS A 246 28.879 42.005 43.532 1.00 0.81 C
ATOM 2370 CG LYS A 246 28.486 42.023 45.022 1.00 0.81 C
ATOM 2371 CD LYS A 246 28.485 43.450 45.590 1.00 0.81 C

ATOM 2372 CE LYS A 246 28.270 43.548 47.106 1.00 0.81 C
ATOM 2373 NZ LYS A 246 26.863 43.294 47.464 1.00 0.81 N1+
ATOM 2374 HN LYS A 246 27.020 39.569 43.558 1.00 0.00 H
ATOM 2375 HZ1 LYS A 246 26.720 43.359 48.472 1.00 0.00 H
ATOM 2376 HZ2 LYS A 246 26.539 42.399 47.097 1.00 0.00 H
ATOM 2377 HZ3 LYS A 246 26.230 43.911 46.955 1.00 0.00 H
ATOM 2378 N PHE A 247 30.916 39.627 42.985 1.00 0.92 N
ATOM 2379 CA PHE A 247 31.993 38.856 43.562 1.00 0.92 C
ATOM 2380 C PHE A 247 33.083 39.839 43.944 1.00 0.92 C
ATOM 2381 O PHE A 247 33.652 40.532 43.102 1.00 0.92 O
ATOM 2382 CB PHE A 247 32.484 37.797 42.540 1.00 0.92 C
ATOM 2383 CG PHE A 247 33.540 36.862 43.066 1.00 0.92 C
ATOM 2384 CD1 PHE A 247 33.210 35.889 44.021 1.00 0.92 C
ATOM 2385 CD2 PHE A 247 34.848 36.895 42.552 1.00 0.92 C
ATOM 2386 CE1 PHE A 247 34.155 34.942 44.435 1.00 0.92 C
ATOM 2387 CE2 PHE A 247 35.797 35.947 42.959 1.00 0.92 C
ATOM 2388 CZ PHE A 247 35.445 34.961 43.889 1.00 0.92 C
ATOM 2389 HN PHE A 247 31.126 40.213 42.177 1.00 0.00 H
ATOM 2390 N ILE A 248 33.375 39.943 45.251 1.00 0.89 N
ATOM 2391 CA ILE A 248 34.344 40.894 45.764 1.00 0.89 C
ATOM 2392 C ILE A 248 35.649 40.168 45.958 1.00 0.89 C
ATOM 2393 O ILE A 248 35.758 39.312 46.831 1.00 0.89 O
ATOM 2394 CB ILE A 248 33.939 41.485 47.118 1.00 0.89 C
ATOM 2395 CG1 ILE A 248 32.508 42.076 47.107 1.00 0.89 C
ATOM 2396 CG2 ILE A 248 34.984 42.538 47.564 1.00 0.89 C
ATOM 2397 CD1 ILE A 248 32.332 43.263 46.159 1.00 0.89 C
ATOM 2398 HN ILE A 248 32.896 39.329 45.910 1.00 0.00 H
ATOM 2399 N ARG A 249 36.695 40.492 45.177 1.00 0.88 N
ATOM 2400 CA ARG A 249 38.018 39.978 45.459 1.00 0.88 C
ATOM 2401 C ARG A 249 38.716 40.929 46.404 1.00 0.88 C
ATOM 2402 O ARG A 249 38.983 42.082 46.073 1.00 0.88 O
ATOM 2403 CB ARG A 249 38.924 39.847 44.209 1.00 0.88 C
ATOM 2404 CG ARG A 249 38.406 38.899 43.112 1.00 0.88 C
ATOM 2405 CD ARG A 249 39.453 38.662 42.014 1.00 0.88 C
ATOM 2406 NE ARG A 249 38.848 37.764 40.974 1.00 0.88 N
ATOM 2407 CZ ARG A 249 38.206 38.205 39.888 1.00 0.88 C
ATOM 2408 NH1 ARG A 249 37.620 37.347 39.051 1.00 0.88 N1+
ATOM 2409 NH2 ARG A 249 38.087 39.479 39.536 1.00 0.88 N
ATOM 2410 HN ARG A 249 36.554 41.108 44.376 1.00 0.00 H
ATOM 2411 HE ARG A 249 38.932 36.756 41.104 1.00 0.00 H
ATOM 2412 1HH1 ARG A 249 37.711 36.368 39.322 1.00 0.00 H
ATOM 2413 2HH1 ARG A 249 37.130 37.684 38.222 1.00 0.00 H
ATOM 2414 1HH2 ARG A 249 38.535 40.135 40.176 1.00 0.00 H
ATOM 2415 2HH2 ARG A 249 37.597 39.816 38.707 1.00 0.00 H

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ATOM   2416  N   ILE A 250      39.057  40.456  47.609  1.00  0.85           N
ATOM   2417  CA  ILE A 250      39.936  41.173  48.508  1.00  0.85           C
ATOM   2418  C   ILE A 250      41.322  40.623  48.249  1.00  0.85           C
ATOM   2419  O   ILE A 250      41.548  39.423  48.384  1.00  0.85           O
ATOM   2420  CB  ILE A 250      39.495  40.988  49.954  1.00  0.85           C
ATOM   2421  CG1 ILE A 250      38.056  41.522  50.162  1.00  0.85           C
ATOM   2422  CG2 ILE A 250      40.463  41.680  50.928  1.00  0.85           C
ATOM   2423  CD1 ILE A 250      37.873  43.026  49.892  1.00  0.85           C
ATOM   2424  HN  ILE A 250      38.683  39.555  47.905  1.00  0.00           H
ATOM   2425  N   HIS A 251      42.269  41.474  47.804  1.00  0.81           N
ATOM   2426  CA  HIS A 251      43.565  41.039  47.315  1.00  0.81           C
ATOM   2427  C   HIS A 251      44.634  41.311  48.342  1.00  0.81           C
ATOM   2428  O   HIS A 251      44.728  42.407  48.895  1.00  0.81           O
ATOM   2429  CB  HIS A 251      44.036  41.794  46.052  1.00  0.81           C
ATOM   2430  CG  HIS A 251      43.147  41.670  44.862  1.00  0.81           C
ATOM   2431  CD2 HIS A 251      42.359  42.596  44.262  1.00  0.81           C
ATOM   2432  ND1 HIS A 251      43.150  40.500  44.131  1.00  0.81           N
ATOM   2433  CE1 HIS A 251      42.358  40.734  43.106  1.00  0.81           C
ATOM   2434  NE2 HIS A 251      41.858  41.988  43.135  1.00  0.81           N
ATOM   2435  HN  HIS A 251      42.064  42.473  47.811  1.00  0.00           H
ATOM   2436  HD1 HIS A 251      43.656  39.640  44.340  1.00  0.00           H
ATOM   2437  HE2 HIS A 251      41.228  42.405  42.450  1.00  0.00           H
ATOM   2438  N   PHE A 252      45.490  40.317  48.592  1.00  0.77           N
ATOM   2439  CA  PHE A 252      46.491  40.353  49.631  1.00  0.77           C
ATOM   2440  C   PHE A 252      47.883  40.177  49.055  1.00  0.77           C
ATOM   2441  O   PHE A 252      48.095  39.511  48.036  1.00  0.77           O
ATOM   2442  CB  PHE A 252      46.274  39.235  50.680  1.00  0.77           C
ATOM   2443  CG  PHE A 252      44.910  39.328  51.303  1.00  0.77           C
ATOM   2444  CD1 PHE A 252      43.815  38.689  50.701  1.00  0.77           C
ATOM   2445  CD2 PHE A 252      44.713  40.000  52.520  1.00  0.77           C
ATOM   2446  CE1 PHE A 252      42.560  38.695  51.314  1.00  0.77           C
ATOM   2447  CE2 PHE A 252      43.456  40.002  53.139  1.00  0.77           C
ATOM   2448  CZ  PHE A 252      42.381  39.341  52.539  1.00  0.77           C
ATOM   2449  HN  PHE A 252      45.433  39.480  48.012  1.00  0.00           H
ATOM   2450  N   GLY A 253      48.880  40.794  49.719  1.00  0.79           N
ATOM   2451  CA  GLY A 253      50.290  40.606  49.427  1.00  0.79           C
ATOM   2452  C   GLY A 253      50.843  39.310  49.954  1.00  0.79           C
ATOM   2453  O   GLY A 253      50.164  38.514  50.594  1.00  0.79           O
ATOM   2454  HN  GLY A 253      48.629  41.433  50.474  1.00  0.00           H
ATOM   2455  N   ALA A 254      52.151  39.076  49.742  1.00  0.78           N
ATOM   2456  CA  ALA A 254      52.798  37.828  50.111  1.00  0.78           C
ATOM   2457  C   ALA A 254      53.038  37.711  51.609  1.00  0.78           C
ATOM   2458  O   ALA A 254      53.285  36.637  52.148  1.00  0.78           O
ATOM   2459  CB  ALA A 254      54.139  37.710  49.363  1.00  0.78           C
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ATOM   2460  HN  ALA A 254     52.713  39.806  49.303  1.00  0.00         H
ATOM   2461  N   THR A 255     52.923  38.847  52.313  1.00  0.76         N
ATOM   2462  CA  THR A 255     53.051  38.976  53.752  1.00  0.76         C
ATOM   2463  C   THR A 255     51.693  38.939  54.419  1.00  0.76         C
ATOM   2464  O   THR A 255     51.577  39.100  55.630  1.00  0.76         O
ATOM   2465  CB  THR A 255     53.681  40.319  54.100  1.00  0.76         C
ATOM   2466  CG2 THR A 255     55.123  40.348  53.575  1.00  0.76         C
ATOM   2467  OG1 THR A 255     52.997  41.392  53.453  1.00  0.76         O
ATOM   2468  HN  THR A 255     52.727  39.699  51.788  1.00  0.00         H
ATOM   2469  HG1 THR A 255     52.104  41.374  53.778  1.00  0.00         H
ATOM   2470  N   GLY A 256     50.622  38.741  53.626  1.00  0.83         N
ATOM   2471  CA  GLY A 256     49.251  38.628  54.096  1.00  0.83         C
ATOM   2472  C   GLY A 256     48.543  39.923  54.306  1.00  0.83         C
ATOM   2473  O   GLY A 256     47.342  39.937  54.541  1.00  0.83         O
ATOM   2474  HN  GLY A 256     50.785  38.665  52.622  1.00  0.00         H
ATOM   2475  N   LYS A 257     49.233  41.067  54.172  1.00  0.72         N
ATOM   2476  CA  LYS A 257     48.566  42.351  54.212  1.00  0.72         C
ATOM   2477  C   LYS A 257     47.638  42.587  53.036  1.00  0.72         C
ATOM   2478  O   LYS A 257     47.896  42.144  51.918  1.00  0.72         O
ATOM   2479  CB  LYS A 257     49.534  43.548  54.278  1.00  0.72         C
ATOM   2480  CG  LYS A 257     50.381  43.587  55.553  1.00  0.72         C
ATOM   2481  CD  LYS A 257     51.251  44.848  55.554  1.00  0.72         C
ATOM   2482  CE  LYS A 257     52.238  44.912  56.712  1.00  0.72         C
ATOM   2483  NZ  LYS A 257     53.107  46.078  56.512  1.00  0.72         N1+
ATOM   2484  HN  LYS A 257     50.244  41.031  54.040  1.00  0.00         H
ATOM   2485  HZ1 LYS A 257     53.768  46.121  57.288  1.00  0.00         H
ATOM   2486  HZ2 LYS A 257     52.581  46.944  56.395  1.00  0.00         H
ATOM   2487  HZ3 LYS A 257     53.568  46.073  55.602  1.00  0.00         H
ATOM   2488  N   LEU A 258     46.542  43.329  53.262  1.00  0.75         N
ATOM   2489  CA  LEU A 258     45.680  43.844  52.217  1.00  0.75         C
ATOM   2490  C   LEU A 258     46.428  44.748  51.240  1.00  0.75         C
ATOM   2491  O   LEU A 258     47.238  45.590  51.622  1.00  0.75         O
ATOM   2492  CB  LEU A 258     44.510  44.615  52.874  1.00  0.75         C
ATOM   2493  CG  LEU A 258     43.509  45.312  51.930  1.00  0.75         C
ATOM   2494  CD1 LEU A 258     42.733  44.311  51.072  1.00  0.75         C
ATOM   2495  CD2 LEU A 258     42.554  46.163  52.771  1.00  0.75         C
ATOM   2496  HN  LEU A 258     46.301  43.544  54.230  1.00  0.00         H
ATOM   2497  N   ALA A 259     46.185  44.563  49.931  1.00  0.80         N
ATOM   2498  CA  ALA A 259     46.915  45.272  48.908  1.00  0.80         C
ATOM   2499  C   ALA A 259     46.005  45.932  47.892  1.00  0.80         C
ATOM   2500  O   ALA A 259     46.326  46.988  47.354  1.00  0.80         O
ATOM   2501  CB  ALA A 259     47.803  44.243  48.185  1.00  0.80         C
ATOM   2502  HN  ALA A 259     45.462  43.900  49.652  1.00  0.00         H
ATOM   2503  N   SER A 260     44.829  45.354  47.605  1.00  0.83         N
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ATOM 2504 CA SER A 260 43.871 45.961 46.697 1.00 0.83 C
ATOM 2505 C SER A 260 42.540 45.275 46.865 1.00 0.83 C
ATOM 2506 O SER A 260 42.416 44.288 47.587 1.00 0.83 O
ATOM 2507 CB SER A 260 44.299 45.962 45.192 1.00 0.83 C
ATOM 2508 OG SER A 260 44.803 44.709 44.725 1.00 0.83 O
ATOM 2509 HN SER A 260 44.600 44.459 48.038 1.00 0.00 H
ATOM 2510 HG SER A 260 45.063 44.710 43.811 1.00 0.00 H
ATOM 2511 N ALA A 261 41.491 45.773 46.196 1.00 0.90 N
ATOM 2512 CA ALA A 261 40.260 45.032 46.053 1.00 0.90 C
ATOM 2513 C ALA A 261 39.763 45.218 44.642 1.00 0.90 C
ATOM 2514 O ALA A 261 40.246 46.085 43.916 1.00 0.90 O
ATOM 2515 CB ALA A 261 39.180 45.485 47.044 1.00 0.90 C
ATOM 2516 HN ALA A 261 41.564 46.700 45.777 1.00 0.00 H
ATOM 2517 N ASP A 262 38.828 44.363 44.219 1.00 0.91 N
ATOM 2518 CA ASP A 262 38.293 44.359 42.884 1.00 0.91 C
ATOM 2519 C ASP A 262 36.859 43.854 42.984 1.00 0.91 C
ATOM 2520 O ASP A 262 36.560 42.933 43.749 1.00 0.91 O
ATOM 2521 CB ASP A 262 39.237 43.462 42.053 1.00 0.91 C
ATOM 2522 CG ASP A 262 38.711 43.066 40.696 1.00 0.91 C
ATOM 2523 OD1 ASP A 262 38.087 43.912 40.020 1.00 0.91 O
ATOM 2524 OD2 ASP A 262 38.919 41.868 40.354 1.00 0.91 O1-
ATOM 2525 HN ASP A 262 38.473 43.673 44.881 1.00 0.00 H
ATOM 2526 N ILE A 263 35.930 44.475 42.242 1.00 0.87 N
ATOM 2527 CA ILE A 263 34.518 44.153 42.291 1.00 0.87 C
ATOM 2528 C ILE A 263 34.107 43.661 40.919 1.00 0.87 C
ATOM 2529 O ILE A 263 33.988 44.433 39.966 1.00 0.87 O
ATOM 2530 CB ILE A 263 33.660 45.370 42.667 1.00 0.87 C
ATOM 2531 CG1 ILE A 263 34.082 45.979 44.027 1.00 0.87 C
ATOM 2532 CG2 ILE A 263 32.156 44.998 42.677 1.00 0.87 C
ATOM 2533 CD1 ILE A 263 33.641 47.439 44.179 1.00 0.87 C
ATOM 2534 HN ILE A 263 36.234 45.214 41.609 1.00 0.00 H
ATOM 2535 N GLU A 264 33.807 42.357 40.787 1.00 0.87 N
ATOM 2536 CA GLU A 264 33.144 41.846 39.605 1.00 0.87 C
ATOM 2537 C GLU A 264 31.655 42.013 39.839 1.00 0.87 C
ATOM 2538 O GLU A 264 31.076 41.364 40.713 1.00 0.87 O
ATOM 2539 CB GLU A 264 33.419 40.334 39.392 1.00 0.87 C
ATOM 2540 CG GLU A 264 34.896 39.940 39.133 1.00 0.87 C
ATOM 2541 CD GLU A 264 35.243 39.687 37.683 1.00 0.87 C
ATOM 2542 OE1 GLU A 264 34.435 40.007 36.780 1.00 0.87 O
ATOM 2543 OE2 GLU A 264 36.341 39.104 37.428 1.00 0.87 O1-
ATOM 2544 HN GLU A 264 34.052 41.712 41.538 1.00 0.00 H
ATOM 2545 N THR A 265 30.988 42.906 39.089 1.00 0.83 N
ATOM 2546 CA THR A 265 29.537 42.996 39.086 1.00 0.83 C
ATOM 2547 C THR A 265 28.955 42.126 37.999 1.00 0.83 C

ATOM 2548 O THR A 265 29.513 41.940 36.921 1.00 0.83 O
ATOM 2549 CB THR A 265 28.955 44.403 38.960 1.00 0.83 C
ATOM 2550 CG2 THR A 265 29.239 45.157 40.266 1.00 0.83 C
ATOM 2551 OG1 THR A 265 29.560 45.140 37.906 1.00 0.83 O
ATOM 2552 HN THR A 265 31.520 43.546 38.499 1.00 0.00 H
ATOM 2553 HG1 THR A 265 29.198 46.015 37.828 1.00 0.00 H
ATOM 2554 N TYR A 266 27.784 41.542 38.283 1.00 0.77 N
ATOM 2555 CA TYR A 266 27.028 40.751 37.341 1.00 0.77 C
ATOM 2556 C TYR A 266 25.749 41.499 37.059 1.00 0.77 C
ATOM 2557 O TYR A 266 25.460 42.479 37.740 1.00 0.77 O
ATOM 2558 CB TYR A 266 26.686 39.353 37.919 1.00 0.77 C
ATOM 2559 CG TYR A 266 27.945 38.626 38.314 1.00 0.77 C
ATOM 2560 CD1 TYR A 266 28.961 38.388 37.374 1.00 0.77 C
ATOM 2561 CD2 TYR A 266 28.133 38.190 39.638 1.00 0.77 C
ATOM 2562 CE1 TYR A 266 30.144 37.739 37.750 1.00 0.77 C
ATOM 2563 CE2 TYR A 266 29.322 37.552 40.021 1.00 0.77 C
ATOM 2564 CZ TYR A 266 30.329 37.333 39.073 1.00 0.77 C
ATOM 2565 OH TYR A 266 31.534 36.710 39.442 1.00 0.77 O
ATOM 2566 HN TYR A 266 27.403 41.663 39.221 1.00 0.00 H
ATOM 2567 HH TYR A 266 32.217 36.561 38.799 1.00 0.00 H
ATOM 2568 N LEU A 267 24.981 41.055 36.035 1.00 0.76 N
ATOM 2569 CA LEU A 267 23.687 41.573 35.606 1.00 0.76 C
ATOM 2570 C LEU A 267 22.865 42.330 36.641 1.00 0.76 C
ATOM 2571 O LEU A 267 22.517 41.792 37.694 1.00 0.76 O
ATOM 2572 CB LEU A 267 22.833 40.425 34.993 1.00 0.76 C
ATOM 2573 CG LEU A 267 23.332 39.853 33.651 1.00 0.76 C
ATOM 2574 CD1 LEU A 267 22.533 38.594 33.305 1.00 0.76 C
ATOM 2575 CD2 LEU A 267 23.203 40.886 32.534 1.00 0.76 C
ATOM 2576 HN LEU A 267 25.351 40.267 35.503 1.00 0.00 H
ATOM 2577 N LEU A 268 22.545 43.599 36.340 1.00 0.76 N
ATOM 2578 CA LEU A 268 21.659 44.423 37.123 1.00 0.76 C
ATOM 2579 C LEU A 268 20.264 44.368 36.484 1.00 0.76 C
ATOM 2580 O LEU A 268 20.057 44.142 35.290 1.00 0.76 O
ATOM 2581 CB LEU A 268 22.283 45.829 37.373 1.00 0.76 C
ATOM 2582 CG LEU A 268 21.384 46.916 37.983 1.00 0.76 C
ATOM 2583 CD1 LEU A 268 21.409 46.859 39.512 1.00 0.76 C
ATOM 2584 CD2 LEU A 268 21.862 48.283 37.485 1.00 0.76 C
ATOM 2585 HN LEU A 268 22.957 44.007 35.501 1.00 0.00 H
ATOM 2586 N GLU A 269 19.210 44.471 37.309 1.00 0.69 N
ATOM 2587 CA GLU A 269 17.831 44.480 36.863 1.00 0.69 C
ATOM 2588 C GLU A 269 17.441 45.827 36.237 1.00 0.69 C
ATOM 2589 O GLU A 269 16.787 46.672 36.853 1.00 0.69 O
ATOM 2590 CB GLU A 269 16.929 44.096 38.063 1.00 0.69 C
ATOM 2591 CG GLU A 269 15.421 43.887 37.782 1.00 0.69 C

ATOM 2592 CD GLU A 269 14.670 43.686 39.088 1.00 0.69 C
ATOM 2593 OE1 GLU A 269 14.837 44.516 40.022 1.00 0.69 O
ATOM 2594 OE2 GLU A 269 13.932 42.685 39.248 1.00 0.69 O1-
ATOM 2595 HN GLU A 269 19.391 44.548 38.310 1.00 0.00 H
ATOM 2596 N LYS A 270 17.837 46.075 34.964 1.00 0.71 N
ATOM 2597 CA LYS A 270 17.555 47.312 34.232 1.00 0.71 C
ATOM 2598 C LYS A 270 16.092 47.687 34.172 1.00 0.71 C
ATOM 2599 O LYS A 270 15.713 48.853 34.207 1.00 0.71 O
ATOM 2600 CB LYS A 270 17.968 47.248 32.736 1.00 0.71 C
ATOM 2601 CG LYS A 270 19.454 46.997 32.536 1.00 0.71 C
ATOM 2602 CD LYS A 270 20.009 47.261 31.127 1.00 0.71 C
ATOM 2603 CE LYS A 270 19.350 46.439 30.024 1.00 0.71 C
ATOM 2604 NZ LYS A 270 20.120 46.582 28.788 1.00 0.71 N1+
ATOM 2605 HN LYS A 270 18.368 45.350 34.483 1.00 0.00 H
ATOM 2606 HZ1 LYS A 270 19.679 46.032 28.050 1.00 0.00 H
ATOM 2607 HZ2 LYS A 270 21.103 46.341 28.915 1.00 0.00 H
ATOM 2608 HZ3 LYS A 270 20.244 47.559 28.521 1.00 0.00 H
ATOM 2609 N SER A 271 15.225 46.674 34.057 1.00 0.74 N
ATOM 2610 CA SER A 271 13.791 46.800 33.911 1.00 0.74 C
ATOM 2611 C SER A 271 13.109 47.538 35.041 1.00 0.74 C
ATOM 2612 O SER A 271 12.113 48.217 34.805 1.00 0.74 O
ATOM 2613 CB SER A 271 13.165 45.403 33.736 1.00 0.74 C
ATOM 2614 OG SER A 271 13.680 44.515 34.723 1.00 0.74 O
ATOM 2615 HN SER A 271 15.609 45.729 34.074 1.00 0.00 H
ATOM 2616 HG SER A 271 13.294 43.654 34.615 1.00 0.00 H
ATOM 2617 N ARG A 272 13.675 47.482 36.261 1.00 0.65 N
ATOM 2618 CA ARG A 272 13.202 48.197 37.429 1.00 0.65 C
ATOM 2619 C ARG A 272 13.139 49.715 37.274 1.00 0.65 C
ATOM 2620 O ARG A 272 12.225 50.357 37.782 1.00 0.65 O
ATOM 2621 CB ARG A 272 14.050 47.812 38.658 1.00 0.65 C
ATOM 2622 CG ARG A 272 13.543 48.470 39.956 1.00 0.65 C
ATOM 2623 CD ARG A 272 14.153 47.933 41.249 1.00 0.65 C
ATOM 2624 NE ARG A 272 13.771 46.495 41.373 1.00 0.65 N
ATOM 2625 CZ ARG A 272 12.593 46.049 41.819 1.00 0.65 C
ATOM 2626 NH1 ARG A 272 11.740 46.787 42.513 1.00 0.65 N1+
ATOM 2627 NH2 ARG A 272 12.248 44.790 41.556 1.00 0.65 N
ATOM 2628 HN ARG A 272 14.499 46.891 36.372 1.00 0.00 H
ATOM 2629 HE ARG A 272 14.463 45.799 41.096 1.00 0.00 H
ATOM 2630 1HH1 ARG A 272 12.004 47.751 42.714 1.00 0.00 H
ATOM 2631 2HH1 ARG A 272 10.841 46.447 42.853 1.00 0.00 H
ATOM 2632 1HH2 ARG A 272 12.905 44.222 41.021 1.00 0.00 H
ATOM 2633 2HH2 ARG A 272 11.349 44.450 41.896 1.00 0.00 H
ATOM 2634 N VAL A 273 14.077 50.318 36.510 1.00 0.74 N
ATOM 2635 CA VAL A 273 14.132 51.756 36.244 1.00 0.74 C

ATOM 2636 C VAL A 273 12.867 52.272 35.566 1.00 0.74 C
ATOM 2637 O VAL A 273 12.421 53.397 35.771 1.00 0.74 O
ATOM 2638 CB VAL A 273 15.339 52.104 35.364 1.00 0.74 C
ATOM 2639 CG1 VAL A 273 15.486 53.632 35.202 1.00 0.74 C
ATOM 2640 CG2 VAL A 273 16.623 51.546 36.004 1.00 0.74 C
ATOM 2641 HN VAL A 273 14.797 49.730 36.090 1.00 0.00 H
ATOM 2642 N ILE A 274 12.244 51.449 34.698 1.00 0.67 N
ATOM 2643 CA ILE A 274 11.083 51.880 33.937 1.00 0.67 C
ATOM 2644 C ILE A 274 9.778 51.260 34.418 1.00 0.67 C
ATOM 2645 O ILE A 274 8.702 51.640 33.960 1.00 0.67 O
ATOM 2646 CB ILE A 274 11.266 51.598 32.444 1.00 0.67 C
ATOM 2647 CG1 ILE A 274 11.337 50.089 32.101 1.00 0.67 C
ATOM 2648 CG2 ILE A 274 12.541 52.332 31.969 1.00 0.67 C
ATOM 2649 CD1 ILE A 274 11.232 49.816 30.595 1.00 0.67 C
ATOM 2650 HN ILE A 274 12.596 50.500 34.572 1.00 0.00 H
ATOM 2651 N PHE A 275 9.835 50.284 35.346 1.00 0.60 N
ATOM 2652 CA PHE A 275 8.663 49.584 35.830 1.00 0.60 C
ATOM 2653 C PHE A 275 8.912 49.046 37.232 1.00 0.60 C
ATOM 2654 O PHE A 275 9.952 48.463 37.513 1.00 0.60 O
ATOM 2655 CB PHE A 275 8.328 48.410 34.858 1.00 0.60 C
ATOM 2656 CG PHE A 275 7.221 47.518 35.360 1.00 0.60 C
ATOM 2657 CD1 PHE A 275 5.882 47.928 35.293 1.00 0.60 C
ATOM 2658 CD2 PHE A 275 7.535 46.302 35.992 1.00 0.60 C
ATOM 2659 CE1 PHE A 275 4.869 47.135 35.848 1.00 0.60 C
ATOM 2660 CE2 PHE A 275 6.527 45.511 36.555 1.00 0.60 C
ATOM 2661 CZ PHE A 275 5.193 45.929 36.482 1.00 0.60 C
ATOM 2662 HN PHE A 275 10.746 50.026 35.725 1.00 0.00 H
ATOM 2663 N GLN A 276 7.918 49.148 38.137 1.00 0.61 N
ATOM 2664 CA GLN A 276 8.003 48.526 39.442 1.00 0.61 C
ATOM 2665 C GLN A 276 6.668 47.893 39.778 1.00 0.61 C
ATOM 2666 O GLN A 276 5.609 48.391 39.401 1.00 0.61 O
ATOM 2667 CB GLN A 276 8.370 49.519 40.577 1.00 0.61 C
ATOM 2668 CG GLN A 276 9.613 50.394 40.292 1.00 0.61 C
ATOM 2669 CD GLN A 276 9.280 51.678 39.521 1.00 0.61 C
ATOM 2670 NE2 GLN A 276 10.213 52.109 38.646 1.00 0.61 N
ATOM 2671 OE1 GLN A 276 8.236 52.301 39.733 1.00 0.61 O
ATOM 2672 HN GLN A 276 7.081 49.679 37.895 1.00 0.00 H
ATOM 2673 1HE2 GLN A 276 9.992 52.963 38.133 1.00 0.00 H
ATOM 2674 2HE2 GLN A 276 11.076 51.594 38.471 1.00 0.00 H
ATOM 2675 N LEU A 277 6.682 46.754 40.498 1.00 0.59 N
ATOM 2676 CA LEU A 277 5.478 46.133 41.018 1.00 0.59 C
ATOM 2677 C LEU A 277 4.890 46.911 42.191 1.00 0.59 C
ATOM 2678 O LEU A 277 5.556 47.709 42.851 1.00 0.59 O
ATOM 2679 CB LEU A 277 5.737 44.665 41.446 1.00 0.59 C

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ATOM   2680  CG  LEU A 277      6.060  43.704  40.282  1.00  0.59         C
ATOM   2681  CD1 LEU A 277      6.588  42.369  40.827  1.00  0.59         C
ATOM   2682  CD2 LEU A 277      4.838  43.454  39.386  1.00  0.59         C
ATOM   2683  HN  LEU A 277      7.580  46.308  40.686  1.00  0.00         H
ATOM   2684  N   LYS A 278      3.587  46.703  42.480  1.00  0.58         N
ATOM   2685  CA  LYS A 278      2.897  47.333  43.594  1.00  0.58         C
ATOM   2686  C   LYS A 278      3.597  47.134  44.939  1.00  0.58         C
ATOM   2687  O   LYS A 278      3.912  46.016  45.331  1.00  0.58         O
ATOM   2688  CB  LYS A 278      1.446  46.791  43.707  1.00  0.58         C
ATOM   2689  CG  LYS A 278      0.601  47.411  44.837  1.00  0.58         C
ATOM   2690  CD  LYS A 278     -0.805  46.792  44.930  1.00  0.58         C
ATOM   2691  CE  LYS A 278     -1.625  47.368  46.090  1.00  0.58         C
ATOM   2692  NZ  LYS A 278     -2.958  46.725  46.145  1.00  0.58         N1+
ATOM   2693  HN  LYS A 278      3.057  46.068  41.883  1.00  0.00         H
ATOM   2694  HZ1 LYS A 278     -3.504  47.108  46.917  1.00  0.00         H
ATOM   2695  HZ2 LYS A 278     -2.889  45.709  46.196  1.00  0.00         H
ATOM   2696  HZ3 LYS A 278     -3.453  46.798  45.256  1.00  0.00         H
ATOM   2697  N   ALA A 279      3.855  48.256  45.647  1.00  0.64         N
ATOM   2698  CA  ALA A 279      4.512  48.344  46.939  1.00  0.64         C
ATOM   2699  C   ALA A 279      6.033  48.290  46.872  1.00  0.64         C
ATOM   2700  O   ALA A 279      6.701  48.483  47.890  1.00  0.64         O
ATOM   2701  CB  ALA A 279      3.973  47.343  47.989  1.00  0.64         C
ATOM   2702  HN  ALA A 279      3.556  49.137  45.228  1.00  0.00         H
ATOM   2703  N   GLU A 280      6.622  48.092  45.678  1.00  0.62         N
ATOM   2704  CA  GLU A 280      8.053  48.138  45.469  1.00  0.62         C
ATOM   2705  C   GLU A 280      8.531  49.548  45.182  1.00  0.62         C
ATOM   2706  O   GLU A 280      7.748  50.466  44.937  1.00  0.62         O
ATOM   2707  CB  GLU A 280      8.507  47.193  44.328  1.00  0.62         C
ATOM   2708  CG  GLU A 280      8.110  45.721  44.592  1.00  0.62         C
ATOM   2709  CD  GLU A 280      9.026  44.700  43.927  1.00  0.62         C
ATOM   2710  OE1 GLU A 280      9.744  45.043  42.949  1.00  0.62         O
ATOM   2711  OE2 GLU A 280      9.084  43.569  44.478  1.00  0.62         O1-
ATOM   2712  HN  GLU A 280      6.025  47.898  44.874  1.00  0.00         H
ATOM   2713  N   ARG A 281      9.861  49.745  45.214  1.00  0.64         N
ATOM   2714  CA  ARG A 281     10.480  50.988  44.804  1.00  0.64         C
ATOM   2715  C   ARG A 281     11.387  50.717  43.620  1.00  0.64         C
ATOM   2716  O   ARG A 281     11.825  49.588  43.374  1.00  0.64         O
ATOM   2717  CB  ARG A 281     11.349  51.664  45.906  1.00  0.64         C
ATOM   2718  CG  ARG A 281     10.578  52.165  47.144  1.00  0.64         C
ATOM   2719  CD  ARG A 281     11.088  53.480  47.760  1.00  0.64         C
ATOM   2720  NE  ARG A 281     12.563  53.399  48.033  1.00  0.64         N
ATOM   2721  CZ  ARG A 281     13.209  54.338  48.741  1.00  0.64         C
ATOM   2722  NH1 ARG A 281     12.564  55.376  49.265  1.00  0.64         N1+
ATOM   2723  NH2 ARG A 281     14.520  54.244  48.948  1.00  0.64         N
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ATOM   2724  HN  ARG A 281     10.459  48.986  45.541  1.00  0.00        H
ATOM   2725  HE  ARG A 281     13.090  52.605  47.669  1.00  0.00        H
ATOM   2726 1HH1 ARG A 281     13.055  56.090  49.803  1.00  0.00        H
ATOM   2727 2HH1 ARG A 281     11.559  55.448  49.106  1.00  0.00        H
ATOM   2728 1HH2 ARG A 281     15.011  54.958  49.486  1.00  0.00        H
ATOM   2729 2HH2 ARG A 281     15.015  53.448  48.546  1.00  0.00        H
ATOM   2730  N   ASP A 282     11.704  51.783  42.858  1.00  0.69        N
ATOM   2731  CA  ASP A 282     12.875  51.866  42.013  1.00  0.69        C
ATOM   2732  C   ASP A 282     14.159  51.800  42.859  1.00  0.69        C
ATOM   2733  O   ASP A 282     14.139  51.628  44.081  1.00  0.69        O
ATOM   2734  CB  ASP A 282     12.781  53.141  41.122  1.00  0.69        C
ATOM   2735  CG  ASP A 282     13.648  53.078  39.871  1.00  0.69        C
ATOM   2736  OD1 ASP A 282     14.400  52.079  39.714  1.00  0.69        O
ATOM   2737  OD2 ASP A 282     13.599  54.047  39.083  1.00  0.69        O1-
ATOM   2738  HN  ASP A 282     11.075  52.586  42.879  1.00  0.00        H
ATOM   2739  N   TYR A 283     15.325  51.932  42.221  1.00  0.77        N
ATOM   2740  CA  TYR A 283     16.605  52.060  42.878  1.00  0.77        C
ATOM   2741  C   TYR A 283     16.645  53.219  43.857  1.00  0.77        C
ATOM   2742  O   TYR A 283     16.064  54.283  43.634  1.00  0.77        O
ATOM   2743  CB  TYR A 283     17.736  52.225  41.840  1.00  0.77        C
ATOM   2744  CG  TYR A 283     17.861  50.944  41.077  1.00  0.77        C
ATOM   2745  CD1 TYR A 283     18.470  49.852  41.704  1.00  0.77        C
ATOM   2746  CD2 TYR A 283     17.329  50.785  39.785  1.00  0.77        C
ATOM   2747  CE1 TYR A 283     18.514  48.609  41.073  1.00  0.77        C
ATOM   2748  CE2 TYR A 283     17.385  49.538  39.144  1.00  0.77        C
ATOM   2749  CZ  TYR A 283     17.966  48.449  39.799  1.00  0.77        C
ATOM   2750  OH  TYR A 283     18.001  47.176  39.213  1.00  0.77        O
ATOM   2751  HN  TYR A 283     15.311  51.943  41.201  1.00  0.00        H
ATOM   2752  HH  TYR A 283     18.396  46.436  39.658  1.00  0.00        H
ATOM   2753  N   HIS A 284     17.329  53.031  45.004  1.00  0.70        N
ATOM   2754  CA  HIS A 284     17.276  53.982  46.105  1.00  0.70        C
ATOM   2755  C   HIS A 284     17.727  55.384  45.728  1.00  0.70        C
ATOM   2756  O   HIS A 284     17.155  56.372  46.183  1.00  0.70        O
ATOM   2757  CB  HIS A 284     18.099  53.538  47.328  1.00  0.70        C
ATOM   2758  CG  HIS A 284     17.741  52.202  47.895  1.00  0.70        C
ATOM   2759  CD2 HIS A 284     18.594  51.211  48.260  1.00  0.70        C
ATOM   2760  ND1 HIS A 284     16.439  51.889  48.271  1.00  0.70        N
ATOM   2761  CE1 HIS A 284     16.544  50.705  48.862  1.00  0.70        C
ATOM   2762  NE2 HIS A 284     17.823  50.255  48.878  1.00  0.70        N
ATOM   2763  HN  HIS A 284     17.903  52.194  45.104  1.00  0.00        H
ATOM   2764  HD1 HIS A 284     15.595  52.443  48.126  1.00  0.00        H
ATOM   2765  HE2 HIS A 284     18.151  49.374  49.274  1.00  0.00        H
ATOM   2766  N   ILE A 285     18.727  55.500  44.827  1.00  0.73        N
ATOM   2767  CA  ILE A 285     19.295  56.761  44.386  1.00  0.73        C
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ATOM 2768 C ILE A 285 18.294 57.777 43.858 1.00 0.73 C
ATOM 2769 O ILE A 285 18.428 58.971 44.115 1.00 0.73 O
ATOM 2770 CB ILE A 285 20.430 56.565 43.384 1.00 0.73 C
ATOM 2771 CG1 ILE A 285 21.304 57.836 43.269 1.00 0.73 C
ATOM 2772 CG2 ILE A 285 19.907 56.077 42.011 1.00 0.73 C
ATOM 2773 CD1 ILE A 285 22.140 58.101 44.529 1.00 0.73 C
ATOM 2774 HN ILE A 285 19.109 54.642 44.429 1.00 0.00 H
ATOM 2775 N PHE A 286 17.227 57.351 43.150 1.00 0.69 N
ATOM 2776 CA PHE A 286 16.187 58.261 42.702 1.00 0.69 C
ATOM 2777 C PHE A 286 15.482 58.954 43.863 1.00 0.69 C
ATOM 2778 O PHE A 286 15.347 60.174 43.894 1.00 0.69 O
ATOM 2779 CB PHE A 286 15.117 57.496 41.884 1.00 0.69 C
ATOM 2780 CG PHE A 286 15.688 57.001 40.586 1.00 0.69 C
ATOM 2781 CD1 PHE A 286 15.838 57.884 39.507 1.00 0.69 C
ATOM 2782 CD2 PHE A 286 16.030 55.652 40.405 1.00 0.69 C
ATOM 2783 CE1 PHE A 286 16.304 57.433 38.265 1.00 0.69 C
ATOM 2784 CE2 PHE A 286 16.521 55.198 39.174 1.00 0.69 C
ATOM 2785 CZ PHE A 286 16.660 56.090 38.104 1.00 0.69 C
ATOM 2786 HN PHE A 286 17.148 56.360 42.922 1.00 0.00 H
ATOM 2787 N TYR A 287 15.079 58.194 44.891 1.00 0.67 N
ATOM 2788 CA TYR A 287 14.445 58.702 46.096 1.00 0.67 C
ATOM 2789 C TYR A 287 15.375 59.547 46.949 1.00 0.67 C
ATOM 2790 O TYR A 287 14.983 60.596 47.441 1.00 0.67 O
ATOM 2791 CB TYR A 287 13.858 57.554 46.944 1.00 0.67 C
ATOM 2792 CG TYR A 287 12.935 56.737 46.086 1.00 0.67 C
ATOM 2793 CD1 TYR A 287 13.421 55.597 45.429 1.00 0.67 C
ATOM 2794 CD2 TYR A 287 11.599 57.123 45.884 1.00 0.67 C
ATOM 2795 CE1 TYR A 287 12.588 54.856 44.588 1.00 0.67 C
ATOM 2796 CE2 TYR A 287 10.756 56.363 45.057 1.00 0.67 C
ATOM 2797 CZ TYR A 287 11.247 55.215 44.426 1.00 0.67 C
ATOM 2798 OH TYR A 287 10.388 54.394 43.666 1.00 0.67 O
ATOM 2799 HN TYR A 287 15.228 57.187 44.823 1.00 0.00 H
ATOM 2800 HH TYR A 287 9.477 54.638 43.556 1.00 0.00 H
ATOM 2801 N GLN A 288 16.652 59.125 47.087 1.00 0.69 N
ATOM 2802 CA GLN A 288 17.713 59.857 47.763 1.00 0.69 C
ATOM 2803 C GLN A 288 17.974 61.229 47.139 1.00 0.69 C
ATOM 2804 O GLN A 288 18.116 62.248 47.813 1.00 0.69 O
ATOM 2805 CB GLN A 288 19.009 59.008 47.718 1.00 0.69 C
ATOM 2806 CG GLN A 288 18.983 57.714 48.570 1.00 0.69 C
ATOM 2807 CD GLN A 288 20.256 56.893 48.351 1.00 0.69 C
ATOM 2808 NE2 GLN A 288 21.408 57.581 48.460 1.00 0.69 N
ATOM 2809 OE1 GLN A 288 20.243 55.697 48.055 1.00 0.69 O
ATOM 2810 HN GLN A 288 16.892 58.219 46.684 1.00 0.00 H
ATOM 2811 1HE2 GLN A 288 22.256 57.034 48.314 1.00 0.00 H

ATOM 2812 2HE2 GLN A 288 21.419 58.571 48.705 1.00 0.00 H
ATOM 2813 N ILE A 289 17.997 61.299 45.796 1.00 0.70 N
ATOM 2814 CA ILE A 289 18.009 62.543 45.045 1.00 0.70 C
ATOM 2815 C ILE A 289 16.745 63.368 45.268 1.00 0.70 C
ATOM 2816 O ILE A 289 16.806 64.580 45.444 1.00 0.70 O
ATOM 2817 CB ILE A 289 18.258 62.253 43.566 1.00 0.70 C
ATOM 2818 CG1 ILE A 289 19.736 61.835 43.364 1.00 0.70 C
ATOM 2819 CG2 ILE A 289 17.909 63.457 42.667 1.00 0.70 C
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ATOM 2821 HN ILE A 289 18.007 60.424 45.272 1.00 0.00 H
ATOM 2822 N LEU A 290 15.553 62.768 45.322 1.00 0.68 N
ATOM 2823 CA LEU A 290 14.338 63.551 45.488 1.00 0.68 C
ATOM 2824 C LEU A 290 14.016 63.877 46.946 1.00 0.68 C
ATOM 2825 O LEU A 290 12.915 64.345 47.247 1.00 0.68 O
ATOM 2826 CB LEU A 290 13.136 62.847 44.807 1.00 0.68 C
ATOM 2827 CG LEU A 290 13.267 62.650 43.278 1.00 0.68 C
ATOM 2828 CD1 LEU A 290 11.946 62.140 42.712 1.00 0.68 C
ATOM 2829 CD2 LEU A 290 13.676 63.923 42.551 1.00 0.68 C
ATOM 2830 HN LEU A 290 15.494 61.753 45.246 1.00 0.00 H
ATOM 2831 N SER A 291 14.956 63.694 47.890 1.00 0.71 N
ATOM 2832 CA SER A 291 14.773 64.088 49.278 1.00 0.71 C
ATOM 2833 C SER A 291 15.846 65.039 49.800 1.00 0.71 C
ATOM 2834 O SER A 291 15.561 65.847 50.679 1.00 0.71 O
ATOM 2835 CB SER A 291 14.752 62.839 50.195 1.00 0.71 C
ATOM 2836 OG SER A 291 15.951 62.081 50.044 1.00 0.71 O
ATOM 2837 HN SER A 291 15.838 63.259 47.620 1.00 0.00 H
ATOM 2838 HG SER A 291 15.938 61.315 50.606 1.00 0.00 H
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ATOM 2840 CA ASN A 292 18.220 65.694 49.929 1.00 0.69 C
ATOM 2841 C ASN A 292 18.902 66.776 49.089 1.00 0.69 C
ATOM 2842 O ASN A 292 19.831 67.439 49.539 1.00 0.69 O
ATOM 2843 CB ASN A 292 19.304 64.635 50.252 1.00 0.69 C
ATOM 2844 CG ASN A 292 20.437 65.142 51.132 1.00 0.69 C
ATOM 2845 ND2 ASN A 292 21.654 65.120 50.584 1.00 0.69 N
ATOM 2846 OD1 ASN A 292 20.249 65.670 52.237 1.00 0.69 O
ATOM 2847 HN ASN A 292 17.273 64.458 48.437 1.00 0.00 H
ATOM 2848 1HD2 ASN A 292 21.809 64.685 49.674 1.00 0.00 H
ATOM 2849 2HD2 ASN A 292 22.414 65.460 51.174 1.00 0.00 H
ATOM 2850 N LYS A 293 18.531 66.981 47.817 1.00 0.65 N
ATOM 2851 CA LYS A 293 19.280 67.905 46.979 1.00 0.65 C
ATOM 2852 C LYS A 293 19.161 69.359 47.421 1.00 0.65 C
ATOM 2853 O LYS A 293 18.108 69.819 47.850 1.00 0.65 O
ATOM 2854 CB LYS A 293 18.878 67.743 45.500 1.00 0.65 C
ATOM 2855 CG LYS A 293 19.087 66.317 44.972 1.00 0.65 C

ATOM 2856 CD LYS A 293 20.488 65.991 44.453 1.00 0.65 C
ATOM 2857 CE LYS A 293 20.682 66.414 43.006 1.00 0.65 C
ATOM 2858 NZ LYS A 293 22.105 66.293 42.657 1.00 0.65 N1+
ATOM 2859 HN LYS A 293 17.723 66.489 47.436 1.00 0.00 H
ATOM 2860 HZ1 LYS A 293 22.235 66.577 41.686 1.00 0.00 H
ATOM 2861 HZ2 LYS A 293 22.472 65.359 42.841 1.00 0.00 H
ATOM 2862 HZ3 LYS A 293 22.707 66.811 43.297 1.00 0.00 H
ATOM 2863 N LYS A 294 20.275 70.124 47.324 1.00 0.61 N
ATOM 2864 CA LYS A 294 20.350 71.519 47.728 1.00 0.61 C
ATOM 2865 C LYS A 294 19.298 72.380 47.029 1.00 0.61 C
ATOM 2866 O LYS A 294 18.971 72.042 45.892 1.00 0.61 O
ATOM 2867 CB LYS A 294 21.743 72.121 47.388 1.00 0.61 C
ATOM 2868 CG LYS A 294 22.964 71.414 47.996 1.00 0.61 C
ATOM 2869 CD LYS A 294 24.267 72.082 47.510 1.00 0.61 C
ATOM 2870 CE LYS A 294 25.540 71.547 48.178 1.00 0.61 C
ATOM 2871 NZ LYS A 294 26.723 72.277 47.661 1.00 0.61 N1+
ATOM 2872 HN LYS A 294 21.117 69.693 46.942 1.00 0.00 H
ATOM 2873 HZ1 LYS A 294 27.569 71.921 48.105 1.00 0.00 H
ATOM 2874 HZ2 LYS A 294 26.628 73.287 47.769 1.00 0.00 H
ATOM 2875 HZ3 LYS A 294 26.780 72.243 46.643 1.00 0.00 H
ATOM 2876 N PRO A 295 18.749 73.456 47.601 1.00 0.66 N
ATOM 2877 CA PRO A 295 17.558 74.144 47.094 1.00 0.66 C
ATOM 2878 C PRO A 295 17.524 74.397 45.599 1.00 0.66 C
ATOM 2879 O PRO A 295 16.605 73.940 44.933 1.00 0.66 O
ATOM 2880 CB PRO A 295 17.472 75.433 47.927 1.00 0.66 C
ATOM 2881 CG PRO A 295 18.193 75.085 49.234 1.00 0.66 C
ATOM 2882 CD PRO A 295 19.291 74.122 48.788 1.00 0.66 C
ATOM 2883 N GLU A 296 18.568 75.028 45.037 1.00 0.61 N
ATOM 2884 CA GLU A 296 18.613 75.326 43.624 1.00 0.61 C
ATOM 2885 C GLU A 296 19.355 74.256 42.833 1.00 0.61 C
ATOM 2886 O GLU A 296 19.451 74.300 41.612 1.00 0.61 O
ATOM 2887 CB GLU A 296 19.321 76.675 43.422 1.00 0.61 C
ATOM 2888 CG GLU A 296 18.562 77.852 44.084 1.00 0.61 C
ATOM 2889 CD GLU A 296 19.343 79.162 44.027 1.00 0.61 C
ATOM 2890 OE1 GLU A 296 20.462 79.171 43.451 1.00 0.61 O
ATOM 2891 OE2 GLU A 296 18.838 80.156 44.610 1.00 0.61 O1-
ATOM 2892 HN GLU A 296 19.353 75.305 45.626 1.00 0.00 H
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ATOM 2894 CA LEU A 297 20.373 71.999 42.830 1.00 0.61 C
ATOM 2895 C LEU A 297 19.196 71.207 42.287 1.00 0.61 C
ATOM 2896 O LEU A 297 19.290 70.531 41.266 1.00 0.61 O
ATOM 2897 CB LEU A 297 21.220 71.151 43.818 1.00 0.61 C
ATOM 2898 CG LEU A 297 21.933 69.891 43.290 1.00 0.61 C
ATOM 2899 CD1 LEU A 297 23.051 70.216 42.294 1.00 0.61 C

ATOM 2900 CD2 LEU A 297 22.491 69.103 44.491 1.00 0.61 C
ATOM 2901 HN LEU A 297 19.881 73.223 44.514 1.00 0.00 H
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ATOM 2903 CA LEU A 298 16.750 70.932 42.406 1.00 0.61 C
ATOM 2904 C LEU A 298 16.313 71.778 41.227 1.00 0.61 C
ATOM 2905 O LEU A 298 15.976 71.224 40.186 1.00 0.61 O
ATOM 2906 CB LEU A 298 15.669 70.992 43.500 1.00 0.61 C
ATOM 2907 CG LEU A 298 15.943 70.007 44.645 1.00 0.61 C
ATOM 2908 CD1 LEU A 298 15.169 70.394 45.909 1.00 0.61 C
ATOM 2909 CD2 LEU A 298 15.584 68.585 44.207 1.00 0.61 C
ATOM 2910 HN LEU A 298 18.050 71.722 43.892 1.00 0.00 H
ATOM 2911 N ASP A 299 16.376 73.121 41.311 1.00 0.63 N
ATOM 2912 CA ASP A 299 16.044 74.013 40.209 1.00 0.63 C
ATOM 2913 C ASP A 299 16.937 73.852 38.979 1.00 0.63 C
ATOM 2914 O ASP A 299 16.455 73.762 37.852 1.00 0.63 O
ATOM 2915 CB ASP A 299 16.090 75.484 40.677 1.00 0.63 C
ATOM 2916 CG ASP A 299 15.021 75.755 41.720 1.00 0.63 C
ATOM 2917 OD1 ASP A 299 13.968 75.073 41.689 1.00 0.63 O
ATOM 2918 OD2 ASP A 299 15.255 76.664 42.551 1.00 0.63 O1-
ATOM 2919 HN ASP A 299 16.672 73.536 42.195 1.00 0.00 H
ATOM 2920 N MET A 300 18.270 73.726 39.160 1.00 0.60 N
ATOM 2921 CA MET A 300 19.216 73.448 38.088 1.00 0.60 C
ATOM 2922 C MET A 300 18.956 72.138 37.365 1.00 0.60 C
ATOM 2923 O MET A 300 19.205 72.022 36.167 1.00 0.60 O
ATOM 2924 CB MET A 300 20.676 73.415 38.608 1.00 0.60 C
ATOM 2925 CG MET A 300 21.266 74.805 38.918 1.00 0.60 C
ATOM 2926 SD MET A 300 21.271 75.975 37.519 1.00 0.60 S
ATOM 2927 CE MET A 300 22.419 75.087 36.426 1.00 0.60 C
ATOM 2928 HN MET A 300 18.637 73.832 40.106 1.00 0.00 H
ATOM 2929 N LEU A 301 18.450 71.119 38.083 1.00 0.71 N
ATOM 2930 CA LEU A 301 18.093 69.840 37.508 1.00 0.71 C
ATOM 2931 C LEU A 301 16.605 69.753 37.187 1.00 0.71 C
ATOM 2932 O LEU A 301 16.098 68.716 36.760 1.00 0.71 O
ATOM 2933 CB LEU A 301 18.478 68.699 38.471 1.00 0.71 C
ATOM 2934 CG LEU A 301 19.988 68.584 38.762 1.00 0.71 C
ATOM 2935 CD1 LEU A 301 20.237 67.511 39.824 1.00 0.71 C
ATOM 2936 CD2 LEU A 301 20.810 68.266 37.512 1.00 0.71 C
ATOM 2937 HN LEU A 301 18.311 71.255 39.084 1.00 0.00 H
ATOM 2938 N LEU A 302 15.855 70.852 37.384 1.00 0.68 N
ATOM 2939 CA LEU A 302 14.439 70.989 37.093 1.00 0.68 C
ATOM 2940 C LEU A 302 13.571 69.963 37.824 1.00 0.68 C
ATOM 2941 O LEU A 302 12.622 69.408 37.265 1.00 0.68 O
ATOM 2942 CB LEU A 302 14.207 71.005 35.557 1.00 0.68 C
ATOM 2943 CG LEU A 302 14.974 72.142 34.840 1.00 0.68 C

ATOM 2944 CD1 LEU A 302 15.254 71.820 33.364 1.00 0.68 C
ATOM 2945 CD2 LEU A 302 14.271 73.498 35.012 1.00 0.68 C
ATOM 2946 HN LEU A 302 16.326 71.668 37.775 1.00 0.00 H
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ATOM 2948 CA ILE A 303 13.384 68.599 39.896 1.00 0.65 C
ATOM 2949 C ILE A 303 12.296 69.059 40.841 1.00 0.65 C
ATOM 2950 O ILE A 303 12.475 69.956 41.659 1.00 0.65 O
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ATOM 2952 CG1 ILE A 303 15.437 67.092 39.761 1.00 0.65 C
ATOM 2953 CG2 ILE A 303 13.901 66.947 41.753 1.00 0.65 C
ATOM 2954 CD1 ILE A 303 16.650 66.470 40.473 1.00 0.65 C
ATOM 2955 HN ILE A 303 14.567 70.327 39.555 1.00 0.00 H
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ATOM 2957 CA THR A 304 9.967 68.650 41.624 1.00 0.65 C
ATOM 2958 C THR A 304 10.184 68.393 43.117 1.00 0.65 C
ATOM 2959 O THR A 304 9.593 69.057 43.963 1.00 0.65 O
ATOM 2960 CB THR A 304 8.761 67.892 41.073 1.00 0.65 C
ATOM 2961 CG2 THR A 304 7.483 68.141 41.882 1.00 0.65 C
ATOM 2962 OG1 THR A 304 8.514 68.376 39.760 1.00 0.65 O
ATOM 2963 HN THR A 304 11.047 67.654 40.081 1.00 0.00 H
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ATOM 2967 C ASN A 305 10.336 66.452 45.718 1.00 0.64 C
ATOM 2968 O ASN A 305 10.494 66.074 46.873 1.00 0.64 O
ATOM 2969 CB ASN A 305 12.060 68.298 45.635 1.00 0.64 C
ATOM 2970 CG ASN A 305 12.954 67.820 46.781 1.00 0.64 C
ATOM 2971 ND2 ASN A 305 12.509 68.032 48.035 1.00 0.64 N
ATOM 2972 OD1 ASN A 305 14.020 67.240 46.567 1.00 0.64 O
ATOM 2973 HN ASN A 305 11.384 66.792 42.763 1.00 0.00 H
ATOM 2974 1HD2 ASN A 305 13.105 67.713 48.799 1.00 0.00 H
ATOM 2975 2HD2 ASN A 305 11.627 68.512 48.212 1.00 0.00 H
ATOM 2976 N ASN A 306 9.173 66.254 45.110 1.00 0.59 N
ATOM 2977 CA ASN A 306 8.203 65.288 45.529 1.00 0.59 C
ATOM 2978 C ASN A 306 8.350 64.238 44.460 1.00 0.59 C
ATOM 2979 O ASN A 306 8.262 64.622 43.292 1.00 0.59 O
ATOM 2980 CB ASN A 306 6.788 65.917 45.482 1.00 0.59 C
ATOM 2981 CG ASN A 306 5.722 64.998 46.070 1.00 0.59 C
ATOM 2982 ND2 ASN A 306 4.685 65.620 46.678 1.00 0.59 N
ATOM 2983 OD1 ASN A 306 5.780 63.772 45.987 1.00 0.59 O
ATOM 2984 HN ASN A 306 8.957 66.826 44.293 1.00 0.00 H
ATOM 2985 1HD2 ASN A 306 3.972 65.005 47.071 1.00 0.00 H
ATOM 2986 2HD2 ASN A 306 4.637 66.637 46.747 1.00 0.00 H
ATOM 2987 N PRO A 307 8.588 62.960 44.729 1.00 0.63 N

ATOM 2988 CA PRO A 307 8.566 61.952 43.692 1.00 0.63 C
ATOM 2989 C PRO A 307 7.351 61.986 42.812 1.00 0.63 C
ATOM 2990 O PRO A 307 7.546 62.100 41.604 1.00 0.63 O
ATOM 2991 CB PRO A 307 8.782 60.641 44.452 1.00 0.63 C
ATOM 2992 CG PRO A 307 9.678 61.049 45.622 1.00 0.63 C
ATOM 2993 CD PRO A 307 9.159 62.446 45.979 1.00 0.63 C
ATOM 2994 N TYR A 308 6.134 61.982 43.363 1.00 0.45 N
ATOM 2995 CA TYR A 308 4.834 61.763 42.727 1.00 0.45 C
ATOM 2996 C TYR A 308 4.618 62.254 41.279 1.00 0.45 C
ATOM 2997 O TYR A 308 3.934 61.599 40.494 1.00 0.45 O
ATOM 2998 CB TYR A 308 3.790 62.398 43.685 1.00 0.45 C
ATOM 2999 CG TYR A 308 2.357 62.088 43.330 1.00 0.45 C
ATOM 3000 CD1 TYR A 308 1.813 60.824 43.609 1.00 0.45 C
ATOM 3001 CD2 TYR A 308 1.546 63.057 42.713 1.00 0.45 C
ATOM 3002 CE1 TYR A 308 0.489 60.525 43.256 1.00 0.45 C
ATOM 3003 CE2 TYR A 308 0.221 62.758 42.358 1.00 0.45 C
ATOM 3004 CZ TYR A 308 -0.302 61.489 42.624 1.00 0.45 C
ATOM 3005 OH TYR A 308 -1.626 61.175 42.257 1.00 0.45 O
ATOM 3006 HN TYR A 308 6.107 62.156 44.368 1.00 0.00 H
ATOM 3007 HH TYR A 308 -2.164 61.830 41.828 1.00 0.00 H
ATOM 3008 N ASP A 309 5.228 63.384 40.893 1.00 0.56 N
ATOM 3009 CA ASP A 309 5.302 63.952 39.566 1.00 0.56 C
ATOM 3010 C ASP A 309 5.869 63.010 38.482 1.00 0.56 C
ATOM 3011 O ASP A 309 5.439 62.993 37.330 1.00 0.56 O
ATOM 3012 CB ASP A 309 6.249 65.154 39.791 1.00 0.56 C
ATOM 3013 CG ASP A 309 6.210 66.185 38.686 1.00 0.56 C
ATOM 3014 OD1 ASP A 309 5.098 66.644 38.339 1.00 0.56 O
ATOM 3015 OD2 ASP A 309 7.319 66.580 38.242 1.00 0.56 O1-
ATOM 3016 HN ASP A 309 5.700 63.909 41.629 1.00 0.00 H
ATOM 3017 N TYR A 310 6.881 62.186 38.829 1.00 0.60 N
ATOM 3018 CA TYR A 310 7.584 61.358 37.862 1.00 0.60 C
ATOM 3019 C TYR A 310 6.990 59.967 37.641 1.00 0.60 C
ATOM 3020 O TYR A 310 6.727 59.205 38.554 1.00 0.60 O
ATOM 3021 CB TYR A 310 9.090 61.208 38.192 1.00 0.60 C
ATOM 3022 CG TYR A 310 9.761 62.547 38.203 1.00 0.60 C
ATOM 3023 CD1 TYR A 310 9.992 63.243 39.404 1.00 0.60 C
ATOM 3024 CD2 TYR A 310 10.163 63.126 36.991 1.00 0.60 C
ATOM 3025 CE1 TYR A 310 10.607 64.502 39.385 1.00 0.60 C
ATOM 3026 CE2 TYR A 310 10.784 64.381 36.969 1.00 0.60 C
ATOM 3027 CZ TYR A 310 10.997 65.065 38.169 1.00 0.60 C
ATOM 3028 OH TYR A 310 11.598 66.330 38.154 1.00 0.60 O
ATOM 3029 HN TYR A 310 7.164 62.143 39.808 1.00 0.00 H
ATOM 3030 HH TYR A 310 11.743 66.795 38.970 1.00 0.00 H
ATOM 3031 N ALA A 311 6.812 59.557 36.371 1.00 0.68 N

ATOM 3032 CA ALA A 311 6.193 58.304 35.971 1.00 0.68 C
ATOM 3033 C ALA A 311 6.941 57.051 36.411 1.00 0.68 C
ATOM 3034 O ALA A 311 6.347 55.994 36.594 1.00 0.68 O
ATOM 3035 CB ALA A 311 6.006 58.282 34.439 1.00 0.68 C
ATOM 3036 HN ALA A 311 7.138 60.176 35.629 1.00 0.00 H
ATOM 3037 N PHE A 312 8.268 57.140 36.620 1.00 0.64 N
ATOM 3038 CA PHE A 312 9.096 55.990 36.939 1.00 0.64 C
ATOM 3039 C PHE A 312 9.241 55.764 38.436 1.00 0.64 C
ATOM 3040 O PHE A 312 9.973 54.882 38.857 1.00 0.64 O
ATOM 3041 CB PHE A 312 10.520 56.171 36.337 1.00 0.64 C
ATOM 3042 CG PHE A 312 10.621 55.998 34.835 1.00 0.64 C
ATOM 3043 CD1 PHE A 312 9.587 55.488 34.024 1.00 0.64 C
ATOM 3044 CD2 PHE A 312 11.861 56.279 34.234 1.00 0.64 C
ATOM 3045 CE1 PHE A 312 9.801 55.231 32.663 1.00 0.64 C
ATOM 3046 CE2 PHE A 312 12.080 56.027 32.874 1.00 0.64 C
ATOM 3047 CZ PHE A 312 11.052 55.486 32.090 1.00 0.64 C
ATOM 3048 HN PHE A 312 8.712 58.056 36.551 1.00 0.00 H
ATOM 3049 N ILE A 313 8.533 56.522 39.293 1.00 0.63 N
ATOM 3050 CA ILE A 313 8.567 56.257 40.732 1.00 0.63 C
ATOM 3051 C ILE A 313 7.168 56.306 41.352 1.00 0.63 C
ATOM 3052 O ILE A 313 7.014 56.128 42.560 1.00 0.63 O
ATOM 3053 CB ILE A 313 9.497 57.229 41.486 1.00 0.63 C
ATOM 3054 CG1 ILE A 313 9.359 58.684 41.033 1.00 0.63 C
ATOM 3055 CG2 ILE A 313 10.971 56.833 41.281 1.00 0.63 C
ATOM 3056 CD1 ILE A 313 7.977 59.258 41.238 1.00 0.63 C
ATOM 3057 HN ILE A 313 7.966 57.291 38.936 1.00 0.00 H
ATOM 3058 N SER A 314 6.102 56.600 40.564 1.00 0.64 N
ATOM 3059 CA SER A 314 4.807 57.016 41.111 1.00 0.64 C
ATOM 3060 C SER A 314 3.729 55.991 40.911 1.00 0.64 C
ATOM 3061 O SER A 314 2.577 56.189 41.285 1.00 0.64 O
ATOM 3062 CB SER A 314 4.294 58.340 40.484 1.00 0.64 C
ATOM 3063 OG SER A 314 4.089 58.240 39.071 1.00 0.64 O
ATOM 3064 HN SER A 314 6.206 56.529 39.552 1.00 0.00 H
ATOM 3065 HG SER A 314 3.775 59.050 38.687 1.00 0.00 H
ATOM 3066 N GLN A 315 4.101 54.828 40.364 1.00 0.60 N
ATOM 3067 CA GLN A 315 3.193 53.737 40.087 1.00 0.60 C
ATOM 3068 C GLN A 315 3.204 52.762 41.262 1.00 0.60 C
ATOM 3069 O GLN A 315 2.731 51.629 41.182 1.00 0.60 O
ATOM 3070 CB GLN A 315 3.640 53.036 38.779 1.00 0.60 C
ATOM 3071 CG GLN A 315 3.795 53.992 37.566 1.00 0.60 C
ATOM 3072 CD GLN A 315 2.483 54.680 37.186 1.00 0.60 C
ATOM 3073 NE2 GLN A 315 2.447 56.029 37.275 1.00 0.60 N
ATOM 3074 OE1 GLN A 315 1.504 54.040 36.801 1.00 0.60 O
ATOM 3075 HN GLN A 315 5.085 54.703 40.128 1.00 0.00 H

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ATOM   3076 1HE2 GLN A 315      3.258  56.559  37.594  1.00  0.00        H
ATOM   3077 2HE2 GLN A 315      1.572  56.488  37.022  1.00  0.00        H
ATOM   3078  N   GLY A 316      3.761  53.204  42.409  1.00  0.66        N
ATOM   3079  CA  GLY A 316      3.916  52.389  43.599  1.00  0.66        C
ATOM   3080  C   GLY A 316      4.224  53.189  44.840  1.00  0.66        C
ATOM   3081  O   GLY A 316      3.484  54.088  45.227  1.00  0.66        O
ATOM   3082  HN  GLY A 316      4.093  54.168  42.441  1.00  0.00        H
ATOM   3083  N   GLU A 317      5.324  52.836  45.519  1.00  0.62        N
ATOM   3084  CA  GLU A 317      5.666  53.255  46.861  1.00  0.62        C
ATOM   3085  C   GLU A 317      6.865  54.185  46.804  1.00  0.62        C
ATOM   3086  O   GLU A 317      7.795  53.982  46.019  1.00  0.62        O
ATOM   3087  CB  GLU A 317      6.038  51.964  47.629  1.00  0.62        C
ATOM   3088  CG  GLU A 317      6.782  52.137  48.971  1.00  0.62        C
ATOM   3089  CD  GLU A 317      5.834  52.263  50.146  1.00  0.62        C
ATOM   3090  OE1 GLU A 317      5.879  51.330  50.997  1.00  0.62        O
ATOM   3091  OE2 GLU A 317      5.070  53.254  50.183  1.00  0.62        O1-
ATOM   3092  HN  GLU A 317      5.981  52.215  45.046  1.00  0.00        H
ATOM   3093  N   THR A 318      6.886  55.259  47.623  1.00  0.68        N
ATOM   3094  CA  THR A 318      7.991  56.216  47.600  1.00  0.68        C
ATOM   3095  C   THR A 318      8.879  56.178  48.819  1.00  0.68        C
ATOM   3096  O   THR A 318     10.056  56.521  48.716  1.00  0.68        O
ATOM   3097  CB  THR A 318      7.564  57.663  47.379  1.00  0.68        C
ATOM   3098  CG2 THR A 318      6.828  57.749  46.037  1.00  0.68        C
ATOM   3099  OG1 THR A 318      6.670  58.125  48.381  1.00  0.68        O
ATOM   3100  HN  THR A 318      6.113  55.406  48.272  1.00  0.00        H
ATOM   3101  HG1 THR A 318      6.404  59.027  48.243  1.00  0.00        H
ATOM   3102  N   THR A 319      8.405  55.711  49.986  1.00  0.68        N
ATOM   3103  CA  THR A 319      9.205  55.669  51.210  1.00  0.68        C
ATOM   3104  C   THR A 319      9.570  54.244  51.564  1.00  0.68        C
ATOM   3105  O   THR A 319      9.083  53.277  50.980  1.00  0.68        O
ATOM   3106  CB  THR A 319      8.553  56.328  52.425  1.00  0.68        C
ATOM   3107  CG2 THR A 319      8.285  57.804  52.109  1.00  0.68        C
ATOM   3108  OG1 THR A 319      7.305  55.728  52.739  1.00  0.68        O
ATOM   3109  HN  THR A 319      7.444  55.370  50.020  1.00  0.00        H
ATOM   3110  HG1 THR A 319      6.900  56.138  53.494  1.00  0.00        H
ATOM   3111  N   VAL A 320     10.496  54.064  52.522  1.00  0.66        N
ATOM   3112  CA  VAL A 320     10.722  52.774  53.150  1.00  0.66        C
ATOM   3113  C   VAL A 320     10.705  53.023  54.643  1.00  0.66        C
ATOM   3114  O   VAL A 320     11.253  54.016  55.123  1.00  0.66        O
ATOM   3115  CB  VAL A 320     12.044  52.117  52.770  1.00  0.66        C
ATOM   3116  CG1 VAL A 320     12.140  50.699  53.358  1.00  0.66        C
ATOM   3117  CG2 VAL A 320     12.180  52.034  51.242  1.00  0.66        C
ATOM   3118  HN  VAL A 320     11.059  54.861  52.818  1.00  0.00        H
ATOM   3119  N   ALA A 321     10.048  52.161  55.444  1.00  0.63        N
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ATOM 3120 CA ALA A 321 10.055 52.301 56.885 1.00 0.63 C
ATOM 3121 C ALA A 321 11.452 52.202 57.504 1.00 0.63 C
ATOM 3122 O ALA A 321 12.230 51.310 57.177 1.00 0.63 O
ATOM 3123 CB ALA A 321 9.101 51.275 57.523 1.00 0.63 C
ATOM 3124 HN ALA A 321 9.531 51.389 55.023 1.00 0.00 H
ATOM 3125 N SER A 322 11.791 53.171 58.386 1.00 0.55 N
ATOM 3126 CA SER A 322 13.054 53.244 59.121 1.00 0.55 C
ATOM 3127 C SER A 322 14.230 53.707 58.287 1.00 0.55 C
ATOM 3128 O SER A 322 15.374 53.602 58.717 1.00 0.55 O
ATOM 3129 CB SER A 322 13.462 51.937 59.847 1.00 0.55 C
ATOM 3130 OG SER A 322 12.411 51.502 60.709 1.00 0.55 O
ATOM 3131 HN SER A 322 11.110 53.912 58.552 1.00 0.00 H
ATOM 3132 HG SER A 322 12.661 50.701 61.154 1.00 0.00 H
ATOM 3133 N ILE A 323 13.979 54.267 57.092 1.00 0.59 N
ATOM 3134 CA ILE A 323 15.011 54.808 56.226 1.00 0.59 C
ATOM 3135 C ILE A 323 14.658 56.251 55.958 1.00 0.59 C
ATOM 3136 O ILE A 323 13.555 56.556 55.506 1.00 0.59 O
ATOM 3137 CB ILE A 323 15.113 54.028 54.905 1.00 0.59 C
ATOM 3138 CG1 ILE A 323 15.699 52.621 55.190 1.00 0.59 C
ATOM 3139 CG2 ILE A 323 15.950 54.784 53.841 1.00 0.59 C
ATOM 3140 CD1 ILE A 323 15.802 51.702 53.965 1.00 0.59 C
ATOM 3141 HN ILE A 323 13.010 54.315 56.776 1.00 0.00 H
ATOM 3142 N ASP A 324 15.596 57.187 56.212 1.00 0.68 N
ATOM 3143 CA ASP A 324 15.518 58.494 55.607 1.00 0.68 C
ATOM 3144 C ASP A 324 16.407 58.453 54.380 1.00 0.68 C
ATOM 3145 O ASP A 324 17.633 58.367 54.454 1.00 0.68 O
ATOM 3146 CB ASP A 324 15.937 59.645 56.560 1.00 0.68 C
ATOM 3147 CG ASP A 324 15.708 61.010 55.919 1.00 0.68 C
ATOM 3148 OD1 ASP A 324 15.151 61.062 54.787 1.00 0.68 O
ATOM 3149 OD2 ASP A 324 16.137 62.020 56.519 1.00 0.68 O1-
ATOM 3150 HN ASP A 324 16.370 56.968 56.839 1.00 0.00 H
ATOM 3151 N ASP A 325 15.786 58.565 53.195 1.00 0.73 N
ATOM 3152 CA ASP A 325 16.475 58.706 51.940 1.00 0.73 C
ATOM 3153 C ASP A 325 17.373 59.951 51.922 1.00 0.73 C
ATOM 3154 O ASP A 325 18.379 59.991 51.217 1.00 0.73 O
ATOM 3155 CB ASP A 325 15.432 58.773 50.797 1.00 0.73 C
ATOM 3156 CG ASP A 325 14.783 57.425 50.552 1.00 0.73 C
ATOM 3157 OD1 ASP A 325 15.459 56.500 50.033 1.00 0.73 O
ATOM 3158 OD2 ASP A 325 13.560 57.291 50.805 1.00 0.73 O1-
ATOM 3159 HN ASP A 325 14.766 58.549 53.184 1.00 0.00 H
ATOM 3160 N ALA A 326 17.032 61.016 52.693 1.00 0.75 N
ATOM 3161 CA ALA A 326 17.849 62.210 52.735 1.00 0.75 C
ATOM 3162 C ALA A 326 19.202 62.033 53.415 1.00 0.75 C
ATOM 3163 O ALA A 326 20.247 62.404 52.868 1.00 0.75 O

ATOM 3164 CB ALA A 326 17.097 63.383 53.382 1.00 0.75 C
ATOM 3165 HN ALA A 326 16.182 60.973 53.255 1.00 0.00 H
ATOM 3166 N GLU A 327 19.221 61.377 54.594 1.00 0.72 N
ATOM 3167 CA GLU A 327 20.429 60.949 55.283 1.00 0.72 C
ATOM 3168 C GLU A 327 21.251 59.980 54.438 1.00 0.72 C
ATOM 3169 O GLU A 327 22.471 60.114 54.327 1.00 0.72 O
ATOM 3170 CB GLU A 327 20.128 60.327 56.675 1.00 0.72 C
ATOM 3171 CG GLU A 327 19.649 61.358 57.735 1.00 0.72 C
ATOM 3172 CD GLU A 327 19.559 60.800 59.160 1.00 0.72 C
ATOM 3173 OE1 GLU A 327 19.416 59.562 59.326 1.00 0.72 O
ATOM 3174 OE2 GLU A 327 19.659 61.628 60.105 1.00 0.72 O1-
ATOM 3175 HN GLU A 327 18.325 61.166 55.033 1.00 0.00 H
ATOM 3176 N GLU A 328 20.593 59.028 53.742 1.00 0.73 N
ATOM 3177 CA GLU A 328 21.252 58.152 52.787 1.00 0.73 C
ATOM 3178 C GLU A 328 21.916 58.881 51.616 1.00 0.73 C
ATOM 3179 O GLU A 328 23.029 58.533 51.226 1.00 0.73 O
ATOM 3180 CB GLU A 328 20.302 57.046 52.263 1.00 0.73 C
ATOM 3181 CG GLU A 328 19.783 56.068 53.355 1.00 0.73 C
ATOM 3182 CD GLU A 328 20.840 55.192 54.036 1.00 0.73 C
ATOM 3183 OE1 GLU A 328 22.034 55.241 53.646 1.00 0.73 O
ATOM 3184 OE2 GLU A 328 20.431 54.445 54.964 1.00 0.73 O1-
ATOM 3185 HN GLU A 328 19.590 58.919 53.893 1.00 0.00 H
ATOM 3186 N LEU A 329 21.327 59.951 51.016 1.00 0.74 N
ATOM 3187 CA LEU A 329 22.062 60.712 49.998 1.00 0.74 C
ATOM 3188 C LEU A 329 23.327 61.368 50.521 1.00 0.74 C
ATOM 3189 O LEU A 329 24.360 61.330 49.864 1.00 0.74 O
ATOM 3190 CB LEU A 329 21.261 61.789 49.228 1.00 0.74 C
ATOM 3191 CG LEU A 329 21.922 62.230 47.889 1.00 0.74 C
ATOM 3192 CD1 LEU A 329 21.925 61.121 46.823 1.00 0.74 C
ATOM 3193 CD2 LEU A 329 21.266 63.493 47.316 1.00 0.74 C
ATOM 3194 HN LEU A 329 20.378 60.223 51.273 1.00 0.00 H
ATOM 3195 N MET A 330 23.307 61.934 51.746 1.00 0.74 N
ATOM 3196 CA MET A 330 24.518 62.428 52.379 1.00 0.74 C
ATOM 3197 C MET A 330 25.560 61.335 52.605 1.00 0.74 C
ATOM 3198 O MET A 330 26.746 61.527 52.345 1.00 0.74 O
ATOM 3199 CB MET A 330 24.203 63.126 53.725 1.00 0.74 C
ATOM 3200 CG MET A 330 23.413 64.443 53.585 1.00 0.74 C
ATOM 3201 SD MET A 330 24.234 65.721 52.569 1.00 0.74 S
ATOM 3202 CE MET A 330 25.681 66.063 53.611 1.00 0.74 C
ATOM 3203 HN MET A 330 22.419 62.017 52.240 1.00 0.00 H
ATOM 3204 N ALA A 331 25.148 60.129 53.043 1.00 0.82 N
ATOM 3205 CA ALA A 331 26.037 58.987 53.131 1.00 0.82 C
ATOM 3206 C ALA A 331 26.630 58.553 51.781 1.00 0.82 C
ATOM 3207 O ALA A 331 27.839 58.353 51.664 1.00 0.82 O

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ATOM   3208  CB  ALA A 331     25.285  57.824  53.800  1.00  0.82         C
ATOM   3209  HN  ALA A 331     24.174  60.015  53.323  1.00  0.00         H
ATOM   3210  N   THR A 332     25.805  58.475  50.709  1.00  0.79         N
ATOM   3211  CA  THR A 332     26.254  58.227  49.332  1.00  0.79         C
ATOM   3212  C   THR A 332     27.207  59.298  48.827  1.00  0.79         C
ATOM   3213  O   THR A 332     28.269  58.982  48.295  1.00  0.79         O
ATOM   3214  CB  THR A 332     25.113  58.137  48.314  1.00  0.79         C
ATOM   3215  CG2 THR A 332     25.593  57.872  46.882  1.00  0.79         C
ATOM   3216  OG1 THR A 332     24.261  57.039  48.593  1.00  0.79         O
ATOM   3217  HN  THR A 332     24.805  58.597  50.869  1.00  0.00         H
ATOM   3218  HG1 THR A 332     23.553  56.983  47.962  1.00  0.00         H
ATOM   3219  N   ASP A 333     26.902  60.598  49.019  1.00  0.79         N
ATOM   3220  CA  ASP A 333     27.764  61.695  48.612  1.00  0.79         C
ATOM   3221  C   ASP A 333     29.122  61.673  49.302  1.00  0.79         C
ATOM   3222  O   ASP A 333     30.144  61.789  48.623  1.00  0.79         O
ATOM   3223  CB  ASP A 333     27.052  63.070  48.818  1.00  0.79         C
ATOM   3224  CG  ASP A 333     26.310  63.523  47.569  1.00  0.79         C
ATOM   3225  OD1 ASP A 333     26.352  62.794  46.547  1.00  0.79         O
ATOM   3226  OD2 ASP A 333     25.762  64.653  47.582  1.00  0.79         O1-
ATOM   3227  HN  ASP A 333     26.018  60.823  49.475  1.00  0.00         H
ATOM   3228  N   ASN A 334     29.168  61.432  50.631  1.00  0.80         N
ATOM   3229  CA  ASN A 334     30.406  61.246  51.378  1.00  0.80         C
ATOM   3230  C   ASN A 334     31.224  60.056  50.879  1.00  0.80         C
ATOM   3231  O   ASN A 334     32.442  60.131  50.732  1.00  0.80         O
ATOM   3232  CB  ASN A 334     30.114  60.994  52.882  1.00  0.80         C
ATOM   3233  CG  ASN A 334     29.559  62.240  53.560  1.00  0.80         C
ATOM   3234  ND2 ASN A 334     28.803  62.021  54.662  1.00  0.80         N
ATOM   3235  OD1 ASN A 334     29.802  63.382  53.182  1.00  0.80         O
ATOM   3236  HN  ASN A 334     28.286  61.377  51.141  1.00  0.00         H
ATOM   3237 1HD2 ASN A 334     28.431  62.855  55.116  1.00  0.00         H
ATOM   3238 2HD2 ASN A 334     28.601  61.072  54.976  1.00  0.00         H
ATOM   3239  N   ALA A 335     30.563  58.920  50.575  1.00  0.84         N
ATOM   3240  CA  ALA A 335     31.202  57.743  50.024  1.00  0.84         C
ATOM   3241  C   ALA A 335     31.883  57.996  48.682  1.00  0.84         C
ATOM   3242  O   ALA A 335     33.027  57.601  48.460  1.00  0.84         O
ATOM   3243  CB  ALA A 335     30.148  56.629  49.882  1.00  0.84         C
ATOM   3244  HN  ALA A 335     29.557  58.888  50.743  1.00  0.00         H
ATOM   3245  N   PHE A 336     31.212  58.736  47.777  1.00  0.80         N
ATOM   3246  CA  PHE A 336     31.760  59.160  46.501  1.00  0.80         C
ATOM   3247  C   PHE A 336     33.004  60.033  46.641  1.00  0.80         C
ATOM   3248  O   PHE A 336     33.992  59.832  45.931  1.00  0.80         O
ATOM   3249  CB  PHE A 336     30.689  59.948  45.699  1.00  0.80         C
ATOM   3250  CG  PHE A 336     29.893  59.049  44.792  1.00  0.80         C
ATOM   3251  CD1 PHE A 336     29.057  58.033  45.285  1.00  0.80         C
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ATOM 3252 CD2 PHE A 336 29.975 59.232 43.404 1.00 0.80 C
ATOM 3253 CE1 PHE A 336 28.320 57.223 44.413 1.00 0.80 C
ATOM 3254 CE2 PHE A 336 29.264 58.410 42.527 1.00 0.80 C
ATOM 3255 CZ PHE A 336 28.434 57.402 43.031 1.00 0.80 C
ATOM 3256 HN PHE A 336 30.258 59.016 48.003 1.00 0.00 H
ATOM 3257 N ASP A 337 32.987 60.994 47.585 1.00 0.81 N
ATOM 3258 CA ASP A 337 34.109 61.863 47.892 1.00 0.81 C
ATOM 3259 C ASP A 337 35.333 61.086 48.414 1.00 0.81 C
ATOM 3260 O ASP A 337 36.461 61.320 47.984 1.00 0.81 O
ATOM 3261 CB ASP A 337 33.662 62.971 48.891 1.00 0.81 C
ATOM 3262 CG ASP A 337 32.568 63.840 48.307 1.00 0.81 C
ATOM 3263 OD1 ASP A 337 32.560 64.077 47.074 1.00 0.81 O
ATOM 3264 OD2 ASP A 337 31.661 64.273 49.062 1.00 0.81 O1-
ATOM 3265 HN ASP A 337 32.128 61.120 48.120 1.00 0.00 H
ATOM 3266 N VAL A 338 35.147 60.090 49.315 1.00 0.81 N
ATOM 3267 CA VAL A 338 36.217 59.197 49.781 1.00 0.81 C
ATOM 3268 C VAL A 338 36.809 58.314 48.679 1.00 0.81 C
ATOM 3269 O VAL A 338 38.023 58.126 48.581 1.00 0.81 O
ATOM 3270 CB VAL A 338 35.758 58.326 50.955 1.00 0.81 C
ATOM 3271 CG1 VAL A 338 36.845 57.321 51.402 1.00 0.81 C
ATOM 3272 CG2 VAL A 338 35.407 59.238 52.147 1.00 0.81 C
ATOM 3273 HN VAL A 338 34.209 59.952 49.692 1.00 0.00 H
ATOM 3274 N LEU A 339 35.961 57.749 47.796 1.00 0.82 N
ATOM 3275 CA LEU A 339 36.382 56.980 46.632 1.00 0.82 C
ATOM 3276 C LEU A 339 37.164 57.787 45.605 1.00 0.82 C
ATOM 3277 O LEU A 339 38.049 57.256 44.933 1.00 0.82 O
ATOM 3278 CB LEU A 339 35.154 56.351 45.940 1.00 0.82 C
ATOM 3279 CG LEU A 339 34.511 55.211 46.748 1.00 0.82 C
ATOM 3280 CD1 LEU A 339 33.073 54.965 46.272 1.00 0.82 C
ATOM 3281 CD2 LEU A 339 35.352 53.929 46.666 1.00 0.82 C
ATOM 3282 HN LEU A 339 34.960 57.868 47.953 1.00 0.00 H
ATOM 3283 N GLY A 340 36.852 59.090 45.465 1.00 0.93 N
ATOM 3284 CA GLY A 340 37.646 60.006 44.655 1.00 0.93 C
ATOM 3285 C GLY A 340 36.959 60.499 43.419 1.00 0.93 C
ATOM 3286 O GLY A 340 37.609 61.026 42.520 1.00 0.93 O
ATOM 3287 HN GLY A 340 36.027 59.450 45.945 1.00 0.00 H
ATOM 3288 N PHE A 341 35.624 60.353 43.326 1.00 0.88 N
ATOM 3289 CA PHE A 341 34.846 60.988 42.275 1.00 0.88 C
ATOM 3290 C PHE A 341 34.875 62.505 42.406 1.00 0.88 C
ATOM 3291 O PHE A 341 34.715 63.056 43.492 1.00 0.88 O
ATOM 3292 CB PHE A 341 33.358 60.558 42.315 1.00 0.88 C
ATOM 3293 CG PHE A 341 33.162 59.116 41.932 1.00 0.88 C
ATOM 3294 CD1 PHE A 341 33.136 58.105 42.908 1.00 0.88 C
ATOM 3295 CD2 PHE A 341 32.912 58.770 40.593 1.00 0.88 C

ATOM 3296 CE1 PHE A 341 32.855 56.778 42.559 1.00 0.88 C
ATOM 3297 CE2 PHE A 341 32.621 57.445 40.241 1.00 0.88 C
ATOM 3298 CZ PHE A 341 32.595 56.448 41.224 1.00 0.88 C
ATOM 3299 HN PHE A 341 35.142 59.777 44.016 1.00 0.00 H
ATOM 3300 N THR A 342 35.068 63.242 41.299 1.00 0.92 N
ATOM 3301 CA THR A 342 35.126 64.700 41.384 1.00 0.92 C
ATOM 3302 C THR A 342 33.764 65.362 41.512 1.00 0.92 C
ATOM 3303 O THR A 342 32.710 64.777 41.272 1.00 0.92 O
ATOM 3304 CB THR A 342 35.896 65.396 40.259 1.00 0.92 C
ATOM 3305 CG2 THR A 342 37.254 64.720 40.042 1.00 0.92 C
ATOM 3306 OG1 THR A 342 35.225 65.374 39.008 1.00 0.92 O
ATOM 3307 HN THR A 342 35.175 62.782 40.395 1.00 0.00 H
ATOM 3308 HG1 THR A 342 34.383 65.793 39.143 1.00 0.00 H
ATOM 3309 N THR A 343 33.757 66.664 41.861 1.00 0.82 N
ATOM 3310 CA THR A 343 32.570 67.516 41.876 1.00 0.82 C
ATOM 3311 C THR A 343 31.881 67.589 40.524 1.00 0.82 C
ATOM 3312 O THR A 343 30.655 67.527 40.427 1.00 0.82 O
ATOM 3313 CB THR A 343 32.908 68.933 42.332 1.00 0.82 C
ATOM 3314 CG2 THR A 343 31.649 69.781 42.550 1.00 0.82 C
ATOM 3315 OG1 THR A 343 33.582 68.876 43.578 1.00 0.82 O
ATOM 3316 HN THR A 343 34.645 67.085 42.135 1.00 0.00 H
ATOM 3317 HG1 THR A 343 34.362 68.351 43.443 1.00 0.00 H
ATOM 3318 N GLU A 344 32.646 67.668 39.415 1.00 0.78 N
ATOM 3319 CA GLU A 344 32.089 67.539 38.083 1.00 0.78 C
ATOM 3320 C GLU A 344 31.473 66.163 37.798 1.00 0.78 C
ATOM 3321 O GLU A 344 30.393 66.061 37.210 1.00 0.78 O
ATOM 3322 CB GLU A 344 33.154 67.761 36.997 1.00 0.78 C
ATOM 3323 CG GLU A 344 33.758 69.176 36.832 1.00 0.78 C
ATOM 3324 CD GLU A 344 34.572 69.185 35.537 1.00 0.78 C
ATOM 3325 OE1 GLU A 344 34.485 68.195 34.758 1.00 0.78 O
ATOM 3326 OE2 GLU A 344 35.311 70.151 35.243 1.00 0.78 O1-
ATOM 3327 HN GLU A 344 33.649 67.824 39.517 1.00 0.00 H
ATOM 3328 N GLU A 345 32.145 65.065 38.215 1.00 0.80 N
ATOM 3329 CA GLU A 345 31.636 63.709 38.087 1.00 0.80 C
ATOM 3330 C GLU A 345 30.355 63.462 38.883 1.00 0.80 C
ATOM 3331 O GLU A 345 29.384 62.941 38.339 1.00 0.80 O
ATOM 3332 CB GLU A 345 32.711 62.668 38.485 1.00 0.80 C
ATOM 3333 CG GLU A 345 33.871 62.556 37.469 1.00 0.80 C
ATOM 3334 CD GLU A 345 34.870 61.505 37.918 1.00 0.80 C
ATOM 3335 OE1 GLU A 345 35.629 61.760 38.884 1.00 0.80 O
ATOM 3336 OE2 GLU A 345 34.923 60.403 37.322 1.00 0.80 O1-
ATOM 3337 HN GLU A 345 33.061 65.196 38.644 1.00 0.00 H
ATOM 3338 N LYS A 346 30.279 63.890 40.164 1.00 0.80 N
ATOM 3339 CA LYS A 346 29.076 63.790 40.987 1.00 0.80 C

ATOM 3340 C LYS A 346 27.908 64.594 40.428 1.00 0.80 C
ATOM 3341 O LYS A 346 26.777 64.116 40.345 1.00 0.80 O
ATOM 3342 CB LYS A 346 29.348 64.243 42.448 1.00 0.80 C
ATOM 3343 CG LYS A 346 30.189 63.239 43.258 1.00 0.80 C
ATOM 3344 CD LYS A 346 30.566 63.729 44.672 1.00 0.80 C
ATOM 3345 CE LYS A 346 29.387 63.870 45.650 1.00 0.80 C
ATOM 3346 NZ LYS A 346 29.869 64.212 46.996 1.00 0.80 N1+
ATOM 3347 HN LYS A 346 31.111 64.308 40.580 1.00 0.00 H
ATOM 3348 HZ1 LYS A 346 29.087 64.305 47.644 1.00 0.00 H
ATOM 3349 HZ2 LYS A 346 30.456 65.046 46.987 1.00 0.00 H
ATOM 3350 HZ3 LYS A 346 30.561 63.542 47.332 1.00 0.00 H
ATOM 3351 N ASN A 347 28.154 65.836 39.964 1.00 0.81 N
ATOM 3352 CA ASN A 347 27.129 66.612 39.287 1.00 0.81 C
ATOM 3353 C ASN A 347 26.653 65.978 37.983 1.00 0.81 C
ATOM 3354 O ASN A 347 25.456 65.927 37.717 1.00 0.81 O
ATOM 3355 CB ASN A 347 27.609 68.056 39.007 1.00 0.81 C
ATOM 3356 CG ASN A 347 27.616 68.864 40.300 1.00 0.81 C
ATOM 3357 ND2 ASN A 347 28.532 69.853 40.382 1.00 0.81 N
ATOM 3358 OD1 ASN A 347 26.791 68.669 41.197 1.00 0.81 O
ATOM 3359 HN ASN A 347 29.082 66.240 40.091 1.00 0.00 H
ATOM 3360 1HD2 ASN A 347 29.214 70.014 39.641 1.00 0.00 H
ATOM 3361 2HD2 ASN A 347 28.537 70.394 41.247 1.00 0.00 H
ATOM 3362 N SER A 348 27.564 65.441 37.145 1.00 0.87 N
ATOM 3363 CA SER A 348 27.205 64.697 35.938 1.00 0.87 C
ATOM 3364 C SER A 348 26.421 63.427 36.217 1.00 0.87 C
ATOM 3365 O SER A 348 25.452 63.131 35.522 1.00 0.87 O
ATOM 3366 CB SER A 348 28.425 64.331 35.062 1.00 0.87 C
ATOM 3367 OG SER A 348 29.018 65.505 34.501 1.00 0.87 O
ATOM 3368 HN SER A 348 28.553 65.560 37.364 1.00 0.00 H
ATOM 3369 HG SER A 348 29.768 65.280 33.963 1.00 0.00 H
ATOM 3370 N MET A 349 26.784 62.672 37.275 1.00 0.85 N
ATOM 3371 CA MET A 349 26.069 61.492 37.745 1.00 0.85 C
ATOM 3372 C MET A 349 24.618 61.812 38.077 1.00 0.85 C
ATOM 3373 O MET A 349 23.678 61.140 37.658 1.00 0.85 O
ATOM 3374 CB MET A 349 26.788 60.942 39.012 1.00 0.85 C
ATOM 3375 CG MET A 349 26.249 59.605 39.549 1.00 0.85 C
ATOM 3376 SD MET A 349 26.617 58.209 38.461 1.00 0.85 S
ATOM 3377 CE MET A 349 28.213 57.708 39.146 1.00 0.85 C
ATOM 3378 HN MET A 349 27.623 62.948 37.785 1.00 0.00 H
ATOM 3379 N TYR A 350 24.388 62.921 38.795 1.00 0.78 N
ATOM 3380 CA TYR A 350 23.053 63.311 39.185 1.00 0.78 C
ATOM 3381 C TYR A 350 22.261 64.066 38.128 1.00 0.78 C
ATOM 3382 O TYR A 350 21.032 64.081 38.181 1.00 0.78 O
ATOM 3383 CB TYR A 350 23.124 64.141 40.483 1.00 0.78 C

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ATOM   3384  CG  TYR A 350     23.633  63.341  41.664  1.00  0.78        C
ATOM   3385  CD1 TYR A 350     23.416  61.955  41.798  1.00  0.78        C
ATOM   3386  CD2 TYR A 350     24.327  64.006  42.692  1.00  0.78        C
ATOM   3387  CE1 TYR A 350     23.854  61.267  42.934  1.00  0.78        C
ATOM   3388  CE2 TYR A 350     24.748  63.320  43.839  1.00  0.78        C
ATOM   3389  CZ  TYR A 350     24.506  61.947  43.960  1.00  0.78        C
ATOM   3390  OH  TYR A 350     24.915  61.227  45.097  1.00  0.78        O
ATOM   3391  HN  TYR A 350     25.177  63.505  39.073  1.00  0.00        H
ATOM   3392  HH  TYR A 350     25.360  61.691  45.797  1.00  0.00        H
ATOM   3393  N   LYS A 351     22.920  64.650  37.106  1.00  0.79        N
ATOM   3394  CA  LYS A 351     22.263  65.080  35.879  1.00  0.79        C
ATOM   3395  C   LYS A 351     21.660  63.906  35.142  1.00  0.79        C
ATOM   3396  O   LYS A 351     20.523  63.965  34.680  1.00  0.79        O
ATOM   3397  CB  LYS A 351     23.249  65.781  34.914  1.00  0.79        C
ATOM   3398  CG  LYS A 351     23.573  67.227  35.306  1.00  0.79        C
ATOM   3399  CD  LYS A 351     24.736  67.774  34.467  1.00  0.79        C
ATOM   3400  CE  LYS A 351     25.028  69.250  34.726  1.00  0.79        C
ATOM   3401  NZ  LYS A 351     26.223  69.648  33.952  1.00  0.79        N1+
ATOM   3402  HN  LYS A 351     23.925  64.797  37.197  1.00  0.00        H
ATOM   3403  HZ1 LYS A 351     26.418  70.634  34.125  1.00  0.00        H
ATOM   3404  HZ2 LYS A 351     26.129  69.439  32.958  1.00  0.00        H
ATOM   3405  HZ3 LYS A 351     27.028  69.053  34.147  1.00  0.00        H
ATOM   3406  N   LEU A 352     22.407  62.790  35.063  1.00  0.84        N
ATOM   3407  CA  LEU A 352     21.969  61.578  34.412  1.00  0.84        C
ATOM   3408  C   LEU A 352     20.750  60.947  35.062  1.00  0.84        C
ATOM   3409  O   LEU A 352     19.760  60.632  34.402  1.00  0.84        O
ATOM   3410  CB  LEU A 352     23.146  60.576  34.397  1.00  0.84        C
ATOM   3411  CG  LEU A 352     22.977  59.420  33.404  1.00  0.84        C
ATOM   3412  CD1 LEU A 352     22.724  59.958  32.008  1.00  0.84        C
ATOM   3413  CD2 LEU A 352     24.205  58.519  33.332  1.00  0.84        C
ATOM   3414  HN  LEU A 352     23.335  62.801  35.487  1.00  0.00        H
ATOM   3415  N   THR A 353     20.755  60.829  36.404  1.00  0.79        N
ATOM   3416  CA  THR A 353     19.604  60.365  37.172  1.00  0.79        C
ATOM   3417  C   THR A 353     18.394  61.276  37.025  1.00  0.79        C
ATOM   3418  O   THR A 353     17.267  60.812  36.855  1.00  0.79        O
ATOM   3419  CB  THR A 353     19.918  60.188  38.651  1.00  0.79        C
ATOM   3420  CG2 THR A 353     18.816  59.392  39.352  1.00  0.79        C
ATOM   3421  OG1 THR A 353     21.103  59.428  38.811  1.00  0.79        O
ATOM   3422  HN  THR A 353     21.606  61.076  36.909  1.00  0.00        H
ATOM   3423  HG1 THR A 353     21.299  59.318  39.734  1.00  0.00        H
ATOM   3424  N   GLY A 354     18.594  62.618  37.027  1.00  0.85        N
ATOM   3425  CA  GLY A 354     17.510  63.582  36.818  1.00  0.85        C
ATOM   3426  C   GLY A 354     16.913  63.527  35.436  1.00  0.85        C
ATOM   3427  O   GLY A 354     15.698  63.566  35.257  1.00  0.85        O
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ATOM   3428  HN  GLY A 354     19.539  62.971  37.180  1.00  0.00        H
ATOM   3429  N   ALA A 355     17.764  63.368  34.413  1.00  0.84        N
ATOM   3430  CA  ALA A 355     17.363  63.157  33.044  1.00  0.84        C
ATOM   3431  C   ALA A 355     16.573  61.880  32.805  1.00  0.84        C
ATOM   3432  O   ALA A 355     15.590  61.892  32.075  1.00  0.84        O
ATOM   3433  CB  ALA A 355     18.607  63.157  32.157  1.00  0.84        C
ATOM   3434  HN  ALA A 355     18.763  63.398  34.617  1.00  0.00        H
ATOM   3435  N   ILE A 356     16.944  60.748  33.443  1.00  0.80        N
ATOM   3436  CA  ILE A 356     16.173  59.507  33.394  1.00  0.80        C
ATOM   3437  C   ILE A 356     14.750  59.690  33.897  1.00  0.80        C
ATOM   3438  O   ILE A 356     13.793  59.241  33.262  1.00  0.80        O
ATOM   3439  CB  ILE A 356     16.897  58.388  34.142  1.00  0.80        C
ATOM   3440  CG1 ILE A 356     18.069  57.872  33.274  1.00  0.80        C
ATOM   3441  CG2 ILE A 356     15.942  57.225  34.510  1.00  0.80        C
ATOM   3442  CD1 ILE A 356     18.998  56.917  34.028  1.00  0.80        C
ATOM   3443  HN  ILE A 356     17.807  60.760  33.987  1.00  0.00        H
ATOM   3444  N   MET A 357     14.558  60.417  35.012  1.00  0.75        N
ATOM   3445  CA  MET A 357     13.236  60.761  35.496  1.00  0.75        C
ATOM   3446  C   MET A 357     12.444  61.641  34.532  1.00  0.75        C
ATOM   3447  O   MET A 357     11.281  61.366  34.237  1.00  0.75        O
ATOM   3448  CB  MET A 357     13.352  61.443  36.873  1.00  0.75        C
ATOM   3449  CG  MET A 357     13.895  60.497  37.956  1.00  0.75        C
ATOM   3450  SD  MET A 357     13.817  61.176  39.639  1.00  0.75        S
ATOM   3451  CE  MET A 357     15.133  62.408  39.442  1.00  0.75        C
ATOM   3452  HN  MET A 357     15.372  60.738  35.536  1.00  0.00        H
ATOM   3453  N   HIS A 358     13.074  62.683  33.952  1.00  0.73        N
ATOM   3454  CA  HIS A 358     12.454  63.499  32.916  1.00  0.73        C
ATOM   3455  C   HIS A 358     12.112  62.712  31.639  1.00  0.73        C
ATOM   3456  O   HIS A 358     11.015  62.845  31.101  1.00  0.73        O
ATOM   3457  CB  HIS A 358     13.309  64.737  32.570  1.00  0.73        C
ATOM   3458  CG  HIS A 358     13.532  65.719  33.678  1.00  0.73        C
ATOM   3459  CD2 HIS A 358     14.703  66.186  34.184  1.00  0.73        C
ATOM   3460  ND1 HIS A 358     12.465  66.372  34.268  1.00  0.73        N
ATOM   3461  CE1 HIS A 358     13.013  67.216  35.121  1.00  0.73        C
ATOM   3462  NE2 HIS A 358     14.363  67.144  35.111  1.00  0.73        N
ATOM   3463  HN  HIS A 358     14.023  62.909  34.251  1.00  0.00        H
ATOM   3464  HD1 HIS A 358     11.472  66.232  34.084  1.00  0.00        H
ATOM   3465  HE2 HIS A 358     15.006  67.694  35.681  1.00  0.00        H
ATOM   3466  N   PHE A 359     12.992  61.793  31.151  1.00  0.74        N
ATOM   3467  CA  PHE A 359     12.686  60.873  30.050  1.00  0.74        C
ATOM   3468  C   PHE A 359     11.490  60.003  30.374  1.00  0.74        C
ATOM   3469  O   PHE A 359     10.601  59.789  29.550  1.00  0.74        O
ATOM   3470  CB  PHE A 359     13.843  59.880  29.706  1.00  0.74        C
ATOM   3471  CG  PHE A 359     15.024  60.553  29.078  1.00  0.74        C
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ATOM 3472 CD1 PHE A 359 16.322 60.309 29.560 1.00 0.74 C
ATOM 3473 CD2 PHE A 359 14.859 61.419 27.987 1.00 0.74 C
ATOM 3474 CE1 PHE A 359 17.422 61.011 29.053 1.00 0.74 C
ATOM 3475 CE2 PHE A 359 15.963 62.085 27.453 1.00 0.74 C
ATOM 3476 CZ PHE A 359 17.233 61.915 28.009 1.00 0.74 C
ATOM 3477 HN PHE A 359 13.918 61.742 31.576 1.00 0.00 H
ATOM 3478 N GLY A 360 11.414 59.519 31.630 1.00 0.79 N
ATOM 3479 CA GLY A 360 10.268 58.834 32.209 1.00 0.79 C
ATOM 3480 C GLY A 360 8.946 59.479 31.944 1.00 0.79 C
ATOM 3481 O GLY A 360 7.996 58.803 31.550 1.00 0.79 O
ATOM 3482 HN GLY A 360 12.232 59.644 32.227 1.00 0.00 H
ATOM 3483 N ASN A 361 8.892 60.809 32.082 1.00 0.69 N
ATOM 3484 CA ASN A 361 7.682 61.585 31.975 1.00 0.69 C
ATOM 3485 C ASN A 361 7.284 61.967 30.566 1.00 0.69 C
ATOM 3486 O ASN A 361 6.175 62.472 30.406 1.00 0.69 O
ATOM 3487 CB ASN A 361 7.809 62.899 32.784 1.00 0.69 C
ATOM 3488 CG ASN A 361 7.644 62.635 34.253 1.00 0.69 C
ATOM 3489 ND2 ASN A 361 7.534 63.687 35.079 1.00 0.69 N
ATOM 3490 OD1 ASN A 361 7.543 61.457 34.649 1.00 0.69 O
ATOM 3491 HN ASN A 361 9.762 61.305 32.275 1.00 0.00 H
ATOM 3492 1HD2 ASN A 361 7.422 63.508 36.077 1.00 0.00 H
ATOM 3493 2HD2 ASN A 361 7.617 64.651 34.755 1.00 0.00 H
ATOM 3494 N MET A 362 8.112 61.742 29.522 1.00 0.71 N
ATOM 3495 CA MET A 362 7.720 62.018 28.144 1.00 0.71 C
ATOM 3496 C MET A 362 6.484 61.236 27.697 1.00 0.71 C
ATOM 3497 O MET A 362 6.404 60.014 27.849 1.00 0.71 O
ATOM 3498 CB MET A 362 8.856 61.711 27.136 1.00 0.71 C
ATOM 3499 CG MET A 362 10.052 62.681 27.195 1.00 0.71 C
ATOM 3500 SD MET A 362 11.371 62.283 25.999 1.00 0.71 S
ATOM 3501 CE MET A 362 10.469 62.670 24.466 1.00 0.71 C
ATOM 3502 HN MET A 362 9.043 61.366 29.704 1.00 0.00 H
ATOM 3503 N LYS A 363 5.488 61.949 27.129 1.00 0.67 N
ATOM 3504 CA LYS A 363 4.192 61.383 26.806 1.00 0.67 C
ATOM 3505 C LYS A 363 3.959 61.474 25.318 1.00 0.67 C
ATOM 3506 O LYS A 363 3.692 62.536 24.760 1.00 0.67 O
ATOM 3507 CB LYS A 363 3.044 62.116 27.556 1.00 0.67 C
ATOM 3508 CG LYS A 363 3.345 62.259 29.055 1.00 0.67 C
ATOM 3509 CD LYS A 363 2.307 63.044 29.869 1.00 0.67 C
ATOM 3510 CE LYS A 363 2.731 63.292 31.329 1.00 0.67 C
ATOM 3511 NZ LYS A 363 4.043 63.948 31.436 1.00 0.67 N1+
ATOM 3512 HN LYS A 363 5.655 62.933 26.917 1.00 0.00 H
ATOM 3513 HZ1 LYS A 363 4.324 64.112 32.403 1.00 0.00 H
ATOM 3514 HZ2 LYS A 363 4.064 64.814 30.897 1.00 0.00 H
ATOM 3515 HZ3 LYS A 363 4.757 63.422 30.932 1.00 0.00 H

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ATOM   3516  N   PHE A 364      4.049  60.326  24.634  1.00  0.65         N
ATOM   3517  CA  PHE A 364      3.880  60.248  23.203  1.00  0.65         C
ATOM   3518  C   PHE A 364      2.427  59.996  22.880  1.00  0.65         C
ATOM   3519  O   PHE A 364      1.740  59.250  23.577  1.00  0.65         O
ATOM   3520  CB  PHE A 364      4.724  59.100  22.605  1.00  0.65         C
ATOM   3521  CG  PHE A 364      6.169  59.313  22.944  1.00  0.65         C
ATOM   3522  CD1 PHE A 364      6.925  60.270  22.250  1.00  0.65         C
ATOM   3523  CD2 PHE A 364      6.785  58.565  23.961  1.00  0.65         C
ATOM   3524  CE1 PHE A 364      8.283  60.448  22.541  1.00  0.65         C
ATOM   3525  CE2 PHE A 364      8.134  58.755  24.274  1.00  0.65         C
ATOM   3526  CZ  PHE A 364      8.886  59.687  23.553  1.00  0.65         C
ATOM   3527  HN  PHE A 364      4.246  59.467  25.148  1.00  0.00         H
ATOM   3528  N   LYS A 365      1.916  60.621  21.812  1.00  0.66         N
ATOM   3529  CA  LYS A 365      0.517  60.536  21.466  1.00  0.66         C
ATOM   3530  C   LYS A 365      0.375  60.168  20.012  1.00  0.66         C
ATOM   3531  O   LYS A 365      1.327  60.227  19.243  1.00  0.66         O
ATOM   3532  CB  LYS A 365     -0.175  61.887  21.692  1.00  0.66         C
ATOM   3533  CG  LYS A 365     -0.260  62.306  23.167  1.00  0.66         C
ATOM   3534  CD  LYS A 365     -1.010  63.635  23.227  1.00  0.66         C
ATOM   3535  CE  LYS A 365     -1.088  64.296  24.601  1.00  0.66         C
ATOM   3536  NZ  LYS A 365     -1.772  65.583  24.437  1.00  0.66         N1+
ATOM   3537  HN  LYS A 365      2.536  61.176  21.223  1.00  0.00         H
ATOM   3538  HZ1 LYS A 365     -1.824  66.025  25.355  1.00  0.00         H
ATOM   3539  HZ2 LYS A 365     -2.683  65.494  23.987  1.00  0.00         H
ATOM   3540  HZ3 LYS A 365     -1.334  66.179  23.735  1.00  0.00         H
ATOM   3541  N   LEU A 366     -0.824  59.722  19.600  1.00  0.60         N
ATOM   3542  CA  LEU A 366     -1.081  59.323  18.232  1.00  0.60         C
ATOM   3543  C   LEU A 366     -1.243  60.532  17.332  1.00  0.60         C
ATOM   3544  O   LEU A 366     -2.100  61.378  17.579  1.00  0.60         O
ATOM   3545  CB  LEU A 366     -2.376  58.479  18.160  1.00  0.60         C
ATOM   3546  CG  LEU A 366     -2.770  57.997  16.748  1.00  0.60         C
ATOM   3547  CD1 LEU A 366     -1.743  57.021  16.159  1.00  0.60         C
ATOM   3548  CD2 LEU A 366     -4.168  57.366  16.775  1.00  0.60         C
ATOM   3549  HN  LEU A 366     -1.583  59.662  20.278  1.00  0.00         H
ATOM   3550  N   LYS A 367     -0.426  60.642  16.269  1.00  0.55         N
ATOM   3551  CA  LYS A 367     -0.572  61.695  15.289  1.00  0.55         C
ATOM   3552  C   LYS A 367     -1.863  61.649  14.479  1.00  0.55         C
ATOM   3553  O   LYS A 367     -2.348  60.600  14.052  1.00  0.55         O
ATOM   3554  CB  LYS A 367      0.663  61.700  14.367  1.00  0.55         C
ATOM   3555  CG  LYS A 367      0.704  62.850  13.358  1.00  0.55         C
ATOM   3556  CD  LYS A 367      2.094  62.986  12.734  1.00  0.55         C
ATOM   3557  CE  LYS A 367      2.180  64.177  11.791  1.00  0.55         C
ATOM   3558  NZ  LYS A 367      3.489  64.138  11.113  1.00  0.55         N1+
ATOM   3559  HN  LYS A 367      0.322  59.959  16.150  1.00  0.00         H
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ATOM   3560  HZ1 LYS A 367      3.547  64.936  10.481  1.00  0.00        H
ATOM   3561  HZ2 LYS A 367      3.660  63.250  10.641  1.00  0.00        H
ATOM   3562  HZ3 LYS A 367      4.270  64.099  11.768  1.00  0.00        H
ATOM   3563  N   GLN A 368     -2.491  62.811  14.214  1.00  0.47        N
ATOM   3564  CA  GLN A 368     -3.680  62.817  13.384  1.00  0.47        C
ATOM   3565  C   GLN A 368     -3.392  62.465  11.920  1.00  0.47        C
ATOM   3566  O   GLN A 368     -2.646  63.164  11.237  1.00  0.47        O
ATOM   3567  CB  GLN A 368     -4.463  64.147  13.462  1.00  0.47        C
ATOM   3568  CG  GLN A 368     -5.914  64.005  12.941  1.00  0.47        C
ATOM   3569  CD  GLN A 368     -6.552  65.343  12.588  1.00  0.47        C
ATOM   3570  NE2 GLN A 368     -7.855  65.287  12.229  1.00  0.47        N
ATOM   3571  OE1 GLN A 368     -5.950  66.416  12.585  1.00  0.47        O
ATOM   3572  HN  GLN A 368     -2.131  63.685  14.597  1.00  0.00        H
ATOM   3573 1HE2 GLN A 368     -8.282  66.183  11.993  1.00  0.00        H
ATOM   3574 2HE2 GLN A 368     -8.354  64.397  12.231  1.00  0.00        H
ATOM   3575  N   ARG A 369     -4.008  61.357  11.437  1.00  0.38        N
ATOM   3576  CA  ARG A 369     -3.999  60.845  10.066  1.00  0.38        C
ATOM   3577  C   ARG A 369     -2.818  59.929   9.776  1.00  0.38        C
ATOM   3578  O   ARG A 369     -2.567  59.606   8.619  1.00  0.38        O
ATOM   3579  CB  ARG A 369     -4.077  61.930   8.947  1.00  0.38        C
ATOM   3580  CG  ARG A 369     -5.324  62.831   9.002  1.00  0.38        C
ATOM   3581  CD  ARG A 369     -5.204  64.067   8.108  1.00  0.38        C
ATOM   3582  NE  ARG A 369     -6.474  64.843   8.285  1.00  0.38        N
ATOM   3583  CZ  ARG A 369     -6.712  66.045   7.743  1.00  0.38        C
ATOM   3584  NH1 ARG A 369     -7.870  66.652   7.994  1.00  0.38        N1+
ATOM   3585  NH2 ARG A 369     -5.827  66.648   6.958  1.00  0.38        N
ATOM   3586  HN  ARG A 369     -4.544  60.813  12.113  1.00  0.00        H
ATOM   3587  HE  ARG A 369     -7.208  64.427   8.858  1.00  0.00        H
ATOM   3588 1HH1 ARG A 369     -8.051  67.567   7.581  1.00  0.00        H
ATOM   3589 2HH1 ARG A 369     -8.550  66.189   8.597  1.00  0.00        H
ATOM   3590 1HH2 ARG A 369     -6.008  67.563   6.545  1.00  0.00        H
ATOM   3591 2HH2 ARG A 369     -4.940  66.183   6.766  1.00  0.00        H
ATOM   3592  N   GLU A 370     -2.096  59.475  10.812  1.00  0.52        N
ATOM   3593  CA  GLU A 370     -0.854  58.749  10.645  1.00  0.52        C
ATOM   3594  C   GLU A 370     -0.709  57.814  11.839  1.00  0.52        C
ATOM   3595  O   GLU A 370     -1.042  58.196  12.959  1.00  0.52        O
ATOM   3596  CB  GLU A 370      0.253  59.837  10.632  1.00  0.52        C
ATOM   3597  CG  GLU A 370      1.721  59.383  10.528  1.00  0.52        C
ATOM   3598  CD  GLU A 370      2.192  59.085   9.110  1.00  0.52        C
ATOM   3599  OE1 GLU A 370      2.183  60.040   8.291  1.00  0.52        O
ATOM   3600  OE2 GLU A 370      2.659  57.943   8.879  1.00  0.52        O1-
ATOM   3601  HN  GLU A 370     -2.437  59.649  11.758  1.00  0.00        H
ATOM   3602  N   GLU A 371     -0.230  56.558  11.691  1.00  0.57        N
ATOM   3603  CA  GLU A 371     -0.101  55.661  12.838  1.00  0.57        C
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ATOM   3604  C   GLU A 371      1.102  55.962  13.723  1.00  0.57        C
ATOM   3605  O   GLU A 371      1.207  55.495  14.861  1.00  0.57        O
ATOM   3606  CB  GLU A 371     -0.069  54.163  12.438  1.00  0.57        C
ATOM   3607  CG  GLU A 371      1.059  53.747  11.459  1.00  0.57        C
ATOM   3608  CD  GLU A 371      0.668  53.875   9.986  1.00  0.57        C
ATOM   3609  OE1 GLU A 371     -0.280  54.642   9.682  1.00  0.57        O
ATOM   3610  OE2 GLU A 371      1.315  53.174   9.168  1.00  0.57        O1-
ATOM   3611  HN  GLU A 371      0.046  56.232  10.765  1.00  0.00        H
ATOM   3612  N   GLN A 372      2.042  56.773  13.216  1.00  0.59        N
ATOM   3613  CA  GLN A 372      3.177  57.302  13.938  1.00  0.59        C
ATOM   3614  C   GLN A 372      2.826  58.169  15.149  1.00  0.59        C
ATOM   3615  O   GLN A 372      1.794  58.833  15.220  1.00  0.59        O
ATOM   3616  CB  GLN A 372      4.078  58.127  12.994  1.00  0.59        C
ATOM   3617  CG  GLN A 372      4.441  57.397  11.680  1.00  0.59        C
ATOM   3618  CD  GLN A 372      5.215  58.312  10.732  1.00  0.59        C
ATOM   3619  NE2 GLN A 372      5.642  57.755   9.584  1.00  0.59        N
ATOM   3620  OE1 GLN A 372      5.436  59.501  11.004  1.00  0.59        O
ATOM   3621  HN  GLN A 372      1.948  57.040  12.236  1.00  0.00        H
ATOM   3622 1HE2 GLN A 372      6.159  58.366   8.951  1.00  0.00        H
ATOM   3623 2HE2 GLN A 372      5.460  56.777   9.360  1.00  0.00        H
ATOM   3624  N   ALA A 373      3.700  58.181  16.169  1.00  0.71        N
ATOM   3625  CA  ALA A 373      3.522  59.029  17.324  1.00  0.71        C
ATOM   3626  C   ALA A 373      4.060  60.445  17.150  1.00  0.71        C
ATOM   3627  O   ALA A 373      5.037  60.688  16.438  1.00  0.71        O
ATOM   3628  CB  ALA A 373      4.179  58.398  18.564  1.00  0.71        C
ATOM   3629  HN  ALA A 373      4.516  57.571  16.126  1.00  0.00        H
ATOM   3630  N   GLU A 374      3.446  61.420  17.852  1.00  0.64        N
ATOM   3631  CA  GLU A 374      3.965  62.767  17.959  1.00  0.64        C
ATOM   3632  C   GLU A 374      4.068  63.224  19.418  1.00  0.64        C
ATOM   3633  O   GLU A 374      3.370  62.704  20.296  1.00  0.64        O
ATOM   3634  CB  GLU A 374      3.225  63.792  17.068  1.00  0.64        C
ATOM   3635  CG  GLU A 374      1.728  64.080  17.343  1.00  0.64        C
ATOM   3636  CD  GLU A 374      1.126  64.864  16.169  1.00  0.64        C
ATOM   3637  OE1 GLU A 374      1.909  65.316  15.284  1.00  0.64        O
ATOM   3638  OE2 GLU A 374     -0.127  64.940  16.082  1.00  0.64        O1-
ATOM   3639  HN  GLU A 374      2.573  61.197  18.331  1.00  0.00        H
ATOM   3640  N   PRO A 375      4.981  64.147  19.734  1.00  0.66        N
ATOM   3641  CA  PRO A 375      5.089  64.686  21.084  1.00  0.66        C
ATOM   3642  C   PRO A 375      4.554  66.115  21.145  1.00  0.66        C
ATOM   3643  O   PRO A 375      5.335  67.053  20.972  1.00  0.66        O
ATOM   3644  CB  PRO A 375      6.612  64.627  21.344  1.00  0.66        C
ATOM   3645  CG  PRO A 375      7.256  64.870  19.973  1.00  0.66        C
ATOM   3646  CD  PRO A 375      6.256  64.247  19.006  1.00  0.66        C
ATOM   3647  N   ASP A 376      3.250  66.334  21.448  1.00  0.58        N
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ATOM   3648  CA  ASP A 376      2.669  67.666  21.632  1.00  0.58        C
ATOM   3649  C   ASP A 376      3.405  68.538  22.642  1.00  0.58        C
ATOM   3650  O   ASP A 376      3.674  69.721  22.444  1.00  0.58        O
ATOM   3651  CB  ASP A 376      1.272  67.613  22.295  1.00  0.58        C
ATOM   3652  CG  ASP A 376      0.273  66.675  21.681  1.00  0.58        C
ATOM   3653  OD1 ASP A 376      0.550  65.870  20.766  1.00  0.58        O
ATOM   3654  OD2 ASP A 376     -0.851  66.715  22.275  1.00  0.58        O1-
ATOM   3655  HN  ASP A 376      2.639  65.524  21.554  1.00  0.00        H
ATOM   3656  N   GLY A 377      3.696  67.920  23.802  1.00  0.70        N
ATOM   3657  CA  GLY A 377      4.288  68.554  24.956  1.00  0.70        C
ATOM   3658  C   GLY A 377      5.710  68.131  25.016  1.00  0.70        C
ATOM   3659  O   GLY A 377      6.016  66.961  25.228  1.00  0.70        O
ATOM   3660  HN  GLY A 377      3.481  66.925  23.871  1.00  0.00        H
ATOM   3661  N   THR A 378      6.628  69.082  24.812  1.00  0.75        N
ATOM   3662  CA  THR A 378      8.046  68.780  24.755  1.00  0.75        C
ATOM   3663  C   THR A 378      8.749  69.119  26.035  1.00  0.75        C
ATOM   3664  O   THR A 378      9.960  68.944  26.114  1.00  0.75        O
ATOM   3665  CB  THR A 378      8.777  69.497  23.629  1.00  0.75        C
ATOM   3666  CG2 THR A 378      8.217  68.983  22.294  1.00  0.75        C
ATOM   3667  OG1 THR A 378      8.622  70.910  23.690  1.00  0.75        O
ATOM   3668  HN  THR A 378      6.322  70.048  24.693  1.00  0.00        H
ATOM   3669  HG1 THR A 378      8.968  71.228  24.516  1.00  0.00        H
ATOM   3670  N   GLU A 379      8.025  69.558  27.094  1.00  0.70        N
ATOM   3671  CA  GLU A 379      8.627  70.074  28.318  1.00  0.70        C
ATOM   3672  C   GLU A 379      9.644  69.123  28.914  1.00  0.70        C
ATOM   3673  O   GLU A 379     10.813  69.460  29.094  1.00  0.70        O
ATOM   3674  CB  GLU A 379      7.554  70.348  29.410  1.00  0.70        C
ATOM   3675  CG  GLU A 379      8.150  70.828  30.763  1.00  0.70        C
ATOM   3676  CD  GLU A 379      7.115  71.154  31.834  1.00  0.70        C
ATOM   3677  OE1 GLU A 379      5.928  71.371  31.515  1.00  0.70        O
ATOM   3678  OE2 GLU A 379      7.560  71.209  33.017  1.00  0.70        O1-
ATOM   3679  HN  GLU A 379      7.007  69.526  27.031  1.00  0.00        H
ATOM   3680  N   GLU A 380      9.244  67.865  29.134  1.00  0.72        N
ATOM   3681  CA  GLU A 380     10.078  66.801  29.628  1.00  0.72        C
ATOM   3682  C   GLU A 380     11.272  66.486  28.738  1.00  0.72        C
ATOM   3683  O   GLU A 380     12.387  66.293  29.216  1.00  0.72        O
ATOM   3684  CB  GLU A 380      9.207  65.542  29.781  1.00  0.72        C
ATOM   3685  CG  GLU A 380      7.985  65.735  30.709  1.00  0.72        C
ATOM   3686  CD  GLU A 380      6.684  66.123  30.015  1.00  0.72        C
ATOM   3687  OE1 GLU A 380      6.723  66.782  28.951  1.00  0.72        O
ATOM   3688  OE2 GLU A 380      5.615  65.727  30.545  1.00  0.72        O1-
ATOM   3689  HN  GLU A 380      8.269  67.642  28.935  1.00  0.00        H
ATOM   3690  N   ALA A 381     11.075  66.472  27.405  1.00  0.81        N
ATOM   3691  CA  ALA A 381     12.117  66.239  26.425  1.00  0.81        C
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ATOM 3692 C ALA A 381 13.208 67.299 26.441 1.00 0.81 C
ATOM 3693 O ALA A 381 14.399 66.988 26.465 1.00 0.81 O
ATOM 3694 CB ALA A 381 11.469 66.219 25.029 1.00 0.81 C
ATOM 3695 HN ALA A 381 10.128 66.637 27.063 1.00 0.00 H
ATOM 3696 N ASP A 382 12.801 68.581 26.480 1.00 0.79 N
ATOM 3697 CA ASP A 382 13.671 69.724 26.621 1.00 0.79 C
ATOM 3698 C ASP A 382 14.374 69.764 27.988 1.00 0.79 C
ATOM 3699 O ASP A 382 15.578 70.015 28.065 1.00 0.79 O
ATOM 3700 CB ASP A 382 12.871 71.017 26.322 1.00 0.79 C
ATOM 3701 CG ASP A 382 12.452 71.053 24.856 1.00 0.79 C
ATOM 3702 OD1 ASP A 382 13.356 70.923 23.986 1.00 0.79 O
ATOM 3703 OD2 ASP A 382 11.238 71.223 24.577 1.00 0.79 O1-
ATOM 3704 HN ASP A 382 11.800 68.759 26.404 1.00 0.00 H
ATOM 3705 N LYS A 383 13.668 69.449 29.107 1.00 0.76 N
ATOM 3706 CA LYS A 383 14.275 69.332 30.434 1.00 0.76 C
ATOM 3707 C LYS A 383 15.350 68.256 30.503 1.00 0.76 C
ATOM 3708 O LYS A 383 16.445 68.484 31.012 1.00 0.76 O
ATOM 3709 CB LYS A 383 13.243 69.019 31.561 1.00 0.76 C
ATOM 3710 CG LYS A 383 12.263 70.162 31.866 1.00 0.76 C
ATOM 3711 CD LYS A 383 11.397 69.939 33.119 1.00 0.76 C
ATOM 3712 CE LYS A 383 10.699 71.238 33.540 1.00 0.76 C
ATOM 3713 NZ LYS A 383 9.637 70.989 34.528 1.00 0.76 N1+
ATOM 3714 HN LYS A 383 12.665 69.286 29.017 1.00 0.00 H
ATOM 3715 HZ1 LYS A 383 9.173 71.853 34.808 1.00 0.00 H
ATOM 3716 HZ2 LYS A 383 9.993 70.479 35.336 1.00 0.00 H
ATOM 3717 HZ3 LYS A 383 8.967 70.300 34.188 1.00 0.00 H
ATOM 3718 N SER A 384 15.085 67.061 29.940 1.00 0.84 N
ATOM 3719 CA SER A 384 16.094 66.022 29.820 1.00 0.84 C
ATOM 3720 C SER A 384 17.264 66.404 28.951 1.00 0.84 C
ATOM 3721 O SER A 384 18.419 66.186 29.313 1.00 0.84 O
ATOM 3722 CB SER A 384 15.566 64.746 29.142 1.00 0.84 C
ATOM 3723 OG SER A 384 14.481 64.180 29.852 1.00 0.84 O
ATOM 3724 HN SER A 384 14.146 66.880 29.586 1.00 0.00 H
ATOM 3725 HG SER A 384 14.155 63.392 29.433 1.00 0.00 H
ATOM 3726 N ALA A 385 16.995 66.995 27.773 1.00 0.85 N
ATOM 3727 CA ALA A 385 17.996 67.364 26.798 1.00 0.85 C
ATOM 3728 C ALA A 385 19.002 68.363 27.328 1.00 0.85 C
ATOM 3729 O ALA A 385 20.206 68.219 27.128 1.00 0.85 O
ATOM 3730 CB ALA A 385 17.300 67.936 25.556 1.00 0.85 C
ATOM 3731 HN ALA A 385 16.019 67.196 27.553 1.00 0.00 H
ATOM 3732 N TYR A 386 18.507 69.358 28.092 1.00 0.78 N
ATOM 3733 CA TYR A 386 19.318 70.321 28.804 1.00 0.78 C
ATOM 3734 C TYR A 386 20.278 69.661 29.795 1.00 0.78 C
ATOM 3735 O TYR A 386 21.478 69.928 29.795 1.00 0.78 O

ATOM 3736 CB TYR A 386 18.344 71.290 29.538 1.00 0.78 C
ATOM 3737 CG TYR A 386 19.065 72.355 30.319 1.00 0.78 C
ATOM 3738 CD1 TYR A 386 19.752 73.384 29.657 1.00 0.78 C
ATOM 3739 CD2 TYR A 386 19.107 72.292 31.721 1.00 0.78 C
ATOM 3740 CE1 TYR A 386 20.492 74.325 30.389 1.00 0.78 C
ATOM 3741 CE2 TYR A 386 19.849 73.228 32.454 1.00 0.78 C
ATOM 3742 CZ TYR A 386 20.545 74.241 31.785 1.00 0.78 C
ATOM 3743 OH TYR A 386 21.294 75.181 32.518 1.00 0.78 O
ATOM 3744 HN TYR A 386 17.493 69.437 28.173 1.00 0.00 H
ATOM 3745 HH TYR A 386 21.330 75.124 33.466 1.00 0.00 H
ATOM 3746 N LEU A 387 19.782 68.733 30.635 1.00 0.80 N
ATOM 3747 CA LEU A 387 20.616 68.045 31.601 1.00 0.80 C
ATOM 3748 C LEU A 387 21.622 67.098 31.008 1.00 0.80 C
ATOM 3749 O LEU A 387 22.747 67.028 31.490 1.00 0.80 O
ATOM 3750 CB LEU A 387 19.777 67.303 32.651 1.00 0.80 C
ATOM 3751 CG LEU A 387 18.907 68.246 33.491 1.00 0.80 C
ATOM 3752 CD1 LEU A 387 18.230 67.433 34.593 1.00 0.80 C
ATOM 3753 CD2 LEU A 387 19.695 69.425 34.081 1.00 0.80 C
ATOM 3754 HN LEU A 387 18.788 68.507 30.590 1.00 0.00 H
ATOM 3755 N MET A 388 21.251 66.371 29.942 1.00 0.82 N
ATOM 3756 CA MET A 388 22.138 65.460 29.249 1.00 0.82 C
ATOM 3757 C MET A 388 23.133 66.138 28.339 1.00 0.82 C
ATOM 3758 O MET A 388 24.088 65.514 27.880 1.00 0.82 O
ATOM 3759 CB MET A 388 21.316 64.483 28.382 1.00 0.82 C
ATOM 3760 CG MET A 388 20.452 63.543 29.223 1.00 0.82 C
ATOM 3761 SD MET A 388 21.442 62.595 30.395 1.00 0.82 S
ATOM 3762 CE MET A 388 21.629 61.203 29.263 1.00 0.82 C
ATOM 3763 HN MET A 388 20.294 66.465 29.602 1.00 0.00 H
ATOM 3764 N GLY A 389 22.928 67.430 28.030 1.00 0.87 N
ATOM 3765 CA GLY A 389 23.814 68.173 27.151 1.00 0.87 C
ATOM 3766 C GLY A 389 23.697 67.743 25.716 1.00 0.87 C
ATOM 3767 O GLY A 389 24.699 67.634 25.014 1.00 0.87 O
ATOM 3768 HN GLY A 389 22.119 67.907 28.428 1.00 0.00 H
ATOM 3769 N LEU A 390 22.465 67.462 25.252 1.00 0.79 N
ATOM 3770 CA LEU A 390 22.203 66.920 23.930 1.00 0.79 C
ATOM 3771 C LEU A 390 21.191 67.777 23.189 1.00 0.79 C
ATOM 3772 O LEU A 390 20.526 68.641 23.756 1.00 0.79 O
ATOM 3773 CB LEU A 390 21.755 65.426 23.978 1.00 0.79 C
ATOM 3774 CG LEU A 390 20.440 65.094 24.726 1.00 0.79 C
ATOM 3775 CD1 LEU A 390 19.160 65.398 23.935 1.00 0.79 C
ATOM 3776 CD2 LEU A 390 20.402 63.608 25.096 1.00 0.79 C
ATOM 3777 HN LEU A 390 21.669 67.640 25.864 1.00 0.00 H
ATOM 3778 N ASN A 391 21.044 67.572 21.866 1.00 0.80 N
ATOM 3779 CA ASN A 391 20.094 68.319 21.062 1.00 0.80 C

