Supporting Information

Membrane Interaction of the Factor VIIIa Discoidin Domains in Atomistic Detail

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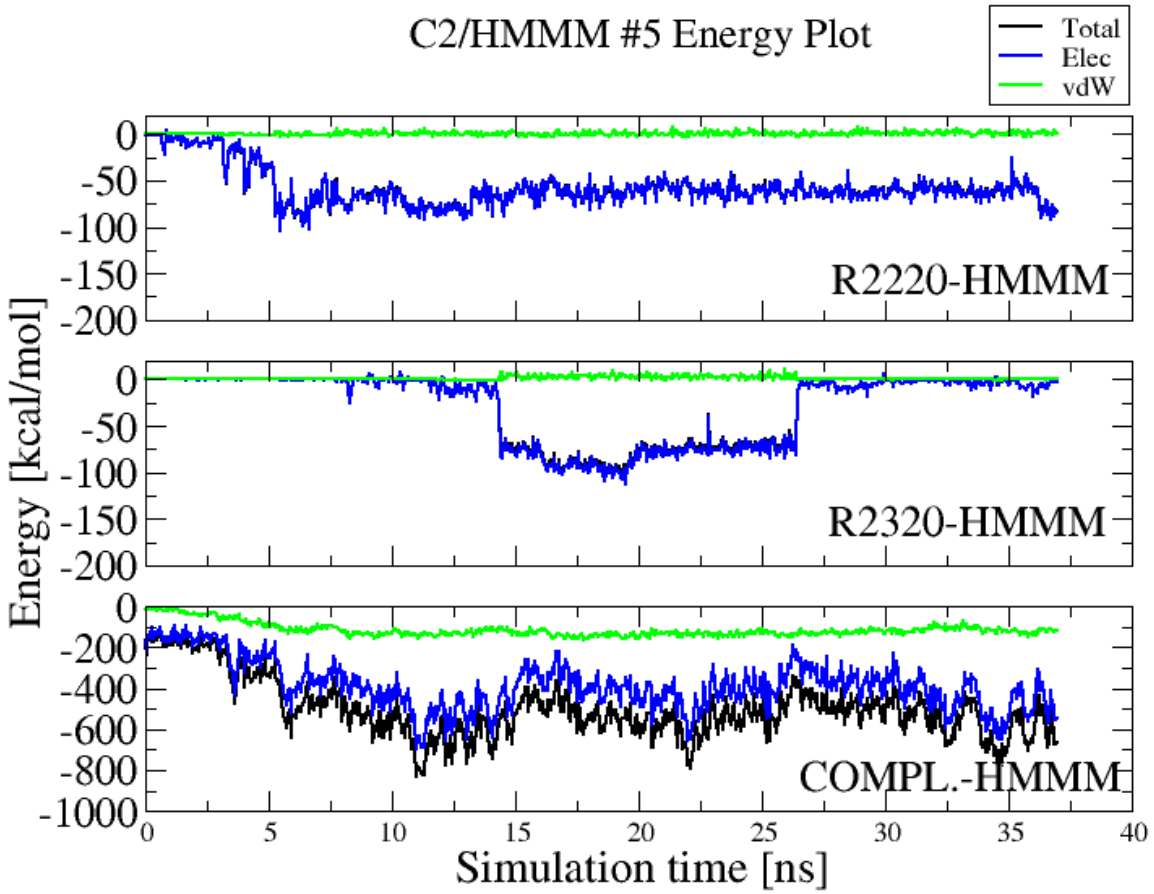

Figure S1: Non-bonded interactions energies between the HMMM membrane and specific portions of FVIII C2 domain: R2220 (*top*), R2320 (*middle*), or the complementary selection (i.e., C2 domain excluding R2220 and R2320; *bottom*) calculated for one of the C2/HMMM trajectory (#5). The energies are decomposed into electrostatic (blue) and van der Waals (green) terms; the total (black) is the sum of the two terms.

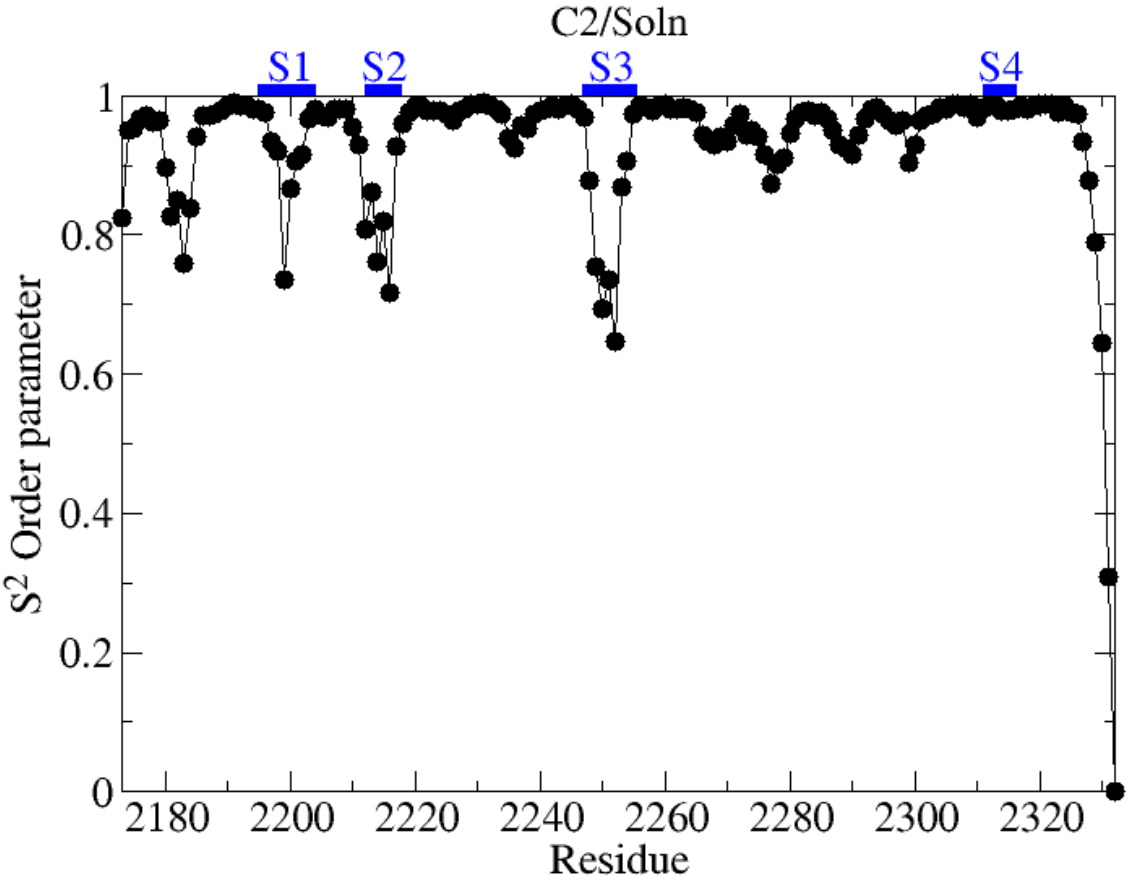

Figure S2: Calculated amide (C_i – N_i vector) S^2 order parameters for human FVIII C2 in bulk water (C2/Soln trajectory).

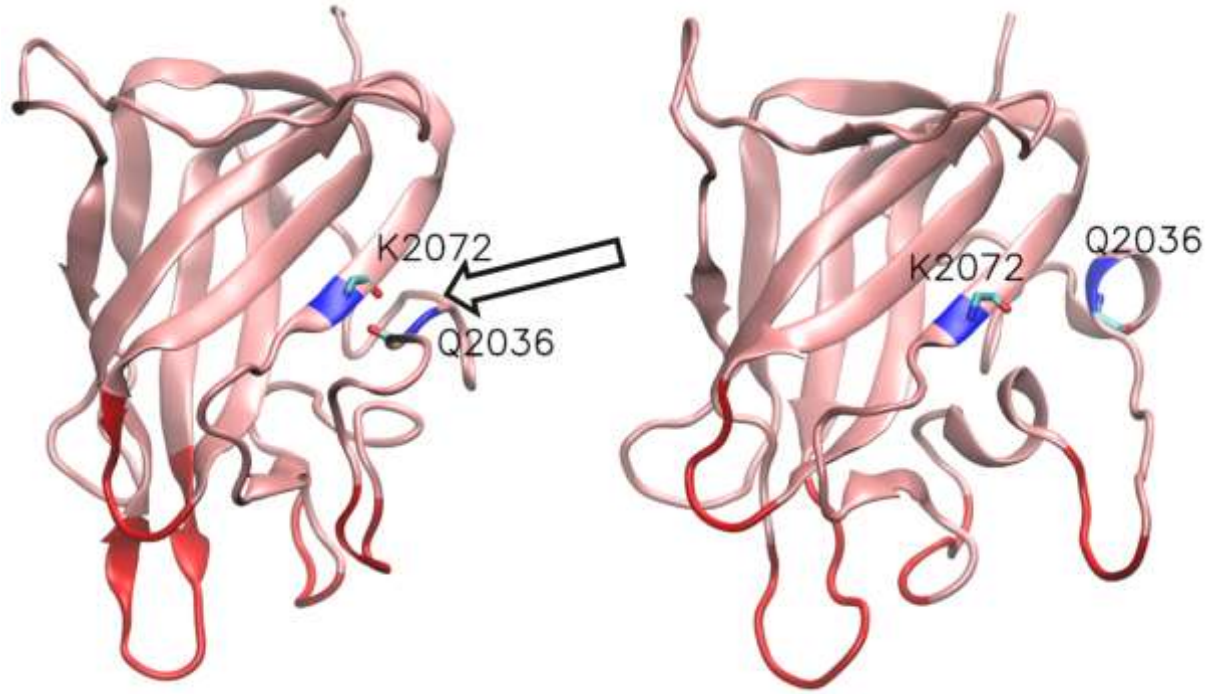

Figure S3: Structural change in FVIII C1 upon the release of the main chain leading to Spike 1 from the body of the β-barrel. The C1 domain is shown in cartoon representation (pink) with the Spikes 1-4 highlighted (red). Positions of residues Q2036 and K2072 which restrain the loopy segment in the X-ray crystallographic structure are indicated in blue and backbone atoms are shown as sticks. (*left*) X-ray crystallographic reference structure. (r*ight*) Snap-shot taken from C1/HMMM trajectory #2 at t = ~32 ns.

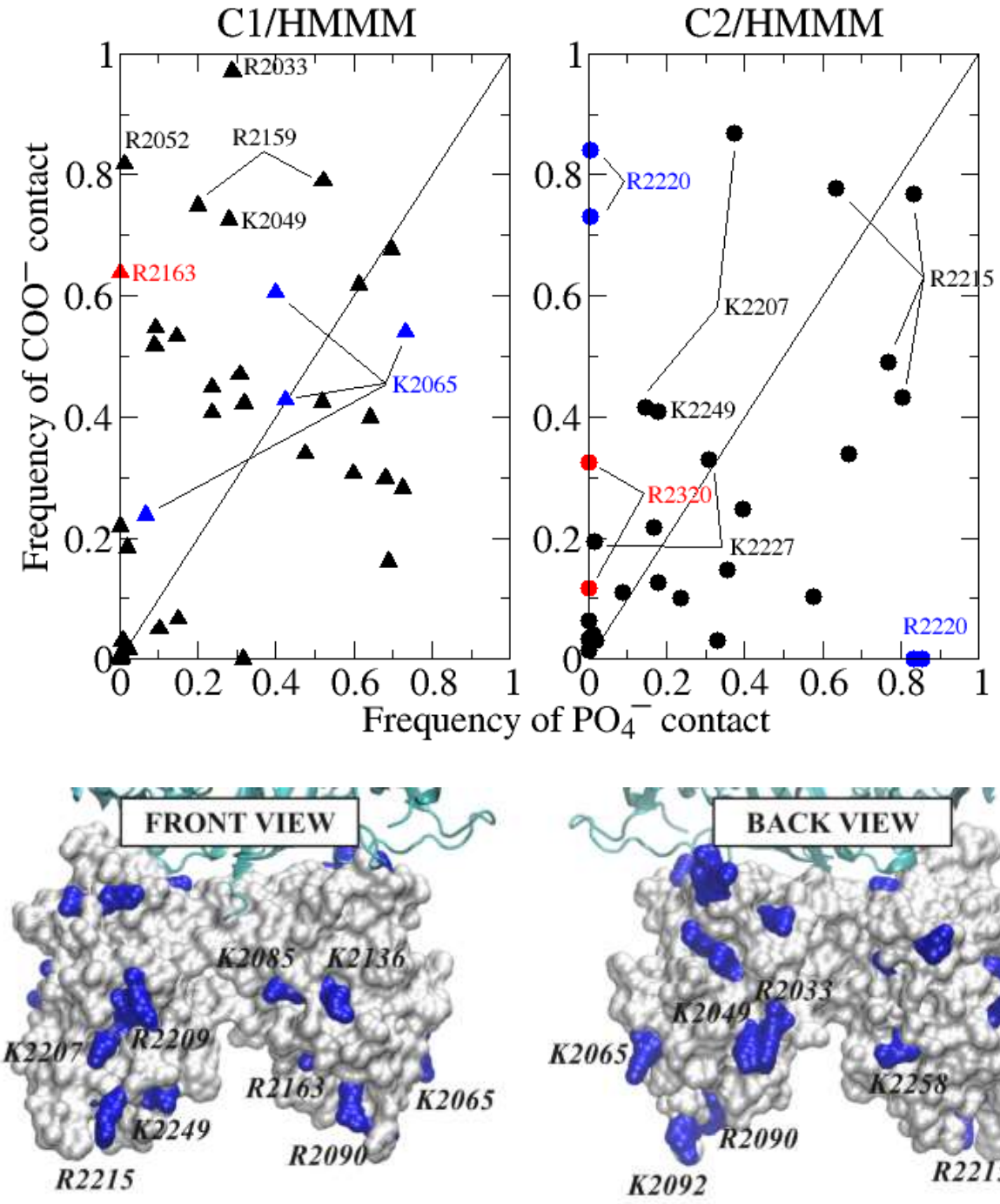

Figure S4: (*top*) Observed frequency of close interaction (cutoff = 3 Å) between basic residues and negatively charged functional groups (PO_4^- along the x-axis; COO^- along the y-axis) of the PS head groups. Each point in the plot corresponds to the interaction frequency between single residue averaged over a single membrane-binding trajectory of the individual C2-like domains (*top left*: FVIII C1; *top right*: FVIII C2.) (*bottom*) Front and back views of FVIII C1 and C2 shown as surface (PDB ID code 3cdz) with basic residues (K or R) highlighted (blue). Front view corresponds to the orientation of Fig. 6A with FVIII C1 positioned to the right and FVIII C2 to the left.

##
Atomic coordinates for the constructed tenase complex model (Fig. 6A, in the manuscript).
C_alpha atom coordinates only.
For complete *.PDB-files, please contact author O.H.O. or J.J.M.
