Full wwPDB EM Validation Report ⓘ

Feb 25, 2024 – 07:29 AM EST

PDB ID	:	6XF7
EMDB ID	:	EMD-22165
Title	:	SLP
Authors	:	Sutton, G.; Sun, D.P.; Fu, X.F.; Kotecha, A.; Hecksel, G.W.; Clare, D.K.; Zhang, P.; Stuart, D.; Boyce, M.
Deposited on	:	2020-06-15
Resolution	:	6.60 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references ⓘ) were used in the production of this report:

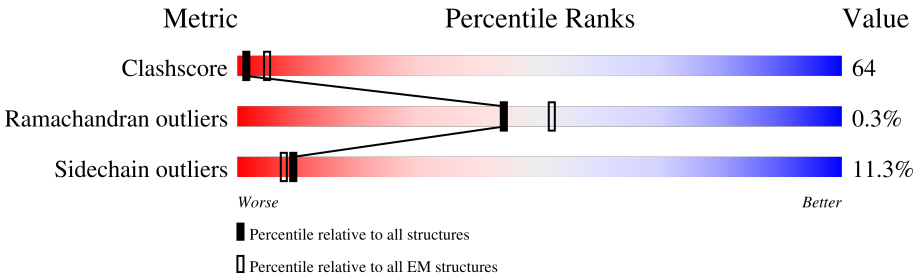
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 6.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B	1059	27% 29% 60% 7%
1	C	1059	26% 30% 62% 8%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 16454 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Lambda 1 protein.

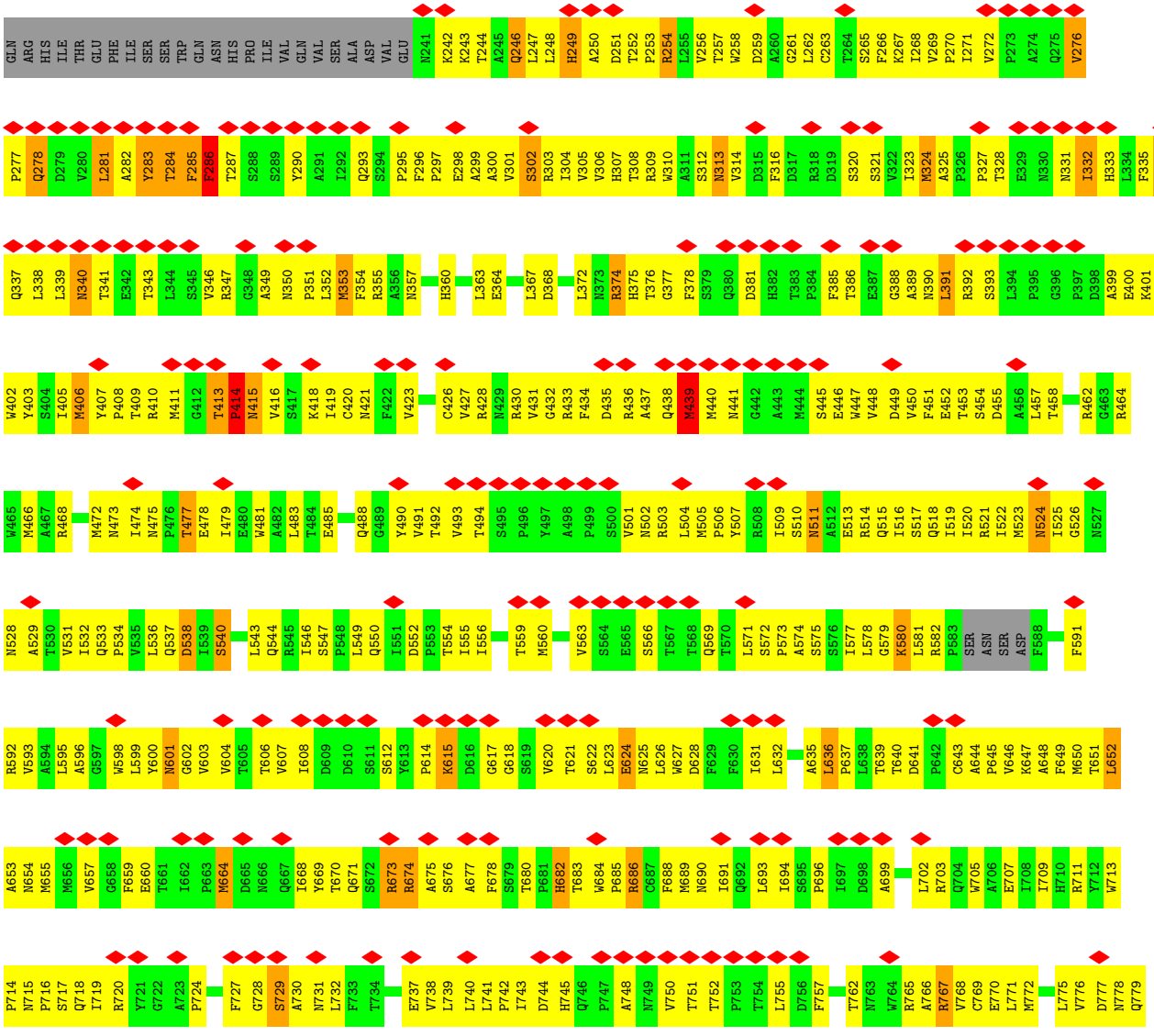
Mol	Chain	Residues	Atoms					AltConf	Trace
1	B	1031	Total	C	N	O	S	0	0
			8143	5208	1375	1510	50		
1	C	1051	Total	C	N	O	S	0	0
			8311	5314	1407	1540	50		

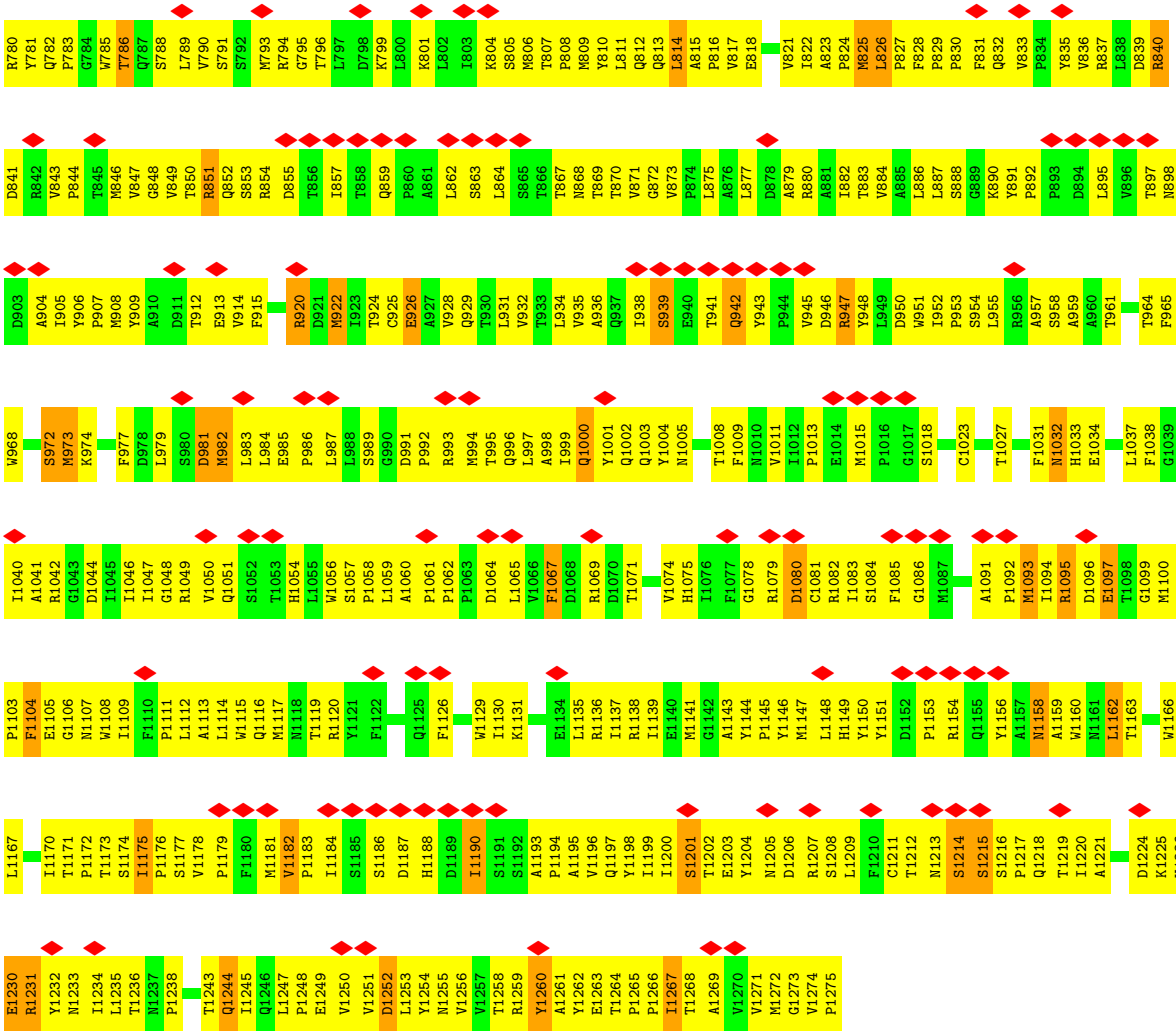
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Lambda 1 protein

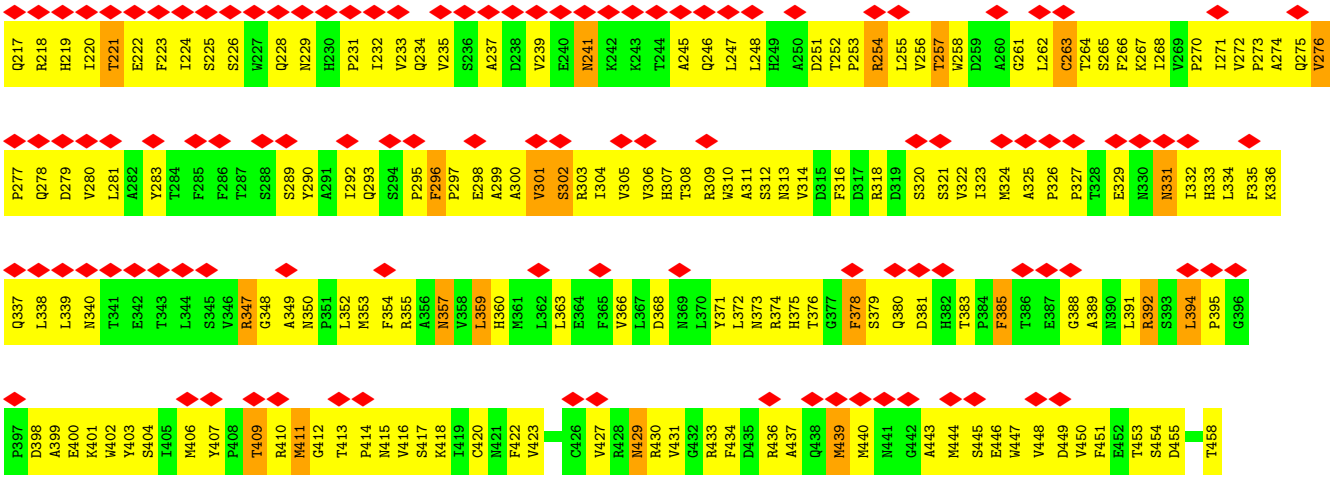
Chain B:

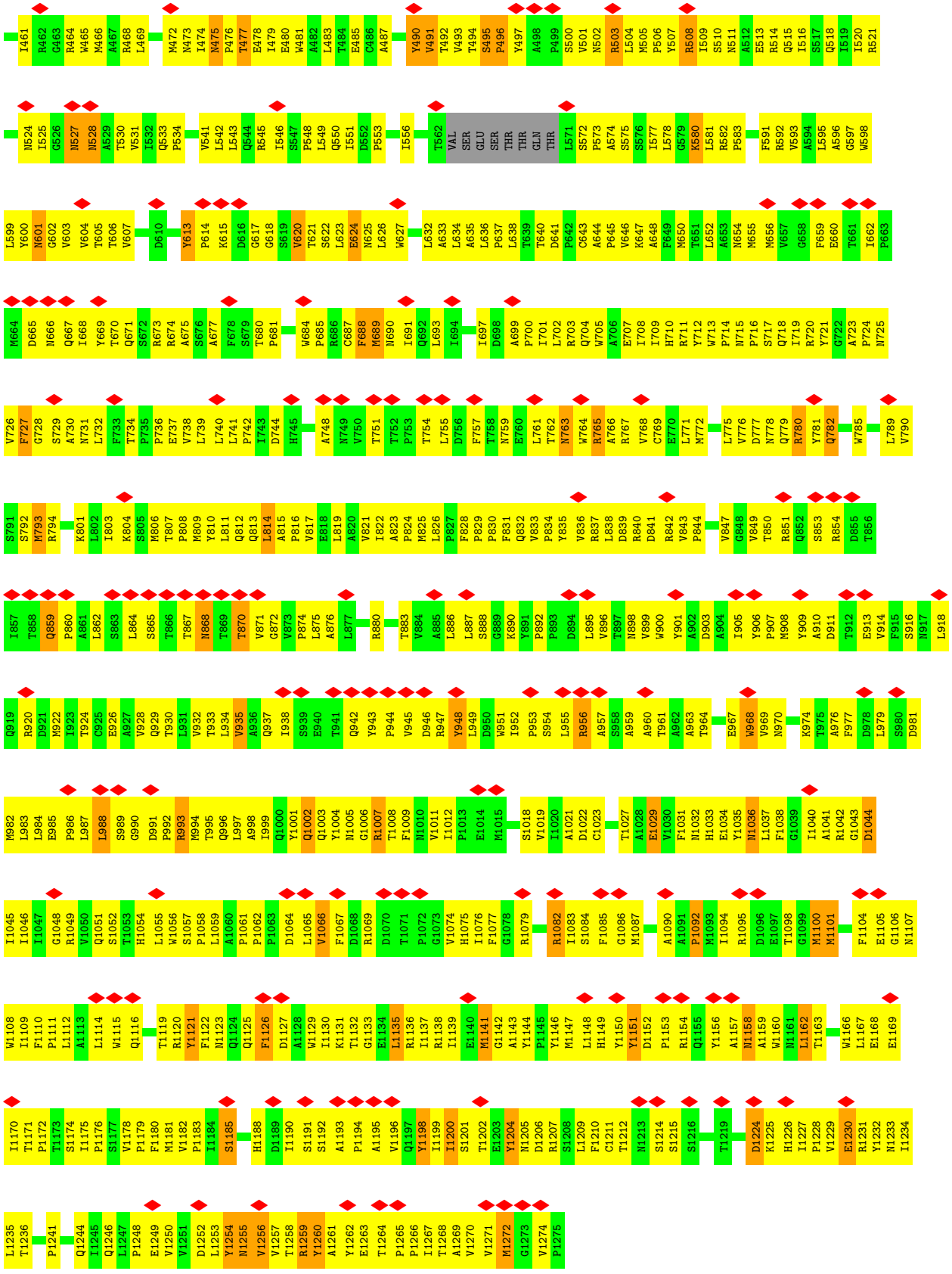




• Molecule 1: Lambda 1 protein

Chain C:




I461 R462 G463 R464 W465 M466 A467 R468 L469
M472 N473 I474 N475 P476 T477 E478 I479 E480 W481 A482 L483 T484 E485 C486 A487
Y490 V491 T492 V493 T494 S495 P496 Y497 A498 P499 S500 V501 N502 R503 L504 M505 P506 Y507 R508 I509 S510 N511 A512 E513 R514 Q515 I516 S517 Q518 I519 I520 R521
N524 I525 G526 N527 N528 A529 T530 V531 I532 Q533 P534
V541 L542 L543 Q544 R545 I546 S547 P548 L549 Q550 I551 D552 P553
I556
T562 VAL SER GLU SER THR THR GLN THR L571
S572 P573 A574 S575 S576 I577 L578 G579 K580 L581 R582 P583
F591 R592 V593 A594 L595 A596 G597 W598
L599 V600 N601 G602 V603 V604 T605 T606 V607
D610
Y613 P614 K615 D616 G617 G618 S619 V620 T621 S622 L623 E624 N625 L626 W627
L632 A633 L634 A635 L636 P637 L638 T639 T640 D641 P642 C643 A644 P645 V646 K647 A648 F649 M650 T651 L652 A653 N654 M655 M656 V657 G658 F659 E660 T661 I662 P663
M664 D665 N666 Q667 I668 Y669 T670 Q671 S672 R673 R674 A675 S676 A677 F678 S679 T680 P681
W684 P685 R686 C687 F688 M689 N690 I691 Q692 L693 I694
I697 D698 A699 P700 I701 L702 R703 Q704 W705 A706 E707 I708 I709 H710 R711 Y712 W713 P714 N715 P716 S717 Q718 I719 R720 Y721 G722 A723 P724 N725
V726 F727 G728 S729 A730 N731 L732 F733 T734 P735 P736 E737 V738 L739 L740 L741 P742 I743 D744 H745
A748 N749 V750 T751 T752 P753 T754 L755 D756 F757 T758 N759 E760 L761 T762 N763 W764 R765 A766 R767 V768 C769 E770 L771 M772
L775 V776 D777 N778 Q779 R780 Y781 Q782 W785 L789 V790
S791 S792 M793 R794
K801 L802 I803 K804 S805 M806 T807 P808 M809 Y810 L811 Q812 Q813 L814 A815 P816 V817 E818 L819 A820 V821 I822 A823 P824 M825 L826 P827 F828 P829 P830 F831 Q832 V833 P834 Y835 V836 R837 L838 D839 R840 D841 R842 V843 P844
V847 G848 V849 T850 R851 Q852 S853 R854 D855 T856
I857 T858 Q859 P860 A861 L862 S863 L864 S865 T866 T867 N868 T869 T870 V871 G872 V873 P874 L875 A876 L877
R880
T883 V884 A885 L886 L887 S888 G889 K890 Y891 P892 P893 D894 L895 V896 T897 N898 V899 W900 Y901 A902 D903 A904 I905 Y906 P907 M908 Y909 A910 D911 T912 E913 V914 F915 S916 N917 L918
Q919 R920 D921 M922 I923 T924 C925 E926 A927 V928 Q929 T930 L931 V932 T933 L934 V935 A936 Q937 I938 S939 E940 T941 Q942 Y943 P944 V945 D946 R947 Y948 L949 D950 W951 I952 P953 S954 L955 R956 A957 S958 A959 A960 T961 A962 A963 T964 E967 W968 V969 N970 K974 T975 A976 F977 D978 L979 S980 D981
M982 L983 L984 E985 P986 L987 L988 S989 G990 D991 P992 R993 M994 T995 Q996 L997 A998 I999 Q1000 Y1001 Q1002 Q1003 Y1004 N1005 G1006 R1007 T1008 F1009 N1010 V1011 I1012 F1013 E1014 M1015
S1018 V1019 I1020 A1021 D1022 C1023
T1027 A1028 E1029 V1030 F1031 N1032 H1033 E1034 Y1035 N1036 L1037 F1038 G1039 I1040 A1041 R1042 G1043 D1044
I1045 I1046 I1047 G1048 R1049 V1050 Q1051 S1052 T1053 H1054 L1055 W1056 S1057 P1058 L1059 A1060 P1061 P1062 P1063 D1064 L1065 V1066 F1067 D1068 R1069 D1070 T1071 P1072 G1073 V1074 H1075 I1076 F1077 G1078 R1079
R1082 I1083 S1084 F1085 G1086 M1087
A1090 A1091 P1092 M1093 I1094 R1095 D1096 E1097 T1098 G1099 M1100 M1101
F1104 E1105 G1106 N1107
W1108 I1109 F1110 P1111 L1112 A1113 L1114 W1115 Q1116
T1119 R1120 Y1121 F1122 N1123 Q1124 Q1125 F1126 D1127 A1128 W1129 I1130 K1131 T1132 G1133 E1134 L1135 R1136 I1137 R1138 I1139 E1140 M1141 G1142 A1143 Y1144 P1145 Y1146 M1147 L1148 H1149 Y1150 Y1151 D1152 P1153 R1154 Q1155 Y1156 A1157 N1158 A1159 W1160 N1161 L1162 T1163
W1166 L1167 E1168 E1169
I1170 T1171 P1172 T1173 S1174 I1175 P1176 S1177 V1178 P1179 F1180 M1181 V1182 P1183 I1184 S1185
H1188 D1189 I1190 S1191 S1192 A1193 P1194 A1195 V1196 Q1197 Y1198 I1199 I1200 S1201 T1202 E1203 Y1204 N1205 D1206 R1207 S1208 L1209 F1210 C1211 T1212 N1213 S1214 S1215 S1216 T1219 D1224 K1225 H1226 I1227 P1228 V1229 E1230 R1231 Y1232 N1233 I1234
L1235 T1236 P1241 Q1244 I1245 Q1246 L1247 P1248 E1249 V1250 V1251 D1252 L1253 Y1254 N1255 V1256 V1257 T1258 R1259 Y1260 A1261 Y1262 E1263 T1264 P1265 P1266 I1267 T1268 A1269 V1270 V1271 M1272 G1273 V1274 P1275

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C5	Depositor
Number of subtomograms used	2683	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	2	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	10.927	Depositor
Minimum map value	-5.906	Depositor
Average map value	0.059	Depositor
Map value standard deviation	0.498	Depositor
Recommended contour level	3.0	Depositor
Map size (Å)	696.6, 696.6, 696.6	wwPDB
Map dimensions	387, 387, 387	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.8, 1.8, 1.8	Depositor

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	B	0.61	0/8363	0.70	1/11454 (0.0%)
1	C	0.61	0/8537	0.71	1/11693 (0.0%)
All	All	0.61	0/16900	0.70	2/23147 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	284	THR	N-CA-C	-8.20	88.85	111.00
1	C	496	PRO	N-CA-C	-5.60	97.54	112.10

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	8143	0	8063	999	0
1	C	8311	0	8215	1116	0
All	All	16454	0	16278	2095	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 64.

