HEADER protein

METHOD

METHOD The models are generated by I-TASSER which combines the

METHOD methods of threading, ab initio modeling and structural

METHOD refinement. The procedure is fully automated.

METHOD

METHOD Please cite following articles when you use the I-TASSER server:

METHOD 1. Ambrish Roy, Alper Kucukural, Yang Zhang. I-TASSER: a unified

METHOD platform for automated protein structure and function prediction.

METHOD Nature Protocols, vol 5, 725-738 (2010).

METHOD 2. Yang Zhang. I-TASSER server for protein 3D structure prediction.

METHOD BMC Bioinformatics, 9:40 (2008).

METHOD

MODEL 4

REMARK PARENT N/A (Threading alignments from the templates are below the Z-score cut-off)

ATOM 1 N MET A 1 40.145 44.510 56.484 1.00 21.21

ATOM 2 CA MET A 1 38.893 44.681 55.725 1.00 21.21

ATOM 3 HA MET A 1 39.186 44.983 54.727 1.00 21.21

ATOM 4 CB MET A 1 38.158 43.335 55.639 1.00 21.21

ATOM 5 HB1 MET A 1 37.227 43.467 55.091 1.00 21.21

ATOM 6 HB2 MET A 1 37.930 42.976 56.643 1.00 21.21

ATOM 7 CG MET A 1 39.009 42.287 54.907 1.00 21.21

ATOM 8 HG1 MET A 1 39.928 42.132 55.471 1.00 21.21

ATOM 9 HG2 MET A 1 39.280 42.672 53.923 1.00 21.21

ATOM 10 SD MET A 1 38.218 40.670 54.689 1.00 21.21

ATOM 11 CE MET A 1 39.677 39.706 54.209 1.00 21.21

ATOM 12 HE1 MET A 1 39.392 38.669 54.037 1.00 21.21

ATOM 13 HE2 MET A 1 40.109 40.120 53.300 1.00 21.21

ATOM 14 HE3 MET A 1 40.420 39.745 55.005 1.00 21.21

ATOM 15 C MET A 1 38.036 45.810 56.308 1.00 21.21

ATOM 16 O MET A 1 36.870 45.967 55.954 1.00 21.21

ATOM 17 N ASP A 2 38.628 46.680 57.127 1.00 19.13

ATOM 18 H ASP A 2 39.557 46.434 57.445 1.00 19.13

ATOM 19 CA ASP A 2 38.121 48.031 57.416 1.00 19.13

ATOM 20 HA ASP A 2 37.182 47.977 57.968 1.00 19.13

ATOM 21 CB ASP A 2 39.187 48.781 58.249 1.00 19.13

ATOM 22 HB1 ASP A 2 38.807 49.778 58.480 1.00 19.13

ATOM 23 HB2 ASP A 2 40.080 48.916 57.635 1.00 19.13

ATOM 24 CG ASP A 2 39.632 48.122 59.556 1.00 19.13

ATOM 25 OD1 ASP A 2 40.603 47.322 59.562 1.00 19.13

ATOM 26 OD2 ASP A 2 39.110 48.494 60.631 1.00 19.13

ATOM 27 C ASP A 2 37.915 48.874 56.153 1.00 19.13

ATOM 28 O ASP A 2 37.041 49.728 56.079 1.00 19.13

ATOM 29 N ILE A 3 38.767 48.609 55.160 1.00 16.96

ATOM 30 H ILE A 3 39.479 47.915 55.339 1.00 16.96

ATOM 31 CA ILE A 3 38.725 49.172 53.806 1.00 16.96

ATOM 32 HA ILE A 3 38.053 50.030 53.827 1.00 16.96

ATOM 33 CB ILE A 3 40.122 49.661 53.382 1.00 16.96

ATOM 34 HB ILE A 3 40.576 48.881 52.768 1.00 16.96

ATOM 35 CG2 ILE A 3 39.949 50.899 52.498 1.00 16.96

ATOM 36 1HG2 ILE A 3 40.881 51.105 51.981 1.00 16.96

ATOM 37 2HG2 ILE A 3 39.174 50.706 51.771 1.00 16.96

ATOM 38 3HG2 ILE A 3 39.639 51.765 53.080 1.00 16.96

ATOM 39 CG1 ILE A 3 41.110 49.955 54.540 1.00 16.96

ATOM 40 1HG1 ILE A 3 42.070 50.165 54.090 1.00 16.96

ATOM 41 2HG1 ILE A 3 41.263 49.055 55.130 1.00 16.96

ATOM 42 CD1 ILE A 3 40.750 51.085 55.523 1.00 16.96

ATOM 43 HD1 ILE A 3 40.635 52.034 55.008 1.00 16.96

ATOM 44 HD2 ILE A 3 39.822 50.868 56.046 1.00 16.96

ATOM 45 HD3 ILE A 3 41.549 51.180 56.258 1.00 16.96

ATOM 46 C ILE A 3 38.108 48.142 52.838 1.00 16.96

ATOM 47 O ILE A 3 37.994 48.351 51.634 1.00 16.96

ATOM 48 N SER A 4 37.648 47.029 53.404 1.00 16.66

ATOM 49 H SER A 4 37.695 47.026 54.413 1.00 16.66

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ATOM 51 HA SER A 4 37.124 45.050 53.511 1.00 16.66

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ATOM 54 HB2 SER A 4 35.146 46.211 54.009 1.00 16.66

ATOM 55 OG SER A 4 34.672 45.138 52.323 1.00 16.66

ATOM 56 HG SER A 4 33.784 45.160 52.695 1.00 16.66

ATOM 57 C SER A 4 37.368 45.391 51.480 1.00 16.66

ATOM 58 O SER A 4 38.193 44.482 51.362 1.00 16.66

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ATOM 69 HA LEU A 6 40.160 47.695 47.649 1.00 13.44

ATOM 70 CB LEU A 6 39.927 49.196 49.164 1.00 13.44

ATOM 71 HB1 LEU A 6 40.911 49.643 49.068 1.00 13.44

ATOM 72 HB2 LEU A 6 39.731 49.219 50.227 1.00 13.44

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ATOM 74 HG LEU A 6 39.481 50.830 47.850 1.00 13.44

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ATOM 77 2HD1 LEU A 6 38.439 48.806 46.759 1.00 13.44

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ATOM 80 1HD2 LEU A 6 37.261 51.470 48.810 1.00 13.44

ATOM 81 2HD2 LEU A 6 37.528 50.270 50.075 1.00 13.44

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ATOM 83 C LEU A 6 41.097 46.835 49.359 1.00 13.44

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ATOM 86 CD PRO A 7 40.815 45.046 47.566 1.00 13.63

ATOM 87 HD1 PRO A 7 40.847 45.768 46.751 1.00 13.63

ATOM 88 HD2 PRO A 7 39.808 44.675 47.731 1.00 13.63

ATOM 89 CG PRO A 7 41.670 43.821 47.255 1.00 13.63

ATOM 90 HG1 PRO A 7 42.593 44.115 46.753 1.00 13.63

ATOM 91 HG2 PRO A 7 41.125 43.082 46.667 1.00 13.63

ATOM 92 CB PRO A 7 41.959 43.324 48.667 1.00 13.63

ATOM 93 HB1 PRO A 7 42.826 42.668 48.709 1.00 13.63

ATOM 94 HB2 PRO A 7 41.078 42.818 49.065 1.00 13.63

ATOM 95 CA PRO A 7 42.184 44.629 49.431 1.00 13.63

ATOM 96 HA PRO A 7 41.904 44.492 50.477 1.00 13.63

ATOM 97 C PRO A 7 43.658 45.029 49.385 1.00 13.63

ATOM 98 O PRO A 7 44.471 44.533 50.164 1.00 13.63

ATOM 99 N VAL A 8 43.969 45.928 48.447 1.00 12.63

ATOM 100 H VAL A 8 43.194 46.275 47.906 1.00 12.63

ATOM 101 CA VAL A 8 45.229 46.640 48.257 1.00 12.63

ATOM 102 HA VAL A 8 45.268 46.939 47.228 1.00 12.63

ATOM 103 CB VAL A 8 45.235 47.929 49.169 1.00 12.63

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ATOM 105 CG1 VAL A 8 44.128 48.936 48.871 1.00 12.63

ATOM 106 1HG1 VAL A 8 44.033 49.644 49.695 1.00 12.63

ATOM 107 2HG1 VAL A 8 44.392 49.512 47.989 1.00 12.63

ATOM 108 3HG1 VAL A 8 43.177 48.440 48.723 1.00 12.63

ATOM 109 CG2 VAL A 8 45.198 47.649 50.673 1.00 12.63

ATOM 110 1HG2 VAL A 8 45.344 48.573 51.232 1.00 12.63

ATOM 111 2HG2 VAL A 8 44.242 47.217 50.967 1.00 12.63

ATOM 112 3HG2 VAL A 8 46.016 46.982 50.931 1.00 12.63

ATOM 113 C VAL A 8 46.547 45.912 48.414 1.00 12.63

ATOM 114 O VAL A 8 47.517 46.546 48.813 1.00 12.63

ATOM 115 N PRO A 9 46.612 44.623 48.072 1.00 11.60

ATOM 116 CD PRO A 9 45.758 43.991 47.098 1.00 11.60

ATOM 117 HD1 PRO A 9 45.333 44.700 46.391 1.00 11.60

ATOM 118 HD2 PRO A 9 44.964 43.444 47.604 1.00 11.60

ATOM 119 CG PRO A 9 46.687 43.021 46.415 1.00 11.60

ATOM 120 HG1 PRO A 9 47.351 43.535 45.733 1.00 11.60

ATOM 121 HG2 PRO A 9 46.106 42.263 45.926 1.00 11.60

ATOM 122 CB PRO A 9 47.500 42.485 47.572 1.00 11.60

ATOM 123 HB1 PRO A 9 48.447 42.039 47.272 1.00 11.60

ATOM 124 HB2 PRO A 9 46.891 41.797 48.123 1.00 11.60

ATOM 125 CA PRO A 9 47.625 43.672 48.488 1.00 11.60

ATOM 126 HA PRO A 9 47.306 43.303 49.457 1.00 11.60

ATOM 127 C PRO A 9 48.997 44.230 48.724 1.00 11.60

ATOM 128 O PRO A 9 49.837 44.211 47.827 1.00 11.60

ATOM 129 N VAL A 10 49.193 44.744 49.937 1.00 9.63

ATOM 130 H VAL A 10 48.439 44.737 50.607 1.00 9.63

ATOM 131 CA VAL A 10 50.306 45.641 50.177 1.00 9.63

ATOM 132 HA VAL A 10 50.227 46.455 49.453 1.00 9.63

ATOM 133 CB VAL A 10 50.295 46.277 51.572 1.00 9.63

ATOM 134 HB VAL A 10 51.078 47.034 51.603 1.00 9.63

ATOM 135 CG1 VAL A 10 48.962 46.989 51.827 1.00 9.63

ATOM 136 1HG1 VAL A 10 48.986 47.502 52.784 1.00 9.63

ATOM 137 2HG1 VAL A 10 48.778 47.720 51.038 1.00 9.63

ATOM 138 3HG1 VAL A 10 48.142 46.279 51.844 1.00 9.63

ATOM 139 CG2 VAL A 10 50.604 45.245 52.654 1.00 9.63

ATOM 140 1HG2 VAL A 10 50.103 45.505 53.578 1.00 9.63

ATOM 141 2HG2 VAL A 10 50.252 44.267 52.347 1.00 9.63

ATOM 142 3HG2 VAL A 10 51.681 45.188 52.818 1.00 9.63

ATOM 143 C VAL A 10 51.565 44.884 49.896 1.00 9.63

ATOM 144 O VAL A 10 51.628 43.652 50.033 1.00 9.63

ATOM 145 N CYS A 11 52.521 45.582 49.318 1.00 8.07

ATOM 146 H CYS A 11 52.453 46.584 49.221 1.00 8.07

ATOM 147 CA CYS A 11 53.711 44.891 48.929 1.00 8.07

ATOM 148 HA CYS A 11 53.430 43.914 48.543 1.00 8.07

ATOM 149 CB CYS A 11 54.334 45.574 47.724 1.00 8.07

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ATOM 151 HB2 CYS A 11 54.403 44.835 46.932 1.00 8.07

ATOM 152 SG CYS A 11 55.966 46.221 48.090 1.00 8.07

ATOM 153 HG CYS A 11 55.690 46.594 49.354 1.00 8.07

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ATOM 157 H THR A 12 53.292 43.163 50.730 1.00 10.02

ATOM 158 CA THR A 12 55.194 42.392 51.132 1.00 10.02

ATOM 159 HA THR A 12 54.928 41.977 52.101 1.00 10.02

ATOM 160 CB THR A 12 54.967 41.303 50.042 1.00 10.02

ATOM 161 HB THR A 12 55.738 40.535 50.117 1.00 10.02

ATOM 162 CG2 THR A 12 53.632 40.578 50.070 1.00 10.02

ATOM 163 1HG2 THR A 12 53.618 39.927 50.934 1.00 10.02

ATOM 164 2HG2 THR A 12 52.806 41.283 50.134 1.00 10.02

ATOM 165 3HG2 THR A 12 53.527 39.956 49.181 1.00 10.02

ATOM 166 OG1 THR A 12 55.031 41.868 48.741 1.00 10.02

ATOM 167 HG1 THR A 12 55.961 41.983 48.518 1.00 10.02

ATOM 168 C THR A 12 56.715 42.513 51.115 1.00 10.02

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ATOM 170 N CYS A 13 57.299 43.419 50.338 1.00 9.04

ATOM 171 H CYS A 13 56.761 44.231 50.070 1.00 9.04

ATOM 172 CA CYS A 13 58.616 43.233 49.762 1.00 9.04

ATOM 173 HA CYS A 13 58.605 42.269 49.250 1.00 9.04

ATOM 174 CB CYS A 13 58.951 44.283 48.732 1.00 9.04

ATOM 175 HB1 CYS A 13 59.528 45.088 49.171 1.00 9.04

ATOM 176 HB2 CYS A 13 58.031 44.680 48.332 1.00 9.04

ATOM 177 SG CYS A 13 59.952 43.648 47.411 1.00 9.04

ATOM 178 C CYS A 13 59.731 43.194 50.803 1.00 9.04

ATOM 179 O CYS A 13 60.213 44.204 51.306 1.00 9.04

ATOM 180 N THR A 14 60.246 42.012 51.049 1.00 10.96

ATOM 181 H THR A 14 59.818 41.189 50.651 1.00 10.96

ATOM 182 CA THR A 14 61.389 41.824 51.920 1.00 10.96

ATOM 183 HA THR A 14 61.252 42.426 52.818 1.00 10.96

ATOM 184 CB THR A 14 61.443 40.337 52.339 1.00 10.96

ATOM 185 HB THR A 14 62.370 40.135 52.874 1.00 10.96

ATOM 186 CG2 THR A 14 60.292 39.953 53.269 1.00 10.96

ATOM 187 1HG2 THR A 14 60.406 38.917 53.586 1.00 10.96

ATOM 188 2HG2 THR A 14 60.308 40.594 54.151 1.00 10.96

ATOM 189 3HG2 THR A 14 59.334 40.072 52.763 1.00 10.96

ATOM 190 OG1 THR A 14 61.358 39.486 51.206 1.00 10.96

ATOM 191 HG1 THR A 14 61.718 38.638 51.482 1.00 10.96

ATOM 192 C THR A 14 62.745 42.231 51.315 1.00 10.96

ATOM 193 O THR A 14 63.762 41.595 51.580 1.00 10.96

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ATOM 195 H GLY A 15 61.956 43.831 50.389 1.00 10.86

ATOM 196 CA GLY A 15 63.952 43.541 49.600 1.00 10.86

ATOM 197 HA1 GLY A 15 64.864 43.434 50.189 1.00 10.86

ATOM 198 HA2 GLY A 15 63.883 44.574 49.262 1.00 10.86

ATOM 199 C GLY A 15 64.072 42.644 48.361 1.00 10.86

ATOM 200 O GLY A 15 65.161 42.416 47.849 1.00 10.86

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ATOM 202 H THR A 16 62.103 42.346 48.411 1.00 10.28

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ATOM 204 HA THR A 16 63.711 40.741 46.497 1.00 10.28