Two containing files are '3cdz_rot_a2_ca.pdb' (below) and 'hum_FIX_ca.pdb' (from p.28)

#
File (1 of 2): 3cdz_rot_a2_ca.pdb

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ATOM   1418  CA  LYS A 206      36.439 -33.437  -8.034  1.00200.44      A    C
ATOM   1427  CA  SER A 207      36.052 -36.781  -9.861  1.00201.80      A    C
ATOM   1433  CA  TRP A 208      36.345 -40.260  -8.487  1.00202.76      A    C
ATOM   1447  CA  HIS A 209      39.932 -39.749  -9.762  1.00204.02      A    C
ATOM   1457  CA  SER A 210      43.240 -38.094  -8.743  1.00203.18      A    C
ATOM   1463  CA  SER A 224      57.686 -30.887 -14.569  1.00212.76      A    C
ATOM   1469  CA  ALA A 225      53.978 -31.896 -14.255  1.00212.64      A    C
ATOM   1474  CA  ARG A 226      51.925 -29.125 -15.991  1.00212.86      A    C
ATOM   1485  CA  ALA A 227      48.187 -29.719 -16.913  1.00212.05      A    C
ATOM   1490  CA  TRP A 228      45.678 -30.202 -14.008  1.00211.22      A    C
ATOM   1504  CA  PRO A 229      42.006 -31.544 -14.481  1.00210.03      A    C
ATOM   1511  CA  LYS A 230      39.003 -29.798 -16.226  1.00207.97      A    C
ATOM   1520  CA  MET A 231      35.488 -29.690 -18.011  1.00207.13      A    C
ATOM   1528  CA  HIS A 232      32.219 -27.497 -17.643  1.00205.95      A    C
ATOM   1538  CA  THR A 233      29.425 -28.472 -20.015  1.00203.58      A    C
ATOM   1545  CA  VAL A 234      25.929 -29.429 -21.319  1.00202.35      A    C
ATOM   1552  CA  ASN A 235      24.702 -33.001 -21.445  1.00202.81      A    C
ATOM   1560  CA  GLY A 236      28.363 -33.888 -21.254  1.00203.48      A    C
ATOM   1564  CA  TYR A 237      29.002 -32.322 -24.643  1.00204.42      A    C
ATOM   1576  CA  VAL A 238      32.004 -30.161 -24.202  1.00205.40      A    C
ATOM   1583  CA  ASN A 239      33.577 -26.969 -25.454  1.00189.98      A    C
ATOM   1591  CA  ARG A 240      31.475 -26.713 -28.626  1.00204.03      A    C
ATOM   1602  CA  SER A 241      30.457 -30.369 -28.971  1.00201.47      A    C
ATOM   1608  CA  LEU A 242      27.084 -31.194 -30.433  1.00200.00      A    C
ATOM   1616  CA  PRO A 243      24.734 -34.070 -29.437  1.00198.92      A    C
ATOM   1623  CA  GLY A 244      21.958 -35.349 -31.704  1.00198.60      A    C
ATOM   1627  CA  LEU A 245      18.342 -34.680 -32.660  1.00198.22      A    C
ATOM   1635  CA  ILE A 246      15.621 -32.173 -33.498  1.00197.40      A    C
ATOM   1643  CA  GLY A 247      11.783 -31.722 -33.337  1.00197.12      A    C
ATOM   1647  CA  CYS A 248       9.182 -30.933 -36.066  1.00197.01      A    C
ATOM   1653  CA  HIS A 249       8.698 -27.309 -37.134  1.00194.80      A    C
ATOM   1663  CA  ARG A 250       5.065 -26.152 -37.161  1.00193.32      A    C
ATOM   1674  CA  LYS A 251       4.427 -26.911 -33.476  1.00191.32      A    C
ATOM   1683  CA  SER A 252       5.835 -27.128 -29.946  1.00188.78      A    C
ATOM   1689  CA  VAL A 253       8.732 -28.928 -28.284  1.00187.98      A    C
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ATOM   1696  CA  TYR A 254       9.003 -29.614 -24.529  1.00188.34      A    C
ATOM   1708  CA  TRP A 255      12.214 -30.089 -22.554  1.00189.54      A    C
ATOM   1722  CA  HIS A 256      12.675 -31.324 -18.988  1.00190.66      A    C
ATOM   1732  CA  VAL A 257      15.732 -29.394 -18.033  1.00191.30      A    C
ATOM   1739  CA  ILE A 258      17.837 -30.592 -15.104  1.00192.92      A    C
ATOM   1747  CA  GLY A 259      20.304 -28.140 -13.438  1.00195.25      A    C
ATOM   1751  CA  MET A 260      23.616 -29.604 -12.164  1.00196.23      A    C
ATOM   1759  CA  GLY A 261      26.926 -29.164 -10.354  1.00193.75      A    C
ATOM   1763  CA  THR A 262      28.921 -29.467  -7.183  1.00192.41      A    C
ATOM   1770  CA  THR A 263      29.122 -25.709  -6.574  1.00192.78      A    C
ATOM   1777  CA  PRO A 264      27.050 -22.461  -6.644  1.00193.92      A    C
ATOM   1784  CA  GLU A 265      27.691 -21.962 -10.401  1.00194.35      A    C
ATOM   1793  CA  VAL A 266      24.896 -20.056 -12.200  1.00191.97      A    C
ATOM   1800  CA  HIS A 267      24.159 -20.105 -15.957  1.00190.49      A    C
ATOM   1810  CA  SER A 268      21.683 -18.370 -18.343  1.00187.81      A    C
ATOM   1816  CA  ILE A 269      20.541 -20.309 -21.405  1.00186.30      A    C
ATOM   1824  CA  PHE A 270      19.100 -19.208 -24.773  1.00186.06      A    C
ATOM   1835  CA  LEU A 271      18.006 -19.936 -28.308  1.00187.27      A    C
ATOM   1843  CA  GLU A 272      15.673 -18.362 -30.951  1.00188.44      A    C
ATOM   1852  CA  GLY A 273      12.059 -18.345 -30.088  1.00189.24      A    C
ATOM   1856  CA  HIS A 274      11.111 -17.341 -26.615  1.00190.98      A    C
ATOM   1866  CA  THR A 275      11.094 -20.454 -24.279  1.00191.93      A    C
ATOM   1873  CA  PHE A 276       7.701 -19.450 -22.839  1.00194.33      A    C
ATOM   1884  CA  LEU A 277       6.981 -22.283 -20.374  1.00196.79      A    C
ATOM   1892  CA  VAL A 278       8.225 -21.781 -16.825  1.00199.42      A    C
ATOM   1899  CA  ARG A 279       4.776 -21.962 -15.462  1.00200.11      A    C
ATOM   1910  CA  ASN A 280       2.838 -20.491 -18.286  1.00200.81      A    C
ATOM   1918  CA  HIS A 281       4.839 -17.680 -16.693  1.00201.63      A    C
ATOM   1928  CA  ARG A 282       6.612 -16.570 -19.785  1.00200.74      A    C
ATOM   1939  CA  GLN A 283      10.346 -16.210 -19.893  1.00198.31      A    C
ATOM   1948  CA  ALA A 284      13.147 -14.529 -21.787  1.00196.62      A    C
ATOM   1953  CA  SER A 285      15.807 -17.175 -21.196  1.00194.55      A    C
ATOM   1959  CA  LEU A 286      16.018 -20.277 -18.976  1.00194.07      A    C
ATOM   1967  CA  GLU A 287      18.082 -19.385 -15.979  1.00194.10      A    C
ATOM   1976  CA  ILE A 288      19.822 -22.218 -14.164  1.00193.91      A    C
ATOM   1984  CA  SER A 289      21.481 -22.407 -10.745  1.00195.00      A    C
ATOM   1990  CA  PRO A 290      23.184 -25.000  -8.398  1.00195.09      A    C
ATOM   1997  CA  ILE A 291      20.547 -27.756  -8.529  1.00193.60      A    C
ATOM   2005  CA  THR A 292      17.440 -26.763 -10.462  1.00192.66      A    C
ATOM   2012  CA  PHE A 293      14.597 -28.357 -12.348  1.00191.21      A    C
ATOM   2023  CA  LEU A 294      11.423 -27.044 -13.700  1.00189.04      A    C
ATOM   2031  CA  THR A 295      10.246 -27.818 -17.196  1.00187.10      A    C
ATOM   2038  CA  ALA A 296       9.685 -25.602 -20.234  1.00185.48      A    C
ATOM   2043  CA  GLN A 297       8.529 -25.396 -23.843  1.00184.20      A    C
ATOM   2052  CA  THR A 298       8.974 -23.458 -27.129  1.00182.95      A    C
ATOM   2059  CA  LEU A 299       7.655 -23.083 -30.650  1.00183.53      A    C
ATOM   2067  CA  LEU A 300       9.599 -22.980 -33.957  1.00184.72      A    C
ATOM   2075  CA  MET A 301      10.195 -21.182 -37.301  1.00187.69      A    C
ATOM   2083  CA  ASP A 302      12.366 -23.381 -39.676  1.00189.36      A    C
ATOM   2091  CA  LEU A 303      15.552 -25.564 -40.479  1.00190.28      A    C
ATOM   2099  CA  GLY A 304      17.892 -22.982 -38.932  1.00191.49      A    C
ATOM   2103  CA  GLN A 305      19.646 -25.084 -36.412  1.00192.11      A    C
ATOM   2112  CA  PHE A 306      19.382 -22.563 -33.650  1.00192.48      A    C
ATOM   2123  CA  LEU A 307      22.344 -21.442 -31.627  1.00193.10      A    C
ATOM   2131  CA  LEU A 308      22.506 -22.626 -27.913  1.00193.43      A    C
ATOM   2139  CA  PHE A 309      24.257 -20.339 -25.402  1.00195.02      A    C
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ATOM   2150  CA  CYS A 310      25.419 -20.331 -21.843  1.00195.05      A    C
ATOM   2156  CA  HIS A 311      25.932 -16.649 -22.677  1.00195.59      A    C
ATOM   2166  CA  ILE A 312      28.139 -15.443 -19.819  1.00195.44      A    C
ATOM   2174  CA  SER A 313      31.701 -14.104 -20.129  1.00195.98      A    C
ATOM   2180  CA  SER A 314      33.352 -16.606 -17.752  1.00196.85      A    C
ATOM   2186  CA  HIS A 315      31.495 -19.809 -18.681  1.00197.39      A    C
ATOM   2196  CA  GLN A 316      31.771 -18.921 -22.384  1.00198.41      A    C
ATOM   2205  CA  HIS A 317      35.258 -20.019 -23.611  1.00199.28      A    C
ATOM   2215  CA  ASP A 318      34.788 -23.440 -21.883  1.00198.03      A    C
ATOM   2223  CA  GLY A 319      31.028 -23.342 -22.498  1.00196.41      A    C
ATOM   2227  CA  MET A 320      27.867 -25.125 -23.521  1.00193.89      A    C
ATOM   2235  CA  GLU A 321      26.385 -25.499 -27.002  1.00191.97      A    C
ATOM   2244  CA  ALA A 322      23.993 -27.546 -29.167  1.00190.57      A    C
ATOM   2249  CA  TYR A 323      21.908 -27.356 -32.317  1.00191.22      A    C
ATOM   2261  CA  VAL A 324      18.224 -27.756 -33.362  1.00191.96      A    C
ATOM   2268  CA  LYS A 325      17.387 -28.770 -36.994  1.00195.17      A    C
ATOM   2277  CA  VAL A 326      13.644 -27.666 -36.974  1.00196.24      A    C
ATOM   2284  CA  ASP A 327      12.576 -29.729 -40.046  1.00199.70      A    C
ATOM   2292  CA  SER A 328       9.489 -30.420 -42.263  1.00202.24      A    C
ATOM   2298  CA  CYS A 329       7.101 -33.150 -41.126  1.00205.02      A    C
ATOM   2304  CA  PRO A 330       6.382 -36.925 -40.865  1.00207.35      A    C
ATOM   2311  CA  GLU A 331       2.693 -36.749 -39.659  1.00209.54      A    C
ATOM   2320  CA  GLU A 332       1.505 -35.752 -43.156  1.00210.96      A    C
ATOM   2329  CA  PRO A 333       2.096 -38.805 -45.483  1.00211.46      A    C
ATOM   2336  CA  LYS A 377      -8.368   2.126 -31.565  1.00194.11      A    C
ATOM   2345  CA  HIS A 378      -6.152  -0.121 -33.734  1.00193.78      A    C
ATOM   2355  CA  PRO A 379      -2.440  -1.188 -33.744  1.00194.05      A    C
ATOM   2362  CA  LYS A 380       0.205   1.541 -33.510  1.00194.74      A    C
ATOM   2371  CA  THR A 381       3.119   2.381 -35.816  1.00195.50      A    C
ATOM   2378  CA  TRP A 382       6.096   3.842 -33.806  1.00196.40      A    C
ATOM   2392  CA  VAL A 383       9.027   5.969 -34.990  1.00196.17      A    C
ATOM   2399  CA  HIS A 384      12.566   6.473 -33.794  1.00197.10      A    C
ATOM   2409  CA  TYR A 385      15.394   8.464 -35.264  1.00195.11      A    C
ATOM   2421  CA  ILE A 386      18.362   7.332 -33.133  1.00192.60      A    C
ATOM   2429  CA  ALA A 387      22.040   8.014 -33.658  1.00191.24      A    C
ATOM   2434  CA  ALA A 388      24.968   6.303 -32.015  1.00191.23      A    C
ATOM   2439  CA  GLU A 389      27.147   9.146 -30.849  1.00191.88      A    C
ATOM   2448  CA  GLU A 390      30.348   9.885 -28.930  1.00191.88      A    C
ATOM   2457  CA  GLU A 391      30.241  12.133 -25.852  1.00193.77      A    C
ATOM   2466  CA  ASP A 392      31.997  12.336 -22.435  1.00194.82      A    C
ATOM   2474  CA  TRP A 393      30.863  10.617 -19.230  1.00196.22      A    C
ATOM   2488  CA  ASP A 394      31.278  11.841 -15.639  1.00197.30      A    C
ATOM   2496  CA  TYR A 395      30.066   8.861 -13.596  1.00198.34      A    C
ATOM   2508  CA  ALA A 396      30.077  10.866 -10.310  1.00200.91      A    C
ATOM   2513  CA  PRO A 397      29.439  14.573 -10.944  1.00202.72      A    C
ATOM   2520  CA  LEU A 398      27.113  15.843  -8.171  1.00204.81      A    C
ATOM   2528  CA  VAL A 399      29.194  14.168  -5.410  1.00205.03      A    C
ATOM   2535  CA  LEU A 400      33.015  13.923  -5.251  1.00204.90      A    C
ATOM   2543  CA  ALA A 401      35.460  13.627  -2.290  1.00204.88      A    C
ATOM   2548  CA  PRO A 402      38.536  11.492  -3.262  1.00205.00      A    C
ATOM   2555  CA  ASP A 403      42.300  11.241  -2.586  1.00204.31      A    C
ATOM   2563  CA  ASP A 404      43.853   7.887  -1.630  1.00202.88      A    C
ATOM   2571  CA  ARG A 405      41.236   8.290   1.070  1.00201.82      A    C
ATOM   2582  CA  SER A 406      39.133   5.271  -0.011  1.00201.92      A    C
ATOM   2588  CA  TYR A 407      38.391   2.382  -2.386  1.00201.51      A    C
ATOM   2600  CA  LYS A 408      36.304   5.017  -4.153  1.00201.19      A    C
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ATOM   2609  CA  SER A 409      39.334   7.349  -4.033  1.00201.13      A    C
ATOM   2615  CA  GLN A 410      41.164   4.821  -6.209  1.00201.21      A    C
ATOM   2624  CA  TYR A 411      38.598   4.813  -9.079  1.00200.50      A    C
ATOM   2636  CA  LEU A 412      39.426   6.341 -12.546  1.00199.93      A    C
ATOM   2644  CA  ASN A 413      42.858   6.396 -14.281  1.00198.33      A    C
ATOM   2652  CA  ASN A 414      45.326   4.769 -11.832  1.00197.64      A    C
ATOM   2660  CA  GLY A 415      48.358   6.992 -12.533  1.00197.55      A    C
ATOM   2664  CA  PRO A 416      47.967  10.625 -11.490  1.00197.77      A    C
ATOM   2671  CA  GLN A 417      44.298  11.594 -12.344  1.00198.28      A    C
ATOM   2680  CA  ARG A 418      41.713  10.216  -9.884  1.00198.05      A    C
ATOM   2691  CA  ILE A 419      38.987  12.745  -8.766  1.00197.17      A    C
ATOM   2699  CA  GLY A 420      35.287  12.531  -9.832  1.00196.19      A    C
ATOM   2703  CA  ARG A 421      35.653  10.184 -12.811  1.00195.06      A    C
ATOM   2714  CA  LYS A 422      35.474  11.269 -16.488  1.00193.73      A    C
ATOM   2723  CA  TYR A 423      35.704   8.970 -19.542  1.00193.06      A    C
ATOM   2735  CA  LYS A 424      34.858   9.259 -23.274  1.00193.54      A    C
ATOM   2744  CA  LYS A 425      31.886   7.049 -24.143  1.00194.92      A    C
ATOM   2753  CA  VAL A 426      29.558   6.303 -27.074  1.00196.15      A    C
ATOM   2760  CA  ARG A 427      25.890   6.163 -26.054  1.00196.47      A    C
ATOM   2771  CA  PHE A 428      22.821   5.851 -28.246  1.00195.53      A    C
ATOM   2782  CA  MET A 429      20.992   9.130 -28.641  1.00197.64      A    C
ATOM   2790  CA  ALA A 430      17.842   9.912 -30.647  1.00198.82      A    C
ATOM   2795  CA  TYR A 431      17.188  12.911 -32.923  1.00200.83      A    C
ATOM   2807  CA  THR A 432      14.053  14.696 -34.099  1.00201.26      A    C
ATOM   2814  CA  ASP A 433      14.000  13.832 -37.788  1.00202.68      A    C
ATOM   2822  CA  GLU A 434      15.990  12.637 -40.819  1.00204.76      A    C
ATOM   2831  CA  THR A 435      17.910  15.903 -40.705  1.00205.42      A    C
ATOM   2838  CA  PHE A 436      19.893  14.527 -37.778  1.00206.15      A    C
ATOM   2849  CA  LYS A 437      20.367  17.985 -36.302  1.00208.06      A    C
ATOM   2858  CA  THR A 438      17.914  18.859 -33.505  1.00209.92      A    C
ATOM   2865  CA  ARG A 439      19.310  17.575 -30.189  1.00211.87      A    C
ATOM   2876  CA  GLU A 440      16.672  15.472 -28.408  1.00214.09      A    C
ATOM   2885  CA  ALA A 441      16.088  16.920 -24.921  1.00215.61      A    C
ATOM   2890  CA  ILE A 442      17.737  14.418 -22.587  1.00217.41      A    C
ATOM   2898  CA  GLN A 443      16.572  12.406 -19.533  1.00218.13      A    C
ATOM   2907  CA  HIS A 444      19.318  13.238 -16.972  1.00216.79      A    C
ATOM   2917  CA  GLU A 445      17.979  10.356 -14.827  1.00214.25      A    C
ATOM   2926  CA  SER A 446      18.595   7.665 -17.480  1.00210.95      A    C
ATOM   2932  CA  GLY A 447      22.197   8.894 -17.702  1.00207.74      A    C
ATOM   2936  CA  ILE A 448      23.975   6.709 -20.222  1.00204.65      A    C
ATOM   2944  CA  LEU A 449      20.759   4.875 -21.259  1.00202.31      A    C
ATOM   2952  CA  GLY A 450      19.331   4.991 -24.791  1.00199.38      A    C
ATOM   2956  CA  PRO A 451      15.919   6.532 -25.602  1.00197.00      A    C
ATOM   2963  CA  LEU A 452      12.998   4.575 -24.038  1.00195.01      A    C
ATOM   2971  CA  LEU A 453      11.741   2.217 -26.714  1.00192.42      A    C
ATOM   2979  CA  TYR A 454       8.161   0.969 -26.578  1.00191.57      A    C
ATOM   2991  CA  GLY A 455       5.758  -1.078 -28.690  1.00189.43      A    C
ATOM   2995  CA  GLU A 456       2.652  -3.122 -27.782  1.00187.63      A    C
ATOM   3004  CA  VAL A 457       1.806  -6.431 -29.334  1.00184.71      A    C
ATOM   3011  CA  GLY A 458       0.673  -5.797 -32.928  1.00184.93      A    C
ATOM   3015  CA  ASP A 459       2.733  -2.668 -33.556  1.00184.91      A    C
ATOM   3023  CA  THR A 460       5.606  -1.944 -35.848  1.00184.18      A    C
ATOM   3030  CA  LEU A 461       8.750   0.034 -34.898  1.00182.65      A    C
ATOM   3038  CA  LEU A 462      10.280   2.010 -37.807  1.00182.41      A    C
ATOM   3046  CA  ILE A 463      13.686   2.655 -36.265  1.00181.74      A    C
ATOM   3054  CA  ILE A 464      15.819   4.922 -38.451  1.00181.55      A    C
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ATOM   3062  CA  PHE A 465      19.401   4.796 -37.302  1.00182.70      A    C
ATOM   3073  CA  LYS A 466      22.473   7.022 -37.963  1.00184.44      A    C
ATOM   3082  CA  ASN A 467      26.026   6.395 -36.926  1.00184.85      A    C
ATOM   3090  CA  GLN A 468      27.765   9.577 -35.907  1.00186.25      A    C
ATOM   3099  CA  ALA A 469      30.656   7.848 -34.232  1.00188.48      A    C
ATOM   3104  CA  SER A 470      33.801   6.916 -36.196  1.00191.05      A    C
ATOM   3110  CA  ARG A 471      34.341   3.261 -35.153  1.00192.53      A    C
ATOM   3121  CA  PRO A 472      31.184   1.660 -36.764  1.00192.78      A    C