ATOM 3780 C ASN A 391 18.686 67.713 21.162 1.00 0.80 C
ATOM 3781 O ASN A 391 18.468 66.551 20.821 1.00 0.80 O
ATOM 3782 CB ASN A 391 20.621 68.356 19.600 1.00 0.80 C
ATOM 3783 CG ASN A 391 19.813 69.287 18.700 1.00 0.80 C
ATOM 3784 ND2 ASN A 391 20.518 70.076 17.862 1.00 0.80 N
ATOM 3785 OD1 ASN A 391 18.583 69.331 18.727 1.00 0.80 O
ATOM 3786 HN ASN A 391 21.622 66.865 21.412 1.00 0.00 H
ATOM 3787 1HD2 ASN A 391 21.537 70.040 17.840 1.00 0.00 H
ATOM 3788 2HD2 ASN A 391 19.978 70.698 17.261 1.00 0.00 H
ATOM 3789 N SER A 392 17.682 68.489 21.638 1.00 0.81 N
ATOM 3790 CA SER A 392 16.310 68.008 21.776 1.00 0.81 C
ATOM 3791 C SER A 392 15.622 67.670 20.471 1.00 0.81 C
ATOM 3792 O SER A 392 14.945 66.649 20.376 1.00 0.81 O
ATOM 3793 CB SER A 392 15.384 68.934 22.608 1.00 0.81 C
ATOM 3794 OG SER A 392 15.254 70.248 22.071 1.00 0.81 O
ATOM 3795 HN SER A 392 17.893 69.449 21.911 1.00 0.00 H
ATOM 3796 HG SER A 392 14.687 70.815 22.580 1.00 0.00 H
ATOM 3797 N ALA A 393 15.799 68.473 19.407 1.00 0.78 N
ATOM 3798 CA ALA A 393 15.212 68.213 18.106 1.00 0.78 C
ATOM 3799 C ALA A 393 15.699 66.921 17.466 1.00 0.78 C
ATOM 3800 O ALA A 393 14.913 66.119 16.955 1.00 0.78 O
ATOM 3801 CB ALA A 393 15.511 69.390 17.160 1.00 0.78 C
ATOM 3802 HN ALA A 393 16.375 69.307 19.520 1.00 0.00 H
ATOM 3803 N ASP A 394 17.018 66.669 17.533 1.00 0.75 N
ATOM 3804 CA ASP A 394 17.624 65.421 17.129 1.00 0.75 C
ATOM 3805 C ASP A 394 17.126 64.241 17.984 1.00 0.75 C
ATOM 3806 O ASP A 394 16.839 63.161 17.464 1.00 0.75 O
ATOM 3807 CB ASP A 394 19.168 65.548 17.181 1.00 0.75 C
ATOM 3808 CG ASP A 394 19.783 66.425 16.101 1.00 0.75 C
ATOM 3809 OD1 ASP A 394 19.042 66.930 15.220 1.00 0.75 O
ATOM 3810 OD2 ASP A 394 21.044 66.515 16.118 1.00 0.75 O1-
ATOM 3811 HN ASP A 394 17.628 67.404 17.891 1.00 0.00 H
ATOM 3812 N LEU A 395 16.959 64.424 19.316 1.00 0.77 N
ATOM 3813 CA LEU A 395 16.375 63.423 20.202 1.00 0.77 C
ATOM 3814 C LEU A 395 14.953 63.020 19.872 1.00 0.77 C
ATOM 3815 O LEU A 395 14.631 61.836 19.801 1.00 0.77 O
ATOM 3816 CB LEU A 395 16.457 63.842 21.690 1.00 0.77 C
ATOM 3817 CG LEU A 395 15.853 62.832 22.692 1.00 0.77 C
ATOM 3818 CD1 LEU A 395 16.529 61.457 22.616 1.00 0.77 C
ATOM 3819 CD2 LEU A 395 15.903 63.365 24.123 1.00 0.77 C
ATOM 3820 HN LEU A 395 17.258 65.311 19.722 1.00 0.00 H
ATOM 3821 N LEU A 396 14.068 63.995 19.603 1.00 0.74 N
ATOM 3822 CA LEU A 396 12.687 63.744 19.230 1.00 0.74 C
ATOM 3823 C LEU A 396 12.589 62.912 17.957 1.00 0.74 C

ATOM 3824 O LEU A 396 11.794 61.976 17.856 1.00 0.74 O
ATOM 3825 CB LEU A 396 11.934 65.084 19.052 1.00 0.74 C
ATOM 3826 CG LEU A 396 11.812 65.922 20.345 1.00 0.74 C
ATOM 3827 CD1 LEU A 396 11.443 67.375 20.015 1.00 0.74 C
ATOM 3828 CD2 LEU A 396 10.817 65.337 21.356 1.00 0.74 C
ATOM 3829 HN LEU A 396 14.383 64.963 19.664 1.00 0.00 H
ATOM 3830 N LYS A 397 13.461 63.196 16.970 1.00 0.72 N
ATOM 3831 CA LYS A 397 13.640 62.347 15.810 1.00 0.72 C
ATOM 3832 C LYS A 397 14.192 60.964 16.125 1.00 0.72 C
ATOM 3833 O LYS A 397 13.680 59.971 15.632 1.00 0.72 O
ATOM 3834 CB LYS A 397 14.590 63.013 14.794 1.00 0.72 C
ATOM 3835 CG LYS A 397 14.039 64.318 14.207 1.00 0.72 C
ATOM 3836 CD LYS A 397 15.091 65.011 13.330 1.00 0.72 C
ATOM 3837 CE LYS A 397 14.637 66.371 12.802 1.00 0.72 C
ATOM 3838 NZ LYS A 397 15.751 66.999 12.061 1.00 0.72 N1+
ATOM 3839 HN LYS A 397 14.020 64.046 17.043 1.00 0.00 H
ATOM 3840 HZ1 LYS A 397 15.448 67.907 11.709 1.00 0.00 H
ATOM 3841 HZ2 LYS A 397 16.113 66.397 11.321 1.00 0.00 H
ATOM 3842 HZ3 LYS A 397 16.601 67.065 12.621 1.00 0.00 H
ATOM 3843 N GLY A 398 15.234 60.826 16.969 1.00 0.84 N
ATOM 3844 CA GLY A 398 15.802 59.514 17.280 1.00 0.84 C
ATOM 3845 C GLY A 398 14.902 58.568 18.036 1.00 0.84 C
ATOM 3846 O GLY A 398 15.029 57.352 17.901 1.00 0.84 O
ATOM 3847 HN GLY A 398 15.637 61.657 17.402 1.00 0.00 H
ATOM 3848 N LEU A 399 13.976 59.108 18.847 1.00 0.76 N
ATOM 3849 CA LEU A 399 12.945 58.337 19.513 1.00 0.76 C
ATOM 3850 C LEU A 399 11.776 57.980 18.607 1.00 0.76 C
ATOM 3851 O LEU A 399 11.405 56.814 18.501 1.00 0.76 O
ATOM 3852 CB LEU A 399 12.392 59.151 20.709 1.00 0.76 C
ATOM 3853 CG LEU A 399 13.404 59.341 21.855 1.00 0.76 C
ATOM 3854 CD1 LEU A 399 12.938 60.450 22.807 1.00 0.76 C
ATOM 3855 CD2 LEU A 399 13.630 58.036 22.629 1.00 0.76 C
ATOM 3856 HN LEU A 399 14.000 60.116 19.002 1.00 0.00 H
ATOM 3857 N CYS A 400 11.164 58.965 17.915 1.00 0.78 N
ATOM 3858 CA CYS A 400 9.933 58.705 17.178 1.00 0.78 C
ATOM 3859 C CYS A 400 10.172 58.230 15.764 1.00 0.78 C
ATOM 3860 O CYS A 400 9.372 57.475 15.211 1.00 0.78 O
ATOM 3861 CB CYS A 400 9.021 59.956 17.090 1.00 0.78 C
ATOM 3862 SG CYS A 400 8.549 60.609 18.725 1.00 0.78 S
ATOM 3863 HN CYS A 400 11.568 59.902 17.908 1.00 0.00 H
ATOM 3864 N HIS A 401 11.301 58.637 15.161 1.00 0.68 N
ATOM 3865 CA HIS A 401 11.598 58.384 13.765 1.00 0.68 C
ATOM 3866 C HIS A 401 13.012 57.844 13.551 1.00 0.68 C
ATOM 3867 O HIS A 401 13.810 58.469 12.843 1.00 0.68 O

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ATOM   3868  CB  HIS A 401     11.447  59.680  12.934  1.00  0.68         C
ATOM   3869  CG  HIS A 401     10.061  60.234  12.956  1.00  0.68         C
ATOM   3870  CD2 HIS A 401      9.544  61.331  13.569  1.00  0.68         C
ATOM   3871  ND1 HIS A 401      9.071  59.557  12.282  1.00  0.68         N
ATOM   3872  CE1 HIS A 401      7.974  60.242  12.496  1.00  0.68         C
ATOM   3873  NE2 HIS A 401      8.198  61.329  13.270  1.00  0.68         N
ATOM   3874  HN  HIS A 401     11.986  59.151  15.715  1.00  0.00         H
ATOM   3875  HD1 HIS A 401      9.170  58.703  11.732  1.00  0.00         H
ATOM   3876  HE2 HIS A 401      7.506  62.014  13.573  1.00  0.00         H
ATOM   3877  N   PRO A 402     13.427  56.719  14.135  1.00  0.78         N
ATOM   3878  CA  PRO A 402     14.781  56.221  13.979  1.00  0.78         C
ATOM   3879  C   PRO A 402     15.034  55.642  12.600  1.00  0.78         C
ATOM   3880  O   PRO A 402     14.153  55.056  11.974  1.00  0.78         O
ATOM   3881  CB  PRO A 402     14.890  55.135  15.053  1.00  0.78         C
ATOM   3882  CG  PRO A 402     13.469  54.581  15.143  1.00  0.78         C
ATOM   3883  CD  PRO A 402     12.610  55.832  14.964  1.00  0.78         C
ATOM   3884  N   ARG A 403     16.269  55.797  12.107  1.00  0.71         N
ATOM   3885  CA  ARG A 403     16.690  55.253  10.839  1.00  0.71         C
ATOM   3886  C   ARG A 403     17.237  53.857  11.050  1.00  0.71         C
ATOM   3887  O   ARG A 403     17.960  53.603  12.013  1.00  0.71         O
ATOM   3888  CB  ARG A 403     17.791  56.131  10.198  1.00  0.71         C
ATOM   3889  CG  ARG A 403     17.353  57.595   9.979  1.00  0.71         C
ATOM   3890  CD  ARG A 403     18.482  58.533   9.533  1.00  0.71         C
ATOM   3891  NE  ARG A 403     19.479  58.579  10.657  1.00  0.71         N
ATOM   3892  CZ  ARG A 403     20.735  59.037  10.549  1.00  0.71         C
ATOM   3893  NH1 ARG A 403     21.155  59.655   9.450  1.00  0.71        N1+
ATOM   3894  NH2 ARG A 403     21.586  58.870  11.562  1.00  0.71         N
ATOM   3895  HN  ARG A 403     16.946  56.326  12.656  1.00  0.00         H
ATOM   3896  HE  ARG A 403     19.178  58.237  11.569  1.00  0.00         H
ATOM   3897 1HH1 ARG A 403     22.110  60.003   9.368  1.00  0.00         H
ATOM   3898 2HH1 ARG A 403     20.504  59.783   8.675  1.00  0.00         H
ATOM   3899 1HH2 ARG A 403     22.541  59.218  11.480  1.00  0.00         H
ATOM   3900 2HH2 ARG A 403     21.264  58.396  12.406  1.00  0.00         H
ATOM   3901  N   VAL A 404     16.896  52.923  10.150  1.00  0.83         N
ATOM   3902  CA  VAL A 404     17.386  51.559  10.181  1.00  0.83         C
ATOM   3903  C   VAL A 404     17.821  51.182   8.786  1.00  0.83         C
ATOM   3904  O   VAL A 404     17.550  51.892   7.818  1.00  0.83         O
ATOM   3905  CB  VAL A 404     16.356  50.529  10.660  1.00  0.83         C
ATOM   3906  CG1 VAL A 404     15.953  50.850  12.113  1.00  0.83         C
ATOM   3907  CG2 VAL A 404     15.123  50.484   9.730  1.00  0.83         C
ATOM   3908  HN  VAL A 404     16.256  53.187   9.401  1.00  0.00         H
ATOM   3909  N   LYS A 405     18.507  50.036   8.634  1.00  0.86         N
ATOM   3910  CA  LYS A 405     18.725  49.463   7.327  1.00  0.86         C
ATOM   3911  C   LYS A 405     17.597  48.522   6.943  1.00  0.86         C
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ATOM 3912 O LYS A 405 17.166 47.680 7.730 1.00 0.86 O
ATOM 3913 CB LYS A 405 20.060 48.701 7.240 1.00 0.86 C
ATOM 3914 CG LYS A 405 21.268 49.632 7.373 1.00 0.86 C
ATOM 3915 CD LYS A 405 22.579 48.857 7.212 1.00 0.86 C
ATOM 3916 CE LYS A 405 23.796 49.771 7.302 1.00 0.86 C
ATOM 3917 NZ LYS A 405 25.026 48.979 7.118 1.00 0.86 N1+
ATOM 3918 HN LYS A 405 18.880 49.563 9.457 1.00 0.00 H
ATOM 3919 HZ1 LYS A 405 25.840 49.590 7.178 1.00 0.00 H
ATOM 3920 HZ2 LYS A 405 25.012 48.443 6.251 1.00 0.00 H
ATOM 3921 HZ3 LYS A 405 25.082 48.199 7.772 1.00 0.00 H
ATOM 3922 N VAL A 406 17.110 48.640 5.698 1.00 0.88 N
ATOM 3923 CA VAL A 406 16.253 47.652 5.075 1.00 0.88 C
ATOM 3924 C VAL A 406 17.061 47.128 3.908 1.00 0.88 C
ATOM 3925 O VAL A 406 17.283 47.801 2.904 1.00 0.88 O
ATOM 3926 CB VAL A 406 14.927 48.238 4.609 1.00 0.88 C
ATOM 3927 CG1 VAL A 406 14.056 47.153 3.945 1.00 0.88 C
ATOM 3928 CG2 VAL A 406 14.192 48.832 5.827 1.00 0.88 C
ATOM 3929 HN VAL A 406 17.357 49.471 5.161 1.00 0.00 H
ATOM 3930 N GLY A 407 17.614 45.902 4.035 1.00 0.90 N
ATOM 3931 CA GLY A 407 18.718 45.467 3.180 1.00 0.90 C
ATOM 3932 C GLY A 407 19.940 46.347 3.334 1.00 0.90 C
ATOM 3933 O GLY A 407 20.592 46.347 4.374 1.00 0.90 O
ATOM 3934 HN GLY A 407 17.253 45.264 4.744 1.00 0.00 H
ATOM 3935 N ASN A 408 20.258 47.146 2.299 1.00 0.80 N
ATOM 3936 CA ASN A 408 21.283 48.171 2.402 1.00 0.80 C
ATOM 3937 C ASN A 408 20.693 49.572 2.338 1.00 0.80 C
ATOM 3938 O ASN A 408 21.419 50.554 2.469 1.00 0.80 O
ATOM 3939 CB ASN A 408 22.309 48.049 1.250 1.00 0.80 C
ATOM 3940 CG ASN A 408 23.106 46.764 1.415 1.00 0.80 C
ATOM 3941 ND2 ASN A 408 23.051 45.874 0.398 1.00 0.80 N
ATOM 3942 OD1 ASN A 408 23.787 46.560 2.420 1.00 0.80 O
ATOM 3943 HN ASN A 408 19.764 47.029 1.414 1.00 0.00 H
ATOM 3944 1HD2 ASN A 408 23.585 45.012 0.509 1.00 0.00 H
ATOM 3945 2HD2 ASN A 408 22.487 46.043 -0.435 1.00 0.00 H
ATOM 3946 N GLU A 409 19.366 49.714 2.150 1.00 0.83 N
ATOM 3947 CA GLU A 409 18.720 51.010 2.100 1.00 0.83 C
ATOM 3948 C GLU A 409 18.558 51.596 3.486 1.00 0.83 C
ATOM 3949 O GLU A 409 18.319 50.881 4.454 1.00 0.83 O
ATOM 3950 CB GLU A 409 17.328 50.924 1.442 1.00 0.83 C
ATOM 3951 CG GLU A 409 17.380 50.517 -0.048 1.00 0.83 C
ATOM 3952 CD GLU A 409 15.993 50.430 -0.684 1.00 0.83 C
ATOM 3953 OE1 GLU A 409 14.986 50.710 0.013 1.00 0.83 O
ATOM 3954 OE2 GLU A 409 15.953 50.078 -1.890 1.00 0.83 O1-
ATOM 3955 HN GLU A 409 18.794 48.877 2.039 1.00 0.00 H

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ATOM   3956  N   TYR A 410     18.672  52.928   3.621  1.00  0.86        N
ATOM   3957  CA  TYR A 410     18.553  53.594   4.903  1.00  0.86        C
ATOM   3958  C   TYR A 410     17.160  54.168   5.020  1.00  0.86        C
ATOM   3959  O   TYR A 410     16.811  55.145   4.361  1.00  0.86        O
ATOM   3960  CB  TYR A 410     19.583  54.739   5.061  1.00  0.86        C
ATOM   3961  CG  TYR A 410     20.973  54.172   5.157  1.00  0.86        C
ATOM   3962  CD1 TYR A 410     21.757  53.969   4.007  1.00  0.86        C
ATOM   3963  CD2 TYR A 410     21.505  53.828   6.411  1.00  0.86        C
ATOM   3964  CE1 TYR A 410     23.048  53.429   4.110  1.00  0.86        C
ATOM   3965  CE2 TYR A 410     22.803  53.313   6.517  1.00  0.86        C
ATOM   3966  CZ  TYR A 410     23.573  53.113   5.368  1.00  0.86        C
ATOM   3967  OH  TYR A 410     24.888  52.621   5.502  1.00  0.86        O
ATOM   3968  HN  TYR A 410     18.849  53.492   2.790  1.00  0.00        H
ATOM   3969  HH  TYR A 410     25.411  52.485   4.721  1.00  0.00        H
ATOM   3970  N   VAL A 411     16.322  53.565   5.876  1.00  0.83        N
ATOM   3971  CA  VAL A 411     14.914  53.893   5.941  1.00  0.83        C
ATOM   3972  C   VAL A 411     14.606  54.473   7.297  1.00  0.83        C
ATOM   3973  O   VAL A 411     14.783  53.840   8.339  1.00  0.83        O
ATOM   3974  CB  VAL A 411     14.014  52.690   5.682  1.00  0.83        C
ATOM   3975  CG1 VAL A 411     12.527  53.107   5.703  1.00  0.83        C
ATOM   3976  CG2 VAL A 411     14.367  52.094   4.305  1.00  0.83        C
ATOM   3977  HN  VAL A 411     16.690  52.850   6.503  1.00  0.00        H
ATOM   3978  N   THR A 412     14.120  55.726   7.308  1.00  0.76        N
ATOM   3979  CA  THR A 412     13.496  56.350   8.464  1.00  0.76        C
ATOM   3980  C   THR A 412     12.200  55.647   8.794  1.00  0.76        C
ATOM   3981  O   THR A 412     11.255  55.649   8.007  1.00  0.76        O
ATOM   3982  CB  THR A 412     13.199  57.827   8.232  1.00  0.76        C
ATOM   3983  CG2 THR A 412     12.660  58.512   9.491  1.00  0.76        C
ATOM   3984  OG1 THR A 412     14.396  58.511   7.886  1.00  0.76        O
ATOM   3985  HN  THR A 412     14.193  56.274   6.451  1.00  0.00        H
ATOM   3986  HG1 THR A 412     14.211  59.432   7.741  1.00  0.00        H
ATOM   3987  N   LYS A 413     12.114  55.004   9.972  1.00  0.67        N
ATOM   3988  CA  LYS A 413     10.857  54.504  10.482  1.00  0.67        C
ATOM   3989  C   LYS A 413     10.050  55.650  11.043  1.00  0.67        C
ATOM   3990  O   LYS A 413     10.596  56.692  11.371  1.00  0.67        O
ATOM   3991  CB  LYS A 413     11.052  53.496  11.646  1.00  0.67        C
ATOM   3992  CG  LYS A 413     11.631  52.142  11.224  1.00  0.67        C
ATOM   3993  CD  LYS A 413     11.710  51.171  12.415  1.00  0.67        C
ATOM   3994  CE  LYS A 413     12.141  49.767  11.993  1.00  0.67        C
ATOM   3995  NZ  LYS A 413     12.245  48.884  13.173  1.00  0.67        N1+
ATOM   3996  HN  LYS A 413     12.961  54.865  10.522  1.00  0.00        H
ATOM   3997  HZ1 LYS A 413     12.533  47.947  12.891  1.00  0.00        H
ATOM   3998  HZ2 LYS A 413     11.380  48.869  13.714  1.00  0.00        H
ATOM   3999  HZ3 LYS A 413     12.863  49.273  13.885  1.00  0.00        H
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ATOM   4000  N   GLY A 414      8.735  55.460  11.213  1.00  0.71        N
ATOM   4001  CA  GLY A 414      7.970  56.247  12.160  1.00  0.71        C
ATOM   4002  C   GLY A 414      7.326  55.271  13.085  1.00  0.71        C
ATOM   4003  O   GLY A 414      6.604  54.375  12.656  1.00  0.71        O
ATOM   4004  HN  GLY A 414      8.260  54.744  10.663  1.00  0.00        H
ATOM   4005  N   GLN A 415      7.598  55.376  14.388  1.00  0.66        N
ATOM   4006  CA  GLN A 415      7.113  54.421  15.358  1.00  0.66        C
ATOM   4007  C   GLN A 415      5.789  54.864  15.957  1.00  0.66        C
ATOM   4008  O   GLN A 415      5.514  56.053  16.117  1.00  0.66        O
ATOM   4009  CB  GLN A 415      8.159  54.234  16.477  1.00  0.66        C
ATOM   4010  CG  GLN A 415      9.423  53.454  16.051  1.00  0.66        C
ATOM   4011  CD  GLN A 415     10.321  53.180  17.256  1.00  0.66        C
ATOM   4012  NE2 GLN A 415     11.470  52.510  17.017  1.00  0.66        N
ATOM   4013  OE1 GLN A 415     10.023  53.497  18.404  1.00  0.66        O
ATOM   4014  HN  GLN A 415      8.168  56.158  14.710  1.00  0.00        H
ATOM   4015 1HE2 GLN A 415     11.718  52.247  16.063  1.00  0.00        H
ATOM   4016 2HE2 GLN A 415     12.070  52.327  17.822  1.00  0.00        H
ATOM   4017  N   ASN A 416      4.913  53.901  16.315  1.00  0.70        N
ATOM   4018  CA  ASN A 416      3.664  54.189  17.002  1.00  0.70        C
ATOM   4019  C   ASN A 416      3.891  54.475  18.488  1.00  0.70        C
ATOM   4020  O   ASN A 416      4.994  54.307  18.998  1.00  0.70        O
ATOM   4021  CB  ASN A 416      2.583  53.094  16.743  1.00  0.70        C
ATOM   4022  CG  ASN A 416      2.887  51.726  17.355  1.00  0.70        C
ATOM   4023  ND2 ASN A 416      2.162  50.692  16.872  1.00  0.70        N
ATOM   4024  OD1 ASN A 416      3.701  51.553  18.262  1.00  0.70        O
ATOM   4025  HN  ASN A 416      5.137  52.931  16.094  1.00  0.00        H
ATOM   4026 1HD2 ASN A 416      1.487  50.835  16.120  1.00  0.00        H
ATOM   4027 2HD2 ASN A 416      2.365  49.780  17.280  1.00  0.00        H
ATOM   4028  N   VAL A 417      2.856  54.903  19.244  1.00  0.71        N
ATOM   4029  CA  VAL A 417      2.995  55.285  20.653  1.00  0.71        C
ATOM   4030  C   VAL A 417      3.645  54.215  21.518  1.00  0.71        C
ATOM   4031  O   VAL A 417      4.566  54.494  22.279  1.00  0.71        O
ATOM   4032  CB  VAL A 417      1.635  55.646  21.249  1.00  0.71        C
ATOM   4033  CG1 VAL A 417      1.708  55.886  22.774  1.00  0.71        C
ATOM   4034  CG2 VAL A 417      1.134  56.927  20.566  1.00  0.71        C
ATOM   4035  HN  VAL A 417      1.933  54.963  18.814  1.00  0.00        H
ATOM   4036  N   GLN A 418      3.223  52.944  21.378  1.00  0.70        N
ATOM   4037  CA  GLN A 418      3.800  51.844  22.125  1.00  0.70        C
ATOM   4038  C   GLN A 418      5.273  51.598  21.825  1.00  0.70        C
ATOM   4039  O   GLN A 418      6.089  51.467  22.735  1.00  0.70        O
ATOM   4040  CB  GLN A 418      2.996  50.556  21.842  1.00  0.70        C
ATOM   4041  CG  GLN A 418      3.403  49.367  22.743  1.00  0.70        C
ATOM   4042  CD  GLN A 418      2.551  48.134  22.449  1.00  0.70        C
ATOM   4043  NE2 GLN A 418      2.574  47.152  23.376  1.00  0.70        N
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ATOM 4044 OE1 GLN A 418 1.888 48.028 21.416 1.00 0.70 O
ATOM 4045 HN GLN A 418 2.468 52.748 20.721 1.00 0.00 H
ATOM 4046 1HE2 GLN A 418 2.005 46.329 23.180 1.00 0.00 H
ATOM 4047 2HE2 GLN A 418 3.123 47.240 24.231 1.00 0.00 H
ATOM 4048 N GLN A 419 5.666 51.584 20.536 1.00 0.71 N
ATOM 4049 CA GLN A 419 7.056 51.440 20.148 1.00 0.71 C
ATOM 4050 C GLN A 419 7.940 52.596 20.599 1.00 0.71 C
ATOM 4051 O GLN A 419 9.024 52.359 21.128 1.00 0.71 O
ATOM 4052 CB GLN A 419 7.186 51.219 18.624 1.00 0.71 C
ATOM 4053 CG GLN A 419 6.679 49.830 18.175 1.00 0.71 C
ATOM 4054 CD GLN A 419 6.871 49.617 16.675 1.00 0.71 C
ATOM 4055 NE2 GLN A 419 6.727 48.342 16.243 1.00 0.71 N
ATOM 4056 OE1 GLN A 419 7.151 50.526 15.892 1.00 0.71 O
ATOM 4057 HN GLN A 419 4.960 51.678 19.806 1.00 0.00 H
ATOM 4058 1HE2 GLN A 419 6.495 47.589 16.891 1.00 0.00 H
ATOM 4059 2HE2 GLN A 419 6.855 48.200 15.241 1.00 0.00 H
ATOM 4060 N VAL A 420 7.485 53.864 20.467 1.00 0.77 N
ATOM 4061 CA VAL A 420 8.241 55.028 20.933 1.00 0.77 C
ATOM 4062 C VAL A 420 8.442 55.026 22.444 1.00 0.77 C
ATOM 4063 O VAL A 420 9.534 55.289 22.952 1.00 0.77 O
ATOM 4064 CB VAL A 420 7.630 56.365 20.518 1.00 0.77 C
ATOM 4065 CG1 VAL A 420 8.571 57.521 20.893 1.00 0.77 C
ATOM 4066 CG2 VAL A 420 7.474 56.407 18.998 1.00 0.77 C
ATOM 4067 HN VAL A 420 6.578 54.015 20.025 1.00 0.00 H
ATOM 4068 N VAL A 421 7.398 54.668 23.227 1.00 0.77 N
ATOM 4069 CA VAL A 421 7.509 54.510 24.674 1.00 0.77 C
ATOM 4070 C VAL A 421 8.527 53.437 25.044 1.00 0.77 C
ATOM 4071 O VAL A 421 9.353 53.624 25.941 1.00 0.77 O
ATOM 4072 CB VAL A 421 6.149 54.182 25.301 1.00 0.77 C
ATOM 4073 CG1 VAL A 421 6.251 53.765 26.785 1.00 0.77 C
ATOM 4074 CG2 VAL A 421 5.214 55.402 25.186 1.00 0.77 C
ATOM 4075 HN VAL A 421 6.493 54.501 22.787 1.00 0.00 H
ATOM 4076 N TYR A 422 8.520 52.296 24.330 1.00 0.74 N
ATOM 4077 CA TYR A 422 9.475 51.218 24.512 1.00 0.74 C
ATOM 4078 C TYR A 422 10.900 51.592 24.107 1.00 0.74 C
ATOM 4079 O TYR A 422 11.847 51.261 24.815 1.00 0.74 O
ATOM 4080 CB TYR A 422 9.016 49.930 23.777 1.00 0.74 C
ATOM 4081 CG TYR A 422 7.782 49.262 24.361 1.00 0.74 C
ATOM 4082 CD1 TYR A 422 7.018 49.766 25.439 1.00 0.74 C
ATOM 4083 CD2 TYR A 422 7.376 48.048 23.778 1.00 0.74 C
ATOM 4084 CE1 TYR A 422 5.879 49.087 25.896 1.00 0.74 C
ATOM 4085 CE2 TYR A 422 6.254 47.353 24.252 1.00 0.74 C
ATOM 4086 CZ TYR A 422 5.508 47.877 25.310 1.00 0.74 C
ATOM 4087 OH TYR A 422 4.394 47.169 25.800 1.00 0.74 O

ATOM 4088 HN TYR A 422 7.799 52.182 23.617 1.00 0.00 H
ATOM 4089 HH TYR A 422 3.887 47.525 26.520 1.00 0.00 H
ATOM 4090 N ALA A 423 11.101 52.327 22.993 1.00 0.82 N
ATOM 4091 CA ALA A 423 12.388 52.866 22.580 1.00 0.82 C
ATOM 4092 C ALA A 423 12.984 53.851 23.585 1.00 0.82 C
ATOM 4093 O ALA A 423 14.163 53.789 23.935 1.00 0.82 O
ATOM 4094 CB ALA A 423 12.237 53.551 21.207 1.00 0.82 C
ATOM 4095 HN ALA A 423 10.294 52.518 22.399 1.00 0.00 H
ATOM 4096 N LYS A 424 12.144 54.750 24.134 1.00 0.77 N
ATOM 4097 CA LYS A 424 12.482 55.611 25.253 1.00 0.77 C
ATOM 4098 C LYS A 424 12.841 54.824 26.511 1.00 0.77 C
ATOM 4099 O LYS A 424 13.793 55.138 27.227 1.00 0.77 O
ATOM 4100 CB LYS A 424 11.293 56.578 25.506 1.00 0.77 C
ATOM 4101 CG LYS A 424 11.466 57.547 26.687 1.00 0.77 C
ATOM 4102 CD LYS A 424 10.792 57.069 27.989 1.00 0.77 C
ATOM 4103 CE LYS A 424 9.273 57.302 27.997 1.00 0.77 C
ATOM 4104 NZ LYS A 424 8.711 57.094 29.348 1.00 0.77 N1+
ATOM 4105 HN LYS A 424 11.208 54.831 23.737 1.00 0.00 H
ATOM 4106 HZ1 LYS A 424 7.703 57.249 29.353 1.00 0.00 H
ATOM 4107 HZ2 LYS A 424 9.183 57.670 30.044 1.00 0.00 H
ATOM 4108 HZ3 LYS A 424 8.952 56.175 29.718 1.00 0.00 H
ATOM 4109 N GLY A 425 12.099 53.738 26.808 1.00 0.84 N
ATOM 4110 CA GLY A 425 12.412 52.852 27.923 1.00 0.84 C
ATOM 4111 C GLY A 425 13.680 52.059 27.744 1.00 0.84 C
ATOM 4112 O GLY A 425 14.412 51.827 28.701 1.00 0.84 O
ATOM 4113 HN GLY A 425 11.286 53.528 26.229 1.00 0.00 H
ATOM 4114 N ALA A 426 14.002 51.638 26.508 1.00 0.82 N
ATOM 4115 CA ALA A 426 15.252 50.990 26.158 1.00 0.82 C
ATOM 4116 C ALA A 426 16.453 51.880 26.423 1.00 0.82 C
ATOM 4117 O ALA A 426 17.431 51.469 27.043 1.00 0.82 O
ATOM 4118 CB ALA A 426 15.225 50.568 24.677 1.00 0.82 C
ATOM 4119 HN ALA A 426 13.319 51.785 25.764 1.00 0.00 H
ATOM 4120 N LEU A 427 16.347 53.158 26.022 1.00 0.82 N
ATOM 4121 CA LEU A 427 17.316 54.192 26.306 1.00 0.82 C
ATOM 4122 C LEU A 427 17.531 54.458 27.787 1.00 0.82 C
ATOM 4123 O LEU A 427 18.668 54.464 28.257 1.00 0.82 O
ATOM 4124 CB LEU A 427 16.821 55.463 25.591 1.00 0.82 C
ATOM 4125 CG LEU A 427 17.502 56.789 25.958 1.00 0.82 C
ATOM 4126 CD1 LEU A 427 19.027 56.767 25.769 1.00 0.82 C
ATOM 4127 CD2 LEU A 427 16.830 57.889 25.131 1.00 0.82 C
ATOM 4128 HN LEU A 427 15.524 53.417 25.478 1.00 0.00 H
ATOM 4129 N ALA A 428 16.456 54.616 28.584 1.00 0.84 N
ATOM 4130 CA ALA A 428 16.563 54.855 30.013 1.00 0.84 C
ATOM 4131 C ALA A 428 17.273 53.725 30.761 1.00 0.84 C

ATOM 4132 O ALA A 428 18.165 53.947 31.581 1.00 0.84 O
ATOM 4133 CB ALA A 428 15.150 55.076 30.586 1.00 0.84 C
ATOM 4134 HN ALA A 428 15.527 54.566 28.166 1.00 0.00 H
ATOM 4135 N LYS A 429 16.935 52.468 30.421 1.00 0.76 N
ATOM 4136 CA LYS A 429 17.608 51.284 30.915 1.00 0.76 C
ATOM 4137 C LYS A 429 19.075 51.185 30.517 1.00 0.76 C
ATOM 4138 O LYS A 429 19.942 50.879 31.337 1.00 0.76 O
ATOM 4139 CB LYS A 429 16.893 50.047 30.329 1.00 0.76 C
ATOM 4140 CG LYS A 429 15.508 49.808 30.945 1.00 0.76 C
ATOM 4141 CD LYS A 429 14.860 48.492 30.476 1.00 0.76 C
ATOM 4142 CE LYS A 429 14.584 48.450 28.967 1.00 0.76 C
ATOM 4143 NZ LYS A 429 14.044 47.133 28.555 1.00 0.76 N1+
ATOM 4144 HN LYS A 429 16.156 52.341 29.775 1.00 0.00 H
ATOM 4145 HZ1 LYS A 429 13.861 47.105 27.552 1.00 0.00 H
ATOM 4146 HZ2 LYS A 429 13.215 46.883 29.094 1.00 0.00 H
ATOM 4147 HZ3 LYS A 429 14.656 46.370 28.845 1.00 0.00 H
ATOM 4148 N ALA A 430 19.385 51.455 29.232 1.00 0.78 N
ATOM 4149 CA ALA A 430 20.729 51.440 28.697 1.00 0.78 C
ATOM 4150 C ALA A 430 21.633 52.476 29.357 1.00 0.78 C
ATOM 4151 O ALA A 430 22.761 52.177 29.743 1.00 0.78 O
ATOM 4152 CB ALA A 430 20.663 51.661 27.172 1.00 0.78 C
ATOM 4153 HN ALA A 430 18.622 51.685 28.596 1.00 0.00 H
ATOM 4154 N VAL A 431 21.134 53.711 29.563 1.00 0.85 N
ATOM 4155 CA VAL A 431 21.837 54.768 30.280 1.00 0.85 C
ATOM 4156 C VAL A 431 22.143 54.390 31.722 1.00 0.85 C
ATOM 4157 O VAL A 431 23.280 54.501 32.182 1.00 0.85 O
ATOM 4158 CB VAL A 431 20.992 56.046 30.263 1.00 0.85 C
ATOM 4159 CG1 VAL A 431 21.511 57.117 31.226 1.00 0.85 C
ATOM 4160 CG2 VAL A 431 20.980 56.624 28.836 1.00 0.85 C
ATOM 4161 HN VAL A 431 20.206 53.919 29.194 1.00 0.00 H
ATOM 4162 N TYR A 432 21.133 53.886 32.464 1.00 0.81 N
ATOM 4163 CA TYR A 432 21.255 53.598 33.882 1.00 0.81 C
ATOM 4164 C TYR A 432 22.278 52.506 34.218 1.00 0.81 C
ATOM 4165 O TYR A 432 23.104 52.644 35.117 1.00 0.81 O
ATOM 4166 CB TYR A 432 19.862 53.197 34.443 1.00 0.81 C
ATOM 4167 CG TYR A 432 19.866 53.168 35.950 1.00 0.81 C
ATOM 4168 CD1 TYR A 432 19.670 54.349 36.683 1.00 0.81 C
ATOM 4169 CD2 TYR A 432 20.124 51.971 36.643 1.00 0.81 C
ATOM 4170 CE1 TYR A 432 19.762 54.346 38.080 1.00 0.81 C
ATOM 4171 CE2 TYR A 432 20.227 51.969 38.041 1.00 0.81 C
ATOM 4172 CZ TYR A 432 20.063 53.163 38.749 1.00 0.81 C
ATOM 4173 OH TYR A 432 20.243 53.192 40.136 1.00 0.81 O
ATOM 4174 HN TYR A 432 20.241 53.699 32.006 1.00 0.00 H
ATOM 4175 HH TYR A 432 20.132 54.003 40.617 1.00 0.00 H

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ATOM   4176  N   GLU A 433     22.269  51.379  33.485  1.00  0.73        N
ATOM   4177  CA  GLU A 433     23.172  50.272  33.778  1.00  0.73        C
ATOM   4178  C   GLU A 433     24.598  50.536  33.272  1.00  0.73        C
ATOM   4179  O   GLU A 433     25.574  50.048  33.837  1.00  0.73        O
ATOM   4180  CB  GLU A 433     22.527  48.930  33.335  1.00  0.73        C
ATOM   4181  CG  GLU A 433     23.423  47.643  33.329  1.00  0.73        C
ATOM   4182  CD  GLU A 433     22.802  46.349  33.847  1.00  0.73        C
ATOM   4183  OE1 GLU A 433     21.681  46.423  34.392  1.00  0.73        O
ATOM   4184  OE2 GLU A 433     23.440  45.272  33.664  1.00  0.73        O1-
ATOM   4185  HN  GLU A 433     21.616  51.296  32.706  1.00  0.00        H
ATOM   4186  N   ARG A 434     24.809  51.405  32.250  1.00  0.69        N
ATOM   4187  CA  ARG A 434     26.152  51.886  31.914  1.00  0.69        C
ATOM   4188  C   ARG A 434     26.712  52.786  32.973  1.00  0.69        C
ATOM   4189  O   ARG A 434     27.885  52.707  33.304  1.00  0.69        O
ATOM   4190  CB  ARG A 434     26.242  52.690  30.601  1.00  0.69        C
ATOM   4191  CG  ARG A 434     26.017  51.804  29.372  1.00  0.69        C
ATOM   4192  CD  ARG A 434     26.179  52.537  28.050  1.00  0.69        C
ATOM   4193  NE  ARG A 434     25.231  51.967  27.074  1.00  0.69        N
ATOM   4194  CZ  ARG A 434     24.874  52.725  26.038  1.00  0.69        C
ATOM   4195  NH1 ARG A 434     25.628  53.742  25.653  1.00  0.69        N1+
ATOM   4196  NH2 ARG A 434     23.713  52.463  25.461  1.00  0.69        N
ATOM   4197  HN  ARG A 434     24.013  51.731  31.702  1.00  0.00        H
ATOM   4198  HE  ARG A 434     24.861  51.023  27.189  1.00  0.00        H
ATOM   4199 1HH1 ARG A 434     26.523  53.944  26.098  1.00  0.00        H
ATOM   4200 2HH1 ARG A 434     25.355  54.322  24.860  1.00  0.00        H
ATOM   4201 1HH2 ARG A 434     23.132  51.679  25.758  1.00  0.00        H
ATOM   4202 2HH2 ARG A 434     23.440  53.043  24.668  1.00  0.00        H
ATOM   4203  N   MET A 435     25.869  53.656  33.546  1.00  0.85        N
ATOM   4204  CA  MET A 435     26.221  54.499  34.665  1.00  0.85        C
ATOM   4205  C   MET A 435     26.642  53.662  35.866  1.00  0.85        C
ATOM   4206  O   MET A 435     27.660  53.931  36.504  1.00  0.85        O
ATOM   4207  CB  MET A 435     24.991  55.364  34.990  1.00  0.85        C
ATOM   4208  CG  MET A 435     25.158  56.334  36.162  1.00  0.85        C
ATOM   4209  SD  MET A 435     23.615  57.168  36.649  1.00  0.85        S
ATOM   4210  CE  MET A 435     22.836  55.665  37.288  1.00  0.85        C
ATOM   4211  HN  MET A 435     24.923  53.727  33.170  1.00  0.00        H
ATOM   4212  N   PHE A 436     25.912  52.559  36.133  1.00  0.82        N
ATOM   4213  CA  PHE A 436     26.299  51.546  37.097  1.00  0.82        C
ATOM   4214  C   PHE A 436     27.653  50.891  36.780  1.00  0.82        C
ATOM   4215  O   PHE A 436     28.542  50.851  37.626  1.00  0.82        O
ATOM   4216  CB  PHE A 436     25.180  50.471  37.168  1.00  0.82        C
ATOM   4217  CG  PHE A 436     25.369  49.555  38.340  1.00  0.82        C
ATOM   4218  CD1 PHE A 436     25.049  50.004  39.628  1.00  0.82        C
ATOM   4219  CD2 PHE A 436     25.870  48.254  38.167  1.00  0.82        C
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ATOM 4220 CE1 PHE A 436 25.253 49.179 40.739 1.00 0.82 C
ATOM 4221 CE2 PHE A 436 26.064 47.420 39.275 1.00 0.82 C
ATOM 4222 CZ PHE A 436 25.772 47.892 40.561 1.00 0.82 C
ATOM 4223 HN PHE A 436 25.036 52.430 35.627 1.00 0.00 H
ATOM 4224 N ASN A 437 27.877 50.439 35.527 1.00 0.78 N
ATOM 4225 CA ASN A 437 29.153 49.892 35.075 1.00 0.78 C
ATOM 4226 C ASN A 437 30.302 50.893 35.161 1.00 0.78 C
ATOM 4227 O ASN A 437 31.389 50.565 35.623 1.00 0.78 O
ATOM 4228 CB ASN A 437 29.070 49.365 33.613 1.00 0.78 C
ATOM 4229 CG ASN A 437 28.248 48.084 33.556 1.00 0.78 C
ATOM 4230 ND2 ASN A 437 27.964 47.577 32.339 1.00 0.78 N
ATOM 4231 OD1 ASN A 437 27.883 47.502 34.583 1.00 0.78 O
ATOM 4232 HN ASN A 437 27.109 50.482 34.857 1.00 0.00 H
ATOM 4233 1HD2 ASN A 437 27.414 46.719 32.301 1.00 0.00 H
ATOM 4234 2HD2 ASN A 437 28.265 48.057 31.491 1.00 0.00 H
ATOM 4235 N TRP A 438 30.088 52.160 34.757 1.00 0.84 N
ATOM 4236 CA TRP A 438 31.053 53.235 34.876 1.00 0.84 C
ATOM 4237 C TRP A 438 31.419 53.502 36.325 1.00 0.84 C
ATOM 4238 O TRP A 438 32.595 53.612 36.657 1.00 0.84 O
ATOM 4239 CB TRP A 438 30.522 54.523 34.191 1.00 0.84 C
ATOM 4240 CG TRP A 438 31.521 55.667 34.110 1.00 0.84 C
ATOM 4241 CD1 TRP A 438 32.563 55.845 33.241 1.00 0.84 C
ATOM 4242 CD2 TRP A 438 31.565 56.774 35.028 1.00 0.84 C
ATOM 4243 CE2 TRP A 438 32.659 57.578 34.649 1.00 0.84 C
ATOM 4244 CE3 TRP A 438 30.762 57.109 36.118 1.00 0.84 C
ATOM 4245 NE1 TRP A 438 33.265 56.994 33.557 1.00 0.84 N
ATOM 4246 CZ2 TRP A 438 32.973 58.731 35.354 1.00 0.84 C
ATOM 4247 CZ3 TRP A 438 31.085 58.272 36.831 1.00 0.84 C
ATOM 4248 CH2 TRP A 438 32.175 59.067 36.458 1.00 0.84 C
ATOM 4249 HN TRP A 438 29.184 52.378 34.338 1.00 0.00 H
ATOM 4250 HE1 TRP A 438 34.087 57.347 33.068 1.00 0.00 H
ATOM 4251 N MET A 439 30.432 53.526 37.242 1.00 0.88 N
ATOM 4252 CA MET A 439 30.679 53.630 38.667 1.00 0.88 C
ATOM 4253 C MET A 439 31.530 52.487 39.214 1.00 0.88 C
ATOM 4254 O MET A 439 32.512 52.725 39.912 1.00 0.88 O
ATOM 4255 CB MET A 439 29.326 53.682 39.414 1.00 0.88 C
ATOM 4256 CG MET A 439 29.429 53.841 40.942 1.00 0.88 C
ATOM 4257 SD MET A 439 27.825 53.783 41.792 1.00 0.88 S
ATOM 4258 CE MET A 439 27.488 52.028 41.468 1.00 0.88 C
ATOM 4259 HN MET A 439 29.466 53.468 36.919 1.00 0.00 H
ATOM 4260 N VAL A 440 31.229 51.222 38.853 1.00 0.89 N
ATOM 4261 CA VAL A 440 32.039 50.064 39.222 1.00 0.89 C
ATOM 4262 C VAL A 440 33.453 50.129 38.650 1.00 0.89 C
ATOM 4263 O VAL A 440 34.434 49.922 39.360 1.00 0.89 O

ATOM 4264 CB VAL A 440 31.354 48.771 38.791 1.00 0.89 C
ATOM 4265 CG1 VAL A 440 32.226 47.533 39.086 1.00 0.89 C
ATOM 4266 CG2 VAL A 440 30.013 48.627 39.537 1.00 0.89 C
ATOM 4267 HN VAL A 440 30.391 51.066 38.293 1.00 0.00 H
ATOM 4268 N THR A 441 33.610 50.489 37.361 1.00 0.83 N
ATOM 4269 CA THR A 441 34.905 50.682 36.707 1.00 0.83 C
ATOM 4270 C THR A 441 35.732 51.787 37.348 1.00 0.83 C
ATOM 4271 O THR A 441 36.928 51.627 37.580 1.00 0.83 O
ATOM 4272 CB THR A 441 34.751 50.963 35.214 1.00 0.83 C
ATOM 4273 CG2 THR A 441 36.095 51.195 34.508 1.00 0.83 C
ATOM 4274 OG1 THR A 441 34.173 49.834 34.576 1.00 0.83 O
ATOM 4275 HN THR A 441 32.769 50.637 36.803 1.00 0.00 H
ATOM 4276 HG1 THR A 441 33.342 49.690 35.013 1.00 0.00 H
ATOM 4277 N ARG A 442 35.119 52.941 37.701 1.00 0.78 N
ATOM 4278 CA ARG A 442 35.784 53.996 38.457 1.00 0.78 C
ATOM 4279 C ARG A 442 36.212 53.552 39.854 1.00 0.78 C
ATOM 4280 O ARG A 442 37.344 53.803 40.262 1.00 0.78 O
ATOM 4281 CB ARG A 442 34.894 55.264 38.576 1.00 0.78 C
ATOM 4282 CG ARG A 442 34.613 56.006 37.248 1.00 0.78 C
ATOM 4283 CD ARG A 442 35.807 56.695 36.575 1.00 0.78 C
ATOM 4284 NE ARG A 442 36.163 57.916 37.364 1.00 0.78 N
ATOM 4285 CZ ARG A 442 37.380 58.466 37.435 1.00 0.78 C
ATOM 4286 NH1 ARG A 442 37.513 59.637 38.052 1.00 0.78 N1+
ATOM 4287 NH2 ARG A 442 38.440 57.910 36.857 1.00 0.78 N
ATOM 4288 HN ARG A 442 34.147 53.079 37.425 1.00 0.00 H
ATOM 4289 HE ARG A 442 35.415 58.366 37.892 1.00 0.00 H
ATOM 4290 1HH1 ARG A 442 38.441 60.056 38.106 1.00 0.00 H
ATOM 4291 2HH1 ARG A 442 36.700 60.064 38.496 1.00 0.00 H
ATOM 4292 1HH2 ARG A 442 39.368 58.329 36.911 1.00 0.00 H
ATOM 4293 2HH2 ARG A 442 38.338 57.012 36.384 1.00 0.00 H
ATOM 4294 N ILE A 443 35.347 52.832 40.603 1.00 0.84 N
ATOM 4295 CA ILE A 443 35.695 52.268 41.905 1.00 0.84 C
ATOM 4296 C ILE A 443 36.826 51.251 41.809 1.00 0.84 C
ATOM 4297 O ILE A 443 37.801 51.332 42.551 1.00 0.84 O
ATOM 4298 CB ILE A 443 34.472 51.660 42.602 1.00 0.84 C
ATOM 4299 CG1 ILE A 443 33.479 52.782 42.986 1.00 0.84 C
ATOM 4300 CG2 ILE A 443 34.884 50.858 43.860 1.00 0.84 C
ATOM 4301 CD1 ILE A 443 32.100 52.264 43.414 1.00 0.84 C
ATOM 4302 HN ILE A 443 34.406 52.675 40.242 1.00 0.00 H
ATOM 4303 N ASN A 444 36.772 50.309 40.844 1.00 0.83 N
ATOM 4304 CA ASN A 444 37.826 49.330 40.625 1.00 0.83 C
ATOM 4305 C ASN A 444 39.155 49.972 40.250 1.00 0.83 C
ATOM 4306 O ASN A 444 40.191 49.565 40.754 1.00 0.83 O
ATOM 4307 CB ASN A 444 37.439 48.277 39.552 1.00 0.83 C

ATOM 4308 CG ASN A 444 36.369 47.330 40.084 1.00 0.83 C
ATOM 4309 ND2 ASN A 444 35.800 46.505 39.178 1.00 0.83 N
ATOM 4310 OD1 ASN A 444 36.058 47.291 41.278 1.00 0.83 O
ATOM 4311 HN ASN A 444 35.952 50.282 40.238 1.00 0.00 H
ATOM 4312 1HD2 ASN A 444 35.084 45.871 39.534 1.00 0.00 H
ATOM 4313 2HD2 ASN A 444 36.057 46.537 38.191 1.00 0.00 H
ATOM 4314 N ALA A 445 39.166 51.030 39.413 1.00 0.83 N
ATOM 4315 CA ALA A 445 40.370 51.788 39.116 1.00 0.83 C
ATOM 4316 C ALA A 445 41.014 52.455 40.337 1.00 0.83 C
ATOM 4317 O ALA A 445 42.231 52.443 40.487 1.00 0.83 O
ATOM 4318 CB ALA A 445 40.065 52.842 38.032 1.00 0.83 C
ATOM 4319 HN ALA A 445 38.291 51.310 38.969 1.00 0.00 H
ATOM 4320 N THR A 446 40.219 53.027 41.269 1.00 0.80 N
ATOM 4321 CA THR A 446 40.733 53.503 42.561 1.00 0.80 C
ATOM 4322 C THR A 446 41.304 52.383 43.422 1.00 0.80 C
ATOM 4323 O THR A 446 42.355 52.523 44.047 1.00 0.80 O
ATOM 4324 CB THR A 446 39.674 54.232 43.397 1.00 0.80 C
ATOM 4325 CG2 THR A 446 40.174 54.628 44.795 1.00 0.80 C
ATOM 4326 OG1 THR A 446 39.296 55.449 42.772 1.00 0.80 O
ATOM 4327 HN THR A 446 39.225 53.132 41.068 1.00 0.00 H
ATOM 4328 HG1 THR A 446 38.987 55.204 41.908 1.00 0.00 H
ATOM 4329 N LEU A 447 40.622 51.222 43.491 1.00 0.79 N
ATOM 4330 CA LEU A 447 41.043 50.120 44.341 1.00 0.79 C
ATOM 4331 C LEU A 447 42.160 49.263 43.750 1.00 0.79 C
ATOM 4332 O LEU A 447 42.840 48.545 44.488 1.00 0.79 O
ATOM 4333 CB LEU A 447 39.834 49.224 44.716 1.00 0.79 C
ATOM 4334 CG LEU A 447 38.676 49.964 45.422 1.00 0.79 C
ATOM 4335 CD1 LEU A 447 37.509 49.005 45.699 1.00 0.79 C
ATOM 4336 CD2 LEU A 447 39.115 50.663 46.715 1.00 0.79 C
ATOM 4337 HN LEU A 447 39.780 51.113 42.926 1.00 0.00 H
ATOM 4338 N GLU A 448 42.413 49.336 42.429 1.00 0.74 N
ATOM 4339 CA GLU A 448 43.472 48.628 41.734 1.00 0.74 C
ATOM 4340 C GLU A 448 44.784 49.386 41.799 1.00 0.74 C
ATOM 4341 O GLU A 448 45.093 50.283 41.017 1.00 0.74 O
ATOM 4342 CB GLU A 448 43.095 48.333 40.267 1.00 0.74 C
ATOM 4343 CG GLU A 448 44.153 47.508 39.501 1.00 0.74 C
ATOM 4344 CD GLU A 448 43.528 46.760 38.335 1.00 0.74 C
ATOM 4345 OE1 GLU A 448 43.078 47.394 37.356 1.00 0.74 O
ATOM 4346 OE2 GLU A 448 43.516 45.499 38.443 1.00 0.74 O1-
ATOM 4347 HN GLU A 448 41.810 49.940 41.870 1.00 0.00 H
ATOM 4348 N THR A 449 45.610 49.033 42.795 1.00 0.74 N
ATOM 4349 CA THR A 449 46.808 49.781 43.132 1.00 0.74 C
ATOM 4350 C THR A 449 48.054 48.926 42.997 1.00 0.74 C
ATOM 4351 O THR A 449 48.016 47.752 42.643 1.00 0.74 O

ATOM 4352 CB THR A 449 46.744 50.413 44.522 1.00 0.74 C
ATOM 4353 CG2 THR A 449 45.475 51.267 44.648 1.00 0.74 C
ATOM 4354 OG1 THR A 449 46.707 49.430 45.544 1.00 0.74 O
ATOM 4355 HN THR A 449 45.386 48.201 43.341 1.00 0.00 H
ATOM 4356 HG1 THR A 449 47.492 48.901 45.466 1.00 0.00 H
ATOM 4357 N LYS A 450 49.235 49.528 43.250 1.00 0.64 N
ATOM 4358 CA LYS A 450 50.527 48.946 42.934 1.00 0.64 C
ATOM 4359 C LYS A 450 51.117 48.133 44.078 1.00 0.64 C
ATOM 4360 O LYS A 450 52.290 47.768 44.055 1.00 0.64 O
ATOM 4361 CB LYS A 450 51.534 50.085 42.627 1.00 0.64 C
ATOM 4362 CG LYS A 450 51.174 50.967 41.421 1.00 0.64 C
ATOM 4363 CD LYS A 450 52.192 52.111 41.260 1.00 0.64 C
ATOM 4364 CE LYS A 450 51.958 52.970 40.014 1.00 0.64 C
ATOM 4365 NZ LYS A 450 52.975 54.045 39.946 1.00 0.64 N1+
ATOM 4366 HN LYS A 450 49.219 50.448 43.690 1.00 0.00 H
ATOM 4367 HZ1 LYS A 450 52.819 54.617 39.116 1.00 0.00 H
ATOM 4368 HZ2 LYS A 450 53.925 53.676 39.984 1.00 0.00 H
ATOM 4369 HZ3 LYS A 450 52.999 54.605 40.798 1.00 0.00 H
ATOM 4370 N GLN A 451 50.327 47.840 45.125 1.00 0.65 N
ATOM 4371 CA GLN A 451 50.746 46.962 46.201 1.00 0.65 C
ATOM 4372 C GLN A 451 50.760 45.497 45.767 1.00 0.65 C
ATOM 4373 O GLN A 451 50.033 45.157 44.831 1.00 0.65 O
ATOM 4374 CB GLN A 451 49.842 47.149 47.439 1.00 0.65 C
ATOM 4375 CG GLN A 451 49.938 48.552 48.079 1.00 0.65 C
ATOM 4376 CD GLN A 451 51.367 48.854 48.532 1.00 0.65 C
ATOM 4377 NE2 GLN A 451 51.833 50.100 48.291 1.00 0.65 N
ATOM 4378 OE1 GLN A 451 52.072 48.005 49.082 1.00 0.65 O
ATOM 4379 HN GLN A 451 49.395 48.252 45.165 1.00 0.00 H
ATOM 4380 1HE2 GLN A 451 52.786 50.301 48.593 1.00 0.00 H
ATOM 4381 2HE2 GLN A 451 51.250 50.802 47.836 1.00 0.00 H
ATOM 4382 N PRO A 452 51.558 44.587 46.349 1.00 0.72 N
ATOM 4383 CA PRO A 452 51.675 43.215 45.862 1.00 0.72 C
ATOM 4384 C PRO A 452 50.354 42.474 45.721 1.00 0.72 C
ATOM 4385 O PRO A 452 49.685 42.221 46.716 1.00 0.72 O
ATOM 4386 CB PRO A 452 52.595 42.526 46.889 1.00 0.72 C
ATOM 4387 CG PRO A 452 53.437 43.667 47.464 1.00 0.72 C
ATOM 4388 CD PRO A 452 52.462 44.846 47.475 1.00 0.72 C
ATOM 4389 N ARG A 453 49.988 42.051 44.502 1.00 0.68 N
ATOM 4390 CA ARG A 453 48.796 41.262 44.273 1.00 0.68 C
ATOM 4391 C ARG A 453 49.232 39.817 44.150 1.00 0.68 C
ATOM 4392 O ARG A 453 49.797 39.412 43.136 1.00 0.68 O
ATOM 4393 CB ARG A 453 48.080 41.766 42.995 1.00 0.68 C
ATOM 4394 CG ARG A 453 46.802 40.998 42.597 1.00 0.68 C
ATOM 4395 CD ARG A 453 46.080 41.617 41.394 1.00 0.68 C

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ATOM   4396  NE  ARG A 453     45.303  42.805  41.869  1.00  0.68        N
ATOM   4397  CZ  ARG A 453     44.657  43.617  41.025  1.00  0.68        C
ATOM   4398  NH1 ARG A 453     43.793  44.519  41.466  1.00  0.68        N1+
ATOM   4399  NH2 ARG A 453     44.851  43.551  39.715  1.00  0.68        N
ATOM   4400  HN  ARG A 453     50.574  42.295  43.703  1.00  0.00        H
ATOM   4401  HE  ARG A 453     45.265  43.002  42.869  1.00  0.00        H
ATOM   4402 1HH1 ARG A 453     43.300  45.138  40.822  1.00  0.00        H
ATOM   4403 2HH1 ARG A 453     43.644  44.570  42.474  1.00  0.00        H
ATOM   4404 1HH2 ARG A 453     44.358  44.170  39.071  1.00  0.00        H
ATOM   4405 2HH2 ARG A 453     45.516  42.856  39.375  1.00  0.00        H
ATOM   4406  N   GLN A 454     49.039  39.024  45.221  1.00  0.71        N
ATOM   4407  CA  GLN A 454     49.612  37.690  45.310  1.00  0.71        C
ATOM   4408  C   GLN A 454     48.549  36.649  45.600  1.00  0.71        C
ATOM   4409  O   GLN A 454     48.551  35.570  45.017  1.00  0.71        O
ATOM   4410  CB  GLN A 454     50.637  37.658  46.472  1.00  0.71        C
ATOM   4411  CG  GLN A 454     51.843  38.607  46.268  1.00  0.71        C
ATOM   4412  CD  GLN A 454     52.910  38.005  45.356  1.00  0.71        C
ATOM   4413  NE2 GLN A 454     53.243  38.705  44.252  1.00  0.71        N
ATOM   4414  OE1 GLN A 454     53.481  36.956  45.654  1.00  0.71        O
ATOM   4415  HN  GLN A 454     48.472  39.370  45.995  1.00  0.00        H
ATOM   4416 1HE2 GLN A 454     52.770  39.574  44.005  1.00  0.00        H
ATOM   4417 2HE2 GLN A 454     53.956  38.303  43.643  1.00  0.00        H
ATOM   4418  N   TYR A 455     47.584  36.974  46.481  1.00  0.76        N
ATOM   4419  CA  TYR A 455     46.518  36.061  46.851  1.00  0.76        C
ATOM   4420  C   TYR A 455     45.222  36.837  46.898  1.00  0.76        C
ATOM   4421  O   TYR A 455     45.226  38.059  47.024  1.00  0.76        O
ATOM   4422  CB  TYR A 455     46.712  35.443  48.264  1.00  0.76        C
ATOM   4423  CG  TYR A 455     48.026  34.735  48.388  1.00  0.76        C
ATOM   4424  CD1 TYR A 455     48.256  33.524  47.714  1.00  0.76        C
ATOM   4425  CD2 TYR A 455     49.049  35.284  49.179  1.00  0.76        C
ATOM   4426  CE1 TYR A 455     49.505  32.890  47.803  1.00  0.76        C
ATOM   4427  CE2 TYR A 455     50.293  34.646  49.274  1.00  0.76        C
ATOM   4428  CZ  TYR A 455     50.523  33.455  48.578  1.00  0.76        C
ATOM   4429  OH  TYR A 455     51.792  32.845  48.646  1.00  0.76        O
ATOM   4430  HN  TYR A 455     47.603  37.901  46.906  1.00  0.00        H
ATOM   4431  HH  TYR A 455     52.483  33.229  49.172  1.00  0.00        H
ATOM   4432  N   PHE A 456     44.067  36.152  46.838  1.00  0.82        N
ATOM   4433  CA  PHE A 456     42.797  36.800  47.079  1.00  0.82        C
ATOM   4434  C   PHE A 456     41.861  35.933  47.901  1.00  0.82        C
ATOM   4435  O   PHE A 456     41.950  34.704  47.948  1.00  0.82        O
ATOM   4436  CB  PHE A 456     42.106  37.345  45.785  1.00  0.82        C
ATOM   4437  CG  PHE A 456     41.543  36.275  44.887  1.00  0.82        C
ATOM   4438  CD1 PHE A 456     42.328  35.690  43.884  1.00  0.82        C
ATOM   4439  CD2 PHE A 456     40.216  35.843  45.053  1.00  0.82        C
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ATOM 4440 CE1 PHE A 456 41.803 34.676 43.071 1.00 0.82 C
ATOM 4441 CE2 PHE A 456 39.692 34.819 44.257 1.00 0.82 C
ATOM 4442 CZ PHE A 456 40.487 34.235 43.263 1.00 0.82 C
ATOM 4443 HN PHE A 456 44.087 35.156 46.618 1.00 0.00 H
ATOM 4444 N ILE A 457 40.903 36.599 48.567 1.00 0.84 N
ATOM 4445 CA ILE A 457 39.761 35.958 49.182 1.00 0.84 C
ATOM 4446 C ILE A 457 38.545 36.567 48.524 1.00 0.84 C
ATOM 4447 O ILE A 457 38.339 37.781 48.535 1.00 0.84 O
ATOM 4448 CB ILE A 457 39.732 36.078 50.701 1.00 0.84 C
ATOM 4449 CG1 ILE A 457 41.011 35.401 51.255 1.00 0.84 C
ATOM 4450 CG2 ILE A 457 38.438 35.437 51.255 1.00 0.84 C
ATOM 4451 CD1 ILE A 457 41.194 35.468 52.769 1.00 0.84 C
ATOM 4452 HN ILE A 457 40.985 37.613 48.643 1.00 0.00 H
ATOM 4453 N GLY A 458 37.742 35.718 47.854 1.00 0.96 N
ATOM 4454 CA GLY A 458 36.624 36.149 47.032 1.00 0.96 C
ATOM 4455 C GLY A 458 35.308 35.956 47.717 1.00 0.96 C
ATOM 4456 O GLY A 458 34.919 34.834 48.027 1.00 0.96 O
ATOM 4457 HN GLY A 458 37.929 34.718 47.928 1.00 0.00 H
ATOM 4458 N VAL A 459 34.557 37.036 47.950 1.00 0.93 N
ATOM 4459 CA VAL A 459 33.293 36.965 48.661 1.00 0.93 C
ATOM 4460 C VAL A 459 32.157 37.082 47.668 1.00 0.93 C
ATOM 4461 O VAL A 459 32.048 38.063 46.932 1.00 0.93 O
ATOM 4462 CB VAL A 459 33.168 38.035 49.733 1.00 0.93 C
ATOM 4463 CG1 VAL A 459 31.957 37.726 50.636 1.00 0.93 C
ATOM 4464 CG2 VAL A 459 34.463 38.060 50.569 1.00 0.93 C
ATOM 4465 HN VAL A 459 34.883 37.943 47.616 1.00 0.00 H
ATOM 4466 N LEU A 460 31.294 36.052 47.598 1.00 0.91 N
ATOM 4467 CA LEU A 460 30.216 35.997 46.633 1.00 0.91 C
ATOM 4468 C LEU A 460 28.896 36.406 47.247 1.00 0.91 C
ATOM 4469 O LEU A 460 28.418 35.800 48.206 1.00 0.91 O
ATOM 4470 CB LEU A 460 30.066 34.575 46.044 1.00 0.91 C
ATOM 4471 CG LEU A 460 29.004 34.437 44.931 1.00 0.91 C
ATOM 4472 CD1 LEU A 460 29.360 35.249 43.676 1.00 0.91 C
ATOM 4473 CD2 LEU A 460 28.790 32.963 44.565 1.00 0.91 C
ATOM 4474 HN LEU A 460 31.404 35.277 48.252 1.00 0.00 H
ATOM 4475 N ASP A 461 28.269 37.435 46.653 1.00 0.88 N
ATOM 4476 CA ASP A 461 26.990 37.947 47.066 1.00 0.88 C
ATOM 4477 C ASP A 461 26.125 38.062 45.818 1.00 0.88 C
ATOM 4478 O ASP A 461 26.195 39.025 45.054 1.00 0.88 O
ATOM 4479 CB ASP A 461 27.252 39.322 47.720 1.00 0.88 C
ATOM 4480 CG ASP A 461 26.042 39.893 48.423 1.00 0.88 C
ATOM 4481 OD1 ASP A 461 25.140 39.133 48.841 1.00 0.88 O
ATOM 4482 OD2 ASP A 461 26.042 41.144 48.582 1.00 0.88 O1-
ATOM 4483 HN ASP A 461 28.729 37.881 45.859 1.00 0.00 H

ATOM 4484 N ILE A 462 25.290 37.045 45.550 1.00 0.81 N
ATOM 4485 CA ILE A 462 24.414 37.035 44.391 1.00 0.81 C
ATOM 4486 C ILE A 462 23.064 37.625 44.748 1.00 0.81 C
ATOM 4487 O ILE A 462 22.677 37.704 45.913 1.00 0.81 O
ATOM 4488 CB ILE A 462 24.226 35.641 43.785 1.00 0.81 C
ATOM 4489 CG1 ILE A 462 23.662 34.615 44.800 1.00 0.81 C
ATOM 4490 CG2 ILE A 462 25.582 35.185 43.206 1.00 0.81 C
ATOM 4491 CD1 ILE A 462 23.262 33.284 44.153 1.00 0.81 C
ATOM 4492 HN ILE A 462 25.270 36.248 46.186 1.00 0.00 H
ATOM 4493 N ALA A 463 22.247 38.026 43.750 1.00 0.80 N
ATOM 4494 CA ALA A 463 20.825 38.178 43.993 1.00 0.80 C
ATOM 4495 C ALA A 463 20.217 36.831 44.398 1.00 0.80 C
ATOM 4496 O ALA A 463 20.483 35.799 43.784 1.00 0.80 O
ATOM 4497 CB ALA A 463 20.111 38.764 42.764 1.00 0.80 C
ATOM 4498 HN ALA A 463 22.630 38.222 42.825 1.00 0.00 H
ATOM 4499 N GLY A 464 19.448 36.789 45.504 1.00 0.83 N
ATOM 4500 CA GLY A 464 19.003 35.512 46.052 1.00 0.83 C
ATOM 4501 C GLY A 464 17.763 35.013 45.401 1.00 0.83 C
ATOM 4502 O GLY A 464 17.050 35.776 44.765 1.00 0.83 O
ATOM 4503 HN GLY A 464 19.174 37.658 45.962 1.00 0.00 H
ATOM 4504 N PHE A 465 17.454 33.720 45.615 1.00 0.82 N
ATOM 4505 CA PHE A 465 16.250 33.071 45.130 1.00 0.82 C
ATOM 4506 C PHE A 465 14.985 33.863 45.462 1.00 0.82 C
ATOM 4507 O PHE A 465 14.790 34.311 46.594 1.00 0.82 O
ATOM 4508 CB PHE A 465 16.194 31.623 45.696 1.00 0.82 C
ATOM 4509 CG PHE A 465 15.185 30.765 44.988 1.00 0.82 C
ATOM 4510 CD1 PHE A 465 13.871 30.673 45.472 1.00 0.82 C
ATOM 4511 CD2 PHE A 465 15.546 30.026 43.850 1.00 0.82 C
ATOM 4512 CE1 PHE A 465 12.928 29.872 44.818 1.00 0.82 C
ATOM 4513 CE2 PHE A 465 14.605 29.222 43.194 1.00 0.82 C
ATOM 4514 CZ PHE A 465 13.292 29.148 43.676 1.00 0.82 C
ATOM 4515 HN PHE A 465 18.112 33.158 46.155 1.00 0.00 H
ATOM 4516 N GLU A 466 14.124 34.105 44.463 1.00 0.75 N
ATOM 4517 CA GLU A 466 12.987 34.970 44.666 1.00 0.75 C
ATOM 4518 C GLU A 466 11.805 34.536 43.832 1.00 0.75 C
ATOM 4519 O GLU A 466 11.919 34.117 42.680 1.00 0.75 O
ATOM 4520 CB GLU A 466 13.325 36.472 44.447 1.00 0.75 C
ATOM 4521 CG GLU A 466 13.744 36.882 43.017 1.00 0.75 C
ATOM 4522 CD GLU A 466 14.105 38.359 42.913 1.00 0.75 C
ATOM 4523 OE1 GLU A 466 14.430 39.018 43.942 1.00 0.75 O
ATOM 4524 OE2 GLU A 466 14.052 38.889 41.771 1.00 0.75 O1-
ATOM 4525 HN GLU A 466 14.274 33.674 43.551 1.00 0.00 H
ATOM 4526 N ILE A 467 10.611 34.603 44.450 1.00 0.76 N
ATOM 4527 CA ILE A 467 9.351 34.287 43.805 1.00 0.76 C

ATOM 4528 C ILE A 467 8.410 35.444 44.046 1.00 0.76 C
ATOM 4529 O ILE A 467 8.187 35.860 45.189 1.00 0.76 O
ATOM 4530 CB ILE A 467 8.684 33.005 44.316 1.00 0.76 C
ATOM 4531 CG1 ILE A 467 9.686 31.827 44.312 1.00 0.76 C
ATOM 4532 CG2 ILE A 467 7.444 32.690 43.441 1.00 0.76 C
ATOM 4533 CD1 ILE A 467 9.079 30.494 44.772 1.00 0.76 C
ATOM 4534 HN ILE A 467 10.591 34.893 45.428 1.00 0.00 H
ATOM 4535 N PHE A 468 7.834 35.980 42.966 1.00 0.65 N
ATOM 4536 CA PHE A 468 6.825 37.014 42.994 1.00 0.65 C
ATOM 4537 C PHE A 468 5.596 36.484 42.281 1.00 0.65 C
ATOM 4538 O PHE A 468 5.621 35.416 41.670 1.00 0.65 O
ATOM 4539 CB PHE A 468 7.296 38.295 42.248 1.00 0.65 C
ATOM 4540 CG PHE A 468 8.601 38.816 42.786 1.00 0.65 C
ATOM 4541 CD1 PHE A 468 8.755 39.123 44.149 1.00 0.65 C
ATOM 4542 CD2 PHE A 468 9.683 39.030 41.917 1.00 0.65 C
ATOM 4543 CE1 PHE A 468 9.969 39.629 44.636 1.00 0.65 C
ATOM 4544 CE2 PHE A 468 10.896 39.528 42.402 1.00 0.65 C
ATOM 4545 CZ PHE A 468 11.041 39.831 43.760 1.00 0.65 C
ATOM 4546 HN PHE A 468 8.129 35.633 42.053 1.00 0.00 H
ATOM 4547 N ASP A 469 4.484 37.239 42.326 1.00 0.64 N
ATOM 4548 CA ASP A 469 3.244 36.969 41.617 1.00 0.64 C
ATOM 4549 C ASP A 469 3.471 36.884 40.103 1.00 0.64 C
ATOM 4550 O ASP A 469 2.908 36.059 39.380 1.00 0.64 O
ATOM 4551 CB ASP A 469 2.238 38.116 41.922 1.00 0.64 C
ATOM 4552 CG ASP A 469 1.969 38.304 43.411 1.00 0.64 C
ATOM 4553 OD1 ASP A 469 2.443 37.482 44.234 1.00 0.64 O
ATOM 4554 OD2 ASP A 469 1.313 39.327 43.731 1.00 0.64 O1-
ATOM 4555 HN ASP A 469 4.513 38.075 42.909 1.00 0.00 H
ATOM 4556 N PHE A 470 4.369 37.748 39.595 1.00 0.60 N
ATOM 4557 CA PHE A 470 4.797 37.760 38.216 1.00 0.60 C
ATOM 4558 C PHE A 470 6.304 37.563 38.178 1.00 0.60 C
ATOM 4559 O PHE A 470 7.067 38.440 38.572 1.00 0.60 O
ATOM 4560 CB PHE A 470 4.457 39.104 37.512 1.00 0.60 C
ATOM 4561 CG PHE A 470 3.011 39.461 37.720 1.00 0.60 C
ATOM 4562 CD1 PHE A 470 2.660 40.374 38.728 1.00 0.60 C
ATOM 4563 CD2 PHE A 470 1.992 38.855 36.965 1.00 0.60 C
ATOM 4564 CE1 PHE A 470 1.319 40.677 38.986 1.00 0.60 C
ATOM 4565 CE2 PHE A 470 0.646 39.162 37.218 1.00 0.60 C
ATOM 4566 CZ PHE A 470 0.311 40.073 38.226 1.00 0.60 C
ATOM 4567 HN PHE A 470 4.774 38.440 40.226 1.00 0.00 H
ATOM 4568 N ASN A 471 6.776 36.406 37.677 1.00 0.74 N
ATOM 4569 CA ASN A 471 8.196 36.125 37.532 1.00 0.74 C
ATOM 4570 C ASN A 471 8.547 36.201 36.058 1.00 0.74 C
ATOM 4571 O ASN A 471 7.831 35.657 35.221 1.00 0.74 O

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ATOM   4572  CB  ASN A 471      8.559  34.711  38.055  1.00  0.74        C
ATOM   4573  CG  ASN A 471      8.096  34.578  39.498  1.00  0.74        C
ATOM   4574  ND2 ASN A 471      7.018  33.795  39.720  1.00  0.74        N
ATOM   4575  OD1 ASN A 471      8.669  35.178  40.407  1.00  0.74        O
ATOM   4576  HN  ASN A 471      6.107  35.693  37.386  1.00  0.00        H
ATOM   4577 1HD2 ASN A 471      6.708  33.706  40.688  1.00  0.00        H
ATOM   4578 2HD2 ASN A 471      6.543  33.298  38.967  1.00  0.00        H
ATOM   4579  N   SER A 472      9.635  36.900  35.690  1.00  0.78        N
ATOM   4580  CA  SER A 472     10.016  37.099  34.298  1.00  0.78        C
ATOM   4581  C   SER A 472     11.399  36.512  34.051  1.00  0.78        C
ATOM   4582  O   SER A 472     11.869  35.647  34.789  1.00  0.78        O
ATOM   4583  CB  SER A 472      9.935  38.610  33.939  1.00  0.78        C
ATOM   4584  OG  SER A 472      9.880  38.861  32.526  1.00  0.78        O
ATOM   4585  HN  SER A 472     10.220  37.309  36.418  1.00  0.00        H
ATOM   4586  HG  SER A 472      9.831  39.784  32.307  1.00  0.00        H
ATOM   4587  N   PHE A 473     12.081  36.946  32.978  1.00  0.74        N
ATOM   4588  CA  PHE A 473     13.380  36.474  32.533  1.00  0.74        C
ATOM   4589  C   PHE A 473     14.473  36.684  33.572  1.00  0.74        C
ATOM   4590  O   PHE A 473     15.288  35.801  33.845  1.00  0.74        O
ATOM   4591  CB  PHE A 473     13.680  37.232  31.211  1.00  0.74        C
ATOM   4592  CG  PHE A 473     15.032  36.929  30.637  1.00  0.74        C
ATOM   4593  CD1 PHE A 473     15.393  35.618  30.294  1.00  0.74        C
ATOM   4594  CD2 PHE A 473     15.969  37.962  30.490  1.00  0.74        C
ATOM   4595  CE1 PHE A 473     16.686  35.338  29.832  1.00  0.74        C
ATOM   4596  CE2 PHE A 473     17.255  37.687  30.019  1.00  0.74        C
ATOM   4597  CZ  PHE A 473     17.617  36.375  29.694  1.00  0.74        C
ATOM   4598  HN  PHE A 473     11.643  37.680  32.421  1.00  0.00        H
ATOM   4599  N   GLU A 474     14.466  37.856  34.223  1.00  0.75        N
ATOM   4600  CA  GLU A 474     15.369  38.240  35.278  1.00  0.75        C
ATOM   4601  C   GLU A 474     15.297  37.287  36.462  1.00  0.75        C
ATOM   4602  O   GLU A 474     16.317  36.808  36.950  1.00  0.75        O
ATOM   4603  CB  GLU A 474     15.065  39.692  35.745  1.00  0.75        C
ATOM   4604  CG  GLU A 474     15.165  40.773  34.628  1.00  0.75        C
ATOM   4605  CD  GLU A 474     13.874  41.016  33.860  1.00  0.75        C
ATOM   4606  OE1 GLU A 474     13.176  40.048  33.463  1.00  0.75        O
ATOM   4607  OE2 GLU A 474     13.513  42.194  33.606  1.00  0.75        O1-
ATOM   4608  HN  GLU A 474     13.758  38.537  33.947  1.00  0.00        H
ATOM   4609  N   GLN A 475     14.077  36.906  36.895  1.00  0.76        N
ATOM   4610  CA  GLN A 475     13.868  35.904  37.927  1.00  0.76        C
ATOM   4611  C   GLN A 475     14.381  34.526  37.536  1.00  0.76        C
ATOM   4612  O   GLN A 475     14.954  33.826  38.366  1.00  0.76        O
ATOM   4613  CB  GLN A 475     12.384  35.795  38.363  1.00  0.76        C
ATOM   4614  CG  GLN A 475     11.893  36.944  39.277  1.00  0.76        C
ATOM   4615  CD  GLN A 475     11.910  38.291  38.558  1.00  0.76        C
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ATOM 4616 NE2 GLN A 475 12.619 39.282 39.146 1.00 0.76 N
ATOM 4617 OE1 GLN A 475 11.327 38.425 37.475 1.00 0.76 O
ATOM 4618 HN GLN A 475 13.257 37.345 36.475 1.00 0.00 H
ATOM 4619 1HE2 GLN A 475 12.630 40.182 38.666 1.00 0.00 H
ATOM 4620 2HE2 GLN A 475 13.100 39.172 40.039 1.00 0.00 H
ATOM 4621 N LEU A 476 14.230 34.088 36.262 1.00 0.83 N
ATOM 4622 CA LEU A 476 14.824 32.831 35.820 1.00 0.83 C
ATOM 4623 C LEU A 476 16.340 32.839 35.926 1.00 0.83 C
ATOM 4624 O LEU A 476 16.943 31.918 36.474 1.00 0.83 O
ATOM 4625 CB LEU A 476 14.436 32.467 34.357 1.00 0.83 C
ATOM 4626 CG LEU A 476 15.089 31.161 33.829 1.00 0.83 C
ATOM 4627 CD1 LEU A 476 14.751 29.964 34.722 1.00 0.83 C
ATOM 4628 CD2 LEU A 476 14.702 30.839 32.379 1.00 0.83 C
ATOM 4629 HN LEU A 476 13.691 34.647 35.601 1.00 0.00 H
ATOM 4630 N CYS A 477 16.993 33.918 35.460 1.00 0.89 N
ATOM 4631 CA CYS A 477 18.430 34.084 35.573 1.00 0.89 C
ATOM 4632 C CYS A 477 18.925 34.140 37.016 1.00 0.89 C
ATOM 4633 O CYS A 477 19.904 33.485 37.367 1.00 0.89 O
ATOM 4634 CB CYS A 477 18.889 35.334 34.787 1.00 0.89 C
ATOM 4635 SG CYS A 477 18.697 35.077 32.988 1.00 0.89 S
ATOM 4636 HN CYS A 477 16.453 34.654 35.006 1.00 0.00 H
ATOM 4637 N ILE A 478 18.227 34.874 37.911 1.00 0.80 N
ATOM 4638 CA ILE A 478 18.510 34.902 39.346 1.00 0.80 C
ATOM 4639 C ILE A 478 18.361 33.533 39.999 1.00 0.80 C
ATOM 4640 O ILE A 478 19.272 33.036 40.665 1.00 0.80 O
ATOM 4641 CB ILE A 478 17.600 35.918 40.050 1.00 0.80 C
ATOM 4642 CG1 ILE A 478 18.000 37.358 39.645 1.00 0.80 C
ATOM 4643 CG2 ILE A 478 17.624 35.751 41.589 1.00 0.80 C
ATOM 4644 CD1 ILE A 478 16.952 38.410 40.029 1.00 0.80 C
ATOM 4645 HN ILE A 478 17.455 35.444 37.564 1.00 0.00 H
ATOM 4646 N ASN A 479 17.226 32.845 39.776 1.00 0.82 N
ATOM 4647 CA ASN A 479 16.950 31.544 40.358 1.00 0.82 C
ATOM 4648 C ASN A 479 17.906 30.468 39.848 1.00 0.82 C
ATOM 4649 O ASN A 479 18.404 29.659 40.627 1.00 0.82 O
ATOM 4650 CB ASN A 479 15.452 31.181 40.187 1.00 0.82 C
ATOM 4651 CG ASN A 479 14.611 32.126 41.054 1.00 0.82 C
ATOM 4652 ND2 ASN A 479 13.323 32.318 40.702 1.00 0.82 N
ATOM 4653 OD1 ASN A 479 15.082 32.685 42.047 1.00 0.82 O
ATOM 4654 HN ASN A 479 16.522 33.260 39.165 1.00 0.00 H
ATOM 4655 1HD2 ASN A 479 12.764 32.947 41.279 1.00 0.00 H
ATOM 4656 2HD2 ASN A 479 12.933 31.856 39.881 1.00 0.00 H
ATOM 4657 N PHE A 480 18.272 30.492 38.548 1.00 0.83 N
ATOM 4658 CA PHE A 480 19.305 29.638 37.980 1.00 0.83 C
ATOM 4659 C PHE A 480 20.687 29.830 38.615 1.00 0.83 C

ATOM 4660 O PHE A 480 21.386 28.865 38.918 1.00 0.83 O
ATOM 4661 CB PHE A 480 19.376 29.855 36.440 1.00 0.83 C
ATOM 4662 CG PHE A 480 20.333 28.913 35.754 1.00 0.83 C
ATOM 4663 CD1 PHE A 480 20.318 27.538 36.043 1.00 0.83 C
ATOM 4664 CD2 PHE A 480 21.274 29.400 34.829 1.00 0.83 C
ATOM 4665 CE1 PHE A 480 21.250 26.680 35.456 1.00 0.83 C
ATOM 4666 CE2 PHE A 480 22.198 28.536 34.228 1.00 0.83 C
ATOM 4667 CZ PHE A 480 22.192 27.177 34.555 1.00 0.83 C
ATOM 4668 HN PHE A 480 17.796 31.147 37.928 1.00 0.00 H
ATOM 4669 N THR A 481 21.113 31.081 38.890 1.00 0.83 N
ATOM 4670 CA THR A 481 22.365 31.359 39.603 1.00 0.83 C
ATOM 4671 C THR A 481 22.374 30.745 40.994 1.00 0.83 C
ATOM 4672 O THR A 481 23.358 30.147 41.431 1.00 0.83 O
ATOM 4673 CB THR A 481 22.637 32.854 39.732 1.00 0.83 C
ATOM 4674 CG2 THR A 481 24.011 33.141 40.349 1.00 0.83 C
ATOM 4675 OG1 THR A 481 22.669 33.446 38.444 1.00 0.83 O
ATOM 4676 HN THR A 481 20.539 31.868 38.589 1.00 0.00 H
ATOM 4677 HG1 THR A 481 22.838 34.377 38.524 1.00 0.00 H
ATOM 4678 N ASN A 482 21.238 30.824 41.712 1.00 0.83 N
ATOM 4679 CA ASN A 482 21.047 30.162 42.995 1.00 0.83 C
ATOM 4680 C ASN A 482 21.085 28.630 42.909 1.00 0.83 C
ATOM 4681 O ASN A 482 21.742 27.978 43.719 1.00 0.83 O
ATOM 4682 CB ASN A 482 19.726 30.626 43.662 1.00 0.83 C
ATOM 4683 CG ASN A 482 19.868 32.029 44.241 1.00 0.83 C
ATOM 4684 ND2 ASN A 482 19.786 33.065 43.381 1.00 0.83 N
ATOM 4685 OD1 ASN A 482 20.024 32.208 45.454 1.00 0.83 O
ATOM 4686 HN ASN A 482 20.468 31.378 41.337 1.00 0.00 H
ATOM 4687 1HD2 ASN A 482 19.881 34.004 43.768 1.00 0.00 H
ATOM 4688 2HD2 ASN A 482 19.657 32.917 42.380 1.00 0.00 H
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ATOM 4690 CA GLU A 483 20.459 26.600 41.596 1.00 0.79 C
ATOM 4691 C GLU A 483 21.887 26.085 41.349 1.00 0.79 C
ATOM 4692 O GLU A 483 22.354 25.084 41.894 1.00 0.79 O
ATOM 4693 CB GLU A 483 19.589 26.373 40.327 1.00 0.79 C
ATOM 4694 CG GLU A 483 19.243 24.903 39.975 1.00 0.79 C
ATOM 4695 CD GLU A 483 18.048 24.304 40.719 1.00 0.79 C
ATOM 4696 OE1 GLU A 483 17.195 25.051 41.245 1.00 0.79 O
ATOM 4697 OE2 GLU A 483 17.944 23.055 40.739 1.00 0.79 O1-
ATOM 4698 HN GLU A 483 19.882 28.624 41.271 1.00 0.00 H
ATOM 4699 N LYS A 484 22.677 26.829 40.559 1.00 0.83 N
ATOM 4700 CA LYS A 484 24.088 26.573 40.334 1.00 0.83 C
ATOM 4701 C LYS A 484 24.972 26.704 41.571 1.00 0.83 C
ATOM 4702 O LYS A 484 25.866 25.885 41.785 1.00 0.83 O
ATOM 4703 CB LYS A 484 24.601 27.497 39.207 1.00 0.83 C

ATOM 4704 CG LYS A 484 24.038 27.110 37.829 1.00 0.83 C
ATOM 4705 CD LYS A 484 24.725 25.896 37.173 1.00 0.83 C
ATOM 4706 CE LYS A 484 26.188 26.126 36.775 1.00 0.83 C
ATOM 4707 NZ LYS A 484 26.655 25.022 35.905 1.00 0.83 N1+
ATOM 4708 HN LYS A 484 22.257 27.629 40.085 1.00 0.00 H
ATOM 4709 HZ1 LYS A 484 27.628 25.175 35.640 1.00 0.00 H
ATOM 4710 HZ2 LYS A 484 26.053 24.895 35.092 1.00 0.00 H
ATOM 4711 HZ3 LYS A 484 26.515 24.109 36.338 1.00 0.00 H
ATOM 4712 N LEU A 485 24.748 27.721 42.427 1.00 0.87 N
ATOM 4713 CA LEU A 485 25.450 27.866 43.694 1.00 0.87 C
ATOM 4714 C LEU A 485 25.157 26.744 44.692 1.00 0.87 C
ATOM 4715 O LEU A 485 26.061 26.208 45.336 1.00 0.87 O
ATOM 4716 CB LEU A 485 25.156 29.260 44.300 1.00 0.87 C
ATOM 4717 CG LEU A 485 25.975 29.637 45.556 1.00 0.87 C
ATOM 4718 CD1 LEU A 485 27.493 29.515 45.340 1.00 0.87 C
ATOM 4719 CD2 LEU A 485 25.627 31.066 46.002 1.00 0.87 C
ATOM 4720 HN LEU A 485 24.053 28.423 42.175 1.00 0.00 H
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ATOM 4722 CA GLN A 486 23.538 25.118 45.584 1.00 0.80 C
ATOM 4723 C GLN A 486 24.171 23.840 45.035 1.00 0.80 C
ATOM 4724 O GLN A 486 24.670 23.003 45.785 1.00 0.80 O
ATOM 4725 CB GLN A 486 22.004 24.962 45.690 1.00 0.80 C
ATOM 4726 CG GLN A 486 21.519 23.705 46.462 1.00 0.80 C
ATOM 4727 CD GLN A 486 21.964 23.695 47.923 1.00 0.80 C
ATOM 4728 NE2 GLN A 486 22.395 22.517 48.422 1.00 0.80 N
ATOM 4729 OE1 GLN A 486 21.927 24.705 48.632 1.00 0.80 O
ATOM 4730 HN GLN A 486 23.144 26.816 44.340 1.00 0.00 H
ATOM 4731 1HE2 GLN A 486 22.692 22.510 49.398 1.00 0.00 H
ATOM 4732 2HE2 GLN A 486 22.426 21.683 47.836 1.00 0.00 H
ATOM 4733 N GLN A 487 24.227 23.665 43.699 1.00 0.79 N
ATOM 4734 CA GLN A 487 24.949 22.555 43.100 1.00 0.79 C
ATOM 4735 C GLN A 487 26.449 22.572 43.375 1.00 0.79 C
ATOM 4736 O GLN A 487 27.067 21.529 43.572 1.00 0.79 O
ATOM 4737 CB GLN A 487 24.678 22.429 41.582 1.00 0.79 C
ATOM 4738 CG GLN A 487 25.225 21.122 40.945 1.00 0.79 C
ATOM 4739 CD GLN A 487 24.687 19.860 41.635 1.00 0.79 C
ATOM 4740 NE2 GLN A 487 25.481 18.770 41.596 1.00 0.79 N
ATOM 4741 OE1 GLN A 487 23.600 19.833 42.221 1.00 0.79 O
ATOM 4742 HN GLN A 487 23.749 24.331 43.092 1.00 0.00 H
ATOM 4743 1HE2 GLN A 487 25.124 17.932 42.054 1.00 0.00 H
ATOM 4744 2HE2 GLN A 487 26.379 18.792 41.112 1.00 0.00 H
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ATOM 4746 CA PHE A 488 28.460 23.915 43.883 1.00 0.84 C
ATOM 4747 C PHE A 488 28.677 23.449 45.331 1.00 0.84 C

ATOM 4748 O PHE A 488 29.636 22.734 45.624 1.00 0.84 O
ATOM 4749 CB PHE A 488 28.899 25.389 43.684 1.00 0.84 C
ATOM 4750 CG PHE A 488 30.388 25.558 43.829 1.00 0.84 C
ATOM 4751 CD1 PHE A 488 31.263 25.292 42.761 1.00 0.84 C
ATOM 4752 CD2 PHE A 488 30.923 25.969 45.057 1.00 0.84 C
ATOM 4753 CE1 PHE A 488 32.648 25.439 42.921 1.00 0.84 C
ATOM 4754 CE2 PHE A 488 32.305 26.095 45.227 1.00 0.84 C
ATOM 4755 CZ PHE A 488 33.169 25.831 44.160 1.00 0.84 C
ATOM 4756 HN PHE A 488 26.570 24.595 43.154 1.00 0.00 H
ATOM 4757 N PHE A 489 27.747 23.778 46.259 1.00 0.83 N
ATOM 4758 CA PHE A 489 27.731 23.223 47.611 1.00 0.83 C
ATOM 4759 C PHE A 489 27.617 21.698 47.603 1.00 0.83 C
ATOM 4760 O PHE A 489 28.409 21.007 48.241 1.00 0.83 O
ATOM 4761 CB PHE A 489 26.571 23.874 48.433 1.00 0.83 C
ATOM 4762 CG PHE A 489 26.392 23.302 49.822 1.00 0.83 C
ATOM 4763 CD1 PHE A 489 27.138 23.784 50.908 1.00 0.83 C
ATOM 4764 CD2 PHE A 489 25.473 22.261 50.043 1.00 0.83 C
ATOM 4765 CE1 PHE A 489 26.970 23.245 52.192 1.00 0.83 C
ATOM 4766 CE2 PHE A 489 25.303 21.712 51.320 1.00 0.83 C
ATOM 4767 CZ PHE A 489 26.049 22.207 52.397 1.00 0.83 C
ATOM 4768 HN PHE A 489 27.021 24.447 46.001 1.00 0.00 H
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ATOM 4770 CA ASN A 490 26.516 19.684 46.697 1.00 0.81 C
ATOM 4771 C ASN A 490 27.750 18.991 46.134 1.00 0.81 C
ATOM 4772 O ASN A 490 28.172 17.931 46.598 1.00 0.81 O
ATOM 4773 CB ASN A 490 25.348 19.314 45.747 1.00 0.81 C
ATOM 4774 CG ASN A 490 24.008 19.816 46.260 1.00 0.81 C
ATOM 4775 ND2 ASN A 490 23.015 19.811 45.346 1.00 0.81 N
ATOM 4776 OD1 ASN A 490 23.805 20.192 47.414 1.00 0.81 O
ATOM 4777 HN ASN A 490 26.057 21.734 46.284 1.00 0.00 H
ATOM 4778 1HD2 ASN A 490 23.183 19.499 44.389 1.00 0.00 H
ATOM 4779 2HD2 ASN A 490 22.116 20.148 45.690 1.00 0.00 H
ATOM 4780 N HIS A 491 28.363 19.593 45.098 1.00 0.78 N
ATOM 4781 CA HIS A 491 29.549 19.078 44.452 1.00 0.78 C
ATOM 4782 C HIS A 491 30.742 19.012 45.386 1.00 0.78 C
ATOM 4783 O HIS A 491 31.400 17.979 45.486 1.00 0.78 O
ATOM 4784 CB HIS A 491 29.895 19.922 43.203 1.00 0.78 C
ATOM 4785 CG HIS A 491 30.941 19.289 42.342 1.00 0.78 C
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ATOM 4787 ND1 HIS A 491 32.195 19.856 42.263 1.00 0.78 N
ATOM 4788 CE1 HIS A 491 32.909 19.008 41.548 1.00 0.78 C
ATOM 4789 NE2 HIS A 491 32.179 17.933 41.162 1.00 0.78 N
ATOM 4790 HN HIS A 491 27.967 20.465 44.748 1.00 0.00 H
ATOM 4791 HD1 HIS A 491 32.504 20.739 42.669 1.00 0.00 H

ATOM 4792 HE2 HIS A 491 32.507 17.144 40.605 1.00 0.00 H
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ATOM 4800 ND1 HIS A 492 33.601 21.866 49.695 1.00 0.78 N
ATOM 4801 CE1 HIS A 492 34.868 21.975 50.035 1.00 0.78 C
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ATOM 4803 HN HIS A 492 30.422 20.925 46.036 1.00 0.00 H
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ATOM 4805 HE2 HIS A 492 36.703 22.003 48.958 1.00 0.00 H
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ATOM 4807 CA MET A 493 30.306 18.537 50.164 1.00 0.81 C
ATOM 4808 C MET A 493 30.110 17.041 49.956 1.00 0.81 C
ATOM 4809 O MET A 493 30.506 16.236 50.796 1.00 0.81 O
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ATOM 4811 CG MET A 493 29.210 20.527 51.410 1.00 0.81 C
ATOM 4812 SD MET A 493 30.392 20.702 52.787 1.00 0.81 S
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ATOM 4817 C PHE A 494 29.671 14.499 47.584 1.00 0.80 C
ATOM 4818 O PHE A 494 29.944 13.305 47.689 1.00 0.80 O
ATOM 4819 CB PHE A 494 27.480 15.137 48.468 1.00 0.80 C
ATOM 4820 CG PHE A 494 26.703 15.925 49.481 1.00 0.80 C
ATOM 4821 CD1 PHE A 494 26.856 15.691 50.856 1.00 0.80 C
ATOM 4822 CD2 PHE A 494 25.830 16.938 49.055 1.00 0.80 C
ATOM 4823 CE1 PHE A 494 26.172 16.480 51.785 1.00 0.80 C
ATOM 4824 CE2 PHE A 494 25.151 17.736 49.982 1.00 0.80 C
ATOM 4825 CZ PHE A 494 25.322 17.506 51.351 1.00 0.80 C
ATOM 4826 HN PHE A 494 29.265 17.272 48.098 1.00 0.00 H
ATOM 4827 N VAL A 495 29.938 15.168 46.444 1.00 0.84 N
ATOM 4828 CA VAL A 495 30.435 14.466 45.264 1.00 0.84 C
ATOM 4829 C VAL A 495 31.942 14.318 45.299 1.00 0.84 C
ATOM 4830 O VAL A 495 32.456 13.201 45.311 1.00 0.84 O
ATOM 4831 CB VAL A 495 29.996 15.147 43.971 1.00 0.84 C
ATOM 4832 CG1 VAL A 495 30.548 14.401 42.737 1.00 0.84 C
ATOM 4833 CG2 VAL A 495 28.454 15.170 43.925 1.00 0.84 C
ATOM 4834 HN VAL A 495 29.791 16.177 46.406 1.00 0.00 H
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ATOM 4837 C LEU A 496 34.700 14.671 46.652 1.00 0.83 C
ATOM 4838 O LEU A 496 35.669 13.919 46.565 1.00 0.83 O
ATOM 4839 CB LEU A 496 34.727 16.847 45.466 1.00 0.83 C
ATOM 4840 CG LEU A 496 34.616 17.585 44.118 1.00 0.83 C
ATOM 4841 CD1 LEU A 496 35.039 19.051 44.284 1.00 0.83 C
ATOM 4842 CD2 LEU A 496 35.458 16.916 43.020 1.00 0.83 C
ATOM 4843 HN LEU A 496 32.227 16.335 45.450 1.00 0.00 H
ATOM 4844 N GLU A 497 34.046 14.851 47.812 1.00 0.80 N
ATOM 4845 CA GLU A 497 34.388 14.184 49.045 1.00 0.80 C
ATOM 4846 C GLU A 497 34.303 12.661 48.943 1.00 0.80 C
ATOM 4847 O GLU A 497 35.240 11.932 49.272 1.00 0.80 O
ATOM 4848 CB GLU A 497 33.430 14.742 50.125 1.00 0.80 C
ATOM 4849 CG GLU A 497 33.766 14.342 51.580 1.00 0.80 C
ATOM 4850 CD GLU A 497 35.113 14.835 52.100 1.00 0.80 C
ATOM 4851 OE1 GLU A 497 35.824 15.608 51.418 1.00 0.80 O
ATOM 4852 OE2 GLU A 497 35.537 14.413 53.206 1.00 0.80 O1-
ATOM 4853 HN GLU A 497 33.259 15.500 47.822 1.00 0.00 H
ATOM 4854 N GLN A 498 33.204 12.126 48.373 1.00 0.79 N
ATOM 4855 CA GLN A 498 33.077 10.699 48.153 1.00 0.79 C
ATOM 4856 C GLN A 498 33.915 10.169 46.993 1.00 0.79 C
ATOM 4857 O GLN A 498 34.357 9.021 47.024 1.00 0.79 O
ATOM 4858 CB GLN A 498 31.601 10.294 47.978 1.00 0.79 C
ATOM 4859 CG GLN A 498 30.771 10.581 49.249 1.00 0.79 C
ATOM 4860 CD GLN A 498 29.370 9.994 49.120 1.00 0.79 C
ATOM 4861 NE2 GLN A 498 28.444 10.755 48.501 1.00 0.79 N
ATOM 4862 OE1 GLN A 498 29.121 8.871 49.558 1.00 0.79 O
ATOM 4863 HN GLN A 498 32.442 12.742 48.089 1.00 0.00 H
ATOM 4864 1HE2 GLN A 498 28.650 11.686 48.138 1.00 0.00 H
ATOM 4865 2HE2 GLN A 498 27.507 10.362 48.415 1.00 0.00 H
ATOM 4866 N GLU A 499 34.204 10.994 45.956 1.00 0.81 N
ATOM 4867 CA GLU A 499 35.176 10.645 44.923 1.00 0.81 C
ATOM 4868 C GLU A 499 36.570 10.413 45.481 1.00 0.81 C
ATOM 4869 O GLU A 499 37.210 9.411 45.157 1.00 0.81 O
ATOM 4870 CB GLU A 499 35.376 11.757 43.859 1.00 0.81 C
ATOM 4871 CG GLU A 499 34.363 11.813 42.697 1.00 0.81 C
ATOM 4872 CD GLU A 499 34.919 12.714 41.593 1.00 0.81 C
ATOM 4873 OE1 GLU A 499 36.086 12.478 41.158 1.00 0.81 O
ATOM 4874 OE2 GLU A 499 34.214 13.664 41.184 1.00 0.81 O1-
ATOM 4875 HN GLU A 499 33.724 11.892 45.895 1.00 0.00 H
ATOM 4876 N GLU A 500 37.067 11.312 46.350 1.00 0.81 N
ATOM 4877 CA GLU A 500 38.355 11.190 47.015 1.00 0.81 C
ATOM 4878 C GLU A 500 38.434 9.933 47.874 1.00 0.81 C
ATOM 4879 O GLU A 500 39.388 9.163 47.791 1.00 0.81 O

ATOM 4880 CB GLU A 500 38.573 12.443 47.894 1.00 0.81 C
ATOM 4881 CG GLU A 500 39.790 12.401 48.855 1.00 0.81 C
ATOM 4882 CD GLU A 500 41.139 12.845 48.313 1.00 0.81 C
ATOM 4883 OE1 GLU A 500 41.970 13.258 49.170 1.00 0.81 O
ATOM 4884 OE2 GLU A 500 41.426 12.760 47.098 1.00 0.81 O1-
ATOM 4885 HN GLU A 500 36.502 12.136 46.557 1.00 0.00 H
ATOM 4886 N TYR A 501 37.379 9.645 48.671 1.00 0.80 N
ATOM 4887 CA TYR A 501 37.305 8.431 49.471 1.00 0.80 C
ATOM 4888 C TYR A 501 37.378 7.158 48.626 1.00 0.80 C
ATOM 4889 O TYR A 501 38.079 6.200 48.951 1.00 0.80 O
ATOM 4890 CB TYR A 501 35.944 8.329 50.222 1.00 0.80 C
ATOM 4891 CG TYR A 501 35.612 9.392 51.242 1.00 0.80 C
ATOM 4892 CD1 TYR A 501 36.517 10.317 51.796 1.00 0.80 C
ATOM 4893 CD2 TYR A 501 34.281 9.423 51.686 1.00 0.80 C
ATOM 4894 CE1 TYR A 501 36.079 11.269 52.726 1.00 0.80 C
ATOM 4895 CE2 TYR A 501 33.845 10.358 52.639 1.00 0.80 C
ATOM 4896 CZ TYR A 501 34.750 11.305 53.119 1.00 0.80 C
ATOM 4897 OH TYR A 501 34.388 12.304 54.043 1.00 0.80 O
ATOM 4898 HN TYR A 501 36.603 10.306 48.713 1.00 0.00 H
ATOM 4899 HH TYR A 501 35.004 12.949 54.370 1.00 0.00 H
ATOM 4900 N LYS A 502 36.631 7.129 47.504 1.00 0.78 N
ATOM 4901 CA LYS A 502 36.591 6.012 46.582 1.00 0.78 C
ATOM 4902 C LYS A 502 37.877 5.796 45.795 1.00 0.78 C
ATOM 4903 O LYS A 502 38.334 4.665 45.654 1.00 0.78 O
ATOM 4904 CB LYS A 502 35.386 6.164 45.625 1.00 0.78 C
ATOM 4905 CG LYS A 502 35.100 4.915 44.776 1.00 0.78 C
ATOM 4906 CD LYS A 502 33.789 5.047 43.988 1.00 0.78 C
ATOM 4907 CE LYS A 502 33.504 3.819 43.121 1.00 0.78 C
ATOM 4908 NZ LYS A 502 32.234 4.004 42.386 1.00 0.78 N1+
ATOM 4909 HN LYS A 502 36.058 7.945 47.291 1.00 0.00 H
ATOM 4910 HZ1 LYS A 502 32.044 3.185 41.808 1.00 0.00 H
ATOM 4911 HZ2 LYS A 502 32.229 4.866 41.841 1.00 0.00 H
ATOM 4912 HZ3 LYS A 502 31.458 4.219 43.012 1.00 0.00 H
ATOM 4913 N LYS A 503 38.512 6.877 45.286 1.00 0.80 N
ATOM 4914 CA LYS A 503 39.794 6.828 44.589 1.00 0.80 C
ATOM 4915 C LYS A 503 40.932 6.319 45.455 1.00 0.80 C
ATOM 4916 O LYS A 503 41.799 5.598 44.978 1.00 0.80 O
ATOM 4917 CB LYS A 503 40.200 8.212 44.013 1.00 0.80 C
ATOM 4918 CG LYS A 503 39.333 8.659 42.823 1.00 0.80 C
ATOM 4919 CD LYS A 503 39.619 10.102 42.362 1.00 0.80 C
ATOM 4920 CE LYS A 503 38.578 10.595 41.347 1.00 0.80 C
ATOM 4921 NZ LYS A 503 38.690 12.046 41.087 1.00 0.80 N1+
ATOM 4922 HN LYS A 503 38.065 7.787 45.397 1.00 0.00 H
ATOM 4923 HZ1 LYS A 503 37.998 12.374 40.413 1.00 0.00 H

ATOM 4924 HZ2 LYS A 503 39.635 12.296 40.796 1.00 0.00 H
ATOM 4925 HZ3 LYS A 503 38.640 12.580 41.954 1.00 0.00 H
ATOM 4926 N GLU A 504 40.937 6.673 46.753 1.00 0.75 N
ATOM 4927 CA GLU A 504 41.957 6.245 47.689 1.00 0.75 C
ATOM 4928 C GLU A 504 41.560 4.964 48.419 1.00 0.75 C
ATOM 4929 O GLU A 504 42.291 4.475 49.274 1.00 0.75 O
ATOM 4930 CB GLU A 504 42.163 7.370 48.732 1.00 0.75 C
ATOM 4931 CG GLU A 504 42.712 8.689 48.137 1.00 0.75 C
ATOM 4932 CD GLU A 504 44.228 8.752 48.022 1.00 0.75 C
ATOM 4933 OE1 GLU A 504 44.969 7.818 48.410 1.00 0.75 O
ATOM 4934 OE2 GLU A 504 44.705 9.809 47.542 1.00 0.75 O1-
ATOM 4935 HN GLU A 504 40.186 7.272 47.095 1.00 0.00 H
ATOM 4936 N GLY A 505 40.397 4.360 48.090 1.00 0.85 N
ATOM 4937 CA GLY A 505 40.004 3.025 48.540 1.00 0.85 C
ATOM 4938 C GLY A 505 39.731 2.802 50.009 1.00 0.85 C
ATOM 4939 O GLY A 505 39.862 1.679 50.489 1.00 0.85 O
ATOM 4940 HN GLY A 505 39.750 4.869 47.488 1.00 0.00 H
ATOM 4941 N ILE A 506 39.314 3.824 50.779 1.00 0.71 N
ATOM 4942 CA ILE A 506 39.271 3.767 52.246 1.00 0.71 C
ATOM 4943 C ILE A 506 38.090 3.014 52.874 1.00 0.71 C
ATOM 4944 O ILE A 506 37.609 3.372 53.950 1.00 0.71 O
ATOM 4945 CB ILE A 506 39.355 5.162 52.864 1.00 0.71 C
ATOM 4946 CG1 ILE A 506 38.176 6.083 52.467 1.00 0.71 C
ATOM 4947 CG2 ILE A 506 40.726 5.759 52.497 1.00 0.71 C
ATOM 4948 CD1 ILE A 506 38.190 7.424 53.208 1.00 0.71 C
ATOM 4949 HN ILE A 506 39.012 4.683 50.320 1.00 0.00 H
ATOM 4950 N GLU A 507 37.604 1.937 52.222 1.00 0.66 N
ATOM 4951 CA GLU A 507 36.484 1.108 52.663 1.00 0.66 C
ATOM 4952 C GLU A 507 35.163 1.874 52.782 1.00 0.66 C
ATOM 4953 O GLU A 507 34.391 1.714 53.726 1.00 0.66 O
ATOM 4954 CB GLU A 507 36.807 0.321 53.964 1.00 0.66 C
ATOM 4955 CG GLU A 507 38.035 -0.629 53.856 1.00 0.66 C
ATOM 4956 CD GLU A 507 38.425 -1.246 55.194 1.00 0.66 C
ATOM 4957 OE1 GLU A 507 37.990 -0.689 56.232 1.00 0.66 O
ATOM 4958 OE2 GLU A 507 39.171 -2.252 55.227 1.00 0.66 O1-
ATOM 4959 HN GLU A 507 38.058 1.679 51.346 1.00 0.00 H
ATOM 4960 N TRP A 508 34.853 2.728 51.786 1.00 0.65 N
ATOM 4961 CA TRP A 508 33.679 3.580 51.806 1.00 0.65 C
ATOM 4962 C TRP A 508 32.584 3.060 50.882 1.00 0.65 C
ATOM 4963 O TRP A 508 32.802 2.831 49.692 1.00 0.65 O
ATOM 4964 CB TRP A 508 34.071 5.025 51.384 1.00 0.65 C
ATOM 4965 CG TRP A 508 32.933 6.043 51.366 1.00 0.65 C
ATOM 4966 CD1 TRP A 508 32.205 6.498 50.298 1.00 0.65 C
ATOM 4967 CD2 TRP A 508 32.411 6.687 52.533 1.00 0.65 C

ATOM 4968 CE2 TRP A 508 31.361 7.547 52.089 1.00 0.65 C
ATOM 4969 CE3 TRP A 508 32.738 6.608 53.879 1.00 0.65 C
ATOM 4970 NE1 TRP A 508 31.274 7.410 50.732 1.00 0.65 N
ATOM 4971 CZ2 TRP A 508 30.658 8.322 52.989 1.00 0.65 C
ATOM 4972 CZ3 TRP A 508 32.018 7.392 54.785 1.00 0.65 C
ATOM 4973 CH2 TRP A 508 30.991 8.248 54.347 1.00 0.65 C
ATOM 4974 HN TRP A 508 35.474 2.778 50.979 1.00 0.00 H
ATOM 4975 HE1 TRP A 508 30.617 7.909 50.132 1.00 0.00 H
ATOM 4976 N GLU A 509 31.356 2.912 51.417 1.00 0.62 N
ATOM 4977 CA GLU A 509 30.159 2.694 50.628 1.00 0.62 C
ATOM 4978 C GLU A 509 29.567 4.031 50.216 1.00 0.62 C
ATOM 4979 O GLU A 509 29.342 4.915 51.040 1.00 0.62 O
ATOM 4980 CB GLU A 509 29.099 1.887 51.413 1.00 0.62 C
ATOM 4981 CG GLU A 509 27.830 1.531 50.594 1.00 0.62 C
ATOM 4982 CD GLU A 509 26.837 0.665 51.372 1.00 0.62 C
ATOM 4983 OE1 GLU A 509 27.083 0.389 52.574 1.00 0.62 O
ATOM 4984 OE2 GLU A 509 25.821 0.268 50.746 1.00 0.62 O1-
ATOM 4985 HN GLU A 509 31.263 2.956 52.432 1.00 0.00 H
ATOM 4986 N PHE A 510 29.332 4.235 48.902 1.00 0.64 N
ATOM 4987 CA PHE A 510 28.762 5.465 48.386 1.00 0.64 C
ATOM 4988 C PHE A 510 27.348 5.718 48.910 1.00 0.64 C
ATOM 4989 O PHE A 510 26.457 4.877 48.805 1.00 0.64 O
ATOM 4990 CB PHE A 510 28.802 5.460 46.827 1.00 0.64 C
ATOM 4991 CG PHE A 510 28.158 6.675 46.203 1.00 0.64 C
ATOM 4992 CD1 PHE A 510 28.867 7.876 46.038 1.00 0.64 C
ATOM 4993 CD2 PHE A 510 26.808 6.621 45.814 1.00 0.64 C
ATOM 4994 CE1 PHE A 510 28.235 9.004 45.494 1.00 0.64 C
ATOM 4995 CE2 PHE A 510 26.172 7.746 45.279 1.00 0.64 C
ATOM 4996 CZ PHE A 510 26.886 8.940 45.121 1.00 0.64 C
ATOM 4997 HN PHE A 510 29.565 3.492 48.244 1.00 0.00 H
ATOM 4998 N ILE A 511 27.116 6.928 49.438 1.00 0.68 N
ATOM 4999 CA ILE A 511 25.833 7.349 49.945 1.00 0.68 C
ATOM 5000 C ILE A 511 25.247 8.319 48.948 1.00 0.68 C
ATOM 5001 O ILE A 511 25.801 9.390 48.686 1.00 0.68 O
ATOM 5002 CB ILE A 511 25.951 8.039 51.306 1.00 0.68 C
ATOM 5003 CG1 ILE A 511 26.539 7.067 52.355 1.00 0.68 C
ATOM 5004 CG2 ILE A 511 24.576 8.589 51.761 1.00 0.68 C
ATOM 5005 CD1 ILE A 511 26.947 7.759 53.661 1.00 0.68 C
ATOM 5006 HN ILE A 511 27.891 7.589 49.484 1.00 0.00 H
ATOM 5007 N ASP A 512 24.073 7.980 48.378 1.00 0.73 N
ATOM 5008 CA ASP A 512 23.231 8.969 47.746 1.00 0.73 C
ATOM 5009 C ASP A 512 22.611 9.855 48.830 1.00 0.73 C
ATOM 5010 O ASP A 512 21.999 9.384 49.790 1.00 0.73 O
ATOM 5011 CB ASP A 512 22.156 8.314 46.841 1.00 0.73 C

ATOM 5012 CG ASP A 512 21.446 9.338 45.965 1.00 0.73 C
ATOM 5013 OD1 ASP A 512 21.752 10.555 46.090 1.00 0.73 O
ATOM 5014 OD2 ASP A 512 20.579 8.906 45.169 1.00 0.73 O1-
ATOM 5015 HN ASP A 512 23.773 7.005 48.393 1.00 0.00 H
ATOM 5016 N PHE A 513 22.800 11.175 48.704 1.00 0.74 N
ATOM 5017 CA PHE A 513 22.266 12.143 49.634 1.00 0.74 C
ATOM 5018 C PHE A 513 21.022 12.794 49.053 1.00 0.74 C
ATOM 5019 O PHE A 513 20.395 13.627 49.700 1.00 0.74 O
ATOM 5020 CB PHE A 513 23.329 13.233 49.941 1.00 0.74 C
ATOM 5021 CG PHE A 513 24.354 12.716 50.917 1.00 0.74 C
ATOM 5022 CD1 PHE A 513 24.092 12.780 52.296 1.00 0.74 C
ATOM 5023 CD2 PHE A 513 25.581 12.184 50.487 1.00 0.74 C
ATOM 5024 CE1 PHE A 513 25.036 12.332 53.229 1.00 0.74 C
ATOM 5025 CE2 PHE A 513 26.526 11.728 51.416 1.00 0.74 C
ATOM 5026 CZ PHE A 513 26.253 11.800 52.788 1.00 0.74 C
ATOM 5027 HN PHE A 513 23.348 11.513 47.913 1.00 0.00 H
ATOM 5028 N GLY A 514 20.627 12.439 47.807 1.00 0.79 N
ATOM 5029 CA GLY A 514 19.382 12.866 47.171 1.00 0.79 C
ATOM 5030 C GLY A 514 19.389 14.278 46.651 1.00 0.79 C
ATOM 5031 O GLY A 514 18.420 14.754 46.064 1.00 0.79 O
ATOM 5032 HN GLY A 514 21.244 11.828 47.272 1.00 0.00 H
ATOM 5033 N MET A 515 20.505 14.993 46.845 1.00 0.78 N
ATOM 5034 CA MET A 515 20.646 16.383 46.487 1.00 0.78 C
ATOM 5035 C MET A 515 21.419 16.528 45.194 1.00 0.78 C
ATOM 5036 O MET A 515 22.634 16.728 45.197 1.00 0.78 O
ATOM 5037 CB MET A 515 21.368 17.177 47.606 1.00 0.78 C
ATOM 5038 CG MET A 515 20.596 17.215 48.941 1.00 0.78 C
ATOM 5039 SD MET A 515 18.946 17.982 48.849 1.00 0.78 S
ATOM 5040 CE MET A 515 19.481 19.694 48.571 1.00 0.78 C
ATOM 5041 HN MET A 515 21.305 14.526 47.272 1.00 0.00 H
ATOM 5042 N ASP A 516 20.715 16.467 44.052 1.00 0.78 N
ATOM 5043 CA ASP A 516 21.298 16.765 42.765 1.00 0.78 C
ATOM 5044 C ASP A 516 20.338 17.674 42.023 1.00 0.78 C
ATOM 5045 O ASP A 516 19.130 17.447 41.961 1.00 0.78 O
ATOM 5046 CB ASP A 516 21.633 15.481 41.963 1.00 0.78 C
ATOM 5047 CG ASP A 516 22.554 15.768 40.787 1.00 0.78 C
ATOM 5048 OD1 ASP A 516 22.872 16.964 40.547 1.00 0.78 O
ATOM 5049 OD2 ASP A 516 22.943 14.795 40.103 1.00 0.78 O1-
ATOM 5050 HN ASP A 516 19.731 16.200 44.095 1.00 0.00 H
ATOM 5051 N LEU A 517 20.880 18.772 41.481 1.00 0.81 N
ATOM 5052 CA LEU A 517 20.137 19.810 40.810 1.00 0.81 C
ATOM 5053 C LEU A 517 20.420 19.739 39.319 1.00 0.81 C
ATOM 5054 O LEU A 517 19.907 20.544 38.539 1.00 0.81 O
ATOM 5055 CB LEU A 517 20.560 21.197 41.350 1.00 0.81 C

ATOM 5056 CG LEU A 517 19.931 21.622 42.699 1.00 0.81 C
ATOM 5057 CD1 LEU A 517 20.100 20.621 43.841 1.00 0.81 C
ATOM 5058 CD2 LEU A 517 20.521 22.974 43.098 1.00 0.81 C
ATOM 5059 HN LEU A 517 21.892 18.882 41.548 1.00 0.00 H
ATOM 5060 N GLN A 518 21.206 18.735 38.853 1.00 0.73 N
ATOM 5061 CA GLN A 518 21.631 18.615 37.467 1.00 0.73 C
ATOM 5062 C GLN A 518 20.481 18.593 36.474 1.00 0.73 C
ATOM 5063 O GLN A 518 20.505 19.288 35.470 1.00 0.73 O
ATOM 5064 CB GLN A 518 22.528 17.367 37.272 1.00 0.73 C
ATOM 5065 CG GLN A 518 23.275 17.312 35.916 1.00 0.73 C
ATOM 5066 CD GLN A 518 24.218 18.505 35.751 1.00 0.73 C
ATOM 5067 NE2 GLN A 518 24.009 19.305 34.685 1.00 0.73 N
ATOM 5068 OE1 GLN A 518 25.129 18.758 36.549 1.00 0.73 O
ATOM 5069 HN GLN A 518 21.517 18.023 39.514 1.00 0.00 H
ATOM 5070 1HE2 GLN A 518 23.258 19.096 34.027 1.00 0.00 H
ATOM 5071 2HE2 GLN A 518 24.638 20.101 34.575 1.00 0.00 H
ATOM 5072 N ALA A 519 19.381 17.881 36.782 1.00 0.78 N
ATOM 5073 CA ALA A 519 18.185 17.875 35.960 1.00 0.78 C
ATOM 5074 C ALA A 519 17.513 19.243 35.752 1.00 0.78 C
ATOM 5075 O ALA A 519 17.011 19.547 34.669 1.00 0.78 O
ATOM 5076 CB ALA A 519 17.177 16.871 36.554 1.00 0.78 C
ATOM 5077 HN ALA A 519 19.388 17.319 37.633 1.00 0.00 H
ATOM 5078 N CYS A 520 17.472 20.126 36.776 1.00 0.83 N
ATOM 5079 CA CYS A 520 16.979 21.489 36.608 1.00 0.83 C
ATOM 5080 C CYS A 520 17.956 22.343 35.817 1.00 0.83 C
ATOM 5081 O CYS A 520 17.579 23.084 34.910 1.00 0.83 O
ATOM 5082 CB CYS A 520 16.695 22.165 37.967 1.00 0.83 C
ATOM 5083 SG CYS A 520 15.823 23.768 37.801 1.00 0.83 S
ATOM 5084 HN CYS A 520 17.797 19.829 37.696 1.00 0.00 H
ATOM 5085 N ILE A 521 19.262 22.199 36.115 1.00 0.78 N
ATOM 5086 CA ILE A 521 20.340 22.877 35.413 1.00 0.78 C
ATOM 5087 C ILE A 521 20.348 22.525 33.934 1.00 0.78 C
ATOM 5088 O ILE A 521 20.412 23.405 33.079 1.00 0.78 O
ATOM 5089 CB ILE A 521 21.686 22.580 36.084 1.00 0.78 C
ATOM 5090 CG1 ILE A 521 21.724 23.228 37.492 1.00 0.78 C
ATOM 5091 CG2 ILE A 521 22.875 23.043 35.207 1.00 0.78 C
ATOM 5092 CD1 ILE A 521 22.853 22.708 38.387 1.00 0.78 C
ATOM 5093 HN ILE A 521 19.511 21.574 36.882 1.00 0.00 H
ATOM 5094 N ASP A 522 20.183 21.237 33.592 1.00 0.74 N
ATOM 5095 CA ASP A 522 20.008 20.755 32.243 1.00 0.74 C
ATOM 5096 C ASP A 522 18.743 21.290 31.575 1.00 0.74 C
ATOM 5097 O ASP A 522 18.742 21.712 30.421 1.00 0.74 O
ATOM 5098 CB ASP A 522 19.974 19.206 32.233 1.00 0.74 C
ATOM 5099 CG ASP A 522 21.342 18.609 32.513 1.00 0.74 C

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ATOM   5100  OD1 ASP A 522     22.347  19.363  32.526  1.00  0.74        O
ATOM   5101  OD2 ASP A 522     21.393  17.369  32.694  1.00  0.74        O1-
ATOM   5102  HN  ASP A 522     20.181  20.547  34.343  1.00  0.00        H
ATOM   5103  N   LEU A 523     17.599  21.348  32.274  1.00  0.76        N
ATOM   5104  CA  LEU A 523     16.392  21.939  31.714  1.00  0.76        C
ATOM   5105  C   LEU A 523     16.585  23.397  31.291  1.00  0.76        C
ATOM   5106  O   LEU A 523     16.216  23.797  30.185  1.00  0.76        O
ATOM   5107  CB  LEU A 523     15.242  21.790  32.736  1.00  0.76        C
ATOM   5108  CG  LEU A 523     13.897  22.457  32.386  1.00  0.76        C
ATOM   5109  CD1 LEU A 523     13.347  22.053  31.011  1.00  0.76        C
ATOM   5110  CD2 LEU A 523     12.882  22.117  33.482  1.00  0.76        C
ATOM   5111  HN  LEU A 523     17.574  20.969  33.221  1.00  0.00        H
ATOM   5112  N   ILE A 524     17.241  24.205  32.138  1.00  0.78        N
ATOM   5113  CA  ILE A 524     17.569  25.585  31.839  1.00  0.78        C
ATOM   5114  C   ILE A 524     18.702  25.757  30.818  1.00  0.78        C
ATOM   5115  O   ILE A 524     18.552  26.525  29.862  1.00  0.78        O
ATOM   5116  CB  ILE A 524     17.856  26.327  33.145  1.00  0.78        C
ATOM   5117  CG1 ILE A 524     16.622  26.249  34.084  1.00  0.78        C
ATOM   5118  CG2 ILE A 524     18.240  27.797  32.865  1.00  0.78        C
ATOM   5119  CD1 ILE A 524     16.914  26.644  35.536  1.00  0.78        C
ATOM   5120  HN  ILE A 524     17.524  23.827  33.042  1.00  0.00        H
ATOM   5121  N   GLU A 525     19.844  25.041  30.961  1.00  0.71        N
ATOM   5122  CA  GLU A 525     21.069  25.355  30.227  1.00  0.71        C
ATOM   5123  C   GLU A 525     21.718  24.217  29.412  1.00  0.71        C
ATOM   5124  O   GLU A 525     22.748  24.418  28.766  1.00  0.71        O
ATOM   5125  CB  GLU A 525     22.119  25.948  31.210  1.00  0.71        C
ATOM   5126  CG  GLU A 525     23.139  26.899  30.534  1.00  0.71        C
ATOM   5127  CD  GLU A 525     24.495  27.021  31.228  1.00  0.71        C
ATOM   5128  OE1 GLU A 525     24.664  26.625  32.407  1.00  0.71        O
ATOM   5129  OE2 GLU A 525     25.410  27.520  30.508  1.00  0.71        O1-
ATOM   5130  HN  GLU A 525     19.849  24.251  31.607  1.00  0.00        H
ATOM   5131  N   LYS A 526     21.150  22.985  29.344  1.00  0.72        N
ATOM   5132  CA  LYS A 526     21.652  21.930  28.447  1.00  0.72        C
ATOM   5133  C   LYS A 526     21.731  22.331  26.963  1.00  0.72        C
ATOM   5134  O   LYS A 526     21.157  23.367  26.615  1.00  0.72        O
ATOM   5135  CB  LYS A 526     20.881  20.584  28.616  1.00  0.72        C
ATOM   5136  CG  LYS A 526     19.572  20.441  27.809  1.00  0.72        C
ATOM   5137  CD  LYS A 526     18.743  19.209  28.219  1.00  0.72        C
ATOM   5138  CE  LYS A 526     17.481  18.973  27.377  1.00  0.72        C
ATOM   5139  NZ  LYS A 526     16.522  20.090  27.528  1.00  0.72        N1+
ATOM   5140  HN  LYS A 526     20.345  22.783  29.937  1.00  0.00        H
ATOM   5141  HZ1 LYS A 526     15.684  19.933  26.969  1.00  0.00        H
ATOM   5142  HZ2 LYS A 526     16.955  20.988  27.312  1.00  0.00        H
ATOM   5143  HZ3 LYS A 526     16.293  20.259  28.508  1.00  0.00        H
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ATOM 5144 N PRO A 527 22.364 21.594 26.025 1.00 0.68 N
ATOM 5145 CA PRO A 527 22.432 21.948 24.601 1.00 0.68 C
ATOM 5146 C PRO A 527 21.149 22.468 23.976 1.00 0.68 C
ATOM 5147 O PRO A 527 21.192 23.431 23.218 1.00 0.68 O
ATOM 5148 CB PRO A 527 22.950 20.672 23.926 1.00 0.68 C
ATOM 5149 CG PRO A 527 23.864 20.052 24.987 1.00 0.68 C
ATOM 5150 CD PRO A 527 23.145 20.377 26.298 1.00 0.68 C
ATOM 5151 N MET A 528 20.002 21.860 24.332 1.00 0.68 N
ATOM 5152 CA MET A 528 18.681 22.307 23.941 1.00 0.68 C
ATOM 5153 C MET A 528 17.848 22.564 25.200 1.00 0.68 C
ATOM 5154 O MET A 528 16.755 22.029 25.415 1.00 0.68 O
ATOM 5155 CB MET A 528 18.005 21.262 23.020 1.00 0.68 C
ATOM 5156 CG MET A 528 18.839 20.887 21.772 1.00 0.68 C
ATOM 5157 SD MET A 528 19.289 22.272 20.676 1.00 0.68 S
ATOM 5158 CE MET A 528 17.646 22.556 19.962 1.00 0.68 C
ATOM 5159 HN MET A 528 20.068 21.027 24.917 1.00 0.00 H
ATOM 5160 N GLY A 529 18.397 23.349 26.147 1.00 0.85 N
ATOM 5161 CA GLY A 529 17.681 23.901 27.295 1.00 0.85 C
ATOM 5162 C GLY A 529 16.917 25.152 26.961 1.00 0.85 C
ATOM 5163 O GLY A 529 16.958 25.652 25.841 1.00 0.85 O
ATOM 5164 HN GLY A 529 19.387 23.575 26.056 1.00 0.00 H
ATOM 5165 N ILE A 530 16.218 25.725 27.955 1.00 0.78 N
ATOM 5166 CA ILE A 530 15.373 26.910 27.809 1.00 0.78 C
ATOM 5167 C ILE A 530 16.132 28.122 27.292 1.00 0.78 C
ATOM 5168 O ILE A 530 15.670 28.818 26.391 1.00 0.78 O
ATOM 5169 CB ILE A 530 14.695 27.247 29.140 1.00 0.78 C
ATOM 5170 CG1 ILE A 530 13.748 26.097 29.551 1.00 0.78 C
ATOM 5171 CG2 ILE A 530 13.925 28.592 29.086 1.00 0.78 C
ATOM 5172 CD1 ILE A 530 13.351 26.152 31.023 1.00 0.78 C
ATOM 5173 HN ILE A 530 16.281 25.302 28.881 1.00 0.00 H
ATOM 5174 N MET A 531 17.347 28.381 27.814 1.00 0.80 N
ATOM 5175 CA MET A 531 18.187 29.473 27.357 1.00 0.80 C
ATOM 5176 C MET A 531 18.648 29.334 25.912 1.00 0.80 C
ATOM 5177 O MET A 531 18.619 30.294 25.151 1.00 0.80 O
ATOM 5178 CB MET A 531 19.407 29.631 28.289 1.00 0.80 C
ATOM 5179 CG MET A 531 19.012 30.039 29.722 1.00 0.80 C
ATOM 5180 SD MET A 531 20.423 30.233 30.851 1.00 0.80 S
ATOM 5181 CE MET A 531 21.002 31.796 30.138 1.00 0.80 C
ATOM 5182 HN MET A 531 17.692 27.782 28.564 1.00 0.00 H
ATOM 5183 N SER A 532 19.034 28.115 25.487 1.00 0.77 N
ATOM 5184 CA SER A 532 19.430 27.822 24.108 1.00 0.77 C
ATOM 5185 C SER A 532 18.297 28.033 23.109 1.00 0.77 C
ATOM 5186 O SER A 532 18.441 28.671 22.068 1.00 0.77 O
ATOM 5187 CB SER A 532 19.929 26.358 24.005 1.00 0.77 C