ATOM 205 CB THR A 16 61.973 39.933 47.477 1.00 10.28

ATOM 206 HB THR A 16 61.496 39.331 46.704 1.00 10.28

ATOM 207 CG2 THR A 16 62.925 39.033 48.263 1.00 10.28

ATOM 208 1HG2 THR A 16 62.371 38.198 48.693 1.00 10.28

ATOM 209 2HG2 THR A 16 63.689 38.634 47.596 1.00 10.28

ATOM 210 3HG2 THR A 16 63.409 39.597 49.062 1.00 10.28

ATOM 211 OG1 THR A 16 61.001 40.370 48.419 1.00 10.28

ATOM 212 HG1 THR A 16 61.150 39.881 49.246 1.00 10.28

ATOM 213 C THR A 16 62.016 41.736 45.616 1.00 10.28

ATOM 214 O THR A 16 60.945 41.296 45.200 1.00 10.28

ATOM 215 N PRO A 17 62.559 42.835 45.052 1.00 9.58

ATOM 216 CD PRO A 17 63.994 42.987 44.836 1.00 9.58

ATOM 217 HD1 PRO A 17 64.235 42.644 43.829 1.00 9.58

ATOM 218 HD2 PRO A 17 64.607 42.440 45.544 1.00 9.58

ATOM 219 CG PRO A 17 64.265 44.477 44.935 1.00 9.58

ATOM 220 HG1 PRO A 17 65.174 44.764 44.404 1.00 9.58

ATOM 221 HG2 PRO A 17 64.303 44.785 45.982 1.00 9.58

ATOM 222 CB PRO A 17 63.012 45.022 44.267 1.00 9.58

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ATOM 224 HB2 PRO A 17 62.848 46.055 44.546 1.00 9.58

ATOM 225 CA PRO A 17 61.868 44.104 44.739 1.00 9.58

ATOM 226 HA PRO A 17 61.475 44.550 45.643 1.00 9.58

ATOM 227 C PRO A 17 60.787 44.136 43.643 1.00 9.58

ATOM 228 O PRO A 17 60.262 45.210 43.367 1.00 9.58

ATOM 229 N GLN A 18 60.511 43.059 42.902 1.00 9.02

ATOM 230 H GLN A 18 60.887 42.169 43.205 1.00 9.02

ATOM 231 CA GLN A 18 60.108 43.248 41.495 1.00 9.02

ATOM 232 HA GLN A 18 60.531 44.202 41.172 1.00 9.02

ATOM 233 CB GLN A 18 60.778 42.189 40.597 1.00 9.02

ATOM 234 HB1 GLN A 18 60.410 41.202 40.883 1.00 9.02

ATOM 235 HB2 GLN A 18 61.853 42.210 40.785 1.00 9.02

ATOM 236 CG GLN A 18 60.552 42.372 39.076 1.00 9.02

ATOM 237 HG1 GLN A 18 59.503 42.197 38.838 1.00 9.02

ATOM 238 HG2 GLN A 18 61.126 41.609 38.552 1.00 9.02

ATOM 239 CD GLN A 18 60.958 43.745 38.525 1.00 9.02

ATOM 240 OE1 GLN A 18 60.158 44.651 38.340 1.00 9.02

ATOM 241 NE2 GLN A 18 62.222 43.969 38.256 1.00 9.02

ATOM 242 1HE2 GLN A 18 62.902 43.236 38.346 1.00 9.02

ATOM 243 2HE2 GLN A 18 62.449 44.874 37.880 1.00 9.02

ATOM 244 C GLN A 18 58.613 43.377 41.192 1.00 9.02

ATOM 245 O GLN A 18 58.220 44.027 40.229 1.00 9.02

ATOM 246 N GLN A 19 57.752 42.839 42.040 1.00 9.73

ATOM 247 H GLN A 19 58.119 42.308 42.820 1.00 9.73

ATOM 248 CA GLN A 19 56.302 43.089 41.964 1.00 9.73

ATOM 249 HA GLN A 19 56.081 43.828 41.194 1.00 9.73

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ATOM 253 CG GLN A 19 55.703 41.423 40.088 1.00 9.73

ATOM 254 HG1 GLN A 19 55.550 40.348 39.980 1.00 9.73

ATOM 255 HG2 GLN A 19 56.698 41.653 39.711 1.00 9.73

ATOM 256 CD GLN A 19 54.656 42.150 39.243 1.00 9.73

ATOM 257 OE1 GLN A 19 54.582 43.373 39.202 1.00 9.73

ATOM 258 NE2 GLN A 19 53.784 41.429 38.570 1.00 9.73

ATOM 259 1HE2 GLN A 19 53.834 40.424 38.558 1.00 9.73

ATOM 260 2HE2 GLN A 19 52.992 41.919 38.182 1.00 9.73

ATOM 261 C GLN A 19 55.788 43.700 43.254 1.00 9.73

ATOM 262 O GLN A 19 54.635 43.571 43.659 1.00 9.73

ATOM 263 N CYS A 20 56.701 44.405 43.896 1.00 7.21

ATOM 264 H CYS A 20 57.621 44.443 43.483 1.00 7.21

ATOM 265 CA CYS A 20 56.565 45.056 45.171 1.00 7.21

ATOM 266 HA CYS A 20 55.980 44.416 45.822 1.00 7.21

ATOM 267 CB CYS A 20 57.989 45.106 45.704 1.00 7.21

ATOM 268 HB1 CYS A 20 58.034 45.704 46.608 1.00 7.21

ATOM 269 HB2 CYS A 20 58.643 45.606 44.997 1.00 7.21

ATOM 270 SG CYS A 20 58.535 43.401 46.018 1.00 7.21

ATOM 271 C CYS A 20 55.864 46.395 45.011 1.00 7.21

ATOM 272 O CYS A 20 56.422 47.412 45.396 1.00 7.21

ATOM 273 N TYR A 21 54.727 46.353 44.292 1.00 8.66

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ATOM 275 CA TYR A 21 54.200 47.420 43.442 1.00 8.66

ATOM 276 HA TYR A 21 54.132 47.004 42.438 1.00 8.66

ATOM 277 CB TYR A 21 52.778 47.837 43.840 1.00 8.66

ATOM 278 HB1 TYR A 21 52.773 48.127 44.891 1.00 8.66

ATOM 279 HB2 TYR A 21 52.119 46.981 43.724 1.00 8.66

ATOM 280 CG TYR A 21 52.225 48.979 42.999 1.00 8.66

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ATOM 282 HD1 TYR A 21 52.905 48.184 41.089 1.00 8.66

ATOM 283 CE1 TYR A 21 51.980 50.099 40.844 1.00 8.66

ATOM 284 HE1 TYR A 21 52.133 50.132 39.777 1.00 8.66

ATOM 285 CZ TYR A 21 51.332 51.176 41.476 1.00 8.66

ATOM 286 OH TYR A 21 50.937 52.227 40.720 1.00 8.66

ATOM 287 HH TYR A 21 50.695 52.994 41.239 1.00 8.66

ATOM 288 CE2 TYR A 21 51.115 51.154 42.870 1.00 8.66

ATOM 289 HE2 TYR A 21 50.613 51.974 43.359 1.00 8.66

ATOM 290 CD2 TYR A 21 51.566 50.055 43.626 1.00 8.66

ATOM 291 HD2 TYR A 21 51.408 50.033 44.696 1.00 8.66

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ATOM 293 O TYR A 21 54.955 49.610 43.988 1.00 8.66

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ATOM 295 H ARG A 22 56.306 47.402 42.212 1.00 10.53

ATOM 296 CA ARG A 22 57.626 48.920 42.879 1.00 10.53

ATOM 297 HA ARG A 22 57.729 49.081 43.937 1.00 10.53

ATOM 298 CB ARG A 22 58.773 48.001 42.432 1.00 10.53

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ATOM 300 HB2 ARG A 22 59.679 48.584 42.278 1.00 10.53

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ATOM 302 HG1 ARG A 22 57.692 46.464 41.400 1.00 10.53

ATOM 303 HG2 ARG A 22 59.428 46.389 41.199 1.00 10.53

ATOM 304 CD ARG A 22 58.494 47.728 39.850 1.00 10.53

ATOM 305 HD1 ARG A 22 59.476 48.113 39.573 1.00 10.53

ATOM 306 HD2 ARG A 22 57.802 48.564 39.887 1.00 10.53

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ATOM 310 NH1 ARG A 22 56.516 45.216 38.186 1.00 10.53