ATOM   3128  CA  TYR A 473      28.212  -0.009 -34.928  1.00192.50      A    C
ATOM   3140  CA  ASN A 474      24.455  -1.061 -35.344  1.00192.53      A    C
ATOM   3148  CA  ILE A 475      21.103  -1.785 -33.473  1.00193.10      A    C
ATOM   3156  CA  TYR A 476      19.327  -4.930 -32.446  1.00194.56      A    C
ATOM   3168  CA  PRO A 477      16.517  -5.520 -29.959  1.00195.30      A    C
ATOM   3175  CA  HIS A 478      16.778  -8.513 -27.631  1.00196.70      A    C
ATOM   3185  CA  GLY A 479      13.005  -9.149 -27.539  1.00196.68      A    C
ATOM   3189  CA  ILE A 480      11.323  -9.127 -30.959  1.00195.91      A    C
ATOM   3197  CA  THR A 481      11.974 -11.782 -33.580  1.00195.79      A    C
ATOM   3204  CA  ASP A 482      10.569 -10.073 -36.704  1.00196.32      A    C
ATOM   3212  CA  VAL A 483      13.409  -7.589 -37.321  1.00195.66      A    C
ATOM   3219  CA  ARG A 484      13.945  -6.851 -41.004  1.00194.56      A    C
ATOM   3230  CA  PRO A 485      15.305  -3.808 -42.898  1.00193.89      A    C
ATOM   3237  CA  LEU A 486      12.463  -1.387 -43.624  1.00194.47      A    C
ATOM   3245  CA  TYR A 487      11.604  -1.820 -47.258  1.00196.05      A    C
ATOM   3257  CA  SER A 488      12.953  -5.205 -48.337  1.00198.78      A    C
ATOM   3263  CA  ARG A 489      13.512  -8.668 -46.974  1.00202.08      A    C
ATOM   3274  CA  ARG A 490      17.157  -8.408 -48.226  1.00205.92      A    C
ATOM   3285  CA  LEU A 491      20.332  -9.142 -46.331  1.00207.58      A    C
ATOM   3293  CA  PRO A 492      22.885  -6.298 -46.627  1.00208.60      A    C
ATOM   3300  CA  LYS A 493      24.310  -7.589 -49.915  1.00208.73      A    C
ATOM   3309  CA  GLY A 494      26.429 -10.169 -48.011  1.00208.22      A    C
ATOM   3313  CA  VAL A 495      25.843 -10.961 -44.307  1.00208.12      A    C
ATOM   3320  CA  LYS A 496      23.885 -13.813 -42.605  1.00208.10      A    C
ATOM   3329  CA  HIS A 497      21.663 -11.479 -40.459  1.00207.29      A    C
ATOM   3339  CA  LEU A 498      21.491  -7.779 -39.390  1.00206.07      A    C
ATOM   3347  CA  LYS A 499      23.072  -8.087 -35.958  1.00206.21      A    C
ATOM   3356  CA  ASP A 500      26.071  -8.976 -38.097  1.00207.27      A    C
ATOM   3364  CA  PHE A 501      28.263  -6.240 -39.624  1.00205.82      A    C
ATOM   3375  CA  PRO A 502      26.229  -3.356 -41.109  1.00202.16      A    C
ATOM   3382  CA  ILE A 503      26.436   0.522 -40.643  1.00200.11      A    C
ATOM   3390  CA  LEU A 504      29.709   2.455 -41.067  1.00196.68      A    C
ATOM   3398  CA  PRO A 505      30.445   5.993 -39.888  1.00195.09      A    C
ATOM   3405  CA  GLY A 506      28.053   8.420 -41.535  1.00194.28      A    C
ATOM   3409  CA  GLU A 507      25.573   6.063 -43.255  1.00193.96      A    C
ATOM   3418  CA  ILE A 508      21.959   5.621 -41.999  1.00192.39      A    C
ATOM   3426  CA  PHE A 509      19.788   2.449 -42.034  1.00190.90      A    C
ATOM   3437  CA  LYS A 510      16.006   2.158 -41.830  1.00189.17      A    C
ATOM   3446  CA  TYR A 511      15.115  -0.888 -39.680  1.00187.47      A    C
ATOM   3458  CA  LYS A 512      11.654  -2.477 -39.138  1.00187.85      A    C
ATOM   3467  CA  TRP A 513      10.733  -4.084 -35.821  1.00188.92      A    C
ATOM   3481  CA  THR A 514       7.306  -5.815 -35.949  1.00188.91      A    C
ATOM   3488  CA  VAL A 515       6.004  -7.117 -32.624  1.00188.85      A    C
ATOM   3495  CA  THR A 516       3.728 -10.102 -32.338  1.00189.64      A    C
ATOM   3502  CA  VAL A 517       1.929 -11.910 -29.525  1.00190.58      A    C
ATOM   3509  CA  GLU A 518       4.699 -14.443 -29.102  1.00191.26      A    C
ATOM   3518  CA  ASP A 519       7.336 -11.934 -27.901  1.00190.28      A    C
ATOM   3526  CA  GLY A 520       4.997 -10.030 -25.628  1.00188.66      A    C
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ATOM   3530  CA  PRO A 521       3.481 -10.822 -22.253  1.00187.72      A    C
ATOM   3537  CA  THR A 522       0.478 -12.972 -21.605  1.00187.29      A    C
ATOM   3544  CA  LYS A 523      -2.537 -13.675 -19.473  1.00188.11      A    C
ATOM   3553  CA  SER A 524      -0.042 -14.471 -16.734  1.00189.36      A    C
ATOM   3559  CA  ASP A 525       3.006 -12.172 -16.807  1.00190.65      A    C
ATOM   3567  CA  PRO A 526       3.022  -8.520 -16.083  1.00191.65      A    C
ATOM   3574  CA  ARG A 527       1.576  -6.525 -18.922  1.00193.84      A    C
ATOM   3585  CA  CYS A 528       4.949  -5.140 -19.903  1.00194.46      A    C
ATOM   3591  CA  LEU A 529       7.969  -7.435 -20.035  1.00192.87      A    C
ATOM   3599  CA  THR A 530      11.417  -5.879 -19.776  1.00193.07      A    C
ATOM   3606  CA  ARG A 531      13.959  -6.048 -22.534  1.00193.84      A    C
ATOM   3617  CA  TYR A 532      16.655  -3.898 -24.171  1.00195.11      A    C
ATOM   3629  CA  TYR A 533      18.707  -3.034 -27.250  1.00196.42      A    C
ATOM   3641  CA  SER A 534      22.501  -3.308 -27.450  1.00199.52      A    C
ATOM   3647  CA  SER A 535      24.573  -2.842 -30.567  1.00202.35      A    C
ATOM   3653  CA  PHE A 536      26.088  -5.960 -32.103  1.00205.38      A    C
ATOM   3664  CA  VAL A 537      29.102  -5.146 -34.340  1.00206.75      A    C
ATOM   3671  CA  ASN A 538      31.153  -6.261 -31.292  1.00207.75      A    C
ATOM   3679  CA  MET A 539      29.531  -7.730 -28.188  1.00207.21      A    C
ATOM   3687  CA  GLU A 540      30.717  -5.692 -25.185  1.00206.60      A    C
ATOM   3696  CA  ARG A 541      33.846  -4.447 -26.875  1.00204.75      A    C
ATOM   3707  CA  ASP A 542      30.794  -2.507 -28.078  1.00202.39      A    C
ATOM   3715  CA  LEU A 543      28.212  -2.372 -25.256  1.00201.33      A    C
ATOM   3723  CA  ALA A 544      30.777  -1.623 -22.518  1.00200.07      A    C
ATOM   3728  CA  SER A 545      31.592   1.597 -24.370  1.00197.60      A    C
ATOM   3734  CA  GLY A 546      27.985   2.864 -24.079  1.00196.22      A    C
ATOM   3738  CA  LEU A 547      25.641   1.069 -26.489  1.00195.32      A    C
ATOM   3746  CA  ILE A 548      22.614   0.515 -24.244  1.00193.09      A    C
ATOM   3754  CA  GLY A 549      18.886   1.414 -24.366  1.00192.27      A    C
ATOM   3758  CA  PRO A 550      15.631   0.017 -22.866  1.00191.25      A    C
ATOM   3765  CA  LEU A 551      13.094  -1.822 -25.033  1.00190.41      A    C
ATOM   3773  CA  LEU A 552       9.627  -2.335 -23.672  1.00192.70      A    C
ATOM   3781  CA  ILE A 553       7.241  -4.942 -25.087  1.00196.99      A    C
ATOM   3789  CA  CYS A 554       3.605  -4.744 -23.882  1.00202.37      A    C
ATOM   3795  CA  TYR A 555       0.001  -5.995 -23.791  1.00210.07      A    C
ATOM   3807  CA  LYS A 556      -2.678  -4.432 -26.028  1.00216.86      A    C
ATOM   3816  CA  GLU A 557      -4.547  -1.168 -24.942  1.00221.09      A    C
ATOM   3825  CA  SER A 558      -5.828   2.378 -26.041  1.00224.53      A    C
ATOM   3831  CA  VAL A 559      -8.883   4.114 -24.380  1.00230.02      A    C
ATOM   3838  CA  ASP A 560     -10.031   0.447 -23.814  1.00234.25      A    C
ATOM   3846  CA  GLN A 561      -8.691  -2.909 -22.305  1.00235.58      A    C
ATOM   3855  CA  ARG A 562      -7.562  -2.099 -18.692  1.00237.26      A    C
ATOM   3866  CA  GLY A 563      -6.620   1.061 -16.752  1.00238.31      A    C
ATOM   3870  CA  ASN A 564      -7.174   3.848 -19.323  1.00238.81      A    C
ATOM   3878  CA  GLN A 565      -9.830   6.221 -17.858  1.00238.98      A    C
ATOM   3887  CA  ILE A 566      -7.962   9.246 -16.259  1.00238.97      A    C
ATOM   3895  CA  MET A 567      -4.157   8.551 -16.916  1.00238.69      A    C
ATOM   3903  CA  SER A 568      -1.507   5.804 -17.205  1.00236.99      A    C
ATOM   3909  CA  ASP A 569       1.291   7.289 -14.957  1.00234.46      A    C
ATOM   3917  CA  LYS A 570       4.735   7.448 -16.758  1.00229.88      A    C
ATOM   3926  CA  ARG A 571       7.489   4.895 -17.497  1.00224.85      A    C
ATOM   3937  CA  ASN A 572      10.835   4.808 -15.608  1.00217.53      A    C
ATOM   3945  CA  VAL A 573      13.958   2.565 -15.979  1.00210.38      A    C
ATOM   3952  CA  ILE A 574      16.809   1.460 -13.759  1.00204.79      A    C
ATOM   3960  CA  LEU A 575      19.777  -0.338 -15.362  1.00201.81      A    C
ATOM   3968  CA  PHE A 576      22.242  -2.242 -13.200  1.00201.35      A    C
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ATOM   3979  CA  SER A 577      25.504  -2.106 -15.142  1.00201.04      A    C
ATOM   3985  CA  VAL A 578      29.196  -2.709 -14.669  1.00199.63      A    C
ATOM   3992  CA  PHE A 579      31.004  -0.991 -17.513  1.00198.67      A    C
ATOM   4003  CA  ASP A 580      34.456  -2.505 -18.037  1.00198.78      A    C
ATOM   4011  CA  GLU A 581      36.377   0.389 -19.556  1.00198.53      A    C
ATOM   4020  CA  ASN A 582      39.225  -2.111 -19.861  1.00199.78      A    C
ATOM   4028  CA  ARG A 583      37.517  -3.456 -22.963  1.00200.20      A    C
ATOM   4039  CA  SER A 584      35.923  -0.267 -24.332  1.00199.55      A    C
ATOM   4045  CA  TRP A 585      36.401   0.654 -27.998  1.00198.21      A    C
ATOM   4059  CA  TYR A 586      37.904   3.905 -26.641  1.00197.86      A    C
ATOM   4071  CA  LEU A 587      40.510   2.019 -24.603  1.00198.48      A    C
ATOM   4079  CA  THR A 588      43.824   3.915 -24.644  1.00199.25      A    C
ATOM   4086  CA  GLU A 589      42.127   6.718 -26.462  1.00198.95      A    C
ATOM   4095  CA  ASN A 590      40.974   7.616 -22.924  1.00198.55      A    C
ATOM   4103  CA  ILE A 591      44.542   7.416 -21.456  1.00199.21      A    C
ATOM   4111  CA  GLN A 592      46.042  10.159 -23.631  1.00199.91      A    C
ATOM   4120  CA  ARG A 593      42.945  12.094 -22.579  1.00200.47      A    C
ATOM   4131  CA  PHE A 594      42.085  12.353 -18.873  1.00200.10      A    C
ATOM   4142  CA  LEU A 595      45.210  10.571 -17.554  1.00197.95      A    C
ATOM   4150  CA  PRO A 596      47.966  13.227 -17.600  1.00197.00      A    C
ATOM   4157  CA  ASN A 597      51.221  11.634 -18.736  1.00195.81      A    C
ATOM   4165  CA  PRO A 598      51.702   8.375 -20.608  1.00194.81      A    C
ATOM   4172  CA  ALA A 599      55.421   9.406 -20.218  1.00194.26      A    C
ATOM   4177  CA  GLY A 600      55.219   6.069 -18.476  1.00193.61      A    C
ATOM   4181  CA  VAL A 601      52.690   4.454 -20.844  1.00193.09      A    C
ATOM   4188  CA  GLN A 602      51.903   1.585 -18.344  1.00193.25      A    C
ATOM   4197  CA  LEU A 603      48.982  -0.843 -19.079  1.00193.48      A    C
ATOM   4205  CA  GLU A 604      47.740  -4.381 -18.068  1.00193.64      A    C
ATOM   4214  CA  ASP A 605      47.900  -4.250 -14.248  1.00193.60      A    C
ATOM   4222  CA  PRO A 606      46.572  -5.628 -10.917  1.00194.23      A    C
ATOM   4229  CA  GLU A 607      44.965  -2.400  -9.552  1.00194.96      A    C
ATOM   4238  CA  PHE A 608      44.573  -0.331 -12.749  1.00195.37      A    C
ATOM   4249  CA  GLN A 609      42.442  -3.018 -14.407  1.00196.24      A    C
ATOM   4258  CA  ALA A 610      40.328  -2.928 -11.224  1.00197.71      A    C
ATOM   4263  CA  SER A 611      40.447   0.891 -11.440  1.00198.75      A    C
ATOM   4269  CA  ASN A 612      38.026   1.038 -14.372  1.00200.82      A    C
ATOM   4277  CA  ILE A 613      35.549  -1.765 -13.645  1.00202.64      A    C
ATOM   4285  CA  MET A 614      32.699   0.713 -13.174  1.00203.54      A    C
ATOM   4293  CA  HIS A 615      29.853  -0.748 -11.120  1.00203.80      A    C
ATOM   4303  CA  SER A 616      26.968   1.727 -11.704  1.00204.15      A    C
ATOM   4309  CA  ILE A 617      23.217   2.289 -12.197  1.00204.57      A    C
ATOM   4317  CA  ASN A 618      22.689   4.277 -15.413  1.00204.69      A    C
ATOM   4325  CA  GLY A 619      26.331   5.423 -15.525  1.00204.60      A    C
ATOM   4329  CA  TYR A 620      25.725   7.275 -12.279  1.00204.01      A    C
ATOM   4341  CA  VAL A 621      27.688   5.757  -9.370  1.00203.92      A    C
ATOM   4348  CA  PHE A 622      28.529   6.264  -5.656  1.00203.98      A    C
ATOM   4359  CA  ASP A 623      25.209   7.922  -4.797  1.00204.59      A    C
ATOM   4367  CA  SER A 624      25.593  10.010  -7.938  1.00204.91      A    C
ATOM   4373  CA  LEU A 625      22.383  11.467  -9.211  1.00205.31      A    C
ATOM   4381  CA  GLN A 626      19.703   9.509  -7.335  1.00206.15      A    C
ATOM   4390  CA  LEU A 627      16.006   9.906  -8.356  1.00205.77      A    C
ATOM   4398  CA  SER A 628      13.192  12.320  -7.550  1.00204.40      A    C
ATOM   4404  CA  VAL A 629       9.767  10.844  -6.690  1.00202.47      A    C
ATOM   4411  CA  CYS A 630       6.968  11.557  -4.160  1.00200.30      A    C
ATOM   4417  CA  LEU A 631       4.600   9.749  -1.773  1.00197.39      A    C
ATOM   4425  CA  HIS A 632       1.207   8.344  -2.804  1.00196.12      A    C
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ATOM   4435  CA  GLU A 633       2.724   8.401  -6.307  1.00194.99      A    C
ATOM   4444  CA  VAL A 634       2.427   4.987  -7.905  1.00192.98      A    C
ATOM   4451  CA  ALA A 635       3.951   3.418 -11.062  1.00191.01      A    C
ATOM   4456  CA  TYR A 636       5.953   0.521 -12.511  1.00189.95      A    C
ATOM   4468  CA  TRP A 637       9.724   0.150 -12.382  1.00190.39      A    C
ATOM   4482  CA  TYR A 638      11.500  -1.682 -15.217  1.00188.49      A    C
ATOM   4494  CA  ILE A 639      14.929  -3.036 -14.292  1.00188.04      A    C
ATOM   4502  CA  LEU A 640      17.705  -5.165 -15.823  1.00188.19      A    C
ATOM   4510  CA  SER A 641      21.231  -6.454 -15.389  1.00188.34      A    C
ATOM   4516  CA  ILE A 642      23.579  -5.792 -18.266  1.00190.23      A    C
ATOM   4524  CA  GLY A 643      27.429  -5.866 -18.657  1.00193.60      A    C
ATOM   4528  CA  ALA A 644      27.950  -6.704 -14.974  1.00196.31      A    C
ATOM   4533  CA  GLN A 645      28.182 -10.397 -15.638  1.00199.11      A    C
ATOM   4542  CA  THR A 646      29.931 -13.540 -14.340  1.00199.76      A    C
ATOM   4549  CA  ASP A 647      27.487 -13.050 -11.386  1.00199.67      A    C
ATOM   4557  CA  PHE A 648      23.904 -12.254 -10.364  1.00197.00      A    C
ATOM   4568  CA  LEU A 649      22.272  -9.378  -8.530  1.00195.40      A    C
ATOM   4576  CA  SER A 650      19.859  -9.538  -5.633  1.00193.46      A    C
ATOM   4582  CA  VAL A 651      18.545  -5.930  -5.714  1.00192.28      A    C
ATOM   4589  CA  PHE A 652      17.717  -3.580  -2.879  1.00192.25      A    C
ATOM   4600  CA  PHE A 653      15.327  -0.613  -2.242  1.00191.98      A    C
ATOM   4611  CA  SER A 654      15.413   0.506   1.383  1.00191.86      A    C
ATOM   4617  CA  GLY A 655      12.111   0.011   3.280  1.00191.66      A    C
ATOM   4621  CA  TYR A 656      10.240  -0.398   0.033  1.00190.60      A    C
ATOM   4633  CA  THR A 657       8.495  -3.450  -1.259  1.00189.76      A    C
ATOM   4640  CA  PHE A 658       7.254  -4.471  -4.683  1.00189.69      A    C
ATOM   4651  CA  LYS A 659       4.695  -6.640  -6.507  1.00190.12      A    C
ATOM   4660  CA  HIS A 660       6.737  -8.554  -9.047  1.00190.97      A    C
ATOM   4670  CA  LYS A 661       5.053 -11.685 -10.497  1.00192.68      A    C
ATOM   4679  CA  MET A 662       1.854 -10.693  -8.598  1.00193.57      A    C
ATOM   4687  CA  VAL A 663       3.324 -11.770  -5.253  1.00192.63      A    C
ATOM   4694  CA  TYR A 664       4.953  -9.270  -2.870  1.00192.61      A    C
ATOM   4706  CA  GLU A 665       8.729  -9.697  -2.349  1.00190.51      A    C
ATOM   4715  CA  ASP A 666      11.297  -7.201  -1.060  1.00190.19      A    C
ATOM   4723  CA  THR A 667      14.295  -8.286  -3.166  1.00189.69      A    C
ATOM   4730  CA  LEU A 668      14.647  -9.042  -6.809  1.00190.97      A    C
ATOM   4738  CA  THR A 669      17.157 -11.671  -7.913  1.00192.84      A    C
ATOM   4745  CA  LEU A 670      18.629 -10.753 -11.311  1.00194.67      A    C
ATOM   4753  CA  PHE A 671      20.910 -12.704 -13.677  1.00195.92      A    C
ATOM   4764  CA  PRO A 672      22.751 -11.107 -16.729  1.00197.00      A    C
ATOM   4771  CA  PHE A 673      19.892 -11.483 -19.242  1.00199.11      A    C
ATOM   4782  CA  SER A 674      17.894 -10.134 -16.529  1.00198.17      A    C
ATOM   4788  CA  GLY A 675      14.753  -8.429 -17.690  1.00196.49      A    C
ATOM   4792  CA  GLU A 676      12.211  -8.109 -14.918  1.00194.69      A    C
ATOM   4801  CA  THR A 677       9.282  -5.759 -14.263  1.00191.40      A    C
ATOM   4808  CA  VAL A 678       8.152  -4.660 -10.762  1.00189.13      A    C
ATOM   4815  CA  PHE A 679       5.347  -2.506  -9.372  1.00187.44      A    C
ATOM   4826  CA  MET A 680       5.408  -0.223  -6.357  1.00186.63      A    C
ATOM   4834  CA  SER A 681       3.161   1.827  -4.063  1.00187.64      A    C
ATOM   4840  CA  MET A 682       5.374   4.826  -3.175  1.00188.54      A    C
ATOM   4848  CA  GLU A 683       4.310   5.856   0.351  1.00189.84      A    C
ATOM   4857  CA  ASN A 684       7.350   5.606   2.658  1.00189.80      A    C
ATOM   4865  CA  PRO A 685       8.707   9.191   3.090  1.00190.48      A    C
ATOM   4872  CA  GLY A 686      12.496   9.609   3.359  1.00192.51      A    C
