Full wwPDB EM Validation Report ⓘ

Nov 29, 2022 – 05:29 PM JST

PDB ID	:	7WOT
EMDB ID	:	EMD-32658
Title	:	Cryo-EM structure of the inner ring monomer of the Saccharomyces cerevisiae nuclear pore complex
Authors	:	Li, Z.Q.; Chen, S.J.B.; Zhao, L.; Sui, S.F.
Deposited on	:	2022-01-22
Resolution	:	3.73 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:

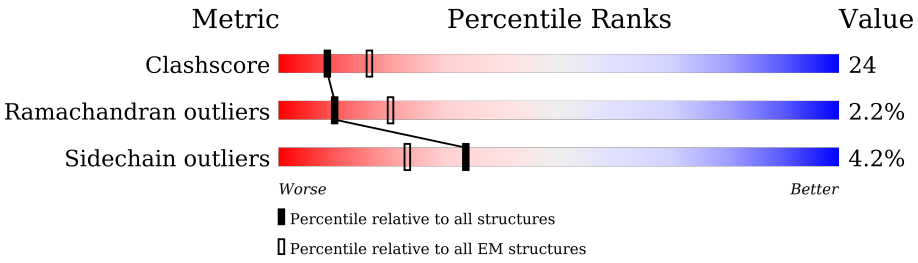
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance

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

The reported resolution of this entry is 3.73 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	A	839	78% 54% 31% • 13%
1	M	839	79% 53% 31% • 13%
1	N	839	29% 51% 32% 5% • 11%
1	Z	839	29% 51% 32% 5% • 11%
2	C	1391	95% 88% 6% • 5%
2	O	1391	95% 88% 6% • 5%
3	D	1502	70% 66% 26% 7%
3	P	1502	70% 66% 26% 7%

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Mol	Chain	Length	Quality of chain
4	E	1655	21% 67% 25% 6%
4	Q	1655	21% 68% 24% 6%
5	F	1683	23% 51% 36% 7%
5	R	1683	22% 51% 37% 8%
6	G	472	20% 30% 12% 58%
6	J	472	24% 17% 21% 59%
6	S	472	20% 31% 11% 58%
6	V	472	24% 16% 21% 59%
7	H	541	20% 29% 14% 55%
7	K	541	33% 18% 23% 53%
7	T	541	20% 28% 15% 55%
7	W	541	31% 19% 22% 53%
8	I	823	7% 13% 7% 77%
8	L	823	14% 12% 10% 77%
8	U	823	7% 13% 7% 77%
8	X	823	14% 12% 10% 77%

2 Entry composition

There are 8 unique types of molecules in this entry. The entry contains 133827 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 Nucleoporin NIC96.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	732	Total	C	N	O	S	0	0
			5720	3628	975	1101	16		
1	M	729	Total	C	N	O	S	0	0
			5697	3616	972	1093	16		
1	N	746	Total	C	N	O	S	0	0
			5766	3656	976	1119	15		
1	Z	746	Total	C	N	O	S	0	0
			5767	3658	976	1118	15		

- Molecule 2 is a protein called Nucleoporin NUP157.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	1325	Total	C	N	O	S	0	0
			10452	6664	1736	2018	34		
2	O	1325	Total	C	N	O	S	0	0
			10452	6664	1736	2018	34		

- Molecule 3 is a protein called Nucleoporin NUP170.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	1398	Total	C	N	O	S	0	0
			10966	7012	1811	2111	32		
3	P	1398	Total	C	N	O	S	0	0
			10956	7005	1811	2108	32		

- Molecule 4 is a protein called Nucleoporin NUP188.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	E	1552	Total	C	N	O	S	0	0
			12362	8017	1981	2337	27		
4	Q	1552	Total	C	N	O	S	0	0
			12362	8017	1981	2337	27		

- Molecule 5 is a protein called Nucleoporin NUP192.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	F	1622	Total	C	N	O	S	0	0
			12239	7813	2031	2364	31		
5	R	1622	Total	C	N	O	S	0	0
			12239	7813	2031	2364	31		

- Molecule 6 is a protein called Nucleoporin NUP49/NSP49.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	G	200	Total	C	N	O	S	0	0
			1533	973	251	307	2		
6	J	195	Total	C	N	O	S	0	0
			1492	938	251	302	1		
6	S	200	Total	C	N	O	S	0	0
			1529	970	250	307	2		
6	V	195	Total	C	N	O	S	0	0
			1492	938	251	302	1		

- Molecule 7 is a protein called Nucleoporin NUP57.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	246	Total	C	N	O	S	0	0
			1811	1128	332	348	3		
7	K	254	Total	C	N	O	S	0	0
			1808	1126	334	345	3		
7	T	246	Total	C	N	O	S	0	0
			1811	1128	332	348	3		
7	W	254	Total	C	N	O	S	0	0
			1805	1123	334	345	3		

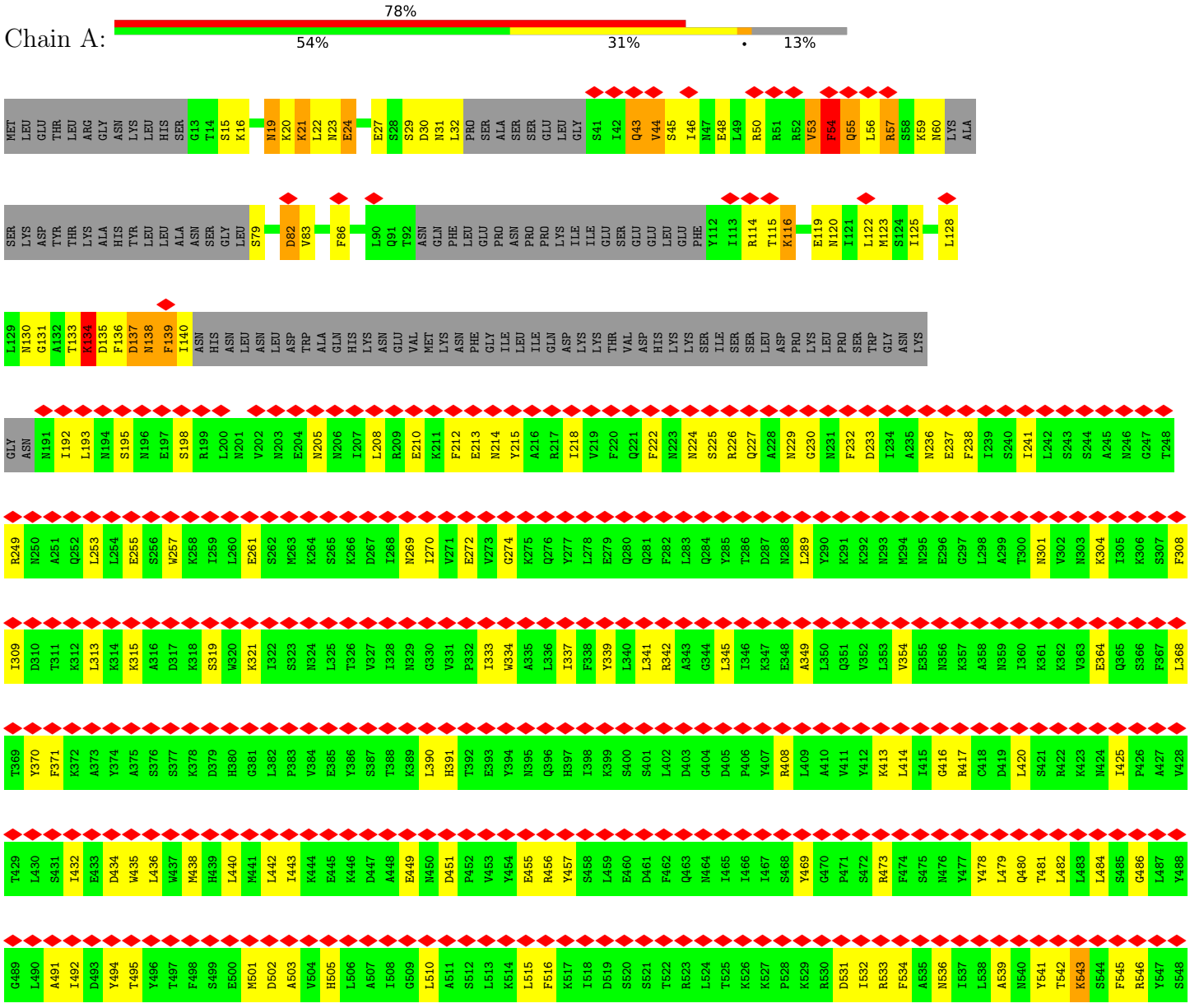
- Molecule 8 is a protein called Nucleoporin NSP1.