ATOM 311 1HH1 ARG A 22 57.279 44.559 38.191 1.00 10.53

ATOM 312 2HH1 ARG A 22 55.586 44.834 38.291 1.00 10.53

ATOM 313 NH2 ARG A 22 55.819 47.256 38.836 1.00 10.53

ATOM 314 1HH2 ARG A 22 56.052 48.212 39.095 1.00 10.53

ATOM 315 2HH2 ARG A 22 54.880 47.032 38.570 1.00 10.53

ATOM 316 C ARG A 22 57.635 50.337 42.238 1.00 10.53

ATOM 317 O ARG A 22 58.519 50.697 41.465 1.00 10.53

ATOM 318 N TRP A 23 56.543 51.064 42.496 1.00 11.98

ATOM 319 H TRP A 23 56.112 50.777 43.362 1.00 11.98

ATOM 320 CA TRP A 23 55.598 51.664 41.539 1.00 11.98

ATOM 321 HA TRP A 23 54.616 51.233 41.742 1.00 11.98

ATOM 322 CB TRP A 23 55.519 53.159 41.908 1.00 11.98

ATOM 323 HB1 TRP A 23 56.517 53.574 41.800 1.00 11.98

ATOM 324 HB2 TRP A 23 55.282 53.202 42.971 1.00 11.98

ATOM 325 CG TRP A 23 54.567 54.123 41.266 1.00 11.98

ATOM 326 CD1 TRP A 23 54.430 55.373 41.766 1.00 11.98

ATOM 327 HD1 TRP A 23 54.961 55.776 42.625 1.00 11.98

ATOM 328 NE1 TRP A 23 53.588 56.118 40.979 1.00 11.98

ATOM 329 HE1 TRP A 23 53.453 57.115 41.147 1.00 11.98

ATOM 330 CE2 TRP A 23 53.099 55.383 39.925 1.00 11.98

ATOM 331 CZ2 TRP A 23 52.236 55.708 38.867 1.00 11.98

ATOM 332 HZ2 TRP A 23 51.845 56.713 38.783 1.00 11.98

ATOM 333 CH2 TRP A 23 51.911 54.718 37.925 1.00 11.98

ATOM 334 HH2 TRP A 23 51.249 54.954 37.104 1.00 11.98

ATOM 335 CZ3 TRP A 23 52.446 53.425 38.059 1.00 11.98

ATOM 336 HZ3 TRP A 23 52.166 52.660 37.348 1.00 11.98

ATOM 337 CE3 TRP A 23 53.322 53.115 39.120 1.00 11.98

ATOM 338 HE3 TRP A 23 53.678 52.103 39.204 1.00 11.98

ATOM 339 CD2 TRP A 23 53.690 54.085 40.085 1.00 11.98

ATOM 340 C TRP A 23 55.992 51.303 40.104 1.00 11.98

ATOM 341 O TRP A 23 56.007 50.133 39.711 1.00 11.98

ATOM 342 N GLY A 24 56.431 52.304 39.349 1.00 12.79

ATOM 343 H GLY A 24 56.133 53.228 39.610 1.00 12.79

ATOM 344 CA GLY A 24 57.654 52.225 38.555 1.00 12.79

ATOM 345 HA1 GLY A 24 57.398 52.151 37.504 1.00 12.79

ATOM 346 HA2 GLY A 24 58.233 51.345 38.836 1.00 12.79

ATOM 347 C GLY A 24 58.536 53.448 38.750 1.00 12.79

ATOM 348 O GLY A 24 59.562 53.544 38.096 1.00 12.79

ATOM 349 N CYS A 25 58.174 54.342 39.681 1.00 12.95

ATOM 350 H CYS A 25 57.278 54.287 40.130 1.00 12.95

ATOM 351 CA CYS A 25 59.016 55.457 40.092 1.00 12.95

ATOM 352 HA CYS A 25 59.161 56.091 39.215 1.00 12.95

ATOM 353 CB CYS A 25 58.276 56.301 41.132 1.00 12.95

ATOM 354 HB1 CYS A 25 58.937 57.072 41.532 1.00 12.95

ATOM 355 HB2 CYS A 25 57.904 55.682 41.945 1.00 12.95

ATOM 356 SG CYS A 25 56.880 57.103 40.287 1.00 12.95

ATOM 357 HG CYS A 25 56.288 57.688 41.356 1.00 12.95

ATOM 358 C CYS A 25 60.440 55.044 40.493 1.00 12.95

ATOM 359 O CYS A 25 61.376 55.837 40.375 1.00 12.95

ATOM 360 N GLY A 26 60.610 53.793 40.940 1.00 13.32

ATOM 361 H GLY A 26 59.810 53.182 40.927 1.00 13.32

ATOM 362 CA GLY A 26 61.801 53.360 41.655 1.00 13.32

ATOM 363 HA1 GLY A 26 62.677 53.492 41.020 1.00 13.32

ATOM 364 HA2 GLY A 26 61.707 52.308 41.920 1.00 13.32

ATOM 365 C GLY A 26 61.981 54.194 42.929 1.00 13.32

ATOM 366 O GLY A 26 61.263 55.163 43.176 1.00 13.32

ATOM 367 N GLY A 27 62.763 53.698 43.880 1.00 13.71

ATOM 368 H GLY A 27 63.329 52.884 43.701 1.00 13.71

ATOM 369 CA GLY A 27 62.506 54.035 45.285 1.00 13.71

ATOM 370 HA1 GLY A 27 62.522 55.120 45.395 1.00 13.71

ATOM 371 HA2 GLY A 27 63.304 53.629 45.907 1.00 13.71

ATOM 372 C GLY A 27 61.177 53.537 45.826 1.00 13.71

ATOM 373 O GLY A 27 61.077 53.280 47.013 1.00 13.71

ATOM 374 N TRP A 28 60.185 53.302 44.970 1.00 12.17

ATOM 375 H TRP A 28 60.284 53.717 44.053 1.00 12.17

ATOM 376 CA TRP A 28 58.900 52.707 45.283 1.00 12.17

ATOM 377 HA TRP A 28 58.681 52.963 46.305 1.00 12.17

ATOM 378 CB TRP A 28 57.848 53.361 44.385 1.00 12.17

ATOM 379 HB1 TRP A 28 56.937 52.774 44.459 1.00 12.17

ATOM 380 HB2 TRP A 28 58.187 53.339 43.349 1.00 12.17

ATOM 381 CG TRP A 28 57.472 54.762 44.761 1.00 12.17

ATOM 382 CD1 TRP A 28 58.174 55.895 44.512 1.00 12.17

ATOM 383 HD1 TRP A 28 59.103 55.957 43.960 1.00 12.17

ATOM 384 NE1 TRP A 28 57.497 56.981 45.036 1.00 12.17

ATOM 385 HE1 TRP A 28 57.643 57.951 44.760 1.00 12.17

ATOM 386 CE2 TRP A 28 56.412 56.579 45.770 1.00 12.17

ATOM 387 CZ2 TRP A 28 55.500 57.275 46.564 1.00 12.17

ATOM 388 HZ2 TRP A 28 55.619 58.341 46.709 1.00 12.17

ATOM 389 CH2 TRP A 28 54.358 56.610 47.022 1.00 12.17

ATOM 390 HH2 TRP A 28 53.609 57.195 47.526 1.00 12.17

ATOM 391 CZ3 TRP A 28 54.153 55.253 46.703 1.00 12.17

ATOM 392 HZ3 TRP A 28 53.244 54.749 46.997 1.00 12.17

ATOM 393 CE3 TRP A 28 55.109 54.550 45.946 1.00 12.17

ATOM 394 HE3 TRP A 28 54.946 53.509 45.702 1.00 12.17

ATOM 395 CD2 TRP A 28 56.279 55.193 45.483 1.00 12.17

ATOM 396 C TRP A 28 58.882 51.189 45.222 1.00 12.17

ATOM 397 O TRP A 28 57.839 50.631 45.527 1.00 12.17

ATOM 398 N GLN A 29 60.006 50.522 44.909 1.00 10.14

ATOM 399 H GLN A 29 60.816 51.066 44.650 1.00 10.14

ATOM 400 CA GLN A 29 60.240 49.178 45.460 1.00 10.14

ATOM 401 HA GLN A 29 59.330 48.590 45.338 1.00 10.14

ATOM 402 CB GLN A 29 61.383 48.382 44.778 1.00 10.14

ATOM 403 HB1 GLN A 29 60.990 47.856 43.917 1.00 10.14

ATOM 404 HB2 GLN A 29 61.688 47.610 45.483 1.00 10.14

ATOM 405 CG GLN A 29 62.646 49.114 44.305 1.00 10.14

ATOM 406 HG1 GLN A 29 62.400 49.713 43.427 1.00 10.14

ATOM 407 HG2 GLN A 29 63.399 48.384 44.011 1.00 10.14

ATOM 408 CD GLN A 29 63.218 50.023 45.368 1.00 10.14

ATOM 409 OE1 GLN A 29 62.975 51.209 45.329 1.00 10.14

ATOM 410 NE2 GLN A 29 63.872 49.520 46.389 1.00 10.14

ATOM 411 1HE2 GLN A 29 64.016 48.532 46.474 1.00 10.14

ATOM 412 2HE2 GLN A 29 64.064 50.145 47.166 1.00 10.14

ATOM 413 C GLN A 29 60.477 49.208 46.976 1.00 10.14

ATOM 414 O GLN A 29 60.251 48.197 47.632 1.00 10.14

ATOM 415 N SER A 30 60.944 50.339 47.525 1.00 9.98

ATOM 416 H SER A 30 61.212 51.107 46.925 1.00 9.98

ATOM 417 CA SER A 30 61.050 50.566 48.966 1.00 9.98

ATOM 418 HA SER A 30 61.152 49.605 49.461 1.00 9.98

ATOM 419 CB SER A 30 62.303 51.371 49.342 1.00 9.98

ATOM 420 HB1 SER A 30 62.255 51.625 50.403 1.00 9.98

ATOM 421 HB2 SER A 30 62.348 52.297 48.774 1.00 9.98

ATOM 422 OG SER A 30 63.486 50.621 49.110 1.00 9.98

ATOM 423 HG SER A 30 63.655 50.098 49.903 1.00 9.98

ATOM 424 C SER A 30 59.786 51.211 49.531 1.00 9.98

ATOM 425 O SER A 30 59.230 50.704 50.496 1.00 9.98

ATOM 426 N ALA A 31 59.162 52.187 48.864 1.00 9.20

ATOM 427 H ALA A 31 59.636 52.614 48.077 1.00 9.20

ATOM 428 CA ALA A 31 57.710 52.288 48.968 1.00 9.20

ATOM 429 HA ALA A 31 57.503 52.502 50.017 1.00 9.20

ATOM 430 CB ALA A 31 57.122 53.454 48.179 1.00 9.20

ATOM 431 HB1 ALA A 31 56.209 53.805 48.656 1.00 9.20

ATOM 432 HB2 ALA A 31 57.831 54.281 48.111 1.00 9.20

ATOM 433 HB3 ALA A 31 56.853 53.096 47.190 1.00 9.20

ATOM 434 C ALA A 31 57.059 50.940 48.672 1.00 9.20

ATOM 435 O ALA A 31 57.689 49.976 48.246 1.00 9.20

ATOM 436 N CYS A 32 55.806 50.850 49.058 1.00 7.27

ATOM 437 H CYS A 32 55.293 51.691 49.248 1.00 7.27

ATOM 438 CA CYS A 32 55.106 49.594 49.148 1.00 7.27

ATOM 439 HA CYS A 32 54.134 49.852 49.569 1.00 7.27

ATOM 440 CB CYS A 32 54.764 49.128 47.729 1.00 7.27

ATOM 441 HB1 CYS A 32 54.151 48.241 47.786 1.00 7.27

ATOM 442 HB2 CYS A 32 55.683 48.918 47.177 1.00 7.27

ATOM 443 SG CYS A 32 53.805 50.406 46.859 1.00 7.27

ATOM 444 HG CYS A 32 54.213 50.060 45.623 1.00 7.27

ATOM 445 C CYS A 32 55.643 48.594 50.175 1.00 7.27

ATOM 446 O CYS A 32 54.788 47.874 50.677 1.00 7.27

ATOM 447 N CYS A 33 56.929 48.594 50.581 1.00 8.09

ATOM 448 H CYS A 33 57.585 49.178 50.074 1.00 8.09

ATOM 449 CA CYS A 33 57.453 47.523 51.445 1.00 8.09

ATOM 450 HA CYS A 33 56.637 46.872 51.747 1.00 8.09

ATOM 451 CB CYS A 33 58.447 46.687 50.670 1.00 8.09

ATOM 452 HB1 CYS A 33 58.072 46.549 49.661 1.00 8.09

ATOM 453 HB2 CYS A 33 58.481 45.729 51.179 1.00 8.09

ATOM 454 SG CYS A 33 60.133 47.366 50.583 1.00 8.09

ATOM 455 HG CYS A 33 60.005 47.912 49.363 1.00 8.09

ATOM 456 C CYS A 33 58.041 47.977 52.780 1.00 8.09

ATOM 457 O CYS A 33 57.720 47.472 53.853 1.00 8.09

ATOM 458 N THR A 34 58.821 49.041 52.718 1.00 10.19

ATOM 459 H THR A 34 59.016 49.369 51.776 1.00 10.19

ATOM 460 CA THR A 34 59.286 49.911 53.781 1.00 10.19

ATOM 461 HA THR A 34 59.591 49.279 54.617 1.00 10.19

ATOM 462 CB THR A 34 60.527 50.717 53.345 1.00 10.19

ATOM 463 HB THR A 34 60.229 51.511 52.661 1.00 10.19

ATOM 464 CG2 THR A 34 61.272 51.332 54.531 1.00 10.19

ATOM 465 1HG2 THR A 34 62.153 51.863 54.168 1.00 10.19

ATOM 466 2HG2 THR A 34 60.632 52.039 55.057 1.00 10.19

ATOM 467 3HG2 THR A 34 61.588 50.548 55.219 1.00 10.19

ATOM 468 OG1 THR A 34 61.470 49.887 52.695 1.00 10.19

ATOM 469 HG1 THR A 34 61.024 49.079 52.410 1.00 10.19

ATOM 470 C THR A 34 58.149 50.803 54.271 1.00 10.19

ATOM 471 O THR A 34 58.126 52.030 54.190 1.00 10.19

ATOM 472 N THR A 35 57.108 50.094 54.665 1.00 10.70

ATOM 473 H THR A 35 57.260 49.093 54.556 1.00 10.70

ATOM 474 CA THR A 35 55.809 50.407 55.237 1.00 10.70

ATOM 475 HA THR A 35 55.919 50.976 56.160 1.00 10.70

ATOM 476 CB THR A 35 54.879 51.160 54.244 1.00 10.70

ATOM 477 HB THR A 35 54.588 50.496 53.429 1.00 10.70

ATOM 478 CG2 THR A 35 53.629 51.715 54.928 1.00 10.70

ATOM 479 1HG2 THR A 35 52.969 52.157 54.181 1.00 10.70

ATOM 480 2HG2 THR A 35 53.096 50.915 55.434 1.00 10.70

ATOM 481 3HG2 THR A 35 53.907 52.469 55.664 1.00 10.70

ATOM 482 OG1 THR A 35 55.521 52.296 53.682 1.00 10.70

ATOM 483 HG1 THR A 35 56.475 52.143 53.848 1.00 10.70

ATOM 484 C THR A 35 55.337 48.993 55.537 1.00 10.70

ATOM 485 O THR A 35 54.671 48.374 54.718 1.00 10.70

ATOM 486 N ASN A 36 55.926 48.392 56.578 1.00 10.39

ATOM 487 H ASN A 36 56.535 48.942 57.163 1.00 10.39

ATOM 488 CA ASN A 36 55.927 46.944 56.820 1.00 10.39

ATOM 489 HA ASN A 36 56.021 46.431 55.858 1.00 10.39

ATOM 490 CB ASN A 36 57.180 46.608 57.659 1.00 10.39

ATOM 491 HB1 ASN A 36 57.050 46.964 58.681 1.00 10.39

ATOM 492 HB2 ASN A 36 58.045 47.113 57.228 1.00 10.39

ATOM 493 CG ASN A 36 57.522 45.125 57.705 1.00 10.39

ATOM 494 OD1 ASN A 36 58.550 44.686 57.227 1.00 10.39

ATOM 495 ND2 ASN A 36 56.694 44.303 58.306 1.00 10.39

ATOM 496 1HD2 ASN A 36 55.852 44.668 58.739 1.00 10.39

ATOM 497 2HD2 ASN A 36 56.986 43.345 58.355 1.00 10.39

ATOM 498 C ASN A 36 54.599 46.526 57.449 1.00 10.39

ATOM 499 O ASN A 36 54.521 46.020 58.567 1.00 10.39

ATOM 500 N ILE A 37 53.536 46.803 56.705 1.00 7.57