ATOM   4876  CA  LEU A 687      16.001   8.870   2.076  1.00193.93      A    C
ATOM   4884  CA  TRP A 688      16.209   5.277   0.937  1.00193.97      A    C
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ATOM   4898  CA  ILE A 689      19.494   3.670  -0.059  1.00195.02      A    C
ATOM   4906  CA  LEU A 690      18.634   1.825  -3.257  1.00195.92      A    C
ATOM   4914  CA  GLY A 691      21.455  -0.492  -4.143  1.00197.86      A    C
ATOM   4918  CA  CYS A 692      21.689  -4.222  -4.202  1.00200.20      A    C
ATOM   4924  CA  HIS A 693      21.337  -6.958  -1.578  1.00204.22      A    C
ATOM   4934  CA  ASN A 694      24.955  -7.880  -2.329  1.00206.08      A    C
ATOM   4942  CA  SER A 695      27.322  -5.910  -0.095  1.00206.22      A    C
ATOM   4948  CA  ASP A 696      30.489  -6.263  -2.214  1.00206.28      A    C
ATOM   4956  CA  PHE A 697      29.547  -3.960  -5.098  1.00205.07      A    C
ATOM   4967  CA  ARG A 698      27.450  -1.441  -3.168  1.00204.33      A    C
ATOM   4978  CA  ASN A 699      30.859  -0.426  -1.767  1.00203.55      A    C
ATOM   4986  CA  ARG A 700      32.605  -0.620  -5.167  1.00202.08      A    C
ATOM   4997  CA  GLY A 701      30.013   2.064  -6.068  1.00200.93      A    C
ATOM   5001  CA  MET A 702      26.797   0.469  -7.317  1.00199.18      A    C
ATOM   5009  CA  THR A 703      24.369   2.541  -5.184  1.00197.90      A    C
ATOM   5016  CA  ALA A 704      22.036   5.402  -5.754  1.00197.23      A    C
ATOM   5021  CA  LEU A 705      19.506   7.199  -3.506  1.00197.42      A    C
ATOM   5029  CA  LEU A 706      15.772   7.830  -3.683  1.00197.53      A    C
ATOM   5037  CA  LYS A 707      13.734  10.685  -2.235  1.00198.18      A    C
ATOM   5046  CA  VAL A 708      10.060  10.849  -1.308  1.00197.70      A    C
ATOM   5053  CA  SER A 709       7.833  13.702  -0.030  1.00197.96      A    C
ATOM   5059  CA  SER A 710       4.289  15.005  -0.729  1.00198.08      A    C
ATOM   5065  CA  CYS A 711       3.500  16.702  -4.111  1.00198.91      A    C
ATOM   5071  CA  ASP A 712       1.020  19.134  -4.802  1.00143.15      A    C
ATOM   5079  CA  LYS A 713      -2.260  20.852  -3.924  1.00153.03      A    C
ATOM   5088  CA  ASN A 714      -2.841  24.603  -3.681  1.00213.32      A    C
ATOM   5096  CA  THR A 715      -2.888  24.714   0.106  0.00248.66      A    C
ATOM   5103  CA  GLY A 716      -3.495  26.261   3.290  0.00232.37      A    C
ATOM   5107  CA  ASP A 717      -5.378  28.467   3.033  0.00 30.00      A    C
ATOM   5115  CA  TYR A 718      -3.726  31.834   3.161  0.00 30.00      A    C
ATOM   5127  CA  TYR A 719      -7.222  33.156   3.695  0.00 30.00      A    C
ATOM   5139  CA  GLU A 720      -8.584  31.271   6.721  0.00 30.00      A    C
ATOM   5148  CA  ASP A 721      -5.422  31.556   8.740  0.00 30.00      A    C
ATOM   5156  CA  SER A 722      -5.138  35.079   7.504  0.00 30.00      A    C
ATOM   5162  CA  TYR A 723      -8.543  36.057   8.810  0.00 30.00      A    C
ATOM   5174  CA  GLU A 724      -7.901  34.327  12.085  0.00 30.00      A    C
ATOM   5183  CA  ASP A 725      -4.613  36.101  12.775  0.00 30.00      A    C
ATOM   5191  CA  ILE A 726      -4.946  38.848  10.269  0.00200.98      A    C
ATOM   5199  CA  SER A 727      -6.308  40.487   7.214  0.00224.84      A    C
ATOM   5205  CA  ALA A 728      -9.416  38.960   5.415  1.00250.85      A    C
ATOM   5210  CA  TYR A 729     -10.114  39.453   1.711  1.00215.05      A    C
ATOM   5222  CA  LEU A 730     -12.863  39.230  -0.895  1.00177.10      A    C
ATOM   5230  CA  LEU A 731     -15.629  36.646  -0.529  1.00155.50      A    C
ATOM   5238  CA  SER A 732     -16.049  35.715  -4.198  1.00130.05      A    C
ATOM   5244  CA  LYS A 733     -19.837  35.414  -4.103  1.00140.11      A    C
ATOM   5253  CA  ASN A 734     -22.929  37.128  -5.506  1.00143.81      A    C
ATOM   5261  CA  ASN A 735     -25.537  37.989  -2.871  1.00136.85      A    C
ATOM   5269  CA  ALA A 736     -29.286  37.388  -3.226  1.00162.36      A    C
ATOM   5274  CA  ILE A 737     -32.353  36.570  -1.112  1.00190.71      A    C
ATOM   5282  CA  GLU A 738     -35.503  38.186  -2.612  1.00186.38      A    C
ATOM   5291  CA  PRO A 739     -38.729  36.164  -2.411  1.00224.34      A    C
ATOM   5298  CA  ARG A 740     -42.054  36.927  -0.721  1.00173.98      A    C
ATOM   5310  CA  PHE B1691     -13.831  -8.651  15.338  1.00219.65      B    C
ATOM   5321  CA  GLN B1692     -10.918  -6.472  16.515  1.00219.14      B    C
ATOM   5330  CA  LYS B1693      -7.429  -5.053  15.648  1.00218.33      B    C
ATOM   5339  CA  LYS B1694      -4.408  -5.631  17.953  1.00216.45      B    C
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ATOM   5348  CA  THR B1695      -1.347  -3.597  18.907  1.00214.61      B    C
ATOM   5355  CA  ARG B1696       1.137  -6.429  19.597  1.00213.69      B    C
ATOM   5366  CA  HIS B1697       4.437  -5.306  21.107  1.00213.73      B    C
ATOM   5376  CA  TYR B1698       7.532  -7.505  21.280  1.00213.42      B    C
ATOM   5388  CA  PHE B1699      10.053  -6.633  23.990  1.00213.28      B    C
ATOM   5399  CA  ILE B1700      13.281  -7.672  22.299  1.00213.21      B    C
ATOM   5407  CA  ALA B1701      17.065  -7.117  22.545  1.00214.28      B    C
ATOM   5412  CA  ALA B1702      20.497  -8.154  21.247  1.00215.38      B    C
ATOM   5417  CA  VAL B1703      23.015 -10.236  23.275  1.00217.42      B    C
ATOM   5424  CA  GLU B1704      25.798 -12.944  22.903  1.00218.38      B    C
ATOM   5433  CA  ARG B1705      27.134 -16.409  23.993  1.00220.47      B    C
ATOM   5444  CA  LEU B1706      27.287 -18.385  20.785  1.00222.53      B    C
ATOM   5452  CA  TRP B1707      28.281 -21.568  19.104  1.00224.36      B    C
ATOM   5466  CA  ASP B1708      28.378 -25.054  20.499  1.00226.97      B    C
ATOM   5474  CA  TYR B1709      29.208 -28.282  18.681  1.00229.27      B    C
ATOM   5486  CA  GLY B1710      29.498 -31.199  21.190  1.00230.00      B    C
ATOM   5490  CA  MET B1711      27.350 -34.060  19.780  1.00230.68      B    C
ATOM   5498  CA  SER B1712      29.515 -37.127  18.943  1.00230.55      B    C
ATOM   5504  CA  SER B1713      31.413 -36.269  15.729  1.00229.76      B    C
ATOM   5510  CA  GLY B1725      37.806 -32.358  23.456  1.00193.22      B    C
ATOM   5514  CA  SER B1726      39.318 -29.424  21.523  1.00192.82      B    C
ATOM   5520  CA  VAL B1727      36.030 -27.577  20.597  1.00192.21      B    C
ATOM   5527  CA  PRO B1728      36.299 -23.738  20.117  1.00191.48      B    C
ATOM   5534  CA  GLN B1729      34.440 -20.938  21.889  1.00190.65      B    C
ATOM   5543  CA  PHE B1730      32.835 -18.350  19.623  1.00189.11      B    C
ATOM   5554  CA  LYS B1731      31.380 -14.967  20.676  1.00188.06      B    C
ATOM   5563  CA  LYS B1732      28.981 -13.693  17.943  1.00188.11      B    C
ATOM   5572  CA  VAL B1733      25.845 -11.558  18.578  1.00189.80      B    C
ATOM   5579  CA  VAL B1734      22.176 -12.680  18.605  1.00191.46      B    C
ATOM   5586  CA  PHE B1735      18.687 -11.247  18.994  1.00193.25      B    C
ATOM   5597  CA  GLN B1736      16.801 -12.292  22.157  1.00195.12      B    C
ATOM   5606  CA  GLU B1737      13.192 -11.939  23.280  1.00197.55      B    C
ATOM   5615  CA  PHE B1738      12.660 -10.538  26.797  1.00198.49      B    C
ATOM   5626  CA  THR B1739       9.632 -10.290  29.116  1.00198.06      B    C
ATOM   5633  CA  ASP B1740       8.905  -6.549  29.526  1.00198.24      B    C
ATOM   5641  CA  GLY B1741      10.466  -3.040  29.642  1.00197.55      B    C
ATOM   5645  CA  SER B1742      12.576  -3.989  32.690  1.00196.67      B    C
ATOM   5651  CA  PHE B1743      14.551  -6.249  30.299  1.00195.88      B    C
ATOM   5662  CA  THR B1744      14.953  -9.013  32.894  1.00195.58      B    C
ATOM   5669  CA  GLN B1745      13.215 -12.389  32.179  1.00196.11      B    C
ATOM   5678  CA  PRO B1746      15.232 -14.115  29.473  1.00195.84      B    C
ATOM   5685  CA  LEU B1747      11.932 -15.632  28.266  1.00195.84      B    C
ATOM   5693  CA  TYR B1748      13.056 -19.332  28.094  1.00196.07      B    C
ATOM   5705  CA  ARG B1749      12.864 -20.631  24.493  1.00194.66      B    C
ATOM   5716  CA  GLY B1750      10.008 -23.142  24.512  1.00194.29      B    C
ATOM   5720  CA  GLU B1751      10.164 -26.720  23.153  1.00194.40      B    C
ATOM   5729  CA  LEU B1752       7.824 -25.522  20.428  1.00194.56      B    C
ATOM   5737  CA  ASN B1753      10.350 -23.005  19.048  1.00194.34      B    C
ATOM   5745  CA  GLU B1754      13.894 -24.088  19.854  1.00193.50      B    C
ATOM   5754  CA  HIS B1755      14.598 -24.878  16.231  1.00191.30      B    C
ATOM   5764  CA  LEU B1756      14.895 -21.095  16.032  1.00189.20      B    C
ATOM   5772  CA  GLY B1757      17.984 -21.603  18.222  1.00188.08      B    C
ATOM   5776  CA  LEU B1758      20.883 -19.313  17.019  1.00185.76      B    C
ATOM   5784  CA  LEU B1759      18.680 -16.560  15.565  1.00182.36      B    C
ATOM   5792  CA  GLY B1760      15.887 -14.278  16.837  1.00182.29      B    C
ATOM   5796  CA  PRO B1761      12.316 -14.803  18.020  1.00182.59      B    C
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ATOM   5803  CA  TYR B1762       9.198 -14.864  15.874  1.00183.32      B    C
ATOM   5815  CA  ILE B1763       7.485 -11.486  15.354  1.00184.33      B    C
ATOM   5823  CA  ARG B1764       3.909 -11.952  14.106  1.00185.43      B    C
ATOM   5834  CA  ALA B1765       0.958  -9.907  12.821  1.00184.45      B    C
ATOM   5839  CA  GLU B1766      -2.367  -9.973  10.982  1.00184.82      B    C
ATOM   5848  CA  VAL B1767      -3.406  -7.679   8.067  1.00184.58      B    C
ATOM   5855  CA  GLU B1768      -4.988  -4.571   9.579  1.00184.59      B    C
ATOM   5864  CA  ASP B1769      -2.614  -4.727  12.570  1.00184.61      B    C
ATOM   5872  CA  ASN B1770      -0.070  -3.013  14.822  1.00185.01      B    C
ATOM   5880  CA  ILE B1771       3.532  -4.037  15.242  1.00185.74      B    C
ATOM   5888  CA  MET B1772       5.736  -2.571  17.977  1.00186.89      B    C
ATOM   5896  CA  VAL B1773       9.346  -3.095  19.030  1.00187.75      B    C
ATOM   5903  CA  THR B1774      10.778  -1.673  22.194  1.00188.12      B    C
ATOM   5910  CA  PHE B1775      14.481  -2.441  21.688  1.00188.62      B    C
ATOM   5921  CA  ARG B1776      17.623  -2.375  23.826  1.00189.37      B    C
ATOM   5932  CA  ASN B1777      21.172  -2.947  22.616  1.00190.53      B    C
ATOM   5940  CA  GLN B1778      23.632  -4.677  24.925  1.00191.60      B    C
ATOM   5949  CA  ALA B1779      26.974  -4.970  23.059  1.00191.77      B    C
ATOM   5954  CA  SER B1780      30.091  -3.229  21.641  1.00191.65      B    C
ATOM   5960  CA  ARG B1781      29.419  -2.031  18.068  1.00191.41      B    C
ATOM   5971  CA  PRO B1782      25.945  -0.374  18.230  1.00192.36      B    C
ATOM   5978  CA  TYR B1783      23.316  -2.231  16.126  1.00192.61      B    C
ATOM   5990  CA  SER B1784      19.646  -1.794  15.038  1.00193.19      B    C
ATOM   5996  CA  PHE B1785      16.239  -3.260  14.062  1.00193.56      B    C
ATOM   6007  CA  TYR B1786      15.316  -3.111  10.372  1.00192.98      B    C
ATOM   6019  CA  SER B1787      13.056  -4.825   7.898  1.00193.69      B    C
ATOM   6025  CA  SER B1788      11.066  -3.833   4.838  1.00195.07      B    C
ATOM   6031  CA  LEU B1789       7.738  -2.399   6.146  1.00196.02      B    C
ATOM   6039  CA  ILE B1790       9.391  -0.159   8.626  1.00197.24      B    C
ATOM   6047  CA  SER B1791       6.921   2.534   7.566  1.00198.54      B    C
ATOM   6053  CA  TYR B1792       8.489   5.660   9.069  1.00200.02      B    C
ATOM   6065  CA  GLU B1793       6.485   8.873   9.074  1.00201.76      B    C
ATOM   6074  CA  GLU B1794       6.024  12.413   7.738  1.00203.95      B    C
ATOM   6083  CA  ASP B1795       8.945  14.891   7.786  1.00206.08      B    C
ATOM   6091  CA  GLN B1796      10.893  17.314  10.078  1.00208.04      B    C
ATOM   6100  CA  ARG B1797      12.842  20.603  10.444  1.00208.74      B    C
ATOM   6111  CA  GLN B1798      15.925  18.720   9.253  1.00209.22      B    C
ATOM   6120  CA  GLY B1799      19.179  18.878   7.216  1.00210.35      B    C
ATOM   6124  CA  ALA B1800      18.437  16.775   4.092  1.00211.35      B    C
ATOM   6129  CA  GLU B1801      16.415  14.152   6.119  1.00212.14      B    C
ATOM   6138  CA  PRO B1802      18.540  12.140   8.614  1.00212.12      B    C
ATOM   6145  CA  ARG B1803      16.333   9.037   8.471  1.00211.81      B    C
ATOM   6156  CA  LYS B1804      19.241   7.078   9.977  1.00211.14      B    C
ATOM   6165  CA  ASN B1805      18.391   4.248  12.374  1.00210.80      B    C
ATOM   6173  CA  PHE B1806      21.182   3.922  14.947  1.00210.10      B    C
ATOM   6184  CA  VAL B1807      20.752   2.148  18.325  1.00208.86      B    C
ATOM   6191  CA  LYS B1808      23.634   2.837  20.733  1.00208.29      B    C
ATOM   6200  CA  PRO B1809      24.406   0.346  23.548  1.00208.38      B    C
ATOM   6207  CA  ASN B1810      22.108   0.547  26.615  1.00209.21      B    C
ATOM   6215  CA  GLU B1811      19.939   3.175  24.852  1.00206.72      B    C
ATOM   6224  CA  THR B1812      16.352   2.306  23.926  1.00204.60      B    C
ATOM   6231  CA  LYS B1813      15.092   2.875  20.373  1.00202.80      B    C
ATOM   6240  CA  THR B1814      11.418   2.067  20.194  1.00201.31      B    C
ATOM   6247  CA  TYR B1815       9.609   1.780  16.829  1.00200.44      B    C
ATOM   6259  CA  PHE B1816       6.050   0.896  15.803  1.00198.17      B    C
ATOM   6270  CA  TRP B1817       3.935   1.191  12.634  1.00198.05      B    C
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ATOM   6284  CA  LYS B1818       0.732   0.107  10.889  1.00196.94      B    C
ATOM   6293  CA  VAL B1819       1.400  -3.055   8.908  1.00196.52      B    C
ATOM   6300  CA  GLN B1820      -0.449  -2.230   5.699  1.00196.52      B    C
ATOM   6309  CA  HIS B1821      -1.557  -4.727   3.012  1.00196.11      B    C
ATOM   6319  CA  HIS B1822       1.887  -3.766   1.615  1.00193.93      B    C
ATOM   6329  CA  MET B1823       3.374  -6.596   3.819  1.00191.43      B    C
ATOM   6337  CA  ALA B1824       0.327  -8.899   3.550  1.00189.63      B    C
ATOM   6342  CA  PRO B1825      -0.036 -12.218   1.678  1.00188.61      B    C
ATOM   6349  CA  THR B1826      -2.943 -12.533  -0.808  1.00189.53      B    C
ATOM   6356  CA  LYS B1827      -6.001 -14.635  -1.849  1.00192.08      B    C
ATOM   6365  CA  ASP B1828      -3.747 -16.390  -4.346  1.00194.60      B    C
ATOM   6373  CA  GLU B1829      -1.114 -16.966  -1.618  1.00195.36      B    C
ATOM   6382  CA  PHE B1830      -0.742 -18.853   1.730  1.00195.28      B    C
ATOM   6393  CA  ASP B1831      -2.197 -18.341   5.198  1.00196.23      B    C
ATOM   6401  CA  CYS B1832       1.012 -16.427   5.986  1.00195.42      B    C
ATOM   6407  CA  LYS B1833       3.989 -14.841   4.140  1.00193.76      B    C
ATOM   6416  CA  ALA B1834       7.590 -14.641   5.469  1.00193.07      B    C
ATOM   6421  CA  TRP B1835       9.853 -11.618   5.942  1.00192.27      B    C
ATOM   6435  CA  ALA B1836      13.260 -10.843   7.363  1.00192.99      B    C
ATOM   6440  CA  TYR B1837      14.460  -8.423  10.014  1.00194.27      B    C
ATOM   6452  CA  PHE B1838      18.149  -7.719  10.769  1.00196.54      B    C
ATOM   6463  CA  SER B1839      20.672  -5.083  11.846  1.00197.14      B    C
ATOM   6469  CA  ASP B1840      21.157  -2.437   9.167  1.00198.84      B    C
ATOM   6477  CA  VAL B1841      24.058  -0.725  10.958  1.00199.56      B    C
ATOM   6484  CA  ASP B1842      26.176  -3.003   8.792  1.00200.07      B    C
ATOM   6492  CA  LEU B1843      23.841  -5.284   6.792  1.00199.82      B    C
ATOM   6500  CA  GLU B1844      27.072  -6.841   5.429  1.00198.38      B    C
ATOM   6509  CA  LYS B1845      28.769  -7.765   8.726  1.00196.80      B    C
ATOM   6518  CA  ASP B1846      25.733  -7.733  11.106  1.00196.50      B    C
ATOM   6526  CA  VAL B1847      24.422 -10.829   9.251  1.00195.41      B    C
ATOM   6533  CA  HIS B1848      27.548 -13.022   9.692  1.00193.57      B    C
ATOM   6543  CA  SER B1849      27.672 -11.429  13.143  1.00192.56      B    C
ATOM   6549  CA  GLY B1850      24.323 -12.890  14.076  1.00192.15      B    C
ATOM   6553  CA  LEU B1851      21.278 -10.698  13.839  1.00192.00      B    C
ATOM   6561  CA  ILE B1852      19.077 -12.802  11.520  1.00191.35      B    C
ATOM   6569  CA  GLY B1853      15.375 -12.546  12.434  1.00191.81      B    C
ATOM   6573  CA  PRO B1854      11.969 -13.929  11.231  1.00191.63      B    C
ATOM   6580  CA  LEU B1855       8.765 -11.974  10.742  1.00190.41      B    C
ATOM   6588  CA  LEU B1856       5.331 -13.372   9.908  1.00190.53      B    C
ATOM   6596  CA  VAL B1857       2.425 -11.503   8.363  1.00191.47      B    C
ATOM   6603  CA  CYS B1858      -0.981 -13.208   8.406  1.00194.08      B    C
ATOM   6609  CA  HIS B1859      -4.548 -13.035   7.000  1.00196.03      B    C
ATOM   6619  CA  THR B1860      -7.152 -11.732   9.432  1.00196.65      B    C
ATOM   6626  CA  ASN B1861      -8.583 -14.361  11.790  1.00198.53      B    C