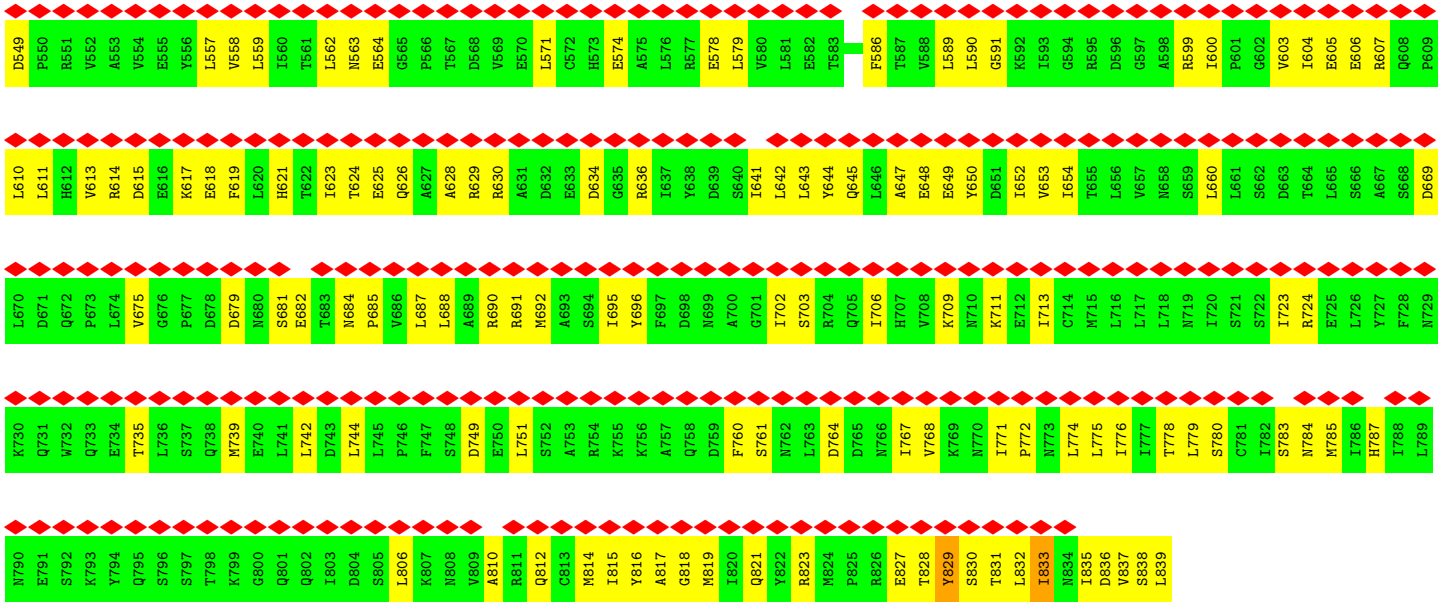
Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	187	Total	C	N	O	S	0	0
			1418	862	244	311	1		
8	L	187	Total	C	N	O	S	0	0
			1366	830	240	295	1		
8	U	187	Total	C	N	O	S	0	0
			1418	862	244	311	1		
8	X	187	Total	C	N	O	S	0	0
			1366	830	240	295	1		

3 Residue-property plots (i)

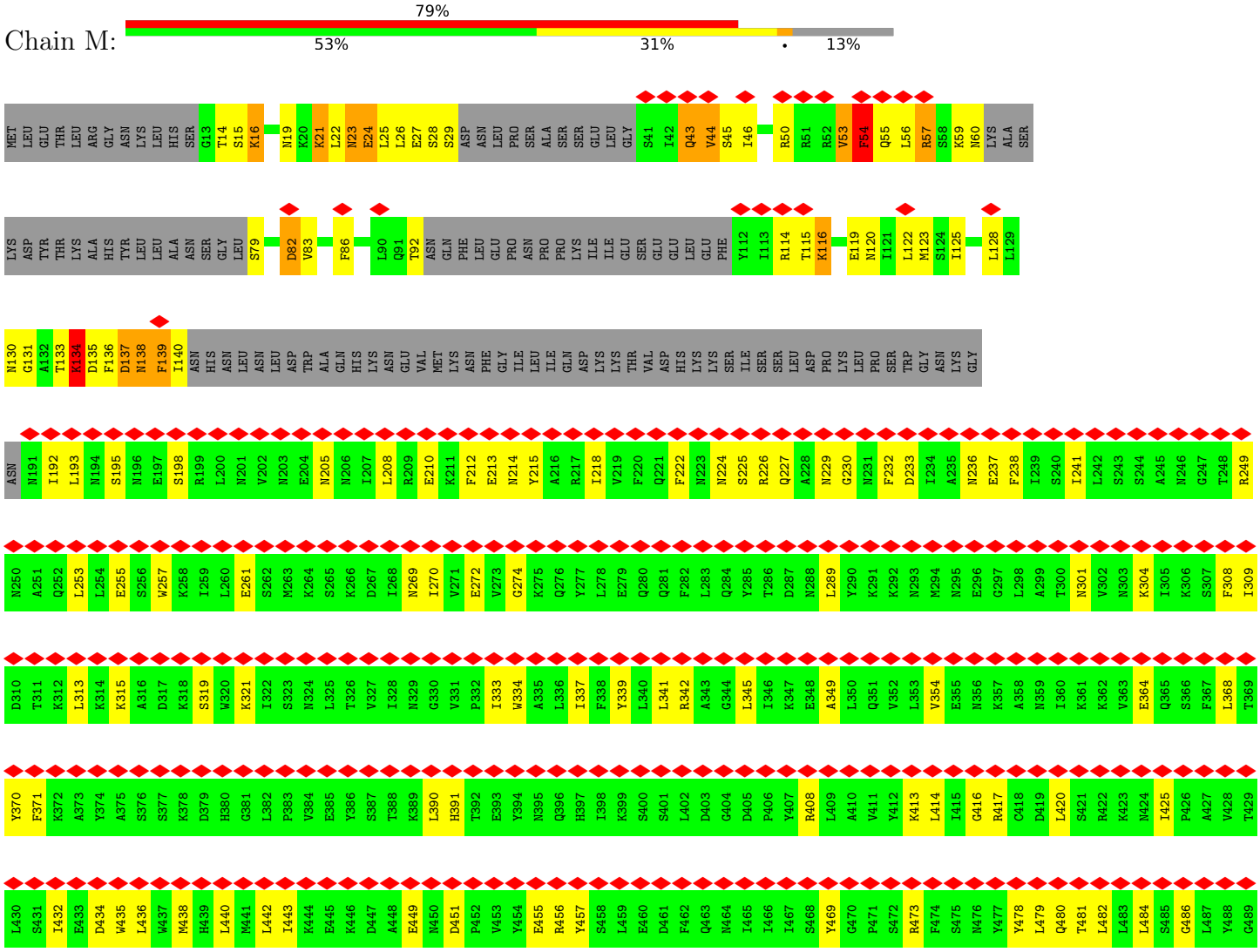
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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.