All (2095) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:394:LEU:HD22	1:C:395:PRO:CD	1.28	1.60
1:C:276:VAL:CG2	1:C:277:PRO:HD2	1.50	1.40
1:C:276:VAL:HG23	1:C:277:PRO:CD	1.65	1.26
1:C:394:LEU:CD2	1:C:395:PRO:HD2	1.67	1.22
1:C:713:TRP:CE3	1:C:714:PRO:CD	2.24	1.20
1:C:713:TRP:CE3	1:C:714:PRO:HD2	1.77	1.20
1:C:394:LEU:CD2	1:C:395:PRO:CD	2.22	1.17
1:C:348:GLY:HA2	1:C:1176:PRO:HA	1.29	1.15
1:C:268:ILE:HA	1:C:304:ILE:HA	1.24	1.14
1:C:253:PRO:HB3	1:C:977:PHE:HB3	1.26	1.14
1:C:833:VAL:HG12	1:C:834:PRO:HD2	1.33	1.10
1:C:1171:THR:HG23	1:C:1172:PRO:HD2	1.29	1.10
1:B:717:SER:HB3	1:B:744:ASP:HA	1.20	1.09
1:C:502:ASN:HB2	1:C:1262:TYR:HA	1.31	1.09
1:C:713:TRP:CD2	1:C:714:PRO:HD2	1.87	1.09
1:B:636:LEU:HD12	1:B:648:ALA:HB2	1.35	1.08
1:B:1212:THR:HG23	1:B:1225:LYS:HB3	1.32	1.08
1:B:617:GLY:HA3	1:B:654:ASN:HB3	1.35	1.07
1:C:841:ASP:HB3	1:C:1005:ASN:HB3	1.33	1.07
1:C:276:VAL:CG2	1:C:277:PRO:CD	2.28	1.07
1:C:268:ILE:HG12	1:C:304:ILE:HG12	1.36	1.07
1:B:524:ASN:HB3	1:B:986:PRO:HG3	1.37	1.06
1:C:394:LEU:HD22	1:C:395:PRO:HD3	1.29	1.06
1:C:278:GLN:HG2	1:C:415:ASN:HB3	1.37	1.06
1:C:833:VAL:CG1	1:C:834:PRO:HD2	1.85	1.06
1:C:713:TRP:CE3	1:C:714:PRO:HD3	1.92	1.05
1:C:494:THR:HG22	1:C:496:PRO:HD3	1.39	1.05
1:B:375:HIS:HB3	1:B:1261:ALA:HB2	1.39	1.05
1:C:602:GLY:H	1:C:832:GLN:HA	1.19	1.04
1:C:755:LEU:HD11	1:C:804:LYS:HE3	1.34	1.04
1:B:1079:ARG:HA	1:B:1114:LEU:HD21	1.39	1.03
1:C:1241:PRO:HG2	1:C:1244:GLN:HB2	1.35	1.02
1:C:754:THR:HG22	1:C:806:MET:HG2	1.42	1.02
1:C:1056:TRP:HB2	1:C:1061:PRO:HA	1.38	1.02
1:B:282:ALA:HB1	1:C:1084:SER:HA	1.40	1.01
1:B:303:ARG:HG2	1:B:1209:LEU:HA	1.43	1.00
1:B:1049:ARG:HB3	1:B:1049:ARG:NH1	1.73	1.00
1:B:434:PHE:H	1:B:450:VAL:HA	1.22	1.00
1:C:375:HIS:HB3	1:C:1261:ALA:HB2	1.41	0.99
1:B:327:PRO:HB2	1:B:1148:LEU:HG	1.44	0.99
1:C:731:ASN:HB2	1:C:736:PRO:HA	1.44	0.99
1:C:543:LEU:HA	1:C:546:ILE:HG22	1.40	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:724:PRO:HA	1:C:728:GLY:HA2	1.40	0.99
1:B:827:PRO:HA	1:B:914:VAL:HG13	1.45	0.98
1:B:338:LEU:HD23	1:B:339:LEU:HG	1.41	0.98
1:B:1069:ARG:HA	1:B:1109:ILE:HG13	1.43	0.98
1:C:1211:CYS:HA	1:C:1225:LYS:HG3	1.45	0.98
1:C:276:VAL:HB	1:C:277:PRO:HD3	1.44	0.98
1:B:1171:THR:HG23	1:B:1172:PRO:HD2	1.43	0.97
1:C:352:LEU:HD22	1:C:955:LEU:HB3	1.46	0.97
1:C:219:HIS:HA	1:C:235:VAL:HG12	1.43	0.97
1:C:339:LEU:HD12	1:C:353:MET:HB3	1.45	0.97
1:C:810:TYR:HA	1:C:814:LEU:HD23	1.43	0.97
1:B:256:VAL:HG11	1:B:1264:THR:HG21	1.42	0.96
1:C:854:ARG:NH1	1:C:854:ARG:HA	1.78	0.96
1:B:298:GLU:HA	1:B:1214:SER:HB2	1.44	0.96
1:B:1156:TYR:HB2	1:B:1194:PRO:HG2	1.47	0.96
1:C:982:MET:HB2	1:C:985:GLU:HG3	1.47	0.96
1:C:270:PRO:HG3	1:C:297:PRO:HB2	1.46	0.95
1:B:436:ARG:HB2	1:B:448:VAL:HG12	1.46	0.95
1:B:621:THR:HA	1:B:781:TYR:HE1	1.28	0.95
1:B:852:GLN:HA	1:B:995:THR:HA	1.48	0.95
1:B:1163:THR:HG21	1:B:1198:TYR:HB2	1.47	0.95
1:B:409:THR:HG22	1:B:423:VAL:HG13	1.47	0.95
1:B:892:PRO:HD2	1:B:895:LEU:HD22	1.49	0.95
1:C:418:LYS:HD2	1:C:1214:SER:HA	1.48	0.95
1:B:474:ILE:HD13	1:B:507:TYR:HB2	1.49	0.94
1:B:1230:GLU:HB2	1:B:1250:VAL:HG11	1.49	0.94
1:C:276:VAL:CB	1:C:277:PRO:CD	2.45	0.94
1:C:1082:ARG:HG2	1:C:1082:ARG:HH11	1.33	0.94
1:B:691:ILE:H	1:B:691:ILE:HD12	1.30	0.94
1:B:953:PRO:HD2	1:B:1143:ALA:HB3	1.49	0.93
1:B:516:ILE:HG12	1:B:1013:PRO:HB3	1.51	0.93
1:C:453:THR:HA	1:C:1254:TYR:HA	1.48	0.93
1:C:634:LEU:HD23	1:C:883:THR:HG23	1.49	0.93
1:C:360:HIS:CD2	1:C:969:VAL:HG22	2.04	0.92
1:B:446:GLU:HB3	1:B:1262:TYR:HE1	1.32	0.92
1:B:690:ASN:HB3	1:B:693:LEU:HD12	1.51	0.92
1:C:1230:GLU:HB2	1:C:1250:VAL:HG11	1.52	0.91
1:B:478:GLU:HA	1:B:481:TRP:CE3	2.05	0.91
1:C:991:ASP:HA	1:C:993:ARG:NH2	1.85	0.91
1:B:332:ILE:CG2	1:B:347:ARG:HA	2.01	0.91
1:C:278:GLN:HA	1:C:416:VAL:H	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:483:LEU:HD13	1:C:493:VAL:HG11	1.52	0.90
1:C:577:ILE:HD13	1:C:627:TRP:HB3	1.50	0.90
1:B:992:PRO:HA	1:B:995:THR:HG23	1.54	0.90
1:B:1145:PRO:HG2	1:B:1177:SER:HA	1.51	0.89
1:C:1035:TYR:HA	1:C:1038:PHE:HB2	1.52	0.89
1:B:608:ILE:HD12	1:B:879:ALA:HB2	1.52	0.89
1:C:1105:GLU:HA	1:C:1135:LEU:HB2	1.53	0.89
1:B:243:LYS:NZ	1:B:828:PHE:HB3	1.87	0.89
1:C:924:THR:HG23	1:C:984:LEU:CD2	2.02	0.89
1:B:256:VAL:HG13	1:B:372:LEU:HD12	1.52	0.89
1:B:295:PRO:HB3	1:B:405:ILE:HA	1.55	0.89
1:C:306:VAL:HB	1:C:324:MET:HB3	1.54	0.89
1:C:602:GLY:N	1:C:832:GLN:HA	1.86	0.88
1:C:1212:THR:HG23	1:C:1225:LYS:HB3	1.53	0.88
1:C:332:ILE:HG13	1:C:336:LYS:HD2	1.52	0.88
1:B:278:GLN:HG2	1:B:281:LEU:HB2	1.56	0.88
1:C:303:ARG:HG2	1:C:1209:LEU:HA	1.55	0.88
1:C:483:LEU:HD12	1:C:493:VAL:HG21	1.53	0.88
1:C:224:ILE:HG23	1:C:1270:VAL:HG13	1.53	0.87
1:C:520:ILE:HD12	1:C:987:LEU:HD21	1.56	0.87
1:C:277:PRO:HG2	1:C:416:VAL:HG21	1.57	0.87
1:B:751:THR:HG21	1:B:898:ASN:HD22	1.40	0.87
1:B:1093:MET:HB2	1:B:1101:MET:HB3	1.57	0.87
1:B:1211:CYS:HA	1:B:1225:LYS:HG3	1.57	0.87
1:C:338:LEU:HD11	1:C:360:HIS:CG	2.09	0.86
1:C:853:SER:H	1:C:995:THR:HB	1.39	0.86
1:C:1075:HIS:HB2	1:C:1108:TRP:CD1	2.10	0.86
1:C:1126:PHE:HA	1:C:1129:TRP:HD1	1.38	0.86
1:B:769:CYS:HA	1:B:772:MET:HE2	1.58	0.86
1:C:277:PRO:HG2	1:C:416:VAL:CG2	2.05	0.86
1:B:600:TYR:CE2	1:B:830:PRO:HA	2.12	0.85
1:B:854:ARG:HG3	1:B:863:SER:HB2	1.57	0.85
1:C:1171:THR:HG23	1:C:1172:PRO:CD	2.05	0.85
1:B:307:HIS:HA	1:B:323:ILE:HG12	1.58	0.85
1:C:280:VAL:HB	1:C:414:PRO:HB3	1.59	0.85
1:C:983:LEU:HG	1:C:984:LEU:HG	1.56	0.84
1:C:1082:ARG:HB2	1:C:1095:ARG:HD3	1.59	0.84
1:C:276:VAL:HB	1:C:277:PRO:CD	2.04	0.84
1:C:1175:ILE:CG1	1:C:1176:PRO:HD2	2.08	0.84
1:B:1108:TRP:HB2	1:B:1137:ILE:HG12	1.60	0.84
1:C:1171:THR:CG2	1:C:1172:PRO:HD2	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1056:TRP:HB2	1:B:1061:PRO:HA	1.60	0.84
1:C:1260:TYR:HB2	1:C:1262:TYR:CE1	2.13	0.84
1:B:389:ALA:CB	1:B:431:VAL:HG22	2.08	0.83
1:B:840:ARG:HA	1:B:843:VAL:HG23	1.59	0.83
1:B:259:ASP:HA	1:B:314:VAL:HG12	1.60	0.83
1:B:491:VAL:HG21	1:B:905:ILE:HG21	1.60	0.83
1:B:717:SER:CB	1:B:744:ASP:HA	2.04	0.83
1:B:602:GLY:HA2	1:B:833:VAL:HG13	1.58	0.83
1:C:360:HIS:HD2	1:C:969:VAL:HG22	1.40	0.83
1:B:283:TYR:CD1	1:B:286:PHE:HB2	2.14	0.83
1:C:263:CYS:O	1:C:263:CYS:SG	2.36	0.83
1:B:778:ASN:HB3	1:B:781:TYR:HB3	1.60	0.83
1:C:691:ILE:H	1:C:691:ILE:HD12	1.43	0.82
1:B:285:PHE:HB2	1:C:1083:ILE:HG13	1.60	0.82
1:C:268:ILE:CA	1:C:304:ILE:HA	2.09	0.82
1:C:500:SER:HB3	1:C:503:ARG:HB2	1.61	0.82
1:C:394:LEU:CD2	1:C:395:PRO:HD3	2.00	0.82
1:C:1031:PHE:HA	1:C:1038:PHE:CE1	2.15	0.82
1:B:283:TYR:HB2	1:B:286:PHE:CD1	2.15	0.81
1:B:1074:VAL:CG1	1:B:1109:ILE:HG12	2.09	0.81
1:B:685:PRO:HG2	1:B:688:PHE:CB	2.10	0.81
1:C:754:THR:HA	1:C:809:MET:HE1	1.63	0.81
1:C:1252:ASP:HB2	1:C:1255:ASN:ND2	1.96	0.81
1:B:448:VAL:O	1:B:1258:THR:HA	1.79	0.81
1:C:434:PHE:HB2	1:C:1256:VAL:HG11	1.61	0.81
1:B:246:GLN:HG3	1:B:250:ALA:HB2	1.62	0.81
1:B:283:TYR:CD1	1:B:283:TYR:O	2.34	0.81
1:C:621:THR:HG22	1:C:782:GLN:HA	1.61	0.81
1:B:272:VAL:HG12	1:B:300:ALA:HB3	1.62	0.80
1:C:514:ARG:HB2	1:C:730:ALA:HB2	1.63	0.80
1:B:351:PRO:HA	1:B:354:PHE:CD1	2.16	0.80
1:C:265:SER:CB	1:C:308:THR:HA	2.12	0.80
1:B:778:ASN:HD21	1:B:780:ARG:HG3	1.46	0.80
1:B:1092:PRO:O	1:B:1103:PRO:HA	1.82	0.80
1:C:278:GLN:HA	1:C:416:VAL:N	1.97	0.80
1:C:573:PRO:HB2	1:C:627:TRP:HZ2	1.46	0.80
1:C:982:MET:HB2	1:C:985:GLU:CG	2.12	0.80
1:C:417:SER:HG	1:C:420:CYS:HG	1.28	0.80
1:C:305:VAL:HA	1:C:324:MET:HE1	1.64	0.80
1:C:474:ILE:HD11	1:C:726:VAL:HG22	1.63	0.80
1:C:754:THR:HA	1:C:809:MET:CE	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:807:THR:HG21	1:C:886:LEU:HA	1.63	0.79
1:C:717:SER:HB3	1:C:744:ASP:HA	1.64	0.79
1:B:563:VAL:HG22	1:B:799:LYS:HD3	1.64	0.79
1:C:268:ILE:HA	1:C:304:ILE:CA	2.10	0.79
1:C:363:LEU:HD21	1:C:969:VAL:HG13	1.63	0.79
1:C:378:PHE:HA	1:C:392:ARG:HA	1.63	0.79
1:C:436:ARG:HD2	1:C:440:MET:CE	2.13	0.79
1:C:833:VAL:HG12	1:C:834:PRO:CD	2.12	0.79
1:C:1110:PHE:HB2	1:C:1139:ILE:HD13	1.64	0.79
1:B:569:GLN:HA	1:B:569:GLN:NE2	1.97	0.79
1:B:685:PRO:HG2	1:B:688:PHE:HB2	1.64	0.79
1:C:295:PRO:HG3	1:C:404:SER:HB2	1.63	0.79
1:C:732:LEU:HD13	1:C:1011:VAL:HG11	1.63	0.79
1:C:253:PRO:CB	1:C:977:PHE:HB3	2.11	0.79
1:C:1095:ARG:HA	1:C:1101:MET:HA	1.64	0.79
1:B:243:LYS:HZ3	1:B:828:PHE:HB3	1.48	0.79
1:B:806:MET:HB3	1:B:891:TYR:CZ	2.18	0.79
1:C:394:LEU:HD22	1:C:395:PRO:HD2	0.81	0.79
1:C:502:ASN:CB	1:C:1262:TYR:HA	2.12	0.79
1:B:300:ALA:HA	1:B:1213:ASN:H	1.48	0.79
1:B:836:VAL:HB	1:B:839:ASP:HB3	1.65	0.79
1:B:283:TYR:HA	1:B:286:PHE:H	1.47	0.78
1:B:578:LEU:HA	1:B:581:LEU:HD12	1.65	0.78
1:C:232:ILE:HG13	1:C:906:TYR:CE2	2.18	0.78
1:C:300:ALA:HB1	1:C:1185:SER:HB3	1.65	0.78
1:C:1029:GLU:OE1	1:C:1029:GLU:HA	1.82	0.78
1:C:984:LEU:HB3	1:C:987:LEU:HD12	1.65	0.78
1:C:1166:TRP:CD1	1:C:1179:PRO:HD3	2.19	0.78
1:B:266:PHE:CD2	1:B:306:VAL:HG22	2.17	0.78
1:B:283:TYR:HD1	1:B:286:PHE:HB2	1.45	0.78
1:B:446:GLU:HB3	1:B:1262:TYR:CE1	2.16	0.78
1:C:350:ASN:HA	1:C:1174:SER:HB2	1.66	0.78
1:C:892:PRO:HD2	1:C:895:LEU:HD22	1.65	0.78
1:C:1045:ILE:HD12	1:C:1199:ILE:HG23	1.63	0.78
1:B:849:VAL:HG12	1:B:999:ILE:HG13	1.64	0.78
1:C:635:ALA:HA	1:C:638:LEU:HG	1.64	0.78
1:C:656:MET:HA	1:C:656:MET:CE	2.13	0.78
1:C:1162:LEU:CD1	1:C:1162:LEU:H	1.96	0.78
1:B:982:MET:O	1:B:982:MET:HG2	1.84	0.78
1:B:1079:ARG:HA	1:B:1114:LEU:CD2	2.14	0.78
1:C:1046:ILE:HD12	1:C:1066:VAL:HB	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:664:MET:HA	1:B:664:MET:CE	2.14	0.78
1:C:1162:LEU:HD12	1:C:1162:LEU:N	1.97	0.78
1:B:266:PHE:HD2	1:B:306:VAL:HG22	1.46	0.77
1:B:328:THR:HA	1:B:1148:LEU:O	1.83	0.77
1:B:598:TRP:CD2	1:B:742:PRO:HG3	2.19	0.77
1:B:905:ILE:HG23	1:B:909:TYR:CD1	2.19	0.77
1:C:854:ARG:HA	1:C:854:ARG:HH11	1.46	0.77
1:B:1266:PRO:HG2	1:B:1269:ALA:CB	2.13	0.77
1:C:280:VAL:HB	1:C:414:PRO:CB	2.14	0.77
1:B:332:ILE:HG23	1:B:347:ARG:HA	1.65	0.77
1:B:902:ALA:HB1	1:B:1275:PRO:HB2	1.64	0.77
1:B:906:TYR:CE1	1:B:1275:PRO:HD3	2.19	0.77
1:C:436:ARG:HD2	1:C:440:MET:HE2	1.65	0.77
1:C:600:TYR:CD2	1:C:830:PRO:HA	2.19	0.77
1:C:219:HIS:HA	1:C:235:VAL:CG1	2.14	0.77
1:C:380:GLN:HG3	1:C:388:GLY:HA2	1.67	0.77
1:B:1074:VAL:HG11	1:B:1109:ILE:HG12	1.66	0.77
1:B:1166:TRP:CD1	1:B:1176:PRO:HG2	2.20	0.77
1:B:293:GLN:HE22	1:B:401:LYS:HA	1.50	0.77
1:B:491:VAL:HG22	1:B:1275:PRO:HA	1.65	0.76
1:B:1049:ARG:HB3	1:B:1049:ARG:HH11	1.48	0.76
1:B:1049:ARG:HH11	1:B:1049:ARG:CB	1.97	0.76
1:B:283:TYR:O	1:B:283:TYR:CG	2.38	0.76
1:C:814:LEU:HD22	1:C:814:LEU:H	1.50	0.76
1:B:602:GLY:HA3	1:B:831:PHE:HD2	1.51	0.76
1:B:503:ARG:HD2	1:B:1265:PRO:HG3	1.68	0.76
1:C:279:ASP:HB2	1:C:414:PRO:O	1.85	0.76
1:B:847:VAL:O	1:B:870:THR:HA	1.86	0.76
1:C:1076:ILE:HG12	1:C:1109:ILE:HB	1.67	0.76
1:C:1101:MET:N	1:C:1101:MET:SD	2.60	0.75
1:B:617:GLY:HA3	1:B:654:ASN:CB	2.14	0.75
1:B:436:ARG:HA	1:B:448:VAL:HA	1.66	0.75
1:C:430:ARG:HD2	1:C:1234:ILE:HB	1.67	0.75
1:C:491:VAL:HB	1:C:1271:VAL:CG1	2.17	0.75
1:B:999:ILE:HG23	1:B:1011:VAL:HB	1.69	0.75
1:B:332:ILE:HG21	1:B:347:ARG:HA	1.67	0.75
1:B:992:PRO:HA	1:B:995:THR:CG2	2.17	0.75
1:C:258:TRP:HH2	1:C:1262:TYR:HB2	1.50	0.75
1:C:573:PRO:HB3	1:C:623:LEU:HD21	1.67	0.75
1:C:235:VAL:HG21	1:C:239:VAL:HG11	1.69	0.75
1:C:352:LEU:O	1:C:954:SER:HA	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:430:ARG:HD3	1:C:451:PHE:CE2	2.21	0.75
1:C:699:ALA:HB1	1:C:702:LEU:HB2	1.67	0.75
1:C:272:VAL:O	1:C:300:ALA:N	2.20	0.74
1:C:336:LYS:HB2	1:C:340:ASN:HB2	1.67	0.74
1:C:493:VAL:HG12	1:C:1269:ALA:HB1	1.68	0.74
1:B:298:GLU:CA	1:B:1214:SER:HB2	2.17	0.74
1:B:813:GLN:C	1:B:816:PRO:HD2	2.08	0.74
1:B:1212:THR:HG23	1:B:1225:LYS:CB	2.16	0.74
1:C:1075:HIS:H	1:C:1108:TRP:HA	1.53	0.74
1:B:338:LEU:CD2	1:B:339:LEU:HG	2.17	0.74
1:C:841:ASP:CB	1:C:1005:ASN:HB3	2.13	0.74
1:C:375:HIS:CE1	1:C:445:SER:H	2.06	0.74
1:B:265:SER:HB3	1:B:308:THR:HG22	1.70	0.74
1:B:1049:ARG:NH1	1:B:1049:ARG:CB	2.50	0.74
1:B:1000:GLN:HA	1:B:1009:PHE:O	1.88	0.74
1:C:220:ILE:O	1:C:1266:PRO:HB2	1.87	0.74
1:C:246:GLN:HB3	1:C:911:ASP:CG	2.08	0.74
1:C:263:CYS:SG	1:C:458:THR:HG21	2.28	0.74
1:B:243:LYS:HB2	1:B:538:ASP:OD2	1.87	0.74
1:B:1074:VAL:HG22	1:B:1107:ASN:CB	2.17	0.74
1:C:221:THR:HA	1:C:1267:ILE:O	1.87	0.74
1:C:1002:GLN:CB	1:C:1008:THR:HG22	2.18	0.74
1:C:1111:PRO:HG2	1:C:1114:LEU:HB2	1.68	0.74
1:C:262:LEU:HB2	1:C:311:ALA:HB3	1.69	0.73
1:C:270:PRO:HB2	1:C:299:ALA:HB2	1.68	0.73
1:C:814:LEU:HD22	1:C:814:LEU:N	2.02	0.73
1:B:352:LEU:HA	1:B:954:SER:HA	1.70	0.73
1:B:1058:PRO:HB3	1:B:1200:ILE:HA	1.69	0.73
1:B:1078:GLY:HA3	1:B:1097:GLU:HB3	1.70	0.73
1:C:1232:TYR:CE1	1:C:1253:LEU:HD12	2.22	0.73
1:C:985:GLU:N	1:C:986:PRO:HD2	2.03	0.73
1:B:1170:ILE:HG12	1:B:1176:PRO:HD2	1.70	0.73
1:B:263:CYS:O	1:B:263:CYS:SG	2.47	0.73
1:C:336:LYS:CB	1:C:340:ASN:HB2	2.19	0.73
1:B:984:LEU:HD22	1:B:987:LEU:HD12	1.70	0.73
1:C:1049:ARG:HG3	1:C:1196:VAL:HG13	1.69	0.73
1:B:1041:ALA:HB2	1:B:1146:TYR:HD2	1.52	0.73
1:C:265:SER:HB3	1:C:308:THR:HA	1.71	0.73
1:C:836:VAL:HB	1:C:839:ASP:HB3	1.69	0.73
1:B:491:VAL:HG21	1:B:905:ILE:CG2	2.19	0.73
1:B:591:PHE:CE1	1:B:811:LEU:HD21	2.24	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:999:ILE:CG2	1:B:1011:VAL:HB	2.19	0.73
1:B:385:PHE:HB3	1:B:410:ARG:HA	1.69	0.72
1:C:318:ARG:HG2	1:C:371:TYR:CE1	2.24	0.72
1:C:322:VAL:HG13	1:C:334:LEU:HD22	1.71	0.72
1:C:1229:VAL:HA	1:C:1236:THR:HG21	1.70	0.72
1:B:652:LEU:HD12	1:B:652:LEU:O	1.89	0.72
1:C:636:LEU:HD22	1:C:648:ALA:HB2	1.70	0.72
1:C:543:LEU:HA	1:C:546:ILE:CG2	2.17	0.72
1:C:1175:ILE:HG13	1:C:1176:PRO:HD2	1.70	0.72
1:C:234:GLN:HB2	1:C:910:ALA:O	1.89	0.72
1:C:633:ALA:HA	1:C:636:LEU:HD12	1.70	0.72
1:C:1108:TRP:HB2	1:C:1137:ILE:HG12	1.69	0.72
1:B:438:GLN:HA	1:C:862:LEU:HB3	1.70	0.72
1:C:403:TYR:HD1	1:C:407:TYR:HE1	1.35	0.72
1:C:1054:HIS:HB2	1:C:1056:TRP:CD1	2.25	0.72
1:C:1131:LYS:HD2	1:C:1131:LYS:O	1.89	0.72
1:C:1151:TYR:HD2	1:C:1181:MET:HG2	1.54	0.72
1:C:258:TRP:HB3	1:C:374:ARG:HB2	1.72	0.72
1:C:276:VAL:HG13	1:C:1215:SER:HB2	1.72	0.72
1:C:447:TRP:HA	1:C:1260:TYR:HA	1.70	0.72
1:C:493:VAL:CG1	1:C:1269:ALA:HB1	2.19	0.72
1:C:508:ARG:HA	1:C:508:ARG:HE	1.54	0.72
1:B:848:GLY:CA	1:B:868:ASN:HB2	2.19	0.72
1:B:1002:GLN:HB2	1:B:1008:THR:HG22	1.72	0.72
1:B:434:PHE:N	1:B:450:VAL:HA	2.03	0.72
1:C:755:LEU:HD11	1:C:804:LYS:CE	2.18	0.72
1:C:847:VAL:HG23	1:C:871:VAL:HG11	1.70	0.72
1:B:1074:VAL:HG22	1:B:1107:ASN:HB3	1.72	0.71
1:B:1203:GLU:HG3	1:B:1205:ASN:HD21	1.54	0.71
1:B:333:HIS:HB3	1:B:346:VAL:CB	2.20	0.71
1:B:1086:GLY:CA	1:B:1092:PRO:HA	2.19	0.71
1:C:483:LEU:CD1	1:C:493:VAL:HG11	2.21	0.71
1:C:851:ARG:HD2	1:C:991:ASP:HB3	1.72	0.71
1:B:389:ALA:HB1	1:B:432:GLY:HA3	1.72	0.71
1:C:352:LEU:CD2	1:C:955:LEU:HB3	2.20	0.71
1:B:281:LEU:HB3	1:B:286:PHE:HE1	1.53	0.71
1:B:659:PHE:HZ	1:B:778:ASN:ND2	1.87	0.71
1:B:691:ILE:HD12	1:B:691:ILE:N	2.04	0.71
1:B:1266:PRO:HG2	1:B:1269:ALA:HB3	1.70	0.71
1:C:601:ASN:H	1:C:832:GLN:HG2	1.56	0.71
1:C:748:ALA:HA	1:C:813:GLN:HB3	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1154:ARG:HA	1:C:1192:SER:HA	1.73	0.71
1:B:892:PRO:HG2	1:B:895:LEU:HD13	1.72	0.71
1:B:1046:ILE:HB	1:B:1200:ILE:HG12	1.73	0.71
1:C:350:ASN:HB3	1:C:353:MET:HG3	1.71	0.71
1:C:518:GLN:HG3	1:C:521:ARG:HE	1.56	0.71
1:C:669:TYR:HA	1:C:673:ARG:HD2	1.72	0.71
1:C:806:MET:HB3	1:C:809:MET:HE3	1.72	0.71
1:C:851:ARG:HB3	1:C:994:MET:HB2	1.71	0.71
1:C:418:LYS:HB2	1:C:1214:SER:HA	1.71	0.71
1:C:766:ALA:HB1	1:C:801:LYS:HE3	1.73	0.71
1:C:1051:GLN:HE21	1:C:1194:PRO:HA	1.54	0.71
1:B:882:ILE:O	1:B:886:LEU:HG	1.91	0.70
1:C:338:LEU:HB2	1:C:357:ASN:CG	2.11	0.70
1:C:375:HIS:HE2	1:C:448:VAL:HB	1.56	0.70
1:B:261:GLY:HA3	1:B:312:SER:HA	1.72	0.70
1:B:415:ASN:HB3	1:B:420:CYS:SG	2.31	0.70
1:B:621:THR:HA	1:B:781:TYR:CE1	2.20	0.70
1:C:603:VAL:HG13	1:C:831:PHE:CD2	2.25	0.70
1:B:529:ALA:O	1:B:532:ILE:HG22	1.92	0.70
1:B:929:GLN:HB2	1:B:1015:MET:HB3	1.72	0.70
1:C:600:TYR:CE2	1:C:830:PRO:HA	2.27	0.70
1:C:1151:TYR:N	1:C:1182:VAL:O	2.23	0.70
1:B:1049:ARG:HB2	1:B:1198:TYR:CE2	2.27	0.70
1:C:413:THR:HG21	1:C:423:VAL:HB	1.72	0.70
1:C:623:LEU:HA	1:C:626:LEU:HD12	1.71	0.70
1:B:707:GLU:HB3	1:B:711:ARG:HH12	1.55	0.70
1:B:840:ARG:HA	1:B:843:VAL:CG2	2.20	0.70
1:C:1056:TRP:CG	1:C:1062:PRO:HD3	2.27	0.70
1:B:509:ILE:HG21	1:B:922:MET:HG3	1.73	0.70
1:C:500:SER:HB3	1:C:503:ARG:CB	2.21	0.70
1:B:295:PRO:HG2	1:B:408:PRO:HB3	1.72	0.70
1:C:516:ILE:O	1:C:520:ILE:HG12	1.91	0.70
1:C:261:GLY:HA3	1:C:313:ASN:N	2.06	0.70
1:C:647:LYS:HA	1:C:675:ALA:HB1	1.72	0.70
1:C:699:ALA:HB1	1:C:702:LEU:HD12	1.73	0.70
1:C:920:ARG:HH22	1:C:981:ASP:HB2	1.56	0.70
1:B:778:ASN:ND2	1:B:780:ARG:HG3	2.07	0.69
1:B:973:MET:HA	1:B:973:MET:CE	2.21	0.69
1:B:339:LEU:HD12	1:B:357:ASN:HD21	1.56	0.69
1:C:433:ARG:HA	1:C:450:VAL:HA	1.73	0.69
1:C:1126:PHE:HA	1:C:1129:TRP:CD1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:336:LYS:HB2	1:B:340:ASN:HB2	1.75	0.69
1:B:716:PRO:HA	1:B:743:ILE:HA	1.73	0.69
1:C:283:TYR:HD1	1:C:290:TYR:HB2	1.57	0.69
1:C:418:LYS:HB2	1:C:1214:SER:CA	2.22	0.69
1:C:434:PHE:HB2	1:C:1256:VAL:CG1	2.22	0.69
1:C:814:LEU:H	1:C:814:LEU:CD2	2.05	0.69
1:B:651:THR:HA	1:B:654:ASN:HD22	1.57	0.69
1:B:724:PRO:HA	1:B:728:GLY:HA2	1.73	0.69
1:C:527:ASN:HB3	1:C:868:ASN:OD1	1.91	0.69
1:C:646:VAL:HG22	1:C:688:PHE:CZ	2.26	0.69
1:B:340:ASN:HD22	1:B:340:ASN:N	1.91	0.69
1:C:262:LEU:HD11	1:C:402:TRP:CE3	2.27	0.69
1:C:278:GLN:CG	1:C:415:ASN:HB3	2.19	0.69
1:C:607:VAL:O	1:C:876:ALA:HA	1.92	0.69
1:B:399:ALA:HA	1:B:402:TRP:HD1	1.58	0.69
1:C:394:LEU:HD12	1:C:402:TRP:CG	2.27	0.69
1:B:242:LYS:HD3	1:B:534:PRO:HB2	1.74	0.69
1:B:285:PHE:C	1:B:285:PHE:CD2	2.66	0.69
1:B:664:MET:HA	1:B:664:MET:HE2	1.72	0.69
1:B:1151:TYR:CD2	1:B:1181:MET:HG2	2.28	0.69
1:B:285:PHE:CB	1:C:1083:ILE:HG13	2.22	0.69
1:C:524:ASN:ND2	1:C:982:MET:SD	2.61	0.69
1:C:659:PHE:CE2	1:C:781:TYR:HA	2.28	0.69
1:B:352:LEU:HB3	1:B:955:LEU:CB	2.23	0.69
1:C:813:GLN:O	1:C:816:PRO:HD2	1.93	0.68
1:B:381:ASP:HB3	1:B:388:GLY:HA2	1.73	0.68
1:C:409:THR:HG21	1:C:1235:LEU:HD21	1.74	0.68
1:B:1074:VAL:HA	1:B:1107:ASN:O	1.93	0.68
1:C:556:ILE:HD11	1:C:888:SER:HB3	1.76	0.68
1:C:573:PRO:HA	1:C:623:LEU:HD21	1.74	0.68
1:B:284:THR:HB	1:C:1083:ILE:HB	1.74	0.68
1:B:617:GLY:O	1:B:655:MET:HG3	1.94	0.68
1:C:543:LEU:CA	1:C:546:ILE:HG22	2.19	0.68
1:C:656:MET:HA	1:C:656:MET:HE2	1.74	0.68
1:B:327:PRO:CB	1:B:1148:LEU:HG	2.21	0.68
1:C:811:LEU:O	1:C:816:PRO:HD3	1.94	0.68
1:B:631:ILE:CD1	1:B:883:THR:HG21	2.23	0.68
1:B:1229:VAL:HG13	1:B:1236:THR:HG21	1.75	0.68
1:C:474:ILE:HG21	1:C:507:TYR:HB2	1.76	0.68
1:C:1260:TYR:HB2	1:C:1262:TYR:HE1	1.57	0.68
1:B:853:SER:HB2	1:B:996:GLN:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1175:ILE:HG12	1:C:1176:PRO:HD2	1.73	0.68
1:B:468:ARG:HD2	1:B:468:ARG:O	1.94	0.68
1:B:848:GLY:HA3	1:B:868:ASN:HB2	1.76	0.68
1:C:273:PRO:HA	1:C:298:GLU:C	2.15	0.68
1:B:333:HIS:HB3	1:B:346:VAL:HB	1.75	0.67
1:B:776:VAL:HA	1:B:781:TYR:HE2	1.59	0.67
1:B:807:THR:HG21	1:B:886:LEU:HD23	1.75	0.67
1:B:959:ALA:HB2	1:B:993:ARG:HH22	1.60	0.67
1:B:300:ALA:HA	1:B:1213:ASN:N	2.08	0.67
1:B:552:ASP:HB3	1:B:555:ILE:HG13	1.77	0.67
1:C:684:TRP:CE3	1:C:840:ARG:HD3	2.30	0.67
1:B:332:ILE:HG12	1:B:347:ARG:O	1.93	0.67
1:B:300:ALA:CA	1:B:1213:ASN:H	2.06	0.67
1:B:303:ARG:HH11	1:B:1208:SER:HB3	1.59	0.67
1:B:413:THR:N	1:B:414:PRO:HD2	2.09	0.67
1:B:776:VAL:HA	1:B:781:TYR:CE2	2.30	0.67
1:C:1212:THR:HG23	1:C:1225:LYS:CB	2.23	0.67
1:C:851:ARG:HB3	1:C:994:MET:CB	2.25	0.67
1:B:1041:ALA:HB2	1:B:1146:TYR:CD2	2.30	0.67
1:C:273:PRO:CB	1:C:298:GLU:HB2	2.25	0.67
1:C:833:VAL:HG13	1:C:834:PRO:HD2	1.75	0.67
1:B:409:THR:CG2	1:B:423:VAL:HG13	2.24	0.67
1:B:782:GLN:HG3	1:B:790:VAL:HG21	1.77	0.67
1:B:1023:CYS:O	1:B:1027:THR:HG23	1.95	0.67
1:C:494:THR:CG2	1:C:496:PRO:HD3	2.22	0.67
1:C:573:PRO:CA	1:C:623:LEU:HD21	2.24	0.67
1:C:1002:GLN:HB2	1:C:1008:THR:HG22	1.77	0.67
1:B:516:ILE:HG12	1:B:1013:PRO:CB	2.24	0.66
1:B:518:GLN:HG3	1:B:829:PRO:HG2	1.77	0.66
1:B:1086:GLY:N	1:B:1092:PRO:HA	2.10	0.66
1:B:852:GLN:HA	1:B:996:GLN:H	1.58	0.66
1:B:1105:GLU:HA	1:B:1135:LEU:HB2	1.76	0.66
1:B:1171:THR:HG23	1:B:1172:PRO:CD	2.24	0.66
1:C:502:ASN:HB2	1:C:1262:TYR:CA	2.16	0.66
1:B:649:PHE:HA	1:B:705:TRP:HE1	1.61	0.66
1:C:849:VAL:HG22	1:C:999:ILE:HG13	1.76	0.66
1:C:1107:ASN:HA	1:C:1136:ARG:O	1.95	0.66
1:B:518:GLN:NE2	1:B:829:PRO:HD2	2.09	0.66
1:C:398:ASP:HB3	1:C:401:LYS:HD3	1.77	0.66
1:C:418:LYS:HB2	1:C:1214:SER:CB	2.25	0.66
1:C:949:LEU:HA	1:C:951:TRP:CD1	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1162:LEU:H	1:C:1162:LEU:HD12	1.59	0.66
1:C:1260:TYR:N	1:C:1260:TYR:CD1	2.61	0.66
1:B:324:MET:HA	1:B:335:PHE:HZ	1.60	0.66
1:B:327:PRO:HB2	1:B:1148:LEU:CG	2.21	0.66
1:B:716:PRO:HA	1:B:743:ILE:CA	2.26	0.66
1:B:849:VAL:H	1:B:869:THR:H	1.42	0.66
1:C:306:VAL:HB	1:C:324:MET:CB	2.25	0.66
1:B:603:VAL:HG23	1:B:604:VAL:HG23	1.78	0.66
1:B:647:LYS:HB3	1:B:675:ALA:HB1	1.77	0.66
1:B:806:MET:HB3	1:B:891:TYR:CE2	2.29	0.66
1:B:1034:GLU:HB3	1:B:1037:LEU:HB2	1.77	0.66
1:B:1060:ALA:HB2	1:B:1204:TYR:HD1	1.60	0.66
1:C:732:LEU:HB3	1:C:1011:VAL:HG11	1.76	0.66
1:C:1152:ASP:OD1	1:C:1154:ARG:HG2	1.95	0.66
1:B:1075:HIS:H	1:B:1108:TRP:HA	1.60	0.66
1:C:490:TYR:CE2	1:C:898:ASN:HA	2.31	0.66
1:C:515:GLN:HG3	1:C:730:ALA:HB1	1.76	0.66
1:B:472:MET:O	1:B:506:PRO:HA	1.96	0.66
1:B:516:ILE:CG1	1:B:1013:PRO:HB3	2.25	0.66
1:B:955:LEU:HD11	1:B:961:THR:HG21	1.78	0.66
1:C:490:TYR:CE2	1:C:901:TYR:HB2	2.30	0.66
1:C:1162:LEU:CD1	1:C:1162:LEU:N	2.55	0.66
1:B:1156:TYR:HA	1:B:1194:PRO:O	1.96	0.66
1:C:807:THR:N	1:C:808:PRO:HD2	2.11	0.66
1:B:268:ILE:HA	1:B:304:ILE:HA	1.77	0.66
1:C:1171:THR:CG2	1:C:1172:PRO:CD	2.72	0.66
1:B:1231:ARG:HB3	1:B:1253:LEU:HG	1.77	0.65
1:C:276:VAL:HG23	1:C:277:PRO:HD2	0.72	0.65
1:B:298:GLU:HA	1:B:1214:SER:CB	2.25	0.65
1:B:352:LEU:HB3	1:B:955:LEU:HB3	1.78	0.65
1:B:724:PRO:HA	1:B:728:GLY:CA	2.26	0.65
1:B:713:TRP:HD1	1:B:837:ARG:HG3	1.60	0.65
1:C:331:ASN:N	1:C:331:ASN:OD1	2.29	0.65
1:C:813:GLN:C	1:C:816:PRO:HD2	2.17	0.65
1:C:1230:GLU:HB2	1:C:1250:VAL:CG1	2.25	0.65
1:B:437:ALA:O	1:B:445:SER:HA	1.96	0.65
1:B:1093:MET:HB2	1:B:1101:MET:CB	2.27	0.65
1:C:480:GLU:HA	1:C:493:VAL:CG2	2.26	0.65
1:C:851:ARG:O	1:C:994:MET:HB2	1.96	0.65
1:C:1166:TRP:CZ3	1:C:1170:ILE:HD11	2.32	0.65
1:B:474:ILE:CD1	1:B:507:TYR:HB2	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:569:GLN:OE1	1:B:789:LEU:HB2	1.96	0.65
1:B:1083:ILE:HG23	1:B:1104:PHE:HZ	1.62	0.65
1:C:272:VAL:C	1:C:299:ALA:HA	2.16	0.65
1:C:896:VAL:HB	1:C:899:VAL:HB	1.78	0.65
1:B:426:CYS:HB3	1:B:1235:LEU:HB3	1.77	0.65
1:C:573:PRO:CB	1:C:623:LEU:HD21	2.26	0.65
1:B:433:ARG:HD2	1:B:436:ARG:HB3	1.77	0.65
1:C:258:TRP:CH2	1:C:1262:TYR:HB2	2.31	0.65
1:C:453:THR:HA	1:C:1254:TYR:CA	2.25	0.65
1:C:636:LEU:HD13	1:C:648:ALA:HB1	1.78	0.65
1:B:438:GLN:HB3	1:B:445:SER:CA	2.27	0.65
1:B:673:ARG:HD3	1:B:677:ALA:CB	2.26	0.65
1:B:719:ILE:HB	1:B:741:LEU:HD11	1.79	0.65
1:B:814:LEU:HD11	1:B:897:THR:HG21	1.77	0.65
1:C:264:THR:HG22	1:C:311:ALA:HB3	1.79	0.65
1:C:755:LEU:CD1	1:C:804:LYS:HE3	2.19	0.65
1:B:1082:ARG:O	1:B:1095:ARG:N	2.30	0.65
1:B:375:HIS:NE2	1:B:448:VAL:HG11	2.12	0.64
1:B:1095:ARG:HG2	1:B:1099:GLY:HA2	1.78	0.64
1:B:1104:PHE:N	1:B:1104:PHE:CD1	2.61	0.64
1:C:524:ASN:HB2	1:C:986:PRO:HG3	1.78	0.64
1:C:599:LEU:HD21	1:C:819:LEU:HD22	1.79	0.64
1:C:221:THR:HB	1:C:234:GLN:HB3	1.79	0.64
1:C:363:LEU:CD2	1:C:969:VAL:HG13	2.26	0.64
1:C:399:ALA:O	1:C:403:TYR:N	2.27	0.64
1:C:531:VAL:O	1:C:534:PRO:HD2	1.97	0.64
1:B:1049:ARG:HB3	1:B:1049:ARG:CZ	2.28	0.64
1:C:348:GLY:CA	1:C:1176:PRO:HA	2.19	0.64