ATOM   6634  CA  THR B1862      -5.575 -16.723  11.593  1.00200.21      B    C
ATOM   6641  CA  LEU B1863      -3.857 -16.213  14.964  1.00202.65      B    C
ATOM   6649  CA  ASN B1864      -5.225 -16.990  18.446  1.00205.82      B    C
ATOM   6657  CA  PRO B1865      -5.502 -16.278  22.104  1.00208.25      B    C
ATOM   6664  CA  ALA B1866      -2.913 -19.121  22.403  1.00211.23      B    C
ATOM   6669  CA  HIS B1867      -0.224 -16.839  20.721  1.00212.88      B    C
ATOM   6679  CA  GLY B1868       0.886 -17.402  17.115  1.00213.58      B    C
ATOM   6683  CA  ARG B1869      -1.304 -19.657  14.992  1.00214.47      B    C
ATOM   6694  CA  GLN B1870      -1.993 -23.395  14.862  1.00213.82      B    C
ATOM   6703  CA  VAL B1871      -5.195 -24.099  12.832  1.00213.41      B    C
ATOM   6710  CA  THR B1872      -3.629 -27.343  11.527  1.00213.07      B    C
ATOM   6717  CA  VAL B1873      -0.348 -25.370  11.361  1.00209.56      B    C
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ATOM   6724  CA  GLN B1874       2.973 -26.102  13.121  1.00205.63      B    C
ATOM   6733  CA  GLU B1875       5.491 -23.744  11.600  1.00202.20      B    C
ATOM   6742  CA  PHE B1876       9.298 -23.794  11.328  1.00199.21      B    C
ATOM   6753  CA  ALA B1877      11.826 -21.260  10.020  1.00196.53      B    C
ATOM   6758  CA  LEU B1878      15.107 -22.208   8.236  1.00195.03      B    C
ATOM   6766  CA  PHE B1879      17.978 -19.686   7.960  1.00195.32      B    C
ATOM   6777  CA  LEU B1880      20.559 -20.925   5.475  1.00194.17      B    C
ATOM   6785  CA  THR B1881      23.782 -18.796   5.422  1.00194.91      B    C
ATOM   6792  CA  ILE B1882      27.501 -19.655   5.406  1.00194.68      B    C
ATOM   6800  CA  PHE B1883      28.742 -17.589   8.351  1.00195.50      B    C
ATOM   6811  CA  ASP B1884      32.247 -16.033   8.272  1.00196.61      B    C
ATOM   6819  CA  GLU B1885      34.452 -14.131  10.728  1.00197.66      B    C
ATOM   6828  CA  THR B1886      36.310 -11.498   8.848  1.00199.53      B    C
ATOM   6835  CA  LYS B1887      33.092  -9.864  10.040  1.00200.51      B    C
ATOM   6844  CA  SER B1888      31.916  -8.379  13.407  1.00202.28      B    C
ATOM   6850  CA  TRP B1889      34.454  -7.799  16.220  1.00204.36      B    C
ATOM   6864  CA  TYR B1890      36.040 -11.279  15.629  1.00205.11      B    C
ATOM   6876  CA  PHE B1891      39.386  -9.821  16.789  1.00204.93      B    C
ATOM   6887  CA  THR B1892      38.000 -10.423  20.318  1.00205.34      B    C
ATOM   6894  CA  GLU B1893      38.085 -14.143  19.447  1.00205.86      B    C
ATOM   6903  CA  ASN B1894      41.336 -14.827  17.599  1.00206.79      B    C
ATOM   6911  CA  MET B1895      43.532 -13.682  20.470  1.00208.19      B    C
ATOM   6919  CA  GLU B1896      40.780 -14.015  23.092  1.00209.37      B    C
ATOM   6928  CA  ARG B1897      40.702 -17.789  22.759  1.00209.70      B    C
ATOM   6939  CA  ASN B1898      42.930 -20.240  20.798  1.00210.77      B    C
ATOM   6947  CA  CYS B1899      46.051 -18.265  21.724  1.00212.77      B    C
ATOM   6953  CA  ARG B1900      48.377 -17.575  24.675  1.00213.61      B    C
ATOM   6964  CA  ALA B1901      52.137 -18.381  24.651  1.00214.63      B    C
ATOM   6969  CA  PRO B1902      51.428 -21.078  21.962  1.00215.26      B    C
ATOM   6976  CA  CYS B1903      50.328 -18.639  19.223  1.00215.51      B    C
ATOM   6982  CA  ASN B1904      51.564 -17.015  15.948  1.00215.51      B    C
ATOM   6990  CA  ILE B1905      50.184 -19.839  13.761  1.00215.19      B    C
ATOM   6998  CA  GLN B1906      48.293 -19.021  10.490  1.00214.99      B    C
ATOM   7007  CA  MET B1907      47.464 -15.298   9.987  1.00214.06      B    C
ATOM   7015  CA  GLU B1908      44.974 -15.529   7.055  1.00213.38      B    C
ATOM   7024  CA  ASP B1909      46.692 -18.365   5.068  1.00212.21      B    C
ATOM   7032  CA  PRO B1910      44.665 -21.648   4.699  1.00210.66      B    C
ATOM   7039  CA  THR B1911      43.074 -20.830   8.108  1.00208.83      B    C
ATOM   7046  CA  PHE B1912      39.527 -19.882   6.968  1.00206.96      B    C
ATOM   7057  CA  LYS B1913      37.813 -20.420  10.365  1.00204.66      B    C
ATOM   7066  CA  GLU B1914      34.182 -20.442   9.081  1.00203.66      B    C
ATOM   7075  CA  ASN B1915      35.131 -21.825   5.701  1.00202.96      B    C
ATOM   7083  CA  TYR B1916      36.728 -24.226   8.234  1.00203.80      B    C
ATOM   7095  CA  ARG B1917      33.184 -24.775   9.523  1.00204.10      B    C
ATOM   7106  CA  PHE B1918      30.134 -22.546   9.299  1.00203.37      B    C
ATOM   7117  CA  HIS B1919      27.418 -23.714   6.869  1.00203.18      B    C
ATOM   7127  CA  ALA B1920      24.368 -22.525   8.805  1.00204.07      B    C
ATOM   7132  CA  ILE B1921      20.791 -23.823   8.990  1.00203.62      B    C
ATOM   7140  CA  ASN B1922      20.707 -21.501  12.021  1.00203.78      B    C
ATOM   7148  CA  GLY B1923      24.026 -21.870  13.742  1.00204.40      B    C
ATOM   7152  CA  TYR B1924      23.185 -25.188  15.424  1.00204.61      B    C
ATOM   7164  CA  ILE B1925      24.585 -26.295  12.118  1.00203.18      B    C
ATOM   7172  CA  MET B1926      27.066 -28.840  12.633  1.00202.48      B    C
ATOM   7180  CA  ASP B1927      25.412 -31.671  10.783  1.00200.56      B    C
ATOM   7188  CA  THR B1928      22.599 -31.561  13.392  1.00199.27      B    C
ATOM   7195  CA  LEU B1929      20.273 -28.838  14.864  1.00197.96      B    C
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ATOM   7203  CA  PRO B1930      17.547 -29.601  17.443  1.00197.99      B    C
ATOM   7210  CA  GLY B1931      13.839 -28.772  17.357  1.00197.97      B    C
ATOM   7214  CA  LEU B1932      12.272 -30.390  14.323  1.00198.06      B    C
ATOM   7222  CA  VAL B1933       9.332 -32.082  16.042  1.00199.16      B    C
ATOM   7229  CA  MET B1934       6.153 -32.750  14.024  1.00199.70      B    C
ATOM   7237  CA  ALA B1935       2.990 -34.882  13.798  1.00199.95      B    C
ATOM   7242  CA  GLN B1936       2.996 -37.021  10.671  1.00200.42      B    C
ATOM   7251  CA  ASP B1937      -0.248 -35.293   9.656  1.00201.09      B    C
ATOM   7259  CA  GLN B1938      -0.819 -31.790  11.120  1.00200.53      B    C
ATOM   7268  CA  ARG B1939       0.520 -30.397   7.827  1.00200.07      B    C
ATOM   7279  CA  ILE B1940       3.608 -28.333   8.362  1.00197.45      B    C
ATOM   7287  CA  ARG B1941       4.497 -24.952   6.912  1.00195.76      B    C
ATOM   7298  CA  TRP B1942       8.195 -24.233   6.285  1.00194.39      B    C
ATOM   7312  CA  TYR B1943       9.652 -20.709   6.270  1.00193.88      B    C
ATOM   7324  CA  LEU B1944      12.813 -20.835   4.132  1.00194.01      B    C
ATOM   7332  CA  LEU B1945      14.925 -17.591   4.011  1.00195.09      B    C
ATOM   7340  CA  SER B1946      18.512 -17.716   2.602  1.00197.01      B    C
ATOM   7346  CA  MET B1947      20.835 -14.803   3.383  1.00198.89      B    C
ATOM   7354  CA  GLY B1948      24.606 -14.096   3.425  1.00199.34      B    C
ATOM   7358  CA  SER B1949      26.802 -13.204   0.419  1.00198.91      B    C
ATOM   7364  CA  ASN B1950      26.817 -13.751  -3.341  1.00197.58      B    C
ATOM   7372  CA  GLU B1951      27.644 -17.442  -3.372  1.00196.64      B    C
ATOM   7381  CA  ASN B1952      24.895 -18.005  -0.840  1.00194.74      B    C
ATOM   7389  CA  ILE B1953      22.506 -19.760  -3.210  1.00192.83      B    C
ATOM   7397  CA  HIS B1954      21.305 -22.822  -1.385  1.00191.19      B    C
ATOM   7407  CA  SER B1955      19.204 -25.515  -2.955  1.00190.05      B    C
ATOM   7413  CA  ILE B1956      17.406 -27.380  -0.124  1.00189.36      B    C
ATOM   7421  CA  HIS B1957      15.144 -30.403  -0.065  1.00189.69      B    C
ATOM   7431  CA  PHE B1958      13.600 -32.852   2.368  1.00189.09      B    C
ATOM   7442  CA  SER B1959      14.328 -36.461   1.506  1.00189.81      B    C
ATOM   7448  CA  GLY B1960      11.324 -38.632   0.623  1.00191.81      B    C
ATOM   7452  CA  HIS B1961       8.959 -35.721   1.022  1.00192.23      B    C
ATOM   7462  CA  VAL B1962       7.405 -33.224  -1.402  1.00191.90      B    C
ATOM   7469  CA  PHE B1963       5.965 -29.781  -0.845  1.00192.40      B    C
ATOM   7480  CA  THR B1964       3.674 -27.346  -2.590  1.00192.82      B    C
ATOM   7487  CA  VAL B1965       4.427 -23.654  -3.326  1.00193.70      B    C
ATOM   7494  CA  ARG B1966       1.998 -20.860  -4.098  1.00196.73      B    C
ATOM   7505  CA  LYS B1967       2.626 -17.867  -6.333  1.00197.67      B    C
ATOM   7514  CA  LYS B1968       0.262 -17.303  -9.202  1.00198.72      B    C
ATOM   7523  CA  GLU B1969      -1.219 -20.704  -8.234  1.00198.67      B    C
ATOM   7532  CA  GLU B1970       0.130 -23.640  -6.305  1.00198.85      B    C
ATOM   7541  CA  TYR B1971       2.531 -25.948  -8.090  1.00198.88      B    C
ATOM   7553  CA  LYS B1972       4.321 -28.989  -6.701  1.00198.08      B    C
ATOM   7562  CA  MET B1973       8.072 -29.077  -6.135  1.00197.37      B    C
ATOM   7570  CA  ALA B1974      10.807 -31.323  -4.654  1.00196.30      B    C
ATOM   7575  CA  LEU B1975      13.562 -28.778  -3.818  1.00196.49      B    C
ATOM   7583  CA  TYR B1976      13.982 -24.999  -3.821  1.00197.76      B    C
ATOM   7595  CA  ASN B1977      16.952 -22.873  -4.861  1.00198.41      B    C
ATOM   7603  CA  LEU B1978      16.740 -20.438  -2.036  1.00198.80      B    C
ATOM   7611  CA  TYR B1979      18.225 -17.154  -3.111  1.00198.77      B    C
ATOM   7623  CA  PRO B1980      19.710 -14.455  -0.939  1.00199.76      B    C
ATOM   7630  CA  GLY B1981      16.763 -12.107  -0.217  1.00201.18      B    C
ATOM   7634  CA  VAL B1982      13.948 -14.458  -1.290  1.00202.71      B    C
ATOM   7641  CA  PHE B1983      11.824 -15.354   1.681  1.00204.55      B    C
ATOM   7652  CA  GLU B1984      10.041 -18.567   0.909  1.00202.23      B    C
ATOM   7661  CA  THR B1985       6.903 -20.018   2.397  1.00200.00      B    C
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ATOM   7668  CA  VAL B1986       6.117 -23.603   1.455  1.00197.84      B    C
ATOM   7675  CA  GLU B1987       3.809 -26.293   2.977  1.00196.84      B    C
ATOM   7684  CA  MET B1988       3.811 -30.135   3.016  1.00195.63      B    C
ATOM   7692  CA  LEU B1989       1.916 -33.140   4.395  1.00195.44      B    C
ATOM   7700  CA  PRO B1990       4.690 -35.470   5.701  1.00195.69      B    C
ATOM   7707  CA  SER B1991       2.593 -38.670   5.433  1.00197.36      B    C
ATOM   7713  CA  LYS B1992       5.697 -40.909   5.748  1.00197.87      B    C
ATOM   7722  CA  ALA B1993       6.396 -41.735   9.386  1.00197.21      B    C
ATOM   7727  CA  GLY B1994       9.858 -42.190  10.862  1.00196.99      B    C
ATOM   7731  CA  ILE B1995      12.993 -40.023  11.017  1.00196.25      B    C
ATOM   7739  CA  TRP B1996      14.409 -37.861   8.198  1.00195.36      B    C
ATOM   7753  CA  ARG B1997      16.571 -34.709   7.381  1.00195.26      B    C
ATOM   7764  CA  VAL B1998      17.050 -31.412   5.425  1.00194.54      B    C
ATOM   7771  CA  GLU B1999      20.173 -30.898   3.246  1.00194.07      B    C
ATOM   7780  CA  CYS B2000      21.373 -28.215   0.853  1.00192.81      B    C
ATOM   7786  CA  LEU B2001      21.838 -30.509  -2.079  1.00190.99      B    C
ATOM   7794  CA  ILE B2002      24.791 -28.448  -3.349  1.00191.25      B    C
ATOM   7802  CA  GLY B2003      27.588 -31.043  -3.247  1.00191.41      B    C
ATOM   7806  CA  GLU B2004      30.294 -29.088  -1.426  1.00192.75      B    C
ATOM   7815  CA  HIS B2005      27.793 -27.501   0.958  1.00192.65      B    C
ATOM   7825  CA  LEU B2006      26.375 -30.830   2.161  1.00191.37      B    C
ATOM   7833  CA  HIS B2007      29.884 -32.125   2.827  1.00190.64      B    C
ATOM   7843  CA  ALA B2008      30.570 -29.457   5.422  1.00189.53      B    C
ATOM   7848  CA  GLY B2009      27.323 -29.124   7.325  1.00188.66      B    C
ATOM   7852  CA  MET B2010      23.734 -29.374   6.096  1.00188.20      B    C
ATOM   7860  CA  SER B2011      22.745 -33.078   6.914  1.00188.56      B    C
ATOM   7866  CA  THR B2012      20.497 -31.827   9.729  1.00188.84      B    C
ATOM   7873  CA  LEU B2013      17.755 -34.216  10.958  1.00188.43      B    C
ATOM   7881  CA  PHE B2014      13.975 -33.847  11.388  1.00186.43      B    C
ATOM   7892  CA  LEU B2015      11.573 -36.365  12.927  1.00186.32      B    C
ATOM   7900  CA  VAL B2016       7.961 -37.382  12.181  1.00187.23      B    C
ATOM   7907  CA  TYR B2017       5.992 -39.467  14.670  1.00189.61      B    C
ATOM   7919  CA  SER B2018       2.539 -40.959  14.453  1.00192.51      B    C
ATOM   7925  CA  ASN B2019       0.324 -39.991  17.352  1.00195.15      B    C
ATOM   7933  CA  LYS B2020      -1.681 -43.122  16.660  1.00197.65      B    C
ATOM   7942  CA  CYS B2021       1.299 -44.623  18.502  1.00199.69      B    C
ATOM   7948  CA  GLN B2022       0.803 -44.441  22.228  1.00199.56      B    C
ATOM   7957  CA  THR B2023       1.283 -47.402  24.555  1.00198.43      B    C
ATOM   7964  CA  PRO B2024       2.013 -47.448  28.258  1.00197.81      B    C
ATOM   7971  CA  LEU B2025       5.810 -47.193  28.398  1.00198.39      B    C
ATOM   7979  CA  GLY B2026       5.893 -50.066  30.942  1.00199.47      B    C
ATOM   7983  CA  MET B2027       5.235 -49.423  34.637  1.00199.75      B    C
ATOM   7991  CA  ALA B2028       3.313 -52.587  35.101  1.00201.46      B    C
ATOM   7996  CA  SER B2029       5.080 -54.120  32.110  1.00205.11      B    C
ATOM   8002  CA  GLY B2030       8.455 -52.460  32.586  1.00207.06      B    C
ATOM   8006  CA  HIS B2031      11.340 -53.036  34.872  1.00208.59      B    C
ATOM   8016  CA  ILE B2032      11.178 -54.685  38.356  1.00210.81      B    C
ATOM   8024  CA  ARG B2033      13.083 -51.927  40.224  1.00212.03      B    C
ATOM   8035  CA  ASP B2034      14.342 -49.724  37.405  1.00213.01      B    C
ATOM   8043  CA  PHE B2035      15.442 -46.216  38.501  1.00213.85      B    C
ATOM   8054  CA  GLN B2036      14.319 -43.844  41.284  1.00212.86      B    C
ATOM   8063  CA  ILE B2037      16.361 -40.890  42.719  1.00212.16      B    C
ATOM   8071  CA  THR B2038      19.661 -40.354  44.722  1.00212.45      B    C
ATOM   8078  CA  ALA B2039      18.468 -38.545  47.948  1.00211.80      B    C
ATOM   8083  CA  SER B2040      15.116 -36.981  47.020  1.00210.11      B    C
ATOM   8089  CA  GLY B2041      12.820 -39.686  48.330  1.00209.48      B    C
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ATOM   8093  CA  GLN B2042      12.545 -41.600  51.577  1.00208.53      B    C
ATOM   8102  CA  TYR B2043       9.982 -42.927  54.019  1.00207.68      B    C
ATOM   8114  CA  GLY B2044      10.699 -46.557  55.069  1.00207.81      B    C
ATOM   8118  CA  GLN B2045       8.032 -47.667  52.583  1.00208.19      B    C
ATOM   8127  CA  TRP B2046      10.374 -46.236  50.041  1.00209.18      B    C
ATOM   8141  CA  ALA B2047      10.459 -44.341  46.783  1.00208.02      B    C
ATOM   8146  CA  PRO B2048       9.971 -45.975  43.474  1.00206.67      B    C
ATOM   8153  CA  LYS B2049      11.163 -49.471  43.806  1.00205.53      B    C
ATOM   8162  CA  LEU B2050       7.373 -49.619  43.873  1.00203.24      B    C
ATOM   8170  CA  ALA B2051       5.844 -46.282  42.741  1.00200.41      B    C
ATOM   8175  CA  ARG B2052       3.838 -47.589  39.785  1.00198.91      B    C
ATOM   8186  CA  LEU B2053       0.244 -47.043  38.779  1.00199.31      B    C
ATOM   8194  CA  HIS B2054      -2.415 -49.317  40.340  1.00199.99      B    C
ATOM   8204  CA  TYR B2055       0.088 -51.025  42.663  1.00199.93      B    C
ATOM   8216  CA  SER B2056      -2.104 -52.680  45.346  1.00199.66      B    C
ATOM   8222  CA  GLY B2057      -1.181 -53.139  49.014  1.00198.75      B    C
ATOM   8226  CA  SER B2058      -0.416 -51.089  52.102  1.00197.47      B    C
ATOM   8232  CA  ILE B2059       3.355 -50.657  51.341  1.00196.19      B    C
ATOM   8240  CA  ASN B2060       2.511 -49.027  47.974  1.00195.10      B    C
ATOM   8248  CA  ALA B2061       4.033 -46.076  45.990  1.00194.88      B    C
ATOM   8253  CA  TRP B2062       6.376 -43.069  46.508  1.00194.72      B    C
ATOM   8267  CA  SER B2063       6.480 -41.226  49.796  1.00196.26      B    C
ATOM   8273  CA  THR B2064       8.531 -38.196  50.987  1.00197.28      B    C
ATOM   8280  CA  LYS B2065       7.760 -35.321  53.313  1.00197.70      B    C
ATOM   8289  CA  GLU B2066      10.277 -33.210  51.461  1.00198.77      B    C
ATOM   8298  CA  PRO B2067       9.782 -29.549  50.341  1.00198.81      B    C
ATOM   8305  CA  PHE B2068      12.523 -30.223  47.779  1.00198.93      B    C
ATOM   8316  CA  SER B2069      11.741 -33.526  46.044  1.00198.06      B    C
ATOM   8322  CA  TRP B2070      11.862 -35.505  42.764  1.00197.24      B    C
ATOM   8336  CA  ILE B2071      11.833 -38.928  41.014  1.00196.44      B    C
ATOM   8344  CA  LYS B2072      13.700 -40.154  37.959  1.00195.59      B    C
ATOM   8353  CA  VAL B2073      13.076 -42.839  35.357  1.00194.46      B    C
ATOM   8360  CA  ASP B2074      15.857 -44.131  33.126  1.00193.35      B    C