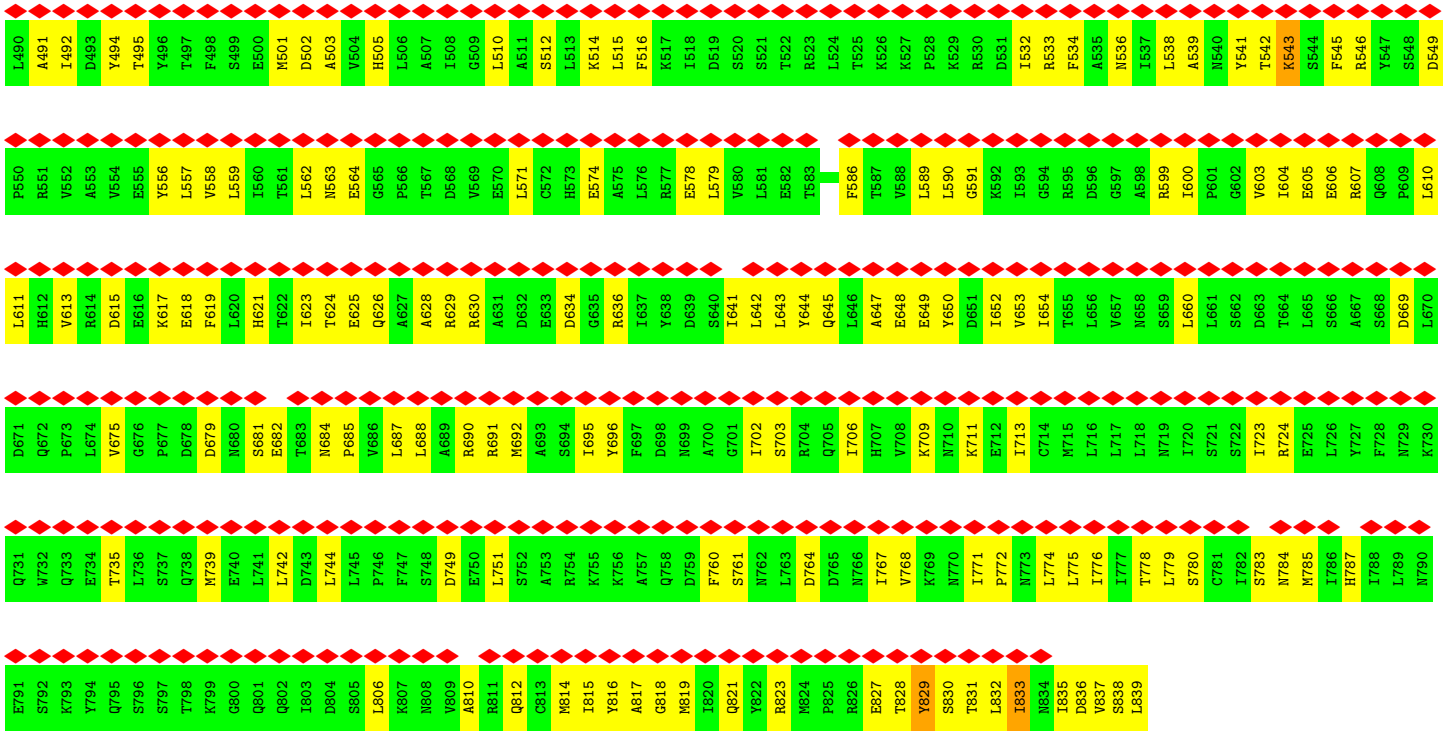
- Molecule 1: Nucleoporin NIC96



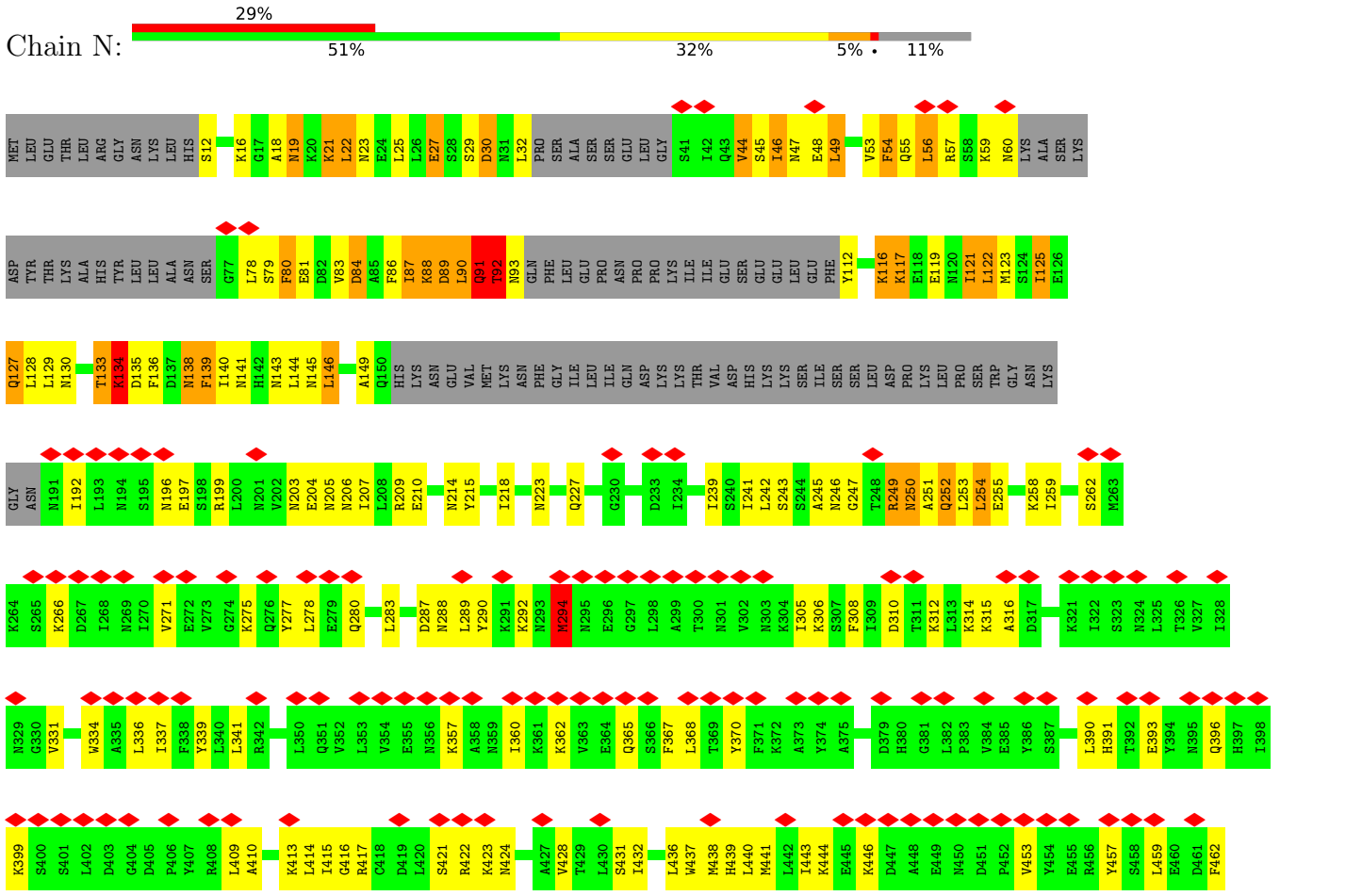


• Molecule 1: Nucleoporin NIC96



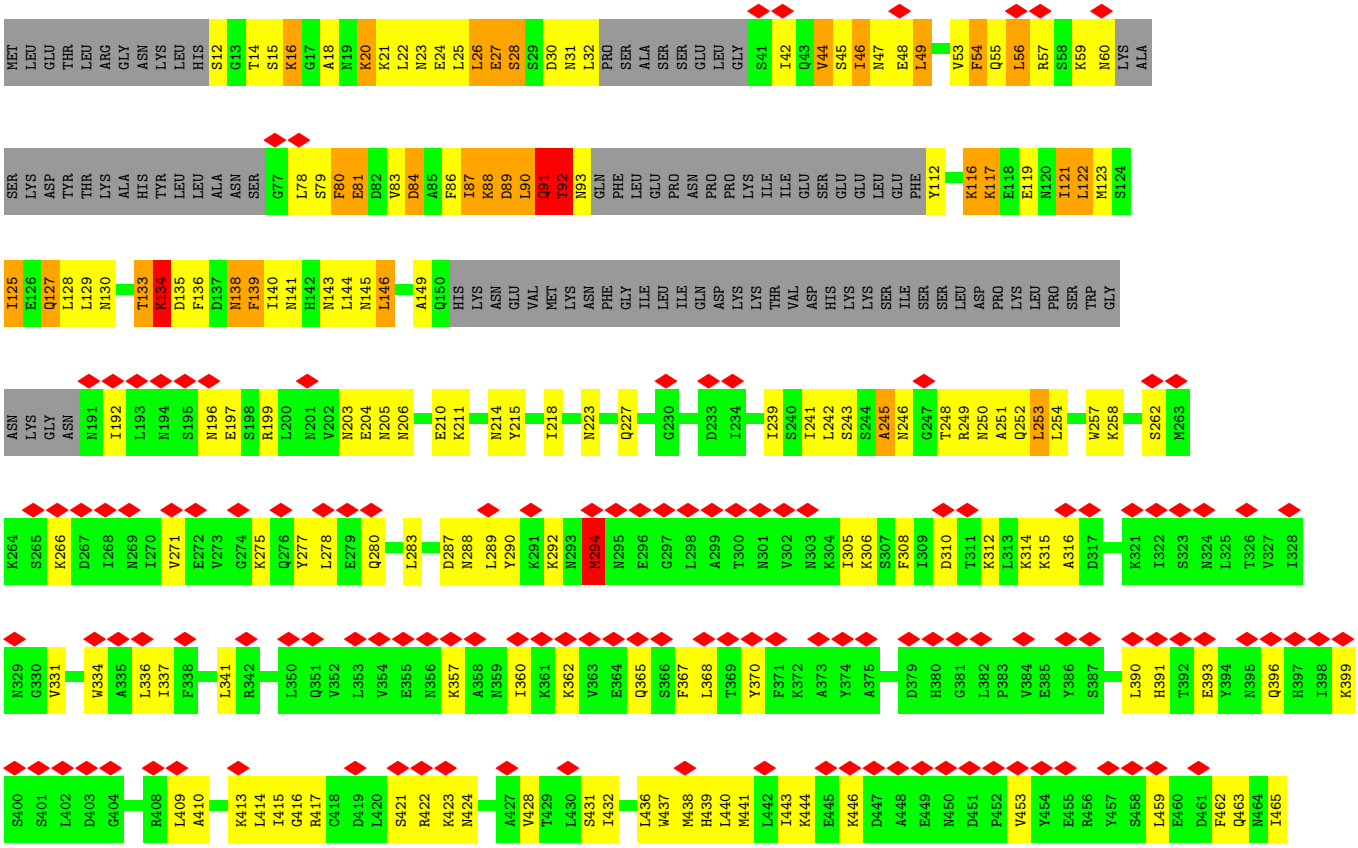


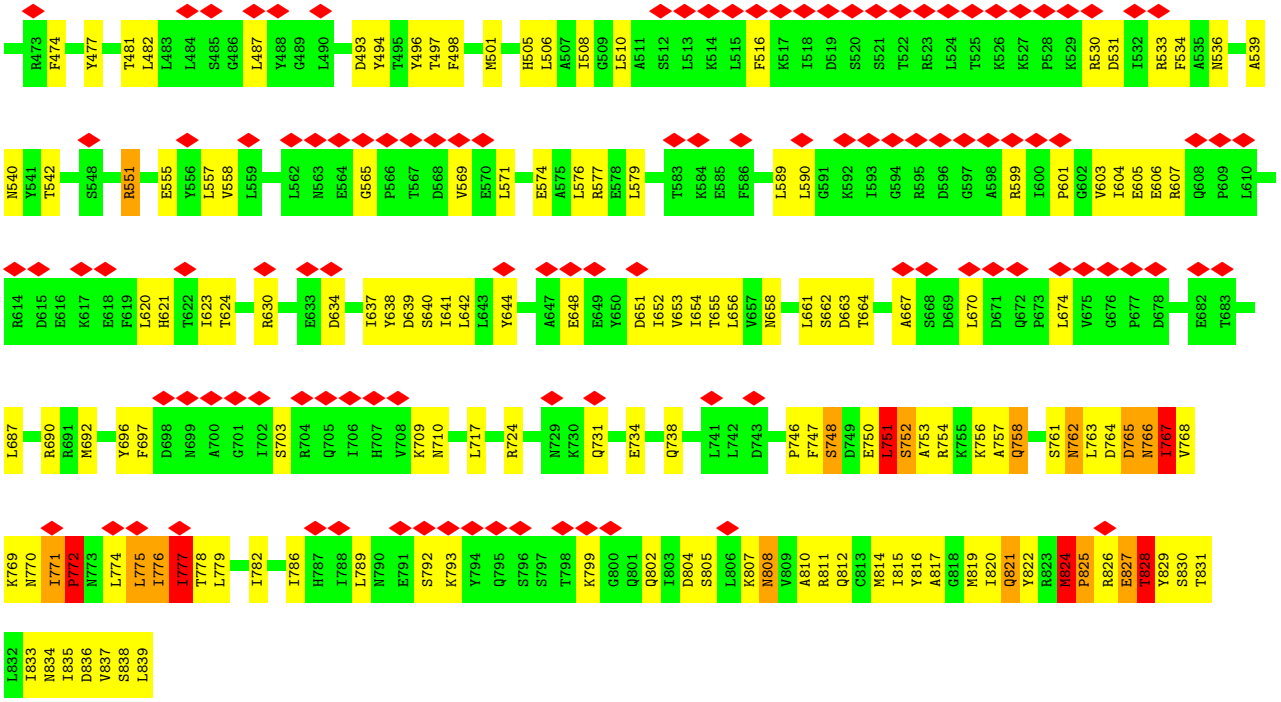
- Molecule 1: Nucleoporin NIC96