ATOM 5188 OG SER A 532 20.587 26.101 22.767 1.00 0.77 O
ATOM 5189 HN SER A 532 19.051 27.353 26.165 1.00 0.00 H
ATOM 5190 HG SER A 532 20.893 25.204 22.704 1.00 0.00 H
ATOM 5191 N ILE A 533 17.087 27.561 23.459 1.00 0.76 N
ATOM 5192 CA ILE A 533 15.864 27.790 22.703 1.00 0.76 C
ATOM 5193 C ILE A 533 15.470 29.265 22.631 1.00 0.76 C
ATOM 5194 O ILE A 533 15.030 29.771 21.601 1.00 0.76 O
ATOM 5195 CB ILE A 533 14.748 26.944 23.302 1.00 0.76 C
ATOM 5196 CG1 ILE A 533 15.052 25.430 23.155 1.00 0.76 C
ATOM 5197 CG2 ILE A 533 13.388 27.283 22.669 1.00 0.76 C
ATOM 5198 CD1 ILE A 533 15.210 24.945 21.707 1.00 0.76 C
ATOM 5199 HN ILE A 533 17.022 27.005 24.312 1.00 0.00 H
ATOM 5200 N LEU A 534 15.649 30.023 23.729 1.00 0.80 N
ATOM 5201 CA LEU A 534 15.487 31.466 23.741 1.00 0.80 C
ATOM 5202 C LEU A 534 16.456 32.186 22.797 1.00 0.80 C
ATOM 5203 O LEU A 534 16.077 33.132 22.108 1.00 0.80 O
ATOM 5204 CB LEU A 534 15.613 31.968 25.202 1.00 0.80 C
ATOM 5205 CG LEU A 534 15.490 33.487 25.427 1.00 0.80 C
ATOM 5206 CD1 LEU A 534 14.150 34.097 24.998 1.00 0.80 C
ATOM 5207 CD2 LEU A 534 15.784 33.827 26.893 1.00 0.80 C
ATOM 5208 HN LEU A 534 15.912 29.559 24.598 1.00 0.00 H
ATOM 5209 N GLU A 535 17.728 31.741 22.698 1.00 0.74 N
ATOM 5210 CA GLU A 535 18.661 32.199 21.674 1.00 0.74 C
ATOM 5211 C GLU A 535 18.205 31.874 20.243 1.00 0.74 C
ATOM 5212 O GLU A 535 18.238 32.749 19.376 1.00 0.74 O
ATOM 5213 CB GLU A 535 20.102 31.664 21.939 1.00 0.74 C
ATOM 5214 CG GLU A 535 20.701 32.228 23.252 1.00 0.74 C
ATOM 5215 CD GLU A 535 22.079 31.728 23.703 1.00 0.74 C
ATOM 5216 OE1 GLU A 535 22.937 31.332 22.870 1.00 0.74 O
ATOM 5217 OE2 GLU A 535 22.290 31.812 24.949 1.00 0.74 O1-
ATOM 5218 HN GLU A 535 18.053 31.049 23.374 1.00 0.00 H
ATOM 5219 N GLU A 536 17.706 30.637 19.983 1.00 0.73 N
ATOM 5220 CA GLU A 536 17.168 30.193 18.694 1.00 0.73 C
ATOM 5221 C GLU A 536 16.013 31.060 18.195 1.00 0.73 C
ATOM 5222 O GLU A 536 16.063 31.633 17.106 1.00 0.73 O
ATOM 5223 CB GLU A 536 16.689 28.711 18.816 1.00 0.73 C
ATOM 5224 CG GLU A 536 16.171 28.041 17.518 1.00 0.73 C
ATOM 5225 CD GLU A 536 15.522 26.685 17.767 1.00 0.73 C
ATOM 5226 OE1 GLU A 536 16.127 25.758 18.355 1.00 0.73 O
ATOM 5227 OE2 GLU A 536 14.356 26.548 17.317 1.00 0.73 O1-
ATOM 5228 HN GLU A 536 17.706 29.962 20.748 1.00 0.00 H
ATOM 5229 N GLU A 537 14.975 31.265 19.031 1.00 0.74 N
ATOM 5230 CA GLU A 537 13.850 32.127 18.714 1.00 0.74 C
ATOM 5231 C GLU A 537 14.237 33.596 18.591 1.00 0.74 C

ATOM 5232 O GLU A 537 13.740 34.330 17.741 1.00 0.74 O
ATOM 5233 CB GLU A 537 12.719 31.967 19.751 1.00 0.74 C
ATOM 5234 CG GLU A 537 12.004 30.590 19.690 1.00 0.74 C
ATOM 5235 CD GLU A 537 10.961 30.464 18.582 1.00 0.74 C
ATOM 5236 OE1 GLU A 537 10.133 31.403 18.450 1.00 0.74 O
ATOM 5237 OE2 GLU A 537 10.920 29.401 17.912 1.00 0.74 O1-
ATOM 5238 HN GLU A 537 14.980 30.790 19.933 1.00 0.00 H
ATOM 5239 N CYS A 538 15.179 34.103 19.414 1.00 0.81 N
ATOM 5240 CA CYS A 538 15.600 35.494 19.336 1.00 0.81 C
ATOM 5241 C CYS A 538 16.174 35.938 18.002 1.00 0.81 C
ATOM 5242 O CYS A 538 15.913 37.071 17.594 1.00 0.81 O
ATOM 5243 CB CYS A 538 16.578 35.908 20.458 1.00 0.81 C
ATOM 5244 SG CYS A 538 15.655 36.361 21.950 1.00 0.81 S
ATOM 5245 HN CYS A 538 15.608 33.494 20.111 1.00 0.00 H
ATOM 5246 N MET A 539 16.926 35.078 17.290 1.00 0.65 N
ATOM 5247 CA MET A 539 17.448 35.408 15.972 1.00 0.65 C
ATOM 5248 C MET A 539 16.526 34.968 14.839 1.00 0.65 C
ATOM 5249 O MET A 539 16.800 35.235 13.671 1.00 0.65 O
ATOM 5250 CB MET A 539 18.831 34.748 15.744 1.00 0.65 C
ATOM 5251 CG MET A 539 19.955 35.370 16.595 1.00 0.65 C
ATOM 5252 SD MET A 539 21.604 34.632 16.338 1.00 0.65 S
ATOM 5253 CE MET A 539 21.768 34.943 14.553 1.00 0.65 C
ATOM 5254 HN MET A 539 17.137 34.163 17.688 1.00 0.00 H
ATOM 5255 N PHE A 540 15.385 34.321 15.142 1.00 0.66 N
ATOM 5256 CA PHE A 540 14.404 33.925 14.154 1.00 0.66 C
ATOM 5257 C PHE A 540 13.520 35.125 13.761 1.00 0.66 C
ATOM 5258 O PHE A 540 12.883 35.712 14.639 1.00 0.66 O
ATOM 5259 CB PHE A 540 13.575 32.733 14.709 1.00 0.66 C
ATOM 5260 CG PHE A 540 12.549 32.169 13.755 1.00 0.66 C
ATOM 5261 CD1 PHE A 540 12.854 31.914 12.406 1.00 0.66 C
ATOM 5262 CD2 PHE A 540 11.265 31.849 14.227 1.00 0.66 C
ATOM 5263 CE1 PHE A 540 11.885 31.390 11.540 1.00 0.66 C
ATOM 5264 CE2 PHE A 540 10.292 31.328 13.366 1.00 0.66 C
ATOM 5265 CZ PHE A 540 10.602 31.101 12.020 1.00 0.66 C
ATOM 5266 HN PHE A 540 15.202 34.098 16.120 1.00 0.00 H
ATOM 5267 N PRO A 541 13.424 35.560 12.491 1.00 0.67 N
ATOM 5268 CA PRO A 541 12.762 36.821 12.148 1.00 0.67 C
ATOM 5269 C PRO A 541 11.276 36.867 12.420 1.00 0.67 C
ATOM 5270 O PRO A 541 10.723 37.956 12.528 1.00 0.67 O
ATOM 5271 CB PRO A 541 13.029 36.989 10.644 1.00 0.67 C
ATOM 5272 CG PRO A 541 14.374 36.300 10.435 1.00 0.67 C
ATOM 5273 CD PRO A 541 14.303 35.117 11.400 1.00 0.67 C
ATOM 5274 N LYS A 542 10.601 35.707 12.466 1.00 0.68 N
ATOM 5275 CA LYS A 542 9.162 35.643 12.615 1.00 0.68 C

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ATOM   5276  C   LYS A 542      8.750  35.260  14.027  1.00  0.68         C
ATOM   5277  O   LYS A 542      7.565  35.070  14.296  1.00  0.68         O
ATOM   5278  CB  LYS A 542      8.587  34.593  11.629  1.00  0.68         C
ATOM   5279  CG  LYS A 542      8.809  34.935  10.145  1.00  0.68         C
ATOM   5280  CD  LYS A 542      8.214  33.864   9.215  1.00  0.68         C
ATOM   5281  CE  LYS A 542      8.358  34.212   7.731  1.00  0.68         C
ATOM   5282  NZ  LYS A 542      7.764  33.144   6.895  1.00  0.68         N1+
ATOM   5283  HN  LYS A 542     11.124  34.834  12.393  1.00  0.00         H
ATOM   5284  HZ1 LYS A 542      7.860  33.376   5.906  1.00  0.00         H
ATOM   5285  HZ2 LYS A 542      6.794  32.956   7.150  1.00  0.00         H
ATOM   5286  HZ3 LYS A 542      8.157  32.228   7.111  1.00  0.00         H
ATOM   5287  N   ALA A 543      9.712  35.125  14.961  1.00  0.81         N
ATOM   5288  CA  ALA A 543      9.430  34.754  16.327  1.00  0.81         C
ATOM   5289  C   ALA A 543      8.601  35.758  17.112  1.00  0.81         C
ATOM   5290  O   ALA A 543      8.750  36.977  17.005  1.00  0.81         O
ATOM   5291  CB  ALA A 543     10.732  34.469  17.083  1.00  0.81         C
ATOM   5292  HN  ALA A 543     10.681  35.292  14.691  1.00  0.00         H
ATOM   5293  N   THR A 544      7.714  35.242  17.970  1.00  0.79         N
ATOM   5294  CA  THR A 544      6.934  36.037  18.895  1.00  0.79         C
ATOM   5295  C   THR A 544      7.008  35.354  20.238  1.00  0.79         C
ATOM   5296  O   THR A 544      7.395  34.192  20.352  1.00  0.79         O
ATOM   5297  CB  THR A 544      5.460  36.219  18.504  1.00  0.79         C
ATOM   5298  CG2 THR A 544      5.345  36.692  17.048  1.00  0.79         C
ATOM   5299  OG1 THR A 544      4.698  35.020  18.598  1.00  0.79         O
ATOM   5300  HN  THR A 544      7.579  34.231  17.973  1.00  0.00         H
ATOM   5301  HG1 THR A 544      4.769  34.727  19.499  1.00  0.00         H
ATOM   5302  N   ASP A 545      6.603  36.030  21.327  1.00  0.73         N
ATOM   5303  CA  ASP A 545      6.526  35.406  22.633  1.00  0.73         C
ATOM   5304  C   ASP A 545      5.559  34.202  22.638  1.00  0.73         C
ATOM   5305  O   ASP A 545      5.729  33.233  23.379  1.00  0.73         O
ATOM   5306  CB  ASP A 545      6.119  36.464  23.687  1.00  0.73         C
ATOM   5307  CG  ASP A 545      7.153  37.573  23.860  1.00  0.73         C
ATOM   5308  OD1 ASP A 545      8.374  37.347  23.658  1.00  0.73         O
ATOM   5309  OD2 ASP A 545      6.705  38.686  24.238  1.00  0.73         O1-
ATOM   5310  HN  ASP A 545      6.342  37.011  21.231  1.00  0.00         H
ATOM   5311  N   MET A 546      4.531  34.211  21.751  1.00  0.70         N
ATOM   5312  CA  MET A 546      3.700  33.056  21.467  1.00  0.70         C
ATOM   5313  C   MET A 546      4.387  31.873  20.791  1.00  0.70         C
ATOM   5314  O   MET A 546      4.109  30.732  21.163  1.00  0.70         O
ATOM   5315  CB  MET A 546      2.417  33.400  20.671  1.00  0.70         C
ATOM   5316  CG  MET A 546      1.431  34.334  21.399  1.00  0.70         C
ATOM   5317  SD  MET A 546     -0.171  34.502  20.551  1.00  0.70         S
ATOM   5318  CE  MET A 546     -0.880  32.868  20.934  1.00  0.70         C
ATOM   5319  HN  MET A 546      4.331  35.080  21.256  1.00  0.00         H
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ATOM 5320 N THR A 547 5.278 32.083 19.798 1.00 0.78 N
ATOM 5321 CA THR A 547 6.052 30.986 19.200 1.00 0.78 C
ATOM 5322 C THR A 547 7.041 30.385 20.179 1.00 0.78 C
ATOM 5323 O THR A 547 7.131 29.167 20.317 1.00 0.78 O
ATOM 5324 CB THR A 547 6.787 31.321 17.904 1.00 0.78 C
ATOM 5325 CG2 THR A 547 5.758 31.797 16.865 1.00 0.78 C
ATOM 5326 OG1 THR A 547 7.737 32.362 18.085 1.00 0.78 O
ATOM 5327 HN THR A 547 5.418 33.032 19.452 1.00 0.00 H
ATOM 5328 HG1 THR A 547 8.194 32.570 17.279 1.00 0.00 H
ATOM 5329 N PHE A 548 7.755 31.237 20.943 1.00 0.77 N
ATOM 5330 CA PHE A 548 8.746 30.818 21.915 1.00 0.77 C
ATOM 5331 C PHE A 548 8.185 29.921 23.021 1.00 0.77 C
ATOM 5332 O PHE A 548 8.735 28.863 23.320 1.00 0.77 O
ATOM 5333 CB PHE A 548 9.422 32.094 22.498 1.00 0.77 C
ATOM 5334 CG PHE A 548 10.427 31.824 23.593 1.00 0.77 C
ATOM 5335 CD1 PHE A 548 11.337 30.751 23.541 1.00 0.77 C
ATOM 5336 CD2 PHE A 548 10.404 32.631 24.738 1.00 0.77 C
ATOM 5337 CE1 PHE A 548 12.166 30.465 24.633 1.00 0.77 C
ATOM 5338 CE2 PHE A 548 11.224 32.340 25.831 1.00 0.77 C
ATOM 5339 CZ PHE A 548 12.101 31.253 25.785 1.00 0.77 C
ATOM 5340 HN PHE A 548 7.588 32.237 20.830 1.00 0.00 H
ATOM 5341 N LYS A 549 7.037 30.278 23.627 1.00 0.75 N
ATOM 5342 CA LYS A 549 6.389 29.420 24.605 1.00 0.75 C
ATOM 5343 C LYS A 549 5.908 28.089 24.050 1.00 0.75 C
ATOM 5344 O LYS A 549 6.021 27.061 24.713 1.00 0.75 O
ATOM 5345 CB LYS A 549 5.237 30.150 25.325 1.00 0.75 C
ATOM 5346 CG LYS A 549 4.075 30.601 24.422 1.00 0.75 C
ATOM 5347 CD LYS A 549 3.116 31.481 25.224 1.00 0.75 C
ATOM 5348 CE LYS A 549 1.806 31.957 24.577 1.00 0.75 C
ATOM 5349 NZ LYS A 549 1.032 30.810 24.071 1.00 0.75 N1+
ATOM 5350 HN LYS A 549 6.611 31.175 23.394 1.00 0.00 H
ATOM 5351 HZ1 LYS A 549 0.162 31.126 23.642 1.00 0.00 H
ATOM 5352 HZ2 LYS A 549 0.864 30.115 24.799 1.00 0.00 H
ATOM 5353 HZ3 LYS A 549 1.582 30.234 23.434 1.00 0.00 H
ATOM 5354 N ALA A 550 5.390 28.058 22.802 1.00 0.82 N
ATOM 5355 CA ALA A 550 5.013 26.823 22.144 1.00 0.82 C
ATOM 5356 C ALA A 550 6.205 25.894 21.953 1.00 0.82 C
ATOM 5357 O ALA A 550 6.176 24.739 22.358 1.00 0.82 O
ATOM 5358 CB ALA A 550 4.364 27.148 20.785 1.00 0.82 C
ATOM 5359 HN ALA A 550 5.259 28.938 22.304 1.00 0.00 H
ATOM 5360 N LYS A 551 7.332 26.445 21.470 1.00 0.77 N
ATOM 5361 CA LYS A 551 8.603 25.765 21.321 1.00 0.77 C
ATOM 5362 C LYS A 551 9.155 25.201 22.637 1.00 0.77 C
ATOM 5363 O LYS A 551 9.669 24.083 22.691 1.00 0.77 O

ATOM 5364 CB LYS A 551 9.575 26.792 20.691 1.00 0.77 C
ATOM 5365 CG LYS A 551 11.039 26.364 20.531 1.00 0.77 C
ATOM 5366 CD LYS A 551 11.371 25.391 19.390 1.00 0.77 C
ATOM 5367 CE LYS A 551 11.125 25.995 18.003 1.00 0.77 C
ATOM 5368 NZ LYS A 551 12.074 25.468 17.014 1.00 0.77 N1+
ATOM 5369 HN LYS A 551 7.289 27.423 21.185 1.00 0.00 H
ATOM 5370 HZ1 LYS A 551 11.910 25.870 16.091 1.00 0.00 H
ATOM 5371 HZ2 LYS A 551 12.058 24.449 16.986 1.00 0.00 H
ATOM 5372 HZ3 LYS A 551 13.040 25.602 17.314 1.00 0.00 H
ATOM 5373 N LEU A 552 9.039 25.938 23.766 1.00 0.79 N
ATOM 5374 CA LEU A 552 9.337 25.393 25.084 1.00 0.79 C
ATOM 5375 C LEU A 552 8.434 24.229 25.477 1.00 0.79 C
ATOM 5376 O LEU A 552 8.909 23.205 25.976 1.00 0.79 O
ATOM 5377 CB LEU A 552 9.226 26.465 26.199 1.00 0.79 C
ATOM 5378 CG LEU A 552 10.238 27.626 26.128 1.00 0.79 C
ATOM 5379 CD1 LEU A 552 9.990 28.594 27.295 1.00 0.79 C
ATOM 5380 CD2 LEU A 552 11.694 27.140 26.138 1.00 0.79 C
ATOM 5381 HN LEU A 552 8.733 26.908 23.692 1.00 0.00 H
ATOM 5382 N PHE A 553 7.111 24.330 25.240 1.00 0.73 N
ATOM 5383 CA PHE A 553 6.184 23.248 25.513 1.00 0.73 C
ATOM 5384 C PHE A 553 6.469 22.009 24.679 1.00 0.73 C
ATOM 5385 O PHE A 553 6.569 20.912 25.219 1.00 0.73 O
ATOM 5386 CB PHE A 553 4.712 23.679 25.267 1.00 0.73 C
ATOM 5387 CG PHE A 553 4.253 24.828 26.136 1.00 0.73 C
ATOM 5388 CD1 PHE A 553 4.737 25.056 27.439 1.00 0.73 C
ATOM 5389 CD2 PHE A 553 3.275 25.699 25.625 1.00 0.73 C
ATOM 5390 CE1 PHE A 553 4.262 26.129 28.204 1.00 0.73 C
ATOM 5391 CE2 PHE A 553 2.788 26.766 26.390 1.00 0.73 C
ATOM 5392 CZ PHE A 553 3.279 26.977 27.681 1.00 0.73 C
ATOM 5393 HN PHE A 553 6.747 25.201 24.854 1.00 0.00 H
ATOM 5394 N ASP A 554 6.693 22.166 23.364 1.00 0.75 N
ATOM 5395 CA ASP A 554 6.975 21.087 22.437 1.00 0.75 C
ATOM 5396 C ASP A 554 8.232 20.311 22.818 1.00 0.75 C
ATOM 5397 O ASP A 554 8.268 19.076 22.811 1.00 0.75 O
ATOM 5398 CB ASP A 554 7.146 21.666 21.009 1.00 0.75 C
ATOM 5399 CG ASP A 554 5.851 22.268 20.479 1.00 0.75 C
ATOM 5400 OD1 ASP A 554 4.770 22.016 21.072 1.00 0.75 O
ATOM 5401 OD2 ASP A 554 5.953 22.980 19.447 1.00 0.75 O1-
ATOM 5402 HN ASP A 554 6.663 23.114 22.990 1.00 0.00 H
ATOM 5403 N ASN A 555 9.305 21.025 23.207 1.00 0.74 N
ATOM 5404 CA ASN A 555 10.515 20.414 23.717 1.00 0.74 C
ATOM 5405 C ASN A 555 10.379 19.721 25.068 1.00 0.74 C
ATOM 5406 O ASN A 555 10.881 18.611 25.230 1.00 0.74 O
ATOM 5407 CB ASN A 555 11.644 21.464 23.823 1.00 0.74 C

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ATOM   5408  CG  ASN A 555     12.126  21.821  22.424  1.00  0.74        C
ATOM   5409  ND2 ASN A 555     12.493  23.101  22.211  1.00  0.74        N
ATOM   5410  OD1 ASN A 555     12.223  20.972  21.537  1.00  0.74        O
ATOM   5411  HN  ASN A 555      9.264  22.042  23.140  1.00  0.00        H
ATOM   5412 1HD2 ASN A 555     12.413  23.804  22.946  1.00  0.00        H
ATOM   5413 2HD2 ASN A 555     12.816  23.340  21.274  1.00  0.00        H
ATOM   5414  N   HIS A 556      9.720  20.340  26.072  1.00  0.72        N
ATOM   5415  CA  HIS A 556      9.860  19.870  27.446  1.00  0.72        C
ATOM   5416  C   HIS A 556      8.595  19.311  28.099  1.00  0.72        C
ATOM   5417  O   HIS A 556      8.685  18.634  29.125  1.00  0.72        O
ATOM   5418  CB  HIS A 556     10.362  21.028  28.341  1.00  0.72        C
ATOM   5419  CG  HIS A 556     11.600  21.726  27.858  1.00  0.72        C
ATOM   5420  CD2 HIS A 556     11.717  23.020  27.459  1.00  0.72        C
ATOM   5421  ND1 HIS A 556     12.835  21.089  27.792  1.00  0.72        N
ATOM   5422  CE1 HIS A 556     13.661  22.019  27.346  1.00  0.72        C
ATOM   5423  NE2 HIS A 556     13.041  23.201  27.131  1.00  0.72        N
ATOM   5424  HN  HIS A 556      9.121  21.140  25.868  1.00  0.00        H
ATOM   5425  HD1 HIS A 556     13.054  20.122  28.033  1.00  0.00        H
ATOM   5426  HE2 HIS A 556     13.472  24.061  26.791  1.00  0.00        H
ATOM   5427  N   LEU A 557      7.382  19.534  27.546  1.00  0.70        N
ATOM   5428  CA  LEU A 557      6.132  19.070  28.144  1.00  0.70        C
ATOM   5429  C   LEU A 557      5.980  17.562  28.120  1.00  0.70        C
ATOM   5430  O   LEU A 557      5.990  16.932  27.066  1.00  0.70        O
ATOM   5431  CB  LEU A 557      4.891  19.675  27.437  1.00  0.70        C
ATOM   5432  CG  LEU A 557      3.503  19.187  27.922  1.00  0.70        C
ATOM   5433  CD1 LEU A 557      3.254  19.437  29.417  1.00  0.70        C
ATOM   5434  CD2 LEU A 557      2.394  19.768  27.031  1.00  0.70        C
ATOM   5435  HN  LEU A 557      7.337  20.052  26.668  1.00  0.00        H
ATOM   5436  N   GLY A 558      5.836  16.937  29.312  1.00  0.73        N
ATOM   5437  CA  GLY A 558      5.603  15.498  29.433  1.00  0.73        C
ATOM   5438  C   GLY A 558      6.858  14.694  29.241  1.00  0.73        C
ATOM   5439  O   GLY A 558      6.832  13.469  29.213  1.00  0.73        O
ATOM   5440  HN  GLY A 558      5.893  17.495  30.164  1.00  0.00        H
ATOM   5441  N   LYS A 559      7.989  15.398  29.081  1.00  0.68        N
ATOM   5442  CA  LYS A 559      9.263  14.826  28.715  1.00  0.68        C
ATOM   5443  C   LYS A 559     10.324  15.189  29.737  1.00  0.68        C
ATOM   5444  O   LYS A 559     11.103  14.347  30.174  1.00  0.68        O
ATOM   5445  CB  LYS A 559      9.708  15.414  27.351  1.00  0.68        C
ATOM   5446  CG  LYS A 559      8.782  15.075  26.170  1.00  0.68        C
ATOM   5447  CD  LYS A 559      9.214  15.841  24.912  1.00  0.68        C
ATOM   5448  CE  LYS A 559      8.329  15.598  23.693  1.00  0.68        C
ATOM   5449  NZ  LYS A 559      8.789  16.464  22.590  1.00  0.68        N1+
ATOM   5450  HN  LYS A 559      7.946  16.406  29.228  1.00  0.00        H
ATOM   5451  HZ1 LYS A 559      8.197  16.302  21.775  1.00  0.00        H
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ATOM 5452 HZ2 LYS A 559 9.780 16.338 22.383 1.00 0.00 H
ATOM 5453 HZ3 LYS A 559 8.824 17.448 22.856 1.00 0.00 H
ATOM 5454 N SER A 560 10.356 16.459 30.188 1.00 0.76 N
ATOM 5455 CA SER A 560 11.306 16.913 31.189 1.00 0.76 C
ATOM 5456 C SER A 560 10.584 16.974 32.514 1.00 0.76 C
ATOM 5457 O SER A 560 9.629 17.725 32.680 1.00 0.76 O
ATOM 5458 CB SER A 560 11.867 18.335 30.901 1.00 0.76 C
ATOM 5459 OG SER A 560 12.689 18.355 29.730 1.00 0.76 O
ATOM 5460 HN SER A 560 9.686 17.129 29.811 1.00 0.00 H
ATOM 5461 HG SER A 560 13.032 19.223 29.554 1.00 0.00 H
ATOM 5462 N SER A 561 11.024 16.189 33.517 1.00 0.73 N
ATOM 5463 CA SER A 561 10.336 16.019 34.796 1.00 0.73 C
ATOM 5464 C SER A 561 10.260 17.262 35.660 1.00 0.73 C
ATOM 5465 O SER A 561 9.356 17.409 36.475 1.00 0.73 O
ATOM 5466 CB SER A 561 11.001 14.905 35.644 1.00 0.73 C
ATOM 5467 OG SER A 561 12.420 15.078 35.683 1.00 0.73 O
ATOM 5468 HN SER A 561 11.896 15.679 33.374 1.00 0.00 H
ATOM 5469 HG SER A 561 12.828 14.395 36.203 1.00 0.00 H
ATOM 5470 N ASN A 562 11.197 18.208 35.474 1.00 0.77 N
ATOM 5471 CA ASN A 562 11.255 19.431 36.250 1.00 0.77 C
ATOM 5472 C ASN A 562 10.531 20.573 35.540 1.00 0.77 C
ATOM 5473 O ASN A 562 10.653 21.733 35.932 1.00 0.77 O
ATOM 5474 CB ASN A 562 12.732 19.831 36.523 1.00 0.77 C
ATOM 5475 CG ASN A 562 13.395 18.820 37.456 1.00 0.77 C
ATOM 5476 ND2 ASN A 562 14.705 19.025 37.715 1.00 0.77 N
ATOM 5477 OD1 ASN A 562 12.808 17.865 37.958 1.00 0.77 O
ATOM 5478 HN ASN A 562 11.901 18.058 34.752 1.00 0.00 H
ATOM 5479 1HD2 ASN A 562 15.148 18.350 38.338 1.00 0.00 H
ATOM 5480 2HD2 ASN A 562 15.192 19.818 37.298 1.00 0.00 H
ATOM 5481 N PHE A 563 9.758 20.269 34.478 1.00 0.77 N
ATOM 5482 CA PHE A 563 9.032 21.230 33.673 1.00 0.77 C
ATOM 5483 C PHE A 563 7.538 20.941 33.724 1.00 0.77 C
ATOM 5484 O PHE A 563 7.094 19.800 33.621 1.00 0.77 O
ATOM 5485 CB PHE A 563 9.512 21.120 32.200 1.00 0.77 C
ATOM 5486 CG PHE A 563 8.930 22.174 31.295 1.00 0.77 C
ATOM 5487 CD1 PHE A 563 9.545 23.428 31.155 1.00 0.77 C
ATOM 5488 CD2 PHE A 563 7.768 21.897 30.557 1.00 0.77 C
ATOM 5489 CE1 PHE A 563 9.013 24.384 30.281 1.00 0.77 C
ATOM 5490 CE2 PHE A 563 7.229 22.851 29.687 1.00 0.77 C
ATOM 5491 CZ PHE A 563 7.858 24.094 29.544 1.00 0.77 C
ATOM 5492 HN PHE A 563 9.678 19.285 34.221 1.00 0.00 H
ATOM 5493 N GLN A 564 6.707 21.992 33.838 1.00 0.75 N
ATOM 5494 CA GLN A 564 5.274 21.853 33.666 1.00 0.75 C
ATOM 5495 C GLN A 564 4.766 22.922 32.713 1.00 0.75 C

ATOM 5496 O GLN A 564 5.073 24.108 32.835 1.00 0.75 O
ATOM 5497 CB GLN A 564 4.524 21.894 35.029 1.00 0.75 C
ATOM 5498 CG GLN A 564 2.979 21.801 34.974 1.00 0.75 C
ATOM 5499 CD GLN A 564 2.337 22.008 36.350 1.00 0.75 C
ATOM 5500 NE2 GLN A 564 2.268 20.916 37.144 1.00 0.75 N
ATOM 5501 OE1 GLN A 564 1.880 23.099 36.710 1.00 0.75 O
ATOM 5502 HN GLN A 564 7.095 22.911 34.051 1.00 0.00 H
ATOM 5503 1HE2 GLN A 564 1.841 21.054 38.060 1.00 0.00 H
ATOM 5504 2HE2 GLN A 564 2.645 20.016 36.847 1.00 0.00 H
ATOM 5505 N LYS A 565 3.944 22.512 31.724 1.00 0.70 N
ATOM 5506 CA LYS A 565 3.050 23.420 31.029 1.00 0.70 C
ATOM 5507 C LYS A 565 1.782 23.518 31.867 1.00 0.70 C
ATOM 5508 O LYS A 565 1.167 22.478 32.125 1.00 0.70 O
ATOM 5509 CB LYS A 565 2.668 22.903 29.623 1.00 0.70 C
ATOM 5510 CG LYS A 565 1.611 23.727 28.866 1.00 0.70 C
ATOM 5511 CD LYS A 565 1.308 23.083 27.508 1.00 0.70 C
ATOM 5512 CE LYS A 565 0.299 23.815 26.631 1.00 0.70 C
ATOM 5513 NZ LYS A 565 0.273 23.123 25.322 1.00 0.70 N1+
ATOM 5514 HN LYS A 565 3.951 21.528 31.455 1.00 0.00 H
ATOM 5515 HZ1 LYS A 565 -0.402 23.613 24.735 1.00 0.00 H
ATOM 5516 HZ2 LYS A 565 0.082 22.124 25.402 1.00 0.00 H
ATOM 5517 HZ3 LYS A 565 1.195 23.047 24.892 1.00 0.00 H
ATOM 5518 N PRO A 566 1.353 24.669 32.360 1.00 0.65 N
ATOM 5519 CA PRO A 566 0.140 24.760 33.150 1.00 0.65 C
ATOM 5520 C PRO A 566 -1.113 24.591 32.308 1.00 0.65 C
ATOM 5521 O PRO A 566 -1.100 24.793 31.097 1.00 0.65 O
ATOM 5522 CB PRO A 566 0.235 26.153 33.778 1.00 0.65 C
ATOM 5523 CG PRO A 566 1.055 26.978 32.790 1.00 0.65 C
ATOM 5524 CD PRO A 566 2.037 25.957 32.226 1.00 0.65 C
ATOM 5525 N ARG A 567 -2.222 24.188 32.950 1.00 0.46 N
ATOM 5526 CA ARG A 567 -3.514 24.086 32.308 1.00 0.46 C
ATOM 5527 C ARG A 567 -4.330 25.332 32.594 1.00 0.46 C
ATOM 5528 O ARG A 567 -4.033 26.079 33.526 1.00 0.46 O
ATOM 5529 CB ARG A 567 -4.318 22.874 32.841 1.00 0.46 C
ATOM 5530 CG ARG A 567 -3.652 21.506 32.598 1.00 0.46 C
ATOM 5531 CD ARG A 567 -4.513 20.357 33.134 1.00 0.46 C
ATOM 5532 NE ARG A 567 -3.784 19.078 32.867 1.00 0.46 N
ATOM 5533 CZ ARG A 567 -4.255 17.871 33.210 1.00 0.46 C
ATOM 5534 NH1 ARG A 567 -3.541 16.784 32.928 1.00 0.46 N1+
ATOM 5535 NH2 ARG A 567 -5.423 17.731 33.829 1.00 0.46 N
ATOM 5536 HN ARG A 567 -2.149 23.942 33.937 1.00 0.00 H
ATOM 5537 HE ARG A 567 -2.879 19.127 32.398 1.00 0.00 H
ATOM 5538 1HH1 ARG A 567 -2.645 16.891 32.453 1.00 0.00 H
ATOM 5539 2HH1 ARG A 567 -3.899 15.865 33.189 1.00 0.00 H

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ATOM   5540 1HH2 ARG A 567     -5.970  18.564  34.045  1.00  0.00        H
ATOM   5541 2HH2 ARG A 567     -5.781  16.812  34.090  1.00  0.00        H
ATOM   5542  N   ASN A 568     -5.409  25.547  31.809  1.00  0.42        N
ATOM   5543  CA  ASN A 568     -6.327  26.686  31.806  1.00  0.42        C
ATOM   5544  C   ASN A 568     -7.024  27.053  33.119  1.00  0.42        C
ATOM   5545  O   ASN A 568     -7.813  27.990  33.170  1.00  0.42        O
ATOM   5546  CB  ASN A 568     -7.391  26.519  30.682  1.00  0.42        C
ATOM   5547  CG  ASN A 568     -6.745  26.329  29.308  1.00  0.42        C
ATOM   5548  ND2 ASN A 568     -7.584  26.103  28.277  1.00  0.42        N
ATOM   5549  OD1 ASN A 568     -5.524  26.325  29.133  1.00  0.42        O
ATOM   5550  HN  ASN A 568     -5.610  24.816  31.126  1.00  0.00        H
ATOM   5551 1HD2 ASN A 568     -8.594  26.106  28.422  1.00  0.00        H
ATOM   5552 2HD2 ASN A 568     -7.153  25.976  27.361  1.00  0.00        H
ATOM   5553  N   ILE A 569     -6.727  26.343  34.218  1.00  0.34        N
ATOM   5554  CA  ILE A 569     -7.113  26.700  35.567  1.00  0.34        C
ATOM   5555  C   ILE A 569     -6.254  27.827  36.147  1.00  0.34        C
ATOM   5556  O   ILE A 569     -6.719  28.646  36.937  1.00  0.34        O
ATOM   5557  CB  ILE A 569     -7.094  25.454  36.453  1.00  0.34        C
ATOM   5558  CG1 ILE A 569     -7.758  25.682  37.830  1.00  0.34        C
ATOM   5559  CG2 ILE A 569     -5.661  24.891  36.610  1.00  0.34        C
ATOM   5560  CD1 ILE A 569     -9.255  25.999  37.736  1.00  0.34        C
ATOM   5561  HN  ILE A 569     -6.188  25.486  34.094  1.00  0.00        H
ATOM   5562  N   LYS A 570     -4.957  27.926  35.761  1.00  0.51        N
ATOM   5563  CA  LYS A 570     -4.123  29.049  36.158  1.00  0.51        C
ATOM   5564  C   LYS A 570     -4.529  30.298  35.391  1.00  0.51        C
ATOM   5565  O   LYS A 570     -4.969  30.219  34.251  1.00  0.51        O
ATOM   5566  CB  LYS A 570     -2.596  28.795  35.970  1.00  0.51        C
ATOM   5567  CG  LYS A 570     -2.048  27.639  36.833  1.00  0.51        C
ATOM   5568  CD  LYS A 570     -0.504  27.591  36.921  1.00  0.51        C
ATOM   5569  CE  LYS A 570      0.051  26.308  37.580  1.00  0.51        C
ATOM   5570  NZ  LYS A 570      1.528  26.239  37.494  1.00  0.51        N1+
ATOM   5571  HN  LYS A 570     -4.556  27.193  35.176  1.00  0.00        H
ATOM   5572  HZ1 LYS A 570      1.894  25.392  37.929  1.00  0.00        H
ATOM   5573  HZ2 LYS A 570      1.962  27.075  37.886  1.00  0.00        H
ATOM   5574  HZ3 LYS A 570      1.848  26.329  36.530  1.00  0.00        H
ATOM   5575  N   GLY A 571     -4.349  31.506  35.970  1.00  0.55        N
ATOM   5576  CA  GLY A 571     -4.726  32.776  35.334  1.00  0.55        C
ATOM   5577  C   GLY A 571     -3.769  33.236  34.266  1.00  0.55        C
ATOM   5578  O   GLY A 571     -3.896  34.313  33.687  1.00  0.55        O
ATOM   5579  HN  GLY A 571     -3.929  31.538  36.899  1.00  0.00        H
ATOM   5580  N   LYS A 572     -2.743  32.422  34.012  1.00  0.57        N
ATOM   5581  CA  LYS A 572     -1.706  32.675  33.049  1.00  0.57        C
ATOM   5582  C   LYS A 572     -1.400  31.449  32.185  1.00  0.57        C
ATOM   5583  O   LYS A 572     -0.238  31.213  31.861  1.00  0.57        O
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ATOM   5584  CB  LYS A 572     -0.425  33.044  33.814  1.00  0.57        C
ATOM   5585  CG  LYS A 572     -0.475  34.340  34.636  1.00  0.57        C
ATOM   5586  CD  LYS A 572     -0.601  35.580  33.738  1.00  0.57        C
ATOM   5587  CE  LYS A 572     -0.424  36.885  34.505  1.00  0.57        C
ATOM   5588  NZ  LYS A 572     -0.650  38.024  33.592  1.00  0.57        N1+
ATOM   5589  HN  LYS A 572     -2.690  31.552  34.542  1.00  0.00        H
ATOM   5590  HZ1 LYS A 572     -0.532  38.897  34.105  1.00  0.00        H
ATOM   5591  HZ2 LYS A 572     -1.555  37.971  33.124  1.00  0.00        H
ATOM   5592  HZ3 LYS A 572     -0.056  37.979  32.764  1.00  0.00        H
ATOM   5593  N   PRO A 573     -2.338  30.608  31.788  1.00  0.56        N
ATOM   5594  CA  PRO A 573     -2.022  29.232  31.427  1.00  0.56        C
ATOM   5595  C   PRO A 573     -1.319  29.094  30.097  1.00  0.56        C
ATOM   5596  O   PRO A 573     -0.386  28.309  29.967  1.00  0.56        O
ATOM   5597  CB  PRO A 573     -3.402  28.594  31.357  1.00  0.56        C
ATOM   5598  CG  PRO A 573     -4.333  29.716  30.864  1.00  0.56        C
ATOM   5599  CD  PRO A 573     -3.712  30.989  31.432  1.00  0.56        C
ATOM   5600  N   GLU A 574     -1.734  29.849  29.074  1.00  0.59        N
ATOM   5601  CA  GLU A 574     -1.167  29.737  27.767  1.00  0.59        C
ATOM   5602  C   GLU A 574      0.191  30.379  27.672  1.00  0.59        C
ATOM   5603  O   GLU A 574      0.916  30.063  26.733  1.00  0.59        O
ATOM   5604  CB  GLU A 574     -2.075  30.451  26.751  1.00  0.59        C
ATOM   5605  CG  GLU A 574     -3.432  29.754  26.509  1.00  0.59        C
ATOM   5606  CD  GLU A 574     -4.150  30.353  25.301  1.00  0.59        C
ATOM   5607  OE1 GLU A 574     -3.521  31.186  24.594  1.00  0.59        O
ATOM   5608  OE2 GLU A 574     -5.314  29.947  25.070  1.00  0.59        O1-
ATOM   5609  HN  GLU A 574     -2.480  30.527  29.232  1.00  0.00        H
ATOM   5610  N   ALA A 575      0.541  31.292  28.608  1.00  0.69        N
ATOM   5611  CA  ALA A 575      1.666  32.204  28.511  1.00  0.69        C
ATOM   5612  C   ALA A 575      2.772  31.965  29.525  1.00  0.69        C
ATOM   5613  O   ALA A 575      3.749  32.713  29.568  1.00  0.69        O
ATOM   5614  CB  ALA A 575      1.170  33.655  28.649  1.00  0.69        C
ATOM   5615  HN  ALA A 575     -0.032  31.343  29.450  1.00  0.00        H
ATOM   5616  N   HIS A 576      2.668  30.893  30.322  1.00  0.69        N
ATOM   5617  CA  HIS A 576      3.618  30.616  31.381  1.00  0.69        C
ATOM   5618  C   HIS A 576      4.173  29.218  31.257  1.00  0.69        C
ATOM   5619  O   HIS A 576      3.602  28.336  30.621  1.00  0.69        O
ATOM   5620  CB  HIS A 576      2.986  30.723  32.798  1.00  0.69        C
ATOM   5621  CG  HIS A 576      3.054  32.081  33.455  1.00  0.69        C
ATOM   5622  CD2 HIS A 576      3.375  32.381  34.743  1.00  0.69        C
ATOM   5623  ND1 HIS A 576      2.628  33.224  32.812  1.00  0.69        N
ATOM   5624  CE1 HIS A 576      2.677  34.175  33.717  1.00  0.69        C
ATOM   5625  NE2 HIS A 576      3.128  33.723  34.906  1.00  0.69        N
ATOM   5626  HN  HIS A 576      1.891  30.248  30.178  1.00  0.00        H
ATOM   5627  HD1 HIS A 576      2.336  33.312  31.839  1.00  0.00        H
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ATOM 5628 HE2 HIS A 576 3.260 34.269 35.757 1.00 0.00 H
ATOM 5629 N PHE A 577 5.313 28.977 31.919 1.00 0.77 N
ATOM 5630 CA PHE A 577 5.837 27.646 32.125 1.00 0.77 C
ATOM 5631 C PHE A 577 6.349 27.545 33.548 1.00 0.77 C
ATOM 5632 O PHE A 577 6.714 28.546 34.162 1.00 0.77 O
ATOM 5633 CB PHE A 577 6.932 27.265 31.090 1.00 0.77 C
ATOM 5634 CG PHE A 577 8.180 28.105 31.188 1.00 0.77 C
ATOM 5635 CD1 PHE A 577 8.288 29.335 30.518 1.00 0.77 C
ATOM 5636 CD2 PHE A 577 9.263 27.653 31.960 1.00 0.77 C
ATOM 5637 CE1 PHE A 577 9.469 30.085 30.599 1.00 0.77 C
ATOM 5638 CE2 PHE A 577 10.440 28.404 32.041 1.00 0.77 C
ATOM 5639 CZ PHE A 577 10.549 29.611 31.349 1.00 0.77 C
ATOM 5640 HN PHE A 577 5.835 29.769 32.295 1.00 0.00 H
ATOM 5641 N SER A 578 6.389 26.332 34.117 1.00 0.85 N
ATOM 5642 CA SER A 578 6.827 26.139 35.490 1.00 0.85 C
ATOM 5643 C SER A 578 8.132 25.406 35.503 1.00 0.85 C
ATOM 5644 O SER A 578 8.309 24.441 34.759 1.00 0.85 O
ATOM 5645 CB SER A 578 5.897 25.256 36.351 1.00 0.85 C
ATOM 5646 OG SER A 578 4.542 25.694 36.291 1.00 0.85 O
ATOM 5647 HN SER A 578 6.104 25.520 33.570 1.00 0.00 H
ATOM 5648 HG SER A 578 3.970 25.151 36.821 1.00 0.00 H
ATOM 5649 N LEU A 579 9.065 25.816 36.378 1.00 0.82 N
ATOM 5650 CA LEU A 579 10.272 25.052 36.624 1.00 0.82 C
ATOM 5651 C LEU A 579 10.340 24.635 38.067 1.00 0.82 C
ATOM 5652 O LEU A 579 10.114 25.442 38.968 1.00 0.82 O
ATOM 5653 CB LEU A 579 11.564 25.845 36.350 1.00 0.82 C
ATOM 5654 CG LEU A 579 11.690 26.413 34.933 1.00 0.82 C
ATOM 5655 CD1 LEU A 579 13.031 27.137 34.802 1.00 0.82 C
ATOM 5656 CD2 LEU A 579 11.575 25.342 33.849 1.00 0.82 C
ATOM 5657 HN LEU A 579 8.920 26.690 36.884 1.00 0.00 H
ATOM 5658 N ILE A 580 10.689 23.364 38.317 1.00 0.76 N
ATOM 5659 CA ILE A 580 10.962 22.855 39.647 1.00 0.76 C
ATOM 5660 C ILE A 580 12.431 23.092 39.963 1.00 0.76 C
ATOM 5661 O ILE A 580 13.309 22.348 39.533 1.00 0.76 O
ATOM 5662 CB ILE A 580 10.595 21.378 39.786 1.00 0.76 C
ATOM 5663 CG1 ILE A 580 9.101 21.170 39.424 1.00 0.76 C
ATOM 5664 CG2 ILE A 580 10.912 20.894 41.222 1.00 0.76 C
ATOM 5665 CD1 ILE A 580 8.661 19.701 39.401 1.00 0.76 C
ATOM 5666 HN ILE A 580 10.766 22.721 37.529 1.00 0.00 H
ATOM 5667 N HIS A 581 12.705 24.172 40.723 1.00 0.80 N
ATOM 5668 CA HIS A 581 14.022 24.512 41.236 1.00 0.80 C
ATOM 5669 C HIS A 581 14.222 23.848 42.583 1.00 0.80 C
ATOM 5670 O HIS A 581 13.270 23.366 43.198 1.00 0.80 O
ATOM 5671 CB HIS A 581 14.182 26.042 41.442 1.00 0.80 C

ATOM 5672 CG HIS A 581 14.018 26.838 40.184 1.00 0.80 C
ATOM 5673 CD2 HIS A 581 12.912 27.438 39.678 1.00 0.80 C
ATOM 5674 ND1 HIS A 581 15.062 26.956 39.292 1.00 0.80 N
ATOM 5675 CE1 HIS A 581 14.582 27.606 38.263 1.00 0.80 C
ATOM 5676 NE2 HIS A 581 13.283 27.928 38.444 1.00 0.80 N
ATOM 5677 HN HIS A 581 11.932 24.796 40.955 1.00 0.00 H
ATOM 5678 HD1 HIS A 581 16.014 26.608 39.410 1.00 0.00 H
ATOM 5679 HE2 HIS A 581 12.688 28.438 37.791 1.00 0.00 H
ATOM 5680 N TYR A 582 15.461 23.857 43.120 1.00 0.79 N
ATOM 5681 CA TYR A 582 15.786 23.286 44.427 1.00 0.79 C
ATOM 5682 C TYR A 582 14.933 23.840 45.567 1.00 0.79 C
ATOM 5683 O TYR A 582 14.490 23.129 46.465 1.00 0.79 O
ATOM 5684 CB TYR A 582 17.307 23.441 44.762 1.00 0.79 C
ATOM 5685 CG TYR A 582 17.741 24.824 45.217 1.00 0.79 C
ATOM 5686 CD1 TYR A 582 17.795 25.905 44.330 1.00 0.79 C
ATOM 5687 CD2 TYR A 582 18.041 25.063 46.567 1.00 0.79 C
ATOM 5688 CE1 TYR A 582 18.105 27.195 44.766 1.00 0.79 C
ATOM 5689 CE2 TYR A 582 18.369 26.350 47.018 1.00 0.79 C
ATOM 5690 CZ TYR A 582 18.390 27.419 46.112 1.00 0.79 C
ATOM 5691 OH TYR A 582 18.671 28.723 46.555 1.00 0.79 O
ATOM 5692 HN TYR A 582 16.214 24.287 42.583 1.00 0.00 H
ATOM 5693 HH TYR A 582 18.685 29.448 45.941 1.00 0.00 H
ATOM 5694 N ALA A 583 14.659 25.153 45.519 1.00 0.86 N
ATOM 5695 CA ALA A 583 13.914 25.864 46.523 1.00 0.86 C
ATOM 5696 C ALA A 583 12.434 25.973 46.183 1.00 0.86 C
ATOM 5697 O ALA A 583 11.687 26.692 46.845 1.00 0.86 O
ATOM 5698 CB ALA A 583 14.542 27.257 46.676 1.00 0.86 C
ATOM 5699 HN ALA A 583 15.002 25.682 44.717 1.00 0.00 H
ATOM 5700 N GLY A 584 11.957 25.215 45.176 1.00 0.85 N
ATOM 5701 CA GLY A 584 10.540 25.108 44.860 1.00 0.85 C
ATOM 5702 C GLY A 584 10.186 25.468 43.448 1.00 0.85 C
ATOM 5703 O GLY A 584 10.962 26.039 42.684 1.00 0.85 O
ATOM 5704 HN GLY A 584 12.622 24.690 44.607 1.00 0.00 H
ATOM 5705 N THR A 585 8.952 25.105 43.056 1.00 0.83 N
ATOM 5706 CA THR A 585 8.365 25.440 41.765 1.00 0.83 C
ATOM 5707 C THR A 585 8.171 26.926 41.551 1.00 0.83 C
ATOM 5708 O THR A 585 7.582 27.617 42.379 1.00 0.83 O
ATOM 5709 CB THR A 585 7.021 24.765 41.524 1.00 0.83 C
ATOM 5710 CG2 THR A 585 6.552 24.925 40.071 1.00 0.83 C
ATOM 5711 OG1 THR A 585 7.145 23.370 41.751 1.00 0.83 O
ATOM 5712 HN THR A 585 8.388 24.558 43.707 1.00 0.00 H
ATOM 5713 HG1 THR A 585 7.435 23.271 42.650 1.00 0.00 H
ATOM 5714 N VAL A 586 8.641 27.453 40.406 1.00 0.84 N
ATOM 5715 CA VAL A 586 8.418 28.837 40.026 1.00 0.84 C

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ATOM   5716  C   VAL A 586      7.765  28.864  38.662  1.00  0.84        C
ATOM   5717  O   VAL A 586      8.300  28.320  37.693  1.00  0.84        O
ATOM   5718  CB  VAL A 586      9.704  29.657  39.984  1.00  0.84        C
ATOM   5719  CG1 VAL A 586      9.400  31.128  39.629  1.00  0.84        C
ATOM   5720  CG2 VAL A 586     10.380  29.598  41.363  1.00  0.84        C
ATOM   5721  HN  VAL A 586      9.177  26.855  39.777  1.00  0.00        H
ATOM   5722  N   ASP A 587      6.587  29.509  38.558  1.00  0.83        N
ATOM   5723  CA  ASP A 587      5.910  29.747  37.304  1.00  0.83        C
ATOM   5724  C   ASP A 587      6.410  31.062  36.688  1.00  0.83        C
ATOM   5725  O   ASP A 587      6.430  32.110  37.339  1.00  0.83        O
ATOM   5726  CB  ASP A 587      4.372  29.830  37.500  1.00  0.83        C
ATOM   5727  CG  ASP A 587      3.691  28.553  37.933  1.00  0.83        C
ATOM   5728  OD1 ASP A 587      4.323  27.484  38.092  1.00  0.83        O
ATOM   5729  OD2 ASP A 587      2.437  28.601  38.036  1.00  0.83        O1-
ATOM   5730  HN  ASP A 587      6.148  29.849  39.414  1.00  0.00        H
ATOM   5731  N   TYR A 588      6.833  31.030  35.408  1.00  0.77        N
ATOM   5732  CA  TYR A 588      7.476  32.134  34.708  1.00  0.77        C
ATOM   5733  C   TYR A 588      6.624  32.662  33.573  1.00  0.77        C
ATOM   5734  O   TYR A 588      6.130  31.895  32.754  1.00  0.77        O
ATOM   5735  CB  TYR A 588      8.807  31.690  34.046  1.00  0.77        C
ATOM   5736  CG  TYR A 588      9.839  31.462  35.097  1.00  0.77        C
ATOM   5737  CD1 TYR A 588     10.467  32.561  35.700  1.00  0.77        C
ATOM   5738  CD2 TYR A 588     10.162  30.164  35.519  1.00  0.77        C
ATOM   5739  CE1 TYR A 588     11.381  32.363  36.741  1.00  0.77        C
ATOM   5740  CE2 TYR A 588     11.099  29.968  36.542  1.00  0.77        C
ATOM   5741  CZ  TYR A 588     11.706  31.069  37.155  1.00  0.77        C
ATOM   5742  OH  TYR A 588     12.611  30.896  38.219  1.00  0.77        O
ATOM   5743  HN  TYR A 588      6.691  30.164  34.888  1.00  0.00        H
ATOM   5744  HH  TYR A 588     13.023  31.644  38.635  1.00  0.00        H
ATOM   5745  N   ASN A 589      6.471  33.999  33.486  1.00  0.67        N
ATOM   5746  CA  ASN A 589      5.698  34.683  32.466  1.00  0.67        C
ATOM   5747  C   ASN A 589      6.567  35.014  31.278  1.00  0.67        C
ATOM   5748  O   ASN A 589      7.575  35.683  31.434  1.00  0.67        O
ATOM   5749  CB  ASN A 589      5.131  36.012  33.045  1.00  0.67        C
ATOM   5750  CG  ASN A 589      4.038  36.613  32.176  1.00  0.67        C
ATOM   5751  ND2 ASN A 589      3.217  37.490  32.790  1.00  0.67        N
ATOM   5752  OD1 ASN A 589      3.897  36.375  30.976  1.00  0.67        O
ATOM   5753  HN  ASN A 589      6.934  34.573  34.191  1.00  0.00        H
ATOM   5754 1HD2 ASN A 589      3.334  37.687  33.784  1.00  0.00        H
ATOM   5755 2HD2 ASN A 589      2.484  37.893  32.207  1.00  0.00        H
ATOM   5756  N   ILE A 590      6.155  34.579  30.070  1.00  0.69        N
ATOM   5757  CA  ILE A 590      6.921  34.724  28.845  1.00  0.69        C
ATOM   5758  C   ILE A 590      6.907  36.120  28.223  1.00  0.69        C
ATOM   5759  O   ILE A 590      7.729  36.419  27.358  1.00  0.69        O
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ATOM 5760 CB ILE A 590 6.470 33.669 27.832 1.00 0.69 C
ATOM 5761 CG1 ILE A 590 7.660 33.128 27.014 1.00 0.69 C
ATOM 5762 CG2 ILE A 590 5.321 34.159 26.923 1.00 0.69 C
ATOM 5763 CD1 ILE A 590 8.532 32.189 27.850 1.00 0.69 C
ATOM 5764 HN ILE A 590 5.247 34.118 30.013 1.00 0.00 H
ATOM 5765 N ILE A 591 5.974 37.014 28.637 1.00 0.64 N
ATOM 5766 CA ILE A 591 5.807 38.363 28.076 1.00 0.64 C
ATOM 5767 C ILE A 591 7.099 39.174 27.986 1.00 0.64 C
ATOM 5768 O ILE A 591 7.741 39.502 28.988 1.00 0.64 O
ATOM 5769 CB ILE A 591 4.741 39.191 28.821 1.00 0.64 C
ATOM 5770 CG1 ILE A 591 3.335 38.567 28.644 1.00 0.64 C
ATOM 5771 CG2 ILE A 591 4.720 40.675 28.364 1.00 0.64 C
ATOM 5772 CD1 ILE A 591 2.275 39.163 29.585 1.00 0.64 C
ATOM 5773 HN ILE A 591 5.345 36.731 29.389 1.00 0.00 H
ATOM 5774 N GLY A 592 7.494 39.534 26.746 1.00 0.78 N
ATOM 5775 CA GLY A 592 8.618 40.403 26.459 1.00 0.78 C
ATOM 5776 C GLY A 592 9.961 39.740 26.471 1.00 0.78 C
ATOM 5777 O GLY A 592 10.976 40.425 26.352 1.00 0.78 O
ATOM 5778 HN GLY A 592 6.964 39.168 25.955 1.00 0.00 H
ATOM 5779 N TRP A 593 10.042 38.402 26.606 1.00 0.75 N
ATOM 5780 CA TRP A 593 11.312 37.694 26.693 1.00 0.75 C
ATOM 5781 C TRP A 593 12.173 37.831 25.455 1.00 0.75 C
ATOM 5782 O TRP A 593 13.386 38.006 25.561 1.00 0.75 O
ATOM 5783 CB TRP A 593 11.156 36.194 27.043 1.00 0.75 C
ATOM 5784 CG TRP A 593 10.908 35.932 28.528 1.00 0.75 C
ATOM 5785 CD1 TRP A 593 10.115 36.642 29.382 1.00 0.75 C
ATOM 5786 CD2 TRP A 593 11.451 34.834 29.266 1.00 0.75 C
ATOM 5787 CE2 TRP A 593 10.878 34.917 30.581 1.00 0.75 C
ATOM 5788 CE3 TRP A 593 12.326 33.804 28.953 1.00 0.75 C
ATOM 5789 NE1 TRP A 593 10.084 36.016 30.591 1.00 0.75 N
ATOM 5790 CZ2 TRP A 593 11.149 33.954 31.518 1.00 0.75 C
ATOM 5791 CZ3 TRP A 593 12.622 32.845 29.926 1.00 0.75 C
ATOM 5792 CH2 TRP A 593 12.031 32.922 31.203 1.00 0.75 C
ATOM 5793 HN TRP A 593 9.178 37.862 26.649 1.00 0.00 H
ATOM 5794 HE1 TRP A 593 9.539 36.331 31.393 1.00 0.00 H
ATOM 5795 N LEU A 594 11.585 37.802 24.243 1.00 0.75 N
ATOM 5796 CA LEU A 594 12.354 38.037 23.034 1.00 0.75 C
ATOM 5797 C LEU A 594 12.970 39.429 22.962 1.00 0.75 C
ATOM 5798 O LEU A 594 14.127 39.594 22.573 1.00 0.75 O
ATOM 5799 CB LEU A 594 11.504 37.802 21.767 1.00 0.75 C
ATOM 5800 CG LEU A 594 11.012 36.354 21.579 1.00 0.75 C
ATOM 5801 CD1 LEU A 594 10.226 36.273 20.271 1.00 0.75 C
ATOM 5802 CD2 LEU A 594 12.133 35.306 21.557 1.00 0.75 C
ATOM 5803 HN LEU A 594 10.585 37.612 24.174 1.00 0.00 H

ATOM 5804 N GLN A 595 12.222 40.479 23.355 1.00 0.72 N
ATOM 5805 CA GLN A 595 12.752 41.829 23.448 1.00 0.72 C
ATOM 5806 C GLN A 595 13.772 42.014 24.563 1.00 0.72 C
ATOM 5807 O GLN A 595 14.816 42.627 24.351 1.00 0.72 O
ATOM 5808 CB GLN A 595 11.623 42.879 23.565 1.00 0.72 C
ATOM 5809 CG GLN A 595 10.817 43.028 22.252 1.00 0.72 C
ATOM 5810 CD GLN A 595 9.831 44.196 22.327 1.00 0.72 C
ATOM 5811 NE2 GLN A 595 9.354 44.648 21.144 1.00 0.72 N
ATOM 5812 OE1 GLN A 595 9.496 44.717 23.389 1.00 0.72 O
ATOM 5813 HN GLN A 595 11.244 40.320 23.597 1.00 0.00 H
ATOM 5814 1HE2 GLN A 595 9.632 44.216 20.263 1.00 0.00 H
ATOM 5815 2HE2 GLN A 595 8.697 45.426 21.194 1.00 0.00 H
ATOM 5816 N LYS A 596 13.529 41.457 25.769 1.00 0.74 N
ATOM 5817 CA LYS A 596 14.480 41.486 26.869 1.00 0.74 C
ATOM 5818 C LYS A 596 15.784 40.777 26.559 1.00 0.74 C
ATOM 5819 O LYS A 596 16.861 41.289 26.845 1.00 0.74 O
ATOM 5820 CB LYS A 596 13.879 40.836 28.142 1.00 0.74 C
ATOM 5821 CG LYS A 596 12.847 41.721 28.857 1.00 0.74 C
ATOM 5822 CD LYS A 596 12.325 41.060 30.146 1.00 0.74 C
ATOM 5823 CE LYS A 596 11.521 42.005 31.048 1.00 0.74 C
ATOM 5824 NZ LYS A 596 11.203 41.355 32.327 1.00 0.74 N1+
ATOM 5825 HN LYS A 596 12.633 40.992 25.916 1.00 0.00 H
ATOM 5826 HZ1 LYS A 596 10.668 41.983 32.927 1.00 0.00 H
ATOM 5827 HZ2 LYS A 596 12.041 41.008 32.794 1.00 0.00 H
ATOM 5828 HZ3 LYS A 596 10.725 40.465 32.190 1.00 0.00 H
ATOM 5829 N ASN A 597 15.724 39.582 25.950 1.00 0.76 N
ATOM 5830 CA ASN A 597 16.908 38.838 25.589 1.00 0.76 C
ATOM 5831 C ASN A 597 17.716 39.452 24.442 1.00 0.76 C
ATOM 5832 O ASN A 597 18.946 39.430 24.458 1.00 0.76 O
ATOM 5833 CB ASN A 597 16.510 37.374 25.304 1.00 0.76 C
ATOM 5834 CG ASN A 597 17.755 36.512 25.277 1.00 0.76 C
ATOM 5835 ND2 ASN A 597 17.908 35.603 24.295 1.00 0.76 N
ATOM 5836 OD1 ASN A 597 18.614 36.678 26.141 1.00 0.76 O
ATOM 5837 HN ASN A 597 14.809 39.185 25.735 1.00 0.00 H
ATOM 5838 1HD2 ASN A 597 18.746 35.022 24.277 1.00 0.00 H
ATOM 5839 2HD2 ASN A 597 17.195 35.465 23.578 1.00 0.00 H
ATOM 5840 N LYS A 598 17.057 40.011 23.403 1.00 0.71 N
ATOM 5841 CA LYS A 598 17.751 40.763 22.366 1.00 0.71 C
ATOM 5842 C LYS A 598 18.397 42.051 22.890 1.00 0.71 C
ATOM 5843 O LYS A 598 19.513 42.406 22.495 1.00 0.71 O
ATOM 5844 CB LYS A 598 16.800 41.092 21.176 1.00 0.71 C
ATOM 5845 CG LYS A 598 16.501 39.881 20.264 1.00 0.71 C
ATOM 5846 CD LYS A 598 15.765 40.250 18.954 1.00 0.71 C
ATOM 5847 CE LYS A 598 14.242 40.010 18.952 1.00 0.71 C

ATOM 5848 NZ LYS A 598 13.882 38.815 18.147 1.00 0.71 N1+
ATOM 5849 HN LYS A 598 16.044 39.903 23.343 1.00 0.00 H
ATOM 5850 HZ1 LYS A 598 12.874 38.656 18.146 1.00 0.00 H
ATOM 5851 HZ2 LYS A 598 14.390 37.987 18.459 1.00 0.00 H
ATOM 5852 HZ3 LYS A 598 14.251 38.878 17.198 1.00 0.00 H
ATOM 5853 N ASP A 599 17.690 42.771 23.790 1.00 0.75 N
ATOM 5854 CA ASP A 599 18.070 44.066 24.333 1.00 0.75 C
ATOM 5855 C ASP A 599 18.430 45.115 23.257 1.00 0.75 C
ATOM 5856 O ASP A 599 19.596 45.496 23.093 1.00 0.75 O
ATOM 5857 CB ASP A 599 19.125 43.854 25.442 1.00 0.75 C
ATOM 5858 CG ASP A 599 19.344 45.073 26.295 1.00 0.75 C
ATOM 5859 OD1 ASP A 599 18.415 45.508 27.031 1.00 0.75 O
ATOM 5860 OD2 ASP A 599 20.490 45.587 26.310 1.00 0.75 O1-
ATOM 5861 HN ASP A 599 16.811 42.370 24.118 1.00 0.00 H
ATOM 5862 N PRO A 600 17.472 45.532 22.429 1.00 0.78 N
ATOM 5863 CA PRO A 600 17.710 46.510 21.389 1.00 0.78 C
ATOM 5864 C PRO A 600 17.697 47.939 21.907 1.00 0.78 C
ATOM 5865 O PRO A 600 16.970 48.290 22.833 1.00 0.78 O
ATOM 5866 CB PRO A 600 16.541 46.257 20.427 1.00 0.78 C
ATOM 5867 CG PRO A 600 15.376 45.905 21.357 1.00 0.78 C
ATOM 5868 CD PRO A 600 16.062 45.125 22.481 1.00 0.78 C
ATOM 5869 N LEU A 601 18.506 48.791 21.268 1.00 0.77 N
ATOM 5870 CA LEU A 601 18.518 50.219 21.445 1.00 0.77 C
ATOM 5871 C LEU A 601 18.693 50.740 20.040 1.00 0.77 C
ATOM 5872 O LEU A 601 19.423 50.143 19.253 1.00 0.77 O
ATOM 5873 CB LEU A 601 19.714 50.639 22.337 1.00 0.77 C
ATOM 5874 CG LEU A 601 19.897 52.154 22.562 1.00 0.77 C
ATOM 5875 CD1 LEU A 601 18.704 52.770 23.302 1.00 0.77 C
ATOM 5876 CD2 LEU A 601 21.190 52.419 23.348 1.00 0.77 C
ATOM 5877 HN LEU A 601 19.169 48.396 20.601 1.00 0.00 H
ATOM 5878 N ASN A 602 17.997 51.816 19.626 1.00 0.79 N
ATOM 5879 CA ASN A 602 18.209 52.373 18.297 1.00 0.79 C
ATOM 5880 C ASN A 602 19.613 52.964 18.129 1.00 0.79 C
ATOM 5881 O ASN A 602 20.128 53.643 19.015 1.00 0.79 O
ATOM 5882 CB ASN A 602 17.143 53.433 17.915 1.00 0.79 C
ATOM 5883 CG ASN A 602 15.749 52.814 17.896 1.00 0.79 C
ATOM 5884 ND2 ASN A 602 14.753 53.535 18.462 1.00 0.79 N
ATOM 5885 OD1 ASN A 602 15.536 51.722 17.365 1.00 0.79 O
ATOM 5886 HN ASN A 602 17.314 52.246 20.250 1.00 0.00 H
ATOM 5887 1HD2 ASN A 602 14.929 54.439 18.901 1.00 0.00 H
ATOM 5888 2HD2 ASN A 602 13.821 53.121 18.449 1.00 0.00 H
ATOM 5889 N GLU A 603 20.257 52.734 16.964 1.00 0.72 N
ATOM 5890 CA GLU A 603 21.572 53.269 16.625 1.00 0.72 C
ATOM 5891 C GLU A 603 21.575 54.782 16.553 1.00 0.72 C

ATOM 5892 O GLU A 603 22.493 55.447 17.011 1.00 0.72 O
ATOM 5893 CB GLU A 603 22.106 52.663 15.305 1.00 0.72 C
ATOM 5894 CG GLU A 603 22.485 51.174 15.484 1.00 0.72 C
ATOM 5895 CD GLU A 603 22.555 50.359 14.195 1.00 0.72 C
ATOM 5896 OE1 GLU A 603 22.283 50.884 13.093 1.00 0.72 O
ATOM 5897 OE2 GLU A 603 22.765 49.127 14.332 1.00 0.72 O1-
ATOM 5898 HN GLU A 603 19.792 52.145 16.273 1.00 0.00 H
ATOM 5899 N THR A 604 20.466 55.373 16.061 1.00 0.75 N
ATOM 5900 CA THR A 604 20.261 56.815 16.099 1.00 0.75 C
ATOM 5901 C THR A 604 20.311 57.382 17.494 1.00 0.75 C
ATOM 5902 O THR A 604 20.944 58.415 17.712 1.00 0.75 O
ATOM 5903 CB THR A 604 18.916 57.242 15.523 1.00 0.75 C
ATOM 5904 CG2 THR A 604 18.921 56.993 14.011 1.00 0.75 C
ATOM 5905 OG1 THR A 604 17.848 56.469 16.065 1.00 0.75 O
ATOM 5906 HN THR A 604 19.742 54.787 15.646 1.00 0.00 H
ATOM 5907 HG1 THR A 604 17.010 56.735 15.706 1.00 0.00 H
ATOM 5908 N VAL A 605 19.704 56.724 18.490 1.00 0.80 N
ATOM 5909 CA VAL A 605 19.768 57.088 19.898 1.00 0.80 C
ATOM 5910 C VAL A 605 21.190 57.061 20.437 1.00 0.80 C
ATOM 5911 O VAL A 605 21.604 57.910 21.212 1.00 0.80 O
ATOM 5912 CB VAL A 605 18.811 56.257 20.745 1.00 0.80 C
ATOM 5913 CG1 VAL A 605 18.911 56.631 22.230 1.00 0.80 C
ATOM 5914 CG2 VAL A 605 17.368 56.511 20.268 1.00 0.80 C
ATOM 5915 HN VAL A 605 19.153 55.902 18.242 1.00 0.00 H
ATOM 5916 N VAL A 606 22.019 56.103 20.005 1.00 0.77 N
ATOM 5917 CA VAL A 606 23.433 56.102 20.334 1.00 0.77 C
ATOM 5918 C VAL A 606 24.199 57.296 19.759 1.00 0.77 C
ATOM 5919 O VAL A 606 24.947 57.961 20.479 1.00 0.77 O
ATOM 5920 CB VAL A 606 24.028 54.777 19.897 1.00 0.77 C
ATOM 5921 CG1 VAL A 606 25.546 54.706 20.144 1.00 0.77 C
ATOM 5922 CG2 VAL A 606 23.291 53.651 20.646 1.00 0.77 C
ATOM 5923 HN VAL A 606 21.646 55.350 19.427 1.00 0.00 H
ATOM 5924 N ASP A 607 23.978 57.651 18.476 1.00 0.75 N
ATOM 5925 CA ASP A 607 24.577 58.799 17.809 1.00 0.75 C
ATOM 5926 C ASP A 607 24.249 60.131 18.479 1.00 0.75 C
ATOM 5927 O ASP A 607 25.083 61.027 18.576 1.00 0.75 O
ATOM 5928 CB ASP A 607 24.100 58.867 16.340 1.00 0.75 C
ATOM 5929 CG ASP A 607 24.720 57.781 15.479 1.00 0.75 C
ATOM 5930 OD1 ASP A 607 25.692 57.113 15.929 1.00 0.75 O
ATOM 5931 OD2 ASP A 607 24.227 57.668 14.323 1.00 0.75 O1-
ATOM 5932 HN ASP A 607 23.342 57.070 17.930 1.00 0.00 H
ATOM 5933 N LEU A 608 23.012 60.278 18.987 1.00 0.76 N
ATOM 5934 CA LEU A 608 22.568 61.435 19.744 1.00 0.76 C
ATOM 5935 C LEU A 608 23.364 61.678 21.025 1.00 0.76 C

ATOM 5936 O LEU A 608 23.730 62.808 21.345 1.00 0.76 O
ATOM 5937 CB LEU A 608 21.078 61.257 20.133 1.00 0.76 C
ATOM 5938 CG LEU A 608 20.078 61.216 18.971 1.00 0.76 C
ATOM 5939 CD1 LEU A 608 18.678 60.861 19.480 1.00 0.76 C
ATOM 5940 CD2 LEU A 608 20.078 62.503 18.173 1.00 0.76 C
ATOM 5941 HN LEU A 608 22.341 59.526 18.830 1.00 0.00 H
ATOM 5942 N TYR A 609 23.672 60.611 21.789 1.00 0.75 N
ATOM 5943 CA TYR A 609 24.234 60.724 23.127 1.00 0.75 C
ATOM 5944 C TYR A 609 25.758 60.703 23.042 1.00 0.75 C
ATOM 5945 O TYR A 609 26.456 61.157 23.945 1.00 0.75 O
ATOM 5946 CB TYR A 609 23.703 59.583 24.056 1.00 0.75 C
ATOM 5947 CG TYR A 609 22.263 59.782 24.498 1.00 0.75 C
ATOM 5948 CD1 TYR A 609 21.244 59.939 23.553 1.00 0.75 C
ATOM 5949 CD2 TYR A 609 21.889 59.805 25.857 1.00 0.75 C
ATOM 5950 CE1 TYR A 609 19.946 60.279 23.916 1.00 0.75 C
ATOM 5951 CE2 TYR A 609 20.568 60.100 26.235 1.00 0.75 C
ATOM 5952 CZ TYR A 609 19.622 60.401 25.257 1.00 0.75 C
ATOM 5953 OH TYR A 609 18.351 60.868 25.596 1.00 0.75 O
ATOM 5954 HN TYR A 609 23.503 59.679 21.411 1.00 0.00 H
ATOM 5955 HH TYR A 609 17.706 61.073 24.929 1.00 0.00 H
ATOM 5956 N LYS A 610 26.311 60.283 21.883 1.00 0.72 N
ATOM 5957 CA LYS A 610 27.705 60.471 21.510 1.00 0.72 C
ATOM 5958 C LYS A 610 28.077 61.930 21.309 1.00 0.72 C
ATOM 5959 O LYS A 610 29.227 62.318 21.481 1.00 0.72 O
ATOM 5960 CB LYS A 610 28.011 59.725 20.192 1.00 0.72 C
ATOM 5961 CG LYS A 610 28.257 58.233 20.408 1.00 0.72 C
ATOM 5962 CD LYS A 610 28.309 57.459 19.088 1.00 0.72 C
ATOM 5963 CE LYS A 610 28.838 56.040 19.268 1.00 0.72 C
ATOM 5964 NZ LYS A 610 28.491 55.253 18.069 1.00 0.72 N1+
ATOM 5965 HN LYS A 610 25.706 59.798 21.220 1.00 0.00 H
ATOM 5966 HZ1 LYS A 610 28.845 54.304 18.189 1.00 0.00 H
ATOM 5967 HZ2 LYS A 610 28.822 55.687 17.207 1.00 0.00 H
ATOM 5968 HZ3 LYS A 610 27.492 55.275 17.863 1.00 0.00 H
ATOM 5969 N LYS A 611 27.098 62.783 20.956 1.00 0.73 N
ATOM 5970 CA LYS A 611 27.319 64.196 20.719 1.00 0.73 C
ATOM 5971 C LYS A 611 27.096 65.035 21.973 1.00 0.73 C
ATOM 5972 O LYS A 611 26.971 66.255 21.898 1.00 0.73 O
ATOM 5973 CB LYS A 611 26.338 64.712 19.640 1.00 0.73 C
ATOM 5974 CG LYS A 611 26.543 64.127 18.236 1.00 0.73 C
ATOM 5975 CD LYS A 611 25.473 64.691 17.288 1.00 0.73 C
ATOM 5976 CE LYS A 611 25.546 64.174 15.853 1.00 0.73 C
ATOM 5977 NZ LYS A 611 24.464 64.807 15.061 1.00 0.73 N1+
ATOM 5978 HN LYS A 611 26.152 62.417 20.850 1.00 0.00 H
ATOM 5979 HZ1 LYS A 611 24.513 64.462 14.102 1.00 0.00 H

ATOM 5980 HZ2 LYS A 611 24.490 65.825 15.110 1.00 0.00 H
ATOM 5981 HZ3 LYS A 611 23.544 64.669 15.479 1.00 0.00 H
ATOM 5982 N SER A 612 27.024 64.400 23.159 1.00 0.81 N
ATOM 5983 CA SER A 612 26.876 65.088 24.437 1.00 0.81 C
ATOM 5984 C SER A 612 28.010 66.040 24.792 1.00 0.81 C
ATOM 5985 O SER A 612 29.187 65.787 24.538 1.00 0.81 O
ATOM 5986 CB SER A 612 26.710 64.102 25.625 1.00 0.81 C
ATOM 5987 OG SER A 612 26.482 64.760 26.880 1.00 0.81 O
ATOM 5988 HN SER A 612 27.076 63.381 23.164 1.00 0.00 H
ATOM 5989 HG SER A 612 26.380 64.157 27.607 1.00 0.00 H
ATOM 5990 N SER A 613 27.662 67.151 25.466 1.00 0.81 N
ATOM 5991 CA SER A 613 28.616 68.072 26.058 1.00 0.81 C
ATOM 5992 C SER A 613 29.081 67.642 27.445 1.00 0.81 C
ATOM 5993 O SER A 613 30.002 68.229 28.014 1.00 0.81 O
ATOM 5994 CB SER A 613 28.023 69.506 26.143 1.00 0.81 C
ATOM 5995 OG SER A 613 26.851 69.569 26.962 1.00 0.81 O
ATOM 5996 HN SER A 613 26.669 67.359 25.567 1.00 0.00 H
ATOM 5997 HG SER A 613 26.489 70.446 27.014 1.00 0.00 H
ATOM 5998 N LEU A 614 28.489 66.582 28.036 1.00 0.80 N
ATOM 5999 CA LEU A 614 28.908 66.089 29.333 1.00 0.80 C
ATOM 6000 C LEU A 614 29.999 65.034 29.216 1.00 0.80 C
ATOM 6001 O LEU A 614 29.858 64.035 28.515 1.00 0.80 O
ATOM 6002 CB LEU A 614 27.774 65.401 30.124 1.00 0.80 C
ATOM 6003 CG LEU A 614 26.486 66.200 30.363 1.00 0.80 C
ATOM 6004 CD1 LEU A 614 25.568 65.308 31.210 1.00 0.80 C
ATOM 6005 CD2 LEU A 614 26.715 67.559 31.039 1.00 0.80 C
ATOM 6006 HN LEU A 614 27.722 66.113 27.554 1.00 0.00 H
ATOM 6007 N LYS A 615 31.099 65.200 29.980 1.00 0.77 N
ATOM 6008 CA LYS A 615 32.238 64.293 30.010 1.00 0.77 C
ATOM 6009 C LYS A 615 31.904 62.857 30.424 1.00 0.77 C
ATOM 6010 O LYS A 615 32.412 61.889 29.864 1.00 0.77 O
ATOM 6011 CB LYS A 615 33.302 64.841 31.004 1.00 0.77 C
ATOM 6012 CG LYS A 615 33.891 66.223 30.652 1.00 0.77 C
ATOM 6013 CD LYS A 615 34.826 66.744 31.764 1.00 0.77 C
ATOM 6014 CE LYS A 615 35.409 68.145 31.517 1.00 0.77 C
ATOM 6015 NZ LYS A 615 36.096 68.628 32.733 1.00 0.77 N1+
ATOM 6016 HN LYS A 615 31.135 66.023 30.582 1.00 0.00 H
ATOM 6017 HZ1 LYS A 615 36.483 69.557 32.569 1.00 0.00 H
ATOM 6018 HZ2 LYS A 615 36.805 67.971 33.058 1.00 0.00 H
ATOM 6019 HZ3 LYS A 615 35.487 68.606 33.551 1.00 0.00 H
ATOM 6020 N MET A 616 31.037 62.670 31.439 1.00 0.81 N
ATOM 6021 CA MET A 616 30.577 61.344 31.818 1.00 0.81 C
ATOM 6022 C MET A 616 29.628 60.721 30.796 1.00 0.81 C
ATOM 6023 O MET A 616 29.732 59.547 30.464 1.00 0.81 O

ATOM 6024 CB MET A 616 29.966 61.380 33.239 1.00 0.81 C
ATOM 6025 CG MET A 616 29.646 60.000 33.858 1.00 0.81 C
ATOM 6026 SD MET A 616 28.044 59.269 33.405 1.00 0.81 S
ATOM 6027 CE MET A 616 27.048 60.521 34.249 1.00 0.81 C
ATOM 6028 HN MET A 616 30.695 63.480 31.955 1.00 0.00 H
ATOM 6029 N LEU A 617 28.675 61.484 30.219 1.00 0.81 N
ATOM 6030 CA LEU A 617 27.768 60.920 29.229 1.00 0.81 C
ATOM 6031 C LEU A 617 28.460 60.496 27.942 1.00 0.81 C
ATOM 6032 O LEU A 617 28.184 59.433 27.386 1.00 0.81 O
ATOM 6033 CB LEU A 617 26.596 61.867 28.893 1.00 0.81 C
ATOM 6034 CG LEU A 617 25.523 61.240 27.972 1.00 0.81 C
ATOM 6035 CD1 LEU A 617 25.011 59.901 28.523 1.00 0.81 C
ATOM 6036 CD2 LEU A 617 24.354 62.200 27.742 1.00 0.81 C
ATOM 6037 HN LEU A 617 28.589 62.466 30.479 1.00 0.00 H
ATOM 6038 N SER A 618 29.431 61.299 27.463 1.00 0.79 N
ATOM 6039 CA SER A 618 30.269 60.923 26.336 1.00 0.79 C
ATOM 6040 C SER A 618 31.084 59.669 26.602 1.00 0.79 C
ATOM 6041 O SER A 618 31.221 58.826 25.723 1.00 0.79 O
ATOM 6042 CB SER A 618 31.158 62.080 25.809 1.00 0.79 C
ATOM 6043 OG SER A 618 32.151 62.489 26.749 1.00 0.79 O
ATOM 6044 HN SER A 618 29.584 62.204 27.908 1.00 0.00 H
ATOM 6045 HG SER A 618 32.695 63.198 26.426 1.00 0.00 H
ATOM 6046 N SER A 619 31.585 59.450 27.840 1.00 0.78 N
ATOM 6047 CA SER A 619 32.202 58.174 28.202 1.00 0.78 C
ATOM 6048 C SER A 619 31.266 56.975 28.095 1.00 0.78 C
ATOM 6049 O SER A 619 31.657 55.931 27.581 1.00 0.78 O
ATOM 6050 CB SER A 619 32.935 58.173 29.582 1.00 0.78 C
ATOM 6051 OG SER A 619 32.071 57.933 30.696 1.00 0.78 O
ATOM 6052 HN SER A 619 31.531 60.192 28.537 1.00 0.00 H
ATOM 6053 HG SER A 619 32.517 57.932 31.535 1.00 0.00 H
ATOM 6054 N LEU A 620 29.990 57.102 28.515 1.00 0.75 N
ATOM 6055 CA LEU A 620 29.013 56.027 28.421 1.00 0.75 C
ATOM 6056 C LEU A 620 28.645 55.619 26.999 1.00 0.75 C
ATOM 6057 O LEU A 620 28.175 54.507 26.786 1.00 0.75 O
ATOM 6058 CB LEU A 620 27.669 56.363 29.122 1.00 0.75 C
ATOM 6059 CG LEU A 620 27.729 56.757 30.609 1.00 0.75 C
ATOM 6060 CD1 LEU A 620 26.308 56.789 31.188 1.00 0.75 C
ATOM 6061 CD2 LEU A 620 28.622 55.851 31.463 1.00 0.75 C
ATOM 6062 HN LEU A 620 29.696 57.992 28.917 1.00 0.00 H
ATOM 6063 N PHE A 621 28.792 56.509 25.998 1.00 0.67 N
ATOM 6064 CA PHE A 621 28.395 56.209 24.627 1.00 0.67 C
ATOM 6065 C PHE A 621 29.570 56.210 23.658 1.00 0.67 C
ATOM 6066 O PHE A 621 29.381 56.111 22.445 1.00 0.67 O
ATOM 6067 CB PHE A 621 27.317 57.220 24.137 1.00 0.67 C

ATOM 6068 CG PHE A 621 25.961 56.897 24.704 1.00 0.67 C
ATOM 6069 CD1 PHE A 621 25.635 57.236 26.024 1.00 0.67 C
ATOM 6070 CD2 PHE A 621 24.978 56.290 23.902 1.00 0.67 C
ATOM 6071 CE1 PHE A 621 24.369 56.948 26.549 1.00 0.67 C
ATOM 6072 CE2 PHE A 621 23.700 56.016 24.412 1.00 0.67 C
ATOM 6073 CZ PHE A 621 23.401 56.335 25.743 1.00 0.67 C
ATOM 6074 HN PHE A 621 29.194 57.423 26.206 1.00 0.00 H
ATOM 6075 N ALA A 622 30.815 56.305 24.158 1.00 0.70 N
ATOM 6076 CA ALA A 622 31.997 56.245 23.318 1.00 0.70 C
ATOM 6077 C ALA A 622 33.086 55.345 23.883 1.00 0.70 C
ATOM 6078 O ALA A 622 34.027 54.989 23.174 1.00 0.70 O
ATOM 6079 CB ALA A 622 32.584 57.659 23.123 1.00 0.70 C
ATOM 6080 HN ALA A 622 30.933 56.424 25.164 1.00 0.00 H
ATOM 6081 N ASN A 623 33.002 54.912 25.159 1.00 0.64 N
ATOM 6082 CA ASN A 623 33.932 53.930 25.683 1.00 0.64 C
ATOM 6083 C ASN A 623 33.424 52.529 25.369 1.00 0.64 C
ATOM 6084 O ASN A 623 32.386 52.096 25.858 1.00 0.64 O
ATOM 6085 CB ASN A 623 34.137 54.117 27.211 1.00 0.64 C
ATOM 6086 CG ASN A 623 35.328 53.328 27.743 1.00 0.64 C
ATOM 6087 ND2 ASN A 623 35.819 53.738 28.934 1.00 0.64 N
ATOM 6088 OD1 ASN A 623 35.839 52.382 27.140 1.00 0.64 O
ATOM 6089 HN ASN A 623 32.271 55.282 25.766 1.00 0.00 H
ATOM 6090 1HD2 ASN A 623 35.396 54.521 29.433 1.00 0.00 H
ATOM 6091 2HD2 ASN A 623 36.616 53.210 29.290 1.00 0.00 H
ATOM 6092 N TYR A 624 34.199 51.768 24.572 1.00 0.49 N
ATOM 6093 CA TYR A 624 33.866 50.431 24.124 1.00 0.49 C
ATOM 6094 C TYR A 624 33.663 49.437 25.268 1.00 0.49 C
ATOM 6095 O TYR A 624 32.871 48.503 25.178 1.00 0.49 O
ATOM 6096 CB TYR A 624 34.931 49.936 23.094 1.00 0.49 C
ATOM 6097 CG TYR A 624 36.262 49.610 23.731 1.00 0.49 C
ATOM 6098 CD1 TYR A 624 36.526 48.286 24.120 1.00 0.49 C
ATOM 6099 CD2 TYR A 624 37.218 50.604 24.008 1.00 0.49 C
ATOM 6100 CE1 TYR A 624 37.704 47.965 24.806 1.00 0.49 C
ATOM 6101 CE2 TYR A 624 38.399 50.283 24.695 1.00 0.49 C
ATOM 6102 CZ TYR A 624 38.634 48.964 25.101 1.00 0.49 C
ATOM 6103 OH TYR A 624 39.800 48.630 25.816 1.00 0.49 O
ATOM 6104 HN TYR A 624 35.087 52.163 24.261 1.00 0.00 H
ATOM 6105 HH TYR A 624 40.433 49.310 26.017 1.00 0.00 H
ATOM 6106 N ALA A 625 34.385 49.625 26.392 1.00 0.63 N
ATOM 6107 CA ALA A 625 34.319 48.762 27.548 1.00 0.63 C
ATOM 6108 C ALA A 625 33.089 49.007 28.432 1.00 0.63 C
ATOM 6109 O ALA A 625 33.183 49.250 29.634 1.00 0.63 O
ATOM 6110 CB ALA A 625 35.613 48.935 28.365 1.00 0.63 C
ATOM 6111 HN ALA A 625 35.016 50.426 26.427 1.00 0.00 H

ATOM 6112 N GLY A 626 31.877 48.905 27.851 1.00 0.66 N
ATOM 6113 CA GLY A 626 30.607 49.103 28.544 1.00 0.66 C
ATOM 6114 C GLY A 626 30.029 47.825 29.073 1.00 0.66 C
ATOM 6115 O GLY A 626 28.892 47.800 29.548 1.00 0.66 O
ATOM 6116 HN GLY A 626 31.845 48.673 26.858 1.00 0.00 H
ATOM 6117 N PHE A 627 30.811 46.724 28.987 1.00 0.54 N
ATOM 6118 CA PHE A 627 30.361 45.339 29.025 1.00 0.54 C
ATOM 6119 C PHE A 627 29.358 45.114 27.910 1.00 0.54 C
ATOM 6120 O PHE A 627 29.420 45.790 26.891 1.00 0.54 O
ATOM 6121 CB PHE A 627 29.816 44.869 30.415 1.00 0.54 C
ATOM 6122 CG PHE A 627 30.795 45.069 31.556 1.00 0.54 C
ATOM 6123 CD1 PHE A 627 31.057 46.352 32.073 1.00 0.54 C
ATOM 6124 CD2 PHE A 627 31.407 43.967 32.185 1.00 0.54 C
ATOM 6125 CE1 PHE A 627 31.930 46.542 33.149 1.00 0.54 C
ATOM 6126 CE2 PHE A 627 32.260 44.148 33.285 1.00 0.54 C
ATOM 6127 CZ PHE A 627 32.529 45.437 33.759 1.00 0.54 C
ATOM 6128 HN PHE A 627 31.814 46.879 28.886 1.00 0.00 H
ATOM 6129 N ASP A 628 28.420 44.174 28.058 1.00 0.59 N
ATOM 6130 CA ASP A 628 27.517 43.855 26.982 1.00 0.59 C
ATOM 6131 C ASP A 628 26.074 43.958 27.431 1.00 0.59 C
ATOM 6132 O ASP A 628 25.135 43.747 26.664 1.00 0.59 O
ATOM 6133 CB ASP A 628 27.815 42.433 26.538 1.00 0.59 C
ATOM 6134 CG ASP A 628 29.170 42.376 25.871 1.00 0.59 C
ATOM 6135 OD1 ASP A 628 29.181 42.535 24.626 1.00 0.59 O
ATOM 6136 OD2 ASP A 628 30.177 42.185 26.597 1.00 0.59 O1-
ATOM 6137 HN ASP A 628 28.342 43.676 28.945 1.00 0.00 H
ATOM 6138 N THR A 629 25.826 44.298 28.704 1.00 0.65 N
ATOM 6139 CA THR A 629 24.520 44.122 29.303 1.00 0.65 C
ATOM 6140 C THR A 629 23.737 45.431 29.387 1.00 0.65 C
ATOM 6141 O THR A 629 22.504 45.376 29.411 1.00 0.65 O
ATOM 6142 CB THR A 629 24.638 43.448 30.664 1.00 0.65 C
ATOM 6143 CG2 THR A 629 25.359 42.100 30.517 1.00 0.65 C
ATOM 6144 OG1 THR A 629 25.469 44.175 31.555 1.00 0.65 O
ATOM 6145 HN THR A 629 26.580 44.692 29.267 1.00 0.00 H
ATOM 6146 HG1 THR A 629 25.543 43.755 32.404 1.00 0.00 H
ATOM 6147 N PRO A 630 24.351 46.629 29.337 1.00 0.70 N
ATOM 6148 CA PRO A 630 23.621 47.843 28.954 1.00 0.70 C
ATOM 6149 C PRO A 630 24.205 48.523 27.753 1.00 0.70 C
ATOM 6150 O PRO A 630 23.688 49.583 27.380 1.00 0.70 O
ATOM 6151 CB PRO A 630 23.905 48.797 30.089 1.00 0.70 C
ATOM 6152 CG PRO A 630 25.349 48.469 30.478 1.00 0.70 C
ATOM 6153 CD PRO A 630 25.417 46.957 30.304 1.00 0.70 C
ATOM 6154 N ILE A 631 25.328 48.007 27.233 1.00 0.59 N
ATOM 6155 CA ILE A 631 26.125 48.508 26.127 1.00 0.59 C

ATOM 6156 C ILE A 631 25.336 49.121 24.991 1.00 0.59 C
ATOM 6157 O ILE A 631 24.219 48.698 24.680 1.00 0.59 O
ATOM 6158 CB ILE A 631 26.998 47.391 25.608 1.00 0.59 C
ATOM 6159 CG1 ILE A 631 28.123 47.839 24.650 1.00 0.59 C
ATOM 6160 CG2 ILE A 631 26.113 46.313 24.954 1.00 0.59 C
ATOM 6161 CD1 ILE A 631 29.138 48.827 25.232 1.00 0.59 C
ATOM 6162 HN ILE A 631 25.667 47.151 27.671 1.00 0.00 H
ATOM 6163 N GLU A 632 25.834 50.167 24.320 1.00 0.64 N
ATOM 6164 CA GLU A 632 25.148 50.619 23.141 1.00 0.64 C
ATOM 6165 C GLU A 632 25.089 49.592 22.033 1.00 0.64 C
ATOM 6166 O GLU A 632 26.000 48.800 21.791 1.00 0.64 O
ATOM 6167 CB GLU A 632 25.675 51.956 22.580 1.00 0.64 C
ATOM 6168 CG GLU A 632 27.179 51.964 22.250 1.00 0.64 C
ATOM 6169 CD GLU A 632 28.127 52.252 23.406 1.00 0.64 C
ATOM 6170 OE1 GLU A 632 27.701 52.173 24.585 1.00 0.64 O
ATOM 6171 OE2 GLU A 632 29.299 52.556 23.082 1.00 0.64 O1-
ATOM 6172 HN GLU A 632 26.683 50.634 24.639 1.00 0.00 H
ATOM 6173 N LYS A 633 23.973 49.608 21.285 1.00 0.65 N
ATOM 6174 CA LYS A 633 23.945 48.981 19.991 1.00 0.65 C
ATOM 6175 C LYS A 633 24.972 49.661 19.083 1.00 0.65 C
ATOM 6176 O LYS A 633 24.869 50.846 18.767 1.00 0.65 O
ATOM 6177 CB LYS A 633 22.535 49.040 19.389 1.00 0.65 C
ATOM 6178 CG LYS A 633 22.424 48.186 18.132 1.00 0.65 C
ATOM 6179 CD LYS A 633 21.033 48.273 17.516 1.00 0.65 C
ATOM 6180 CE LYS A 633 20.991 47.523 16.198 1.00 0.65 C
ATOM 6181 NZ LYS A 633 19.951 48.090 15.329 1.00 0.65 N1+
ATOM 6182 HN LYS A 633 23.136 50.070 21.639 1.00 0.00 H
ATOM 6183 HZ1 LYS A 633 19.923 47.586 14.443 1.00 0.00 H
ATOM 6184 HZ2 LYS A 633 20.072 49.094 15.194 1.00 0.00 H
ATOM 6185 HZ3 LYS A 633 19.040 48.110 15.787 1.00 0.00 H
ATOM 6186 N GLY A 634 26.054 48.941 18.750 1.00 0.66 N
ATOM 6187 CA GLY A 634 27.286 49.574 18.328 1.00 0.66 C
ATOM 6188 C GLY A 634 28.396 48.602 18.592 1.00 0.66 C
ATOM 6189 O GLY A 634 28.151 47.453 18.936 1.00 0.66 O
ATOM 6190 HN GLY A 634 26.008 47.923 18.795 1.00 0.00 H
ATOM 6191 N LYS A 635 29.664 49.013 18.418 1.00 0.56 N
ATOM 6192 CA LYS A 635 30.786 48.089 18.394 1.00 0.56 C
ATOM 6193 C LYS A 635 31.248 47.555 19.737 1.00 0.56 C
ATOM 6194 O LYS A 635 32.023 46.605 19.770 1.00 0.56 O
ATOM 6195 CB LYS A 635 32.010 48.772 17.745 1.00 0.56 C
ATOM 6196 CG LYS A 635 31.835 49.100 16.256 1.00 0.56 C
ATOM 6197 CD LYS A 635 33.095 49.789 15.709 1.00 0.56 C
ATOM 6198 CE LYS A 635 33.060 50.044 14.200 1.00 0.56 C
ATOM 6199 NZ LYS A 635 34.308 50.720 13.776 1.00 0.56 N1+

ATOM 6200 HN LYS A 635 29.846 50.010 18.298 1.00 0.00 H
ATOM 6201 HZ1 LYS A 635 34.285 50.890 12.771 1.00 0.00 H
ATOM 6202 HZ2 LYS A 635 35.140 50.201 14.058 1.00 0.00 H
ATOM 6203 HZ3 LYS A 635 34.480 51.575 14.305 1.00 0.00 H
ATOM 6204 N GLY A 636 30.811 48.141 20.870 1.00 0.57 N
ATOM 6205 CA GLY A 636 31.160 47.579 22.169 1.00 0.57 C
ATOM 6206 C GLY A 636 30.371 46.344 22.505 1.00 0.57 C
ATOM 6207 O GLY A 636 30.822 45.531 23.299 1.00 0.57 O
ATOM 6208 HN GLY A 636 30.234 48.981 20.818 1.00 0.00 H
ATOM 6209 N LYS A 637 29.178 46.156 21.893 1.00 0.56 N
ATOM 6210 CA LYS A 637 28.365 44.975 22.123 1.00 0.56 C
ATOM 6211 C LYS A 637 28.905 43.837 21.290 1.00 0.56 C
ATOM 6212 O LYS A 637 28.973 43.921 20.060 1.00 0.56 O
ATOM 6213 CB LYS A 637 26.863 45.226 21.779 1.00 0.56 C
ATOM 6214 CG LYS A 637 25.884 44.135 22.284 1.00 0.56 C
ATOM 6215 CD LYS A 637 24.391 44.562 22.285 1.00 0.56 C
ATOM 6216 CE LYS A 637 23.461 43.545 22.986 1.00 0.56 C
ATOM 6217 NZ LYS A 637 22.024 43.916 22.892 1.00 0.56 N1+
ATOM 6218 HN LYS A 637 28.838 46.869 21.248 1.00 0.00 H
ATOM 6219 HZ1 LYS A 637 21.410 43.245 23.354 1.00 0.00 H
ATOM 6220 HZ2 LYS A 637 21.746 44.056 21.921 1.00 0.00 H
ATOM 6221 HZ3 LYS A 637 21.867 44.859 23.247 1.00 0.00 H
ATOM 6222 N ALA A 638 29.320 42.740 21.944 1.00 0.59 N
ATOM 6223 CA ALA A 638 29.878 41.581 21.301 1.00 0.59 C
ATOM 6224 C ALA A 638 28.941 40.957 20.272 1.00 0.59 C
ATOM 6225 O ALA A 638 27.713 41.023 20.363 1.00 0.59 O
ATOM 6226 CB ALA A 638 30.320 40.553 22.357 1.00 0.59 C
ATOM 6227 HN ALA A 638 29.234 42.728 22.960 1.00 0.00 H
ATOM 6228 N LYS A 639 29.516 40.365 19.216 1.00 0.60 N
ATOM 6229 CA LYS A 639 28.756 39.792 18.131 1.00 0.60 C
ATOM 6230 C LYS A 639 28.979 38.303 18.084 1.00 0.60 C
ATOM 6231 O LYS A 639 30.100 37.814 18.209 1.00 0.60 O
ATOM 6232 CB LYS A 639 29.180 40.338 16.748 1.00 0.60 C
ATOM 6233 CG LYS A 639 28.860 41.817 16.506 1.00 0.60 C
ATOM 6234 CD LYS A 639 29.251 42.195 15.070 1.00 0.60 C
ATOM 6235 CE LYS A 639 28.927 43.640 14.706 1.00 0.60 C
ATOM 6236 NZ LYS A 639 29.312 43.864 13.297 1.00 0.60 N1+
ATOM 6237 HN LYS A 639 30.534 40.317 19.177 1.00 0.00 H
ATOM 6238 HZ1 LYS A 639 29.095 44.831 13.054 1.00 0.00 H
ATOM 6239 HZ2 LYS A 639 28.880 43.193 12.661 1.00 0.00 H
ATOM 6240 HZ3 LYS A 639 30.286 43.622 13.114 1.00 0.00 H
ATOM 6241 N LYS A 640 27.902 37.545 17.842 1.00 0.63 N
ATOM 6242 CA LYS A 640 28.005 36.149 17.497 1.00 0.63 C
ATOM 6243 C LYS A 640 27.388 35.989 16.122 1.00 0.63 C

ATOM 6244 O LYS A 640 26.174 36.058 15.929 1.00 0.63 O
ATOM 6245 CB LYS A 640 27.308 35.271 18.560 1.00 0.63 C
ATOM 6246 CG LYS A 640 27.461 33.758 18.334 1.00 0.63 C
ATOM 6247 CD LYS A 640 26.782 32.946 19.451 1.00 0.63 C
ATOM 6248 CE LYS A 640 26.808 31.433 19.216 1.00 0.63 C
ATOM 6249 NZ LYS A 640 26.068 30.741 20.298 1.00 0.63 N1+
ATOM 6250 HN LYS A 640 26.977 37.970 17.904 1.00 0.00 H
ATOM 6251 HZ1 LYS A 640 26.085 29.733 20.141 1.00 0.00 H
ATOM 6252 HZ2 LYS A 640 25.117 31.096 20.399 1.00 0.00 H
ATOM 6253 HZ3 LYS A 640 26.419 30.991 21.222 1.00 0.00 H
ATOM 6254 N GLY A 641 28.242 35.791 15.097 1.00 0.59 N
ATOM 6255 CA GLY A 641 27.818 35.836 13.702 1.00 0.59 C
ATOM 6256 C GLY A 641 27.306 37.190 13.267 1.00 0.59 C
ATOM 6257 O GLY A 641 28.003 38.200 13.336 1.00 0.59 O
ATOM 6258 HN GLY A 641 29.223 35.602 15.305 1.00 0.00 H
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ATOM 6260 CA SER A 642 25.427 38.441 12.270 1.00 0.57 C
ATOM 6261 C SER A 642 24.596 39.161 13.311 1.00 0.57 C
ATOM 6262 O SER A 642 24.027 40.214 13.033 1.00 0.57 O
ATOM 6263 CB SER A 642 24.475 38.095 11.092 1.00 0.57 C
ATOM 6264 OG SER A 642 23.602 37.014 11.436 1.00 0.57 O
ATOM 6265 HN SER A 642 25.507 36.375 12.790 1.00 0.00 H
ATOM 6266 HG SER A 642 23.020 36.802 10.716 1.00 0.00 H
ATOM 6267 N SER A 643 24.532 38.634 14.547 1.00 0.64 N
ATOM 6268 CA SER A 643 23.712 39.195 15.607 1.00 0.64 C
ATOM 6269 C SER A 643 24.567 39.618 16.773 1.00 0.64 C
ATOM 6270 O SER A 643 25.614 39.045 17.069 1.00 0.64 O
ATOM 6271 CB SER A 643 22.654 38.196 16.140 1.00 0.64 C
ATOM 6272 OG SER A 643 21.685 38.829 16.983 1.00 0.64 O
ATOM 6273 HN SER A 643 25.085 37.801 14.750 1.00 0.00 H
ATOM 6274 HG SER A 643 21.036 38.217 17.310 1.00 0.00 H
ATOM 6275 N PHE A 644 24.119 40.660 17.490 1.00 0.59 N
ATOM 6276 CA PHE A 644 24.633 40.999 18.796 1.00 0.59 C
ATOM 6277 C PHE A 644 24.362 39.918 19.828 1.00 0.59 C
ATOM 6278 O PHE A 644 23.352 39.214 19.790 1.00 0.59 O
ATOM 6279 CB PHE A 644 24.032 42.322 19.317 1.00 0.59 C
ATOM 6280 CG PHE A 644 24.546 43.483 18.519 1.00 0.59 C
ATOM 6281 CD1 PHE A 644 25.902 43.839 18.590 1.00 0.59 C
ATOM 6282 CD2 PHE A 644 23.683 44.247 17.717 1.00 0.59 C
ATOM 6283 CE1 PHE A 644 26.382 44.963 17.909 1.00 0.59 C
ATOM 6284 CE2 PHE A 644 24.168 45.356 17.010 1.00 0.59 C
ATOM 6285 CZ PHE A 644 25.513 45.729 17.125 1.00 0.59 C
ATOM 6286 HN PHE A 644 23.380 41.240 17.093 1.00 0.00 H
ATOM 6287 N GLN A 645 25.284 39.766 20.788 1.00 0.64 N

ATOM 6288 CA GLN A 645 25.151 38.840 21.883 1.00 0.64 C
ATOM 6289 C GLN A 645 23.942 39.097 22.775 1.00 0.64 C
ATOM 6290 O GLN A 645 23.608 40.225 23.141 1.00 0.64 O
ATOM 6291 CB GLN A 645 26.470 38.802 22.679 1.00 0.64 C
ATOM 6292 CG GLN A 645 26.596 37.576 23.606 1.00 0.64 C
ATOM 6293 CD GLN A 645 28.054 37.294 23.974 1.00 0.64 C
ATOM 6294 NE2 GLN A 645 28.266 36.669 25.145 1.00 0.64 N
ATOM 6295 OE1 GLN A 645 28.963 37.569 23.185 1.00 0.64 O
ATOM 6296 HN GLN A 645 26.127 40.338 20.741 1.00 0.00 H
ATOM 6297 1HE2 GLN A 645 27.515 36.442 25.797 1.00 0.00 H
ATOM 6298 2HE2 GLN A 645 29.238 36.481 25.390 1.00 0.00 H
ATOM 6299 N THR A 646 23.218 38.018 23.103 1.00 0.77 N
ATOM 6300 CA THR A 646 21.976 38.067 23.847 1.00 0.77 C
ATOM 6301 C THR A 646 22.215 38.139 25.339 1.00 0.77 C
ATOM 6302 O THR A 646 23.243 37.701 25.848 1.00 0.77 O
ATOM 6303 CB THR A 646 21.086 36.859 23.577 1.00 0.77 C
ATOM 6304 CG2 THR A 646 20.660 36.834 22.100 1.00 0.77 C
ATOM 6305 OG1 THR A 646 21.773 35.641 23.839 1.00 0.77 O
ATOM 6306 HN THR A 646 23.563 37.104 22.810 1.00 0.00 H
ATOM 6307 HG1 THR A 646 21.218 34.888 23.671 1.00 0.00 H
ATOM 6308 N VAL A 647 21.241 38.662 26.110 1.00 0.77 N
ATOM 6309 CA VAL A 647 21.318 38.731 27.568 1.00 0.77 C
ATOM 6310 C VAL A 647 21.459 37.347 28.206 1.00 0.77 C
ATOM 6311 O VAL A 647 22.192 37.154 29.175 1.00 0.77 O
ATOM 6312 CB VAL A 647 20.177 39.541 28.179 1.00 0.77 C
ATOM 6313 CG1 VAL A 647 20.406 39.738 29.693 1.00 0.77 C
ATOM 6314 CG2 VAL A 647 20.120 40.924 27.500 1.00 0.77 C
ATOM 6315 HN VAL A 647 20.407 39.029 25.652 1.00 0.00 H
ATOM 6316 N SER A 648 20.818 36.312 27.628 1.00 0.83 N
ATOM 6317 CA SER A 648 21.021 34.914 27.976 1.00 0.83 C
ATOM 6318 C SER A 648 22.452 34.438 27.821 1.00 0.83 C
ATOM 6319 O SER A 648 23.017 33.866 28.747 1.00 0.83 O
ATOM 6320 CB SER A 648 20.102 33.962 27.147 1.00 0.83 C
ATOM 6321 OG SER A 648 20.387 33.969 25.743 1.00 0.83 O
ATOM 6322 HN SER A 648 20.142 36.524 26.894 1.00 0.00 H
ATOM 6323 HG SER A 648 19.828 33.390 25.239 1.00 0.00 H
ATOM 6324 N ALA A 649 23.109 34.723 26.682 1.00 0.82 N
ATOM 6325 CA ALA A 649 24.486 34.361 26.430 1.00 0.82 C
ATOM 6326 C ALA A 649 25.441 35.056 27.391 1.00 0.82 C
ATOM 6327 O ALA A 649 26.374 34.462 27.925 1.00 0.82 O
ATOM 6328 CB ALA A 649 24.826 34.706 24.971 1.00 0.82 C
ATOM 6329 HN ALA A 649 22.605 35.225 25.951 1.00 0.00 H
ATOM 6330 N LEU A 650 25.175 36.340 27.680 1.00 0.76 N
ATOM 6331 CA LEU A 650 25.873 37.144 28.667 1.00 0.76 C

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ATOM   6332  C   LEU A 650     25.726  36.656  30.099  1.00  0.76         C
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ATOM   6334  CB  LEU A 650     25.385  38.602  28.565  1.00  0.76         C
ATOM   6335  CG  LEU A 650     25.702  39.215  27.191  1.00  0.76         C
ATOM   6336  CD1 LEU A 650     24.967  40.545  26.975  1.00  0.76         C
ATOM   6337  CD2 LEU A 650     27.213  39.325  26.976  1.00  0.76         C
ATOM   6338  HN  LEU A 650     24.419  36.788  27.163  1.00  0.00         H
ATOM   6339  N   HIS A 651     24.522  36.192  30.492  1.00  0.81         N
ATOM   6340  CA  HIS A 651     24.301  35.504  31.755  1.00  0.81         C
ATOM   6341  C   HIS A 651     25.161  34.253  31.866  1.00  0.81         C
ATOM   6342  O   HIS A 651     25.837  34.032  32.869  1.00  0.81         O
ATOM   6343  CB  HIS A 651     22.805  35.130  31.906  1.00  0.81         C
ATOM   6344  CG  HIS A 651     22.474  34.490  33.214  1.00  0.81         C
ATOM   6345  CD2 HIS A 651     22.102  33.216  33.507  1.00  0.81         C
ATOM   6346  ND1 HIS A 651     22.621  35.227  34.371  1.00  0.81         N
ATOM   6347  CE1 HIS A 651     22.336  34.388  35.346  1.00  0.81         C
ATOM   6348  NE2 HIS A 651     22.015  33.160  34.879  1.00  0.81         N
ATOM   6349  HN  HIS A 651     23.725  36.331  29.871  1.00  0.00         H
ATOM   6350  HD1 HIS A 651     22.891  36.207  34.454  1.00  0.00         H
ATOM   6351  HE2 HIS A 651     21.757  32.347  35.438  1.00  0.00         H
ATOM   6352  N   ARG A 652     25.230  33.447  30.788  1.00  0.78         N
ATOM   6353  CA  ARG A 652     26.095  32.284  30.728  1.00  0.78         C
ATOM   6354  C   ARG A 652     27.583  32.598  30.815  1.00  0.78         C
ATOM   6355  O   ARG A 652     28.303  31.956  31.571  1.00  0.78         O
ATOM   6356  CB  ARG A 652     25.843  31.464  29.445  1.00  0.78         C
ATOM   6357  CG  ARG A 652     24.403  30.931  29.346  1.00  0.78         C
ATOM   6358  CD  ARG A 652     24.123  30.146  28.066  1.00  0.78         C
ATOM   6359  NE  ARG A 652     24.892  28.886  28.247  1.00  0.78         N
ATOM   6360  CZ  ARG A 652     24.901  27.858  27.398  1.00  0.78         C
ATOM   6361  NH1 ARG A 652     25.390  26.710  27.855  1.00  0.78         N1+
ATOM   6362  NH2 ARG A 652     24.416  27.952  26.168  1.00  0.78         N
ATOM   6363  HN  ARG A 652     24.648  33.664  29.979  1.00  0.00         H
ATOM   6364  HE  ARG A 652     25.459  28.801  29.090  1.00  0.00         H
ATOM   6365 1HH1 ARG A 652     25.763  26.638  28.802  1.00  0.00         H
ATOM   6366 2HH1 ARG A 652     25.397  25.924  27.205  1.00  0.00         H
ATOM   6367 1HH2 ARG A 652     24.041  28.833  25.817  1.00  0.00         H
ATOM   6368 2HH2 ARG A 652     24.423  27.166  25.518  1.00  0.00         H
ATOM   6369  N   GLU A 653     28.099  33.608  30.085  1.00  0.79         N
ATOM   6370  CA  GLU A 653     29.500  33.995  30.188  1.00  0.79         C
ATOM   6371  C   GLU A 653     29.904  34.511  31.557  1.00  0.79         C
ATOM   6372  O   GLU A 653     30.924  34.096  32.106  1.00  0.79         O
ATOM   6373  CB  GLU A 653     29.904  35.025  29.121  1.00  0.79         C
ATOM   6374  CG  GLU A 653     29.849  34.438  27.695  1.00  0.79         C
ATOM   6375  CD  GLU A 653     30.637  35.297  26.719  1.00  0.79         C
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ATOM 6376 OE1 GLU A 653 30.478 36.540 26.781 1.00 0.79 O
ATOM 6377 OE2 GLU A 653 31.370 34.707 25.888 1.00 0.79 O1-
ATOM 6378 HN GLU A 653 27.491 34.116 29.442 1.00 0.00 H
ATOM 6379 N ASN A 654 29.077 35.373 32.185 1.00 0.82 N
ATOM 6380 CA ASN A 654 29.285 35.812 33.556 1.00 0.82 C
ATOM 6381 C ASN A 654 29.257 34.657 34.553 1.00 0.82 C
ATOM 6382 O ASN A 654 30.127 34.538 35.417 1.00 0.82 O
ATOM 6383 CB ASN A 654 28.197 36.841 33.955 1.00 0.82 C
ATOM 6384 CG ASN A 654 28.490 38.184 33.298 1.00 0.82 C
ATOM 6385 ND2 ASN A 654 27.427 38.901 32.873 1.00 0.82 N
ATOM 6386 OD1 ASN A 654 29.638 38.616 33.195 1.00 0.82 O
ATOM 6387 HN ASN A 654 28.270 35.733 31.675 1.00 0.00 H
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ATOM 6391 CA LEU A 655 28.204 32.560 35.267 1.00 0.85 C
ATOM 6392 C LEU A 655 29.374 31.598 35.089 1.00 0.85 C
ATOM 6393 O LEU A 655 29.993 31.175 36.062 1.00 0.85 O
ATOM 6394 CB LEU A 655 26.880 31.829 34.973 1.00 0.85 C
ATOM 6395 CG LEU A 655 26.596 30.594 35.847 1.00 0.85 C
ATOM 6396 CD1 LEU A 655 26.399 30.960 37.327 1.00 0.85 C
ATOM 6397 CD2 LEU A 655 25.366 29.873 35.289 1.00 0.85 C
ATOM 6398 HN LEU A 655 27.567 33.877 33.713 1.00 0.00 H
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ATOM 6409 2HD2 ASN A 656 28.637 28.671 30.095 1.00 0.00 H
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ATOM 6411 CA LYS A 657 33.499 33.066 34.464 1.00 0.82 C
ATOM 6412 C LYS A 657 33.564 32.931 35.984 1.00 0.82 C
ATOM 6413 O LYS A 657 34.617 32.622 36.541 1.00 0.82 O
ATOM 6414 CB LYS A 657 33.419 34.562 34.064 1.00 0.82 C
ATOM 6415 CG LYS A 657 34.598 35.415 34.551 1.00 0.82 C
ATOM 6416 CD LYS A 657 34.464 36.902 34.177 1.00 0.82 C
ATOM 6417 CE LYS A 657 35.657 37.713 34.688 1.00 0.82 C
ATOM 6418 NZ LYS A 657 35.429 39.162 34.578 1.00 0.82 N1+
ATOM 6419 HN LYS A 657 31.689 32.884 33.352 1.00 0.00 H

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ATOM 6422 HZ3 LYS A 657 35.184 39.426 33.624 1.00 0.00 H
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ATOM 6428 CG LEU A 658 30.746 32.915 40.191 1.00 0.85 C
ATOM 6429 CD1 LEU A 658 31.770 33.579 41.128 1.00 0.85 C
ATOM 6430 CD2 LEU A 658 29.319 33.310 40.592 1.00 0.85 C
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ATOM 6433 CA MET A 659 32.318 29.015 38.175 1.00 0.84 C
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ATOM 6437 CG MET A 659 29.838 28.323 37.719 1.00 0.84 C
ATOM 6438 SD MET A 659 29.347 28.702 39.431 1.00 0.84 S
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ATOM 6455 CG ASN A 661 37.117 33.754 38.592 1.00 0.80 C
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ATOM 6462 CA LEU A 662 35.437 29.195 42.101 1.00 0.79 C
ATOM 6463 C LEU A 662 36.068 27.810 42.116 1.00 0.79 C

ATOM 6464 O LEU A 662 36.193 27.179 43.162 1.00 0.79 O
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ATOM 6467 CD1 LEU A 662 31.663 30.027 42.828 1.00 0.79 C
ATOM 6468 CD2 LEU A 662 33.729 31.164 43.744 1.00 0.79 C
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ATOM 6471 CA ARG A 663 37.243 26.045 40.890 1.00 0.75 C
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ATOM 6475 CG ARG A 663 35.661 24.815 39.259 1.00 0.75 C
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ATOM 6479 NH1 ARG A 663 32.349 22.836 36.528 1.00 0.75 N1+
ATOM 6480 NH2 ARG A 663 34.320 23.255 35.437 1.00 0.75 N
ATOM 6481 HN ARG A 663 36.363 27.824 40.094 1.00 0.00 H
ATOM 6482 HE ARG A 663 33.489 23.824 38.510 1.00 0.00 H
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ATOM 6485 1HH2 ARG A 663 35.276 23.611 35.455 1.00 0.00 H
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ATOM 6489 C SER A 664 40.758 28.237 43.053 1.00 0.78 C
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ATOM 6494 HG SER A 664 41.206 30.601 40.065 1.00 0.00 H
ATOM 6495 N THR A 665 39.675 28.137 43.852 1.00 0.79 N
ATOM 6496 CA THR A 665 39.653 28.586 45.238 1.00 0.79 C
ATOM 6497 C THR A 665 39.205 27.501 46.189 1.00 0.79 C
ATOM 6498 O THR A 665 38.341 26.689 45.870 1.00 0.79 O
ATOM 6499 CB THR A 665 38.754 29.793 45.523 1.00 0.79 C
ATOM 6500 CG2 THR A 665 39.182 30.976 44.651 1.00 0.79 C
ATOM 6501 OG1 THR A 665 37.371 29.555 45.270 1.00 0.79 O
ATOM 6502 HN THR A 665 38.826 27.725 43.465 1.00 0.00 H
ATOM 6503 HG1 THR A 665 37.105 28.821 45.811 1.00 0.00 H
ATOM 6504 N HIS A 666 39.724 27.511 47.432 1.00 0.77 N
ATOM 6505 CA HIS A 666 39.176 26.727 48.530 1.00 0.77 C
ATOM 6506 C HIS A 666 37.872 27.355 49.047 1.00 0.77 C
ATOM 6507 O HIS A 666 37.901 28.535 49.412 1.00 0.77 O

ATOM 6508 CB HIS A 666 40.178 26.616 49.706 1.00 0.77 C
ATOM 6509 CG HIS A 666 39.758 25.694 50.816 1.00 0.77 C
ATOM 6510 CD2 HIS A 666 39.379 24.390 50.765 1.00 0.77 C
ATOM 6511 ND1 HIS A 666 39.815 26.119 52.130 1.00 0.77 N
ATOM 6512 CE1 HIS A 666 39.476 25.073 52.850 1.00 0.77 C
ATOM 6513 NE2 HIS A 666 39.198 23.997 52.075 1.00 0.77 N
ATOM 6514 HN HIS A 666 40.540 28.096 47.613 1.00 0.00 H
ATOM 6515 HD1 HIS A 666 40.067 27.047 52.469 1.00 0.00 H
ATOM 6516 HE2 HIS A 666 38.910 23.073 52.398 1.00 0.00 H
ATOM 6517 N PRO A 667 36.714 26.688 49.089 1.00 0.80 N
ATOM 6518 CA PRO A 667 35.465 27.394 49.351 1.00 0.80 C
ATOM 6519 C PRO A 667 34.973 27.205 50.776 1.00 0.80 C
ATOM 6520 O PRO A 667 34.960 26.098 51.312 1.00 0.80 O
ATOM 6521 CB PRO A 667 34.485 26.763 48.355 1.00 0.80 C
ATOM 6522 CG PRO A 667 34.952 25.312 48.245 1.00 0.80 C
ATOM 6523 CD PRO A 667 36.473 25.441 48.350 1.00 0.80 C
ATOM 6524 N HIS A 668 34.515 28.304 51.395 1.00 0.84 N
ATOM 6525 CA HIS A 668 33.918 28.325 52.713 1.00 0.84 C
ATOM 6526 C HIS A 668 32.471 28.745 52.575 1.00 0.84 C
ATOM 6527 O HIS A 668 32.152 29.753 51.947 1.00 0.84 O
ATOM 6528 CB HIS A 668 34.634 29.340 53.626 1.00 0.84 C
ATOM 6529 CG HIS A 668 36.089 29.030 53.716 1.00 0.84 C
ATOM 6530 CD2 HIS A 668 37.097 29.390 52.880 1.00 0.84 C
ATOM 6531 ND1 HIS A 668 36.535 28.111 54.647 1.00 0.84 N
ATOM 6532 CE1 HIS A 668 37.807 27.928 54.349 1.00 0.84 C
ATOM 6533 NE2 HIS A 668 38.196 28.678 53.293 1.00 0.84 N
ATOM 6534 HN HIS A 668 34.594 29.192 50.899 1.00 0.00 H
ATOM 6535 HD1 HIS A 668 36.000 27.672 55.397 1.00 0.00 H
ATOM 6536 HE2 HIS A 668 39.129 28.709 52.881 1.00 0.00 H
ATOM 6537 N PHE A 669 31.534 27.975 53.155 1.00 0.88 N
ATOM 6538 CA PHE A 669 30.119 28.183 52.923 1.00 0.88 C
ATOM 6539 C PHE A 669 29.432 28.775 54.137 1.00 0.88 C
ATOM 6540 O PHE A 669 29.577 28.311 55.270 1.00 0.88 O
ATOM 6541 CB PHE A 669 29.392 26.863 52.565 1.00 0.88 C
ATOM 6542 CG PHE A 669 29.852 26.350 51.232 1.00 0.88 C
ATOM 6543 CD1 PHE A 669 29.265 26.835 50.051 1.00 0.88 C
ATOM 6544 CD2 PHE A 669 30.830 25.345 51.144 1.00 0.88 C
ATOM 6545 CE1 PHE A 669 29.632 26.309 48.806 1.00 0.88 C
ATOM 6546 CE2 PHE A 669 31.211 24.828 49.901 1.00 0.88 C
ATOM 6547 CZ PHE A 669 30.608 25.306 48.732 1.00 0.88 C
ATOM 6548 HN PHE A 669 31.828 27.222 53.777 1.00 0.00 H
ATOM 6549 N VAL A 670 28.624 29.818 53.897 1.00 0.91 N
ATOM 6550 CA VAL A 670 27.765 30.423 54.895 1.00 0.91 C
ATOM 6551 C VAL A 670 26.360 30.300 54.354 1.00 0.91 C

ATOM 6552 O VAL A 670 26.075 30.683 53.221 1.00 0.91 O
ATOM 6553 CB VAL A 670 28.102 31.887 55.151 1.00 0.91 C
ATOM 6554 CG1 VAL A 670 27.185 32.473 56.245 1.00 0.91 C
ATOM 6555 CG2 VAL A 670 29.581 31.996 55.575 1.00 0.91 C
ATOM 6556 HN VAL A 670 28.613 30.209 52.955 1.00 0.00 H
ATOM 6557 N ARG A 671 25.436 29.700 55.122 1.00 0.88 N
ATOM 6558 CA ARG A 671 24.080 29.499 54.656 1.00 0.88 C
ATOM 6559 C ARG A 671 23.191 30.481 55.388 1.00 0.88 C
ATOM 6560 O ARG A 671 22.927 30.334 56.580 1.00 0.88 O
ATOM 6561 CB ARG A 671 23.564 28.049 54.878 1.00 0.88 C
ATOM 6562 CG ARG A 671 24.602 26.914 54.693 1.00 0.88 C
ATOM 6563 CD ARG A 671 25.418 26.852 53.391 1.00 0.88 C
ATOM 6564 NE ARG A 671 24.501 26.876 52.224 1.00 0.88 N
ATOM 6565 CZ ARG A 671 23.869 25.832 51.679 1.00 0.88 C
ATOM 6566 NH1 ARG A 671 23.979 24.602 52.151 1.00 0.88 N1+
ATOM 6567 NH2 ARG A 671 23.111 26.090 50.621 1.00 0.88 N
ATOM 6568 HN ARG A 671 25.695 29.379 56.055 1.00 0.00 H
ATOM 6569 HE ARG A 671 24.336 27.785 51.792 1.00 0.00 H
ATOM 6570 1HH1 ARG A 671 24.562 24.404 52.964 1.00 0.00 H
ATOM 6571 2HH1 ARG A 671 23.497 23.805 51.735 1.00 0.00 H
ATOM 6572 1HH2 ARG A 671 23.026 27.039 50.257 1.00 0.00 H
ATOM 6573 2HH2 ARG A 671 22.629 25.293 50.205 1.00 0.00 H
ATOM 6574 N CYS A 672 22.715 31.530 54.696 1.00 0.95 N
ATOM 6575 CA CYS A 672 21.853 32.517 55.307 1.00 0.95 C
ATOM 6576 C CYS A 672 20.398 32.125 55.174 1.00 0.95 C
ATOM 6577 O CYS A 672 19.901 31.830 54.088 1.00 0.95 O
ATOM 6578 CB CYS A 672 22.047 33.940 54.738 1.00 0.95 C
ATOM 6579 SG CYS A 672 23.682 34.624 55.147 1.00 0.95 S
ATOM 6580 HN CYS A 672 22.969 31.633 53.713 1.00 0.00 H
ATOM 6581 N ILE A 673 19.692 32.123 56.312 1.00 0.87 N
ATOM 6582 CA ILE A 673 18.347 31.616 56.464 1.00 0.87 C
ATOM 6583 C ILE A 673 17.443 32.774 56.855 1.00 0.87 C
ATOM 6584 O ILE A 673 17.734 33.551 57.767 1.00 0.87 O
ATOM 6585 CB ILE A 673 18.301 30.533 57.547 1.00 0.87 C
ATOM 6586 CG1 ILE A 673 19.259 29.349 57.241 1.00 0.87 C
ATOM 6587 CG2 ILE A 673 16.865 30.021 57.792 1.00 0.87 C
ATOM 6588 CD1 ILE A 673 18.931 28.547 55.974 1.00 0.87 C
ATOM 6589 HN ILE A 673 20.141 32.512 57.141 1.00 0.00 H
ATOM 6590 N ILE A 674 16.300 32.932 56.163 1.00 0.82 N
ATOM 6591 CA ILE A 674 15.314 33.948 56.482 1.00 0.82 C
ATOM 6592 C ILE A 674 14.351 33.405 57.553 1.00 0.82 C
ATOM 6593 O ILE A 674 13.945 32.244 57.461 1.00 0.82 O
ATOM 6594 CB ILE A 674 14.615 34.469 55.219 1.00 0.82 C
ATOM 6595 CG1 ILE A 674 14.067 35.898 55.407 1.00 0.82 C

ATOM 6596 CG2 ILE A 674 13.531 33.508 54.687 1.00 0.82 C
ATOM 6597 CD1 ILE A 674 13.470 36.472 54.116 1.00 0.82 C
ATOM 6598 HN ILE A 674 16.118 32.308 55.377 1.00 0.00 H
ATOM 6599 N PRO A 675 13.961 34.114 58.617 1.00 0.85 N
ATOM 6600 CA PRO A 675 13.155 33.506 59.679 1.00 0.85 C
ATOM 6601 C PRO A 675 11.678 33.598 59.355 1.00 0.85 C
ATOM 6602 O PRO A 675 10.884 32.869 59.950 1.00 0.85 O
ATOM 6603 CB PRO A 675 13.492 34.364 60.912 1.00 0.85 C
ATOM 6604 CG PRO A 675 13.843 35.731 60.325 1.00 0.85 C
ATOM 6605 CD PRO A 675 14.622 35.338 59.075 1.00 0.85 C
ATOM 6606 N ASN A 676 11.291 34.535 58.473 1.00 0.78 N
ATOM 6607 CA ASN A 676 9.920 34.805 58.114 1.00 0.78 C
ATOM 6608 C ASN A 676 9.882 35.633 56.839 1.00 0.78 C
ATOM 6609 O ASN A 676 10.862 36.281 56.491 1.00 0.78 O
ATOM 6610 CB ASN A 676 9.151 35.535 59.251 1.00 0.78 C
ATOM 6611 CG ASN A 676 9.857 36.828 59.669 1.00 0.78 C
ATOM 6612 ND2 ASN A 676 10.415 36.835 60.896 1.00 0.78 N
ATOM 6613 OD1 ASN A 676 9.914 37.815 58.943 1.00 0.78 O
ATOM 6614 HN ASN A 676 12.017 35.095 58.026 1.00 0.00 H
ATOM 6615 1HD2 ASN A 676 10.885 37.696 61.174 1.00 0.00 H
ATOM 6616 2HD2 ASN A 676 10.368 36.014 61.500 1.00 0.00 H
ATOM 6617 N GLU A 677 8.718 35.694 56.167 1.00 0.72 N
ATOM 6618 CA GLU A 677 8.550 36.465 54.948 1.00 0.72 C
ATOM 6619 C GLU A 677 8.059 37.884 55.234 1.00 0.72 C
ATOM 6620 O GLU A 677 7.696 38.635 54.332 1.00 0.72 O
ATOM 6621 CB GLU A 677 7.478 35.782 54.059 1.00 0.72 C
ATOM 6622 CG GLU A 677 7.861 34.386 53.520 1.00 0.72 C
ATOM 6623 CD GLU A 677 8.913 34.463 52.428 1.00 0.72 C
ATOM 6624 OE1 GLU A 677 8.505 34.501 51.234 1.00 0.72 O
ATOM 6625 OE2 GLU A 677 10.122 34.474 52.746 1.00 0.72 O1-
ATOM 6626 HN GLU A 677 7.918 35.176 56.530 1.00 0.00 H
ATOM 6627 N THR A 678 8.011 38.304 56.516 1.00 0.75 N
ATOM 6628 CA THR A 678 7.415 39.577 56.913 1.00 0.75 C
ATOM 6629 C THR A 678 8.452 40.610 57.284 1.00 0.75 C
ATOM 6630 O THR A 678 8.102 41.749 57.579 1.00 0.75 O
ATOM 6631 CB THR A 678 6.441 39.455 58.087 1.00 0.75 C
ATOM 6632 CG2 THR A 678 5.225 38.631 57.644 1.00 0.75 C
ATOM 6633 OG1 THR A 678 7.002 38.772 59.202 1.00 0.75 O
ATOM 6634 HN THR A 678 8.409 37.706 57.240 1.00 0.00 H
ATOM 6635 HG1 THR A 678 7.755 39.282 59.476 1.00 0.00 H
ATOM 6636 N LYS A 679 9.749 40.239 57.254 1.00 0.71 N
ATOM 6637 CA LYS A 679 10.883 41.084 57.604 1.00 0.71 C
ATOM 6638 C LYS A 679 10.871 41.522 59.065 1.00 0.71 C
ATOM 6639 O LYS A 679 11.171 42.664 59.407 1.00 0.71 O

ATOM 6640 CB LYS A 679 11.076 42.273 56.622 1.00 0.71 C
ATOM 6641 CG LYS A 679 11.305 41.810 55.172 1.00 0.71 C
ATOM 6642 CD LYS A 679 11.344 42.950 54.144 1.00 0.71 C
ATOM 6643 CE LYS A 679 9.982 43.624 53.934 1.00 0.71 C
ATOM 6644 NZ LYS A 679 9.978 44.412 52.685 1.00 0.71 N1+
ATOM 6645 HN LYS A 679 9.953 39.284 56.961 1.00 0.00 H
ATOM 6646 HZ1 LYS A 679 9.072 44.860 52.545 1.00 0.00 H
ATOM 6647 HZ2 LYS A 679 10.249 43.847 51.880 1.00 0.00 H
ATOM 6648 HZ3 LYS A 679 10.742 45.087 52.661 1.00 0.00 H
ATOM 6649 N SER A 680 10.524 40.590 59.976 1.00 0.74 N
ATOM 6650 CA SER A 680 10.217 40.916 61.365 1.00 0.74 C
ATOM 6651 C SER A 680 11.160 40.240 62.363 1.00 0.74 C
ATOM 6652 O SER A 680 11.441 39.048 62.210 1.00 0.74 O
ATOM 6653 CB SER A 680 8.772 40.475 61.704 1.00 0.74 C
ATOM 6654 OG SER A 680 8.342 40.980 62.970 1.00 0.74 O
ATOM 6655 HN SER A 680 10.474 39.615 59.681 1.00 0.00 H
ATOM 6656 HG SER A 680 7.455 40.709 63.178 1.00 0.00 H
ATOM 6657 N PRO A 681 11.694 40.901 63.390 1.00 0.73 N
ATOM 6658 CA PRO A 681 12.539 40.263 64.388 1.00 0.73 C
ATOM 6659 C PRO A 681 11.744 39.442 65.387 1.00 0.73 C
ATOM 6660 O PRO A 681 10.580 39.723 65.658 1.00 0.73 O
ATOM 6661 CB PRO A 681 13.218 41.456 65.075 1.00 0.73 C
ATOM 6662 CG PRO A 681 12.166 42.565 65.025 1.00 0.73 C
ATOM 6663 CD PRO A 681 11.483 42.323 63.678 1.00 0.73 C
ATOM 6664 N GLY A 682 12.349 38.373 65.942 1.00 0.76 N
ATOM 6665 CA GLY A 682 11.745 37.582 67.019 1.00 0.76 C
ATOM 6666 C GLY A 682 10.718 36.592 66.562 1.00 0.76 C
ATOM 6667 O GLY A 682 10.184 35.824 67.361 1.00 0.76 O
ATOM 6668 HN GLY A 682 13.270 38.102 65.597 1.00 0.00 H
ATOM 6669 N VAL A 683 10.428 36.544 65.259 1.00 0.76 N
ATOM 6670 CA VAL A 683 9.387 35.691 64.729 1.00 0.76 C
ATOM 6671 C VAL A 683 10.041 34.602 63.905 1.00 0.76 C
ATOM 6672 O VAL A 683 10.456 34.819 62.764 1.00 0.76 O
ATOM 6673 CB VAL A 683 8.419 36.547 63.913 1.00 0.76 C
ATOM 6674 CG1 VAL A 683 7.375 35.720 63.138 1.00 0.76 C
ATOM 6675 CG2 VAL A 683 7.712 37.539 64.861 1.00 0.76 C
ATOM 6676 HN VAL A 683 10.960 37.130 64.615 1.00 0.00 H
ATOM 6677 N ILE A 684 10.159 33.378 64.449 1.00 0.76 N
ATOM 6678 CA ILE A 684 10.766 32.259 63.746 1.00 0.76 C
ATOM 6679 C ILE A 684 9.630 31.366 63.320 1.00 0.76 C
ATOM 6680 O ILE A 684 8.986 30.728 64.157 1.00 0.76 O
ATOM 6681 CB ILE A 684 11.716 31.401 64.590 1.00 0.76 C
ATOM 6682 CG1 ILE A 684 12.743 32.227 65.392 1.00 0.76 C
ATOM 6683 CG2 ILE A 684 12.412 30.358 63.676 1.00 0.76 C