1:C:383:THR:HG22	1:C:385:PHE:CD1	2.32	0.64
1:B:332:ILE:HG13	1:B:332:ILE:O	1.96	0.64
1:B:1112:LEU:HG	1:B:1116:GLN:NE2	2.12	0.64
1:C:465:TRP:CZ2	1:C:469:LEU:HD21	2.32	0.64
1:B:647:LYS:CB	1:B:675:ALA:HB1	2.27	0.64
1:C:332:ILE:HA	1:C:335:PHE:HD1	1.62	0.64
1:C:691:ILE:HD12	1:C:691:ILE:N	2.11	0.64
1:C:713:TRP:CZ3	1:C:714:PRO:HD2	2.29	0.64
1:C:283:TYR:HB2	1:C:290:TYR:HB2	1.80	0.64
1:B:332:ILE:HD11	1:B:349:ALA:HB2	1.78	0.64
1:B:492:THR:OG1	1:B:1274:VAL:HB	1.98	0.64
1:B:685:PRO:HG2	1:B:688:PHE:HB3	1.78	0.64
1:C:334:LEU:HA	1:C:337:GLN:HG3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:375:HIS:ND1	1:C:444:MET:HG2	2.12	0.64
1:B:450:VAL:O	1:B:1256:VAL:HA	1.97	0.64
1:B:483:LEU:HB2	1:B:493:VAL:HG21	1.79	0.64
1:B:719:ILE:CG2	1:B:739:LEU:HB3	2.28	0.64
1:B:1109:ILE:CD1	1:B:1138:ARG:HB3	2.28	0.64
1:C:254:ARG:HB2	1:C:254:ARG:HH11	1.63	0.64
1:C:765:ARG:HG3	1:C:765:ARG:HH11	1.63	0.64
1:C:439:MET:SD	1:C:501:VAL:HG11	2.38	0.64
1:C:713:TRP:CD2	1:C:714:PRO:CD	2.63	0.64
1:B:307:HIS:CG	1:B:310:TRP:HB3	2.32	0.63
1:C:234:GLN:HG3	1:C:246:GLN:HB2	1.80	0.63
1:C:491:VAL:HB	1:C:1271:VAL:HG13	1.80	0.63
1:C:573:PRO:HB2	1:C:627:TRP:CZ2	2.32	0.63
1:C:1045:ILE:HG22	1:C:1201:SER:HA	1.79	0.63
1:B:268:ILE:HG13	1:B:304:ILE:HG12	1.79	0.63
1:B:352:LEU:HD13	1:B:955:LEU:HB3	1.79	0.63
1:B:389:ALA:HB1	1:B:432:GLY:CA	2.28	0.63
1:C:272:VAL:O	1:C:299:ALA:HA	1.98	0.63
1:C:718:GLN:HB2	1:C:738:VAL:CG1	2.29	0.63
1:B:491:VAL:CG2	1:B:905:ILE:HG21	2.29	0.63
1:B:822:ILE:O	1:B:826:LEU:HD22	1.98	0.63
1:C:493:VAL:HA	1:C:1270:VAL:O	1.98	0.63
1:C:477:THR:HA	1:C:480:GLU:OE2	1.98	0.63
1:C:765:ARG:CD	1:C:801:LYS:HA	2.28	0.63
1:B:401:LYS:HE3	1:B:402:TRP:CZ2	2.34	0.63
1:B:1171:THR:HG22	1:B:1173:THR:H	1.63	0.63
1:C:403:TYR:HD1	1:C:407:TYR:CE1	2.16	0.63
1:C:701:ILE:HD13	1:C:704:GLN:HE22	1.63	0.63
1:C:1046:ILE:HB	1:C:1200:ILE:HG12	1.81	0.63
1:C:360:HIS:NE2	1:C:969:VAL:HA	2.13	0.63
1:B:243:LYS:HZ1	1:B:828:PHE:HB3	1.63	0.63
1:B:493:VAL:HA	1:B:1273:GLY:HA2	1.81	0.63
1:B:1147:MET:HE2	1:B:1179:PRO:HB3	1.80	0.63
1:C:527:ASN:HD21	1:C:864:LEU:C	2.01	0.63
1:C:740:LEU:HB3	1:C:835:TYR:CE1	2.34	0.63
1:C:844:PRO:HA	1:C:1003:GLN:HA	1.81	0.63
1:B:657:VAL:HG22	1:B:671:GLN:HG2	1.81	0.63
1:B:1153:PRO:O	1:B:1193:ALA:HB3	1.99	0.63
1:C:381:ASP:N	1:C:389:ALA:O	2.32	0.63
1:C:617:GLY:O	1:C:655:MET:HG2	1.98	0.63
1:B:751:THR:HG21	1:B:898:ASN:ND2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:301:VAL:HG13	1:C:1209:LEU:HD13	1.80	0.63
1:C:434:PHE:N	1:C:449:ASP:O	2.32	0.63
1:C:765:ARG:HD2	1:C:801:LYS:HA	1.79	0.63
1:C:836:VAL:HB	1:C:839:ASP:CB	2.28	0.63
1:B:266:PHE:HA	1:B:306:VAL:HA	1.81	0.62
1:B:433:ARG:HA	1:B:450:VAL:HB	1.81	0.62
1:B:947:ARG:HB3	1:B:950:ASP:OD1	1.99	0.62
1:B:1094:ILE:HG22	1:B:1102:VAL:O	1.99	0.62
1:C:391:LEU:HB3	1:C:403:TYR:CE1	2.34	0.62
1:C:905:ILE:HG23	1:C:909:TYR:CD1	2.33	0.62
1:B:281:LEU:HB3	1:B:286:PHE:CE1	2.33	0.62
1:B:399:ALA:HA	1:B:402:TRP:CD1	2.34	0.62
1:B:646:VAL:HG22	1:B:688:PHE:CD2	2.34	0.62
1:B:810:TYR:HB2	1:B:891:TYR:HE1	1.64	0.62
1:C:223:PHE:HA	1:C:1269:ALA:O	1.99	0.62
1:C:394:LEU:CG	1:C:395:PRO:HD2	2.29	0.62
1:C:502:ASN:OD1	1:C:502:ASN:N	2.33	0.62
1:C:632:LEU:O	1:C:636:LEU:HG	1.99	0.62
1:C:1066:VAL:HB	1:C:1200:ILE:HD11	1.81	0.62
1:B:815:ALA:HB3	1:B:816:PRO:HD3	1.81	0.62
1:B:1131:LYS:HD2	1:B:1160:TRP:NE1	2.14	0.62
1:C:233:VAL:O	1:C:245:ALA:HB1	1.99	0.62
1:C:932:VAL:O	1:C:935:VAL:HG12	1.99	0.62
1:C:1210:PHE:CE1	1:C:1228:PRO:HD2	2.35	0.62
1:B:272:VAL:O	1:B:299:ALA:HB1	1.98	0.62
1:B:591:PHE:CZ	1:B:811:LEU:HD21	2.34	0.62
1:B:813:GLN:O	1:B:816:PRO:HD2	1.98	0.62
1:B:857:ILE:CG2	1:B:862:LEU:HB2	2.29	0.62
1:B:983:LEU:HG	1:B:984:LEU:HG	1.82	0.62
1:C:1151:TYR:C	1:C:1151:TYR:CD1	2.73	0.62
1:C:1246:GLN:HB2	1:C:1250:VAL:HB	1.80	0.62
1:B:807:THR:N	1:B:808:PRO:HD2	2.14	0.62
1:B:1150:TYR:HA	1:B:1182:VAL:O	1.99	0.62
1:C:332:ILE:HG12	1:C:347:ARG:HA	1.81	0.62
1:C:713:TRP:CZ3	1:C:714:PRO:CD	2.82	0.62
1:C:716:PRO:HD2	1:C:837:ARG:HD2	1.81	0.62
1:C:1082:ARG:HG2	1:C:1082:ARG:NH1	2.07	0.62
1:B:852:GLN:HA	1:B:995:THR:CA	2.27	0.62
1:C:451:PHE:HB3	1:C:1254:TYR:OH	1.99	0.62
1:C:1129:TRP:HA	1:C:1133:GLY:HA3	1.80	0.62
1:C:1231:ARG:HB3	1:C:1253:LEU:HG	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:680:THR:OG1	1:B:683:THR:HG23	2.00	0.62
1:B:267:LYS:N	1:B:305:VAL:O	2.29	0.62
1:B:618:GLY:O	1:B:655:MET:HA	2.00	0.62
1:B:928:VAL:HG22	1:B:987:LEU:HD11	1.81	0.62
1:C:924:THR:HG23	1:C:984:LEU:HD21	1.82	0.62
1:B:540:SER:HA	1:B:592:ARG:HB3	1.81	0.62
1:B:1156:TYR:HD1	1:B:1194:PRO:HB2	1.64	0.62
1:C:515:GLN:CG	1:C:730:ALA:HB1	2.29	0.62
1:B:518:GLN:CG	1:B:829:PRO:HG2	2.30	0.62
1:B:601:ASN:ND2	1:B:832:GLN:HA	2.15	0.62
1:B:631:ILE:HD12	1:B:883:THR:HG21	1.80	0.62
1:B:1091:ALA:HB3	1:B:1103:PRO:HB3	1.81	0.62
1:C:223:PHE:HB2	1:C:232:ILE:O	1.99	0.62
1:C:551:ILE:HG22	1:C:553:PRO:HD3	1.81	0.62
1:C:1157:ALA:HB3	1:C:1195:ALA:CB	2.29	0.62
1:B:351:PRO:O	1:B:354:PHE:HB2	1.98	0.61
1:B:1094:ILE:HB	1:B:1104:PHE:CE1	2.34	0.61
1:B:1159:ALA:O	1:B:1163:THR:HG23	1.99	0.61
1:C:851:ARG:NH2	1:C:986:PRO:O	2.32	0.61
1:B:493:VAL:HB	1:B:1271:VAL:HG13	1.82	0.61
1:B:578:LEU:HD23	1:B:581:LEU:HD12	1.81	0.61
1:C:274:ALA:O	1:C:1214:SER:OG	2.15	0.61
1:C:666:ASN:OD1	1:C:668:ILE:HB	2.00	0.61
1:C:731:ASN:HB2	1:C:736:PRO:CA	2.26	0.61
1:C:996:GLN:OE1	1:C:998:ALA:HB2	2.00	0.61
1:C:1049:ARG:HG3	1:C:1196:VAL:CG1	2.30	0.61
1:C:1087:MET:H	1:C:1090:ALA:HB3	1.64	0.61
1:B:272:VAL:O	1:B:300:ALA:N	2.34	0.61
1:B:375:HIS:CD2	1:B:448:VAL:HG11	2.35	0.61
1:B:987:LEU:N	1:B:987:LEU:HD23	2.15	0.61
1:B:1083:ILE:HG23	1:B:1104:PHE:CZ	2.34	0.61
1:C:933:THR:HG21	1:C:1021:ALA:HB1	1.81	0.61
1:B:257:THR:HG22	1:B:316:PHE:HB3	1.81	0.61
1:B:438:GLN:HG3	1:B:439:MET:N	2.14	0.61
1:B:591:PHE:O	1:B:595:LEU:HG	2.01	0.61
1:B:719:ILE:HG23	1:B:739:LEU:HB3	1.82	0.61
1:B:836:VAL:HB	1:B:839:ASP:CB	2.31	0.61
1:B:849:VAL:HG12	1:B:999:ILE:CG1	2.29	0.61
1:C:283:TYR:CD1	1:C:290:TYR:HB2	2.35	0.61
1:C:1149:HIS:N	1:C:1180:PHE:O	2.32	0.61
1:B:303:ARG:HG2	1:B:1209:LEU:CA	2.26	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:851:ARG:HG3	1:B:851:ARG:HH11	1.64	0.61
1:B:928:VAL:O	1:B:932:VAL:HG13	2.00	0.61
1:C:278:GLN:CA	1:C:415:ASN:HA	2.31	0.61
1:C:577:ILE:O	1:C:581:LEU:HG	2.01	0.61
1:C:1037:LEU:HD21	1:C:1207:ARG:HG2	1.82	0.61
1:C:521:ARG:O	1:C:525:ILE:HG13	2.01	0.61
1:C:527:ASN:ND2	1:C:864:LEU:O	2.32	0.61
1:C:1170:ILE:HG12	1:C:1175:ILE:HG13	1.82	0.61
1:B:363:LEU:O	1:B:367:LEU:HG	2.01	0.61
1:B:636:LEU:N	1:B:637:PRO:HD2	2.16	0.61
1:B:1171:THR:CG2	1:B:1172:PRO:HD2	2.25	0.61
1:B:391:LEU:HD23	1:B:403:TYR:CD2	2.36	0.61
1:B:490:TYR:CE2	1:B:817:VAL:HG13	2.36	0.61
1:B:622:SER:HB3	1:B:625:ASN:HB2	1.82	0.61
1:C:283:TYR:CE2	1:C:385:PHE:HZ	2.18	0.61
1:C:622:SER:HB3	1:C:625:ASN:HB2	1.82	0.61
1:B:258:TRP:HA	1:B:372:LEU:O	2.01	0.60
1:B:1032:ASN:HD21	1:B:1042:ARG:HH12	1.48	0.60
1:B:1147:MET:N	1:B:1178:VAL:O	2.33	0.60
1:C:1151:TYR:CD2	1:C:1181:MET:HG2	2.35	0.60
1:C:1154:ARG:HB3	1:C:1191:SER:O	2.00	0.60
1:B:1069:ARG:HG2	1:B:1109:ILE:HG21	1.83	0.60
1:C:732:LEU:HD13	1:C:1011:VAL:CG1	2.31	0.60
1:C:984:LEU:O	1:C:988:LEU:HG	2.01	0.60
1:B:522:ILE:HA	1:B:525:ILE:HG12	1.83	0.60
1:C:603:VAL:C	1:C:872:GLY:HA2	2.21	0.60
1:C:1034:GLU:OE2	1:C:1034:GLU:HA	2.01	0.60
1:B:243:LYS:O	1:B:247:LEU:HG	2.02	0.60
1:B:883:THR:HA	1:B:886:LEU:HD12	1.83	0.60
1:C:231:PRO:HA	1:C:906:TYR:OH	2.01	0.60
1:C:1209:LEU:HD21	1:C:1212:THR:HG22	1.82	0.60
1:B:246:GLN:HG3	1:B:250:ALA:CB	2.31	0.60
1:B:440:MET:HG3	1:C:864:LEU:HG	1.83	0.60
1:B:1217:PRO:HG2	1:B:1218:GLN:OE1	2.02	0.60
1:B:1231:ARG:HG2	1:B:1250:VAL:HG13	1.84	0.60
1:C:708:ILE:HA	1:C:711:ARG:NH1	2.16	0.60
1:C:1041:ALA:HB3	1:C:1144:TYR:CE1	2.35	0.60
1:C:1074:VAL:HA	1:C:1107:ASN:O	2.01	0.60
1:B:438:GLN:HB3	1:B:445:SER:HA	1.84	0.60
1:B:936:ALA:O	1:B:945:VAL:HG21	2.02	0.60
1:C:327:PRO:O	1:C:1148:LEU:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:309:ARG:HB3	1:B:312:SER:HB2	1.84	0.60
1:B:321:SER:HA	1:B:368:ASP:OD1	2.01	0.60
1:B:413:THR:HG23	1:B:420:CYS:HB3	1.83	0.60
1:B:691:ILE:H	1:B:691:ILE:CD1	2.07	0.60
1:B:823:ALA:HA	1:B:826:LEU:HD23	1.84	0.60
1:C:375:HIS:NE2	1:C:448:VAL:HB	2.17	0.60
1:C:721:TYR:N	1:C:737:GLU:O	2.32	0.60
1:C:1126:PHE:O	1:C:1130:ILE:N	2.29	0.60
1:B:811:LEU:O	1:B:816:PRO:HD3	2.00	0.60
1:B:1044:ASP:H	1:B:1202:THR:HB	1.65	0.60
1:B:1094:ILE:HD12	1:B:1126:PHE:HZ	1.67	0.60
1:C:400:GLU:CD	1:C:400:GLU:H	2.04	0.60
1:C:681:PRO:HA	1:C:684:TRP:CD1	2.37	0.60
1:C:277:PRO:C	1:C:416:VAL:HG13	2.21	0.60
1:B:277:PRO:HB3	1:B:286:PHE:HE2	1.67	0.59
1:B:620:VAL:HB	1:B:775:LEU:HD11	1.84	0.59
1:B:1266:PRO:HG2	1:B:1269:ALA:HB2	1.82	0.59
1:C:270:PRO:CB	1:C:299:ALA:HB2	2.32	0.59
1:B:284:THR:N	1:C:1085:PHE:HB2	2.16	0.59
1:B:1078:GLY:CA	1:B:1097:GLU:HB3	2.32	0.59
1:C:478:GLU:HA	1:C:481:TRP:CE3	2.37	0.59
1:C:1042:ARG:HA	1:C:1143:ALA:HA	1.85	0.59
1:C:1110:PHE:O	1:C:1139:ILE:HA	2.01	0.59
1:B:825:MET:HA	1:B:825:MET:CE	2.32	0.59
1:B:854:ARG:HB2	1:B:857:ILE:HB	1.82	0.59
1:B:1093:MET:HB3	1:B:1101:MET:C	2.23	0.59
1:C:892:PRO:HB2	1:C:895:LEU:HB2	1.82	0.59
1:C:440:MET:HA	1:C:445:SER:HA	1.84	0.59
1:C:937:GLN:OE1	1:C:937:GLN:HA	2.01	0.59
1:C:949:LEU:HB3	1:C:952:ILE:HD12	1.83	0.59
1:B:1001:TYR:O	1:B:1008:THR:HA	2.03	0.59
1:B:1078:GLY:HA3	1:B:1097:GLU:CB	2.30	0.59
1:C:717:SER:O	1:C:741:LEU:N	2.34	0.59
1:B:427:VAL:HG21	1:B:1238:PRO:HA	1.84	0.59
1:C:914:VAL:O	1:C:918:LEU:HG	2.01	0.59
1:C:1115:TRP:HA	1:C:1122:PHE:CE2	2.38	0.59
1:B:353:MET:N	1:B:353:MET:SD	2.76	0.59
1:B:855:ASP:HA	1:B:994:MET:CE	2.33	0.59
1:B:883:THR:O	1:B:887:LEU:HG	2.03	0.59
1:B:1059:LEU:HD22	1:B:1205:ASN:HB2	1.85	0.59
1:B:646:VAL:HG13	1:B:685:PRO:HD2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:959:ALA:HA	1:B:993:ARG:HH12	1.68	0.59
1:B:1034:GLU:HB3	1:B:1037:LEU:HG	1.85	0.59
1:C:466:MET:HE3	1:C:469:LEU:HB2	1.84	0.59
1:C:681:PRO:HB3	1:C:840:ARG:HG3	1.84	0.59
1:C:956:ARG:C	1:C:956:ARG:HD2	2.23	0.59
1:B:624:GLU:OE1	1:B:624:GLU:HA	2.02	0.59
1:C:1252:ASP:HB2	1:C:1255:ASN:HD21	1.68	0.59
1:B:295:PRO:CG	1:B:408:PRO:HA	2.33	0.58
1:B:352:LEU:HB3	1:B:955:LEU:CG	2.33	0.58
1:B:391:LEU:HD23	1:B:403:TYR:HD2	1.68	0.58
1:B:643:CYS:HB2	1:B:647:LYS:HE3	1.85	0.58
1:C:375:HIS:HB3	1:C:1261:ALA:CB	2.24	0.58
1:C:713:TRP:HE3	1:C:714:PRO:HD3	1.62	0.58
1:B:503:ARG:HA	1:B:1263:GLU:O	2.02	0.58
1:B:979:LEU:HB3	1:B:981:ASP:OD2	2.03	0.58
1:C:283:TYR:CZ	1:C:292:ILE:HG12	2.37	0.58
1:C:350:ASN:HA	1:C:1174:SER:CB	2.32	0.58
1:C:403:TYR:CD1	1:C:407:TYR:HE1	2.19	0.58
1:C:691:ILE:H	1:C:691:ILE:CD1	2.16	0.58
1:C:1054:HIS:HB2	1:C:1056:TRP:NE1	2.18	0.58
1:B:254:ARG:HG2	1:B:316:PHE:CG	2.37	0.58
1:B:332:ILE:HD12	1:B:335:PHE:HB2	1.86	0.58
1:B:407:TYR:CE2	1:B:431:VAL:HG23	2.39	0.58
1:B:559:THR:O	1:B:563:VAL:HG23	2.03	0.58
1:B:852:GLN:CA	1:B:996:GLN:H	2.16	0.58
1:B:1059:LEU:HB3	1:B:1205:ASN:H	1.66	0.58
1:C:724:PRO:HA	1:C:728:GLY:CA	2.24	0.58
1:B:646:VAL:HG22	1:B:688:PHE:CE2	2.38	0.58
1:B:685:PRO:O	1:B:689:MET:HG2	2.03	0.58
1:C:318:ARG:O	1:C:976:ALA:HA	2.02	0.58
1:C:974:LYS:HD3	1:C:983:LEU:HB3	1.85	0.58
1:C:413:THR:HG23	1:C:423:VAL:HG11	1.86	0.58
1:C:580:LYS:HE2	1:C:624:GLU:CG	2.34	0.58
1:C:974:LYS:NZ	1:C:982:MET:HA	2.18	0.58
1:B:478:GLU:HA	1:B:481:TRP:CZ3	2.39	0.58
1:B:825:MET:HA	1:B:825:MET:HE3	1.85	0.58
1:B:1104:PHE:HA	1:B:1108:TRP:CZ2	2.39	0.58
1:C:278:GLN:HB3	1:C:415:ASN:HA	1.85	0.58
1:C:690:ASN:HB3	1:C:693:LEU:HD12	1.86	0.58
1:C:1075:HIS:HB3	1:C:1077:PHE:CE1	2.37	0.58
1:B:852:GLN:O	1:B:996:GLN:HG2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:305:VAL:HG22	1:C:326:PRO:HA	1.85	0.58
1:C:383:THR:HG22	1:C:385:PHE:HD1	1.68	0.58
1:C:763:ASN:C	1:C:763:ASN:HD22	2.07	0.58
1:C:1112:LEU:HG	1:C:1116:GLN:HE21	1.69	0.58
1:B:985:GLU:N	1:B:986:PRO:CD	2.66	0.58
1:C:277:PRO:HG2	1:C:416:VAL:HG22	1.83	0.58
1:C:591:PHE:HE1	1:C:811:LEU:HD21	1.68	0.58
1:C:1121:TYR:O	1:C:1125:GLN:HG2	2.04	0.58
1:B:1111:PRO:HG2	1:B:1114:LEU:HB2	1.86	0.58
1:C:273:PRO:HB3	1:C:298:GLU:HB2	1.85	0.58
1:C:333:HIS:HA	1:C:336:LYS:HG2	1.85	0.58
1:C:732:LEU:HB3	1:C:1011:VAL:HG21	1.86	0.58
1:C:1131:LYS:HG3	1:C:1132:THR:HG23	1.85	0.58
1:C:1131:LYS:HD3	1:C:1160:TRP:CD2	2.39	0.58
1:C:1151:TYR:HB3	1:C:1181:MET:HG2	1.86	0.58
1:B:841:ASP:HA	1:B:1004:TYR:HB3	1.85	0.58
1:C:464:ARG:HD3	1:C:1023:CYS:SG	2.44	0.58
1:B:364:GLU:OE1	1:B:972:SER:HB3	2.04	0.57
1:B:707:GLU:HB3	1:B:711:ARG:NH1	2.18	0.57
1:C:429:ASN:HD22	1:C:429:ASN:N	2.01	0.57
1:C:754:THR:HA	1:C:809:MET:HE2	1.86	0.57
1:B:256:VAL:HG13	1:B:372:LEU:CD1	2.32	0.57
1:B:566:SER:HB3	1:B:788:SER:OG	2.04	0.57
1:B:1056:TRP:HB3	1:B:1062:PRO:HD3	1.84	0.57
1:B:1059:LEU:HB3	1:B:1204:TYR:HA	1.86	0.57
1:B:1156:TYR:CD1	1:B:1194:PRO:HB2	2.38	0.57
1:B:1187:ASP:O	1:B:1220:ILE:HB	2.03	0.57
1:C:465:TRP:CH2	1:C:469:LEU:HD21	2.39	0.57
1:C:810:TYR:CD1	1:C:814:LEU:HB2	2.39	0.57
1:C:853:SER:HA	1:C:996:GLN:HB3	1.86	0.57
1:B:243:LYS:HB2	1:B:538:ASP:CG	2.24	0.57
1:B:768:VAL:O	1:B:772:MET:HG3	2.04	0.57
1:B:1166:TRP:NE1	1:B:1176:PRO:HG2	2.18	0.57
1:C:380:GLN:HE21	1:C:388:GLY:HA2	1.69	0.57
1:C:1059:LEU:HD22	1:C:1205:ASN:HD22	1.68	0.57
1:B:262:LEU:HD11	1:B:402:TRP:CE3	2.39	0.57
1:C:261:GLY:C	1:C:312:SER:HA	2.25	0.57
1:B:320:SER:O	1:B:368:ASP:HB2	2.04	0.57
1:C:265:SER:HA	1:C:308:THR:HA	1.85	0.57
1:C:321:SER:HA	1:C:368:ASP:OD1	2.05	0.57
1:C:336:LYS:HA	1:C:340:ASN:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1241:PRO:CG	1:C:1244:GLN:HB2	2.22	0.57
1:B:1093:MET:CE	1:B:1103:PRO:HG3	2.35	0.57
1:B:1245:ILE:HD12	1:B:1247:LEU:HB2	1.87	0.57
1:C:270:PRO:HG3	1:C:297:PRO:CB	2.30	0.57
1:C:754:THR:HG22	1:C:806:MET:CG	2.24	0.57
1:B:338:LEU:HG	1:B:968:TRP:CZ2	2.40	0.57
1:B:543:LEU:HA	1:B:546:ILE:HG22	1.87	0.57
1:B:574:ALA:HA	1:B:577:ILE:HG22	1.86	0.57
1:C:221:THR:OG1	1:C:1267:ILE:HB	2.04	0.57
1:C:277:PRO:O	1:C:416:VAL:N	2.37	0.57
1:C:418:LYS:HB2	1:C:1214:SER:HB2	1.86	0.57
1:C:490:TYR:HE2	1:C:898:ASN:HA	1.68	0.57
1:B:338:LEU:HG	1:B:968:TRP:CE2	2.39	0.57
1:B:375:HIS:HA	1:B:1259:ARG:HB3	1.86	0.57
1:B:844:PRO:HA	1:B:1003:GLN:HA	1.87	0.57
1:B:913:GLU:OE2	1:B:913:GLU:N	2.31	0.57
1:B:955:LEU:HD12	1:B:955:LEU:O	2.04	0.57
1:B:1163:THR:HG21	1:B:1198:TYR:CB	2.29	0.57
1:C:806:MET:CB	1:C:809:MET:HE3	2.35	0.57
1:C:1170:ILE:HA	1:C:1176:PRO:HD3	1.87	0.57
1:C:844:PRO:HB3	1:C:1001:TYR:CE1	2.40	0.57
1:C:775:LEU:HD23	1:C:775:LEU:C	2.24	0.57
1:B:1051:GLN:HB2	1:B:1196:VAL:HG22	1.87	0.56
1:C:807:THR:O	1:C:811:LEU:HG	2.05	0.56
1:B:622:SER:O	1:B:626:LEU:HG	2.05	0.56
1:B:952:ILE:HA	1:B:1143:ALA:CB	2.35	0.56
1:B:1207:ARG:HH21	1:B:1231:ARG:HH12	1.52	0.56
1:C:254:ARG:CZ	1:C:316:PHE:HB2	2.35	0.56
1:C:723:ALA:O	1:C:728:GLY:N	2.28	0.56
1:C:1130:ILE:HG22	1:C:1160:TRP:HZ3	1.70	0.56
1:B:603:VAL:O	1:B:873:VAL:N	2.37	0.56
1:B:905:ILE:O	1:B:909:TYR:N	2.37	0.56
1:C:278:GLN:CB	1:C:415:ASN:HA	2.36	0.56
1:C:1048:GLY:HA3	1:C:1136:ARG:HE	1.70	0.56
1:B:254:ARG:HG3	1:B:254:ARG:O	2.05	0.56
1:B:265:SER:CB	1:B:308:THR:HA	2.36	0.56
1:B:295:PRO:HG2	1:B:408:PRO:CB	2.35	0.56
1:B:336:LYS:HB2	1:B:340:ASN:CB	2.34	0.56
1:B:533:GLN:N	1:B:534:PRO:HD2	2.21	0.56
1:B:598:TRP:CE2	1:B:742:PRO:HG3	2.40	0.56
1:B:857:ILE:HG21	1:B:862:LEU:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:454:SER:N	1:C:1253:LEU:O	2.35	0.56
1:C:814:LEU:N	1:C:814:LEU:CD2	2.68	0.56
1:C:823:ALA:N	1:C:824:PRO:HD2	2.20	0.56
1:C:836:VAL:HG23	1:C:836:VAL:O	2.05	0.56
1:C:906:TYR:HD1	1:C:1271:VAL:HG21	1.71	0.56
1:C:1086:GLY:N	1:C:1092:PRO:HG3	2.21	0.56
1:B:472:MET:HE2	1:B:506:PRO:HB2	1.88	0.56
1:B:682:HIS:CE1	1:B:1004:TYR:HE1	2.24	0.56
1:B:436:ARG:O	1:C:859:GLN:NE2	2.39	0.56
1:C:451:PHE:CG	1:C:1256:VAL:HG13	2.41	0.56
1:C:740:LEU:HB3	1:C:835:TYR:CD1	2.40	0.56
1:B:515:GLN:NE2	1:B:731:ASN:O	2.38	0.56
1:C:255:LEU:HB3	1:C:465:TRP:CH2	2.40	0.56
1:C:596:ALA:HA	1:C:599:LEU:HD12	1.87	0.56
1:C:1043:GLY:N	1:C:1142:GLY:O	2.29	0.56
1:B:699:ALA:HB1	1:B:702:LEU:CB	2.36	0.56
1:B:757:PHE:CZ	1:B:804:LYS:HA	2.40	0.56
1:B:782:GLN:N	1:B:783:PRO:CD	2.69	0.56
1:C:323:ILE:C	1:C:334:LEU:HD11	2.26	0.56
1:C:673:ARG:NH2	1:C:677:ALA:HB1	2.21	0.56
1:B:696:PRO:HG3	1:B:703:ARG:HD3	1.88	0.56
1:B:973:MET:HA	1:B:973:MET:HE3	1.87	0.56
1:B:1186:SER:C	1:B:1221:ALA:HB3	2.27	0.56
1:C:306:VAL:O	1:C:324:MET:N	2.31	0.56
1:C:301:VAL:HG22	1:C:1209:LEU:HD21	1.87	0.55
1:C:468:ARG:HD2	1:C:468:ARG:O	2.06	0.55
1:C:1056:TRP:CE3	1:C:1056:TRP:O	2.59	0.55
1:B:549:LEU:HD12	1:B:890:LYS:O	2.05	0.55
1:B:659:PHE:HZ	1:B:778:ASN:HD21	1.54	0.55
1:B:941:THR:HG22	1:B:993:ARG:HB3	1.89	0.55
1:C:267:LYS:HD3	1:C:310:TRP:CD2	2.41	0.55
1:C:508:ARG:HA	1:C:508:ARG:NE	2.21	0.55
1:B:494:THR:OG1	1:B:1272:MET:HB2	2.06	0.55
1:B:1046:ILE:HB	1:B:1200:ILE:CG1	2.36	0.55
1:C:449:ASP:HA	1:C:1257:VAL:O	2.07	0.55
1:C:928:VAL:HG22	1:C:987:LEU:HD13	1.88	0.55
1:C:1211:CYS:HA	1:C:1225:LYS:CG	2.29	0.55
1:B:295:PRO:CB	1:B:405:ILE:HA	2.33	0.55
1:B:1074:VAL:HG12	1:B:1109:ILE:HG12	1.88	0.55
1:B:1153:PRO:HG3	1:B:1183:PRO:HB2	1.87	0.55
1:B:1170:ILE:HA	1:B:1176:PRO:HD3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:347:ARG:HG2	1:C:347:ARG:HH11	1.70	0.55
1:C:815:ALA:HB3	1:C:816:PRO:HD3	1.88	0.55
1:B:407:TYR:CD2	1:B:431:VAL:HG23	2.42	0.55
1:B:696:PRO:HG3	1:B:703:ARG:CD	2.37	0.55
1:B:929:GLN:O	1:B:932:VAL:HG22	2.07	0.55
1:C:1051:GLN:NE2	1:C:1194:PRO:HA	2.21	0.55
1:C:1230:GLU:CB	1:C:1250:VAL:HG11	2.31	0.55
1:B:285:PHE:O	1:B:286:PHE:C	2.43	0.55
1:B:378:PHE:HA	1:B:391:LEU:O	2.06	0.55
1:B:973:MET:HA	1:B:973:MET:HE2	1.88	0.55
1:B:1081:CYS:HA	1:B:1095:ARG:O	2.06	0.55
1:C:811:LEU:HA	1:C:815:ALA:CB	2.37	0.55
1:B:670:THR:O	1:B:673:ARG:HB3	2.07	0.55
1:B:821:VAL:O	1:B:824:PRO:HD2	2.07	0.55
1:B:850:THR:CG2	1:B:998:ALA:HB3	2.37	0.55
1:B:1059:LEU:HB3	1:B:1205:ASN:N	2.22	0.55
1:C:232:ILE:HD12	1:C:907:PRO:HB3	1.89	0.55
1:C:635:ALA:HA	1:C:638:LEU:CG	2.36	0.55
1:C:1131:LYS:HD3	1:C:1160:TRP:CG	2.41	0.55
1:B:483:LEU:CB	1:B:493:VAL:HG21	2.35	0.55
1:B:556:ILE:O	1:B:559:THR:HG22	2.07	0.55
1:B:1115:TRP:O	1:B:1119:THR:N	2.40	0.55
1:C:253:PRO:HD3	1:C:979:LEU:HD21	1.87	0.55
1:C:527:ASN:OD1	1:C:865:SER:HA	2.07	0.55
1:C:853:SER:N	1:C:995:THR:HB	2.14	0.55
1:B:265:SER:O	1:B:307:HIS:N	2.40	0.55
1:B:389:ALA:HB3	1:B:431:VAL:HG22	1.89	0.55
1:B:906:TYR:CD1	1:B:1275:PRO:HD3	2.41	0.55
1:B:1094:ILE:N	1:B:1102:VAL:O	2.30	0.55
1:C:922:MET:C	1:C:922:MET:SD	2.85	0.55
1:B:243:LYS:CB	1:B:538:ASP:OD2	2.52	0.55
1:B:333:HIS:HB3	1:B:346:VAL:HG12	1.89	0.55
1:B:415:ASN:HD22	1:B:416:VAL:H	1.55	0.55
1:B:757:PHE:HZ	1:B:804:LYS:HA	1.72	0.55
1:C:277:PRO:CD	1:C:416:VAL:HG22	2.37	0.55
1:C:381:ASP:HB2	1:C:391:LEU:HG	1.89	0.55
1:C:480:GLU:CD	1:C:495:SER:HB2	2.26	0.55
1:B:378:PHE:HB3	1:B:390:ASN:HB3	1.89	0.54
1:B:436:ARG:HB2	1:B:448:VAL:CG1	2.29	0.54
1:B:920:ARG:HH11	1:B:920:ARG:HG3	1.72	0.54
1:B:1096:ASP:N	1:B:1100:MET:O	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:264:THR:CG2	1:C:311:ALA:HB3	2.36	0.54
1:C:391:LEU:HD11	1:C:410:ARG:HD2	1.88	0.54
1:C:620:VAL:HG21	1:C:659:PHE:CE1	2.42	0.54
1:C:1074:VAL:CG1	1:C:1109:ILE:HG13	2.38	0.54
1:C:265:SER:CA	1:C:308:THR:HA	2.37	0.54
1:C:601:ASN:ND2	1:C:833:VAL:O	2.37	0.54
1:C:930:THR:HG1	1:C:1018:SER:HG	1.55	0.54
1:C:1057:SER:OG	1:C:1058:PRO:HD2	2.07	0.54
1:B:906:TYR:N	1:B:907:PRO:HD2	2.23	0.54
1:B:1231:ARG:HH21	1:B:1251:VAL:H	1.55	0.54
1:C:232:ILE:HG13	1:C:906:TYR:HE2	1.69	0.54
1:C:670:THR:H	1:C:673:ARG:HB2	1.72	0.54
1:C:960:ALA:O	1:C:964:THR:HG23	2.07	0.54
1:B:336:LYS:HB2	1:B:340:ASN:CG	2.28	0.54
1:B:416:VAL:O	1:B:416:VAL:HG22	2.08	0.54
1:B:1233:ASN:HA	1:B:1236:THR:OG1	2.07	0.54
1:C:418:LYS:CD	1:C:1214:SER:HA	2.29	0.54
1:C:709:ILE:O	1:C:713:TRP:N	2.40	0.54
1:B:259:ASP:CA	1:B:314:VAL:HG12	2.36	0.54
1:C:278:GLN:CA	1:C:416:VAL:H	2.15	0.54
1:C:1115:TRP:HA	1:C:1122:PHE:CD2	2.41	0.54
1:C:300:ALA:O	1:C:1212:THR:HA	2.08	0.54
1:C:955:LEU:HD12	1:C:955:LEU:C	2.28	0.54
1:B:1033:HIS:CD2	1:B:1248:PRO:HG2	2.43	0.54
1:C:494:THR:HB	1:C:1270:VAL:HB	1.89	0.54
1:C:543:LEU:HB3	1:C:592:ARG:HD2	1.90	0.54
1:C:844:PRO:HB3	1:C:1001:TYR:CD1	2.43	0.54
1:B:556:ILE:HD11	1:B:884:VAL:HG13	1.90	0.54
1:C:1151:TYR:O	1:C:1183:PRO:HA	2.08	0.54
1:B:242:LYS:N	1:B:242:LYS:HD2	2.23	0.54
1:B:285:PHE:HB2	1:C:1083:ILE:CG1	2.36	0.54
1:C:433:ARG:HB2	1:C:450:VAL:HG12	1.89	0.54
1:C:446:GLU:O	1:C:1261:ALA:N	2.25	0.54
1:C:1157:ALA:HB3	1:C:1195:ALA:HB1	1.88	0.54
1:B:433:ARG:HA	1:B:450:VAL:CB	2.38	0.54
1:B:591:PHE:HE1	1:B:811:LEU:HD21	1.69	0.54
1:C:603:VAL:HG22	1:C:831:PHE:HB3	1.89	0.54
1:C:822:ILE:HA	1:C:825:MET:HB2	1.90	0.54
1:C:1087:MET:N	1:C:1090:ALA:HB3	2.23	0.54
1:C:1147:MET:O	1:C:1180:PHE:N	2.38	0.54
1:B:265:SER:HA	1:B:308:THR:HA	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:303:ARG:NH1	1:B:1208:SER:HB3	2.23	0.53
1:B:352:LEU:HB3	1:B:955:LEU:HG	1.90	0.53
1:B:418:LYS:HB3	1:B:1226:HIS:CD2	2.44	0.53
1:C:417:SER:OG	1:C:420:CYS:SG	2.48	0.53
1:C:508:ARG:HH21	1:C:726:VAL:HA	1.73	0.53
1:C:715:ASN:O	1:C:744:ASP:N	2.41	0.53
1:B:852:GLN:HA	1:B:996:GLN:N	2.22	0.53
1:C:474:ILE:HD11	1:C:726:VAL:CG2	2.37	0.53
1:C:542:LEU:O	1:C:546:ILE:N	2.41	0.53
1:C:573:PRO:HB3	1:C:623:LEU:CD2	2.38	0.53
1:C:279:ASP:N	1:C:414:PRO:O	2.37	0.53
1:C:303:ARG:CG	1:C:1209:LEU:HA	2.33	0.53
1:C:307:HIS:CG	1:C:310:TRP:HB3	2.44	0.53
1:C:652:LEU:HD23	1:C:702:LEU:HD23	1.89	0.53
1:B:301:VAL:HG11	1:B:1150:TYR:OH	2.09	0.53
1:B:339:LEU:HD21	1:B:964:THR:HG21	1.89	0.53
1:B:809:MET:HB3	1:B:891:TYR:OH	2.08	0.53
1:B:851:ARG:HG3	1:B:851:ARG:NH1	2.22	0.53
1:B:1002:GLN:CB	1:B:1008:THR:HG22	2.38	0.53
1:B:1106:GLY:O	1:B:1136:ARG:N	2.38	0.53
1:C:305:VAL:CG2	1:C:326:PRO:HA	2.39	0.53
1:C:494:THR:CB	1:C:1270:VAL:HB	2.38	0.53
1:C:708:ILE:HG12	1:C:711:ARG:HH12	1.74	0.53
1:B:378:PHE:CB	1:B:390:ASN:HB3	2.39	0.53
1:B:591:PHE:CE2	1:B:595:LEU:HD11	2.43	0.53
1:B:653:ALA:HB1	1:B:671:GLN:HG3	1.90	0.53
1:C:427:VAL:HG22	1:C:1235:LEU:HA	1.90	0.53
1:C:494:THR:OG1	1:C:1272:MET:SD	2.55	0.53
1:C:636:LEU:HD13	1:C:648:ALA:CB	2.38	0.53
1:C:1146:TYR:HB2	1:C:1180:PHE:CE1	2.44	0.53
1:C:1230:GLU:O	1:C:1246:GLN:NE2	2.37	0.53
1:B:507:TYR:CZ	1:B:1267:ILE:HD11	2.44	0.53
1:B:847:VAL:HG22	1:B:1001:TYR:HB2	1.89	0.53
1:C:278:GLN:HA	1:C:415:ASN:HA	1.89	0.53
1:C:403:TYR:HA	1:C:406:MET:HE3	1.90	0.53
1:C:1136:ARG:HH22	1:C:1200:ILE:HD13	1.74	0.53
1:B:511:ASN:HB2	1:B:729:SER:O	2.08	0.53
1:B:536:LEU:HD13	1:B:593:VAL:HG13	1.91	0.53
1:B:857:ILE:HB	1:B:863:SER:HB3	1.91	0.53
1:C:307:HIS:HB3	1:C:310:TRP:HB3	1.90	0.53
1:C:654:ASN:ND2	1:C:671:GLN:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:435:ASP:O	1:B:449:ASP:N	2.34	0.53
1:B:631:ILE:HD13	1:B:883:THR:HG21	1.91	0.53
1:C:413:THR:HB	1:C:420:CYS:HB3	1.90	0.53
1:C:920:ARG:NH2	1:C:981:ASP:HB2	2.24	0.53
1:C:1029:GLU:OE1	1:C:1029:GLU:CA	2.56	0.53
1:C:1156:TYR:HA	1:C:1194:PRO:O	2.08	0.53
1:B:674:ARG:HD3	1:B:674:ARG:N	2.22	0.53
1:B:912:THR:CG2	1:B:1268:THR:HG23	2.39	0.53
1:B:952:ILE:HA	1:B:1143:ALA:HB3	1.91	0.53
1:C:223:PHE:CZ	1:C:1269:ALA:HB3	2.43	0.53
1:C:336:LYS:CA	1:C:340:ASN:HB2	2.39	0.53
1:C:591:PHE:CZ	1:C:595:LEU:HD11	2.44	0.53
1:B:439:MET:C	1:B:439:MET:SD	2.87	0.53
1:C:487:ALA:HB1	1:C:491:VAL:H	1.74	0.53
1:C:1101:MET:H	1:C:1101:MET:CE	2.21	0.53
1:C:1233:ASN:HA	1:C:1236:THR:OG1	2.09	0.53
1:B:377:GLY:O	1:B:392:ARG:HA	2.09	0.52
1:B:955:LEU:HD12	1:B:955:LEU:C	2.29	0.52
1:B:1061:PRO:HB2	1:B:1062:PRO:HD2	1.90	0.52
1:B:1096:ASP:HB3	1:B:1100:MET:H	1.73	0.52
1:C:262:LEU:HD11	1:C:402:TRP:CZ3	2.43	0.52