ATOM 501 H ILE A 37 53.728 47.225 55.801 1.00 7.57

ATOM 502 CA ILE A 37 52.136 46.501 57.001 1.00 7.57

ATOM 503 HA ILE A 37 51.835 47.060 57.887 1.00 7.57

ATOM 504 CB ILE A 37 51.303 46.984 55.795 1.00 7.57

ATOM 505 HB ILE A 37 51.681 46.477 54.908 1.00 7.57

ATOM 506 CG2 ILE A 37 49.832 46.593 55.979 1.00 7.57

ATOM 507 1HG2 ILE A 37 49.198 47.029 55.209 1.00 7.57

ATOM 508 2HG2 ILE A 37 49.749 45.516 55.898 1.00 7.57

ATOM 509 3HG2 ILE A 37 49.473 46.885 56.966 1.00 7.57

ATOM 510 CG1 ILE A 37 51.495 48.505 55.577 1.00 7.57

ATOM 511 1HG1 ILE A 37 52.541 48.734 55.520 1.00 7.57

ATOM 512 2HG1 ILE A 37 51.165 49.056 56.447 1.00 7.57

ATOM 513 CD1 ILE A 37 50.892 49.080 54.292 1.00 7.57

ATOM 514 HD1 ILE A 37 51.157 50.134 54.222 1.00 7.57

ATOM 515 HD2 ILE A 37 51.304 48.558 53.429 1.00 7.57

ATOM 516 HD3 ILE A 37 49.808 48.999 54.286 1.00 7.57

ATOM 517 C ILE A 37 51.925 45.009 57.320 1.00 7.57

ATOM 518 O ILE A 37 50.978 44.610 57.995 1.00 7.57

ATOM 519 N SER A 38 52.873 44.223 56.823 1.00 8.41

ATOM 520 H SER A 38 53.467 44.693 56.160 1.00 8.41

ATOM 521 CA SER A 38 53.258 42.839 57.048 1.00 8.41

ATOM 522 HA SER A 38 54.198 42.843 57.598 1.00 8.41

ATOM 523 CB SER A 38 52.258 42.057 57.906 1.00 8.41

ATOM 524 HB1 SER A 38 51.316 41.974 57.365 1.00 8.41

ATOM 525 HB2 SER A 38 52.086 42.591 58.841 1.00 8.41

ATOM 526 OG SER A 38 52.755 40.772 58.231 1.00 8.41

ATOM 527 HG SER A 38 51.984 40.177 58.192 1.00 8.41

ATOM 528 C SER A 38 53.553 42.245 55.668 1.00 8.41

ATOM 529 O SER A 38 53.647 42.972 54.675 1.00 8.41

ATOM 530 N VAL A 39 53.684 40.929 55.564 1.00 9.16

ATOM 531 H VAL A 39 53.689 40.390 56.421 1.00 9.16

ATOM 532 CA VAL A 39 53.535 40.256 54.268 1.00 9.16

ATOM 533 HA VAL A 39 54.224 40.722 53.568 1.00 9.16

ATOM 534 CB VAL A 39 53.927 38.764 54.386 1.00 9.16

ATOM 535 HB VAL A 39 53.115 38.218 54.866 1.00 9.16

ATOM 536 CG1 VAL A 39 54.193 38.150 53.007 1.00 9.16

ATOM 537 1HG1 VAL A 39 54.423 37.089 53.110 1.00 9.16

ATOM 538 2HG1 VAL A 39 53.311 38.242 52.379 1.00 9.16

ATOM 539 3HG1 VAL A 39 55.035 38.653 52.529 1.00 9.16

ATOM 540 CG2 VAL A 39 55.197 38.526 55.217 1.00 9.16

ATOM 541 1HG2 VAL A 39 55.470 37.470 55.192 1.00 9.16

ATOM 542 2HG2 VAL A 39 56.022 39.116 54.815 1.00 9.16

ATOM 543 3HG2 VAL A 39 55.033 38.805 56.258 1.00 9.16

ATOM 544 C VAL A 39 52.135 40.420 53.727 1.00 9.16

ATOM 545 O VAL A 39 51.943 40.704 52.548 1.00 9.16

ATOM 546 N TYR A 40 51.167 40.303 54.639 1.00 10.38

ATOM 547 H TYR A 40 51.450 40.129 55.594 1.00 10.38

ATOM 548 CA TYR A 40 49.757 40.608 54.442 1.00 10.38

ATOM 549 HA TYR A 40 49.271 40.268 55.330 1.00 10.38

ATOM 550 CB TYR A 40 49.710 42.164 54.387 1.00 10.38

ATOM 551 HB1 TYR A 40 50.488 42.500 53.706 1.00 10.38

ATOM 552 HB2 TYR A 40 50.015 42.525 55.371 1.00 10.38

ATOM 553 CG TYR A 40 48.471 42.948 53.970 1.00 10.38

ATOM 554 CD1 TYR A 40 47.924 43.891 54.861 1.00 10.38

ATOM 555 HD1 TYR A 40 48.287 43.947 55.877 1.00 10.38

ATOM 556 CE1 TYR A 40 46.953 44.806 54.414 1.00 10.38

ATOM 557 HE1 TYR A 40 46.611 45.605 55.047 1.00 10.38

ATOM 558 CZ TYR A 40 46.403 44.671 53.128 1.00 10.38

ATOM 559 OH TYR A 40 45.342 45.420 52.760 1.00 10.38

ATOM 560 HH TYR A 40 45.038 45.211 51.865 1.00 10.38

ATOM 561 CE2 TYR A 40 46.922 43.717 52.240 1.00 10.38

ATOM 562 HE2 TYR A 40 46.481 43.616 51.267 1.00 10.38

ATOM 563 CD2 TYR A 40 48.009 42.919 52.635 1.00 10.38

ATOM 564 HD2 TYR A 40 48.474 42.255 51.924 1.00 10.38

ATOM 565 C TYR A 40 49.093 39.877 53.300 1.00 10.38

ATOM 566 O TYR A 40 47.932 40.193 53.054 1.00 10.38

ATOM 567 N PRO A 41 49.778 38.957 52.584 1.00 11.52

ATOM 568 CD PRO A 41 50.389 37.718 53.062 1.00 11.52

ATOM 569 HD1 PRO A 41 49.673 37.170 53.660 1.00 11.52

ATOM 570 HD2 PRO A 41 51.295 37.904 53.628 1.00 11.52

ATOM 571 CG PRO A 41 50.697 36.849 51.842 1.00 11.52

ATOM 572 HG1 PRO A 41 49.934 36.076 51.740 1.00 11.52

ATOM 573 HG2 PRO A 41 51.687 36.398 51.904 1.00 11.52

ATOM 574 CB PRO A 41 50.598 37.824 50.680 1.00 11.52

ATOM 575 HB1 PRO A 41 50.311 37.331 49.757 1.00 11.52

ATOM 576 HB2 PRO A 41 51.563 38.313 50.544 1.00 11.52

ATOM 577 CA PRO A 41 49.590 38.864 51.172 1.00 11.52

ATOM 578 HA PRO A 41 49.790 39.826 50.702 1.00 11.52

ATOM 579 C PRO A 41 48.090 38.524 51.061 1.00 11.52

ATOM 580 O PRO A 41 47.570 37.611 51.694 1.00 11.52

ATOM 581 N LEU A 42 47.352 39.297 50.247 1.00 12.33

ATOM 582 H LEU A 42 47.773 40.140 49.903 1.00 12.33

ATOM 583 CA LEU A 42 46.375 38.640 49.391 1.00 12.33

ATOM 584 HA LEU A 42 45.342 38.632 49.730 1.00 12.33

ATOM 585 CB LEU A 42 46.534 39.193 47.924 1.00 12.33

ATOM 586 HB1 LEU A 42 46.997 38.455 47.274 1.00 12.33

ATOM 587 HB2 LEU A 42 47.342 39.904 47.943 1.00 12.33

ATOM 588 CG LEU A 42 45.390 39.674 47.024 1.00 12.33

ATOM 589 HG LEU A 42 45.859 40.264 46.251 1.00 12.33

ATOM 590 CD1 LEU A 42 44.694 38.540 46.273 1.00 12.33

ATOM 591 1HD1 LEU A 42 43.781 38.886 45.793 1.00 12.33

ATOM 592 2HD1 LEU A 42 45.357 38.153 45.503 1.00 12.33

ATOM 593 3HD1 LEU A 42 44.469 37.715 46.936 1.00 12.33

ATOM 594 CD2 LEU A 42 44.354 40.545 47.711 1.00 12.33

ATOM 595 1HD2 LEU A 42 43.835 41.143 46.963 1.00 12.33

ATOM 596 2HD2 LEU A 42 43.655 39.885 48.187 1.00 12.33

ATOM 597 3HD2 LEU A 42 44.811 41.196 48.454 1.00 12.33

ATOM 598 C LEU A 42 46.901 37.198 49.151 1.00 12.33

ATOM 599 O LEU A 42 48.088 37.064 48.839 1.00 12.33

ATOM 600 N PRO A 43 46.061 36.182 49.145 1.00 13.82

ATOM 601 CD PRO A 43 45.333 35.663 50.271 1.00 13.82

ATOM 602 HD1 PRO A 43 44.301 35.989 50.273 1.00 13.82

ATOM 603 HD2 PRO A 43 45.837 36.025 51.146 1.00 13.82

ATOM 604 CG PRO A 43 45.430 34.135 50.217 1.00 13.82

ATOM 605 HG1 PRO A 43 44.508 33.653 50.539 1.00 13.82

ATOM 606 HG2 PRO A 43 46.259 33.808 50.846 1.00 13.82

ATOM 607 CB PRO A 43 45.753 33.832 48.755 1.00 13.82

ATOM 608 HB1 PRO A 43 44.859 33.686 48.165 1.00 13.82

ATOM 609 HB2 PRO A 43 46.389 32.949 48.669 1.00 13.82

ATOM 610 CA PRO A 43 46.512 35.087 48.351 1.00 13.82

ATOM 611 HA PRO A 43 47.543 34.873 48.635 1.00 13.82

ATOM 612 C PRO A 43 46.497 35.480 46.888 1.00 13.82

ATOM 613 O PRO A 43 45.489 35.379 46.208 1.00 13.82

ATOM 614 N MET A 44 47.664 35.951 46.441 1.00 14.34

ATOM 615 H MET A 44 48.356 36.130 47.159 1.00 14.34

ATOM 616 CA MET A 44 47.987 36.420 45.099 1.00 14.34

ATOM 617 HA MET A 44 47.438 37.334 44.877 1.00 14.34

ATOM 618 CB MET A 44 49.502 36.689 45.016 1.00 14.34

ATOM 619 HB1 MET A 44 49.756 36.953 43.989 1.00 14.34

ATOM 620 HB2 MET A 44 50.031 35.763 45.245 1.00 14.34

ATOM 621 CG MET A 44 50.025 37.781 45.959 1.00 14.34

ATOM 622 HG1 MET A 44 51.104 37.848 45.819 1.00 14.34

ATOM 623 HG2 MET A 44 49.857 37.470 46.989 1.00 14.34

ATOM 624 SD MET A 44 49.338 39.449 45.751 1.00 14.34

ATOM 625 CE MET A 44 49.615 39.692 43.972 1.00 14.34

ATOM 626 HE1 MET A 44 49.365 40.713 43.697 1.00 14.34

ATOM 627 HE2 MET A 44 50.658 39.495 43.723 1.00 14.34

ATOM 628 HE3 MET A 44 48.971 39.021 43.404 1.00 14.34

ATOM 629 C MET A 44 47.623 35.370 44.037 1.00 14.34

ATOM 630 O MET A 44 47.458 35.696 42.868 1.00 14.34

ATOM 631 N SER A 45 47.465 34.121 44.494 1.00 15.16

ATOM 632 H SER A 45 47.743 33.989 45.451 1.00 15.16

ATOM 633 CA SER A 45 46.525 33.132 43.987 1.00 15.16

ATOM 634 HA SER A 45 47.049 32.595 43.196 1.00 15.16

ATOM 635 CB SER A 45 46.208 32.096 45.072 1.00 15.16

ATOM 636 HB1 SER A 45 45.517 32.522 45.798 1.00 15.16

ATOM 637 HB2 SER A 45 47.127 31.819 45.591 1.00 15.16

ATOM 638 OG SER A 45 45.646 30.929 44.498 1.00 15.16

ATOM 639 HG SER A 45 46.352 30.300 44.307 1.00 15.16

ATOM 640 C SER A 45 45.256 33.715 43.357 1.00 15.16

ATOM 641 O SER A 45 44.233 33.914 44.014 1.00 15.16

ATOM 642 N THR A 46 45.365 33.990 42.057 1.00 15.59

ATOM 643 H THR A 46 46.284 33.837 41.669 1.00 15.59

ATOM 644 CA THR A 46 44.505 34.896 41.291 1.00 15.59

ATOM 645 HA THR A 46 44.782 35.904 41.603 1.00 15.59

ATOM 646 CB THR A 46 44.854 34.788 39.795 1.00 15.59

ATOM 647 HB THR A 46 45.927 34.952 39.687 1.00 15.59

ATOM 648 CG2 THR A 46 44.508 33.438 39.164 1.00 15.59

ATOM 649 1HG2 THR A 46 44.829 33.428 38.123 1.00 15.59

ATOM 650 2HG2 THR A 46 45.024 32.636 39.692 1.00 15.59

ATOM 651 3HG2 THR A 46 43.433 33.260 39.209 1.00 15.59

ATOM 652 OG1 THR A 46 44.188 35.776 39.042 1.00 15.59

ATOM 653 HG1 THR A 46 44.779 36.010 38.318 1.00 15.59

ATOM 654 C THR A 46 43.005 34.761 41.518 1.00 15.59

ATOM 655 O THR A 46 42.484 33.684 41.811 1.00 15.59

ATOM 656 N LYS A 47 42.316 35.893 41.333 1.00 15.64

ATOM 657 H LYS A 47 42.871 36.665 40.989 1.00 15.64

ATOM 658 CA LYS A 47 40.998 36.226 41.882 1.00 15.64

ATOM 659 HA LYS A 47 40.666 37.128 41.369 1.00 15.64

ATOM 660 CB LYS A 47 39.918 35.146 41.595 1.00 15.64

ATOM 661 HB1 LYS A 47 38.937 35.580 41.798 1.00 15.64

ATOM 662 HB2 LYS A 47 40.050 34.317 42.293 1.00 15.64

ATOM 663 CG LYS A 47 39.877 34.560 40.167 1.00 15.64

ATOM 664 HG1 LYS A 47 39.025 33.882 40.110 1.00 15.64

ATOM 665 HG2 LYS A 47 40.771 33.964 39.993 1.00 15.64

ATOM 666 CD LYS A 47 39.755 35.591 39.037 1.00 15.64

ATOM 667 HD1 LYS A 47 40.585 36.298 39.090 1.00 15.64

ATOM 668 HD2 LYS A 47 38.810 36.128 39.136 1.00 15.64

ATOM 669 CE LYS A 47 39.812 34.849 37.694 1.00 15.64

ATOM 670 HE1 LYS A 47 39.000 34.115 37.662 1.00 15.64

ATOM 671 HE2 LYS A 47 40.759 34.301 37.647 1.00 15.64

ATOM 672 NZ LYS A 47 39.706 35.776 36.541 1.00 15.64

ATOM 673 HZ1 LYS A 47 39.801 35.264 35.673 1.00 15.64

ATOM 674 HZ2 LYS A 47 38.805 36.237 36.537 1.00 15.64

ATOM 675 HZ3 LYS A 47 40.436 36.476 36.576 1.00 15.64

ATOM 676 C LYS A 47 41.121 36.646 43.350 1.00 15.64

ATOM 677 O LYS A 47 42.173 37.094 43.797 1.00 15.64

ATOM 678 N ARG A 48 40.009 36.660 44.080 1.00 14.33

ATOM 679 H ARG A 48 39.195 36.223 43.674 1.00 14.33

ATOM 680 CA ARG A 48 39.797 37.590 45.199 1.00 14.33

ATOM 681 HA ARG A 48 40.557 38.373 45.155 1.00 14.33

ATOM 682 CB ARG A 48 38.401 38.251 44.984 1.00 14.33

ATOM 683 HB1 ARG A 48 37.628 37.660 45.477 1.00 14.33

ATOM 684 HB2 ARG A 48 38.165 38.204 43.919 1.00 14.33

ATOM 685 CG ARG A 48 38.224 39.739 45.358 1.00 14.33

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ATOM 687 HG2 ARG A 48 38.875 40.326 44.709 1.00 14.33

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ATOM 689 HD1 ARG A 48 38.284 41.248 46.871 1.00 14.33