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ATOM   6684  CD1 ILE A 684     13.368  31.385  66.512  1.00  0.76        C
ATOM   6685  HN  ILE A 684      9.808  33.228  65.395  1.00  0.00        H
ATOM   6686  N   ASP A 685      9.347  31.297  62.015  1.00  0.76        N
ATOM   6687  CA  ASP A 685      8.280  30.468  61.512  1.00  0.76        C
ATOM   6688  C   ASP A 685      8.766  29.039  61.230  1.00  0.76        C
ATOM   6689  O   ASP A 685      9.858  28.818  60.700  1.00  0.76        O
ATOM   6690  CB  ASP A 685      7.673  31.168  60.281  1.00  0.76        C
ATOM   6691  CG  ASP A 685      6.503  30.356  59.786  1.00  0.76        C
ATOM   6692  OD1 ASP A 685      5.592  30.098  60.609  1.00  0.76        O
ATOM   6693  OD2 ASP A 685      6.568  29.892  58.622  1.00  0.76        O1-
ATOM   6694  HN  ASP A 685      9.901  31.846  61.357  1.00  0.00        H
ATOM   6695  N   ASN A 686      7.964  28.013  61.613  1.00  0.69        N
ATOM   6696  CA  ASN A 686      8.358  26.627  61.393  1.00  0.69        C
ATOM   6697  C   ASN A 686      8.386  26.226  59.910  1.00  0.69        C
ATOM   6698  O   ASN A 686      9.449  25.763  59.488  1.00  0.69        O
ATOM   6699  CB  ASN A 686      7.570  25.559  62.218  1.00  0.69        C
ATOM   6700  CG  ASN A 686      7.501  25.878  63.707  1.00  0.69        C
ATOM   6701  ND2 ASN A 686      6.272  25.863  64.278  1.00  0.69        N
ATOM   6702  OD1 ASN A 686      8.512  26.084  64.396  1.00  0.69        O
ATOM   6703  HN  ASN A 686      7.071  28.215  62.062  1.00  0.00        H
ATOM   6704 1HD2 ASN A 686      6.226  26.076  65.274  1.00  0.00        H
ATOM   6705 2HD2 ASN A 686      5.441  25.694  63.712  1.00  0.00        H
ATOM   6706  N   PRO A 687      7.374  26.409  59.041  1.00  0.72        N
ATOM   6707  CA  PRO A 687      7.470  25.951  57.658  1.00  0.72        C
ATOM   6708  C   PRO A 687      8.508  26.684  56.840  1.00  0.72        C
ATOM   6709  O   PRO A 687      9.208  26.049  56.047  1.00  0.72        O
ATOM   6710  CB  PRO A 687      6.063  26.172  57.070  1.00  0.72        C
ATOM   6711  CG  PRO A 687      5.126  26.150  58.277  1.00  0.72        C
ATOM   6712  CD  PRO A 687      5.984  26.746  59.392  1.00  0.72        C
ATOM   6713  N   LEU A 688      8.628  28.019  57.000  1.00  0.74        N
ATOM   6714  CA  LEU A 688      9.573  28.816  56.238  1.00  0.74        C
ATOM   6715  C   LEU A 688     11.026  28.436  56.495  1.00  0.74        C
ATOM   6716  O   LEU A 688     11.807  28.247  55.562  1.00  0.74        O
ATOM   6717  CB  LEU A 688      9.347  30.324  56.509  1.00  0.74        C
ATOM   6718  CG  LEU A 688      7.979  30.851  56.016  1.00  0.74        C
ATOM   6719  CD1 LEU A 688      7.711  32.257  56.571  1.00  0.74        C
ATOM   6720  CD2 LEU A 688      7.857  30.835  54.486  1.00  0.74        C
ATOM   6721  HN  LEU A 688      8.032  28.486  57.683  1.00  0.00        H
ATOM   6722  N   VAL A 689     11.435  28.246  57.767  1.00  0.83        N
ATOM   6723  CA  VAL A 689     12.781  27.781  58.074  1.00  0.83        C
ATOM   6724  C   VAL A 689     13.042  26.341  57.629  1.00  0.83        C
ATOM   6725  O   VAL A 689     14.077  26.052  57.027  1.00  0.83        O
ATOM   6726  CB  VAL A 689     13.146  27.990  59.538  1.00  0.83        C
ATOM   6727  CG1 VAL A 689     14.586  27.507  59.809  1.00  0.83        C
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ATOM 6728 CG2 VAL A 689 13.054 29.495 59.862 1.00 0.83 C
ATOM 6729 HN VAL A 689 10.786 28.432 58.532 1.00 0.00 H
ATOM 6730 N MET A 690 12.103 25.392 57.851 1.00 0.78 N
ATOM 6731 CA MET A 690 12.281 23.992 57.461 1.00 0.78 C
ATOM 6732 C MET A 690 12.461 23.777 55.971 1.00 0.78 C
ATOM 6733 O MET A 690 13.297 22.983 55.536 1.00 0.78 O
ATOM 6734 CB MET A 690 11.126 23.094 57.949 1.00 0.78 C
ATOM 6735 CG MET A 690 11.110 22.973 59.477 1.00 0.78 C
ATOM 6736 SD MET A 690 9.814 21.904 60.160 1.00 0.78 S
ATOM 6737 CE MET A 690 10.694 20.355 59.838 1.00 0.78 C
ATOM 6738 HN MET A 690 11.234 25.664 58.310 1.00 0.00 H
ATOM 6739 N HIS A 691 11.718 24.539 55.145 1.00 0.78 N
ATOM 6740 CA HIS A 691 11.861 24.540 53.700 1.00 0.78 C
ATOM 6741 C HIS A 691 13.274 24.873 53.242 1.00 0.78 C
ATOM 6742 O HIS A 691 13.879 24.161 52.439 1.00 0.78 O
ATOM 6743 CB HIS A 691 10.886 25.588 53.121 1.00 0.78 C
ATOM 6744 CG HIS A 691 10.874 25.637 51.632 1.00 0.78 C
ATOM 6745 CD2 HIS A 691 11.306 26.602 50.780 1.00 0.78 C
ATOM 6746 ND1 HIS A 691 10.399 24.544 50.934 1.00 0.78 N
ATOM 6747 CE1 HIS A 691 10.549 24.869 49.664 1.00 0.78 C
ATOM 6748 NE2 HIS A 691 11.092 26.101 49.517 1.00 0.78 N
ATOM 6749 HN HIS A 691 11.014 25.151 55.559 1.00 0.00 H
ATOM 6750 HD1 HIS A 691 10.017 23.678 51.315 1.00 0.00 H
ATOM 6751 HE2 HIS A 691 11.303 26.569 48.636 1.00 0.00 H
ATOM 6752 N GLN A 692 13.868 25.932 53.821 1.00 0.80 N
ATOM 6753 CA GLN A 692 15.245 26.302 53.582 1.00 0.80 C
ATOM 6754 C GLN A 692 16.264 25.279 54.060 1.00 0.80 C
ATOM 6755 O GLN A 692 17.204 24.958 53.337 1.00 0.80 O
ATOM 6756 CB GLN A 692 15.550 27.652 54.246 1.00 0.80 C
ATOM 6757 CG GLN A 692 14.746 28.811 53.629 1.00 0.80 C
ATOM 6758 CD GLN A 692 14.886 30.036 54.518 1.00 0.80 C
ATOM 6759 NE2 GLN A 692 13.922 30.198 55.452 1.00 0.80 N
ATOM 6760 OE1 GLN A 692 15.864 30.786 54.447 1.00 0.80 O
ATOM 6761 HN GLN A 692 13.318 26.504 54.462 1.00 0.00 H
ATOM 6762 1HE2 GLN A 692 14.016 31.020 56.049 1.00 0.00 H
ATOM 6763 2HE2 GLN A 692 13.114 29.578 55.511 1.00 0.00 H
ATOM 6764 N LEU A 693 16.099 24.703 55.273 1.00 0.86 N
ATOM 6765 CA LEU A 693 17.014 23.699 55.804 1.00 0.86 C
ATOM 6766 C LEU A 693 17.100 22.458 54.926 1.00 0.86 C
ATOM 6767 O LEU A 693 18.195 21.975 54.631 1.00 0.86 O
ATOM 6768 CB LEU A 693 16.626 23.262 57.243 1.00 0.86 C
ATOM 6769 CG LEU A 693 16.711 24.365 58.321 1.00 0.86 C
ATOM 6770 CD1 LEU A 693 16.258 23.803 59.678 1.00 0.86 C
ATOM 6771 CD2 LEU A 693 18.116 24.974 58.442 1.00 0.86 C

ATOM 6772 HN LEU A 693 15.300 24.983 55.841 1.00 0.00 H
ATOM 6773 N ARG A 694 15.945 21.957 54.438 1.00 0.77 N
ATOM 6774 CA ARG A 694 15.911 20.880 53.465 1.00 0.77 C
ATOM 6775 C ARG A 694 16.523 21.231 52.116 1.00 0.77 C
ATOM 6776 O ARG A 694 17.383 20.516 51.611 1.00 0.77 O
ATOM 6777 CB ARG A 694 14.454 20.436 53.204 1.00 0.77 C
ATOM 6778 CG ARG A 694 13.855 19.618 54.359 1.00 0.77 C
ATOM 6779 CD ARG A 694 12.513 18.969 54.015 1.00 0.77 C
ATOM 6780 NE ARG A 694 11.529 20.084 53.860 1.00 0.77 N
ATOM 6781 CZ ARG A 694 10.649 20.405 54.810 1.00 0.77 C
ATOM 6782 NH1 ARG A 694 10.519 19.761 55.959 1.00 0.77 N1+
ATOM 6783 NH2 ARG A 694 9.815 21.422 54.616 1.00 0.77 N
ATOM 6784 HN ARG A 694 15.063 22.350 54.765 1.00 0.00 H
ATOM 6785 HE ARG A 694 11.531 20.621 52.993 1.00 0.00 H
ATOM 6786 1HH1 ARG A 694 9.846 20.006 56.685 1.00 0.00 H
ATOM 6787 2HH1 ARG A 694 11.159 18.981 56.108 1.00 0.00 H
ATOM 6788 1HH2 ARG A 694 9.142 21.667 55.342 1.00 0.00 H
ATOM 6789 2HH2 ARG A 694 9.915 21.918 53.731 1.00 0.00 H
ATOM 6790 N CYS A 695 16.149 22.370 51.490 1.00 0.88 N
ATOM 6791 CA CYS A 695 16.632 22.650 50.142 1.00 0.88 C
ATOM 6792 C CYS A 695 18.089 23.080 50.102 1.00 0.88 C
ATOM 6793 O CYS A 695 18.775 22.950 49.093 1.00 0.88 O
ATOM 6794 CB CYS A 695 15.744 23.677 49.386 1.00 0.88 C
ATOM 6795 SG CYS A 695 15.842 25.410 49.966 1.00 0.88 S
ATOM 6796 HN CYS A 695 15.531 23.032 51.959 1.00 0.00 H
ATOM 6797 N ASN A 696 18.625 23.571 51.233 1.00 0.85 N
ATOM 6798 CA ASN A 696 20.026 23.911 51.341 1.00 0.85 C
ATOM 6799 C ASN A 696 20.894 22.673 51.576 1.00 0.85 C
ATOM 6800 O ASN A 696 22.115 22.741 51.421 1.00 0.85 O
ATOM 6801 CB ASN A 696 20.261 24.954 52.472 1.00 0.85 C
ATOM 6802 CG ASN A 696 19.980 26.387 52.015 1.00 0.85 C
ATOM 6803 ND2 ASN A 696 18.808 26.640 51.401 1.00 0.85 N
ATOM 6804 OD1 ASN A 696 20.811 27.283 52.193 1.00 0.85 O
ATOM 6805 HN ASN A 696 18.022 23.709 52.044 1.00 0.00 H
ATOM 6806 1HD2 ASN A 696 18.621 27.595 51.096 1.00 0.00 H
ATOM 6807 2HD2 ASN A 696 18.122 25.900 51.254 1.00 0.00 H
ATOM 6808 N GLY A 697 20.301 21.511 51.939 1.00 0.92 N
ATOM 6809 CA GLY A 697 21.038 20.284 52.244 1.00 0.92 C
ATOM 6810 C GLY A 697 21.782 20.354 53.545 1.00 0.92 C
ATOM 6811 O GLY A 697 22.897 19.849 53.678 1.00 0.92 O
ATOM 6812 HN GLY A 697 19.283 21.490 52.003 1.00 0.00 H
ATOM 6813 N VAL A 698 21.199 21.041 54.547 1.00 0.87 N
ATOM 6814 CA VAL A 698 21.848 21.273 55.827 1.00 0.87 C
ATOM 6815 C VAL A 698 22.077 19.988 56.599 1.00 0.87 C

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ATOM   6816  O   VAL A 698     23.176  19.727  57.083  1.00  0.87        O
ATOM   6817  CB  VAL A 698     21.052  22.271  56.670  1.00  0.87        C
ATOM   6818  CG1 VAL A 698     21.640  22.451  58.083  1.00  0.87        C
ATOM   6819  CG2 VAL A 698     21.058  23.635  55.955  1.00  0.87        C
ATOM   6820  HN  VAL A 698     20.261  21.415  54.401  1.00  0.00        H
ATOM   6821  N   LEU A 699     21.059  19.115  56.690  1.00  0.81        N
ATOM   6822  CA  LEU A 699     21.131  17.880  57.446  1.00  0.81        C
ATOM   6823  C   LEU A 699     22.081  16.876  56.829  1.00  0.81        C
ATOM   6824  O   LEU A 699     22.858  16.214  57.510  1.00  0.81        O
ATOM   6825  CB  LEU A 699     19.729  17.267  57.632  1.00  0.81        C
ATOM   6826  CG  LEU A 699     18.938  17.937  58.770  1.00  0.81        C
ATOM   6827  CD1 LEU A 699     18.311  19.293  58.404  1.00  0.81        C
ATOM   6828  CD2 LEU A 699     17.856  16.986  59.276  1.00  0.81        C
ATOM   6829  HN  LEU A 699     20.190  19.333  56.202  1.00  0.00        H
ATOM   6830  N   GLU A 700     22.063  16.777  55.498  1.00  0.77        N
ATOM   6831  CA  GLU A 700     22.907  15.958  54.657  1.00  0.77        C
ATOM   6832  C   GLU A 700     24.353  16.380  54.811  1.00  0.77        C
ATOM   6833  O   GLU A 700     25.250  15.551  54.974  1.00  0.77        O
ATOM   6834  CB  GLU A 700     22.445  16.072  53.175  1.00  0.77        C
ATOM   6835  CG  GLU A 700     21.028  15.501  52.880  1.00  0.77        C
ATOM   6836  CD  GLU A 700     19.965  16.093  53.795  1.00  0.77        C
ATOM   6837  OE1 GLU A 700     19.848  17.344  53.843  1.00  0.77        O
ATOM   6838  OE2 GLU A 700     19.411  15.320  54.617  1.00  0.77        O1-
ATOM   6839  HN  GLU A 700     21.370  17.349  55.016  1.00  0.00        H
ATOM   6840  N   GLY A 701     24.592  17.710  54.853  1.00  0.87        N
ATOM   6841  CA  GLY A 701     25.886  18.301  55.160  1.00  0.87        C
ATOM   6842  C   GLY A 701     26.404  18.001  56.544  1.00  0.87        C
ATOM   6843  O   GLY A 701     27.590  17.753  56.728  1.00  0.87        O
ATOM   6844  HN  GLY A 701     23.815  18.340  54.657  1.00  0.00        H
ATOM   6845  N   ILE A 702     25.530  17.958  57.565  1.00  0.78        N
ATOM   6846  CA  ILE A 702     25.890  17.455  58.884  1.00  0.78        C
ATOM   6847  C   ILE A 702     26.211  15.954  58.847  1.00  0.78        C
ATOM   6848  O   ILE A 702     27.178  15.480  59.449  1.00  0.78        O
ATOM   6849  CB  ILE A 702     24.801  17.752  59.918  1.00  0.78        C
ATOM   6850  CG1 ILE A 702     24.536  19.260  60.069  1.00  0.78        C
ATOM   6851  CG2 ILE A 702     25.244  17.221  61.287  1.00  0.78        C
ATOM   6852  CD1 ILE A 702     23.257  19.589  60.857  1.00  0.78        C
ATOM   6853  HN  ILE A 702     24.578  18.290  57.410  1.00  0.00        H
ATOM   6854  N   ARG A 703     25.412  15.147  58.116  1.00  0.74        N
ATOM   6855  CA  ARG A 703     25.608  13.712  57.988  1.00  0.74        C
ATOM   6856  C   ARG A 703     26.921  13.303  57.331  1.00  0.74        C
ATOM   6857  O   ARG A 703     27.573  12.389  57.830  1.00  0.74        O
ATOM   6858  CB  ARG A 703     24.414  13.008  57.284  1.00  0.74        C
ATOM   6859  CG  ARG A 703     23.132  12.998  58.141  1.00  0.74        C
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ATOM 6860 CD ARG A 703 21.887 12.433 57.451 1.00 0.74 C
ATOM 6861 NE ARG A 703 20.719 12.732 58.351 1.00 0.74 N
ATOM 6862 CZ ARG A 703 19.547 13.246 57.947 1.00 0.74 C
ATOM 6863 NH1 ARG A 703 19.314 13.593 56.687 1.00 0.74 N1+
ATOM 6864 NH2 ARG A 703 18.573 13.394 58.846 1.00 0.74 N
ATOM 6865 HN ARG A 703 24.624 15.569 57.625 1.00 0.00 H
ATOM 6866 HE ARG A 703 20.826 12.528 59.345 1.00 0.00 H
ATOM 6867 1HH1 ARG A 703 20.059 13.480 55.999 1.00 0.00 H
ATOM 6868 2HH1 ARG A 703 18.423 13.984 56.380 1.00 0.00 H
ATOM 6869 1HH2 ARG A 703 18.752 13.127 59.814 1.00 0.00 H
ATOM 6870 2HH2 ARG A 703 17.682 13.785 58.539 1.00 0.00 H
ATOM 6871 N ILE A 704 27.372 13.957 56.235 1.00 0.80 N
ATOM 6872 CA ILE A 704 28.677 13.663 55.635 1.00 0.80 C
ATOM 6873 C ILE A 704 29.846 13.972 56.574 1.00 0.80 C
ATOM 6874 O ILE A 704 30.755 13.163 56.738 1.00 0.80 O
ATOM 6875 CB ILE A 704 28.856 14.274 54.240 1.00 0.80 C
ATOM 6876 CG1 ILE A 704 30.115 13.757 53.500 1.00 0.80 C
ATOM 6877 CG2 ILE A 704 28.874 15.814 54.289 1.00 0.80 C
ATOM 6878 CD1 ILE A 704 30.066 12.271 53.128 1.00 0.80 C
ATOM 6879 HN ILE A 704 26.785 14.677 55.813 1.00 0.00 H
ATOM 6880 N CYS A 705 29.803 15.107 57.306 1.00 0.85 N
ATOM 6881 CA CYS A 705 30.782 15.454 58.331 1.00 0.85 C
ATOM 6882 C CYS A 705 30.852 14.455 59.480 1.00 0.85 C
ATOM 6883 O CYS A 705 31.918 14.120 59.991 1.00 0.85 O
ATOM 6884 CB CYS A 705 30.459 16.840 58.949 1.00 0.85 C
ATOM 6885 SG CYS A 705 30.523 18.177 57.716 1.00 0.85 S
ATOM 6886 HN CYS A 705 29.040 15.761 57.132 1.00 0.00 H
ATOM 6887 N ARG A 706 29.696 13.956 59.951 1.00 0.73 N
ATOM 6888 CA ARG A 706 29.661 12.921 60.965 1.00 0.73 C
ATOM 6889 C ARG A 706 30.118 11.545 60.523 1.00 0.73 C
ATOM 6890 O ARG A 706 30.832 10.877 61.271 1.00 0.73 O
ATOM 6891 CB ARG A 706 28.237 12.753 61.516 1.00 0.73 C
ATOM 6892 CG ARG A 706 27.821 13.925 62.409 1.00 0.73 C
ATOM 6893 CD ARG A 706 26.311 14.037 62.545 1.00 0.73 C
ATOM 6894 NE ARG A 706 25.803 12.895 63.377 1.00 0.73 N
ATOM 6895 CZ ARG A 706 25.167 13.106 64.535 1.00 0.73 C
ATOM 6896 NH1 ARG A 706 25.268 14.264 65.166 1.00 0.73 N1+
ATOM 6897 NH2 ARG A 706 24.418 12.156 65.088 1.00 0.73 N
ATOM 6898 HN ARG A 706 28.816 14.317 59.583 1.00 0.00 H
ATOM 6899 HE ARG A 706 25.946 11.939 63.053 1.00 0.00 H
ATOM 6900 1HH1 ARG A 706 24.783 14.425 66.049 1.00 0.00 H
ATOM 6901 2HH1 ARG A 706 25.842 14.992 64.742 1.00 0.00 H
ATOM 6902 1HH2 ARG A 706 23.933 12.317 65.971 1.00 0.00 H
ATOM 6903 2HH2 ARG A 706 24.340 11.263 64.601 1.00 0.00 H

ATOM 6904 N LYS A 707 29.678 11.083 59.340 1.00 0.78 N
ATOM 6905 CA LYS A 707 29.874 9.709 58.914 1.00 0.78 C
ATOM 6906 C LYS A 707 31.162 9.507 58.136 1.00 0.78 C
ATOM 6907 O LYS A 707 31.606 8.376 57.971 1.00 0.78 O
ATOM 6908 CB LYS A 707 28.707 9.276 57.984 1.00 0.78 C
ATOM 6909 CG LYS A 707 27.328 9.223 58.667 1.00 0.78 C
ATOM 6910 CD LYS A 707 26.224 8.838 57.664 1.00 0.78 C
ATOM 6911 CE LYS A 707 24.842 8.678 58.304 1.00 0.78 C
ATOM 6912 NZ LYS A 707 23.877 8.165 57.303 1.00 0.78 N1+
ATOM 6913 HN LYS A 707 29.187 11.723 58.716 1.00 0.00 H
ATOM 6914 HZ1 LYS A 707 22.956 8.058 57.729 1.00 0.00 H
ATOM 6915 HZ2 LYS A 707 24.200 7.300 56.869 1.00 0.00 H
ATOM 6916 HZ3 LYS A 707 23.846 8.749 56.467 1.00 0.00 H
ATOM 6917 N GLY A 708 31.775 10.596 57.636 1.00 0.85 N
ATOM 6918 CA GLY A 708 32.956 10.539 56.789 1.00 0.85 C
ATOM 6919 C GLY A 708 34.241 10.905 57.471 1.00 0.85 C
ATOM 6920 O GLY A 708 34.398 10.852 58.687 1.00 0.85 O
ATOM 6921 HN GLY A 708 31.390 11.513 57.864 1.00 0.00 H
ATOM 6922 N PHE A 709 35.218 11.303 56.642 1.00 0.74 N
ATOM 6923 CA PHE A 709 36.602 11.470 57.037 1.00 0.74 C
ATOM 6924 C PHE A 709 37.140 12.783 56.469 1.00 0.74 C
ATOM 6925 O PHE A 709 37.832 12.757 55.447 1.00 0.74 O
ATOM 6926 CB PHE A 709 37.467 10.300 56.480 1.00 0.74 C
ATOM 6927 CG PHE A 709 36.999 8.974 57.019 1.00 0.74 C
ATOM 6928 CD1 PHE A 709 36.060 8.205 56.307 1.00 0.74 C
ATOM 6929 CD2 PHE A 709 37.466 8.500 58.256 1.00 0.74 C
ATOM 6930 CE1 PHE A 709 35.569 7.006 56.838 1.00 0.74 C
ATOM 6931 CE2 PHE A 709 36.984 7.295 58.786 1.00 0.74 C
ATOM 6932 CZ PHE A 709 36.031 6.552 58.079 1.00 0.74 C
ATOM 6933 HN PHE A 709 34.971 11.501 55.672 1.00 0.00 H
ATOM 6934 N PRO A 710 36.866 13.950 57.069 1.00 0.79 N
ATOM 6935 CA PRO A 710 37.153 15.251 56.464 1.00 0.79 C
ATOM 6936 C PRO A 710 38.609 15.530 56.115 1.00 0.79 C
ATOM 6937 O PRO A 710 38.870 16.292 55.187 1.00 0.79 O
ATOM 6938 CB PRO A 710 36.663 16.258 57.520 1.00 0.79 C
ATOM 6939 CG PRO A 710 35.513 15.541 58.226 1.00 0.79 C
ATOM 6940 CD PRO A 710 35.981 14.086 58.235 1.00 0.79 C
ATOM 6941 N ASN A 711 39.586 14.967 56.841 1.00 0.70 N
ATOM 6942 CA ASN A 711 40.965 15.418 56.788 1.00 0.70 C
ATOM 6943 C ASN A 711 41.862 14.316 56.248 1.00 0.70 C
ATOM 6944 O ASN A 711 41.685 13.141 56.561 1.00 0.70 O
ATOM 6945 CB ASN A 711 41.454 15.820 58.193 1.00 0.70 C
ATOM 6946 CG ASN A 711 40.560 16.921 58.743 1.00 0.70 C
ATOM 6947 ND2 ASN A 711 39.843 16.643 59.855 1.00 0.70 N

ATOM 6948 OD1 ASN A 711 40.502 18.018 58.186 1.00 0.70 O
ATOM 6949 HN ASN A 711 39.350 14.189 57.457 1.00 0.00 H
ATOM 6950 1HD2 ASN A 711 39.244 17.381 60.224 1.00 0.00 H
ATOM 6951 2HD2 ASN A 711 39.891 15.735 60.316 1.00 0.00 H
ATOM 6952 N ARG A 712 42.840 14.653 55.377 1.00 0.64 N
ATOM 6953 CA ARG A 712 43.714 13.649 54.796 1.00 0.64 C
ATOM 6954 C ARG A 712 45.037 14.232 54.327 1.00 0.64 C
ATOM 6955 O ARG A 712 45.120 15.408 53.980 1.00 0.64 O
ATOM 6956 CB ARG A 712 43.065 12.815 53.651 1.00 0.64 C
ATOM 6957 CG ARG A 712 42.347 13.589 52.525 1.00 0.64 C
ATOM 6958 CD ARG A 712 40.937 14.053 52.910 1.00 0.64 C
ATOM 6959 NE ARG A 712 40.234 14.504 51.679 1.00 0.64 N
ATOM 6960 CZ ARG A 712 38.925 14.790 51.693 1.00 0.64 C
ATOM 6961 NH1 ARG A 712 38.209 14.729 52.808 1.00 0.64 N1+
ATOM 6962 NH2 ARG A 712 38.289 15.138 50.583 1.00 0.64 N
ATOM 6963 HN ARG A 712 42.967 15.633 55.123 1.00 0.00 H
ATOM 6964 HE ARG A 712 40.758 14.597 50.809 1.00 0.00 H
ATOM 6965 1HH1 ARG A 712 37.213 14.947 52.819 1.00 0.00 H
ATOM 6966 2HH1 ARG A 712 38.698 14.461 53.662 1.00 0.00 H
ATOM 6967 1HH2 ARG A 712 37.293 15.356 50.594 1.00 0.00 H
ATOM 6968 2HH2 ARG A 712 38.840 15.185 49.726 1.00 0.00 H
ATOM 6969 N ILE A 713 46.118 13.416 54.347 1.00 0.56 N
ATOM 6970 CA ILE A 713 47.501 13.864 54.145 1.00 0.56 C
ATOM 6971 C ILE A 713 48.262 12.788 53.368 1.00 0.56 C
ATOM 6972 O ILE A 713 48.109 11.601 53.661 1.00 0.56 O
ATOM 6973 CB ILE A 713 48.224 14.121 55.489 1.00 0.56 C
ATOM 6974 CG1 ILE A 713 47.567 15.283 56.279 1.00 0.56 C
ATOM 6975 CG2 ILE A 713 49.730 14.399 55.277 1.00 0.56 C
ATOM 6976 CD1 ILE A 713 48.106 15.475 57.703 1.00 0.56 C
ATOM 6977 HN ILE A 713 45.960 12.422 54.514 1.00 0.00 H
ATOM 6978 N LEU A 714 49.093 13.159 52.357 1.00 0.54 N
ATOM 6979 CA LEU A 714 49.967 12.248 51.618 1.00 0.54 C
ATOM 6980 C LEU A 714 51.005 11.520 52.483 1.00 0.54 C
ATOM 6981 O LEU A 714 51.432 11.981 53.540 1.00 0.54 O
ATOM 6982 CB LEU A 714 50.728 12.961 50.462 1.00 0.54 C
ATOM 6983 CG LEU A 714 49.927 13.319 49.191 1.00 0.54 C
ATOM 6984 CD1 LEU A 714 50.828 14.171 48.279 1.00 0.54 C
ATOM 6985 CD2 LEU A 714 49.476 12.054 48.446 1.00 0.54 C
ATOM 6986 HN LEU A 714 49.108 14.145 52.095 1.00 0.00 H
ATOM 6987 N TYR A 715 51.465 10.332 52.055 1.00 0.37 N
ATOM 6988 CA TYR A 715 52.447 9.548 52.789 1.00 0.37 C
ATOM 6989 C TYR A 715 53.844 10.145 53.006 1.00 0.37 C
ATOM 6990 O TYR A 715 54.510 9.816 53.983 1.00 0.37 O
ATOM 6991 CB TYR A 715 52.541 8.127 52.169 1.00 0.37 C

ATOM 6992 CG TYR A 715 51.316 7.264 52.418 1.00 0.37 C
ATOM 6993 CD1 TYR A 715 50.940 6.265 51.493 1.00 0.37 C
ATOM 6994 CD2 TYR A 715 50.596 7.344 53.625 1.00 0.37 C
ATOM 6995 CE1 TYR A 715 49.921 5.346 51.806 1.00 0.37 C
ATOM 6996 CE2 TYR A 715 49.604 6.416 53.945 1.00 0.37 C
ATOM 6997 CZ TYR A 715 49.289 5.406 53.049 1.00 0.37 C
ATOM 6998 OH TYR A 715 48.345 4.448 53.447 1.00 0.37 O
ATOM 6999 HN TYR A 715 51.109 9.962 51.174 1.00 0.00 H
ATOM 7000 HH TYR A 715 48.129 3.756 52.833 1.00 0.00 H
ATOM 7001 N GLY A 716 54.345 11.048 52.146 1.00 0.38 N
ATOM 7002 CA GLY A 716 55.589 11.769 52.445 1.00 0.38 C
ATOM 7003 C GLY A 716 55.421 12.966 53.341 1.00 0.38 C
ATOM 7004 O GLY A 716 56.396 13.463 53.896 1.00 0.38 O
ATOM 7005 HN GLY A 716 53.854 11.236 51.272 1.00 0.00 H
ATOM 7006 N ASP A 717 54.177 13.440 53.519 1.00 0.36 N
ATOM 7007 CA ASP A 717 53.904 14.673 54.227 1.00 0.36 C
ATOM 7008 C ASP A 717 53.470 14.408 55.667 1.00 0.36 C
ATOM 7009 O ASP A 717 53.292 15.316 56.481 1.00 0.36 O
ATOM 7010 CB ASP A 717 52.745 15.412 53.517 1.00 0.36 C
ATOM 7011 CG ASP A 717 53.022 15.783 52.068 1.00 0.36 C
ATOM 7012 OD1 ASP A 717 54.194 15.785 51.624 1.00 0.36 O
ATOM 7013 OD2 ASP A 717 52.003 16.052 51.377 1.00 0.36 O1-
ATOM 7014 HN ASP A 717 53.393 12.910 53.140 1.00 0.00 H
ATOM 7015 N PHE A 718 53.309 13.127 56.046 1.00 0.29 N
ATOM 7016 CA PHE A 718 53.169 12.719 57.420 1.00 0.29 C
ATOM 7017 C PHE A 718 54.490 12.781 58.158 1.00 0.29 C
ATOM 7018 O PHE A 718 55.515 13.051 57.543 1.00 0.29 O
ATOM 7019 CB PHE A 718 52.498 11.305 57.502 1.00 0.29 C
ATOM 7020 CG PHE A 718 53.233 10.072 56.983 1.00 0.29 C
ATOM 7021 CD1 PHE A 718 54.523 9.733 57.422 1.00 0.29 C
ATOM 7022 CD2 PHE A 718 52.510 9.086 56.316 1.00 0.29 C
ATOM 7023 CE1 PHE A 718 55.113 8.526 57.068 1.00 0.29 C
ATOM 7024 CE2 PHE A 718 53.074 7.832 56.127 1.00 0.29 C
ATOM 7025 CZ PHE A 718 54.409 7.576 56.358 1.00 0.29 C
ATOM 7026 HN PHE A 718 53.285 12.408 55.323 1.00 0.00 H
ATOM 7027 N ARG A 719 54.459 12.477 59.484 1.00 0.28 N
ATOM 7028 CA ARG A 719 55.581 11.966 60.278 1.00 0.28 C
ATOM 7029 C ARG A 719 55.313 12.217 61.731 1.00 0.28 C
ATOM 7030 O ARG A 719 55.292 11.311 62.559 1.00 0.28 O
ATOM 7031 CB ARG A 719 56.939 12.591 59.892 1.00 0.28 C
ATOM 7032 CG ARG A 719 58.185 12.185 60.682 1.00 0.28 C
ATOM 7033 CD ARG A 719 59.414 12.787 59.997 1.00 0.28 C
ATOM 7034 NE ARG A 719 60.627 12.457 60.808 1.00 0.28 N
ATOM 7035 CZ ARG A 719 61.831 12.975 60.533 1.00 0.28 C

ATOM 7036 NH1 ARG A 719 62.874 12.695 61.310 1.00 0.28 N1+
ATOM 7037 NH2 ARG A 719 62.002 13.779 59.486 1.00 0.28 N
ATOM 7038 HN ARG A 719 53.574 12.618 59.971 1.00 0.00 H
ATOM 7039 HE ARG A 719 60.534 11.816 61.596 1.00 0.00 H
ATOM 7040 1HH1 ARG A 719 62.743 12.079 62.112 1.00 0.00 H
ATOM 7041 2HH1 ARG A 719 63.791 13.090 61.101 1.00 0.00 H
ATOM 7042 1HH2 ARG A 719 61.202 13.994 58.890 1.00 0.00 H
ATOM 7043 2HH2 ARG A 719 62.919 14.174 59.277 1.00 0.00 H
ATOM 7044 N GLN A 720 54.960 13.458 62.059 1.00 0.29 N
ATOM 7045 CA GLN A 720 54.665 13.922 63.391 1.00 0.29 C
ATOM 7046 C GLN A 720 53.315 13.421 63.891 1.00 0.29 C
ATOM 7047 O GLN A 720 52.956 13.573 65.058 1.00 0.29 O
ATOM 7048 CB GLN A 720 54.771 15.473 63.447 1.00 0.29 C
ATOM 7049 CG GLN A 720 53.806 16.294 62.540 1.00 0.29 C
ATOM 7050 CD GLN A 720 54.192 16.319 61.052 1.00 0.29 C
ATOM 7051 NE2 GLN A 720 53.408 17.052 60.237 1.00 0.29 N
ATOM 7052 OE1 GLN A 720 55.157 15.699 60.607 1.00 0.29 O
ATOM 7053 HN GLN A 720 54.893 14.139 61.303 1.00 0.00 H
ATOM 7054 1HE2 GLN A 720 52.608 17.566 60.606 1.00 0.00 H
ATOM 7055 2HE2 GLN A 720 53.664 17.069 59.250 1.00 0.00 H
ATOM 7056 N ARG A 721 52.517 12.816 62.993 1.00 0.33 N
ATOM 7057 CA ARG A 721 51.273 12.141 63.306 1.00 0.33 C
ATOM 7058 C ARG A 721 51.269 10.734 62.701 1.00 0.33 C
ATOM 7059 O ARG A 721 50.229 10.092 62.536 1.00 0.33 O
ATOM 7060 CB ARG A 721 50.073 12.973 62.781 1.00 0.33 C
ATOM 7061 CG ARG A 721 49.982 14.402 63.367 1.00 0.33 C
ATOM 7062 CD ARG A 721 49.760 14.456 64.884 1.00 0.33 C
ATOM 7063 NE ARG A 721 49.769 15.905 65.276 1.00 0.33 N
ATOM 7064 CZ ARG A 721 50.820 16.554 65.796 1.00 0.33 C
ATOM 7065 NH1 ARG A 721 50.677 17.836 66.134 1.00 0.33 N1+
ATOM 7066 NH2 ARG A 721 52.000 15.975 65.986 1.00 0.33 N
ATOM 7067 HN ARG A 721 52.810 12.834 62.016 1.00 0.00 H
ATOM 7068 HE ARG A 721 48.910 16.436 65.136 1.00 0.00 H
ATOM 7069 1HH1 ARG A 721 51.477 18.330 66.530 1.00 0.00 H
ATOM 7070 2HH1 ARG A 721 49.771 18.281 65.988 1.00 0.00 H
ATOM 7071 1HH2 ARG A 721 52.800 16.469 66.382 1.00 0.00 H
ATOM 7072 2HH2 ARG A 721 52.109 14.994 65.727 1.00 0.00 H
ATOM 7073 N TYR A 722 52.460 10.207 62.343 1.00 0.31 N
ATOM 7074 CA TYR A 722 52.595 8.872 61.790 1.00 0.31 C
ATOM 7075 C TYR A 722 52.781 7.862 62.919 1.00 0.31 C
ATOM 7076 O TYR A 722 52.909 8.182 64.097 1.00 0.31 O
ATOM 7077 CB TYR A 722 53.687 8.799 60.678 1.00 0.31 C
ATOM 7078 CG TYR A 722 53.890 7.430 60.057 1.00 0.31 C
ATOM 7079 CD1 TYR A 722 52.854 6.714 59.418 1.00 0.31 C

ATOM 7080 CD2 TYR A 722 55.140 6.810 60.212 1.00 0.31 C
ATOM 7081 CE1 TYR A 722 53.089 5.420 58.922 1.00 0.31 C
ATOM 7082 CE2 TYR A 722 55.368 5.516 59.729 1.00 0.31 C
ATOM 7083 CZ TYR A 722 54.346 4.829 59.066 1.00 0.31 C
ATOM 7084 OH TYR A 722 54.562 3.537 58.550 1.00 0.31 O
ATOM 7085 HN TYR A 722 53.301 10.771 62.467 1.00 0.00 H
ATOM 7086 HH TYR A 722 55.417 3.135 58.648 1.00 0.00 H
ATOM 7087 N ARG A 723 52.696 6.578 62.565 1.00 0.35 N
ATOM 7088 CA ARG A 723 52.638 5.463 63.452 1.00 0.35 C
ATOM 7089 C ARG A 723 53.983 4.782 63.389 1.00 0.35 C
ATOM 7090 O ARG A 723 54.290 4.058 62.450 1.00 0.35 O
ATOM 7091 CB ARG A 723 51.534 4.517 62.927 1.00 0.35 C
ATOM 7092 CG ARG A 723 50.102 4.992 63.243 1.00 0.35 C
ATOM 7093 CD ARG A 723 49.576 6.305 62.674 1.00 0.35 C
ATOM 7094 NE ARG A 723 48.256 6.524 63.339 1.00 0.35 N
ATOM 7095 CZ ARG A 723 47.417 7.497 62.979 1.00 0.35 C
ATOM 7096 NH1 ARG A 723 46.187 7.473 63.481 1.00 0.35 N1+
ATOM 7097 NH2 ARG A 723 47.795 8.463 62.153 1.00 0.35 N
ATOM 7098 HN ARG A 723 52.670 6.375 61.566 1.00 0.00 H
ATOM 7099 HE ARG A 723 47.985 5.903 64.101 1.00 0.00 H
ATOM 7100 1HH1 ARG A 723 45.896 6.730 64.116 1.00 0.00 H
ATOM 7101 2HH1 ARG A 723 45.546 8.217 63.206 1.00 0.00 H
ATOM 7102 1HH2 ARG A 723 48.739 8.481 61.768 1.00 0.00 H
ATOM 7103 2HH2 ARG A 723 47.154 9.207 61.878 1.00 0.00 H
ATOM 7104 N ILE A 724 54.814 4.975 64.427 1.00 0.28 N
ATOM 7105 CA ILE A 724 56.165 4.436 64.495 1.00 0.28 C
ATOM 7106 C ILE A 724 56.154 3.071 65.169 1.00 0.28 C
ATOM 7107 O ILE A 724 57.173 2.469 65.500 1.00 0.28 O
ATOM 7108 CB ILE A 724 57.077 5.406 65.240 1.00 0.28 C
ATOM 7109 CG1 ILE A 724 56.586 5.703 66.680 1.00 0.28 C
ATOM 7110 CG2 ILE A 724 57.173 6.698 64.393 1.00 0.28 C
ATOM 7111 CD1 ILE A 724 57.609 6.495 67.503 1.00 0.28 C
ATOM 7112 HN ILE A 724 54.479 5.532 65.213 1.00 0.00 H
ATOM 7113 N LEU A 725 54.938 2.539 65.364 1.00 0.33 N
ATOM 7114 CA LEU A 725 54.660 1.256 65.952 1.00 0.33 C
ATOM 7115 C LEU A 725 54.642 0.186 64.857 1.00 0.33 C
ATOM 7116 O LEU A 725 53.634 -0.048 64.194 1.00 0.33 O
ATOM 7117 CB LEU A 725 53.312 1.336 66.721 1.00 0.33 C
ATOM 7118 CG LEU A 725 53.245 2.450 67.798 1.00 0.33 C
ATOM 7119 CD1 LEU A 725 51.833 2.563 68.393 1.00 0.33 C
ATOM 7120 CD2 LEU A 725 54.260 2.243 68.931 1.00 0.33 C
ATOM 7121 HN LEU A 725 54.136 3.096 65.068 1.00 0.00 H
ATOM 7122 N ASN A 726 55.800 -0.471 64.623 1.00 0.38 N
ATOM 7123 CA ASN A 726 55.996 -1.523 63.627 1.00 0.38 C

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ATOM   7124  C   ASN A 726     55.114  -2.756  63.842  1.00  0.38        C
ATOM   7125  O   ASN A 726     55.077  -3.211  64.986  1.00  0.38        O
ATOM   7126  CB  ASN A 726     57.439  -2.096  63.700  1.00  0.38        C
ATOM   7127  CG  ASN A 726     58.481  -1.046  63.351  1.00  0.38        C
ATOM   7128  ND2 ASN A 726     59.669  -1.135  63.992  1.00  0.38        N
ATOM   7129  OD1 ASN A 726     58.267  -0.187  62.499  1.00  0.38        O
ATOM   7130  HN  ASN A 726     56.607  -0.210  65.190  1.00  0.00        H
ATOM   7131 1HD2 ASN A 726     60.368  -0.430  63.758  1.00  0.00        H
ATOM   7132 2HD2 ASN A 726     59.847  -1.848  64.699  1.00  0.00        H
ATOM   7133  N   PRO A 727     54.469  -3.396  62.845  1.00  0.46        N
ATOM   7134  CA  PRO A 727     53.366  -4.340  63.051  1.00  0.46        C
ATOM   7135  C   PRO A 727     53.704  -5.640  63.746  1.00  0.46        C
ATOM   7136  O   PRO A 727     52.809  -6.424  64.042  1.00  0.46        O
ATOM   7137  CB  PRO A 727     52.750  -4.549  61.657  1.00  0.46        C
ATOM   7138  CG  PRO A 727     53.870  -4.163  60.694  1.00  0.46        C
ATOM   7139  CD  PRO A 727     54.569  -3.023  61.437  1.00  0.46        C
ATOM   7140  N   ALA A 728     54.982  -5.866  64.062  1.00  0.52        N
ATOM   7141  CA  ALA A 728     55.472  -6.915  64.922  1.00  0.52        C
ATOM   7142  C   ALA A 728     54.869  -6.914  66.329  1.00  0.52        C
ATOM   7143  O   ALA A 728     54.722  -7.957  66.961  1.00  0.52        O
ATOM   7144  CB  ALA A 728     56.998  -6.734  65.017  1.00  0.52        C
ATOM   7145  HN  ALA A 728     55.676  -5.238  63.657  1.00  0.00        H
ATOM   7146  N   ALA A 729     54.492  -5.735  66.857  1.00  0.51        N
ATOM   7147  CA  ALA A 729     53.941  -5.614  68.189  1.00  0.51        C
ATOM   7148  C   ALA A 729     52.418  -5.762  68.271  1.00  0.51        C
ATOM   7149  O   ALA A 729     51.810  -5.258  69.209  1.00  0.51        O
ATOM   7150  CB  ALA A 729     54.413  -4.284  68.806  1.00  0.51        C
ATOM   7151  HN  ALA A 729     54.599  -4.891  66.294  1.00  0.00        H
ATOM   7152  N   ILE A 730     51.772  -6.477  67.319  1.00  0.35        N
ATOM   7153  CA  ILE A 730     50.423  -7.035  67.473  1.00  0.35        C
ATOM   7154  C   ILE A 730     50.474  -8.455  66.907  1.00  0.35        C
ATOM   7155  O   ILE A 730     50.201  -8.660  65.723  1.00  0.35        O
ATOM   7156  CB  ILE A 730     49.307  -6.255  66.764  1.00  0.35        C
ATOM   7157  CG1 ILE A 730     49.255  -4.793  67.240  1.00  0.35        C
ATOM   7158  CG2 ILE A 730     47.930  -6.923  66.967  1.00  0.35        C
ATOM   7159  CD1 ILE A 730     48.672  -4.502  68.614  1.00  0.35        C
ATOM   7160  HN  ILE A 730     52.256  -6.639  66.436  1.00  0.00        H
ATOM   7161  N   PRO A 731     50.828  -9.488  67.671  1.00  0.40        N
ATOM   7162  CA  PRO A 731     50.745 -10.870  67.215  1.00  0.40        C
ATOM   7163  C   PRO A 731     49.335 -11.367  67.473  1.00  0.40        C
ATOM   7164  O   PRO A 731     48.412 -10.561  67.534  1.00  0.40        O
ATOM   7165  CB  PRO A 731     51.790 -11.570  68.113  1.00  0.40        C
ATOM   7166  CG  PRO A 731     51.737 -10.797  69.431  1.00  0.40        C
ATOM   7167  CD  PRO A 731     51.524  -9.365  68.949  1.00  0.40        C
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ATOM   7168  N   GLU A 732     49.134 -12.684  67.684  1.00  0.43        N
ATOM   7169  CA  GLU A 732     47.864 -13.347  67.965  1.00  0.43        C
ATOM   7170  C   GLU A 732     47.074 -12.877  69.195  1.00  0.43        C
ATOM   7171  O   GLU A 732     46.163 -13.547  69.669  1.00  0.43        O
ATOM   7172  CB  GLU A 732     48.142 -14.852  68.183  1.00  0.43        C
ATOM   7173  CG  GLU A 732     48.868 -15.561  67.017  1.00  0.43        C
ATOM   7174  CD  GLU A 732     49.111 -17.039  67.326  1.00  0.43        C
ATOM   7175  OE1 GLU A 732     48.636 -17.521  68.386  1.00  0.43        O
ATOM   7176  OE2 GLU A 732     49.793 -17.686  66.493  1.00  0.43        O1-
ATOM   7177  HN  GLU A 732     49.959 -13.282  67.643  1.00  0.00        H
ATOM   7178  N   GLY A 733     47.410 -11.718  69.781  1.00  0.50        N
ATOM   7179  CA  GLY A 733     46.780 -11.183  70.971  1.00  0.50        C
ATOM   7180  C   GLY A 733     47.250 -11.752  72.271  1.00  0.50        C
ATOM   7181  O   GLY A 733     46.853 -11.307  73.338  1.00  0.50        O
ATOM   7182  HN  GLY A 733     48.163 -11.175  69.359  1.00  0.00        H
ATOM   7183  N   GLN A 734     48.169 -12.725  72.227  1.00  0.45        N
ATOM   7184  CA  GLN A 734     48.764 -13.333  73.399  1.00  0.45        C
ATOM   7185  C   GLN A 734     49.608 -12.377  74.227  1.00  0.45        C
ATOM   7186  O   GLN A 734     49.579 -12.393  75.452  1.00  0.45        O
ATOM   7187  CB  GLN A 734     49.633 -14.526  72.955  1.00  0.45        C
ATOM   7188  CG  GLN A 734     48.819 -15.620  72.226  1.00  0.45        C
ATOM   7189  CD  GLN A 734     49.743 -16.748  71.770  1.00  0.45        C
ATOM   7190  NE2 GLN A 734     49.157 -17.818  71.200  1.00  0.45        N
ATOM   7191  OE1 GLN A 734     50.966 -16.667  71.913  1.00  0.45        O
ATOM   7192  HN  GLN A 734     48.469 -13.059  71.311  1.00  0.00        H
ATOM   7193 1HE2 GLN A 734     49.774 -18.571  70.896  1.00  0.00        H
ATOM   7194 2HE2 GLN A 734     48.146 -17.885  71.082  1.00  0.00        H
ATOM   7195  N   PHE A 735     50.387 -11.510  73.552  1.00  0.31        N
ATOM   7196  CA  PHE A 735     51.247 -10.555  74.227  1.00  0.31        C
ATOM   7197  C   PHE A 735     50.714  -9.136  74.129  1.00  0.31        C
ATOM   7198  O   PHE A 735     51.192  -8.263  74.847  1.00  0.31        O
ATOM   7199  CB  PHE A 735     52.661 -10.575  73.587  1.00  0.31        C
ATOM   7200  CG  PHE A 735     53.306 -11.910  73.831  1.00  0.31        C
ATOM   7201  CD1 PHE A 735     53.290 -12.917  72.851  1.00  0.31        C
ATOM   7202  CD2 PHE A 735     53.903 -12.178  75.073  1.00  0.31        C
ATOM   7203  CE1 PHE A 735     53.847 -14.175  73.113  1.00  0.31        C
ATOM   7204  CE2 PHE A 735     54.472 -13.430  75.336  1.00  0.31        C
ATOM   7205  CZ  PHE A 735     54.441 -14.430  74.356  1.00  0.31        C
ATOM   7206  HN  PHE A 735     50.372 -11.525  72.532  1.00  0.00        H
ATOM   7207  N   ILE A 736     49.707  -8.900  73.257  1.00  0.37        N
ATOM   7208  CA  ILE A 736     49.202  -7.586  72.858  1.00  0.37        C
ATOM   7209  C   ILE A 736     48.298  -7.757  71.635  1.00  0.37        C
ATOM   7210  O   ILE A 736     48.671  -8.389  70.642  1.00  0.37        O
ATOM   7211  CB  ILE A 736     50.287  -6.511  72.610  1.00  0.37        C
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ATOM 7212 CG1 ILE A 736 49.729 -5.108 72.259 1.00 0.37 C
ATOM 7213 CG2 ILE A 736 51.355 -6.976 71.597 1.00 0.37 C
ATOM 7214 CD1 ILE A 736 49.156 -4.371 73.474 1.00 0.37 C
ATOM 7215 HN ILE A 736 49.258 -9.714 72.838 1.00 0.00 H
ATOM 7216 N ASP A 737 47.047 -7.256 71.711 1.00 0.40 N
ATOM 7217 CA ASP A 737 46.030 -7.281 70.679 1.00 0.40 C
ATOM 7218 C ASP A 737 45.497 -5.874 70.389 1.00 0.40 C
ATOM 7219 O ASP A 737 46.208 -4.870 70.454 1.00 0.40 O
ATOM 7220 CB ASP A 737 44.855 -8.212 71.118 1.00 0.40 C
ATOM 7221 CG ASP A 737 44.139 -7.752 72.387 1.00 0.40 C
ATOM 7222 OD1 ASP A 737 44.799 -7.171 73.283 1.00 0.40 O
ATOM 7223 OD2 ASP A 737 42.899 -7.937 72.408 1.00 0.40 O1-
ATOM 7224 HN ASP A 737 46.789 -6.811 72.592 1.00 0.00 H
ATOM 7225 N SER A 738 44.187 -5.784 70.064 1.00 0.36 N
ATOM 7226 CA SER A 738 43.417 -4.561 69.897 1.00 0.36 C
ATOM 7227 C SER A 738 43.619 -3.607 71.059 1.00 0.36 C
ATOM 7228 O SER A 738 43.405 -3.971 72.211 1.00 0.36 O
ATOM 7229 CB SER A 738 41.893 -4.884 69.800 1.00 0.36 C
ATOM 7230 OG SER A 738 41.127 -3.775 69.318 1.00 0.36 O
ATOM 7231 HN SER A 738 43.689 -6.662 69.922 1.00 0.00 H
ATOM 7232 HG SER A 738 40.199 -3.972 69.259 1.00 0.00 H
ATOM 7233 N ARG A 739 44.032 -2.341 70.831 1.00 0.30 N
ATOM 7234 CA ARG A 739 44.341 -1.445 71.942 1.00 0.30 C
ATOM 7235 C ARG A 739 43.099 -0.847 72.594 1.00 0.30 C
ATOM 7236 O ARG A 739 43.017 0.359 72.805 1.00 0.30 O
ATOM 7237 CB ARG A 739 45.278 -0.287 71.513 1.00 0.30 C
ATOM 7238 CG ARG A 739 46.620 -0.734 70.900 1.00 0.30 C
ATOM 7239 CD ARG A 739 47.573 -1.433 71.876 1.00 0.30 C
ATOM 7240 NE ARG A 739 47.841 -0.489 73.021 1.00 0.30 N
ATOM 7241 CZ ARG A 739 48.681 0.555 72.970 1.00 0.30 C
ATOM 7242 NH1 ARG A 739 48.679 1.443 73.964 1.00 0.30 N1+
ATOM 7243 NH2 ARG A 739 49.514 0.736 71.953 1.00 0.30 N
ATOM 7244 HN ARG A 739 44.129 -2.007 69.872 1.00 0.00 H
ATOM 7245 HE ARG A 739 47.348 -0.657 73.898 1.00 0.00 H
ATOM 7246 1HH1 ARG A 739 49.318 2.237 73.925 1.00 0.00 H
ATOM 7247 2HH1 ARG A 739 48.039 1.304 74.746 1.00 0.00 H
ATOM 7248 1HH2 ARG A 739 50.153 1.530 71.914 1.00 0.00 H
ATOM 7249 2HH2 ARG A 739 49.516 0.056 71.192 1.00 0.00 H
ATOM 7250 N LYS A 740 42.131 -1.717 72.951 1.00 0.37 N
ATOM 7251 CA LYS A 740 40.777 -1.403 73.350 1.00 0.37 C
ATOM 7252 C LYS A 740 39.982 -0.793 72.203 1.00 0.37 C
ATOM 7253 O LYS A 740 39.362 0.249 72.371 1.00 0.37 O
ATOM 7254 CB LYS A 740 40.708 -0.531 74.635 1.00 0.37 C
ATOM 7255 CG LYS A 740 41.500 -1.103 75.825 1.00 0.37 C

ATOM 7256 CD LYS A 740 41.584 -0.103 76.989 1.00 0.37 C
ATOM 7257 CE LYS A 740 42.416 -0.622 78.164 1.00 0.37 C
ATOM 7258 NZ LYS A 740 42.462 0.398 79.236 1.00 0.37 N1+
ATOM 7259 HN LYS A 740 42.382 -2.705 72.938 1.00 0.00 H
ATOM 7260 HZ1 LYS A 740 43.017 0.052 80.019 1.00 0.00 H
ATOM 7261 HZ2 LYS A 740 41.529 0.691 79.527 1.00 0.00 H
ATOM 7262 HZ3 LYS A 740 42.800 1.298 78.895 1.00 0.00 H
ATOM 7263 N GLY A 741 39.991 -1.436 71.008 1.00 0.45 N
ATOM 7264 CA GLY A 741 39.338 -0.897 69.813 1.00 0.45 C
ATOM 7265 C GLY A 741 40.315 -0.321 68.820 1.00 0.45 C
ATOM 7266 O GLY A 741 40.139 0.771 68.290 1.00 0.45 O
ATOM 7267 HN GLY A 741 40.473 -2.332 70.939 1.00 0.00 H
ATOM 7268 N ALA A 742 41.397 -1.066 68.550 1.00 0.40 N
ATOM 7269 CA ALA A 742 42.440 -0.672 67.626 1.00 0.40 C
ATOM 7270 C ALA A 742 43.308 -1.870 67.268 1.00 0.40 C
ATOM 7271 O ALA A 742 44.476 -1.966 67.651 1.00 0.40 O
ATOM 7272 CB ALA A 742 43.307 0.471 68.192 1.00 0.40 C
ATOM 7273 HN ALA A 742 41.491 -1.964 69.024 1.00 0.00 H
ATOM 7274 N GLU A 743 42.722 -2.858 66.566 1.00 0.35 N
ATOM 7275 CA GLU A 743 43.418 -3.987 65.973 1.00 0.35 C
ATOM 7276 C GLU A 743 43.816 -3.732 64.524 1.00 0.35 C
ATOM 7277 O GLU A 743 43.515 -2.686 63.952 1.00 0.35 O
ATOM 7278 CB GLU A 743 42.606 -5.308 66.085 1.00 0.35 C
ATOM 7279 CG GLU A 743 41.396 -5.476 65.129 1.00 0.35 C
ATOM 7280 CD GLU A 743 40.275 -4.462 65.331 1.00 0.35 C
ATOM 7281 OE1 GLU A 743 40.103 -3.965 66.470 1.00 0.35 O
ATOM 7282 OE2 GLU A 743 39.584 -4.194 64.312 1.00 0.35 O1-
ATOM 7283 HN GLU A 743 41.711 -2.810 66.441 1.00 0.00 H
ATOM 7284 N LYS A 744 44.520 -4.714 63.900 1.00 0.31 N
ATOM 7285 CA LYS A 744 45.031 -4.694 62.530 1.00 0.31 C
ATOM 7286 C LYS A 744 46.284 -3.843 62.411 1.00 0.31 C
ATOM 7287 O LYS A 744 47.411 -4.314 62.527 1.00 0.31 O
ATOM 7288 CB LYS A 744 44.002 -4.219 61.449 1.00 0.31 C
ATOM 7289 CG LYS A 744 42.712 -5.041 61.298 1.00 0.31 C
ATOM 7290 CD LYS A 744 41.564 -4.134 60.807 1.00 0.31 C
ATOM 7291 CE LYS A 744 40.187 -4.797 60.686 1.00 0.31 C
ATOM 7292 NZ LYS A 744 39.701 -5.265 61.993 1.00 0.31 N1+
ATOM 7293 HN LYS A 744 44.712 -5.554 64.446 1.00 0.00 H
ATOM 7294 HZ1 LYS A 744 38.785 -5.706 61.912 1.00 0.00 H
ATOM 7295 HZ2 LYS A 744 39.694 -4.512 62.681 1.00 0.00 H
ATOM 7296 HZ3 LYS A 744 40.376 -5.883 62.443 1.00 0.00 H
ATOM 7297 N LEU A 745 46.090 -2.541 62.163 1.00 0.35 N
ATOM 7298 CA LEU A 745 47.115 -1.534 62.172 1.00 0.35 C
ATOM 7299 C LEU A 745 47.543 -1.245 63.598 1.00 0.35 C

ATOM 7300 O LEU A 745 46.768 -1.366 64.542 1.00 0.35 O
ATOM 7301 CB LEU A 745 46.584 -0.258 61.484 1.00 0.35 C
ATOM 7302 CG LEU A 745 45.380 0.379 62.208 1.00 0.35 C
ATOM 7303 CD1 LEU A 745 45.792 1.620 63.002 1.00 0.35 C
ATOM 7304 CD2 LEU A 745 44.267 0.729 61.220 1.00 0.35 C
ATOM 7305 HN LEU A 745 45.139 -2.240 61.951 1.00 0.00 H
ATOM 7306 N LEU A 746 48.801 -0.844 63.814 1.00 0.35 N
ATOM 7307 CA LEU A 746 49.301 -0.689 65.168 1.00 0.35 C
ATOM 7308 C LEU A 746 49.212 0.715 65.644 1.00 0.35 C
ATOM 7309 O LEU A 746 49.570 1.057 66.770 1.00 0.35 O
ATOM 7310 CB LEU A 746 50.781 -1.062 65.198 1.00 0.35 C
ATOM 7311 CG LEU A 746 50.918 -2.510 65.611 1.00 0.35 C
ATOM 7312 CD1 LEU A 746 50.414 -3.478 64.524 1.00 0.35 C
ATOM 7313 CD2 LEU A 746 52.329 -2.778 66.116 1.00 0.35 C
ATOM 7314 HN LEU A 746 49.413 -0.646 63.022 1.00 0.00 H
ATOM 7315 N GLY A 747 48.732 1.584 64.761 1.00 0.40 N
ATOM 7316 CA GLY A 747 48.553 2.967 65.068 1.00 0.40 C
ATOM 7317 C GLY A 747 47.728 3.309 66.246 1.00 0.40 C
ATOM 7318 O GLY A 747 46.668 2.747 66.483 1.00 0.40 O
ATOM 7319 HN GLY A 747 48.482 1.251 63.830 1.00 0.00 H
ATOM 7320 N SER A 748 48.160 4.351 66.968 1.00 0.37 N
ATOM 7321 CA SER A 748 47.263 5.033 67.870 1.00 0.37 C
ATOM 7322 C SER A 748 46.090 5.639 67.108 1.00 0.37 C
ATOM 7323 O SER A 748 46.258 6.229 66.031 1.00 0.37 O
ATOM 7324 CB SER A 748 48.000 6.121 68.679 1.00 0.37 C
ATOM 7325 OG SER A 748 47.239 6.506 69.819 1.00 0.37 O
ATOM 7326 HN SER A 748 49.127 4.664 66.880 1.00 0.00 H
ATOM 7327 HG SER A 748 47.693 7.176 70.317 1.00 0.00 H
ATOM 7328 N LEU A 749 44.884 5.453 67.648 1.00 0.41 N
ATOM 7329 CA LEU A 749 43.628 5.875 67.090 1.00 0.41 C
ATOM 7330 C LEU A 749 42.949 6.564 68.250 1.00 0.41 C
ATOM 7331 O LEU A 749 43.387 6.432 69.389 1.00 0.41 O
ATOM 7332 CB LEU A 749 42.731 4.699 66.601 1.00 0.41 C
ATOM 7333 CG LEU A 749 43.335 3.799 65.500 1.00 0.41 C
ATOM 7334 CD1 LEU A 749 42.303 2.759 65.035 1.00 0.41 C
ATOM 7335 CD2 LEU A 749 43.829 4.605 64.296 1.00 0.41 C
ATOM 7336 HN LEU A 749 44.850 4.964 68.543 1.00 0.00 H
ATOM 7337 N ASP A 750 41.893 7.341 67.979 1.00 0.42 N
ATOM 7338 CA ASP A 750 41.131 8.031 68.993 1.00 0.42 C
ATOM 7339 C ASP A 750 40.025 7.091 69.502 1.00 0.42 C
ATOM 7340 O ASP A 750 40.267 6.231 70.345 1.00 0.42 O
ATOM 7341 CB ASP A 750 40.659 9.331 68.296 1.00 0.42 C
ATOM 7342 CG ASP A 750 39.730 10.168 69.147 1.00 0.42 C
ATOM 7343 OD1 ASP A 750 40.183 10.716 70.177 1.00 0.42 O

ATOM 7344 OD2 ASP A 750 38.537 10.221 68.753 1.00 0.42 O1-
ATOM 7345 HN ASP A 750 41.612 7.451 67.005 1.00 0.00 H
ATOM 7346 N ILE A 751 38.789 7.202 68.970 1.00 0.42 N
ATOM 7347 CA ILE A 751 37.704 6.231 69.126 1.00 0.42 C
ATOM 7348 C ILE A 751 38.122 4.769 68.936 1.00 0.42 C
ATOM 7349 O ILE A 751 38.904 4.432 68.044 1.00 0.42 O
ATOM 7350 CB ILE A 751 36.560 6.495 68.136 1.00 0.42 C
ATOM 7351 CG1 ILE A 751 36.148 7.983 68.060 1.00 0.42 C
ATOM 7352 CG2 ILE A 751 35.320 5.616 68.409 1.00 0.42 C
ATOM 7353 CD1 ILE A 751 35.503 8.525 69.337 1.00 0.42 C
ATOM 7354 HN ILE A 751 38.594 8.033 68.412 1.00 0.00 H
ATOM 7355 N ASP A 752 37.502 3.867 69.713 1.00 0.46 N
ATOM 7356 CA ASP A 752 37.644 2.435 69.789 1.00 0.46 C
ATOM 7357 C ASP A 752 36.976 1.668 68.633 1.00 0.46 C
ATOM 7358 O ASP A 752 36.580 0.511 68.759 1.00 0.46 O
ATOM 7359 CB ASP A 752 37.022 1.983 71.151 1.00 0.46 C
ATOM 7360 CG ASP A 752 35.605 2.485 71.438 1.00 0.46 C
ATOM 7361 OD1 ASP A 752 35.090 3.365 70.698 1.00 0.46 O
ATOM 7362 OD2 ASP A 752 35.032 2.013 72.451 1.00 0.46 O1-
ATOM 7363 HN ASP A 752 36.816 4.261 70.357 1.00 0.00 H
ATOM 7364 N HIS A 753 36.849 2.303 67.454 1.00 0.48 N
ATOM 7365 CA HIS A 753 36.114 1.761 66.324 1.00 0.48 C
ATOM 7366 C HIS A 753 36.927 1.859 65.039 1.00 0.48 C
ATOM 7367 O HIS A 753 37.805 1.052 64.760 1.00 0.48 O
ATOM 7368 CB HIS A 753 34.758 2.505 66.184 1.00 0.48 C
ATOM 7369 CG HIS A 753 33.794 1.905 65.198 1.00 0.48 C
ATOM 7370 CD2 HIS A 753 33.369 2.326 63.975 1.00 0.48 C
ATOM 7371 ND1 HIS A 753 33.133 0.753 65.553 1.00 0.48 N
ATOM 7372 CE1 HIS A 753 32.313 0.492 64.562 1.00 0.48 C
ATOM 7373 NE2 HIS A 753 32.416 1.412 63.573 1.00 0.48 N
ATOM 7374 HN HIS A 753 37.293 3.215 67.347 1.00 0.00 H
ATOM 7375 HD1 HIS A 753 33.255 0.213 66.410 1.00 0.00 H
ATOM 7376 HE2 HIS A 753 31.890 1.427 62.699 1.00 0.00 H
ATOM 7377 N ASN A 754 36.667 2.869 64.182 1.00 0.59 N
ATOM 7378 CA ASN A 754 37.416 3.068 62.953 1.00 0.59 C
ATOM 7379 C ASN A 754 37.480 4.562 62.662 1.00 0.59 C
ATOM 7380 O ASN A 754 37.030 5.024 61.619 1.00 0.59 O
ATOM 7381 CB ASN A 754 36.783 2.392 61.699 1.00 0.59 C
ATOM 7382 CG ASN A 754 36.846 0.870 61.686 1.00 0.59 C
ATOM 7383 ND2 ASN A 754 35.886 0.189 62.337 1.00 0.59 N
ATOM 7384 OD1 ASN A 754 37.700 0.299 60.990 1.00 0.59 O
ATOM 7385 HN ASN A 754 35.914 3.519 64.406 1.00 0.00 H
ATOM 7386 1HD2 ASN A 754 35.184 0.658 62.909 1.00 0.00 H
ATOM 7387 2HD2 ASN A 754 35.928 -0.830 62.328 1.00 0.00 H

ATOM 7388 N GLN A 755 38.064 5.372 63.568 1.00 0.58 N
ATOM 7389 CA GLN A 755 38.075 6.837 63.463 1.00 0.58 C
ATOM 7390 C GLN A 755 39.249 7.325 62.609 1.00 0.58 C
ATOM 7391 O GLN A 755 39.622 8.495 62.554 1.00 0.58 O
ATOM 7392 CB GLN A 755 38.145 7.396 64.910 1.00 0.58 C
ATOM 7393 CG GLN A 755 38.157 8.934 65.146 1.00 0.58 C
ATOM 7394 CD GLN A 755 36.843 9.661 64.844 1.00 0.58 C
ATOM 7395 NE2 GLN A 755 36.833 10.975 65.176 1.00 0.58 N
ATOM 7396 OE1 GLN A 755 35.847 9.121 64.360 1.00 0.58 O
ATOM 7397 HN GLN A 755 38.524 4.943 64.371 1.00 0.00 H
ATOM 7398 1HE2 GLN A 755 35.958 11.459 64.975 1.00 0.00 H
ATOM 7399 2HE2 GLN A 755 37.658 11.422 65.577 1.00 0.00 H
ATOM 7400 N TYR A 756 39.875 6.400 61.876 1.00 0.62 N
ATOM 7401 CA TYR A 756 41.012 6.682 61.049 1.00 0.62 C
ATOM 7402 C TYR A 756 41.022 5.623 59.966 1.00 0.62 C
ATOM 7403 O TYR A 756 40.588 4.495 60.204 1.00 0.62 O
ATOM 7404 CB TYR A 756 42.280 6.584 61.927 1.00 0.62 C
ATOM 7405 CG TYR A 756 43.354 7.519 61.489 1.00 0.62 C
ATOM 7406 CD1 TYR A 756 43.520 8.761 62.124 1.00 0.62 C
ATOM 7407 CD2 TYR A 756 44.221 7.153 60.455 1.00 0.62 C
ATOM 7408 CE1 TYR A 756 44.531 9.638 61.706 1.00 0.62 C
ATOM 7409 CE2 TYR A 756 45.214 8.037 60.025 1.00 0.62 C
ATOM 7410 CZ TYR A 756 45.345 9.296 60.626 1.00 0.62 C
ATOM 7411 OH TYR A 756 46.371 10.192 60.267 1.00 0.62 O
ATOM 7412 HN TYR A 756 39.526 5.442 61.906 1.00 0.00 H
ATOM 7413 HH TYR A 756 46.460 11.046 60.674 1.00 0.00 H
ATOM 7414 N LYS A 757 41.517 5.941 58.759 1.00 0.67 N
ATOM 7415 CA LYS A 757 41.629 4.967 57.690 1.00 0.67 C
ATOM 7416 C LYS A 757 42.914 5.183 56.924 1.00 0.67 C
ATOM 7417 O LYS A 757 43.542 6.243 56.963 1.00 0.67 O
ATOM 7418 CB LYS A 757 40.430 4.999 56.699 1.00 0.67 C
ATOM 7419 CG LYS A 757 39.128 4.365 57.229 1.00 0.67 C
ATOM 7420 CD LYS A 757 39.213 2.844 57.462 1.00 0.67 C
ATOM 7421 CE LYS A 757 37.867 2.231 57.862 1.00 0.67 C
ATOM 7422 NZ LYS A 757 38.052 0.827 58.249 1.00 0.67 N1+
ATOM 7423 HN LYS A 757 41.824 6.899 58.588 1.00 0.00 H
ATOM 7424 HZ1 LYS A 757 37.156 0.419 58.515 1.00 0.00 H
ATOM 7425 HZ2 LYS A 757 38.754 0.721 58.982 1.00 0.00 H
ATOM 7426 HZ3 LYS A 757 38.517 0.287 57.519 1.00 0.00 H
ATOM 7427 N PHE A 758 43.334 4.135 56.199 1.00 0.66 N
ATOM 7428 CA PHE A 758 44.520 4.139 55.380 1.00 0.66 C
ATOM 7429 C PHE A 758 44.041 4.036 53.954 1.00 0.66 C
ATOM 7430 O PHE A 758 43.320 3.107 53.597 1.00 0.66 O
ATOM 7431 CB PHE A 758 45.427 2.923 55.702 1.00 0.66 C

ATOM 7432 CG PHE A 758 46.230 3.183 56.947 1.00 0.66 C
ATOM 7433 CD1 PHE A 758 45.671 3.013 58.225 1.00 0.66 C
ATOM 7434 CD2 PHE A 758 47.571 3.589 56.846 1.00 0.66 C
ATOM 7435 CE1 PHE A 758 46.432 3.261 59.374 1.00 0.66 C
ATOM 7436 CE2 PHE A 758 48.328 3.862 57.992 1.00 0.66 C
ATOM 7437 CZ PHE A 758 47.756 3.701 59.259 1.00 0.66 C
ATOM 7438 HN PHE A 758 42.778 3.280 56.229 1.00 0.00 H
ATOM 7439 N GLY A 759 44.390 5.030 53.119 1.00 0.75 N
ATOM 7440 CA GLY A 759 44.111 4.999 51.695 1.00 0.75 C
ATOM 7441 C GLY A 759 45.267 4.474 50.908 1.00 0.75 C
ATOM 7442 O GLY A 759 46.286 4.065 51.452 1.00 0.75 O
ATOM 7443 HN GLY A 759 44.872 5.842 53.503 1.00 0.00 H
ATOM 7444 N HIS A 760 45.144 4.497 49.575 1.00 0.67 N
ATOM 7445 CA HIS A 760 46.224 4.159 48.669 1.00 0.67 C
ATOM 7446 C HIS A 760 47.414 5.103 48.723 1.00 0.67 C
ATOM 7447 O HIS A 760 48.555 4.645 48.713 1.00 0.67 O
ATOM 7448 CB HIS A 760 45.706 4.039 47.222 1.00 0.67 C
ATOM 7449 CG HIS A 760 44.756 2.890 47.055 1.00 0.67 C
ATOM 7450 CD2 HIS A 760 44.752 1.648 47.610 1.00 0.67 C
ATOM 7451 ND1 HIS A 760 43.714 3.012 46.164 1.00 0.67 N
ATOM 7452 CE1 HIS A 760 43.088 1.857 46.194 1.00 0.67 C
ATOM 7453 NE2 HIS A 760 43.676 0.990 47.053 1.00 0.67 N
ATOM 7454 HN HIS A 760 44.244 4.766 49.177 1.00 0.00 H
ATOM 7455 HD1 HIS A 760 43.477 3.828 45.599 1.00 0.00 H
ATOM 7456 HE2 HIS A 760 43.380 0.034 47.250 1.00 0.00 H
ATOM 7457 N THR A 761 47.216 6.437 48.785 1.00 0.63 N
ATOM 7458 CA THR A 761 48.339 7.373 48.872 1.00 0.63 C
ATOM 7459 C THR A 761 48.315 8.240 50.119 1.00 0.63 C
ATOM 7460 O THR A 761 49.244 9.015 50.363 1.00 0.63 O
ATOM 7461 CB THR A 761 48.471 8.279 47.642 1.00 0.63 C
ATOM 7462 CG2 THR A 761 48.317 7.476 46.345 1.00 0.63 C
ATOM 7463 OG1 THR A 761 47.503 9.317 47.577 1.00 0.63 O
ATOM 7464 HN THR A 761 46.263 6.801 48.771 1.00 0.00 H
ATOM 7465 HG1 THR A 761 47.598 9.815 48.381 1.00 0.00 H
ATOM 7466 N LYS A 762 47.263 8.124 50.955 1.00 0.64 N
ATOM 7467 CA LYS A 762 47.033 9.045 52.053 1.00 0.64 C
ATOM 7468 C LYS A 762 46.578 8.369 53.339 1.00 0.64 C
ATOM 7469 O LYS A 762 46.088 7.240 53.373 1.00 0.64 O
ATOM 7470 CB LYS A 762 45.928 10.075 51.686 1.00 0.64 C
ATOM 7471 CG LYS A 762 46.258 10.996 50.502 1.00 0.64 C
ATOM 7472 CD LYS A 762 45.101 11.955 50.179 1.00 0.64 C
ATOM 7473 CE LYS A 762 45.272 12.688 48.836 1.00 0.64 C
ATOM 7474 NZ LYS A 762 44.200 12.328 47.896 1.00 0.64 N1+
ATOM 7475 HN LYS A 762 46.604 7.359 50.810 1.00 0.00 H

ATOM 7476 HZ1 LYS A 762 44.313 12.814 47.006 1.00 0.00 H
ATOM 7477 HZ2 LYS A 762 43.277 12.492 48.298 1.00 0.00 H
ATOM 7478 HZ3 LYS A 762 44.137 11.318 47.767 1.00 0.00 H
ATOM 7479 N VAL A 763 46.700 9.100 54.460 1.00 0.66 N
ATOM 7480 CA VAL A 763 46.022 8.802 55.712 1.00 0.66 C
ATOM 7481 C VAL A 763 44.756 9.641 55.807 1.00 0.66 C
ATOM 7482 O VAL A 763 44.764 10.803 55.413 1.00 0.66 O
ATOM 7483 CB VAL A 763 46.890 9.073 56.939 1.00 0.66 C
ATOM 7484 CG1 VAL A 763 47.971 7.983 57.044 1.00 0.66 C
ATOM 7485 CG2 VAL A 763 47.529 10.477 56.927 1.00 0.66 C
ATOM 7486 HN VAL A 763 47.308 9.918 54.431 1.00 0.00 H
ATOM 7487 N PHE A 764 43.639 9.077 56.317 1.00 0.71 N
ATOM 7488 CA PHE A 764 42.347 9.751 56.404 1.00 0.71 C
ATOM 7489 C PHE A 764 41.855 9.786 57.835 1.00 0.71 C
ATOM 7490 O PHE A 764 41.994 8.808 58.571 1.00 0.71 O
ATOM 7491 CB PHE A 764 41.242 9.031 55.589 1.00 0.71 C
ATOM 7492 CG PHE A 764 41.306 9.410 54.145 1.00 0.71 C
ATOM 7493 CD1 PHE A 764 42.287 8.863 53.304 1.00 0.71 C
ATOM 7494 CD2 PHE A 764 40.353 10.293 53.606 1.00 0.71 C
ATOM 7495 CE1 PHE A 764 42.296 9.165 51.939 1.00 0.71 C
ATOM 7496 CE2 PHE A 764 40.364 10.600 52.242 1.00 0.71 C
ATOM 7497 CZ PHE A 764 41.336 10.035 51.412 1.00 0.71 C
ATOM 7498 HN PHE A 764 43.703 8.120 56.663 1.00 0.00 H
ATOM 7499 N PHE A 765 41.256 10.916 58.255 1.00 0.67 N
ATOM 7500 CA PHE A 765 40.815 11.119 59.619 1.00 0.67 C
ATOM 7501 C PHE A 765 39.738 12.171 59.760 1.00 0.67 C
ATOM 7502 O PHE A 765 39.356 12.858 58.811 1.00 0.67 O
ATOM 7503 CB PHE A 765 41.978 11.427 60.594 1.00 0.67 C
ATOM 7504 CG PHE A 765 42.747 12.685 60.314 1.00 0.67 C
ATOM 7505 CD1 PHE A 765 42.529 13.821 61.107 1.00 0.67 C
ATOM 7506 CD2 PHE A 765 43.725 12.727 59.307 1.00 0.67 C
ATOM 7507 CE1 PHE A 765 43.281 14.984 60.902 1.00 0.67 C
ATOM 7508 CE2 PHE A 765 44.480 13.887 59.097 1.00 0.67 C
ATOM 7509 CZ PHE A 765 44.264 15.013 59.903 1.00 0.67 C
ATOM 7510 HN PHE A 765 41.106 11.665 57.580 1.00 0.00 H
ATOM 7511 N LYS A 766 39.218 12.275 60.985 1.00 0.63 N
ATOM 7512 CA LYS A 766 38.162 13.149 61.402 1.00 0.63 C
ATOM 7513 C LYS A 766 38.654 13.898 62.655 1.00 0.63 C
ATOM 7514 O LYS A 766 39.369 13.269 63.483 1.00 0.63 O
ATOM 7515 CB LYS A 766 36.911 12.314 61.744 1.00 0.63 C
ATOM 7516 CG LYS A 766 35.706 13.122 62.238 1.00 0.63 C
ATOM 7517 CD LYS A 766 34.528 12.176 62.481 1.00 0.63 C
ATOM 7518 CE LYS A 766 33.298 12.875 63.037 1.00 0.63 C
ATOM 7519 NZ LYS A 766 32.279 11.856 63.341 1.00 0.63 N1+

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ATOM   7520  OXT LYS A 766     38.332  15.110  62.775  1.00  0.63         O1-
ATOM   7521  HN  LYS A 766     39.615  11.667  61.701  1.00  0.00         H
ATOM   7522  HZ1 LYS A 766     31.454  12.325  63.714  1.00  0.00         H
ATOM   7523  HZ2 LYS A 766     32.628  11.126  63.962  1.00  0.00         H
ATOM   7524  HZ3 LYS A 766     32.064  11.265  62.538  1.00  0.00         H
END
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PDB2. Homology model of rabbit skeletal myosin

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TITLE     SWISS-MODEL SERVER (https://swissmodel.expasy.org)
TITLE    2 Untitled Project
EXPDTA    THEORETICAL MODEL (SWISS-MODEL SERVER)
AUTHOR    SWISS-MODEL SERVER (SEE REFERENCE IN JRNL Records)
REVDAT   1   30-APR-20 1MOD    1      22:19
JRNL       AUTH   A.WATERHOUSE,M.BERTONI,S.BIENERT,G.STUDER,G.TAURIELLO,
JRNL       AUTH 2 R.GUMIENNY,F.T.HEER,T.A.P.DE BEER,C.REMPFER,L.BORDOLI,
JRNL       AUTH 3 R.LEPORE,T.SCHWEDE
JRNL       TITL   SWISS-MODEL: HOMOLOGY MODELLING OF PROTEIN STRUCTURES AND
JRNL       TITL 2 COMPLEXES
JRNL       REF    NUCLEIC.ACIDS.RES..          V.  46 W296  2018
JRNL       PMID   29788355
JRNL       DOI    10.1093/nar/gky427
REMARK   1
REMARK   1 REFERENCE 1
REMARK   1  AUTH   S.BIENERT,A.WATERHOUSE,T.A.P.DE BEER,G.TAURIELLO,G.STUDER,
REMARK   1  AUTH 2 L.BORDOLI,T.SCHWEDE
REMARK   1  TITL   THE SWISS-MODEL REPOSITORY - NEW FEATURES AND FUNCTIONALITY
REMARK   1  REF    NUCLEIC.ACIDS.RES..          V.  22      2017
REMARK   1  REFN                   ISSN 0305-1048
REMARK   1  PMID   27899672
REMARK   1  DOI    10.1093/nar/gkw1132
REMARK   1
REMARK   1 REFERENCE 2
REMARK   1  AUTH   N.GUEX,M.C.PEITSCH,T.SCHWEDE
REMARK   1  TITL   AUTOMATED COMPARATIVE PROTEIN STRUCTURE MODELING WITH
REMARK   1  TITL 2 SWISS-MODEL AND SWISS-PDBVIEWER: A HISTORICAL PERSPECTIVE
REMARK   1  REF    ELECTROPHORESIS              V.  30      2009
REMARK   1  REFN                   ISSN 0173-0835
REMARK   1  PMID   19517507
REMARK   1  DOI    10.1002/elps.200900140
REMARK   1
REMARK   1 REFERENCE 3
REMARK   1  AUTH   P.BENKERT,M.BIASINI,T.SCHWEDE
REMARK   1  TITL   TOWARD THE ESTIMATION OF THE ABSOLUTE QUALITY OF INDIVIDUAL
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REMARK 1 TITL 2 PROTEIN STRUCTURE MODELS
REMARK 1 REF BIOINFORMATICS V. 27 2011
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REMARK 1 PMID 21134891
REMARK 1 DOI 10.1093/bioinformatics/btq662
REMARK 1
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REMARK 1 AUTH M.BERTONI,F.KIEFER,M.BIASINI,L.BORDOLI,T.SCHWEDE
REMARK 1 TITL MODELING PROTEIN QUATERNARY STRUCTURE OF HOMO- AND
REMARK 1 TITL 2 HETERO-OLIGOMERS BEYOND BINARY INTERACTIONS BY HOMOLOGY
REMARK 1 REF SCI.REP. V. 7 2017
REMARK 1 REFN ISSN
REMARK 1 PMID 28874689
REMARK 1 DOI 10.1038/s41598-017-09654-8
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REMARK 3
REMARK 3 MODEL INFORMATION
REMARK 3 ENGIN PROMOD3
REMARK 3 VERSN 3.0.0
REMARK 3 OSTAT monomer
REMARK 3 OSRSN PREDICTION
REMARK 3 QSPRD 0.000
REMARK 3 QMN4 -2.91
REMARK 3 MODT TRUE
REMARK 3
REMARK 3 TEMPLATE 1
REMARK 3 PDBID template_upload
REMARK 3 CHAIN A
REMARK 3 MMCIF A
REMARK 3 PDBV 2020-04-24
REMARK 3 SMTLE template_upload.1.A
REMARK 3 SMTLV 2020-04-29
REMARK 3 MTHD Unknown
REMARK 3 FOUND HHblits
REMARK 3 SIM 0.43
REMARK 3 SID 47.84
REMARK 3 OSTAT monomer
REMARK 3 ALN A TRG MSSDAEMAIFGEAAPY--LRKPEKERIEAQNRPFDSKKACFA---
VDDKEMYVKGMIQ
REMARK 3 ALN A TRG
SRENDKVTVKTLDDRTLTLNSDQVFPMNPPKFDKIEDMAMMTHLHEPAVLYNLKERYA
REMARK 3 ALN A TRG
AWMIYTYSGLFCVTVNPYKWLPVYNPEVVTAYRGKKRQEAPPHIFSISDNAYQFMLTD
REMARK 3 ALN A TRG
RDNQSILITGESGAGKTVNTKRVIQYFATIAVTGDKKKEQQPGKMQGTLEDQIIQANP
REMARK 3 ALN A TRG
LLEAFGNAKTVRNDNSSRFGKFIRIHFGATGKLASADIETYLLEKSRVTFQLSSERSY
REMARK 3 ALN A TRG HIFYQIMSNKKPELIDLLLISTNPFDFPFVSQ-GEVTVASIDDSEELLATDNAIDILG
REMARK 3 ALN A TRG
FSSEEKVGIYKLTGAVMHYGNMKFKQKQREEQAEPDGTEVADKAGYLMGLNSAEMLKG