• Molecule 1: Nucleoporin NIC96

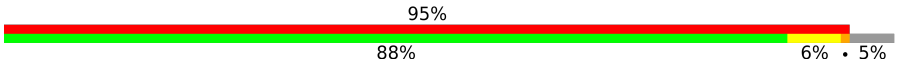
Chain Z:

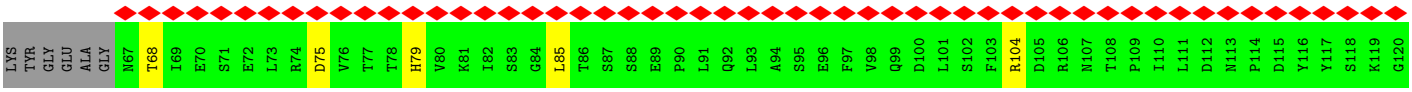


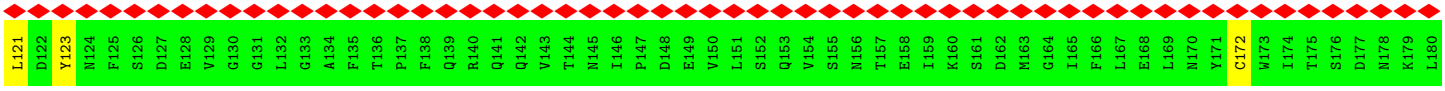


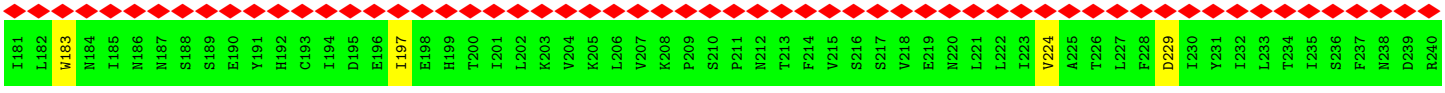
• Molecule 2: Nucleoporin NUP157

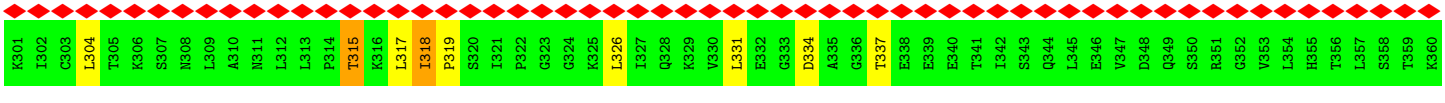
Chain C:

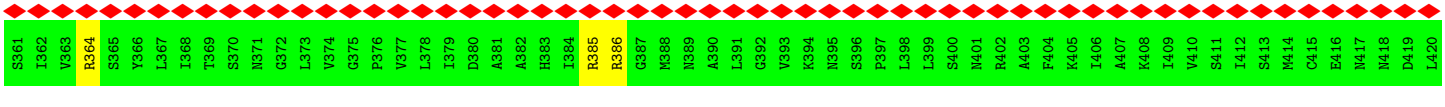


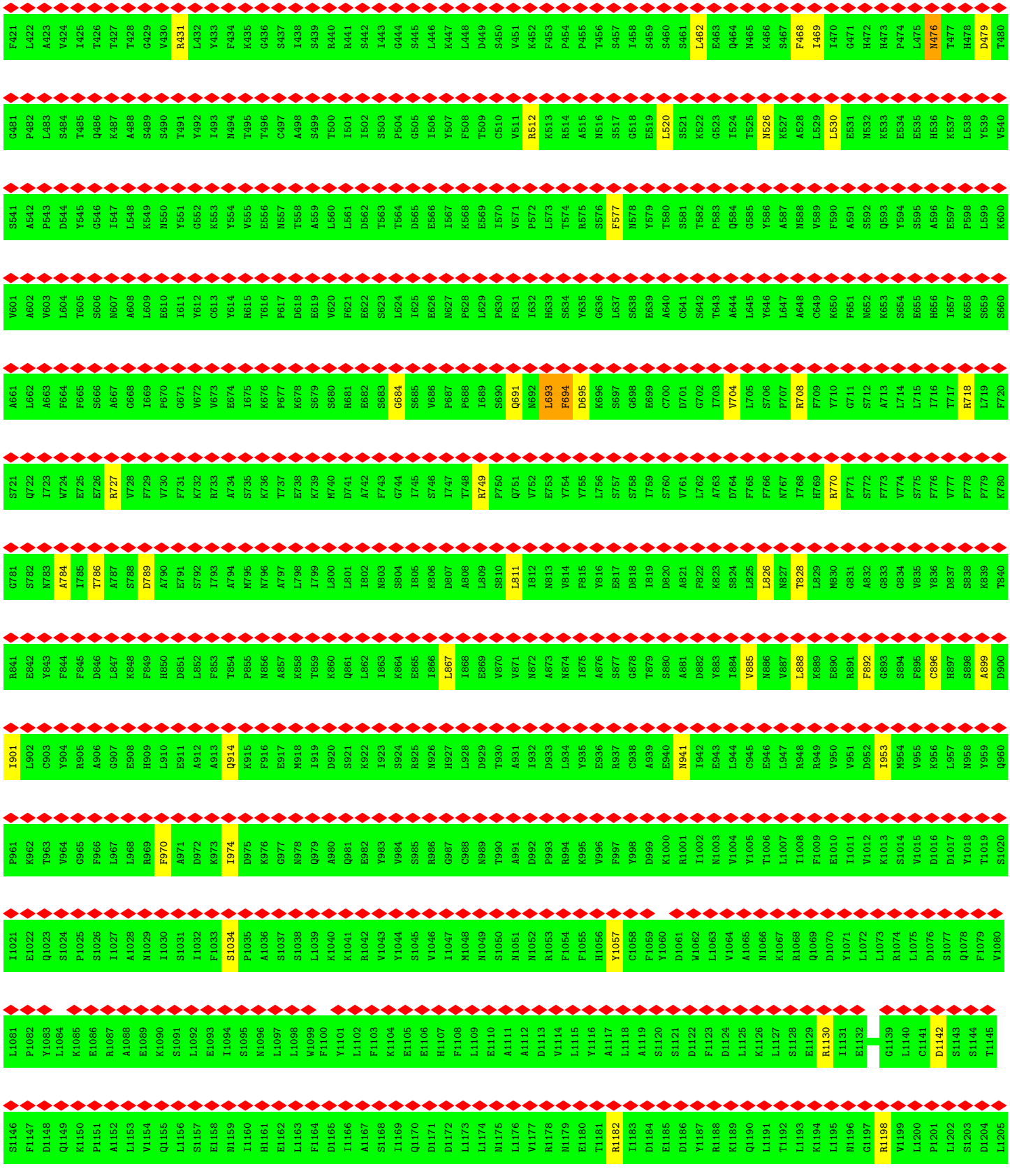








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G481 P482 L483 S484 T485 Q486 K487 A488 S489 S490 T491 Y492 I493 N494 T495 T496 C497 A498 S499 T500 I501 I502 S503 P504 G505 I506 Y507 F508 T509 C510 V511 R512 K513 R514 A515 N516 S517 G518 E519 L520 S521 K522 G523 I524 T525 N526 K527 A528 L529 L530 E531 N532 K533 E534 E535 H536 K537 L538 Y539 V540
S541 A542 P543 D544 Y545 G546 I547 L548 K549 N550 Y551 G552 K553 Y554 V555 E556 N557 T558 A559 L560 L561 D562 T563 T564 D565 E566 I567 K568 E569 I570 V571 P572 L573 T574 R575 S576 F577 N578 Y579 T580 S581 T582 P583 Q584 G585 Y586 A587 N588 V589 F590 A591 S592 Q593 Y594 S595 A596 E597 P598 L599 K600
V601 A602 V603 L604 T605 S606 N607 A608 L609 E610 I611 Y612 C613 Y614 R615 T616 P617 D618 E619 V620 F621 E622 S623 L624 I625 E626 N627 P628 L629 P630 F631 I632 H633 S634 Y635 G636 L637 S638 E639 A640 C641 S642 T643 A644 L645 Y646 L647 A648 C649 K650 F651 N652 K653 S654 E655 H656 I657 K658 S659 S660
A661 L662 A663 F664 F665 S666 A667 G668 I669 P670 G671 V672 V673 E674 I675 K676 P677 K678 S679 S680 R681 E682 S683 G684 S685 V686 P687 P688 I689 S690 Q691 N692 L693 F694 D695 K696 S697 G698 E699 C700 D701 G702 I703 V704 L705 S706 P707 R708 F709 Y710 G711 S712 A713 L714 L715 I716 T717 R718 L719 F720
S721 Q722 I723 W724 E725 E726 R727 V728 F729 V730 F731 K732 R733 A734 S735 K736 T737 E738 K739 M740 D741 A742 F743 G744 I745 S746 I747 T748 R749 P750 Q751 V752 E753 Y754 Y755 L756 S757 S758 I759 S760 V761 L762 A763 D764 F765 F766 N767 I768 H769 R770 P771 S772 F773 V774 S775 F776 V777 P778 P779 K780
G781 S782 N783 A784 I785 T786 A787 S788 D789 A790 E791 S792 I793 A794 M795 N796 A797 L798 I799 L800 L801 I802 N803 S804 I805 K806 D807 A808 L809 S810 L811 I812 N813 V814 F815 Y816 E817 D818 I819 D820 A821 F822 K823 S824 L825 L826 N827 T828 L829 M830 G831 A832 G833 G834 V835 Y836 D837 S838 K839 T840
R841 E842 Y843 F844 F845 D846 L847 K848 F849 H850 D851 L852 F853 T854 P855 N856 A857 K858 T859 K860 Q861 L862 I863 K864 E865 I866 L867 I868 E869 V870 V871 N872 A873 N874 I875 A876 S877 G878 T879 S880 A881 D882 Y883 I884 V885 N886 V887 L888 K889 E890 R891 F892 G893 S894 F895 C896 H897 S898 A899 D900
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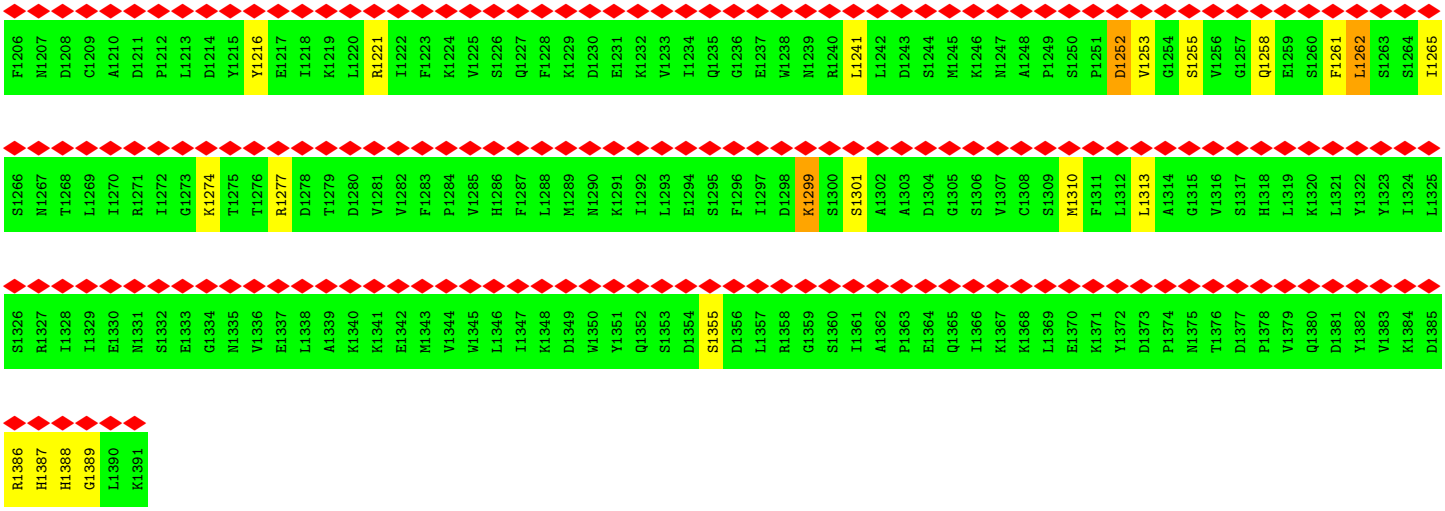
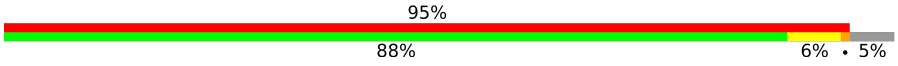
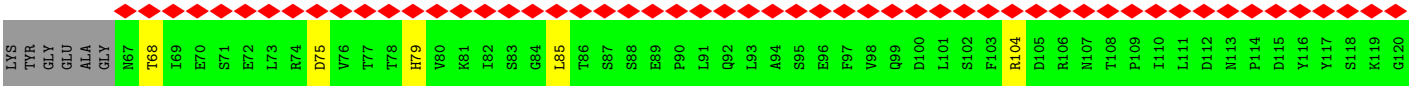
P961 K962 T963 V964 G965 P966 L967 L968 R969 F970 A971 D972 K973 I974 D975 K976 G977 N978 Q979 A980 Q981 E982 Y983 V984 S985 R986 G987 C988 N989 T990 A991 D992 P993 R994 K995 V996 F997 Y998 D999 K1000 R1001 I1002 N1003 V1004 Y1005 T1006 L1007 I1008 F1009 E1010 I1011 V1012 K1013 S1014 V1015 D1016 D1017 Y1018 T1019 S1020
I1021 E1022 Q1023 S1024 P1025 S1026 I1027 A1028 N1029 I1030 S1031 I1032 F1033 S1034 P1035 A1036 S1037 S1038 L1039 K1040 K1041 R1042 V1043 Y1044 S1045 V1046 I1047 M1048 N1049 S1050 N1051 N1052 R1053 F1054 F1055 H1056 Y1057 C1058 F1059 Y1060 D1061 W1062 L1063 V1064 A1065 N1066 K1067 R1068 Q1069 D1070 Y1071 I1072 L1073 R1074 L1075 D1076 S1077 Q1078 F1079 V1080
L1081 P1082 Y1083 L1084 K1085 E1086 R1087 A1088 E1089 K1090 S1091 L1092 E1093 I1094 S1095 N1096 L1097 L1098 W1099 F1100 Y1101 L1102 F1103 K1104 E1105 E1106 H1107 F1108 L1109 E1110 A1111 A1112 D1113 V1114 L1115 Y1116 A1117 L1118 A1119 S1120 S1121 D1122 F1123 D1124 L1125 K1126 L1127 S1128 E1129 R1130 I1131 E1132 G1139 L1140 C1141 D1142 S1143 S1144 T1145
S1146 F1147 D1148 Q1149 K1150 P1151 A1152 L1153 V1154 Q1155 L1156 S1157 E1158 N1159 I1160 H1161 E1162 L1163 F1164 D1165 I1166 A1167 S1168 I1169 Q1170 D1171 D1172 L1173 L1174 N1175 L1176 V1177 R1178 N1179 E1180 T1181 R1182 I1183 D1184 E1185 D1186 Y1187 R1188 K1189 Q1190 L1191 T1192 L1193 K1194 L1195 N1196 G1197 R1198 V1199 L1200 P1201 L1202 S1203 D1204 L1205