ATOM 690 HD2 ARG A 48 39.558 40.035 46.996 1.00 14.33

ATOM 691 NE ARG A 48 37.701 39.446 47.812 1.00 14.33

ATOM 692 HE ARG A 48 37.556 38.460 47.624 1.00 14.33

ATOM 693 CZ ARG A 48 37.326 39.864 49.015 1.00 14.33

ATOM 694 NH1 ARG A 48 36.745 39.042 49.843 1.00 14.33

ATOM 695 1HH1 ARG A 48 36.528 38.099 49.565 1.00 14.33

ATOM 696 2HH1 ARG A 48 36.502 39.358 50.768 1.00 14.33

ATOM 697 NH2 ARG A 48 37.522 41.079 49.450 1.00 14.33

ATOM 698 1HH2 ARG A 48 37.980 41.760 48.878 1.00 14.33

ATOM 699 2HH2 ARG A 48 37.301 41.325 50.403 1.00 14.33

ATOM 700 C ARG A 48 39.941 36.914 46.556 1.00 14.33

ATOM 701 O ARG A 48 39.059 37.017 47.414 1.00 14.33

ATOM 702 N ARG A 49 41.087 36.269 46.785 1.00 13.16

ATOM 703 H ARG A 49 41.766 36.239 46.030 1.00 13.16

ATOM 704 CA ARG A 49 41.557 35.995 48.154 1.00 13.16

ATOM 705 HA ARG A 49 40.711 35.653 48.755 1.00 13.16

ATOM 706 CB ARG A 49 42.569 34.858 48.170 1.00 13.16

ATOM 707 HB1 ARG A 49 42.906 34.757 49.197 1.00 13.16

ATOM 708 HB2 ARG A 49 43.407 35.133 47.537 1.00 13.16

ATOM 709 CG ARG A 49 41.999 33.485 47.761 1.00 13.16

ATOM 710 HG1 ARG A 49 40.922 33.461 47.930 1.00 13.16

ATOM 711 HG2 ARG A 49 42.454 32.726 48.399 1.00 13.16

ATOM 712 CD ARG A 49 42.303 33.111 46.306 1.00 13.16

ATOM 713 HD1 ARG A 49 43.386 33.118 46.176 1.00 13.16

ATOM 714 HD2 ARG A 49 41.869 33.855 45.637 1.00 13.16

ATOM 715 NE ARG A 49 41.783 31.768 45.972 1.00 13.16

ATOM 716 HE ARG A 49 41.299 31.266 46.694 1.00 13.16

ATOM 717 CZ ARG A 49 41.924 31.148 44.813 1.00 13.16

ATOM 718 NH1 ARG A 49 41.429 29.958 44.631 1.00 13.16

ATOM 719 1HH1 ARG A 49 40.965 29.483 45.380 1.00 13.16

ATOM 720 2HH1 ARG A 49 41.565 29.507 43.746 1.00 13.16

ATOM 721 NH2 ARG A 49 42.541 31.684 43.808 1.00 13.16

ATOM 722 1HH2 ARG A 49 42.973 32.600 43.912 1.00 13.16

ATOM 723 2HH2 ARG A 49 42.623 31.237 42.918 1.00 13.16

ATOM 724 C ARG A 49 42.008 37.284 48.801 1.00 13.16

ATOM 725 O ARG A 49 43.194 37.536 48.897 1.00 13.16

ATOM 726 N GLY A 50 41.020 38.141 49.080 1.00 12.27

ATOM 727 H GLY A 50 40.097 37.742 48.980 1.00 12.27

ATOM 728 CA GLY A 50 41.057 39.610 49.128 1.00 12.27

ATOM 729 HA1 GLY A 50 40.034 39.970 49.104 1.00 12.27

ATOM 730 HA2 GLY A 50 41.564 40.002 48.251 1.00 12.27

ATOM 731 C GLY A 50 41.664 40.207 50.372 1.00 12.27

ATOM 732 O GLY A 50 41.003 40.931 51.107 1.00 12.27

ATOM 733 N ALA A 51 42.917 39.827 50.555 1.00 11.70

ATOM 734 H ALA A 51 43.282 39.218 49.836 1.00 11.70

ATOM 735 CA ALA A 51 43.789 39.964 51.673 1.00 11.70

ATOM 736 HA ALA A 51 44.807 39.962 51.292 1.00 11.70

ATOM 737 CB ALA A 51 43.662 41.338 52.315 1.00 11.70

ATOM 738 HB1 ALA A 51 44.578 41.504 52.871 1.00 11.70

ATOM 739 HB2 ALA A 51 43.579 42.108 51.546 1.00 11.70

ATOM 740 HB3 ALA A 51 42.782 41.361 52.958 1.00 11.70

ATOM 741 C ALA A 51 43.677 38.753 52.575 1.00 11.70

ATOM 742 O ALA A 51 42.814 38.722 53.466 1.00 11.70

ATOM 743 N ARG A 52 44.600 37.781 52.457 1.00 9.96

ATOM 744 H ARG A 52 45.317 37.881 51.749 1.00 9.96

ATOM 745 CA ARG A 52 44.995 37.082 53.676 1.00 9.96

ATOM 746 HA ARG A 52 44.096 36.931 54.277 1.00 9.96

ATOM 747 CB ARG A 52 45.615 35.673 53.526 1.00 9.96

ATOM 748 HB1 ARG A 52 46.598 35.747 53.064 1.00 9.96

ATOM 749 HB2 ARG A 52 44.962 35.070 52.896 1.00 9.96

ATOM 750 CG ARG A 52 45.761 34.924 54.862 1.00 9.96

ATOM 751 HG1 ARG A 52 44.785 34.558 55.182 1.00 9.96

ATOM 752 HG2 ARG A 52 46.150 35.583 55.635 1.00 9.96

ATOM 753 CD ARG A 52 46.724 33.736 54.690 1.00 9.96

ATOM 754 HD1 ARG A 52 47.691 34.108 54.344 1.00 9.96

ATOM 755 HD2 ARG A 52 46.328 33.087 53.905 1.00 9.96

ATOM 756 NE ARG A 52 46.885 32.944 55.928 1.00 9.96

ATOM 757 HE ARG A 52 46.166 32.264 56.112 1.00 9.96

ATOM 758 CZ ARG A 52 47.938 32.906 56.728 1.00 9.96

ATOM 759 NH1 ARG A 52 48.028 31.990 57.651 1.00 9.96

ATOM 760 1HH1 ARG A 52 47.354 31.246 57.704 1.00 9.96

ATOM 761 2HH1 ARG A 52 48.826 31.970 58.260 1.00 9.96

ATOM 762 NH2 ARG A 52 48.915 33.762 56.658 1.00 9.96

ATOM 763 1HH2 ARG A 52 48.825 34.569 56.046 1.00 9.96

ATOM 764 2HH2 ARG A 52 49.751 33.637 57.197 1.00 9.96

ATOM 765 C ARG A 52 45.852 38.048 54.428 1.00 9.96

ATOM 766 O ARG A 52 47.054 37.878 54.416 1.00 9.96

ATOM 767 N ILE A 53 45.215 39.057 55.029 1.00 8.90

ATOM 768 H ILE A 53 44.212 39.096 54.880 1.00 8.90

ATOM 769 CA ILE A 53 45.852 40.289 55.498 1.00 8.90

ATOM 770 HA ILE A 53 46.285 40.763 54.621 1.00 8.90

ATOM 771 CB ILE A 53 44.822 41.317 56.083 1.00 8.90

ATOM 772 HB ILE A 53 45.278 41.758 56.961 1.00 8.90

ATOM 773 CG2 ILE A 53 44.600 42.555 55.212 1.00 8.90

ATOM 774 1HG2 ILE A 53 44.537 43.435 55.843 1.00 8.90

ATOM 775 2HG2 ILE A 53 45.431 42.686 54.530 1.00 8.90

ATOM 776 3HG2 ILE A 53 43.664 42.505 54.665 1.00 8.90

ATOM 777 CG1 ILE A 53 43.446 40.723 56.477 1.00 8.90

ATOM 778 1HG1 ILE A 53 43.595 39.856 57.118 1.00 8.90

ATOM 779 2HG1 ILE A 53 42.928 40.384 55.580 1.00 8.90

ATOM 780 CD1 ILE A 53 42.526 41.713 57.205 1.00 8.90

ATOM 781 HD1 ILE A 53 43.059 42.201 58.017 1.00 8.90

ATOM 782 HD2 ILE A 53 42.170 42.475 56.513 1.00 8.90

ATOM 783 HD3 ILE A 53 41.664 41.181 57.607 1.00 8.90

ATOM 784 C ILE A 53 47.062 40.051 56.436 1.00 8.90

ATOM 785 O ILE A 53 47.750 41.006 56.765 1.00 8.90

ATOM 786 N SER A 54 47.333 38.796 56.844 1.00 10.34

ATOM 787 H SER A 54 46.685 38.123 56.477 1.00 10.34

ATOM 788 CA SER A 54 48.603 38.198 57.311 1.00 10.34

ATOM 789 HA SER A 54 48.328 37.469 58.072 1.00 10.34

ATOM 790 CB SER A 54 49.391 37.401 56.270 1.00 10.34

ATOM 791 HB1 SER A 54 50.263 36.953 56.750 1.00 10.34

ATOM 792 HB2 SER A 54 49.739 38.085 55.506 1.00 10.34

ATOM 793 OG SER A 54 48.619 36.375 55.693 1.00 10.34

ATOM 794 HG SER A 54 48.068 36.853 55.025 1.00 10.34

ATOM 795 C SER A 54 49.562 39.161 57.994 1.00 10.34

ATOM 796 O SER A 54 50.583 39.554 57.444 1.00 10.34

ATOM 797 N GLY A 55 49.179 39.560 59.193 1.00 10.59

ATOM 798 H GLY A 55 48.443 39.032 59.629 1.00 10.59

ATOM 799 CA GLY A 55 49.273 40.936 59.658 1.00 10.59

ATOM 800 HA1 GLY A 55 49.497 41.621 58.839 1.00 10.59

ATOM 801 HA2 GLY A 55 50.026 41.029 60.441 1.00 10.59

ATOM 802 C GLY A 55 47.895 41.242 60.227 1.00 10.59

ATOM 803 O GLY A 55 47.662 41.242 61.431 1.00 10.59

ATOM 804 N ARG A 56 46.933 41.188 59.303 1.00 10.96

ATOM 805 H ARG A 56 47.265 41.355 58.359 1.00 10.96

ATOM 806 CA ARG A 56 45.578 40.633 59.433 1.00 10.96

ATOM 807 HA ARG A 56 45.125 40.536 58.478 1.00 10.96

ATOM 808 CB ARG A 56 45.629 39.219 60.046 1.00 10.96

ATOM 809 HB1 ARG A 56 45.662 39.312 61.133 1.00 10.96

ATOM 810 HB2 ARG A 56 46.538 38.706 59.736 1.00 10.96

ATOM 811 CG ARG A 56 44.439 38.346 59.596 1.00 10.96

ATOM 812 HG1 ARG A 56 44.727 37.798 58.698 1.00 10.96

ATOM 813 HG2 ARG A 56 43.588 38.971 59.332 1.00 10.96

ATOM 814 CD ARG A 56 43.991 37.347 60.672 1.00 10.96

ATOM 815 HD1 ARG A 56 44.837 36.710 60.940 1.00 10.96

ATOM 816 HD2 ARG A 56 43.205 36.707 60.263 1.00 10.96

ATOM 817 NE ARG A 56 43.492 38.032 61.881 1.00 10.96

ATOM 818 HE ARG A 56 44.086 38.003 62.693 1.00 10.96

ATOM 819 CZ ARG A 56 42.369 38.720 62.003 1.00 10.96

ATOM 820 NH1 ARG A 56 42.114 39.354 63.111 1.00 10.96

ATOM 821 1HH1 ARG A 56 42.780 39.359 63.862 1.00 10.96

ATOM 822 2HH1 ARG A 56 41.276 39.899 63.184 1.00 10.96

ATOM 823 NH2 ARG A 56 41.472 38.791 61.058 1.00 10.96

ATOM 824 1HH2 ARG A 56 41.644 38.339 60.181 1.00 10.96

ATOM 825 2HH2 ARG A 56 40.626 39.313 61.191 1.00 10.96

ATOM 826 C ARG A 56 44.658 41.566 60.241 1.00 10.96

ATOM 827 O ARG A 56 43.479 41.268 60.415 1.00 10.96

ATOM 828 N LYS A 57 45.172 42.730 60.646 1.00 9.89

ATOM 829 H LYS A 57 46.180 42.789 60.669 1.00 9.89

ATOM 830 CA LYS A 57 44.471 43.990 60.428 1.00 9.89

ATOM 831 HA LYS A 57 43.445 43.736 60.159 1.00 9.89

ATOM 832 CB LYS A 57 44.409 44.826 61.720 1.00 9.89

ATOM 833 HB1 LYS A 57 45.370 45.306 61.914 1.00 9.89

ATOM 834 HB2 LYS A 57 44.189 44.155 62.553 1.00 9.89

ATOM 835 CG LYS A 57 43.284 45.877 61.637 1.00 9.89

ATOM 836 HG1 LYS A 57 42.411 45.418 61.174 1.00 9.89

ATOM 837 HG2 LYS A 57 43.606 46.708 61.014 1.00 9.89

ATOM 838 CD LYS A 57 42.877 46.412 63.020 1.00 9.89

ATOM 839 HD1 LYS A 57 43.757 46.840 63.505 1.00 9.89

ATOM 840 HD2 LYS A 57 42.517 45.586 63.637 1.00 9.89

ATOM 841 CE LYS A 57 41.784 47.493 62.941 1.00 9.89

ATOM 842 HE1 LYS A 57 42.180 48.354 62.397 1.00 9.89

ATOM 843 HE2 LYS A 57 41.538 47.822 63.954 1.00 9.89

ATOM 844 NZ LYS A 57 40.555 47.024 62.257 1.00 9.89

ATOM 845 HZ1 LYS A 57 39.871 47.777 62.128 1.00 9.89

ATOM 846 HZ2 LYS A 57 40.733 46.830 61.266 1.00 9.89

ATOM 847 HZ3 LYS A 57 40.100 46.238 62.688 1.00 9.89

ATOM 848 C LYS A 57 45.083 44.677 59.232 1.00 9.89

ATOM 849 O LYS A 57 46.284 44.916 59.207 1.00 9.89

ATOM 850 N MET A 58 44.227 45.024 58.273 1.00 9.20

ATOM 851 H MET A 58 43.260 44.748 58.373 1.00 9.20

ATOM 852 CA MET A 58 44.550 45.881 57.125 1.00 9.20

ATOM 853 HA MET A 58 45.252 45.354 56.492 1.00 9.20

ATOM 854 CB MET A 58 43.218 46.063 56.372 1.00 9.20

ATOM 855 HB1 MET A 58 42.502 46.582 57.013 1.00 9.20

ATOM 856 HB2 MET A 58 42.821 45.071 56.168 1.00 9.20

ATOM 857 CG MET A 58 43.297 46.810 55.042 1.00 9.20

ATOM 858 HG1 MET A 58 44.176 46.476 54.506 1.00 9.20

ATOM 859 HG2 MET A 58 43.423 47.873 55.247 1.00 9.20

ATOM 860 SD MET A 58 41.833 46.594 53.979 1.00 9.20

ATOM 861 CE MET A 58 41.949 44.858 53.469 1.00 9.20

ATOM 862 HE1 MET A 58 41.138 44.636 52.774 1.00 9.20

ATOM 863 HE2 MET A 58 42.902 44.680 52.975 1.00 9.20

ATOM 864 HE3 MET A 58 41.857 44.205 54.335 1.00 9.20

ATOM 865 C MET A 58 45.184 47.213 57.525 1.00 9.20

ATOM 866 O MET A 58 45.930 47.823 56.765 1.00 9.20

ATOM 867 N SER A 59 44.939 47.564 58.789 1.00 8.76

ATOM 868 H SER A 59 44.237 47.013 59.249 1.00 8.76

ATOM 869 CA SER A 59 45.682 48.495 59.620 1.00 8.76

ATOM 870 HA SER A 59 45.265 48.401 60.622 1.00 8.76

ATOM 871 CB SER A 59 47.152 48.099 59.788 1.00 8.76

ATOM 872 HB1 SER A 59 47.722 48.948 60.166 1.00 8.76

ATOM 873 HB2 SER A 59 47.575 47.747 58.849 1.00 8.76

ATOM 874 OG SER A 59 47.213 47.048 60.727 1.00 8.76

ATOM 875 HG SER A 59 47.224 46.213 60.228 1.00 8.76

ATOM 876 C SER A 59 45.385 49.912 59.212 1.00 8.76

ATOM 877 O SER A 59 45.927 50.403 58.248 1.00 8.76

ATOM 878 N GLN A 60 44.473 50.595 59.903 1.00 8.05

ATOM 879 H GLN A 60 43.992 50.151 60.668 1.00 8.05

ATOM 880 CA GLN A 60 43.983 51.887 59.416 1.00 8.05

ATOM 881 HA GLN A 60 43.494 51.696 58.457 1.00 8.05

ATOM 882 CB GLN A 60 42.909 52.451 60.365 1.00 8.05

ATOM 883 HB1 GLN A 60 43.355 52.611 61.348 1.00 8.05

ATOM 884 HB2 GLN A 60 42.117 51.708 60.472 1.00 8.05

ATOM 885 CG GLN A 60 42.273 53.779 59.898 1.00 8.05

ATOM 886 HG1 GLN A 60 43.016 54.575 59.931 1.00 8.05

ATOM 887 HG2 GLN A 60 41.481 54.046 60.597 1.00 8.05

ATOM 888 CD GLN A 60 41.672 53.723 58.492 1.00 8.05

ATOM 889 OE1 GLN A 60 42.161 54.306 57.539 1.00 8.05

ATOM 890 NE2 GLN A 60 40.585 53.011 58.307 1.00 8.05

ATOM 891 1HE2 GLN A 60 40.128 52.535 59.062 1.00 8.05

ATOM 892 2HE2 GLN A 60 40.217 53.008 57.370 1.00 8.05

ATOM 893 C GLN A 60 45.085 52.918 59.117 1.00 8.05

ATOM 894 O GLN A 60 44.903 53.747 58.246 1.00 8.05

ATOM 895 N GLY A 61 46.264 52.846 59.735 1.00 7.96

ATOM 896 H GLY A 61 46.397 52.161 60.459 1.00 7.96

ATOM 897 CA GLY A 61 47.399 53.674 59.314 1.00 7.96

ATOM 898 HA1 GLY A 61 47.989 53.902 60.202 1.00 7.96

ATOM 899 HA2 GLY A 61 47.050 54.626 58.915 1.00 7.96