REMARK 3 ALN A TRG
LCCPRVKVGNEYVTKGQNVQQVTNSVGALAKAVYEKMFLWMVTRINQQLDTKQPRQYF
REMARK 3 ALN A TRG
IGVLDIAGFEIFDFNSLEQLCINFTNEKLQQFFNHHMFVLEQEEYKKEGIEWEFIDFG
REMARK 3 ALN A TRG MDLAACIELIEK--
PMGIFSILEEECMFPKATDTSFKNKLYDQHLGKSNNFQKPKPAK
REMARK 3 ALN A TRG
GKAEAHFSLVHYAGTVDYNIAGWLDKNKDPLNETVVGLYQKSALKLLSFLFSNYAGAE
REMARK 3 ALN A TRG
AGDSGGSKKGGKKKGSSFQTVSAVFRENLNKLMTNLRSTHPHFVRCLIPNETKTPGVM
REMARK 3 ALN A TRG
DHYLVMHQLRCNGVLEGIRICRKGFPSRILYADFKQRYRILNASAIPEGQFIDSKNAS
REMARK 3 ALN A TRG
EKLLNSIDVDREQYRFGHTKVFFKAGLLGLLEEMRDEKLVTLMTRTQALCRGYLMRVE
REMARK 3 ALN A TRG FKKMMERRDSIFCIQYNIRAFMNVKHWPWMNLFFKIKPLLK
REMARK 3 ALN A TPL -----PIHDRTSDYHKYLKVKQG-DSDL-FK-LTVSDKRYIWYNPDPKERDSYECGEIV
REMARK 3 ALN A TPL SETSDSFTFKTVD-
QDRQVKKDDANQRNPIKFDGVEDMSELSYLNEPAVFHNLRVRYN
REMARK 3 ALN A TPL
QDLIYTYSGLFLVAVNPFKRIPIYTQEMVDIFKGRRRNEVAPHIFAISDVAYRSMLDD
REMARK 3 ALN A TPL RQNQSLLITGESGAGKTENTKKVIQYLASVAG----------RVLEQQILQANP
REMARK 3 ALN A TPL ILEAFGNAKTTRNNNSSRFGKFIEIQFNSAGFISGASIQSYLLEKSRVVFQSETERNY
REMARK 3 ALN A TPL HIFYQLLAGATAEEKKALHL-
AGPESFNYLNQSGCVDIKGVSDSEEFKITRQAMDIVG
REMARK 3 ALN A TPL FSQEEQMSIFKIIAGILHLGNIKFEKGAG-
EGAVLKDKTALNAASTVFGVNPSVLEKA
REMARK 3 ALN A TPL LMEPRILAGRDLVAQHLNVEKSSSSRDALVKALYGRLFLWLVKKINNVLCQERK-
AYF
REMARK 3 ALN A TPL
IGVLDISGFEIFKVNSFEQLCINYTNEKLQQFFNHHMFKLEQEEYLKEKINWTFIDFG
REMARK 3 ALN A TPL LDSQATIDLIDGRQPPGILALLDEQSVFPNATDNTLITKLHSHFSKKNAKYEEPRF--
REMARK 3 ALN A TPL --
SKTEFGVTHYAGQVMYEIQDWLEKNKDPLQQDLELCFKDSSDNVVTKLFNDPN---
REMARK 3 ALN A TPL -----IA--SRAKKGANFITVAAQYKEQLASLMATLETTNPHFVRCIIPNNKQLPAKL
REMARK 3 ALN A TPL EDKVVLDQLRCNGVLEGIRITRKGFPNRIIY--FV----------
REMARK 3 ALN A TPL ----------QYRFGITKIFFR----------
REMARK 3 ALN A TPL ----------
REMARK 3 ALN A OFF 1
ATOM 1 N ALA A 5 38.414 38.231 77.486 1.00 0.36 N
ATOM 2 CA ALA A 5 36.924 38.290 77.327 1.00 0.36 C
ATOM 3 C ALA A 5 36.239 36.963 77.009 1.00 0.36 C
ATOM 4 O ALA A 5 35.113 36.768 77.434 1.00 0.36 O
ATOM 5 CB ALA A 5 36.592 39.367 76.276 1.00 0.36 C
ATOM 6 N GLU A 6 36.912 35.998 76.328 1.00 0.31 N

```
ATOM      7  CA  GLU A   6      36.400  34.663  76.052  1.00  0.31           C
ATOM      8  C   GLU A   6      36.044  33.846  77.292  1.00  0.31           C
ATOM      9  O   GLU A   6      35.062  33.116  77.309  1.00  0.31           O
ATOM     10  CB  GLU A   6      37.449  33.902  75.210  1.00  0.31           C
ATOM     11  CG  GLU A   6      37.605  34.470  73.781  1.00  0.31           C
ATOM     12  CD  GLU A   6      38.739  33.814  72.998  1.00  0.31           C
ATOM     13  OE1 GLU A   6      39.633  33.179  73.614  1.00  0.31           O
ATOM     14  OE2 GLU A   6      38.776  34.079  71.773  1.00  0.31           O
ATOM     15  N   MET A   7      36.832  33.986  78.380  1.00  0.33           N
ATOM     16  CA  MET A   7      36.640  33.250  79.614  1.00  0.33           C
ATOM     17  C   MET A   7      35.993  34.089  80.701  1.00  0.33           C
ATOM     18  O   MET A   7      35.815  33.653  81.833  1.00  0.33           O
ATOM     19  CB  MET A   7      38.022  32.786  80.132  1.00  0.33           C
ATOM     20  CG  MET A   7      38.707  31.780  79.187  1.00  0.33           C
ATOM     21  SD  MET A   7      37.754  30.256  78.905  1.00  0.33           S
ATOM     22  CE  MET A   7      37.897  29.592  80.589  1.00  0.33           C
ATOM     23  N   ALA A   8      35.615  35.339  80.387  1.00  0.36           N
ATOM     24  CA  ALA A   8      35.095  36.252  81.375  1.00  0.36           C
ATOM     25  C   ALA A   8      33.617  36.389  81.136  1.00  0.36           C
ATOM     26  O   ALA A   8      33.187  36.954  80.133  1.00  0.36           O
ATOM     27  CB  ALA A   8      35.783  37.627  81.256  1.00  0.36           C
ATOM     28  N   ILE A   9      32.796  35.885  82.075  1.00  0.31           N
ATOM     29  CA  ILE A   9      31.372  35.741  81.856  1.00  0.31           C
ATOM     30  C   ILE A   9      30.643  37.066  81.883  1.00  0.31           C
ATOM     31  O   ILE A   9      29.535  37.157  81.399  1.00  0.31           O
ATOM     32  CB  ILE A   9      30.707  34.740  82.798  1.00  0.31           C
ATOM     33  CG1 ILE A   9      30.821  35.142  84.289  1.00  0.31           C
ATOM     34  CG2 ILE A   9      31.292  33.342  82.494  1.00  0.31           C
ATOM     35  CD1 ILE A   9      30.077  34.184  85.227  1.00  0.31           C
ATOM     36  N   PHE A  10      31.267  38.152  82.374  1.00  0.28           N
ATOM     37  CA  PHE A  10      30.683  39.475  82.366  1.00  0.28           C
ATOM     38  C   PHE A  10      30.958  40.244  81.086  1.00  0.28           C
ATOM     39  O   PHE A  10      30.455  41.349  80.913  1.00  0.28           O
ATOM     40  CB  PHE A  10      31.332  40.320  83.486  1.00  0.28           C
ATOM     41  CG  PHE A  10      30.908  39.831  84.831  1.00  0.28           C
ATOM     42  CD1 PHE A  10      29.662  40.211  85.347  1.00  0.28           C
ATOM     43  CD2 PHE A  10      31.751  39.021  85.604  1.00  0.28           C
ATOM     44  CE1 PHE A  10      29.268  39.804  86.625  1.00  0.28           C
ATOM     45  CE2 PHE A  10      31.359  38.605  86.881  1.00  0.28           C
ATOM     46  CZ  PHE A  10      30.118  39.000  87.393  1.00  0.28           C
ATOM     47  N   GLY A  11      31.796  39.714  80.166  1.00  0.36           N
ATOM     48  CA  GLY A  11      32.120  40.415  78.928  1.00  0.36           C
ATOM     49  C   GLY A  11      30.974  40.520  77.960  1.00  0.36           C
ATOM     50  O   GLY A  11      30.076  39.692  77.980  1.00  0.36           O
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ATOM     51  N   GLU A  12      31.034  41.484  77.013  1.00  0.48           N
ATOM     52  CA  GLU A  12      30.074  41.616  75.924  1.00  0.48           C
ATOM     53  C   GLU A  12      30.026  40.414  74.994  1.00  0.48           C
ATOM     54  O   GLU A  12      28.987  40.066  74.443  1.00  0.48           O
ATOM     55  CB  GLU A  12      30.386  42.858  75.068  1.00  0.48           C
ATOM     56  CG  GLU A  12      30.084  44.185  75.793  1.00  0.48           C
ATOM     57  CD  GLU A  12      30.429  45.388  74.924  1.00  0.48           C
ATOM     58  OE1 GLU A  12      30.999  45.183  73.822  1.00  0.48           O
ATOM     59  OE2 GLU A  12      30.106  46.515  75.376  1.00  0.48           O
ATOM     60  N   ALA A  13      31.188  39.753  74.801  1.00  0.41           N
ATOM     61  CA  ALA A  13      31.323  38.522  74.053  1.00  0.41           C
ATOM     62  C   ALA A  13      30.503  37.348  74.594  1.00  0.41           C
ATOM     63  O   ALA A  13      29.884  36.602  73.841  1.00  0.41           O
ATOM     64  CB  ALA A  13      32.808  38.090  74.077  1.00  0.41           C
ATOM     65  N   ALA A  14      30.508  37.146  75.929  1.00  0.40           N
ATOM     66  CA  ALA A  14      29.703  36.147  76.586  1.00  0.40           C
ATOM     67  C   ALA A  14      28.212  36.515  76.537  1.00  0.40           C
ATOM     68  O   ALA A  14      27.868  37.613  76.970  1.00  0.40           O
ATOM     69  CB  ALA A  14      30.154  36.032  78.066  1.00  0.40           C
ATOM     70  N   PRO A  15      27.241  35.715  76.102  1.00  0.51           N
ATOM     71  CA  PRO A  15      25.862  35.932  76.503  1.00  0.51           C
ATOM     72  C   PRO A  15      25.726  35.465  77.934  1.00  0.51           C
ATOM     73  O   PRO A  15      25.329  34.329  78.173  1.00  0.51           O
ATOM     74  CB  PRO A  15      25.077  35.056  75.520  1.00  0.51           C
ATOM     75  CG  PRO A  15      26.015  33.872  75.222  1.00  0.51           C
ATOM     76  CD  PRO A  15      27.432  34.399  75.505  1.00  0.51           C
ATOM     77  N   TYR A  16      26.125  36.325  78.897  1.00  0.22           N
ATOM     78  CA  TYR A  16      26.376  35.940  80.268  1.00  0.22           C
ATOM     79  C   TYR A  16      25.250  35.182  80.913  1.00  0.22           C
ATOM     80  O   TYR A  16      25.406  34.074  81.419  1.00  0.22           O
ATOM     81  CB  TYR A  16      26.601  37.232  81.114  1.00  0.22           C
ATOM     82  CG  TYR A  16      26.775  37.030  82.626  1.00  0.22           C
ATOM     83  CD1 TYR A  16      27.087  35.783  83.214  1.00  0.22           C
ATOM     84  CD2 TYR A  16      26.463  38.094  83.488  1.00  0.22           C
ATOM     85  CE1 TYR A  16      26.899  35.570  84.582  1.00  0.22           C
ATOM     86  CE2 TYR A  16      26.399  37.906  84.878  1.00  0.22           C
ATOM     87  CZ  TYR A  16      26.594  36.633  85.419  1.00  0.22           C
ATOM     88  OH  TYR A  16      26.488  36.390  86.801  1.00  0.22           O
ATOM     89  N   LEU A  17      24.080  35.818  80.931  1.00  0.34           N
ATOM     90  CA  LEU A  17      22.969  35.325  81.677  1.00  0.34           C
ATOM     91  C   LEU A  17      22.388  34.106  81.015  1.00  0.34           C
ATOM     92  O   LEU A  17      22.004  34.098  79.848  1.00  0.34           O
ATOM     93  CB  LEU A  17      21.877  36.394  81.854  1.00  0.34           C
ATOM     94  CG  LEU A  17      22.310  37.667  82.608  1.00  0.34           C
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ATOM     95  CD1 LEU A  17     21.175  38.696  82.519  1.00  0.34        C
ATOM     96  CD2 LEU A  17     22.677  37.414  84.081  1.00  0.34        C
ATOM     97  N   ARG A  18     22.302  33.023  81.788  1.00  0.28        N
ATOM     98  CA  ARG A  18     21.867  31.758  81.284  1.00  0.28        C
ATOM     99  C   ARG A  18     20.708  31.373  82.139  1.00  0.28        C
ATOM    100  O   ARG A  18     20.730  30.432  82.924  1.00  0.28        O
ATOM    101  CB  ARG A  18     22.984  30.701  81.315  1.00  0.28        C
ATOM    102  CG  ARG A  18     24.187  31.033  80.417  1.00  0.28        C
ATOM    103  CD  ARG A  18     25.303  29.993  80.511  1.00  0.28        C
ATOM    104  NE  ARG A  18     24.841  28.755  79.807  1.00  0.28        N
ATOM    105  CZ  ARG A  18     25.583  27.652  79.643  1.00  0.28        C
ATOM    106  NH1 ARG A  18     25.037  26.614  79.022  1.00  0.28        N
ATOM    107  NH2 ARG A  18     26.807  27.553  80.133  1.00  0.28        N
ATOM    108  N   LYS A  19     19.617  32.146  81.983  1.00  0.35        N
ATOM    109  CA  LYS A  19     18.341  31.808  82.563  1.00  0.35        C
ATOM    110  C   LYS A  19     17.764  30.452  82.219  1.00  0.35        C
ATOM    111  O   LYS A  19     17.131  29.887  83.111  1.00  0.35        O
ATOM    112  CB  LYS A  19     17.215  32.818  82.233  1.00  0.35        C
ATOM    113  CG  LYS A  19     17.475  34.247  82.698  1.00  0.35        C
ATOM    114  CD  LYS A  19     16.323  35.177  82.306  1.00  0.35        C
ATOM    115  CE  LYS A  19     16.535  36.587  82.857  1.00  0.35        C
ATOM    116  NZ  LYS A  19     15.469  37.496  82.389  1.00  0.35        N
ATOM    117  N   PRO A  20     17.897  29.883  81.032  1.00  0.33        N
ATOM    118  CA  PRO A  20     17.513  28.522  80.798  1.00  0.33        C
ATOM    119  C   PRO A  20     18.363  27.467  81.433  1.00  0.33        C
ATOM    120  O   PRO A  20     17.980  26.371  81.093  1.00  0.33        O
ATOM    121  CB  PRO A  20     17.693  28.282  79.291  1.00  0.33        C
ATOM    122  CG  PRO A  20     17.844  29.662  78.679  1.00  0.33        C
ATOM    123  CD  PRO A  20     18.433  30.481  79.813  1.00  0.33        C
ATOM    124  N   GLU A  21     19.483  27.762  82.159  1.00  0.26        N
ATOM    125  CA  GLU A  21     20.433  26.882  82.844  1.00  0.26        C
ATOM    126  C   GLU A  21     20.402  27.041  84.362  1.00  0.26        C
ATOM    127  O   GLU A  21     21.223  26.528  85.116  1.00  0.26        O
ATOM    128  CB  GLU A  21     21.893  27.096  82.395  1.00  0.26        C
ATOM    129  CG  GLU A  21     22.212  26.636  80.944  1.00  0.26        C
ATOM    130  CD  GLU A  21     21.876  27.534  79.743  1.00  0.26        C
ATOM    131  OE1 GLU A  21     21.061  28.478  79.772  1.00  0.26        O
ATOM    132  OE2 GLU A  21     22.565  27.362  78.689  1.00  0.26        O
ATOM    133  N   LYS A  22     19.426  27.805  84.870  1.00  0.46        N
ATOM    134  CA  LYS A  22     19.153  27.925  86.290  1.00  0.46        C
ATOM    135  C   LYS A  22     18.789  26.617  86.954  1.00  0.46        C
ATOM    136  O   LYS A  22     18.174  25.750  86.342  1.00  0.46        O
ATOM    137  CB  LYS A  22     17.973  28.883  86.547  1.00  0.46        C
ATOM    138  CG  LYS A  22     18.284  30.319  86.150  1.00  0.46        C
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ATOM    139  CD  LYS A  22      17.071  31.217  86.419  1.00  0.46           C
ATOM    140  CE  LYS A  22      17.327  32.668  86.043  1.00  0.46           C
ATOM    141  NZ  LYS A  22      16.124  33.508  86.214  1.00  0.46           N
ATOM    142  N   GLU A  23      19.081  26.475  88.269  1.00  0.40           N
ATOM    143  CA  GLU A  23      18.752  25.284  89.035  1.00  0.40           C
ATOM    144  C   GLU A  23      17.297  24.868  88.892  1.00  0.40           C
ATOM    145  O   GLU A  23      16.953  23.709  88.661  1.00  0.40           O
ATOM    146  CB  GLU A  23      18.996  25.539  90.540  1.00  0.40           C
ATOM    147  CG  GLU A  23      18.661  24.312  91.425  1.00  0.40           C
ATOM    148  CD  GLU A  23      18.762  24.598  92.918  1.00  0.40           C
ATOM    149  OE1 GLU A  23      18.360  23.689  93.693  1.00  0.40           O
ATOM    150  OE2 GLU A  23      19.148  25.734  93.287  1.00  0.40           O
ATOM    151  N   ARG A  24      16.416  25.878  88.974  1.00  0.31           N
ATOM    152  CA  ARG A  24      15.005  25.727  88.771  1.00  0.31           C
ATOM    153  C   ARG A  24      14.591  26.508  87.529  1.00  0.31           C
ATOM    154  O   ARG A  24      14.676  27.733  87.493  1.00  0.31           O
ATOM    155  CB  ARG A  24      14.230  26.207  90.009  1.00  0.31           C
ATOM    156  CG  ARG A  24      14.606  25.377  91.249  1.00  0.31           C
ATOM    157  CD  ARG A  24      13.819  25.799  92.480  1.00  0.31           C
ATOM    158  NE  ARG A  24      14.256  24.918  93.606  1.00  0.31           N
ATOM    159  CZ  ARG A  24      13.782  25.017  94.853  1.00  0.31           C
ATOM    160  NH1 ARG A  24      14.244  24.201  95.796  1.00  0.31           N
ATOM    161  NH2 ARG A  24      12.872  25.930  95.178  1.00  0.31           N
ATOM    162  N   ILE A  25      14.145  25.869  86.431  1.00  0.42           N
ATOM    163  CA  ILE A  25      13.875  24.446  86.265  1.00  0.42           C
ATOM    164  C   ILE A  25      14.928  23.683  85.497  1.00  0.42           C
ATOM    165  O   ILE A  25      14.857  22.461  85.418  1.00  0.42           O
ATOM    166  CB  ILE A  25      12.561  24.205  85.543  1.00  0.42           C
ATOM    167  CG1 ILE A  25      12.516  24.845  84.133  1.00  0.42           C
ATOM    168  CG2 ILE A  25      11.438  24.694  86.479  1.00  0.42           C
ATOM    169  CD1 ILE A  25      11.259  24.442  83.355  1.00  0.42           C
ATOM    170  N   GLU A  26      15.931  24.338  84.883  1.00  0.42           N
ATOM    171  CA  GLU A  26      16.779  23.642  83.939  1.00  0.42           C
ATOM    172  C   GLU A  26      17.601  22.530  84.485  1.00  0.42           C
ATOM    173  O   GLU A  26      17.658  21.470  83.877  1.00  0.42           O
ATOM    174  CB  GLU A  26      17.815  24.559  83.324  1.00  0.42           C
ATOM    175  CG  GLU A  26      18.770  23.870  82.294  1.00  0.42           C
ATOM    176  CD  GLU A  26      20.134  23.386  82.816  1.00  0.42           C
ATOM    177  OE1 GLU A  26      20.444  23.594  84.008  1.00  0.42           O
ATOM    178  OE2 GLU A  26      20.923  22.858  81.986  1.00  0.42           O
ATOM    179  N   ALA A  27      18.263  22.744  85.632  1.00  0.37           N
ATOM    180  CA  ALA A  27      19.220  21.782  86.113  1.00  0.37           C
ATOM    181  C   ALA A  27      18.612  20.488  86.594  1.00  0.37           C
ATOM    182  O   ALA A  27      19.195  19.414  86.563  1.00  0.37           O
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ATOM    183  CB  ALA A  27     20.099  22.305  87.237  1.00  0.37        C
ATOM    184  N   GLN A  28     17.365  20.584  87.043  1.00  0.39        N
ATOM    185  CA  GLN A  28     16.517  19.461  87.300  1.00  0.39        C
ATOM    186  C   GLN A  28     15.955  18.818  86.039  1.00  0.39        C
ATOM    187  O   GLN A  28     15.562  17.665  86.080  1.00  0.39        O
ATOM    188  CB  GLN A  28     15.389  19.975  88.195  1.00  0.39        C
ATOM    189  CG  GLN A  28     15.923  20.420  89.570  1.00  0.39        C
ATOM    190  CD  GLN A  28     14.782  20.994  90.391  1.00  0.39        C
ATOM    191  OE1 GLN A  28     13.771  21.494  89.898  1.00  0.39        O
ATOM    192  NE2 GLN A  28     14.938  20.939  91.731  1.00  0.39        N
ATOM    193  N   ASN A  29     15.972  19.514  84.885  1.00  0.42        N
ATOM    194  CA  ASN A  29     15.581  18.971  83.594  1.00  0.42        C
ATOM    195  C   ASN A  29     16.803  18.431  82.822  1.00  0.42        C
ATOM    196  O   ASN A  29     17.047  17.230  82.770  1.00  0.42        O
ATOM    197  CB  ASN A  29     14.880  20.050  82.726  1.00  0.42        C
ATOM    198  CG  ASN A  29     13.514  20.426  83.283  1.00  0.42        C
ATOM    199  OD1 ASN A  29     12.848  19.782  84.080  1.00  0.42        O
ATOM    200  ND2 ASN A  29     13.030  21.597  82.812  1.00  0.42        N
ATOM    201  N   ARG A  30     17.622  19.310  82.190  1.00  0.42        N
ATOM    202  CA  ARG A  30     18.751  18.990  81.307  1.00  0.42        C
ATOM    203  C   ARG A  30     19.880  18.129  81.897  1.00  0.42        C
ATOM    204  O   ARG A  30     20.260  17.160  81.238  1.00  0.42        O
ATOM    205  CB  ARG A  30     19.404  20.296  80.736  1.00  0.42        C
ATOM    206  CG  ARG A  30     18.627  21.247  79.833  1.00  0.42        C
ATOM    207  CD  ARG A  30     19.513  22.360  79.241  1.00  0.42        C
ATOM    208  NE  ARG A  30     18.629  23.212  78.395  1.00  0.42        N
ATOM    209  CZ  ARG A  30     19.039  24.345  77.813  1.00  0.42        C
ATOM    210  NH1 ARG A  30     18.180  25.024  77.057  1.00  0.42        N
ATOM    211  NH2 ARG A  30     20.282  24.784  77.971  1.00  0.42        N
ATOM    212  N   PRO A  31     20.444  18.367  83.071  1.00  0.42        N
ATOM    213  CA  PRO A  31     21.362  17.471  83.751  1.00  0.42        C
ATOM    214  C   PRO A  31     20.759  16.260  84.448  1.00  0.42        C
ATOM    215  O   PRO A  31     21.545  15.377  84.781  1.00  0.42        O
ATOM    216  CB  PRO A  31     22.020  18.338  84.852  1.00  0.42        C
ATOM    217  CG  PRO A  31     21.710  19.776  84.519  1.00  0.42        C
ATOM    218  CD  PRO A  31     20.456  19.672  83.689  1.00  0.42        C
ATOM    219  N   PHE A  32     19.448  16.188  84.769  1.00  0.27        N
ATOM    220  CA  PHE A  32     18.957  15.157  85.677  1.00  0.27        C
ATOM    221  C   PHE A  32     17.949  14.211  85.050  1.00  0.27        C
ATOM    222  O   PHE A  32     18.057  12.999  85.240  1.00  0.27        O
ATOM    223  CB  PHE A  32     18.278  15.848  86.899  1.00  0.27        C
ATOM    224  CG  PHE A  32     17.680  14.887  87.903  1.00  0.27        C
ATOM    225  CD1 PHE A  32     16.301  14.609  87.908  1.00  0.27        C
ATOM    226  CD2 PHE A  32     18.510  14.200  88.795  1.00  0.27        C
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ATOM    227  CE1 PHE A  32      15.766  13.663  88.792  1.00  0.27           C
ATOM    228  CE2 PHE A  32      17.979  13.262  89.689  1.00  0.27           C
ATOM    229  CZ  PHE A  32      16.605  12.995  89.690  1.00  0.27           C
ATOM    230  N   ASP A  33      16.929  14.730  84.334  1.00  0.40           N
ATOM    231  CA  ASP A  33      15.742  13.968  84.017  1.00  0.40           C
ATOM    232  C   ASP A  33      15.965  12.682  83.231  1.00  0.40           C
ATOM    233  O   ASP A  33      16.625  12.621  82.196  1.00  0.40           O
ATOM    234  CB  ASP A  33      14.696  14.827  83.253  1.00  0.40           C
ATOM    235  CG  ASP A  33      13.739  15.575  84.162  1.00  0.40           C
ATOM    236  OD1 ASP A  33      13.604  15.186  85.348  1.00  0.40           O
ATOM    237  OD2 ASP A  33      13.009  16.425  83.590  1.00  0.40           O
ATOM    238  N   SER A  34      15.328  11.592  83.701  1.00  0.44           N
ATOM    239  CA  SER A  34      15.343  10.316  83.006  1.00  0.44           C
ATOM    240  C   SER A  34      14.335  10.247  81.877  1.00  0.44           C
ATOM    241  O   SER A  34      14.343   9.315  81.072  1.00  0.44           O
ATOM    242  CB  SER A  34      15.061   9.130  83.964  1.00  0.44           C
ATOM    243  OG  SER A  34      13.770   9.217  84.581  1.00  0.44           O
ATOM    244  N   LYS A  35      13.414  11.230  81.809  1.00  0.49           N
ATOM    245  CA  LYS A  35      12.397  11.321  80.785  1.00  0.49           C
ATOM    246  C   LYS A  35      12.932  11.482  79.375  1.00  0.49           C
ATOM    247  O   LYS A  35      13.972  12.083  79.125  1.00  0.49           O
ATOM    248  CB  LYS A  35      11.375  12.438  81.084  1.00  0.49           C
ATOM    249  CG  LYS A  35      10.534  12.111  82.321  1.00  0.49           C
ATOM    250  CD  LYS A  35       9.852  13.360  82.901  1.00  0.49           C
ATOM    251  CE  LYS A  35       8.957  13.092  84.110  1.00  0.49           C
ATOM    252  NZ  LYS A  35       8.035  11.988  83.775  1.00  0.49           N
ATOM    253  N   LYS A  36      12.201  10.921  78.398  1.00  0.62           N
ATOM    254  CA  LYS A  36      12.591  10.957  77.010  1.00  0.62           C
ATOM    255  C   LYS A  36      11.474  11.581  76.212  1.00  0.62           C
ATOM    256  O   LYS A  36      10.303  11.488  76.579  1.00  0.62           O
ATOM    257  CB  LYS A  36      12.886   9.538  76.478  1.00  0.62           C
ATOM    258  CG  LYS A  36      14.078   8.880  77.182  1.00  0.62           C
ATOM    259  CD  LYS A  36      14.360   7.484  76.621  1.00  0.62           C
ATOM    260  CE  LYS A  36      15.547   6.820  77.315  1.00  0.62           C
ATOM    261  NZ  LYS A  36      15.784   5.486  76.728  1.00  0.62           N
ATOM    262  N   ALA A  37      11.806  12.257  75.100  1.00  0.61           N
ATOM    263  CA  ALA A  37      10.818  12.990  74.353  1.00  0.61           C
ATOM    264  C   ALA A  37      10.956  12.775  72.862  1.00  0.61           C
ATOM    265  O   ALA A  37      11.986  12.343  72.346  1.00  0.61           O
ATOM    266  CB  ALA A  37      10.920  14.488  74.696  1.00  0.61           C
ATOM    267  N   CYS A  38       9.871  13.076  72.137  1.00  0.72           N
ATOM    268  CA  CYS A  38       9.792  12.975  70.699  1.00  0.72           C
ATOM    269  C   CYS A  38       9.188  14.251  70.167  1.00  0.72           C
ATOM    270  O   CYS A  38       8.348  14.876  70.811  1.00  0.72           O
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ATOM    271  CB  CYS A  38      8.907  11.766  70.274  1.00  0.72           C
ATOM    272  SG  CYS A  38      8.669  11.547  68.472  1.00  0.72           S
ATOM    273  N   PHE A  39      9.610  14.644  68.955  1.00  0.75           N
ATOM    274  CA  PHE A  39      8.995  15.688  68.176  1.00  0.75           C
ATOM    275  C   PHE A  39      7.947  15.077  67.266  1.00  0.75           C
ATOM    276  O   PHE A  39      8.241  14.197  66.459  1.00  0.75           O
ATOM    277  CB  PHE A  39     10.054  16.373  67.289  1.00  0.75           C
ATOM    278  CG  PHE A  39     10.944  17.263  68.097  1.00  0.75           C
ATOM    279  CD1 PHE A  39     10.418  18.419  68.693  1.00  0.75           C
ATOM    280  CD2 PHE A  39     12.320  17.008  68.199  1.00  0.75           C
ATOM    281  CE1 PHE A  39     11.250  19.302  69.389  1.00  0.75           C
ATOM    282  CE2 PHE A  39     13.155  17.896  68.887  1.00  0.75           C
ATOM    283  CZ  PHE A  39     12.617  19.035  69.493  1.00  0.75           C
ATOM    284  N   ALA A  40      6.690  15.545  67.359  1.00  0.70           N
ATOM    285  CA  ALA A  40      5.602  14.997  66.581  1.00  0.70           C
ATOM    286  C   ALA A  40      4.737  16.108  66.031  1.00  0.70           C
ATOM    287  O   ALA A  40      4.596  17.159  66.652  1.00  0.70           O
ATOM    288  CB  ALA A  40      4.708  14.103  67.466  1.00  0.70           C
ATOM    289  N   VAL A  41      4.147  15.887  64.841  1.00  0.60           N
ATOM    290  CA  VAL A  41      3.197  16.797  64.237  1.00  0.60           C
ATOM    291  C   VAL A  41      2.478  16.121  63.092  1.00  0.60           C
ATOM    292  O   VAL A  41      3.027  15.234  62.443  1.00  0.60           O
ATOM    293  CB  VAL A  41      3.854  18.068  63.741  1.00  0.60           C
ATOM    294  CG1 VAL A  41      5.013  17.792  62.762  1.00  0.60           C
ATOM    295  CG2 VAL A  41      2.852  19.078  63.206  1.00  0.60           C
ATOM    296  N   ASP A  42      1.234  16.565  62.823  1.00  0.35           N
ATOM    297  CA  ASP A  42      0.380  16.074  61.770  1.00  0.35           C
ATOM    298  C   ASP A  42      0.508  16.858  60.444  1.00  0.35           C
ATOM    299  O   ASP A  42      0.041  16.413  59.396  1.00  0.35           O
ATOM    300  CB  ASP A  42     -1.063  16.116  62.336  1.00  0.35           C
ATOM    301  CG  ASP A  42     -1.199  15.201  63.550  1.00  0.35           C
ATOM    302  OD1 ASP A  42     -0.426  14.216  63.654  1.00  0.35           O
ATOM    303  OD2 ASP A  42     -2.079  15.492  64.402  1.00  0.35           O
ATOM    304  N   ASP A  43      1.226  18.001  60.453  1.00  0.50           N
ATOM    305  CA  ASP A  43      1.687  18.763  59.309  1.00  0.50           C
ATOM    306  C   ASP A  43      3.108  18.314  59.002  1.00  0.50           C
ATOM    307  O   ASP A  43      3.752  17.643  59.790  1.00  0.50           O
ATOM    308  CB  ASP A  43      1.706  20.294  59.597  1.00  0.50           C
ATOM    309  CG  ASP A  43      0.291  20.808  59.788  1.00  0.50           C
ATOM    310  OD1 ASP A  43     -0.627  20.264  59.125  1.00  0.50           O
ATOM    311  OD2 ASP A  43      0.125  21.755  60.598  1.00  0.50           O
ATOM    312  N   LYS A  44      3.688  18.693  57.851  1.00  0.47           N
ATOM    313  CA  LYS A  44      5.090  18.424  57.555  1.00  0.47           C
ATOM    314  C   LYS A  44      6.099  19.206  58.404  1.00  0.47           C
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ATOM    315  O   LYS A  44      7.299  18.932  58.367  1.00  0.47           O
ATOM    316  CB  LYS A  44      5.363  18.764  56.074  1.00  0.47           C
ATOM    317  CG  LYS A  44      4.686  17.807  55.094  1.00  0.47           C
ATOM    318  CD  LYS A  44      4.891  18.281  53.650  1.00  0.47           C
ATOM    319  CE  LYS A  44      4.252  17.333  52.638  1.00  0.47           C
ATOM    320  NZ  LYS A  44      4.451  17.834  51.261  1.00  0.47           N
ATOM    321  N   GLU A  45      5.647  20.224  59.162  1.00  0.47           N
ATOM    322  CA  GLU A  45      6.553  21.163  59.776  1.00  0.47           C
ATOM    323  C   GLU A  45      6.200  21.778  61.146  1.00  0.47           C
ATOM    324  O   GLU A  45      7.038  22.471  61.716  1.00  0.47           O
ATOM    325  CB  GLU A  45      6.645  22.341  58.787  1.00  0.47           C
ATOM    326  CG  GLU A  45      5.348  23.175  58.659  1.00  0.47           C
ATOM    327  CD  GLU A  45      4.425  22.863  57.486  1.00  0.47           C
ATOM    328  OE1 GLU A  45      3.632  23.767  57.134  1.00  0.47           O
ATOM    329  OE2 GLU A  45      4.528  21.749  56.917  1.00  0.47           O
ATOM    330  N   MET A  46      5.009  21.545  61.737  1.00  0.70           N
ATOM    331  CA  MET A  46      4.549  22.287  62.907  1.00  0.70           C
ATOM    332  C   MET A  46      4.712  21.567  64.285  1.00  0.70           C
ATOM    333  O   MET A  46      3.848  21.149  64.971  1.00  0.70           O
ATOM    334  CB  MET A  46      3.066  22.746  62.666  1.00  0.70           C
ATOM    335  CG  MET A  46      2.463  23.554  63.835  1.00  0.70           C
ATOM    336  SD  MET A  46      0.763  24.101  63.614  1.00  0.70           S
ATOM    337  CE  MET A  46      1.192  25.327  62.374  1.00  0.70           C
ATOM    338  N   TYR A  47      5.937  21.410  64.788  1.00  0.69           N
ATOM    339  CA  TYR A  47      6.213  20.332  65.707  1.00  0.69           C
ATOM    340  C   TYR A  47      5.803  20.695  67.102  1.00  0.69           C
ATOM    341  O   TYR A  47      5.921  21.835  67.550  1.00  0.69           O
ATOM    342  CB  TYR A  47      7.667  19.794  65.702  1.00  0.69           C
ATOM    343  CG  TYR A  47      7.941  18.990  64.464  1.00  0.69           C
ATOM    344  CD1 TYR A  47      7.856  17.582  64.397  1.00  0.69           C
ATOM    345  CD2 TYR A  47      8.361  19.679  63.331  1.00  0.69           C
ATOM    346  CE1 TYR A  47      8.254  16.893  63.234  1.00  0.69           C
ATOM    347  CE2 TYR A  47      8.774  18.991  62.192  1.00  0.69           C
ATOM    348  CZ  TYR A  47      8.741  17.601  62.136  1.00  0.69           C
ATOM    349  OH  TYR A  47      9.240  16.917  61.008  1.00  0.69           O
ATOM    350  N   VAL A  48      5.357  19.672  67.857  1.00  0.60           N
ATOM    351  CA  VAL A  48      5.235  19.781  69.291  1.00  0.60           C
ATOM    352  C   VAL A  48      6.062  18.695  69.931  1.00  0.60           C
ATOM    353  O   VAL A  48      6.455  17.715  69.299  1.00  0.60           O
ATOM    354  CB  VAL A  48      3.813  19.750  69.838  1.00  0.60           C
ATOM    355  CG1 VAL A  48      2.921  20.757  69.080  1.00  0.60           C
ATOM    356  CG2 VAL A  48      3.174  18.346  69.846  1.00  0.60           C
ATOM    357  N   LYS A  49      6.370  18.870  71.225  1.00  0.64           N
ATOM    358  CA  LYS A  49      7.144  17.931  72.002  1.00  0.64           C
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ATOM    359  C   LYS A  49      6.224  17.042  72.809  1.00  0.64           C
ATOM    360  O   LYS A  49      5.378  17.533  73.551  1.00  0.64           O
ATOM    361  CB  LYS A  49      8.048  18.689  72.999  1.00  0.64           C
ATOM    362  CG  LYS A  49      9.104  19.555  72.305  1.00  0.64           C
ATOM    363  CD  LYS A  49      9.990  20.317  73.302  1.00  0.64           C
ATOM    364  CE  LYS A  49      9.282  21.451  74.044  1.00  0.64           C
ATOM    365  NZ  LYS A  49     10.225  22.113  74.968  1.00  0.64           N
ATOM    366  N   GLY A  50      6.383  15.710  72.698  1.00  0.77           N
ATOM    367  CA  GLY A  50      5.620  14.756  73.485  1.00  0.77           C
ATOM    368  C   GLY A  50      6.530  13.870  74.267  1.00  0.77           C
ATOM    369  O   GLY A  50      7.571  13.431  73.786  1.00  0.77           O
ATOM    370  N   MET A  51      6.147  13.551  75.513  1.00  0.70           N
ATOM    371  CA  MET A  51      6.917  12.650  76.346  1.00  0.70           C
ATOM    372  C   MET A  51      6.668  11.192  75.988  1.00  0.70           C
ATOM    373  O   MET A  51      5.522  10.740  75.994  1.00  0.70           O
ATOM    374  CB  MET A  51      6.547  12.759  77.840  1.00  0.70           C
ATOM    375  CG  MET A  51      6.912  14.075  78.549  1.00  0.70           C
ATOM    376  SD  MET A  51      6.594  14.095  80.352  1.00  0.70           S
ATOM    377  CE  MET A  51      4.793  14.177  80.191  1.00  0.70           C
ATOM    378  N   ILE A  52      7.749  10.420  75.748  1.00  0.71           N
ATOM    379  CA  ILE A  52      7.755   8.968  75.620  1.00  0.71           C
ATOM    380  C   ILE A  52      7.422   8.324  76.941  1.00  0.71           C
ATOM    381  O   ILE A  52      8.117   8.493  77.941  1.00  0.71           O
ATOM    382  CB  ILE A  52      9.064   8.421  75.023  1.00  0.71           C
ATOM    383  CG1 ILE A  52      9.391   9.080  73.651  1.00  0.71           C
ATOM    384  CG2 ILE A  52      8.973   6.880  74.879  1.00  0.71           C
ATOM    385  CD1 ILE A  52     10.770   8.733  73.072  1.00  0.71           C
ATOM    386  N   GLN A  53      6.293   7.595  76.972  1.00  0.70           N
ATOM    387  CA  GLN A  53      5.847   6.922  78.167  1.00  0.70           C
ATOM    388  C   GLN A  53      5.944   5.427  78.044  1.00  0.70           C
ATOM    389  O   GLN A  53      5.982   4.736  79.056  1.00  0.70           O
ATOM    390  CB  GLN A  53      4.397   7.296  78.501  1.00  0.70           C
ATOM    391  CG  GLN A  53      4.209   8.801  78.748  1.00  0.70           C
ATOM    392  CD  GLN A  53      4.927   9.345  79.983  1.00  0.70           C
ATOM    393  OE1 GLN A  53      4.734   8.947  81.129  1.00  0.70           O
ATOM    394  NE2 GLN A  53      5.725  10.411  79.767  1.00  0.70           N
ATOM    395  N   SER A  54      6.049   4.864  76.827  1.00  0.77           N
ATOM    396  CA  SER A  54      6.294   3.438  76.740  1.00  0.77           C
ATOM    397  C   SER A  54      6.883   3.086  75.398  1.00  0.77           C
ATOM    398  O   SER A  54      6.897   3.898  74.472  1.00  0.77           O
ATOM    399  CB  SER A  54      5.051   2.539  77.050  1.00  0.77           C
ATOM    400  OG  SER A  54      4.017   2.633  76.070  1.00  0.77           O
ATOM    401  N   ARG A  55      7.430   1.862  75.266  1.00  0.70           N
ATOM    402  CA  ARG A  55      7.938   1.386  74.003  1.00  0.70           C
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ATOM    403  C   ARG A  55      7.771  -0.111  73.887  1.00  0.70           C
ATOM    404  O   ARG A  55      7.802  -0.830  74.884  1.00  0.70           O
ATOM    405  CB  ARG A  55      9.438   1.742  73.790  1.00  0.70           C
ATOM    406  CG  ARG A  55     10.425   1.117  74.802  1.00  0.70           C
ATOM    407  CD  ARG A  55     11.869   1.571  74.573  1.00  0.70           C
ATOM    408  NE  ARG A  55     12.716   0.910  75.625  1.00  0.70           N
ATOM    409  CZ  ARG A  55     14.024   1.115  75.809  1.00  0.70           C
ATOM    410  NH1 ARG A  55     14.687   0.410  76.721  1.00  0.70           N
ATOM    411  NH2 ARG A  55     14.700   1.972  75.049  1.00  0.70           N
ATOM    412  N   GLU A  56      7.621  -0.586  72.640  1.00  0.68           N
ATOM    413  CA  GLU A  56      7.770  -1.973  72.247  1.00  0.68           C
ATOM    414  C   GLU A  56      9.119  -2.066  71.559  1.00  0.68           C
ATOM    415  O   GLU A  56      9.874  -1.095  71.510  1.00  0.68           O
ATOM    416  CB  GLU A  56      6.642  -2.452  71.286  1.00  0.68           C
ATOM    417  CG  GLU A  56      5.228  -2.385  71.916  1.00  0.68           C
ATOM    418  CD  GLU A  56      4.093  -2.808  70.977  1.00  0.68           C
ATOM    419  OE1 GLU A  56      2.926  -2.740  71.441  1.00  0.68           O
ATOM    420  OE2 GLU A  56      4.355  -3.171  69.803  1.00  0.68           O
ATOM    421  N   ASN A  57      9.464  -3.236  70.985  1.00  0.67           N
ATOM    422  CA  ASN A  57     10.654  -3.402  70.164  1.00  0.67           C
ATOM    423  C   ASN A  57     10.667  -2.536  68.895  1.00  0.67           C
ATOM    424  O   ASN A  57     11.746  -2.205  68.411  1.00  0.67           O
ATOM    425  CB  ASN A  57     10.855  -4.882  69.736  1.00  0.67           C
ATOM    426  CG  ASN A  57     11.300  -5.749  70.907  1.00  0.67           C
ATOM    427  OD1 ASN A  57     11.821  -5.289  71.920  1.00  0.67           O
ATOM    428  ND2 ASN A  57     11.120  -7.082  70.752  1.00  0.67           N
ATOM    429  N   ASP A  58      9.494  -2.172  68.314  1.00  0.73           N
ATOM    430  CA  ASP A  58      9.416  -1.436  67.066  1.00  0.73           C
ATOM    431  C   ASP A  58      8.651  -0.107  67.166  1.00  0.73           C
ATOM    432  O   ASP A  58      8.481   0.604  66.176  1.00  0.73           O
ATOM    433  CB  ASP A  58      8.813  -2.371  65.964  1.00  0.73           C
ATOM    434  CG  ASP A  58      7.322  -2.677  66.096  1.00  0.73           C
ATOM    435  OD1 ASP A  58      6.795  -2.619  67.233  1.00  0.73           O
ATOM    436  OD2 ASP A  58      6.634  -2.915  65.062  1.00  0.73           O
ATOM    437  N   LYS A  59      8.172   0.303  68.359  1.00  0.71           N
ATOM    438  CA  LYS A  59      7.289   1.451  68.464  1.00  0.71           C
ATOM    439  C   LYS A  59      7.542   2.214  69.733  1.00  0.71           C
ATOM    440  O   LYS A  59      8.024   1.683  70.731  1.00  0.71           O
ATOM    441  CB  LYS A  59      5.780   1.078  68.452  1.00  0.71           C
ATOM    442  CG  LYS A  59      5.300   0.497  67.120  1.00  0.71           C
ATOM    443  CD  LYS A  59      3.832   0.066  67.138  1.00  0.71           C
ATOM    444  CE  LYS A  59      3.393  -0.598  65.835  1.00  0.71           C
ATOM    445  NZ  LYS A  59      3.721  -2.043  65.862  1.00  0.71           N
ATOM    446  N   VAL A  60      7.176   3.503  69.705  1.00  0.72           N
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ATOM   447  CA  VAL A  60      7.123   4.367  70.862  1.00  0.72        C
ATOM   448  C   VAL A  60      5.678   4.713  71.065  1.00  0.72        C
ATOM   449  O   VAL A  60      4.924   4.845  70.101  1.00  0.72        O
ATOM   450  CB  VAL A  60      7.905   5.683  70.725  1.00  0.72        C
ATOM   451  CG1 VAL A  60      9.394   5.360  70.511  1.00  0.72        C
ATOM   452  CG2 VAL A  60      7.380   6.565  69.568  1.00  0.72        C
ATOM   453  N   THR A  61      5.273   4.885  72.330  1.00  0.73        N
ATOM   454  CA  THR A  61      3.986   5.465  72.674  1.00  0.73        C
ATOM   455  C   THR A  61      4.266   6.728  73.451  1.00  0.73        C
ATOM   456  O   THR A  61      5.030   6.736  74.421  1.00  0.73        O
ATOM   457  CB  THR A  61      3.112   4.555  73.511  1.00  0.73        C
ATOM   458  OG1 THR A  61      2.768   3.407  72.752  1.00  0.73        O
ATOM   459  CG2 THR A  61      1.789   5.213  73.943  1.00  0.73        C
ATOM   460  N   VAL A  62      3.664   7.857  73.033  1.00  0.72        N
ATOM   461  CA  VAL A  62      3.958   9.167  73.585  1.00  0.72        C
ATOM   462  C   VAL A  62      2.688   9.894  73.956  1.00  0.72        C
ATOM   463  O   VAL A  62      1.613   9.659  73.407  1.00  0.72        O
ATOM   464  CB  VAL A  62      4.782  10.074  72.658  1.00  0.72        C
ATOM   465  CG1 VAL A  62      6.146   9.457  72.359  1.00  0.72        C
ATOM   466  CG2 VAL A  62      4.117  10.332  71.302  1.00  0.72        C
ATOM   467  N   LYS A  63      2.796  10.816  74.931  1.00  0.74        N
ATOM   468  CA  LYS A  63      1.737  11.750  75.278  1.00  0.74        C
ATOM   469  C   LYS A  63      1.758  12.938  74.345  1.00  0.74        C
ATOM   470  O   LYS A  63      2.819  13.496  74.071  1.00  0.74        O
ATOM   471  CB  LYS A  63      1.898  12.321  76.713  1.00  0.74        C
ATOM   472  CG  LYS A  63      1.755  11.253  77.803  1.00  0.74        C
ATOM   473  CD  LYS A  63      1.985  11.828  79.212  1.00  0.74        C
ATOM   474  CE  LYS A  63      1.647  10.904  80.391  1.00  0.74        C
ATOM   475  NZ  LYS A  63      1.982  11.545  81.686  1.00  0.74        N
ATOM   476  N   THR A  64      0.586  13.381  73.856  1.00  0.72        N
ATOM   477  CA  THR A  64      0.470  14.654  73.155  1.00  0.72        C
ATOM   478  C   THR A  64      0.409  15.795  74.151  1.00  0.72        C
ATOM   479  O   THR A  64      0.331  15.595  75.359  1.00  0.72        O
ATOM   480  CB  THR A  64     -0.724  14.758  72.199  1.00  0.72        C
ATOM   481  OG1 THR A  64     -1.977  14.677  72.861  1.00  0.72        O
ATOM   482  CG2 THR A  64     -0.647  13.604  71.193  1.00  0.72        C
ATOM   483  N   LEU A  65      0.419  17.047  73.651  1.00  0.69        N
ATOM   484  CA  LEU A  65      0.199  18.241  74.452  1.00  0.69        C
ATOM   485  C   LEU A  65     -1.226  18.380  74.964  1.00  0.69        C
ATOM   486  O   LEU A  65     -1.484  19.174  75.862  1.00  0.69        O
ATOM   487  CB  LEU A  65      0.498  19.509  73.619  1.00  0.69        C
ATOM   488  CG  LEU A  65      1.963  19.703  73.199  1.00  0.69        C
ATOM   489  CD1 LEU A  65      2.076  21.076  72.525  1.00  0.69        C
ATOM   490  CD2 LEU A  65      2.953  19.628  74.369  1.00  0.69        C
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ATOM   491  N   ASP A  66     -2.148  17.577  74.398  1.00  0.63        N
ATOM   492  CA  ASP A  66     -3.549  17.521  74.730  1.00  0.63        C
ATOM   493  C   ASP A  66     -3.860  16.214  75.454  1.00  0.63        C
ATOM   494  O   ASP A  66     -4.973  15.700  75.328  1.00  0.63        O
ATOM   495  CB  ASP A  66     -4.407  17.493  73.439  1.00  0.63        C
ATOM   496  CG  ASP A  66     -4.292  18.736  72.591  1.00  0.63        C
ATOM   497  OD1 ASP A  66     -4.253  19.861  73.133  1.00  0.63        O
ATOM   498  OD2 ASP A  66     -4.356  18.516  71.345  1.00  0.63        O
ATOM   499  N   ASP A  67     -2.863  15.590  76.127  1.00  0.74        N
ATOM   500  CA  ASP A  67     -3.017  14.440  77.015  1.00  0.74        C
ATOM   501  C   ASP A  67     -3.373  13.106  76.351  1.00  0.74        C
ATOM   502  O   ASP A  67     -3.339  12.037  76.963  1.00  0.74        O
ATOM   503  CB  ASP A  67     -4.004  14.739  78.170  1.00  0.74        C
ATOM   504  CG  ASP A  67     -3.464  15.835  79.066  1.00  0.74        C
ATOM   505  OD1 ASP A  67     -2.257  15.750  79.419  1.00  0.74        O
ATOM   506  OD2 ASP A  67     -4.263  16.726  79.448  1.00  0.74        O
ATOM   507  N   ARG A  68     -3.694  13.120  75.047  1.00  0.61        N
ATOM   508  CA  ARG A  68     -4.079  11.951  74.292  1.00  0.61        C
ATOM   509  C   ARG A  68     -2.838  11.151  73.946  1.00  0.61        C
ATOM   510  O   ARG A  68     -1.801  11.710  73.604  1.00  0.61        O
ATOM   511  CB  ARG A  68     -4.863  12.350  73.010  1.00  0.61        C
ATOM   512  CG  ARG A  68     -6.202  13.064  73.298  1.00  0.61        C
ATOM   513  CD  ARG A  68     -6.966  13.461  72.029  1.00  0.61        C
ATOM   514  NE  ARG A  68     -6.386  14.763  71.540  1.00  0.61        N
ATOM   515  CZ  ARG A  68     -6.704  15.361  70.383  1.00  0.61        C
ATOM   516  NH1 ARG A  68     -6.186  16.550  70.072  1.00  0.61        N
ATOM   517  NH2 ARG A  68     -7.552  14.782  69.532  1.00  0.61        N
ATOM   518  N   THR A  69     -2.878   9.813  74.045  1.00  0.72        N
ATOM   519  CA  THR A  69     -1.708   9.008  73.716  1.00  0.72        C
ATOM   520  C   THR A  69     -1.671   8.688  72.235  1.00  0.72        C
ATOM   521  O   THR A  69     -2.701   8.554  71.578  1.00  0.72        O
ATOM   522  CB  THR A  69     -1.569   7.717  74.520  1.00  0.72        C
ATOM   523  OG1 THR A  69     -2.713   6.887  74.399  1.00  0.72        O
ATOM   524  CG2 THR A  69     -1.447   8.038  76.015  1.00  0.72        C
ATOM   525  N   LEU A  70     -0.459   8.581  71.664  1.00  0.70        N
ATOM   526  CA  LEU A  70     -0.261   8.211  70.279  1.00  0.70        C
ATOM   527  C   LEU A  70      0.897   7.267  70.199  1.00  0.70        C
ATOM   528  O   LEU A  70      1.704   7.186  71.121  1.00  0.70        O
ATOM   529  CB  LEU A  70      0.128   9.400  69.374  1.00  0.70        C
ATOM   530  CG  LEU A  70     -0.950  10.476  69.213  1.00  0.70        C
ATOM   531  CD1 LEU A  70     -0.372  11.617  68.368  1.00  0.70        C
ATOM   532  CD2 LEU A  70     -2.232   9.938  68.559  1.00  0.70        C
ATOM   533  N   THR A  71      1.005   6.561  69.061  1.00  0.74        N
ATOM   534  CA  THR A  71      1.961   5.491  68.860  1.00  0.74        C
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ATOM 535 C THR A 71 2.609 5.685 67.513 1.00 0.74 C
ATOM 536 O THR A 71 1.924 5.959 66.532 1.00 0.74 O
ATOM 537 CB THR A 71 1.297 4.124 68.888 1.00 0.74 C
ATOM 538 OG1 THR A 71 0.680 3.936 70.149 1.00 0.74 O
ATOM 539 CG2 THR A 71 2.303 2.984 68.708 1.00 0.74 C
ATOM 540 N LEU A 72 3.948 5.552 67.412 1.00 0.68 N
ATOM 541 CA LEU A 72 4.670 5.753 66.167 1.00 0.68 C
ATOM 542 C LEU A 72 5.729 4.676 66.059 1.00 0.68 C
ATOM 543 O LEU A 72 6.298 4.252 67.061 1.00 0.68 O
ATOM 544 CB LEU A 72 5.370 7.141 66.099 1.00 0.68 C
ATOM 545 CG LEU A 72 4.412 8.347 65.993 1.00 0.68 C
ATOM 546 CD1 LEU A 72 5.168 9.665 66.223 1.00 0.68 C
ATOM 547 CD2 LEU A 72 3.679 8.398 64.642 1.00 0.68 C
ATOM 548 N ASN A 73 6.011 4.180 64.830 1.00 0.70 N
ATOM 549 CA ASN A 73 7.092 3.242 64.562 1.00 0.70 C
ATOM 550 C ASN A 73 8.432 3.890 64.843 1.00 0.70 C
ATOM 551 O ASN A 73 8.621 5.013 64.395 1.00 0.70 O
ATOM 552 CB ASN A 73 7.086 2.829 63.064 1.00 0.70 C
ATOM 553 CG ASN A 73 7.928 1.577 62.866 1.00 0.70 C
ATOM 554 OD1 ASN A 73 9.149 1.662 62.841 1.00 0.70 O
ATOM 555 ND2 ASN A 73 7.278 0.405 62.733 1.00 0.70 N
ATOM 556 N SER A 74 9.391 3.198 65.496 1.00 0.74 N
ATOM 557 CA SER A 74 10.705 3.713 65.865 1.00 0.74 C
ATOM 558 C SER A 74 11.483 4.254 64.676 1.00 0.74 C
ATOM 559 O SER A 74 12.147 5.282 64.793 1.00 0.74 O
ATOM 560 CB SER A 74 11.556 2.662 66.633 1.00 0.74 C
ATOM 561 OG SER A 74 11.748 1.482 65.853 1.00 0.74 O
ATOM 562 N ASP A 75 11.330 3.633 63.490 1.00 0.57 N
ATOM 563 CA ASP A 75 11.948 4.050 62.249 1.00 0.57 C
ATOM 564 C ASP A 75 11.378 5.358 61.676 1.00 0.57 C
ATOM 565 O ASP A 75 12.015 6.028 60.868 1.00 0.57 O
ATOM 566 CB ASP A 75 11.802 2.910 61.203 1.00 0.57 C
ATOM 567 CG ASP A 75 12.737 1.743 61.485 1.00 0.57 C
ATOM 568 OD1 ASP A 75 13.569 1.831 62.421 1.00 0.57 O
ATOM 569 OD2 ASP A 75 12.644 0.760 60.703 1.00 0.57 O
ATOM 570 N GLN A 76 10.167 5.784 62.104 1.00 0.52 N
ATOM 571 CA GLN A 76 9.564 7.049 61.709 1.00 0.52 C
ATOM 572 C GLN A 76 9.637 8.079 62.824 1.00 0.52 C
ATOM 573 O GLN A 76 9.102 9.180 62.704 1.00 0.52 O
ATOM 574 CB GLN A 76 8.053 6.879 61.396 1.00 0.52 C
ATOM 575 CG GLN A 76 7.731 5.890 60.257 1.00 0.52 C
ATOM 576 CD GLN A 76 8.338 6.346 58.933 1.00 0.52 C
ATOM 577 OE1 GLN A 76 8.146 7.476 58.487 1.00 0.52 O
ATOM 578 NE2 GLN A 76 9.069 5.434 58.253 1.00 0.52 N

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ATOM    579  N   VAL A  77      10.273   7.756  63.966  1.00  0.62           N
ATOM    580  CA  VAL A  77      10.328   8.663  65.099  1.00  0.62           C
ATOM    581  C   VAL A  77      11.352   9.753  64.842  1.00  0.62           C
ATOM    582  O   VAL A  77      12.446   9.503  64.343  1.00  0.62           O
ATOM    583  CB  VAL A  77      10.610   7.906  66.404  1.00  0.62           C
ATOM    584  CG1 VAL A  77      10.897   8.784  67.623  1.00  0.62           C
ATOM    585  CG2 VAL A  77       9.365   7.122  66.815  1.00  0.62           C
ATOM    586  N   PHE A  78      11.024  11.010  65.198  1.00  0.74           N
ATOM    587  CA  PHE A  78      11.992  12.075  65.325  1.00  0.74           C
ATOM    588  C   PHE A  78      12.286  12.278  66.811  1.00  0.74           C
ATOM    589  O   PHE A  78      11.588  13.085  67.434  1.00  0.74           O
ATOM    590  CB  PHE A  78      11.430  13.402  64.739  1.00  0.74           C
ATOM    591  CG  PHE A  78      10.963  13.242  63.314  1.00  0.74           C
ATOM    592  CD1 PHE A  78      11.869  13.404  62.266  1.00  0.74           C
ATOM    593  CD2 PHE A  78       9.632  12.923  62.997  1.00  0.74           C
ATOM    594  CE1 PHE A  78      11.478  13.295  60.930  1.00  0.74           C
ATOM    595  CE2 PHE A  78       9.232  12.766  61.662  1.00  0.74           C
ATOM    596  CZ  PHE A  78      10.154  12.968  60.627  1.00  0.74           C
ATOM    597  N   PRO A  79      13.242  11.631  67.492  1.00  0.71           N
ATOM    598  CA  PRO A  79      13.408  11.842  68.919  1.00  0.71           C
ATOM    599  C   PRO A  79      13.944  13.214  69.216  1.00  0.71           C
ATOM    600  O   PRO A  79      14.687  13.788  68.419  1.00  0.71           O
ATOM    601  CB  PRO A  79      14.399  10.767  69.394  1.00  0.71           C
ATOM    602  CG  PRO A  79      14.408   9.719  68.285  1.00  0.71           C
ATOM    603  CD  PRO A  79      14.068  10.515  67.022  1.00  0.71           C
ATOM    604  N   MET A  80      13.576  13.766  70.374  1.00  0.71           N
ATOM    605  CA  MET A  80      14.142  15.001  70.833  1.00  0.71           C
ATOM    606  C   MET A  80      15.477  14.696  71.474  1.00  0.71           C
ATOM    607  O   MET A  80      15.631  13.718  72.206  1.00  0.71           O
ATOM    608  CB  MET A  80      13.160  15.664  71.818  1.00  0.71           C
ATOM    609  CG  MET A  80      13.615  16.985  72.453  1.00  0.71           C
ATOM    610  SD  MET A  80      12.320  17.701  73.498  1.00  0.71           S
ATOM    611  CE  MET A  80      13.276  19.140  74.052  1.00  0.71           C
ATOM    612  N   ASN A  81      16.507  15.515  71.178  1.00  0.74           N
ATOM    613  CA  ASN A  81      17.792  15.416  71.837  1.00  0.74           C
ATOM    614  C   ASN A  81      17.665  15.649  73.341  1.00  0.74           C
ATOM    615  O   ASN A  81      16.806  16.426  73.747  1.00  0.74           O
ATOM    616  CB  ASN A  81      18.827  16.410  71.251  1.00  0.74           C
ATOM    617  CG  ASN A  81      19.370  15.831  69.961  1.00  0.74           C
ATOM    618  OD1 ASN A  81      20.112  14.847  69.997  1.00  0.74           O
ATOM    619  ND2 ASN A  81      19.008  16.414  68.802  1.00  0.74           N
ATOM    620  N   PRO A  82      18.456  15.019  74.210  1.00  0.71           N
ATOM    621  CA  PRO A  82      18.594  15.412  75.611  1.00  0.71           C
ATOM    622  C   PRO A  82      18.792  16.917  75.770  1.00  0.71           C
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ATOM 623 O PRO A 82 19.647 17.398 75.025 1.00 0.71 O
ATOM 624 CB PRO A 82 19.848 14.644 76.076 1.00 0.71 C
ATOM 625 CG PRO A 82 19.912 13.411 75.170 1.00 0.71 C
ATOM 626 CD PRO A 82 19.342 13.919 73.849 1.00 0.71 C
ATOM 627 N PRO A 83 18.164 17.719 76.620 1.00 0.59 N
ATOM 628 CA PRO A 83 18.131 19.158 76.412 1.00 0.59 C
ATOM 629 C PRO A 83 19.463 19.794 76.790 1.00 0.59 C
ATOM 630 O PRO A 83 19.653 20.980 76.571 1.00 0.59 O
ATOM 631 CB PRO A 83 16.879 19.626 77.168 1.00 0.59 C
ATOM 632 CG PRO A 83 16.618 18.557 78.240 1.00 0.59 C
ATOM 633 CD PRO A 83 17.356 17.297 77.760 1.00 0.59 C
ATOM 634 N LYS A 84 20.457 19.030 77.299 1.00 0.56 N
ATOM 635 CA LYS A 84 21.841 19.479 77.386 1.00 0.56 C
ATOM 636 C LYS A 84 22.453 19.911 76.046 1.00 0.56 C
ATOM 637 O LYS A 84 23.409 20.680 76.022 1.00 0.56 O
ATOM 638 CB LYS A 84 22.773 18.408 78.016 1.00 0.56 C
ATOM 639 CG LYS A 84 23.028 17.151 77.162 1.00 0.56 C
ATOM 640 CD LYS A 84 24.108 16.268 77.798 1.00 0.56 C
ATOM 641 CE LYS A 84 24.313 14.932 77.079 1.00 0.56 C
ATOM 642 NZ LYS A 84 25.546 14.289 77.580 1.00 0.56 N
ATOM 643 N PHE A 85 21.912 19.419 74.906 1.00 0.74 N
ATOM 644 CA PHE A 85 22.323 19.815 73.575 1.00 0.74 C
ATOM 645 C PHE A 85 21.615 21.055 73.085 1.00 0.74 C
ATOM 646 O PHE A 85 22.034 21.638 72.089 1.00 0.74 O
ATOM 647 CB PHE A 85 21.974 18.728 72.533 1.00 0.74 C
ATOM 648 CG PHE A 85 22.847 17.533 72.710 1.00 0.74 C
ATOM 649 CD1 PHE A 85 24.177 17.572 72.275 1.00 0.74 C
ATOM 650 CD2 PHE A 85 22.346 16.351 73.264 1.00 0.74 C
ATOM 651 CE1 PHE A 85 24.991 16.441 72.377 1.00 0.74 C
ATOM 652 CE2 PHE A 85 23.153 15.214 73.365 1.00 0.74 C
ATOM 653 CZ PHE A 85 24.475 15.257 72.912 1.00 0.74 C
ATOM 654 N ASP A 86 20.540 21.519 73.751 1.00 0.64 N
ATOM 655 CA ASP A 86 19.811 22.680 73.308 1.00 0.64 C
ATOM 656 C ASP A 86 20.678 23.909 73.506 1.00 0.64 C
ATOM 657 O ASP A 86 21.038 24.228 74.641 1.00 0.64 O
ATOM 658 CB ASP A 86 18.537 22.892 74.150 1.00 0.64 C
ATOM 659 CG ASP A 86 17.483 21.829 73.920 1.00 0.64 C
ATOM 660 OD1 ASP A 86 17.586 21.061 72.930 1.00 0.64 O
ATOM 661 OD2 ASP A 86 16.550 21.771 74.768 1.00 0.64 O
ATOM 662 N LYS A 87 21.037 24.575 72.388 1.00 0.70 N
ATOM 663 CA LYS A 87 21.898 25.734 72.246 1.00 0.70 C
ATOM 664 C LYS A 87 23.269 25.392 71.712 1.00 0.70 C
ATOM 665 O LYS A 87 24.092 26.298 71.554 1.00 0.70 O
ATOM 666 CB LYS A 87 22.077 26.665 73.469 1.00 0.70 C

ATOM 667 CG LYS A 87 20.826 27.463 73.817 1.00 0.70 C
ATOM 668 CD LYS A 87 20.904 28.045 75.231 1.00 0.70 C
ATOM 669 CE LYS A 87 22.079 29.005 75.415 1.00 0.70 C
ATOM 670 NZ LYS A 87 22.072 29.560 76.784 1.00 0.70 N
ATOM 671 N ILE A 88 23.553 24.117 71.369 1.00 0.82 N
ATOM 672 CA ILE A 88 24.880 23.686 70.948 1.00 0.82 C
ATOM 673 C ILE A 88 25.422 24.450 69.737 1.00 0.82 C
ATOM 674 O ILE A 88 24.706 24.769 68.785 1.00 0.82 O
ATOM 675 CB ILE A 88 24.946 22.169 70.737 1.00 0.82 C
ATOM 676 CG1 ILE A 88 26.381 21.611 70.605 1.00 0.82 C
ATOM 677 CG2 ILE A 88 24.062 21.736 69.547 1.00 0.82 C
ATOM 678 CD1 ILE A 88 27.145 21.572 71.933 1.00 0.82 C
ATOM 679 N GLU A 89 26.718 24.825 69.773 1.00 0.82 N
ATOM 680 CA GLU A 89 27.332 25.675 68.778 1.00 0.82 C
ATOM 681 C GLU A 89 27.643 24.999 67.462 1.00 0.82 C
ATOM 682 O GLU A 89 27.663 25.654 66.422 1.00 0.82 O
ATOM 683 CB GLU A 89 28.626 26.264 69.355 1.00 0.82 C
ATOM 684 CG GLU A 89 28.347 27.202 70.551 1.00 0.82 C
ATOM 685 CD GLU A 89 29.604 27.893 71.054 1.00 0.82 C
ATOM 686 OE1 GLU A 89 30.717 27.391 70.782 1.00 0.82 O
ATOM 687 OE2 GLU A 89 29.417 28.977 71.664 1.00 0.82 O
ATOM 688 N ASP A 90 27.856 23.670 67.482 1.00 0.83 N
ATOM 689 CA ASP A 90 28.033 22.866 66.301 1.00 0.83 C
ATOM 690 C ASP A 90 27.044 21.729 66.402 1.00 0.83 C
ATOM 691 O ASP A 90 27.047 20.923 67.332 1.00 0.83 O
ATOM 692 CB ASP A 90 29.503 22.388 66.130 1.00 0.83 C
ATOM 693 CG ASP A 90 29.768 21.710 64.791 1.00 0.83 C
ATOM 694 OD1 ASP A 90 28.797 21.362 64.063 1.00 0.83 O
ATOM 695 OD2 ASP A 90 30.972 21.575 64.454 1.00 0.83 O
ATOM 696 N MET A 91 26.144 21.653 65.413 1.00 0.81 N
ATOM 697 CA MET A 91 25.058 20.713 65.385 1.00 0.81 C
ATOM 698 C MET A 91 25.465 19.332 64.913 1.00 0.81 C
ATOM 699 O MET A 91 24.698 18.377 65.025 1.00 0.81 O
ATOM 700 CB MET A 91 23.939 21.279 64.504 1.00 0.81 C
ATOM 701 CG MET A 91 23.314 22.519 65.156 1.00 0.81 C
ATOM 702 SD MET A 91 21.710 23.006 64.470 1.00 0.81 S
ATOM 703 CE MET A 91 22.382 23.507 62.869 1.00 0.81 C
ATOM 704 N ALA A 92 26.726 19.148 64.464 1.00 0.76 N
ATOM 705 CA ALA A 92 27.262 17.827 64.213 1.00 0.76 C
ATOM 706 C ALA A 92 27.431 17.003 65.487 1.00 0.76 C
ATOM 707 O ALA A 92 27.520 15.776 65.415 1.00 0.76 O
ATOM 708 CB ALA A 92 28.593 17.925 63.442 1.00 0.76 C
ATOM 709 N MET A 93 27.385 17.663 66.665 1.00 0.76 N
ATOM 710 CA MET A 93 27.418 17.061 67.980 1.00 0.76 C

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ATOM    711  C   MET A  93      26.097  16.504  68.478  1.00  0.76           C
ATOM    712  O   MET A  93      26.081  15.783  69.470  1.00  0.76           O
ATOM    713  CB  MET A  93      27.863  18.114  69.022  1.00  0.76           C
ATOM    714  CG  MET A  93      29.311  18.593  68.820  1.00  0.76           C
ATOM    715  SD  MET A  93      30.551  17.260  68.872  1.00  0.76           S
ATOM    716  CE  MET A  93      30.305  16.798  70.612  1.00  0.76           C
ATOM    717  N   MET A  94      24.943  16.809  67.846  1.00  0.80           N
ATOM    718  CA  MET A  94      23.665  16.273  68.303  1.00  0.80           C
ATOM    719  C   MET A  94      23.579  14.748  68.277  1.00  0.80           C
ATOM    720  O   MET A  94      24.022  14.101  67.335  1.00  0.80           O
ATOM    721  CB  MET A  94      22.519  16.772  67.410  1.00  0.80           C
ATOM    722  CG  MET A  94      22.207  18.276  67.514  1.00  0.80           C
ATOM    723  SD  MET A  94      20.701  18.739  66.611  1.00  0.80           S
ATOM    724  CE  MET A  94      21.344  18.208  65.008  1.00  0.80           C
ATOM    725  N   THR A  95      22.962  14.095  69.274  1.00  0.77           N
ATOM    726  CA  THR A  95      22.736  12.647  69.216  1.00  0.77           C
ATOM    727  C   THR A  95      21.814  12.272  68.075  1.00  0.77           C
ATOM    728  O   THR A  95      22.126  11.434  67.230  1.00  0.77           O
ATOM    729  CB  THR A  95      22.123  12.118  70.501  1.00  0.77           C
ATOM    730  OG1 THR A  95      23.036  12.301  71.568  1.00  0.77           O
ATOM    731  CG2 THR A  95      21.812  10.615  70.434  1.00  0.77           C
ATOM    732  N   HIS A  96      20.683  12.993  67.990  1.00  0.68           N
ATOM    733  CA  HIS A  96      19.619  12.744  67.049  1.00  0.68           C
ATOM    734  C   HIS A  96      19.634  13.820  66.006  1.00  0.68           C
ATOM    735  O   HIS A  96      19.408  14.997  66.286  1.00  0.68           O
ATOM    736  CB  HIS A  96      18.233  12.741  67.725  1.00  0.68           C
ATOM    737  CG  HIS A  96      18.121  11.678  68.759  1.00  0.68           C
ATOM    738  ND1 HIS A  96      17.822  10.392  68.367  1.00  0.68           N
ATOM    739  CD2 HIS A  96      18.195  11.756  70.110  1.00  0.68           C
ATOM    740  CE1 HIS A  96      17.708   9.714  69.490  1.00  0.68           C
ATOM    741  NE2 HIS A  96      17.925  10.491  70.578  1.00  0.68           N
ATOM    742  N   LEU A  97      19.917  13.430  64.755  1.00  0.74           N
ATOM    743  CA  LEU A  97      19.997  14.362  63.663  1.00  0.74           C
ATOM    744  C   LEU A  97      18.803  14.212  62.755  1.00  0.74           C
ATOM    745  O   LEU A  97      18.764  13.369  61.854  1.00  0.74           O
ATOM    746  CB  LEU A  97      21.274  14.095  62.864  1.00  0.74           C
ATOM    747  CG  LEU A  97      21.522  15.039  61.679  1.00  0.74           C
ATOM    748  CD1 LEU A  97      21.633  16.513  62.060  1.00  0.74           C
ATOM    749  CD2 LEU A  97      22.836  14.607  61.061  1.00  0.74           C
ATOM    750  N   HIS A  98      17.814  15.092  62.966  1.00  0.70           N
ATOM    751  CA  HIS A  98      16.563  15.072  62.260  1.00  0.70           C
ATOM    752  C   HIS A  98      16.024  16.483  62.200  1.00  0.70           C
ATOM    753  O   HIS A  98      16.476  17.353  62.940  1.00  0.70           O
ATOM    754  CB  HIS A  98      15.529  14.183  62.961  1.00  0.70           C
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ATOM 755 CG HIS A 98 15.694 12.733 62.640 1.00 0.70 C
ATOM 756 ND1 HIS A 98 15.308 12.292 61.392 1.00 0.70 N
ATOM 757 CD2 HIS A 98 16.111 11.692 63.405 1.00 0.70 C
ATOM 758 CE1 HIS A 98 15.484 10.984 61.427 1.00 0.70 C
ATOM 759 NE2 HIS A 98 15.975 10.570 62.620 1.00 0.70 N
ATOM 760 N GLU A 99 15.051 16.746 61.296 1.00 0.70 N
ATOM 761 CA GLU A 99 14.558 18.080 60.980 1.00 0.70 C
ATOM 762 C GLU A 99 14.005 18.894 62.144 1.00 0.70 C
ATOM 763 O GLU A 99 14.448 20.036 62.297 1.00 0.70 O
ATOM 764 CB GLU A 99 13.492 18.024 59.855 1.00 0.70 C
ATOM 765 CG GLU A 99 14.097 17.766 58.458 1.00 0.70 C
ATOM 766 CD GLU A 99 13.072 17.687 57.327 1.00 0.70 C
ATOM 767 OE1 GLU A 99 11.971 18.291 57.430 1.00 0.70 O
ATOM 768 OE2 GLU A 99 13.420 17.074 56.289 1.00 0.70 O
ATOM 769 N PRO A 100 13.126 18.418 63.032 1.00 0.79 N
ATOM 770 CA PRO A 100 12.658 19.221 64.149 1.00 0.79 C
ATOM 771 C PRO A 100 13.751 19.477 65.152 1.00 0.79 C
ATOM 772 O PRO A 100 13.757 20.542 65.754 1.00 0.79 O
ATOM 773 CB PRO A 100 11.527 18.396 64.768 1.00 0.79 C
ATOM 774 CG PRO A 100 11.786 16.960 64.310 1.00 0.79 C
ATOM 775 CD PRO A 100 12.383 17.159 62.927 1.00 0.79 C
ATOM 776 N ALA A 101 14.680 18.523 65.352 1.00 0.84 N
ATOM 777 CA ALA A 101 15.793 18.672 66.259 1.00 0.84 C
ATOM 778 C ALA A 101 16.798 19.729 65.814 1.00 0.84 C
ATOM 779 O ALA A 101 17.252 20.538 66.620 1.00 0.84 O
ATOM 780 CB ALA A 101 16.495 17.314 66.461 1.00 0.84 C
ATOM 781 N VAL A 102 17.138 19.772 64.502 1.00 0.83 N
ATOM 782 CA VAL A 102 17.983 20.823 63.935 1.00 0.83 C
ATOM 783 C VAL A 102 17.335 22.183 64.047 1.00 0.83 C
ATOM 784 O VAL A 102 17.956 23.150 64.487 1.00 0.83 O
ATOM 785 CB VAL A 102 18.332 20.593 62.464 1.00 0.83 C
ATOM 786 CG1 VAL A 102 19.106 21.785 61.863 1.00 0.83 C
ATOM 787 CG2 VAL A 102 19.286 19.405 62.386 1.00 0.83 C
ATOM 788 N LEU A 103 16.032 22.266 63.699 1.00 0.81 N
ATOM 789 CA LEU A 103 15.252 23.479 63.825 1.00 0.81 C
ATOM 790 C LEU A 103 15.156 23.972 65.257 1.00 0.81 C
ATOM 791 O LEU A 103 15.294 25.166 65.516 1.00 0.81 O
ATOM 792 CB LEU A 103 13.817 23.290 63.278 1.00 0.81 C
ATOM 793 CG LEU A 103 12.894 24.513 63.488 1.00 0.81 C
ATOM 794 CD1 LEU A 103 13.441 25.757 62.776 1.00 0.81 C
ATOM 795 CD2 LEU A 103 11.482 24.217 62.993 1.00 0.81 C
ATOM 796 N TYR A 104 14.943 23.058 66.228 1.00 0.78 N
ATOM 797 CA TYR A 104 14.863 23.369 67.640 1.00 0.78 C
ATOM 798 C TYR A 104 16.145 23.995 68.156 1.00 0.78 C

ATOM 799 O TYR A 104 16.114 25.018 68.831 1.00 0.78 O
ATOM 800 CB TYR A 104 14.527 22.099 68.462 1.00 0.78 C
ATOM 801 CG TYR A 104 13.998 22.472 69.811 1.00 0.78 C
ATOM 802 CD1 TYR A 104 14.804 22.462 70.963 1.00 0.78 C
ATOM 803 CD2 TYR A 104 12.655 22.851 69.920 1.00 0.78 C
ATOM 804 CE1 TYR A 104 14.244 22.755 72.220 1.00 0.78 C
ATOM 805 CE2 TYR A 104 12.101 23.140 71.159 1.00 0.78 C
ATOM 806 CZ TYR A 104 12.878 23.041 72.294 1.00 0.78 C
ATOM 807 OH TYR A 104 12.149 23.330 73.460 1.00 0.78 O
ATOM 808 N ASN A 105 17.318 23.445 67.775 1.00 0.82 N
ATOM 809 CA ASN A 105 18.596 23.996 68.178 1.00 0.82 C
ATOM 810 C ASN A 105 18.813 25.412 67.654 1.00 0.82 C
ATOM 811 O ASN A 105 19.277 26.301 68.366 1.00 0.82 O
ATOM 812 CB ASN A 105 19.763 23.098 67.706 1.00 0.82 C
ATOM 813 CG ASN A 105 21.002 23.547 68.469 1.00 0.82 C
ATOM 814 OD1 ASN A 105 21.021 23.523 69.698 1.00 0.82 O
ATOM 815 ND2 ASN A 105 22.032 24.048 67.751 1.00 0.82 N
ATOM 816 N LEU A 106 18.454 25.656 66.381 1.00 0.85 N
ATOM 817 CA LEU A 106 18.473 26.983 65.803 1.00 0.85 C
ATOM 818 C LEU A 106 17.519 27.925 66.509 1.00 0.85 C
ATOM 819 O LEU A 106 17.846 29.082 66.751 1.00 0.85 O
ATOM 820 CB LEU A 106 18.144 26.942 64.292 1.00 0.85 C
ATOM 821 CG LEU A 106 19.176 26.181 63.439 1.00 0.85 C
ATOM 822 CD1 LEU A 106 18.682 26.057 61.991 1.00 0.85 C
ATOM 823 CD2 LEU A 106 20.554 26.858 63.483 1.00 0.85 C
ATOM 824 N LYS A 107 16.325 27.431 66.883 1.00 0.75 N
ATOM 825 CA LYS A 107 15.322 28.173 67.611 1.00 0.75 C
ATOM 826 C LYS A 107 15.747 28.618 68.993 1.00 0.75 C
ATOM 827 O LYS A 107 15.561 29.781 69.350 1.00 0.75 O
ATOM 828 CB LYS A 107 14.007 27.365 67.686 1.00 0.75 C
ATOM 829 CG LYS A 107 12.796 28.244 68.007 1.00 0.75 C
ATOM 830 CD LYS A 107 11.488 27.448 67.999 1.00 0.75 C
ATOM 831 CE LYS A 107 10.285 28.329 68.334 1.00 0.75 C
ATOM 832 NZ LYS A 107 9.056 27.515 68.315 1.00 0.75 N
ATOM 833 N GLU A 108 16.384 27.721 69.772 1.00 0.70 N
ATOM 834 CA GLU A 108 16.919 28.025 71.086 1.00 0.70 C
ATOM 835 C GLU A 108 18.016 29.078 71.041 1.00 0.70 C
ATOM 836 O GLU A 108 18.089 29.988 71.866 1.00 0.70 O
ATOM 837 CB GLU A 108 17.492 26.755 71.762 1.00 0.70 C
ATOM 838 CG GLU A 108 16.432 25.695 72.148 1.00 0.70 C
ATOM 839 CD GLU A 108 15.481 26.194 73.232 1.00 0.70 C
ATOM 840 OE1 GLU A 108 16.002 26.610 74.304 1.00 0.70 O
ATOM 841 OE2 GLU A 108 14.237 26.158 73.009 1.00 0.70 O
ATOM 842 N ARG A 109 18.915 28.990 70.037 1.00 0.71 N

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ATOM   843  CA  ARG A 109     19.914  30.012  69.796  1.00  0.71        C
ATOM   844  C   ARG A 109     19.326  31.349  69.344  1.00  0.71        C
ATOM   845  O   ARG A 109     19.668  32.394  69.891  1.00  0.71        O
ATOM   846  CB  ARG A 109     20.985  29.491  68.805  1.00  0.71        C
ATOM   847  CG  ARG A 109     21.731  28.270  69.381  1.00  0.71        C
ATOM   848  CD  ARG A 109     22.894  27.723  68.547  1.00  0.71        C
ATOM   849  NE  ARG A 109     23.891  28.815  68.294  1.00  0.71        N
ATOM   850  CZ  ARG A 109     24.814  29.244  69.161  1.00  0.71        C
ATOM   851  NH1 ARG A 109     24.947  28.724  70.377  1.00  0.71        N
ATOM   852  NH2 ARG A 109     25.667  30.188  68.772  1.00  0.71        N
ATOM   853  N   TYR A 110     18.374  31.348  68.387  1.00  0.81        N
ATOM   854  CA  TYR A 110     17.724  32.535  67.854  1.00  0.81        C
ATOM   855  C   TYR A 110     16.930  33.322  68.892  1.00  0.81        C
ATOM   856  O   TYR A 110     16.963  34.553  68.923  1.00  0.81        O
ATOM   857  CB  TYR A 110     16.787  32.123  66.696  1.00  0.81        C
ATOM   858  CG  TYR A 110     16.335  33.295  65.877  1.00  0.81        C
ATOM   859  CD1 TYR A 110     17.190  33.874  64.930  1.00  0.81        C
ATOM   860  CD2 TYR A 110     15.043  33.814  66.035  1.00  0.81        C
ATOM   861  CE1 TYR A 110     16.749  34.946  64.140  1.00  0.81        C
ATOM   862  CE2 TYR A 110     14.598  34.876  65.243  1.00  0.81        C
ATOM   863  CZ  TYR A 110     15.452  35.446  64.303  1.00  0.81        C
ATOM   864  OH  TYR A 110     14.986  36.533  63.546  1.00  0.81        O
ATOM   865  N   ALA A 111     16.230  32.618  69.804  1.00  0.76        N
ATOM   866  CA  ALA A 111     15.510  33.194  70.923  1.00  0.76        C
ATOM   867  C   ALA A 111     16.411  33.973  71.890  1.00  0.76        C
ATOM   868  O   ALA A 111     15.968  34.898  72.565  1.00  0.76        O
ATOM   869  CB  ALA A 111     14.764  32.075  71.679  1.00  0.76        C
ATOM   870  N   ALA A 112     17.718  33.638  71.933  1.00  0.73        N
ATOM   871  CA  ALA A 112     18.713  34.351  72.702  1.00  0.73        C
ATOM   872  C   ALA A 112     19.551  35.285  71.839  1.00  0.73        C
ATOM   873  O   ALA A 112     20.587  35.776  72.280  1.00  0.73        O
ATOM   874  CB  ALA A 112     19.654  33.332  73.373  1.00  0.73        C
ATOM   875  N   TRP A 113     19.138  35.528  70.575  1.00  0.62        N
ATOM   876  CA  TRP A 113     19.818  36.401  69.631  1.00  0.62        C
ATOM   877  C   TRP A 113     21.175  35.887  69.185  1.00  0.62        C
ATOM   878  O   TRP A 113     22.045  36.637  68.742  1.00  0.62        O
ATOM   879  CB  TRP A 113     19.927  37.858  70.137  1.00  0.62        C
ATOM   880  CG  TRP A 113     18.635  38.437  70.687  1.00  0.62        C
ATOM   881  CD1 TRP A 113     17.369  38.357  70.188  1.00  0.62        C
ATOM   882  CD2 TRP A 113     18.537  39.137  71.940  1.00  0.62        C
ATOM   883  NE1 TRP A 113     16.477  38.989  71.036  1.00  0.62        N
ATOM   884  CE2 TRP A 113     17.186  39.469  72.123  1.00  0.62        C
ATOM   885  CE3 TRP A 113     19.498  39.469  72.892  1.00  0.62        C
ATOM   886  CZ2 TRP A 113     16.772  40.184  73.242  1.00  0.62        C
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ATOM 887 CZ3 TRP A 113 19.084 40.179 74.026 1.00 0.62 C
ATOM 888 CH2 TRP A 113 17.742 40.544 74.194 1.00 0.62 C
ATOM 889 N MET A 114 21.365 34.562 69.235 1.00 0.77 N
ATOM 890 CA MET A 114 22.548 33.907 68.750 1.00 0.77 C
ATOM 891 C MET A 114 22.230 33.435 67.350 1.00 0.77 C
ATOM 892 O MET A 114 21.633 32.384 67.137 1.00 0.77 O
ATOM 893 CB MET A 114 22.932 32.716 69.663 1.00 0.77 C
ATOM 894 CG MET A 114 23.193 33.099 71.133 1.00 0.77 C
ATOM 895 SD MET A 114 24.575 34.248 71.394 1.00 0.77 S
ATOM 896 CE MET A 114 25.893 33.086 70.944 1.00 0.77 C
ATOM 897 N ILE A 115 22.608 34.236 66.338 1.00 0.86 N
ATOM 898 CA ILE A 115 22.140 34.025 64.980 1.00 0.86 C
ATOM 899 C ILE A 115 23.034 33.114 64.181 1.00 0.86 C
ATOM 900 O ILE A 115 22.657 32.637 63.113 1.00 0.86 O
ATOM 901 CB ILE A 115 22.029 35.344 64.230 1.00 0.86 C
ATOM 902 CG1 ILE A 115 23.357 36.142 64.149 1.00 0.86 C
ATOM 903 CG2 ILE A 115 20.882 36.146 64.879 1.00 0.86 C
ATOM 904 CD1 ILE A 115 23.260 37.388 63.263 1.00 0.86 C
ATOM 905 N TYR A 116 24.235 32.836 64.713 1.00 0.90 N
ATOM 906 CA TYR A 116 25.253 32.054 64.061 1.00 0.90 C
ATOM 907 C TYR A 116 25.371 30.720 64.765 1.00 0.90 C
ATOM 908 O TYR A 116 25.452 30.638 65.997 1.00 0.90 O
ATOM 909 CB TYR A 116 26.636 32.748 64.106 1.00 0.90 C
ATOM 910 CG TYR A 116 26.655 34.025 63.320 1.00 0.90 C
ATOM 911 CD1 TYR A 116 26.438 34.007 61.936 1.00 0.90 C
ATOM 912 CD2 TYR A 116 26.974 35.246 63.936 1.00 0.90 C
ATOM 913 CE1 TYR A 116 26.571 35.182 61.186 1.00 0.90 C
ATOM 914 CE2 TYR A 116 27.056 36.428 63.188 1.00 0.90 C
ATOM 915 CZ TYR A 116 26.846 36.389 61.813 1.00 0.90 C
ATOM 916 OH TYR A 116 26.943 37.558 61.046 1.00 0.90 O
ATOM 917 N THR A 117 25.374 29.637 63.971 1.00 0.92 N
ATOM 918 CA THR A 117 25.465 28.273 64.472 1.00 0.92 C
ATOM 919 C THR A 117 26.226 27.466 63.453 1.00 0.92 C
ATOM 920 O THR A 117 25.959 27.562 62.258 1.00 0.92 O
ATOM 921 CB THR A 117 24.101 27.610 64.658 1.00 0.92 C
ATOM 922 OG1 THR A 117 23.241 28.429 65.433 1.00 0.92 O
ATOM 923 CG2 THR A 117 24.212 26.299 65.443 1.00 0.92 C
ATOM 924 N TYR A 118 27.201 26.632 63.865 1.00 0.86 N
ATOM 925 CA TYR A 118 27.849 25.707 62.958 1.00 0.86 C
ATOM 926 C TYR A 118 26.992 24.491 62.697 1.00 0.86 C
ATOM 927 O TYR A 118 26.212 24.024 63.528 1.00 0.86 O
ATOM 928 CB TYR A 118 29.237 25.222 63.447 1.00 0.86 C
ATOM 929 CG TYR A 118 30.196 26.368 63.492 1.00 0.86 C
ATOM 930 CD1 TYR A 118 30.467 27.102 62.330 1.00 0.86 C

ATOM 931 CD2 TYR A 118 30.803 26.750 64.697 1.00 0.86 C
ATOM 932 CE1 TYR A 118 31.284 28.236 62.384 1.00 0.86 C
ATOM 933 CE2 TYR A 118 31.665 27.853 64.739 1.00 0.86 C
ATOM 934 CZ TYR A 118 31.897 28.598 63.583 1.00 0.86 C
ATOM 935 OH TYR A 118 32.762 29.701 63.639 1.00 0.86 O
ATOM 936 N SER A 119 27.136 23.945 61.490 1.00 0.82 N
ATOM 937 CA SER A 119 26.468 22.738 61.078 1.00 0.82 C
ATOM 938 C SER A 119 27.550 21.922 60.409 1.00 0.82 C
ATOM 939 O SER A 119 27.734 21.872 59.195 1.00 0.82 O
ATOM 940 CB SER A 119 25.200 23.107 60.255 1.00 0.82 C
ATOM 941 OG SER A 119 24.851 22.190 59.230 1.00 0.82 O
ATOM 942 N GLY A 120 28.414 21.300 61.242 1.00 0.71 N
ATOM 943 CA GLY A 120 29.624 20.677 60.745 1.00 0.71 C
ATOM 944 C GLY A 120 30.585 21.695 60.194 1.00 0.71 C
ATOM 945 O GLY A 120 31.018 22.609 60.887 1.00 0.71 O
ATOM 946 N LEU A 121 30.957 21.583 58.911 1.00 0.61 N
ATOM 947 CA LEU A 121 32.011 22.380 58.317 1.00 0.61 C
ATOM 948 C LEU A 121 31.597 23.788 57.929 1.00 0.61 C
ATOM 949 O LEU A 121 32.445 24.649 57.709 1.00 0.61 O
ATOM 950 CB LEU A 121 32.575 21.646 57.084 1.00 0.61 C
ATOM 951 CG LEU A 121 33.345 20.355 57.435 1.00 0.61 C
ATOM 952 CD1 LEU A 121 33.704 19.602 56.146 1.00 0.61 C
ATOM 953 CD2 LEU A 121 34.611 20.626 58.271 1.00 0.61 C
ATOM 954 N PHE A 122 30.287 24.079 57.885 1.00 0.72 N
ATOM 955 CA PHE A 122 29.781 25.342 57.396 1.00 0.72 C
ATOM 956 C PHE A 122 28.965 26.061 58.445 1.00 0.72 C
ATOM 957 O PHE A 122 28.540 25.504 59.457 1.00 0.72 O
ATOM 958 CB PHE A 122 29.005 25.198 56.055 1.00 0.72 C
ATOM 959 CG PHE A 122 27.914 24.166 56.099 1.00 0.72 C
ATOM 960 CD1 PHE A 122 28.209 22.810 55.903 1.00 0.72 C
ATOM 961 CD2 PHE A 122 26.589 24.534 56.367 1.00 0.72 C
ATOM 962 CE1 PHE A 122 27.205 21.843 55.998 1.00 0.72 C
ATOM 963 CE2 PHE A 122 25.570 23.576 56.408 1.00 0.72 C
ATOM 964 CZ PHE A 122 25.881 22.224 56.228 1.00 0.72 C
ATOM 965 N CYS A 123 28.783 27.374 58.227 1.00 0.89 N
ATOM 966 CA CYS A 123 28.059 28.241 59.131 1.00 0.89 C
ATOM 967 C CYS A 123 26.645 28.434 58.638 1.00 0.89 C
ATOM 968 O CYS A 123 26.395 28.572 57.442 1.00 0.89 O
ATOM 969 CB CYS A 123 28.782 29.612 59.268 1.00 0.89 C
ATOM 970 SG CYS A 123 28.063 30.772 60.486 1.00 0.89 S
ATOM 971 N VAL A 124 25.690 28.438 59.577 1.00 0.92 N
ATOM 972 CA VAL A 124 24.314 28.812 59.357 1.00 0.92 C
ATOM 973 C VAL A 124 24.091 30.136 60.052 1.00 0.92 C
ATOM 974 O VAL A 124 24.503 30.326 61.197 1.00 0.92 O

ATOM 975 CB VAL A 124 23.355 27.774 59.926 1.00 0.92 C
ATOM 976 CG1 VAL A 124 21.897 28.226 59.749 1.00 0.92 C
ATOM 977 CG2 VAL A 124 23.588 26.439 59.192 1.00 0.92 C
ATOM 978 N THR A 125 23.439 31.076 59.343 1.00 0.92 N
ATOM 979 CA THR A 125 23.209 32.435 59.802 1.00 0.92 C
ATOM 980 C THR A 125 21.741 32.743 59.679 1.00 0.92 C
ATOM 981 O THR A 125 21.224 32.864 58.572 1.00 0.92 O
ATOM 982 CB THR A 125 23.946 33.442 58.940 1.00 0.92 C
ATOM 983 OG1 THR A 125 25.337 33.180 58.995 1.00 0.92 O
ATOM 984 CG2 THR A 125 23.723 34.881 59.429 1.00 0.92 C
ATOM 985 N VAL A 126 21.000 32.906 60.789 1.00 0.91 N
ATOM 986 CA VAL A 126 19.571 33.186 60.704 1.00 0.91 C
ATOM 987 C VAL A 126 19.366 34.674 60.863 1.00 0.91 C
ATOM 988 O VAL A 126 19.813 35.266 61.839 1.00 0.91 O
ATOM 989 CB VAL A 126 18.734 32.430 61.731 1.00 0.91 C
ATOM 990 CG1 VAL A 126 17.226 32.655 61.466 1.00 0.91 C
ATOM 991 CG2 VAL A 126 19.063 30.924 61.656 1.00 0.91 C
ATOM 992 N ASN A 127 18.712 35.341 59.889 1.00 0.86 N
ATOM 993 CA ASN A 127 18.568 36.789 59.894 1.00 0.86 C
ATOM 994 C ASN A 127 17.819 37.312 61.126 1.00 0.86 C
ATOM 995 O ASN A 127 16.673 36.913 61.290 1.00 0.86 O
ATOM 996 CB ASN A 127 17.804 37.235 58.620 1.00 0.86 C
ATOM 997 CG ASN A 127 17.869 38.738 58.371 1.00 0.86 C
ATOM 998 OD1 ASN A 127 18.123 39.562 59.249 1.00 0.86 O
ATOM 999 ND2 ASN A 127 17.601 39.140 57.113 1.00 0.86 N
ATOM 1000 N PRO A 128 18.348 38.190 61.979 1.00 0.87 N
ATOM 1001 CA PRO A 128 17.666 38.623 63.184 1.00 0.87 C
ATOM 1002 C PRO A 128 16.602 39.655 62.898 1.00 0.87 C
ATOM 1003 O PRO A 128 15.762 39.867 63.769 1.00 0.87 O
ATOM 1004 CB PRO A 128 18.780 39.253 64.039 1.00 0.87 C
ATOM 1005 CG PRO A 128 19.830 39.715 63.025 1.00 0.87 C
ATOM 1006 CD PRO A 128 19.724 38.668 61.920 1.00 0.87 C
ATOM 1007 N TYR A 129 16.694 40.379 61.756 1.00 0.79 N
ATOM 1008 CA TYR A 129 15.896 41.553 61.428 1.00 0.79 C
ATOM 1009 C TYR A 129 15.924 42.638 62.497 1.00 0.79 C
ATOM 1010 O TYR A 129 14.977 43.393 62.698 1.00 0.79 O
ATOM 1011 CB TYR A 129 14.457 41.175 61.015 1.00 0.79 C
ATOM 1012 CG TYR A 129 14.448 40.678 59.609 1.00 0.79 C
ATOM 1013 CD1 TYR A 129 14.487 41.601 58.552 1.00 0.79 C
ATOM 1014 CD2 TYR A 129 14.347 39.311 59.326 1.00 0.79 C
ATOM 1015 CE1 TYR A 129 14.430 41.160 57.227 1.00 0.79 C
ATOM 1016 CE2 TYR A 129 14.241 38.877 57.998 1.00 0.79 C
ATOM 1017 CZ TYR A 129 14.294 39.803 56.955 1.00 0.79 C
ATOM 1018 OH TYR A 129 14.124 39.405 55.626 1.00 0.79 O

ATOM 1019 N LYS A 130 17.071 42.771 63.182 1.00 0.74 N
ATOM 1020 CA LYS A 130 17.304 43.840 64.109 1.00 0.74 C
ATOM 1021 C LYS A 130 18.793 43.910 64.344 1.00 0.74 C
ATOM 1022 O LYS A 130 19.533 42.975 64.040 1.00 0.74 O
ATOM 1023 CB LYS A 130 16.551 43.682 65.459 1.00 0.74 C
ATOM 1024 CG LYS A 130 16.916 42.436 66.268 1.00 0.74 C
ATOM 1025 CD LYS A 130 16.418 42.551 67.711 1.00 0.74 C
ATOM 1026 CE LYS A 130 17.137 41.531 68.573 1.00 0.74 C
ATOM 1027 NZ LYS A 130 16.773 41.647 69.988 1.00 0.74 N
ATOM 1028 N TRP A 131 19.282 45.038 64.888 1.00 0.65 N
ATOM 1029 CA TRP A 131 20.679 45.198 65.230 1.00 0.65 C
ATOM 1030 C TRP A 131 21.078 44.380 66.443 1.00 0.65 C
ATOM 1031 O TRP A 131 20.401 44.383 67.471 1.00 0.65 O
ATOM 1032 CB TRP A 131 21.038 46.683 65.472 1.00 0.65 C
ATOM 1033 CG TRP A 131 20.907 47.551 64.234 1.00 0.65 C
ATOM 1034 CD1 TRP A 131 19.900 48.399 63.867 1.00 0.65 C
ATOM 1035 CD2 TRP A 131 21.901 47.633 63.200 1.00 0.65 C
ATOM 1036 NE1 TRP A 131 20.202 49.008 62.667 1.00 0.65 N
ATOM 1037 CE2 TRP A 131 21.427 48.556 62.245 1.00 0.65 C
ATOM 1038 CE3 TRP A 131 23.135 47.012 63.049 1.00 0.65 C
ATOM 1039 CZ2 TRP A 131 22.180 48.871 61.122 1.00 0.65 C
ATOM 1040 CZ3 TRP A 131 23.898 47.355 61.928 1.00 0.65 C
ATOM 1041 CH2 TRP A 131 23.430 48.257 60.967 1.00 0.65 C
ATOM 1042 N LEU A 132 22.211 43.663 66.344 1.00 0.63 N
ATOM 1043 CA LEU A 132 22.795 42.943 67.451 1.00 0.63 C
ATOM 1044 C LEU A 132 24.247 43.393 67.580 1.00 0.63 C
ATOM 1045 O LEU A 132 24.920 43.488 66.548 1.00 0.63 O
ATOM 1046 CB LEU A 132 22.731 41.414 67.232 1.00 0.63 C
ATOM 1047 CG LEU A 132 21.296 40.863 67.209 1.00 0.63 C
ATOM 1048 CD1 LEU A 132 21.276 39.397 66.769 1.00 0.63 C
ATOM 1049 CD2 LEU A 132 20.647 40.971 68.590 1.00 0.63 C
ATOM 1050 N PRO A 133 24.805 43.686 68.755 1.00 0.70 N
ATOM 1051 CA PRO A 133 26.062 44.421 68.866 1.00 0.70 C
ATOM 1052 C PRO A 133 27.222 43.442 68.901 1.00 0.70 C
ATOM 1053 O PRO A 133 27.981 43.382 69.860 1.00 0.70 O
ATOM 1054 CB PRO A 133 25.922 45.157 70.211 1.00 0.70 C
ATOM 1055 CG PRO A 133 25.010 44.268 71.063 1.00 0.70 C
ATOM 1056 CD PRO A 133 24.109 43.588 70.037 1.00 0.70 C
ATOM 1057 N VAL A 134 27.386 42.663 67.823 1.00 0.75 N
ATOM 1058 CA VAL A 134 28.395 41.632 67.707 1.00 0.75 C
ATOM 1059 C VAL A 134 29.302 41.940 66.532 1.00 0.75 C
ATOM 1060 O VAL A 134 29.912 41.053 65.956 1.00 0.75 O
ATOM 1061 CB VAL A 134 27.815 40.228 67.555 1.00 0.75 C
ATOM 1062 CG1 VAL A 134 27.000 39.876 68.812 1.00 0.75 C

ATOM 1063 CG2 VAL A 134 26.948 40.116 66.286 1.00 0.75 C
ATOM 1064 N TYR A 135 29.413 43.208 66.097 1.00 0.77 N
ATOM 1065 CA TYR A 135 30.249 43.553 64.958 1.00 0.77 C
ATOM 1066 C TYR A 135 31.161 44.745 65.239 1.00 0.77 C
ATOM 1067 O TYR A 135 31.651 45.384 64.310 1.00 0.77 O
ATOM 1068 CB TYR A 135 29.394 43.857 63.704 1.00 0.77 C
ATOM 1069 CG TYR A 135 28.453 42.727 63.394 1.00 0.77 C
ATOM 1070 CD1 TYR A 135 28.915 41.495 62.903 1.00 0.77 C
ATOM 1071 CD2 TYR A 135 27.074 42.906 63.580 1.00 0.77 C
ATOM 1072 CE1 TYR A 135 28.010 40.479 62.572 1.00 0.77 C
ATOM 1073 CE2 TYR A 135 26.167 41.900 63.231 1.00 0.77 C
ATOM 1074 CZ TYR A 135 26.639 40.691 62.720 1.00 0.77 C
ATOM 1075 OH TYR A 135 25.738 39.689 62.340 1.00 0.77 O
ATOM 1076 N ASN A 136 31.412 45.070 66.528 1.00 0.65 N
ATOM 1077 CA ASN A 136 32.266 46.174 66.963 1.00 0.65 C
ATOM 1078 C ASN A 136 33.744 45.884 66.687 1.00 0.65 C
ATOM 1079 O ASN A 136 34.085 44.711 66.508 1.00 0.65 O
ATOM 1080 CB ASN A 136 32.111 46.441 68.487 1.00 0.65 C
ATOM 1081 CG ASN A 136 30.688 46.865 68.808 1.00 0.65 C
ATOM 1082 OD1 ASN A 136 30.079 47.653 68.086 1.00 0.65 O
ATOM 1083 ND2 ASN A 136 30.127 46.321 69.912 1.00 0.65 N
ATOM 1084 N PRO A 137 34.682 46.829 66.646 1.00 0.70 N
ATOM 1085 CA PRO A 137 36.109 46.526 66.647 1.00 0.70 C
ATOM 1086 C PRO A 137 36.559 45.621 67.778 1.00 0.70 C
ATOM 1087 O PRO A 137 37.445 44.807 67.560 1.00 0.70 O
ATOM 1088 CB PRO A 137 36.822 47.877 66.722 1.00 0.70 C
ATOM 1089 CG PRO A 137 35.793 48.913 66.255 1.00 0.70 C
ATOM 1090 CD PRO A 137 34.421 48.258 66.471 1.00 0.70 C
ATOM 1091 N GLU A 138 35.977 45.732 68.982 1.00 0.70 N
ATOM 1092 CA GLU A 138 36.243 44.867 70.116 1.00 0.70 C
ATOM 1093 C GLU A 138 35.866 43.414 69.894 1.00 0.70 C
ATOM 1094 O GLU A 138 36.505 42.473 70.356 1.00 0.70 O
ATOM 1095 CB GLU A 138 35.522 45.377 71.378 1.00 0.70 C
ATOM 1096 CG GLU A 138 35.719 46.891 71.618 1.00 0.70 C
ATOM 1097 CD GLU A 138 34.629 47.706 70.935 1.00 0.70 C
ATOM 1098 OE1 GLU A 138 33.534 47.859 71.518 1.00 0.70 O
ATOM 1099 OE2 GLU A 138 34.870 48.119 69.768 1.00 0.70 O
ATOM 1100 N VAL A 139 34.775 43.192 69.147 1.00 0.71 N
ATOM 1101 CA VAL A 139 34.426 41.880 68.666 1.00 0.71 C
ATOM 1102 C VAL A 139 35.426 41.367 67.648 1.00 0.71 C
ATOM 1103 O VAL A 139 35.930 40.257 67.779 1.00 0.71 O
ATOM 1104 CB VAL A 139 33.034 41.890 68.082 1.00 0.71 C
ATOM 1105 CG1 VAL A 139 32.729 40.480 67.605 1.00 0.71 C
ATOM 1106 CG2 VAL A 139 32.043 42.242 69.198 1.00 0.71 C

ATOM 1107 N VAL A 140 35.807 42.198 66.653 1.00 0.80 N
ATOM 1108 CA VAL A 140 36.816 41.863 65.656 1.00 0.80 C
ATOM 1109 C VAL A 140 38.153 41.466 66.287 1.00 0.80 C
ATOM 1110 O VAL A 140 38.785 40.497 65.870 1.00 0.80 O
ATOM 1111 CB VAL A 140 37.070 43.036 64.712 1.00 0.80 C
ATOM 1112 CG1 VAL A 140 38.286 42.764 63.809 1.00 0.80 C
ATOM 1113 CG2 VAL A 140 35.846 43.319 63.821 1.00 0.80 C
ATOM 1114 N THR A 141 38.609 42.195 67.333 1.00 0.74 N
ATOM 1115 CA THR A 141 39.857 41.909 68.044 1.00 0.74 C
ATOM 1116 C THR A 141 39.876 40.566 68.738 1.00 0.74 C
ATOM 1117 O THR A 141 40.915 39.911 68.749 1.00 0.74 O
ATOM 1118 CB THR A 141 40.297 42.948 69.076 1.00 0.74 C
ATOM 1119 OG1 THR A 141 39.281 43.216 70.021 1.00 0.74 O
ATOM 1120 CG2 THR A 141 40.620 44.278 68.391 1.00 0.74 C
ATOM 1121 N ALA A 142 38.738 40.120 69.319 1.00 0.74 N
ATOM 1122 CA ALA A 142 38.596 38.824 69.953 1.00 0.74 C
ATOM 1123 C ALA A 142 38.768 37.657 68.993 1.00 0.74 C
ATOM 1124 O ALA A 142 39.407 36.664 69.321 1.00 0.74 O
ATOM 1125 CB ALA A 142 37.222 38.703 70.652 1.00 0.74 C
ATOM 1126 N TYR A 143 38.213 37.761 67.768 1.00 0.73 N
ATOM 1127 CA TYR A 143 38.245 36.674 66.807 1.00 0.73 C
ATOM 1128 C TYR A 143 39.572 36.567 66.068 1.00 0.73 C
ATOM 1129 O TYR A 143 39.876 35.524 65.493 1.00 0.73 O
ATOM 1130 CB TYR A 143 37.099 36.821 65.775 1.00 0.73 C
ATOM 1131 CG TYR A 143 35.782 36.494 66.425 1.00 0.73 C
ATOM 1132 CD1 TYR A 143 35.443 35.169 66.736 1.00 0.73 C
ATOM 1133 CD2 TYR A 143 34.864 37.503 66.723 1.00 0.73 C
ATOM 1134 CE1 TYR A 143 34.212 34.866 67.344 1.00 0.73 C
ATOM 1135 CE2 TYR A 143 33.637 37.200 67.323 1.00 0.73 C
ATOM 1136 CZ TYR A 143 33.321 35.890 67.653 1.00 0.73 C
ATOM 1137 OH TYR A 143 32.078 35.637 68.259 1.00 0.73 O
ATOM 1138 N ARG A 144 40.409 37.631 66.084 1.00 0.68 N
ATOM 1139 CA ARG A 144 41.675 37.677 65.366 1.00 0.68 C
ATOM 1140 C ARG A 144 42.675 36.589 65.725 1.00 0.68 C
ATOM 1141 O ARG A 144 43.228 36.547 66.823 1.00 0.68 O
ATOM 1142 CB ARG A 144 42.350 39.068 65.481 1.00 0.68 C
ATOM 1143 CG ARG A 144 43.506 39.294 64.483 1.00 0.68 C
ATOM 1144 CD ARG A 144 44.090 40.707 64.580 1.00 0.68 C
ATOM 1145 NE ARG A 144 45.153 40.858 63.526 1.00 0.68 N
ATOM 1146 CZ ARG A 144 46.439 40.531 63.698 1.00 0.68 C
ATOM 1147 NH1 ARG A 144 47.282 40.689 62.681 1.00 0.68 N
ATOM 1148 NH2 ARG A 144 46.887 40.034 64.845 1.00 0.68 N
ATOM 1149 N GLY A 145 42.955 35.681 64.763 1.00 0.82 N
ATOM 1150 CA GLY A 145 43.892 34.585 64.953 1.00 0.82 C

ATOM 1151 C GLY A 145 43.327 33.405 65.679 1.00 0.82 C
ATOM 1152 O GLY A 145 44.056 32.450 65.934 1.00 0.82 O
ATOM 1153 N LYS A 146 42.034 33.425 66.054 1.00 0.75 N
ATOM 1154 CA LYS A 146 41.477 32.339 66.823 1.00 0.75 C
ATOM 1155 C LYS A 146 40.946 31.266 65.964 1.00 0.75 C
ATOM 1156 O LYS A 146 40.286 31.471 64.948 1.00 0.75 O
ATOM 1157 CB LYS A 146 40.287 32.694 67.735 1.00 0.75 C
ATOM 1158 CG LYS A 146 40.661 33.703 68.804 1.00 0.75 C
ATOM 1159 CD LYS A 146 41.718 33.169 69.774 1.00 0.75 C
ATOM 1160 CE LYS A 146 41.982 34.180 70.873 1.00 0.75 C
ATOM 1161 NZ LYS A 146 42.993 33.624 71.782 1.00 0.75 N
ATOM 1162 N LYS A 147 41.182 30.045 66.436 1.00 0.74 N
ATOM 1163 CA LYS A 147 40.542 28.907 65.879 1.00 0.74 C
ATOM 1164 C LYS A 147 39.064 28.814 65.972 1.00 0.74 C
ATOM 1165 O LYS A 147 38.417 29.313 66.885 1.00 0.74 O
ATOM 1166 CB LYS A 147 41.191 27.602 66.337 1.00 0.74 C
ATOM 1167 CG LYS A 147 40.675 26.868 67.556 1.00 0.74 C
ATOM 1168 CD LYS A 147 41.433 25.591 67.997 1.00 0.74 C
ATOM 1169 CE LYS A 147 42.964 25.692 68.173 1.00 0.74 C
ATOM 1170 NZ LYS A 147 43.571 24.377 68.544 1.00 0.74 N
ATOM 1171 N ARG A 148 38.482 28.084 65.012 1.00 0.78 N
ATOM 1172 CA ARG A 148 37.056 27.918 64.965 1.00 0.78 C
ATOM 1173 C ARG A 148 36.441 27.311 66.211 1.00 0.78 C
ATOM 1174 O ARG A 148 35.402 27.749 66.683 1.00 0.78 O
ATOM 1175 CB ARG A 148 36.627 27.031 63.793 1.00 0.78 C
ATOM 1176 CG ARG A 148 35.162 27.340 63.468 1.00 0.78 C
ATOM 1177 CD ARG A 148 34.568 26.490 62.362 1.00 0.78 C
ATOM 1178 NE ARG A 148 33.989 25.276 63.014 1.00 0.78 N
ATOM 1179 CZ ARG A 148 33.102 24.485 62.406 1.00 0.78 C
ATOM 1180 NH1 ARG A 148 32.739 24.691 61.146 1.00 0.78 N
ATOM 1181 NH2 ARG A 148 32.528 23.469 63.042 1.00 0.78 N
ATOM 1182 N GLN A 149 37.109 26.294 66.780 1.00 0.65 N
ATOM 1183 CA GLN A 149 36.673 25.664 68.000 1.00 0.65 C
ATOM 1184 C GLN A 149 37.113 26.410 69.271 1.00 0.65 C
ATOM 1185 O GLN A 149 36.742 25.998 70.363 1.00 0.65 O
ATOM 1186 CB GLN A 149 37.222 24.219 68.048 1.00 0.65 C
ATOM 1187 CG GLN A 149 36.589 23.289 66.993 1.00 0.65 C
ATOM 1188 CD GLN A 149 37.149 21.880 67.138 1.00 0.65 C
ATOM 1189 OE1 GLN A 149 36.551 20.987 67.733 1.00 0.65 O
ATOM 1190 NE2 GLN A 149 38.349 21.675 66.561 1.00 0.65 N
ATOM 1191 N GLU A 150 37.905 27.514 69.184 1.00 0.72 N
ATOM 1192 CA GLU A 150 38.281 28.326 70.342 1.00 0.72 C
ATOM 1193 C GLU A 150 37.265 29.412 70.633 1.00 0.72 C
ATOM 1194 O GLU A 150 37.265 29.962 71.729 1.00 0.72 O

ATOM 1195 CB GLU A 150 39.638 29.066 70.178 1.00 0.72 C
ATOM 1196 CG GLU A 150 40.885 28.282 70.636 1.00 0.72 C
ATOM 1197 CD GLU A 150 42.149 29.016 70.221 1.00 0.72 C
ATOM 1198 OE1 GLU A 150 42.921 29.445 71.116 1.00 0.72 O
ATOM 1199 OE2 GLU A 150 42.356 29.174 68.984 1.00 0.72 O
ATOM 1200 N ALA A 151 36.366 29.754 69.689 1.00 0.81 N
ATOM 1201 CA ALA A 151 35.521 30.910 69.872 1.00 0.81 C
ATOM 1202 C ALA A 151 34.118 30.582 69.417 1.00 0.81 C
ATOM 1203 O ALA A 151 33.943 29.625 68.661 1.00 0.81 O
ATOM 1204 CB ALA A 151 36.088 32.121 69.091 1.00 0.81 C
ATOM 1205 N PRO A 152 33.082 31.306 69.841 1.00 0.84 N
ATOM 1206 CA PRO A 152 31.723 31.038 69.403 1.00 0.84 C
ATOM 1207 C PRO A 152 31.519 31.137 67.889 1.00 0.84 C
ATOM 1208 O PRO A 152 32.350 31.739 67.197 1.00 0.84 O
ATOM 1209 CB PRO A 152 30.852 32.062 70.167 1.00 0.84 C
ATOM 1210 CG PRO A 152 31.739 32.603 71.292 1.00 0.84 C
ATOM 1211 CD PRO A 152 33.152 32.457 70.741 1.00 0.84 C
ATOM 1212 N PRO A 153 30.462 30.582 67.319 1.00 0.92 N
ATOM 1213 CA PRO A 153 30.087 30.794 65.933 1.00 0.92 C
ATOM 1214 C PRO A 153 29.902 32.239 65.528 1.00 0.92 C
ATOM 1215 O PRO A 153 29.163 32.974 66.180 1.00 0.92 O
ATOM 1216 CB PRO A 153 28.808 29.969 65.743 1.00 0.92 C
ATOM 1217 CG PRO A 153 28.867 28.928 66.857 1.00 0.92 C
ATOM 1218 CD PRO A 153 29.538 29.685 67.997 1.00 0.92 C
ATOM 1219 N HIS A 154 30.558 32.663 64.437 1.00 0.84 N
ATOM 1220 CA HIS A 154 30.453 34.021 63.975 1.00 0.84 C
ATOM 1221 C HIS A 154 30.893 34.039 62.534 1.00 0.84 C
ATOM 1222 O HIS A 154 31.716 33.222 62.119 1.00 0.84 O
ATOM 1223 CB HIS A 154 31.325 34.968 64.841 1.00 0.84 C
ATOM 1224 CG HIS A 154 30.928 36.408 64.827 1.00 0.84 C
ATOM 1225 ND1 HIS A 154 31.105 37.143 63.678 1.00 0.84 N
ATOM 1226 CD2 HIS A 154 30.493 37.209 65.833 1.00 0.84 C
ATOM 1227 CE1 HIS A 154 30.785 38.375 64.002 1.00 0.84 C
ATOM 1228 NE2 HIS A 154 30.408 38.470 65.293 1.00 0.84 N
ATOM 1229 N ILE A 155 30.386 34.996 61.733 1.00 0.86 N
ATOM 1230 CA ILE A 155 30.888 35.291 60.406 1.00 0.86 C
ATOM 1231 C ILE A 155 32.370 35.678 60.413 1.00 0.86 C
ATOM 1232 O ILE A 155 33.132 35.269 59.541 1.00 0.86 O
ATOM 1233 CB ILE A 155 30.008 36.328 59.701 1.00 0.86 C
ATOM 1234 CG1 ILE A 155 30.342 36.496 58.203 1.00 0.86 C
ATOM 1235 CG2 ILE A 155 30.017 37.695 60.425 1.00 0.86 C
ATOM 1236 CD1 ILE A 155 30.210 35.203 57.389 1.00 0.86 C
ATOM 1237 N PHE A 156 32.849 36.398 61.456 1.00 0.86 N
ATOM 1238 CA PHE A 156 34.248 36.732 61.677 1.00 0.86 C

ATOM 1239 C PHE A 156 35.148 35.518 61.813 1.00 0.86 C
ATOM 1240 O PHE A 156 36.257 35.498 61.292 1.00 0.86 O
ATOM 1241 CB PHE A 156 34.411 37.615 62.944 1.00 0.86 C
ATOM 1242 CG PHE A 156 33.814 39.005 62.816 1.00 0.86 C
ATOM 1243 CD1 PHE A 156 33.384 39.593 61.609 1.00 0.86 C
ATOM 1244 CD2 PHE A 156 33.733 39.783 63.978 1.00 0.86 C
ATOM 1245 CE1 PHE A 156 32.896 40.906 61.578 1.00 0.86 C
ATOM 1246 CE2 PHE A 156 33.228 41.087 63.958 1.00 0.86 C
ATOM 1247 CZ PHE A 156 32.817 41.653 62.752 1.00 0.86 C
ATOM 1248 N SER A 157 34.682 34.454 62.490 1.00 0.87 N
ATOM 1249 CA SER A 157 35.444 33.226 62.683 1.00 0.87 C
ATOM 1250 C SER A 157 35.706 32.468 61.400 1.00 0.87 C
ATOM 1251 O SER A 157 36.806 31.984 61.149 1.00 0.87 O
ATOM 1252 CB SER A 157 34.730 32.247 63.640 1.00 0.87 C
ATOM 1253 OG SER A 157 34.572 32.849 64.921 1.00 0.87 O
ATOM 1254 N ILE A 158 34.687 32.349 60.521 1.00 0.89 N
ATOM 1255 CA ILE A 158 34.843 31.746 59.204 1.00 0.89 C
ATOM 1256 C ILE A 158 35.706 32.597 58.294 1.00 0.89 C
ATOM 1257 O ILE A 158 36.535 32.078 57.548 1.00 0.89 O
ATOM 1258 CB ILE A 158 33.501 31.360 58.590 1.00 0.89 C
ATOM 1259 CG1 ILE A 158 32.809 30.272 59.454 1.00 0.89 C
ATOM 1260 CG2 ILE A 158 33.635 30.881 57.126 1.00 0.89 C
ATOM 1261 CD1 ILE A 158 33.617 28.976 59.643 1.00 0.89 C
ATOM 1262 N SER A 159 35.589 33.938 58.388 1.00 0.90 N
ATOM 1263 CA SER A 159 36.519 34.855 57.745 1.00 0.90 C
ATOM 1264 C SER A 159 37.954 34.688 58.201 1.00 0.90 C
ATOM 1265 O SER A 159 38.855 34.596 57.373 1.00 0.90 O
ATOM 1266 CB SER A 159 36.146 36.333 57.976 1.00 0.90 C
ATOM 1267 OG SER A 159 34.846 36.578 57.460 1.00 0.90 O
ATOM 1268 N ASP A 160 38.231 34.576 59.519 1.00 0.87 N
ATOM 1269 CA ASP A 160 39.577 34.309 59.995 1.00 0.87 C
ATOM 1270 C ASP A 160 40.103 32.967 59.506 1.00 0.87 C
ATOM 1271 O ASP A 160 41.201 32.888 58.965 1.00 0.87 O
ATOM 1272 CB ASP A 160 39.683 34.426 61.535 1.00 0.87 C
ATOM 1273 CG ASP A 160 41.113 34.765 61.925 1.00 0.87 C
ATOM 1274 OD1 ASP A 160 41.970 33.857 62.007 1.00 0.87 O
ATOM 1275 OD2 ASP A 160 41.396 35.981 62.107 1.00 0.87 O
ATOM 1276 N ASN A 161 39.286 31.891 59.558 1.00 0.82 N
ATOM 1277 CA ASN A 161 39.717 30.586 59.075 1.00 0.82 C
ATOM 1278 C ASN A 161 40.147 30.593 57.612 1.00 0.82 C
ATOM 1279 O ASN A 161 41.185 30.037 57.265 1.00 0.82 O
ATOM 1280 CB ASN A 161 38.599 29.529 59.174 1.00 0.82 C
ATOM 1281 CG ASN A 161 38.331 29.096 60.602 1.00 0.82 C
ATOM 1282 OD1 ASN A 161 39.136 29.113 61.529 1.00 0.82 O

ATOM 1283 ND2 ASN A 161 37.107 28.549 60.774 1.00 0.82 N
ATOM 1284 N ALA A 162 39.386 31.282 56.734 1.00 0.92 N
ATOM 1285 CA ALA A 162 39.763 31.480 55.349 1.00 0.92 C
ATOM 1286 C ALA A 162 41.088 32.236 55.191 1.00 0.92 C
ATOM 1287 O ALA A 162 41.936 31.883 54.381 1.00 0.92 O
ATOM 1288 CB ALA A 162 38.637 32.226 54.598 1.00 0.92 C
ATOM 1289 N TYR A 163 41.341 33.287 55.992 1.00 0.89 N
ATOM 1290 CA TYR A 163 42.610 34.004 55.983 1.00 0.89 C
ATOM 1291 C TYR A 163 43.791 33.190 56.377 1.00 0.89 C
ATOM 1292 O TYR A 163 44.828 33.217 55.722 1.00 0.89 O
ATOM 1293 CB TYR A 163 42.520 35.145 56.990 1.00 0.89 C
ATOM 1294 CG TYR A 163 43.624 36.141 57.002 1.00 0.89 C
ATOM 1295 CD1 TYR A 163 43.976 36.875 55.861 1.00 0.89 C
ATOM 1296 CD2 TYR A 163 44.268 36.402 58.215 1.00 0.89 C
ATOM 1297 CE1 TYR A 163 44.996 37.834 55.932 1.00 0.89 C
ATOM 1298 CE2 TYR A 163 45.270 37.364 58.290 1.00 0.89 C
ATOM 1299 CZ TYR A 163 45.640 38.067 57.150 1.00 0.89 C
ATOM 1300 OH TYR A 163 46.679 38.990 57.298 1.00 0.89 O
ATOM 1301 N GLN A 164 43.646 32.416 57.458 1.00 0.81 N
ATOM 1302 CA GLN A 164 44.723 31.584 57.911 1.00 0.81 C
ATOM 1303 C GLN A 164 45.052 30.525 56.884 1.00 0.81 C
ATOM 1304 O GLN A 164 46.221 30.329 56.594 1.00 0.81 O
ATOM 1305 CB GLN A 164 44.465 30.962 59.298 1.00 0.81 C
ATOM 1306 CG GLN A 164 44.068 31.961 60.411 1.00 0.81 C
ATOM 1307 CD GLN A 164 45.084 33.078 60.647 1.00 0.81 C
ATOM 1308 OE1 GLN A 164 46.282 32.983 60.377 1.00 0.81 O
ATOM 1309 NE2 GLN A 164 44.576 34.199 61.204 1.00 0.81 N
ATOM 1310 N PHE A 165 44.027 29.915 56.242 1.00 0.79 N
ATOM 1311 CA PHE A 165 44.189 28.980 55.134 1.00 0.79 C
ATOM 1312 C PHE A 165 44.847 29.591 53.923 1.00 0.79 C
ATOM 1313 O PHE A 165 45.718 29.008 53.288 1.00 0.79 O
ATOM 1314 CB PHE A 165 42.843 28.320 54.741 1.00 0.79 C
ATOM 1315 CG PHE A 165 42.300 27.394 55.801 1.00 0.79 C
ATOM 1316 CD1 PHE A 165 43.058 26.870 56.866 1.00 0.79 C
ATOM 1317 CD2 PHE A 165 40.969 26.980 55.671 1.00 0.79 C
ATOM 1318 CE1 PHE A 165 42.489 25.986 57.788 1.00 0.79 C
ATOM 1319 CE2 PHE A 165 40.387 26.103 56.593 1.00 0.79 C
ATOM 1320 CZ PHE A 165 41.151 25.607 57.656 1.00 0.79 C
ATOM 1321 N MET A 166 44.508 30.843 53.588 1.00 0.82 N
ATOM 1322 CA MET A 166 45.198 31.540 52.531 1.00 0.82 C
ATOM 1323 C MET A 166 46.690 31.721 52.769 1.00 0.82 C
ATOM 1324 O MET A 166 47.500 31.504 51.871 1.00 0.82 O
ATOM 1325 CB MET A 166 44.578 32.936 52.376 1.00 0.82 C
ATOM 1326 CG MET A 166 45.097 33.716 51.160 1.00 0.82 C

ATOM 1327 SD MET A 166 44.599 35.455 51.181 1.00 0.82 S
ATOM 1328 CE MET A 166 45.709 35.992 52.519 1.00 0.82 C
ATOM 1329 N LEU A 167 47.081 32.117 53.998 1.00 0.82 N
ATOM 1330 CA LEU A 167 48.474 32.215 54.376 1.00 0.82 C
ATOM 1331 C LEU A 167 49.177 30.879 54.474 1.00 0.82 C
ATOM 1332 O LEU A 167 50.204 30.687 53.836 1.00 0.82 O
ATOM 1333 CB LEU A 167 48.616 32.920 55.746 1.00 0.82 C
ATOM 1334 CG LEU A 167 48.026 34.339 55.785 1.00 0.82 C
ATOM 1335 CD1 LEU A 167 48.049 34.896 57.218 1.00 0.82 C
ATOM 1336 CD2 LEU A 167 48.752 35.282 54.815 1.00 0.82 C
ATOM 1337 N THR A 168 48.605 29.914 55.227 1.00 0.68 N
ATOM 1338 CA THR A 168 49.207 28.610 55.484 1.00 0.68 C
ATOM 1339 C THR A 168 49.351 27.746 54.259 1.00 0.68 C
ATOM 1340 O THR A 168 50.348 27.046 54.145 1.00 0.68 O
ATOM 1341 CB THR A 168 48.516 27.754 56.550 1.00 0.68 C
ATOM 1342 OG1 THR A 168 47.122 27.622 56.323 1.00 0.68 O
ATOM 1343 CG2 THR A 168 48.598 28.395 57.936 1.00 0.68 C
ATOM 1344 N ASP A 169 48.370 27.763 53.331 1.00 0.62 N
ATOM 1345 CA ASP A 169 48.383 26.855 52.207 1.00 0.62 C
ATOM 1346 C ASP A 169 48.802 27.548 50.909 1.00 0.62 C
ATOM 1347 O ASP A 169 48.963 26.903 49.871 1.00 0.62 O
ATOM 1348 CB ASP A 169 46.970 26.233 52.004 1.00 0.62 C