1:C:851:ARG:HA	1:C:997:LEU:HD23	1.91	0.52
1:B:295:PRO:HG3	1:B:408:PRO:HA	1.91	0.52
1:B:401:LYS:HE3	1:B:402:TRP:CE2	2.44	0.52
1:B:905:ILE:HG23	1:B:909:TYR:CE1	2.45	0.52
1:B:1149:HIS:O	1:B:1181:MET:HA	2.08	0.52
1:C:375:HIS:CE1	1:C:445:SER:N	2.76	0.52
1:C:732:LEU:CD1	1:C:1011:VAL:HG11	2.36	0.52
1:C:929:GLN:O	1:C:932:VAL:HG22	2.09	0.52
1:C:967:GLU:OE1	1:C:988:LEU:HD13	2.08	0.52
1:C:1150:TYR:HA	1:C:1182:VAL:O	2.09	0.52
1:C:1157:ALA:HB3	1:C:1195:ALA:HA	1.91	0.52
1:B:327:PRO:O	1:B:1147:MET:HG3	2.09	0.52
1:B:1084:SER:HB3	1:B:1101:MET:HE2	1.91	0.52
1:C:436:ARG:HD2	1:C:440:MET:HE1	1.91	0.52
1:C:504:LEU:N	1:C:1263:GLU:O	2.42	0.52
1:C:637:PRO:HB3	1:C:714:PRO:HG2	1.91	0.52
1:C:1074:VAL:HG11	1:C:1109:ILE:HG13	1.90	0.52
1:C:1158:ASN:ND2	1:C:1160:TRP:H	2.08	0.52
1:B:436:ARG:CB	1:B:448:VAL:HG12	2.31	0.52
1:B:750:VAL:HG12	1:B:752:THR:H	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:309:ARG:HB3	1:C:312:SER:OG	2.10	0.52
1:C:335:PHE:CD2	1:C:1040:ILE:HD11	2.43	0.52
1:C:338:LEU:HB2	1:C:357:ASN:ND2	2.23	0.52
1:C:1002:GLN:NE2	1:C:1006:GLY:HA2	2.24	0.52
1:C:1112:LEU:HG	1:C:1116:GLN:NE2	2.24	0.52
1:C:1131:LYS:HD2	1:C:1131:LYS:C	2.29	0.52
1:B:607:VAL:N	1:B:875:LEU:O	2.40	0.52
1:B:627:TRP:O	1:B:631:ILE:HG12	2.09	0.52
1:C:256:VAL:HG13	1:C:372:LEU:HD12	1.92	0.52
1:C:636:LEU:N	1:C:637:PRO:CD	2.73	0.52
1:C:922:MET:SD	1:C:922:MET:O	2.67	0.52
1:C:934:LEU:O	1:C:938:ILE:HG12	2.09	0.52
1:C:1023:CYS:O	1:C:1027:THR:HG23	2.10	0.52
1:B:333:HIS:HB3	1:B:346:VAL:CG1	2.39	0.52
1:B:457:LEU:HD12	1:B:457:LEU:O	2.10	0.52
1:B:850:THR:HG22	1:B:998:ALA:HB3	1.91	0.52
1:B:1095:ARG:HB2	1:B:1101:MET:HE3	1.91	0.52
1:C:515:GLN:CD	1:C:732:LEU:HD21	2.30	0.52
1:C:521:ARG:HD2	1:C:828:PHE:CE1	2.45	0.52
1:C:581:LEU:HA	1:C:880:ARG:HD2	1.92	0.52
1:C:948:TYR:CD2	1:C:948:TYR:N	2.78	0.52
1:C:1204:TYR:C	1:C:1204:TYR:CD2	2.82	0.52
1:C:1231:ARG:HA	1:C:1252:ASP:HA	1.91	0.52
1:B:287:THR:HA	1:B:290:TYR:CD1	2.45	0.52
1:B:574:ALA:O	1:B:577:ILE:HG22	2.10	0.52
1:C:278:GLN:HB3	1:C:415:ASN:OD1	2.10	0.52
1:C:598:TRP:CD1	1:C:742:PRO:HG3	2.44	0.52
1:C:685:PRO:HB2	1:C:688:PHE:HB3	1.92	0.52
1:C:1041:ALA:N	1:C:1144:TYR:O	2.37	0.52
1:B:272:VAL:CG1	1:B:300:ALA:HB3	2.39	0.52
1:B:434:PHE:N	1:B:449:ASP:O	2.43	0.52
1:B:646:VAL:CG1	1:B:685:PRO:HD2	2.39	0.52
1:B:664:MET:HG3	1:B:670:THR:C	2.31	0.52
1:B:1171:THR:N	1:B:1174:SER:O	2.39	0.52
1:C:277:PRO:CG	1:C:416:VAL:HG22	2.40	0.52
1:C:354:PHE:HB2	1:C:953:PRO:HG2	1.91	0.52
1:C:647:LYS:CA	1:C:675:ALA:HB1	2.40	0.52
1:B:696:PRO:HA	1:B:703:ARG:HB2	1.92	0.52
1:B:713:TRP:CD2	1:B:714:PRO:HD2	2.45	0.52
1:C:246:GLN:HG3	1:C:911:ASP:HB2	1.90	0.52
1:C:333:HIS:HA	1:C:336:LYS:CD	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:605:THR:HB	1:C:874:PRO:HA	1.90	0.52
1:C:985:GLU:N	1:C:986:PRO:CD	2.73	0.52
1:C:1166:TRP:HB2	1:C:1179:PRO:HG3	1.92	0.52
1:B:934:LEU:O	1:B:938:ILE:HG23	2.10	0.52
1:B:1074:VAL:HG22	1:B:1107:ASN:HB2	1.89	0.52
1:C:1159:ALA:HA	1:C:1162:LEU:HD22	1.91	0.52
1:B:381:ASP:HB3	1:B:388:GLY:CA	2.39	0.51
1:B:479:ILE:HD12	1:B:505:MET:CE	2.40	0.51
1:B:775:LEU:HD12	1:B:775:LEU:O	2.10	0.51
1:B:827:PRO:HG3	1:B:914:VAL:HG22	1.92	0.51
1:C:473:ASN:HA	1:C:506:PRO:HA	1.91	0.51
1:C:1095:ARG:HA	1:C:1101:MET:CA	2.38	0.51
1:B:543:LEU:HB3	1:B:592:ARG:HG2	1.92	0.51
1:B:643:CYS:O	1:B:647:LYS:HG3	2.10	0.51
1:B:812:GLN:O	1:B:816:PRO:HG2	2.11	0.51
1:B:859:GLN:HB2	1:B:862:LEU:HG	1.92	0.51
1:B:939:SER:HA	1:B:957:ALA:HB1	1.91	0.51
1:C:905:ILE:HG23	1:C:909:TYR:CE1	2.46	0.51
1:C:949:LEU:HB3	1:C:952:ILE:CD1	2.40	0.51
1:B:628:ASP:O	1:B:632:LEU:HG	2.10	0.51
1:C:355:ARG:HA	1:C:952:ILE:HG21	1.92	0.51
1:C:1046:ILE:N	1:C:1200:ILE:O	2.35	0.51
1:C:1111:PRO:HG2	1:C:1114:LEU:CB	2.39	0.51
1:B:836:VAL:CG2	1:B:836:VAL:O	2.58	0.51
1:B:985:GLU:OE1	1:B:985:GLU:HA	2.11	0.51
1:C:352:LEU:HB3	1:C:955:LEU:N	2.25	0.51
1:C:378:PHE:CZ	1:C:448:VAL:HG21	2.46	0.51
1:B:847:VAL:HG11	1:B:871:VAL:HB	1.91	0.51
1:B:1069:ARG:HA	1:B:1109:ILE:CG1	2.30	0.51
1:B:1113:ALA:O	1:B:1117:MET:HG2	2.11	0.51
1:C:255:LEU:HB3	1:C:465:TRP:CZ2	2.45	0.51
1:C:331:ASN:HA	1:C:333:HIS:CE1	2.46	0.51
1:C:338:LEU:HD11	1:C:360:HIS:CD2	2.46	0.51
1:C:1066:VAL:HG12	1:C:1200:ILE:HD12	1.92	0.51
1:B:864:LEU:HD12	1:B:868:ASN:HB3	1.92	0.51
1:C:277:PRO:HD2	1:C:416:VAL:HG22	1.92	0.51
1:C:543:LEU:CB	1:C:592:ARG:HD2	2.41	0.51
1:C:732:LEU:CB	1:C:1011:VAL:HG11	2.41	0.51
1:C:951:TRP:CZ3	1:C:1042:ARG:HB2	2.46	0.51
1:C:1104:PHE:HA	1:C:1108:TRP:HH2	1.75	0.51
1:C:1207:ARG:HH21	1:C:1231:ARG:HH22	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:762:THR:HG23	1:B:765:ARG:NH2	2.25	0.51
1:B:864:LEU:CD1	1:B:868:ASN:HB3	2.40	0.51
1:C:807:THR:CG2	1:C:886:LEU:HA	2.38	0.51
1:B:303:ARG:CG	1:B:1209:LEU:HA	2.29	0.51
1:B:418:LYS:HB3	1:B:1226:HIS:HD2	1.76	0.51
1:B:501:VAL:HG23	1:B:1263:GLU:OE1	2.11	0.51
1:C:607:VAL:HG23	1:C:876:ALA:HB2	1.93	0.51
1:C:1106:GLY:O	1:C:1135:LEU:HD12	2.10	0.51
1:B:413:THR:O	1:B:415:ASN:N	2.44	0.51
1:B:924:THR:O	1:B:928:VAL:HG23	2.11	0.51
1:C:776:VAL:HG22	1:C:776:VAL:O	2.11	0.51
1:C:811:LEU:HA	1:C:815:ALA:HB2	1.93	0.51
1:C:1112:LEU:HD13	1:C:1141:MET:HE1	1.92	0.51
1:B:253:PRO:N	1:B:979:LEU:HD21	2.25	0.51
1:B:446:GLU:O	1:B:1260:TYR:HA	2.11	0.51
1:B:598:TRP:CE3	1:B:742:PRO:HG3	2.46	0.51
1:B:811:LEU:HA	1:B:815:ALA:CB	2.41	0.51
1:B:854:ARG:HD3	1:B:857:ILE:HD12	1.93	0.51
1:B:985:GLU:OE1	1:B:985:GLU:CA	2.59	0.51
1:B:1034:GLU:HB3	1:B:1037:LEU:CG	2.41	0.51
1:B:1093:MET:CB	1:B:1101:MET:CB	2.89	0.51
1:B:1158:ASN:HA	1:B:1196:VAL:HB	1.92	0.51
1:C:336:LYS:HA	1:C:340:ASN:HD22	1.76	0.51
1:C:373:ASN:HB3	1:C:1259:ARG:CZ	2.41	0.51
1:C:440:MET:HB3	1:C:445:SER:OG	2.11	0.51
1:C:755:LEU:HG	1:C:804:LYS:HG3	1.93	0.51
1:C:870:THR:HB	1:C:872:GLY:O	2.11	0.51
1:C:556:ILE:CD1	1:C:888:SER:HB3	2.41	0.50
1:C:638:LEU:N	1:C:638:LEU:HD23	2.26	0.50
1:B:271:ILE:HB	1:B:301:VAL:HG12	1.93	0.50
1:C:1035:TYR:CA	1:C:1038:PHE:HB2	2.35	0.50
1:B:300:ALA:HA	1:B:1213:ASN:CA	2.41	0.50
1:B:355:ARG:NH2	1:B:950:ASP:HA	2.26	0.50
1:B:430:ARG:HD3	1:B:1234:ILE:HG23	1.93	0.50
1:B:946:ASP:HB3	1:B:948:TYR:CE1	2.46	0.50
1:C:267:LYS:O	1:C:305:VAL:N	2.44	0.50
1:C:598:TRP:CG	1:C:742:PRO:HG3	2.46	0.50
1:C:641:ASP:OD2	1:C:643:CYS:N	2.44	0.50
1:C:719:ILE:O	1:C:739:LEU:N	2.32	0.50
1:C:1147:MET:CE	1:C:1179:PRO:HB3	2.41	0.50
1:C:1159:ALA:O	1:C:1163:THR:HG23	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:295:PRO:HG2	1:B:408:PRO:HA	1.93	0.50
1:B:427:VAL:HG23	1:B:1235:LEU:O	2.11	0.50
1:B:647:LYS:CA	1:B:675:ALA:HB1	2.42	0.50
1:B:823:ALA:HB3	1:B:824:PRO:HD3	1.94	0.50
1:C:265:SER:HB3	1:C:308:THR:HG22	1.93	0.50
1:C:333:HIS:HA	1:C:336:LYS:HD3	1.93	0.50
1:C:339:LEU:CD1	1:C:353:MET:HB3	2.30	0.50
1:C:413:THR:HB	1:C:420:CYS:CB	2.41	0.50
1:C:509:ILE:HD11	1:C:727:PHE:HA	1.94	0.50
1:C:1112:LEU:HD22	1:C:1141:MET:HE2	1.93	0.50
1:C:1229:VAL:HG13	1:C:1236:THR:OG1	2.12	0.50
1:B:254:ARG:CZ	1:B:316:PHE:HB2	2.41	0.50
1:B:375:HIS:CD2	1:B:448:VAL:CG1	2.93	0.50
1:B:474:ILE:N	1:B:505:MET:O	2.44	0.50
1:B:612:SER:HB3	1:B:632:LEU:HD21	1.93	0.50
1:B:1059:LEU:CB	1:B:1204:TYR:HA	2.41	0.50
1:C:224:ILE:CG2	1:C:1270:VAL:HG22	2.42	0.50
1:C:622:SER:O	1:C:626:LEU:HG	2.11	0.50
1:C:719:ILE:HG23	1:C:739:LEU:HB3	1.92	0.50
1:C:1076:ILE:HA	1:C:1109:ILE:O	2.12	0.50
1:C:1110:PHE:HB2	1:C:1139:ILE:CD1	2.39	0.50
1:C:1163:THR:O	1:C:1167:LEU:HG	2.12	0.50
1:B:284:THR:CB	1:C:1083:ILE:HB	2.40	0.50
1:B:601:ASN:HD22	1:B:601:ASN:N	2.09	0.50
1:B:684:TRP:HB3	1:B:689:MET:HE1	1.94	0.50
1:B:686:ARG:HA	1:B:689:MET:HG3	1.93	0.50
1:B:849:VAL:O	1:B:868:ASN:HA	2.12	0.50
1:B:1213:ASN:HB3	1:B:1216:SER:HB2	1.92	0.50
1:C:276:VAL:HG13	1:C:1215:SER:CB	2.39	0.50
1:C:433:ARG:HD3	1:C:448:VAL:CG2	2.42	0.50
1:C:437:ALA:HB2	1:C:447:TRP:CD1	2.47	0.50
1:C:595:LEU:O	1:C:599:LEU:HG	2.11	0.50
1:B:440:MET:HG3	1:C:864:LEU:CD2	2.41	0.50
1:B:740:LEU:HB3	1:B:835:TYR:CE1	2.46	0.50
1:B:1058:PRO:CB	1:B:1200:ILE:HA	2.41	0.50
1:B:1094:ILE:N	1:B:1104:PHE:HE1	2.10	0.50
1:B:1131:LYS:HD2	1:B:1160:TRP:CD1	2.46	0.50
1:C:338:LEU:HD13	1:C:968:TRP:CE3	2.47	0.50
1:C:430:ARG:HD3	1:C:451:PHE:CZ	2.46	0.50
1:C:591:PHE:CE1	1:C:811:LEU:HD21	2.46	0.50
1:B:540:SER:HA	1:B:592:ARG:CB	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:270:PRO:HA	1:C:302:SER:HB3	1.92	0.50
1:C:601:ASN:N	1:C:832:GLN:HG2	2.25	0.50
1:C:844:PRO:HA	1:C:1002:GLN:O	2.12	0.50
1:C:1147:MET:HB3	1:C:1179:PRO:HA	1.94	0.50
1:B:333:HIS:O	1:B:337:GLN:N	2.44	0.50
1:B:522:ILE:O	1:B:526:GLY:N	2.45	0.50
1:B:627:TRP:CH2	1:B:796:THR:HG21	2.47	0.50
1:B:1050:VAL:N	1:B:1197:GLN:O	2.38	0.50
1:B:1083:ILE:HD11	1:B:1126:PHE:CZ	2.46	0.50
1:C:374:ARG:O	1:C:1259:ARG:HD3	2.12	0.50
1:C:375:HIS:ND1	1:C:444:MET:CG	2.75	0.50
1:C:641:ASP:HB3	1:C:644:ALA:HB2	1.94	0.50
1:C:937:GLN:NE2	1:C:945:VAL:HB	2.26	0.50
1:C:1041:ALA:HB2	1:C:1146:TYR:CD2	2.47	0.50
1:B:1060:ALA:HB2	1:B:1204:TYR:CD1	2.45	0.49
1:B:1170:ILE:HG23	1:B:1175:ILE:HG22	1.93	0.49
1:C:448:VAL:O	1:C:1258:THR:HA	2.12	0.49
1:B:472:MET:C	1:B:506:PRO:HA	2.33	0.49
1:B:507:TYR:CE1	1:B:1267:ILE:HD11	2.47	0.49
1:B:1147:MET:HB3	1:B:1179:PRO:HA	1.95	0.49
1:C:277:PRO:O	1:C:416:VAL:HG13	2.12	0.49
1:C:338:LEU:HD21	1:C:360:HIS:HB3	1.95	0.49
1:C:430:ARG:HG3	1:C:1234:ILE:O	2.11	0.49
1:C:551:ILE:HA	1:C:888:SER:O	2.12	0.49
1:C:1082:ARG:HH11	1:C:1082:ARG:CG	2.12	0.49
1:C:234:GLN:HA	1:C:246:GLN:O	2.12	0.49
1:C:528:ASN:ND2	1:C:530:THR:H	2.10	0.49
1:C:669:TYR:HA	1:C:673:ARG:CD	2.41	0.49
1:C:1002:GLN:HE22	1:C:1006:GLY:HA2	1.76	0.49
1:C:1046:ILE:HD12	1:C:1200:ILE:HD11	1.94	0.49
1:C:1198:TYR:N	1:C:1198:TYR:CD1	2.80	0.49
1:C:1204:TYR:CD2	1:C:1204:TYR:O	2.65	0.49
1:B:389:ALA:HB2	1:B:431:VAL:HG22	1.91	0.49
1:B:543:LEU:CB	1:B:592:ARG:HG2	2.42	0.49
1:B:1091:ALA:CB	1:B:1103:PRO:HB3	2.42	0.49
1:B:1166:TRP:CZ3	1:B:1170:ILE:HD11	2.47	0.49
1:C:283:TYR:O	1:C:289:SER:HA	2.12	0.49
1:C:577:ILE:HD13	1:C:627:TRP:CB	2.34	0.49
1:C:644:ALA:N	1:C:645:PRO:CD	2.75	0.49
1:C:725:ASN:ND2	1:C:726:VAL:HG23	2.27	0.49
1:C:1051:GLN:HA	1:C:1195:ALA:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1104:PHE:HA	1:C:1108:TRP:CH2	2.47	0.49
1:B:477:THR:HG22	1:B:481:TRP:CZ2	2.47	0.49
1:B:569:GLN:NE2	1:B:786:THR:OG1	2.41	0.49
1:B:608:ILE:HG12	1:B:639:THR:HG21	1.93	0.49
1:B:652:LEU:HD23	1:B:705:TRP:CD2	2.47	0.49
1:C:276:VAL:CB	1:C:277:PRO:HD3	2.15	0.49
1:C:278:GLN:HG2	1:C:415:ASN:CB	2.27	0.49
1:C:398:ASP:O	1:C:402:TRP:N	2.31	0.49
1:C:413:THR:HG21	1:C:420:CYS:HA	1.93	0.49
1:C:508:ARG:NH2	1:C:726:VAL:HG22	2.27	0.49
1:C:597:GLY:CA	1:C:604:VAL:HG11	2.41	0.49
1:C:606:THR:H	1:C:640:THR:HG1	1.61	0.49
1:C:690:ASN:HB3	1:C:693:LEU:CG	2.42	0.49
1:B:433:ARG:HD2	1:B:436:ARG:HD3	1.95	0.49
1:B:437:ALA:N	1:B:445:SER:HB3	2.28	0.49
1:B:474:ILE:O	1:B:505:MET:HB2	2.11	0.49
1:C:474:ILE:CG2	1:C:507:TYR:HB2	2.42	0.49
1:C:685:PRO:HB2	1:C:688:PHE:H	1.77	0.49
1:C:906:TYR:N	1:C:907:PRO:HD2	2.27	0.49
1:C:1130:ILE:HG22	1:C:1160:TRP:CZ3	2.48	0.49
1:B:433:ARG:CD	1:B:436:ARG:HD3	2.43	0.49
1:B:601:ASN:ND2	1:B:832:GLN:HG2	2.28	0.49
1:B:840:ARG:CA	1:B:843:VAL:HG23	2.38	0.49
1:B:1171:THR:HG22	1:B:1173:THR:N	2.28	0.49
1:C:476:PRO:O	1:C:480:GLU:HG3	2.12	0.49
1:C:957:ALA:HB1	1:C:961:THR:HB	1.94	0.49
1:C:1156:TYR:CE2	1:C:1158:ASN:HB2	2.47	0.49
1:B:331:ASN:ND2	1:B:335:PHE:HE1	2.10	0.49
1:B:1047:ILE:HG12	1:B:1199:ILE:HG12	1.95	0.49
1:B:1108:TRP:CG	1:B:1135:LEU:HD11	2.47	0.49
1:C:434:PHE:H	1:C:450:VAL:HA	1.78	0.49
1:C:542:LEU:HD11	1:C:546:ILE:HD12	1.93	0.49
1:C:1044:ASP:HA	1:C:1141:MET:CG	2.43	0.49
1:C:1138:ARG:NH2	1:C:1202:THR:HG21	2.28	0.49
1:B:284:THR:CG2	1:C:1083:ILE:HB	2.43	0.49
1:B:430:ARG:HH11	1:B:1234:ILE:HG23	1.78	0.49
1:B:569:GLN:HA	1:B:569:GLN:HE21	1.73	0.49
1:B:600:TYR:CD1	1:B:830:PRO:HB3	2.47	0.49
1:B:939:SER:OG	1:B:993:ARG:HD3	2.12	0.49
1:B:1009:PHE:N	1:B:1009:PHE:CD1	2.81	0.49
1:B:1186:SER:O	1:B:1221:ALA:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:219:HIS:CE1	1:C:233:VAL:HG21	2.47	0.49
1:C:222:GLU:HB2	1:C:1268:THR:HG22	1.95	0.49
1:B:340:ASN:HB3	1:B:343:THR:OG1	2.12	0.49
1:C:262:LEU:HB2	1:C:311:ALA:CB	2.41	0.49
1:C:303:ARG:HD2	1:C:327:PRO:HG2	1.95	0.49
1:C:383:THR:OG1	1:C:410:ARG:NH2	2.46	0.49
1:C:768:VAL:O	1:C:772:MET:HG3	2.12	0.49
1:C:772:MET:O	1:C:776:VAL:HG12	2.12	0.49
1:C:1003:GLN:N	1:C:1007:ARG:O	2.38	0.49
1:C:1115:TRP:O	1:C:1119:THR:N	2.46	0.49
1:B:285:PHE:HD2	1:B:286:PHE:N	2.10	0.48
1:B:514:ARG:HH12	1:B:727:PHE:HD2	1.60	0.48
1:B:673:ARG:HD3	1:B:677:ALA:HB3	1.93	0.48
1:B:718:GLN:HE22	1:B:738:VAL:HG22	1.78	0.48
1:B:850:THR:HG23	1:B:850:THR:O	2.13	0.48
1:B:1049:ARG:HG3	1:B:1196:VAL:HG13	1.95	0.48
1:B:1162:LEU:HD23	1:B:1162:LEU:N	2.28	0.48
1:C:277:PRO:O	1:C:416:VAL:CA	2.61	0.48
1:C:436:ARG:HB3	1:C:448:VAL:HG23	1.95	0.48
1:C:607:VAL:HG22	1:C:875:LEU:C	2.33	0.48
1:C:614:PRO:HB2	1:C:618:GLY:CA	2.43	0.48
1:C:1041:ALA:O	1:C:1144:TYR:N	2.45	0.48
1:C:1159:ALA:HA	1:C:1162:LEU:HD13	1.95	0.48
1:B:690:ASN:ND2	1:B:693:LEU:HG	2.28	0.48
1:B:1188:HIS:HA	1:B:1220:ILE:HG22	1.95	0.48
1:C:391:LEU:HD11	1:C:410:ARG:CD	2.43	0.48
1:C:859:GLN:OE1	1:C:860:PRO:HD2	2.13	0.48
1:C:928:VAL:HG22	1:C:987:LEU:CD1	2.42	0.48
1:B:374:ARG:HA	1:B:1260:TYR:O	2.13	0.48
1:B:550:GLN:HB2	1:B:890:LYS:HE3	1.94	0.48
1:B:602:GLY:HA2	1:B:833:VAL:CG1	2.37	0.48
1:B:847:VAL:HA	1:B:1001:TYR:HA	1.94	0.48
1:C:257:THR:O	1:C:372:LEU:HB2	2.12	0.48
1:C:403:TYR:HB3	1:C:410:ARG:NH1	2.29	0.48
1:C:451:PHE:CE2	1:C:1256:VAL:HG22	2.48	0.48
1:C:465:TRP:O	1:C:469:LEU:HG	2.13	0.48
1:C:1120:ARG:HH12	1:C:1168:GLU:HA	1.78	0.48
1:C:1159:ALA:O	1:C:1163:THR:N	2.35	0.48
1:B:543:LEU:HD12	1:B:592:ARG:HB3	1.95	0.48
1:B:674:ARG:HD3	1:B:674:ARG:H	1.77	0.48
1:B:777:ASP:HA	1:B:782:GLN:NE2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:795:GLY:O	1:B:799:LYS:HG3	2.14	0.48
1:B:1034:GLU:HB3	1:B:1037:LEU:CB	2.43	0.48
1:C:821:VAL:O	1:C:825:MET:HG2	2.13	0.48
1:C:850:THR:O	1:C:997:LEU:HA	2.13	0.48
1:C:1200:ILE:O	1:C:1200:ILE:CG1	2.61	0.48
1:B:267:LYS:HD2	1:B:310:TRP:CG	2.48	0.48
1:B:515:GLN:CG	1:B:730:ALA:HA	2.42	0.48
1:B:591:PHE:CZ	1:B:595:LEU:HD11	2.48	0.48
1:B:606:THR:N	1:B:640:THR:OG1	2.40	0.48
1:B:1231:ARG:HA	1:B:1252:ASP:HA	1.95	0.48
1:C:333:HIS:HA	1:C:336:LYS:CG	2.43	0.48
1:C:580:LYS:HE2	1:C:624:GLU:HG2	1.94	0.48
1:C:1170:ILE:HA	1:C:1176:PRO:CD	2.43	0.48
1:B:890:LYS:HB3	1:B:890:LYS:HE2	1.68	0.48
1:B:1094:ILE:HD12	1:B:1126:PHE:CZ	2.46	0.48
1:C:527:ASN:ND2	1:C:867:THR:OG1	2.47	0.48
1:C:970:ASN:ND2	1:C:988:LEU:HD11	2.29	0.48
1:C:974:LYS:HD3	1:C:983:LEU:CB	2.43	0.48
1:C:1084:SER:O	1:C:1092:PRO:HB2	2.13	0.48
1:C:1098:THR:OG1	1:C:1100:MET:HG2	2.14	0.48
1:B:650:MET:O	1:B:654:ASN:N	2.42	0.48
1:B:699:ALA:HB1	1:B:702:LEU:HB3	1.94	0.48
1:B:1095:ARG:NE	1:B:1096:ASP:O	2.39	0.48
1:B:1166:TRP:O	1:B:1170:ILE:HG13	2.13	0.48
1:B:1219:THR:HG21	1:B:1224:ASP:HA	1.96	0.48
1:C:373:ASN:HB3	1:C:1259:ARG:NE	2.29	0.48
1:B:271:ILE:HG12	1:B:302:SER:HA	1.96	0.48
1:B:503:ARG:HB3	1:B:1265:PRO:CD	2.43	0.48
1:B:906:TYR:HE1	1:B:1275:PRO:HD3	1.74	0.48
1:B:1051:GLN:HA	1:B:1195:ALA:O	2.13	0.48
1:C:232:ILE:CD1	1:C:907:PRO:HB3	2.43	0.48
1:C:281:LEU:C	1:C:292:ILE:HD12	2.34	0.48
1:C:1154:ARG:HA	1:C:1192:SER:CA	2.42	0.48
1:B:399:ALA:O	1:B:403:TYR:HD1	1.97	0.48
1:B:627:TRP:HA	1:B:627:TRP:CE3	2.49	0.48
1:B:849:VAL:CG1	1:B:999:ILE:HG13	2.40	0.48
1:B:1031:PHE:HA	1:B:1038:PHE:CE1	2.49	0.48
1:C:475:ASN:OD1	1:C:475:ASN:C	2.52	0.48
1:C:504:LEU:O	1:C:1265:PRO:HD2	2.14	0.48
1:C:833:VAL:CG1	1:C:834:PRO:CD	2.75	0.48
1:C:994:MET:CE	1:C:997:LEU:HD21	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:391:LEU:HD13	1:B:391:LEU:N	2.29	0.48
1:B:432:GLY:C	1:B:450:VAL:HG23	2.34	0.48
1:B:755:LEU:HD21	1:B:757:PHE:CZ	2.48	0.48
1:B:1229:VAL:HG13	1:B:1236:THR:CG2	2.44	0.48
1:C:322:VAL:CG1	1:C:334:LEU:HD13	2.43	0.48
1:C:530:THR:O	1:C:534:PRO:HD3	2.14	0.48
1:B:547:SER:HA	1:B:818:GLU:OE2	2.13	0.47
1:B:600:TYR:HE2	1:B:828:PHE:CE2	2.32	0.47
1:B:931:LEU:O	1:B:935:VAL:HG23	2.14	0.47
1:C:637:PRO:HG3	1:C:764:TRP:CE2	2.49	0.47
1:C:790:VAL:O	1:C:794:ARG:HG3	2.14	0.47
1:C:1147:MET:N	1:C:1178:VAL:O	2.34	0.47
1:C:1166:TRP:NE1	1:C:1179:PRO:HD3	2.28	0.47
1:B:601:ASN:HD22	1:B:601:ASN:H	1.61	0.47
1:B:822:ILE:HG22	1:B:826:LEU:HD21	1.95	0.47
1:C:271:ILE:HD13	1:C:301:VAL:HG12	1.96	0.47
1:C:699:ALA:HB1	1:C:702:LEU:CD1	2.42	0.47
1:C:1149:HIS:O	1:C:1182:VAL:N	2.39	0.47
1:B:579:GLY:O	1:B:582:ARG:HG3	2.15	0.47
1:B:623:LEU:HB2	1:B:785:TRP:CH2	2.49	0.47
1:B:947:ARG:HG2	1:B:947:ARG:HH11	1.78	0.47
1:C:283:TYR:O	1:C:290:TYR:N	2.45	0.47
1:C:295:PRO:HG3	1:C:404:SER:CB	2.38	0.47
1:C:413:THR:HG21	1:C:423:VAL:CB	2.41	0.47
1:C:521:ARG:HD2	1:C:828:PHE:CD1	2.48	0.47
1:C:543:LEU:HB3	1:C:592:ARG:HH11	1.79	0.47
1:B:261:GLY:N	1:B:313:ASN:H	2.13	0.47
1:B:569:GLN:NE2	1:B:569:GLN:CA	2.64	0.47
1:B:752:THR:HG22	1:B:895:LEU:O	2.15	0.47
1:B:778:ASN:HD22	1:B:781:TYR:CB	2.27	0.47
1:B:955:LEU:CD1	1:B:961:THR:HG21	2.43	0.47
1:B:1106:GLY:O	1:B:1135:LEU:HA	2.13	0.47
1:B:1108:TRP:O	1:B:1137:ILE:HA	2.14	0.47
1:C:366:VAL:HG22	1:C:461:ILE:HD13	1.95	0.47
1:C:697:ILE:O	1:C:700:PRO:HD3	2.15	0.47
1:C:1167:LEU:O	1:C:1170:ILE:HB	2.14	0.47
1:B:1104:PHE:N	1:B:1104:PHE:HD1	2.08	0.47
1:B:1182:VAL:HG23	1:B:1183:PRO:HD2	1.97	0.47
1:B:1260:TYR:HB3	1:B:1262:TYR:CE2	2.50	0.47
1:C:237:ALA:HA	1:C:247:LEU:HD13	1.96	0.47
1:C:472:MET:HA	1:C:508:ARG:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:253:PRO:HD3	1:B:979:LEU:HD11	1.97	0.47
1:B:332:ILE:O	1:B:336:LYS:HG2	2.14	0.47
1:B:520:ILE:HG23	1:B:986:PRO:HG2	1.96	0.47
1:C:601:ASN:HB3	1:C:832:GLN:HG2	1.96	0.47
1:C:803:ILE:HG21	1:C:887:LEU:HG	1.97	0.47
1:C:817:VAL:O	1:C:821:VAL:HG23	2.14	0.47
1:C:920:ARG:NE	1:C:979:LEU:HD22	2.30	0.47
1:C:943:TYR:CD1	1:C:944:PRO:HD2	2.49	0.47
1:C:1076:ILE:CG1	1:C:1109:ILE:HB	2.40	0.47
1:B:299:ALA:O	1:B:1213:ASN:N	2.47	0.47
1:B:445:SER:HB2	1:B:448:VAL:CG1	2.44	0.47
1:B:533:GLN:HE21	1:B:537:GLN:NE2	2.11	0.47
1:B:699:ALA:HB1	1:B:702:LEU:HB2	1.97	0.47
1:B:766:ALA:HB1	1:B:801:LYS:HE3	1.97	0.47
1:B:777:ASP:HA	1:B:782:GLN:HE21	1.80	0.47
1:B:1057:SER:CB	1:B:1060:ALA:H	2.28	0.47
1:B:1163:THR:CG2	1:B:1198:TYR:HB2	2.33	0.47
1:B:1211:CYS:HA	1:B:1225:LYS:CG	2.39	0.47
1:C:274:ALA:HB1	1:C:1215:SER:HB3	1.95	0.47
1:C:515:GLN:HG2	1:C:730:ALA:O	2.15	0.47
1:C:623:LEU:O	1:C:626:LEU:HB2	2.15	0.47
1:C:699:ALA:CB	1:C:702:LEU:HB2	2.40	0.47
1:C:963:ALA:HB2	1:C:992:PRO:HG3	1.97	0.47
1:C:1079:ARG:HG2	1:C:1079:ARG:HH11	1.78	0.47
1:B:475:ASN:ND2	1:B:478:GLU:H	2.11	0.47
1:B:920:ARG:HH11	1:B:920:ARG:CG	2.27	0.47
1:B:935:VAL:HA	1:B:938:ILE:HG12	1.96	0.47
1:B:1058:PRO:HB2	1:B:1201:SER:H	1.79	0.47
1:C:225:SER:OG	1:C:228:GLN:HG2	2.15	0.47
1:C:782:GLN:HB2	1:C:785:TRP:CE2	2.49	0.47
1:C:541:VAL:HG13	1:C:545:ARG:CZ	2.45	0.47
1:C:646:VAL:HG21	1:C:684:TRP:CD1	2.50	0.47
1:C:765:ARG:HG3	1:C:765:ARG:NH1	2.30	0.47
1:C:1151:TYR:C	1:C:1151:TYR:HD1	2.16	0.47
1:C:1254:TYR:C	1:C:1254:TYR:CD2	2.89	0.47
1:B:572:SER:HB3	1:B:575:SER:HB3	1.97	0.47
1:B:604:VAL:HA	1:B:873:VAL:O	2.15	0.47
1:B:606:THR:H	1:B:640:THR:HG1	1.58	0.47
1:B:852:GLN:C	1:B:996:GLN:HG2	2.35	0.47
1:B:1104:PHE:HA	1:B:1108:TRP:CH2	2.50	0.47
1:C:254:ARG:HH11	1:C:254:ARG:CB	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:324:MET:HB2	1:C:334:LEU:HD12	1.95	0.47
1:C:477:THR:HA	1:C:480:GLU:CD	2.35	0.47
1:C:620:VAL:HG21	1:C:659:PHE:CZ	2.50	0.47
1:C:1036:ASN:C	1:C:1036:ASN:HD22	2.18	0.47
1:C:1051:GLN:HG2	1:C:1195:ALA:H	1.79	0.47
1:C:1249:GLU:CD	1:C:1249:GLU:H	2.18	0.47
1:B:298:GLU:HB3	1:B:1215:SER:N	2.30	0.46
1:B:351:PRO:HA	1:B:354:PHE:CG	2.48	0.46
1:B:437:ALA:H	1:B:445:SER:HB3	1.79	0.46
1:B:811:LEU:HA	1:B:815:ALA:HB2	1.97	0.46
1:C:301:VAL:HG22	1:C:1209:LEU:CD2	2.45	0.46
1:C:305:VAL:HA	1:C:324:MET:CE	2.41	0.46
1:C:472:MET:HE2	1:C:506:PRO:HB2	1.96	0.46
1:C:514:ARG:NH1	1:C:729:SER:HA	2.29	0.46
1:C:723:ALA:HB3	1:C:727:PHE:CD2	2.50	0.46
1:C:1127:ASP:HA	1:C:1130:ILE:HD12	1.97	0.46
1:B:846:MET:HB3	1:B:1002:GLN:HB3	1.96	0.46
1:B:867:THR:HG22	1:B:867:THR:O	2.16	0.46
1:B:1057:SER:O	1:B:1061:PRO:N	2.48	0.46
1:C:301:VAL:HG13	1:C:1209:LEU:CD1	2.45	0.46
1:C:674:ARG:HA	1:C:674:ARG:HD3	1.57	0.46
1:C:690:ASN:HB3	1:C:693:LEU:CD1	2.45	0.46
1:C:1033:HIS:CD2	1:C:1248:PRO:HG2	2.51	0.46
1:C:1062:PRO:HB2	1:C:1065:LEU:HG	1.96	0.46
1:C:1108:TRP:CD2	1:C:1135:LEU:HD11	2.51	0.46
1:B:823:ALA:HA	1:B:826:LEU:CD2	2.45	0.46
1:B:942:GLN:H	1:B:942:GLN:HG3	1.35	0.46
1:B:1062:PRO:HG2	1:B:1065:LEU:HB2	1.96	0.46
1:C:219:HIS:ND1	1:C:233:VAL:HG11	2.31	0.46
1:C:267:LYS:HB3	1:C:310:TRP:CE2	2.51	0.46
1:C:270:PRO:CG	1:C:297:PRO:HB2	2.33	0.46
1:C:379:SER:N	1:C:391:LEU:O	2.45	0.46
1:C:400:GLU:HA	1:C:403:TYR:HB2	1.97	0.46
1:B:242:LYS:HD3	1:B:534:PRO:CB	2.44	0.46
1:B:1031:PHE:HZ	1:B:1040:ILE:HG13	1.80	0.46
1:B:1137:ILE:HG22	1:B:1139:ILE:HD12	1.97	0.46
1:C:582:ARG:N	1:C:583:PRO:HD3	2.29	0.46
1:C:920:ARG:HH22	1:C:981:ASP:CB	2.27	0.46
1:C:991:ASP:N	1:C:992:PRO:CD	2.78	0.46
1:C:1075:HIS:O	1:C:1109:ILE:N	2.42	0.46
1:B:324:MET:H	1:B:324:MET:HE2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:445:SER:HB2	1:B:448:VAL:HG13	1.98	0.46
1:B:474:ILE:HG12	1:B:505:MET:HB2	1.98	0.46
1:B:503:ARG:CD	1:B:1265:PRO:HG3	2.40	0.46
1:B:891:TYR:HB3	1:B:895:LEU:HD22	1.96	0.46
1:C:349:ALA:CB	1:C:354:PHE:HE2	2.29	0.46
1:C:785:TRP:CZ3	1:C:789:LEU:HD22	2.50	0.46
1:B:261:GLY:H	1:B:313:ASN:H	1.63	0.46
1:B:352:LEU:HB3	1:B:955:LEU:H	1.80	0.46
1:B:617:GLY:CA	1:B:654:ASN:CB	2.90	0.46
1:B:707:GLU:HB3	1:B:711:ARG:HH22	1.79	0.46
1:B:974:LYS:HD3	1:B:983:LEU:HB3	1.98	0.46
1:C:271:ILE:HG22	1:C:272:VAL:HG23	1.97	0.46
1:C:378:PHE:H	1:C:443:ALA:HB1	1.80	0.46
1:C:464:ARG:HH12	1:C:1022:ASP:HB2	1.81	0.46
1:C:533:GLN:N	1:C:534:PRO:CD	2.78	0.46
1:C:636:LEU:CD2	1:C:648:ALA:HB2	2.43	0.46
1:C:1147:MET:HE2	1:C:1179:PRO:HB3	1.97	0.46
1:C:1157:ALA:O	1:C:1196:VAL:N	2.41	0.46
1:B:307:HIS:ND1	1:B:310:TRP:HB3	2.30	0.46
1:B:515:GLN:O	1:B:519:ILE:HG13	2.14	0.46
1:B:573:PRO:HB3	1:B:623:LEU:HD21	1.98	0.46
1:B:1203:GLU:HG3	1:B:1205:ASN:ND2	2.27	0.46
1:C:248:LEU:HA	1:C:913:GLU:OE1	2.16	0.46
1:C:854:ARG:HA	1:C:854:ARG:CZ	2.43	0.46
1:B:325:ALA:H	1:B:331:ASN:HD21	1.64	0.46
1:B:520:ILE:CG2	1:B:986:PRO:HG2	2.46	0.46
1:B:1069:ARG:HG2	1:B:1109:ILE:CG2	2.44	0.46
1:B:1218:GLN:HG2	1:B:1220:ILE:HG13	1.98	0.46
1:C:261:GLY:HA3	1:C:313:ASN:H	1.79	0.46
1:C:378:PHE:HE2	1:C:433:ARG:HB2	1.80	0.46
1:C:385:PHE:CE2	1:C:412:GLY:HA3	2.51	0.46
1:C:392:ARG:NH1	1:C:406:MET:SD	2.89	0.46
1:C:417:SER:H	1:C:420:CYS:HB2	1.80	0.46
1:C:450:VAL:O	1:C:1256:VAL:HA	2.16	0.46
1:C:528:ASN:HD21	1:C:530:THR:HB	1.81	0.46
1:C:854:ARG:NH1	1:C:854:ARG:CA	2.67	0.46
1:C:985:GLU:O	1:C:989:SER:N	2.49	0.46
1:C:1042:ARG:HG2	1:C:1043:GLY:N	2.30	0.46
1:C:1170:ILE:HG12	1:C:1175:ILE:CG1	2.43	0.46
1:B:244:THR:O	1:B:248:LEU:HG	2.16	0.46
1:B:298:GLU:HG2	1:B:1214:SER:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:504:LEU:HG	1:B:506:PRO:HD3	1.98	0.46
1:B:573:PRO:HA	1:B:623:LEU:HD21	1.97	0.46
1:B:732:LEU:HD12	1:B:831:PHE:CE1	2.50	0.46
1:C:246:GLN:HG3	1:C:907:PRO:O	2.15	0.46
1:C:258:TRP:O	1:C:314:VAL:HG12	2.15	0.46
1:C:307:HIS:HA	1:C:323:ILE:HA	1.97	0.46
1:C:593:VAL:CG1	1:C:875:LEU:HD21	2.45	0.46
1:C:843:VAL:O	1:C:1004:TYR:N	2.48	0.46
1:C:1111:PRO:HG2	1:C:1114:LEU:CG	2.45	0.46
1:B:270:PRO:HG3	1:B:297:PRO:HB3	1.98	0.46
1:B:406:MET:HG3	1:B:452:GLU:HB2	1.98	0.46
1:B:637:PRO:CB	1:B:714:PRO:HG2	2.46	0.46
1:B:657:VAL:CG2	1:B:671:GLN:HG2	2.46	0.46
1:B:1160:TRP:HB2	1:B:1198:TYR:CZ	2.51	0.46