ATOM 900 C GLY A 61 48.347 53.050 58.301 1.00 7.96

ATOM 901 O GLY A 61 49.020 53.789 57.597 1.00 7.96

ATOM 902 N ALA A 62 48.368 51.727 58.173 1.00 7.47

ATOM 903 H ALA A 62 47.701 51.189 58.704 1.00 7.47

ATOM 904 CA ALA A 62 48.960 51.060 57.026 1.00 7.47

ATOM 905 HA ALA A 62 50.013 51.329 56.930 1.00 7.47

ATOM 906 CB ALA A 62 48.830 49.561 57.255 1.00 7.47

ATOM 907 HB1 ALA A 62 49.019 49.052 56.323 1.00 7.47

ATOM 908 HB2 ALA A 62 49.504 49.225 58.043 1.00 7.47

ATOM 909 HB3 ALA A 62 47.818 49.296 57.494 1.00 7.47

ATOM 910 C ALA A 62 48.235 51.480 55.750 1.00 7.47

ATOM 911 O ALA A 62 48.823 52.167 54.920 1.00 7.47

ATOM 912 N PHE A 63 46.938 51.176 55.669 1.00 7.63

ATOM 913 H PHE A 63 46.543 50.594 56.402 1.00 7.63

ATOM 914 CA PHE A 63 46.047 51.691 54.654 1.00 7.63

ATOM 915 HA PHE A 63 46.372 51.268 53.703 1.00 7.63

ATOM 916 CB PHE A 63 44.590 51.283 54.847 1.00 7.63

ATOM 917 HB1 PHE A 63 44.259 51.558 55.850 1.00 7.63

ATOM 918 HB2 PHE A 63 44.495 50.203 54.731 1.00 7.63

ATOM 919 CG PHE A 63 43.734 51.992 53.807 1.00 7.63

ATOM 920 CD1 PHE A 63 43.841 51.639 52.446 1.00 7.63

ATOM 921 HD1 PHE A 63 44.480 50.821 52.146 1.00 7.63

ATOM 922 CE1 PHE A 63 43.134 52.364 51.471 1.00 7.63

ATOM 923 HE1 PHE A 63 43.222 52.093 50.429 1.00 7.63

ATOM 924 CZ PHE A 63 42.293 53.424 51.855 1.00 7.63

ATOM 925 HZ PHE A 63 41.726 53.963 51.110 1.00 7.63

ATOM 926 CE2 PHE A 63 42.177 53.770 53.213 1.00 7.63

ATOM 927 HE2 PHE A 63 41.519 54.572 53.517 1.00 7.63

ATOM 928 CD2 PHE A 63 42.919 53.076 54.182 1.00 7.63

ATOM 929 HD2 PHE A 63 42.845 53.365 55.221 1.00 7.63

ATOM 930 C PHE A 63 46.136 53.201 54.499 1.00 7.63

ATOM 931 O PHE A 63 46.305 53.638 53.376 1.00 7.63

ATOM 932 N LYS A 64 46.051 54.022 55.553 1.00 8.11

ATOM 933 H LYS A 64 45.763 53.654 56.455 1.00 8.11

ATOM 934 CA LYS A 64 46.106 55.475 55.358 1.00 8.11

ATOM 935 HA LYS A 64 45.355 55.705 54.605 1.00 8.11

ATOM 936 CB LYS A 64 45.699 56.253 56.621 1.00 8.11

ATOM 937 HB1 LYS A 64 46.501 56.200 57.358 1.00 8.11

ATOM 938 HB2 LYS A 64 44.792 55.814 57.034 1.00 8.11

ATOM 939 CG LYS A 64 45.364 57.722 56.309 1.00 8.11

ATOM 940 HG1 LYS A 64 44.466 57.755 55.689 1.00 8.11

ATOM 941 HG2 LYS A 64 46.183 58.178 55.761 1.00 8.11

ATOM 942 CD LYS A 64 45.132 58.543 57.584 1.00 8.11

ATOM 943 HD1 LYS A 64 46.068 58.595 58.143 1.00 8.11

ATOM 944 HD2 LYS A 64 44.389 58.038 58.205 1.00 8.11

ATOM 945 CE LYS A 64 44.637 59.969 57.294 1.00 8.11

ATOM 946 HE1 LYS A 64 44.593 60.509 58.243 1.00 8.11

ATOM 947 HE2 LYS A 64 43.620 59.912 56.894 1.00 8.11

ATOM 948 NZ LYS A 64 45.513 60.696 56.339 1.00 8.11

ATOM 949 HZ1 LYS A 64 45.329 61.689 56.325 1.00 8.11

ATOM 950 HZ2 LYS A 64 46.504 60.546 56.556 1.00 8.11

ATOM 951 HZ3 LYS A 64 45.413 60.321 55.407 1.00 8.11

ATOM 952 C LYS A 64 47.443 55.956 54.799 1.00 8.11

ATOM 953 O LYS A 64 47.463 56.937 54.065 1.00 8.11

ATOM 954 N LYS A 65 48.562 55.285 55.092 1.00 8.07

ATOM 955 H LYS A 65 48.515 54.503 55.739 1.00 8.07

ATOM 956 CA LYS A 65 49.848 55.629 54.482 1.00 8.07

ATOM 957 HA LYS A 65 49.862 56.707 54.323 1.00 8.07

ATOM 958 CB LYS A 65 51.043 55.307 55.398 1.00 8.07

ATOM 959 HB1 LYS A 65 51.956 55.478 54.826 1.00 8.07

ATOM 960 HB2 LYS A 65 51.020 54.252 55.677 1.00 8.07

ATOM 961 CG LYS A 65 51.126 56.178 56.677 1.00 8.07

ATOM 962 HG1 LYS A 65 52.133 56.087 57.086 1.00 8.07

ATOM 963 HG2 LYS A 65 50.434 55.796 57.423 1.00 8.07

ATOM 964 CD LYS A 65 50.802 57.667 56.465 1.00 8.07

ATOM 965 HD1 LYS A 65 49.745 57.759 56.210 1.00 8.07

ATOM 966 HD2 LYS A 65 51.399 58.058 55.639 1.00 8.07

ATOM 967 CE LYS A 65 51.056 58.517 57.716 1.00 8.07

ATOM 968 HE1 LYS A 65 52.133 58.548 57.906 1.00 8.07

ATOM 969 HE2 LYS A 65 50.565 58.048 58.572 1.00 8.07

ATOM 970 NZ LYS A 65 50.527 59.888 57.514 1.00 8.07

ATOM 971 HZ1 LYS A 65 50.825 60.255 56.605 1.00 8.07

ATOM 972 HZ2 LYS A 65 49.519 59.880 57.347 1.00 8.07

ATOM 973 HZ3 LYS A 65 50.773 60.539 58.240 1.00 8.07

ATOM 974 C LYS A 65 49.998 55.122 53.050 1.00 8.07

ATOM 975 O LYS A 65 50.600 55.831 52.248 1.00 8.07

ATOM 976 N VAL A 66 49.389 54.000 52.674 1.00 7.85

ATOM 977 H VAL A 66 48.928 53.445 53.390 1.00 7.85

ATOM 978 CA VAL A 66 49.247 53.597 51.263 1.00 7.85

ATOM 979 HA VAL A 66 50.227 53.623 50.788 1.00 7.85

ATOM 980 CB VAL A 66 48.701 52.151 51.149 1.00 7.85

ATOM 981 HB VAL A 66 47.758 52.081 51.689 1.00 7.85

ATOM 982 CG1 VAL A 66 48.461 51.698 49.701 1.00 7.85

ATOM 983 1HG1 VAL A 66 49.372 51.815 49.114 1.00 7.85

ATOM 984 2HG1 VAL A 66 48.160 50.649 49.683 1.00 7.85

ATOM 985 3HG1 VAL A 66 47.657 52.278 49.246 1.00 7.85

ATOM 986 CG2 VAL A 66 49.680 51.140 51.756 1.00 7.85

ATOM 987 1HG2 VAL A 66 49.245 50.140 51.727 1.00 7.85

ATOM 988 2HG2 VAL A 66 50.618 51.139 51.201 1.00 7.85

ATOM 989 3HG2 VAL A 66 49.882 51.393 52.791 1.00 7.85

ATOM 990 C VAL A 66 48.337 54.549 50.485 1.00 7.85

ATOM 991 O VAL A 66 48.653 54.906 49.352 1.00 7.85

ATOM 992 N LEU A 67 47.262 55.018 51.117 1.00 7.61

ATOM 993 H LEU A 67 47.043 54.591 52.012 1.00 7.61

ATOM 994 CA LEU A 67 46.298 55.985 50.627 1.00 7.61

ATOM 995 HA LEU A 67 45.898 55.613 49.699 1.00 7.61

ATOM 996 CB LEU A 67 45.134 56.116 51.627 1.00 7.61

ATOM 997 HB1 LEU A 67 45.552 56.313 52.605 1.00 7.61

ATOM 998 HB2 LEU A 67 44.608 55.162 51.673 1.00 7.61

ATOM 999 CG LEU A 67 44.121 57.238 51.336 1.00 7.61

ATOM 1000 HG LEU A 67 44.631 58.201 51.363 1.00 7.61

ATOM 1001 CD1 LEU A 67 43.449 57.077 49.974 1.00 7.61

ATOM 1002 1HD1 LEU A 67 43.043 56.071 49.870 1.00 7.61

ATOM 1003 2HD1 LEU A 67 42.643 57.802 49.885 1.00 7.61

ATOM 1004 3HD1 LEU A 67 44.175 57.259 49.183 1.00 7.61

ATOM 1005 CD2 LEU A 67 43.027 57.262 52.407 1.00 7.61

ATOM 1006 1HD2 LEU A 67 42.389 58.133 52.257 1.00 7.61

ATOM 1007 2HD2 LEU A 67 42.422 56.361 52.335 1.00 7.61

ATOM 1008 3HD2 LEU A 67 43.476 57.317 53.398 1.00 7.61

ATOM 1009 C LEU A 67 46.976 57.308 50.324 1.00 7.61

ATOM 1010 O LEU A 67 46.979 57.719 49.176 1.00 7.61

ATOM 1011 N GLU A 68 47.602 57.936 51.315 1.00 7.97

ATOM 1012 H GLU A 68 47.554 57.514 52.235 1.00 7.97

ATOM 1013 CA GLU A 68 48.357 59.180 51.167 1.00 7.97

ATOM 1014 HA GLU A 68 47.689 59.983 50.853 1.00 7.97

ATOM 1015 CB GLU A 68 48.997 59.556 52.524 1.00 7.97

ATOM 1016 HB1 GLU A 68 49.740 60.333 52.342 1.00 7.97

ATOM 1017 HB2 GLU A 68 49.525 58.682 52.909 1.00 7.97

ATOM 1018 CG GLU A 68 48.039 60.080 53.616 1.00 7.97

ATOM 1019 HG1 GLU A 68 47.176 59.419 53.708 1.00 7.97

ATOM 1020 HG2 GLU A 68 47.661 61.059 53.314 1.00 7.97

ATOM 1021 CD GLU A 68 48.743 60.208 54.985 1.00 7.97

ATOM 1022 OE1 GLU A 68 49.957 60.496 55.024 1.00 7.97

ATOM 1023 OE2 GLU A 68 48.099 60.033 56.056 1.00 7.97

ATOM 1024 C GLU A 68 49.462 59.071 50.118 1.00 7.97

ATOM 1025 O GLU A 68 49.623 59.985 49.309 1.00 7.97

ATOM 1026 N LYS A 69 50.190 57.946 50.101 1.00 8.44

ATOM 1027 H LYS A 69 50.009 57.249 50.813 1.00 8.44

ATOM 1028 CA LYS A 69 51.231 57.673 49.103 1.00 8.44

ATOM 1029 HA LYS A 69 51.964 58.480 49.145 1.00 8.44

ATOM 1030 CB LYS A 69 51.914 56.343 49.459 1.00 8.44

ATOM 1031 HB1 LYS A 69 52.300 55.871 48.567 1.00 8.44

ATOM 1032 HB2 LYS A 69 51.195 55.641 49.875 1.00 8.44

ATOM 1033 CG LYS A 69 53.064 56.605 50.444 1.00 8.44

ATOM 1034 HG1 LYS A 69 52.670 57.064 51.350 1.00 8.44

ATOM 1035 HG2 LYS A 69 53.765 57.308 49.990 1.00 8.44

ATOM 1036 CD LYS A 69 53.830 55.331 50.812 1.00 8.44

ATOM 1037 HD1 LYS A 69 54.289 54.920 49.911 1.00 8.44

ATOM 1038 HD2 LYS A 69 53.143 54.598 51.241 1.00 8.44

ATOM 1039 CE LYS A 69 54.907 55.709 51.834 1.00 8.44

ATOM 1040 HE1 LYS A 69 54.410 56.013 52.761 1.00 8.44

ATOM 1041 HE2 LYS A 69 55.453 56.577 51.451 1.00 8.44

ATOM 1042 NZ LYS A 69 55.848 54.594 52.094 1.00 8.44

ATOM 1043 HZ1 LYS A 69 56.548 54.857 52.775 1.00 8.44

ATOM 1044 HZ2 LYS A 69 55.367 53.780 52.480 1.00 8.44

ATOM 1045 HZ3 LYS A 69 56.324 54.319 51.247 1.00 8.44

ATOM 1046 C LYS A 69 50.717 57.703 47.687 1.00 8.44

ATOM 1047 O LYS A 69 51.261 58.425 46.859 1.00 8.44

ATOM 1048 N LEU A 70 49.665 56.942 47.419 1.00 7.63

ATOM 1049 H LEU A 70 49.248 56.387 48.158 1.00 7.63

ATOM 1050 CA LEU A 70 49.195 56.782 46.057 1.00 7.63

ATOM 1051 HA LEU A 70 50.073 56.822 45.414 1.00 7.63

ATOM 1052 CB LEU A 70 48.653 55.362 45.881 1.00 7.63

ATOM 1053 HB1 LEU A 70 48.262 55.274 44.874 1.00 7.63

ATOM 1054 HB2 LEU A 70 47.860 55.192 46.608 1.00 7.63

ATOM 1055 CG LEU A 70 49.809 54.334 46.111 1.00 7.63

ATOM 1056 HG LEU A 70 50.290 54.528 47.068 1.00 7.63

ATOM 1057 CD1 LEU A 70 49.334 52.891 46.188 1.00 7.63

ATOM 1058 1HD1 LEU A 70 50.127 52.263 46.591 1.00 7.63

ATOM 1059 2HD1 LEU A 70 48.465 52.822 46.843 1.00 7.63

ATOM 1060 3HD1 LEU A 70 49.082 52.524 45.200 1.00 7.63

ATOM 1061 CD2 LEU A 70 50.897 54.381 45.028 1.00 7.63

ATOM 1062 1HD2 LEU A 70 50.443 54.353 44.039 1.00 7.63

ATOM 1063 2HD2 LEU A 70 51.487 55.294 45.116 1.00 7.63

ATOM 1064 3HD2 LEU A 70 51.584 53.540 45.141 1.00 7.63

ATOM 1065 C LEU A 70 48.447 58.025 45.620 1.00 7.63

ATOM 1066 O LEU A 70 48.773 58.528 44.556 1.00 7.63

ATOM 1067 N SER A 71 47.648 58.644 46.502 1.00 7.61

ATOM 1068 H SER A 71 47.513 58.194 47.403 1.00 7.61

ATOM 1069 CA SER A 71 47.062 59.986 46.324 1.00 7.61

ATOM 1070 HA SER A 71 46.276 59.964 45.575 1.00 7.61

ATOM 1071 CB SER A 71 46.436 60.499 47.633 1.00 7.61

ATOM 1072 HB1 SER A 71 47.139 61.109 48.202 1.00 7.61

ATOM 1073 HB2 SER A 71 46.143 59.657 48.250 1.00 7.61

ATOM 1074 OG SER A 71 45.249 61.218 47.389 1.00 7.61

ATOM 1075 HG SER A 71 45.439 62.047 46.925 1.00 7.61

ATOM 1076 C SER A 71 48.095 60.965 45.800 1.00 7.61

ATOM 1077 O SER A 71 47.959 61.443 44.674 1.00 7.61

ATOM 1078 N THR A 72 49.160 61.155 46.584 1.00 8.45

ATOM 1079 H THR A 72 49.207 60.652 47.461 1.00 8.45

ATOM 1080 CA THR A 72 50.263 62.071 46.287 1.00 8.45

ATOM 1081 HA THR A 72 49.855 63.076 46.187 1.00 8.45

ATOM 1082 CB THR A 72 51.280 62.097 47.442 1.00 8.45

ATOM 1083 HB THR A 72 51.761 61.122 47.530 1.00 8.45

ATOM 1084 CG2 THR A 72 52.353 63.173 47.284 1.00 8.45

ATOM 1085 1HG2 THR A 72 52.976 63.199 48.177 1.00 8.45

ATOM 1086 2HG2 THR A 72 52.985 62.946 46.425 1.00 8.45

ATOM 1087 3HG2 THR A 72 51.885 64.147 47.141 1.00 8.45

ATOM 1088 OG1 THR A 72 50.617 62.392 48.651 1.00 8.45

ATOM 1089 HG1 THR A 72 50.226 61.556 48.957 1.00 8.45

ATOM 1090 C THR A 72 50.971 61.753 44.972 1.00 8.45

ATOM 1091 O THR A 72 51.302 62.669 44.226 1.00 8.45

ATOM 1092 N GLU A 73 51.133 60.469 44.639 1.00 8.88

ATOM 1093 H GLU A 73 50.863 59.746 45.294 1.00 8.88

ATOM 1094 CA GLU A 73 51.728 60.038 43.368 1.00 8.88

ATOM 1095 HA GLU A 73 52.594 60.665 43.144 1.00 8.88

ATOM 1096 CB GLU A 73 52.214 58.582 43.496 1.00 8.88

ATOM 1097 HB1 GLU A 73 52.436 58.175 42.511 1.00 8.88

ATOM 1098 HB2 GLU A 73 51.397 57.984 43.901 1.00 8.88

ATOM 1099 CG GLU A 73 53.446 58.377 44.384 1.00 8.88

ATOM 1100 HG1 GLU A 73 53.468 57.314 44.628 1.00 8.88

ATOM 1101 HG2 GLU A 73 53.327 58.936 45.315 1.00 8.88

ATOM 1102 CD GLU A 73 54.791 58.731 43.725 1.00 8.88

ATOM 1103 OE1 GLU A 73 55.040 58.239 42.601 1.00 8.88

ATOM 1104 OE2 GLU A 73 55.613 59.420 44.373 1.00 8.88

ATOM 1105 C GLU A 73 50.806 60.119 42.146 1.00 8.88

ATOM 1106 O GLU A 73 51.235 59.852 41.021 1.00 8.88

ATOM 1107 N GLY A 74 49.535 60.453 42.347 1.00 8.34

ATOM 1108 H GLY A 74 49.242 60.636 43.300 1.00 8.34

ATOM 1109 CA GLY A 74 48.597 60.726 41.267 1.00 8.34