ATOM 1349 CG ASP A 169 46.380 25.568 53.245 1.00 0.62 C
ATOM 1350 OD1 ASP A 169 47.132 24.997 54.077 1.00 0.62 O
ATOM 1351 OD2 ASP A 169 45.123 25.575 53.347 1.00 0.62 O
ATOM 1352 N ARG A 170 48.988 28.893 50.927 1.00 0.75 N
ATOM 1353 CA ARG A 170 49.291 29.715 49.761 1.00 0.75 C
ATOM 1354 C ARG A 170 48.288 29.549 48.618 1.00 0.75 C
ATOM 1355 O ARG A 170 48.645 29.472 47.441 1.00 0.75 O
ATOM 1356 CB ARG A 170 50.757 29.529 49.295 1.00 0.75 C
ATOM 1357 CG ARG A 170 51.782 29.937 50.370 1.00 0.75 C
ATOM 1358 CD ARG A 170 53.220 29.801 49.879 1.00 0.75 C
ATOM 1359 NE ARG A 170 54.099 30.309 50.972 1.00 0.75 N
ATOM 1360 CZ ARG A 170 55.386 30.626 50.807 1.00 0.75 C
ATOM 1361 NH1 ARG A 170 56.081 31.066 51.847 1.00 0.75 N
ATOM 1362 NH2 ARG A 170 56.007 30.467 49.641 1.00 0.75 N
ATOM 1363 N ASP A 171 46.990 29.522 48.974 1.00 0.85 N
ATOM 1364 CA ASP A 171 45.899 29.152 48.104 1.00 0.85 C
ATOM 1365 C ASP A 171 44.820 30.215 48.227 1.00 0.85 C
ATOM 1366 O ASP A 171 44.523 30.725 49.308 1.00 0.85 O
ATOM 1367 CB ASP A 171 45.371 27.746 48.493 1.00 0.85 C
ATOM 1368 CG ASP A 171 44.385 27.210 47.474 1.00 0.85 C
ATOM 1369 OD1 ASP A 171 43.166 27.455 47.663 1.00 0.85 O
ATOM 1370 OD2 ASP A 171 44.841 26.566 46.497 1.00 0.85 O

ATOM 1371 N ASN A 172 44.233 30.626 47.090 1.00 0.87 N
ATOM 1372 CA ASN A 172 43.134 31.574 47.061 1.00 0.87 C
ATOM 1373 C ASN A 172 41.841 31.021 47.640 1.00 0.87 C
ATOM 1374 O ASN A 172 41.457 29.886 47.410 1.00 0.87 O
ATOM 1375 CB ASN A 172 42.843 32.050 45.624 1.00 0.87 C
ATOM 1376 CG ASN A 172 44.048 32.818 45.121 1.00 0.87 C
ATOM 1377 OD1 ASN A 172 44.645 33.617 45.842 1.00 0.87 O
ATOM 1378 ND2 ASN A 172 44.408 32.618 43.835 1.00 0.87 N
ATOM 1379 N GLN A 173 41.080 31.826 48.390 1.00 0.86 N
ATOM 1380 CA GLN A 173 39.926 31.297 49.089 1.00 0.86 C
ATOM 1381 C GLN A 173 38.668 31.942 48.576 1.00 0.86 C
ATOM 1382 O GLN A 173 38.682 33.024 47.987 1.00 0.86 O
ATOM 1383 CB GLN A 173 40.021 31.537 50.606 1.00 0.86 C
ATOM 1384 CG GLN A 173 41.402 31.197 51.214 1.00 0.86 C
ATOM 1385 CD GLN A 173 41.592 29.704 51.464 1.00 0.86 C
ATOM 1386 OE1 GLN A 173 40.739 29.123 52.134 1.00 0.86 O
ATOM 1387 NE2 GLN A 173 42.702 29.102 50.981 1.00 0.86 N
ATOM 1388 N SER A 174 37.513 31.301 48.792 1.00 0.91 N
ATOM 1389 CA SER A 174 36.249 31.957 48.527 1.00 0.91 C
ATOM 1390 C SER A 174 35.275 31.764 49.658 1.00 0.91 C
ATOM 1391 O SER A 174 35.245 30.745 50.338 1.00 0.91 O
ATOM 1392 CB SER A 174 35.581 31.558 47.183 1.00 0.91 C
ATOM 1393 OG SER A 174 35.261 30.164 47.154 1.00 0.91 O
ATOM 1394 N ILE A 175 34.447 32.786 49.900 1.00 0.90 N
ATOM 1395 CA ILE A 175 33.400 32.762 50.893 1.00 0.90 C
ATOM 1396 C ILE A 175 32.110 32.873 50.129 1.00 0.90 C
ATOM 1397 O ILE A 175 31.845 33.857 49.435 1.00 0.90 O
ATOM 1398 CB ILE A 175 33.534 33.891 51.896 1.00 0.90 C
ATOM 1399 CG1 ILE A 175 34.863 33.721 52.661 1.00 0.90 C
ATOM 1400 CG2 ILE A 175 32.316 33.923 52.849 1.00 0.90 C
ATOM 1401 CD1 ILE A 175 35.167 34.922 53.539 1.00 0.90 C
ATOM 1402 N LEU A 176 31.288 31.818 50.208 1.00 0.84 N
ATOM 1403 CA LEU A 176 30.100 31.693 49.409 1.00 0.84 C
ATOM 1404 C LEU A 176 28.904 31.761 50.305 1.00 0.84 C
ATOM 1405 O LEU A 176 28.641 30.873 51.120 1.00 0.84 O
ATOM 1406 CB LEU A 176 30.135 30.367 48.625 1.00 0.84 C
ATOM 1407 CG LEU A 176 31.395 30.237 47.747 1.00 0.84 C
ATOM 1408 CD1 LEU A 176 31.477 28.849 47.108 1.00 0.84 C
ATOM 1409 CD2 LEU A 176 31.458 31.334 46.674 1.00 0.84 C
ATOM 1410 N ILE A 177 28.156 32.867 50.186 1.00 0.81 N
ATOM 1411 CA ILE A 177 27.107 33.175 51.118 1.00 0.81 C
ATOM 1412 C ILE A 177 25.795 32.963 50.402 1.00 0.81 C
ATOM 1413 O ILE A 177 25.394 33.707 49.510 1.00 0.81 O
ATOM 1414 CB ILE A 177 27.254 34.578 51.675 1.00 0.81 C

ATOM 1415 CG1 ILE A 177 28.701 34.777 52.204 1.00 0.81 C
ATOM 1416 CG2 ILE A 177 26.195 34.764 52.779 1.00 0.81 C
ATOM 1417 CD1 ILE A 177 28.943 36.105 52.929 1.00 0.81 C
ATOM 1418 N THR A 178 25.093 31.878 50.757 1.00 0.76 N
ATOM 1419 CA THR A 178 23.879 31.472 50.070 1.00 0.76 C
ATOM 1420 C THR A 178 22.671 32.036 50.771 1.00 0.76 C
ATOM 1421 O THR A 178 22.731 32.474 51.915 1.00 0.76 O
ATOM 1422 CB THR A 178 23.675 29.968 49.912 1.00 0.76 C
ATOM 1423 OG1 THR A 178 23.488 29.275 51.134 1.00 0.76 O
ATOM 1424 CG2 THR A 178 24.901 29.315 49.288 1.00 0.76 C
ATOM 1425 N GLY A 179 21.509 32.036 50.093 1.00 0.80 N
ATOM 1426 CA GLY A 179 20.263 32.341 50.769 1.00 0.80 C
ATOM 1427 C GLY A 179 19.278 32.911 49.821 1.00 0.80 C
ATOM 1428 O GLY A 179 19.639 33.636 48.893 1.00 0.80 O
ATOM 1429 N GLU A 180 17.983 32.651 50.053 1.00 0.74 N
ATOM 1430 CA GLU A 180 16.903 33.310 49.351 1.00 0.74 C
ATOM 1431 C GLU A 180 16.930 34.832 49.528 1.00 0.74 C
ATOM 1432 O GLU A 180 17.739 35.400 50.274 1.00 0.74 O
ATOM 1433 CB GLU A 180 15.540 32.680 49.711 1.00 0.74 C
ATOM 1434 CG GLU A 180 15.019 32.950 51.138 1.00 0.74 C
ATOM 1435 CD GLU A 180 13.678 32.243 51.289 1.00 0.74 C
ATOM 1436 OE1 GLU A 180 13.698 30.997 51.454 1.00 0.74 O
ATOM 1437 OE2 GLU A 180 12.640 32.945 51.179 1.00 0.74 O
ATOM 1438 N SER A 181 16.095 35.572 48.781 1.00 0.76 N
ATOM 1439 CA SER A 181 15.965 37.017 48.941 1.00 0.76 C
ATOM 1440 C SER A 181 15.612 37.454 50.357 1.00 0.76 C
ATOM 1441 O SER A 181 14.680 36.955 50.970 1.00 0.76 O
ATOM 1442 CB SER A 181 14.924 37.629 47.977 1.00 0.76 C
ATOM 1443 OG SER A 181 14.902 39.059 48.060 1.00 0.76 O
ATOM 1444 N GLY A 182 16.388 38.409 50.913 1.00 0.80 N
ATOM 1445 CA GLY A 182 16.187 38.896 52.274 1.00 0.80 C
ATOM 1446 C GLY A 182 16.837 38.081 53.366 1.00 0.80 C
ATOM 1447 O GLY A 182 16.771 38.440 54.532 1.00 0.80 O
ATOM 1448 N ALA A 183 17.542 36.975 53.054 1.00 0.88 N
ATOM 1449 CA ALA A 183 18.088 36.114 54.091 1.00 0.88 C
ATOM 1450 C ALA A 183 19.316 36.647 54.832 1.00 0.88 C
ATOM 1451 O ALA A 183 19.651 36.185 55.914 1.00 0.88 O
ATOM 1452 CB ALA A 183 18.415 34.740 53.484 1.00 0.88 C
ATOM 1453 N GLY A 184 20.012 37.663 54.279 1.00 0.79 N
ATOM 1454 CA GLY A 184 21.152 38.284 54.952 1.00 0.79 C
ATOM 1455 C GLY A 184 22.484 38.119 54.281 1.00 0.79 C
ATOM 1456 O GLY A 184 23.507 38.343 54.914 1.00 0.79 O
ATOM 1457 N LYS A 185 22.544 37.748 52.985 1.00 0.79 N
ATOM 1458 CA LYS A 185 23.805 37.600 52.267 1.00 0.79 C

ATOM 1459 C LYS A 185 24.632 38.878 52.216 1.00 0.79 C
ATOM 1460 O LYS A 185 25.788 38.901 52.614 1.00 0.79 O
ATOM 1461 CB LYS A 185 23.546 37.155 50.815 1.00 0.79 C
ATOM 1462 CG LYS A 185 22.820 35.811 50.686 1.00 0.79 C
ATOM 1463 CD LYS A 185 22.573 35.448 49.213 1.00 0.79 C
ATOM 1464 CE LYS A 185 21.609 36.363 48.471 1.00 0.79 C
ATOM 1465 NZ LYS A 185 20.311 36.303 49.154 1.00 0.79 N
ATOM 1466 N THR A 186 23.994 40.005 51.830 1.00 0.86 N
ATOM 1467 CA THR A 186 24.632 41.303 51.652 1.00 0.86 C
ATOM 1468 C THR A 186 25.209 41.864 52.937 1.00 0.86 C
ATOM 1469 O THR A 186 26.313 42.406 52.975 1.00 0.86 O
ATOM 1470 CB THR A 186 23.660 42.330 51.066 1.00 0.86 C
ATOM 1471 OG1 THR A 186 23.203 41.912 49.792 1.00 0.86 O
ATOM 1472 CG2 THR A 186 24.286 43.726 50.923 1.00 0.86 C
ATOM 1473 N VAL A 187 24.466 41.738 54.060 1.00 0.86 N
ATOM 1474 CA VAL A 187 24.914 42.143 55.386 1.00 0.86 C
ATOM 1475 C VAL A 187 26.117 41.344 55.851 1.00 0.86 C
ATOM 1476 O VAL A 187 27.109 41.913 56.303 1.00 0.86 O
ATOM 1477 CB VAL A 187 23.789 42.040 56.419 1.00 0.86 C
ATOM 1478 CG1 VAL A 187 24.308 42.350 57.843 1.00 0.86 C
ATOM 1479 CG2 VAL A 187 22.673 43.035 56.040 1.00 0.86 C
ATOM 1480 N ASN A 188 26.077 40.005 55.696 1.00 0.86 N
ATOM 1481 CA ASN A 188 27.174 39.118 56.037 1.00 0.86 C
ATOM 1482 C ASN A 188 28.396 39.334 55.175 1.00 0.86 C
ATOM 1483 O ASN A 188 29.514 39.341 55.682 1.00 0.86 O
ATOM 1484 CB ASN A 188 26.750 37.641 55.971 1.00 0.86 C
ATOM 1485 CG ASN A 188 25.991 37.337 57.243 1.00 0.86 C
ATOM 1486 OD1 ASN A 188 26.618 36.968 58.230 1.00 0.86 O
ATOM 1487 ND2 ASN A 188 24.653 37.484 57.260 1.00 0.86 N
ATOM 1488 N THR A 189 28.209 39.589 53.862 1.00 0.88 N
ATOM 1489 CA THR A 189 29.280 39.961 52.939 1.00 0.88 C
ATOM 1490 C THR A 189 30.031 41.175 53.422 1.00 0.88 C
ATOM 1491 O THR A 189 31.251 41.157 53.531 1.00 0.88 O
ATOM 1492 CB THR A 189 28.750 40.256 51.541 1.00 0.88 C
ATOM 1493 OG1 THR A 189 28.381 39.032 50.938 1.00 0.88 O
ATOM 1494 CG2 THR A 189 29.767 40.892 50.576 1.00 0.88 C
ATOM 1495 N LYS A 190 29.316 42.243 53.830 1.00 0.80 N
ATOM 1496 CA LYS A 190 29.920 43.440 54.389 1.00 0.80 C
ATOM 1497 C LYS A 190 30.698 43.198 55.676 1.00 0.80 C
ATOM 1498 O LYS A 190 31.746 43.799 55.902 1.00 0.80 O
ATOM 1499 CB LYS A 190 28.853 44.538 54.604 1.00 0.80 C
ATOM 1500 CG LYS A 190 28.375 45.142 53.277 1.00 0.80 C
ATOM 1501 CD LYS A 190 27.449 46.361 53.449 1.00 0.80 C
ATOM 1502 CE LYS A 190 26.008 45.984 53.820 1.00 0.80 C

ATOM 1503 NZ LYS A 190 25.070 47.099 53.570 1.00 0.80 N
ATOM 1504 N ARG A 191 30.221 42.289 56.549 1.00 0.74 N
ATOM 1505 CA ARG A 191 30.946 41.873 57.739 1.00 0.74 C
ATOM 1506 C ARG A 191 32.236 41.143 57.461 1.00 0.74 C
ATOM 1507 O ARG A 191 33.236 41.369 58.140 1.00 0.74 O
ATOM 1508 CB ARG A 191 30.082 41.005 58.683 1.00 0.74 C
ATOM 1509 CG ARG A 191 28.843 41.724 59.236 1.00 0.74 C
ATOM 1510 CD ARG A 191 29.123 43.157 59.678 1.00 0.74 C
ATOM 1511 NE ARG A 191 27.858 43.648 60.261 1.00 0.74 N
ATOM 1512 CZ ARG A 191 27.664 44.922 60.602 1.00 0.74 C
ATOM 1513 NH1 ARG A 191 26.523 45.248 61.193 1.00 0.74 N
ATOM 1514 NH2 ARG A 191 28.580 45.864 60.397 1.00 0.74 N
ATOM 1515 N VAL A 192 32.273 40.274 56.436 1.00 0.86 N
ATOM 1516 CA VAL A 192 33.504 39.638 56.009 1.00 0.86 C
ATOM 1517 C VAL A 192 34.541 40.653 55.556 1.00 0.86 C
ATOM 1518 O VAL A 192 35.700 40.614 55.970 1.00 0.86 O
ATOM 1519 CB VAL A 192 33.232 38.679 54.863 1.00 0.86 C
ATOM 1520 CG1 VAL A 192 34.545 38.144 54.284 1.00 0.86 C
ATOM 1521 CG2 VAL A 192 32.358 37.500 55.329 1.00 0.86 C
ATOM 1522 N ILE A 193 34.118 41.627 54.725 1.00 0.83 N
ATOM 1523 CA ILE A 193 34.975 42.684 54.212 1.00 0.83 C
ATOM 1524 C ILE A 193 35.507 43.566 55.311 1.00 0.83 C
ATOM 1525 O ILE A 193 36.703 43.837 55.365 1.00 0.83 O
ATOM 1526 CB ILE A 193 34.266 43.526 53.159 1.00 0.83 C
ATOM 1527 CG1 ILE A 193 33.746 42.654 51.982 1.00 0.83 C
ATOM 1528 CG2 ILE A 193 35.193 44.656 52.646 1.00 0.83 C
ATOM 1529 CD1 ILE A 193 34.717 41.581 51.475 1.00 0.83 C
ATOM 1530 N GLN A 194 34.642 43.960 56.269 1.00 0.74 N
ATOM 1531 CA GLN A 194 35.037 44.705 57.447 1.00 0.74 C
ATOM 1532 C GLN A 194 36.073 43.955 58.272 1.00 0.74 C
ATOM 1533 O GLN A 194 37.082 44.515 58.684 1.00 0.74 O
ATOM 1534 CB GLN A 194 33.794 44.951 58.349 1.00 0.74 C
ATOM 1535 CG GLN A 194 34.093 45.615 59.720 1.00 0.74 C
ATOM 1536 CD GLN A 194 32.981 45.415 60.757 1.00 0.74 C
ATOM 1537 OE1 GLN A 194 31.832 45.056 60.479 1.00 0.74 O
ATOM 1538 NE2 GLN A 194 33.368 45.663 62.034 1.00 0.74 N
ATOM 1539 N TYR A 195 35.865 42.646 58.518 1.00 0.79 N
ATOM 1540 CA TYR A 195 36.800 41.845 59.276 1.00 0.79 C
ATOM 1541 C TYR A 195 38.157 41.699 58.614 1.00 0.79 C
ATOM 1542 O TYR A 195 39.192 41.913 59.244 1.00 0.79 O
ATOM 1543 CB TYR A 195 36.187 40.442 59.469 1.00 0.79 C
ATOM 1544 CG TYR A 195 37.024 39.605 60.377 1.00 0.79 C
ATOM 1545 CD1 TYR A 195 36.970 39.810 61.758 1.00 0.79 C
ATOM 1546 CD2 TYR A 195 37.923 38.664 59.854 1.00 0.79 C

ATOM 1547 CE1 TYR A 195 37.796 39.076 62.609 1.00 0.79 C
ATOM 1548 CE2 TYR A 195 38.698 37.881 60.715 1.00 0.79 C
ATOM 1549 CZ TYR A 195 38.652 38.115 62.090 1.00 0.79 C
ATOM 1550 OH TYR A 195 39.473 37.458 63.006 1.00 0.79 O
ATOM 1551 N PHE A 196 38.170 41.365 57.305 1.00 0.78 N
ATOM 1552 CA PHE A 196 39.382 41.208 56.531 1.00 0.78 C
ATOM 1553 C PHE A 196 40.134 42.474 56.453 1.00 0.78 C
ATOM 1554 O PHE A 196 41.363 42.504 56.559 1.00 0.78 O
ATOM 1555 CB PHE A 196 39.106 40.751 55.071 1.00 0.78 C
ATOM 1556 CG PHE A 196 38.988 39.283 55.023 1.00 0.78 C
ATOM 1557 CD1 PHE A 196 39.897 38.516 55.743 1.00 0.78 C
ATOM 1558 CD2 PHE A 196 37.954 38.656 54.322 1.00 0.78 C
ATOM 1559 CE1 PHE A 196 39.648 37.167 55.911 1.00 0.78 C
ATOM 1560 CE2 PHE A 196 37.854 37.264 54.336 1.00 0.78 C
ATOM 1561 CZ PHE A 196 38.707 36.508 55.128 1.00 0.78 C
ATOM 1562 N ALA A 197 39.363 43.569 56.290 1.00 0.78 N
ATOM 1563 CA ALA A 197 39.919 44.868 56.268 1.00 0.78 C
ATOM 1564 C ALA A 197 40.620 45.252 57.564 1.00 0.78 C
ATOM 1565 O ALA A 197 41.701 45.811 57.614 1.00 0.78 O
ATOM 1566 CB ALA A 197 39.020 45.993 55.733 1.00 0.78 C
ATOM 1567 N THR A 198 40.029 44.898 58.690 1.00 0.73 N
ATOM 1568 CA THR A 198 40.640 45.189 59.963 1.00 0.73 C
ATOM 1569 C THR A 198 41.834 44.316 60.312 1.00 0.73 C
ATOM 1570 O THR A 198 42.863 44.794 60.782 1.00 0.73 O
ATOM 1571 CB THR A 198 39.600 45.064 61.033 1.00 0.73 C
ATOM 1572 OG1 THR A 198 38.605 46.054 60.844 1.00 0.73 O
ATOM 1573 CG2 THR A 198 40.174 45.320 62.421 1.00 0.73 C
ATOM 1574 N ILE A 199 41.752 42.982 60.115 1.00 0.78 N
ATOM 1575 CA ILE A 199 42.831 42.103 60.560 1.00 0.78 C
ATOM 1576 C ILE A 199 44.087 42.106 59.706 1.00 0.78 C
ATOM 1577 O ILE A 199 45.178 41.823 60.220 1.00 0.78 O
ATOM 1578 CB ILE A 199 42.430 40.647 60.775 1.00 0.78 C
ATOM 1579 CG1 ILE A 199 42.010 39.917 59.478 1.00 0.78 C
ATOM 1580 CG2 ILE A 199 41.362 40.582 61.891 1.00 0.78 C
ATOM 1581 CD1 ILE A 199 41.904 38.408 59.690 1.00 0.78 C
ATOM 1582 N ALA A 200 43.962 42.405 58.396 1.00 0.76 N
ATOM 1583 CA ALA A 200 45.051 42.271 57.457 1.00 0.76 C
ATOM 1584 C ALA A 200 45.526 43.607 57.012 1.00 0.76 C
ATOM 1585 O ALA A 200 46.723 43.886 56.983 1.00 0.76 O
ATOM 1586 CB ALA A 200 44.577 41.547 56.191 1.00 0.76 C
ATOM 1587 N VAL A 201 44.577 44.480 56.667 1.00 0.62 N
ATOM 1588 CA VAL A 201 44.842 45.820 56.264 1.00 0.62 C
ATOM 1589 C VAL A 201 45.177 46.759 57.359 1.00 0.62 C
ATOM 1590 O VAL A 201 44.450 47.646 57.790 1.00 0.62 O

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ATOM   1591  CB  VAL A 201     43.747  46.463  55.529  1.00  0.62        C
ATOM   1592  CG1 VAL A 201     44.439  47.191  54.438  1.00  0.62        C
ATOM   1593  CG2 VAL A 201     42.747  45.543  54.947  1.00  0.62        C
ATOM   1594  N   THR A 202     46.378  46.581  57.856  1.00  0.59        N
ATOM   1595  CA  THR A 202     46.760  47.349  59.002  1.00  0.59        C
ATOM   1596  C   THR A 202     47.528  48.549  58.539  1.00  0.59        C
ATOM   1597  O   THR A 202     47.693  49.508  59.282  1.00  0.59        O
ATOM   1598  CB  THR A 202     47.561  46.489  59.952  1.00  0.59        C
ATOM   1599  OG1 THR A 202     48.715  45.877  59.389  1.00  0.59        O
ATOM   1600  CG2 THR A 202     46.725  45.300  60.421  1.00  0.59        C
ATOM   1601  N   GLY A 203     47.968  48.521  57.262  1.00  0.57        N
ATOM   1602  CA  GLY A 203     48.817  49.518  56.657  1.00  0.57        C
ATOM   1603  C   GLY A 203     50.202  49.519  57.234  1.00  0.57        C
ATOM   1604  O   GLY A 203     50.458  50.042  58.309  1.00  0.57        O
ATOM   1605  N   ASP A 204     51.177  48.964  56.506  1.00  0.47        N
ATOM   1606  CA  ASP A 204     52.546  48.880  56.950  1.00  0.47        C
ATOM   1607  C   ASP A 204     53.387  49.851  56.165  1.00  0.47        C
ATOM   1608  O   ASP A 204     54.614  49.835  56.156  1.00  0.47        O
ATOM   1609  CB  ASP A 204     53.035  47.417  56.800  1.00  0.47        C
ATOM   1610  CG  ASP A 204     52.943  46.844  55.386  1.00  0.47        C
ATOM   1611  OD1 ASP A 204     52.345  47.496  54.487  1.00  0.47        O
ATOM   1612  OD2 ASP A 204     53.434  45.698  55.226  1.00  0.47        O
ATOM   1613  N   LYS A 205     52.687  50.789  55.509  1.00  0.50        N
ATOM   1614  CA  LYS A 205     53.292  51.760  54.656  1.00  0.50        C
ATOM   1615  C   LYS A 205     54.044  52.798  55.441  1.00  0.50        C
ATOM   1616  O   LYS A 205     55.008  53.371  54.936  1.00  0.50        O
ATOM   1617  CB  LYS A 205     52.224  52.460  53.783  1.00  0.50        C
ATOM   1618  CG  LYS A 205     51.430  51.551  52.855  1.00  0.50        C
ATOM   1619  CD  LYS A 205     52.364  50.960  51.801  1.00  0.50        C
ATOM   1620  CE  LYS A 205     51.598  50.141  50.792  1.00  0.50        C
ATOM   1621  NZ  LYS A 205     52.551  49.531  49.853  1.00  0.50        N
ATOM   1622  N   LYS A 206     53.563  53.091  56.675  1.00  0.41        N
ATOM   1623  CA  LYS A 206     54.151  54.033  57.606  1.00  0.41        C
ATOM   1624  C   LYS A 206     54.227  55.417  57.013  1.00  0.41        C
ATOM   1625  O   LYS A 206     55.122  56.218  57.267  1.00  0.41        O
ATOM   1626  CB  LYS A 206     55.527  53.574  58.133  1.00  0.41        C
ATOM   1627  CG  LYS A 206     55.496  52.196  58.802  1.00  0.41        C
ATOM   1628  CD  LYS A 206     56.893  51.797  59.289  1.00  0.41        C
ATOM   1629  CE  LYS A 206     56.915  50.415  59.937  1.00  0.41        C
ATOM   1630  NZ  LYS A 206     58.285  50.098  60.398  1.00  0.41        N
ATOM   1631  N   LYS A 207     53.199  55.750  56.218  1.00  0.31        N
ATOM   1632  CA  LYS A 207     53.113  56.996  55.498  1.00  0.31        C
ATOM   1633  C   LYS A 207     52.380  57.985  56.354  1.00  0.31        C
ATOM   1634  O   LYS A 207     51.668  58.844  55.867  1.00  0.31        O
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ATOM 1635 CB LYS A 207 52.390 56.833 54.145 1.00 0.31 C
ATOM 1636 CG LYS A 207 53.086 55.823 53.230 1.00 0.31 C
ATOM 1637 CD LYS A 207 54.455 56.202 52.660 1.00 0.31 C
ATOM 1638 CE LYS A 207 54.918 55.198 51.598 1.00 0.31 C
ATOM 1639 NZ LYS A 207 56.271 55.559 51.129 1.00 0.31 N
ATOM 1640 N GLU A 208 52.541 57.868 57.676 1.00 0.42 N
ATOM 1641 CA GLU A 208 52.006 58.793 58.636 1.00 0.42 C
ATOM 1642 C GLU A 208 52.821 60.065 58.702 1.00 0.42 C
ATOM 1643 O GLU A 208 52.316 61.129 59.039 1.00 0.42 O
ATOM 1644 CB GLU A 208 52.042 58.128 60.018 1.00 0.42 C
ATOM 1645 CG GLU A 208 51.145 56.880 60.138 1.00 0.42 C
ATOM 1646 CD GLU A 208 51.238 56.284 61.538 1.00 0.42 C
ATOM 1647 OE1 GLU A 208 52.089 56.752 62.335 1.00 0.42 O
ATOM 1648 OE2 GLU A 208 50.447 55.345 61.802 1.00 0.42 O
ATOM 1649 N GLN A 209 54.119 59.961 58.340 1.00 0.46 N
ATOM 1650 CA GLN A 209 55.021 61.089 58.230 1.00 0.46 C
ATOM 1651 C GLN A 209 54.977 61.702 56.842 1.00 0.46 C
ATOM 1652 O GLN A 209 55.499 62.784 56.588 1.00 0.46 O
ATOM 1653 CB GLN A 209 56.483 60.621 58.466 1.00 0.46 C
ATOM 1654 CG GLN A 209 56.745 59.937 59.827 1.00 0.46 C
ATOM 1655 CD GLN A 209 56.487 60.885 60.995 1.00 0.46 C
ATOM 1656 OE1 GLN A 209 57.030 61.987 61.060 1.00 0.46 O
ATOM 1657 NE2 GLN A 209 55.659 60.448 61.971 1.00 0.46 N
ATOM 1658 N GLN A 210 54.336 60.998 55.887 1.00 0.49 N
ATOM 1659 CA GLN A 210 54.065 61.501 54.560 1.00 0.49 C
ATOM 1660 C GLN A 210 53.059 62.659 54.646 1.00 0.49 C
ATOM 1661 O GLN A 210 52.283 62.690 55.595 1.00 0.49 O
ATOM 1662 CB GLN A 210 53.550 60.348 53.648 1.00 0.49 C
ATOM 1663 CG GLN A 210 53.445 60.672 52.143 1.00 0.49 C
ATOM 1664 CD GLN A 210 53.062 59.454 51.314 1.00 0.49 C
ATOM 1665 OE1 GLN A 210 51.988 58.876 51.441 1.00 0.49 O
ATOM 1666 NE2 GLN A 210 53.962 59.039 50.393 1.00 0.49 N
ATOM 1667 N PRO A 211 52.998 63.635 53.742 1.00 0.39 N
ATOM 1668 CA PRO A 211 51.970 64.680 53.774 1.00 0.39 C
ATOM 1669 C PRO A 211 50.541 64.165 53.690 1.00 0.39 C
ATOM 1670 O PRO A 211 49.608 64.855 54.098 1.00 0.39 O
ATOM 1671 CB PRO A 211 52.302 65.552 52.549 1.00 0.39 C
ATOM 1672 CG PRO A 211 53.792 65.333 52.256 1.00 0.39 C
ATOM 1673 CD PRO A 211 54.114 63.970 52.860 1.00 0.39 C
ATOM 1674 N GLY A 212 50.368 62.975 53.093 1.00 0.42 N
ATOM 1675 CA GLY A 212 49.112 62.256 53.012 1.00 0.42 C
ATOM 1676 C GLY A 212 49.153 61.045 53.879 1.00 0.42 C
ATOM 1677 O GLY A 212 50.025 60.884 54.718 1.00 0.42 O
ATOM 1678 N LYS A 213 48.192 60.135 53.689 1.00 0.44 N

ATOM 1679 CA LYS A 213 48.136 58.903 54.428 1.00 0.44 C
ATOM 1680 C LYS A 213 47.814 57.844 53.403 1.00 0.44 C
ATOM 1681 O LYS A 213 46.826 57.942 52.686 1.00 0.44 O
ATOM 1682 CB LYS A 213 47.065 58.969 55.551 1.00 0.44 C
ATOM 1683 CG LYS A 213 47.423 59.997 56.641 1.00 0.44 C
ATOM 1684 CD LYS A 213 46.370 60.088 57.752 1.00 0.44 C
ATOM 1685 CE LYS A 213 46.722 61.142 58.806 1.00 0.44 C
ATOM 1686 NZ LYS A 213 45.663 61.192 59.838 1.00 0.44 N
ATOM 1687 N MET A 214 48.668 56.816 53.252 1.00 0.42 N
ATOM 1688 CA MET A 214 48.352 55.687 52.391 1.00 0.42 C
ATOM 1689 C MET A 214 47.602 54.604 53.125 1.00 0.42 C
ATOM 1690 O MET A 214 46.763 53.909 52.560 1.00 0.42 O
ATOM 1691 CB MET A 214 49.640 55.059 51.824 1.00 0.42 C
ATOM 1692 CG MET A 214 50.382 56.003 50.860 1.00 0.42 C
ATOM 1693 SD MET A 214 49.469 56.546 49.393 1.00 0.42 S
ATOM 1694 CE MET A 214 49.446 54.907 48.627 1.00 0.42 C
ATOM 1695 N GLN A 215 47.914 54.451 54.419 1.00 0.42 N
ATOM 1696 CA GLN A 215 47.242 53.542 55.314 1.00 0.42 C
ATOM 1697 C GLN A 215 46.019 54.210 55.894 1.00 0.42 C
ATOM 1698 O GLN A 215 46.024 55.413 56.155 1.00 0.42 O
ATOM 1699 CB GLN A 215 48.183 53.147 56.477 1.00 0.42 C
ATOM 1700 CG GLN A 215 48.535 54.286 57.460 1.00 0.42 C
ATOM 1701 CD GLN A 215 49.520 53.800 58.517 1.00 0.42 C
ATOM 1702 OE1 GLN A 215 50.631 53.388 58.170 1.00 0.42 O
ATOM 1703 NE2 GLN A 215 49.122 53.947 59.800 1.00 0.42 N
ATOM 1704 N GLY A 216 44.926 53.455 56.087 1.00 0.50 N
ATOM 1705 CA GLY A 216 43.655 54.017 56.527 1.00 0.50 C
ATOM 1706 C GLY A 216 42.899 54.667 55.398 1.00 0.50 C
ATOM 1707 O GLY A 216 41.863 55.271 55.604 1.00 0.50 O
ATOM 1708 N THR A 217 43.438 54.588 54.169 1.00 0.68 N
ATOM 1709 CA THR A 217 42.854 55.167 52.973 1.00 0.68 C
ATOM 1710 C THR A 217 42.227 54.113 52.123 1.00 0.68 C
ATOM 1711 O THR A 217 41.024 54.125 51.894 1.00 0.68 O
ATOM 1712 CB THR A 217 43.879 55.897 52.135 1.00 0.68 C
ATOM 1713 OG1 THR A 217 44.270 57.062 52.843 1.00 0.68 O
ATOM 1714 CG2 THR A 217 43.339 56.390 50.783 1.00 0.68 C
ATOM 1715 N LEU A 218 43.021 53.144 51.622 1.00 0.71 N
ATOM 1716 CA LEU A 218 42.556 52.083 50.750 1.00 0.71 C
ATOM 1717 C LEU A 218 41.418 51.287 51.373 1.00 0.71 C
ATOM 1718 O LEU A 218 40.406 51.043 50.731 1.00 0.71 O
ATOM 1719 CB LEU A 218 43.749 51.143 50.434 1.00 0.71 C
ATOM 1720 CG LEU A 218 43.425 49.890 49.591 1.00 0.71 C
ATOM 1721 CD1 LEU A 218 43.118 50.235 48.123 1.00 0.71 C
ATOM 1722 CD2 LEU A 218 44.578 48.883 49.699 1.00 0.71 C

ATOM 1723 N GLU A 219 41.531 50.957 52.667 1.00 0.72 N
ATOM 1724 CA GLU A 219 40.583 50.292 53.526 1.00 0.72 C
ATOM 1725 C GLU A 219 39.271 50.981 53.634 1.00 0.72 C
ATOM 1726 O GLU A 219 38.217 50.382 53.420 1.00 0.72 O
ATOM 1727 CB GLU A 219 41.156 50.254 54.951 1.00 0.72 C
ATOM 1728 CG GLU A 219 42.598 49.706 54.941 1.00 0.72 C
ATOM 1729 CD GLU A 219 43.705 50.691 54.598 1.00 0.72 C
ATOM 1730 OE1 GLU A 219 43.389 51.874 54.414 1.00 0.72 O
ATOM 1731 OE2 GLU A 219 44.896 50.332 54.415 1.00 0.72 O
ATOM 1732 N ASP A 220 39.328 52.298 53.886 1.00 0.79 N
ATOM 1733 CA ASP A 220 38.168 53.143 53.914 1.00 0.79 C
ATOM 1734 C ASP A 220 37.505 53.164 52.553 1.00 0.79 C
ATOM 1735 O ASP A 220 36.293 53.013 52.435 1.00 0.79 O
ATOM 1736 CB ASP A 220 38.531 54.573 54.373 1.00 0.79 C
ATOM 1737 CG ASP A 220 38.676 54.647 55.886 1.00 0.79 C
ATOM 1738 OD1 ASP A 220 38.453 53.610 56.564 1.00 0.79 O
ATOM 1739 OD2 ASP A 220 38.903 55.781 56.380 1.00 0.79 O
ATOM 1740 N GLN A 221 38.297 53.253 51.466 1.00 0.77 N
ATOM 1741 CA GLN A 221 37.788 53.211 50.110 1.00 0.77 C
ATOM 1742 C GLN A 221 37.088 51.903 49.783 1.00 0.77 C
ATOM 1743 O GLN A 221 36.012 51.896 49.197 1.00 0.77 O
ATOM 1744 CB GLN A 221 38.899 53.542 49.085 1.00 0.77 C
ATOM 1745 CG GLN A 221 39.415 54.981 49.288 1.00 0.77 C
ATOM 1746 CD GLN A 221 40.610 55.321 48.409 1.00 0.77 C
ATOM 1747 OE1 GLN A 221 41.481 54.514 48.084 1.00 0.77 O
ATOM 1748 NE2 GLN A 221 40.662 56.604 47.987 1.00 0.77 N
ATOM 1749 N ILE A 222 37.624 50.750 50.222 1.00 0.86 N
ATOM 1750 CA ILE A 222 36.960 49.463 50.046 1.00 0.86 C
ATOM 1751 C ILE A 222 35.589 49.408 50.712 1.00 0.86 C
ATOM 1752 O ILE A 222 34.611 48.958 50.118 1.00 0.86 O
ATOM 1753 CB ILE A 222 37.802 48.305 50.581 1.00 0.86 C
ATOM 1754 CG1 ILE A 222 39.145 48.222 49.830 1.00 0.86 C
ATOM 1755 CG2 ILE A 222 37.045 46.963 50.433 1.00 0.86 C
ATOM 1756 CD1 ILE A 222 40.128 47.231 50.448 1.00 0.86 C
ATOM 1757 N ILE A 223 35.471 49.902 51.961 1.00 0.85 N
ATOM 1758 CA ILE A 223 34.208 49.959 52.688 1.00 0.85 C
ATOM 1759 C ILE A 223 33.207 50.913 52.035 1.00 0.85 C
ATOM 1760 O ILE A 223 32.026 50.601 51.860 1.00 0.85 O
ATOM 1761 CB ILE A 223 34.453 50.317 54.154 1.00 0.85 C
ATOM 1762 CG1 ILE A 223 35.236 49.176 54.854 1.00 0.85 C
ATOM 1763 CG2 ILE A 223 33.115 50.611 54.877 1.00 0.85 C
ATOM 1764 CD1 ILE A 223 35.685 49.532 56.277 1.00 0.85 C
ATOM 1765 N GLN A 224 33.682 52.099 51.605 1.00 0.83 N
ATOM 1766 CA GLN A 224 32.885 53.170 51.032 1.00 0.83 C

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ATOM   1767  C   GLN A 224     32.431  52.910  49.601  1.00  0.83        C
ATOM   1768  O   GLN A 224     31.582  53.613  49.061  1.00  0.83        O
ATOM   1769  CB  GLN A 224     33.650  54.507  51.095  1.00  0.83        C
ATOM   1770  CG  GLN A 224     33.902  55.006  52.539  1.00  0.83        C
ATOM   1771  CD  GLN A 224     32.624  55.390  53.280  1.00  0.83        C
ATOM   1772  OE1 GLN A 224     31.650  55.885  52.720  1.00  0.83        O
ATOM   1773  NE2 GLN A 224     32.609  55.167  54.614  1.00  0.83        N
ATOM   1774  N   ALA A 225     32.920  51.838  48.955  1.00  0.91        N
ATOM   1775  CA  ALA A 225     32.319  51.288  47.754  1.00  0.91        C
ATOM   1776  C   ALA A 225     30.866  50.892  47.938  1.00  0.91        C
ATOM   1777  O   ALA A 225     30.021  51.124  47.075  1.00  0.91        O
ATOM   1778  CB  ALA A 225     33.132  50.060  47.302  1.00  0.91        C
ATOM   1779  N   ASN A 226     30.530  50.296  49.093  1.00  0.87        N
ATOM   1780  CA  ASN A 226     29.220  49.733  49.304  1.00  0.87        C
ATOM   1781  C   ASN A 226     28.024  50.689  49.354  1.00  0.87        C
ATOM   1782  O   ASN A 226     27.043  50.343  48.697  1.00  0.87        O
ATOM   1783  CB  ASN A 226     29.243  48.767  50.509  1.00  0.87        C
ATOM   1784  CG  ASN A 226     28.939  47.379  49.976  1.00  0.87        C
ATOM   1785  OD1 ASN A 226     29.814  46.591  49.621  1.00  0.87        O
ATOM   1786  ND2 ASN A 226     27.636  47.059  49.844  1.00  0.87        N
ATOM   1787  N   PRO A 227     27.978  51.861  50.007  1.00  0.90        N
ATOM   1788  CA  PRO A 227     26.871  52.805  49.878  1.00  0.90        C
ATOM   1789  C   PRO A 227     26.650  53.260  48.455  1.00  0.90        C
ATOM   1790  O   PRO A 227     25.507  53.475  48.063  1.00  0.90        O
ATOM   1791  CB  PRO A 227     27.228  54.000  50.784  1.00  0.90        C
ATOM   1792  CG  PRO A 227     28.320  53.489  51.729  1.00  0.90        C
ATOM   1793  CD  PRO A 227     28.970  52.328  50.968  1.00  0.90        C
ATOM   1794  N   LEU A 228     27.722  53.413  47.650  1.00  0.88        N
ATOM   1795  CA  LEU A 228     27.574  53.736  46.242  1.00  0.88        C
ATOM   1796  C   LEU A 228     26.940  52.612  45.480  1.00  0.88        C
ATOM   1797  O   LEU A 228     25.938  52.799  44.803  1.00  0.88        O
ATOM   1798  CB  LEU A 228     28.915  54.082  45.564  1.00  0.88        C
ATOM   1799  CG  LEU A 228     29.167  55.583  45.515  1.00  0.88        C
ATOM   1800  CD1 LEU A 228     29.176  56.095  46.942  1.00  0.88        C
ATOM   1801  CD2 LEU A 228     30.531  55.806  44.884  1.00  0.88        C
ATOM   1802  N   LEU A 229     27.440  51.376  45.628  1.00  0.88        N
ATOM   1803  CA  LEU A 229     26.834  50.257  44.935  1.00  0.88        C
ATOM   1804  C   LEU A 229     25.381  50.013  45.323  1.00  0.88        C
ATOM   1805  O   LEU A 229     24.535  49.794  44.462  1.00  0.88        O
ATOM   1806  CB  LEU A 229     27.576  48.932  45.194  1.00  0.88        C
ATOM   1807  CG  LEU A 229     29.050  48.852  44.762  1.00  0.88        C
ATOM   1808  CD1 LEU A 229     29.664  47.584  45.363  1.00  0.88        C
ATOM   1809  CD2 LEU A 229     29.221  48.835  43.236  1.00  0.88        C
ATOM   1810  N   GLU A 230     25.060  50.077  46.632  1.00  0.87        N
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ATOM 1811 CA GLU A 230 23.710 49.916 47.137 1.00 0.87 C
ATOM 1812 C GLU A 230 22.767 51.027 46.704 1.00 0.87 C
ATOM 1813 O GLU A 230 21.636 50.761 46.314 1.00 0.87 O
ATOM 1814 CB GLU A 230 23.665 49.695 48.671 1.00 0.87 C
ATOM 1815 CG GLU A 230 24.373 48.377 49.084 1.00 0.87 C
ATOM 1816 CD GLU A 230 24.259 47.956 50.544 1.00 0.87 C
ATOM 1817 OE1 GLU A 230 23.362 48.371 51.314 1.00 0.87 O
ATOM 1818 OE2 GLU A 230 25.128 47.136 50.957 1.00 0.87 O
ATOM 1819 N ALA A 231 23.191 52.309 46.678 1.00 0.95 N
ATOM 1820 CA ALA A 231 22.319 53.376 46.217 1.00 0.95 C
ATOM 1821 C ALA A 231 21.848 53.194 44.775 1.00 0.95 C
ATOM 1822 O ALA A 231 20.687 53.432 44.443 1.00 0.95 O
ATOM 1823 CB ALA A 231 23.006 54.749 46.362 1.00 0.95 C
ATOM 1824 N PHE A 232 22.747 52.723 43.890 1.00 0.91 N
ATOM 1825 CA PHE A 232 22.435 52.564 42.487 1.00 0.91 C
ATOM 1826 C PHE A 232 21.994 51.156 42.094 1.00 0.91 C
ATOM 1827 O PHE A 232 21.417 50.969 41.027 1.00 0.91 O
ATOM 1828 CB PHE A 232 23.664 52.922 41.623 1.00 0.91 C
ATOM 1829 CG PHE A 232 23.948 54.398 41.686 1.00 0.91 C
ATOM 1830 CD1 PHE A 232 24.763 54.950 42.678 1.00 0.91 C
ATOM 1831 CD2 PHE A 232 23.392 55.261 40.737 1.00 0.91 C
ATOM 1832 CE1 PHE A 232 25.037 56.316 42.735 1.00 0.91 C
ATOM 1833 CE2 PHE A 232 23.693 56.630 40.748 1.00 0.91 C
ATOM 1834 CZ PHE A 232 24.502 57.160 41.762 1.00 0.91 C
ATOM 1835 N GLY A 233 22.201 50.128 42.936 1.00 0.96 N
ATOM 1836 CA GLY A 233 21.973 48.745 42.533 1.00 0.96 C
ATOM 1837 C GLY A 233 21.054 47.997 43.449 1.00 0.96 C
ATOM 1838 O GLY A 233 20.729 46.836 43.201 1.00 0.96 O
ATOM 1839 N ASN A 234 20.567 48.655 44.512 1.00 0.89 N
ATOM 1840 CA ASN A 234 19.625 48.066 45.435 1.00 0.89 C
ATOM 1841 C ASN A 234 18.308 48.818 45.420 1.00 0.89 C
ATOM 1842 O ASN A 234 18.221 50.007 45.107 1.00 0.89 O
ATOM 1843 CB ASN A 234 20.140 48.005 46.894 1.00 0.89 C
ATOM 1844 CG ASN A 234 21.254 46.981 47.063 1.00 0.89 C
ATOM 1845 OD1 ASN A 234 22.112 46.733 46.217 1.00 0.89 O
ATOM 1846 ND2 ASN A 234 21.249 46.333 48.249 1.00 0.89 N
ATOM 1847 N ALA A 235 17.224 48.094 45.747 1.00 0.89 N
ATOM 1848 CA ALA A 235 15.897 48.650 45.749 1.00 0.89 C
ATOM 1849 C ALA A 235 14.992 47.859 46.669 1.00 0.89 C
ATOM 1850 O ALA A 235 15.245 46.695 46.971 1.00 0.89 O
ATOM 1851 CB ALA A 235 15.302 48.582 44.334 1.00 0.89 C
ATOM 1852 N LYS A 236 13.883 48.477 47.121 1.00 0.82 N
ATOM 1853 CA LYS A 236 12.828 47.772 47.825 1.00 0.82 C
ATOM 1854 C LYS A 236 12.045 46.866 46.891 1.00 0.82 C

ATOM 1855 O LYS A 236 11.397 47.333 45.957 1.00 0.82 O
ATOM 1856 CB LYS A 236 11.814 48.739 48.496 1.00 0.82 C
ATOM 1857 CG LYS A 236 10.694 48.037 49.293 1.00 0.82 C
ATOM 1858 CD LYS A 236 9.512 48.945 49.663 1.00 0.82 C
ATOM 1859 CE LYS A 236 8.403 48.150 50.366 1.00 0.82 C
ATOM 1860 NZ LYS A 236 7.172 48.958 50.506 1.00 0.82 N
ATOM 1861 N THR A 237 12.068 45.553 47.178 1.00 0.80 N
ATOM 1862 CA THR A 237 11.167 44.558 46.615 1.00 0.80 C
ATOM 1863 C THR A 237 10.146 44.182 47.663 1.00 0.80 C
ATOM 1864 O THR A 237 10.227 44.597 48.820 1.00 0.80 O
ATOM 1865 CB THR A 237 11.825 43.289 46.058 1.00 0.80 C
ATOM 1866 OG1 THR A 237 12.378 42.414 47.040 1.00 0.80 O
ATOM 1867 CG2 THR A 237 12.976 43.702 45.140 1.00 0.80 C
ATOM 1868 N VAL A 238 9.149 43.344 47.320 1.00 0.81 N
ATOM 1869 CA VAL A 238 8.228 42.794 48.317 1.00 0.81 C
ATOM 1870 C VAL A 238 8.916 41.911 49.367 1.00 0.81 C
ATOM 1871 O VAL A 238 8.408 41.724 50.470 1.00 0.81 O
ATOM 1872 CB VAL A 238 7.061 42.010 47.707 1.00 0.81 C
ATOM 1873 CG1 VAL A 238 6.282 42.898 46.724 1.00 0.81 C
ATOM 1874 CG2 VAL A 238 7.564 40.788 46.937 1.00 0.81 C
ATOM 1875 N ARG A 239 10.126 41.382 49.065 1.00 0.70 N
ATOM 1876 CA ARG A 239 10.833 40.442 49.916 1.00 0.70 C
ATOM 1877 C ARG A 239 11.977 41.067 50.678 1.00 0.70 C
ATOM 1878 O ARG A 239 12.453 40.507 51.661 1.00 0.70 O
ATOM 1879 CB ARG A 239 11.394 39.301 49.038 1.00 0.70 C
ATOM 1880 CG ARG A 239 10.293 38.266 48.771 1.00 0.70 C
ATOM 1881 CD ARG A 239 10.664 37.211 47.734 1.00 0.70 C
ATOM 1882 NE ARG A 239 9.446 36.376 47.517 1.00 0.70 N
ATOM 1883 CZ ARG A 239 9.172 35.207 48.112 1.00 0.70 C
ATOM 1884 NH1 ARG A 239 10.004 34.613 48.957 1.00 0.70 N
ATOM 1885 NH2 ARG A 239 8.019 34.609 47.817 1.00 0.70 N
ATOM 1886 N ASN A 240 12.453 42.253 50.275 1.00 0.78 N
ATOM 1887 CA ASN A 240 13.578 42.846 50.948 1.00 0.78 C
ATOM 1888 C ASN A 240 13.555 44.330 50.659 1.00 0.78 C
ATOM 1889 O ASN A 240 13.526 44.745 49.502 1.00 0.78 O
ATOM 1890 CB ASN A 240 14.891 42.167 50.468 1.00 0.78 C
ATOM 1891 CG ASN A 240 16.131 42.640 51.210 1.00 0.78 C
ATOM 1892 OD1 ASN A 240 16.123 43.529 52.059 1.00 0.78 O
ATOM 1893 ND2 ASN A 240 17.285 42.040 50.835 1.00 0.78 N
ATOM 1894 N ASP A 241 13.608 45.167 51.710 1.00 0.82 N
ATOM 1895 CA ASP A 241 13.619 46.607 51.595 1.00 0.82 C
ATOM 1896 C ASP A 241 14.941 47.141 51.031 1.00 0.82 C
ATOM 1897 O ASP A 241 15.010 48.241 50.484 1.00 0.82 O
ATOM 1898 CB ASP A 241 13.303 47.210 52.986 1.00 0.82 C

ATOM 1899 CG ASP A 241 11.883 46.917 53.452 1.00 0.82 C
ATOM 1900 OD1 ASP A 241 11.052 46.392 52.660 1.00 0.82 O
ATOM 1901 OD2 ASP A 241 11.592 47.185 54.640 1.00 0.82 O
ATOM 1902 N ASN A 242 16.011 46.321 51.082 1.00 0.82 N
ATOM 1903 CA ASN A 242 17.297 46.646 50.521 1.00 0.82 C
ATOM 1904 C ASN A 242 17.753 45.487 49.643 1.00 0.82 C
ATOM 1905 O ASN A 242 18.865 44.980 49.765 1.00 0.82 O
ATOM 1906 CB ASN A 242 18.314 46.908 51.664 1.00 0.82 C
ATOM 1907 CG ASN A 242 19.565 47.557 51.087 1.00 0.82 C
ATOM 1908 OD1 ASN A 242 19.468 48.291 50.104 1.00 0.82 O
ATOM 1909 ND2 ASN A 242 20.750 47.260 51.660 1.00 0.82 N
ATOM 1910 N SER A 243 16.885 45.006 48.734 1.00 0.83 N
ATOM 1911 CA SER A 243 17.239 43.954 47.790 1.00 0.83 C
ATOM 1912 C SER A 243 18.327 44.333 46.804 1.00 0.83 C
ATOM 1913 O SER A 243 18.188 45.305 46.067 1.00 0.83 O
ATOM 1914 CB SER A 243 16.023 43.518 46.942 1.00 0.83 C
ATOM 1915 OG SER A 243 16.256 42.291 46.247 1.00 0.83 O
ATOM 1916 N SER A 244 19.408 43.526 46.736 1.00 0.86 N
ATOM 1917 CA SER A 244 20.440 43.589 45.712 1.00 0.86 C
ATOM 1918 C SER A 244 19.870 43.175 44.377 1.00 0.86 C
ATOM 1919 O SER A 244 19.388 42.053 44.230 1.00 0.86 O
ATOM 1920 CB SER A 244 21.626 42.616 45.991 1.00 0.86 C
ATOM 1921 OG SER A 244 22.208 42.834 47.279 1.00 0.86 O
ATOM 1922 N ARG A 245 19.895 44.056 43.359 1.00 0.77 N
ATOM 1923 CA ARG A 245 19.331 43.742 42.055 1.00 0.77 C
ATOM 1924 C ARG A 245 20.430 43.499 41.047 1.00 0.77 C
ATOM 1925 O ARG A 245 20.219 43.448 39.837 1.00 0.77 O
ATOM 1926 CB ARG A 245 18.398 44.865 41.566 1.00 0.77 C
ATOM 1927 CG ARG A 245 17.326 45.314 42.585 1.00 0.77 C
ATOM 1928 CD ARG A 245 16.522 44.185 43.258 1.00 0.77 C
ATOM 1929 NE ARG A 245 15.839 43.355 42.205 1.00 0.77 N
ATOM 1930 CZ ARG A 245 15.411 42.091 42.366 1.00 0.77 C
ATOM 1931 NH1 ARG A 245 15.634 41.416 43.487 1.00 0.77 N
ATOM 1932 NH2 ARG A 245 14.747 41.462 41.406 1.00 0.77 N
ATOM 1933 N PHE A 246 21.642 43.292 41.571 1.00 0.78 N
ATOM 1934 CA PHE A 246 22.785 42.836 40.836 1.00 0.78 C
ATOM 1935 C PHE A 246 23.515 41.885 41.764 1.00 0.78 C
ATOM 1936 O PHE A 246 23.479 42.032 42.985 1.00 0.78 O
ATOM 1937 CB PHE A 246 23.706 44.002 40.346 1.00 0.78 C
ATOM 1938 CG PHE A 246 24.447 44.697 41.470 1.00 0.78 C
ATOM 1939 CD1 PHE A 246 23.788 45.547 42.370 1.00 0.78 C
ATOM 1940 CD2 PHE A 246 25.804 44.422 41.691 1.00 0.78 C
ATOM 1941 CE1 PHE A 246 24.453 46.080 43.481 1.00 0.78 C
ATOM 1942 CE2 PHE A 246 26.479 44.959 42.793 1.00 0.78 C

ATOM 1943 CZ PHE A 246 25.799 45.780 43.697 1.00 0.78 C
ATOM 1944 N GLY A 247 24.188 40.864 41.209 1.00 0.84 N
ATOM 1945 CA GLY A 247 25.109 40.052 41.992 1.00 0.84 C
ATOM 1946 C GLY A 247 26.497 40.601 41.923 1.00 0.84 C
ATOM 1947 O GLY A 247 26.847 41.317 40.987 1.00 0.84 O
ATOM 1948 N LYS A 248 27.357 40.215 42.874 1.00 0.85 N
ATOM 1949 CA LYS A 248 28.736 40.627 42.840 1.00 0.85 C
ATOM 1950 C LYS A 248 29.645 39.595 43.454 1.00 0.85 C
ATOM 1951 O LYS A 248 29.253 38.794 44.302 1.00 0.85 O
ATOM 1952 CB LYS A 248 28.949 41.987 43.551 1.00 0.85 C
ATOM 1953 CG LYS A 248 28.614 41.989 45.053 1.00 0.85 C
ATOM 1954 CD LYS A 248 28.591 43.410 45.638 1.00 0.85 C
ATOM 1955 CE LYS A 248 28.364 43.480 47.151 1.00 0.85 C
ATOM 1956 NZ LYS A 248 26.956 43.204 47.451 1.00 0.85 N
ATOM 1957 N PHE A 249 30.910 39.606 43.012 1.00 0.88 N
ATOM 1958 CA PHE A 249 31.979 38.834 43.587 1.00 0.88 C
ATOM 1959 C PHE A 249 33.066 39.830 43.943 1.00 0.88 C
ATOM 1960 O PHE A 249 33.597 40.526 43.081 1.00 0.88 O
ATOM 1961 CB PHE A 249 32.466 37.782 42.557 1.00 0.88 C
ATOM 1962 CG PHE A 249 33.526 36.861 43.082 1.00 0.88 C
ATOM 1963 CD1 PHE A 249 33.207 35.892 44.040 1.00 0.88 C
ATOM 1964 CD2 PHE A 249 34.838 36.924 42.590 1.00 0.88 C
ATOM 1965 CE1 PHE A 249 34.164 34.967 44.471 1.00 0.88 C
ATOM 1966 CE2 PHE A 249 35.802 36.003 43.017 1.00 0.88 C
ATOM 1967 CZ PHE A 249 35.459 35.012 43.943 1.00 0.88 C
ATOM 1968 N ILE A 250 33.397 39.941 45.242 1.00 0.85 N
ATOM 1969 CA ILE A 250 34.365 40.902 45.737 1.00 0.85 C
ATOM 1970 C ILE A 250 35.657 40.184 45.961 1.00 0.85 C
ATOM 1971 O ILE A 250 35.754 39.345 46.850 1.00 0.85 O
ATOM 1972 CB ILE A 250 33.957 41.512 47.078 1.00 0.85 C
ATOM 1973 CG1 ILE A 250 32.519 42.079 47.040 1.00 0.85 C
ATOM 1974 CG2 ILE A 250 34.985 42.591 47.502 1.00 0.85 C
ATOM 1975 CD1 ILE A 250 32.369 43.245 46.070 1.00 0.85 C
ATOM 1976 N ARG A 251 36.706 40.495 45.191 1.00 0.78 N
ATOM 1977 CA ARG A 251 38.010 39.964 45.488 1.00 0.78 C
ATOM 1978 C ARG A 251 38.740 40.891 46.433 1.00 0.78 C
ATOM 1979 O ARG A 251 39.116 41.993 46.052 1.00 0.78 O
ATOM 1980 CB ARG A 251 38.884 39.827 44.226 1.00 0.78 C
ATOM 1981 CG ARG A 251 38.341 38.885 43.146 1.00 0.78 C
ATOM 1982 CD ARG A 251 39.454 38.391 42.219 1.00 0.78 C
ATOM 1983 NE ARG A 251 38.827 37.527 41.189 1.00 0.78 N
ATOM 1984 CZ ARG A 251 38.268 37.985 40.061 1.00 0.78 C
ATOM 1985 NH1 ARG A 251 37.684 37.118 39.249 1.00 0.78 N
ATOM 1986 NH2 ARG A 251 38.239 39.261 39.684 1.00 0.78 N

ATOM 1987 N ILE A 252 39.000 40.457 47.677 1.00 0.83 N
ATOM 1988 CA ILE A 252 39.879 41.172 48.582 1.00 0.83 C
ATOM 1989 C ILE A 252 41.269 40.641 48.338 1.00 0.83 C
ATOM 1990 O ILE A 252 41.498 39.434 48.407 1.00 0.83 O
ATOM 1991 CB ILE A 252 39.448 40.986 50.031 1.00 0.83 C
ATOM 1992 CG1 ILE A 252 38.003 41.499 50.228 1.00 0.83 C
ATOM 1993 CG2 ILE A 252 40.406 41.708 50.984 1.00 0.83 C
ATOM 1994 CD1 ILE A 252 37.816 43.008 49.990 1.00 0.83 C
ATOM 1995 N HIS A 253 42.217 41.522 47.967 1.00 0.79 N
ATOM 1996 CA HIS A 253 43.515 41.133 47.456 1.00 0.79 C
ATOM 1997 C HIS A 253 44.577 41.368 48.498 1.00 0.79 C
ATOM 1998 O HIS A 253 44.580 42.378 49.196 1.00 0.79 O
ATOM 1999 CB HIS A 253 43.915 41.960 46.206 1.00 0.79 C
ATOM 2000 CG HIS A 253 43.024 41.804 45.006 1.00 0.79 C
ATOM 2001 ND1 HIS A 253 42.918 42.846 44.105 1.00 0.79 N
ATOM 2002 CD2 HIS A 253 42.277 40.758 44.581 1.00 0.79 C
ATOM 2003 CE1 HIS A 253 42.096 42.428 43.172 1.00 0.79 C
ATOM 2004 NE2 HIS A 253 41.686 41.162 43.403 1.00 0.79 N
ATOM 2005 N PHE A 254 45.518 40.421 48.619 1.00 0.81 N
ATOM 2006 CA PHE A 254 46.531 40.435 49.646 1.00 0.81 C
ATOM 2007 C PHE A 254 47.875 40.268 49.005 1.00 0.81 C
ATOM 2008 O PHE A 254 48.021 39.569 48.000 1.00 0.81 O
ATOM 2009 CB PHE A 254 46.373 39.278 50.662 1.00 0.81 C
ATOM 2010 CG PHE A 254 45.025 39.322 51.319 1.00 0.81 C
ATOM 2011 CD1 PHE A 254 43.926 38.691 50.721 1.00 0.81 C
ATOM 2012 CD2 PHE A 254 44.838 39.958 52.552 1.00 0.81 C
ATOM 2013 CE1 PHE A 254 42.675 38.685 51.339 1.00 0.81 C
ATOM 2014 CE2 PHE A 254 43.586 39.944 53.180 1.00 0.81 C
ATOM 2015 CZ PHE A 254 42.506 39.298 52.580 1.00 0.81 C
ATOM 2016 N GLY A 255 48.901 40.908 49.589 1.00 0.81 N
ATOM 2017 CA GLY A 255 50.280 40.641 49.236 1.00 0.81 C
ATOM 2018 C GLY A 255 50.829 39.369 49.819 1.00 0.81 C
ATOM 2019 O GLY A 255 50.163 38.664 50.570 1.00 0.81 O
ATOM 2020 N ALA A 256 52.108 39.052 49.523 1.00 0.79 N
ATOM 2021 CA ALA A 256 52.763 37.842 49.998 1.00 0.79 C
ATOM 2022 C ALA A 256 52.880 37.727 51.496 1.00 0.79 C
ATOM 2023 O ALA A 256 52.890 36.638 52.058 1.00 0.79 O
ATOM 2024 CB ALA A 256 54.163 37.708 49.361 1.00 0.79 C
ATOM 2025 N THR A 257 52.928 38.879 52.166 1.00 0.75 N
ATOM 2026 CA THR A 257 53.013 38.987 53.604 1.00 0.75 C
ATOM 2027 C THR A 257 51.656 38.883 54.280 1.00 0.75 C
ATOM 2028 O THR A 257 51.585 38.816 55.504 1.00 0.75 O
ATOM 2029 CB THR A 257 53.624 40.323 54.008 1.00 0.75 C
ATOM 2030 OG1 THR A 257 52.908 41.417 53.441 1.00 0.75 O

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ATOM   2031  CG2 THR A 257     55.050  40.409  53.450  1.00  0.75         C
ATOM   2032  N   GLY A 258     50.535  38.880  53.514  1.00  0.82         N
ATOM   2033  CA  GLY A 258     49.194  38.769  54.067  1.00  0.82         C
ATOM   2034  C   GLY A 258     48.520  40.074  54.339  1.00  0.82         C
ATOM   2035  O   GLY A 258     47.368  40.109  54.740  1.00  0.82         O
ATOM   2036  N   LYS A 259     49.176  41.217  54.093  1.00  0.76         N
ATOM   2037  CA  LYS A 259     48.493  42.490  54.207  1.00  0.76         C
ATOM   2038  C   LYS A 259     47.636  42.690  52.992  1.00  0.76         C
ATOM   2039  O   LYS A 259     48.003  42.265  51.897  1.00  0.76         O
ATOM   2040  CB  LYS A 259     49.452  43.692  54.323  1.00  0.76         C
ATOM   2041  CG  LYS A 259     50.449  43.580  55.477  1.00  0.76         C
ATOM   2042  CD  LYS A 259     49.778  43.565  56.847  1.00  0.76         C
ATOM   2043  CE  LYS A 259     50.806  43.524  57.960  1.00  0.76         C
ATOM   2044  NZ  LYS A 259     50.074  43.440  59.227  1.00  0.76         N
ATOM   2045  N   LEU A 260     46.464  43.334  53.143  1.00  0.76         N
ATOM   2046  CA  LEU A 260     45.642  43.688  52.010  1.00  0.76         C
ATOM   2047  C   LEU A 260     46.348  44.708  51.173  1.00  0.76         C
ATOM   2048  O   LEU A 260     46.958  45.642  51.681  1.00  0.76         O
ATOM   2049  CB  LEU A 260     44.281  44.248  52.464  1.00  0.76         C
ATOM   2050  CG  LEU A 260     43.040  44.293  51.538  1.00  0.76         C
ATOM   2051  CD1 LEU A 260     41.683  44.486  52.224  1.00  0.76         C
ATOM   2052  CD2 LEU A 260     43.077  45.520  50.654  1.00  0.76         C
ATOM   2053  N   ALA A 261     46.267  44.521  49.866  1.00  0.79         N
ATOM   2054  CA  ALA A 261     46.974  45.338  48.945  1.00  0.79         C
ATOM   2055  C   ALA A 261     46.024  46.034  48.006  1.00  0.79         C
ATOM   2056  O   ALA A 261     46.371  47.075  47.460  1.00  0.79         O
ATOM   2057  CB  ALA A 261     47.908  44.367  48.224  1.00  0.79         C
ATOM   2058  N   SER A 262     44.777  45.521  47.887  1.00  0.77         N
ATOM   2059  CA  SER A 262     43.777  46.055  46.991  1.00  0.77         C
ATOM   2060  C   SER A 262     42.460  45.297  47.035  1.00  0.77         C
ATOM   2061  O   SER A 262     42.240  44.411  47.862  1.00  0.77         O
ATOM   2062  CB  SER A 262     44.291  46.127  45.540  1.00  0.77         C
ATOM   2063  OG  SER A 262     44.920  44.934  45.073  1.00  0.77         O
ATOM   2064  N   ALA A 263     41.516  45.653  46.145  1.00  0.86         N
ATOM   2065  CA  ALA A 263     40.293  44.912  45.984  1.00  0.86         C
ATOM   2066  C   ALA A 263     39.757  45.120  44.580  1.00  0.86         C
ATOM   2067  O   ALA A 263     40.092  46.095  43.919  1.00  0.86         O
ATOM   2068  CB  ALA A 263     39.235  45.338  47.033  1.00  0.86         C
ATOM   2069  N   ASP A 264     38.918  44.191  44.091  1.00  0.84         N
ATOM   2070  CA  ASP A 264     38.286  44.305  42.795  1.00  0.84         C
ATOM   2071  C   ASP A 264     36.872  43.772  42.935  1.00  0.84         C
ATOM   2072  O   ASP A 264     36.634  42.755  43.591  1.00  0.84         O
ATOM   2073  CB  ASP A 264     39.111  43.534  41.730  1.00  0.84         C
ATOM   2074  CG  ASP A 264     38.527  43.644  40.334  1.00  0.84         C
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ATOM 2075 OD1 ASP A 264 37.551 42.894 40.080 1.00 0.84 O
ATOM 2076 OD2 ASP A 264 39.094 44.397 39.511 1.00 0.84 O
ATOM 2077 N ILE A 265 35.902 44.493 42.351 1.00 0.87 N
ATOM 2078 CA ILE A 265 34.503 44.142 42.352 1.00 0.87 C
ATOM 2079 C ILE A 265 34.122 43.687 40.964 1.00 0.87 C
ATOM 2080 O ILE A 265 34.014 44.485 40.033 1.00 0.87 O
ATOM 2081 CB ILE A 265 33.628 45.346 42.699 1.00 0.87 C
ATOM 2082 CG1 ILE A 265 33.972 45.909 44.094 1.00 0.87 C
ATOM 2083 CG2 ILE A 265 32.127 44.973 42.608 1.00 0.87 C
ATOM 2084 CD1 ILE A 265 33.568 47.376 44.250 1.00 0.87 C
ATOM 2085 N GLU A 266 33.801 42.390 40.818 1.00 0.77 N
ATOM 2086 CA GLU A 266 33.134 41.908 39.629 1.00 0.77 C
ATOM 2087 C GLU A 266 31.646 42.047 39.868 1.00 0.77 C
ATOM 2088 O GLU A 266 31.077 41.374 40.730 1.00 0.77 O
ATOM 2089 CB GLU A 266 33.433 40.418 39.345 1.00 0.77 C
ATOM 2090 CG GLU A 266 34.916 40.100 39.037 1.00 0.77 C
ATOM 2091 CD GLU A 266 35.431 40.317 37.611 1.00 0.77 C
ATOM 2092 OE1 GLU A 266 34.699 40.720 36.669 1.00 0.77 O
ATOM 2093 OE2 GLU A 266 36.589 39.822 37.419 1.00 0.77 O
ATOM 2094 N THR A 267 30.972 42.942 39.123 1.00 0.84 N
ATOM 2095 CA THR A 267 29.520 43.047 39.132 1.00 0.84 C
ATOM 2096 C THR A 267 28.943 42.221 38.013 1.00 0.84 C
ATOM 2097 O THR A 267 29.504 42.080 36.927 1.00 0.84 O
ATOM 2098 CB THR A 267 28.940 44.459 39.044 1.00 0.84 C
ATOM 2099 OG1 THR A 267 29.445 45.185 37.933 1.00 0.84 O
ATOM 2100 CG2 THR A 267 29.354 45.231 40.298 1.00 0.84 C
ATOM 2101 N TYR A 268 27.771 41.629 38.267 1.00 0.82 N
ATOM 2102 CA TYR A 268 27.053 40.836 37.298 1.00 0.82 C
ATOM 2103 C TYR A 268 25.863 41.643 36.838 1.00 0.82 C
ATOM 2104 O TYR A 268 25.655 42.760 37.298 1.00 0.82 O
ATOM 2105 CB TYR A 268 26.619 39.471 37.883 1.00 0.82 C
ATOM 2106 CG TYR A 268 27.841 38.697 38.298 1.00 0.82 C
ATOM 2107 CD1 TYR A 268 28.829 38.351 37.362 1.00 0.82 C
ATOM 2108 CD2 TYR A 268 28.037 38.343 39.641 1.00 0.82 C
ATOM 2109 CE1 TYR A 268 29.978 37.658 37.760 1.00 0.82 C
ATOM 2110 CE2 TYR A 268 29.201 37.681 40.049 1.00 0.82 C
ATOM 2111 CZ TYR A 268 30.170 37.339 39.103 1.00 0.82 C
ATOM 2112 OH TYR A 268 31.344 36.682 39.500 1.00 0.82 O
ATOM 2113 N LEU A 269 25.090 41.115 35.863 1.00 0.69 N
ATOM 2114 CA LEU A 269 23.956 41.791 35.243 1.00 0.69 C
ATOM 2115 C LEU A 269 22.982 42.472 36.187 1.00 0.69 C
ATOM 2116 O LEU A 269 22.472 41.863 37.128 1.00 0.69 O
ATOM 2117 CB LEU A 269 23.148 40.814 34.353 1.00 0.69 C
ATOM 2118 CG LEU A 269 23.902 40.312 33.113 1.00 0.69 C

ATOM 2119 CD1 LEU A 269 23.117 39.170 32.453 1.00 0.69 C
ATOM 2120 CD2 LEU A 269 24.127 41.455 32.112 1.00 0.69 C
ATOM 2121 N LEU A 270 22.701 43.760 35.924 1.00 0.82 N
ATOM 2122 CA LEU A 270 21.786 44.539 36.710 1.00 0.82 C
ATOM 2123 C LEU A 270 20.373 44.390 36.170 1.00 0.82 C
ATOM 2124 O LEU A 270 20.134 44.333 34.962 1.00 0.82 O
ATOM 2125 CB LEU A 270 22.216 46.017 36.620 1.00 0.82 C
ATOM 2126 CG LEU A 270 21.382 47.045 37.406 1.00 0.82 C
ATOM 2127 CD1 LEU A 270 21.566 46.903 38.922 1.00 0.82 C
ATOM 2128 CD2 LEU A 270 21.749 48.463 36.949 1.00 0.82 C
ATOM 2129 N GLU A 271 19.369 44.350 37.067 1.00 0.72 N
ATOM 2130 CA GLU A 271 17.959 44.387 36.719 1.00 0.72 C
ATOM 2131 C GLU A 271 17.545 45.782 36.226 1.00 0.72 C
ATOM 2132 O GLU A 271 16.864 46.567 36.889 1.00 0.72 O
ATOM 2133 CB GLU A 271 17.117 43.964 37.946 1.00 0.72 C
ATOM 2134 CG GLU A 271 15.598 43.752 37.720 1.00 0.72 C
ATOM 2135 CD GLU A 271 14.848 43.737 39.044 1.00 0.72 C
ATOM 2136 OE1 GLU A 271 15.107 44.621 39.906 1.00 0.72 O
ATOM 2137 OE2 GLU A 271 14.012 42.832 39.285 1.00 0.72 O
ATOM 2138 N LYS A 272 17.958 46.149 35.001 1.00 0.78 N
ATOM 2139 CA LYS A 272 17.694 47.440 34.389 1.00 0.78 C
ATOM 2140 C LYS A 272 16.232 47.791 34.251 1.00 0.78 C
ATOM 2141 O LYS A 272 15.842 48.953 34.284 1.00 0.78 O
ATOM 2142 CB LYS A 272 18.184 47.464 32.938 1.00 0.78 C
ATOM 2143 CG LYS A 272 19.680 47.303 32.779 1.00 0.78 C
ATOM 2144 CD LYS A 272 20.150 47.453 31.316 1.00 0.78 C
ATOM 2145 CE LYS A 272 19.375 46.763 30.188 1.00 0.78 C
ATOM 2146 NZ LYS A 272 20.031 47.038 28.898 1.00 0.78 N
ATOM 2147 N SER A 273 15.384 46.765 34.057 1.00 0.72 N
ATOM 2148 CA SER A 273 13.947 46.876 33.878 1.00 0.72 C
ATOM 2149 C SER A 273 13.259 47.587 35.024 1.00 0.72 C
ATOM 2150 O SER A 273 12.263 48.270 34.815 1.00 0.72 O
ATOM 2151 CB SER A 273 13.272 45.503 33.628 1.00 0.72 C
ATOM 2152 OG SER A 273 13.430 44.621 34.742 1.00 0.72 O
ATOM 2153 N ARG A 274 13.826 47.513 36.246 1.00 0.76 N
ATOM 2154 CA ARG A 274 13.305 48.197 37.408 1.00 0.76 C
ATOM 2155 C ARG A 274 13.341 49.718 37.327 1.00 0.76 C
ATOM 2156 O ARG A 274 12.562 50.416 37.976 1.00 0.76 O
ATOM 2157 CB ARG A 274 14.075 47.753 38.661 1.00 0.76 C
ATOM 2158 CG ARG A 274 13.596 48.440 39.956 1.00 0.76 C
ATOM 2159 CD ARG A 274 14.219 47.889 41.227 1.00 0.76 C
ATOM 2160 NE ARG A 274 13.831 46.451 41.310 1.00 0.76 N
ATOM 2161 CZ ARG A 274 12.670 45.994 41.784 1.00 0.76 C
ATOM 2162 NH1 ARG A 274 11.787 46.751 42.418 1.00 0.76 N

ATOM 2163 NH2 ARG A 274 12.320 44.724 41.597 1.00 0.76 N
ATOM 2164 N VAL A 275 14.238 50.294 36.499 1.00 0.90 N
ATOM 2165 CA VAL A 275 14.273 51.732 36.260 1.00 0.90 C
ATOM 2166 C VAL A 275 12.963 52.235 35.669 1.00 0.90 C
ATOM 2167 O VAL A 275 12.474 53.299 36.039 1.00 0.90 O
ATOM 2168 CB VAL A 275 15.417 52.157 35.342 1.00 0.90 C
ATOM 2169 CG1 VAL A 275 15.481 53.699 35.230 1.00 0.90 C
ATOM 2170 CG2 VAL A 275 16.757 51.642 35.894 1.00 0.90 C
ATOM 2171 N THR A 276 12.346 51.458 34.751 1.00 0.82 N
ATOM 2172 CA THR A 276 11.156 51.899 34.043 1.00 0.82 C
ATOM 2173 C THR A 276 9.865 51.288 34.560 1.00 0.82 C
ATOM 2174 O THR A 276 8.783 51.764 34.220 1.00 0.82 O
ATOM 2175 CB THR A 276 11.219 51.636 32.538 1.00 0.82 C
ATOM 2176 OG1 THR A 276 11.384 50.266 32.204 1.00 0.82 O
ATOM 2177 CG2 THR A 276 12.443 52.324 31.927 1.00 0.82 C
ATOM 2178 N PHE A 277 9.921 50.243 35.409 1.00 0.76 N
ATOM 2179 CA PHE A 277 8.729 49.582 35.900 1.00 0.76 C
ATOM 2180 C PHE A 277 8.973 49.041 37.294 1.00 0.76 C
ATOM 2181 O PHE A 277 10.009 48.448 37.579 1.00 0.76 O
ATOM 2182 CB PHE A 277 8.322 48.433 34.926 1.00 0.76 C
ATOM 2183 CG PHE A 277 7.248 47.529 35.474 1.00 0.76 C
ATOM 2184 CD1 PHE A 277 5.899 47.899 35.425 1.00 0.76 C
ATOM 2185 CD2 PHE A 277 7.602 46.347 36.145 1.00 0.76 C
ATOM 2186 CE1 PHE A 277 4.917 47.089 36.001 1.00 0.76 C
ATOM 2187 CE2 PHE A 277 6.624 45.535 36.727 1.00 0.76 C
ATOM 2188 CZ PHE A 277 5.276 45.896 36.630 1.00 0.76 C
ATOM 2189 N GLN A 278 7.984 49.189 38.196 1.00 0.79 N
ATOM 2190 CA GLN A 278 8.027 48.553 39.489 1.00 0.79 C
ATOM 2191 C GLN A 278 6.651 48.021 39.801 1.00 0.79 C
ATOM 2192 O GLN A 278 5.645 48.697 39.603 1.00 0.79 O
ATOM 2193 CB GLN A 278 8.462 49.500 40.637 1.00 0.79 C
ATOM 2194 CG GLN A 278 9.693 50.374 40.306 1.00 0.79 C
ATOM 2195 CD GLN A 278 9.351 51.614 39.471 1.00 0.79 C
ATOM 2196 OE1 GLN A 278 8.296 52.228 39.632 1.00 0.79 O
ATOM 2197 NE2 GLN A 278 10.271 52.014 38.566 1.00 0.79 N
ATOM 2198 N LEU A 279 6.579 46.768 40.288 1.00 0.75 N
ATOM 2199 CA LEU A 279 5.394 46.179 40.877 1.00 0.75 C
ATOM 2200 C LEU A 279 4.852 46.960 42.073 1.00 0.75 C
ATOM 2201 O LEU A 279 5.570 47.700 42.742 1.00 0.75 O
ATOM 2202 CB LEU A 279 5.680 44.726 41.332 1.00 0.75 C
ATOM 2203 CG LEU A 279 6.035 43.741 40.201 1.00 0.75 C
ATOM 2204 CD1 LEU A 279 6.536 42.419 40.794 1.00 0.75 C
ATOM 2205 CD2 LEU A 279 4.838 43.465 39.283 1.00 0.75 C
ATOM 2206 N SER A 280 3.541 46.803 42.370 1.00 0.78 N

ATOM 2207 CA SER A 280 2.887 47.353 43.560 1.00 0.78 C
ATOM 2208 C SER A 280 3.658 47.129 44.860 1.00 0.78 C
ATOM 2209 O SER A 280 4.081 46.016 45.154 1.00 0.78 O
ATOM 2210 CB SER A 280 1.452 46.784 43.742 1.00 0.78 C
ATOM 2211 OG SER A 280 0.758 47.393 44.835 1.00 0.78 O
ATOM 2212 N SER A 281 3.861 48.220 45.629 1.00 0.78 N
ATOM 2213 CA SER A 281 4.586 48.300 46.899 1.00 0.78 C
ATOM 2214 C SER A 281 6.087 48.419 46.779 1.00 0.78 C
ATOM 2215 O SER A 281 6.749 48.810 47.745 1.00 0.78 O
ATOM 2216 CB SER A 281 4.213 47.263 48.009 1.00 0.78 C
ATOM 2217 OG SER A 281 5.025 46.080 48.040 1.00 0.78 O
ATOM 2218 N GLU A 282 6.663 48.121 45.601 1.00 0.84 N
ATOM 2219 CA GLU A 282 8.087 48.154 45.401 1.00 0.84 C
ATOM 2220 C GLU A 282 8.578 49.559 45.123 1.00 0.84 C
ATOM 2221 O GLU A 282 7.806 50.493 44.906 1.00 0.84 O
ATOM 2222 CB GLU A 282 8.534 47.192 44.274 1.00 0.84 C
ATOM 2223 CG GLU A 282 8.141 45.724 44.563 1.00 0.84 C
ATOM 2224 CD GLU A 282 9.027 44.695 43.868 1.00 0.84 C
ATOM 2225 OE1 GLU A 282 9.831 45.066 42.969 1.00 0.84 O
ATOM 2226 OE2 GLU A 282 8.990 43.525 44.331 1.00 0.84 O
ATOM 2227 N ARG A 283 9.909 49.740 45.141 1.00 0.79 N
ATOM 2228 CA ARG A 283 10.523 50.986 44.746 1.00 0.79 C
ATOM 2229 C ARG A 283 11.411 50.763 43.551 1.00 0.79 C
ATOM 2230 O ARG A 283 11.871 49.654 43.257 1.00 0.79 O
ATOM 2231 CB ARG A 283 11.368 51.649 45.870 1.00 0.79 C
ATOM 2232 CG ARG A 283 10.519 52.217 47.021 1.00 0.79 C
ATOM 2233 CD ARG A 283 11.059 53.471 47.743 1.00 0.79 C
ATOM 2234 NE ARG A 283 12.535 53.352 48.056 1.00 0.79 N
ATOM 2235 CZ ARG A 283 13.210 54.291 48.746 1.00 0.79 C
ATOM 2236 NH1 ARG A 283 12.575 55.334 49.265 1.00 0.79 N
ATOM 2237 NH2 ARG A 283 14.529 54.226 48.935 1.00 0.79 N
ATOM 2238 N SER A 284 11.679 51.862 42.817 1.00 0.87 N
ATOM 2239 CA SER A 284 12.828 51.997 41.938 1.00 0.87 C
ATOM 2240 C SER A 284 14.122 51.876 42.742 1.00 0.87 C
ATOM 2241 O SER A 284 14.123 51.624 43.947 1.00 0.87 O
ATOM 2242 CB SER A 284 12.786 53.278 41.040 1.00 0.87 C
ATOM 2243 OG SER A 284 13.084 54.481 41.745 1.00 0.87 O
ATOM 2244 N TYR A 285 15.290 52.020 42.106 1.00 0.90 N
ATOM 2245 CA TYR A 285 16.548 52.077 42.830 1.00 0.90 C
ATOM 2246 C TYR A 285 16.634 53.228 43.821 1.00 0.90 C
ATOM 2247 O TYR A 285 16.107 54.313 43.577 1.00 0.90 O
ATOM 2248 CB TYR A 285 17.725 52.176 41.844 1.00 0.90 C
ATOM 2249 CG TYR A 285 17.808 50.904 41.066 1.00 0.90 C
ATOM 2250 CD1 TYR A 285 18.407 49.807 41.682 1.00 0.90 C

ATOM 2251 CD2 TYR A 285 17.294 50.761 39.765 1.00 0.90 C
ATOM 2252 CE1 TYR A 285 18.499 48.585 41.022 1.00 0.90 C
ATOM 2253 CE2 TYR A 285 17.379 49.525 39.101 1.00 0.90 C
ATOM 2254 CZ TYR A 285 17.986 48.438 39.739 1.00 0.90 C
ATOM 2255 OH TYR A 285 18.117 47.180 39.133 1.00 0.90 O
ATOM 2256 N HIS A 286 17.311 53.026 44.975 1.00 0.88 N
ATOM 2257 CA HIS A 286 17.286 53.976 46.083 1.00 0.88 C
ATOM 2258 C HIS A 286 17.745 55.361 45.718 1.00 0.88 C
ATOM 2259 O HIS A 286 17.207 56.350 46.212 1.00 0.88 O
ATOM 2260 CB HIS A 286 18.159 53.561 47.276 1.00 0.88 C
ATOM 2261 CG HIS A 286 17.845 52.222 47.831 1.00 0.88 C
ATOM 2262 ND1 HIS A 286 16.544 51.809 48.094 1.00 0.88 N
ATOM 2263 CD2 HIS A 286 18.738 51.297 48.249 1.00 0.88 C
ATOM 2264 CE1 HIS A 286 16.695 50.624 48.669 1.00 0.88 C
ATOM 2265 NE2 HIS A 286 17.999 50.275 48.786 1.00 0.88 N
ATOM 2266 N ILE A 287 18.729 55.459 44.798 1.00 0.86 N
ATOM 2267 CA ILE A 287 19.315 56.704 44.360 1.00 0.86 C
ATOM 2268 C ILE A 287 18.286 57.724 43.920 1.00 0.86 C
ATOM 2269 O ILE A 287 18.371 58.868 44.336 1.00 0.86 O
ATOM 2270 CB ILE A 287 20.404 56.543 43.295 1.00 0.86 C
ATOM 2271 CG1 ILE A 287 21.212 57.848 43.094 1.00 0.86 C
ATOM 2272 CG2 ILE A 287 19.848 56.005 41.956 1.00 0.86 C
ATOM 2273 CD1 ILE A 287 22.096 58.217 44.295 1.00 0.86 C
ATOM 2274 N PHE A 288 17.227 57.352 43.166 1.00 0.83 N
ATOM 2275 CA PHE A 288 16.224 58.290 42.698 1.00 0.83 C
ATOM 2276 C PHE A 288 15.577 59.037 43.849 1.00 0.83 C
ATOM 2277 O PHE A 288 15.537 60.268 43.872 1.00 0.83 O
ATOM 2278 CB PHE A 288 15.123 57.524 41.917 1.00 0.83 C
ATOM 2279 CG PHE A 288 15.670 57.027 40.612 1.00 0.83 C
ATOM 2280 CD1 PHE A 288 15.879 57.934 39.567 1.00 0.83 C
ATOM 2281 CD2 PHE A 288 15.992 55.677 40.411 1.00 0.83 C
ATOM 2282 CE1 PHE A 288 16.391 57.506 38.337 1.00 0.83 C
ATOM 2283 CE2 PHE A 288 16.515 55.242 39.188 1.00 0.83 C
ATOM 2284 CZ PHE A 288 16.710 56.157 38.148 1.00 0.83 C
ATOM 2285 N TYR A 289 15.156 58.281 44.881 1.00 0.84 N
ATOM 2286 CA TYR A 289 14.521 58.782 46.081 1.00 0.84 C
ATOM 2287 C TYR A 289 15.467 59.588 46.903 1.00 0.84 C
ATOM 2288 O TYR A 289 15.106 60.660 47.373 1.00 0.84 O
ATOM 2289 CB TYR A 289 13.937 57.669 46.968 1.00 0.84 C
ATOM 2290 CG TYR A 289 13.036 56.827 46.134 1.00 0.84 C
ATOM 2291 CD1 TYR A 289 13.536 55.656 45.559 1.00 0.84 C
ATOM 2292 CD2 TYR A 289 11.718 57.219 45.859 1.00 0.84 C
ATOM 2293 CE1 TYR A 289 12.720 54.866 44.751 1.00 0.84 C
ATOM 2294 CE2 TYR A 289 10.903 56.431 45.035 1.00 0.84 C

ATOM 2295 CZ TYR A 289 11.397 55.240 44.499 1.00 0.84 C
ATOM 2296 OH TYR A 289 10.546 54.417 43.734 1.00 0.84 O
ATOM 2297 N GLN A 290 16.725 59.117 47.025 1.00 0.80 N
ATOM 2298 CA GLN A 290 17.766 59.839 47.710 1.00 0.80 C
ATOM 2299 C GLN A 290 18.018 61.191 47.093 1.00 0.80 C
ATOM 2300 O GLN A 290 18.005 62.211 47.775 1.00 0.80 O
ATOM 2301 CB GLN A 290 19.082 59.052 47.659 1.00 0.80 C
ATOM 2302 CG GLN A 290 19.082 57.792 48.539 1.00 0.80 C
ATOM 2303 CD GLN A 290 20.405 57.040 48.486 1.00 0.80 C
ATOM 2304 OE1 GLN A 290 20.514 55.874 48.850 1.00 0.80 O
ATOM 2305 NE2 GLN A 290 21.485 57.711 48.031 1.00 0.80 N
ATOM 2306 N ILE A 291 18.175 61.242 45.753 1.00 0.76 N
ATOM 2307 CA ILE A 291 18.286 62.463 44.995 1.00 0.76 C
ATOM 2308 C ILE A 291 17.123 63.399 45.313 1.00 0.76 C
ATOM 2309 O ILE A 291 17.296 64.471 45.881 1.00 0.76 O
ATOM 2310 CB ILE A 291 18.465 62.168 43.506 1.00 0.76 C
ATOM 2311 CG1 ILE A 291 19.746 61.404 43.124 1.00 0.76 C
ATOM 2312 CG2 ILE A 291 18.595 63.446 42.708 1.00 0.76 C
ATOM 2313 CD1 ILE A 291 21.063 62.059 43.529 1.00 0.76 C
ATOM 2314 N MET A 292 15.868 63.021 45.065 1.00 0.75 N
ATOM 2315 CA MET A 292 14.730 63.899 45.290 1.00 0.75 C
ATOM 2316 C MET A 292 14.557 64.434 46.695 1.00 0.75 C
ATOM 2317 O MET A 292 14.171 65.585 46.854 1.00 0.75 O
ATOM 2318 CB MET A 292 13.446 63.248 44.782 1.00 0.75 C
ATOM 2319 CG MET A 292 13.463 63.041 43.258 1.00 0.75 C
ATOM 2320 SD MET A 292 11.984 62.200 42.656 1.00 0.75 S
ATOM 2321 CE MET A 292 12.507 60.610 43.336 1.00 0.75 C
ATOM 2322 N SER A 293 14.887 63.646 47.722 1.00 0.80 N
ATOM 2323 CA SER A 293 14.797 64.065 49.104 1.00 0.80 C
ATOM 2324 C SER A 293 15.906 64.963 49.645 1.00 0.80 C
ATOM 2325 O SER A 293 15.655 65.757 50.544 1.00 0.80 O
ATOM 2326 CB SER A 293 14.743 62.808 49.989 1.00 0.80 C
ATOM 2327 OG SER A 293 15.943 62.058 49.840 1.00 0.80 O
ATOM 2328 N ASN A 294 17.163 64.852 49.159 1.00 0.47 N
ATOM 2329 CA ASN A 294 18.285 65.524 49.778 1.00 0.47 C
ATOM 2330 C ASN A 294 18.946 66.558 48.929 1.00 0.47 C
ATOM 2331 O ASN A 294 19.877 67.228 49.367 1.00 0.47 O
ATOM 2332 CB ASN A 294 19.338 64.468 49.992 1.00 0.47 C
ATOM 2333 CG ASN A 294 20.620 64.863 50.708 1.00 0.47 C
ATOM 2334 OD1 ASN A 294 20.557 64.998 51.915 1.00 0.47 O
ATOM 2335 ND2 ASN A 294 21.763 65.014 49.995 1.00 0.47 N
ATOM 2336 N LYS A 295 18.542 66.723 47.667 1.00 0.49 N
ATOM 2337 CA LYS A 295 19.230 67.693 46.847 1.00 0.49 C
ATOM 2338 C LYS A 295 19.183 69.122 47.402 1.00 0.49 C

ATOM 2339 O LYS A 295 18.215 69.536 48.032 1.00 0.49 O
ATOM 2340 CB LYS A 295 18.707 67.707 45.400 1.00 0.49 C
ATOM 2341 CG LYS A 295 19.166 66.550 44.502 1.00 0.49 C
ATOM 2342 CD LYS A 295 18.803 66.734 43.034 1.00 0.49 C
ATOM 2343 CE LYS A 295 17.350 67.056 42.792 1.00 0.49 C
ATOM 2344 NZ LYS A 295 16.455 65.978 43.215 1.00 0.49 N
ATOM 2345 N LYS A 296 20.263 69.911 47.189 1.00 0.48 N
ATOM 2346 CA LYS A 296 20.312 71.320 47.560 1.00 0.48 C
ATOM 2347 C LYS A 296 19.142 72.122 46.976 1.00 0.48 C
ATOM 2348 O LYS A 296 18.599 71.698 45.955 1.00 0.48 O
ATOM 2349 CB LYS A 296 21.645 72.009 47.138 1.00 0.48 C
ATOM 2350 CG LYS A 296 22.891 71.459 47.831 1.00 0.48 C
ATOM 2351 CD LYS A 296 24.170 72.170 47.352 1.00 0.48 C
ATOM 2352 CE LYS A 296 25.420 71.678 48.089 1.00 0.48 C
ATOM 2353 NZ LYS A 296 26.636 72.381 47.614 1.00 0.48 N
ATOM 2354 N PRO A 297 18.729 73.262 47.535 1.00 0.54 N
ATOM 2355 CA PRO A 297 17.534 73.995 47.116 1.00 0.54 C
ATOM 2356 C PRO A 297 17.454 74.250 45.631 1.00 0.54 C
ATOM 2357 O PRO A 297 16.448 73.941 45.011 1.00 0.54 O
ATOM 2358 CB PRO A 297 17.596 75.318 47.894 1.00 0.54 C
ATOM 2359 CG PRO A 297 18.471 75.035 49.120 1.00 0.54 C
ATOM 2360 CD PRO A 297 19.336 73.841 48.729 1.00 0.54 C
ATOM 2361 N GLU A 298 18.561 74.757 45.062 1.00 0.57 N
ATOM 2362 CA GLU A 298 18.673 75.068 43.660 1.00 0.57 C
ATOM 2363 C GLU A 298 19.494 74.041 42.910 1.00 0.57 C
ATOM 2364 O GLU A 298 19.658 74.096 41.701 1.00 0.57 O
ATOM 2365 CB GLU A 298 19.240 76.480 43.439 1.00 0.57 C
ATOM 2366 CG GLU A 298 18.360 77.584 44.071 1.00 0.57 C
ATOM 2367 CD GLU A 298 18.922 78.979 43.816 1.00 0.57 C
ATOM 2368 OE1 GLU A 298 18.331 79.955 44.345 1.00 0.57 O
ATOM 2369 OE2 GLU A 298 19.975 79.075 43.132 1.00 0.57 O
ATOM 2370 N LEU A 299 19.956 72.968 43.584 1.00 0.56 N
ATOM 2371 CA LEU A 299 20.325 71.746 42.887 1.00 0.56 C
ATOM 2372 C LEU A 299 19.096 71.130 42.241 1.00 0.56 C
ATOM 2373 O LEU A 299 19.120 70.644 41.114 1.00 0.56 O
ATOM 2374 CB LEU A 299 20.930 70.728 43.875 1.00 0.56 C
ATOM 2375 CG LEU A 299 21.388 69.385 43.308 1.00 0.56 C
ATOM 2376 CD1 LEU A 299 22.378 69.537 42.165 1.00 0.56 C
ATOM 2377 CD2 LEU A 299 21.998 68.489 44.399 1.00 0.56 C
ATOM 2378 N ILE A 300 17.963 71.187 42.970 1.00 0.68 N
ATOM 2379 CA ILE A 300 16.641 70.868 42.490 1.00 0.68 C
ATOM 2380 C ILE A 300 16.238 71.742 41.311 1.00 0.68 C
ATOM 2381 O ILE A 300 15.788 71.208 40.302 1.00 0.68 O
ATOM 2382 CB ILE A 300 15.643 70.941 43.648 1.00 0.68 C

ATOM 2383 CG1 ILE A 300 15.845 69.769 44.623 1.00 0.68 C
ATOM 2384 CG2 ILE A 300 14.237 70.822 43.093 1.00 0.68 C
ATOM 2385 CD1 ILE A 300 15.009 69.751 45.904 1.00 0.68 C
ATOM 2386 N ASP A 301 16.465 73.069 41.389 1.00 0.70 N
ATOM 2387 CA ASP A 301 16.173 74.025 40.331 1.00 0.70 C
ATOM 2388 C ASP A 301 17.010 73.842 39.091 1.00 0.70 C
ATOM 2389 O ASP A 301 16.479 73.806 37.986 1.00 0.70 O
ATOM 2390 CB ASP A 301 16.362 75.473 40.830 1.00 0.70 C
ATOM 2391 CG ASP A 301 15.240 75.816 41.794 1.00 0.70 C
ATOM 2392 OD1 ASP A 301 14.251 75.040 41.859 1.00 0.70 O
ATOM 2393 OD2 ASP A 301 15.343 76.875 42.452 1.00 0.70 O
ATOM 2394 N LEU A 302 18.338 73.644 39.242 1.00 0.62 N
ATOM 2395 CA LEU A 302 19.245 73.365 38.142 1.00 0.62 C
ATOM 2396 C LEU A 302 18.902 72.080 37.412 1.00 0.62 C
ATOM 2397 O LEU A 302 19.121 71.971 36.210 1.00 0.62 O
ATOM 2398 CB LEU A 302 20.731 73.292 38.587 1.00 0.62 C
ATOM 2399 CG LEU A 302 21.370 74.633 39.009 1.00 0.62 C
ATOM 2400 CD1 LEU A 302 22.759 74.372 39.611 1.00 0.62 C
ATOM 2401 CD2 LEU A 302 21.481 75.641 37.853 1.00 0.62 C
ATOM 2402 N LEU A 303 18.353 71.079 38.129 1.00 0.77 N
ATOM 2403 CA LEU A 303 17.980 69.800 37.565 1.00 0.77 C
ATOM 2404 C LEU A 303 16.497 69.666 37.283 1.00 0.77 C
ATOM 2405 O LEU A 303 16.028 68.600 36.883 1.00 0.77 O
ATOM 2406 CB LEU A 303 18.401 68.638 38.488 1.00 0.77 C
ATOM 2407 CG LEU A 303 19.907 68.554 38.775 1.00 0.77 C
ATOM 2408 CD1 LEU A 303 20.161 67.533 39.879 1.00 0.77 C
ATOM 2409 CD2 LEU A 303 20.712 68.191 37.535 1.00 0.77 C
ATOM 2410 N LEU A 304 15.701 70.728 37.484 1.00 0.82 N
ATOM 2411 CA LEU A 304 14.284 70.757 37.171 1.00 0.82 C
ATOM 2412 C LEU A 304 13.473 69.672 37.858 1.00 0.82 C
ATOM 2413 O LEU A 304 12.551 69.077 37.294 1.00 0.82 O
ATOM 2414 CB LEU A 304 14.045 70.721 35.642 1.00 0.82 C
ATOM 2415 CG LEU A 304 14.233 72.060 34.906 1.00 0.82 C
ATOM 2416 CD1 LEU A 304 13.243 73.110 35.430 1.00 0.82 C
ATOM 2417 CD2 LEU A 304 15.669 72.594 34.919 1.00 0.82 C
ATOM 2418 N ILE A 305 13.803 69.397 39.123 1.00 0.80 N
ATOM 2419 CA ILE A 305 13.245 68.269 39.823 1.00 0.80 C
ATOM 2420 C ILE A 305 12.078 68.757 40.634 1.00 0.80 C
ATOM 2421 O ILE A 305 12.214 69.553 41.545 1.00 0.80 O
ATOM 2422 CB ILE A 305 14.288 67.548 40.663 1.00 0.80 C
ATOM 2423 CG1 ILE A 305 15.434 67.033 39.762 1.00 0.80 C
ATOM 2424 CG2 ILE A 305 13.614 66.431 41.471 1.00 0.80 C
ATOM 2425 CD1 ILE A 305 15.062 66.082 38.629 1.00 0.80 C
ATOM 2426 N SER A 306 10.852 68.322 40.339 1.00 0.70 N

ATOM 2427 CA SER A 306 9.741 68.621 41.224 1.00 0.70 C
ATOM 2428 C SER A 306 9.916 68.084 42.633 1.00 0.70 C
ATOM 2429 O SER A 306 10.681 67.148 42.869 1.00 0.70 O
ATOM 2430 CB SER A 306 8.419 68.128 40.650 1.00 0.70 C
ATOM 2431 OG SER A 306 8.194 68.677 39.352 1.00 0.70 O
ATOM 2432 N THR A 307 9.247 68.705 43.626 1.00 0.61 N
ATOM 2433 CA THR A 307 9.516 68.536 45.050 1.00 0.61 C
ATOM 2434 C THR A 307 9.359 67.117 45.536 1.00 0.61 C
ATOM 2435 O THR A 307 9.966 66.740 46.537 1.00 0.61 O
ATOM 2436 CB THR A 307 8.639 69.415 45.940 1.00 0.61 C
ATOM 2437 OG1 THR A 307 7.270 69.292 45.588 1.00 0.61 O
ATOM 2438 CG2 THR A 307 8.967 70.891 45.710 1.00 0.61 C
ATOM 2439 N ASN A 308 8.559 66.274 44.846 1.00 0.74 N
ATOM 2440 CA ASN A 308 8.353 64.926 45.289 1.00 0.74 C
ATOM 2441 C ASN A 308 8.346 63.933 44.124 1.00 0.74 C
ATOM 2442 O ASN A 308 8.063 64.277 42.984 1.00 0.74 O
ATOM 2443 CB ASN A 308 7.023 64.850 46.092 1.00 0.74 C
ATOM 2444 CG ASN A 308 7.160 65.546 47.444 1.00 0.74 C
ATOM 2445 OD1 ASN A 308 6.715 66.668 47.670 1.00 0.74 O
ATOM 2446 ND2 ASN A 308 7.780 64.841 48.420 1.00 0.74 N
ATOM 2447 N PRO A 309 8.634 62.650 44.366 1.00 0.82 N
ATOM 2448 CA PRO A 309 8.549 61.593 43.362 1.00 0.82 C
ATOM 2449 C PRO A 309 7.198 61.411 42.748 1.00 0.82 C
ATOM 2450 O PRO A 309 7.093 60.835 41.680 1.00 0.82 O
ATOM 2451 CB PRO A 309 8.988 60.319 44.099 1.00 0.82 C
ATOM 2452 CG PRO A 309 8.875 60.643 45.582 1.00 0.82 C
ATOM 2453 CD PRO A 309 9.096 62.142 45.650 1.00 0.82 C
ATOM 2454 N PHE A 310 6.125 61.904 43.354 1.00 0.75 N
ATOM 2455 CA PHE A 310 4.805 61.786 42.791 1.00 0.75 C
ATOM 2456 C PHE A 310 4.670 62.418 41.398 1.00 0.75 C
ATOM 2457 O PHE A 310 3.795 62.029 40.627 1.00 0.75 O
ATOM 2458 CB PHE A 310 3.801 62.409 43.774 1.00 0.75 C
ATOM 2459 CG PHE A 310 3.702 61.561 45.014 1.00 0.75 C
ATOM 2460 CD1 PHE A 310 3.061 60.314 44.959 1.00 0.75 C
ATOM 2461 CD2 PHE A 310 4.217 61.999 46.243 1.00 0.75 C
ATOM 2462 CE1 PHE A 310 2.904 59.536 46.112 1.00 0.75 C
ATOM 2463 CE2 PHE A 310 4.070 61.224 47.400 1.00 0.75 C
ATOM 2464 CZ PHE A 310 3.402 59.995 47.335 1.00 0.75 C
ATOM 2465 N ASP A 311 5.595 63.332 41.028 1.00 0.82 N
ATOM 2466 CA ASP A 311 5.659 64.009 39.755 1.00 0.82 C
ATOM 2467 C ASP A 311 6.302 63.223 38.609 1.00 0.82 C
ATOM 2468 O ASP A 311 6.289 63.668 37.462 1.00 0.82 O
ATOM 2469 CB ASP A 311 6.509 65.275 39.957 1.00 0.82 C
ATOM 2470 CG ASP A 311 5.801 66.260 40.867 1.00 0.82 C

ATOM 2471 OD1 ASP A 311 6.237 66.421 42.036 1.00 0.82 O
ATOM 2472 OD2 ASP A 311 4.873 66.931 40.355 1.00 0.82 O
ATOM 2473 N PHE A 312 6.890 62.037 38.857 1.00 0.82 N
ATOM 2474 CA PHE A 312 7.592 61.300 37.825 1.00 0.82 C
ATOM 2475 C PHE A 312 6.976 59.882 37.634 1.00 0.82 C
ATOM 2476 O PHE A 312 7.064 59.078 38.547 1.00 0.82 O
ATOM 2477 CB PHE A 312 9.098 61.213 38.213 1.00 0.82 C
ATOM 2478 CG PHE A 312 9.794 62.548 38.304 1.00 0.82 C
ATOM 2479 CD1 PHE A 312 10.204 63.222 37.159 1.00 0.82 C
ATOM 2480 CD2 PHE A 312 10.117 63.131 39.533 1.00 0.82 C
ATOM 2481 CE1 PHE A 312 10.873 64.441 37.183 1.00 0.82 C
ATOM 2482 CE2 PHE A 312 10.789 64.359 39.594 1.00 0.82 C
ATOM 2483 CZ PHE A 312 11.162 65.014 38.414 1.00 0.82 C
ATOM 2484 N PRO A 313 6.338 59.444 36.532 1.00 0.84 N
ATOM 2485 CA PRO A 313 5.999 58.058 36.161 1.00 0.84 C
ATOM 2486 C PRO A 313 6.970 56.971 36.564 1.00 0.84 C
ATOM 2487 O PRO A 313 6.521 55.869 36.842 1.00 0.84 O
ATOM 2488 CB PRO A 313 5.843 58.094 34.625 1.00 0.84 C
ATOM 2489 CG PRO A 313 5.545 59.532 34.243 1.00 0.84 C
ATOM 2490 CD PRO A 313 6.122 60.316 35.397 1.00 0.84 C
ATOM 2491 N PHE A 314 8.296 57.177 36.605 1.00 0.77 N
ATOM 2492 CA PHE A 314 9.215 56.115 37.014 1.00 0.77 C
ATOM 2493 C PHE A 314 9.327 55.916 38.521 1.00 0.77 C
ATOM 2494 O PHE A 314 10.001 55.001 38.990 1.00 0.77 O
ATOM 2495 CB PHE A 314 10.621 56.341 36.392 1.00 0.77 C
ATOM 2496 CG PHE A 314 10.678 56.034 34.911 1.00 0.77 C
ATOM 2497 CD1 PHE A 314 9.753 55.206 34.242 1.00 0.77 C
ATOM 2498 CD2 PHE A 314 11.760 56.539 34.173 1.00 0.77 C
ATOM 2499 CE1 PHE A 314 9.884 54.932 32.878 1.00 0.77 C
ATOM 2500 CE2 PHE A 314 11.913 56.243 32.813 1.00 0.77 C
ATOM 2501 CZ PHE A 314 10.959 55.456 32.161 1.00 0.77 C
ATOM 2502 N VAL A 315 8.652 56.745 39.329 1.00 0.72 N
ATOM 2503 CA VAL A 315 8.636 56.595 40.774 1.00 0.72 C
ATOM 2504 C VAL A 315 7.212 56.702 41.329 1.00 0.72 C
ATOM 2505 O VAL A 315 7.027 56.609 42.541 1.00 0.72 O
ATOM 2506 CB VAL A 315 9.456 57.693 41.448 1.00 0.72 C
ATOM 2507 CG1 VAL A 315 10.970 57.547 41.278 1.00 0.72 C
ATOM 2508 CG2 VAL A 315 9.095 58.971 40.742 1.00 0.72 C
ATOM 2509 N SER A 316 6.157 56.901 40.494 1.00 0.59 N
ATOM 2510 CA SER A 316 4.816 57.220 40.994 1.00 0.59 C
ATOM 2511 C SER A 316 3.787 56.187 40.658 1.00 0.59 C
ATOM 2512 O SER A 316 2.590 56.396 40.820 1.00 0.59 O
ATOM 2513 CB SER A 316 4.272 58.593 40.529 1.00 0.59 C
ATOM 2514 OG SER A 316 4.106 58.690 39.113 1.00 0.59 O

ATOM 2515 N GLN A 317 4.237 54.998 40.246 1.00 0.64 N
ATOM 2516 CA GLN A 317 3.361 53.881 39.998 1.00 0.64 C
ATOM 2517 C GLN A 317 3.350 52.982 41.263 1.00 0.64 C
ATOM 2518 O GLN A 317 2.981 51.811 41.229 1.00 0.64 O
ATOM 2519 CB GLN A 317 3.768 53.238 38.630 1.00 0.64 C
ATOM 2520 CG GLN A 317 3.819 54.247 37.428 1.00 0.64 C
ATOM 2521 CD GLN A 317 2.481 54.886 37.030 1.00 0.64 C
ATOM 2522 OE1 GLN A 317 1.451 54.228 36.900 1.00 0.64 O
ATOM 2523 NE2 GLN A 317 2.492 56.219 36.774 1.00 0.64 N
ATOM 2524 N GLY A 318 3.749 53.549 42.445 1.00 0.70 N
ATOM 2525 CA GLY A 318 3.907 52.799 43.699 1.00 0.70 C
ATOM 2526 C GLY A 318 4.034 53.535 45.028 1.00 0.70 C
ATOM 2527 O GLY A 318 3.298 54.459 45.359 1.00 0.70 O
ATOM 2528 N GLU A 319 5.013 53.046 45.823 1.00 0.74 N
ATOM 2529 CA GLU A 319 5.402 53.394 47.184 1.00 0.74 C
ATOM 2530 C GLU A 319 6.655 54.268 47.121 1.00 0.74 C
ATOM 2531 O GLU A 319 7.550 53.970 46.338 1.00 0.74 O
ATOM 2532 CB GLU A 319 5.848 52.066 47.855 1.00 0.74 C
ATOM 2533 CG GLU A 319 6.416 52.063 49.294 1.00 0.74 C
ATOM 2534 CD GLU A 319 5.382 51.900 50.399 1.00 0.74 C
ATOM 2535 OE1 GLU A 319 5.827 51.468 51.500 1.00 0.74 O
ATOM 2536 OE2 GLU A 319 4.168 52.046 50.116 1.00 0.74 O
ATOM 2537 N VAL A 320 6.810 55.364 47.904 1.00 0.84 N
ATOM 2538 CA VAL A 320 7.989 56.220 47.737 1.00 0.84 C
ATOM 2539 C VAL A 320 8.904 56.234 48.948 1.00 0.84 C
ATOM 2540 O VAL A 320 10.034 56.712 48.873 1.00 0.84 O
ATOM 2541 CB VAL A 320 7.633 57.644 47.316 1.00 0.84 C
ATOM 2542 CG1 VAL A 320 6.834 57.594 45.995 1.00 0.84 C
ATOM 2543 CG2 VAL A 320 6.857 58.393 48.414 1.00 0.84 C
ATOM 2544 N THR A 321 8.488 55.642 50.079 1.00 0.83 N
ATOM 2545 CA THR A 321 9.232 55.667 51.333 1.00 0.83 C
ATOM 2546 C THR A 321 9.522 54.238 51.725 1.00 0.83 C
ATOM 2547 O THR A 321 8.842 53.303 51.323 1.00 0.83 O
ATOM 2548 CB THR A 321 8.507 56.369 52.495 1.00 0.83 C
ATOM 2549 OG1 THR A 321 7.222 55.815 52.733 1.00 0.83 O
ATOM 2550 CG2 THR A 321 8.241 57.846 52.179 1.00 0.83 C
ATOM 2551 N VAL A 322 10.587 54.018 52.507 1.00 0.82 N
ATOM 2552 CA VAL A 322 10.810 52.743 53.154 1.00 0.82 C
ATOM 2553 C VAL A 322 10.756 53.057 54.625 1.00 0.82 C
ATOM 2554 O VAL A 322 11.342 54.041 55.074 1.00 0.82 O
ATOM 2555 CB VAL A 322 12.149 52.129 52.768 1.00 0.82 C
ATOM 2556 CG1 VAL A 322 12.414 50.816 53.526 1.00 0.82 C
ATOM 2557 CG2 VAL A 322 12.141 51.866 51.253 1.00 0.82 C
ATOM 2558 N ALA A 323 10.015 52.254 55.426 1.00 0.67 N

ATOM 2559 CA ALA A 323 9.972 52.407 56.865 1.00 0.67 C
ATOM 2560 C ALA A 323 11.373 52.297 57.453 1.00 0.67 C
ATOM 2561 O ALA A 323 12.120 51.385 57.113 1.00 0.67 O
ATOM 2562 CB ALA A 323 9.085 51.324 57.521 1.00 0.67 C
ATOM 2563 N SER A 324 11.753 53.272 58.300 1.00 0.59 N
ATOM 2564 CA SER A 324 13.007 53.313 59.047 1.00 0.59 C
ATOM 2565 C SER A 324 14.165 53.868 58.247 1.00 0.59 C
ATOM 2566 O SER A 324 15.293 53.873 58.729 1.00 0.59 O
ATOM 2567 CB SER A 324 13.468 51.969 59.680 1.00 0.59 C
ATOM 2568 OG SER A 324 12.455 51.443 60.538 1.00 0.59 O
ATOM 2569 N ILE A 325 13.918 54.389 57.028 1.00 0.67 N
ATOM 2570 CA ILE A 325 14.965 54.869 56.145 1.00 0.67 C
ATOM 2571 C ILE A 325 14.695 56.314 55.832 1.00 0.67 C
ATOM 2572 O ILE A 325 13.607 56.676 55.383 1.00 0.67 O
ATOM 2573 CB ILE A 325 15.020 54.060 54.851 1.00 0.67 C
ATOM 2574 CG1 ILE A 325 15.308 52.564 55.144 1.00 0.67 C
ATOM 2575 CG2 ILE A 325 16.044 54.635 53.843 1.00 0.67 C
ATOM 2576 CD1 ILE A 325 16.655 52.279 55.827 1.00 0.67 C
ATOM 2577 N ASP A 326 15.700 57.180 56.063 1.00 0.80 N
ATOM 2578 CA ASP A 326 15.650 58.544 55.639 1.00 0.80 C
ATOM 2579 C ASP A 326 16.446 58.621 54.347 1.00 0.80 C
ATOM 2580 O ASP A 326 17.674 58.559 54.338 1.00 0.80 O
ATOM 2581 CB ASP A 326 16.227 59.496 56.717 1.00 0.80 C
ATOM 2582 CG ASP A 326 15.788 60.913 56.383 1.00 0.80 C
ATOM 2583 OD1 ASP A 326 15.194 61.087 55.277 1.00 0.80 O
ATOM 2584 OD2 ASP A 326 16.003 61.832 57.204 1.00 0.80 O
ATOM 2585 N ASP A 327 15.761 58.776 53.194 1.00 0.85 N
ATOM 2586 CA ASP A 327 16.420 58.891 51.915 1.00 0.85 C
ATOM 2587 C ASP A 327 17.298 60.148 51.882 1.00 0.85 C
ATOM 2588 O ASP A 327 18.321 60.170 51.194 1.00 0.85 O
ATOM 2589 CB ASP A 327 15.400 58.855 50.742 1.00 0.85 C
ATOM 2590 CG ASP A 327 14.787 57.482 50.508 1.00 0.85 C
ATOM 2591 OD1 ASP A 327 15.501 56.504 50.162 1.00 0.85 O
ATOM 2592 OD2 ASP A 327 13.535 57.395 50.563 1.00 0.85 O
ATOM 2593 N SER A 328 16.937 61.230 52.640 1.00 0.80 N
ATOM 2594 CA SER A 328 17.811 62.388 52.738 1.00 0.80 C
ATOM 2595 C SER A 328 19.116 62.069 53.434 1.00 0.80 C
ATOM 2596 O SER A 328 20.178 62.289 52.865 1.00 0.80 O
ATOM 2597 CB SER A 328 17.200 63.708 53.291 1.00 0.80 C
ATOM 2598 OG SER A 328 16.797 63.530 54.643 1.00 0.80 O
ATOM 2599 N GLU A 329 19.092 61.409 54.608 1.00 0.79 N
ATOM 2600 CA GLU A 329 20.313 61.020 55.282 1.00 0.79 C
ATOM 2601 C GLU A 329 21.167 60.063 54.466 1.00 0.79 C
ATOM 2602 O GLU A 329 22.391 60.206 54.403 1.00 0.79 O

ATOM 2603 CB GLU A 329 20.044 60.420 56.669 1.00 0.79 C
ATOM 2604 CG GLU A 329 19.494 61.461 57.674 1.00 0.79 C
ATOM 2605 CD GLU A 329 19.188 60.847 59.038 1.00 0.79 C
ATOM 2606 OE1 GLU A 329 19.222 59.594 59.156 1.00 0.79 O
ATOM 2607 OE2 GLU A 329 18.985 61.639 59.996 1.00 0.79 O
ATOM 2608 N GLU A 330 20.530 59.105 53.757 1.00 0.82 N
ATOM 2609 CA GLU A 330 21.206 58.192 52.852 1.00 0.82 C
ATOM 2610 C GLU A 330 21.913 58.864 51.684 1.00 0.82 C
ATOM 2611 O GLU A 330 23.029 58.499 51.323 1.00 0.82 O
ATOM 2612 CB GLU A 330 20.251 57.126 52.264 1.00 0.82 C
ATOM 2613 CG GLU A 330 19.673 56.116 53.286 1.00 0.82 C
ATOM 2614 CD GLU A 330 20.718 55.402 54.141 1.00 0.82 C
ATOM 2615 OE1 GLU A 330 21.886 55.265 53.695 1.00 0.82 O
ATOM 2616 OE2 GLU A 330 20.332 54.965 55.256 1.00 0.82 O
ATOM 2617 N LEU A 331 21.317 59.904 51.052 1.00 0.86 N
ATOM 2618 CA LEU A 331 21.991 60.654 49.995 1.00 0.86 C
ATOM 2619 C LEU A 331 23.265 61.332 50.478 1.00 0.86 C
ATOM 2620 O LEU A 331 24.283 61.281 49.793 1.00 0.86 O
ATOM 2621 CB LEU A 331 21.085 61.735 49.328 1.00 0.86 C
ATOM 2622 CG LEU A 331 21.679 62.411 48.040 1.00 0.86 C
ATOM 2623 CD1 LEU A 331 21.838 61.376 46.945 1.00 0.86 C
ATOM 2624 CD2 LEU A 331 20.975 63.543 47.257 1.00 0.86 C
ATOM 2625 N LEU A 332 23.261 61.928 51.698 1.00 0.79 N
ATOM 2626 CA LEU A 332 24.469 62.469 52.315 1.00 0.79 C
ATOM 2627 C LEU A 332 25.543 61.413 52.541 1.00 0.79 C
ATOM 2628 O LEU A 332 26.722 61.649 52.285 1.00 0.79 O
ATOM 2629 CB LEU A 332 24.201 63.161 53.683 1.00 0.79 C
ATOM 2630 CG LEU A 332 23.398 64.473 53.584 1.00 0.79 C
ATOM 2631 CD1 LEU A 332 22.949 64.981 54.966 1.00 0.79 C
ATOM 2632 CD2 LEU A 332 24.139 65.591 52.825 1.00 0.79 C
ATOM 2633 N ALA A 333 25.168 60.198 53.000 1.00 0.86 N
ATOM 2634 CA ALA A 333 26.081 59.074 53.115 1.00 0.86 C
ATOM 2635 C ALA A 333 26.665 58.631 51.777 1.00 0.86 C
ATOM 2636 O ALA A 333 27.865 58.378 51.666 1.00 0.86 O
ATOM 2637 CB ALA A 333 25.388 57.880 53.806 1.00 0.86 C
ATOM 2638 N THR A 334 25.833 58.577 50.717 1.00 0.87 N
ATOM 2639 CA THR A 334 26.250 58.286 49.348 1.00 0.87 C
ATOM 2640 C THR A 334 27.220 59.301 48.795 1.00 0.87 C
ATOM 2641 O THR A 334 28.258 58.930 48.252 1.00 0.87 O
ATOM 2642 CB THR A 334 25.068 58.185 48.407 1.00 0.87 C
ATOM 2643 OG1 THR A 334 24.277 57.096 48.839 1.00 0.87 O
ATOM 2644 CG2 THR A 334 25.443 57.861 46.952 1.00 0.87 C
ATOM 2645 N ASP A 335 26.954 60.614 48.973 1.00 0.83 N
ATOM 2646 CA ASP A 335 27.863 61.677 48.580 1.00 0.83 C

ATOM 2647 C ASP A 335 29.200 61.599 49.296 1.00 0.83 C
ATOM 2648 O ASP A 335 30.249 61.684 48.668 1.00 0.83 O
ATOM 2649 CB ASP A 335 27.274 63.081 48.866 1.00 0.83 C
ATOM 2650 CG ASP A 335 26.203 63.496 47.883 1.00 0.83 C
ATOM 2651 OD1 ASP A 335 26.044 62.813 46.843 1.00 0.83 O
ATOM 2652 OD2 ASP A 335 25.638 64.604 48.081 1.00 0.83 O
ATOM 2653 N ASN A 336 29.195 61.360 50.623 1.00 0.84 N
ATOM 2654 CA ASN A 336 30.417 61.226 51.398 1.00 0.84 C
ATOM 2655 C ASN A 336 31.276 60.060 50.924 1.00 0.84 C
ATOM 2656 O ASN A 336 32.498 60.145 50.831 1.00 0.84 O
ATOM 2657 CB ASN A 336 30.113 60.983 52.899 1.00 0.84 C
ATOM 2658 CG ASN A 336 29.571 62.225 53.589 1.00 0.84 C
ATOM 2659 OD1 ASN A 336 29.714 63.367 53.165 1.00 0.84 O
ATOM 2660 ND2 ASN A 336 28.955 62.003 54.776 1.00 0.84 N
ATOM 2661 N ALA A 337 30.640 58.926 50.588 1.00 0.89 N
ATOM 2662 CA ALA A 337 31.305 57.785 50.013 1.00 0.89 C
ATOM 2663 C ALA A 337 31.915 58.053 48.630 1.00 0.89 C
ATOM 2664 O ALA A 337 33.032 57.617 48.340 1.00 0.89 O
ATOM 2665 CB ALA A 337 30.304 56.630 49.969 1.00 0.89 C
ATOM 2666 N ILE A 338 31.199 58.827 47.769 1.00 0.86 N
ATOM 2667 CA ILE A 338 31.645 59.337 46.477 1.00 0.86 C
ATOM 2668 C ILE A 338 32.921 60.158 46.635 1.00 0.86 C
ATOM 2669 O ILE A 338 33.900 59.917 45.924 1.00 0.86 O
ATOM 2670 CB ILE A 338 30.523 60.140 45.764 1.00 0.86 C
ATOM 2671 CG1 ILE A 338 29.420 59.240 45.171 1.00 0.86 C
ATOM 2672 CG2 ILE A 338 31.069 60.913 44.571 1.00 0.86 C
ATOM 2673 CD1 ILE A 338 28.238 59.970 44.534 1.00 0.86 C
ATOM 2674 N ASP A 339 32.963 61.075 47.625 1.00 0.84 N
ATOM 2675 CA ASP A 339 34.116 61.895 47.945 1.00 0.84 C
ATOM 2676 C ASP A 339 35.345 61.081 48.369 1.00 0.84 C
ATOM 2677 O ASP A 339 36.459 61.308 47.899 1.00 0.84 O
ATOM 2678 CB ASP A 339 33.754 62.885 49.091 1.00 0.84 C
ATOM 2679 CG ASP A 339 32.783 63.982 48.668 1.00 0.84 C
ATOM 2680 OD1 ASP A 339 32.695 64.308 47.456 1.00 0.84 O
ATOM 2681 OD2 ASP A 339 32.119 64.544 49.577 1.00 0.84 O
ATOM 2682 N ILE A 340 35.174 60.073 49.256 1.00 0.77 N
ATOM 2683 CA ILE A 340 36.260 59.222 49.748 1.00 0.77 C
ATOM 2684 C ILE A 340 36.861 58.335 48.674 1.00 0.77 C
ATOM 2685 O ILE A 340 38.077 58.157 48.571 1.00 0.77 O
ATOM 2686 CB ILE A 340 35.799 58.376 50.930 1.00 0.77 C
ATOM 2687 CG1 ILE A 340 35.475 59.315 52.115 1.00 0.77 C
ATOM 2688 CG2 ILE A 340 36.864 57.327 51.350 1.00 0.77 C
ATOM 2689 CD1 ILE A 340 34.470 58.713 53.103 1.00 0.77 C
ATOM 2690 N LEU A 341 36.009 57.745 47.819 1.00 0.79 N

ATOM 2691 CA LEU A 341 36.466 56.989 46.672 1.00 0.79 C
ATOM 2692 C LEU A 341 37.176 57.818 45.632 1.00 0.79 C
ATOM 2693 O LEU A 341 38.094 57.335 44.976 1.00 0.79 O
ATOM 2694 CB LEU A 341 35.309 56.234 46.031 1.00 0.79 C
ATOM 2695 CG LEU A 341 34.900 55.032 46.871 1.00 0.79 C
ATOM 2696 CD1 LEU A 341 33.595 54.554 46.319 1.00 0.79 C
ATOM 2697 CD2 LEU A 341 35.900 53.885 46.817 1.00 0.79 C
ATOM 2698 N GLY A 342 36.778 59.091 45.470 1.00 0.84 N
ATOM 2699 CA GLY A 342 37.567 60.043 44.711 1.00 0.84 C
ATOM 2700 C GLY A 342 36.933 60.490 43.443 1.00 0.84 C
ATOM 2701 O GLY A 342 37.610 60.991 42.549 1.00 0.84 O
ATOM 2702 N PHE A 343 35.611 60.324 43.297 1.00 0.87 N
ATOM 2703 CA PHE A 343 34.901 60.973 42.220 1.00 0.87 C
ATOM 2704 C PHE A 343 34.896 62.471 42.418 1.00 0.87 C
ATOM 2705 O PHE A 343 34.638 62.966 43.511 1.00 0.87 O
ATOM 2706 CB PHE A 343 33.423 60.584 42.197 1.00 0.87 C
ATOM 2707 CG PHE A 343 33.168 59.148 41.877 1.00 0.87 C
ATOM 2708 CD1 PHE A 343 33.094 58.169 42.882 1.00 0.87 C
ATOM 2709 CD2 PHE A 343 32.945 58.776 40.548 1.00 0.87 C
ATOM 2710 CE1 PHE A 343 32.842 56.834 42.555 1.00 0.87 C
ATOM 2711 CE2 PHE A 343 32.659 57.447 40.222 1.00 0.87 C
ATOM 2712 CZ PHE A 343 32.614 56.473 41.225 1.00 0.87 C
ATOM 2713 N SER A 344 35.161 63.234 41.353 1.00 0.84 N
ATOM 2714 CA SER A 344 35.198 64.681 41.439 1.00 0.84 C
ATOM 2715 C SER A 344 33.835 65.327 41.631 1.00 0.84 C
ATOM 2716 O SER A 344 32.775 64.733 41.434 1.00 0.84 O
ATOM 2717 CB SER A 344 35.932 65.337 40.231 1.00 0.84 C
ATOM 2718 OG SER A 344 35.116 65.479 39.058 1.00 0.84 O
ATOM 2719 N SER A 345 33.831 66.624 41.990 1.00 0.84 N
ATOM 2720 CA SER A 345 32.617 67.421 42.053 1.00 0.84 C
ATOM 2721 C SER A 345 31.872 67.494 40.733 1.00 0.84 C
ATOM 2722 O SER A 345 30.657 67.327 40.706 1.00 0.84 O
ATOM 2723 CB SER A 345 32.909 68.863 42.522 1.00 0.84 C
ATOM 2724 OG SER A 345 33.388 68.821 43.864 1.00 0.84 O
ATOM 2725 N GLU A 346 32.584 67.684 39.594 1.00 0.80 N
ATOM 2726 CA GLU A 346 32.007 67.663 38.255 1.00 0.80 C
ATOM 2727 C GLU A 346 31.416 66.305 37.920 1.00 0.80 C
ATOM 2728 O GLU A 346 30.307 66.208 37.390 1.00 0.80 O
ATOM 2729 CB GLU A 346 33.062 68.048 37.171 1.00 0.80 C
ATOM 2730 CG GLU A 346 32.486 68.188 35.732 1.00 0.80 C
ATOM 2731 CD GLU A 346 33.478 68.554 34.618 1.00 0.80 C
ATOM 2732 OE1 GLU A 346 34.723 68.640 34.805 1.00 0.80 O
ATOM 2733 OE2 GLU A 346 32.979 68.704 33.471 1.00 0.80 O
ATOM 2734 N GLU A 347 32.126 65.213 38.283 1.00 0.80 N

ATOM 2735 CA GLU A 347 31.663 63.856 38.100 1.00 0.80 C
ATOM 2736 C GLU A 347 30.390 63.562 38.870 1.00 0.80 C
ATOM 2737 O GLU A 347 29.420 63.055 38.317 1.00 0.80 O
ATOM 2738 CB GLU A 347 32.753 62.835 38.533 1.00 0.80 C
ATOM 2739 CG GLU A 347 33.911 62.697 37.514 1.00 0.80 C
ATOM 2740 CD GLU A 347 35.034 61.723 37.886 1.00 0.80 C
ATOM 2741 OE1 GLU A 347 35.327 61.518 39.090 1.00 0.80 O
ATOM 2742 OE2 GLU A 347 35.606 61.109 36.949 1.00 0.80 O
ATOM 2743 N LYS A 348 30.314 63.949 40.154 1.00 0.79 N
ATOM 2744 CA LYS A 348 29.115 63.786 40.954 1.00 0.79 C
ATOM 2745 C LYS A 348 27.907 64.539 40.408 1.00 0.79 C
ATOM 2746 O LYS A 348 26.800 64.009 40.323 1.00 0.79 O
ATOM 2747 CB LYS A 348 29.392 64.228 42.402 1.00 0.79 C
ATOM 2748 CG LYS A 348 28.211 63.954 43.339 1.00 0.79 C
ATOM 2749 CD LYS A 348 28.520 64.282 44.803 1.00 0.79 C
ATOM 2750 CE LYS A 348 28.669 65.775 45.077 1.00 0.79 C
ATOM 2751 NZ LYS A 348 28.877 65.984 46.525 1.00 0.79 N
ATOM 2752 N VAL A 349 28.111 65.794 39.954 1.00 0.81 N
ATOM 2753 CA VAL A 349 27.092 66.583 39.280 1.00 0.81 C
ATOM 2754 C VAL A 349 26.622 65.919 37.992 1.00 0.81 C
ATOM 2755 O VAL A 349 25.427 65.864 37.711 1.00 0.81 O
ATOM 2756 CB VAL A 349 27.575 68.007 39.008 1.00 0.81 C
ATOM 2757 CG1 VAL A 349 26.538 68.793 38.183 1.00 0.81 C
ATOM 2758 CG2 VAL A 349 27.790 68.742 40.345 1.00 0.81 C
ATOM 2759 N GLY A 350 27.541 65.355 37.179 1.00 0.87 N
ATOM 2760 CA GLY A 350 27.185 64.616 35.974 1.00 0.87 C
ATOM 2761 C GLY A 350 26.450 63.330 36.209 1.00 0.87 C
ATOM 2762 O GLY A 350 25.531 63.018 35.463 1.00 0.87 O
ATOM 2763 N ILE A 351 26.777 62.580 37.280 1.00 0.82 N
ATOM 2764 CA ILE A 351 26.006 61.419 37.720 1.00 0.82 C
ATOM 2765 C ILE A 351 24.574 61.815 38.068 1.00 0.82 C
ATOM 2766 O ILE A 351 23.606 61.168 37.675 1.00 0.82 O
ATOM 2767 CB ILE A 351 26.657 60.741 38.937 1.00 0.82 C
ATOM 2768 CG1 ILE A 351 28.050 60.156 38.595 1.00 0.82 C
ATOM 2769 CG2 ILE A 351 25.768 59.611 39.510 1.00 0.82 C
ATOM 2770 CD1 ILE A 351 28.894 59.800 39.834 1.00 0.82 C
ATOM 2771 N TYR A 352 24.391 62.934 38.796 1.00 0.77 N
ATOM 2772 CA TYR A 352 23.066 63.369 39.222 1.00 0.77 C
ATOM 2773 C TYR A 352 22.245 63.999 38.123 1.00 0.77 C
ATOM 2774 O TYR A 352 21.019 63.876 38.107 1.00 0.77 O
ATOM 2775 CB TYR A 352 23.130 64.268 40.480 1.00 0.77 C
ATOM 2776 CG TYR A 352 23.760 63.537 41.647 1.00 0.77 C
ATOM 2777 CD1 TYR A 352 23.962 62.143 41.645 1.00 0.77 C
ATOM 2778 CD2 TYR A 352 24.148 64.255 42.793 1.00 0.77 C

ATOM 2779 CE1 TYR A 352 24.604 61.504 42.690 1.00 0.77 C
ATOM 2780 CE2 TYR A 352 24.740 63.593 43.888 1.00 0.77 C
ATOM 2781 CZ TYR A 352 24.977 62.207 43.814 1.00 0.77 C
ATOM 2782 OH TYR A 352 25.541 61.390 44.808 1.00 0.77 O
ATOM 2783 N LYS A 353 22.912 64.615 37.129 1.00 0.78 N
ATOM 2784 CA LYS A 353 22.304 65.006 35.873 1.00 0.78 C
ATOM 2785 C LYS A 353 21.760 63.822 35.106 1.00 0.78 C
ATOM 2786 O LYS A 353 20.647 63.890 34.592 1.00 0.78 O
ATOM 2787 CB LYS A 353 23.304 65.734 34.951 1.00 0.78 C
ATOM 2788 CG LYS A 353 23.563 67.192 35.343 1.00 0.78 C
ATOM 2789 CD LYS A 353 24.742 67.762 34.545 1.00 0.78 C
ATOM 2790 CE LYS A 353 24.989 69.250 34.793 1.00 0.78 C
ATOM 2791 NZ LYS A 353 26.270 69.650 34.171 1.00 0.78 N
ATOM 2792 N LEU A 354 22.504 62.691 35.043 1.00 0.85 N
ATOM 2793 CA LEU A 354 22.020 61.477 34.409 1.00 0.85 C
ATOM 2794 C LEU A 354 20.789 60.927 35.109 1.00 0.85 C
ATOM 2795 O LEU A 354 19.777 60.658 34.470 1.00 0.85 O
ATOM 2796 CB LEU A 354 23.108 60.371 34.340 1.00 0.85 C
ATOM 2797 CG LEU A 354 24.319 60.695 33.440 1.00 0.85 C
ATOM 2798 CD1 LEU A 354 25.423 59.646 33.600 1.00 0.85 C
ATOM 2799 CD2 LEU A 354 23.932 60.794 31.969 1.00 0.85 C
ATOM 2800 N THR A 355 20.806 60.846 36.454 1.00 0.82 N
ATOM 2801 CA THR A 355 19.667 60.405 37.262 1.00 0.82 C
ATOM 2802 C THR A 355 18.428 61.261 37.071 1.00 0.82 C
ATOM 2803 O THR A 355 17.317 60.756 36.919 1.00 0.82 O
ATOM 2804 CB THR A 355 20.007 60.378 38.744 1.00 0.82 C
ATOM 2805 OG1 THR A 355 21.021 59.414 38.968 1.00 0.82 O
ATOM 2806 CG2 THR A 355 18.828 59.950 39.630 1.00 0.82 C
ATOM 2807 N GLY A 356 18.592 62.601 37.032 1.00 0.84 N
ATOM 2808 CA GLY A 356 17.491 63.538 36.827 1.00 0.84 C
ATOM 2809 C GLY A 356 16.897 63.535 35.460 1.00 0.84 C
ATOM 2810 O GLY A 356 15.686 63.584 35.279 1.00 0.84 O
ATOM 2811 N ALA A 357 17.746 63.435 34.444 1.00 0.89 N
ATOM 2812 CA ALA A 357 17.347 63.290 33.083 1.00 0.89 C
ATOM 2813 C ALA A 357 16.595 62.000 32.782 1.00 0.89 C
ATOM 2814 O ALA A 357 15.609 62.028 32.059 1.00 0.89 O
ATOM 2815 CB ALA A 357 18.646 63.302 32.323 1.00 0.89 C
ATOM 2816 N VAL A 358 17.011 60.842 33.362 1.00 0.87 N
ATOM 2817 CA VAL A 358 16.295 59.565 33.290 1.00 0.87 C
ATOM 2818 C VAL A 358 14.869 59.696 33.797 1.00 0.87 C
ATOM 2819 O VAL A 358 13.929 59.213 33.166 1.00 0.87 O
ATOM 2820 CB VAL A 358 17.010 58.452 34.061 1.00 0.87 C
ATOM 2821 CG1 VAL A 358 16.152 57.173 34.191 1.00 0.87 C
ATOM 2822 CG2 VAL A 358 18.316 58.075 33.334 1.00 0.87 C

ATOM 2823 N MET A 359 14.676 60.415 34.925 1.00 0.82 N
ATOM 2824 CA MET A 359 13.359 60.774 35.420 1.00 0.82 C
ATOM 2825 C MET A 359 12.572 61.648 34.454 1.00 0.82 C
ATOM 2826 O MET A 359 11.406 61.378 34.201 1.00 0.82 O
ATOM 2827 CB MET A 359 13.427 61.501 36.781 1.00 0.82 C
ATOM 2828 CG MET A 359 13.870 60.600 37.945 1.00 0.82 C
ATOM 2829 SD MET A 359 13.655 61.339 39.593 1.00 0.82 S
ATOM 2830 CE MET A 359 14.968 62.569 39.413 1.00 0.82 C
ATOM 2831 N HIS A 360 13.196 62.679 33.842 1.00 0.81 N
ATOM 2832 CA HIS A 360 12.562 63.484 32.803 1.00 0.81 C
ATOM 2833 C HIS A 360 12.185 62.711 31.549 1.00 0.81 C
ATOM 2834 O HIS A 360 11.089 62.885 31.023 1.00 0.81 O
ATOM 2835 CB HIS A 360 13.428 64.679 32.356 1.00 0.81 C
ATOM 2836 CG HIS A 360 13.621 65.699 33.415 1.00 0.81 C
ATOM 2837 ND1 HIS A 360 12.521 66.283 34.007 1.00 0.81 N
ATOM 2838 CD2 HIS A 360 14.765 66.155 33.980 1.00 0.81 C
ATOM 2839 CE1 HIS A 360 13.022 67.075 34.933 1.00 0.81 C
ATOM 2840 NE2 HIS A 360 14.376 67.040 34.958 1.00 0.81 N
ATOM 2841 N TYR A 361 13.048 61.795 31.047 1.00 0.78 N
ATOM 2842 CA TYR A 361 12.739 60.931 29.909 1.00 0.78 C
ATOM 2843 C TYR A 361 11.516 60.078 30.149 1.00 0.78 C
ATOM 2844 O TYR A 361 10.715 59.858 29.247 1.00 0.78 O
ATOM 2845 CB TYR A 361 13.869 59.926 29.547 1.00 0.78 C
ATOM 2846 CG TYR A 361 14.999 60.596 28.861 1.00 0.78 C
ATOM 2847 CD1 TYR A 361 14.811 61.230 27.622 1.00 0.78 C
ATOM 2848 CD2 TYR A 361 16.254 60.637 29.471 1.00 0.78 C
ATOM 2849 CE1 TYR A 361 15.830 62.005 27.074 1.00 0.78 C
ATOM 2850 CE2 TYR A 361 17.249 61.460 28.966 1.00 0.78 C
ATOM 2851 CZ TYR A 361 17.001 62.165 27.801 1.00 0.78 C
ATOM 2852 OH TYR A 361 17.885 63.170 27.422 1.00 0.78 O
ATOM 2853 N GLY A 362 11.335 59.607 31.398 1.00 0.84 N
ATOM 2854 CA GLY A 362 10.160 58.852 31.805 1.00 0.84 C
ATOM 2855 C GLY A 362 8.858 59.593 31.773 1.00 0.84 C
ATOM 2856 O GLY A 362 7.796 58.992 31.665 1.00 0.84 O
ATOM 2857 N ASN A 363 8.906 60.935 31.850 1.00 0.80 N
ATOM 2858 CA ASN A 363 7.742 61.787 31.881 1.00 0.80 C
ATOM 2859 C ASN A 363 7.354 62.169 30.417 1.00 0.80 C
ATOM 2860 O ASN A 363 6.304 62.775 30.179 1.00 0.80 O
ATOM 2861 CB ASN A 363 8.028 63.080 32.677 1.00 0.80 C
ATOM 2862 CG ASN A 363 8.190 62.992 34.107 1.00 0.80 C
ATOM 2863 OD1 ASN A 363 8.688 62.039 34.652 1.00 0.80 O
ATOM 2864 ND2 ASN A 363 7.773 64.008 34.943 1.00 0.80 N
ATOM 2865 N MET A 364 8.146 61.799 29.361 1.00 0.78 N
ATOM 2866 CA MET A 364 7.749 61.974 27.963 1.00 0.78 C

ATOM 2867 C MET A 364 6.486 61.203 27.626 1.00 0.78 C
ATOM 2868 O MET A 364 6.385 59.996 27.825 1.00 0.78 O
ATOM 2869 CB MET A 364 8.867 61.622 26.947 1.00 0.78 C
ATOM 2870 CG MET A 364 10.098 62.553 26.966 1.00 0.78 C
ATOM 2871 SD MET A 364 11.396 62.076 25.786 1.00 0.78 S
ATOM 2872 CE MET A 364 10.452 62.494 24.289 1.00 0.78 C
ATOM 2873 N LYS A 365 5.469 61.908 27.097 1.00 0.74 N
ATOM 2874 CA LYS A 365 4.195 61.301 26.815 1.00 0.74 C
ATOM 2875 C LYS A 365 3.961 61.408 25.336 1.00 0.74 C
ATOM 2876 O LYS A 365 3.641 62.470 24.805 1.00 0.74 O
ATOM 2877 CB LYS A 365 3.054 62.001 27.592 1.00 0.74 C
ATOM 2878 CG LYS A 365 1.693 61.305 27.426 1.00 0.74 C
ATOM 2879 CD LYS A 365 0.594 61.972 28.268 1.00 0.74 C
ATOM 2880 CE LYS A 365 -0.772 61.292 28.121 1.00 0.74 C
ATOM 2881 NZ LYS A 365 -1.794 61.977 28.950 1.00 0.74 N
ATOM 2882 N PHE A 366 4.118 60.274 24.638 1.00 0.75 N
ATOM 2883 CA PHE A 366 3.898 60.175 23.218 1.00 0.75 C
ATOM 2884 C PHE A 366 2.415 60.084 22.929 1.00 0.75 C
ATOM 2885 O PHE A 366 1.659 59.471 23.684 1.00 0.75 O
ATOM 2886 CB PHE A 366 4.649 58.949 22.646 1.00 0.75 C
ATOM 2887 CG PHE A 366 6.114 59.133 22.913 1.00 0.75 C
ATOM 2888 CD1 PHE A 366 6.868 60.051 22.164 1.00 0.75 C
ATOM 2889 CD2 PHE A 366 6.755 58.380 23.906 1.00 0.75 C
ATOM 2890 CE1 PHE A 366 8.248 60.180 22.374 1.00 0.75 C
ATOM 2891 CE2 PHE A 366 8.124 58.512 24.130 1.00 0.75 C
ATOM 2892 CZ PHE A 366 8.869 59.398 23.355 1.00 0.75 C
ATOM 2893 N LYS A 367 1.947 60.709 21.836 1.00 0.75 N
ATOM 2894 CA LYS A 367 0.549 60.657 21.466 1.00 0.75 C
ATOM 2895 C LYS A 367 0.433 60.261 20.018 1.00 0.75 C
ATOM 2896 O LYS A 367 1.387 60.356 19.256 1.00 0.75 O
ATOM 2897 CB LYS A 367 -0.168 62.007 21.701 1.00 0.75 C
ATOM 2898 CG LYS A 367 -0.214 62.409 23.182 1.00 0.75 C
ATOM 2899 CD LYS A 367 -1.032 63.691 23.382 1.00 0.75 C
ATOM 2900 CE LYS A 367 -1.085 64.148 24.835 1.00 0.75 C
ATOM 2901 NZ LYS A 367 -1.880 65.393 24.935 1.00 0.75 N
ATOM 2902 N GLN A 368 -0.739 59.739 19.609 1.00 0.75 N
ATOM 2903 CA GLN A 368 -1.035 59.427 18.222 1.00 0.75 C
ATOM 2904 C GLN A 368 -1.155 60.676 17.365 1.00 0.75 C
ATOM 2905 O GLN A 368 -1.946 61.562 17.672 1.00 0.75 O
ATOM 2906 CB GLN A 368 -2.357 58.622 18.127 1.00 0.75 C
ATOM 2907 CG GLN A 368 -2.704 58.118 16.704 1.00 0.75 C
ATOM 2908 CD GLN A 368 -3.968 57.261 16.710 1.00 0.75 C
ATOM 2909 OE1 GLN A 368 -4.589 57.005 17.742 1.00 0.75 O
ATOM 2910 NE2 GLN A 368 -4.366 56.777 15.511 1.00 0.75 N

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ATOM   2911  N   LYS A 369     -0.386  60.760  16.260  1.00  0.74           N
ATOM   2912  CA  LYS A 369     -0.490  61.859  15.327  1.00  0.74           C
ATOM   2913  C   LYS A 369     -1.708  61.694  14.438  1.00  0.74           C
ATOM   2914  O   LYS A 369     -2.083  60.597  14.045  1.00  0.74           O
ATOM   2915  CB  LYS A 369      0.806  61.940  14.479  1.00  0.74           C
ATOM   2916  CG  LYS A 369      0.884  63.101  13.473  1.00  0.74           C
ATOM   2917  CD  LYS A 369      2.231  63.150  12.729  1.00  0.74           C
ATOM   2918  CE  LYS A 369      3.431  63.561  13.593  1.00  0.74           C
ATOM   2919  NZ  LYS A 369      3.275  64.940  14.094  1.00  0.74           N
ATOM   2920  N   GLN A 370     -2.389  62.789  14.069  1.00  0.74           N
ATOM   2921  CA  GLN A 370     -3.596  62.708  13.259  1.00  0.74           C
ATOM   2922  C   GLN A 370     -3.407  62.230  11.830  1.00  0.74           C
ATOM   2923  O   GLN A 370     -4.297  61.642  11.223  1.00  0.74           O
ATOM   2924  CB  GLN A 370     -4.257  64.091  13.192  1.00  0.74           C
ATOM   2925  CG  GLN A 370     -4.802  64.541  14.558  1.00  0.74           C
ATOM   2926  CD  GLN A 370     -5.397  65.936  14.430  1.00  0.74           C
ATOM   2927  OE1 GLN A 370     -5.037  66.730  13.560  1.00  0.74           O
ATOM   2928  NE2 GLN A 370     -6.359  66.255  15.322  1.00  0.74           N
ATOM   2929  N   ARG A 371     -2.228  62.506  11.250  1.00  0.52           N