1:C:302:SER:O	1:C:1209:LEU:HD12	2.16	0.46
1:C:836:VAL:HG23	1:C:843:VAL:HG22	1.96	0.46
1:C:1249:GLU:CD	1:C:1249:GLU:N	2.69	0.46
1:B:437:ALA:HB3	1:B:447:TRP:H	1.79	0.45
1:B:778:ASN:HD22	1:B:781:TYR:HB2	1.81	0.45
1:B:439:MET:HE1	1:C:989:SER:O	2.17	0.45
1:B:645:PRO:HG3	1:B:713:TRP:CZ2	2.51	0.45
1:B:1220:ILE:HG22	1:B:1220:ILE:O	2.17	0.45
1:C:822:ILE:O	1:C:825:MET:HB2	2.16	0.45
1:B:544:GLN:HA	1:B:592:ARG:HH21	1.81	0.45
1:B:573:PRO:CB	1:B:623:LEU:HD21	2.46	0.45
1:B:596:ALA:HA	1:B:599:LEU:HD12	1.98	0.45
1:B:659:PHE:CZ	1:B:778:ASN:ND2	2.78	0.45
1:B:668:ILE:O	1:B:673:ARG:NE	2.49	0.45
1:B:852:GLN:CA	1:B:995:THR:HA	2.34	0.45
1:B:1231:ARG:NH2	1:B:1250:VAL:HA	2.30	0.45
1:C:1232:TYR:HE1	1:C:1253:LEU:HD12	1.79	0.45
1:B:283:TYR:HB2	1:B:286:PHE:CG	2.50	0.45
1:B:644:ALA:N	1:B:645:PRO:CD	2.79	0.45
1:C:472:MET:HA	1:C:508:ARG:CB	2.47	0.45
1:C:708:ILE:HG23	1:C:712:TYR:HD1	1.81	0.45
1:C:769:CYS:SG	1:C:801:LYS:HB2	2.55	0.45
1:C:1064:ASP:N	1:C:1064:ASP:OD1	2.49	0.45
1:B:418:LYS:H	1:B:418:LYS:HG3	1.60	0.45
1:B:939:SER:CB	1:B:993:ARG:HD3	2.47	0.45
1:B:1084:SER:HB3	1:B:1101:MET:CE	2.45	0.45
1:C:226:SER:OG	1:C:1272:MET:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:283:TYR:HD1	1:C:290:TYR:CB	2.28	0.45
1:C:347:ARG:HG2	1:C:347:ARG:NH1	2.32	0.45
1:C:528:ASN:ND2	1:C:530:THR:HB	2.31	0.45
1:C:685:PRO:HD2	1:C:688:PHE:HB3	1.98	0.45
1:C:716:PRO:HB3	1:C:742:PRO:HA	1.99	0.45
1:C:789:LEU:O	1:C:793:MET:HB2	2.16	0.45
1:B:515:GLN:HG2	1:B:730:ALA:HA	1.97	0.45
1:C:635:ALA:HA	1:C:638:LEU:CD1	2.47	0.45
1:C:703:ARG:O	1:C:707:GLU:HG3	2.17	0.45
1:C:949:LEU:HA	1:C:951:TRP:NE1	2.31	0.45
1:C:1031:PHE:O	1:C:1035:TYR:N	2.50	0.45
1:C:1233:ASN:HB2	1:C:1246:GLN:HE22	1.82	0.45
1:B:381:ASP:O	1:B:388:GLY:HA2	2.17	0.45
1:B:454:SER:O	1:B:1255:ASN:ND2	2.49	0.45
1:B:748:ALA:HB2	1:B:813:GLN:CG	2.47	0.45
1:C:279:ASP:CB	1:C:414:PRO:O	2.60	0.45
1:C:812:GLN:O	1:C:816:PRO:HG2	2.16	0.45
1:C:1136:ARG:NH2	1:C:1200:ILE:HD13	2.30	0.45
1:B:265:SER:CA	1:B:308:THR:HA	2.46	0.45
1:B:415:ASN:HD22	1:B:416:VAL:N	2.14	0.45
1:B:812:GLN:HG2	1:B:813:GLN:HG3	1.98	0.45
1:B:815:ALA:N	1:B:816:PRO:CD	2.80	0.45
1:B:1105:GLU:CA	1:B:1135:LEU:HB2	2.45	0.45
1:C:218:ARG:NH2	1:C:241:ASN:HB2	2.31	0.45
1:C:574:ALA:O	1:C:578:LEU:HG	2.17	0.45
1:C:926:GLU:OE1	1:C:926:GLU:C	2.55	0.45
1:C:1086:GLY:H	1:C:1092:PRO:HG3	1.82	0.45
1:C:1157:ALA:HB3	1:C:1195:ALA:CA	2.47	0.45
1:B:242:LYS:HD2	1:B:242:LYS:H	1.82	0.45
1:C:433:ARG:HA	1:C:450:VAL:HG12	1.97	0.45
1:C:708:ILE:HG23	1:C:712:TYR:CD1	2.52	0.45
1:B:521:ARG:O	1:B:524:ASN:ND2	2.50	0.45
1:B:945:VAL:HG22	1:B:946:ASP:N	2.32	0.45
1:C:479:ILE:O	1:C:483:LEU:HG	2.17	0.45
1:C:1158:ASN:HD21	1:C:1160:TRP:HB3	1.81	0.45
1:B:268:ILE:HD12	1:B:268:ILE:N	2.32	0.44
1:B:767:ARG:HD3	1:B:767:ARG:HA	1.71	0.44
1:B:805:SER:OG	1:B:886:LEU:O	2.32	0.44
1:B:810:TYR:HB2	1:B:891:TYR:CE1	2.49	0.44
1:B:1071:THR:HB	1:B:1074:VAL:HG21	2.00	0.44
1:B:1093:MET:HE1	1:B:1103:PRO:CD	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:218:ARG:H	1:C:218:ARG:HG3	1.59	0.44
1:C:503:ARG:HG2	1:C:1265:PRO:HG3	1.99	0.44
1:C:505:MET:CG	1:C:1265:PRO:HG2	2.47	0.44
1:C:690:ASN:ND2	1:C:693:LEU:HG	2.32	0.44
1:C:959:ALA:CB	1:C:993:ARG:HD3	2.47	0.44
1:C:1036:ASN:C	1:C:1036:ASN:ND2	2.70	0.44
1:B:602:GLY:HA3	1:B:831:PHE:CD2	2.42	0.44
1:B:652:LEU:HD12	1:B:652:LEU:C	2.37	0.44
1:B:654:ASN:HA	1:B:657:VAL:HG23	1.99	0.44
1:B:670:THR:HG23	1:B:673:ARG:N	2.32	0.44
1:B:720:ARG:HA	1:B:737:GLU:O	2.16	0.44
1:B:851:ARG:HA	1:B:997:LEU:HD23	2.00	0.44
1:C:353:MET:H	1:C:353:MET:HG2	1.61	0.44
1:C:394:LEU:HD23	1:C:394:LEU:HA	1.63	0.44
1:C:413:THR:CG2	1:C:420:CYS:HA	2.47	0.44
1:C:633:ALA:O	1:C:637:PRO:HD3	2.17	0.44
1:B:253:PRO:HA	1:B:977:PHE:O	2.17	0.44
1:B:517:SER:HB3	1:B:925:CYS:SG	2.56	0.44
1:B:603:VAL:HG13	1:B:831:PHE:CG	2.52	0.44
1:B:1046:ILE:HG23	1:B:1067:PHE:HE2	1.81	0.44
1:C:223:PHE:CE2	1:C:1269:ALA:HB3	2.53	0.44
1:C:283:TYR:CZ	1:C:385:PHE:HZ	2.35	0.44
1:C:359:LEU:N	1:C:359:LEU:HD23	2.33	0.44
1:C:394:LEU:HD12	1:C:402:TRP:CD1	2.52	0.44
1:C:716:PRO:CD	1:C:837:ARG:HD2	2.47	0.44
1:B:340:ASN:N	1:B:340:ASN:ND2	2.61	0.44
1:B:543:LEU:HD13	1:B:595:LEU:HD12	2.00	0.44
1:B:1091:ALA:HB1	1:B:1092:PRO:HD2	1.98	0.44
1:B:1093:MET:HE1	1:B:1103:PRO:HG3	1.99	0.44
1:C:296:PHE:HZ	1:C:422:PHE:HE2	1.65	0.44
1:C:433:ARG:HD2	1:C:436:ARG:HB3	1.99	0.44
1:C:806:MET:HE3	1:C:809:MET:HE1	1.99	0.44
1:B:376:THR:HG23	1:B:1259:ARG:HD3	1.98	0.44
1:B:595:LEU:O	1:B:599:LEU:HG	2.18	0.44
1:B:1057:SER:HB3	1:B:1060:ALA:HB3	1.99	0.44
1:C:248:LEU:C	1:C:248:LEU:HD23	2.38	0.44
1:C:300:ALA:CB	1:C:1185:SER:HB3	2.42	0.44
1:C:338:LEU:HG	1:C:357:ASN:HA	2.00	0.44
1:C:1077:PHE:CE2	1:C:1094:ILE:HD13	2.52	0.44
1:B:268:ILE:HG22	1:B:297:PRO:HG2	2.00	0.44
1:B:352:LEU:HB3	1:B:955:LEU:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:421:ASN:N	1:B:421:ASN:ND2	2.66	0.44
1:B:647:LYS:NZ	1:B:676:SER:HA	2.32	0.44
1:B:1056:TRP:HB2	1:B:1061:PRO:CA	2.38	0.44
1:B:1131:LYS:HB2	1:B:1160:TRP:CE2	2.52	0.44
1:C:473:ASN:ND2	1:C:505:MET:H	2.15	0.44
1:C:494:THR:H	1:C:1270:VAL:HB	1.82	0.44
1:C:748:ALA:CA	1:C:813:GLN:HB3	2.46	0.44
1:C:779:GLN:CD	1:C:785:TRP:HB2	2.38	0.44
1:C:1166:TRP:NE1	1:C:1176:PRO:HG2	2.33	0.44
1:B:939:SER:HA	1:B:957:ALA:CB	2.47	0.44
1:C:637:PRO:HB3	1:C:714:PRO:CG	2.48	0.44
1:C:763:ASN:ND2	1:C:767:ARG:HG2	2.32	0.44
1:C:933:THR:HG21	1:C:1021:ALA:CB	2.47	0.44
1:C:1151:TYR:CE1	1:C:1183:PRO:HB3	2.53	0.44
1:B:272:VAL:O	1:B:301:VAL:N	2.38	0.44
1:B:432:GLY:O	1:B:450:VAL:HG23	2.18	0.44
1:B:477:THR:CG2	1:B:481:TRP:CZ2	3.01	0.44
1:B:660:GLU:OE2	1:B:702:LEU:HB2	2.18	0.44
1:C:713:TRP:CE3	1:C:713:TRP:HA	2.53	0.44
1:C:731:ASN:HB3	1:C:734:THR:O	2.18	0.44
1:C:821:VAL:HG13	1:C:909:TYR:OH	2.18	0.44
1:C:974:LYS:HZ2	1:C:982:MET:HA	1.81	0.44
1:C:1067:PHE:HE2	1:C:1136:ARG:HB3	1.82	0.44
1:B:252:THR:C	1:B:979:LEU:HD21	2.37	0.44
1:B:375:HIS:HE1	1:B:438:GLN:OE1	1.99	0.44
1:B:438:GLN:HB3	1:B:445:SER:OG	2.16	0.44
1:B:1095:ARG:CG	1:B:1099:GLY:HA2	2.45	0.44
1:B:1107:ASN:O	1:B:1108:TRP:HD1	2.00	0.44
1:C:307:HIS:O	1:C:310:TRP:HB3	2.18	0.44
1:C:308:THR:HG1	1:C:321:SER:HA	1.83	0.44
1:C:574:ALA:O	1:C:577:ILE:HG22	2.18	0.44
1:C:779:GLN:HA	1:C:782:GLN:HG2	2.00	0.44
1:C:851:ARG:NH1	1:C:994:MET:SD	2.90	0.44
1:C:1041:ALA:HB2	1:C:1146:TYR:HD2	1.83	0.44
1:C:1170:ILE:HG23	1:C:1175:ILE:HG13	2.00	0.44
1:B:295:PRO:HG2	1:B:408:PRO:CA	2.48	0.43
1:B:593:VAL:CG1	1:B:875:LEU:HD21	2.47	0.43
1:B:871:VAL:HG12	1:B:872:GLY:N	2.33	0.43
1:C:740:LEU:HB3	1:C:835:TYR:HE1	1.81	0.43
1:C:807:THR:N	1:C:808:PRO:CD	2.80	0.43
1:C:841:ASP:HB3	1:C:1005:ASN:CB	2.24	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:635:ALA:O	1:B:639:THR:HG23	2.19	0.43
1:B:854:ARG:HB2	1:B:863:SER:HB3	2.00	0.43
1:C:380:GLN:CG	1:C:388:GLY:HA2	2.44	0.43
1:C:504:LEU:HB3	1:C:1264:THR:OG1	2.17	0.43
1:C:591:PHE:O	1:C:595:LEU:HG	2.19	0.43
1:C:691:ILE:HD11	1:C:710:HIS:CE1	2.53	0.43
1:C:1034:GLU:OE2	1:C:1034:GLU:CA	2.66	0.43
1:B:522:ILE:HA	1:B:525:ILE:CG1	2.48	0.43
1:B:848:GLY:C	1:B:868:ASN:HB2	2.39	0.43
1:B:1111:PRO:HG2	1:B:1114:LEU:CB	2.48	0.43
1:B:1230:GLU:CB	1:B:1250:VAL:HG21	2.48	0.43
1:C:1009:PHE:N	1:C:1009:PHE:CD1	2.86	0.43
1:C:1049:ARG:HB2	1:C:1198:TYR:CD2	2.53	0.43
1:B:419:ILE:HD11	1:B:1214:SER:HB3	1.99	0.43
1:B:1041:ALA:HB3	1:B:1144:TYR:O	2.18	0.43
1:B:1145:PRO:CG	1:B:1177:SER:HA	2.36	0.43
1:C:492:THR:O	1:C:1272:MET:N	2.49	0.43
1:C:622:SER:HB3	1:C:625:ASN:HD22	1.83	0.43
1:C:729:SER:HB3	1:C:736:PRO:HB2	2.00	0.43
1:C:839:ASP:CG	1:C:842:ARG:HB2	2.39	0.43
1:C:924:THR:HG23	1:C:984:LEU:HD22	1.94	0.43
1:C:1067:PHE:CD1	1:C:1107:ASN:HB3	2.54	0.43
1:B:440:MET:HG3	1:C:864:LEU:CG	2.48	0.43
1:B:520:ILE:HD13	1:B:523:MET:SD	2.58	0.43
1:B:578:LEU:HD23	1:B:581:LEU:CD1	2.48	0.43
1:B:825:MET:O	1:B:914:VAL:HG21	2.18	0.43
1:B:855:ASP:HA	1:B:994:MET:HE2	2.00	0.43
1:C:851:ARG:HB3	1:C:994:MET:HB3	1.99	0.43
1:B:246:GLN:HE21	1:B:246:GLN:HB2	1.53	0.43
1:B:391:LEU:HG	1:B:407:TYR:CE1	2.53	0.43
1:B:600:TYR:CD2	1:B:830:PRO:HA	2.52	0.43
1:B:600:TYR:CE1	1:B:830:PRO:HB3	2.52	0.43
1:B:603:VAL:HG12	1:B:871:VAL:CG1	2.47	0.43
1:B:652:LEU:HD21	1:B:771:LEU:HD21	2.01	0.43
1:B:807:THR:N	1:B:808:PRO:CD	2.81	0.43
1:B:846:MET:SD	1:B:846:MET:C	2.96	0.43
1:B:951:TRP:CE3	1:B:1042:ARG:HG3	2.54	0.43
1:B:1034:GLU:O	1:B:1038:PHE:HD1	2.02	0.43
1:B:1153:PRO:HD3	1:B:1184:ILE:H	1.84	0.43
1:C:705:TRP:CE3	1:C:771:LEU:HD22	2.53	0.43
1:C:806:MET:CE	1:C:809:MET:HE1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:828:PHE:CD1	1:C:829:PRO:HD2	2.54	0.43
1:C:1166:TRP:CG	1:C:1179:PRO:HD3	2.51	0.43
1:B:360:HIS:CE1	1:B:364:GLU:HG3	2.53	0.43
1:B:852:GLN:HG2	1:B:867:THR:CG2	2.49	0.43
1:B:926:GLU:OE2	1:B:1018:SER:HA	2.19	0.43
1:B:945:VAL:CG1	1:B:947:ARG:HE	2.31	0.43
1:B:1130:ILE:HG22	1:B:1160:TRP:HZ3	1.82	0.43
1:B:1139:ILE:HG22	1:B:1141:MET:HG2	2.01	0.43
1:B:1188:HIS:C	1:B:1221:ALA:HB2	2.39	0.43
1:B:1212:THR:OG1	1:B:1225:LYS:N	2.39	0.43
1:C:262:LEU:CD1	1:C:402:TRP:CZ3	3.00	0.43
1:C:326:PRO:HD2	1:C:329:GLU:HB2	2.01	0.43
1:C:349:ALA:HB1	1:C:354:PHE:HE2	1.82	0.43
1:C:597:GLY:HA3	1:C:604:VAL:HG11	1.99	0.43
1:C:813:GLN:HB2	1:C:814:LEU:HD22	2.01	0.43
1:C:1156:TYR:HD1	1:C:1194:PRO:HG2	1.82	0.43
1:B:265:SER:HB3	1:B:308:THR:HA	2.01	0.43
1:B:324:MET:HE3	1:B:324:MET:HB2	1.88	0.43
1:B:437:ALA:HB2	1:B:447:TRP:CE2	2.53	0.43
1:B:439:MET:HE3	1:C:990:GLY:HA3	2.00	0.43
1:B:959:ALA:CB	1:B:993:ARG:HH22	2.30	0.43
1:C:641:ASP:OD2	1:C:641:ASP:C	2.57	0.43
1:C:685:PRO:CB	1:C:688:PHE:HB3	2.49	0.43
1:C:720:ARG:HA	1:C:737:GLU:O	2.19	0.43
1:C:824:PRO:HG2	1:C:825:MET:HE3	2.00	0.43
1:C:937:GLN:O	1:C:947:ARG:NE	2.48	0.43
1:C:1129:TRP:O	1:C:1133:GLY:N	2.52	0.43
1:B:261:GLY:HA3	1:B:313:ASN:N	2.34	0.43
1:B:466:MET:HE1	1:B:1262:TYR:HE2	1.82	0.43
1:B:485:GLU:O	1:B:488:GLN:NE2	2.52	0.43
1:B:1108:TRP:CD2	1:B:1135:LEU:HD11	2.54	0.43
1:C:274:ALA:C	1:C:1215:SER:HB3	2.39	0.43
1:C:305:VAL:HG13	1:C:324:MET:O	2.19	0.43
1:C:406:MET:O	1:C:1254:TYR:HE1	2.01	0.43
1:C:500:SER:HB3	1:C:503:ARG:CG	2.49	0.43
1:C:613:TYR:CD1	1:C:613:TYR:N	2.87	0.43
1:C:687:CYS:SG	1:C:688:PHE:N	2.92	0.43
1:C:1149:HIS:O	1:C:1181:MET:HA	2.19	0.43
1:B:560:MET:HE1	1:B:577:ILE:HG21	2.01	0.43
1:B:702:LEU:HA	1:B:702:LEU:HD12	1.80	0.43
1:B:769:CYS:HA	1:B:772:MET:CE	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:920:ARG:CG	1:B:920:ARG:NH1	2.81	0.43
1:B:922:MET:HE1	1:B:926:GLU:HB2	2.00	0.43
1:B:1059:LEU:HD13	1:B:1205:ASN:C	2.39	0.43
1:B:1092:PRO:HG3	1:B:1129:TRP:CZ2	2.54	0.43
1:C:480:GLU:HA	1:C:493:VAL:HG21	2.01	0.43
1:C:600:TYR:HE2	1:C:828:PHE:CD2	2.36	0.43
1:C:930:THR:HG22	1:C:934:LEU:HD22	2.01	0.43
1:C:1031:PHE:HA	1:C:1038:PHE:CD1	2.53	0.43
1:C:1052:SER:HB3	1:C:1056:TRP:CZ2	2.54	0.43
1:C:1069:ARG:NH1	1:C:1138:ARG:HD3	2.33	0.43
1:C:548:PRO:HB3	1:C:900:TRP:CD2	2.54	0.42
1:C:778:ASN:OD1	1:C:780:ARG:HB3	2.19	0.42
1:C:994:MET:O	1:C:994:MET:CG	2.66	0.42
1:B:350:ASN:ND2	1:B:1173:THR:O	2.52	0.42
1:B:627:TRP:HH2	1:B:796:THR:CG2	2.32	0.42
1:B:669:TYR:HB3	1:B:678:PHE:CE2	2.53	0.42
1:B:941:THR:HG22	1:B:993:ARG:CB	2.49	0.42
1:B:1229:VAL:HG13	1:B:1236:THR:CB	2.49	0.42
1:C:235:VAL:CG2	1:C:239:VAL:HG11	2.42	0.42
1:C:375:HIS:HB2	1:C:1260:TYR:C	2.39	0.42
1:B:446:GLU:OE1	1:B:446:GLU:HA	2.19	0.42
1:B:477:THR:HB	1:B:481:TRP:CH2	2.54	0.42
1:B:891:TYR:HB3	1:B:892:PRO:HD2	2.02	0.42
1:B:991:ASP:O	1:B:995:THR:HG23	2.19	0.42
1:C:293:GLN:O	1:C:411:MET:HG3	2.18	0.42
1:C:302:SER:O	1:C:1210:PHE:N	2.50	0.42
1:C:307:HIS:CB	1:C:310:TRP:HB3	2.49	0.42
1:C:602:GLY:N	1:C:831:PHE:O	2.51	0.42
1:C:650:MET:O	1:C:654:ASN:ND2	2.52	0.42
1:C:685:PRO:O	1:C:689:MET:N	2.46	0.42
1:C:754:THR:CG2	1:C:806:MET:HE3	2.50	0.42
1:C:1044:ASP:HB3	1:C:1141:MET:HG2	2.01	0.42
1:C:1094:ILE:HG23	1:C:1094:ILE:O	2.19	0.42
1:B:375:HIS:HB3	1:B:1261:ALA:CB	2.27	0.42
1:B:385:PHE:HB3	1:B:410:ARG:CA	2.45	0.42
1:B:552:ASP:O	1:B:888:SER:HB2	2.19	0.42
1:B:644:ALA:HB3	1:B:645:PRO:HD3	2.00	0.42
1:B:646:VAL:HG21	1:B:684:TRP:CG	2.55	0.42
1:B:652:LEU:HA	1:B:655:MET:SD	2.59	0.42
1:B:1048:GLY:O	1:B:1198:TYR:HA	2.19	0.42
1:B:1059:LEU:H	1:B:1059:LEU:HG	1.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1144:TYR:OH	1:B:1201:SER:HB2	2.19	0.42
1:B:1154:ARG:HD3	1:B:1190:ILE:HD12	2.01	0.42
1:C:375:HIS:CB	1:C:1261:ALA:HB2	2.30	0.42
1:C:466:MET:HE3	1:C:466:MET:HA	2.01	0.42
1:C:515:GLN:HG3	1:C:730:ALA:CB	2.48	0.42
1:C:705:TRP:CE2	1:C:709:ILE:HD11	2.53	0.42
1:C:957:ALA:HB1	1:C:961:THR:CG2	2.49	0.42
1:C:1002:GLN:HA	1:C:1008:THR:HA	2.01	0.42
1:C:1005:ASN:OD1	1:C:1006:GLY:N	2.52	0.42
1:B:400:GLU:H	1:B:400:GLU:CD	2.22	0.42
1:B:464:ARG:NH1	1:B:1023:CYS:HA	2.35	0.42
1:B:641:ASP:HB3	1:B:644:ALA:HB2	2.01	0.42
1:B:922:MET:CE	1:B:922:MET:O	2.67	0.42
1:B:1267:ILE:O	1:B:1271:VAL:HG23	2.19	0.42
1:C:313:ASN:C	1:C:313:ASN:OD1	2.57	0.42
1:C:418:LYS:NZ	1:C:1224:ASP:OD1	2.46	0.42
1:C:451:PHE:HA	1:C:1256:VAL:HA	2.00	0.42
1:C:495:SER:O	1:C:497:TYR:HD2	2.03	0.42
1:C:1260:TYR:N	1:C:1260:TYR:HD1	2.14	0.42
1:B:627:TRP:HA	1:B:627:TRP:HE3	1.82	0.42
1:B:968:TRP:O	1:B:972:SER:OG	2.36	0.42
1:C:320:SER:HB2	1:C:368:ASP:HB2	2.00	0.42
1:C:690:ASN:HB3	1:C:693:LEU:HG	2.00	0.42
1:C:713:TRP:CD1	1:C:838:LEU:HD21	2.55	0.42
1:C:1041:ALA:HB3	1:C:1144:TYR:CD1	2.54	0.42
1:B:984:LEU:HA	1:B:987:LEU:HG	2.02	0.42
1:B:1046:ILE:HG12	1:B:1138:ARG:HB2	2.01	0.42
1:B:1096:ASP:HB3	1:B:1100:MET:N	2.35	0.42
1:B:1096:ASP:HB2	1:B:1100:MET:O	2.19	0.42
1:C:303:ARG:CZ	1:C:1209:LEU:HB2	2.49	0.42
1:C:660:GLU:OE2	1:C:701:ILE:HB	2.20	0.42
1:B:272:VAL:HB	1:B:301:VAL:HB	2.02	0.42
1:B:276:VAL:HG13	1:B:277:PRO:CA	2.49	0.42
1:B:408:PRO:O	1:B:411:MET:HB3	2.19	0.42
1:B:438:GLN:HA	1:C:862:LEU:CB	2.46	0.42
1:B:647:LYS:HA	1:B:675:ALA:HB1	2.02	0.42
1:B:847:VAL:CG1	1:B:871:VAL:HB	2.48	0.42
1:C:221:THR:N	1:C:234:GLN:O	2.52	0.42
1:C:378:PHE:N	1:C:378:PHE:CD1	2.87	0.42
1:C:708:ILE:HA	1:C:711:ARG:HH12	1.85	0.42
1:C:1002:GLN:HB3	1:C:1008:THR:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1230:GLU:O	1:C:1233:ASN:HB2	2.19	0.42
1:C:1246:GLN:CB	1:C:1250:VAL:HB	2.46	0.42
1:B:451:PHE:CD2	1:B:1256:VAL:HG22	2.55	0.42
1:B:510:SER:OG	1:B:513:GLU:HG3	2.19	0.42
1:B:904:ALA:O	1:B:907:PRO:HG2	2.19	0.42
1:B:938:ILE:HD13	1:B:965:PHE:CD2	2.55	0.42
1:B:1033:HIS:NE2	1:B:1248:PRO:HG2	2.35	0.42
1:B:1232:TYR:O	1:B:1236:THR:HG23	2.20	0.42
1:C:327:PRO:HB3	1:C:1148:LEU:HD12	2.02	0.42
1:C:409:THR:CG2	1:C:1235:LEU:HD21	2.46	0.42
1:C:466:MET:CE	1:C:469:LEU:HB2	2.48	0.42
1:C:605:THR:O	1:C:875:LEU:N	2.52	0.42
1:C:635:ALA:CA	1:C:638:LEU:HG	2.44	0.42
1:C:701:ILE:HD13	1:C:704:GLN:NE2	2.31	0.42
1:C:937:GLN:HA	1:C:945:VAL:HG21	2.02	0.42
1:C:1001:TYR:CD1	1:C:1001:TYR:C	2.93	0.42
1:C:1212:THR:OG1	1:C:1225:LYS:N	2.37	0.42
1:B:435:ASP:OD2	1:C:859:GLN:HB2	2.20	0.42
1:B:437:ALA:N	1:B:447:TRP:O	2.41	0.42
1:B:447:TRP:HB2	1:B:1258:THR:CG2	2.50	0.42
1:B:543:LEU:HA	1:B:546:ILE:CG2	2.48	0.42
1:B:799:LYS:NZ	1:B:799:LYS:HB3	2.35	0.42
1:B:939:SER:HB3	1:B:993:ARG:HD3	2.01	0.42
1:B:1109:ILE:HD13	1:B:1138:ARG:HB3	2.02	0.42
1:B:1171:THR:HB	1:B:1174:SER:O	2.20	0.42
1:C:265:SER:O	1:C:307:HIS:N	2.44	0.42
1:C:500:SER:HB3	1:C:503:ARG:HG3	2.02	0.42
1:C:550:GLN:O	1:C:890:LYS:HG2	2.19	0.42
1:C:613:TYR:H	1:C:613:TYR:HD1	1.68	0.42
1:C:822:ILE:O	1:C:826:LEU:N	2.52	0.42
1:C:1051:GLN:HG2	1:C:1195:ALA:N	2.34	0.42
1:C:1082:ARG:NH1	1:C:1082:ARG:CG	2.74	0.42
1:C:1162:LEU:H	1:C:1162:LEU:HD13	1.78	0.42
1:C:1230:GLU:CB	1:C:1250:VAL:HG21	2.50	0.42
1:C:1241:PRO:HG2	1:C:1244:GLN:CB	2.27	0.42
1:B:333:HIS:O	1:B:337:GLN:HB2	2.20	0.41
1:B:338:LEU:HD11	1:B:968:TRP:CD2	2.55	0.41
1:B:473:ASN:HD21	1:B:504:LEU:HA	1.85	0.41
1:B:627:TRP:CH2	1:B:796:THR:CG2	3.03	0.41
1:B:707:GLU:HB3	1:B:711:ARG:NH2	2.35	0.41
1:B:1080:ASP:HB3	1:B:1095:ARG:HH21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1149:HIS:O	1:B:1182:VAL:N	2.44	0.41
1:C:988:LEU:HG	1:C:988:LEU:H	1.71	0.41
1:B:580:LYS:HD2	1:B:624:GLU:OE1	2.20	0.41
1:C:276:VAL:HG23	1:C:416:VAL:HG22	2.02	0.41
1:C:429:ASN:HD22	1:C:429:ASN:H	1.69	0.41
1:B:246:GLN:HA	1:B:249:HIS:O	2.21	0.41
1:B:406:MET:CG	1:B:452:GLU:HB2	2.50	0.41
1:B:603:VAL:HG13	1:B:831:PHE:CB	2.50	0.41
1:B:607:VAL:O	1:B:877:LEU:N	2.45	0.41
1:B:719:ILE:HG22	1:B:739:LEU:HB3	2.01	0.41
1:C:275:GLN:OE1	1:C:275:GLN:N	2.53	0.41
1:C:281:LEU:O	1:C:292:ILE:HD12	2.21	0.41
1:C:839:ASP:O	1:C:843:VAL:HG23	2.20	0.41
1:C:1106:GLY:O	1:C:1136:ARG:N	2.43	0.41
1:B:269:VAL:HG22	1:B:305:VAL:HG23	2.03	0.41
1:B:285:PHE:CD2	1:B:286:PHE:N	2.88	0.41
1:B:409:THR:HA	1:B:423:VAL:HG13	2.02	0.41
1:B:694:ILE:O	1:B:703:ARG:NH1	2.46	0.41
1:B:791:SER:HA	1:B:794:ARG:HD2	2.03	0.41
1:C:383:THR:HG22	1:C:385:PHE:CE1	2.55	0.41
1:C:427:VAL:HG22	1:C:1235:LEU:O	2.21	0.41
1:C:494:THR:N	1:C:1270:VAL:O	2.54	0.41
1:C:525:ILE:HG22	1:C:527:ASN:N	2.35	0.41
1:C:982:MET:O	1:C:982:MET:HG3	2.20	0.41
1:C:993:ARG:H	1:C:993:ARG:HG3	1.65	0.41
1:C:1044:ASP:HA	1:C:1141:MET:HB2	2.02	0.41
1:C:1158:ASN:ND2	1:C:1160:TRP:HB3	2.35	0.41
1:C:1207:ARG:NH2	1:C:1231:ARG:HH22	2.19	0.41
1:B:377:GLY:O	1:B:393:SER:N	2.40	0.41
1:B:615:LYS:C	1:B:615:LYS:HD3	2.40	0.41
1:B:985:GLU:HB2	1:B:986:PRO:HD3	2.02	0.41
1:B:1131:LYS:HD2	1:B:1160:TRP:CE2	2.55	0.41
1:B:1170:ILE:HG23	1:B:1175:ILE:CG2	2.49	0.41
1:B:1220:ILE:O	1:B:1220:ILE:CG2	2.69	0.41
1:C:413:THR:HB	1:C:420:CYS:HA	2.02	0.41
1:C:418:LYS:HE2	1:C:1226:HIS:CE1	2.55	0.41
1:C:474:ILE:HG22	1:C:505:MET:O	2.19	0.41
1:C:503:ARG:CZ	1:C:503:ARG:HB3	2.50	0.41
1:C:510:SER:OG	1:C:513:GLU:HG3	2.20	0.41
1:C:1049:ARG:HB2	1:C:1198:TYR:CE2	2.55	0.41
1:C:1175:ILE:HG12	1:C:1176:PRO:CD	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:293:GLN:NE2	1:B:401:LYS:HA	2.27	0.41
1:B:385:PHE:CB	1:B:410:ARG:HA	2.44	0.41
1:C:318:ARG:HG2	1:C:371:TYR:CZ	2.53	0.41
1:C:433:ARG:HD3	1:C:448:VAL:HG21	2.01	0.41
1:C:656:MET:CE	1:C:656:MET:CA	2.91	0.41
1:C:840:ARG:HG2	1:C:1004:TYR:CD2	2.55	0.41
1:B:1046:ILE:HG23	1:B:1067:PHE:CE2	2.55	0.41
1:B:1231:ARG:HG2	1:B:1250:VAL:CG1	2.50	0.41
1:C:503:ARG:CD	1:C:1265:PRO:HG3	2.51	0.41
1:C:822:ILE:HA	1:C:825:MET:CG	2.50	0.41
1:C:826:LEU:CD1	1:C:830:PRO:HG3	2.51	0.41
1:C:850:THR:N	1:C:998:ALA:O	2.49	0.41
1:C:998:ALA:CB	1:C:1012:ILE:HG12	2.51	0.41
1:C:1055:LEU:HD23	1:C:1055:LEU:HA	1.86	0.41
1:C:1062:PRO:HG2	1:C:1065:LEU:HD12	2.03	0.41
1:B:306:VAL:O	1:B:323:ILE:HG23	2.21	0.41
1:B:375:HIS:CB	1:B:1261:ALA:HB2	2.30	0.41
1:B:439:MET:CE	1:C:990:GLY:HA3	2.50	0.41
1:B:494:THR:HG1	1:B:1272:MET:HB2	1.86	0.41
1:B:905:ILE:HA	1:B:908:MET:HE3	2.02	0.41
1:B:1044:ASP:O	1:B:1202:THR:N	2.51	0.41
1:C:403:TYR:CD1	1:C:407:TYR:CE1	3.01	0.41
1:C:451:PHE:CD2	1:C:1256:VAL:HG13	2.55	0.41
1:C:542:LEU:HD11	1:C:908:MET:SD	2.61	0.41
1:C:654:ASN:HD22	1:C:654:ASN:N	2.18	0.41
1:C:748:ALA:HA	1:C:813:GLN:CB	2.48	0.41
1:C:757:PHE:HA	1:C:762:THR:CG2	2.51	0.41
1:C:1169:GLU:HB2	1:C:1176:PRO:HG3	2.03	0.41
1:B:278:GLN:HE21	1:B:281:LEU:HG	1.85	0.41
1:B:313:ASN:ND2	1:B:313:ASN:C	2.73	0.41
1:B:364:GLU:HA	1:B:367:LEU:HD12	2.03	0.41
1:B:475:ASN:O	1:B:478:GLU:HB2	2.21	0.41
1:B:522:ILE:CA	1:B:525:ILE:HG12	2.51	0.41
1:B:604:VAL:CG1	1:B:875:LEU:HB2	2.50	0.41
1:B:636:LEU:N	1:B:637:PRO:CD	2.84	0.41
1:B:645:PRO:HG3	1:B:713:TRP:CE2	2.55	0.41
1:B:836:VAL:O	1:B:836:VAL:HG23	2.20	0.41
1:B:843:VAL:O	1:B:1004:TYR:N	2.54	0.41
1:B:1075:HIS:HB2	1:B:1108:TRP:CD1	2.56	0.41
1:C:333:HIS:O	1:C:336:LYS:HG2	2.20	0.41
1:C:355:ARG:CZ	1:C:954:SER:HB3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:511:ASN:OD1	1:C:728:GLY:HA3	2.21	0.41
1:C:533:GLN:HB3	1:C:534:PRO:HD3	2.03	0.41
1:C:572:SER:HB3	1:C:575:SER:HB2	2.03	0.41
1:C:597:GLY:HA2	1:C:604:VAL:HG11	2.03	0.41
1:C:811:LEU:HA	1:C:815:ALA:HB3	2.03	0.41
1:C:1036:ASN:ND2	1:C:1036:ASN:O	2.52	0.41
1:C:1175:ILE:CG1	1:C:1176:PRO:CD	2.91	0.41
1:C:1193:ALA:HB1	1:C:1194:PRO:HD2	2.03	0.41
1:B:391:LEU:N	1:B:391:LEU:CD1	2.83	0.41
1:B:518:GLN:HE21	1:B:521:ARG:CZ	2.34	0.41
1:B:592:ARG:HH11	1:B:592:ARG:HG3	1.86	0.41
1:B:614:PRO:HB2	1:B:617:GLY:CA	2.50	0.41
1:B:755:LEU:CD2	1:B:804:LYS:HB3	2.51	0.41
1:B:952:ILE:HA	1:B:1143:ALA:HB2	2.01	0.41
1:B:998:ALA:HA	1:B:1011:VAL:O	2.21	0.41
1:B:1080:ASP:HB3	1:B:1095:ARG:NH2	2.35	0.41
1:C:224:ILE:HG22	1:C:1270:VAL:HG22	2.03	0.41
1:C:258:TRP:HA	1:C:372:LEU:O	2.20	0.41
1:C:277:PRO:O	1:C:278:GLN:HG3	2.20	0.41
1:C:514:ARG:NH1	1:C:728:GLY:O	2.54	0.41
1:C:1077:PHE:CD2	1:C:1094:ILE:HD13	2.56	0.41
1:C:1123:ASN:O	1:C:1127:ASP:N	2.54	0.41
1:C:1153:PRO:HG3	1:C:1183:PRO:CB	2.51	0.41
1:C:1260:TYR:HD1	1:C:1260:TYR:H	1.67	0.41
1:B:290:TYR:HE2	1:C:1121:TYR:CE1	2.39	0.40
1:B:705:TRP:O	1:B:709:ILE:HG13	2.22	0.40
1:B:1003:GLN:HB2	1:B:1005:ASN:OD1	2.21	0.40
1:B:1046:ILE:HA	1:B:1138:ARG:HA	2.04	0.40
1:B:1151:TYR:CD2	1:B:1181:MET:CG	3.02	0.40
1:B:1167:LEU:HA	1:B:1170:ILE:HD12	2.03	0.40
1:B:1244:GLN:HG2	1:B:1245:ILE:N	2.33	0.40
1:C:503:ARG:HA	1:C:1263:GLU:O	2.21	0.40
1:C:600:TYR:CD1	1:C:600:TYR:N	2.89	0.40
1:C:620:VAL:HB	1:C:781:TYR:O	2.21	0.40
1:C:684:TRP:HA	1:C:685:PRO:HD3	1.95	0.40
1:C:906:TYR:HB3	1:C:907:PRO:CD	2.51	0.40
1:C:1147:MET:HB3	1:C:1147:MET:HE2	1.93	0.40
1:C:1210:PHE:CZ	1:C:1227:ILE:HG23	2.56	0.40
1:B:281:LEU:HD13	1:B:282:ALA:N	2.36	0.40
1:B:1031:PHE:CZ	1:B:1040:ILE:HG13	2.56	0.40
1:B:1054:HIS:HB2	1:B:1056:TRP:HD1	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1059:LEU:HD23	1:B:1201:SER:HB3	2.03	0.40
1:B:1103:PRO:O	1:B:1108:TRP:HZ2	2.05	0.40
1:B:1151:TYR:O	1:B:1183:PRO:HA	2.21	0.40
1:C:492:THR:CG2	1:C:1274:VAL:HG22	2.51	0.40
1:C:643:CYS:O	1:C:647:LYS:HG3	2.21	0.40
1:C:949:LEU:O	1:C:952:ILE:HB	2.20	0.40
1:C:1120:ARG:HA	1:C:1120:ARG:HD3	1.43	0.40
1:B:409:THR:HA	1:B:423:VAL:CG1	2.51	0.40
1:B:423:VAL:O	1:B:428:ARG:NH2	2.50	0.40
1:B:528:ASN:CG	1:B:531:VAL:HG23	2.41	0.40
1:B:823:ALA:N	1:B:824:PRO:CD	2.84	0.40
1:B:905:ILE:HG23	1:B:909:TYR:CG	2.56	0.40
1:B:1170:ILE:HG12	1:B:1176:PRO:CD	2.47	0.40
1:C:325:ALA:HB1	1:C:326:PRO:HD2	2.03	0.40
1:C:636:LEU:HB2	1:C:637:PRO:HD3	2.03	0.40
1:C:779:GLN:HG2	1:C:782:GLN:HG2	2.04	0.40
1:C:1151:TYR:HB3	1:C:1181:MET:CG	2.50	0.40
1:B:284:THR:CA	1:C:1085:PHE:HB2	2.51	0.40
1:B:355:ARG:CZ	1:B:954:SER:HB3	2.51	0.40
1:B:439:MET:HG3	1:B:440:MET:N	2.36	0.40
1:B:514:ARG:NH1	1:B:727:PHE:HB3	2.37	0.40
1:B:569:GLN:HG3	1:B:571:LEU:O	2.21	0.40
1:B:755:LEU:HA	1:B:809:MET:CE	2.52	0.40
1:B:836:VAL:HG21	1:B:839:ASP:O	2.22	0.40
1:C:422:PHE:CD2	1:C:1227:ILE:HD12	2.55	0.40
1:C:448:VAL:N	1:C:1259:ARG:O	2.52	0.40
1:C:1076:ILE:HG12	1:C:1109:ILE:CB	2.44	0.40
1:C:1138:ARG:CZ	1:C:1202:THR:HG21	2.51	0.40
1:C:1212:THR:N	1:C:1225:LYS:HB3	2.37	0.40
1:B:346:VAL:HG23	1:B:347:ARG:HG2	2.03	0.40
1:B:453:THR:HA	1:B:1254:TYR:HA	2.03	0.40
1:B:458:THR:O	1:B:462:ARG:HG3	2.21	0.40
1:B:518:GLN:HE21	1:B:829:PRO:HD2	1.83	0.40
1:B:546:ILE:HD13	1:B:818:GLU:HB3	2.03	0.40
1:B:651:THR:HG22	1:B:655:MET:CE	2.51	0.40
1:B:669:TYR:HE2	1:B:678:PHE:HA	1.87	0.40
1:B:715:ASN:O	1:B:744:ASP:N	2.50	0.40
1:B:809:MET:HE3	1:B:891:TYR:CE2	2.57	0.40
1:B:983:LEU:O	1:B:984:LEU:HB2	2.21	0.40
1:C:472:MET:O	1:C:508:ARG:N	2.47	0.40
1:C:732:LEU:CG	1:C:1011:VAL:HG11	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:892:PRO:HD2	1:C:895:LEU:CD2	2.42	0.40
1:C:1046:ILE:HB	1:C:1200:ILE:CG1	2.50	0.40
1:C:1188:HIS:O	1:C:1190:ILE:HG23	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	B	1027/1059 (97%)	1012 (98%)	11 (1%)	4 (0%)	34 72
1	C	1047/1059 (99%)	1028 (98%)	17 (2%)	2 (0%)	47 81
All	All	2074/2118 (98%)	2040 (98%)	28 (1%)	6 (0%)	44 76