ATOM 1110 HA1 GLY A 74 49.025 60.438 40.307 1.00 8.34

ATOM 1111 HA2 GLY A 74 48.416 61.800 41.244 1.00 8.34

ATOM 1112 C GLY A 74 47.261 60.040 41.391 1.00 8.34

ATOM 1113 O GLY A 74 46.485 60.087 40.431 1.00 8.34

ATOM 1114 N TYR A 75 46.959 59.407 42.529 1.00 7.51

ATOM 1115 H TYR A 75 47.633 59.406 43.287 1.00 7.51

ATOM 1116 CA TYR A 75 45.608 58.923 42.735 1.00 7.51

ATOM 1117 HA TYR A 75 45.366 58.300 41.872 1.00 7.51

ATOM 1118 CB TYR A 75 45.298 58.076 43.963 1.00 7.51

ATOM 1119 HB1 TYR A 75 46.085 58.150 44.679 1.00 7.51

ATOM 1120 HB2 TYR A 75 45.350 57.057 43.612 1.00 7.51

ATOM 1121 CG TYR A 75 43.934 58.276 44.650 1.00 7.51

ATOM 1122 CD1 TYR A 75 42.734 58.014 43.960 1.00 7.51

ATOM 1123 HD1 TYR A 75 42.751 57.795 42.904 1.00 7.51

ATOM 1124 CE1 TYR A 75 41.502 57.953 44.639 1.00 7.51

ATOM 1125 HE1 TYR A 75 40.601 57.682 44.107 1.00 7.51

ATOM 1126 CZ TYR A 75 41.445 58.179 46.027 1.00 7.51

ATOM 1127 OH TYR A 75 40.270 58.052 46.699 1.00 7.51

ATOM 1128 HH TYR A 75 40.318 58.460 47.567 1.00 7.51

ATOM 1129 CE2 TYR A 75 42.626 58.531 46.713 1.00 7.51

ATOM 1130 HE2 TYR A 75 42.593 58.747 47.769 1.00 7.51

ATOM 1131 CD2 TYR A 75 43.859 58.548 46.032 1.00 7.51

ATOM 1132 HD2 TYR A 75 44.753 58.722 46.602 1.00 7.51

ATOM 1133 C TYR A 75 44.706 60.129 42.678 1.00 7.51

ATOM 1134 O TYR A 75 44.905 61.116 43.378 1.00 7.51

ATOM 1135 N SER A 76 43.690 60.024 41.841 1.00 7.45

ATOM 1136 H SER A 76 43.654 59.231 41.217 1.00 7.45

ATOM 1137 CA SER A 76 42.722 61.077 41.625 1.00 7.45

ATOM 1138 HA SER A 76 43.272 61.997 41.426 1.00 7.45

ATOM 1139 CB SER A 76 41.894 60.741 40.373 1.00 7.45

ATOM 1140 HB1 SER A 76 41.350 61.630 40.050 1.00 7.45

ATOM 1141 HB2 SER A 76 41.169 59.961 40.616 1.00 7.45

ATOM 1142 OG SER A 76 42.720 60.279 39.313 1.00 7.45

ATOM 1143 HG SER A 76 43.497 60.848 39.252 1.00 7.45

ATOM 1144 C SER A 76 41.785 61.378 42.816 1.00 7.45

ATOM 1145 O SER A 76 40.684 61.880 42.614 1.00 7.45

ATOM 1146 N PHE A 77 42.207 61.063 44.045 1.00 7.52

ATOM 1147 H PHE A 77 43.141 60.675 44.090 1.00 7.52

ATOM 1148 CA PHE A 77 41.639 61.394 45.355 1.00 7.52

ATOM 1149 HA PHE A 77 42.269 60.927 46.107 1.00 7.52

ATOM 1150 CB PHE A 77 41.786 62.917 45.600 1.00 7.52

ATOM 1151 HB1 PHE A 77 41.107 63.207 46.402 1.00 7.52

ATOM 1152 HB2 PHE A 77 41.457 63.464 44.715 1.00 7.52

ATOM 1153 CG PHE A 77 43.175 63.402 45.992 1.00 7.52

ATOM 1154 CD1 PHE A 77 44.185 63.549 45.025 1.00 7.52

ATOM 1155 HD1 PHE A 77 43.976 63.328 43.989 1.00 7.52

ATOM 1156 CE1 PHE A 77 45.477 63.961 45.398 1.00 7.52

ATOM 1157 HE1 PHE A 77 46.255 64.029 44.648 1.00 7.52

ATOM 1158 CZ PHE A 77 45.755 64.283 46.737 1.00 7.52

ATOM 1159 HZ PHE A 77 46.746 64.616 47.017 1.00 7.52

ATOM 1160 CE2 PHE A 77 44.739 64.183 47.703 1.00 7.52

ATOM 1161 HE2 PHE A 77 44.949 64.433 48.735 1.00 7.52

ATOM 1162 CD2 PHE A 77 43.456 63.733 47.333 1.00 7.52

ATOM 1163 HD2 PHE A 77 42.683 63.641 48.082 1.00 7.52

ATOM 1164 C PHE A 77 40.199 60.966 45.703 1.00 7.52

ATOM 1165 O PHE A 77 39.867 60.942 46.890 1.00 7.52

ATOM 1166 N GLY A 78 39.337 60.647 44.737 1.00 8.45

ATOM 1167 H GLY A 78 39.682 60.723 43.789 1.00 8.45

ATOM 1168 CA GLY A 78 37.900 60.847 44.945 1.00 8.45

ATOM 1169 HA1 GLY A 78 37.473 61.137 43.986 1.00 8.45

ATOM 1170 HA2 GLY A 78 37.752 61.688 45.624 1.00 8.45

ATOM 1171 C GLY A 78 37.058 59.687 45.467 1.00 8.45

ATOM 1172 O GLY A 78 36.174 59.902 46.294 1.00 8.45

ATOM 1173 N ASN A 79 37.290 58.465 44.994 1.00 8.72

ATOM 1174 H ASN A 79 38.032 58.325 44.323 1.00 8.72

ATOM 1175 CA ASN A 79 36.571 57.289 45.479 1.00 8.72

ATOM 1176 HA ASN A 79 36.331 57.433 46.535 1.00 8.72

ATOM 1177 CB ASN A 79 35.252 57.116 44.695 1.00 8.72

ATOM 1178 HB1 ASN A 79 35.468 56.872 43.654 1.00 8.72

ATOM 1179 HB2 ASN A 79 34.711 58.061 44.712 1.00 8.72

ATOM 1180 CG ASN A 79 34.352 56.029 45.271 1.00 8.72

ATOM 1181 OD1 ASN A 79 34.782 54.938 45.612 1.00 8.72

ATOM 1182 ND2 ASN A 79 33.073 56.293 45.426 1.00 8.72

ATOM 1183 1HD2 ASN A 79 32.715 57.198 45.176 1.00 8.72

ATOM 1184 2HD2 ASN A 79 32.500 55.567 45.814 1.00 8.72

ATOM 1185 C ASN A 79 37.485 56.079 45.350 1.00 8.72

ATOM 1186 O ASN A 79 37.991 55.785 44.272 1.00 8.72

ATOM 1187 N ALA A 80 37.693 55.364 46.448 1.00 8.71

ATOM 1188 H ALA A 80 37.244 55.652 47.303 1.00 8.71

ATOM 1189 CA ALA A 80 38.610 54.236 46.494 1.00 8.71

ATOM 1190 HA ALA A 80 39.573 54.581 46.109 1.00 8.71

ATOM 1191 CB ALA A 80 38.801 53.897 47.973 1.00 8.71

ATOM 1192 HB1 ALA A 80 39.508 53.082 48.073 1.00 8.71

ATOM 1193 HB2 ALA A 80 39.199 54.764 48.502 1.00 8.71

ATOM 1194 HB3 ALA A 80 37.845 53.619 48.415 1.00 8.71

ATOM 1195 C ALA A 80 38.204 53.021 45.605 1.00 8.71

ATOM 1196 O ALA A 80 38.956 52.062 45.402 1.00 8.71

ATOM 1197 N ILE A 81 37.030 53.047 44.980 1.00 9.36

ATOM 1198 H ILE A 81 36.380 53.804 45.167 1.00 9.36

ATOM 1199 CA ILE A 81 36.723 52.095 43.913 1.00 9.36

ATOM 1200 HA ILE A 81 36.965 51.101 44.288 1.00 9.36

ATOM 1201 CB ILE A 81 35.203 52.124 43.626 1.00 9.36

ATOM 1202 HB ILE A 81 34.692 52.204 44.588 1.00 9.36

ATOM 1203 CG2 ILE A 81 34.790 53.339 42.775 1.00 9.36

ATOM 1204 1HG2 ILE A 81 33.713 53.494 42.842 1.00 9.36

ATOM 1205 2HG2 ILE A 81 35.283 54.241 43.135 1.00 9.36

ATOM 1206 3HG2 ILE A 81 35.064 53.193 41.729 1.00 9.36

ATOM 1207 CG1 ILE A 81 34.745 50.796 42.983 1.00 9.36

ATOM 1208 1HG1 ILE A 81 35.102 49.970 43.599 1.00 9.36

ATOM 1209 2HG1 ILE A 81 35.182 50.696 41.988 1.00 9.36

ATOM 1210 CD1 ILE A 81 33.222 50.666 42.858 1.00 9.36

ATOM 1211 HD1 ILE A 81 32.971 49.678 42.472 1.00 9.36

ATOM 1212 HD2 ILE A 81 32.755 50.797 43.835 1.00 9.36

ATOM 1213 HD3 ILE A 81 32.834 51.414 42.166 1.00 9.36

ATOM 1214 C ILE A 81 37.544 52.295 42.633 1.00 9.36

ATOM 1215 O ILE A 81 37.721 51.328 41.890 1.00 9.36

ATOM 1216 N ASP A 82 38.102 53.485 42.398 1.00 8.36

ATOM 1217 H ASP A 82 37.906 54.266 43.019 1.00 8.36

ATOM 1218 CA ASP A 82 39.147 53.673 41.389 1.00 8.36

ATOM 1219 HA ASP A 82 38.798 53.232 40.456 1.00 8.36

ATOM 1220 CB ASP A 82 39.414 55.157 41.126 1.00 8.36

ATOM 1221 HB1 ASP A 82 40.451 55.235 40.836 1.00 8.36

ATOM 1222 HB2 ASP A 82 39.277 55.740 42.035 1.00 8.36

ATOM 1223 CG ASP A 82 38.603 55.748 39.975 1.00 8.36

ATOM 1224 OD1 ASP A 82 38.388 56.980 39.978 1.00 8.36

ATOM 1225 OD2 ASP A 82 38.292 55.033 38.995 1.00 8.36

ATOM 1226 C ASP A 82 40.425 52.925 41.758 1.00 8.36

ATOM 1227 O ASP A 82 41.073 52.359 40.875 1.00 8.36

ATOM 1228 N LEU A 83 40.712 52.787 43.052 1.00 6.84

ATOM 1229 H LEU A 83 40.155 53.287 43.723 1.00 6.84

ATOM 1230 CA LEU A 83 41.727 51.873 43.557 1.00 6.84

ATOM 1231 HA LEU A 83 42.668 52.097 43.049 1.00 6.84

ATOM 1232 CB LEU A 83 41.944 52.065 45.078 1.00 6.84

ATOM 1233 HB1 LEU A 83 41.133 52.652 45.507 1.00 6.84

ATOM 1234 HB2 LEU A 83 42.758 52.685 45.143 1.00 6.84

ATOM 1235 CG LEU A 83 42.343 50.955 46.079 1.00 6.84

ATOM 1236 HG LEU A 83 43.367 50.680 45.862 1.00 6.84

ATOM 1237 CD1 LEU A 83 42.334 51.603 47.470 1.00 6.84

ATOM 1238 1HD1 LEU A 83 41.374 52.065 47.669 1.00 6.84

ATOM 1239 2HD1 LEU A 83 42.531 50.873 48.243 1.00 6.84

ATOM 1240 3HD1 LEU A 83 43.113 52.353 47.541 1.00 6.84

ATOM 1241 CD2 LEU A 83 41.504 49.687 46.149 1.00 6.84

ATOM 1242 1HD2 LEU A 83 40.448 49.931 46.145 1.00 6.84

ATOM 1243 2HD2 LEU A 83 41.725 49.048 45.310 1.00 6.84

ATOM 1244 3HD2 LEU A 83 41.768 49.115 47.029 1.00 6.84

ATOM 1245 C LEU A 83 41.478 50.467 43.192 1.00 6.84

ATOM 1246 O LEU A 83 42.339 49.787 42.722 1.00 6.84

ATOM 1247 N LYS A 84 40.232 50.052 43.406 1.00 7.82

ATOM 1248 H LYS A 84 39.520 50.635 43.833 1.00 7.82

ATOM 1249 CA LYS A 84 39.922 48.677 43.036 1.00 7.82

ATOM 1250 HA LYS A 84 40.614 48.008 43.517 1.00 7.82

ATOM 1251 CB LYS A 84 38.496 48.402 43.540 1.00 7.82

ATOM 1252 HB1 LYS A 84 37.813 48.990 42.930 1.00 7.82

ATOM 1253 HB2 LYS A 84 38.404 48.769 44.559 1.00 7.82

ATOM 1254 CG LYS A 84 38.077 46.924 43.523 1.00 7.82

ATOM 1255 HG1 LYS A 84 38.566 46.409 44.350 1.00 7.82

ATOM 1256 HG2 LYS A 84 38.374 46.436 42.598 1.00 7.82

ATOM 1257 CD LYS A 84 36.553 46.764 43.667 1.00 7.82

ATOM 1258 HD1 LYS A 84 36.216 47.332 44.537 1.00 7.82

ATOM 1259 HD2 LYS A 84 36.338 45.707 43.836 1.00 7.82

ATOM 1260 CE LYS A 84 35.830 47.237 42.396 1.00 7.82

ATOM 1261 HE1 LYS A 84 36.206 46.664 41.543 1.00 7.82

ATOM 1262 HE2 LYS A 84 36.073 48.288 42.212 1.00 7.82

ATOM 1263 NZ LYS A 84 34.362 47.082 42.512 1.00 7.82

ATOM 1264 HZ1 LYS A 84 34.022 47.538 43.348 1.00 7.82

ATOM 1265 HZ2 LYS A 84 33.889 47.491 41.716 1.00 7.82

ATOM 1266 HZ3 LYS A 84 34.100 46.106 42.562 1.00 7.82

ATOM 1267 C LYS A 84 39.983 48.432 41.530 1.00 7.82

ATOM 1268 O LYS A 84 40.167 47.300 41.096 1.00 7.82

ATOM 1269 N SER A 85 39.797 49.494 40.753 1.00 8.53

ATOM 1270 H SER A 85 39.649 50.380 41.219 1.00 8.53

ATOM 1271 CA SER A 85 39.632 49.447 39.304 1.00 8.53

ATOM 1272 HA SER A 85 39.173 48.496 39.034 1.00 8.53

ATOM 1273 CB SER A 85 38.678 50.557 38.864 1.00 8.53

ATOM 1274 HB1 SER A 85 38.603 50.573 37.780 1.00 8.53

ATOM 1275 HB2 SER A 85 39.051 51.526 39.196 1.00 8.53

ATOM 1276 OG SER A 85 37.399 50.310 39.408 1.00 8.53

ATOM 1277 HG SER A 85 37.413 50.712 40.299 1.00 8.53

ATOM 1278 C SER A 85 40.919 49.562 38.500 1.00 8.53

ATOM 1279 O SER A 85 40.919 49.122 37.337 1.00 8.53

ATOM 1280 N HIS A 86 41.948 50.142 39.133 1.00 8.34

ATOM 1281 H HIS A 86 41.741 50.587 40.022 1.00 8.34

ATOM 1282 CA HIS A 86 43.320 50.289 38.647 1.00 8.34

ATOM 1283 HA HIS A 86 43.327 50.101 37.573 1.00 8.34

ATOM 1284 CB HIS A 86 43.787 51.718 38.866 1.00 8.34

ATOM 1285 HB1 HIS A 86 44.024 51.862 39.920 1.00 8.34

ATOM 1286 HB2 HIS A 86 42.971 52.393 38.603 1.00 8.34

ATOM 1287 CG HIS A 86 44.978 52.084 38.023 1.00 8.34

ATOM 1288 ND1 HIS A 86 44.957 53.031 36.995 1.00 8.34

ATOM 1289 CE1 HIS A 86 46.231 53.166 36.600 1.00 8.34

ATOM 1290 HE1 HIS A 86 46.567 53.844 35.827 1.00 8.34

ATOM 1291 NE2 HIS A 86 47.029 52.345 37.301 1.00 8.34

ATOM 1292 HE2 HIS A 86 48.026 52.237 37.174 1.00 8.34

ATOM 1293 CD2 HIS A 86 46.255 51.651 38.201 1.00 8.34

ATOM 1294 HD2 HIS A 86 46.591 50.928 38.935 1.00 8.34

ATOM 1295 C HIS A 86 44.288 49.261 39.259 1.00 8.34

ATOM 1296 O HIS A 86 45.175 48.769 38.541 1.00 8.34

ATOM 1297 N TRP A 87 44.000 48.807 40.494 1.00 7.94

ATOM 1298 H TRP A 87 43.316 49.294 41.059 1.00 7.94

ATOM 1299 CA TRP A 87 44.446 47.493 40.938 1.00 7.94

ATOM 1300 HA TRP A 87 45.533 47.494 40.867 1.00 7.94

ATOM 1301 CB TRP A 87 44.082 47.079 42.365 1.00 7.94

ATOM 1302 HB1 TRP A 87 43.939 48.019 42.858 1.00 7.94

ATOM 1303 HB2 TRP A 87 44.997 46.680 42.771 1.00 7.94

ATOM 1304 CG TRP A 87 42.950 46.143 42.808 1.00 7.94

ATOM 1305 CD1 TRP A 87 42.281 46.375 43.959 1.00 7.94

ATOM 1306 HD1 TRP A 87 42.462 47.217 44.602 1.00 7.94

ATOM 1307 NE1 TRP A 87 41.275 45.465 44.154 1.00 7.94

ATOM 1308 HE1 TRP A 87 40.609 45.531 44.909 1.00 7.94

ATOM 1309 CE2 TRP A 87 41.293 44.491 43.196 1.00 7.94

ATOM 1310 CZ2 TRP A 87 40.491 43.354 43.021 1.00 7.94

ATOM 1311 HZ2 TRP A 87 39.665 43.169 43.689 1.00 7.94

ATOM 1312 CH2 TRP A 87 40.779 42.466 41.975 1.00 7.94

ATOM 1313 HH2 TRP A 87 40.173 41.585 41.819 1.00 7.94

ATOM 1314 CZ3 TRP A 87 41.876 42.726 41.142 1.00 7.94

ATOM 1315 HZ3 TRP A 87 42.122 42.037 40.344 1.00 7.94

ATOM 1316 CE3 TRP A 87 42.664 43.880 41.329 1.00 7.94

ATOM 1317 HE3 TRP A 87 43.510 44.019 40.677 1.00 7.94