ATOM   8368  CA  LEU B2075      13.976 -45.112  29.980  1.00191.23      B    C
ATOM   8376  CA  LEU B2076      17.310 -46.726  28.937  1.00190.47      B    C
ATOM   8384  CA  ALA B2077      17.021 -45.178  25.434  1.00189.97      B    C
ATOM   8389  CA  PRO B2078      15.951 -41.927  23.721  1.00189.67      B    C
ATOM   8396  CA  MET B2079      12.126 -42.264  23.679  1.00189.89      B    C
ATOM   8404  CA  ILE B2080       9.012 -40.277  22.694  1.00190.73      B    C
ATOM   8412  CA  ILE B2081       6.918 -39.430  25.760  1.00191.47      B    C
ATOM   8420  CA  HIS B2082       3.351 -38.213  24.875  1.00191.35      B    C
ATOM   8430  CA  GLY B2083       2.040 -38.071  28.452  1.00190.37      B    C
ATOM   8434  CA  ILE B2084       1.980 -39.347  32.051  1.00189.35      B    C
ATOM   8442  CA  LYS B2085      -0.868 -40.923  34.018  1.00188.42      B    C
ATOM   8451  CA  THR B2086      -0.399 -39.778  37.553  1.00188.99      B    C
ATOM   8458  CA  GLN B2087      -2.207 -41.032  40.662  1.00189.70      B    C
ATOM   8467  CA  GLY B2088      -2.063 -40.896  44.505  1.00190.72      B    C
ATOM   8471  CA  ALA B2089      -1.943 -43.209  47.505  1.00191.22      B    C
ATOM   8476  CA  ARG B2090      -4.103 -43.825  50.664  1.00191.52      B    C
ATOM   8487  CA  GLN B2091      -2.868 -43.895  54.314  1.00190.79      B    C
ATOM   8496  CA  LYS B2092      -4.186 -44.613  57.810  1.00190.97      B    C
ATOM   8505  CA  PHE B2093      -7.380 -42.641  57.108  1.00191.17      B    C
ATOM   8516  CA  SER B2094      -5.511 -39.932  55.226  1.00191.02      B    C
ATOM   8522  CA  SER B2095      -6.001 -38.850  51.614  1.00191.28      B    C
ATOM   8528  CA  LEU B2096      -2.472 -38.035  50.295  1.00191.32      B    C
ATOM   8536  CA  TYR B2097      -1.264 -37.200  46.783  1.00192.58      B    C
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ATOM   8548  CA  ILE B2098       0.652 -34.503  44.787  1.00192.42      B    C
ATOM   8556  CA  SER B2099      -1.466 -31.600  43.611  1.00193.13      B    C
ATOM   8562  CA  GLN B2100       0.932 -29.826  41.287  1.00193.21      B    C
ATOM   8571  CA  PHE B2101       4.114 -30.630  39.376  1.00192.27      B    C
ATOM   8582  CA  ILE B2102       6.647 -29.512  36.762  1.00190.96      B    C
ATOM   8590  CA  ILE B2103       8.393 -31.837  34.378  1.00191.79      B    C
ATOM   8598  CA  MET B2104      12.088 -31.685  33.452  1.00192.85      B    C
ATOM   8606  CA  TYR B2105      13.897 -34.061  31.093  1.00194.39      B    C
ATOM   8618  CA  SER B2106      17.310 -35.104  29.873  1.00196.00      B    C
ATOM   8624  CA  LEU B2107      18.148 -36.785  26.576  1.00196.85      B    C
ATOM   8632  CA  ASP B2108      21.662 -37.425  27.821  1.00198.22      B    C
ATOM   8640  CA  GLY B2109      22.083 -37.290  31.604  1.00198.84      B    C
ATOM   8644  CA  LYS B2110      24.369 -34.233  31.738  1.00199.61      B    C
ATOM   8653  CA  LYS B2111      22.567 -30.891  30.973  1.00199.89      B    C
ATOM   8662  CA  TRP B2112      18.868 -30.846  31.841  1.00200.34      B    C
ATOM   8676  CA  GLN B2113      16.138 -28.226  31.614  1.00201.29      B    C
ATOM   8685  CA  THR B2114      12.470 -27.475  32.474  1.00200.76      B    C
ATOM   8692  CA  TYR B2115       9.423 -27.829  30.183  1.00199.96      B    C
ATOM   8704  CA  ARG B2116       7.057 -25.499  28.359  1.00200.91      B    C
ATOM   8715  CA  GLY B2117       4.065 -27.346  26.926  1.00202.08      B    C
ATOM   8719  CA  ASN B2118       2.581 -25.328  24.103  1.00203.37      B    C
ATOM   8727  CA  SER B2119       2.747 -21.521  24.527  1.00203.88      B    C
ATOM   8733  CA  THR B2120       2.087 -21.684  28.301  1.00203.60      B    C
ATOM   8740  CA  GLY B2121       4.162 -18.985  30.091  1.00203.13      B    C
ATOM   8744  CA  THR B2122       7.646 -19.488  31.558  1.00202.63      B    C
ATOM   8751  CA  LEU B2123       7.301 -22.939  32.969  1.00202.70      B    C
ATOM   8759  CA  MET B2124       4.786 -25.741  32.426  1.00202.51      B    C
ATOM   8767  CA  VAL B2125       2.748 -26.242  35.578  1.00202.00      B    C
ATOM   8774  CA  PHE B2126       0.932 -29.589  35.720  1.00201.65      B    C
ATOM   8785  CA  PHE B2127      -2.211 -30.423  37.713  1.00202.21      B    C
ATOM   8796  CA  GLY B2128      -1.868 -33.456  40.013  1.00202.20      B    C
ATOM   8800  CA  ASN B2129      -4.542 -35.708  41.522  1.00201.50      B    C
ATOM   8808  CA  VAL B2130      -7.367 -34.963  43.911  1.00200.64      B    C
ATOM   8815  CA  ASP B2131      -7.517 -38.217  45.861  1.00199.46      B    C
ATOM   8823  CA  SER B2132      -6.162 -41.724  46.359  1.00197.78      B    C
ATOM   8829  CA  SER B2133      -7.362 -42.905  42.918  1.00197.98      B    C
ATOM   8835  CA  GLY B2134      -7.151 -39.722  40.839  1.00198.90      B    C
ATOM   8839  CA  ILE B2135      -5.695 -41.144  37.609  1.00198.51      B    C
ATOM   8847  CA  LYS B2136      -5.135 -37.724  35.944  1.00197.68      B    C
ATOM   8856  CA  HIS B2137      -3.721 -38.729  32.585  1.00196.77      B    C
ATOM   8866  CA  ASN B2138      -1.682 -35.665  31.645  1.00194.17      B    C
ATOM   8874  CA  ILE B2139      -0.632 -35.288  27.972  1.00193.12      B    C
ATOM   8882  CA  PHE B2140       2.430 -33.465  26.690  1.00191.90      B    C
ATOM   8893  CA  ASN B2141       0.953 -30.886  24.256  1.00190.38      B    C
ATOM   8901  CA  PRO B2142       4.032 -30.864  22.161  1.00188.21      B    C
ATOM   8908  CA  PRO B2143       5.618 -34.252  22.864  1.00187.10      B    C
ATOM   8915  CA  ILE B2144       8.904 -34.919  24.666  1.00186.89      B    C
ATOM   8923  CA  ILE B2145      11.953 -36.810  23.450  1.00187.29      B    C
ATOM   8931  CA  ALA B2146      14.059 -37.893  26.454  1.00188.12      B    C
ATOM   8936  CA  ARG B2147      15.807 -40.773  28.214  1.00189.30      B    C
ATOM   8947  CA  TYR B2148      15.281 -39.375  31.703  1.00189.64      B    C
ATOM   8959  CA  ILE B2149      12.239 -37.696  33.259  1.00189.28      B    C
ATOM   8967  CA  ARG B2150      12.125 -35.945  36.608  1.00190.73      B    C
ATOM   8978  CA  LEU B2151       8.911 -35.196  38.369  1.00191.73      B    C
ATOM   8986  CA  HIS B2152       9.037 -32.381  40.922  1.00191.99      B    C
ATOM   8996  CA  PRO B2153       6.128 -31.650  43.342  1.00192.33      B    C
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ATOM   9003  CA  THR B2154       4.657 -28.046  43.515  1.00193.41      B    C
ATOM   9010  CA  HIS B2155       2.148 -29.002  46.185  1.00194.33      B    C
ATOM   9020  CA  TYR B2156       1.286 -32.095  48.204  1.00194.57      B    C
ATOM   9032  CA  SER B2157      -1.322 -33.429  50.634  1.00194.64      B    C
ATOM   9038  CA  ILE B2158       0.299 -34.971  53.651  1.00195.43      B    C
ATOM   9046  CA  ARG B2159       3.402 -36.113  51.804  1.00195.70      B    C
ATOM   9057  CA  SER B2160       4.627 -35.613  48.259  1.00196.44      B    C
ATOM   9063  CA  THR B2161       3.065 -38.991  47.262  1.00195.72      B    C
ATOM   9070  CA  LEU B2162       2.904 -40.621  43.851  1.00194.60      B    C
ATOM   9078  CA  ARG B2163       2.305 -43.619  41.667  1.00196.12      B    C
ATOM   9089  CA  MET B2164       2.422 -43.183  37.851  1.00196.84      B    C
ATOM   9097  CA  GLU B2165       2.622 -44.600  34.327  1.00196.90      B    C
ATOM   9106  CA  LEU B2166       4.190 -43.083  31.180  1.00197.98      B    C
ATOM   9114  CA  MET B2167       2.715 -42.605  27.716  1.00200.00      B    C
ATOM   9122  CA  GLY B2168       4.595 -42.936  24.453  1.00201.05      B    C
ATOM   9126  CA  CYS B2169       6.771 -45.158  22.276  1.00202.86      B    C
ATOM   9132  CA  ASP B2170       9.938 -45.288  20.200  1.00204.22      B    C
ATOM   9140  CA  LEU B2171      10.888 -42.733  17.538  1.00204.36      B    C
ATOM   9148  CA  ASN B2172       8.915 -45.099  15.478  1.00205.48      B    C
ATOM   9156  CA  SER B2173       9.834 -48.674  16.231  1.00207.25      B    C
ATOM   9162  CA  CYS B2174       6.025 -48.691  16.217  1.00207.17      B    C
ATOM   9168  CA  SER B2175       5.527 -49.942  19.763  1.00205.50      B    C
ATOM   9174  CA  MET B2176       1.856 -50.523  18.899  1.00203.77      B    C
ATOM   9182  CA  PRO B2177      -0.042 -53.914  18.929  1.00203.61      B    C
ATOM   9189  CA  LEU B2178       0.043 -55.411  15.445  1.00203.51      B    C
ATOM   9197  CA  GLY B2179      -3.479 -56.905  15.471  1.00203.74      B    C
ATOM   9201  CA  MET B2180      -3.573 -60.008  17.688  1.00203.43      B    C
ATOM   9209  CA  GLU B2181      -5.695 -58.197  20.252  1.00203.68      B    C
ATOM   9218  CA  SER B2182      -7.973 -56.117  18.059  1.00203.75      B    C
ATOM   9224  CA  LYS B2183      -8.129 -59.295  15.882  1.00203.40      B    C
ATOM   9233  CA  ALA B2184      -7.132 -57.393  12.749  1.00202.50      B    C
ATOM   9238  CA  ILE B2185      -5.436 -60.721  12.069  1.00200.89      B    C
ATOM   9246  CA  SER B2186      -8.210 -63.180  11.179  1.00200.32      B    C
ATOM   9252  CA  ASP B2187      -8.723 -66.549  12.899  1.00200.33      B    C
ATOM   9260  CA  ALA B2188      -7.867 -67.991   9.453  1.00199.19      B    C
ATOM   9265  CA  GLN B2189      -4.565 -66.074   9.428  1.00197.77      B    C
ATOM   9274  CA  ILE B2190      -2.786 -68.228  12.056  1.00196.38      B    C
ATOM   9282  CA  THR B2191      -1.978 -71.917  12.064  1.00196.72      B    C
ATOM   9289  CA  ALA B2192       0.111 -73.921  14.487  1.00197.45      B    C
ATOM   9294  CA  SER B2193       2.198 -77.074  14.445  1.00197.93      B    C
ATOM   9300  CA  SER B2194      -0.848 -78.890  15.853  1.00198.54      B    C
ATOM   9306  CA  TYR B2195      -3.837 -78.217  18.097  1.00199.22      B    C
ATOM   9318  CA  PHE B2196      -5.288 -80.104  21.052  1.00200.36      B    C
ATOM   9329  CA  THR B2197      -8.919 -81.084  20.385  1.00202.05      B    C
ATOM   9336  CA  ASN B2198     -11.640 -83.431  21.838  1.00203.35      B    C
ATOM   9344  CA  MET B2199     -15.246 -82.422  22.713  1.00204.33      B    C
ATOM   9352  CA  PHE B2200     -15.065 -80.249  25.867  1.00205.41      B    C
ATOM   9363  CA  ALA B2201     -12.220 -78.233  24.179  1.00205.44      B    C
ATOM   9368  CA  THR B2202     -10.600 -76.968  20.949  1.00205.09      B    C
ATOM   9375  CA  TRP B2203      -7.398 -75.161  21.891  1.00205.08      B    C
ATOM   9389  CA  SER B2204      -6.840 -74.094  18.273  1.00204.22      B    C
ATOM   9395  CA  PRO B2205      -3.958 -71.722  17.294  1.00203.44      B    C
ATOM   9402  CA  SER B2206      -6.587 -69.192  16.363  1.00202.94      B    C
ATOM   9408  CA  LYS B2207      -6.988 -68.553  20.090  1.00202.31      B    C
ATOM   9417  CA  ALA B2208      -3.491 -67.285  21.053  1.00202.24      B    C
ATOM   9422  CA  ARG B2209      -4.663 -63.811  22.046  1.00202.87      B    C
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ATOM   9433  CA  LEU B2210      -3.116 -61.622  24.750  1.00205.06      B    C
ATOM   9441  CA  HIS B2211      -6.319 -61.619  26.787  1.00205.98      B    C
ATOM   9451  CA  LEU B2212      -8.927 -64.135  25.745  1.00207.23      B    C
ATOM   9459  CA  GLN B2213     -11.638 -65.673  27.910  1.00209.49      B    C
ATOM   9468  CA  GLY B2214     -13.562 -68.935  27.275  1.00209.49      B    C
ATOM   9472  CA  ARG B2215     -13.556 -72.676  27.909  1.00208.82      B    C
ATOM   9483  CA  SER B2216     -10.751 -73.131  25.343  1.00206.05      B    C
ATOM   9489  CA  ASN B2217      -9.170 -69.718  25.658  1.00203.33      B    C
ATOM   9497  CA  ALA B2218      -5.692 -70.209  24.222  1.00201.74      B    C
ATOM   9502  CA  TRP B2219      -3.554 -72.233  21.833  1.00200.79      B    C
ATOM   9516  CA  ARG B2220      -2.242 -75.632  22.843  1.00201.16      B    C
ATOM   9527  CA  PRO B2221      -0.189 -78.189  20.814  1.00201.86      B    C
ATOM   9534  CA  GLN B2222      -1.520 -81.749  20.489  1.00202.20      B    C
ATOM   9543  CA  VAL B2223       1.359 -83.010  22.672  1.00202.37      B    C
ATOM   9550  CA  ASN B2224       4.381 -81.492  24.335  1.00202.87      B    C
ATOM   9558  CA  ASN B2225       7.554 -81.059  22.196  1.00203.30      B    C
ATOM   9566  CA  PRO B2226      10.243 -78.298  22.064  1.00202.58      B    C
ATOM   9573  CA  LYS B2227      10.411 -78.640  18.275  1.00201.86      B    C
ATOM   9582  CA  GLU B2228       6.760 -77.540  18.469  1.00201.86      B    C
ATOM   9591  CA  TRP B2229       5.675 -74.153  17.131  1.00201.26      B    C
ATOM   9605  CA  LEU B2230       3.055 -71.483  16.442  1.00200.58      B    C
ATOM   9613  CA  GLN B2231       2.878 -69.455  13.206  1.00199.89      B    C
ATOM   9622  CA  VAL B2232       1.425 -66.053  12.424  1.00199.27      B    C
ATOM   9629  CA  ASP B2233       0.996 -65.215   8.747  1.00197.93      B    C
ATOM   9637  CA  PHE B2234       0.812 -61.543   7.857  1.00196.73      B    C
ATOM   9648  CA  GLN B2235      -0.929 -61.202   4.532  1.00196.92      B    C
ATOM   9657  CA  LYS B2236       1.773 -58.512   3.893  1.00196.46      B    C
ATOM   9666  CA  THR B2237       5.393 -57.561   4.757  1.00195.71      B    C
ATOM   9673  CA  MET B2238       5.851 -56.339   8.337  1.00194.24      B    C
ATOM   9681  CA  LYS B2239       8.413 -54.871  10.755  1.00191.08      B    C
ATOM   9690  CA  VAL B2240       8.493 -56.273  14.338  1.00189.95      B    C
ATOM   9697  CA  THR B2241       9.510 -54.804  17.733  1.00190.11      B    C
ATOM   9704  CA  GLY B2242       8.726 -57.870  19.835  1.00190.40      B    C
ATOM   9708  CA  VAL B2243       6.222 -60.532  20.878  1.00191.24      B    C
ATOM   9715  CA  THR B2244       4.108 -60.150  24.068  1.00192.63      B    C
ATOM   9722  CA  THR B2245       3.626 -63.567  25.652  1.00193.81      B    C
ATOM   9729  CA  GLN B2246       1.262 -64.930  28.268  1.00195.54      B    C
ATOM   9738  CA  GLY B2247      -0.224 -68.202  29.582  1.00197.51      B    C
ATOM   9742  CA  VAL B2248      -3.697 -69.592  30.213  1.00198.59      B    C
ATOM   9749  CA  LYS B2249      -5.956 -69.853  33.223  1.00200.34      B    C
ATOM   9758  CA  SER B2250      -7.447 -73.314  32.531  1.00199.57      B    C
ATOM   9764  CA  LEU B2251      -9.669 -73.443  35.696  1.00198.56      B    C
ATOM   9772  CA  LEU B2252      -7.896 -76.844  35.924  1.00196.77      B    C
ATOM   9780  CA  THR B2253      -4.321 -75.638  36.707  1.00195.58      B    C
ATOM   9787  CA  SER B2254      -1.878 -72.917  35.652  1.00195.03      B    C
ATOM   9793  CA  MET B2255      -0.358 -73.072  32.131  1.00194.00      B    C
ATOM   9801  CA  TYR B2256       2.354 -70.851  30.537  1.00193.66      B    C
ATOM   9813  CA  VAL B2257       5.642 -70.902  28.563  1.00193.13      B    C
ATOM   9820  CA  LYS B2258       8.894 -70.157  30.429  1.00194.65      B    C
ATOM   9829  CA  GLU B2259      11.455 -69.830  27.563  1.00195.23      B    C
ATOM   9838  CA  PHE B2260      11.188 -69.667  23.779  1.00195.79      B    C
ATOM   9849  CA  LEU B2261      12.803 -69.070  20.375  1.00196.73      B    C
ATOM   9857  CA  ILE B2262      11.611 -67.256  17.259  1.00198.66      B    C
ATOM   9865  CA  SER B2263      11.948 -67.847  13.512  1.00201.48      B    C
ATOM   9871  CA  SER B2264      11.475 -65.538  10.489  1.00203.30      B    C
ATOM   9877  CA  SER B2265      10.651 -66.059   6.809  1.00204.28      B    C
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ATOM   9883  CA  GLN B2266       9.941 -64.168   3.589  1.00204.49      B    C
ATOM   9892  CA  ASP B2267       8.832 -67.220   1.604  1.00205.11      B    C
ATOM   9900  CA  GLY B2268       6.702 -68.720   4.412  1.00205.35      B    C
ATOM   9904  CA  HIS B2269       7.916 -72.286   3.770  1.00205.19      B    C
ATOM   9914  CA  GLN B2270      11.631 -72.091   4.737  1.00203.80      B    C
ATOM   9923  CA  TRP B2271      12.915 -70.403   7.870  1.00202.14      B    C
ATOM   9937  CA  THR B2272      15.841 -68.212   8.952  0.50201.78      B    C
ATOM   9944  CA  LEU B2273      15.529 -68.108  12.753  1.00202.29      B    C
ATOM   9952  CA  PHE B2274      16.448 -65.422  15.347  1.00203.50      B    C
ATOM   9963  CA  PHE B2275      19.944 -64.839  16.781  1.00204.77      B    C
ATOM   9974  CA  GLN B2276      21.785 -62.892  19.470  1.00204.98      B    C
ATOM   9983  CA  ASN B2277      25.302 -61.616  18.893  1.00204.12      B    C
ATOM   9991  CA  GLY B2278      26.266 -65.300  19.089  1.00202.51      B    C
ATOM   9995  CA  LYS B2279      23.957 -68.361  19.216  1.00200.38      B    C
ATOM  10004  CA  VAL B2280      20.137 -68.397  19.225  1.00198.75      B    C
ATOM  10011  CA  LYS B2281      18.099 -66.146  21.478  1.00198.21      B    C
ATOM  10020  CA  VAL B2282      16.996 -67.876  24.672  1.00199.38      B    C
ATOM  10027  CA  PHE B2283      13.904 -65.770  25.326  1.00200.49      B    C
ATOM  10038  CA  GLN B2284      12.877 -64.686  28.821  1.00201.27      B    C
ATOM  10047  CA  GLY B2285       9.233 -65.750  28.991  1.00201.80      B    C
ATOM  10051  CA  ASN B2286       6.246 -66.026  31.323  1.00200.93      B    C
ATOM  10059  CA  GLN B2287       5.705 -67.217  34.880  1.00199.79      B    C
ATOM  10068  CA  ASP B2288       1.868 -67.194  35.296  1.00198.35      B    C