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	414	PRO
1	C	276	VAL
1	B	286	PHE
1	B	439	MET
1	B	502	ASN
1	C	1092	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	B	911/938 (97%)	810 (89%)	101 (11%)	6 22
1	C	930/938 (99%)	823 (88%)	107 (12%)	5 21
All	All	1841/1876 (98%)	1633 (89%)	208 (11%)	9 21

All (208) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	246	GLN
1	B	249	HIS
1	B	251	ASP
1	B	254	ARG
1	B	276	VAL
1	B	278	GLN
1	B	281	LEU
1	B	283	TYR
1	B	285	PHE
1	B	286	PHE
1	B	296	PHE
1	B	302	SER
1	B	313	ASN
1	B	324	MET
1	B	332	ILE
1	B	336	LYS
1	B	340	ASN
1	B	341	THR
1	B	353	MET
1	B	374	ARG
1	B	386	THR
1	B	391	LEU
1	B	406	MET
1	B	413	THR
1	B	414	PRO
1	B	415	ASN
1	B	439	MET
1	B	441	ASN
1	B	455	ASP
1	B	477	THR
1	B	511	ASN
1	B	524	ASN
1	B	538	ASP
1	B	540	SER
1	B	554	THR

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Mol	Chain	Res	Type
1	B	580	LYS
1	B	601	ASN
1	B	615	LYS
1	B	624	GLU
1	B	636	LEU
1	B	652	LEU
1	B	664	MET
1	B	673	ARG
1	B	674	ARG
1	B	682	HIS
1	B	686	ARG
1	B	729	SER
1	B	745	HIS
1	B	767	ARG
1	B	770	GLU
1	B	779	GLN
1	B	786	THR
1	B	793	MET
1	B	814	LEU
1	B	825	MET
1	B	826	LEU
1	B	840	ARG
1	B	851	ARG
1	B	880	ARG
1	B	915	PHE
1	B	920	ARG
1	B	922	MET
1	B	926	GLU
1	B	939	SER
1	B	942	GLN
1	B	943	TYR
1	B	947	ARG
1	B	958	SER
1	B	972	SER
1	B	973	MET
1	B	981	ASP
1	B	982	MET
1	B	989	SER
1	B	1000	GLN
1	B	1032	ASN
1	B	1064	ASP
1	B	1067	PHE