ATOM 1318 CD2 TRP A 87 42.392 44.838 42.342 1.00 7.94

ATOM 1319 C TRP A 87 43.975 46.430 39.976 1.00 7.94

ATOM 1320 O TRP A 87 44.783 45.696 39.413 1.00 7.94

ATOM 1321 N ALA A 88 42.666 46.349 39.743 1.00 9.38

ATOM 1322 H ALA A 88 42.019 46.925 40.263 1.00 9.38

ATOM 1323 CA ALA A 88 42.191 45.667 38.566 1.00 9.38

ATOM 1324 HA ALA A 88 42.703 44.709 38.466 1.00 9.38

ATOM 1325 CB ALA A 88 40.686 45.396 38.681 1.00 9.38

ATOM 1326 HB1 ALA A 88 40.359 44.764 37.856 1.00 9.38

ATOM 1327 HB2 ALA A 88 40.471 44.886 39.621 1.00 9.38

ATOM 1328 HB3 ALA A 88 40.136 46.336 38.649 1.00 9.38

ATOM 1329 C ALA A 88 42.540 46.530 37.348 1.00 9.38

ATOM 1330 O ALA A 88 43.051 47.618 37.465 1.00 9.38

ATOM 1331 N ARG A 89 42.315 46.071 36.137 1.00 10.05

ATOM 1332 H ARG A 89 41.729 45.257 36.067 1.00 10.05

ATOM 1333 CA ARG A 89 43.155 46.417 34.974 1.00 10.05

ATOM 1334 HA ARG A 89 42.876 45.726 34.178 1.00 10.05

ATOM 1335 CB ARG A 89 42.837 47.827 34.439 1.00 10.05

ATOM 1336 HB1 ARG A 89 43.449 48.015 33.555 1.00 10.05

ATOM 1337 HB2 ARG A 89 43.097 48.579 35.184 1.00 10.05

ATOM 1338 CG ARG A 89 41.362 47.981 34.049 1.00 10.05

ATOM 1339 HG1 ARG A 89 40.729 47.687 34.884 1.00 10.05

ATOM 1340 HG2 ARG A 89 41.145 47.336 33.197 1.00 10.05

ATOM 1341 CD ARG A 89 41.058 49.437 33.686 1.00 10.05

ATOM 1342 HD1 ARG A 89 41.683 49.727 32.839 1.00 10.05

ATOM 1343 HD2 ARG A 89 41.314 50.080 34.532 1.00 10.05

ATOM 1344 NE ARG A 89 39.637 49.616 33.330 1.00 10.05

ATOM 1345 HE ARG A 89 39.424 49.700 32.349 1.00 10.05

ATOM 1346 CZ ARG A 89 38.619 49.653 34.173 1.00 10.05

ATOM 1347 NH1 ARG A 89 37.410 49.829 33.722 1.00 10.05

ATOM 1348 1HH1 ARG A 89 37.247 49.918 32.736 1.00 10.05

ATOM 1349 2HH1 ARG A 89 36.638 49.873 34.361 1.00 10.05

ATOM 1350 NH2 ARG A 89 38.773 49.513 35.460 1.00 10.05

ATOM 1351 1HH2 ARG A 89 39.708 49.367 35.842 1.00 10.05

ATOM 1352 2HH2 ARG A 89 38.004 49.572 36.098 1.00 10.05

ATOM 1353 C ARG A 89 44.675 46.225 35.084 1.00 10.05

ATOM 1354 O ARG A 89 45.171 45.514 34.217 1.00 10.05

ATOM 1355 N HIS A 90 45.427 46.754 36.072 1.00 10.33

ATOM 1356 H HIS A 90 45.003 47.329 36.800 1.00 10.33

ATOM 1357 CA HIS A 90 46.852 46.365 36.164 1.00 10.33

ATOM 1358 HA HIS A 90 47.267 46.382 35.154 1.00 10.33

ATOM 1359 CB HIS A 90 47.668 47.401 36.928 1.00 10.33

ATOM 1360 HB1 HIS A 90 48.657 46.986 37.117 1.00 10.33

ATOM 1361 HB2 HIS A 90 47.188 47.615 37.874 1.00 10.33

ATOM 1362 CG HIS A 90 47.826 48.668 36.118 1.00 10.33

ATOM 1363 ND1 HIS A 90 48.975 49.039 35.416 1.00 10.33

ATOM 1364 CE1 HIS A 90 48.634 50.097 34.668 1.00 10.33

ATOM 1365 HE1 HIS A 90 49.304 50.609 33.990 1.00 10.33

ATOM 1366 NE2 HIS A 90 47.343 50.410 34.864 1.00 10.33

ATOM 1367 HE2 HIS A 90 46.836 51.145 34.393 1.00 10.33

ATOM 1368 CD2 HIS A 90 46.821 49.530 35.785 1.00 10.33

ATOM 1369 HD2 HIS A 90 45.803 49.487 36.149 1.00 10.33

ATOM 1370 C HIS A 90 47.052 44.911 36.597 1.00 10.33

ATOM 1371 O HIS A 90 48.100 44.320 36.343 1.00 10.33

ATOM 1372 N GLY A 91 46.000 44.292 37.140 1.00 11.23

ATOM 1373 H GLY A 91 45.290 44.904 37.527 1.00 11.23

ATOM 1374 CA GLY A 91 45.764 42.847 37.214 1.00 11.23

ATOM 1375 HA1 GLY A 91 46.073 42.390 36.273 1.00 11.23

ATOM 1376 HA2 GLY A 91 44.701 42.665 37.359 1.00 11.23

ATOM 1377 C GLY A 91 46.524 42.172 38.340 1.00 11.23

ATOM 1378 O GLY A 91 45.967 41.394 39.113 1.00 11.23

ATOM 1379 N THR A 92 47.768 42.600 38.515 1.00 12.68

ATOM 1380 H THR A 92 48.104 43.234 37.797 1.00 12.68

ATOM 1381 CA THR A 92 48.344 42.769 39.840 1.00 12.68

ATOM 1382 HA THR A 92 48.304 41.804 40.347 1.00 12.68

ATOM 1383 CB THR A 92 49.826 43.149 39.721 1.00 12.68

ATOM 1384 HB THR A 92 49.929 44.114 39.226 1.00 12.68

ATOM 1385 CG2 THR A 92 50.525 43.162 41.074 1.00 12.68

ATOM 1386 1HG2 THR A 92 50.079 43.931 41.690 1.00 12.68

ATOM 1387 2HG2 THR A 92 50.420 42.190 41.557 1.00 12.68

ATOM 1388 3HG2 THR A 92 51.583 43.381 40.934 1.00 12.68

ATOM 1389 OG1 THR A 92 50.496 42.161 38.972 1.00 12.68

ATOM 1390 HG1 THR A 92 50.032 42.102 38.130 1.00 12.68

ATOM 1391 C THR A 92 47.509 43.746 40.627 1.00 12.68

ATOM 1392 O THR A 92 47.750 44.938 40.593 1.00 12.68

ATOM 1393 N ASN A 93 46.584 43.200 41.407 1.00 12.25

ATOM 1394 H ASN A 93 46.393 42.221 41.240 1.00 12.25

ATOM 1395 CA ASN A 93 45.861 43.845 42.508 1.00 12.25

ATOM 1396 HA ASN A 93 45.173 44.560 42.067 1.00 12.25

ATOM 1397 CB ASN A 93 45.052 42.737 43.217 1.00 12.25

ATOM 1398 HB1 ASN A 93 44.248 42.421 42.563 1.00 12.25

ATOM 1399 HB2 ASN A 93 44.603 43.128 44.129 1.00 12.25

ATOM 1400 CG ASN A 93 45.846 41.483 43.535 1.00 12.25

ATOM 1401 OD1 ASN A 93 47.039 41.507 43.783 1.00 12.25

ATOM 1402 ND2 ASN A 93 45.224 40.329 43.502 1.00 12.25

ATOM 1403 1HD2 ASN A 93 44.270 40.260 43.199 1.00 12.25

ATOM 1404 2HD2 ASN A 93 45.790 39.521 43.695 1.00 12.25

ATOM 1405 C ASN A 93 46.742 44.658 43.477 1.00 12.25

ATOM 1406 O ASN A 93 46.230 45.397 44.312 1.00 12.25

ATOM 1407 N LYS A 94 48.072 44.544 43.407 1.00 11.65

ATOM 1408 H LYS A 94 48.450 43.876 42.755 1.00 11.65

ATOM 1409 CA LYS A 94 48.971 45.437 44.143 1.00 11.65

ATOM 1410 HA LYS A 94 48.547 45.595 45.138 1.00 11.65

ATOM 1411 CB LYS A 94 50.371 44.827 44.364 1.00 11.65

ATOM 1412 HB1 LYS A 94 50.860 45.454 45.112 1.00 11.65

ATOM 1413 HB2 LYS A 94 50.958 44.905 43.450 1.00 11.65

ATOM 1414 CG LYS A 94 50.425 43.372 44.861 1.00 11.65

ATOM 1415 HG1 LYS A 94 50.164 42.704 44.043 1.00 11.65

ATOM 1416 HG2 LYS A 94 49.699 43.225 45.650 1.00 11.65

ATOM 1417 CD LYS A 94 51.847 43.039 45.358 1.00 11.65

ATOM 1418 HD1 LYS A 94 52.260 43.882 45.913 1.00 11.65

ATOM 1419 HD2 LYS A 94 52.459 42.883 44.473 1.00 11.65

ATOM 1420 CE LYS A 94 51.956 41.783 46.234 1.00 11.65

ATOM 1421 HE1 LYS A 94 53.008 41.488 46.295 1.00 11.65

ATOM 1422 HE2 LYS A 94 51.407 40.972 45.749 1.00 11.65

ATOM 1423 NZ LYS A 94 51.438 42.017 47.604 1.00 11.65

ATOM 1424 HZ1 LYS A 94 51.295 41.154 48.111 1.00 11.65

ATOM 1425 HZ2 LYS A 94 52.061 42.599 48.153 1.00 11.65

ATOM 1426 HZ3 LYS A 94 50.571 42.549 47.563 1.00 11.65

ATOM 1427 C LYS A 94 49.149 46.831 43.559 1.00 11.65

ATOM 1428 O LYS A 94 49.457 47.762 44.289 1.00 11.65

ATOM 1429 N PHE A 95 48.892 46.989 42.271 1.00 9.31

ATOM 1430 H PHE A 95 48.593 46.170 41.754 1.00 9.31

ATOM 1431 CA PHE A 95 48.781 48.253 41.554 1.00 9.31

ATOM 1432 HA PHE A 95 49.618 48.882 41.846 1.00 9.31

ATOM 1433 CB PHE A 95 48.890 48.006 40.036 1.00 9.31

ATOM 1434 HB1 PHE A 95 48.582 48.919 39.526 1.00 9.31

ATOM 1435 HB2 PHE A 95 48.163 47.245 39.771 1.00 9.31

ATOM 1436 CG PHE A 95 50.242 47.610 39.434 1.00 9.31

ATOM 1437 CD1 PHE A 95 50.981 46.502 39.900 1.00 9.31

ATOM 1438 HD1 PHE A 95 50.644 45.956 40.762 1.00 9.31

ATOM 1439 CE1 PHE A 95 52.136 46.068 39.220 1.00 9.31

ATOM 1440 HE1 PHE A 95 52.667 45.189 39.559 1.00 9.31

ATOM 1441 CZ PHE A 95 52.558 46.732 38.055 1.00 9.31

ATOM 1442 HZ PHE A 95 53.390 46.354 37.479 1.00 9.31

ATOM 1443 CE2 PHE A 95 51.854 47.861 37.606 1.00 9.31

ATOM 1444 HE2 PHE A 95 52.156 48.365 36.698 1.00 9.31

ATOM 1445 CD2 PHE A 95 50.709 48.298 38.296 1.00 9.31

ATOM 1446 HD2 PHE A 95 50.148 49.136 37.906 1.00 9.31

ATOM 1447 C PHE A 95 47.513 49.036 41.940 1.00 9.31

ATOM 1448 O PHE A 95 46.993 49.826 41.155 1.00 9.31

ATOM 1449 N VAL A 96 47.042 48.859 43.181 1.00 8.61

ATOM 1450 H VAL A 96 47.553 48.203 43.752 1.00 8.61

ATOM 1451 CA VAL A 96 46.184 49.775 43.939 1.00 8.61

ATOM 1452 HA VAL A 96 45.262 49.935 43.380 1.00 8.61

ATOM 1453 CB VAL A 96 45.849 49.233 45.352 1.00 8.61

ATOM 1454 HB VAL A 96 45.527 50.034 46.010 1.00 8.61

ATOM 1455 CG1 VAL A 96 44.626 48.341 45.306 1.00 8.61

ATOM 1456 1HG1 VAL A 96 44.156 48.263 46.274 1.00 8.61

ATOM 1457 2HG1 VAL A 96 43.885 48.840 44.697 1.00 8.61

ATOM 1458 3HG1 VAL A 96 44.878 47.357 44.929 1.00 8.61

ATOM 1459 CG2 VAL A 96 47.064 48.581 46.014 1.00 8.61

ATOM 1460 1HG2 VAL A 96 47.955 49.180 45.826 1.00 8.61

ATOM 1461 2HG2 VAL A 96 46.934 48.559 47.084 1.00 8.61

ATOM 1462 3HG2 VAL A 96 47.206 47.565 45.652 1.00 8.61

ATOM 1463 C VAL A 96 46.801 51.170 44.118 1.00 8.61

ATOM 1464 O VAL A 96 46.667 51.801 45.163 1.00 8.61

ATOM 1465 N THR A 97 47.458 51.717 43.103 1.00 10.09

ATOM 1466 H THR A 97 47.473 51.193 42.239 1.00 10.09

ATOM 1467 CA THR A 97 47.344 53.149 42.966 1.00 10.09

ATOM 1468 HA THR A 97 47.641 53.611 43.897 1.00 10.09

ATOM 1469 CB THR A 97 48.227 53.741 41.870 1.00 10.09

ATOM 1470 HB THR A 97 49.264 53.545 42.129 1.00 10.09

ATOM 1471 CG2 THR A 97 47.968 53.217 40.460 1.00 10.09

ATOM 1472 1HG2 THR A 97 48.652 53.692 39.757 1.00 10.09

ATOM 1473 2HG2 THR A 97 48.128 52.140 40.433 1.00 10.09

ATOM 1474 3HG2 THR A 97 46.945 53.444 40.168 1.00 10.09

ATOM 1475 OG1 THR A 97 48.032 55.129 41.838 1.00 10.09

ATOM 1476 HG1 THR A 97 48.596 55.502 41.147 1.00 10.09

ATOM 1477 C THR A 97 45.897 53.492 42.739 1.00 10.09

ATOM 1478 O THR A 97 45.164 52.782 42.064 1.00 10.09

ATOM 1479 N ILE A 98 45.485 54.553 43.422 1.00 11.26

ATOM 1480 H ILE A 98 46.181 55.111 43.899 1.00 11.26

ATOM 1481 CA ILE A 98 44.092 54.659 43.825 1.00 11.26

ATOM 1482 HA ILE A 98 43.770 53.635 43.870 1.00 11.26

ATOM 1483 CB ILE A 98 44.028 55.088 45.329 1.00 11.26

ATOM 1484 HB ILE A 98 44.484 56.051 45.395 1.00 11.26

ATOM 1485 CG2 ILE A 98 42.643 55.181 46.000 1.00 11.26

ATOM 1486 1HG2 ILE A 98 41.871 55.452 45.286 1.00 11.26

ATOM 1487 2HG2 ILE A 98 42.364 54.266 46.499 1.00 11.26

ATOM 1488 3HG2 ILE A 98 42.690 55.934 46.781 1.00 11.26

ATOM 1489 CG1 ILE A 98 44.953 54.190 46.189 1.00 11.26

ATOM 1490 1HG1 ILE A 98 45.964 54.238 45.797 1.00 11.26

ATOM 1491 2HG1 ILE A 98 44.644 53.157 46.130 1.00 11.26

ATOM 1492 CD1 ILE A 98 45.050 54.609 47.645 1.00 11.26

ATOM 1493 HD1 ILE A 98 45.810 54.006 48.142 1.00 11.26

ATOM 1494 HD2 ILE A 98 45.341 55.658 47.686 1.00 11.26

ATOM 1495 HD3 ILE A 98 44.104 54.469 48.166 1.00 11.26

ATOM 1496 C ILE A 98 43.226 55.217 42.709 1.00 11.26

ATOM 1497 O ILE A 98 41.998 55.368 42.846 1.00 11.26

ATOM 1498 N ARG A 99 43.837 55.382 41.539 1.00 14.66

ATOM 1499 H ARG A 99 44.840 55.304 41.616 1.00 14.66

ATOM 1500 CA ARG A 99 43.335 55.062 40.200 1.00 14.66

ATOM 1501 HA ARG A 99 42.660 54.206 40.234 1.00 14.66

ATOM 1502 CB ARG A 99 42.616 56.333 39.683 1.00 14.66

ATOM 1503 HB1 ARG A 99 43.357 57.120 39.530 1.00 14.66

ATOM 1504 HB2 ARG A 99 41.936 56.707 40.448 1.00 14.66

ATOM 1505 CG ARG A 99 41.829 56.145 38.378 1.00 14.66

ATOM 1506 HG1 ARG A 99 41.104 55.338 38.487 1.00 14.66

ATOM 1507 HG2 ARG A 99 42.520 55.896 37.572 1.00 14.66

ATOM 1508 CD ARG A 99 41.096 57.453 38.035 1.00 14.66

ATOM 1509 HD1 ARG A 99 41.822 58.267 38.044 1.00 14.66

ATOM 1510 HD2 ARG A 99 40.358 57.677 38.804 1.00 14.66

ATOM 1511 NE ARG A 99 40.474 57.416 36.698 1.00 14.66

ATOM 1512 HE ARG A 99 41.117 57.445 35.931 1.00 14.66

ATOM 1513 CZ ARG A 99 39.185 57.463 36.393 1.00 14.66

ATOM 1514 NH1 ARG A 99 38.830 57.575 35.142 1.00 14.66

ATOM 1515 1HH1 ARG A 99 39.527 57.651 34.428 1.00 14.66

ATOM 1516 2HH1 ARG A 99 37.855 57.652 34.929 1.00 14.66

ATOM 1517 NH2 ARG A 99 38.213 57.443 37.255 1.00 14.66

ATOM 1518 1HH2 ARG A 99 38.417 57.251 38.247 1.00 14.66

ATOM 1519 2HH2 ARG A 99 37.258 57.335 36.988 1.00 14.66

ATOM 1520 C ARG A 99 44.530 54.758 39.300 1.00 14.66

ATOM 1521 O ARG A 99 45.713 54.778 39.641 1.00 14.66

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