ATOM  10076  CA  SER B2289      -1.632 -67.908  33.951  1.00197.47      B    C
ATOM  10082  CA  PHE B2290      -1.895 -64.139  33.457  1.00196.39      B    C
ATOM  10093  CA  THR B2291       0.711 -61.289  33.160  1.00194.75      B    C
ATOM  10100  CA  PRO B2292       2.168 -60.432  29.773  1.00193.88      B    C
ATOM  10107  CA  VAL B2293       5.840 -60.025  28.667  1.00194.34      B    C
ATOM  10114  CA  VAL B2294       7.613 -56.870  27.208  1.00194.33      B    C
ATOM  10121  CA  ASN B2295       9.839 -59.207  25.184  1.00194.09      B    C
ATOM  10129  CA  SER B2296      11.367 -57.274  22.228  1.00193.84      B    C
ATOM  10135  CA  LEU B2297      14.050 -57.754  19.569  1.00193.51      B    C
ATOM  10143  CA  ASP B2298      17.599 -56.304  19.254  1.00193.37      B    C
ATOM  10151  CA  PRO B2299      17.620 -56.136  15.490  1.00192.98      B    C
ATOM  10158  CA  PRO B2300      14.058 -55.132  14.625  1.00191.99      B    C
ATOM  10165  CA  LEU B2301      13.034 -58.140  12.521  1.00190.91      B    C
ATOM  10173  CA  LEU B2302      11.692 -57.365   9.034  1.00190.03      B    C
ATOM  10181  CA  THR B2303       9.485 -60.322   8.044  1.00189.60      B    C
ATOM  10188  CA  ARG B2304       6.020 -61.641   7.049  1.00189.44      B    C
ATOM  10199  CA  TYR B2305       6.110 -65.086   8.553  1.00188.82      B    C
ATOM  10211  CA  LEU B2306       6.657 -65.151  12.295  1.00189.19      B    C
ATOM  10219  CA  ARG B2307       6.917 -68.439  14.213  1.00190.30      B    C
ATOM  10230  CA  ILE B2308       6.983 -68.918  17.983  1.00192.07      B    C
ATOM  10238  CA  HIS B2309       9.292 -71.661  19.251  1.00194.02      B    C
ATOM  10248  CA  PRO B2310       8.533 -72.780  22.844  1.00194.00      B    C
ATOM  10255  CA  GLN B2311      11.488 -74.234  24.698  1.00194.68      B    C
ATOM  10264  CA  SER B2312      10.684 -74.540  28.380  1.00195.72      B    C
ATOM  10270  CA  TRP B2313       7.304 -74.322  30.003  1.00196.64      B    C
ATOM  10284  CA  VAL B2314       5.314 -74.891  33.223  1.00196.07      B    C
ATOM  10291  CA  HIS B2315       2.658 -77.663  33.172  1.00195.25      B    C
ATOM  10301  CA  GLN B2316       1.710 -77.810  29.500  1.00195.26      B    C
ATOM  10310  CA  ILE B2317       2.660 -75.583  26.595  1.00194.25      B    C
ATOM  10318  CA  ALA B2318       0.018 -72.817  26.585  1.00193.92      B    C
ATOM  10323  CA  LEU B2319      -0.035 -69.571  24.653  1.00194.14      B    C
ATOM  10331  CA  ARG B2320      -2.035 -66.379  24.567  1.00195.06      B    C
ATOM  10342  CA  MET B2321       0.098 -63.779  22.773  1.00196.84      B    C
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ATOM  10350  CA  GLU B2322       0.543 -60.604  20.691  1.00197.25      B    C
ATOM  10359  CA  VAL B2323       3.076 -59.011  18.253  1.00198.10      B    C
ATOM  10366  CA  LEU B2324       4.210 -55.371  18.304  1.00199.76      B    C
ATOM  10374  CA  GLY B2325       4.918 -53.408  15.120  1.00202.52      B    C
ATOM  10378  CA  CYS B2326       3.997 -51.965  11.713  1.00205.82      B    C
ATOM  10384  CA  GLU B2327       5.488 -52.341   8.154  1.00208.34      B    C
ATOM  10393  CA  ALA B2328       8.222 -51.160   5.792  1.00210.38      B    C
ATOM  10398  CA  GLN B2329       7.872 -51.667   1.994  1.00212.52      B    C
ATOM  10407  CA  ASP B2330       5.527 -54.410   0.757  1.00214.46      B    C
ATOM  10415  CA  LEU B2331       7.427 -57.663   0.059  1.00214.86      B    C
ATOM  10423  CA  TYR B2332      10.012 -56.216  -2.399  1.00215.21      B    C
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File (2 of 2): hum_FIX_ca.pdb

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ATOM      2  CA  TYR L   1     -11.903 -22.407  62.876  0.00 20.00      L    C
ATOM     14  CA  ASN L   2     -14.733 -24.931  63.207  0.00 20.00      L    C
ATOM     22  CA  SER L   3     -13.923 -26.175  66.702  0.00 20.00      L    C
ATOM     28  CA  GLY L   4     -16.352 -24.663  69.209  0.00 20.00      L    C
ATOM     32  CA  LYS L   5     -19.741 -26.355  69.378  0.00 20.00      L    C
ATOM     41  CA  LEU L   6     -22.128 -26.324  66.416  0.00 20.00      L    C
ATOM     49  CA  CGU L   7     -20.646 -23.372  64.562  0.00 20.00      L    C
ATOM     61  CA  CGU L   8     -21.401 -24.669  61.107  0.00 20.00      L    C
ATOM     73  CA  PHE L   9     -25.088 -24.347  61.958  0.00 20.00      L    C
ATOM     84  CA  VAL L  10     -24.708 -20.564  61.971  0.00 20.00      L    C
ATOM     91  CA  GLN L  11     -24.564 -18.360  58.877  0.00 20.00      L    C
ATOM    100  CA  GLY L  12     -20.920 -17.835  57.999  0.00 20.00      L    C
ATOM    104  CA  ASN L  13     -19.433 -14.580  59.227  0.00 20.00      L    C
ATOM    112  CA  LEU L  14     -16.028 -14.296  57.636  0.00 20.00      L    C
ATOM    120  CA  CGU L  15     -15.026 -11.502  59.994  0.00 20.00      L    C
ATOM    132  CA  ARG L  16     -15.074 -14.375  62.436  0.00 20.00      L    C
ATOM    143  CA  CGU L  17     -13.861 -17.493  60.654  0.00 20.00      L    C
ATOM    155  CA  CYS L  18     -11.198 -16.217  58.262  0.00 20.00      L    C
ATOM    161  CA  MET L  19      -8.670 -13.957  59.980  0.00 20.00      L    C
ATOM    169  CA  CGU L  20      -8.995 -15.066  63.450  0.00 20.00      L    C
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ATOM    181  CA  CGU L  21      -6.688 -17.937  63.266  0.00 20.00      L    C
ATOM    193  CA  LYS L  22      -6.985 -18.434  59.495  0.00 20.00      L    C
ATOM    202  CA  CYS L  23      -9.934 -19.774  57.467  0.00 20.00      L    C
ATOM    208  CA  SER L  24     -10.323 -22.282  54.685  0.00 20.00      L    C
ATOM    214  CA  PHE L  25     -11.401 -21.249  51.211  0.00 20.00      L    C
ATOM    225  CA  CGU L  26     -14.798 -22.889  51.571  0.00 20.00      L    C
ATOM    237  CA  CGU L  27     -15.547 -21.171  54.800  0.00 20.00      L    C
ATOM    249  CA  ALA L  28     -14.613 -18.008  52.931  0.00 20.00      L    C
ATOM    254  CA  ARG L  29     -16.656 -18.912  49.882  0.00 20.00      L    C
ATOM    265  CA  CGU L  30     -20.127 -19.681  51.278  0.00 20.00      L    C
ATOM    277  CA  VAL L  31     -19.777 -16.421  53.188  0.00 20.00      L    C
ATOM    284  CA  PHE L  32     -18.686 -14.378  50.212  0.00 20.00      L    C
ATOM    295  CA  CGU L  33     -21.246 -15.728  47.690  0.00 20.00      L    C
ATOM    307  CA  ASN L  34     -19.780 -13.991  44.623  0.00 20.00      L    C
ATOM    315  CA  THR L  35     -16.799 -16.043  43.909  0.00 20.00      L    C
ATOM    322  CA  CGU L  36     -15.098 -13.829  41.589  0.00 20.00      L    C
ATOM    334  CA  ARG L  37     -14.697 -11.708  44.749  0.00 20.00      L    C
ATOM    345  CA  THR L  38     -13.397 -14.750  46.646  0.00 20.00      L    C
ATOM    352  CA  THR L  39     -10.651 -15.559  44.140  0.00 20.00      L    C
ATOM    359  CA  CGU L  40      -8.942 -12.249  44.871  0.00 20.00      L    C
ATOM    371  CA  PHE L  41      -9.745 -11.782  48.582  0.00 20.00      L    C
ATOM    382  CA  TRP L  42      -7.683 -14.780  48.101  0.00 20.00      L    C
ATOM    396  CA  LYS L  43      -4.440 -14.238  46.180  0.00 20.00      L    C
ATOM    405  CA  GLN L  44      -2.758 -12.029  49.129  1.00 77.52      L    C
ATOM    414  CA  TYR L  45      -3.002 -14.792  51.646  1.00 71.96      L    C
ATOM    426  CA  VAL L  46      -0.738 -17.621  50.562  1.00 65.51      L    C
ATOM    433  CA  ASP L  47       1.260 -17.829  47.433  1.00 61.31      L    C
ATOM    441  CA  GLY L  48       4.291 -15.591  47.638  1.00 60.76      L    C
ATOM    445  CA  ASP L  49       2.514 -12.592  46.340  1.00 64.96      L    C
ATOM    453  CA  GLN L  50       3.910 -12.193  42.933  1.00 68.13      L    C
ATOM    462  CA  CYS L  51       3.558  -8.528  43.453  1.00 70.91      L    C
ATOM    468  CA  GLU L  52       6.238  -8.630  46.176  1.00 67.41      L    C
ATOM    477  CA  SER L  53       8.193  -5.401  46.378  1.00 63.27      L    C
ATOM    483  CA  ASN L  54       6.096  -3.611  43.770  1.00 60.24      L    C
ATOM    491  CA  PRO L  55       7.732  -4.276  40.473  1.00 57.26      L    C
ATOM    498  CA  CYS L  56       5.953  -1.705  38.417  1.00 55.33      L    C
ATOM    504  CA  LEU L  57       7.373   1.699  39.004  1.00 48.99      L    C
ATOM    512  CA  ASN L  58       6.409   5.053  37.634  1.00 41.04      L    C
ATOM    520  CA  GLY L  59       3.403   5.012  39.903  1.00 35.19      L    C
ATOM    524  CA  GLY L  60       2.311   1.773  38.359  1.00 34.69      L    C
ATOM    528  CA  SER L  61      -0.230  -0.151  40.319  1.00 40.14      L    C
ATOM    534  CA  CYS L  62       0.741  -3.775  40.722  1.00 49.20      L    C
ATOM    540  CA  LYS L  63      -2.113  -6.210  40.764  1.00 55.02      L    C
ATOM    549  CA  ASP L  64      -1.162  -9.721  41.844  1.00 56.11      L    C
ATOM    557  CA  ASP L  65      -3.043 -12.833  40.770  1.00 53.75      L    C
ATOM    565  CA  ILE L  66      -2.945 -16.409  41.780  1.00 50.15      L    C
ATOM    573  CA  ASN L  67      -0.473 -17.330  39.069  1.00 49.73      L    C
ATOM    581  CA  SER L  68       0.850 -14.054  37.775  1.00 53.17      L    C
ATOM    587  CA  TYR L  69       0.418 -10.354  38.203  1.00 58.65      L    C
ATOM    599  CA  GLU L  70      -0.094  -7.370  35.926  1.00 65.74      L    C
ATOM    608  CA  CYS L  71       0.639  -3.718  35.978  1.00 72.65      L    C
ATOM    614  CA  TRP L  72      -1.651  -0.758  35.555  1.00 75.88      L    C
ATOM    628  CA  CYS L  73       0.471   2.132  34.287  1.00 76.13      L    C
ATOM    634  CA  PRO L  74      -2.296   4.674  33.803  1.00 70.38      L    C
ATOM    641  CA  PHE L  75      -0.551   7.319  31.703  1.00 60.33      L    C
ATOM    652  CA  GLY L  76       2.736   8.060  29.957  1.00 49.94      L    C
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ATOM    656  CA  PHE L  77       4.337   4.715  30.691  1.00 42.59      L    C
ATOM    667  CA  GLU L  78       4.483   1.481  28.728  1.00 39.90      L    C
ATOM    676  CA  GLY L  79       5.984  -1.932  29.330  1.00 42.50      L    C
ATOM    680  CA  LYS L  80       5.148  -4.752  31.684  1.00 49.57      L    C
ATOM    689  CA  ASN L  81       6.727  -2.826  34.514  1.00 54.54      L    C
ATOM    697  CA  CYS L  82       5.918   0.661  33.259  1.00 56.77      L    C
ATOM    703  CA  GLU L  83       9.628   1.098  32.599  1.00 53.34      L    C
ATOM    712  CA  LEU L  84       9.300   2.485  29.135  1.00 46.85      L    C
ATOM    720  CA  ASP L  85       7.777   5.830  28.413  1.00 44.25      L    C
ATOM    728  CA  VAL L  86       4.729   5.989  26.236  1.00 44.53      L    C
ATOM    735  CA  THR L  87       5.442   7.185  22.743  1.00 50.39      L    C
ATOM    742  CA  CYS L  88       2.581   8.199  20.499  1.00 55.43      L    C
ATOM    748  CA  ASN L  89       3.450   5.500  17.961  1.00 55.55      L    C
ATOM    756  CA  ILE L  90       2.942   2.475  20.200  1.00 54.30      L    C
ATOM    764  CA  LYS L  91      -0.731   1.661  20.745  1.00 49.92      L    C
ATOM    773  CA  ASN L  92      -1.861   5.234  20.128  1.00 47.76      L    C
ATOM    781  CA  GLY L  93       0.036   6.310  23.212  1.00 48.66      L    C
ATOM    785  CA  ARG L  94      -2.821   4.778  25.189  1.00 52.01      L    C
ATOM    796  CA  CYS L  95      -4.893   7.862  24.407  1.00 56.98      L    C
ATOM    802  CA  GLU L  96      -8.445   7.258  23.348  1.00 62.68      L    C
ATOM    811  CA  GLN L  97      -8.471  10.020  20.823  1.00 66.16      L    C
ATOM    820  CA  PHE L  98      -5.394  12.014  19.952  1.00 65.53      L    C
ATOM    831  CA  CYS L  99      -1.814  11.821  21.141  1.00 62.50      L    C
ATOM    837  CA  LYS L 100       1.114  14.081  20.433  1.00 54.39      L    C
ATOM    846  CA  ASN L 101       4.541  14.228  21.963  1.00 49.45      L    C
ATOM    854  CA  SER L 102       5.760  17.612  23.035  1.00 47.64      L    C
ATOM    860  CA  ALA L 103       7.804  19.736  25.429  1.00 48.96      L    C
ATOM    865  CA  ASP L 104       9.513  16.493  26.313  1.00 55.89      L    C
ATOM    873  CA  ASN L 105       9.468  12.819  25.297  1.00 58.75      L    C
ATOM    881  CA  LYS L 106       6.211  11.792  27.001  1.00 61.24      L    C
ATOM    890  CA  VAL L 107       2.766  11.530  25.439  1.00 59.90      L    C
ATOM    897  CA  VAL L 108       0.019  14.093  25.817  1.00 55.63      L    C
ATOM    904  CA  CYS L 109      -3.553  13.120  25.040  1.00 53.26      L    C
ATOM    910  CA  SER L 110      -6.363  15.241  23.675  1.00 48.30      L    C
ATOM    916  CA  CYS L 111      -9.876  15.003  22.299  1.00 45.61      L    C
ATOM    922  CA  THR L 112     -11.903  16.504  19.463  1.00 43.15      L    C
ATOM    929  CA  GLU L 113     -13.962  19.608  19.976  1.00 42.73      L    C
ATOM    938  CA  GLY L 114     -16.918  18.724  22.114  1.00 44.12      L    C
ATOM    942  CA  TYR L 115     -15.046  16.205  24.216  1.00 45.45      L    C
ATOM    954  CA  ARG L 116     -12.942  16.686  27.313  1.00 46.29      L    C
ATOM    965  CA  LEU L 117     -10.060  14.661  28.682  1.00 43.61      L    C
ATOM    973  CA  ALA L 118     -11.015  12.340  31.510  1.00 42.30      L    C
ATOM    978  CA  GLU L 119      -9.224  12.151  34.845  1.00 43.55      L    C
ATOM    987  CA  ASN L 120      -7.110   9.231  33.631  1.00 45.00      L    C
ATOM    995  CA  GLN L 121      -5.886  11.617  30.939  1.00 49.29      L    C
ATOM   1004  CA  LYS L 122      -6.461   8.887  28.365  1.00 51.17      L    C
ATOM   1013  CA  SER L 123     -10.192   9.009  27.731  1.00 50.00      L    C
ATOM   1019  CA  CYS L 124     -12.680  11.457  26.328  1.00 51.80      L    C
ATOM   1025  CA  GLU L 125     -15.970  12.462  27.912  1.00 53.44      L    C
ATOM   1034  CA  PRO L 126     -18.439  14.762  26.298  1.00 59.94      L    C
ATOM   1041  CA  ALA L 127     -18.471  18.519  26.853  1.00 69.67      L    C
ATOM   1046  CA  VAL L 128     -21.919  19.051  25.405  1.00 77.69      L    C
ATOM   1053  CA  PRO L 129     -25.135  17.220  25.247  1.00 83.75      L    C
ATOM   1060  CA  PHE L 130     -24.625  16.007  21.675  1.00 81.95      L    C
ATOM   1071  CA  PRO L 131     -20.958  15.649  20.968  1.00 75.59      L    C
ATOM   1078  CA  CYS L 132     -19.705  15.053  17.453  1.00 67.59      L    C
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ATOM   1084  CA  GLY L 133     -20.125  11.752  15.664  1.00 59.21      L    C
ATOM   1088  CA  ARG L 134     -22.274   9.683  17.948  1.00 54.78      L    C
ATOM   1099  CA  VAL L 135     -25.397   7.839  16.955  1.00 49.62      L    C
ATOM   1106  CA  SER L 136     -27.832   9.118  19.563  1.00 44.09      L    C
ATOM   1112  CA  VAL L 137     -30.892   6.980  18.992  1.00 41.34      L    C
ATOM   1119  CA  SER L 138     -29.209   3.730  19.876  1.00 41.02      L    C
ATOM   1125  CA  GLN L 139     -27.401   5.037  22.938  1.00 45.18      L    C
ATOM   1134  CA  THR L 140     -30.320   6.907  24.416  1.00 51.68      L    C
ATOM   1141  CA  SER L 141     -31.577   4.118  26.563  1.00 55.54      L    C
ATOM   1147  CA  LYS L 142     -29.936   0.805  25.799  1.00 55.44      L    C
ATOM   1156  CA  LEU L 143     -27.852  -0.129  22.765  1.00 52.82      L    C
ATOM   1164  CA  THR L 144     -29.253  -1.816  19.695  1.00 49.76      L    C
ATOM   1171  CA  ARG L 145     -29.117  -5.558  19.378  1.00 45.81      L    C
ATOM   1184  CA  VAL B 146     -26.580   4.816  -3.602  1.00 41.72      BHUM C
ATOM   1191  CA  VAL B 147     -26.513   1.774  -5.788  1.00 37.81      BHUM C
ATOM   1198  CA  GLY B 148     -26.601  -1.646  -4.189  1.00 32.34      BHUM C
ATOM   1202  CA  GLY B 149     -26.741  -0.227  -0.694  1.00 29.32      BHUM C
ATOM   1206  CA  GLU B 150     -29.290  -0.738   2.041  1.00 29.21      BHUM C
ATOM   1215  CA  ASP B 151     -31.797   1.409   3.893  1.00 29.55      BHUM C
ATOM   1223  CA  ALA B 152     -30.570   3.278   6.944  1.00 30.32      BHUM C
ATOM   1228  CA  LYS B 153     -32.405   3.410  10.242  1.00 32.09      BHUM C
ATOM   1237  CA  PRO B 154     -33.740   6.753  11.258  1.00 33.90      BHUM C
ATOM   1244  CA  GLY B 155     -31.364   8.530  13.589  1.00 38.62      BHUM C
ATOM   1248  CA  GLN B 156     -28.492   6.386  12.370  1.00 47.92      BHUM C
ATOM   1257  CA  PHE B 157     -26.840   9.326  10.653  1.00 55.55      BHUM C
ATOM   1268  CA  PRO B 158     -27.187  12.516  12.647  1.00 62.02      BHUM C
ATOM   1275  CA  TRP B 159     -24.859  14.397  10.283  1.00 62.57      BHUM C
ATOM   1289  CA  GLN B 160     -26.429  13.307   7.024  1.00 57.03      BHUM C
ATOM   1298  CA  VAL B 161     -28.120  16.285   5.522  1.00 51.22      BHUM C
ATOM   1305  CA  VAL B 162     -30.275  16.559   2.418  1.00 43.03      BHUM C
ATOM   1312  CA  LEU B 163     -29.572  19.465   0.163  1.00 37.99      BHUM C
ATOM   1320  CA  ASN B 164     -32.562  20.872  -1.657  1.00 34.59      BHUM C
ATOM   1328  CA  GLY B 165     -32.136  23.460  -4.332  1.00 32.49      BHUM C
ATOM   1332  CA  LYS B 166     -33.052  23.773  -7.924  1.00 34.33      BHUM C
ATOM   1341  CA  VAL B 167     -34.903  20.512  -8.507  1.00 37.11      BHUM C