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Mol	Chain	Res	Type
1	B	1080	ASP
1	B	1085	PHE
1	B	1093	MET
1	B	1095	ARG
1	B	1097	GLU
1	B	1104	PHE
1	B	1120	ARG
1	B	1158	ASN
1	B	1162	LEU
1	B	1175	ILE
1	B	1182	VAL
1	B	1190	ILE
1	B	1201	SER
1	B	1206	ASP
1	B	1214	SER
1	B	1215	SER
1	B	1230	GLU
1	B	1231	ARG
1	B	1243	THR
1	B	1244	GLN
1	B	1249	GLU
1	B	1252	ASP
1	B	1260	TYR
1	B	1267	ILE
1	C	217	GLN
1	C	221	THR
1	C	229	ASN
1	C	241	ASN
1	C	251	ASP
1	C	252	THR
1	C	254	ARG
1	C	257	THR
1	C	263	CYS
1	C	266	PHE
1	C	296	PHE
1	C	301	VAL
1	C	302	SER
1	C	331	ASN
1	C	347	ARG
1	C	357	ASN
1	C	359	LEU
1	C	376	THR

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Mol	Chain	Res	Type
1	C	378	PHE
1	C	385	PHE
1	C	392	ARG
1	C	394	LEU
1	C	409	THR
1	C	411	MET
1	C	429	ASN
1	C	431	VAL
1	C	439	MET
1	C	455	ASP
1	C	475	ASN
1	C	477	THR
1	C	485	GLU
1	C	490	TYR
1	C	491	VAL
1	C	495	SER
1	C	503	ARG
1	C	508	ARG
1	C	527	ASN
1	C	528	ASN
1	C	549	LEU
1	C	580	LYS
1	C	601	ASN
1	C	613	TYR
1	C	615	LYS
1	C	620	VAL
1	C	624	GLU
1	C	662	ILE
1	C	665	ASP
1	C	667	GLN
1	C	680	THR
1	C	688	PHE
1	C	689	MET
1	C	727	PHE
1	C	751	THR
1	C	759	ASN
1	C	761	LEU
1	C	763	ASN
1	C	765	ARG
1	C	777	ASP
1	C	780	ARG
1	C	782	GLN

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Mol	Chain	Res	Type
1	C	792	SER
1	C	793	MET
1	C	814	LEU
1	C	859	GLN
1	C	868	ASN
1	C	870	THR
1	C	903	ASP
1	C	916	SER
1	C	935	VAL
1	C	942	GLN
1	C	946	ASP
1	C	948	TYR
1	C	956	ARG
1	C	968	TRP
1	C	988	LEU
1	C	993	ARG
1	C	1002	GLN
1	C	1007	ARG
1	C	1019	VAL
1	C	1029	GLU
1	C	1032	ASN
1	C	1036	ASN
1	C	1044	ASP
1	C	1066	VAL
1	C	1082	ARG
1	C	1100	MET
1	C	1101	MET
1	C	1121	TYR
1	C	1126	PHE
1	C	1135	LEU
1	C	1141	MET
1	C	1151	TYR
1	C	1158	ASN
1	C	1162	LEU
1	C	1185	SER
1	C	1198	TYR
1	C	1200	ILE
1	C	1204	TYR
1	C	1206	ASP
1	C	1224	ASP
1	C	1230	GLU
1	C	1254	TYR

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Mol	Chain	Res	Type
1	C	1255	ASN
1	C	1256	VAL
1	C	1259	ARG
1	C	1260	TYR
1	C	1272	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (61) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	241	ASN
1	B	246	GLN
1	B	278	GLN
1	B	293	GLN
1	B	313	ASN
1	B	340	ASN
1	B	357	ASN
1	B	360	HIS
1	B	375	HIS
1	B	415	ASN
1	B	421	ASN
1	B	502	ASN
1	B	518	GLN
1	B	524	ASN
1	B	527	ASN
1	B	537	GLN
1	B	601	ASN
1	B	654	ASN
1	B	704	GLN
1	B	718	GLN
1	B	731	ASN
1	B	745	HIS
1	B	774	ASN
1	B	778	ASN
1	B	782	GLN
1	B	813	GLN
1	B	917	ASN
1	B	996	GLN
1	B	1000	GLN
1	B	1032	ASN
1	B	1116	GLN
1	B	1149	HIS
1	B	1188	HIS

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Mol	Chain	Res	Type
1	B	1205	ASN
1	B	1213	ASN
1	B	1226	HIS
1	C	229	ASN
1	C	380	GLN
1	C	390	ASN
1	C	429	ASN
1	C	438	GLN
1	C	473	ASN
1	C	518	GLN
1	C	528	ASN
1	C	544	GLN
1	C	625	ASN
1	C	654	ASN
1	C	682	HIS
1	C	704	GLN
1	C	731	ASN
1	C	763	ASN
1	C	774	ASN
1	C	970	ASN
1	C	1002	GLN
1	C	1051	GLN
1	C	1075	HIS
1	C	1116	GLN
1	C	1125	GLN
1	C	1149	HIS
1	C	1158	ASN
1	C	1205	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

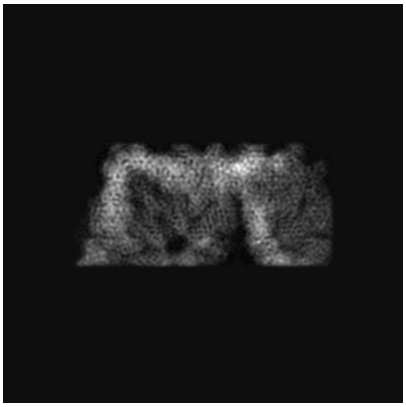
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-22165. These allow visual inspection of the internal detail of the map and identification of artifacts.