ATOM   2930  CA  ARG A 371     -1.926  62.169   9.879  1.00  0.52           C
ATOM   2931  C   ARG A 371     -1.567  60.709   9.674  1.00  0.52           C
ATOM   2932  O   ARG A 371     -1.602  60.255   8.537  1.00  0.52           O
ATOM   2933  CB  ARG A 371     -0.740  63.031   9.365  1.00  0.52           C
ATOM   2934  CG  ARG A 371     -1.066  64.534   9.293  1.00  0.52           C
ATOM   2935  CD  ARG A 371      0.118  65.372   8.810  1.00  0.52           C
ATOM   2936  NE  ARG A 371     -0.324  66.804   8.819  1.00  0.52           N
ATOM   2937  CZ  ARG A 371      0.469  67.844   8.524  1.00  0.52           C
ATOM   2938  NH1 ARG A 371     -0.028  69.078   8.538  1.00  0.52           N
ATOM   2939  NH2 ARG A 371      1.749  67.674   8.207  1.00  0.52           N
ATOM   2940  N   GLU A 372     -1.188  59.963  10.737  1.00  0.72           N
ATOM   2941  CA  GLU A 372     -0.672  58.620  10.562  1.00  0.72           C
ATOM   2942  C   GLU A 372     -0.674  57.870  11.888  1.00  0.72           C
ATOM   2943  O   GLU A 372     -0.711  58.478  12.952  1.00  0.72           O
ATOM   2944  CB  GLU A 372      0.782  58.677   9.992  1.00  0.72           C
ATOM   2945  CG  GLU A 372      1.470  57.337   9.627  1.00  0.72           C
ATOM   2946  CD  GLU A 372      0.608  56.525   8.671  1.00  0.72           C
ATOM   2947  OE1 GLU A 372     -0.393  55.946   9.168  1.00  0.72           O
ATOM   2948  OE2 GLU A 372      0.944  56.485   7.463  1.00  0.72           O
ATOM   2949  N   GLU A 373     -0.556  56.527  11.866  1.00  0.76           N
ATOM   2950  CA  GLU A 373     -0.255  55.645  12.991  1.00  0.76           C
ATOM   2951  C   GLU A 373      0.997  56.014  13.795  1.00  0.76           C
ATOM   2952  O   GLU A 373      1.168  55.604  14.945  1.00  0.76           O
ATOM   2953  CB  GLU A 373     -0.061  54.207  12.453  1.00  0.76           C
ATOM   2954  CG  GLU A 373     -1.348  53.560  11.890  1.00  0.76           C
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ATOM 2955 CD GLU A 373 -1.127 52.119 11.430 1.00 0.76 C
ATOM 2956 OE1 GLU A 373 0.030 51.628 11.492 1.00 0.76 O
ATOM 2957 OE2 GLU A 373 -2.151 51.479 11.071 1.00 0.76 O
ATOM 2958 N GLN A 374 1.908 56.815 13.204 1.00 0.72 N
ATOM 2959 CA GLN A 374 3.094 57.351 13.836 1.00 0.72 C
ATOM 2960 C GLN A 374 2.792 58.249 15.034 1.00 0.72 C
ATOM 2961 O GLN A 374 1.845 59.030 15.052 1.00 0.72 O
ATOM 2962 CB GLN A 374 3.943 58.131 12.806 1.00 0.72 C
ATOM 2963 CG GLN A 374 5.309 58.589 13.344 1.00 0.72 C
ATOM 2964 CD GLN A 374 6.038 59.375 12.273 1.00 0.72 C
ATOM 2965 OE1 GLN A 374 6.102 59.033 11.097 1.00 0.72 O
ATOM 2966 NE2 GLN A 374 6.669 60.485 12.702 1.00 0.72 N
ATOM 2967 N ALA A 375 3.606 58.179 16.096 1.00 0.84 N
ATOM 2968 CA ALA A 375 3.462 59.052 17.229 1.00 0.84 C
ATOM 2969 C ALA A 375 4.010 60.458 17.029 1.00 0.84 C
ATOM 2970 O ALA A 375 4.893 60.723 16.210 1.00 0.84 O
ATOM 2971 CB ALA A 375 4.187 58.430 18.423 1.00 0.84 C
ATOM 2972 N GLU A 376 3.499 61.395 17.841 1.00 0.74 N
ATOM 2973 CA GLU A 376 4.017 62.729 17.970 1.00 0.74 C
ATOM 2974 C GLU A 376 4.227 63.094 19.428 1.00 0.74 C
ATOM 2975 O GLU A 376 3.629 62.501 20.330 1.00 0.74 O
ATOM 2976 CB GLU A 376 3.104 63.776 17.324 1.00 0.74 C
ATOM 2977 CG GLU A 376 1.663 63.931 17.854 1.00 0.74 C
ATOM 2978 CD GLU A 376 0.867 64.797 16.865 1.00 0.74 C
ATOM 2979 OE1 GLU A 376 -0.386 64.892 16.936 1.00 0.74 O
ATOM 2980 OE2 GLU A 376 1.505 65.247 15.862 1.00 0.74 O
ATOM 2981 N PRO A 377 5.103 64.042 19.694 1.00 0.77 N
ATOM 2982 CA PRO A 377 5.173 64.702 20.983 1.00 0.77 C
ATOM 2983 C PRO A 377 4.602 66.116 20.938 1.00 0.77 C
ATOM 2984 O PRO A 377 5.269 67.019 20.440 1.00 0.77 O
ATOM 2985 CB PRO A 377 6.688 64.725 21.239 1.00 0.77 C
ATOM 2986 CG PRO A 377 7.349 64.804 19.850 1.00 0.77 C
ATOM 2987 CD PRO A 377 6.300 64.272 18.884 1.00 0.77 C
ATOM 2988 N ASP A 378 3.398 66.345 21.508 1.00 0.55 N
ATOM 2989 CA ASP A 378 2.776 67.663 21.564 1.00 0.55 C
ATOM 2990 C ASP A 378 3.314 68.544 22.678 1.00 0.55 C
ATOM 2991 O ASP A 378 3.474 69.755 22.547 1.00 0.55 O
ATOM 2992 CB ASP A 378 1.258 67.523 21.796 1.00 0.55 C
ATOM 2993 CG ASP A 378 0.587 66.893 20.601 1.00 0.55 C
ATOM 2994 OD1 ASP A 378 1.165 66.948 19.494 1.00 0.55 O
ATOM 2995 OD2 ASP A 378 -0.518 66.340 20.851 1.00 0.55 O
ATOM 2996 N GLY A 379 3.596 67.936 23.847 1.00 0.75 N
ATOM 2997 CA GLY A 379 4.198 68.633 24.970 1.00 0.75 C
ATOM 2998 C GLY A 379 5.617 68.188 25.088 1.00 0.75 C

ATOM 2999 O GLY A 379 5.897 67.017 25.331 1.00 0.75 O
ATOM 3000 N THR A 380 6.563 69.122 24.933 1.00 0.74 N
ATOM 3001 CA THR A 380 7.981 68.813 24.856 1.00 0.74 C
ATOM 3002 C THR A 380 8.709 69.180 26.139 1.00 0.74 C
ATOM 3003 O THR A 380 9.928 69.098 26.198 1.00 0.74 O
ATOM 3004 CB THR A 380 8.655 69.498 23.670 1.00 0.74 C
ATOM 3005 OG1 THR A 380 8.278 70.863 23.588 1.00 0.74 O
ATOM 3006 CG2 THR A 380 8.169 68.871 22.357 1.00 0.74 C
ATOM 3007 N GLU A 381 7.994 69.511 27.247 1.00 0.71 N
ATOM 3008 CA GLU A 381 8.601 70.009 28.481 1.00 0.71 C
ATOM 3009 C GLU A 381 9.650 69.087 29.073 1.00 0.71 C
ATOM 3010 O GLU A 381 10.780 69.459 29.367 1.00 0.71 O
ATOM 3011 CB GLU A 381 7.519 70.247 29.573 1.00 0.71 C
ATOM 3012 CG GLU A 381 8.120 70.769 30.904 1.00 0.71 C
ATOM 3013 CD GLU A 381 7.116 70.999 32.027 1.00 0.71 C
ATOM 3014 OE1 GLU A 381 5.898 70.825 31.817 1.00 0.71 O
ATOM 3015 OE2 GLU A 381 7.612 71.313 33.145 1.00 0.71 O
ATOM 3016 N VAL A 382 9.316 67.813 29.222 1.00 0.79 N
ATOM 3017 CA VAL A 382 10.211 66.794 29.693 1.00 0.79 C
ATOM 3018 C VAL A 382 11.357 66.431 28.790 1.00 0.79 C
ATOM 3019 O VAL A 382 12.477 66.212 29.242 1.00 0.79 O
ATOM 3020 CB VAL A 382 9.407 65.572 29.891 1.00 0.79 C
ATOM 3021 CG1 VAL A 382 8.613 65.784 31.159 1.00 0.79 C
ATOM 3022 CG2 VAL A 382 8.382 65.307 28.778 1.00 0.79 C
ATOM 3023 N ALA A 383 11.091 66.371 27.474 1.00 0.84 N
ATOM 3024 CA ALA A 383 12.066 66.173 26.438 1.00 0.84 C
ATOM 3025 C ALA A 383 13.144 67.244 26.485 1.00 0.84 C
ATOM 3026 O ALA A 383 14.337 66.945 26.476 1.00 0.84 O
ATOM 3027 CB ALA A 383 11.325 66.283 25.088 1.00 0.84 C
ATOM 3028 N ASP A 384 12.722 68.517 26.618 1.00 0.84 N
ATOM 3029 CA ASP A 384 13.602 69.651 26.759 1.00 0.84 C
ATOM 3030 C ASP A 384 14.392 69.630 28.066 1.00 0.84 C
ATOM 3031 O ASP A 384 15.601 69.861 28.082 1.00 0.84 O
ATOM 3032 CB ASP A 384 12.786 70.960 26.602 1.00 0.84 C
ATOM 3033 CG ASP A 384 12.355 71.174 25.155 1.00 0.84 C
ATOM 3034 OD1 ASP A 384 12.888 70.479 24.249 1.00 0.84 O
ATOM 3035 OD2 ASP A 384 11.503 72.072 24.939 1.00 0.84 O
ATOM 3036 N LYS A 385 13.748 69.298 29.207 1.00 0.80 N
ATOM 3037 CA LYS A 385 14.424 69.178 30.490 1.00 0.80 C
ATOM 3038 C LYS A 385 15.457 68.069 30.536 1.00 0.80 C
ATOM 3039 O LYS A 385 16.573 68.249 31.023 1.00 0.80 O
ATOM 3040 CB LYS A 385 13.414 68.992 31.640 1.00 0.80 C
ATOM 3041 CG LYS A 385 12.583 70.256 31.874 1.00 0.80 C
ATOM 3042 CD LYS A 385 11.554 70.056 32.994 1.00 0.80 C

ATOM 3043 CE LYS A 385 10.768 71.328 33.318 1.00 0.80 C
ATOM 3044 NZ LYS A 385 9.831 71.119 34.441 1.00 0.80 N
ATOM 3045 N ALA A 386 15.123 66.897 29.971 1.00 0.87 N
ATOM 3046 CA ALA A 386 16.048 65.813 29.792 1.00 0.87 C
ATOM 3047 C ALA A 386 17.230 66.157 28.895 1.00 0.87 C
ATOM 3048 O ALA A 386 18.382 65.866 29.226 1.00 0.87 O
ATOM 3049 CB ALA A 386 15.300 64.640 29.158 1.00 0.87 C
ATOM 3050 N GLY A 387 16.966 66.835 27.754 1.00 0.87 N
ATOM 3051 CA GLY A 387 17.996 67.236 26.811 1.00 0.87 C
ATOM 3052 C GLY A 387 18.967 68.239 27.362 1.00 0.87 C
ATOM 3053 O GLY A 387 20.167 68.137 27.123 1.00 0.87 O
ATOM 3054 N TYR A 388 18.471 69.198 28.175 1.00 0.82 N
ATOM 3055 CA TYR A 388 19.284 70.178 28.870 1.00 0.82 C
ATOM 3056 C TYR A 388 20.254 69.545 29.864 1.00 0.82 C
ATOM 3057 O TYR A 388 21.450 69.827 29.846 1.00 0.82 O
ATOM 3058 CB TYR A 388 18.351 71.188 29.607 1.00 0.82 C
ATOM 3059 CG TYR A 388 19.113 72.264 30.341 1.00 0.82 C
ATOM 3060 CD1 TYR A 388 19.319 72.174 31.729 1.00 0.82 C
ATOM 3061 CD2 TYR A 388 19.669 73.346 29.645 1.00 0.82 C
ATOM 3062 CE1 TYR A 388 20.069 73.144 32.406 1.00 0.82 C
ATOM 3063 CE2 TYR A 388 20.410 74.326 30.323 1.00 0.82 C
ATOM 3064 CZ TYR A 388 20.610 74.221 31.703 1.00 0.82 C
ATOM 3065 OH TYR A 388 21.357 75.198 32.388 1.00 0.82 O
ATOM 3066 N LEU A 389 19.778 68.638 30.742 1.00 0.87 N
ATOM 3067 CA LEU A 389 20.643 68.025 31.733 1.00 0.87 C
ATOM 3068 C LEU A 389 21.627 67.032 31.184 1.00 0.87 C
ATOM 3069 O LEU A 389 22.757 66.931 31.663 1.00 0.87 O
ATOM 3070 CB LEU A 389 19.851 67.356 32.858 1.00 0.87 C
ATOM 3071 CG LEU A 389 18.994 68.350 33.627 1.00 0.87 C
ATOM 3072 CD1 LEU A 389 18.236 67.574 34.699 1.00 0.87 C
ATOM 3073 CD2 LEU A 389 19.861 69.468 34.220 1.00 0.87 C
ATOM 3074 N MET A 390 21.227 66.279 30.145 1.00 0.83 N
ATOM 3075 CA MET A 390 22.141 65.379 29.481 1.00 0.83 C
ATOM 3076 C MET A 390 23.149 66.106 28.612 1.00 0.83 C
ATOM 3077 O MET A 390 24.214 65.569 28.333 1.00 0.83 O
ATOM 3078 CB MET A 390 21.399 64.383 28.570 1.00 0.83 C
ATOM 3079 CG MET A 390 20.657 63.255 29.307 1.00 0.83 C
ATOM 3080 SD MET A 390 21.624 61.760 29.655 1.00 0.83 S
ATOM 3081 CE MET A 390 20.605 60.878 30.828 1.00 0.83 C
ATOM 3082 N GLY A 391 22.838 67.339 28.159 1.00 0.86 N
ATOM 3083 CA GLY A 391 23.663 68.058 27.204 1.00 0.86 C
ATOM 3084 C GLY A 391 23.560 67.556 25.794 1.00 0.86 C
ATOM 3085 O GLY A 391 24.549 67.542 25.069 1.00 0.86 O
ATOM 3086 N LEU A 392 22.353 67.158 25.360 1.00 0.80 N

ATOM 3087 CA LEU A 392 22.106 66.709 24.004 1.00 0.80 C
ATOM 3088 C LEU A 392 21.086 67.590 23.319 1.00 0.80 C
ATOM 3089 O LEU A 392 20.353 68.360 23.937 1.00 0.80 O
ATOM 3090 CB LEU A 392 21.653 65.237 23.943 1.00 0.80 C
ATOM 3091 CG LEU A 392 20.334 64.955 24.669 1.00 0.80 C
ATOM 3092 CD1 LEU A 392 19.130 64.982 23.742 1.00 0.80 C
ATOM 3093 CD2 LEU A 392 20.387 63.553 25.224 1.00 0.80 C
ATOM 3094 N ASN A 393 21.020 67.496 21.979 1.00 0.75 N
ATOM 3095 CA ASN A 393 20.097 68.253 21.170 1.00 0.75 C
ATOM 3096 C ASN A 393 18.715 67.619 21.218 1.00 0.75 C
ATOM 3097 O ASN A 393 18.519 66.459 20.858 1.00 0.75 O
ATOM 3098 CB ASN A 393 20.657 68.322 19.728 1.00 0.75 C
ATOM 3099 CG ASN A 393 19.848 69.219 18.797 1.00 0.75 C
ATOM 3100 OD1 ASN A 393 18.625 69.128 18.682 1.00 0.75 O
ATOM 3101 ND2 ASN A 393 20.546 70.118 18.072 1.00 0.75 N
ATOM 3102 N SER A 394 17.717 68.396 21.680 1.00 0.76 N
ATOM 3103 CA SER A 394 16.340 67.970 21.831 1.00 0.76 C
ATOM 3104 C SER A 394 15.697 67.549 20.512 1.00 0.76 C
ATOM 3105 O SER A 394 15.081 66.494 20.438 1.00 0.76 O
ATOM 3106 CB SER A 394 15.488 69.045 22.562 1.00 0.76 C
ATOM 3107 OG SER A 394 15.451 70.288 21.862 1.00 0.76 O
ATOM 3108 N ALA A 395 15.884 68.300 19.402 1.00 0.79 N
ATOM 3109 CA ALA A 395 15.312 67.981 18.106 1.00 0.79 C
ATOM 3110 C ALA A 395 15.865 66.702 17.525 1.00 0.79 C
ATOM 3111 O ALA A 395 15.132 65.898 16.949 1.00 0.79 O
ATOM 3112 CB ALA A 395 15.540 69.116 17.091 1.00 0.79 C
ATOM 3113 N GLU A 396 17.185 66.477 17.691 1.00 0.76 N
ATOM 3114 CA GLU A 396 17.826 65.228 17.346 1.00 0.76 C
ATOM 3115 C GLU A 396 17.223 64.082 18.159 1.00 0.76 C
ATOM 3116 O GLU A 396 16.764 63.097 17.587 1.00 0.76 O
ATOM 3117 CB GLU A 396 19.368 65.327 17.549 1.00 0.76 C
ATOM 3118 CG GLU A 396 20.132 66.254 16.547 1.00 0.76 C
ATOM 3119 CD GLU A 396 21.655 66.351 16.792 1.00 0.76 C
ATOM 3120 OE1 GLU A 396 22.125 65.834 17.833 1.00 0.76 O
ATOM 3121 OE2 GLU A 396 22.401 66.949 15.962 1.00 0.76 O
ATOM 3122 N MET A 397 17.088 64.241 19.496 1.00 0.77 N
ATOM 3123 CA MET A 397 16.518 63.251 20.398 1.00 0.77 C
ATOM 3124 C MET A 397 15.112 62.832 20.058 1.00 0.77 C
ATOM 3125 O MET A 397 14.806 61.643 19.973 1.00 0.77 O
ATOM 3126 CB MET A 397 16.591 63.779 21.839 1.00 0.77 C
ATOM 3127 CG MET A 397 16.115 62.820 22.937 1.00 0.77 C
ATOM 3128 SD MET A 397 14.355 62.928 23.250 1.00 0.77 S
ATOM 3129 CE MET A 397 14.117 64.574 23.900 1.00 0.77 C
ATOM 3130 N LEU A 398 14.243 63.816 19.775 1.00 0.82 N

ATOM 3131 CA LEU A 398 12.868 63.611 19.388 1.00 0.82 C
ATOM 3132 C LEU A 398 12.752 62.768 18.135 1.00 0.82 C
ATOM 3133 O LEU A 398 12.031 61.774 18.112 1.00 0.82 O
ATOM 3134 CB LEU A 398 12.222 64.984 19.097 1.00 0.82 C
ATOM 3135 CG LEU A 398 11.981 65.868 20.334 1.00 0.82 C
ATOM 3136 CD1 LEU A 398 11.644 67.297 19.881 1.00 0.82 C
ATOM 3137 CD2 LEU A 398 10.893 65.320 21.264 1.00 0.82 C
ATOM 3138 N LYS A 399 13.551 63.104 17.096 1.00 0.73 N
ATOM 3139 CA LYS A 399 13.666 62.333 15.873 1.00 0.73 C
ATOM 3140 C LYS A 399 14.189 60.932 16.111 1.00 0.73 C
ATOM 3141 O LYS A 399 13.682 59.976 15.543 1.00 0.73 O
ATOM 3142 CB LYS A 399 14.598 63.023 14.848 1.00 0.73 C
ATOM 3143 CG LYS A 399 14.015 64.311 14.258 1.00 0.73 C
ATOM 3144 CD LYS A 399 15.001 64.974 13.285 1.00 0.73 C
ATOM 3145 CE LYS A 399 14.455 66.273 12.691 1.00 0.73 C
ATOM 3146 NZ LYS A 399 15.457 66.897 11.797 1.00 0.73 N
ATOM 3147 N GLY A 400 15.203 60.745 16.975 1.00 0.79 N
ATOM 3148 CA GLY A 400 15.724 59.414 17.271 1.00 0.79 C
ATOM 3149 C GLY A 400 14.786 58.498 18.005 1.00 0.79 C
ATOM 3150 O GLY A 400 14.834 57.282 17.829 1.00 0.79 O
ATOM 3151 N LEU A 401 13.908 59.059 18.850 1.00 0.78 N
ATOM 3152 CA LEU A 401 12.877 58.300 19.523 1.00 0.78 C
ATOM 3153 C LEU A 401 11.726 57.874 18.645 1.00 0.78 C
ATOM 3154 O LEU A 401 11.280 56.730 18.716 1.00 0.78 O
ATOM 3155 CB LEU A 401 12.279 59.116 20.671 1.00 0.78 C
ATOM 3156 CG LEU A 401 13.258 59.276 21.833 1.00 0.78 C
ATOM 3157 CD1 LEU A 401 12.675 60.306 22.773 1.00 0.78 C
ATOM 3158 CD2 LEU A 401 13.503 57.998 22.638 1.00 0.78 C
ATOM 3159 N CYS A 402 11.199 58.794 17.810 1.00 0.78 N
ATOM 3160 CA CYS A 402 9.979 58.549 17.074 1.00 0.78 C
ATOM 3161 C CYS A 402 10.205 58.150 15.642 1.00 0.78 C
ATOM 3162 O CYS A 402 9.423 57.388 15.077 1.00 0.78 O
ATOM 3163 CB CYS A 402 9.019 59.765 17.172 1.00 0.78 C
ATOM 3164 SG CYS A 402 9.577 61.309 16.395 1.00 0.78 S
ATOM 3165 N CYS A 403 11.329 58.582 15.053 1.00 0.84 N
ATOM 3166 CA CYS A 403 11.650 58.332 13.669 1.00 0.84 C
ATOM 3167 C CYS A 403 13.082 57.830 13.513 1.00 0.84 C
ATOM 3168 O CYS A 403 13.894 58.452 12.821 1.00 0.84 O
ATOM 3169 CB CYS A 403 11.441 59.595 12.793 1.00 0.84 C
ATOM 3170 SG CYS A 403 9.783 60.303 12.910 1.00 0.84 S
ATOM 3171 N PRO A 404 13.485 56.720 14.135 1.00 0.84 N
ATOM 3172 CA PRO A 404 14.825 56.193 13.994 1.00 0.84 C
ATOM 3173 C PRO A 404 15.053 55.624 12.621 1.00 0.84 C
ATOM 3174 O PRO A 404 14.152 55.063 12.002 1.00 0.84 O

ATOM 3175 CB PRO A 404 14.905 55.078 15.038 1.00 0.84 C
ATOM 3176 CG PRO A 404 13.469 54.573 15.129 1.00 0.84 C
ATOM 3177 CD PRO A 404 12.656 55.849 14.964 1.00 0.84 C
ATOM 3178 N ARG A 405 16.283 55.769 12.125 1.00 0.74 N
ATOM 3179 CA ARG A 405 16.678 55.223 10.858 1.00 0.74 C
ATOM 3180 C ARG A 405 17.264 53.855 11.066 1.00 0.74 C
ATOM 3181 O ARG A 405 18.042 53.637 11.992 1.00 0.74 O
ATOM 3182 CB ARG A 405 17.739 56.108 10.184 1.00 0.74 C
ATOM 3183 CG ARG A 405 17.255 57.557 9.985 1.00 0.74 C
ATOM 3184 CD ARG A 405 18.342 58.517 9.505 1.00 0.74 C
ATOM 3185 NE ARG A 405 19.332 58.594 10.635 1.00 0.74 N
ATOM 3186 CZ ARG A 405 20.560 59.123 10.555 1.00 0.74 C
ATOM 3187 NH1 ARG A 405 20.988 59.677 9.429 1.00 0.74 N
ATOM 3188 NH2 ARG A 405 21.371 59.093 11.612 1.00 0.74 N
ATOM 3189 N VAL A 406 16.895 52.912 10.195 1.00 0.74 N
ATOM 3190 CA VAL A 406 17.401 51.560 10.231 1.00 0.74 C
ATOM 3191 C VAL A 406 17.771 51.174 8.823 1.00 0.74 C
ATOM 3192 O VAL A 406 17.415 51.862 7.866 1.00 0.74 O
ATOM 3193 CB VAL A 406 16.374 50.550 10.742 1.00 0.74 C
ATOM 3194 CG1 VAL A 406 15.987 50.898 12.198 1.00 0.74 C
ATOM 3195 CG2 VAL A 406 15.150 50.511 9.798 1.00 0.74 C
ATOM 3196 N LYS A 407 18.481 50.044 8.657 1.00 0.65 N
ATOM 3197 CA LYS A 407 18.692 49.465 7.346 1.00 0.65 C
ATOM 3198 C LYS A 407 17.569 48.511 6.948 1.00 0.65 C
ATOM 3199 O LYS A 407 17.127 47.679 7.737 1.00 0.65 O
ATOM 3200 CB LYS A 407 20.042 48.718 7.228 1.00 0.65 C
ATOM 3201 CG LYS A 407 21.256 49.650 7.351 1.00 0.65 C
ATOM 3202 CD LYS A 407 22.588 48.890 7.252 1.00 0.65 C
ATOM 3203 CE LYS A 407 23.803 49.808 7.410 1.00 0.65 C
ATOM 3204 NZ LYS A 407 25.052 49.016 7.390 1.00 0.65 N
ATOM 3205 N VAL A 408 17.097 48.605 5.690 1.00 0.60 N
ATOM 3206 CA VAL A 408 16.211 47.629 5.073 1.00 0.60 C
ATOM 3207 C VAL A 408 17.009 47.094 3.899 1.00 0.60 C
ATOM 3208 O VAL A 408 17.231 47.769 2.897 1.00 0.60 O
ATOM 3209 CB VAL A 408 14.879 48.233 4.620 1.00 0.60 C
ATOM 3210 CG1 VAL A 408 13.951 47.173 3.987 1.00 0.60 C
ATOM 3211 CG2 VAL A 408 14.178 48.874 5.836 1.00 0.60 C
ATOM 3212 N GLY A 409 17.561 45.865 4.009 1.00 0.66 N
ATOM 3213 CA GLY A 409 18.680 45.465 3.152 1.00 0.66 C
ATOM 3214 C GLY A 409 19.895 46.351 3.355 1.00 0.66 C
ATOM 3215 O GLY A 409 20.484 46.359 4.431 1.00 0.66 O
ATOM 3216 N ASN A 410 20.273 47.141 2.327 1.00 0.58 N
ATOM 3217 CA ASN A 410 21.309 48.155 2.444 1.00 0.58 C
ATOM 3218 C ASN A 410 20.728 49.562 2.402 1.00 0.58 C

ATOM 3219 O ASN A 410 21.455 50.528 2.625 1.00 0.58 O
ATOM 3220 CB ASN A 410 22.317 48.065 1.272 1.00 0.58 C
ATOM 3221 CG ASN A 410 23.083 46.756 1.352 1.00 0.58 C
ATOM 3222 OD1 ASN A 410 23.580 46.362 2.406 1.00 0.58 O
ATOM 3223 ND2 ASN A 410 23.230 46.076 0.193 1.00 0.58 N
ATOM 3224 N GLU A 411 19.415 49.722 2.121 1.00 0.62 N
ATOM 3225 CA GLU A 411 18.739 51.005 2.119 1.00 0.62 C
ATOM 3226 C GLU A 411 18.593 51.556 3.515 1.00 0.62 C
ATOM 3227 O GLU A 411 18.453 50.802 4.471 1.00 0.62 O
ATOM 3228 CB GLU A 411 17.335 50.914 1.494 1.00 0.62 C
ATOM 3229 CG GLU A 411 17.371 50.572 -0.009 1.00 0.62 C
ATOM 3230 CD GLU A 411 15.977 50.516 -0.621 1.00 0.62 C
ATOM 3231 OE1 GLU A 411 14.977 50.650 0.128 1.00 0.62 O
ATOM 3232 OE2 GLU A 411 15.923 50.338 -1.865 1.00 0.62 O
ATOM 3233 N TYR A 412 18.605 52.892 3.667 1.00 0.63 N
ATOM 3234 CA TYR A 412 18.491 53.553 4.949 1.00 0.63 C
ATOM 3235 C TYR A 412 17.105 54.148 5.025 1.00 0.63 C
ATOM 3236 O TYR A 412 16.763 55.046 4.258 1.00 0.63 O
ATOM 3237 CB TYR A 412 19.522 54.704 5.106 1.00 0.63 C
ATOM 3238 CG TYR A 412 20.929 54.180 5.114 1.00 0.63 C
ATOM 3239 CD1 TYR A 412 21.578 53.901 6.327 1.00 0.63 C
ATOM 3240 CD2 TYR A 412 21.625 53.976 3.911 1.00 0.63 C
ATOM 3241 CE1 TYR A 412 22.895 53.420 6.335 1.00 0.63 C
ATOM 3242 CE2 TYR A 412 22.935 53.482 3.917 1.00 0.63 C
ATOM 3243 CZ TYR A 412 23.565 53.194 5.131 1.00 0.63 C
ATOM 3244 OH TYR A 412 24.869 52.664 5.137 1.00 0.63 O
ATOM 3245 N VAL A 413 16.265 53.645 5.945 1.00 0.73 N
ATOM 3246 CA VAL A 413 14.854 53.974 5.985 1.00 0.73 C
ATOM 3247 C VAL A 413 14.538 54.550 7.341 1.00 0.73 C
ATOM 3248 O VAL A 413 14.781 53.937 8.382 1.00 0.73 O
ATOM 3249 CB VAL A 413 13.963 52.761 5.718 1.00 0.73 C
ATOM 3250 CG1 VAL A 413 12.467 53.152 5.697 1.00 0.73 C
ATOM 3251 CG2 VAL A 413 14.350 52.138 4.360 1.00 0.73 C
ATOM 3252 N THR A 414 13.983 55.775 7.358 1.00 0.77 N
ATOM 3253 CA THR A 414 13.426 56.404 8.545 1.00 0.77 C
ATOM 3254 C THR A 414 12.129 55.719 8.904 1.00 0.77 C
ATOM 3255 O THR A 414 11.206 55.672 8.096 1.00 0.77 O
ATOM 3256 CB THR A 414 13.163 57.889 8.336 1.00 0.77 C
ATOM 3257 OG1 THR A 414 14.381 58.560 8.063 1.00 0.77 O
ATOM 3258 CG2 THR A 414 12.603 58.566 9.580 1.00 0.77 C
ATOM 3259 N LYS A 415 12.022 55.143 10.120 1.00 0.71 N
ATOM 3260 CA LYS A 415 10.779 54.585 10.611 1.00 0.71 C
ATOM 3261 C LYS A 415 9.893 55.695 11.111 1.00 0.71 C
ATOM 3262 O LYS A 415 10.328 56.819 11.313 1.00 0.71 O

ATOM 3263 CB LYS A 415 11.000 53.565 11.762 1.00 0.71 C
ATOM 3264 CG LYS A 415 11.539 52.218 11.272 1.00 0.71 C
ATOM 3265 CD LYS A 415 11.675 51.216 12.432 1.00 0.71 C
ATOM 3266 CE LYS A 415 12.162 49.843 11.969 1.00 0.71 C
ATOM 3267 NZ LYS A 415 12.343 48.904 13.100 1.00 0.71 N
ATOM 3268 N GLY A 416 8.608 55.406 11.340 1.00 0.75 N
ATOM 3269 CA GLY A 416 7.778 56.286 12.130 1.00 0.75 C
ATOM 3270 C GLY A 416 7.106 55.423 13.131 1.00 0.75 C
ATOM 3271 O GLY A 416 6.109 54.775 12.842 1.00 0.75 O
ATOM 3272 N GLN A 417 7.659 55.346 14.346 1.00 0.78 N
ATOM 3273 CA GLN A 417 7.123 54.498 15.382 1.00 0.78 C
ATOM 3274 C GLN A 417 5.798 55.005 15.949 1.00 0.78 C
ATOM 3275 O GLN A 417 5.580 56.204 16.123 1.00 0.78 O
ATOM 3276 CB GLN A 417 8.157 54.336 16.514 1.00 0.78 C
ATOM 3277 CG GLN A 417 9.470 53.618 16.115 1.00 0.78 C
ATOM 3278 CD GLN A 417 10.464 53.457 17.273 1.00 0.78 C
ATOM 3279 OE1 GLN A 417 11.547 52.887 17.144 1.00 0.78 O
ATOM 3280 NE2 GLN A 417 10.079 53.946 18.462 1.00 0.78 N
ATOM 3281 N ASN A 418 4.881 54.075 16.281 1.00 0.80 N
ATOM 3282 CA ASN A 418 3.626 54.348 16.963 1.00 0.80 C
ATOM 3283 C ASN A 418 3.838 54.580 18.453 1.00 0.80 C
ATOM 3284 O ASN A 418 4.933 54.371 18.957 1.00 0.80 O
ATOM 3285 CB ASN A 418 2.609 53.196 16.731 1.00 0.80 C
ATOM 3286 CG ASN A 418 2.996 51.865 17.387 1.00 0.80 C
ATOM 3287 OD1 ASN A 418 3.880 51.735 18.234 1.00 0.80 O
ATOM 3288 ND2 ASN A 418 2.257 50.801 17.021 1.00 0.80 N
ATOM 3289 N VAL A 419 2.803 54.970 19.232 1.00 0.84 N
ATOM 3290 CA VAL A 419 2.978 55.312 20.641 1.00 0.84 C
ATOM 3291 C VAL A 419 3.659 54.232 21.469 1.00 0.84 C
ATOM 3292 O VAL A 419 4.601 54.511 22.204 1.00 0.84 O
ATOM 3293 CB VAL A 419 1.634 55.654 21.277 1.00 0.84 C
ATOM 3294 CG1 VAL A 419 1.714 55.761 22.820 1.00 0.84 C
ATOM 3295 CG2 VAL A 419 1.153 56.995 20.692 1.00 0.84 C
ATOM 3296 N GLN A 420 3.244 52.957 21.329 1.00 0.77 N
ATOM 3297 CA GLN A 420 3.822 51.866 22.090 1.00 0.77 C
ATOM 3298 C GLN A 420 5.290 51.614 21.775 1.00 0.77 C
ATOM 3299 O GLN A 420 6.110 51.491 22.677 1.00 0.77 O
ATOM 3300 CB GLN A 420 3.017 50.564 21.875 1.00 0.77 C
ATOM 3301 CG GLN A 420 1.580 50.617 22.447 1.00 0.77 C
ATOM 3302 CD GLN A 420 0.825 49.322 22.141 1.00 0.77 C
ATOM 3303 OE1 GLN A 420 1.101 48.629 21.163 1.00 0.77 O
ATOM 3304 NE2 GLN A 420 -0.176 48.987 22.986 1.00 0.77 N
ATOM 3305 N GLN A 421 5.685 51.585 20.486 1.00 0.76 N
ATOM 3306 CA GLN A 421 7.075 51.432 20.098 1.00 0.76 C

ATOM 3307 C GLN A 421 7.950 52.608 20.504 1.00 0.76 C
ATOM 3308 O GLN A 421 9.076 52.417 20.960 1.00 0.76 O
ATOM 3309 CB GLN A 421 7.206 51.154 18.586 1.00 0.76 C
ATOM 3310 CG GLN A 421 6.711 49.742 18.201 1.00 0.76 C
ATOM 3311 CD GLN A 421 6.807 49.521 16.695 1.00 0.76 C
ATOM 3312 OE1 GLN A 421 6.779 50.452 15.889 1.00 0.76 O
ATOM 3313 NE2 GLN A 421 6.929 48.236 16.287 1.00 0.76 N
ATOM 3314 N VAL A 422 7.458 53.861 20.387 1.00 0.80 N
ATOM 3315 CA VAL A 422 8.176 55.043 20.845 1.00 0.80 C
ATOM 3316 C VAL A 422 8.456 55.029 22.343 1.00 0.80 C
ATOM 3317 O VAL A 422 9.583 55.247 22.790 1.00 0.80 O
ATOM 3318 CB VAL A 422 7.448 56.302 20.447 1.00 0.80 C
ATOM 3319 CG1 VAL A 422 8.342 57.483 20.745 1.00 0.80 C
ATOM 3320 CG2 VAL A 422 7.304 56.451 18.948 1.00 0.80 C
ATOM 3321 N THR A 423 7.434 54.672 23.136 1.00 0.77 N
ATOM 3322 CA THR A 423 7.492 54.432 24.573 1.00 0.77 C
ATOM 3323 C THR A 423 8.379 53.267 24.971 1.00 0.77 C
ATOM 3324 O THR A 423 9.059 53.270 25.995 1.00 0.77 O
ATOM 3325 CB THR A 423 6.112 54.203 25.143 1.00 0.77 C
ATOM 3326 OG1 THR A 423 5.325 55.363 24.946 1.00 0.77 O
ATOM 3327 CG2 THR A 423 6.130 53.982 26.657 1.00 0.77 C
ATOM 3328 N ASN A 424 8.433 52.193 24.179 1.00 0.74 N
ATOM 3329 CA ASN A 424 9.408 51.144 24.410 1.00 0.74 C
ATOM 3330 C ASN A 424 10.844 51.566 24.109 1.00 0.74 C
ATOM 3331 O ASN A 424 11.761 51.235 24.858 1.00 0.74 O
ATOM 3332 CB ASN A 424 9.050 49.876 23.618 1.00 0.74 C
ATOM 3333 CG ASN A 424 7.791 49.264 24.214 1.00 0.74 C
ATOM 3334 OD1 ASN A 424 7.448 49.449 25.381 1.00 0.74 O
ATOM 3335 ND2 ASN A 424 7.093 48.454 23.389 1.00 0.74 N
ATOM 3336 N SER A 425 11.077 52.333 23.020 1.00 0.80 N
ATOM 3337 CA SER A 425 12.390 52.871 22.656 1.00 0.80 C
ATOM 3338 C SER A 425 12.943 53.860 23.676 1.00 0.80 C
ATOM 3339 O SER A 425 14.111 53.800 24.060 1.00 0.80 O
ATOM 3340 CB SER A 425 12.379 53.560 21.269 1.00 0.80 C
ATOM 3341 OG SER A 425 13.699 53.907 20.848 1.00 0.80 O
ATOM 3342 N VAL A 426 12.087 54.770 24.202 1.00 0.82 N
ATOM 3343 CA VAL A 426 12.442 55.690 25.283 1.00 0.82 C
ATOM 3344 C VAL A 426 12.861 54.933 26.543 1.00 0.82 C
ATOM 3345 O VAL A 426 13.830 55.276 27.221 1.00 0.82 O
ATOM 3346 CB VAL A 426 11.336 56.729 25.561 1.00 0.82 C
ATOM 3347 CG1 VAL A 426 10.223 56.209 26.480 1.00 0.82 C
ATOM 3348 CG2 VAL A 426 11.894 58.022 26.170 1.00 0.82 C
ATOM 3349 N GLY A 427 12.165 53.813 26.851 1.00 0.82 N
ATOM 3350 CA GLY A 427 12.505 52.932 27.951 1.00 0.82 C

ATOM 3351 C GLY A 427 13.782 52.159 27.751 1.00 0.82 C
ATOM 3352 O GLY A 427 14.525 51.929 28.697 1.00 0.82 O
ATOM 3353 N ALA A 428 14.092 51.739 26.509 1.00 0.82 N
ATOM 3354 CA ALA A 428 15.352 51.117 26.145 1.00 0.82 C
ATOM 3355 C ALA A 428 16.534 52.038 26.330 1.00 0.82 C
ATOM 3356 O ALA A 428 17.555 51.650 26.898 1.00 0.82 O
ATOM 3357 CB ALA A 428 15.319 50.639 24.686 1.00 0.82 C
ATOM 3358 N LEU A 429 16.389 53.311 25.919 1.00 0.82 N
ATOM 3359 CA LEU A 429 17.371 54.327 26.191 1.00 0.82 C
ATOM 3360 C LEU A 429 17.612 54.535 27.672 1.00 0.82 C
ATOM 3361 O LEU A 429 18.751 54.493 28.129 1.00 0.82 O
ATOM 3362 CB LEU A 429 16.880 55.635 25.577 1.00 0.82 C
ATOM 3363 CG LEU A 429 17.692 56.865 25.974 1.00 0.82 C
ATOM 3364 CD1 LEU A 429 19.207 56.762 25.699 1.00 0.82 C
ATOM 3365 CD2 LEU A 429 17.012 58.032 25.286 1.00 0.82 C
ATOM 3366 N ALA A 430 16.541 54.684 28.477 1.00 0.89 N
ATOM 3367 CA ALA A 430 16.645 54.890 29.906 1.00 0.89 C
ATOM 3368 C ALA A 430 17.364 53.758 30.627 1.00 0.89 C
ATOM 3369 O ALA A 430 18.252 53.974 31.452 1.00 0.89 O
ATOM 3370 CB ALA A 430 15.223 55.011 30.485 1.00 0.89 C
ATOM 3371 N LYS A 431 17.025 52.504 30.274 1.00 0.80 N
ATOM 3372 CA LYS A 431 17.694 51.331 30.785 1.00 0.80 C
ATOM 3373 C LYS A 431 19.153 51.235 30.375 1.00 0.80 C
ATOM 3374 O LYS A 431 20.010 50.916 31.197 1.00 0.80 O
ATOM 3375 CB LYS A 431 16.953 50.055 30.337 1.00 0.80 C
ATOM 3376 CG LYS A 431 15.564 49.928 30.976 1.00 0.80 C
ATOM 3377 CD LYS A 431 14.861 48.607 30.628 1.00 0.80 C
ATOM 3378 CE LYS A 431 14.501 48.485 29.143 1.00 0.80 C
ATOM 3379 NZ LYS A 431 13.966 47.141 28.843 1.00 0.80 N
ATOM 3380 N ALA A 432 19.489 51.530 29.101 1.00 0.86 N
ATOM 3381 CA ALA A 432 20.862 51.595 28.647 1.00 0.86 C
ATOM 3382 C ALA A 432 21.694 52.660 29.346 1.00 0.86 C
ATOM 3383 O ALA A 432 22.831 52.390 29.718 1.00 0.86 O
ATOM 3384 CB ALA A 432 20.921 51.858 27.133 1.00 0.86 C
ATOM 3385 N VAL A 433 21.145 53.877 29.571 1.00 0.89 N
ATOM 3386 CA VAL A 433 21.806 54.933 30.332 1.00 0.89 C
ATOM 3387 C VAL A 433 22.113 54.494 31.750 1.00 0.89 C
ATOM 3388 O VAL A 433 23.241 54.633 32.219 1.00 0.89 O
ATOM 3389 CB VAL A 433 20.965 56.214 30.402 1.00 0.89 C
ATOM 3390 CG1 VAL A 433 21.589 57.250 31.360 1.00 0.89 C
ATOM 3391 CG2 VAL A 433 20.850 56.853 29.006 1.00 0.89 C
ATOM 3392 N TYR A 434 21.122 53.908 32.453 1.00 0.88 N
ATOM 3393 CA TYR A 434 21.285 53.492 33.829 1.00 0.88 C
ATOM 3394 C TYR A 434 22.296 52.363 34.020 1.00 0.88 C

ATOM 3395 O TYR A 434 23.155 52.427 34.895 1.00 0.88 O
ATOM 3396 CB TYR A 434 19.910 53.097 34.414 1.00 0.88 C
ATOM 3397 CG TYR A 434 19.975 53.078 35.914 1.00 0.88 C
ATOM 3398 CD1 TYR A 434 19.817 54.274 36.625 1.00 0.88 C
ATOM 3399 CD2 TYR A 434 20.239 51.895 36.621 1.00 0.88 C
ATOM 3400 CE1 TYR A 434 19.901 54.287 38.021 1.00 0.88 C
ATOM 3401 CE2 TYR A 434 20.330 51.909 38.019 1.00 0.88 C
ATOM 3402 CZ TYR A 434 20.148 53.106 38.711 1.00 0.88 C
ATOM 3403 OH TYR A 434 20.205 53.131 40.107 1.00 0.88 O
ATOM 3404 N GLU A 435 22.244 51.313 33.179 1.00 0.82 N
ATOM 3405 CA GLU A 435 23.206 50.219 33.235 1.00 0.82 C
ATOM 3406 C GLU A 435 24.612 50.610 32.904 1.00 0.82 C
ATOM 3407 O GLU A 435 25.578 50.254 33.573 1.00 0.82 O
ATOM 3408 CB GLU A 435 22.786 49.130 32.245 1.00 0.82 C
ATOM 3409 CG GLU A 435 23.690 47.870 32.063 1.00 0.82 C
ATOM 3410 CD GLU A 435 23.811 46.955 33.282 1.00 0.82 C
ATOM 3411 OE1 GLU A 435 23.938 47.478 34.410 1.00 0.82 O
ATOM 3412 OE2 GLU A 435 23.835 45.707 33.074 1.00 0.82 O
ATOM 3413 N LYS A 436 24.773 51.429 31.855 1.00 0.82 N
ATOM 3414 CA LYS A 436 26.075 51.945 31.517 1.00 0.82 C
ATOM 3415 C LYS A 436 26.649 52.837 32.601 1.00 0.82 C
ATOM 3416 O LYS A 436 27.838 52.765 32.903 1.00 0.82 O
ATOM 3417 CB LYS A 436 26.046 52.692 30.184 1.00 0.82 C
ATOM 3418 CG LYS A 436 25.820 51.743 29.004 1.00 0.82 C
ATOM 3419 CD LYS A 436 25.786 52.542 27.706 1.00 0.82 C
ATOM 3420 CE LYS A 436 25.587 51.688 26.463 1.00 0.82 C
ATOM 3421 NZ LYS A 436 25.665 52.541 25.257 1.00 0.82 N
ATOM 3422 N MET A 437 25.808 53.671 33.252 1.00 0.85 N
ATOM 3423 CA MET A 437 26.202 54.433 34.421 1.00 0.85 C
ATOM 3424 C MET A 437 26.631 53.565 35.602 1.00 0.85 C
ATOM 3425 O MET A 437 27.640 53.849 36.247 1.00 0.85 O
ATOM 3426 CB MET A 437 25.039 55.335 34.882 1.00 0.85 C
ATOM 3427 CG MET A 437 25.352 56.238 36.092 1.00 0.85 C
ATOM 3428 SD MET A 437 23.926 57.221 36.640 1.00 0.85 S
ATOM 3429 CE MET A 437 23.011 55.803 37.309 1.00 0.85 C
ATOM 3430 N PHE A 438 25.893 52.465 35.890 1.00 0.87 N
ATOM 3431 CA PHE A 438 26.244 51.488 36.907 1.00 0.87 C
ATOM 3432 C PHE A 438 27.588 50.826 36.620 1.00 0.87 C
ATOM 3433 O PHE A 438 28.463 50.781 37.483 1.00 0.87 O
ATOM 3434 CB PHE A 438 25.141 50.397 37.024 1.00 0.87 C
ATOM 3435 CG PHE A 438 25.359 49.518 38.228 1.00 0.87 C
ATOM 3436 CD1 PHE A 438 25.049 49.991 39.509 1.00 0.87 C
ATOM 3437 CD2 PHE A 438 25.895 48.228 38.093 1.00 0.87 C
ATOM 3438 CE1 PHE A 438 25.272 49.198 40.639 1.00 0.87 C

ATOM 3439 CE2 PHE A 438 26.122 47.429 39.220 1.00 0.87 C
ATOM 3440 CZ PHE A 438 25.810 47.918 40.493 1.00 0.87 C
ATOM 3441 N LEU A 439 27.821 50.378 35.367 1.00 0.84 N
ATOM 3442 CA LEU A 439 29.096 49.835 34.929 1.00 0.84 C
ATOM 3443 C LEU A 439 30.230 50.828 35.085 1.00 0.84 C
ATOM 3444 O LEU A 439 31.301 50.494 35.582 1.00 0.84 O
ATOM 3445 CB LEU A 439 29.051 49.419 33.437 1.00 0.84 C
ATOM 3446 CG LEU A 439 28.296 48.115 33.119 1.00 0.84 C
ATOM 3447 CD1 LEU A 439 28.397 47.863 31.606 1.00 0.84 C
ATOM 3448 CD2 LEU A 439 28.845 46.903 33.894 1.00 0.84 C
ATOM 3449 N TRP A 440 30.003 52.100 34.707 1.00 0.81 N
ATOM 3450 CA TRP A 440 30.970 53.163 34.861 1.00 0.81 C
ATOM 3451 C TRP A 440 31.351 53.441 36.307 1.00 0.81 C
ATOM 3452 O TRP A 440 32.532 53.564 36.616 1.00 0.81 O
ATOM 3453 CB TRP A 440 30.449 54.449 34.180 1.00 0.81 C
ATOM 3454 CG TRP A 440 31.442 55.598 34.151 1.00 0.81 C
ATOM 3455 CD1 TRP A 440 32.507 55.776 33.317 1.00 0.81 C
ATOM 3456 CD2 TRP A 440 31.477 56.683 35.095 1.00 0.81 C
ATOM 3457 NE1 TRP A 440 33.202 56.914 33.664 1.00 0.81 N
ATOM 3458 CE2 TRP A 440 32.582 57.488 34.753 1.00 0.81 C
ATOM 3459 CE3 TRP A 440 30.664 57.003 36.177 1.00 0.81 C
ATOM 3460 CZ2 TRP A 440 32.878 58.632 35.481 1.00 0.81 C
ATOM 3461 CZ3 TRP A 440 30.964 58.158 36.908 1.00 0.81 C
ATOM 3462 CH2 TRP A 440 32.059 58.962 36.571 1.00 0.81 C
ATOM 3463 N MET A 441 30.375 53.481 37.240 1.00 0.84 N
ATOM 3464 CA MET A 441 30.632 53.624 38.662 1.00 0.84 C
ATOM 3465 C MET A 441 31.507 52.502 39.202 1.00 0.84 C
ATOM 3466 O MET A 441 32.490 52.757 39.892 1.00 0.84 O
ATOM 3467 CB MET A 441 29.297 53.618 39.443 1.00 0.84 C
ATOM 3468 CG MET A 441 29.436 53.676 40.977 1.00 0.84 C
ATOM 3469 SD MET A 441 27.840 53.656 41.838 1.00 0.84 S
ATOM 3470 CE MET A 441 27.491 51.919 41.457 1.00 0.84 C
ATOM 3471 N VAL A 442 31.208 51.234 38.841 1.00 0.89 N
ATOM 3472 CA VAL A 442 32.003 50.072 39.218 1.00 0.89 C
ATOM 3473 C VAL A 442 33.411 50.132 38.665 1.00 0.89 C
ATOM 3474 O VAL A 442 34.386 49.930 39.385 1.00 0.89 O
ATOM 3475 CB VAL A 442 31.348 48.783 38.748 1.00 0.89 C
ATOM 3476 CG1 VAL A 442 32.227 47.553 39.079 1.00 0.89 C
ATOM 3477 CG2 VAL A 442 29.982 48.667 39.446 1.00 0.89 C
ATOM 3478 N THR A 443 33.554 50.486 37.372 1.00 0.82 N
ATOM 3479 CA THR A 443 34.841 50.662 36.709 1.00 0.82 C
ATOM 3480 C THR A 443 35.668 51.736 37.370 1.00 0.82 C
ATOM 3481 O THR A 443 36.842 51.532 37.654 1.00 0.82 O
ATOM 3482 CB THR A 443 34.688 50.962 35.224 1.00 0.82 C

ATOM 3483 OG1 THR A 443 34.125 49.828 34.587 1.00 0.82 O
ATOM 3484 CG2 THR A 443 36.017 51.198 34.495 1.00 0.82 C
ATOM 3485 N ARG A 444 35.069 52.894 37.713 1.00 0.80 N
ATOM 3486 CA ARG A 444 35.752 53.949 38.442 1.00 0.80 C
ATOM 3487 C ARG A 444 36.206 53.542 39.827 1.00 0.80 C
ATOM 3488 O ARG A 444 37.334 53.839 40.217 1.00 0.80 O
ATOM 3489 CB ARG A 444 34.853 55.196 38.595 1.00 0.80 C
ATOM 3490 CG ARG A 444 34.601 55.965 37.284 1.00 0.80 C
ATOM 3491 CD ARG A 444 35.795 56.757 36.731 1.00 0.80 C
ATOM 3492 NE ARG A 444 36.095 57.897 37.671 1.00 0.80 N
ATOM 3493 CZ ARG A 444 37.094 57.944 38.562 1.00 0.80 C
ATOM 3494 NH1 ARG A 444 37.196 59.013 39.350 1.00 0.80 N
ATOM 3495 NH2 ARG A 444 37.981 56.956 38.663 1.00 0.80 N
ATOM 3496 N ILE A 445 35.348 52.821 40.581 1.00 0.87 N
ATOM 3497 CA ILE A 445 35.692 52.256 41.875 1.00 0.87 C
ATOM 3498 C ILE A 445 36.836 51.274 41.784 1.00 0.87 C
ATOM 3499 O ILE A 445 37.822 51.418 42.498 1.00 0.87 O
ATOM 3500 CB ILE A 445 34.484 51.595 42.526 1.00 0.87 C
ATOM 3501 CG1 ILE A 445 33.491 52.716 42.886 1.00 0.87 C
ATOM 3502 CG2 ILE A 445 34.888 50.823 43.808 1.00 0.87 C
ATOM 3503 CD1 ILE A 445 32.098 52.258 43.331 1.00 0.87 C
ATOM 3504 N ASN A 446 36.790 50.311 40.839 1.00 0.86 N
ATOM 3505 CA ASN A 446 37.859 49.346 40.649 1.00 0.86 C
ATOM 3506 C ASN A 446 39.176 49.988 40.303 1.00 0.86 C
ATOM 3507 O ASN A 446 40.194 49.594 40.839 1.00 0.86 O
ATOM 3508 CB ASN A 446 37.531 48.308 39.555 1.00 0.86 C
ATOM 3509 CG ASN A 446 36.526 47.308 40.096 1.00 0.86 C
ATOM 3510 OD1 ASN A 446 36.392 47.092 41.302 1.00 0.86 O
ATOM 3511 ND2 ASN A 446 35.806 46.645 39.166 1.00 0.86 N
ATOM 3512 N GLN A 447 39.206 51.033 39.455 1.00 0.79 N
ATOM 3513 CA GLN A 447 40.439 51.726 39.114 1.00 0.79 C
ATOM 3514 C GLN A 447 41.140 52.371 40.312 1.00 0.79 C
ATOM 3515 O GLN A 447 42.360 52.346 40.416 1.00 0.79 O
ATOM 3516 CB GLN A 447 40.165 52.787 38.022 1.00 0.79 C
ATOM 3517 CG GLN A 447 39.798 52.159 36.658 1.00 0.79 C
ATOM 3518 CD GLN A 447 39.337 53.208 35.647 1.00 0.79 C
ATOM 3519 OE1 GLN A 447 38.830 54.284 35.974 1.00 0.79 O
ATOM 3520 NE2 GLN A 447 39.497 52.868 34.346 1.00 0.79 N
ATOM 3521 N GLN A 448 40.373 52.941 41.267 1.00 0.78 N
ATOM 3522 CA GLN A 448 40.877 53.386 42.557 1.00 0.78 C
ATOM 3523 C GLN A 448 41.380 52.261 43.438 1.00 0.78 C
ATOM 3524 O GLN A 448 42.377 52.396 44.146 1.00 0.78 O
ATOM 3525 CB GLN A 448 39.776 54.132 43.350 1.00 0.78 C
ATOM 3526 CG GLN A 448 40.258 54.738 44.689 1.00 0.78 C

ATOM 3527 CD GLN A 448 41.346 55.785 44.459 1.00 0.78 C
ATOM 3528 OE1 GLN A 448 41.444 56.443 43.423 1.00 0.78 O
ATOM 3529 NE2 GLN A 448 42.218 55.956 45.477 1.00 0.78 N
ATOM 3530 N LEU A 449 40.688 51.108 43.434 1.00 0.82 N
ATOM 3531 CA LEU A 449 41.056 50.018 44.300 1.00 0.82 C
ATOM 3532 C LEU A 449 42.117 49.133 43.677 1.00 0.82 C
ATOM 3533 O LEU A 449 42.648 48.286 44.377 1.00 0.82 O
ATOM 3534 CB LEU A 449 39.844 49.141 44.707 1.00 0.82 C
ATOM 3535 CG LEU A 449 38.664 49.914 45.335 1.00 0.82 C
ATOM 3536 CD1 LEU A 449 37.480 48.975 45.640 1.00 0.82 C
ATOM 3537 CD2 LEU A 449 39.077 50.724 46.576 1.00 0.82 C
ATOM 3538 N ASP A 450 42.485 49.316 42.388 1.00 0.78 N
ATOM 3539 CA ASP A 450 43.455 48.514 41.671 1.00 0.78 C
ATOM 3540 C ASP A 450 44.797 49.223 41.761 1.00 0.78 C
ATOM 3541 O ASP A 450 45.150 50.089 40.961 1.00 0.78 O
ATOM 3542 CB ASP A 450 42.999 48.298 40.193 1.00 0.78 C
ATOM 3543 CG ASP A 450 43.823 47.289 39.398 1.00 0.78 C
ATOM 3544 OD1 ASP A 450 44.757 46.654 39.965 1.00 0.78 O
ATOM 3545 OD2 ASP A 450 43.499 47.095 38.196 1.00 0.78 O
ATOM 3546 N THR A 451 45.584 48.901 42.801 1.00 0.73 N
ATOM 3547 CA THR A 451 46.775 49.665 43.127 1.00 0.73 C
ATOM 3548 C THR A 451 48.015 48.807 43.044 1.00 0.73 C
ATOM 3549 O THR A 451 47.996 47.601 42.821 1.00 0.73 O
ATOM 3550 CB THR A 451 46.710 50.395 44.472 1.00 0.73 C
ATOM 3551 OG1 THR A 451 46.693 49.492 45.566 1.00 0.73 O
ATOM 3552 CG2 THR A 451 45.451 51.275 44.530 1.00 0.73 C
ATOM 3553 N LYS A 452 49.177 49.465 43.204 1.00 0.64 N
ATOM 3554 CA LYS A 452 50.476 48.919 42.879 1.00 0.64 C
ATOM 3555 C LYS A 452 51.089 48.035 43.957 1.00 0.64 C
ATOM 3556 O LYS A 452 52.214 47.561 43.821 1.00 0.64 O
ATOM 3557 CB LYS A 452 51.457 50.105 42.695 1.00 0.64 C
ATOM 3558 CG LYS A 452 51.171 50.968 41.462 1.00 0.64 C
ATOM 3559 CD LYS A 452 52.206 52.097 41.324 1.00 0.64 C
ATOM 3560 CE LYS A 452 51.985 52.955 40.076 1.00 0.64 C
ATOM 3561 NZ LYS A 452 52.989 54.043 40.005 1.00 0.64 N
ATOM 3562 N GLN A 453 50.386 47.806 45.081 1.00 0.59 N
ATOM 3563 CA GLN A 453 50.832 46.914 46.132 1.00 0.59 C
ATOM 3564 C GLN A 453 50.895 45.456 45.684 1.00 0.59 C
ATOM 3565 O GLN A 453 50.272 45.128 44.678 1.00 0.59 O
ATOM 3566 CB GLN A 453 49.896 47.058 47.349 1.00 0.59 C
ATOM 3567 CG GLN A 453 49.899 48.478 47.929 1.00 0.59 C
ATOM 3568 CD GLN A 453 49.129 48.544 49.245 1.00 0.59 C
ATOM 3569 OE1 GLN A 453 49.340 47.706 50.112 1.00 0.59 O
ATOM 3570 NE2 GLN A 453 48.352 49.628 49.463 1.00 0.59 N

ATOM 3571 N PRO A 454 51.625 44.538 46.325 1.00 0.65 N
ATOM 3572 CA PRO A 454 51.664 43.147 45.895 1.00 0.65 C
ATOM 3573 C PRO A 454 50.312 42.475 45.731 1.00 0.65 C
ATOM 3574 O PRO A 454 49.543 42.402 46.681 1.00 0.65 O
ATOM 3575 CB PRO A 454 52.492 42.433 46.973 1.00 0.65 C
ATOM 3576 CG PRO A 454 53.349 43.509 47.642 1.00 0.65 C
ATOM 3577 CD PRO A 454 52.572 44.810 47.411 1.00 0.65 C
ATOM 3578 N ARG A 455 50.025 41.928 44.545 1.00 0.69 N
ATOM 3579 CA ARG A 455 48.802 41.209 44.306 1.00 0.69 C
ATOM 3580 C ARG A 455 49.216 39.771 44.221 1.00 0.69 C
ATOM 3581 O ARG A 455 49.793 39.338 43.229 1.00 0.69 O
ATOM 3582 CB ARG A 455 48.158 41.669 42.979 1.00 0.69 C
ATOM 3583 CG ARG A 455 47.699 43.142 43.017 1.00 0.69 C
ATOM 3584 CD ARG A 455 47.134 43.652 41.689 1.00 0.69 C
ATOM 3585 NE ARG A 455 45.889 42.862 41.442 1.00 0.69 N
ATOM 3586 CZ ARG A 455 45.249 42.811 40.270 1.00 0.69 C
ATOM 3587 NH1 ARG A 455 44.116 42.121 40.176 1.00 0.69 N
ATOM 3588 NH2 ARG A 455 45.673 43.492 39.214 1.00 0.69 N
ATOM 3589 N GLN A 456 48.972 39.014 45.300 1.00 0.73 N
ATOM 3590 CA GLN A 456 49.596 37.724 45.458 1.00 0.73 C
ATOM 3591 C GLN A 456 48.574 36.647 45.685 1.00 0.73 C
ATOM 3592 O GLN A 456 48.669 35.544 45.151 1.00 0.73 O
ATOM 3593 CB GLN A 456 50.484 37.813 46.713 1.00 0.73 C
ATOM 3594 CG GLN A 456 51.563 36.727 46.800 1.00 0.73 C
ATOM 3595 CD GLN A 456 52.695 36.976 45.815 1.00 0.73 C
ATOM 3596 OE1 GLN A 456 53.200 38.090 45.677 1.00 0.73 O
ATOM 3597 NE2 GLN A 456 53.150 35.883 45.169 1.00 0.73 N
ATOM 3598 N TYR A 457 47.547 36.984 46.479 1.00 0.83 N
ATOM 3599 CA TYR A 457 46.488 36.084 46.839 1.00 0.83 C
ATOM 3600 C TYR A 457 45.203 36.867 46.877 1.00 0.83 C
ATOM 3601 O TYR A 457 45.202 38.101 46.920 1.00 0.83 O
ATOM 3602 CB TYR A 457 46.685 35.484 48.254 1.00 0.83 C
ATOM 3603 CG TYR A 457 47.985 34.752 48.373 1.00 0.83 C
ATOM 3604 CD1 TYR A 457 48.168 33.526 47.716 1.00 0.83 C
ATOM 3605 CD2 TYR A 457 49.043 35.284 49.127 1.00 0.83 C
ATOM 3606 CE1 TYR A 457 49.405 32.869 47.773 1.00 0.83 C
ATOM 3607 CE2 TYR A 457 50.268 34.611 49.209 1.00 0.83 C
ATOM 3608 CZ TYR A 457 50.458 33.423 48.504 1.00 0.83 C
ATOM 3609 OH TYR A 457 51.731 32.822 48.519 1.00 0.83 O
ATOM 3610 N PHE A 458 44.064 36.160 46.896 1.00 0.87 N
ATOM 3611 CA PHE A 458 42.795 36.780 47.170 1.00 0.87 C
ATOM 3612 C PHE A 458 41.872 35.906 47.980 1.00 0.87 C
ATOM 3613 O PHE A 458 41.946 34.678 47.986 1.00 0.87 O
ATOM 3614 CB PHE A 458 42.070 37.302 45.891 1.00 0.87 C

ATOM 3615 CG PHE A 458 41.509 36.237 44.983 1.00 0.87 C
ATOM 3616 CD1 PHE A 458 42.293 35.672 43.971 1.00 0.87 C
ATOM 3617 CD2 PHE A 458 40.188 35.789 45.136 1.00 0.87 C
ATOM 3618 CE1 PHE A 458 41.783 34.661 43.148 1.00 0.87 C
ATOM 3619 CE2 PHE A 458 39.680 34.759 44.339 1.00 0.87 C
ATOM 3620 CZ PHE A 458 40.481 34.188 43.345 1.00 0.87 C
ATOM 3621 N ILE A 459 40.931 36.572 48.662 1.00 0.88 N
ATOM 3622 CA ILE A 459 39.769 35.943 49.240 1.00 0.88 C
ATOM 3623 C ILE A 459 38.594 36.576 48.550 1.00 0.88 C
ATOM 3624 O ILE A 459 38.404 37.792 48.584 1.00 0.88 O
ATOM 3625 CB ILE A 459 39.672 36.114 50.742 1.00 0.88 C
ATOM 3626 CG1 ILE A 459 40.902 35.436 51.386 1.00 0.88 C
ATOM 3627 CG2 ILE A 459 38.337 35.525 51.260 1.00 0.88 C
ATOM 3628 CD1 ILE A 459 40.991 35.634 52.894 1.00 0.88 C
ATOM 3629 N GLY A 460 37.796 35.758 47.843 1.00 0.92 N
ATOM 3630 CA GLY A 460 36.654 36.253 47.098 1.00 0.92 C
ATOM 3631 C GLY A 460 35.377 36.041 47.843 1.00 0.92 C
ATOM 3632 O GLY A 460 35.123 34.954 48.348 1.00 0.92 O
ATOM 3633 N VAL A 461 34.514 37.060 47.904 1.00 0.93 N
ATOM 3634 CA VAL A 461 33.265 36.996 48.644 1.00 0.93 C
ATOM 3635 C VAL A 461 32.131 37.129 47.661 1.00 0.93 C
ATOM 3636 O VAL A 461 32.028 38.117 46.933 1.00 0.93 O
ATOM 3637 CB VAL A 461 33.150 38.064 49.726 1.00 0.93 C
ATOM 3638 CG1 VAL A 461 31.943 37.746 50.635 1.00 0.93 C
ATOM 3639 CG2 VAL A 461 34.451 38.086 50.554 1.00 0.93 C
ATOM 3640 N LEU A 462 31.267 36.102 47.587 1.00 0.90 N
ATOM 3641 CA LEU A 462 30.199 36.050 46.619 1.00 0.90 C
ATOM 3642 C LEU A 462 28.882 36.444 47.243 1.00 0.90 C
ATOM 3643 O LEU A 462 28.431 35.841 48.216 1.00 0.90 O
ATOM 3644 CB LEU A 462 30.067 34.629 46.027 1.00 0.90 C
ATOM 3645 CG LEU A 462 28.990 34.480 44.933 1.00 0.90 C
ATOM 3646 CD1 LEU A 462 29.354 35.254 43.654 1.00 0.90 C
ATOM 3647 CD2 LEU A 462 28.729 32.998 44.625 1.00 0.90 C
ATOM 3648 N ASP A 463 28.233 37.457 46.644 1.00 0.85 N
ATOM 3649 CA ASP A 463 26.956 37.958 47.066 1.00 0.85 C
ATOM 3650 C ASP A 463 26.103 38.099 45.818 1.00 0.85 C
ATOM 3651 O ASP A 463 26.084 39.126 45.138 1.00 0.85 O
ATOM 3652 CB ASP A 463 27.200 39.319 47.749 1.00 0.85 C
ATOM 3653 CG ASP A 463 25.951 39.895 48.372 1.00 0.85 C
ATOM 3654 OD1 ASP A 463 25.001 39.145 48.689 1.00 0.85 O
ATOM 3655 OD2 ASP A 463 25.971 41.140 48.556 1.00 0.85 O
ATOM 3656 N ILE A 464 25.391 37.024 45.452 1.00 0.80 N
ATOM 3657 CA ILE A 464 24.465 37.030 44.341 1.00 0.80 C
ATOM 3658 C ILE A 464 23.116 37.598 44.748 1.00 0.80 C

ATOM 3659 O ILE A 464 22.755 37.649 45.922 1.00 0.80 O
ATOM 3660 CB ILE A 464 24.257 35.635 43.755 1.00 0.80 C
ATOM 3661 CG1 ILE A 464 23.613 34.649 44.766 1.00 0.80 C
ATOM 3662 CG2 ILE A 464 25.615 35.113 43.237 1.00 0.80 C
ATOM 3663 CD1 ILE A 464 23.167 33.337 44.113 1.00 0.80 C
ATOM 3664 N ALA A 465 22.267 37.988 43.774 1.00 0.68 N
ATOM 3665 CA ALA A 465 20.849 38.124 44.046 1.00 0.68 C
ATOM 3666 C ALA A 465 20.264 36.764 44.420 1.00 0.68 C
ATOM 3667 O ALA A 465 20.497 35.763 43.746 1.00 0.68 O
ATOM 3668 CB ALA A 465 20.103 38.721 42.839 1.00 0.68 C
ATOM 3669 N GLY A 466 19.549 36.682 45.558 1.00 0.69 N
ATOM 3670 CA GLY A 466 19.085 35.396 46.066 1.00 0.69 C
ATOM 3671 C GLY A 466 17.828 34.936 45.431 1.00 0.69 C
ATOM 3672 O GLY A 466 17.137 35.715 44.790 1.00 0.69 O
ATOM 3673 N PHE A 467 17.481 33.658 45.674 1.00 0.74 N
ATOM 3674 CA PHE A 467 16.296 33.009 45.158 1.00 0.74 C
ATOM 3675 C PHE A 467 15.027 33.802 45.464 1.00 0.74 C
ATOM 3676 O PHE A 467 14.810 34.230 46.601 1.00 0.74 O
ATOM 3677 CB PHE A 467 16.220 31.566 45.740 1.00 0.74 C
ATOM 3678 CG PHE A 467 15.194 30.731 45.030 1.00 0.74 C
ATOM 3679 CD1 PHE A 467 13.863 30.718 45.470 1.00 0.74 C
ATOM 3680 CD2 PHE A 467 15.539 29.971 43.905 1.00 0.74 C
ATOM 3681 CE1 PHE A 467 12.897 29.973 44.792 1.00 0.74 C
ATOM 3682 CE2 PHE A 467 14.571 29.231 43.215 1.00 0.74 C
ATOM 3683 CZ PHE A 467 13.243 29.235 43.656 1.00 0.74 C
ATOM 3684 N GLU A 468 14.175 34.039 44.451 1.00 0.67 N
ATOM 3685 CA GLU A 468 13.035 34.905 44.636 1.00 0.67 C
ATOM 3686 C GLU A 468 11.855 34.470 43.801 1.00 0.67 C
ATOM 3687 O GLU A 468 11.976 33.964 42.687 1.00 0.67 O
ATOM 3688 CB GLU A 468 13.368 36.417 44.423 1.00 0.67 C
ATOM 3689 CG GLU A 468 13.754 36.857 42.979 1.00 0.67 C
ATOM 3690 CD GLU A 468 14.121 38.339 42.823 1.00 0.67 C
ATOM 3691 OE1 GLU A 468 14.421 39.038 43.831 1.00 0.67 O
ATOM 3692 OE2 GLU A 468 14.102 38.837 41.661 1.00 0.67 O
ATOM 3693 N ILE A 469 10.651 34.623 44.388 1.00 0.78 N
ATOM 3694 CA ILE A 469 9.395 34.291 43.752 1.00 0.78 C
ATOM 3695 C ILE A 469 8.448 35.451 43.987 1.00 0.78 C
ATOM 3696 O ILE A 469 8.202 35.860 45.123 1.00 0.78 O
ATOM 3697 CB ILE A 469 8.761 33.005 44.293 1.00 0.78 C
ATOM 3698 CG1 ILE A 469 9.762 31.822 44.263 1.00 0.78 C
ATOM 3699 CG2 ILE A 469 7.495 32.696 43.458 1.00 0.78 C
ATOM 3700 CD1 ILE A 469 9.160 30.489 44.737 1.00 0.78 C
ATOM 3701 N PHE A 470 7.874 36.015 42.923 1.00 0.72 N
ATOM 3702 CA PHE A 470 6.879 37.057 43.011 1.00 0.72 C

ATOM 3703 C PHE A 470 5.617 36.515 42.387 1.00 0.72 C
ATOM 3704 O PHE A 470 5.613 35.405 41.858 1.00 0.72 O
ATOM 3705 CB PHE A 470 7.325 38.316 42.229 1.00 0.72 C
ATOM 3706 CG PHE A 470 8.609 38.852 42.786 1.00 0.72 C
ATOM 3707 CD1 PHE A 470 8.691 39.261 44.122 1.00 0.72 C
ATOM 3708 CD2 PHE A 470 9.747 38.961 41.979 1.00 0.72 C
ATOM 3709 CE1 PHE A 470 9.894 39.748 44.652 1.00 0.72 C
ATOM 3710 CE2 PHE A 470 10.930 39.501 42.488 1.00 0.72 C
ATOM 3711 CZ PHE A 470 11.013 39.876 43.829 1.00 0.72 C
ATOM 3712 N ASP A 471 4.519 37.301 42.420 1.00 0.67 N
ATOM 3713 CA ASP A 471 3.280 37.023 41.716 1.00 0.67 C
ATOM 3714 C ASP A 471 3.502 36.907 40.209 1.00 0.67 C
ATOM 3715 O ASP A 471 2.914 36.079 39.515 1.00 0.67 O
ATOM 3716 CB ASP A 471 2.262 38.165 41.987 1.00 0.67 C
ATOM 3717 CG ASP A 471 1.742 38.148 43.414 1.00 0.67 C
ATOM 3718 OD1 ASP A 471 1.980 37.147 44.132 1.00 0.67 O
ATOM 3719 OD2 ASP A 471 1.114 39.168 43.794 1.00 0.67 O
ATOM 3720 N PHE A 472 4.411 37.743 39.670 1.00 0.67 N
ATOM 3721 CA PHE A 472 4.812 37.685 38.284 1.00 0.67 C
ATOM 3722 C PHE A 472 6.312 37.505 38.225 1.00 0.67 C
ATOM 3723 O PHE A 472 7.068 38.362 38.675 1.00 0.67 O
ATOM 3724 CB PHE A 472 4.451 38.980 37.512 1.00 0.67 C
ATOM 3725 CG PHE A 472 2.966 39.206 37.509 1.00 0.67 C
ATOM 3726 CD1 PHE A 472 2.165 38.680 36.485 1.00 0.67 C
ATOM 3727 CD2 PHE A 472 2.355 39.945 38.535 1.00 0.67 C
ATOM 3728 CE1 PHE A 472 0.780 38.889 36.484 1.00 0.67 C
ATOM 3729 CE2 PHE A 472 0.972 40.148 38.545 1.00 0.67 C
ATOM 3730 CZ PHE A 472 0.184 39.624 37.515 1.00 0.67 C
ATOM 3731 N ASN A 473 6.785 36.387 37.641 1.00 0.78 N
ATOM 3732 CA ASN A 473 8.201 36.106 37.509 1.00 0.78 C
ATOM 3733 C ASN A 473 8.538 36.140 36.039 1.00 0.78 C
ATOM 3734 O ASN A 473 7.839 35.541 35.222 1.00 0.78 O
ATOM 3735 CB ASN A 473 8.573 34.704 38.050 1.00 0.78 C
ATOM 3736 CG ASN A 473 8.156 34.598 39.506 1.00 0.78 C
ATOM 3737 OD1 ASN A 473 8.738 35.247 40.375 1.00 0.78 O
ATOM 3738 ND2 ASN A 473 7.121 33.779 39.794 1.00 0.78 N
ATOM 3739 N SER A 474 9.604 36.865 35.662 1.00 0.82 N
ATOM 3740 CA SER A 474 9.995 37.045 34.275 1.00 0.82 C
ATOM 3741 C SER A 474 11.383 36.471 34.056 1.00 0.82 C
ATOM 3742 O SER A 474 11.886 35.667 34.844 1.00 0.82 O
ATOM 3743 CB SER A 474 9.935 38.551 33.894 1.00 0.82 C
ATOM 3744 OG SER A 474 10.021 38.802 32.479 1.00 0.82 O
ATOM 3745 N LEU A 475 12.033 36.878 32.951 1.00 0.84 N
ATOM 3746 CA LEU A 475 13.337 36.457 32.490 1.00 0.84 C

ATOM 3747 C LEU A 475 14.426 36.696 33.514 1.00 0.84 C
ATOM 3748 O LEU A 475 15.256 35.825 33.773 1.00 0.84 O
ATOM 3749 CB LEU A 475 13.695 37.204 31.180 1.00 0.84 C
ATOM 3750 CG LEU A 475 15.057 36.819 30.558 1.00 0.84 C
ATOM 3751 CD1 LEU A 475 15.129 35.329 30.201 1.00 0.84 C
ATOM 3752 CD2 LEU A 475 15.340 37.669 29.314 1.00 0.84 C
ATOM 3753 N GLU A 476 14.405 37.868 34.181 1.00 0.78 N
ATOM 3754 CA GLU A 476 15.317 38.208 35.244 1.00 0.78 C
ATOM 3755 C GLU A 476 15.253 37.238 36.414 1.00 0.78 C
ATOM 3756 O GLU A 476 16.280 36.770 36.899 1.00 0.78 O
ATOM 3757 CB GLU A 476 15.032 39.647 35.743 1.00 0.78 C
ATOM 3758 CG GLU A 476 15.192 40.739 34.645 1.00 0.78 C
ATOM 3759 CD GLU A 476 13.933 41.115 33.870 1.00 0.78 C
ATOM 3760 OE1 GLU A 476 13.015 40.267 33.695 1.00 0.78 O
ATOM 3761 OE2 GLU A 476 13.840 42.284 33.399 1.00 0.78 O
ATOM 3762 N GLN A 477 14.032 36.844 36.837 1.00 0.82 N
ATOM 3763 CA GLN A 477 13.818 35.858 37.882 1.00 0.82 C
ATOM 3764 C GLN A 477 14.340 34.494 37.502 1.00 0.82 C
ATOM 3765 O GLN A 477 14.927 33.807 38.332 1.00 0.82 O
ATOM 3766 CB GLN A 477 12.338 35.735 38.325 1.00 0.82 C
ATOM 3767 CG GLN A 477 11.871 36.887 39.244 1.00 0.82 C
ATOM 3768 CD GLN A 477 11.861 38.235 38.528 1.00 0.82 C
ATOM 3769 OE1 GLN A 477 11.246 38.368 37.464 1.00 0.82 O
ATOM 3770 NE2 GLN A 477 12.568 39.236 39.104 1.00 0.82 N
ATOM 3771 N LEU A 478 14.182 34.063 36.229 1.00 0.88 N
ATOM 3772 CA LEU A 478 14.763 32.806 35.795 1.00 0.88 C
ATOM 3773 C LEU A 478 16.276 32.798 35.902 1.00 0.88 C
ATOM 3774 O LEU A 478 16.860 31.860 36.442 1.00 0.88 O
ATOM 3775 CB LEU A 478 14.356 32.408 34.353 1.00 0.88 C
ATOM 3776 CG LEU A 478 15.017 31.092 33.887 1.00 0.88 C
ATOM 3777 CD1 LEU A 478 14.620 29.937 34.798 1.00 0.88 C
ATOM 3778 CD2 LEU A 478 14.682 30.739 32.433 1.00 0.88 C
ATOM 3779 N CYS A 479 16.937 33.879 35.447 1.00 0.88 N
ATOM 3780 CA CYS A 479 18.375 34.036 35.549 1.00 0.88 C
ATOM 3781 C CYS A 479 18.848 34.066 36.996 1.00 0.88 C
ATOM 3782 O CYS A 479 19.780 33.361 37.369 1.00 0.88 O
ATOM 3783 CB CYS A 479 18.844 35.323 34.810 1.00 0.88 C
ATOM 3784 SG CYS A 479 18.491 35.318 33.019 1.00 0.88 S
ATOM 3785 N ILE A 480 18.167 34.820 37.885 1.00 0.85 N
ATOM 3786 CA ILE A 480 18.473 34.844 39.311 1.00 0.85 C
ATOM 3787 C ILE A 480 18.328 33.485 39.966 1.00 0.85 C
ATOM 3788 O ILE A 480 19.224 33.008 40.663 1.00 0.85 O
ATOM 3789 CB ILE A 480 17.551 35.835 40.026 1.00 0.85 C
ATOM 3790 CG1 ILE A 480 17.953 37.276 39.637 1.00 0.85 C

ATOM 3791 CG2 ILE A 480 17.550 35.649 41.565 1.00 0.85 C
ATOM 3792 CD1 ILE A 480 16.919 38.340 40.035 1.00 0.85 C
ATOM 3793 N ASN A 481 17.202 32.795 39.721 1.00 0.85 N
ATOM 3794 CA ASN A 481 16.911 31.514 40.330 1.00 0.85 C
ATOM 3795 C ASN A 481 17.832 30.417 39.837 1.00 0.85 C
ATOM 3796 O ASN A 481 18.272 29.578 40.618 1.00 0.85 O
ATOM 3797 CB ASN A 481 15.423 31.145 40.157 1.00 0.85 C
ATOM 3798 CG ASN A 481 14.585 32.083 41.022 1.00 0.85 C
ATOM 3799 OD1 ASN A 481 15.062 32.702 41.975 1.00 0.85 O
ATOM 3800 ND2 ASN A 481 13.276 32.176 40.709 1.00 0.85 N
ATOM 3801 N PHE A 482 18.215 30.441 38.545 1.00 0.87 N
ATOM 3802 CA PHE A 482 19.232 29.567 38.001 1.00 0.87 C
ATOM 3803 C PHE A 482 20.611 29.788 38.643 1.00 0.87 C
ATOM 3804 O PHE A 482 21.323 28.835 38.954 1.00 0.87 O
ATOM 3805 CB PHE A 482 19.297 29.756 36.469 1.00 0.87 C
ATOM 3806 CG PHE A 482 20.401 28.950 35.850 1.00 0.87 C
ATOM 3807 CD1 PHE A 482 20.658 27.593 36.117 1.00 0.87 C
ATOM 3808 CD2 PHE A 482 21.274 29.646 35.029 1.00 0.87 C
ATOM 3809 CE1 PHE A 482 21.798 26.977 35.584 1.00 0.87 C
ATOM 3810 CE2 PHE A 482 22.426 29.052 34.527 1.00 0.87 C
ATOM 3811 CZ PHE A 482 22.706 27.721 34.827 1.00 0.87 C
ATOM 3812 N THR A 483 21.024 31.051 38.894 1.00 0.85 N
ATOM 3813 CA THR A 483 22.284 31.358 39.582 1.00 0.85 C
ATOM 3814 C THR A 483 22.342 30.751 40.971 1.00 0.85 C
ATOM 3815 O THR A 483 23.342 30.166 41.387 1.00 0.85 O
ATOM 3816 CB THR A 483 22.530 32.853 39.740 1.00 0.85 C
ATOM 3817 OG1 THR A 483 22.527 33.485 38.479 1.00 0.85 O
ATOM 3818 CG2 THR A 483 23.920 33.155 40.305 1.00 0.85 C
ATOM 3819 N ASN A 484 21.217 30.841 41.708 1.00 0.79 N
ATOM 3820 CA ASN A 484 21.015 30.210 42.999 1.00 0.79 C
ATOM 3821 C ASN A 484 21.055 28.687 42.952 1.00 0.79 C
ATOM 3822 O ASN A 484 21.703 28.063 43.793 1.00 0.79 O
ATOM 3823 CB ASN A 484 19.676 30.653 43.622 1.00 0.79 C
ATOM 3824 CG ASN A 484 19.821 32.047 44.197 1.00 0.79 C
ATOM 3825 OD1 ASN A 484 20.059 32.204 45.398 1.00 0.79 O
ATOM 3826 ND2 ASN A 484 19.669 33.087 43.352 1.00 0.79 N
ATOM 3827 N GLU A 485 20.413 28.060 41.937 1.00 0.82 N
ATOM 3828 CA GLU A 485 20.487 26.629 41.669 1.00 0.82 C
ATOM 3829 C GLU A 485 21.930 26.200 41.433 1.00 0.82 C
ATOM 3830 O GLU A 485 22.463 25.281 42.045 1.00 0.82 O
ATOM 3831 CB GLU A 485 19.634 26.300 40.408 1.00 0.82 C
ATOM 3832 CG GLU A 485 19.257 24.813 40.137 1.00 0.82 C
ATOM 3833 CD GLU A 485 17.944 24.411 40.797 1.00 0.82 C
ATOM 3834 OE1 GLU A 485 17.074 25.296 40.922 1.00 0.82 O

ATOM 3835 OE2 GLU A 485 17.747 23.238 41.199 1.00 0.82 O
ATOM 3836 N LYS A 486 22.685 26.934 40.601 1.00 0.83 N
ATOM 3837 CA LYS A 486 24.080 26.621 40.363 1.00 0.83 C
ATOM 3838 C LYS A 486 24.969 26.697 41.579 1.00 0.83 C
ATOM 3839 O LYS A 486 25.840 25.849 41.773 1.00 0.83 O
ATOM 3840 CB LYS A 486 24.652 27.530 39.266 1.00 0.83 C
ATOM 3841 CG LYS A 486 24.205 27.049 37.888 1.00 0.83 C
ATOM 3842 CD LYS A 486 24.928 25.799 37.354 1.00 0.83 C
ATOM 3843 CE LYS A 486 26.427 25.982 37.098 1.00 0.83 C
ATOM 3844 NZ LYS A 486 26.989 24.749 36.507 1.00 0.83 N
ATOM 3845 N LEU A 487 24.749 27.705 42.434 1.00 0.81 N
ATOM 3846 CA LEU A 487 25.435 27.842 43.695 1.00 0.81 C
ATOM 3847 C LEU A 487 25.124 26.737 44.702 1.00 0.81 C
ATOM 3848 O LEU A 487 26.013 26.221 45.380 1.00 0.81 O
ATOM 3849 CB LEU A 487 25.136 29.227 44.296 1.00 0.81 C
ATOM 3850 CG LEU A 487 25.947 29.560 45.562 1.00 0.81 C
ATOM 3851 CD1 LEU A 487 27.465 29.427 45.347 1.00 0.81 C
ATOM 3852 CD2 LEU A 487 25.601 30.977 46.036 1.00 0.81 C
ATOM 3853 N GLN A 488 23.853 26.295 44.803 1.00 0.72 N
ATOM 3854 CA GLN A 488 23.502 25.109 45.566 1.00 0.72 C
ATOM 3855 C GLN A 488 24.156 23.837 45.018 1.00 0.72 C
ATOM 3856 O GLN A 488 24.642 22.999 45.776 1.00 0.72 O
ATOM 3857 CB GLN A 488 21.967 24.936 45.640 1.00 0.72 C
ATOM 3858 CG GLN A 488 21.496 23.645 46.368 1.00 0.72 C
ATOM 3859 CD GLN A 488 21.869 23.661 47.849 1.00 0.72 C
ATOM 3860 OE1 GLN A 488 21.743 24.676 48.542 1.00 0.72 O
ATOM 3861 NE2 GLN A 488 22.366 22.521 48.380 1.00 0.72 N
ATOM 3862 N GLN A 489 24.237 23.666 43.680 1.00 0.74 N
ATOM 3863 CA GLN A 489 24.953 22.555 43.068 1.00 0.74 C
ATOM 3864 C GLN A 489 26.443 22.560 43.382 1.00 0.74 C
ATOM 3865 O GLN A 489 27.044 21.513 43.602 1.00 0.74 O
ATOM 3866 CB GLN A 489 24.758 22.480 41.534 1.00 0.74 C
ATOM 3867 CG GLN A 489 25.396 21.222 40.874 1.00 0.74 C
ATOM 3868 CD GLN A 489 24.777 19.917 41.386 1.00 0.74 C
ATOM 3869 OE1 GLN A 489 23.562 19.757 41.382 1.00 0.74 O
ATOM 3870 NE2 GLN A 489 25.585 18.940 41.847 1.00 0.74 N
ATOM 3871 N PHE A 490 27.079 23.747 43.437 1.00 0.76 N
ATOM 3872 CA PHE A 490 28.458 23.912 43.863 1.00 0.76 C
ATOM 3873 C PHE A 490 28.690 23.448 45.302 1.00 0.76 C
ATOM 3874 O PHE A 490 29.625 22.697 45.577 1.00 0.76 O
ATOM 3875 CB PHE A 490 28.859 25.398 43.689 1.00 0.76 C
ATOM 3876 CG PHE A 490 30.339 25.602 43.855 1.00 0.76 C
ATOM 3877 CD1 PHE A 490 31.234 25.345 42.807 1.00 0.76 C
ATOM 3878 CD2 PHE A 490 30.853 26.019 45.088 1.00 0.76 C

ATOM 3879 CE1 PHE A 490 32.611 25.540 42.976 1.00 0.76 C
ATOM 3880 CE2 PHE A 490 32.229 26.178 45.273 1.00 0.76 C
ATOM 3881 CZ PHE A 490 33.110 25.960 44.212 1.00 0.76 C
ATOM 3882 N PHE A 491 27.779 23.812 46.237 1.00 0.74 N
ATOM 3883 CA PHE A 491 27.754 23.271 47.590 1.00 0.74 C
ATOM 3884 C PHE A 491 27.616 21.751 47.580 1.00 0.74 C
ATOM 3885 O PHE A 491 28.394 21.049 48.217 1.00 0.74 O
ATOM 3886 CB PHE A 491 26.584 23.919 48.397 1.00 0.74 C
ATOM 3887 CG PHE A 491 26.387 23.331 49.778 1.00 0.74 C
ATOM 3888 CD1 PHE A 491 27.153 23.777 50.860 1.00 0.74 C
ATOM 3889 CD2 PHE A 491 25.486 22.273 49.989 1.00 0.74 C
ATOM 3890 CE1 PHE A 491 26.997 23.222 52.136 1.00 0.74 C
ATOM 3891 CE2 PHE A 491 25.333 21.698 51.255 1.00 0.74 C
ATOM 3892 CZ PHE A 491 26.076 22.185 52.335 1.00 0.74 C
ATOM 3893 N ASN A 492 26.670 21.197 46.791 1.00 0.68 N
ATOM 3894 CA ASN A 492 26.483 19.757 46.689 1.00 0.68 C
ATOM 3895 C ASN A 492 27.707 19.028 46.163 1.00 0.68 C
ATOM 3896 O ASN A 492 28.086 17.960 46.645 1.00 0.68 O
ATOM 3897 CB ASN A 492 25.341 19.379 45.724 1.00 0.68 C
ATOM 3898 CG ASN A 492 24.001 19.864 46.226 1.00 0.68 C
ATOM 3899 OD1 ASN A 492 23.757 20.215 47.379 1.00 0.68 O
ATOM 3900 ND2 ASN A 492 23.048 19.864 45.278 1.00 0.68 N
ATOM 3901 N HIS A 493 28.356 19.611 45.140 1.00 0.67 N
ATOM 3902 CA HIS A 493 29.558 19.091 44.532 1.00 0.67 C
ATOM 3903 C HIS A 493 30.724 19.015 45.504 1.00 0.67 C
ATOM 3904 O HIS A 493 31.351 17.968 45.641 1.00 0.67 O
ATOM 3905 CB HIS A 493 29.953 19.959 43.312 1.00 0.67 C
ATOM 3906 CG HIS A 493 30.989 19.339 42.435 1.00 0.67 C
ATOM 3907 ND1 HIS A 493 32.278 19.809 42.507 1.00 0.67 N
ATOM 3908 CD2 HIS A 493 30.917 18.277 41.592 1.00 0.67 C
ATOM 3909 CE1 HIS A 493 32.973 19.019 41.715 1.00 0.67 C
ATOM 3910 NE2 HIS A 493 32.200 18.072 41.135 1.00 0.67 N
ATOM 3911 N HIS A 494 30.981 20.109 46.255 1.00 0.72 N
ATOM 3912 CA HIS A 494 32.048 20.173 47.237 1.00 0.72 C
ATOM 3913 C HIS A 494 31.817 19.288 48.449 1.00 0.72 C
ATOM 3914 O HIS A 494 32.699 18.555 48.880 1.00 0.72 O
ATOM 3915 CB HIS A 494 32.306 21.636 47.670 1.00 0.72 C
ATOM 3916 CG HIS A 494 33.621 21.826 48.354 1.00 0.72 C
ATOM 3917 ND1 HIS A 494 33.674 21.836 49.730 1.00 0.72 N
ATOM 3918 CD2 HIS A 494 34.872 21.905 47.832 1.00 0.72 C
ATOM 3919 CE1 HIS A 494 34.955 21.914 50.023 1.00 0.72 C
ATOM 3920 NE2 HIS A 494 35.728 21.961 48.910 1.00 0.72 N
ATOM 3921 N MET A 495 30.590 19.305 49.000 1.00 0.66 N
ATOM 3922 CA MET A 495 30.274 18.597 50.219 1.00 0.66 C

ATOM 3923 C MET A 495 30.114 17.107 50.064 1.00 0.66 C
ATOM 3924 O MET A 495 30.449 16.334 50.958 1.00 0.66 O
ATOM 3925 CB MET A 495 28.971 19.162 50.813 1.00 0.66 C
ATOM 3926 CG MET A 495 29.148 20.583 51.374 1.00 0.66 C
ATOM 3927 SD MET A 495 30.347 20.754 52.735 1.00 0.66 S
ATOM 3928 CE MET A 495 29.451 19.723 53.928 1.00 0.66 C
ATOM 3929 N PHE A 496 29.544 16.662 48.932 1.00 0.69 N
ATOM 3930 CA PHE A 496 29.138 15.281 48.806 1.00 0.69 C
ATOM 3931 C PHE A 496 29.832 14.573 47.669 1.00 0.69 C
ATOM 3932 O PHE A 496 30.324 13.461 47.844 1.00 0.69 O
ATOM 3933 CB PHE A 496 27.613 15.187 48.533 1.00 0.69 C
ATOM 3934 CG PHE A 496 26.809 15.980 49.526 1.00 0.69 C
ATOM 3935 CD1 PHE A 496 26.861 15.692 50.895 1.00 0.69 C
ATOM 3936 CD2 PHE A 496 25.983 17.028 49.092 1.00 0.69 C
ATOM 3937 CE1 PHE A 496 26.125 16.449 51.810 1.00 0.69 C
ATOM 3938 CE2 PHE A 496 25.247 17.795 50.002 1.00 0.69 C
ATOM 3939 CZ PHE A 496 25.321 17.504 51.367 1.00 0.69 C
ATOM 3940 N VAL A 497 29.889 15.176 46.463 1.00 0.71 N
ATOM 3941 CA VAL A 497 30.386 14.472 45.287 1.00 0.71 C
ATOM 3942 C VAL A 497 31.897 14.316 45.311 1.00 0.71 C
ATOM 3943 O VAL A 497 32.401 13.196 45.356 1.00 0.71 O
ATOM 3944 CB VAL A 497 29.921 15.139 43.992 1.00 0.71 C
ATOM 3945 CG1 VAL A 497 30.514 14.450 42.746 1.00 0.71 C
ATOM 3946 CG2 VAL A 497 28.379 15.088 43.925 1.00 0.71 C
ATOM 3947 N LEU A 498 32.651 15.433 45.409 1.00 0.66 N
ATOM 3948 CA LEU A 498 34.104 15.434 45.476 1.00 0.66 C
ATOM 3949 C LEU A 498 34.640 14.732 46.702 1.00 0.66 C
ATOM 3950 O LEU A 498 35.655 14.038 46.647 1.00 0.66 O
ATOM 3951 CB LEU A 498 34.675 16.870 45.450 1.00 0.66 C
ATOM 3952 CG LEU A 498 34.585 17.563 44.080 1.00 0.66 C
ATOM 3953 CD1 LEU A 498 34.964 19.042 44.239 1.00 0.66 C
ATOM 3954 CD2 LEU A 498 35.467 16.886 43.015 1.00 0.66 C
ATOM 3955 N GLU A 499 33.946 14.878 47.846 1.00 0.64 N
ATOM 3956 CA GLU A 499 34.315 14.216 49.075 1.00 0.64 C
ATOM 3957 C GLU A 499 34.292 12.691 48.975 1.00 0.64 C
ATOM 3958 O GLU A 499 35.253 11.999 49.310 1.00 0.64 O
ATOM 3959 CB GLU A 499 33.376 14.707 50.206 1.00 0.64 C
ATOM 3960 CG GLU A 499 33.800 14.284 51.636 1.00 0.64 C
ATOM 3961 CD GLU A 499 35.122 14.885 52.110 1.00 0.64 C
ATOM 3962 OE1 GLU A 499 35.876 15.495 51.307 1.00 0.64 O
ATOM 3963 OE2 GLU A 499 35.468 14.707 53.306 1.00 0.64 O
ATOM 3964 N GLN A 500 33.204 12.117 48.419 1.00 0.69 N
ATOM 3965 CA GLN A 500 33.100 10.687 48.202 1.00 0.69 C
ATOM 3966 C GLN A 500 33.939 10.152 47.052 1.00 0.69 C

ATOM 3967 O GLN A 500 34.449 9.033 47.126 1.00 0.69 O
ATOM 3968 CB GLN A 500 31.635 10.256 48.042 1.00 0.69 C
ATOM 3969 CG GLN A 500 30.795 10.624 49.281 1.00 0.69 C
ATOM 3970 CD GLN A 500 29.416 9.991 49.180 1.00 0.69 C
ATOM 3971 OE1 GLN A 500 29.228 8.840 49.571 1.00 0.69 O
ATOM 3972 NE2 GLN A 500 28.427 10.722 48.628 1.00 0.69 N
ATOM 3973 N GLU A 501 34.147 10.941 45.972 1.00 0.69 N
ATOM 3974 CA GLU A 501 35.098 10.622 44.920 1.00 0.69 C
ATOM 3975 C GLU A 501 36.505 10.447 45.457 1.00 0.69 C
ATOM 3976 O GLU A 501 37.175 9.477 45.116 1.00 0.69 O
ATOM 3977 CB GLU A 501 35.174 11.733 43.853 1.00 0.69 C
ATOM 3978 CG GLU A 501 34.025 11.751 42.820 1.00 0.69 C
ATOM 3979 CD GLU A 501 34.244 12.860 41.791 1.00 0.69 C
ATOM 3980 OE1 GLU A 501 35.395 13.373 41.698 1.00 0.69 O
ATOM 3981 OE2 GLU A 501 33.272 13.168 41.058 1.00 0.69 O
ATOM 3982 N GLU A 502 36.963 11.344 46.358 1.00 0.65 N
ATOM 3983 CA GLU A 502 38.265 11.228 46.996 1.00 0.65 C
ATOM 3984 C GLU A 502 38.393 9.950 47.809 1.00 0.65 C
ATOM 3985 O GLU A 502 39.334 9.181 47.638 1.00 0.65 O
ATOM 3986 CB GLU A 502 38.504 12.442 47.926 1.00 0.65 C
ATOM 3987 CG GLU A 502 39.776 12.383 48.821 1.00 0.65 C
ATOM 3988 CD GLU A 502 41.097 12.764 48.159 1.00 0.65 C
ATOM 3989 OE1 GLU A 502 42.042 13.098 48.936 1.00 0.65 O
ATOM 3990 OE2 GLU A 502 41.208 12.773 46.912 1.00 0.65 O
ATOM 3991 N TYR A 503 37.383 9.632 48.652 1.00 0.67 N
ATOM 3992 CA TYR A 503 37.355 8.417 49.453 1.00 0.67 C
ATOM 3993 C TYR A 503 37.462 7.138 48.627 1.00 0.67 C
ATOM 3994 O TYR A 503 38.158 6.179 48.954 1.00 0.67 O
ATOM 3995 CB TYR A 503 35.994 8.295 50.199 1.00 0.67 C
ATOM 3996 CG TYR A 503 35.654 9.379 51.187 1.00 0.67 C
ATOM 3997 CD1 TYR A 503 36.561 10.310 51.730 1.00 0.67 C
ATOM 3998 CD2 TYR A 503 34.335 9.387 51.657 1.00 0.67 C
ATOM 3999 CE1 TYR A 503 36.149 11.200 52.734 1.00 0.67 C
ATOM 4000 CE2 TYR A 503 33.918 10.274 52.648 1.00 0.67 C
ATOM 4001 CZ TYR A 503 34.830 11.167 53.189 1.00 0.67 C
ATOM 4002 OH TYR A 503 34.372 12.033 54.185 1.00 0.67 O
ATOM 4003 N LYS A 504 36.723 7.103 47.513 1.00 0.66 N
ATOM 4004 CA LYS A 504 36.668 5.982 46.616 1.00 0.66 C
ATOM 4005 C LYS A 504 37.915 5.767 45.774 1.00 0.66 C
ATOM 4006 O LYS A 504 38.323 4.630 45.554 1.00 0.66 O
ATOM 4007 CB LYS A 504 35.424 6.143 45.736 1.00 0.66 C
ATOM 4008 CG LYS A 504 35.154 4.922 44.855 1.00 0.66 C
ATOM 4009 CD LYS A 504 33.830 5.049 44.099 1.00 0.66 C
ATOM 4010 CE LYS A 504 33.557 3.840 43.205 1.00 0.66 C

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ATOM   4011  NZ  LYS A 504     32.249   3.989  42.531  1.00  0.66           N
ATOM   4012  N   LYS A 505     38.568   6.848  45.298  1.00  0.73           N
ATOM   4013  CA  LYS A 505     39.831   6.760  44.579  1.00  0.73           C
ATOM   4014  C   LYS A 505     40.939   6.246  45.462  1.00  0.73           C
ATOM   4015  O   LYS A 505     41.816   5.528  45.000  1.00  0.73           O
ATOM   4016  CB  LYS A 505     40.273   8.123  44.001  1.00  0.73           C
ATOM   4017  CG  LYS A 505     39.391   8.611  42.847  1.00  0.73           C
ATOM   4018  CD  LYS A 505     39.831   9.993  42.344  1.00  0.73           C
ATOM   4019  CE  LYS A 505     38.915  10.536  41.244  1.00  0.73           C
ATOM   4020  NZ  LYS A 505     39.349  11.885  40.819  1.00  0.73           N
ATOM   4021  N   GLU A 506     40.876   6.590  46.760  1.00  0.70           N
ATOM   4022  CA  GLU A 506     41.874   6.227  47.732  1.00  0.70           C
ATOM   4023  C   GLU A 506     41.522   4.950  48.476  1.00  0.70           C
ATOM   4024  O   GLU A 506     42.212   4.573  49.416  1.00  0.70           O
ATOM   4025  CB  GLU A 506     42.029   7.388  48.744  1.00  0.70           C
ATOM   4026  CG  GLU A 506     42.542   8.721  48.123  1.00  0.70           C
ATOM   4027  CD  GLU A 506     43.995   8.792  47.652  1.00  0.70           C
ATOM   4028  OE1 GLU A 506     44.681   7.741  47.560  1.00  0.70           O
ATOM   4029  OE2 GLU A 506     44.450   9.965  47.448  1.00  0.70           O
ATOM   4030  N   GLY A 507     40.443   4.237  48.072  1.00  0.66           N
ATOM   4031  CA  GLY A 507     40.004   2.962  48.634  1.00  0.66           C
ATOM   4032  C   GLY A 507     39.947   2.820  50.136  1.00  0.66           C
ATOM   4033  O   GLY A 507     40.480   1.871  50.693  1.00  0.66           O
ATOM   4034  N   ILE A 508     39.247   3.736  50.836  1.00  0.63           N
ATOM   4035  CA  ILE A 508     39.257   3.789  52.300  1.00  0.63           C
ATOM   4036  C   ILE A 508     38.080   3.044  52.947  1.00  0.63           C
ATOM   4037  O   ILE A 508     37.665   3.346  54.069  1.00  0.63           O
ATOM   4038  CB  ILE A 508     39.351   5.217  52.838  1.00  0.63           C
ATOM   4039  CG1 ILE A 508     38.213   6.127  52.346  1.00  0.63           C
ATOM   4040  CG2 ILE A 508     40.724   5.792  52.437  1.00  0.63           C
ATOM   4041  CD1 ILE A 508     38.221   7.500  53.021  1.00  0.63           C
ATOM   4042  N   GLU A 509     37.519   2.050  52.213  1.00  0.61           N
ATOM   4043  CA  GLU A 509     36.446   1.134  52.602  1.00  0.61           C
ATOM   4044  C   GLU A 509     35.092   1.812  52.734  1.00  0.61           C
ATOM   4045  O   GLU A 509     34.287   1.531  53.617  1.00  0.61           O
ATOM   4046  CB  GLU A 509     36.765   0.300  53.857  1.00  0.61           C
ATOM   4047  CG  GLU A 509     37.979  -0.637  53.683  1.00  0.61           C
ATOM   4048  CD  GLU A 509     38.245  -1.448  54.945  1.00  0.61           C
ATOM   4049  OE1 GLU A 509     37.532  -1.232  55.961  1.00  0.61           O
ATOM   4050  OE2 GLU A 509     39.184  -2.281  54.896  1.00  0.61           O
ATOM   4051  N   TRP A 510     34.804   2.748  51.816  1.00  0.62           N
ATOM   4052  CA  TRP A 510     33.618   3.566  51.861  1.00  0.62           C
ATOM   4053  C   TRP A 510     32.535   3.051  50.926  1.00  0.62           C
ATOM   4054  O   TRP A 510     32.774   2.818  49.741  1.00  0.62           O
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ATOM   4055  CB  TRP A 510     34.024   5.007  51.457  1.00  0.62        C
ATOM   4056  CG  TRP A 510     32.912   6.040  51.428  1.00  0.62        C
ATOM   4057  CD1 TRP A 510     32.224   6.512  50.347  1.00  0.62        C
ATOM   4058  CD2 TRP A 510     32.366   6.707  52.577  1.00  0.62        C
ATOM   4059  NE1 TRP A 510     31.305   7.454  50.746  1.00  0.62        N
ATOM   4060  CE2 TRP A 510     31.370   7.584  52.107  1.00  0.62        C
ATOM   4061  CE3 TRP A 510     32.659   6.616  53.928  1.00  0.62        C
ATOM   4062  CZ2 TRP A 510     30.657   8.392  52.980  1.00  0.62        C
ATOM   4063  CZ3 TRP A 510     31.942   7.431  54.809  1.00  0.62        C
ATOM   4064  CH2 TRP A 510     30.953   8.313  54.350  1.00  0.62        C
ATOM   4065  N   GLU A 511     31.297   2.916  51.439  1.00  0.63        N
ATOM   4066  CA  GLU A 511     30.123   2.706  50.627  1.00  0.63        C
ATOM   4067  C   GLU A 511     29.576   4.067  50.246  1.00  0.63        C
ATOM   4068  O   GLU A 511     29.360   4.924  51.100  1.00  0.63        O
ATOM   4069  CB  GLU A 511     29.055   1.901  51.394  1.00  0.63        C
ATOM   4070  CG  GLU A 511     27.800   1.559  50.558  1.00  0.63        C
ATOM   4071  CD  GLU A 511     26.804   0.702  51.335  1.00  0.63        C
ATOM   4072  OE1 GLU A 511     27.087   0.364  52.513  1.00  0.63        O
ATOM   4073  OE2 GLU A 511     25.750   0.371  50.733  1.00  0.63        O
ATOM   4074  N   PHE A 512     29.388   4.314  48.931  1.00  0.54        N
ATOM   4075  CA  PHE A 512     28.809   5.540  48.410  1.00  0.54        C
ATOM   4076  C   PHE A 512     27.397   5.791  48.937  1.00  0.54        C
ATOM   4077  O   PHE A 512     26.542   4.911  48.934  1.00  0.54        O
ATOM   4078  CB  PHE A 512     28.824   5.505  46.847  1.00  0.54        C
ATOM   4079  CG  PHE A 512     28.140   6.691  46.203  1.00  0.54        C
ATOM   4080  CD1 PHE A 512     28.809   7.908  46.006  1.00  0.54        C
ATOM   4081  CD2 PHE A 512     26.780   6.610  45.860  1.00  0.54        C
ATOM   4082  CE1 PHE A 512     28.140   9.012  45.460  1.00  0.54        C
ATOM   4083  CE2 PHE A 512     26.105   7.712  45.326  1.00  0.54        C
ATOM   4084  CZ  PHE A 512     26.789   8.911  45.114  1.00  0.54        C
ATOM   4085  N   ILE A 513     27.118   7.037  49.350  1.00  0.59        N
ATOM   4086  CA  ILE A 513     25.818   7.429  49.838  1.00  0.59        C
ATOM   4087  C   ILE A 513     25.213   8.377  48.838  1.00  0.59        C
ATOM   4088  O   ILE A 513     25.813   9.375  48.429  1.00  0.59        O
ATOM   4089  CB  ILE A 513     25.889   8.084  51.214  1.00  0.59        C
ATOM   4090  CG1 ILE A 513     26.448   7.080  52.251  1.00  0.59        C
ATOM   4091  CG2 ILE A 513     24.494   8.590  51.654  1.00  0.59        C
ATOM   4092  CD1 ILE A 513     26.932   7.750  53.542  1.00  0.59        C
ATOM   4093  N   ASP A 514     23.962   8.082  48.446  1.00  0.56        N
ATOM   4094  CA  ASP A 514     23.152   8.976  47.678  1.00  0.56        C
ATOM   4095  C   ASP A 514     22.488   9.895  48.686  1.00  0.56        C
ATOM   4096  O   ASP A 514     21.634   9.493  49.473  1.00  0.56        O
ATOM   4097  CB  ASP A 514     22.128   8.175  46.839  1.00  0.56        C
ATOM   4098  CG  ASP A 514     21.432   9.067  45.829  1.00  0.56        C
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ATOM   4099  OD1 ASP A 514     21.601  10.314  45.920  1.00  0.56          O
ATOM   4100  OD2 ASP A 514     20.725   8.499  44.963  1.00  0.56          O
ATOM   4101  N   PHE A 515     22.919  11.169  48.704  1.00  0.51          N
ATOM   4102  CA  PHE A 515     22.371  12.153  49.605  1.00  0.51          C
ATOM   4103  C   PHE A 515     21.117  12.768  49.023  1.00  0.51          C
ATOM   4104  O   PHE A 515     20.436  13.525  49.705  1.00  0.51          O
ATOM   4105  CB  PHE A 515     23.416  13.252  49.935  1.00  0.51          C
ATOM   4106  CG  PHE A 515     24.414  12.723  50.928  1.00  0.51          C
ATOM   4107  CD1 PHE A 515     24.110  12.725  52.298  1.00  0.51          C
ATOM   4108  CD2 PHE A 515     25.655  12.220  50.519  1.00  0.51          C
ATOM   4109  CE1 PHE A 515     25.035  12.268  53.243  1.00  0.51          C
ATOM   4110  CE2 PHE A 515     26.579  11.751  51.458  1.00  0.51          C
ATOM   4111  CZ  PHE A 515     26.274  11.779  52.822  1.00  0.51          C
ATOM   4112  N   GLY A 516     20.756  12.451  47.755  1.00  0.54          N
ATOM   4113  CA  GLY A 516     19.466  12.833  47.200  1.00  0.54          C
ATOM   4114  C   GLY A 516     19.337  14.275  46.810  1.00  0.54          C
ATOM   4115  O   GLY A 516     18.250  14.771  46.528  1.00  0.54          O
ATOM   4116  N   MET A 517     20.475  14.980  46.766  1.00  0.58          N
ATOM   4117  CA  MET A 517     20.550  16.363  46.378  1.00  0.58          C
ATOM   4118  C   MET A 517     21.329  16.431  45.096  1.00  0.58          C
ATOM   4119  O   MET A 517     22.558  16.379  45.094  1.00  0.58          O
ATOM   4120  CB  MET A 517     21.298  17.218  47.437  1.00  0.58          C
ATOM   4121  CG  MET A 517     20.630  17.224  48.823  1.00  0.58          C
ATOM   4122  SD  MET A 517     18.981  17.982  48.853  1.00  0.58          S
ATOM   4123  CE  MET A 517     19.533  19.692  48.607  1.00  0.58          C
ATOM   4124  N   ASP A 518     20.613  16.591  43.971  1.00  0.68          N
ATOM   4125  CA  ASP A 518     21.244  16.770  42.699  1.00  0.68          C
ATOM   4126  C   ASP A 518     20.340  17.684  41.898  1.00  0.68          C
ATOM   4127  O   ASP A 518     19.173  17.401  41.637  1.00  0.68          O
ATOM   4128  CB  ASP A 518     21.550  15.411  42.015  1.00  0.68          C
ATOM   4129  CG  ASP A 518     22.570  15.594  40.909  1.00  0.68          C
ATOM   4130  OD1 ASP A 518     22.714  16.751  40.432  1.00  0.68          O
ATOM   4131  OD2 ASP A 518     23.231  14.594  40.545  1.00  0.68          O
ATOM   4132  N   LEU A 519     20.887  18.843  41.513  1.00  0.76          N
ATOM   4133  CA  LEU A 519     20.200  19.900  40.832  1.00  0.76          C
ATOM   4134  C   LEU A 519     20.453  19.763  39.349  1.00  0.76          C
ATOM   4135  O   LEU A 519     20.013  20.599  38.560  1.00  0.76          O
ATOM   4136  CB  LEU A 519     20.751  21.249  41.321  1.00  0.76          C
ATOM   4137  CG  LEU A 519     20.132  21.734  42.638  1.00  0.76          C
ATOM   4138  CD1 LEU A 519     20.213  20.828  43.856  1.00  0.76          C
ATOM   4139  CD2 LEU A 519     20.809  23.018  43.042  1.00  0.76          C
ATOM   4140  N   ALA A 520     21.141  18.679  38.904  1.00  0.83          N
ATOM   4141  CA  ALA A 520     21.549  18.514  37.527  1.00  0.83          C
ATOM   4142  C   ALA A 520     20.405  18.571  36.540  1.00  0.83          C
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ATOM 4143 O ALA A 520 20.473 19.309 35.568 1.00 0.83 O
ATOM 4144 CB ALA A 520 22.318 17.195 37.316 1.00 0.83 C
ATOM 4145 N ALA A 521 19.282 17.884 36.825 1.00 0.85 N
ATOM 4146 CA ALA A 521 18.125 17.849 35.956 1.00 0.85 C
ATOM 4147 C ALA A 521 17.499 19.223 35.703 1.00 0.85 C
ATOM 4148 O ALA A 521 17.132 19.567 34.579 1.00 0.85 O
ATOM 4149 CB ALA A 521 17.066 16.916 36.577 1.00 0.85 C
ATOM 4150 N CYS A 522 17.390 20.067 36.758 1.00 0.88 N
ATOM 4151 CA CYS A 522 16.937 21.445 36.633 1.00 0.88 C
ATOM 4152 C CYS A 522 17.923 22.303 35.851 1.00 0.88 C
ATOM 4153 O CYS A 522 17.546 23.044 34.943 1.00 0.88 O
ATOM 4154 CB CYS A 522 16.647 22.112 38.009 1.00 0.88 C
ATOM 4155 SG CYS A 522 15.779 23.713 37.839 1.00 0.88 S
ATOM 4156 N ILE A 523 19.236 22.171 36.138 1.00 0.87 N
ATOM 4157 CA ILE A 523 20.296 22.881 35.435 1.00 0.87 C
ATOM 4158 C ILE A 523 20.323 22.525 33.970 1.00 0.87 C
ATOM 4159 O ILE A 523 20.424 23.395 33.104 1.00 0.87 O
ATOM 4160 CB ILE A 523 21.651 22.586 36.067 1.00 0.87 C
ATOM 4161 CG1 ILE A 523 21.700 23.281 37.445 1.00 0.87 C
ATOM 4162 CG2 ILE A 523 22.838 23.007 35.156 1.00 0.87 C
ATOM 4163 CD1 ILE A 523 22.846 22.802 38.336 1.00 0.87 C
ATOM 4164 N GLU A 524 20.182 21.226 33.644 1.00 0.79 N
ATOM 4165 CA GLU A 524 20.047 20.788 32.287 1.00 0.79 C
ATOM 4166 C GLU A 524 18.809 21.352 31.629 1.00 0.79 C
ATOM 4167 O GLU A 524 18.872 21.934 30.557 1.00 0.79 O
ATOM 4168 CB GLU A 524 20.025 19.253 32.166 1.00 0.79 C
ATOM 4169 CG GLU A 524 21.364 18.578 32.525 1.00 0.79 C
ATOM 4170 CD GLU A 524 21.231 17.061 32.468 1.00 0.79 C
ATOM 4171 OE1 GLU A 524 20.107 16.571 32.174 1.00 0.79 O
ATOM 4172 OE2 GLU A 524 22.271 16.393 32.683 1.00 0.79 O
ATOM 4173 N LEU A 525 17.633 21.317 32.256 1.00 0.85 N
ATOM 4174 CA LEU A 525 16.464 21.911 31.647 1.00 0.85 C
ATOM 4175 C LEU A 525 16.613 23.387 31.282 1.00 0.85 C
ATOM 4176 O LEU A 525 16.212 23.819 30.201 1.00 0.85 O
ATOM 4177 CB LEU A 525 15.303 21.756 32.632 1.00 0.85 C
ATOM 4178 CG LEU A 525 14.033 22.537 32.272 1.00 0.85 C
ATOM 4179 CD1 LEU A 525 13.458 22.150 30.910 1.00 0.85 C
ATOM 4180 CD2 LEU A 525 13.008 22.321 33.374 1.00 0.85 C
ATOM 4181 N ILE A 526 17.232 24.183 32.164 1.00 0.85 N
ATOM 4182 CA ILE A 526 17.498 25.581 31.899 1.00 0.85 C
ATOM 4183 C ILE A 526 18.560 25.810 30.813 1.00 0.85 C
ATOM 4184 O ILE A 526 18.317 26.556 29.866 1.00 0.85 O
ATOM 4185 CB ILE A 526 17.824 26.285 33.206 1.00 0.85 C
ATOM 4186 CG1 ILE A 526 16.612 26.213 34.159 1.00 0.85 C

ATOM 4187 CG2 ILE A 526 18.100 27.769 32.971 1.00 0.85 C
ATOM 4188 CD1 ILE A 526 16.944 26.662 35.583 1.00 0.85 C
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ATOM 4190 CA GLU A 527 20.922 25.503 30.135 1.00 0.78 C
ATOM 4191 C GLU A 527 21.648 24.357 29.455 1.00 0.78 C
ATOM 4192 O GLU A 527 22.750 24.537 28.936 1.00 0.78 O
ATOM 4193 CB GLU A 527 21.993 26.061 31.088 1.00 0.78 C
ATOM 4194 CG GLU A 527 21.687 27.438 31.676 1.00 0.78 C
ATOM 4195 CD GLU A 527 21.649 28.626 30.730 1.00 0.78 C
ATOM 4196 OE1 GLU A 527 22.017 28.499 29.526 1.00 0.78 O
ATOM 4197 OE2 GLU A 527 21.348 29.730 31.250 1.00 0.78 O
ATOM 4198 N LYS A 528 21.092 23.125 29.415 1.00 0.76 N
ATOM 4199 CA LYS A 528 21.658 22.032 28.624 1.00 0.76 C
ATOM 4200 C LYS A 528 21.738 22.404 27.144 1.00 0.76 C
ATOM 4201 O LYS A 528 21.130 23.408 26.772 1.00 0.76 O
ATOM 4202 CB LYS A 528 20.855 20.697 28.767 1.00 0.76 C
ATOM 4203 CG LYS A 528 19.557 20.601 27.942 1.00 0.76 C
ATOM 4204 CD LYS A 528 18.712 19.374 28.305 1.00 0.76 C
ATOM 4205 CE LYS A 528 17.445 19.263 27.455 1.00 0.76 C
ATOM 4206 NZ LYS A 528 16.697 18.039 27.816 1.00 0.76 N
ATOM 4207 N PRO A 529 22.378 21.659 26.243 1.00 0.73 N
ATOM 4208 CA PRO A 529 22.501 22.001 24.824 1.00 0.73 C
ATOM 4209 C PRO A 529 21.288 22.602 24.117 1.00 0.73 C
ATOM 4210 O PRO A 529 21.436 23.495 23.289 1.00 0.73 O
ATOM 4211 CB PRO A 529 22.916 20.666 24.189 1.00 0.73 C
ATOM 4212 CG PRO A 529 23.710 19.921 25.268 1.00 0.73 C
ATOM 4213 CD PRO A 529 23.165 20.468 26.580 1.00 0.73 C
ATOM 4214 N MET A 530 20.085 22.091 24.432 1.00 0.73 N
ATOM 4215 CA MET A 530 18.822 22.536 23.893 1.00 0.73 C
ATOM 4216 C MET A 530 17.850 22.950 24.984 1.00 0.73 C
ATOM 4217 O MET A 530 16.639 22.934 24.796 1.00 0.73 O
ATOM 4218 CB MET A 530 18.155 21.396 23.114 1.00 0.73 C
ATOM 4219 CG MET A 530 19.002 20.881 21.945 1.00 0.73 C
ATOM 4220 SD MET A 530 18.184 19.542 21.033 1.00 0.73 S
ATOM 4221 CE MET A 530 16.846 20.570 20.352 1.00 0.73 C
ATOM 4222 N GLY A 531 18.340 23.278 26.198 1.00 0.89 N
ATOM 4223 CA GLY A 531 17.503 23.781 27.284 1.00 0.89 C
ATOM 4224 C GLY A 531 16.858 25.108 26.994 1.00 0.89 C
ATOM 4225 O GLY A 531 16.993 25.679 25.914 1.00 0.89 O
ATOM 4226 N ILE A 532 16.132 25.658 27.978 1.00 0.90 N
ATOM 4227 CA ILE A 532 15.318 26.858 27.825 1.00 0.90 C
ATOM 4228 C ILE A 532 16.055 28.055 27.269 1.00 0.90 C
ATOM 4229 O ILE A 532 15.574 28.731 26.361 1.00 0.90 O
ATOM 4230 CB ILE A 532 14.735 27.254 29.170 1.00 0.90 C

ATOM 4231 CG1 ILE A 532 13.765 26.144 29.603 1.00 0.90 C
ATOM 4232 CG2 ILE A 532 14.016 28.633 29.119 1.00 0.90 C
ATOM 4233 CD1 ILE A 532 13.319 26.300 31.043 1.00 0.90 C
ATOM 4234 N PHE A 533 17.259 28.337 27.782 1.00 0.91 N
ATOM 4235 CA PHE A 533 18.054 29.452 27.332 1.00 0.91 C
ATOM 4236 C PHE A 533 18.546 29.332 25.897 1.00 0.91 C
ATOM 4237 O PHE A 533 18.519 30.307 25.151 1.00 0.91 O
ATOM 4238 CB PHE A 533 19.228 29.654 28.292 1.00 0.91 C
ATOM 4239 CG PHE A 533 18.785 30.469 29.457 1.00 0.91 C
ATOM 4240 CD1 PHE A 533 18.081 29.943 30.535 1.00 0.91 C
ATOM 4241 CD2 PHE A 533 19.154 31.807 29.500 1.00 0.91 C
ATOM 4242 CE1 PHE A 533 17.799 30.743 31.645 1.00 0.91 C
ATOM 4243 CE2 PHE A 533 18.791 32.646 30.551 1.00 0.91 C
ATOM 4244 CZ PHE A 533 18.103 32.101 31.633 1.00 0.91 C
ATOM 4245 N SER A 534 18.963 28.123 25.467 1.00 0.87 N
ATOM 4246 CA SER A 534 19.346 27.816 24.088 1.00 0.87 C
ATOM 4247 C SER A 534 18.180 28.006 23.124 1.00 0.87 C
ATOM 4248 O SER A 534 18.287 28.688 22.109 1.00 0.87 O
ATOM 4249 CB SER A 534 19.896 26.363 23.996 1.00 0.87 C
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ATOM 4251 N ILE A 535 16.982 27.502 23.490 1.00 0.87 N
ATOM 4252 CA ILE A 535 15.757 27.719 22.735 1.00 0.87 C
ATOM 4253 C ILE A 535 15.375 29.194 22.646 1.00 0.87 C
ATOM 4254 O ILE A 535 14.986 29.700 21.595 1.00 0.87 O
ATOM 4255 CB ILE A 535 14.634 26.885 23.318 1.00 0.87 C
ATOM 4256 CG1 ILE A 535 14.881 25.397 23.013 1.00 0.87 C
ATOM 4257 CG2 ILE A 535 13.307 27.304 22.678 1.00 0.87 C
ATOM 4258 CD1 ILE A 535 13.988 24.487 23.853 1.00 0.87 C
ATOM 4259 N LEU A 536 15.521 29.949 23.754 1.00 0.90 N
ATOM 4260 CA LEU A 536 15.305 31.384 23.782 1.00 0.90 C
ATOM 4261 C LEU A 536 16.222 32.156 22.840 1.00 0.90 C
ATOM 4262 O LEU A 536 15.782 33.061 22.132 1.00 0.90 O
ATOM 4263 CB LEU A 536 15.509 31.909 25.223 1.00 0.90 C
ATOM 4264 CG LEU A 536 15.443 33.441 25.395 1.00 0.90 C
ATOM 4265 CD1 LEU A 536 14.087 34.042 24.983 1.00 0.90 C
ATOM 4266 CD2 LEU A 536 15.799 33.810 26.841 1.00 0.90 C
ATOM 4267 N GLU A 537 17.528 31.811 22.800 1.00 0.80 N
ATOM 4268 CA GLU A 537 18.485 32.344 21.841 1.00 0.80 C
ATOM 4269 C GLU A 537 18.145 32.002 20.402 1.00 0.80 C
ATOM 4270 O GLU A 537 18.255 32.841 19.514 1.00 0.80 O
ATOM 4271 CB GLU A 537 19.931 31.840 22.097 1.00 0.80 C
ATOM 4272 CG GLU A 537 20.588 32.333 23.405 1.00 0.80 C
ATOM 4273 CD GLU A 537 21.975 31.740 23.672 1.00 0.80 C
ATOM 4274 OE1 GLU A 537 22.540 31.022 22.810 1.00 0.80 O

ATOM 4275 OE2 GLU A 537 22.504 32.003 24.791 1.00 0.80 O
ATOM 4276 N GLU A 538 17.703 30.768 20.118 1.00 0.77 N
ATOM 4277 CA GLU A 538 17.305 30.372 18.783 1.00 0.77 C
ATOM 4278 C GLU A 538 16.109 31.160 18.241 1.00 0.77 C
ATOM 4279 O GLU A 538 16.153 31.723 17.146 1.00 0.77 O
ATOM 4280 CB GLU A 538 16.976 28.867 18.822 1.00 0.77 C
ATOM 4281 CG GLU A 538 16.686 28.217 17.448 1.00 0.77 C
ATOM 4282 CD GLU A 538 16.102 26.813 17.616 1.00 0.77 C
ATOM 4283 OE1 GLU A 538 16.855 25.932 18.101 1.00 0.77 O
ATOM 4284 OE2 GLU A 538 14.908 26.590 17.263 1.00 0.77 O
ATOM 4285 N GLU A 539 15.045 31.320 19.058 1.00 0.81 N
ATOM 4286 CA GLU A 539 13.891 32.154 18.762 1.00 0.81 C
ATOM 4287 C GLU A 539 14.249 33.634 18.652 1.00 0.81 C
ATOM 4288 O GLU A 539 13.654 34.403 17.903 1.00 0.81 O
ATOM 4289 CB GLU A 539 12.810 31.970 19.847 1.00 0.81 C
ATOM 4290 CG GLU A 539 12.143 30.571 19.834 1.00 0.81 C
ATOM 4291 CD GLU A 539 11.006 30.419 18.822 1.00 0.81 C
ATOM 4292 OE1 GLU A 539 10.195 31.376 18.677 1.00 0.81 O
ATOM 4293 OE2 GLU A 539 10.896 29.319 18.220 1.00 0.81 O
ATOM 4294 N CYS A 540 15.280 34.106 19.386 1.00 0.81 N
ATOM 4295 CA CYS A 540 15.679 35.503 19.369 1.00 0.81 C
ATOM 4296 C CYS A 540 16.135 36.015 18.007 1.00 0.81 C
ATOM 4297 O CYS A 540 15.816 37.144 17.639 1.00 0.81 O
ATOM 4298 CB CYS A 540 16.660 35.897 20.509 1.00 0.81 C
ATOM 4299 SG CYS A 540 18.425 35.835 20.116 1.00 0.81 S
ATOM 4300 N MET A 541 16.857 35.171 17.238 1.00 0.67 N
ATOM 4301 CA MET A 541 17.400 35.513 15.940 1.00 0.67 C
ATOM 4302 C MET A 541 16.514 34.979 14.838 1.00 0.67 C
ATOM 4303 O MET A 541 16.846 35.088 13.661 1.00 0.67 O
ATOM 4304 CB MET A 541 18.812 34.918 15.722 1.00 0.67 C
ATOM 4305 CG MET A 541 19.905 35.516 16.619 1.00 0.67 C
ATOM 4306 SD MET A 541 21.571 34.917 16.196 1.00 0.67 S
ATOM 4307 CE MET A 541 21.343 33.215 16.771 1.00 0.67 C
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ATOM 4309 CA PHE A 542 14.424 33.930 14.167 1.00 0.74 C
ATOM 4310 C PHE A 542 13.505 35.102 13.781 1.00 0.74 C
ATOM 4311 O PHE A 542 12.828 35.630 14.665 1.00 0.74 O
ATOM 4312 CB PHE A 542 13.660 32.689 14.702 1.00 0.74 C
ATOM 4313 CG PHE A 542 12.616 32.148 13.755 1.00 0.74 C
ATOM 4314 CD1 PHE A 542 12.887 31.914 12.396 1.00 0.74 C
ATOM 4315 CD2 PHE A 542 11.343 31.827 14.245 1.00 0.74 C
ATOM 4316 CE1 PHE A 542 11.896 31.409 11.543 1.00 0.74 C
ATOM 4317 CE2 PHE A 542 10.352 31.317 13.402 1.00 0.74 C
ATOM 4318 CZ PHE A 542 10.626 31.112 12.047 1.00 0.74 C

ATOM 4319 N PRO A 543 13.428 35.584 12.526 1.00 0.75 N
ATOM 4320 CA PRO A 543 12.786 36.857 12.196 1.00 0.75 C
ATOM 4321 C PRO A 543 11.310 36.923 12.510 1.00 0.75 C
ATOM 4322 O PRO A 543 10.791 37.999 12.782 1.00 0.75 O
ATOM 4323 CB PRO A 543 12.995 37.003 10.678 1.00 0.75 C
ATOM 4324 CG PRO A 543 14.294 36.253 10.398 1.00 0.75 C
ATOM 4325 CD PRO A 543 14.285 35.130 11.431 1.00 0.75 C
ATOM 4326 N LYS A 544 10.617 35.776 12.425 1.00 0.76 N
ATOM 4327 CA LYS A 544 9.184 35.688 12.576 1.00 0.76 C
ATOM 4328 C LYS A 544 8.780 35.298 13.986 1.00 0.76 C
ATOM 4329 O LYS A 544 7.601 35.060 14.237 1.00 0.76 O
ATOM 4330 CB LYS A 544 8.624 34.603 11.620 1.00 0.76 C
ATOM 4331 CG LYS A 544 8.830 34.932 10.135 1.00 0.76 C
ATOM 4332 CD LYS A 544 8.237 33.850 9.216 1.00 0.76 C
ATOM 4333 CE LYS A 544 8.410 34.164 7.725 1.00 0.76 C
ATOM 4334 NZ LYS A 544 7.841 33.080 6.889 1.00 0.76 N
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ATOM 4336 CA ALA A 545 9.440 34.775 16.288 1.00 0.89 C
ATOM 4337 C ALA A 545 8.618 35.765 17.106 1.00 0.89 C
ATOM 4338 O ALA A 545 8.779 36.980 17.021 1.00 0.89 O
ATOM 4339 CB ALA A 545 10.709 34.439 17.086 1.00 0.89 C
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ATOM 4341 CA THR A 546 6.911 36.003 18.890 1.00 0.87 C
ATOM 4342 C THR A 546 7.018 35.340 20.232 1.00 0.87 C
ATOM 4343 O THR A 546 7.482 34.209 20.353 1.00 0.87 O
ATOM 4344 CB THR A 546 5.421 36.152 18.512 1.00 0.87 C
ATOM 4345 OG1 THR A 546 4.629 34.970 18.625 1.00 0.87 O
ATOM 4346 CG2 THR A 546 5.319 36.624 17.058 1.00 0.87 C
ATOM 4347 N ASP A 547 6.565 36.011 21.309 1.00 0.82 N
ATOM 4348 CA ASP A 547 6.507 35.411 22.625 1.00 0.82 C
ATOM 4349 C ASP A 547 5.640 34.145 22.633 1.00 0.82 C
ATOM 4350 O ASP A 547 5.931 33.179 23.333 1.00 0.82 O
ATOM 4351 CB ASP A 547 5.967 36.429 23.655 1.00 0.82 C
ATOM 4352 CG ASP A 547 6.962 37.540 23.946 1.00 0.82 C
ATOM 4353 OD1 ASP A 547 8.195 37.314 23.842 1.00 0.82 O
ATOM 4354 OD2 ASP A 547 6.475 38.634 24.331 1.00 0.82 O
ATOM 4355 N THR A 548 4.566 34.127 21.796 1.00 0.82 N
ATOM 4356 CA THR A 548 3.719 32.964 21.514 1.00 0.82 C
ATOM 4357 C THR A 548 4.411 31.824 20.830 1.00 0.82 C
ATOM 4358 O THR A 548 4.236 30.684 21.255 1.00 0.82 O
ATOM 4359 CB THR A 548 2.375 33.264 20.847 1.00 0.82 C
ATOM 4360 OG1 THR A 548 1.560 33.949 21.788 1.00 0.82 O
ATOM 4361 CG2 THR A 548 1.569 32.009 20.468 1.00 0.82 C
ATOM 4362 N SER A 549 5.242 32.064 19.796 1.00 0.86 N

ATOM 4363 CA SER A 549 6.038 31.004 19.187 1.00 0.86 C
ATOM 4364 C SER A 549 7.066 30.458 20.155 1.00 0.86 C
ATOM 4365 O SER A 549 7.232 29.243 20.240 1.00 0.86 O
ATOM 4366 CB SER A 549 6.628 31.328 17.789 1.00 0.86 C
ATOM 4367 OG SER A 549 7.462 32.484 17.751 1.00 0.86 O
ATOM 4368 N PHE A 550 7.685 31.327 20.988 1.00 0.85 N
ATOM 4369 CA PHE A 550 8.625 30.908 22.005 1.00 0.85 C
ATOM 4370 C PHE A 550 8.038 29.969 23.062 1.00 0.85 C
ATOM 4371 O PHE A 550 8.568 28.890 23.318 1.00 0.85 O
ATOM 4372 CB PHE A 550 9.263 32.152 22.693 1.00 0.85 C
ATOM 4373 CG PHE A 550 10.325 31.797 23.709 1.00 0.85 C
ATOM 4374 CD1 PHE A 550 11.220 30.729 23.525 1.00 0.85 C
ATOM 4375 CD2 PHE A 550 10.384 32.500 24.917 1.00 0.85 C
ATOM 4376 CE1 PHE A 550 12.154 30.395 24.505 1.00 0.85 C
ATOM 4377 CE2 PHE A 550 11.284 32.123 25.917 1.00 0.85 C
ATOM 4378 CZ PHE A 550 12.170 31.070 25.716 1.00 0.85 C
ATOM 4379 N LYS A 551 6.891 30.308 23.678 1.00 0.76 N
ATOM 4380 CA LYS A 551 6.273 29.431 24.663 1.00 0.76 C
ATOM 4381 C LYS A 551 5.790 28.110 24.090 1.00 0.76 C
ATOM 4382 O LYS A 551 5.921 27.069 24.729 1.00 0.76 O
ATOM 4383 CB LYS A 551 5.122 30.122 25.402 1.00 0.76 C
ATOM 4384 CG LYS A 551 4.087 30.722 24.450 1.00 0.76 C
ATOM 4385 CD LYS A 551 3.047 31.453 25.265 1.00 0.76 C
ATOM 4386 CE LYS A 551 1.854 32.109 24.569 1.00 0.76 C
ATOM 4387 NZ LYS A 551 1.110 31.090 23.810 1.00 0.76 N
ATOM 4388 N ASN A 552 5.263 28.121 22.842 1.00 0.78 N
ATOM 4389 CA ASN A 552 4.912 26.923 22.102 1.00 0.78 C
ATOM 4390 C ASN A 552 6.133 26.038 21.913 1.00 0.78 C
ATOM 4391 O ASN A 552 6.103 24.868 22.271 1.00 0.78 O
ATOM 4392 CB ASN A 552 4.306 27.287 20.721 1.00 0.78 C
ATOM 4393 CG ASN A 552 2.909 27.870 20.885 1.00 0.78 C
ATOM 4394 OD1 ASN A 552 2.245 27.793 21.921 1.00 0.78 O
ATOM 4395 ND2 ASN A 552 2.414 28.505 19.795 1.00 0.78 N
ATOM 4396 N LYS A 553 7.281 26.606 21.482 1.00 0.82 N
ATOM 4397 CA LYS A 553 8.517 25.865 21.331 1.00 0.82 C
ATOM 4398 C LYS A 553 9.025 25.258 22.642 1.00 0.82 C
ATOM 4399 O LYS A 553 9.451 24.103 22.670 1.00 0.82 O
ATOM 4400 CB LYS A 553 9.590 26.806 20.745 1.00 0.82 C
ATOM 4401 CG LYS A 553 11.026 26.267 20.632 1.00 0.82 C
ATOM 4402 CD LYS A 553 11.473 25.460 19.410 1.00 0.82 C
ATOM 4403 CE LYS A 553 10.851 25.895 18.093 1.00 0.82 C
ATOM 4404 NZ LYS A 553 11.395 25.008 17.057 1.00 0.82 N
ATOM 4405 N LEU A 554 8.978 25.991 23.784 1.00 0.82 N
ATOM 4406 CA LEU A 554 9.343 25.432 25.083 1.00 0.82 C

ATOM 4407 C LEU A 554 8.469 24.276 25.526 1.00 0.82 C
ATOM 4408 O LEU A 554 8.959 23.261 26.022 1.00 0.82 O
ATOM 4409 CB LEU A 554 9.291 26.466 26.233 1.00 0.82 C
ATOM 4410 CG LEU A 554 10.205 27.684 26.051 1.00 0.82 C
ATOM 4411 CD1 LEU A 554 9.973 28.659 27.211 1.00 0.82 C
ATOM 4412 CD2 LEU A 554 11.681 27.274 25.931 1.00 0.82 C
ATOM 4413 N TYR A 555 7.138 24.392 25.338 1.00 0.74 N
ATOM 4414 CA TYR A 555 6.222 23.299 25.598 1.00 0.74 C
ATOM 4415 C TYR A 555 6.476 22.095 24.722 1.00 0.74 C
ATOM 4416 O TYR A 555 6.500 20.980 25.228 1.00 0.74 O
ATOM 4417 CB TYR A 555 4.719 23.658 25.431 1.00 0.74 C
ATOM 4418 CG TYR A 555 4.260 24.832 26.243 1.00 0.74 C
ATOM 4419 CD1 TYR A 555 4.745 25.059 27.536 1.00 0.74 C
ATOM 4420 CD2 TYR A 555 3.288 25.707 25.731 1.00 0.74 C
ATOM 4421 CE1 TYR A 555 4.394 26.213 28.243 1.00 0.74 C
ATOM 4422 CE2 TYR A 555 2.889 26.834 26.454 1.00 0.74 C
ATOM 4423 CZ TYR A 555 3.500 27.118 27.668 1.00 0.74 C
ATOM 4424 OH TYR A 555 3.212 28.349 28.271 1.00 0.74 O
ATOM 4425 N ASP A 556 6.721 22.284 23.415 1.00 0.83 N
ATOM 4426 CA ASP A 556 6.982 21.212 22.473 1.00 0.83 C
ATOM 4427 C ASP A 556 8.219 20.377 22.832 1.00 0.83 C
ATOM 4428 O ASP A 556 8.277 19.149 22.672 1.00 0.83 O
ATOM 4429 CB ASP A 556 7.178 21.830 21.066 1.00 0.83 C
ATOM 4430 CG ASP A 556 5.881 22.368 20.482 1.00 0.83 C
ATOM 4431 OD1 ASP A 556 4.791 22.061 21.029 1.00 0.83 O
ATOM 4432 OD2 ASP A 556 5.996 23.079 19.449 1.00 0.83 O
ATOM 4433 N GLN A 557 9.267 21.058 23.333 1.00 0.78 N
ATOM 4434 CA GLN A 557 10.474 20.425 23.820 1.00 0.78 C
ATOM 4435 C GLN A 557 10.353 19.737 25.171 1.00 0.78 C
ATOM 4436 O GLN A 557 10.903 18.652 25.355 1.00 0.78 O
ATOM 4437 CB GLN A 557 11.655 21.419 23.833 1.00 0.78 C
ATOM 4438 CG GLN A 557 11.983 21.970 22.426 1.00 0.78 C
ATOM 4439 CD GLN A 557 12.402 20.880 21.446 1.00 0.78 C
ATOM 4440 OE1 GLN A 557 13.210 19.999 21.733 1.00 0.78 O
ATOM 4441 NE2 GLN A 557 11.842 20.951 20.218 1.00 0.78 N
ATOM 4442 N HIS A 558 9.647 20.337 26.153 1.00 0.78 N
ATOM 4443 CA HIS A 558 9.761 19.885 27.528 1.00 0.78 C
ATOM 4444 C HIS A 558 8.480 19.394 28.171 1.00 0.78 C
ATOM 4445 O HIS A 558 8.537 18.689 29.179 1.00 0.78 O
ATOM 4446 CB HIS A 558 10.282 21.024 28.418 1.00 0.78 C
ATOM 4447 CG HIS A 558 11.556 21.634 27.954 1.00 0.78 C
ATOM 4448 ND1 HIS A 558 12.745 20.926 28.021 1.00 0.78 N
ATOM 4449 CD2 HIS A 558 11.772 22.890 27.488 1.00 0.78 C
ATOM 4450 CE1 HIS A 558 13.655 21.779 27.586 1.00 0.78 C

ATOM 4451 NE2 HIS A 558 13.122 22.978 27.252 1.00 0.78 N
ATOM 4452 N LEU A 559 7.282 19.716 27.643 1.00 0.76 N
ATOM 4453 CA LEU A 559 6.050 19.245 28.241 1.00 0.76 C
ATOM 4454 C LEU A 559 5.855 17.755 28.185 1.00 0.76 C
ATOM 4455 O LEU A 559 5.904 17.145 27.122 1.00 0.76 O
ATOM 4456 CB LEU A 559 4.828 19.813 27.535 1.00 0.76 C
ATOM 4457 CG LEU A 559 3.489 19.250 28.003 1.00 0.76 C
ATOM 4458 CD1 LEU A 559 3.307 19.595 29.474 1.00 0.76 C
ATOM 4459 CD2 LEU A 559 2.481 19.890 27.075 1.00 0.76 C
ATOM 4460 N GLY A 560 5.593 17.136 29.358 1.00 0.82 N
ATOM 4461 CA GLY A 560 5.377 15.703 29.466 1.00 0.82 C
ATOM 4462 C GLY A 560 6.606 14.907 29.119 1.00 0.82 C
ATOM 4463 O GLY A 560 6.523 13.713 28.858 1.00 0.82 O
ATOM 4464 N LYS A 561 7.775 15.577 29.093 1.00 0.77 N
ATOM 4465 CA LYS A 561 9.033 14.979 28.717 1.00 0.77 C
ATOM 4466 C LYS A 561 10.067 15.239 29.786 1.00 0.77 C
ATOM 4467 O LYS A 561 10.717 14.318 30.270 1.00 0.77 O
ATOM 4468 CB LYS A 561 9.556 15.564 27.374 1.00 0.77 C
ATOM 4469 CG LYS A 561 8.679 15.210 26.161 1.00 0.77 C
ATOM 4470 CD LYS A 561 9.248 15.757 24.841 1.00 0.77 C
ATOM 4471 CE LYS A 561 8.375 15.437 23.626 1.00 0.77 C
ATOM 4472 NZ LYS A 561 8.943 16.061 22.408 1.00 0.77 N
ATOM 4473 N SER A 562 10.235 16.506 30.216 1.00 0.82 N
ATOM 4474 CA SER A 562 11.217 16.842 31.239 1.00 0.82 C
ATOM 4475 C SER A 562 10.535 16.958 32.586 1.00 0.82 C
ATOM 4476 O SER A 562 9.641 17.776 32.774 1.00 0.82 O
ATOM 4477 CB SER A 562 11.972 18.178 30.981 1.00 0.82 C
ATOM 4478 OG SER A 562 12.873 18.080 29.870 1.00 0.82 O
ATOM 4479 N ASN A 563 10.989 16.169 33.589 1.00 0.82 N
ATOM 4480 CA ASN A 563 10.340 16.013 34.890 1.00 0.82 C
ATOM 4481 C ASN A 563 10.349 17.268 35.767 1.00 0.82 C
ATOM 4482 O ASN A 563 9.577 17.390 36.712 1.00 0.82 O
ATOM 4483 CB ASN A 563 11.035 14.884 35.704 1.00 0.82 C
ATOM 4484 CG ASN A 563 10.679 13.510 35.152 1.00 0.82 C
ATOM 4485 OD1 ASN A 563 9.683 13.320 34.461 1.00 0.82 O
ATOM 4486 ND2 ASN A 563 11.505 12.493 35.491 1.00 0.82 N
ATOM 4487 N ASN A 564 11.231 18.239 35.459 1.00 0.85 N
ATOM 4488 CA ASN A 564 11.364 19.493 36.179 1.00 0.85 C
ATOM 4489 C ASN A 564 10.600 20.621 35.509 1.00 0.85 C
ATOM 4490 O ASN A 564 10.651 21.756 35.976 1.00 0.85 O
ATOM 4491 CB ASN A 564 12.850 19.926 36.250 1.00 0.85 C
ATOM 4492 CG ASN A 564 13.600 18.944 37.130 1.00 0.85 C
ATOM 4493 OD1 ASN A 564 13.958 17.851 36.693 1.00 0.85 O
ATOM 4494 ND2 ASN A 564 13.854 19.332 38.401 1.00 0.85 N

ATOM 4495 N PHE A 565 9.873 20.339 34.412 1.00 0.86 N
ATOM 4496 CA PHE A 565 9.153 21.322 33.640 1.00 0.86 C
ATOM 4497 C PHE A 565 7.662 21.048 33.764 1.00 0.86 C
ATOM 4498 O PHE A 565 7.217 19.903 33.774 1.00 0.86 O
ATOM 4499 CB PHE A 565 9.581 21.233 32.149 1.00 0.86 C
ATOM 4500 CG PHE A 565 8.860 22.220 31.286 1.00 0.86 C
ATOM 4501 CD1 PHE A 565 7.731 21.830 30.549 1.00 0.86 C
ATOM 4502 CD2 PHE A 565 9.297 23.545 31.219 1.00 0.86 C
ATOM 4503 CE1 PHE A 565 7.054 22.751 29.743 1.00 0.86 C
ATOM 4504 CE2 PHE A 565 8.656 24.453 30.381 1.00 0.86 C
ATOM 4505 CZ PHE A 565 7.526 24.066 29.662 1.00 0.86 C
ATOM 4506 N GLN A 566 6.835 22.105 33.824 1.00 0.77 N
ATOM 4507 CA GLN A 566 5.403 21.944 33.703 1.00 0.77 C
ATOM 4508 C GLN A 566 4.845 22.986 32.742 1.00 0.77 C
ATOM 4509 O GLN A 566 5.151 24.171 32.834 1.00 0.77 O