ATOM   1348  CA  ASP B 168     -34.104  19.438  -4.914  1.00 42.34      BHUM C
ATOM   1356  CA  ALA B 169     -32.277  16.326  -3.681  1.00 45.55      BHUM C
ATOM   1361  CA  PHE B 170     -29.354  17.295  -5.876  1.00 46.19      BHUM C
ATOM   1372  CA  CYS B 171     -26.745  16.851  -3.184  1.00 45.03      BHUM C
ATOM   1378  CA  GLY B 172     -26.122  15.797   0.375  1.00 42.18      BHUM C
ATOM   1382  CA  GLY B 173     -23.973  17.318   3.069  1.00 42.62      BHUM C
ATOM   1386  CA  SER B 174     -22.616  16.766   6.550  1.00 48.57      BHUM C
ATOM   1392  CA  ILE B 175     -23.060  19.003   9.528  1.00 56.97      BHUM C
ATOM   1400  CA  VAL B 176     -19.804  20.377  10.821  1.00 66.04      BHUM C
ATOM   1407  CA  ASN B 177     -21.623  22.359  13.450  1.00 74.73      BHUM C
ATOM   1415  CA  GLU B 178     -24.969  23.945  14.301  1.00 76.40      BHUM C
ATOM   1424  CA  LYS B 179     -24.320  26.882  11.923  1.00 75.56      BHUM C
ATOM   1433  CA  TRP B 180     -22.317  25.408   9.031  1.00 72.88      BHUM C
ATOM   1447  CA  ILE B 181     -22.740  22.276   6.975  1.00 65.94      BHUM C
ATOM   1455  CA  VAL B 182     -20.292  20.801   4.476  1.00 60.24      BHUM C
ATOM   1462  CA  THR B 183     -20.792  19.596   0.905  1.00 55.63      BHUM C
ATOM   1469  CA  ALA B 184     -18.954  19.337  -2.389  1.00 52.59      BHUM C
ATOM   1474  CA  ALA B 185     -18.229  22.499  -4.364  1.00 52.60      BHUM C
ATOM   1479  CA  HIS B 186     -19.751  21.090  -7.534  1.00 53.30      BHUM C
ATOM   1489  CA  CYS B 187     -23.123  21.338  -5.780  1.00 52.43      BHUM C
ATOM   1495  CA  VAL B 188     -23.103  25.114  -5.760  1.00 47.33      BHUM C
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ATOM   1502  CA  GLU B 189     -24.952  26.220  -8.835  1.00 42.16      BHUM C
ATOM   1511  CA  THR B 190     -24.751  29.929  -9.336  1.00 37.86      BHUM C
ATOM   1518  CA  GLY B 191     -27.946  31.808  -8.680  1.00 34.83      BHUM C
ATOM   1522  CA  VAL B 192     -29.764  29.053  -6.877  1.00 37.64      BHUM C
ATOM   1529  CA  LYS B 193     -31.046  29.083  -3.324  1.00 41.47      BHUM C
ATOM   1538  CA  ILE B 194     -30.239  26.044  -1.257  1.00 45.70      BHUM C
ATOM   1546  CA  THR B 195     -32.051  24.763   1.770  1.00 50.20      BHUM C
ATOM   1553  CA  VAL B 196     -30.447  22.213   4.051  1.00 50.86      BHUM C
ATOM   1560  CA  VAL B 197     -32.825  19.554   5.236  1.00 50.38      BHUM C
ATOM   1567  CA  ALA B 198     -31.363  18.272   8.464  1.00 50.98      BHUM C
ATOM   1572  CA  GLY B 199     -33.086  15.359  10.159  1.00 51.77      BHUM C
ATOM   1576  CA  GLU B 200     -34.783  14.232   6.944  1.00 55.95      BHUM C
ATOM   1585  CA  HIS B 201     -35.412  10.469   6.540  1.00 56.75      BHUM C
ATOM   1595  CA  ASN B 202     -38.076   9.690   3.942  1.00 53.42      BHUM C
ATOM   1603  CA  ILE B 203     -38.746  12.193   1.223  1.00 48.18      BHUM C
ATOM   1611  CA  GLU B 204     -42.309  11.002   0.782  1.00 40.46      BHUM C
ATOM   1620  CA  GLU B 205     -43.268  11.709   4.358  1.00 36.46      BHUM C
ATOM   1629  CA  THR B 206     -42.679  14.693   6.573  1.00 34.92      BHUM C
ATOM   1636  CA  GLU B 207     -40.553  13.628   9.491  1.00 35.77      BHUM C
ATOM   1645  CA  HIS B 208     -40.970  15.747  12.605  1.00 36.65      BHUM C
ATOM   1655  CA  THR B 209     -37.200  15.700  12.997  1.00 36.47      BHUM C
ATOM   1662  CA  GLU B 210     -36.624  17.688   9.803  1.00 36.36      BHUM C
ATOM   1671  CA  GLN B 211     -35.042  21.094  10.281  1.00 34.90      BHUM C
ATOM   1680  CA  LYS B 212     -34.745  23.221   7.178  1.00 36.49      BHUM C
ATOM   1689  CA  ARG B 213     -32.411  26.155   6.873  1.00 39.33      BHUM C
ATOM   1700  CA  ASN B 214     -31.317  28.513   4.153  1.00 44.05      BHUM C
ATOM   1708  CA  VAL B 215     -27.762  29.046   3.046  1.00 49.17      BHUM C
ATOM   1715  CA  ILE B 216     -26.669  32.626   3.336  1.00 49.75      BHUM C
ATOM   1723  CA  ARG B 217     -23.151  31.969   2.151  1.00 48.97      BHUM C
ATOM   1734  CA  ILE B 218     -21.418  29.253   0.196  1.00 44.61      BHUM C
ATOM   1742  CA  ILE B 219     -17.663  29.292   0.405  1.00 40.54      BHUM C
ATOM   1750  CA  PRO B 220     -16.108  26.834  -1.932  1.00 39.16      BHUM C
ATOM   1757  CA  HIS B 221     -12.487  25.961  -1.367  1.00 40.05      BHUM C
ATOM   1767  CA  HIS B 222     -10.409  28.876  -2.529  1.00 43.01      BHUM C
ATOM   1777  CA  ASN B 223      -8.591  26.985  -5.206  1.00 45.75      BHUM C
ATOM   1785  CA  TYR B 224     -11.574  24.938  -6.235  1.00 47.29      BHUM C
ATOM   1797  CA  ASN B 225     -11.768  25.382  -9.968  1.00 46.58      BHUM C
ATOM   1805  CA  ALA B 226     -10.962  28.458 -11.993  1.00 47.24      BHUM C
ATOM   1810  CA  ALA B 227     -11.380  26.418 -15.145  1.00 51.24      BHUM C
ATOM   1815  CA  ILE B 228      -9.777  23.050 -14.632  1.00 62.90      BHUM C
ATOM   1823  CA  ASN B 229     -10.485  19.661 -13.118  1.00 76.57      BHUM C
ATOM   1831  CA  LYS B 230     -13.855  20.381 -11.500  1.00 87.60      BHUM C
ATOM   1840  CA  TYR B 231     -13.233  17.572  -9.015  1.00 93.56      BHUM C
ATOM   1852  CA  ASN B 232     -10.041  18.658  -7.336  1.00 86.51      BHUM C
ATOM   1860  CA  HIS B 233     -10.746  20.845  -4.307  1.00 75.45      BHUM C
ATOM   1870  CA  ASP B 234     -14.384  19.771  -4.713  1.00 62.48      BHUM C
ATOM   1878  CA  ILE B 235     -15.490  20.864  -1.229  1.00 50.02      BHUM C
ATOM   1886  CA  ALA B 236     -17.497  23.776   0.114  1.00 43.88      BHUM C
ATOM   1891  CA  LEU B 237     -18.964  25.137   3.331  1.00 41.85      BHUM C
ATOM   1899  CA  LEU B 238     -22.574  26.245   3.620  1.00 42.10      BHUM C
ATOM   1907  CA  GLU B 239     -23.398  28.753   6.320  1.00 42.92      BHUM C
ATOM   1916  CA  LEU B 240     -26.940  28.359   7.537  1.00 42.04      BHUM C
ATOM   1924  CA  ASP B 241     -28.701  31.541   8.563  1.00 38.87      BHUM C
ATOM   1932  CA  GLU B 242     -30.251  30.231  11.743  1.00 36.71      BHUM C
ATOM   1941  CA  PRO B 243     -28.591  27.687  13.880  1.00 35.38      BHUM C
ATOM   1948  CA  LEU B 244     -29.961  24.172  13.873  1.00 36.27      BHUM C
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ATOM   1956  CA  VAL B 245     -31.268  22.661  17.045  1.00 37.91      BHUM C
ATOM   1963  CA  LEU B 246     -28.809  19.980  18.003  1.00 41.84      BHUM C
ATOM   1971  CA  ASN B 247     -30.426  16.733  19.014  1.00 45.97      BHUM C
ATOM   1979  CA  SER B 248     -30.253  12.982  18.566  1.00 49.72      BHUM C
ATOM   1985  CA  TYR B 249     -31.374  13.656  15.005  1.00 54.15      BHUM C
ATOM   1997  CA  VAL B 250     -29.100  16.615  14.424  1.00 54.23      BHUM C
ATOM   2004  CA  THR B 251     -25.525  16.035  15.514  1.00 56.48      BHUM C
ATOM   2011  CA  PRO B 252     -22.299  17.108  13.881  1.00 59.31      BHUM C
ATOM   2018  CA  ILE B 253     -19.527  14.831  12.676  1.00 59.89      BHUM C
ATOM   2026  CA  CYS B 254     -16.098  14.942  14.141  1.00 60.02      BHUM C
ATOM   2032  CA  ILE B 255     -13.321  16.481  12.218  1.00 55.88      BHUM C
ATOM   2040  CA  ALA B 256      -9.954  15.053  13.015  1.00 48.92      BHUM C
ATOM   2045  CA  ASP B 257      -6.680  16.826  12.553  1.00 47.51      BHUM C
ATOM   2053  CA  LYS B 258      -4.720  16.304   9.385  1.00 47.30      BHUM C
ATOM   2062  CA  GLU B 259      -2.833  13.292  10.663  1.00 47.11      BHUM C
ATOM   2071  CA  TYR B 260      -5.659  11.351  12.257  1.00 48.48      BHUM C
ATOM   2083  CA  THR B 261      -8.047  11.821   9.384  1.00 43.89      BHUM C
ATOM   2090  CA  ASN B 262      -5.675  10.034   7.060  1.00 43.06      BHUM C
ATOM   2098  CA  ILE B 263      -5.057   7.444   9.726  1.00 45.73      BHUM C
ATOM   2106  CA  PHE B 264      -8.781   6.750   9.940  1.00 50.06      BHUM C
ATOM   2117  CA  LEU B 265      -9.024   6.559   6.158  1.00 54.79      BHUM C
ATOM   2125  CA  LYS B 266      -6.400   3.817   5.971  1.00 53.81      BHUM C
ATOM   2134  CA  PHE B 267      -8.391   1.672   8.380  1.00 48.53      BHUM C
ATOM   2145  CA  GLY B 268      -9.892   0.201   5.265  1.00 41.55      BHUM C
ATOM   2149  CA  SER B 269     -13.613   0.712   5.418  1.00 38.72      BHUM C
ATOM   2155  CA  GLY B 270     -15.973   3.634   5.715  1.00 38.37      BHUM C
ATOM   2159  CA  TYR B 271     -19.649   4.378   5.517  1.00 41.09      BHUM C
ATOM   2171  CA  VAL B 272     -21.132   6.514   2.818  1.00 44.41      BHUM C
ATOM   2178  CA  SER B 273     -24.701   7.596   3.175  1.00 42.37      BHUM C
ATOM   2184  CA  GLY B 274     -26.791   9.609   0.788  1.00 41.41      BHUM C
ATOM   2188  CA  TRP B 275     -30.108  10.113  -0.938  1.00 40.25      BHUM C
ATOM   2202  CA  GLY B 276     -29.541   9.437  -4.595  1.00 37.87      BHUM C
ATOM   2206  CA  ARG B 277     -29.815   7.067  -7.506  1.00 39.50      BHUM C
ATOM   2217  CA  VAL B 278     -30.554   3.567  -6.295  1.00 41.32      BHUM C
ATOM   2224  CA  PHE B 279     -29.754   2.179  -9.703  1.00 42.27      BHUM C
ATOM   2235  CA  HIS B 280     -27.218   3.629 -12.037  1.00 44.48      BHUM C
ATOM   2245  CA  LYS B 281     -29.468   6.355 -13.415  1.00 45.48      BHUM C
ATOM   2254  CA  GLY B 282     -32.521   4.269 -12.437  1.00 42.95      BHUM C
ATOM   2258  CA  ARG B 283     -34.196   6.373  -9.742  1.00 42.00      BHUM C
ATOM   2269  CA  SER B 284     -33.459   8.472  -6.652  1.00 40.80      BHUM C
ATOM   2275  CA  ALA B 285     -33.330   7.499  -2.999  1.00 39.52      BHUM C
ATOM   2280  CA  LEU B 286     -36.591   8.096  -1.211  1.00 40.89      BHUM C
ATOM   2288  CA  VAL B 287     -35.298   6.858   2.112  1.00 41.45      BHUM C
ATOM   2295  CA  LEU B 288     -31.749   7.482   3.257  1.00 42.81      BHUM C
ATOM   2303  CA  GLN B 289     -29.436   4.694   2.122  1.00 46.02      BHUM C
ATOM   2312  CA  TYR B 290     -25.966   3.732   3.296  1.00 48.90      BHUM C
ATOM   2324  CA  LEU B 291     -23.217   1.393   2.136  1.00 50.88      BHUM C
ATOM   2332  CA  ARG B 292     -19.789   0.436   3.449  1.00 51.46      BHUM C
ATOM   2343  CA  VAL B 293     -17.017   0.885   0.934  1.00 48.70      BHUM C
ATOM   2350  CA  PRO B 294     -13.491  -0.356   1.120  1.00 47.73      BHUM C
ATOM   2357  CA  LEU B 295     -10.673   2.078   0.468  1.00 47.83      BHUM C
ATOM   2365  CA  VAL B 296      -9.089   1.248  -2.866  1.00 46.97      BHUM C
ATOM   2372  CA  ASP B 297      -5.349   1.531  -3.393  1.00 48.95      BHUM C
ATOM   2380  CA  ARG B 298      -3.881   4.185  -5.656  1.00 49.22      BHUM C
ATOM   2391  CA  ALA B 299      -2.118   1.781  -7.957  1.00 48.23      BHUM C
ATOM   2396  CA  THR B 300      -5.403   0.130  -8.742  1.00 49.24      BHUM C
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ATOM   2403  CA  CYS B 301      -7.401   3.288  -8.946  1.00 48.06      BHUM C
ATOM   2409  CA  LEU B 302      -5.048   5.150 -11.195  1.00 47.19      BHUM C
ATOM   2417  CA  ARG B 303      -5.220   2.278 -13.635  1.00 47.96      BHUM C
ATOM   2428  CA  SER B 304      -9.006   2.119 -13.638  1.00 49.12      BHUM C
ATOM   2434  CA  THR B 305      -9.491   5.710 -14.560  1.00 51.63      BHUM C
ATOM   2441  CA  LYS B 306      -8.225   7.761 -17.471  1.00 53.15      BHUM C
ATOM   2450  CA  PHE B 307      -8.632  10.809 -15.289  1.00 54.23      BHUM C
ATOM   2461  CA  THR B 308      -5.589  11.893 -13.394  1.00 54.12      BHUM C
ATOM   2468  CA  ILE B 309      -6.345  10.880  -9.878  1.00 56.13      BHUM C
ATOM   2476  CA  TYR B 310      -5.081  13.817  -7.883  1.00 60.19      BHUM C
ATOM   2488  CA  ASN B 311      -3.628  13.519  -4.409  1.00 63.99      BHUM C
ATOM   2496  CA  ASN B 312      -6.653  15.540  -3.377  1.00 69.95      BHUM C
ATOM   2504  CA  MET B 313      -8.761  12.484  -3.872  1.00 69.62      BHUM C
ATOM   2512  CA  PHE B 314      -8.822   8.746  -3.269  1.00 63.57      BHUM C
ATOM   2523  CA  CYS B 315     -10.781   5.806  -4.528  1.00 55.59      BHUM C
ATOM   2529  CA  ALA B 316     -13.087   3.403  -2.788  1.00 43.02      BHUM C
ATOM   2534  CA  GLY B 317     -15.576   0.825  -3.955  1.00 34.17      BHUM C
ATOM   2538  CA  PHE B 318     -16.122  -2.826  -4.738  1.00 30.12      BHUM C
ATOM   2549  CA  HIS B 319     -13.846  -4.291  -7.376  1.00 27.89      BHUM C
ATOM   2559  CA  GLU B 320     -16.713  -6.106  -9.030  1.00 29.07      BHUM C
ATOM   2568  CA  GLY B 321     -19.649  -4.205 -10.394  1.00 30.79      BHUM C
ATOM   2572  CA  GLY B 322     -22.670  -3.761  -8.196  1.00 33.62      BHUM C
ATOM   2576  CA  ARG B 323     -22.336  -1.321  -5.290  1.00 37.40      BHUM C
ATOM   2587  CA  ASP B 324     -21.302   2.328  -5.205  1.00 40.22      BHUM C
ATOM   2595  CA  SER B 325     -22.472   5.909  -4.723  1.00 43.43      BHUM C
ATOM   2601  CA  CYS B 326     -24.244   7.396  -7.692  1.00 46.59      BHUM C
ATOM   2607  CA  GLN B 327     -25.597  10.694  -8.929  1.00 49.06      BHUM C
ATOM   2616  CA  GLY B 328     -27.323  12.588  -6.182  1.00 51.10      BHUM C
ATOM   2620  CA  ASP B 329     -24.839  11.612  -3.493  1.00 51.16      BHUM C
ATOM   2628  CA  SER B 330     -22.261  14.305  -3.883  1.00 47.94      BHUM C
ATOM   2634  CA  GLY B 331     -21.342  16.319  -0.861  1.00 44.92      BHUM C
ATOM   2638  CA  GLY B 332     -22.644  13.441   1.219  1.00 43.10      BHUM C
ATOM   2642  CA  PRO B 333     -20.491  11.999   3.911  1.00 43.94      BHUM C
ATOM   2649  CA  HIS B 334     -17.811   9.363   3.949  1.00 46.38      BHUM C
ATOM   2659  CA  VAL B 335     -17.311   8.525   7.572  1.00 48.70      BHUM C
ATOM   2666  CA  THR B 336     -15.110   6.069   9.380  1.00 51.02      BHUM C
ATOM   2673  CA  GLU B 337     -16.158   5.192  12.898  1.00 49.91      BHUM C
ATOM   2682  CA  VAL B 338     -13.464   4.430  15.387  1.00 47.76      BHUM C
ATOM   2689  CA  GLU B 339     -14.993   2.658  18.343  1.00 43.74      BHUM C
ATOM   2698  CA  GLY B 340     -18.336   4.435  18.449  1.00 39.58      BHUM C
ATOM   2702  CA  THR B 341     -17.258   7.943  17.670  1.00 40.13      BHUM C
ATOM   2709  CA  SER B 342     -17.491   8.643  13.975  1.00 42.72      BHUM C
ATOM   2715  CA  PHE B 343     -15.201  10.915  11.971  1.00 47.11      BHUM C
ATOM   2726  CA  LEU B 344     -15.286  12.403   8.474  1.00 51.50      BHUM C
ATOM   2734  CA  THR B 345     -12.786  10.973   6.001  1.00 53.50      BHUM C
ATOM   2741  CA  GLY B 346     -13.488  12.509   2.623  1.00 55.88      BHUM C
ATOM   2745  CA  ILE B 347     -16.509  14.071   0.941  1.00 60.34      BHUM C
ATOM   2753  CA  ILE B 348     -18.189  11.981  -1.731  1.00 62.46      BHUM C
ATOM   2761  CA  SER B 349     -17.370  13.662  -5.043  1.00 62.56      BHUM C
ATOM   2767  CA  TRP B 350     -17.756  11.751  -8.312  1.00 60.27      BHUM C
ATOM   2781  CA  GLY B 351     -17.393   8.614 -10.399  1.00 54.44      BHUM C
ATOM   2785  CA  GLU B 352     -17.695   7.468 -13.977  1.00 50.80      BHUM C
ATOM   2794  CA  GLU B 353     -21.109   5.840 -14.104  1.00 48.18      BHUM C
ATOM   2803  CA  CYS B 354     -22.264   3.778 -11.163  1.00 46.21      BHUM C
ATOM   2809  CA  ALA B 355     -22.202   0.129 -10.049  1.00 42.88      BHUM C
ATOM   2814  CA  MET B 356     -20.111  -1.083 -12.952  1.00 39.65      BHUM C
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ATOM   2822  CA  LYS B 357     -17.080  -3.312 -12.551  1.00 37.04      BHUM C
ATOM   2831  CA  GLY B 358     -13.670  -1.882 -13.249  1.00 33.41      BHUM C
ATOM   2835  CA  LYS B 359     -14.816   1.395 -11.795  1.00 34.77      BHUM C
ATOM   2844  CA  TYR B 360     -14.592   2.743  -8.275  1.00 36.78      BHUM C
ATOM   2856  CA  GLY B 361     -16.165   5.749  -6.631  1.00 39.36      BHUM C
ATOM   2860  CA  ILE B 362     -13.702   8.546  -6.074  1.00 46.77      BHUM C
ATOM   2868  CA  TYR B 363     -13.953  10.800  -3.045  1.00 52.64      BHUM C
ATOM   2880  CA  THR B 364     -12.270  13.993  -1.882  1.00 56.73      BHUM C
ATOM   2887  CA  LYS B 365      -9.572  13.554   0.697  1.00 60.72      BHUM C
ATOM   2896  CA  VAL B 366     -10.779  15.659   3.560  1.00 63.31      BHUM C
ATOM   2903  CA  SER B 367      -7.390  15.285   5.167  1.00 64.87      BHUM C
ATOM   2909  CA  ARG B 368      -6.113  18.033   2.900  1.00 66.42      BHUM C
ATOM   2920  CA  TYR B 369      -8.950  20.472   3.718  1.00 66.26      BHUM C
ATOM   2932  CA  VAL B 370      -9.692  19.615   7.329  1.00 58.86      BHUM C
ATOM   2939  CA  ASN B 371      -7.606  22.449   8.719  1.00 50.92      BHUM C
ATOM   2947  CA  TRP B 372      -9.400  24.838   6.389  1.00 45.00      BHUM C
ATOM   2961  CA  ILE B 373     -12.689  23.609   7.724  1.00 41.63      BHUM C
ATOM   2969  CA  LYS B 374     -11.439  24.090  11.244  1.00 45.38      BHUM C
ATOM   2978  CA  GLU B 375     -10.643  27.734  10.705  1.00 49.27      BHUM C
ATOM   2987  CA  LYS B 376     -13.651  28.384   8.516  1.00 51.26      BHUM C
ATOM   2996  CA  THR B 377     -16.257  27.126  11.004  1.00 48.85      BHUM C
ATOM   3003  CA  LYS B 378     -14.809  28.823  14.108  1.00 43.68      BHUM C
ATOM   3012  CA  LEU B 379     -17.536  30.384  16.200  1.00 37.80      BHUM C
ATOM   3020  CA  THR B 380     -15.131  32.854  17.690  1.00 30.35      BHUM C


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