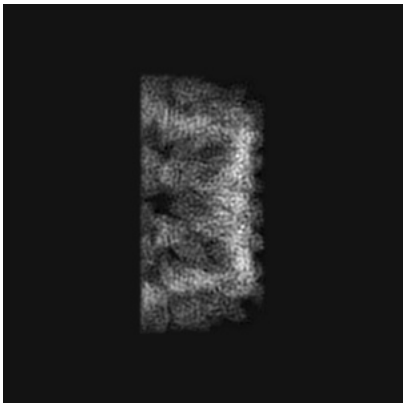
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

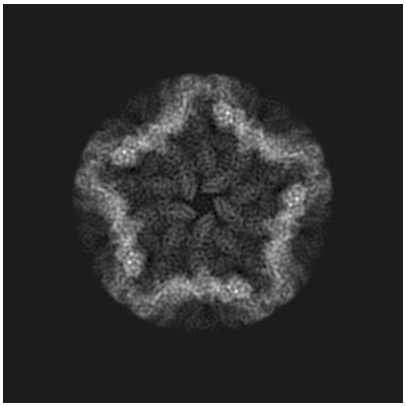
6.1.1 Primary map



X



Y



Z

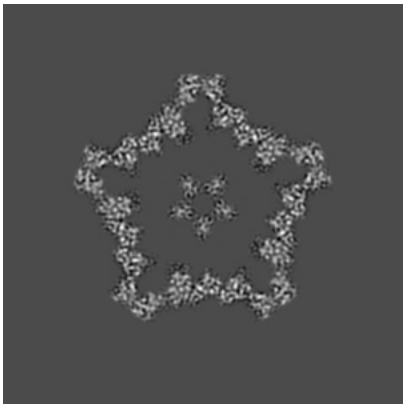
The images above show the map projected in three orthogonal directions.

6.2 Central slices

6.2.1 Primary map

X Index: 193

Y Index: 193

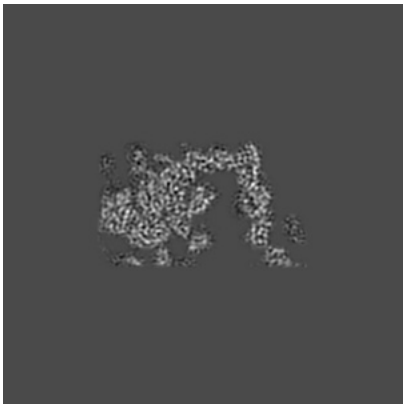


Z Index: 193

The images above show central slices of the map in three orthogonal directions.

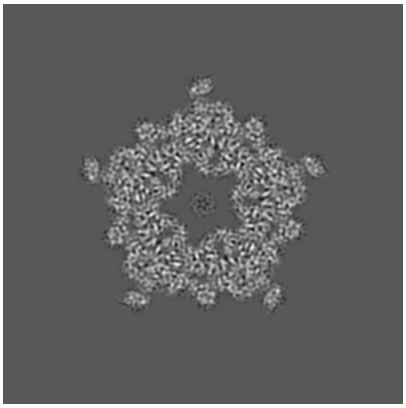
6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 117

Y Index: 112

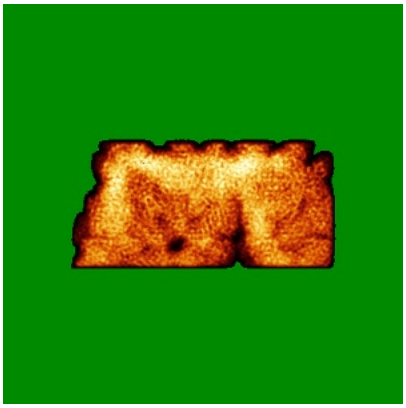


Z Index: 230

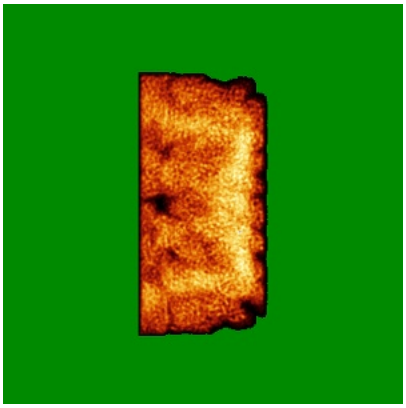
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

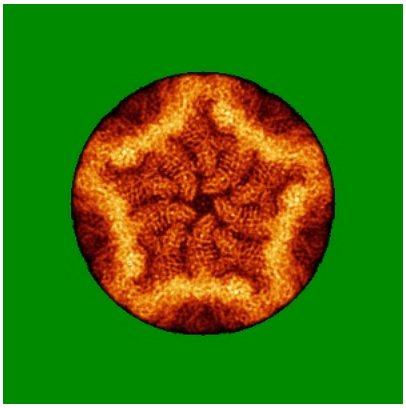
6.4.1 Primary map



X



Y

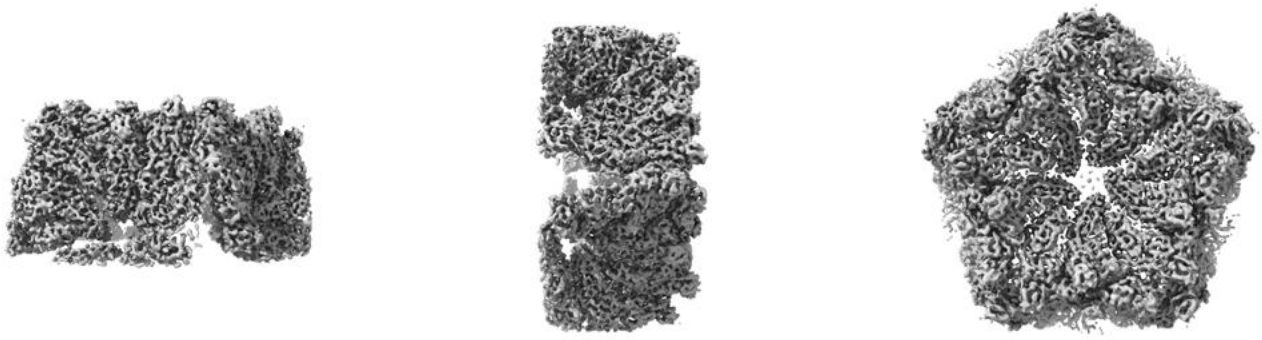


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 3.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

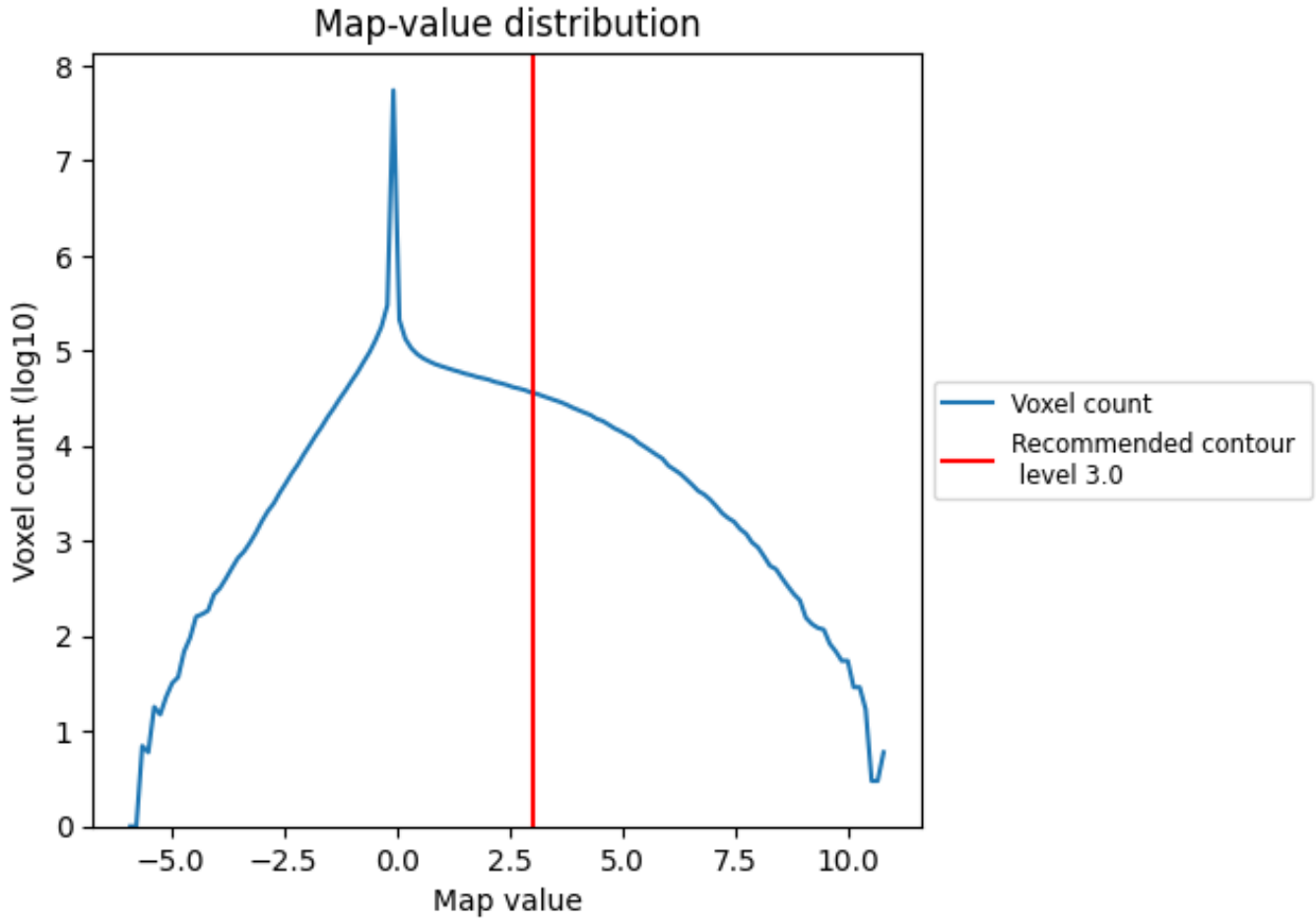
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

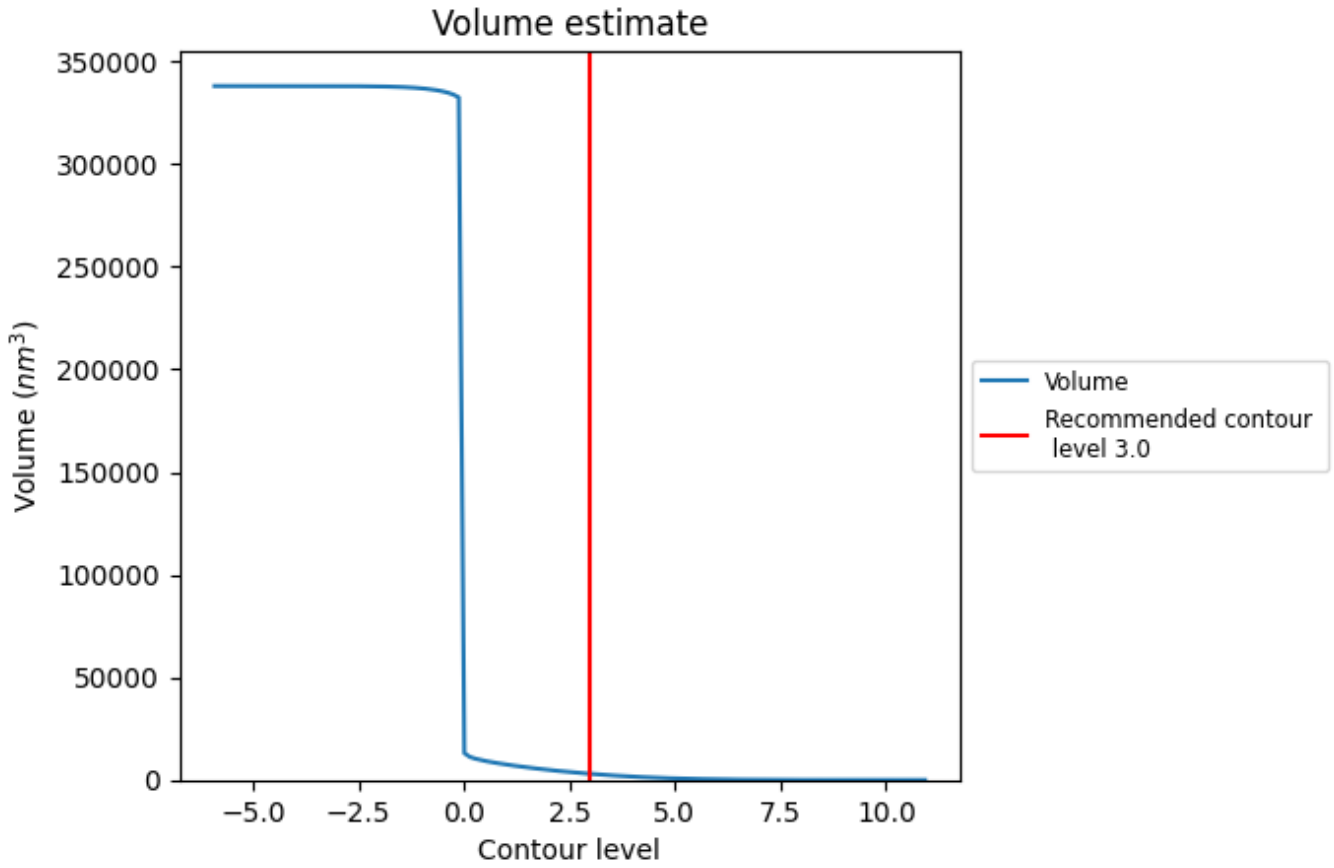
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

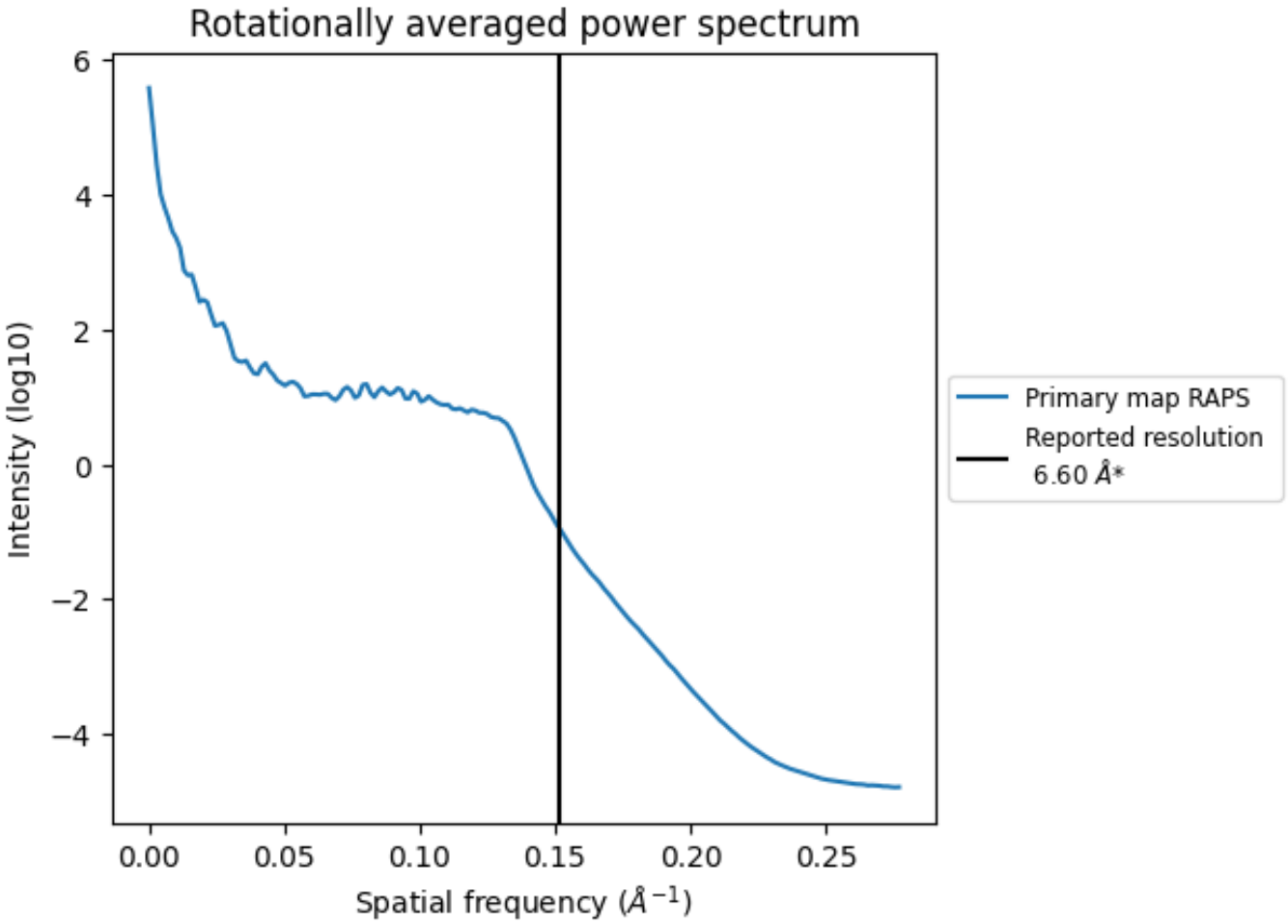
7.2 Volume estimate



The volume at the recommended contour level is 2987 nm^3; this corresponds to an approximate mass of 2698 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.152 Å^{-1}

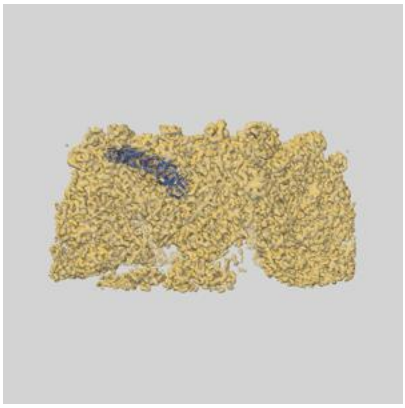
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

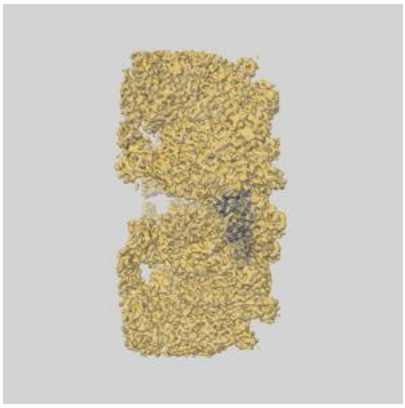
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-22165 and PDB model 6XF7. Per-residue inclusion information can be found in section 3 on page 4.

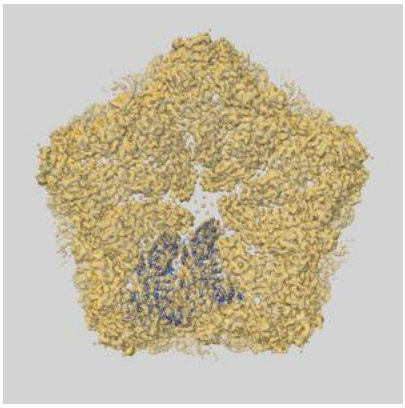
9.1 Map-model overlay



X



Y



Z

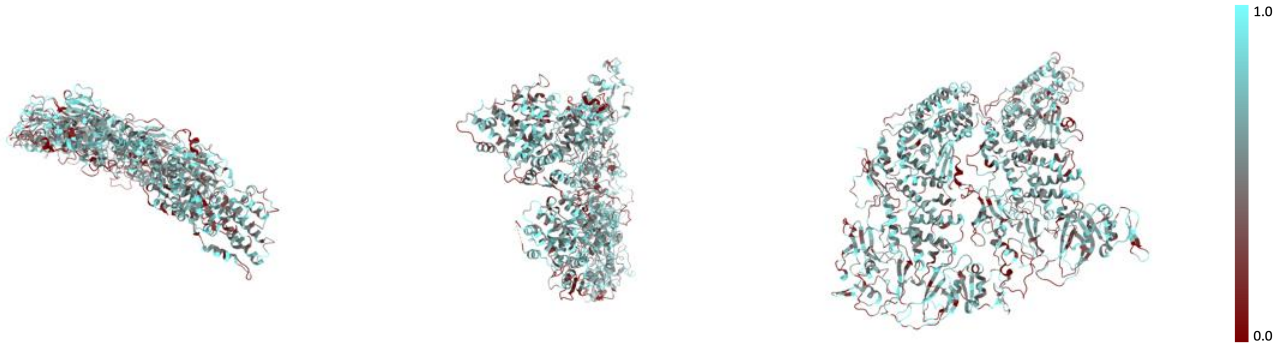
The images above show the 3D surface view of the map at the recommended contour level 3.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model (i)

X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

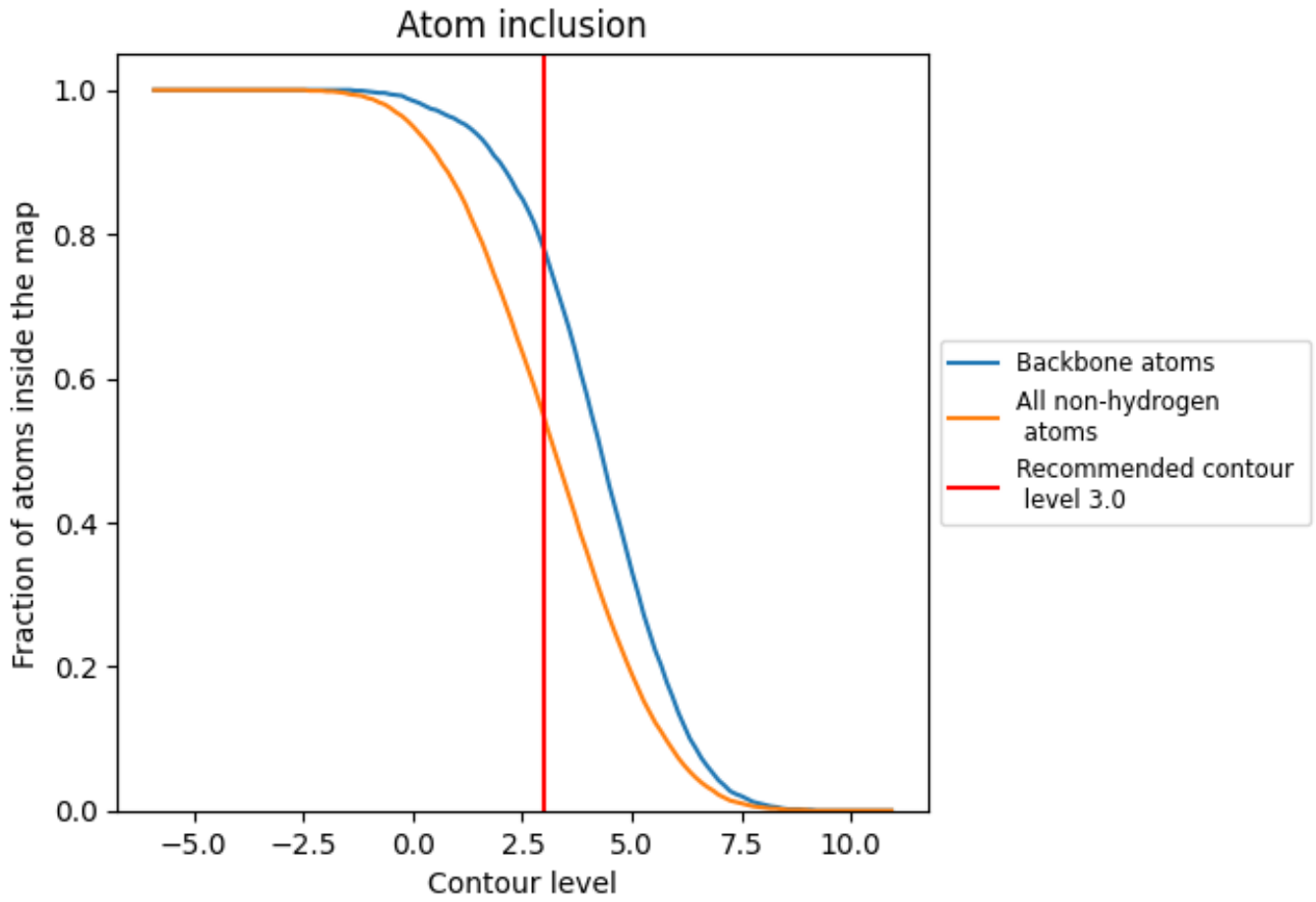
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (3.0).

9.4 Atom inclusion (i)



At the recommended contour level, 78% of all backbone atoms, 55% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (3.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5450	0.1500
B	0.5390	0.1500
C	0.5500	0.1500