ATOM 4510 CB GLN A 566 4.706 21.917 35.092 1.00 0.77 C
ATOM 4511 CG GLN A 566 3.178 22.081 35.083 1.00 0.77 C
ATOM 4512 CD GLN A 566 2.673 22.166 36.517 1.00 0.77 C
ATOM 4513 OE1 GLN A 566 2.818 23.182 37.192 1.00 0.77 O
ATOM 4514 NE2 GLN A 566 2.079 21.060 37.011 1.00 0.77 N
ATOM 4515 N LYS A 567 4.004 22.549 31.762 1.00 0.56 N
ATOM 4516 CA LYS A 567 3.098 23.439 31.054 1.00 0.56 C
ATOM 4517 C LYS A 567 1.834 23.475 31.884 1.00 0.56 C
ATOM 4518 O LYS A 567 1.218 22.422 32.067 1.00 0.56 O
ATOM 4519 CB LYS A 567 2.672 22.947 29.649 1.00 0.56 C
ATOM 4520 CG LYS A 567 1.630 23.779 28.851 1.00 0.56 C
ATOM 4521 CD LYS A 567 1.415 23.088 27.489 1.00 0.56 C
ATOM 4522 CE LYS A 567 0.436 23.696 26.478 1.00 0.56 C
ATOM 4523 NZ LYS A 567 0.457 22.913 25.208 1.00 0.56 N
ATOM 4524 N PRO A 568 1.430 24.593 32.426 1.00 0.54 N
ATOM 4525 CA PRO A 568 0.239 24.709 33.233 1.00 0.54 C
ATOM 4526 C PRO A 568 -1.008 24.599 32.401 1.00 0.54 C
ATOM 4527 O PRO A 568 -1.005 24.859 31.198 1.00 0.54 O
ATOM 4528 CB PRO A 568 0.385 26.091 33.882 1.00 0.54 C
ATOM 4529 CG PRO A 568 1.186 26.898 32.863 1.00 0.54 C
ATOM 4530 CD PRO A 568 2.105 25.862 32.247 1.00 0.54 C
ATOM 4531 N LYS A 569 -2.103 24.174 33.044 1.00 0.51 N
ATOM 4532 CA LYS A 569 -3.385 24.118 32.388 1.00 0.51 C
ATOM 4533 C LYS A 569 -4.143 25.433 32.559 1.00 0.51 C
ATOM 4534 O LYS A 569 -4.062 26.079 33.601 1.00 0.51 O
ATOM 4535 CB LYS A 569 -4.270 22.963 32.880 1.00 0.51 C
ATOM 4536 CG LYS A 569 -3.612 21.598 32.654 1.00 0.51 C
ATOM 4537 CD LYS A 569 -4.530 20.467 33.129 1.00 0.51 C
ATOM 4538 CE LYS A 569 -3.904 19.081 32.980 1.00 0.51 C

ATOM 4539 NZ LYS A 569 -4.833 18.049 33.495 1.00 0.51 N
ATOM 4540 N PRO A 570 -4.883 25.839 31.536 1.00 0.49 N
ATOM 4541 CA PRO A 570 -5.849 26.917 31.704 1.00 0.49 C
ATOM 4542 C PRO A 570 -7.245 26.640 31.200 1.00 0.49 C
ATOM 4543 O PRO A 570 -7.514 25.610 30.593 1.00 0.49 O
ATOM 4544 CB PRO A 570 -5.275 28.028 30.827 1.00 0.49 C
ATOM 4545 CG PRO A 570 -4.544 27.299 29.683 1.00 0.49 C
ATOM 4546 CD PRO A 570 -4.270 25.888 30.206 1.00 0.49 C
ATOM 4547 N ALA A 571 -8.137 27.630 31.455 1.00 0.49 N
ATOM 4548 CA ALA A 571 -9.463 27.715 30.878 1.00 0.49 C
ATOM 4549 C ALA A 571 -9.680 29.023 30.110 1.00 0.49 C
ATOM 4550 O ALA A 571 -10.403 29.063 29.123 1.00 0.49 O
ATOM 4551 CB ALA A 571 -10.500 27.657 32.023 1.00 0.49 C
ATOM 4552 N LYS A 572 -9.038 30.136 30.542 1.00 0.59 N
ATOM 4553 CA LYS A 572 -9.202 31.450 29.929 1.00 0.59 C
ATOM 4554 C LYS A 572 -7.943 31.966 29.265 1.00 0.59 C
ATOM 4555 O LYS A 572 -7.865 33.124 28.873 1.00 0.59 O
ATOM 4556 CB LYS A 572 -9.578 32.497 31.003 1.00 0.59 C
ATOM 4557 CG LYS A 572 -10.937 32.230 31.654 1.00 0.59 C
ATOM 4558 CD LYS A 572 -11.300 33.335 32.655 1.00 0.59 C
ATOM 4559 CE LYS A 572 -12.675 33.117 33.295 1.00 0.59 C
ATOM 4560 NZ LYS A 572 -12.984 34.196 34.261 1.00 0.59 N
ATOM 4561 N GLY A 573 -6.907 31.123 29.150 1.00 0.50 N
ATOM 4562 CA GLY A 573 -5.729 31.468 28.374 1.00 0.50 C
ATOM 4563 C GLY A 573 -4.623 32.209 29.081 1.00 0.50 C
ATOM 4564 O GLY A 573 -3.581 32.504 28.518 1.00 0.50 O
ATOM 4565 N LYS A 574 -4.759 32.502 30.386 1.00 0.43 N
ATOM 4566 CA LYS A 574 -3.680 33.135 31.136 1.00 0.43 C
ATOM 4567 C LYS A 574 -2.422 32.294 31.258 1.00 0.43 C
ATOM 4568 O LYS A 574 -1.322 32.800 31.099 1.00 0.43 O
ATOM 4569 CB LYS A 574 -4.136 33.535 32.551 1.00 0.43 C
ATOM 4570 CG LYS A 574 -5.176 34.657 32.526 1.00 0.43 C
ATOM 4571 CD LYS A 574 -5.657 34.996 33.941 1.00 0.43 C
ATOM 4572 CE LYS A 574 -6.688 36.124 33.962 1.00 0.43 C
ATOM 4573 NZ LYS A 574 -7.140 36.378 35.348 1.00 0.43 N
ATOM 4574 N ALA A 575 -2.588 30.973 31.489 1.00 0.54 N
ATOM 4575 CA ALA A 575 -1.517 30.013 31.651 1.00 0.54 C
ATOM 4576 C ALA A 575 -0.943 29.605 30.313 1.00 0.54 C
ATOM 4577 O ALA A 575 0.115 28.989 30.222 1.00 0.54 O
ATOM 4578 CB ALA A 575 -2.053 28.716 32.279 1.00 0.54 C
ATOM 4579 N GLU A 576 -1.622 29.978 29.204 1.00 0.48 N
ATOM 4580 CA GLU A 576 -1.111 29.793 27.867 1.00 0.48 C
ATOM 4581 C GLU A 576 0.148 30.559 27.609 1.00 0.48 C
ATOM 4582 O GLU A 576 0.693 30.336 26.541 1.00 0.48 O

ATOM 4583 CB GLU A 576 -2.080 30.244 26.754 1.00 0.48 C
ATOM 4584 CG GLU A 576 -3.329 29.366 26.651 1.00 0.48 C
ATOM 4585 CD GLU A 576 -4.323 29.930 25.645 1.00 0.48 C
ATOM 4586 OE1 GLU A 576 -4.012 30.960 24.996 1.00 0.48 O
ATOM 4587 OE2 GLU A 576 -5.412 29.314 25.549 1.00 0.48 O
ATOM 4588 N ALA A 577 0.617 31.429 28.541 1.00 0.50 N
ATOM 4589 CA ALA A 577 1.807 32.240 28.491 1.00 0.50 C
ATOM 4590 C ALA A 577 2.805 31.958 29.604 1.00 0.50 C
ATOM 4591 O ALA A 577 3.743 32.734 29.781 1.00 0.50 O
ATOM 4592 CB ALA A 577 1.397 33.729 28.519 1.00 0.50 C
ATOM 4593 N HIS A 578 2.671 30.844 30.358 1.00 0.73 N
ATOM 4594 CA HIS A 578 3.530 30.607 31.505 1.00 0.73 C
ATOM 4595 C HIS A 578 4.085 29.220 31.513 1.00 0.73 C
ATOM 4596 O HIS A 578 3.431 28.276 31.104 1.00 0.73 O
ATOM 4597 CB HIS A 578 2.800 30.715 32.858 1.00 0.73 C
ATOM 4598 CG HIS A 578 2.330 32.080 33.177 1.00 0.73 C
ATOM 4599 ND1 HIS A 578 1.267 32.586 32.475 1.00 0.73 N
ATOM 4600 CD2 HIS A 578 2.720 32.951 34.138 1.00 0.73 C
ATOM 4601 CE1 HIS A 578 1.019 33.753 33.010 1.00 0.73 C
ATOM 4602 NE2 HIS A 578 1.868 34.028 34.031 1.00 0.73 N
ATOM 4603 N PHE A 579 5.296 29.038 32.048 1.00 0.78 N
ATOM 4604 CA PHE A 579 5.823 27.713 32.232 1.00 0.78 C
ATOM 4605 C PHE A 579 6.446 27.618 33.591 1.00 0.78 C
ATOM 4606 O PHE A 579 6.851 28.612 34.185 1.00 0.78 O
ATOM 4607 CB PHE A 579 6.824 27.301 31.124 1.00 0.78 C
ATOM 4608 CG PHE A 579 8.117 28.070 31.162 1.00 0.78 C
ATOM 4609 CD1 PHE A 579 8.233 29.289 30.483 1.00 0.78 C
ATOM 4610 CD2 PHE A 579 9.206 27.609 31.919 1.00 0.78 C
ATOM 4611 CE1 PHE A 579 9.419 30.030 30.550 1.00 0.78 C
ATOM 4612 CE2 PHE A 579 10.387 28.349 31.985 1.00 0.78 C
ATOM 4613 CZ PHE A 579 10.501 29.549 31.288 1.00 0.78 C
ATOM 4614 N SER A 580 6.552 26.398 34.103 1.00 0.78 N
ATOM 4615 CA SER A 580 6.965 26.176 35.460 1.00 0.78 C
ATOM 4616 C SER A 580 8.252 25.417 35.474 1.00 0.78 C
ATOM 4617 O SER A 580 8.419 24.457 34.721 1.00 0.78 O
ATOM 4618 CB SER A 580 5.964 25.255 36.152 1.00 0.78 C
ATOM 4619 OG SER A 580 4.635 25.762 36.069 1.00 0.78 O
ATOM 4620 N LEU A 581 9.179 25.815 36.358 1.00 0.82 N
ATOM 4621 CA LEU A 581 10.407 25.097 36.615 1.00 0.82 C
ATOM 4622 C LEU A 581 10.467 24.709 38.059 1.00 0.82 C
ATOM 4623 O LEU A 581 10.279 25.544 38.942 1.00 0.82 O
ATOM 4624 CB LEU A 581 11.661 25.944 36.351 1.00 0.82 C
ATOM 4625 CG LEU A 581 11.737 26.478 34.926 1.00 0.82 C
ATOM 4626 CD1 LEU A 581 13.079 27.162 34.753 1.00 0.82 C

ATOM 4627 CD2 LEU A 581 11.656 25.372 33.894 1.00 0.82 C
ATOM 4628 N VAL A 582 10.757 23.427 38.324 1.00 0.88 N
ATOM 4629 CA VAL A 582 10.971 22.917 39.663 1.00 0.88 C
ATOM 4630 C VAL A 582 12.424 23.124 40.032 1.00 0.88 C
ATOM 4631 O VAL A 582 13.290 22.342 39.637 1.00 0.88 O
ATOM 4632 CB VAL A 582 10.603 21.441 39.783 1.00 0.88 C
ATOM 4633 CG1 VAL A 582 10.783 20.942 41.235 1.00 0.88 C
ATOM 4634 CG2 VAL A 582 9.139 21.255 39.338 1.00 0.88 C
ATOM 4635 N HIS A 583 12.710 24.200 40.794 1.00 0.82 N
ATOM 4636 CA HIS A 583 14.033 24.484 41.309 1.00 0.82 C
ATOM 4637 C HIS A 583 14.219 23.763 42.616 1.00 0.82 C
ATOM 4638 O HIS A 583 13.248 23.308 43.224 1.00 0.82 O
ATOM 4639 CB HIS A 583 14.224 25.992 41.592 1.00 0.82 C
ATOM 4640 CG HIS A 583 14.127 26.822 40.355 1.00 0.82 C
ATOM 4641 ND1 HIS A 583 15.009 26.627 39.320 1.00 0.82 N
ATOM 4642 CD2 HIS A 583 13.219 27.748 40.007 1.00 0.82 C
ATOM 4643 CE1 HIS A 583 14.634 27.417 38.371 1.00 0.82 C
ATOM 4644 NE2 HIS A 583 13.536 28.125 38.716 1.00 0.82 N
ATOM 4645 N TYR A 584 15.461 23.708 43.134 1.00 0.78 N
ATOM 4646 CA TYR A 584 15.769 23.182 44.458 1.00 0.78 C
ATOM 4647 C TYR A 584 14.926 23.796 45.588 1.00 0.78 C
ATOM 4648 O TYR A 584 14.485 23.117 46.512 1.00 0.78 O
ATOM 4649 CB TYR A 584 17.296 23.330 44.780 1.00 0.78 C
ATOM 4650 CG TYR A 584 17.729 24.742 45.138 1.00 0.78 C
ATOM 4651 CD1 TYR A 584 17.727 25.776 44.191 1.00 0.78 C
ATOM 4652 CD2 TYR A 584 18.049 25.069 46.465 1.00 0.78 C
ATOM 4653 CE1 TYR A 584 18.016 27.097 44.552 1.00 0.78 C
ATOM 4654 CE2 TYR A 584 18.348 26.387 46.834 1.00 0.78 C
ATOM 4655 CZ TYR A 584 18.317 27.403 45.879 1.00 0.78 C
ATOM 4656 OH TYR A 584 18.557 28.728 46.282 1.00 0.78 O
ATOM 4657 N ALA A 585 14.659 25.116 45.502 1.00 0.78 N
ATOM 4658 CA ALA A 585 13.931 25.886 46.480 1.00 0.78 C
ATOM 4659 C ALA A 585 12.443 25.967 46.173 1.00 0.78 C
ATOM 4660 O ALA A 585 11.693 26.638 46.877 1.00 0.78 O
ATOM 4661 CB ALA A 585 14.522 27.310 46.518 1.00 0.78 C
ATOM 4662 N GLY A 586 11.956 25.247 45.144 1.00 0.85 N
ATOM 4663 CA GLY A 586 10.536 25.148 44.868 1.00 0.85 C
ATOM 4664 C GLY A 586 10.210 25.458 43.443 1.00 0.85 C
ATOM 4665 O GLY A 586 11.016 25.992 42.685 1.00 0.85 O
ATOM 4666 N THR A 587 8.978 25.105 43.038 1.00 0.83 N
ATOM 4667 CA THR A 587 8.418 25.432 41.734 1.00 0.83 C
ATOM 4668 C THR A 587 8.219 26.912 41.543 1.00 0.83 C
ATOM 4669 O THR A 587 7.682 27.591 42.415 1.00 0.83 O
ATOM 4670 CB THR A 587 7.100 24.730 41.461 1.00 0.83 C

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ATOM   4671  OG1 THR A 587      7.315  23.334  41.562  1.00  0.83        O
ATOM   4672  CG2 THR A 587      6.567  25.005  40.046  1.00  0.83        C
ATOM   4673  N   VAL A 588      8.651  27.442  40.385  1.00  0.85        N
ATOM   4674  CA  VAL A 588      8.426  28.824  40.007  1.00  0.85        C
ATOM   4675  C   VAL A 588      7.776  28.859  38.648  1.00  0.85        C
ATOM   4676  O   VAL A 588      8.288  28.243  37.709  1.00  0.85        O
ATOM   4677  CB  VAL A 588      9.722  29.617  39.901  1.00  0.85        C
ATOM   4678  CG1 VAL A 588      9.454  31.093  39.531  1.00  0.85        C
ATOM   4679  CG2 VAL A 588     10.436  29.568  41.257  1.00  0.85        C
ATOM   4680  N   ASP A 589      6.665  29.612  38.516  1.00  0.76        N
ATOM   4681  CA  ASP A 589      5.964  29.811  37.270  1.00  0.76        C
ATOM   4682  C   ASP A 589      6.444  31.115  36.639  1.00  0.76        C
ATOM   4683  O   ASP A 589      6.454  32.179  37.265  1.00  0.76        O
ATOM   4684  CB  ASP A 589      4.421  29.871  37.440  1.00  0.76        C
ATOM   4685  CG  ASP A 589      3.803  28.667  38.146  1.00  0.76        C
ATOM   4686  OD1 ASP A 589      4.529  27.740  38.586  1.00  0.76        O
ATOM   4687  OD2 ASP A 589      2.551  28.699  38.260  1.00  0.76        O
ATOM   4688  N   TYR A 590      6.872  31.059  35.369  1.00  0.81        N
ATOM   4689  CA  TYR A 590      7.475  32.163  34.658  1.00  0.81        C
ATOM   4690  C   TYR A 590      6.578  32.602  33.533  1.00  0.81        C
ATOM   4691  O   TYR A 590      6.146  31.784  32.731  1.00  0.81        O
ATOM   4692  CB  TYR A 590      8.815  31.740  34.012  1.00  0.81        C
ATOM   4693  CG  TYR A 590      9.826  31.461  35.068  1.00  0.81        C
ATOM   4694  CD1 TYR A 590     10.451  32.533  35.711  1.00  0.81        C
ATOM   4695  CD2 TYR A 590     10.160  30.147  35.436  1.00  0.81        C
ATOM   4696  CE1 TYR A 590     11.396  32.296  36.707  1.00  0.81        C
ATOM   4697  CE2 TYR A 590     11.120  29.916  36.435  1.00  0.81        C
ATOM   4698  CZ  TYR A 590     11.748  31.002  37.062  1.00  0.81        C
ATOM   4699  OH  TYR A 590     12.722  30.896  38.075  1.00  0.81        O
ATOM   4700  N   ASN A 591      6.293  33.916  33.444  1.00  0.82        N
ATOM   4701  CA  ASN A 591      5.476  34.512  32.408  1.00  0.82        C
ATOM   4702  C   ASN A 591      6.375  34.894  31.256  1.00  0.82        C
ATOM   4703  O   ASN A 591      7.434  35.480  31.468  1.00  0.82        O
ATOM   4704  CB  ASN A 591      4.786  35.781  32.987  1.00  0.82        C
ATOM   4705  CG  ASN A 591      3.764  36.423  32.049  1.00  0.82        C
ATOM   4706  OD1 ASN A 591      3.992  36.657  30.864  1.00  0.82        O
ATOM   4707  ND2 ASN A 591      2.585  36.780  32.605  1.00  0.82        N
ATOM   4708  N   ILE A 592      5.965  34.567  30.019  1.00  0.83        N
ATOM   4709  CA  ILE A 592      6.801  34.723  28.852  1.00  0.83        C
ATOM   4710  C   ILE A 592      6.827  36.093  28.219  1.00  0.83        C
ATOM   4711  O   ILE A 592      7.673  36.381  27.374  1.00  0.83        O
ATOM   4712  CB  ILE A 592      6.413  33.673  27.820  1.00  0.83        C
ATOM   4713  CG1 ILE A 592      7.650  33.218  27.036  1.00  0.83        C
ATOM   4714  CG2 ILE A 592      5.252  34.118  26.905  1.00  0.83        C
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ATOM 4715 CD1 ILE A 592 8.546 32.392 27.954 1.00 0.83 C
ATOM 4716 N ALA A 593 5.903 36.986 28.608 1.00 0.85 N
ATOM 4717 CA ALA A 593 5.764 38.292 28.009 1.00 0.85 C
ATOM 4718 C ALA A 593 7.037 39.129 27.935 1.00 0.85 C
ATOM 4719 O ALA A 593 7.684 39.446 28.938 1.00 0.85 O
ATOM 4720 CB ALA A 593 4.698 39.081 28.788 1.00 0.85 C
ATOM 4721 N GLY A 594 7.428 39.518 26.708 1.00 0.80 N
ATOM 4722 CA GLY A 594 8.560 40.386 26.488 1.00 0.80 C
ATOM 4723 C GLY A 594 9.903 39.716 26.530 1.00 0.80 C
ATOM 4724 O GLY A 594 10.920 40.405 26.496 1.00 0.80 O
ATOM 4725 N TRP A 595 9.980 38.369 26.623 1.00 0.81 N
ATOM 4726 CA TRP A 595 11.247 37.653 26.729 1.00 0.81 C
ATOM 4727 C TRP A 595 12.129 37.811 25.523 1.00 0.81 C
ATOM 4728 O TRP A 595 13.341 37.974 25.657 1.00 0.81 O
ATOM 4729 CB TRP A 595 11.108 36.141 27.033 1.00 0.81 C
ATOM 4730 CG TRP A 595 10.849 35.853 28.495 1.00 0.81 C
ATOM 4731 CD1 TRP A 595 10.106 36.581 29.374 1.00 0.81 C
ATOM 4732 CD2 TRP A 595 11.378 34.740 29.243 1.00 0.81 C
ATOM 4733 NE1 TRP A 595 10.093 35.979 30.602 1.00 0.81 N
ATOM 4734 CE2 TRP A 595 10.850 34.838 30.538 1.00 0.81 C
ATOM 4735 CE3 TRP A 595 12.233 33.698 28.897 1.00 0.81 C
ATOM 4736 CZ2 TRP A 595 11.129 33.878 31.495 1.00 0.81 C
ATOM 4737 CZ3 TRP A 595 12.508 32.713 29.856 1.00 0.81 C
ATOM 4738 CH2 TRP A 595 11.963 32.811 31.143 1.00 0.81 C
ATOM 4739 N LEU A 596 11.554 37.794 24.306 1.00 0.85 N
ATOM 4740 CA LEU A 596 12.340 38.022 23.113 1.00 0.85 C
ATOM 4741 C LEU A 596 12.990 39.391 23.056 1.00 0.85 C
ATOM 4742 O LEU A 596 14.178 39.488 22.755 1.00 0.85 O
ATOM 4743 CB LEU A 596 11.505 37.824 21.836 1.00 0.85 C
ATOM 4744 CG LEU A 596 11.066 36.370 21.596 1.00 0.85 C
ATOM 4745 CD1 LEU A 596 10.226 36.299 20.320 1.00 0.85 C
ATOM 4746 CD2 LEU A 596 12.247 35.392 21.484 1.00 0.85 C
ATOM 4747 N ASP A 597 12.251 40.468 23.387 1.00 0.73 N
ATOM 4748 CA ASP A 597 12.793 41.811 23.443 1.00 0.73 C
ATOM 4749 C ASP A 597 13.770 42.012 24.590 1.00 0.73 C
ATOM 4750 O ASP A 597 14.815 42.635 24.419 1.00 0.73 O
ATOM 4751 CB ASP A 597 11.672 42.873 23.461 1.00 0.73 C
ATOM 4752 CG ASP A 597 11.012 42.972 22.093 1.00 0.73 C
ATOM 4753 OD1 ASP A 597 11.555 42.390 21.115 1.00 0.73 O
ATOM 4754 OD2 ASP A 597 9.974 43.673 22.017 1.00 0.73 O
ATOM 4755 N LYS A 598 13.499 41.440 25.784 1.00 0.71 N
ATOM 4756 CA LYS A 598 14.443 41.444 26.891 1.00 0.71 C
ATOM 4757 C LYS A 598 15.758 40.754 26.578 1.00 0.71 C
ATOM 4758 O LYS A 598 16.820 41.250 26.935 1.00 0.71 O

ATOM 4759 CB LYS A 598 13.848 40.781 28.156 1.00 0.71 C
ATOM 4760 CG LYS A 598 12.830 41.666 28.878 1.00 0.71 C
ATOM 4761 CD LYS A 598 12.334 41.052 30.192 1.00 0.71 C
ATOM 4762 CE LYS A 598 11.730 42.124 31.095 1.00 0.71 C
ATOM 4763 NZ LYS A 598 11.146 41.500 32.284 1.00 0.71 N
ATOM 4764 N ASN A 599 15.715 39.594 25.895 1.00 0.78 N
ATOM 4765 CA ASN A 599 16.890 38.861 25.489 1.00 0.78 C
ATOM 4766 C ASN A 599 17.708 39.540 24.398 1.00 0.78 C
ATOM 4767 O ASN A 599 18.935 39.496 24.411 1.00 0.78 O
ATOM 4768 CB ASN A 599 16.460 37.453 25.018 1.00 0.78 C
ATOM 4769 CG ASN A 599 17.679 36.559 25.010 1.00 0.78 C
ATOM 4770 OD1 ASN A 599 18.480 36.637 25.939 1.00 0.78 O
ATOM 4771 ND2 ASN A 599 17.851 35.725 23.961 1.00 0.78 N
ATOM 4772 N LYS A 600 17.027 40.140 23.401 1.00 0.71 N
ATOM 4773 CA LYS A 600 17.658 40.910 22.349 1.00 0.71 C
ATOM 4774 C LYS A 600 18.280 42.210 22.849 1.00 0.71 C
ATOM 4775 O LYS A 600 19.301 42.628 22.314 1.00 0.71 O
ATOM 4776 CB LYS A 600 16.676 41.166 21.170 1.00 0.71 C
ATOM 4777 CG LYS A 600 16.385 39.895 20.347 1.00 0.71 C
ATOM 4778 CD LYS A 600 15.716 40.184 18.988 1.00 0.71 C
ATOM 4779 CE LYS A 600 14.177 40.109 18.983 1.00 0.71 C
ATOM 4780 NZ LYS A 600 13.687 38.937 18.215 1.00 0.71 N
ATOM 4781 N ASP A 601 17.650 42.867 23.855 1.00 0.68 N
ATOM 4782 CA ASP A 601 18.028 44.141 24.466 1.00 0.68 C
ATOM 4783 C ASP A 601 18.320 45.256 23.450 1.00 0.68 C
ATOM 4784 O ASP A 601 19.406 45.841 23.456 1.00 0.68 O
ATOM 4785 CB ASP A 601 19.139 43.939 25.542 1.00 0.68 C
ATOM 4786 CG ASP A 601 19.320 45.051 26.569 1.00 0.68 C
ATOM 4787 OD1 ASP A 601 18.361 45.790 26.934 1.00 0.68 O
ATOM 4788 OD2 ASP A 601 20.447 45.163 27.128 1.00 0.68 O
ATOM 4789 N PRO A 602 17.419 45.582 22.521 1.00 0.73 N
ATOM 4790 CA PRO A 602 17.749 46.477 21.437 1.00 0.73 C
ATOM 4791 C PRO A 602 17.810 47.912 21.891 1.00 0.73 C
ATOM 4792 O PRO A 602 17.113 48.321 22.819 1.00 0.73 O
ATOM 4793 CB PRO A 602 16.611 46.276 20.427 1.00 0.73 C
ATOM 4794 CG PRO A 602 15.406 45.894 21.291 1.00 0.73 C
ATOM 4795 CD PRO A 602 16.040 45.101 22.433 1.00 0.73 C
ATOM 4796 N LEU A 603 18.641 48.709 21.214 1.00 0.76 N
ATOM 4797 CA LEU A 603 18.648 50.132 21.385 1.00 0.76 C
ATOM 4798 C LEU A 603 18.859 50.690 20.006 1.00 0.76 C
ATOM 4799 O LEU A 603 19.742 50.239 19.281 1.00 0.76 O
ATOM 4800 CB LEU A 603 19.796 50.561 22.325 1.00 0.76 C
ATOM 4801 CG LEU A 603 19.930 52.077 22.560 1.00 0.76 C
ATOM 4802 CD1 LEU A 603 18.710 52.650 23.294 1.00 0.76 C

ATOM 4803 CD2 LEU A 603 21.219 52.348 23.347 1.00 0.76 C
ATOM 4804 N ASN A 604 18.029 51.664 19.578 1.00 0.77 N
ATOM 4805 CA ASN A 604 18.179 52.273 18.268 1.00 0.77 C
ATOM 4806 C ASN A 604 19.522 52.984 18.121 1.00 0.77 C
ATOM 4807 O ASN A 604 19.907 53.794 18.963 1.00 0.77 O
ATOM 4808 CB ASN A 604 17.059 53.311 17.986 1.00 0.77 C
ATOM 4809 CG ASN A 604 15.697 52.641 17.902 1.00 0.77 C
ATOM 4810 OD1 ASN A 604 15.560 51.459 17.596 1.00 0.77 O
ATOM 4811 ND2 ASN A 604 14.639 53.454 18.122 1.00 0.77 N
ATOM 4812 N GLU A 605 20.254 52.738 17.016 1.00 0.68 N
ATOM 4813 CA GLU A 605 21.546 53.348 16.749 1.00 0.68 C
ATOM 4814 C GLU A 605 21.497 54.868 16.668 1.00 0.68 C
ATOM 4815 O GLU A 605 22.428 55.571 17.055 1.00 0.68 O
ATOM 4816 CB GLU A 605 22.147 52.790 15.446 1.00 0.68 C
ATOM 4817 CG GLU A 605 22.626 51.323 15.562 1.00 0.68 C
ATOM 4818 CD GLU A 605 23.199 50.788 14.250 1.00 0.68 C
ATOM 4819 OE1 GLU A 605 23.082 51.483 13.208 1.00 0.68 O
ATOM 4820 OE2 GLU A 605 23.768 49.666 14.294 1.00 0.68 O
ATOM 4821 N THR A 606 20.365 55.438 16.203 1.00 0.80 N
ATOM 4822 CA THR A 606 20.147 56.882 16.191 1.00 0.80 C
ATOM 4823 C THR A 606 20.193 57.494 17.570 1.00 0.80 C
ATOM 4824 O THR A 606 20.772 58.556 17.738 1.00 0.80 O
ATOM 4825 CB THR A 606 18.868 57.342 15.498 1.00 0.80 C
ATOM 4826 OG1 THR A 606 17.717 56.706 16.031 1.00 0.80 O
ATOM 4827 CG2 THR A 606 18.922 56.944 14.022 1.00 0.80 C
ATOM 4828 N VAL A 607 19.641 56.815 18.598 1.00 0.80 N
ATOM 4829 CA VAL A 607 19.683 57.230 19.983 1.00 0.80 C
ATOM 4830 C VAL A 607 21.105 57.265 20.517 1.00 0.80 C
ATOM 4831 O VAL A 607 21.519 58.199 21.197 1.00 0.80 O
ATOM 4832 CB VAL A 607 18.836 56.294 20.817 1.00 0.80 C
ATOM 4833 CG1 VAL A 607 18.968 56.678 22.281 1.00 0.80 C
ATOM 4834 CG2 VAL A 607 17.352 56.408 20.434 1.00 0.80 C
ATOM 4835 N VAL A 608 21.923 56.250 20.178 1.00 0.79 N
ATOM 4836 CA VAL A 608 23.345 56.226 20.483 1.00 0.79 C
ATOM 4837 C VAL A 608 24.057 57.400 19.847 1.00 0.79 C
ATOM 4838 O VAL A 608 24.792 58.112 20.523 1.00 0.79 O
ATOM 4839 CB VAL A 608 23.985 54.916 20.025 1.00 0.79 C
ATOM 4840 CG1 VAL A 608 25.526 54.923 20.152 1.00 0.79 C
ATOM 4841 CG2 VAL A 608 23.376 53.764 20.843 1.00 0.79 C
ATOM 4842 N GLY A 609 23.784 57.684 18.553 1.00 0.81 N
ATOM 4843 CA GLY A 609 24.391 58.805 17.842 1.00 0.81 C
ATOM 4844 C GLY A 609 24.066 60.159 18.413 1.00 0.81 C
ATOM 4845 O GLY A 609 24.904 61.051 18.417 1.00 0.81 O
ATOM 4846 N LEU A 610 22.851 60.324 18.963 1.00 0.71 N

ATOM 4847 CA LEU A 610 22.429 61.494 19.710 1.00 0.71 C
ATOM 4848 C LEU A 610 23.241 61.716 20.977 1.00 0.71 C
ATOM 4849 O LEU A 610 23.656 62.828 21.287 1.00 0.71 O
ATOM 4850 CB LEU A 610 20.928 61.333 20.064 1.00 0.71 C
ATOM 4851 CG LEU A 610 19.921 61.789 18.992 1.00 0.71 C
ATOM 4852 CD1 LEU A 610 20.461 61.886 17.556 1.00 0.71 C
ATOM 4853 CD2 LEU A 610 18.709 60.854 18.995 1.00 0.71 C
ATOM 4854 N TYR A 611 23.515 60.646 21.747 1.00 0.75 N
ATOM 4855 CA TYR A 611 24.114 60.789 23.060 1.00 0.75 C
ATOM 4856 C TYR A 611 25.629 60.723 22.995 1.00 0.75 C
ATOM 4857 O TYR A 611 26.316 61.199 23.897 1.00 0.75 O
ATOM 4858 CB TYR A 611 23.623 59.691 24.041 1.00 0.75 C
ATOM 4859 CG TYR A 611 22.197 59.878 24.475 1.00 0.75 C
ATOM 4860 CD1 TYR A 611 21.156 60.141 23.570 1.00 0.75 C
ATOM 4861 CD2 TYR A 611 21.867 59.785 25.838 1.00 0.75 C
ATOM 4862 CE1 TYR A 611 19.873 60.430 24.002 1.00 0.75 C
ATOM 4863 CE2 TYR A 611 20.583 60.097 26.293 1.00 0.75 C
ATOM 4864 CZ TYR A 611 19.622 60.471 25.355 1.00 0.75 C
ATOM 4865 OH TYR A 611 18.379 60.980 25.682 1.00 0.75 O
ATOM 4866 N GLN A 612 26.196 60.217 21.877 1.00 0.74 N
ATOM 4867 CA GLN A 612 27.609 60.334 21.547 1.00 0.74 C
ATOM 4868 C GLN A 612 28.033 61.785 21.366 1.00 0.74 C
ATOM 4869 O GLN A 612 29.180 62.140 21.619 1.00 0.74 O
ATOM 4870 CB GLN A 612 27.991 59.552 20.263 1.00 0.74 C
ATOM 4871 CG GLN A 612 28.023 58.019 20.440 1.00 0.74 C
ATOM 4872 CD GLN A 612 28.347 57.310 19.128 1.00 0.74 C
ATOM 4873 OE1 GLN A 612 28.158 57.810 18.021 1.00 0.74 O
ATOM 4874 NE2 GLN A 612 28.847 56.059 19.251 1.00 0.74 N
ATOM 4875 N LYS A 613 27.088 62.662 20.965 1.00 0.68 N
ATOM 4876 CA LYS A 613 27.308 64.080 20.781 1.00 0.68 C
ATOM 4877 C LYS A 613 27.048 64.893 22.031 1.00 0.68 C
ATOM 4878 O LYS A 613 26.960 66.117 21.972 1.00 0.68 O
ATOM 4879 CB LYS A 613 26.340 64.637 19.718 1.00 0.68 C
ATOM 4880 CG LYS A 613 26.579 64.073 18.319 1.00 0.68 C
ATOM 4881 CD LYS A 613 25.738 64.814 17.270 1.00 0.68 C
ATOM 4882 CE LYS A 613 26.175 66.264 17.044 1.00 0.68 C
ATOM 4883 NZ LYS A 613 25.360 66.876 15.973 1.00 0.68 N
ATOM 4884 N SER A 614 26.913 64.254 23.204 1.00 0.81 N
ATOM 4885 CA SER A 614 26.751 64.988 24.445 1.00 0.81 C
ATOM 4886 C SER A 614 27.900 65.917 24.807 1.00 0.81 C
ATOM 4887 O SER A 614 29.077 65.605 24.634 1.00 0.81 O
ATOM 4888 CB SER A 614 26.503 64.029 25.622 1.00 0.81 C
ATOM 4889 OG SER A 614 26.484 64.695 26.889 1.00 0.81 O
ATOM 4890 N ALA A 615 27.551 67.072 25.404 1.00 0.86 N

ATOM 4891 CA ALA A 615 28.505 67.987 25.984 1.00 0.86 C
ATOM 4892 C ALA A 615 28.966 67.569 27.387 1.00 0.86 C
ATOM 4893 O ALA A 615 29.896 68.144 27.953 1.00 0.86 O
ATOM 4894 CB ALA A 615 27.879 69.396 26.038 1.00 0.86 C
ATOM 4895 N LEU A 616 28.331 66.550 28.002 1.00 0.82 N
ATOM 4896 CA LEU A 616 28.686 66.051 29.317 1.00 0.82 C
ATOM 4897 C LEU A 616 29.797 65.013 29.248 1.00 0.82 C
ATOM 4898 O LEU A 616 29.693 64.006 28.552 1.00 0.82 O
ATOM 4899 CB LEU A 616 27.454 65.422 30.028 1.00 0.82 C
ATOM 4900 CG LEU A 616 27.681 64.954 31.484 1.00 0.82 C
ATOM 4901 CD1 LEU A 616 27.973 66.138 32.415 1.00 0.82 C
ATOM 4902 CD2 LEU A 616 26.477 64.162 32.017 1.00 0.82 C
ATOM 4903 N LYS A 617 30.884 65.207 30.034 1.00 0.71 N
ATOM 4904 CA LYS A 617 32.050 64.333 30.051 1.00 0.71 C
ATOM 4905 C LYS A 617 31.753 62.892 30.442 1.00 0.71 C
ATOM 4906 O LYS A 617 32.372 61.949 29.963 1.00 0.71 O
ATOM 4907 CB LYS A 617 33.146 64.881 30.998 1.00 0.71 C
ATOM 4908 CG LYS A 617 33.653 66.283 30.632 1.00 0.71 C
ATOM 4909 CD LYS A 617 34.744 66.754 31.607 1.00 0.71 C
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ATOM 4911 NZ LYS A 617 36.135 68.627 32.400 1.00 0.71 N
ATOM 4912 N LEU A 618 30.793 62.686 31.361 1.00 0.82 N
ATOM 4913 CA LEU A 618 30.403 61.356 31.792 1.00 0.82 C
ATOM 4914 C LEU A 618 29.510 60.677 30.808 1.00 0.82 C
ATOM 4915 O LEU A 618 29.718 59.511 30.485 1.00 0.82 O
ATOM 4916 CB LEU A 618 29.731 61.372 33.178 1.00 0.82 C
ATOM 4917 CG LEU A 618 30.763 61.350 34.315 1.00 0.82 C
ATOM 4918 CD1 LEU A 618 32.032 62.182 34.058 1.00 0.82 C
ATOM 4919 CD2 LEU A 618 30.098 61.770 35.623 1.00 0.82 C
ATOM 4920 N LEU A 619 28.515 61.410 30.269 1.00 0.83 N
ATOM 4921 CA LEU A 619 27.606 60.882 29.279 1.00 0.83 C
ATOM 4922 C LEU A 619 28.327 60.450 28.024 1.00 0.83 C
ATOM 4923 O LEU A 619 28.072 59.376 27.486 1.00 0.83 O
ATOM 4924 CB LEU A 619 26.524 61.907 28.867 1.00 0.83 C
ATOM 4925 CG LEU A 619 25.488 61.373 27.864 1.00 0.83 C
ATOM 4926 CD1 LEU A 619 24.912 60.046 28.350 1.00 0.83 C
ATOM 4927 CD2 LEU A 619 24.312 62.332 27.680 1.00 0.83 C
ATOM 4928 N SER A 620 29.301 61.253 27.558 1.00 0.78 N
ATOM 4929 CA SER A 620 30.105 60.893 26.407 1.00 0.78 C
ATOM 4930 C SER A 620 30.869 59.589 26.609 1.00 0.78 C
ATOM 4931 O SER A 620 30.849 58.742 25.723 1.00 0.78 O
ATOM 4932 CB SER A 620 31.024 62.049 25.935 1.00 0.78 C
ATOM 4933 OG SER A 620 32.053 62.345 26.876 1.00 0.78 O
ATOM 4934 N PHE A 621 31.458 59.326 27.805 1.00 0.74 N

ATOM 4935 CA PHE A 621 32.092 58.051 28.128 1.00 0.74 C
ATOM 4936 C PHE A 621 31.158 56.878 28.078 1.00 0.74 C
ATOM 4937 O PHE A 621 31.510 55.825 27.555 1.00 0.74 O
ATOM 4938 CB PHE A 621 32.780 58.036 29.519 1.00 0.74 C
ATOM 4939 CG PHE A 621 34.013 58.892 29.581 1.00 0.74 C
ATOM 4940 CD1 PHE A 621 34.709 59.339 28.442 1.00 0.74 C
ATOM 4941 CD2 PHE A 621 34.517 59.228 30.847 1.00 0.74 C
ATOM 4942 CE1 PHE A 621 35.858 60.123 28.567 1.00 0.74 C
ATOM 4943 CE2 PHE A 621 35.674 60.002 30.978 1.00 0.74 C
ATOM 4944 CZ PHE A 621 36.342 60.454 29.834 1.00 0.74 C
ATOM 4945 N LEU A 622 29.917 57.030 28.561 1.00 0.78 N
ATOM 4946 CA LEU A 622 28.924 55.977 28.485 1.00 0.78 C
ATOM 4947 C LEU A 622 28.623 55.531 27.051 1.00 0.78 C
ATOM 4948 O LEU A 622 28.303 54.374 26.785 1.00 0.78 O
ATOM 4949 CB LEU A 622 27.603 56.383 29.180 1.00 0.78 C
ATOM 4950 CG LEU A 622 27.715 56.843 30.650 1.00 0.78 C
ATOM 4951 CD1 LEU A 622 26.311 56.953 31.264 1.00 0.78 C
ATOM 4952 CD2 LEU A 622 28.613 55.957 31.529 1.00 0.78 C
ATOM 4953 N PHE A 623 28.722 56.439 26.065 1.00 0.76 N
ATOM 4954 CA PHE A 623 28.378 56.121 24.697 1.00 0.76 C
ATOM 4955 C PHE A 623 29.582 55.939 23.784 1.00 0.76 C
ATOM 4956 O PHE A 623 29.446 55.338 22.718 1.00 0.76 O
ATOM 4957 CB PHE A 623 27.413 57.195 24.151 1.00 0.76 C
ATOM 4958 CG PHE A 623 26.045 56.955 24.742 1.00 0.76 C
ATOM 4959 CD1 PHE A 623 25.706 57.431 26.015 1.00 0.76 C
ATOM 4960 CD2 PHE A 623 25.092 56.205 24.040 1.00 0.76 C
ATOM 4961 CE1 PHE A 623 24.454 57.164 26.577 1.00 0.76 C
ATOM 4962 CE2 PHE A 623 23.816 55.976 24.572 1.00 0.76 C
ATOM 4963 CZ PHE A 623 23.495 56.469 25.841 1.00 0.76 C
ATOM 4964 N SER A 624 30.798 56.364 24.184 1.00 0.69 N
ATOM 4965 CA SER A 624 31.980 56.253 23.341 1.00 0.69 C
ATOM 4966 C SER A 624 33.007 55.269 23.844 1.00 0.69 C
ATOM 4967 O SER A 624 33.788 54.759 23.051 1.00 0.69 O
ATOM 4968 CB SER A 624 32.704 57.616 23.168 1.00 0.69 C
ATOM 4969 OG SER A 624 33.347 58.056 24.370 1.00 0.69 O
ATOM 4970 N ASN A 625 33.018 54.931 25.152 1.00 0.47 N
ATOM 4971 CA ASN A 625 33.975 54.000 25.712 1.00 0.47 C
ATOM 4972 C ASN A 625 33.525 52.598 25.362 1.00 0.47 C
ATOM 4973 O ASN A 625 32.612 52.043 25.972 1.00 0.47 O
ATOM 4974 CB ASN A 625 34.089 54.230 27.246 1.00 0.47 C
ATOM 4975 CG ASN A 625 35.175 53.397 27.904 1.00 0.47 C
ATOM 4976 OD1 ASN A 625 35.708 52.440 27.354 1.00 0.47 O
ATOM 4977 ND2 ASN A 625 35.514 53.752 29.163 1.00 0.47 N
ATOM 4978 N TYR A 626 34.148 52.014 24.331 1.00 0.39 N

ATOM 4979 CA TYR A 626 33.647 50.857 23.652 1.00 0.39 C
ATOM 4980 C TYR A 626 34.579 49.673 23.854 1.00 0.39 C
ATOM 4981 O TYR A 626 35.795 49.808 23.909 1.00 0.39 O
ATOM 4982 CB TYR A 626 33.390 51.238 22.161 1.00 0.39 C
ATOM 4983 CG TYR A 626 34.612 51.251 21.312 1.00 0.39 C
ATOM 4984 CD1 TYR A 626 35.321 52.437 21.110 1.00 0.39 C
ATOM 4985 CD2 TYR A 626 35.067 50.062 20.719 1.00 0.39 C
ATOM 4986 CE1 TYR A 626 36.494 52.436 20.350 1.00 0.39 C
ATOM 4987 CE2 TYR A 626 36.215 50.071 19.924 1.00 0.39 C
ATOM 4988 CZ TYR A 626 36.927 51.256 19.745 1.00 0.39 C
ATOM 4989 OH TYR A 626 38.062 51.252 18.925 1.00 0.39 O
ATOM 4990 N ALA A 627 34.000 48.461 23.965 1.00 0.37 N
ATOM 4991 CA ALA A 627 34.723 47.208 24.040 1.00 0.37 C
ATOM 4992 C ALA A 627 35.344 46.850 22.706 1.00 0.37 C
ATOM 4993 O ALA A 627 34.716 46.274 21.819 1.00 0.37 O
ATOM 4994 CB ALA A 627 33.822 46.067 24.557 1.00 0.37 C
ATOM 4995 N GLY A 628 36.608 47.262 22.531 1.00 0.39 N
ATOM 4996 CA GLY A 628 37.392 46.926 21.369 1.00 0.39 C
ATOM 4997 C GLY A 628 38.796 46.614 21.735 1.00 0.39 C
ATOM 4998 O GLY A 628 39.222 46.754 22.878 1.00 0.39 O
ATOM 4999 N ALA A 629 39.593 46.260 20.711 1.00 0.33 N
ATOM 5000 CA ALA A 629 40.991 45.927 20.859 1.00 0.33 C
ATOM 5001 C ALA A 629 41.864 47.075 21.351 1.00 0.33 C
ATOM 5002 O ALA A 629 42.887 46.842 21.987 1.00 0.33 O
ATOM 5003 CB ALA A 629 41.557 45.422 19.520 1.00 0.33 C
ATOM 5004 N GLU A 630 41.440 48.343 21.118 1.00 0.34 N
ATOM 5005 CA GLU A 630 42.075 49.554 21.619 1.00 0.34 C
ATOM 5006 C GLU A 630 42.226 49.528 23.130 1.00 0.34 C
ATOM 5007 O GLU A 630 43.257 49.885 23.693 1.00 0.34 O
ATOM 5008 CB GLU A 630 41.240 50.802 21.227 1.00 0.34 C
ATOM 5009 CG GLU A 630 41.896 52.133 21.676 1.00 0.34 C
ATOM 5010 CD GLU A 630 41.122 53.381 21.256 1.00 0.34 C
ATOM 5011 OE1 GLU A 630 41.618 54.491 21.583 1.00 0.34 O
ATOM 5012 OE2 GLU A 630 40.054 53.240 20.613 1.00 0.34 O
ATOM 5013 N ALA A 631 41.196 49.015 23.817 1.00 0.41 N
ATOM 5014 CA ALA A 631 41.167 48.935 25.244 1.00 0.41 C
ATOM 5015 C ALA A 631 41.368 47.505 25.723 1.00 0.41 C
ATOM 5016 O ALA A 631 41.081 47.179 26.872 1.00 0.41 O
ATOM 5017 CB ALA A 631 39.809 49.494 25.679 1.00 0.41 C
ATOM 5018 N GLY A 632 41.876 46.596 24.850 1.00 0.37 N
ATOM 5019 CA GLY A 632 42.021 45.169 25.153 1.00 0.37 C
ATOM 5020 C GLY A 632 40.779 44.479 25.680 1.00 0.37 C
ATOM 5021 O GLY A 632 40.866 43.749 26.662 1.00 0.37 O
ATOM 5022 N ASP A 633 39.616 44.786 25.060 1.00 0.33 N

ATOM 5023 CA ASP A 633 38.283 44.236 25.271 1.00 0.33 C
ATOM 5024 C ASP A 633 37.456 45.022 26.285 1.00 0.33 C
ATOM 5025 O ASP A 633 36.258 44.787 26.441 1.00 0.33 O
ATOM 5026 CB ASP A 633 38.218 42.708 25.567 1.00 0.33 C
ATOM 5027 CG ASP A 633 38.465 41.873 24.328 1.00 0.33 C
ATOM 5028 OD1 ASP A 633 37.950 42.279 23.254 1.00 0.33 O
ATOM 5029 OD2 ASP A 633 39.104 40.797 24.450 1.00 0.33 O
ATOM 5030 N SER A 634 38.039 46.019 26.986 1.00 0.23 N
ATOM 5031 CA SER A 634 37.303 46.771 28.001 1.00 0.23 C
ATOM 5032 C SER A 634 36.425 47.863 27.427 1.00 0.23 C
ATOM 5033 O SER A 634 36.707 48.420 26.374 1.00 0.23 O
ATOM 5034 CB SER A 634 38.192 47.354 29.140 1.00 0.23 C
ATOM 5035 OG SER A 634 38.896 48.549 28.784 1.00 0.23 O
ATOM 5036 N GLY A 635 35.313 48.207 28.104 1.00 0.30 N
ATOM 5037 CA GLY A 635 34.450 49.258 27.606 1.00 0.30 C
ATOM 5038 C GLY A 635 33.102 49.186 28.247 1.00 0.30 C
ATOM 5039 O GLY A 635 32.787 48.239 28.963 1.00 0.30 O
ATOM 5040 N GLY A 636 32.257 50.204 28.005 1.00 0.64 N
ATOM 5041 CA GLY A 636 30.898 50.267 28.524 1.00 0.64 C
ATOM 5042 C GLY A 636 29.850 50.246 27.449 1.00 0.64 C
ATOM 5043 O GLY A 636 28.718 49.829 27.665 1.00 0.64 O
ATOM 5044 N SER A 637 30.181 50.687 26.221 1.00 0.62 N
ATOM 5045 CA SER A 637 29.182 50.930 25.189 1.00 0.62 C
ATOM 5046 C SER A 637 29.006 49.820 24.179 1.00 0.62 C
ATOM 5047 O SER A 637 28.243 49.956 23.224 1.00 0.62 O
ATOM 5048 CB SER A 637 29.395 52.279 24.452 1.00 0.62 C
ATOM 5049 OG SER A 637 30.576 52.313 23.658 1.00 0.62 O
ATOM 5050 N LYS A 638 29.669 48.672 24.399 1.00 0.33 N
ATOM 5051 CA LYS A 638 29.637 47.547 23.479 1.00 0.33 C
ATOM 5052 C LYS A 638 29.403 46.228 24.162 1.00 0.33 C
ATOM 5053 O LYS A 638 29.491 45.186 23.527 1.00 0.33 O
ATOM 5054 CB LYS A 638 30.993 47.426 22.777 1.00 0.33 C
ATOM 5055 CG LYS A 638 31.256 48.531 21.763 1.00 0.33 C
ATOM 5056 CD LYS A 638 30.399 48.462 20.496 1.00 0.33 C
ATOM 5057 CE LYS A 638 30.773 49.552 19.489 1.00 0.33 C
ATOM 5058 NZ LYS A 638 29.877 49.456 18.320 1.00 0.33 N
ATOM 5059 N LYS A 639 29.045 46.211 25.459 1.00 0.34 N
ATOM 5060 CA LYS A 639 28.732 44.974 26.154 1.00 0.34 C
ATOM 5061 C LYS A 639 27.541 44.239 25.564 1.00 0.34 C
ATOM 5062 O LYS A 639 27.572 43.036 25.344 1.00 0.34 O
ATOM 5063 CB LYS A 639 28.442 45.274 27.636 1.00 0.34 C
ATOM 5064 CG LYS A 639 28.133 44.015 28.458 1.00 0.34 C
ATOM 5065 CD LYS A 639 27.919 44.356 29.935 1.00 0.34 C
ATOM 5066 CE LYS A 639 27.578 43.137 30.791 1.00 0.34 C

ATOM 5067 NZ LYS A 639 27.373 43.543 32.202 1.00 0.34 N
ATOM 5068 N GLY A 640 26.480 44.996 25.215 1.00 0.45 N
ATOM 5069 CA GLY A 640 25.311 44.467 24.523 1.00 0.45 C
ATOM 5070 C GLY A 640 25.562 44.316 23.057 1.00 0.45 C
ATOM 5071 O GLY A 640 24.684 43.931 22.302 1.00 0.45 O
ATOM 5072 N GLY A 641 26.772 44.685 22.598 1.00 0.46 N
ATOM 5073 CA GLY A 641 27.141 44.633 21.202 1.00 0.46 C
ATOM 5074 C GLY A 641 28.275 43.729 20.858 1.00 0.46 C
ATOM 5075 O GLY A 641 28.871 43.870 19.791 1.00 0.46 O
ATOM 5076 N LYS A 642 28.601 42.760 21.724 1.00 0.44 N
ATOM 5077 CA LYS A 642 29.553 41.718 21.406 1.00 0.44 C
ATOM 5078 C LYS A 642 28.969 40.774 20.366 1.00 0.44 C
ATOM 5079 O LYS A 642 27.988 40.102 20.612 1.00 0.44 O
ATOM 5080 CB LYS A 642 29.928 40.967 22.702 1.00 0.44 C
ATOM 5081 CG LYS A 642 31.053 39.935 22.539 1.00 0.44 C
ATOM 5082 CD LYS A 642 31.598 39.462 23.898 1.00 0.44 C
ATOM 5083 CE LYS A 642 32.661 38.371 23.802 1.00 0.44 C
ATOM 5084 NZ LYS A 642 33.023 37.912 25.161 1.00 0.44 N
ATOM 5085 N LYS A 643 29.480 40.728 19.129 1.00 0.46 N
ATOM 5086 CA LYS A 643 28.882 39.888 18.104 1.00 0.46 C
ATOM 5087 C LYS A 643 28.976 38.375 18.307 1.00 0.46 C
ATOM 5088 O LYS A 643 29.997 37.842 18.734 1.00 0.46 O
ATOM 5089 CB LYS A 643 29.492 40.223 16.729 1.00 0.46 C
ATOM 5090 CG LYS A 643 29.193 41.657 16.272 1.00 0.46 C
ATOM 5091 CD LYS A 643 29.853 41.950 14.917 1.00 0.46 C
ATOM 5092 CE LYS A 643 29.575 43.364 14.404 1.00 0.46 C
ATOM 5093 NZ LYS A 643 30.260 43.583 13.109 1.00 0.46 N
ATOM 5094 N LYS A 644 27.925 37.628 17.913 1.00 0.38 N
ATOM 5095 CA LYS A 644 28.077 36.230 17.580 1.00 0.38 C
ATOM 5096 C LYS A 644 27.449 36.048 16.216 1.00 0.38 C
ATOM 5097 O LYS A 644 26.236 36.153 16.051 1.00 0.38 O
ATOM 5098 CB LYS A 644 27.404 35.288 18.605 1.00 0.38 C
ATOM 5099 CG LYS A 644 27.617 33.796 18.297 1.00 0.38 C
ATOM 5100 CD LYS A 644 26.988 32.897 19.372 1.00 0.38 C
ATOM 5101 CE LYS A 644 27.176 31.401 19.104 1.00 0.38 C
ATOM 5102 NZ LYS A 644 26.516 30.598 20.162 1.00 0.38 N
ATOM 5103 N GLY A 645 28.263 35.787 15.167 1.00 0.39 N
ATOM 5104 CA GLY A 645 27.780 35.867 13.789 1.00 0.39 C
ATOM 5105 C GLY A 645 27.223 37.221 13.408 1.00 0.39 C
ATOM 5106 O GLY A 645 27.874 38.249 13.575 1.00 0.39 O
ATOM 5107 N SER A 646 25.994 37.251 12.865 1.00 0.45 N
ATOM 5108 CA SER A 646 25.356 38.459 12.372 1.00 0.45 C
ATOM 5109 C SER A 646 24.483 39.140 13.411 1.00 0.45 C
ATOM 5110 O SER A 646 23.773 40.094 13.105 1.00 0.45 O

ATOM 5111 CB SER A 646 24.464 38.127 11.145 1.00 0.45 C
ATOM 5112 OG SER A 646 23.506 37.109 11.454 1.00 0.45 O
ATOM 5113 N SER A 647 24.531 38.691 14.676 1.00 0.49 N
ATOM 5114 CA SER A 647 23.680 39.214 15.718 1.00 0.49 C
ATOM 5115 C SER A 647 24.544 39.630 16.870 1.00 0.49 C
ATOM 5116 O SER A 647 25.616 39.078 17.119 1.00 0.49 O
ATOM 5117 CB SER A 647 22.668 38.150 16.185 1.00 0.49 C
ATOM 5118 OG SER A 647 21.719 38.648 17.131 1.00 0.49 O
ATOM 5119 N PHE A 648 24.101 40.657 17.602 1.00 0.44 N
ATOM 5120 CA PHE A 648 24.636 41.001 18.891 1.00 0.44 C
ATOM 5121 C PHE A 648 24.408 39.904 19.916 1.00 0.44 C
ATOM 5122 O PHE A 648 23.427 39.164 19.861 1.00 0.44 O
ATOM 5123 CB PHE A 648 24.018 42.330 19.366 1.00 0.44 C
ATOM 5124 CG PHE A 648 24.455 43.468 18.477 1.00 0.44 C
ATOM 5125 CD1 PHE A 648 25.821 43.738 18.330 1.00 0.44 C
ATOM 5126 CD2 PHE A 648 23.542 44.336 17.860 1.00 0.44 C
ATOM 5127 CE1 PHE A 648 26.259 44.961 17.818 1.00 0.44 C
ATOM 5128 CE2 PHE A 648 23.985 45.494 17.206 1.00 0.44 C
ATOM 5129 CZ PHE A 648 25.339 45.837 17.243 1.00 0.44 C
ATOM 5130 N GLN A 649 25.344 39.737 20.870 1.00 0.50 N
ATOM 5131 CA GLN A 649 25.222 38.789 21.948 1.00 0.50 C
ATOM 5132 C GLN A 649 24.004 39.084 22.784 1.00 0.50 C
ATOM 5133 O GLN A 649 23.742 40.208 23.199 1.00 0.50 O
ATOM 5134 CB GLN A 649 26.467 38.785 22.864 1.00 0.50 C
ATOM 5135 CG GLN A 649 26.483 37.695 23.947 1.00 0.50 C
ATOM 5136 CD GLN A 649 27.723 37.846 24.815 1.00 0.50 C
ATOM 5137 OE1 GLN A 649 28.501 38.783 24.678 1.00 0.50 O
ATOM 5138 NE2 GLN A 649 27.917 36.918 25.768 1.00 0.50 N
ATOM 5139 N THR A 650 23.210 38.049 23.040 1.00 0.68 N
ATOM 5140 CA THR A 650 21.981 38.181 23.770 1.00 0.68 C
ATOM 5141 C THR A 650 22.227 38.313 25.245 1.00 0.68 C
ATOM 5142 O THR A 650 23.270 37.912 25.759 1.00 0.68 O
ATOM 5143 CB THR A 650 21.137 36.952 23.590 1.00 0.68 C
ATOM 5144 OG1 THR A 650 21.865 35.765 23.895 1.00 0.68 O
ATOM 5145 CG2 THR A 650 20.759 36.817 22.127 1.00 0.68 C
ATOM 5146 N VAL A 651 21.239 38.815 26.004 1.00 0.69 N
ATOM 5147 CA VAL A 651 21.357 38.896 27.451 1.00 0.69 C
ATOM 5148 C VAL A 651 21.554 37.529 28.089 1.00 0.69 C
ATOM 5149 O VAL A 651 22.319 37.372 29.040 1.00 0.69 O
ATOM 5150 CB VAL A 651 20.178 39.590 28.098 1.00 0.69 C
ATOM 5151 CG1 VAL A 651 20.362 39.677 29.629 1.00 0.69 C
ATOM 5152 CG2 VAL A 651 20.101 41.007 27.514 1.00 0.69 C
ATOM 5153 N SER A 652 20.906 36.484 27.536 1.00 0.87 N
ATOM 5154 CA SER A 652 21.134 35.103 27.911 1.00 0.87 C

ATOM 5155 C SER A 652 22.544 34.591 27.716 1.00 0.87 C
ATOM 5156 O SER A 652 23.105 33.947 28.600 1.00 0.87 O
ATOM 5157 CB SER A 652 20.202 34.138 27.158 1.00 0.87 C
ATOM 5158 OG SER A 652 20.107 34.337 25.744 1.00 0.87 O
ATOM 5159 N ALA A 653 23.185 34.886 26.574 1.00 0.80 N
ATOM 5160 CA ALA A 653 24.568 34.551 26.352 1.00 0.80 C
ATOM 5161 C ALA A 653 25.507 35.312 27.286 1.00 0.80 C
ATOM 5162 O ALA A 653 26.444 34.734 27.830 1.00 0.80 O
ATOM 5163 CB ALA A 653 24.909 34.809 24.876 1.00 0.80 C
ATOM 5164 N VAL A 654 25.251 36.623 27.526 1.00 0.70 N
ATOM 5165 CA VAL A 654 25.986 37.467 28.471 1.00 0.70 C
ATOM 5166 C VAL A 654 25.900 36.925 29.885 1.00 0.70 C
ATOM 5167 O VAL A 654 26.889 36.837 30.613 1.00 0.70 O
ATOM 5168 CB VAL A 654 25.478 38.912 28.462 1.00 0.70 C
ATOM 5169 CG1 VAL A 654 26.173 39.746 29.554 1.00 0.70 C
ATOM 5170 CG2 VAL A 654 25.759 39.575 27.102 1.00 0.70 C
ATOM 5171 N PHE A 655 24.696 36.496 30.300 1.00 0.78 N
ATOM 5172 CA PHE A 655 24.469 35.828 31.558 1.00 0.78 C
ATOM 5173 C PHE A 655 25.293 34.541 31.686 1.00 0.78 C
ATOM 5174 O PHE A 655 25.981 34.334 32.685 1.00 0.78 O
ATOM 5175 CB PHE A 655 22.944 35.555 31.681 1.00 0.78 C
ATOM 5176 CG PHE A 655 22.640 34.832 32.943 1.00 0.78 C
ATOM 5177 CD1 PHE A 655 22.593 33.442 32.866 1.00 0.78 C
ATOM 5178 CD2 PHE A 655 22.545 35.460 34.194 1.00 0.78 C
ATOM 5179 CE1 PHE A 655 22.480 32.685 34.016 1.00 0.78 C
ATOM 5180 CE2 PHE A 655 22.342 34.690 35.348 1.00 0.78 C
ATOM 5181 CZ PHE A 655 22.293 33.295 35.255 1.00 0.78 C
ATOM 5182 N ARG A 656 25.289 33.684 30.645 1.00 0.74 N
ATOM 5183 CA ARG A 656 26.056 32.457 30.621 1.00 0.74 C
ATOM 5184 C ARG A 656 27.561 32.674 30.701 1.00 0.74 C
ATOM 5185 O ARG A 656 28.255 31.974 31.437 1.00 0.74 O
ATOM 5186 CB ARG A 656 25.717 31.629 29.366 1.00 0.74 C
ATOM 5187 CG ARG A 656 26.201 30.169 29.478 1.00 0.74 C
ATOM 5188 CD ARG A 656 25.917 29.279 28.265 1.00 0.74 C
ATOM 5189 NE ARG A 656 24.434 29.233 28.066 1.00 0.74 N
ATOM 5190 CZ ARG A 656 23.747 29.854 27.101 1.00 0.74 C
ATOM 5191 NH1 ARG A 656 22.430 29.753 27.125 1.00 0.74 N
ATOM 5192 NH2 ARG A 656 24.300 30.617 26.170 1.00 0.74 N
ATOM 5193 N GLU A 657 28.107 33.679 29.977 1.00 0.74 N
ATOM 5194 CA GLU A 657 29.515 34.053 30.046 1.00 0.74 C
ATOM 5195 C GLU A 657 29.925 34.468 31.446 1.00 0.74 C
ATOM 5196 O GLU A 657 30.934 34.006 31.978 1.00 0.74 O
ATOM 5197 CB GLU A 657 29.874 35.244 29.107 1.00 0.74 C
ATOM 5198 CG GLU A 657 29.885 34.928 27.586 1.00 0.74 C

ATOM 5199 CD GLU A 657 30.735 35.903 26.751 1.00 0.74 C
ATOM 5200 OE1 GLU A 657 30.946 37.074 27.158 1.00 0.74 O
ATOM 5201 OE2 GLU A 657 31.213 35.513 25.655 1.00 0.74 O
ATOM 5202 N ASN A 658 29.101 35.313 32.095 1.00 0.76 N
ATOM 5203 CA ASN A 658 29.328 35.775 33.449 1.00 0.76 C
ATOM 5204 C ASN A 658 29.280 34.653 34.474 1.00 0.76 C
ATOM 5205 O ASN A 658 30.129 34.564 35.359 1.00 0.76 O
ATOM 5206 CB ASN A 658 28.266 36.825 33.853 1.00 0.76 C
ATOM 5207 CG ASN A 658 28.488 38.141 33.129 1.00 0.76 C
ATOM 5208 OD1 ASN A 658 29.557 38.483 32.630 1.00 0.76 O
ATOM 5209 ND2 ASN A 658 27.421 38.974 33.109 1.00 0.76 N
ATOM 5210 N LEU A 659 28.286 33.748 34.363 1.00 0.87 N
ATOM 5211 CA LEU A 659 28.194 32.585 35.217 1.00 0.87 C
ATOM 5212 C LEU A 659 29.335 31.602 35.038 1.00 0.87 C
ATOM 5213 O LEU A 659 29.934 31.146 36.010 1.00 0.87 O
ATOM 5214 CB LEU A 659 26.876 31.833 34.968 1.00 0.87 C
ATOM 5215 CG LEU A 659 26.668 30.638 35.915 1.00 0.87 C
ATOM 5216 CD1 LEU A 659 26.498 31.060 37.388 1.00 0.87 C
ATOM 5217 CD2 LEU A 659 25.464 29.844 35.435 1.00 0.87 C
ATOM 5218 N ASN A 660 29.705 31.274 33.781 1.00 0.83 N
ATOM 5219 CA ASN A 660 30.809 30.375 33.489 1.00 0.83 C
ATOM 5220 C ASN A 660 32.126 30.918 34.031 1.00 0.83 C
ATOM 5221 O ASN A 660 32.930 30.177 34.596 1.00 0.83 O
ATOM 5222 CB ASN A 660 30.961 30.125 31.969 1.00 0.83 C
ATOM 5223 CG ASN A 660 29.824 29.266 31.432 1.00 0.83 C
ATOM 5224 OD1 ASN A 660 29.133 28.537 32.143 1.00 0.83 O
ATOM 5225 ND2 ASN A 660 29.652 29.314 30.091 1.00 0.83 N
ATOM 5226 N LYS A 661 32.343 32.247 33.909 1.00 0.80 N
ATOM 5227 CA LYS A 661 33.475 32.962 34.467 1.00 0.80 C
ATOM 5228 C LYS A 661 33.573 32.861 35.978 1.00 0.80 C
ATOM 5229 O LYS A 661 34.644 32.575 36.518 1.00 0.80 O
ATOM 5230 CB LYS A 661 33.380 34.463 34.092 1.00 0.80 C
ATOM 5231 CG LYS A 661 34.552 35.326 34.591 1.00 0.80 C
ATOM 5232 CD LYS A 661 34.422 36.797 34.151 1.00 0.80 C
ATOM 5233 CE LYS A 661 35.558 37.692 34.677 1.00 0.80 C
ATOM 5234 NZ LYS A 661 35.395 39.112 34.281 1.00 0.80 N
ATOM 5235 N LEU A 662 32.447 33.048 36.703 1.00 0.86 N
ATOM 5236 CA LEU A 662 32.399 32.864 38.140 1.00 0.86 C
ATOM 5237 C LEU A 662 32.743 31.452 38.551 1.00 0.86 C
ATOM 5238 O LEU A 662 33.629 31.239 39.375 1.00 0.86 O
ATOM 5239 CB LEU A 662 30.995 33.194 38.700 1.00 0.86 C
ATOM 5240 CG LEU A 662 30.788 32.859 40.200 1.00 0.86 C
ATOM 5241 CD1 LEU A 662 31.849 33.505 41.114 1.00 0.86 C
ATOM 5242 CD2 LEU A 662 29.377 33.257 40.649 1.00 0.86 C

ATOM 5243 N MET A 663 32.109 30.440 37.928 1.00 0.82 N
ATOM 5244 CA MET A 663 32.345 29.052 38.264 1.00 0.82 C
ATOM 5245 C MET A 663 33.779 28.633 38.004 1.00 0.82 C
ATOM 5246 O MET A 663 34.360 27.873 38.771 1.00 0.82 O
ATOM 5247 CB MET A 663 31.362 28.102 37.530 1.00 0.82 C
ATOM 5248 CG MET A 663 29.862 28.351 37.821 1.00 0.82 C
ATOM 5249 SD MET A 663 29.428 28.738 39.542 1.00 0.82 S
ATOM 5250 CE MET A 663 29.669 27.049 40.140 1.00 0.82 C
ATOM 5251 N THR A 664 34.405 29.140 36.925 1.00 0.82 N
ATOM 5252 CA THR A 664 35.827 28.945 36.635 1.00 0.82 C
ATOM 5253 C THR A 664 36.751 29.475 37.685 1.00 0.82 C
ATOM 5254 O THR A 664 37.673 28.776 38.098 1.00 0.82 O
ATOM 5255 CB THR A 664 36.214 29.504 35.282 1.00 0.82 C
ATOM 5256 OG1 THR A 664 35.593 28.706 34.285 1.00 0.82 O
ATOM 5257 CG2 THR A 664 37.705 29.424 34.941 1.00 0.82 C
ATOM 5258 N ASN A 665 36.485 30.693 38.183 1.00 0.82 N
ATOM 5259 CA ASN A 665 37.200 31.276 39.298 1.00 0.82 C
ATOM 5260 C ASN A 665 37.012 30.541 40.607 1.00 0.82 C
ATOM 5261 O ASN A 665 37.942 30.407 41.379 1.00 0.82 O
ATOM 5262 CB ASN A 665 36.723 32.712 39.556 1.00 0.82 C
ATOM 5263 CG ASN A 665 37.170 33.594 38.417 1.00 0.82 C
ATOM 5264 OD1 ASN A 665 38.195 33.411 37.768 1.00 0.82 O
ATOM 5265 ND2 ASN A 665 36.405 34.686 38.211 1.00 0.82 N
ATOM 5266 N LEU A 666 35.793 30.068 40.919 1.00 0.85 N
ATOM 5267 CA LEU A 666 35.546 29.294 42.124 1.00 0.85 C
ATOM 5268 C LEU A 666 36.198 27.930 42.161 1.00 0.85 C
ATOM 5269 O LEU A 666 36.531 27.411 43.218 1.00 0.85 O
ATOM 5270 CB LEU A 666 34.042 29.065 42.329 1.00 0.85 C
ATOM 5271 CG LEU A 666 33.223 30.340 42.566 1.00 0.85 C
ATOM 5272 CD1 LEU A 666 31.749 29.942 42.737 1.00 0.85 C
ATOM 5273 CD2 LEU A 666 33.740 31.161 43.759 1.00 0.85 C
ATOM 5274 N ARG A 667 36.419 27.293 41.001 1.00 0.68 N
ATOM 5275 CA ARG A 667 37.121 26.026 40.972 1.00 0.68 C
ATOM 5276 C ARG A 667 38.613 26.153 41.288 1.00 0.68 C
ATOM 5277 O ARG A 667 39.260 25.154 41.576 1.00 0.68 O
ATOM 5278 CB ARG A 667 36.997 25.346 39.590 1.00 0.68 C
ATOM 5279 CG ARG A 667 35.581 24.840 39.248 1.00 0.68 C
ATOM 5280 CD ARG A 667 35.495 23.921 38.018 1.00 0.68 C
ATOM 5281 NE ARG A 667 36.271 24.532 36.879 1.00 0.68 N
ATOM 5282 CZ ARG A 667 35.788 25.380 35.963 1.00 0.68 C
ATOM 5283 NH1 ARG A 667 36.605 25.936 35.070 1.00 0.68 N
ATOM 5284 NH2 ARG A 667 34.530 25.794 35.986 1.00 0.68 N
ATOM 5285 N SER A 668 39.188 27.379 41.246 1.00 0.83 N
ATOM 5286 CA SER A 668 40.572 27.632 41.622 1.00 0.83 C

ATOM 5287 C SER A 668 40.712 28.065 43.070 1.00 0.83 C
ATOM 5288 O SER A 668 41.810 28.416 43.497 1.00 0.83 O
ATOM 5289 CB SER A 668 41.246 28.735 40.742 1.00 0.83 C
ATOM 5290 OG SER A 668 40.726 30.050 40.963 1.00 0.83 O
ATOM 5291 N THR A 669 39.613 28.063 43.855 1.00 0.89 N
ATOM 5292 CA THR A 669 39.631 28.502 45.237 1.00 0.89 C
ATOM 5293 C THR A 669 39.303 27.376 46.190 1.00 0.89 C
ATOM 5294 O THR A 669 38.662 26.381 45.852 1.00 0.89 O
ATOM 5295 CB THR A 669 38.679 29.666 45.547 1.00 0.89 C
ATOM 5296 OG1 THR A 669 37.310 29.365 45.329 1.00 0.89 O
ATOM 5297 CG2 THR A 669 38.946 30.866 44.637 1.00 0.89 C
ATOM 5298 N HIS A 670 39.722 27.519 47.460 1.00 0.83 N
ATOM 5299 CA HIS A 670 39.177 26.727 48.543 1.00 0.83 C
ATOM 5300 C HIS A 670 37.881 27.373 49.054 1.00 0.83 C
ATOM 5301 O HIS A 670 37.925 28.528 49.489 1.00 0.83 O
ATOM 5302 CB HIS A 670 40.204 26.589 49.683 1.00 0.83 C
ATOM 5303 CG HIS A 670 39.776 25.674 50.796 1.00 0.83 C
ATOM 5304 ND1 HIS A 670 39.961 26.081 52.098 1.00 0.83 N
ATOM 5305 CD2 HIS A 670 39.277 24.408 50.772 1.00 0.83 C
ATOM 5306 CE1 HIS A 670 39.579 25.070 52.840 1.00 0.83 C
ATOM 5307 NE2 HIS A 670 39.151 24.027 52.091 1.00 0.83 N
ATOM 5308 N PRO A 671 36.703 26.742 49.011 1.00 0.88 N
ATOM 5309 CA PRO A 671 35.470 27.431 49.329 1.00 0.88 C
ATOM 5310 C PRO A 671 35.075 27.228 50.770 1.00 0.88 C
ATOM 5311 O PRO A 671 35.266 26.157 51.343 1.00 0.88 O
ATOM 5312 CB PRO A 671 34.432 26.787 48.406 1.00 0.88 C
ATOM 5313 CG PRO A 671 34.920 25.350 48.238 1.00 0.88 C
ATOM 5314 CD PRO A 671 36.446 25.477 48.328 1.00 0.88 C
ATOM 5315 N HIS A 672 34.478 28.270 51.356 1.00 0.84 N
ATOM 5316 CA HIS A 672 33.869 28.242 52.659 1.00 0.84 C
ATOM 5317 C HIS A 672 32.439 28.678 52.482 1.00 0.84 C
ATOM 5318 O HIS A 672 32.152 29.625 51.750 1.00 0.84 O
ATOM 5319 CB HIS A 672 34.576 29.207 53.634 1.00 0.84 C
ATOM 5320 CG HIS A 672 36.049 28.993 53.676 1.00 0.84 C
ATOM 5321 ND1 HIS A 672 36.565 28.134 54.621 1.00 0.84 N
ATOM 5322 CD2 HIS A 672 37.029 29.442 52.849 1.00 0.84 C
ATOM 5323 CE1 HIS A 672 37.850 28.070 54.341 1.00 0.84 C
ATOM 5324 NE2 HIS A 672 38.187 28.840 53.280 1.00 0.84 N
ATOM 5325 N PHE A 673 31.489 27.988 53.132 1.00 0.84 N
ATOM 5326 CA PHE A 673 30.079 28.205 52.889 1.00 0.84 C
ATOM 5327 C PHE A 673 29.400 28.802 54.097 1.00 0.84 C
ATOM 5328 O PHE A 673 29.565 28.348 55.230 1.00 0.84 O
ATOM 5329 CB PHE A 673 29.349 26.885 52.554 1.00 0.84 C
ATOM 5330 CG PHE A 673 29.803 26.367 51.227 1.00 0.84 C

ATOM 5331 CD1 PHE A 673 29.231 26.859 50.044 1.00 0.84 C
ATOM 5332 CD2 PHE A 673 30.777 25.363 51.143 1.00 0.84 C
ATOM 5333 CE1 PHE A 673 29.612 26.341 48.801 1.00 0.84 C
ATOM 5334 CE2 PHE A 673 31.173 24.855 49.903 1.00 0.84 C
ATOM 5335 CZ PHE A 673 30.592 25.343 48.731 1.00 0.84 C
ATOM 5336 N VAL A 674 28.582 29.839 53.861 1.00 0.86 N
ATOM 5337 CA VAL A 674 27.740 30.429 54.877 1.00 0.86 C
ATOM 5338 C VAL A 674 26.338 30.323 54.339 1.00 0.86 C
ATOM 5339 O VAL A 674 26.060 30.733 53.215 1.00 0.86 O
ATOM 5340 CB VAL A 674 28.087 31.884 55.162 1.00 0.86 C
ATOM 5341 CG1 VAL A 674 27.173 32.454 56.269 1.00 0.86 C
ATOM 5342 CG2 VAL A 674 29.570 31.981 55.576 1.00 0.86 C
ATOM 5343 N ARG A 675 25.418 29.710 55.101 1.00 0.76 N
ATOM 5344 CA ARG A 675 24.064 29.510 54.639 1.00 0.76 C
ATOM 5345 C ARG A 675 23.174 30.460 55.398 1.00 0.76 C
ATOM 5346 O ARG A 675 22.882 30.266 56.579 1.00 0.76 O
ATOM 5347 CB ARG A 675 23.579 28.042 54.817 1.00 0.76 C
ATOM 5348 CG ARG A 675 24.666 26.949 54.661 1.00 0.76 C
ATOM 5349 CD ARG A 675 25.437 26.870 53.335 1.00 0.76 C
ATOM 5350 NE ARG A 675 24.459 26.885 52.208 1.00 0.76 N
ATOM 5351 CZ ARG A 675 23.771 25.832 51.742 1.00 0.76 C
ATOM 5352 NH1 ARG A 675 23.936 24.620 52.247 1.00 0.76 N
ATOM 5353 NH2 ARG A 675 22.891 25.968 50.749 1.00 0.76 N
ATOM 5354 N CYS A 676 22.725 31.537 54.731 1.00 0.89 N
ATOM 5355 CA CYS A 676 21.842 32.491 55.351 1.00 0.89 C
ATOM 5356 C CYS A 676 20.411 32.029 55.238 1.00 0.89 C
ATOM 5357 O CYS A 676 19.947 31.604 54.182 1.00 0.89 O
ATOM 5358 CB CYS A 676 21.993 33.917 54.772 1.00 0.89 C
ATOM 5359 SG CYS A 676 23.622 34.638 55.145 1.00 0.89 S
ATOM 5360 N LEU A 677 19.687 32.109 56.363 1.00 0.90 N
ATOM 5361 CA LEU A 677 18.348 31.605 56.496 1.00 0.90 C
ATOM 5362 C LEU A 677 17.443 32.745 56.886 1.00 0.90 C
ATOM 5363 O LEU A 677 17.718 33.502 57.820 1.00 0.90 O
ATOM 5364 CB LEU A 677 18.263 30.519 57.594 1.00 0.90 C
ATOM 5365 CG LEU A 677 19.113 29.258 57.337 1.00 0.90 C
ATOM 5366 CD1 LEU A 677 18.883 28.261 58.476 1.00 0.90 C
ATOM 5367 CD2 LEU A 677 18.800 28.570 56.001 1.00 0.90 C
ATOM 5368 N ILE A 678 16.317 32.908 56.175 1.00 0.88 N
ATOM 5369 CA ILE A 678 15.345 33.924 56.506 1.00 0.88 C
ATOM 5370 C ILE A 678 14.377 33.345 57.553 1.00 0.88 C
ATOM 5371 O ILE A 678 13.977 32.186 57.428 1.00 0.88 O
ATOM 5372 CB ILE A 678 14.672 34.494 55.250 1.00 0.88 C
ATOM 5373 CG1 ILE A 678 14.180 35.948 55.450 1.00 0.88 C
ATOM 5374 CG2 ILE A 678 13.571 33.558 54.703 1.00 0.88 C

ATOM 5375 CD1 ILE A 678 13.612 36.553 54.160 1.00 0.88 C
ATOM 5376 N PRO A 679 13.986 34.034 58.627 1.00 0.91 N
ATOM 5377 CA PRO A 679 13.201 33.452 59.705 1.00 0.91 C
ATOM 5378 C PRO A 679 11.750 33.469 59.342 1.00 0.91 C
ATOM 5379 O PRO A 679 10.990 32.673 59.884 1.00 0.91 O
ATOM 5380 CB PRO A 679 13.393 34.416 60.892 1.00 0.91 C
ATOM 5381 CG PRO A 679 13.770 35.742 60.231 1.00 0.91 C
ATOM 5382 CD PRO A 679 14.601 35.273 59.047 1.00 0.91 C
ATOM 5383 N ASN A 680 11.338 34.413 58.484 1.00 0.81 N
ATOM 5384 CA ASN A 680 9.959 34.614 58.154 1.00 0.81 C
ATOM 5385 C ASN A 680 9.891 35.331 56.805 1.00 0.81 C
ATOM 5386 O ASN A 680 10.928 35.709 56.269 1.00 0.81 O
ATOM 5387 CB ASN A 680 9.136 35.334 59.255 1.00 0.81 C
ATOM 5388 CG ASN A 680 9.800 36.663 59.587 1.00 0.81 C
ATOM 5389 OD1 ASN A 680 9.883 37.573 58.760 1.00 0.81 O
ATOM 5390 ND2 ASN A 680 10.331 36.764 60.818 1.00 0.81 N
ATOM 5391 N GLU A 681 8.682 35.560 56.245 1.00 0.75 N
ATOM 5392 CA GLU A 681 8.494 36.311 55.007 1.00 0.75 C
ATOM 5393 C GLU A 681 7.932 37.705 55.275 1.00 0.75 C
ATOM 5394 O GLU A 681 7.365 38.351 54.398 1.00 0.75 O
ATOM 5395 CB GLU A 681 7.591 35.556 53.998 1.00 0.75 C
ATOM 5396 CG GLU A 681 8.237 34.239 53.502 1.00 0.75 C
ATOM 5397 CD GLU A 681 7.463 33.554 52.376 1.00 0.75 C
ATOM 5398 OE1 GLU A 681 7.884 32.442 51.970 1.00 0.75 O
ATOM 5399 OE2 GLU A 681 6.476 34.146 51.869 1.00 0.75 O
ATOM 5400 N THR A 682 8.067 38.236 56.508 1.00 0.72 N
ATOM 5401 CA THR A 682 7.483 39.525 56.866 1.00 0.72 C
ATOM 5402 C THR A 682 8.530 40.555 57.213 1.00 0.72 C
ATOM 5403 O THR A 682 8.176 41.701 57.482 1.00 0.72 O
ATOM 5404 CB THR A 682 6.525 39.434 58.047 1.00 0.72 C
ATOM 5405 OG1 THR A 682 7.078 38.673 59.102 1.00 0.72 O
ATOM 5406 CG2 THR A 682 5.265 38.670 57.657 1.00 0.72 C
ATOM 5407 N LYS A 683 9.836 40.193 57.191 1.00 0.65 N
ATOM 5408 CA LYS A 683 10.940 41.073 57.546 1.00 0.65 C
ATOM 5409 C LYS A 683 10.885 41.528 59.006 1.00 0.65 C
ATOM 5410 O LYS A 683 11.215 42.664 59.341 1.00 0.65 O
ATOM 5411 CB LYS A 683 11.082 42.265 56.554 1.00 0.65 C
ATOM 5412 CG LYS A 683 11.313 41.834 55.094 1.00 0.65 C
ATOM 5413 CD LYS A 683 11.081 42.975 54.088 1.00 0.65 C
ATOM 5414 CE LYS A 683 9.604 43.328 53.891 1.00 0.65 C
ATOM 5415 NZ LYS A 683 9.460 44.351 52.839 1.00 0.65 N
ATOM 5416 N THR A 684 10.480 40.622 59.924 1.00 0.73 N
ATOM 5417 CA THR A 684 10.214 40.944 61.327 1.00 0.73 C
ATOM 5418 C THR A 684 11.219 40.252 62.246 1.00 0.73 C

ATOM 5419 O THR A 684 11.602 39.105 61.997 1.00 0.73 O
ATOM 5420 CB THR A 684 8.815 40.554 61.816 1.00 0.73 C
ATOM 5421 OG1 THR A 684 8.551 39.179 61.598 1.00 0.73 O
ATOM 5422 CG2 THR A 684 7.747 41.333 61.042 1.00 0.73 C
ATOM 5423 N PRO A 685 11.706 40.871 63.317 1.00 0.77 N
ATOM 5424 CA PRO A 685 12.503 40.186 64.318 1.00 0.77 C
ATOM 5425 C PRO A 685 11.659 39.353 65.256 1.00 0.77 C
ATOM 5426 O PRO A 685 10.470 39.605 65.395 1.00 0.77 O
ATOM 5427 CB PRO A 685 13.129 41.329 65.125 1.00 0.77 C
ATOM 5428 CG PRO A 685 12.156 42.508 65.002 1.00 0.77 C
ATOM 5429 CD PRO A 685 11.358 42.228 63.726 1.00 0.77 C
ATOM 5430 N GLY A 686 12.273 38.363 65.946 1.00 0.68 N
ATOM 5431 CA GLY A 686 11.616 37.593 67.007 1.00 0.68 C
ATOM 5432 C GLY A 686 10.471 36.695 66.605 1.00 0.68 C
ATOM 5433 O GLY A 686 9.599 36.384 67.406 1.00 0.68 O
ATOM 5434 N VAL A 687 10.461 36.261 65.335 1.00 0.71 N
ATOM 5435 CA VAL A 687 9.324 35.636 64.687 1.00 0.71 C
ATOM 5436 C VAL A 687 9.912 34.569 63.784 1.00 0.71 C
ATOM 5437 O VAL A 687 10.052 34.711 62.578 1.00 0.71 O
ATOM 5438 CB VAL A 687 8.453 36.649 63.929 1.00 0.71 C
ATOM 5439 CG1 VAL A 687 7.306 35.976 63.152 1.00 0.71 C
ATOM 5440 CG2 VAL A 687 7.799 37.623 64.930 1.00 0.71 C
ATOM 5441 N MET A 688 10.356 33.452 64.380 1.00 0.79 N
ATOM 5442 CA MET A 688 10.907 32.334 63.645 1.00 0.79 C
ATOM 5443 C MET A 688 9.815 31.358 63.226 1.00 0.79 C
ATOM 5444 O MET A 688 9.243 30.654 64.061 1.00 0.79 O
ATOM 5445 CB MET A 688 11.951 31.664 64.561 1.00 0.79 C
ATOM 5446 CG MET A 688 12.770 30.530 63.936 1.00 0.79 C
ATOM 5447 SD MET A 688 14.320 30.327 64.844 1.00 0.79 S
ATOM 5448 CE MET A 688 14.934 28.887 63.954 1.00 0.79 C
ATOM 5449 N ASP A 689 9.494 31.303 61.915 1.00 0.81 N
ATOM 5450 CA ASP A 689 8.390 30.524 61.404 1.00 0.81 C
ATOM 5451 C ASP A 689 8.890 29.148 60.972 1.00 0.81 C
ATOM 5452 O ASP A 689 9.886 28.986 60.270 1.00 0.81 O
ATOM 5453 CB ASP A 689 7.628 31.307 60.307 1.00 0.81 C
ATOM 5454 CG ASP A 689 6.440 30.498 59.820 1.00 0.81 C
ATOM 5455 OD1 ASP A 689 6.668 29.530 59.043 1.00 0.81 O
ATOM 5456 OD2 ASP A 689 5.311 30.805 60.270 1.00 0.81 O
ATOM 5457 N HIS A 690 8.183 28.107 61.456 1.00 0.79 N
ATOM 5458 CA HIS A 690 8.525 26.712 61.272 1.00 0.79 C
ATOM 5459 C HIS A 690 8.616 26.258 59.832 1.00 0.79 C
ATOM 5460 O HIS A 690 9.644 25.731 59.411 1.00 0.79 O
ATOM 5461 CB HIS A 690 7.426 25.830 61.897 1.00 0.79 C
ATOM 5462 CG HIS A 690 7.305 25.892 63.376 1.00 0.79 C

ATOM 5463 ND1 HIS A 690 6.211 25.270 63.935 1.00 0.79 N
ATOM 5464 CD2 HIS A 690 8.110 26.390 64.349 1.00 0.79 C
ATOM 5465 CE1 HIS A 690 6.356 25.396 65.226 1.00 0.79 C
ATOM 5466 NE2 HIS A 690 7.489 26.065 65.538 1.00 0.79 N
ATOM 5467 N TYR A 691 7.553 26.495 59.032 1.00 0.73 N
ATOM 5468 CA TYR A 691 7.474 26.082 57.646 1.00 0.73 C
ATOM 5469 C TYR A 691 8.535 26.791 56.829 1.00 0.73 C
ATOM 5470 O TYR A 691 9.271 26.156 56.069 1.00 0.73 O
ATOM 5471 CB TYR A 691 6.056 26.344 57.063 1.00 0.73 C
ATOM 5472 CG TYR A 691 5.973 26.005 55.611 1.00 0.73 C
ATOM 5473 CD1 TYR A 691 5.746 27.063 54.733 1.00 0.73 C
ATOM 5474 CD2 TYR A 691 6.197 24.716 55.097 1.00 0.73 C
ATOM 5475 CE1 TYR A 691 5.732 26.856 53.356 1.00 0.73 C
ATOM 5476 CE2 TYR A 691 6.177 24.503 53.708 1.00 0.73 C
ATOM 5477 CZ TYR A 691 5.938 25.578 52.842 1.00 0.73 C
ATOM 5478 OH TYR A 691 5.881 25.387 51.451 1.00 0.73 O
ATOM 5479 N LEU A 692 8.678 28.116 57.036 1.00 0.78 N
ATOM 5480 CA LEU A 692 9.624 28.933 56.303 1.00 0.78 C
ATOM 5481 C LEU A 692 11.058 28.497 56.511 1.00 0.78 C
ATOM 5482 O LEU A 692 11.805 28.279 55.556 1.00 0.78 O
ATOM 5483 CB LEU A 692 9.427 30.420 56.704 1.00 0.78 C
ATOM 5484 CG LEU A 692 8.376 31.178 55.846 1.00 0.78 C
ATOM 5485 CD1 LEU A 692 7.280 30.342 55.187 1.00 0.78 C
ATOM 5486 CD2 LEU A 692 7.600 32.238 56.629 1.00 0.78 C
ATOM 5487 N VAL A 693 11.475 28.273 57.768 1.00 0.85 N
ATOM 5488 CA VAL A 693 12.825 27.820 58.052 1.00 0.85 C
ATOM 5489 C VAL A 693 13.095 26.401 57.581 1.00 0.85 C
ATOM 5490 O VAL A 693 14.105 26.128 56.934 1.00 0.85 O
ATOM 5491 CB VAL A 693 13.159 27.956 59.526 1.00 0.85 C
ATOM 5492 CG1 VAL A 693 14.574 27.411 59.828 1.00 0.85 C
ATOM 5493 CG2 VAL A 693 13.102 29.454 59.887 1.00 0.85 C
ATOM 5494 N MET A 694 12.181 25.447 57.845 1.00 0.77 N
ATOM 5495 CA MET A 694 12.387 24.055 57.493 1.00 0.77 C
ATOM 5496 C MET A 694 12.508 23.786 56.014 1.00 0.77 C
ATOM 5497 O MET A 694 13.295 22.944 55.588 1.00 0.77 O
ATOM 5498 CB MET A 694 11.265 23.171 58.020 1.00 0.77 C
ATOM 5499 CG MET A 694 11.310 23.046 59.541 1.00 0.77 C
ATOM 5500 SD MET A 694 9.933 22.108 60.220 1.00 0.77 S
ATOM 5501 CE MET A 694 10.415 20.548 59.434 1.00 0.77 C
ATOM 5502 N HIS A 695 11.746 24.528 55.188 1.00 0.71 N
ATOM 5503 CA HIS A 695 11.885 24.513 53.746 1.00 0.71 C
ATOM 5504 C HIS A 695 13.303 24.837 53.288 1.00 0.71 C
ATOM 5505 O HIS A 695 13.892 24.110 52.489 1.00 0.71 O
ATOM 5506 CB HIS A 695 10.918 25.558 53.149 1.00 0.71 C

ATOM 5507 CG HIS A 695 10.952 25.639 51.666 1.00 0.71 C
ATOM 5508 ND1 HIS A 695 10.392 24.620 50.921 1.00 0.71 N
ATOM 5509 CD2 HIS A 695 11.451 26.611 50.861 1.00 0.71 C
ATOM 5510 CE1 HIS A 695 10.555 25.006 49.669 1.00 0.71 C
ATOM 5511 NE2 HIS A 695 11.190 26.197 49.579 1.00 0.71 N
ATOM 5512 N GLN A 696 13.908 25.896 53.864 1.00 0.73 N
ATOM 5513 CA GLN A 696 15.278 26.289 53.603 1.00 0.73 C
ATOM 5514 C GLN A 696 16.296 25.285 54.096 1.00 0.73 C
ATOM 5515 O GLN A 696 17.222 24.939 53.369 1.00 0.73 O
ATOM 5516 CB GLN A 696 15.581 27.660 54.223 1.00 0.73 C
ATOM 5517 CG GLN A 696 14.757 28.791 53.586 1.00 0.73 C
ATOM 5518 CD GLN A 696 14.869 30.029 54.463 1.00 0.73 C
ATOM 5519 OE1 GLN A 696 15.815 30.816 54.395 1.00 0.73 O
ATOM 5520 NE2 GLN A 696 13.895 30.155 55.394 1.00 0.73 N
ATOM 5521 N LEU A 697 16.132 24.732 55.322 1.00 0.81 N
ATOM 5522 CA LEU A 697 17.017 23.699 55.843 1.00 0.81 C
ATOM 5523 C LEU A 697 17.068 22.461 54.972 1.00 0.81 C
ATOM 5524 O LEU A 697 18.147 21.921 54.726 1.00 0.81 O
ATOM 5525 CB LEU A 697 16.619 23.235 57.269 1.00 0.81 C
ATOM 5526 CG LEU A 697 16.686 24.326 58.351 1.00 0.81 C
ATOM 5527 CD1 LEU A 697 16.265 23.766 59.720 1.00 0.81 C
ATOM 5528 CD2 LEU A 697 18.078 24.958 58.444 1.00 0.81 C
ATOM 5529 N ARG A 698 15.895 22.025 54.463 1.00 0.62 N
ATOM 5530 CA ARG A 698 15.794 20.939 53.512 1.00 0.62 C
ATOM 5531 C ARG A 698 16.456 21.220 52.175 1.00 0.62 C
ATOM 5532 O ARG A 698 17.335 20.484 51.742 1.00 0.62 O
ATOM 5533 CB ARG A 698 14.308 20.609 53.224 1.00 0.62 C
ATOM 5534 CG ARG A 698 13.641 19.761 54.320 1.00 0.62 C
ATOM 5535 CD ARG A 698 12.335 19.092 53.882 1.00 0.62 C
ATOM 5536 NE ARG A 698 11.290 20.167 53.762 1.00 0.62 N
ATOM 5537 CZ ARG A 698 10.453 20.497 54.755 1.00 0.62 C
ATOM 5538 NH1 ARG A 698 10.411 19.837 55.906 1.00 0.62 N
ATOM 5539 NH2 ARG A 698 9.618 21.527 54.586 1.00 0.62 N
ATOM 5540 N CYS A 699 16.108 22.327 51.481 1.00 0.70 N
ATOM 5541 CA CYS A 699 16.609 22.521 50.129 1.00 0.70 C
ATOM 5542 C CYS A 699 18.060 22.962 50.076 1.00 0.70 C
ATOM 5543 O CYS A 699 18.749 22.823 49.070 1.00 0.70 O
ATOM 5544 CB CYS A 699 15.755 23.536 49.324 1.00 0.70 C
ATOM 5545 SG CYS A 699 15.843 25.280 49.867 1.00 0.70 S
ATOM 5546 N ASN A 700 18.573 23.504 51.195 1.00 0.71 N
ATOM 5547 CA ASN A 700 19.962 23.871 51.323 1.00 0.71 C
ATOM 5548 C ASN A 700 20.855 22.668 51.548 1.00 0.71 C
ATOM 5549 O ASN A 700 22.071 22.775 51.368 1.00 0.71 O
ATOM 5550 CB ASN A 700 20.176 24.849 52.506 1.00 0.71 C

ATOM 5551 CG ASN A 700 19.805 26.295 52.186 1.00 0.71 C
ATOM 5552 OD1 ASN A 700 20.340 27.213 52.809 1.00 0.71 O
ATOM 5553 ND2 ASN A 700 18.940 26.537 51.181 1.00 0.71 N
ATOM 5554 N GLY A 701 20.282 21.512 51.947 1.00 0.68 N
ATOM 5555 CA GLY A 701 21.029 20.304 52.250 1.00 0.68 C
ATOM 5556 C GLY A 701 21.757 20.375 53.564 1.00 0.68 C
ATOM 5557 O GLY A 701 22.861 19.849 53.697 1.00 0.68 O
ATOM 5558 N VAL A 702 21.192 21.085 54.573 1.00 0.84 N
ATOM 5559 CA VAL A 702 21.864 21.300 55.852 1.00 0.84 C
ATOM 5560 C VAL A 702 22.079 20.008 56.609 1.00 0.84 C
ATOM 5561 O VAL A 702 23.178 19.716 57.073 1.00 0.84 O
ATOM 5562 CB VAL A 702 21.124 22.301 56.751 1.00 0.84 C
ATOM 5563 CG1 VAL A 702 21.755 22.380 58.159 1.00 0.84 C
ATOM 5564 CG2 VAL A 702 21.206 23.697 56.103 1.00 0.84 C
ATOM 5565 N LEU A 703 21.035 19.170 56.718 1.00 0.70 N
ATOM 5566 CA LEU A 703 21.094 17.918 57.437 1.00 0.70 C
ATOM 5567 C LEU A 703 21.986 16.889 56.783 1.00 0.70 C
ATOM 5568 O LEU A 703 22.737 16.182 57.455 1.00 0.70 O
ATOM 5569 CB LEU A 703 19.689 17.324 57.636 1.00 0.70 C
ATOM 5570 CG LEU A 703 18.935 17.951 58.816 1.00 0.70 C
ATOM 5571 CD1 LEU A 703 18.291 19.315 58.510 1.00 0.70 C
ATOM 5572 CD2 LEU A 703 17.879 16.966 59.314 1.00 0.70 C
ATOM 5573 N GLU A 704 21.954 16.793 55.446 1.00 0.65 N
ATOM 5574 CA GLU A 704 22.857 16.001 54.651 1.00 0.65 C
ATOM 5575 C GLU A 704 24.294 16.431 54.843 1.00 0.65 C
ATOM 5576 O GLU A 704 25.176 15.596 55.054 1.00 0.65 O
ATOM 5577 CB GLU A 704 22.480 16.091 53.154 1.00 0.65 C
ATOM 5578 CG GLU A 704 21.105 15.452 52.834 1.00 0.65 C
ATOM 5579 CD GLU A 704 19.906 16.368 53.098 1.00 0.65 C
ATOM 5580 OE1 GLU A 704 20.101 17.478 53.665 1.00 0.65 O
ATOM 5581 OE2 GLU A 704 18.775 15.913 52.814 1.00 0.65 O
ATOM 5582 N GLY A 705 24.544 17.761 54.856 1.00 0.80 N
ATOM 5583 CA GLY A 705 25.850 18.343 55.126 1.00 0.80 C
ATOM 5584 C GLY A 705 26.393 18.029 56.495 1.00 0.80 C
ATOM 5585 O GLY A 705 27.582 17.779 56.650 1.00 0.80 O
ATOM 5586 N ILE A 706 25.535 17.969 57.529 1.00 0.65 N
ATOM 5587 CA ILE A 706 25.913 17.504 58.858 1.00 0.65 C
ATOM 5588 C ILE A 706 26.253 16.020 58.875 1.00 0.65 C
ATOM 5589 O ILE A 706 27.211 15.570 59.508 1.00 0.65 O
ATOM 5590 CB ILE A 706 24.814 17.769 59.886 1.00 0.65 C
ATOM 5591 CG1 ILE A 706 24.609 19.277 60.063 1.00 0.65 C
ATOM 5592 CG2 ILE A 706 25.181 17.155 61.251 1.00 0.65 C
ATOM 5593 CD1 ILE A 706 23.327 19.649 60.819 1.00 0.65 C
ATOM 5594 N ARG A 707 25.450 15.195 58.176 1.00 0.56 N

ATOM 5595 CA ARG A 707 25.672 13.764 58.087 1.00 0.56 C
ATOM 5596 C ARG A 707 26.954 13.359 57.411 1.00 0.56 C
ATOM 5597 O ARG A 707 27.624 12.460 57.907 1.00 0.56 O
ATOM 5598 CB ARG A 707 24.526 13.005 57.385 1.00 0.56 C
ATOM 5599 CG ARG A 707 23.274 12.944 58.266 1.00 0.56 C
ATOM 5600 CD ARG A 707 22.098 12.162 57.695 1.00 0.56 C
ATOM 5601 NE ARG A 707 20.878 12.490 58.524 1.00 0.56 N
ATOM 5602 CZ ARG A 707 19.747 13.027 58.039 1.00 0.56 C
ATOM 5603 NH1 ARG A 707 19.624 13.341 56.753 1.00 0.56 N
ATOM 5604 NH2 ARG A 707 18.713 13.247 58.851 1.00 0.56 N
ATOM 5605 N ILE A 708 27.346 13.994 56.287 1.00 0.64 N
ATOM 5606 CA ILE A 708 28.625 13.692 55.653 1.00 0.64 C
ATOM 5607 C ILE A 708 29.801 13.998 56.570 1.00 0.64 C
ATOM 5608 O ILE A 708 30.739 13.213 56.679 1.00 0.64 O
ATOM 5609 CB ILE A 708 28.802 14.307 54.262 1.00 0.64 C
ATOM 5610 CG1 ILE A 708 30.048 13.743 53.535 1.00 0.64 C
ATOM 5611 CG2 ILE A 708 28.861 15.849 54.300 1.00 0.64 C
ATOM 5612 CD1 ILE A 708 29.929 12.269 53.121 1.00 0.64 C
ATOM 5613 N CYS A 709 29.729 15.108 57.335 1.00 0.61 N
ATOM 5614 CA CYS A 709 30.731 15.482 58.317 1.00 0.61 C
ATOM 5615 C CYS A 709 30.873 14.468 59.445 1.00 0.61 C
ATOM 5616 O CYS A 709 31.968 14.118 59.877 1.00 0.61 O
ATOM 5617 CB CYS A 709 30.377 16.864 58.918 1.00 0.61 C
ATOM 5618 SG CYS A 709 30.490 18.172 57.666 1.00 0.61 S
ATOM 5619 N ARG A 710 29.743 13.952 59.961 1.00 0.52 N
ATOM 5620 CA ARG A 710 29.737 12.892 60.952 1.00 0.52 C
ATOM 5621 C ARG A 710 30.191 11.531 60.495 1.00 0.52 C
ATOM 5622 O ARG A 710 30.923 10.872 61.232 1.00 0.52 O
ATOM 5623 CB ARG A 710 28.322 12.677 61.502 1.00 0.52 C
ATOM 5624 CG ARG A 710 27.948 13.742 62.530 1.00 0.52 C
ATOM 5625 CD ARG A 710 26.451 13.998 62.537 1.00 0.52 C
ATOM 5626 NE ARG A 710 25.783 12.846 63.237 1.00 0.52 N
ATOM 5627 CZ ARG A 710 25.165 12.985 64.414 1.00 0.52 C
ATOM 5628 NH1 ARG A 710 25.203 14.144 65.048 1.00 0.52 N
ATOM 5629 NH2 ARG A 710 24.525 11.974 64.998 1.00 0.52 N
ATOM 5630 N LYS A 711 29.706 11.086 59.320 1.00 0.64 N
ATOM 5631 CA LYS A 711 29.823 9.717 58.867 1.00 0.64 C
ATOM 5632 C LYS A 711 31.103 9.489 58.100 1.00 0.64 C
ATOM 5633 O LYS A 711 31.473 8.346 57.859 1.00 0.64 O
ATOM 5634 CB LYS A 711 28.634 9.359 57.926 1.00 0.64 C
ATOM 5635 CG LYS A 711 27.264 9.332 58.629 1.00 0.64 C
ATOM 5636 CD LYS A 711 26.113 8.971 57.671 1.00 0.64 C
ATOM 5637 CE LYS A 711 24.746 8.926 58.363 1.00 0.64 C
ATOM 5638 NZ LYS A 711 23.681 8.555 57.400 1.00 0.64 N

ATOM 5639 N GLY A 712 31.786 10.577 57.697 1.00 0.73 N
ATOM 5640 CA GLY A 712 32.952 10.542 56.840 1.00 0.73 C
ATOM 5641 C GLY A 712 34.233 10.903 57.526 1.00 0.73 C
ATOM 5642 O GLY A 712 34.397 10.759 58.732 1.00 0.73 O
ATOM 5643 N PHE A 713 35.195 11.384 56.723 1.00 0.65 N
ATOM 5644 CA PHE A 713 36.589 11.483 57.068 1.00 0.65 C
ATOM 5645 C PHE A 713 37.174 12.789 56.517 1.00 0.65 C
ATOM 5646 O PHE A 713 37.880 12.759 55.502 1.00 0.65 O
ATOM 5647 CB PHE A 713 37.374 10.297 56.445 1.00 0.65 C
ATOM 5648 CG PHE A 713 36.885 8.978 56.976 1.00 0.65 C
ATOM 5649 CD1 PHE A 713 35.897 8.248 56.291 1.00 0.65 C
ATOM 5650 CD2 PHE A 713 37.374 8.477 58.191 1.00 0.65 C
ATOM 5651 CE1 PHE A 713 35.387 7.060 56.828 1.00 0.65 C
ATOM 5652 CE2 PHE A 713 36.883 7.276 58.714 1.00 0.65 C
ATOM 5653 CZ PHE A 713 35.883 6.575 58.040 1.00 0.65 C
ATOM 5654 N PRO A 714 36.925 13.951 57.143 1.00 0.57 N
ATOM 5655 CA PRO A 714 37.220 15.275 56.594 1.00 0.57 C
ATOM 5656 C PRO A 714 38.650 15.548 56.196 1.00 0.57 C
ATOM 5657 O PRO A 714 38.886 16.402 55.347 1.00 0.57 O
ATOM 5658 CB PRO A 714 36.790 16.242 57.714 1.00 0.57 C
ATOM 5659 CG PRO A 714 35.629 15.516 58.380 1.00 0.57 C
ATOM 5660 CD PRO A 714 36.091 14.063 58.343 1.00 0.57 C
ATOM 5661 N SER A 715 39.644 14.895 56.808 1.00 0.57 N
ATOM 5662 CA SER A 715 41.003 15.389 56.708 1.00 0.57 C
ATOM 5663 C SER A 715 41.970 14.307 56.278 1.00 0.57 C
ATOM 5664 O SER A 715 41.866 13.174 56.736 1.00 0.57 O
ATOM 5665 CB SER A 715 41.446 15.903 58.076 1.00 0.57 C
ATOM 5666 OG SER A 715 40.760 17.087 58.476 1.00 0.57 O
ATOM 5667 N ARG A 716 42.925 14.615 55.357 1.00 0.59 N
ATOM 5668 CA ARG A 716 43.804 13.607 54.782 1.00 0.59 C
ATOM 5669 C ARG A 716 45.118 14.141 54.217 1.00 0.59 C
ATOM 5670 O ARG A 716 45.201 15.275 53.757 1.00 0.59 O
ATOM 5671 CB ARG A 716 43.097 12.761 53.686 1.00 0.59 C
ATOM 5672 CG ARG A 716 42.375 13.546 52.568 1.00 0.59 C
ATOM 5673 CD ARG A 716 40.959 14.000 52.959 1.00 0.59 C
ATOM 5674 NE ARG A 716 40.270 14.487 51.737 1.00 0.59 N
ATOM 5675 CZ ARG A 716 38.988 14.881 51.742 1.00 0.59 C
ATOM 5676 NH1 ARG A 716 38.223 14.846 52.825 1.00 0.59 N
ATOM 5677 NH2 ARG A 716 38.401 15.279 50.621 1.00 0.59 N
ATOM 5678 N ILE A 717 46.195 13.318 54.277 1.00 0.51 N
ATOM 5679 CA ILE A 717 47.579 13.740 54.053 1.00 0.51 C
ATOM 5680 C ILE A 717 48.341 12.620 53.361 1.00 0.51 C
ATOM 5681 O ILE A 717 48.233 11.469 53.779 1.00 0.51 O
ATOM 5682 CB ILE A 717 48.279 14.018 55.393 1.00 0.51 C

ATOM 5683 CG1 ILE A 717 47.603 15.181 56.149 1.00 0.51 C
ATOM 5684 CG2 ILE A 717 49.790 14.289 55.219 1.00 0.51 C
ATOM 5685 CD1 ILE A 717 48.155 15.373 57.561 1.00 0.51 C
ATOM 5686 N LEU A 718 49.153 12.934 52.308 1.00 0.51 N
ATOM 5687 CA LEU A 718 50.111 12.029 51.673 1.00 0.51 C
ATOM 5688 C LEU A 718 51.082 11.436 52.694 1.00 0.51 C
ATOM 5689 O LEU A 718 51.618 12.131 53.545 1.00 0.51 O
ATOM 5690 CB LEU A 718 50.908 12.766 50.550 1.00 0.51 C
ATOM 5691 CG LEU A 718 51.928 11.916 49.750 1.00 0.51 C
ATOM 5692 CD1 LEU A 718 51.251 10.830 48.910 1.00 0.51 C
ATOM 5693 CD2 LEU A 718 52.781 12.797 48.828 1.00 0.51 C
ATOM 5694 N TYR A 719 51.346 10.116 52.663 1.00 0.48 N
ATOM 5695 CA TYR A 719 52.061 9.421 53.730 1.00 0.48 C
ATOM 5696 C TYR A 719 53.456 9.971 54.084 1.00 0.48 C
ATOM 5697 O TYR A 719 53.836 10.077 55.246 1.00 0.48 O
ATOM 5698 CB TYR A 719 52.158 7.924 53.334 1.00 0.48 C
ATOM 5699 CG TYR A 719 52.897 7.100 54.354 1.00 0.48 C
ATOM 5700 CD1 TYR A 719 54.268 6.843 54.184 1.00 0.48 C
ATOM 5701 CD2 TYR A 719 52.260 6.657 55.521 1.00 0.48 C
ATOM 5702 CE1 TYR A 719 54.986 6.138 55.156 1.00 0.48 C
ATOM 5703 CE2 TYR A 719 52.977 5.937 56.489 1.00 0.48 C
ATOM 5704 CZ TYR A 719 54.340 5.681 56.303 1.00 0.48 C
ATOM 5705 OH TYR A 719 55.070 4.972 57.274 1.00 0.48 O
ATOM 5706 N ALA A 720 54.266 10.353 53.087 1.00 0.43 N
ATOM 5707 CA ALA A 720 55.525 11.023 53.321 1.00 0.43 C
ATOM 5708 C ALA A 720 55.407 12.396 53.986 1.00 0.43 C
ATOM 5709 O ALA A 720 56.277 12.788 54.757 1.00 0.43 O
ATOM 5710 CB ALA A 720 56.258 11.203 51.985 1.00 0.43 C
ATOM 5711 N ASP A 721 54.333 13.154 53.689 1.00 0.45 N
ATOM 5712 CA ASP A 721 54.057 14.463 54.243 1.00 0.45 C
ATOM 5713 C ASP A 721 53.578 14.370 55.693 1.00 0.45 C
ATOM 5714 O ASP A 721 53.733 15.301 56.479 1.00 0.45 O
ATOM 5715 CB ASP A 721 53.027 15.201 53.338 1.00 0.45 C
ATOM 5716 CG ASP A 721 53.543 15.455 51.925 1.00 0.45 C
ATOM 5717 OD1 ASP A 721 54.758 15.255 51.663 1.00 0.45 O
ATOM 5718 OD2 ASP A 721 52.694 15.826 51.074 1.00 0.45 O
ATOM 5719 N PHE A 722 53.056 13.191 56.109 1.00 0.42 N
ATOM 5720 CA PHE A 722 52.884 12.829 57.505 1.00 0.42 C
ATOM 5721 C PHE A 722 54.237 12.669 58.210 1.00 0.42 C
ATOM 5722 O PHE A 722 54.474 13.183 59.303 1.00 0.42 O
ATOM 5723 CB PHE A 722 52.081 11.492 57.572 1.00 0.42 C
ATOM 5724 CG PHE A 722 51.813 11.018 58.964 1.00 0.42 C
ATOM 5725 CD1 PHE A 722 52.619 10.025 59.546 1.00 0.42 C
ATOM 5726 CD2 PHE A 722 50.770 11.576 59.707 1.00 0.42 C

ATOM 5727 CE1 PHE A 722 52.388 9.602 60.859 1.00 0.42 C
ATOM 5728 CE2 PHE A 722 50.531 11.154 61.019 1.00 0.42 C
ATOM 5729 CZ PHE A 722 51.340 10.166 61.595 1.00 0.42 C
ATOM 5730 N LYS A 723 55.178 11.946 57.569 1.00 0.42 N
ATOM 5731 CA LYS A 723 56.465 11.620 58.150 1.00 0.42 C
ATOM 5732 C LYS A 723 57.546 12.630 57.827 1.00 0.42 C
ATOM 5733 O LYS A 723 58.387 12.466 56.942 1.00 0.42 O
ATOM 5734 CB LYS A 723 56.938 10.218 57.707 1.00 0.42 C
ATOM 5735 CG LYS A 723 58.243 9.766 58.386 1.00 0.42 C
ATOM 5736 CD LYS A 723 58.656 8.360 57.939 1.00 0.42 C
ATOM 5737 CE LYS A 723 59.951 7.883 58.599 1.00 0.42 C
ATOM 5738 NZ LYS A 723 60.296 6.526 58.120 1.00 0.42 N
ATOM 5739 N GLN A 724 57.589 13.699 58.625 1.00 0.42 N
ATOM 5740 CA GLN A 724 58.503 14.777 58.378 1.00 0.42 C
ATOM 5741 C GLN A 724 58.331 15.842 59.421 1.00 0.42 C
ATOM 5742 O GLN A 724 57.258 16.043 59.977 1.00 0.42 O
ATOM 5743 CB GLN A 724 58.265 15.454 57.003 1.00 0.42 C
ATOM 5744 CG GLN A 724 59.345 16.465 56.538 1.00 0.42 C
ATOM 5745 CD GLN A 724 60.716 15.975 56.116 1.00 0.42 C
ATOM 5746 OE1 GLN A 724 61.475 16.755 55.549 1.00 0.42 O
ATOM 5747 NE2 GLN A 724 61.014 14.687 56.309 1.00 0.42 N
ATOM 5748 N ARG A 725 59.415 16.581 59.702 1.00 0.24 N
ATOM 5749 CA ARG A 725 59.381 17.658 60.651 1.00 0.24 C
ATOM 5750 C ARG A 725 59.145 19.011 59.986 1.00 0.24 C
ATOM 5751 O ARG A 725 59.128 20.035 60.634 1.00 0.24 O
ATOM 5752 CB ARG A 725 60.697 17.691 61.461 1.00 0.24 C
ATOM 5753 CG ARG A 725 60.994 16.384 62.226 1.00 0.24 C
ATOM 5754 CD ARG A 725 62.325 16.456 62.978 1.00 0.24 C
ATOM 5755 NE ARG A 725 62.516 15.142 63.683 1.00 0.24 N
ATOM 5756 CZ ARG A 725 63.547 14.835 64.478 1.00 0.24 C
ATOM 5757 NH1 ARG A 725 63.651 13.617 65.001 1.00 0.24 N
ATOM 5758 NH2 ARG A 725 64.522 15.711 64.707 1.00 0.24 N
ATOM 5759 N TYR A 726 58.940 19.080 58.669 1.00 0.26 N
ATOM 5760 CA TYR A 726 58.739 20.329 57.958 1.00 0.26 C
ATOM 5761 C TYR A 726 58.120 20.064 56.566 1.00 0.26 C
ATOM 5762 O TYR A 726 58.603 20.480 55.528 1.00 0.26 O
ATOM 5763 CB TYR A 726 60.046 21.213 57.924 1.00 0.26 C
ATOM 5764 CG TYR A 726 61.227 20.551 57.255 1.00 0.26 C
ATOM 5765 CD1 TYR A 726 62.090 19.680 57.946 1.00 0.26 C
ATOM 5766 CD2 TYR A 726 61.475 20.798 55.897 1.00 0.26 C
ATOM 5767 CE1 TYR A 726 63.130 19.023 57.271 1.00 0.26 C
ATOM 5768 CE2 TYR A 726 62.473 20.102 55.211 1.00 0.26 C
ATOM 5769 CZ TYR A 726 63.306 19.221 55.900 1.00 0.26 C
ATOM 5770 OH TYR A 726 64.307 18.529 55.198 1.00 0.26 O

ATOM 5771 N ARG A 727 56.980 19.345 56.477 1.00 0.38 N
ATOM 5772 CA ARG A 727 56.366 19.046 55.172 1.00 0.38 C
ATOM 5773 C ARG A 727 54.905 18.793 55.345 1.00 0.38 C
ATOM 5774 O ARG A 727 54.206 18.368 54.444 1.00 0.38 O
ATOM 5775 CB ARG A 727 57.055 17.805 54.564 1.00 0.38 C
ATOM 5776 CG ARG A 727 56.757 17.156 53.203 1.00 0.38 C
ATOM 5777 CD ARG A 727 57.559 15.848 52.963 1.00 0.38 C
ATOM 5778 NE ARG A 727 59.034 16.171 52.890 1.00 0.38 N
ATOM 5779 CZ ARG A 727 60.015 15.264 52.763 1.00 0.38 C
ATOM 5780 NH1 ARG A 727 61.273 15.675 52.608 1.00 0.38 N
ATOM 5781 NH2 ARG A 727 59.772 13.961 52.831 1.00 0.38 N
ATOM 5782 N ILE A 728 54.393 19.126 56.534 1.00 0.31 N
ATOM 5783 CA ILE A 728 52.987 19.019 56.811 1.00 0.31 C
ATOM 5784 C ILE A 728 52.420 20.417 56.940 1.00 0.31 C
ATOM 5785 O ILE A 728 51.223 20.640 57.121 1.00 0.31 O
ATOM 5786 CB ILE A 728 52.820 18.206 58.082 1.00 0.31 C
ATOM 5787 CG1 ILE A 728 51.381 17.667 58.174 1.00 0.31 C
ATOM 5788 CG2 ILE A 728 53.288 19.005 59.325 1.00 0.31 C
ATOM 5789 CD1 ILE A 728 51.229 16.619 59.278 1.00 0.31 C
ATOM 5790 N LEU A 729 53.320 21.421 56.836 1.00 0.27 N
ATOM 5791 CA LEU A 729 52.981 22.825 56.834 1.00 0.27 C
ATOM 5792 C LEU A 729 52.400 23.214 55.501 1.00 0.27 C
ATOM 5793 O LEU A 729 51.489 24.022 55.429 1.00 0.27 O
ATOM 5794 CB LEU A 729 54.219 23.706 57.159 1.00 0.27 C
ATOM 5795 CG LEU A 729 54.830 23.477 58.560 1.00 0.27 C
ATOM 5796 CD1 LEU A 729 56.125 24.291 58.709 1.00 0.27 C
ATOM 5797 CD2 LEU A 729 53.855 23.847 59.691 1.00 0.27 C
ATOM 5798 N ASN A 730 52.932 22.606 54.429 1.00 0.42 N
ATOM 5799 CA ASN A 730 52.527 22.824 53.069 1.00 0.42 C
ATOM 5800 C ASN A 730 52.789 21.540 52.313 1.00 0.42 C
ATOM 5801 O ASN A 730 53.107 20.527 52.914 1.00 0.42 O
ATOM 5802 CB ASN A 730 53.425 23.890 52.447 1.00 0.42 C
ATOM 5803 CG ASN A 730 52.943 25.281 52.809 1.00 0.42 C
ATOM 5804 OD1 ASN A 730 52.013 25.744 52.159 1.00 0.42 O
ATOM 5805 ND2 ASN A 730 53.654 25.974 53.718 1.00 0.42 N
ATOM 5806 N ALA A 731 52.725 21.566 50.968 1.00 0.40 N
ATOM 5807 CA ALA A 731 52.829 20.397 50.117 1.00 0.40 C
ATOM 5808 C ALA A 731 54.256 20.045 49.680 1.00 0.40 C
ATOM 5809 O ALA A 731 54.458 19.549 48.575 1.00 0.40 O
ATOM 5810 CB ALA A 731 52.005 20.682 48.841 1.00 0.40 C
ATOM 5811 N SER A 732 55.298 20.378 50.481 1.00 0.43 N
ATOM 5812 CA SER A 732 56.714 20.099 50.178 1.00 0.43 C
ATOM 5813 C SER A 732 57.325 21.053 49.154 1.00 0.43 C
ATOM 5814 O SER A 732 58.314 21.727 49.412 1.00 0.43 O

ATOM 5815 CB SER A 732 57.024 18.628 49.758 1.00 0.43 C
ATOM 5816 OG SER A 732 58.427 18.349 49.741 1.00 0.43 O
ATOM 5817 N ALA A 733 56.674 21.124 47.974 1.00 0.45 N
ATOM 5818 CA ALA A 733 56.896 21.960 46.810 1.00 0.45 C
ATOM 5819 C ALA A 733 56.246 23.333 46.929 1.00 0.45 C
ATOM 5820 O ALA A 733 56.568 24.255 46.187 1.00 0.45 O
ATOM 5821 CB ALA A 733 56.244 21.250 45.603 1.00 0.45 C
ATOM 5822 N ILE A 734 55.339 23.509 47.914 1.00 0.35 N
ATOM 5823 CA ILE A 734 54.723 24.794 48.241 1.00 0.35 C
ATOM 5824 C ILE A 734 55.196 25.261 49.638 1.00 0.35 C
ATOM 5825 O ILE A 734 54.430 25.913 50.323 1.00 0.35 O
ATOM 5826 CB ILE A 734 53.181 24.730 48.044 1.00 0.35 C
ATOM 5827 CG1 ILE A 734 52.877 24.319 46.578 1.00 0.35 C
ATOM 5828 CG2 ILE A 734 52.413 26.048 48.356 1.00 0.35 C
ATOM 5829 CD1 ILE A 734 51.395 24.035 46.306 1.00 0.35 C
ATOM 5830 N PRO A 735 56.386 24.980 50.202 1.00 0.40 N
ATOM 5831 CA PRO A 735 56.704 25.325 51.587 1.00 0.40 C
ATOM 5832 C PRO A 735 56.554 26.767 51.996 1.00 0.40 C
ATOM 5833 O PRO A 735 56.522 27.679 51.173 1.00 0.40 O
ATOM 5834 CB PRO A 735 58.152 24.873 51.774 1.00 0.40 C
ATOM 5835 CG PRO A 735 58.782 25.059 50.398 1.00 0.40 C
ATOM 5836 CD PRO A 735 57.616 24.918 49.420 1.00 0.40 C
ATOM 5837 N GLU A 736 56.513 26.983 53.326 1.00 0.40 N
ATOM 5838 CA GLU A 736 56.317 28.298 53.880 1.00 0.40 C
ATOM 5839 C GLU A 736 57.638 29.034 53.873 1.00 0.40 C
ATOM 5840 O GLU A 736 57.738 30.253 53.972 1.00 0.40 O
ATOM 5841 CB GLU A 736 55.772 28.180 55.331 1.00 0.40 C
ATOM 5842 CG GLU A 736 55.127 29.475 55.873 1.00 0.40 C
ATOM 5843 CD GLU A 736 53.916 29.903 55.055 1.00 0.40 C
ATOM 5844 OE1 GLU A 736 53.514 31.076 55.236 1.00 0.40 O
ATOM 5845 OE2 GLU A 736 53.481 29.118 54.177 1.00 0.40 O
ATOM 5846 N GLY A 737 58.730 28.253 53.751 1.00 0.41 N
ATOM 5847 CA GLY A 737 60.104 28.728 53.782 1.00 0.41 C
ATOM 5848 C GLY A 737 60.554 29.010 55.179 1.00 0.41 C
ATOM 5849 O GLY A 737 61.691 29.391 55.421 1.00 0.41 O
ATOM 5850 N GLN A 738 59.646 28.804 56.149 1.00 0.33 N
ATOM 5851 CA GLN A 738 59.926 28.888 57.552 1.00 0.33 C
ATOM 5852 C GLN A 738 60.808 27.732 57.944 1.00 0.33 C
ATOM 5853 O GLN A 738 60.514 26.581 57.636 1.00 0.33 O
ATOM 5854 CB GLN A 738 58.625 28.887 58.404 1.00 0.33 C
ATOM 5855 CG GLN A 738 57.680 30.074 58.110 1.00 0.33 C
ATOM 5856 CD GLN A 738 58.299 31.415 58.491 1.00 0.33 C
ATOM 5857 OE1 GLN A 738 58.797 31.602 59.599 1.00 0.33 O
ATOM 5858 NE2 GLN A 738 58.267 32.387 57.550 1.00 0.33 N

ATOM 5859 N PHE A 739 61.898 28.024 58.674 1.00 0.30 N
ATOM 5860 CA PHE A 739 62.826 27.010 59.140 1.00 0.30 C
ATOM 5861 C PHE A 739 62.337 26.416 60.443 1.00 0.30 C
ATOM 5862 O PHE A 739 62.985 25.561 61.040 1.00 0.30 O
ATOM 5863 CB PHE A 739 64.214 27.629 59.439 1.00 0.30 C
ATOM 5864 CG PHE A 739 64.895 28.088 58.188 1.00 0.30 C
ATOM 5865 CD1 PHE A 739 65.521 27.157 57.348 1.00 0.30 C
ATOM 5866 CD2 PHE A 739 64.952 29.451 57.858 1.00 0.30 C
ATOM 5867 CE1 PHE A 739 66.198 27.577 56.198 1.00 0.30 C
ATOM 5868 CE2 PHE A 739 65.624 29.876 56.707 1.00 0.30 C
ATOM 5869 CZ PHE A 739 66.250 28.939 55.878 1.00 0.30 C
ATOM 5870 N ILE A 740 61.140 26.870 60.870 1.00 0.34 N
ATOM 5871 CA ILE A 740 60.316 26.341 61.929 1.00 0.34 C
ATOM 5872 C ILE A 740 59.998 24.894 61.639 1.00 0.34 C
ATOM 5873 O ILE A 740 59.241 24.557 60.728 1.00 0.34 O
ATOM 5874 CB ILE A 740 59.017 27.146 62.073 1.00 0.34 C
ATOM 5875 CG1 ILE A 740 59.311 28.623 62.432 1.00 0.34 C
ATOM 5876 CG2 ILE A 740 58.105 26.508 63.139 1.00 0.34 C
ATOM 5877 CD1 ILE A 740 58.049 29.498 62.439 1.00 0.34 C
ATOM 5878 N ASP A 741 60.623 24.005 62.417 1.00 0.34 N
ATOM 5879 CA ASP A 741 60.374 22.598 62.415 1.00 0.34 C
ATOM 5880 C ASP A 741 59.014 22.237 62.987 1.00 0.34 C
ATOM 5881 O ASP A 741 58.182 23.055 63.364 1.00 0.34 O
ATOM 5882 CB ASP A 741 61.550 21.837 63.094 1.00 0.34 C
ATOM 5883 CG ASP A 741 61.805 22.252 64.529 1.00 0.34 C
ATOM 5884 OD1 ASP A 741 62.792 21.731 65.110 1.00 0.34 O
ATOM 5885 OD2 ASP A 741 60.992 23.029 65.085 1.00 0.34 O
ATOM 5886 N SER A 742 58.737 20.931 63.047 1.00 0.31 N
ATOM 5887 CA SER A 742 57.493 20.420 63.562 1.00 0.31 C
ATOM 5888 C SER A 742 57.487 20.433 65.069 1.00 0.31 C
ATOM 5889 O SER A 742 56.449 20.325 65.711 1.00 0.31 O
ATOM 5890 CB SER A 742 57.101 18.998 63.094 1.00 0.31 C
ATOM 5891 OG SER A 742 58.021 17.995 63.544 1.00 0.31 O
ATOM 5892 N LYS A 743 58.684 20.610 65.660 1.00 0.21 N
ATOM 5893 CA LYS A 743 58.903 20.751 67.080 1.00 0.21 C
ATOM 5894 C LYS A 743 58.416 22.106 67.565 1.00 0.21 C
ATOM 5895 O LYS A 743 58.090 22.276 68.736 1.00 0.21 O
ATOM 5896 CB LYS A 743 60.410 20.603 67.412 1.00 0.21 C
ATOM 5897 CG LYS A 743 61.030 19.256 67.019 1.00 0.21 C
ATOM 5898 CD LYS A 743 62.541 19.246 67.291 1.00 0.21 C
ATOM 5899 CE LYS A 743 63.186 17.899 67.013 1.00 0.21 C
ATOM 5900 NZ LYS A 743 64.638 17.986 67.276 1.00 0.21 N
ATOM 5901 N ASN A 744 58.322 23.082 66.640 1.00 0.27 N
ATOM 5902 CA ASN A 744 57.775 24.403 66.851 1.00 0.27 C

ATOM 5903 C ASN A 744 56.547 24.606 65.962 1.00 0.27 C
ATOM 5904 O ASN A 744 56.150 25.732 65.664 1.00 0.27 O
ATOM 5905 CB ASN A 744 58.866 25.457 66.529 1.00 0.27 C
ATOM 5906 CG ASN A 744 60.009 25.415 67.537 1.00 0.27 C
ATOM 5907 OD1 ASN A 744 60.025 26.161 68.516 1.00 0.27 O
ATOM 5908 ND2 ASN A 744 61.025 24.565 67.276 1.00 0.27 N
ATOM 5909 N ALA A 745 55.914 23.497 65.516 1.00 0.27 N
ATOM 5910 CA ALA A 745 54.725 23.490 64.690 1.00 0.27 C
ATOM 5911 C ALA A 745 53.511 24.143 65.295 1.00 0.27 C
ATOM 5912 O ALA A 745 53.284 24.168 66.501 1.00 0.27 O
ATOM 5913 CB ALA A 745 54.285 22.072 64.285 1.00 0.27 C
ATOM 5914 N SER A 746 52.664 24.677 64.405 1.00 0.25 N
ATOM 5915 CA SER A 746 51.344 25.135 64.760 1.00 0.25 C
ATOM 5916 C SER A 746 50.400 24.007 65.128 1.00 0.25 C
ATOM 5917 O SER A 746 50.583 22.843 64.772 1.00 0.25 O
ATOM 5918 CB SER A 746 50.714 26.018 63.646 1.00 0.25 C
ATOM 5919 OG SER A 746 50.351 25.269 62.481 1.00 0.25 O
ATOM 5920 N GLU A 747 49.335 24.340 65.868 1.00 0.22 N
ATOM 5921 CA GLU A 747 48.349 23.371 66.258 1.00 0.22 C
ATOM 5922 C GLU A 747 47.180 23.525 65.348 1.00 0.22 C
ATOM 5923 O GLU A 747 46.834 24.616 64.911 1.00 0.22 O
ATOM 5924 CB GLU A 747 47.895 23.569 67.703 1.00 0.22 C
ATOM 5925 CG GLU A 747 49.040 23.348 68.708 1.00 0.22 C
ATOM 5926 CD GLU A 747 48.533 23.543 70.129 1.00 0.22 C
ATOM 5927 OE1 GLU A 747 47.321 23.866 70.282 1.00 0.22 O
ATOM 5928 OE2 GLU A 747 49.350 23.358 71.064 1.00 0.22 O
ATOM 5929 N LYS A 748 46.531 22.418 64.989 1.00 0.20 N
ATOM 5930 CA LYS A 748 45.374 22.501 64.148 1.00 0.20 C
ATOM 5931 C LYS A 748 44.168 23.046 64.866 1.00 0.20 C
ATOM 5932 O LYS A 748 43.947 22.895 66.066 1.00 0.20 O
ATOM 5933 CB LYS A 748 44.976 21.116 63.651 1.00 0.20 C
ATOM 5934 CG LYS A 748 46.008 20.314 62.859 1.00 0.20 C
ATOM 5935 CD LYS A 748 46.219 20.886 61.458 1.00 0.20 C
ATOM 5936 CE LYS A 748 47.206 20.062 60.629 1.00 0.20 C
ATOM 5937 NZ LYS A 748 47.419 20.707 59.314 1.00 0.20 N
ATOM 5938 N LEU A 749 43.325 23.706 64.083 1.00 0.20 N
ATOM 5939 CA LEU A 749 42.187 24.409 64.585 1.00 0.20 C
ATOM 5940 C LEU A 749 40.948 23.543 64.642 1.00 0.20 C
ATOM 5941 O LEU A 749 39.964 23.816 65.331 1.00 0.20 O
ATOM 5942 CB LEU A 749 42.011 25.579 63.611 1.00 0.20 C
ATOM 5943 CG LEU A 749 43.062 26.701 63.811 1.00 0.20 C
ATOM 5944 CD1 LEU A 749 44.562 26.458 63.644 1.00 0.20 C
ATOM 5945 CD2 LEU A 749 42.633 27.978 63.115 1.00 0.20 C
ATOM 5946 N LEU A 750 41.054 22.429 63.919 1.00 0.19 N

ATOM 5947 CA LEU A 750 40.068 21.396 63.775 1.00 0.19 C
ATOM 5948 C LEU A 750 40.469 20.160 64.547 1.00 0.19 C
ATOM 5949 O LEU A 750 39.629 19.500 65.141 1.00 0.19 O
ATOM 5950 CB LEU A 750 39.961 21.019 62.292 1.00 0.19 C
ATOM 5951 CG LEU A 750 39.546 22.179 61.368 1.00 0.19 C
ATOM 5952 CD1 LEU A 750 39.608 21.676 59.922 1.00 0.19 C
ATOM 5953 CD2 LEU A 750 38.140 22.719 61.682 1.00 0.19 C
ATOM 5954 N ASN A 751 41.786 19.850 64.633 1.00 0.26 N
ATOM 5955 CA ASN A 751 42.262 18.766 65.477 1.00 0.26 C
ATOM 5956 C ASN A 751 42.101 19.174 66.913 1.00 0.26 C
ATOM 5957 O ASN A 751 42.657 20.176 67.362 1.00 0.26 O
ATOM 5958 CB ASN A 751 43.764 18.440 65.226 1.00 0.26 C
ATOM 5959 CG ASN A 751 44.364 17.154 65.789 1.00 0.26 C
ATOM 5960 OD1 ASN A 751 43.999 16.660 66.850 1.00 0.26 O
ATOM 5961 ND2 ASN A 751 45.432 16.676 65.101 1.00 0.26 N
ATOM 5962 N SER A 752 41.317 18.392 67.642 1.00 0.29 N
ATOM 5963 CA SER A 752 41.055 18.617 69.036 1.00 0.29 C
ATOM 5964 C SER A 752 41.581 17.467 69.845 1.00 0.29 C
ATOM 5965 O SER A 752 41.238 17.358 71.017 1.00 0.29 O
ATOM 5966 CB SER A 752 39.529 18.730 69.280 1.00 0.29 C
ATOM 5967 OG SER A 752 38.860 17.562 68.800 1.00 0.29 O
ATOM 5968 N ILE A 753 42.436 16.611 69.228 1.00 0.38 N
ATOM 5969 CA ILE A 753 42.953 15.378 69.794 1.00 0.38 C
ATOM 5970 C ILE A 753 41.894 14.284 69.644 1.00 0.38 C
ATOM 5971 O ILE A 753 41.506 13.613 70.594 1.00 0.38 O
ATOM 5972 CB ILE A 753 43.605 15.563 71.185 1.00 0.38 C
ATOM 5973 CG1 ILE A 753 44.693 16.672 71.151 1.00 0.38 C
ATOM 5974 CG2 ILE A 753 44.147 14.264 71.836 1.00 0.38 C
ATOM 5975 CD1 ILE A 753 45.028 17.182 72.557 1.00 0.38 C
ATOM 5976 N ASP A 754 41.386 14.062 68.408 1.00 0.38 N
ATOM 5977 CA ASP A 754 40.394 13.043 68.156 1.00 0.38 C
ATOM 5978 C ASP A 754 41.023 12.055 67.192 1.00 0.38 C
ATOM 5979 O ASP A 754 41.366 12.340 66.047 1.00 0.38 O
ATOM 5980 CB ASP A 754 39.056 13.694 67.697 1.00 0.38 C
ATOM 5981 CG ASP A 754 37.898 12.710 67.615 1.00 0.38 C
ATOM 5982 OD1 ASP A 754 38.167 11.487 67.716 1.00 0.38 O
ATOM 5983 OD2 ASP A 754 36.736 13.173 67.462 1.00 0.38 O
ATOM 5984 N VAL A 755 41.272 10.841 67.699 1.00 0.34 N
ATOM 5985 CA VAL A 755 41.858 9.810 66.890 1.00 0.34 C
ATOM 5986 C VAL A 755 41.542 8.490 67.533 1.00 0.34 C
ATOM 5987 O VAL A 755 42.314 7.900 68.281 1.00 0.34 O
ATOM 5988 CB VAL A 755 43.364 9.992 66.588 1.00 0.34 C
ATOM 5989 CG1 VAL A 755 44.240 10.055 67.863 1.00 0.34 C
ATOM 5990 CG2 VAL A 755 43.864 8.938 65.572 1.00 0.34 C

ATOM 5991 N ASP A 756 40.380 7.901 67.217 1.00 0.55 N
ATOM 5992 CA ASP A 756 40.042 6.651 67.871 1.00 0.55 C
ATOM 5993 C ASP A 756 40.637 5.453 67.130 1.00 0.55 C
ATOM 5994 O ASP A 756 40.310 4.306 67.396 1.00 0.55 O
ATOM 5995 CB ASP A 756 38.520 6.463 67.907 1.00 0.55 C
ATOM 5996 CG ASP A 756 37.847 7.417 68.871 1.00 0.55 C
ATOM 5997 OD1 ASP A 756 38.461 7.727 69.920 1.00 0.55 O
ATOM 5998 OD2 ASP A 756 36.673 7.757 68.577 1.00 0.55 O
ATOM 5999 N ARG A 757 41.523 5.703 66.132 1.00 0.49 N
ATOM 6000 CA ARG A 757 42.244 4.708 65.343 1.00 0.49 C
ATOM 6001 C ARG A 757 41.366 4.015 64.312 1.00 0.49 C
ATOM 6002 O ARG A 757 41.616 4.050 63.116 1.00 0.49 O
ATOM 6003 CB ARG A 757 43.021 3.664 66.151 1.00 0.49 C
ATOM 6004 CG ARG A 757 44.185 4.221 66.978 1.00 0.49 C
ATOM 6005 CD ARG A 757 44.784 3.096 67.821 1.00 0.49 C
ATOM 6006 NE ARG A 757 45.922 3.679 68.595 1.00 0.49 N
ATOM 6007 CZ ARG A 757 46.624 3.003 69.513 1.00 0.49 C
ATOM 6008 NH1 ARG A 757 47.615 3.613 70.159 1.00 0.49 N
ATOM 6009 NH2 ARG A 757 46.356 1.733 69.800 1.00 0.49 N
ATOM 6010 N GLU A 758 40.296 3.368 64.782 1.00 0.64 N
ATOM 6011 CA GLU A 758 39.190 2.818 64.036 1.00 0.64 C
ATOM 6012 C GLU A 758 38.380 3.881 63.297 1.00 0.64 C
ATOM 6013 O GLU A 758 37.840 3.651 62.211 1.00 0.64 O
ATOM 6014 CB GLU A 758 38.277 2.094 65.038 1.00 0.64 C
ATOM 6015 CG GLU A 758 38.933 0.872 65.722 1.00 0.64 C
ATOM 6016 CD GLU A 758 37.971 0.183 66.687 1.00 0.64 C
ATOM 6017 OE1 GLU A 758 36.846 0.707 66.891 1.00 0.64 O
ATOM 6018 OE2 GLU A 758 38.372 -0.884 67.216 1.00 0.64 O
ATOM 6019 N GLN A 759 38.320 5.099 63.887 1.00 0.57 N
ATOM 6020 CA GLN A 759 37.755 6.302 63.282 1.00 0.57 C
ATOM 6021 C GLN A 759 38.697 6.952 62.264 1.00 0.57 C
ATOM 6022 O GLN A 759 38.329 7.884 61.559 1.00 0.57 O
ATOM 6023 CB GLN A 759 37.398 7.383 64.340 1.00 0.57 C
ATOM 6024 CG GLN A 759 36.218 7.039 65.284 1.00 0.57 C
ATOM 6025 CD GLN A 759 34.884 6.886 64.566 1.00 0.57 C
ATOM 6026 OE1 GLN A 759 34.392 7.753 63.843 1.00 0.57 O
ATOM 6027 NE2 GLN A 759 34.240 5.715 64.785 1.00 0.57 N
ATOM 6028 N TYR A 760 39.945 6.461 62.166 1.00 0.60 N
ATOM 6029 CA TYR A 760 40.956 6.824 61.201 1.00 0.60 C
ATOM 6030 C TYR A 760 40.994 5.700 60.153 1.00 0.60 C
ATOM 6031 O TYR A 760 40.518 4.605 60.429 1.00 0.60 O
ATOM 6032 CB TYR A 760 42.293 6.975 61.999 1.00 0.60 C
ATOM 6033 CG TYR A 760 43.497 6.898 61.151 1.00 0.60 C
ATOM 6034 CD1 TYR A 760 44.168 5.696 60.929 1.00 0.60 C

ATOM 6035 CD2 TYR A 760 43.843 8.014 60.416 1.00 0.60 C
ATOM 6036 CE1 TYR A 760 45.188 5.657 59.992 1.00 0.60 C
ATOM 6037 CE2 TYR A 760 44.833 7.963 59.434 1.00 0.60 C
ATOM 6038 CZ TYR A 760 45.533 6.754 59.231 1.00 0.60 C
ATOM 6039 OH TYR A 760 46.518 6.427 58.270 1.00 0.60 O
ATOM 6040 N ARG A 761 41.538 5.935 58.930 1.00 0.63 N
ATOM 6041 CA ARG A 761 41.635 4.948 57.859 1.00 0.63 C
ATOM 6042 C ARG A 761 42.856 5.163 56.968 1.00 0.63 C
ATOM 6043 O ARG A 761 43.440 6.244 56.908 1.00 0.63 O
ATOM 6044 CB ARG A 761 40.401 4.962 56.913 1.00 0.63 C
ATOM 6045 CG ARG A 761 39.063 4.620 57.588 1.00 0.63 C
ATOM 6046 CD ARG A 761 38.985 3.200 58.163 1.00 0.63 C
ATOM 6047 NE ARG A 761 37.761 3.133 59.018 1.00 0.63 N
ATOM 6048 CZ ARG A 761 36.531 2.954 58.524 1.00 0.63 C
ATOM 6049 NH1 ARG A 761 36.313 2.884 57.214 1.00 0.63 N
ATOM 6050 NH2 ARG A 761 35.504 2.855 59.363 1.00 0.63 N
ATOM 6051 N PHE A 762 43.239 4.104 56.217 1.00 0.72 N
ATOM 6052 CA PHE A 762 44.440 4.042 55.404 1.00 0.72 C
ATOM 6053 C PHE A 762 44.057 3.968 53.940 1.00 0.72 C
ATOM 6054 O PHE A 762 43.456 2.995 53.497 1.00 0.72 O
ATOM 6055 CB PHE A 762 45.265 2.762 55.717 1.00 0.72 C
ATOM 6056 CG PHE A 762 46.079 2.923 56.962 1.00 0.72 C
ATOM 6057 CD1 PHE A 762 45.615 2.462 58.201 1.00 0.72 C
ATOM 6058 CD2 PHE A 762 47.336 3.540 56.894 1.00 0.72 C
ATOM 6059 CE1 PHE A 762 46.417 2.564 59.345 1.00 0.72 C
ATOM 6060 CE2 PHE A 762 48.115 3.704 58.044 1.00 0.72 C
ATOM 6061 CZ PHE A 762 47.655 3.218 59.271 1.00 0.72 C
ATOM 6062 N GLY A 763 44.387 5.018 53.160 1.00 0.73 N
ATOM 6063 CA GLY A 763 44.165 5.066 51.726 1.00 0.73 C
ATOM 6064 C GLY A 763 45.333 4.581 50.927 1.00 0.73 C
ATOM 6065 O GLY A 763 46.402 4.297 51.460 1.00 0.73 O
ATOM 6066 N HIS A 764 45.178 4.541 49.588 1.00 0.67 N
ATOM 6067 CA HIS A 764 46.216 4.117 48.661 1.00 0.67 C
ATOM 6068 C HIS A 764 47.431 5.029 48.650 1.00 0.67 C
ATOM 6069 O HIS A 764 48.542 4.587 48.363 1.00 0.67 O
ATOM 6070 CB HIS A 764 45.679 3.967 47.218 1.00 0.67 C
ATOM 6071 CG HIS A 764 44.738 2.809 47.042 1.00 0.67 C
ATOM 6072 ND1 HIS A 764 43.647 2.968 46.219 1.00 0.67 N
ATOM 6073 CD2 HIS A 764 44.805 1.521 47.478 1.00 0.67 C
ATOM 6074 CE1 HIS A 764 43.065 1.793 46.172 1.00 0.67 C
ATOM 6075 NE2 HIS A 764 43.723 0.874 46.917 1.00 0.67 N
ATOM 6076 N THR A 765 47.253 6.332 48.959 1.00 0.71 N
ATOM 6077 CA THR A 765 48.366 7.271 49.048 1.00 0.71 C
ATOM 6078 C THR A 765 48.312 8.097 50.327 1.00 0.71 C

ATOM 6079 O THR A 765 49.263 8.800 50.663 1.00 0.71 O
ATOM 6080 CB THR A 765 48.490 8.194 47.819 1.00 0.71 C
ATOM 6081 OG1 THR A 765 47.611 9.311 47.828 1.00 0.71 O
ATOM 6082 CG2 THR A 765 48.219 7.400 46.529 1.00 0.71 C
ATOM 6083 N LYS A 766 47.232 8.019 51.132 1.00 0.69 N
ATOM 6084 CA LYS A 766 47.000 9.028 52.148 1.00 0.69 C
ATOM 6085 C LYS A 766 46.404 8.451 53.395 1.00 0.69 C
ATOM 6086 O LYS A 766 45.631 7.498 53.381 1.00 0.69 O
ATOM 6087 CB LYS A 766 45.989 10.130 51.720 1.00 0.69 C
ATOM 6088 CG LYS A 766 46.445 11.080 50.608 1.00 0.69 C
ATOM 6089 CD LYS A 766 45.314 12.044 50.220 1.00 0.69 C
ATOM 6090 CE LYS A 766 45.608 12.888 48.976 1.00 0.69 C
ATOM 6091 NZ LYS A 766 44.512 12.740 47.992 1.00 0.69 N
ATOM 6092 N VAL A 767 46.722 9.085 54.529 1.00 0.73 N
ATOM 6093 CA VAL A 767 46.030 8.871 55.778 1.00 0.73 C
ATOM 6094 C VAL A 767 44.739 9.688 55.826 1.00 0.73 C
ATOM 6095 O VAL A 767 44.768 10.830 55.390 1.00 0.73 O
ATOM 6096 CB VAL A 767 46.973 9.192 56.948 1.00 0.73 C
ATOM 6097 CG1 VAL A 767 48.361 8.548 56.744 1.00 0.73 C
ATOM 6098 CG2 VAL A 767 47.001 10.635 57.505 1.00 0.73 C
ATOM 6099 N PHE A 768 43.587 9.149 56.320 1.00 0.70 N
ATOM 6100 CA PHE A 768 42.319 9.883 56.457 1.00 0.70 C
ATOM 6101 C PHE A 768 41.751 9.781 57.866 1.00 0.70 C
ATOM 6102 O PHE A 768 41.762 8.704 58.439 1.00 0.70 O
ATOM 6103 CB PHE A 768 41.163 9.295 55.613 1.00 0.70 C
ATOM 6104 CG PHE A 768 41.288 9.566 54.161 1.00 0.70 C
ATOM 6105 CD1 PHE A 768 42.272 8.944 53.384 1.00 0.70 C
ATOM 6106 CD2 PHE A 768 40.344 10.399 53.543 1.00 0.70 C
ATOM 6107 CE1 PHE A 768 42.315 9.153 52.004 1.00 0.70 C
ATOM 6108 CE2 PHE A 768 40.383 10.608 52.166 1.00 0.70 C
ATOM 6109 CZ PHE A 768 41.370 9.989 51.401 1.00 0.70 C
ATOM 6110 N PHE A 769 41.198 10.864 58.452 1.00 0.57 N
ATOM 6111 CA PHE A 769 40.801 10.912 59.857 1.00 0.57 C
ATOM 6112 C PHE A 769 39.577 11.798 60.082 1.00 0.57 C
ATOM 6113 O PHE A 769 38.868 12.135 59.137 1.00 0.57 O
ATOM 6114 CB PHE A 769 41.971 11.354 60.789 1.00 0.57 C
ATOM 6115 CG PHE A 769 42.668 12.591 60.341 1.00 0.57 C
ATOM 6116 CD1 PHE A 769 43.658 12.545 59.349 1.00 0.57 C
ATOM 6117 CD2 PHE A 769 42.358 13.809 60.935 1.00 0.57 C
ATOM 6118 CE1 PHE A 769 44.315 13.712 58.953 1.00 0.57 C
ATOM 6119 CE2 PHE A 769 43.067 14.965 60.614 1.00 0.57 C
ATOM 6120 CZ PHE A 769 44.054 14.916 59.621 1.00 0.57 C
ATOM 6121 N LYS A 770 39.291 12.171 61.344 1.00 0.50 N
ATOM 6122 CA LYS A 770 38.221 13.057 61.717 1.00 0.50 C

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ATOM   6123  C   LYS A 770     38.736  14.079  62.765  1.00  0.50          C
ATOM   6124  O   LYS A 770     39.899  13.925  63.229  1.00  0.50          O
ATOM   6125  CB  LYS A 770     37.018  12.208  62.192  1.00  0.50          C
ATOM   6126  CG  LYS A 770     35.767  13.028  62.504  1.00  0.50          C
ATOM   6127  CD  LYS A 770     34.553  12.151  62.797  1.00  0.50          C
ATOM   6128  CE  LYS A 770     33.343  12.996  63.157  1.00  0.50          C
ATOM   6129  NZ  LYS A 770     32.218  12.097  63.457  1.00  0.50          N
ATOM   6130  OXT LYS A 770     38.009  15.073  63.034  1.00  0.50          O
TER    6131      LYS A 770
END
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