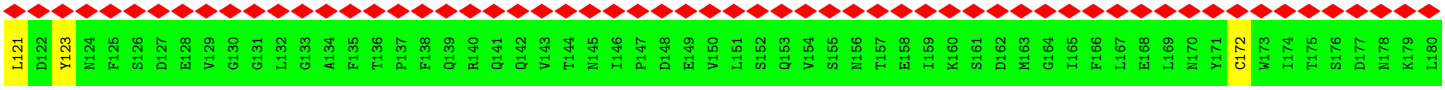


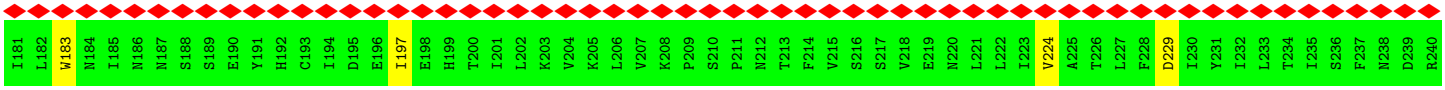
• Molecule 2: Nucleoporin NUP157

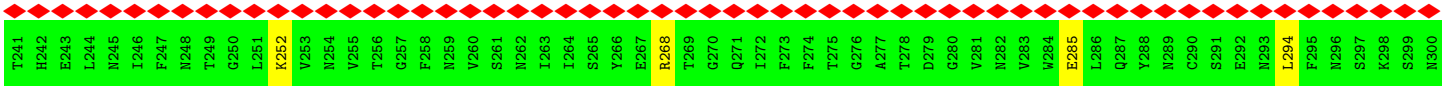
Chain O:

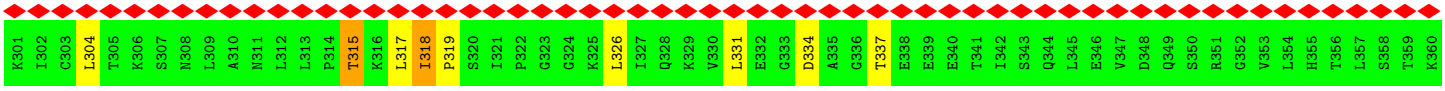


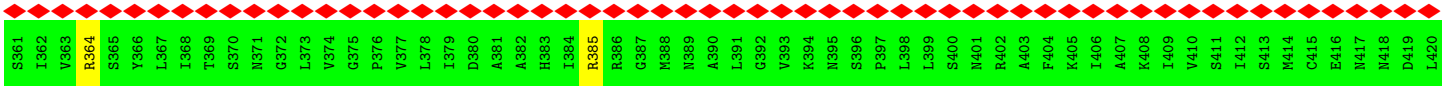


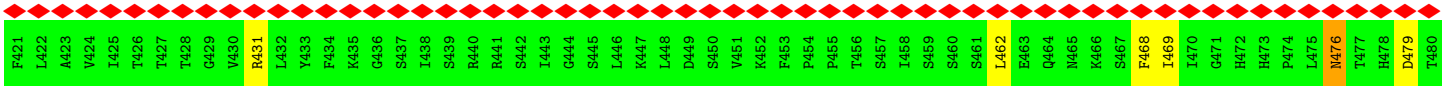


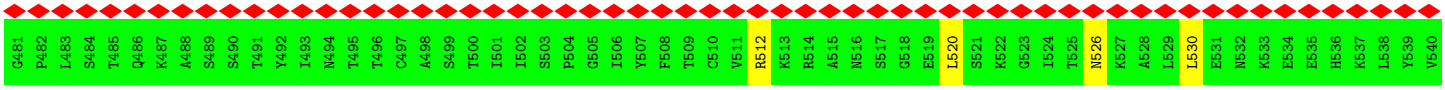


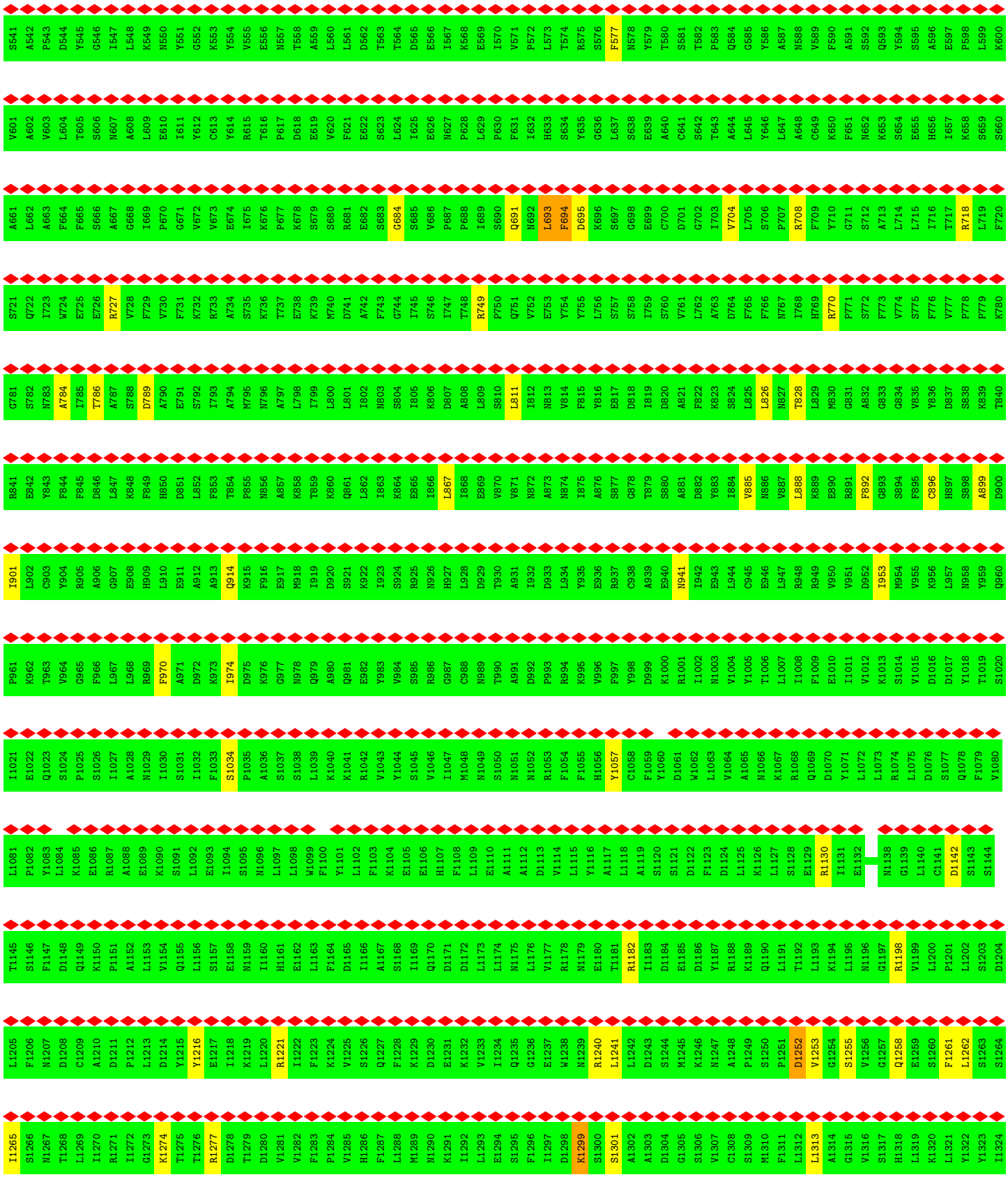








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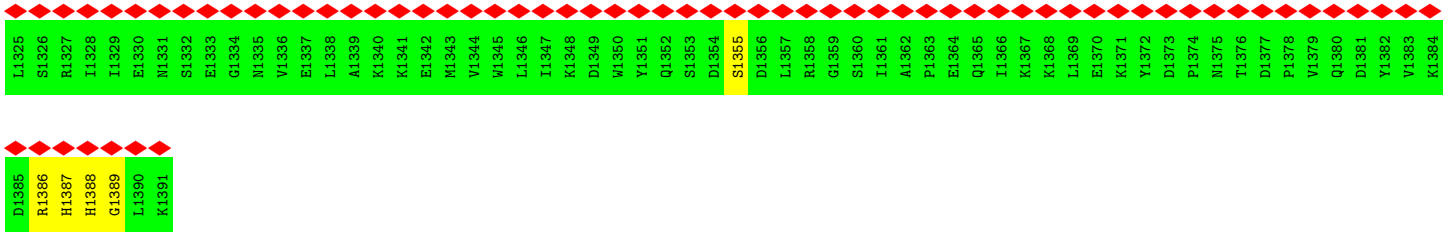
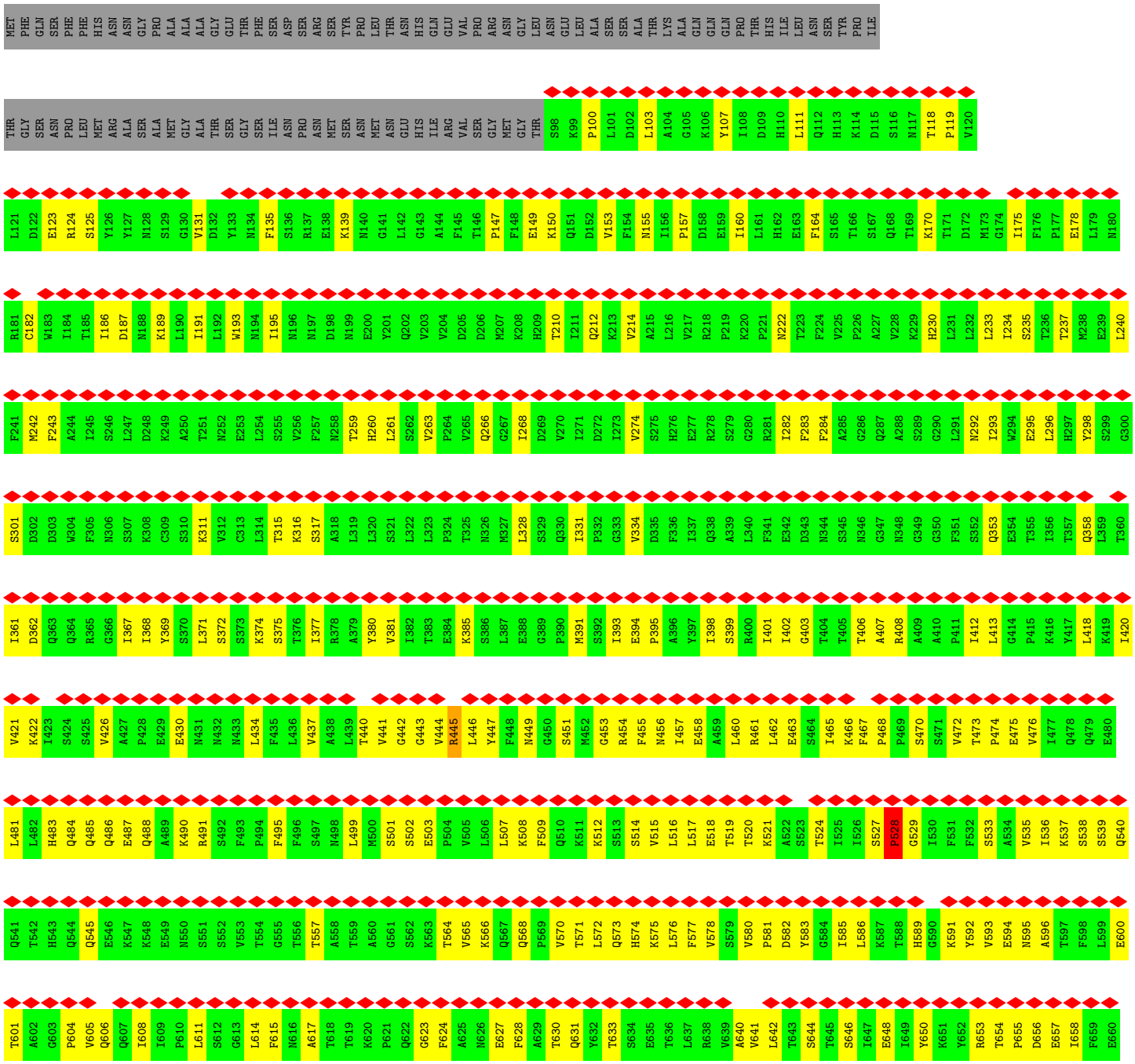
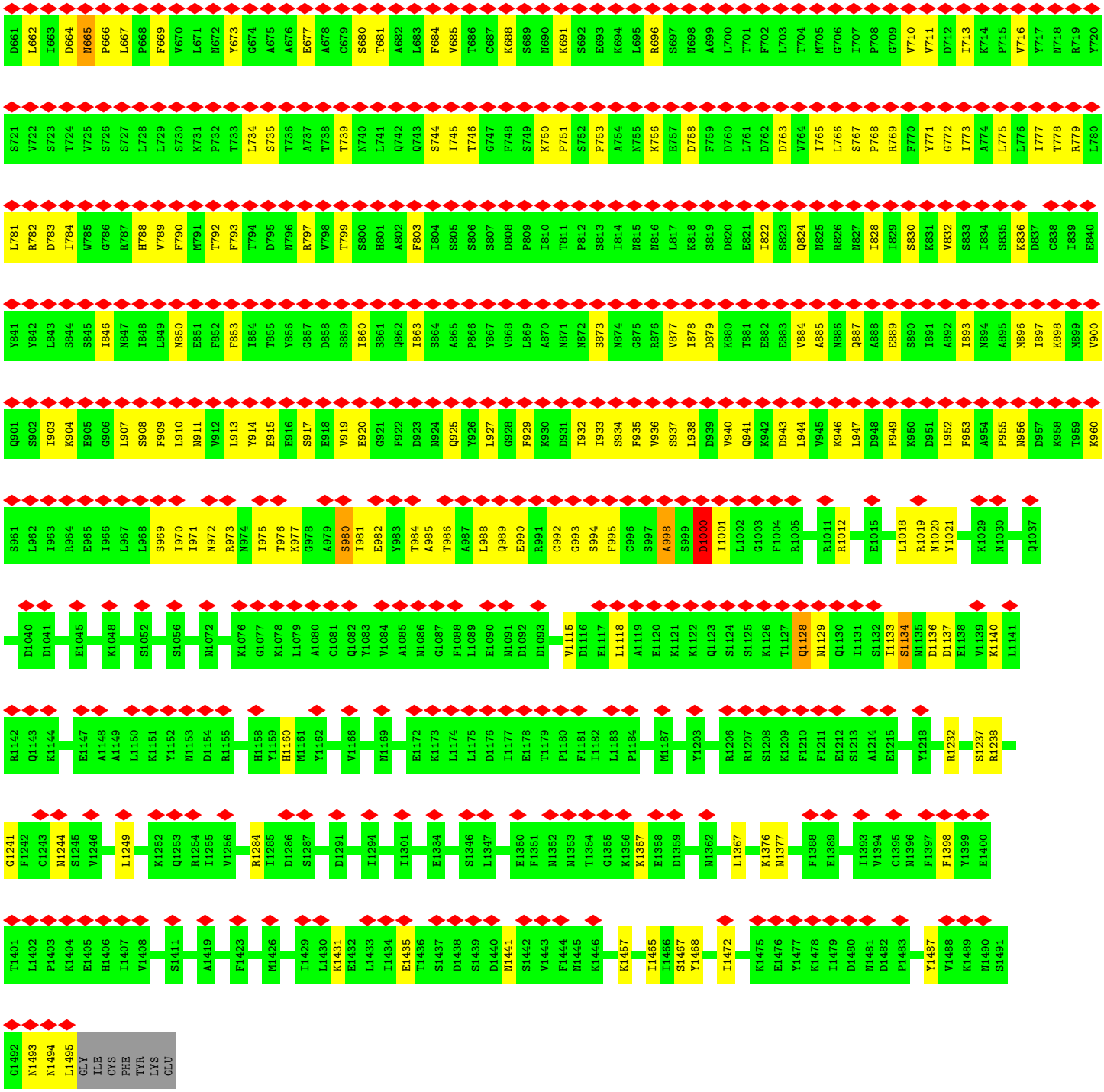


• Molecule 3: Nucleoporin NUP170

Chain D:





- Molecule 3: Nucleoporin NUP170

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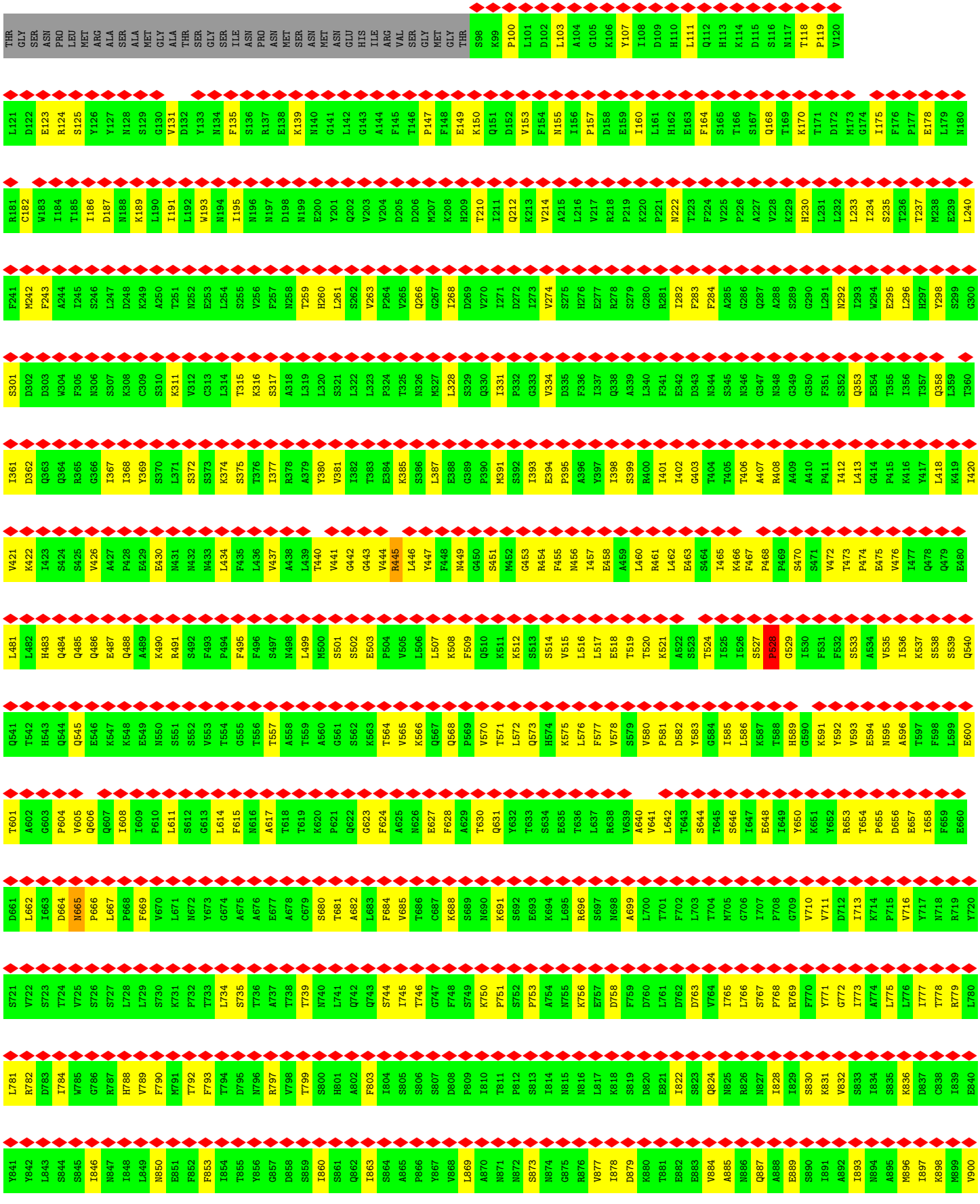
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L121 D122 E123 R124 S125 Y126 Y127 N128 S129 G130 V131 D132 Y133 N134 F135 S136 R137 E138 K139 N140 G141 L142 G143 A144 F145 T146 P147 F148 E149 K150 Q151 D152 V153 F154 N155 I156 P157 D158 E159 I160 L161 H162 E163 F164 S165 T166 S167 Q168 T169 K170 T171 D172 M173 G174 I175 F176 P177 E178 L179 N180
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S301 D302 D303 W304 F305 N306 S307 K308 C309 S310 K311 V312 C313 L314 T315 K316 S317 A318 L319 L320 S321 L322 L323 P324 T325 N326 M327 L328 S329 Q330 I331 P332 G333 V334 D335 F336 I337 Q338 A339 L340 F341 E342 D343 N344 S345 N346 G347 N348 G349 G350 F351 S352 Q353 E354 T355 I356 T357 Q358 L359 T360
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Q541 T542 H543 Q544 Q545 E546 K547 K548 E549 N550 S551 S552 V553 T554 G555 T556 T557 A558 T559 A560 G561 S562 K563 T564 V565 K566 Q567 Q568 P569 V570 T571 L572 Q573 H574 K575 L576 F577 V578 S579 V580 P581 D582 Y583 G584 I585 L586 K587 T588 H589 G590 K591 Y592 V593 E594 N595 A596 T597 F598 L599 E600
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S721 V722 S723 T724 V725 S726 S727 L728 L729 S730 K731 P732 T733 L734 S735 T736 A737 T738 T739 N740 L741 Q742 Q743 S744 T745 T746 G747 F748 S749 K750 P751 S752 P753 A754 N755 K756 E757 D758 F759 D760 L761 D762 D763 V764 I765 L766 S767 P768 R769 F770 Y771 G772 I773 A774 L775 L776 I777 T778 R779 L780
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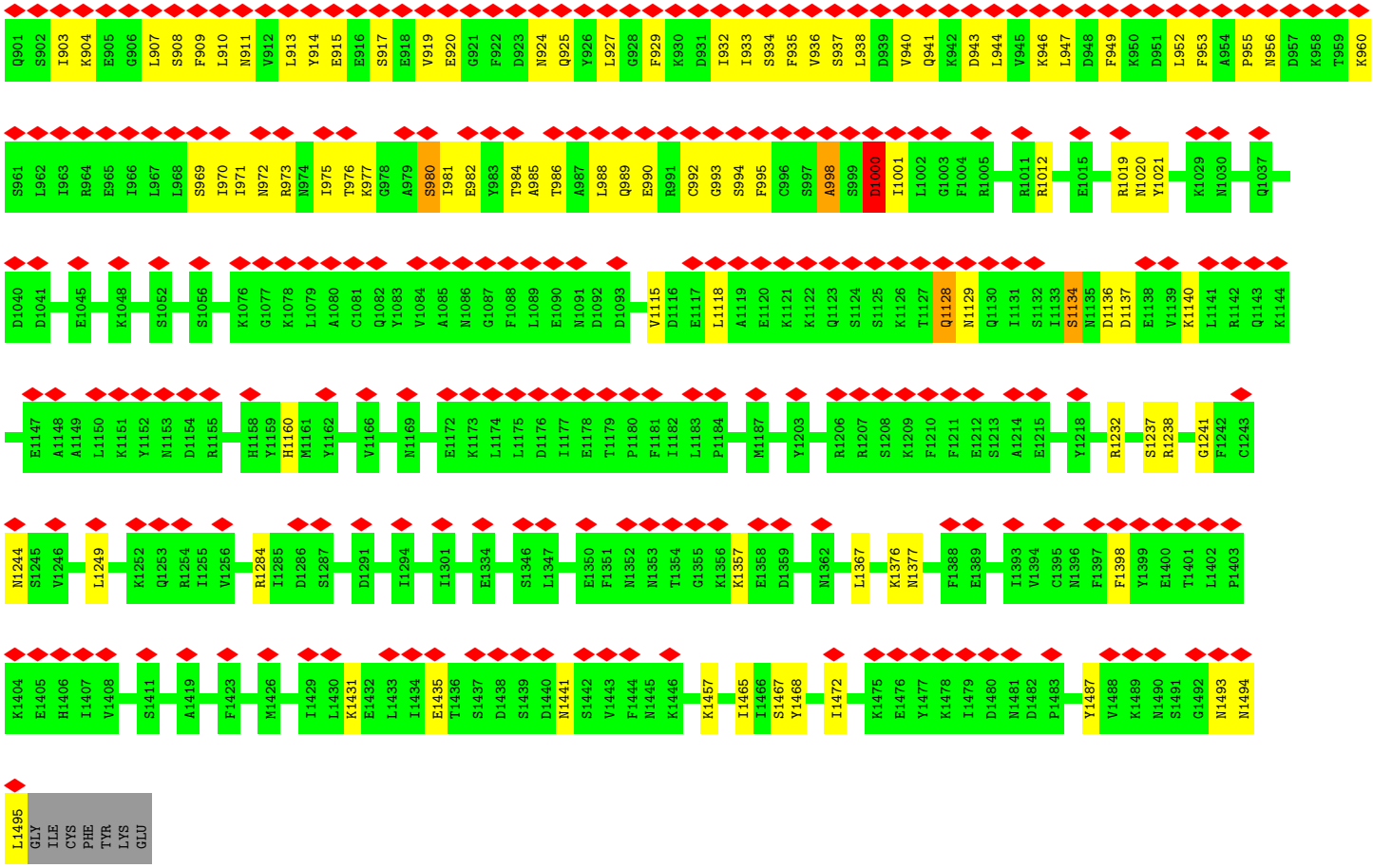
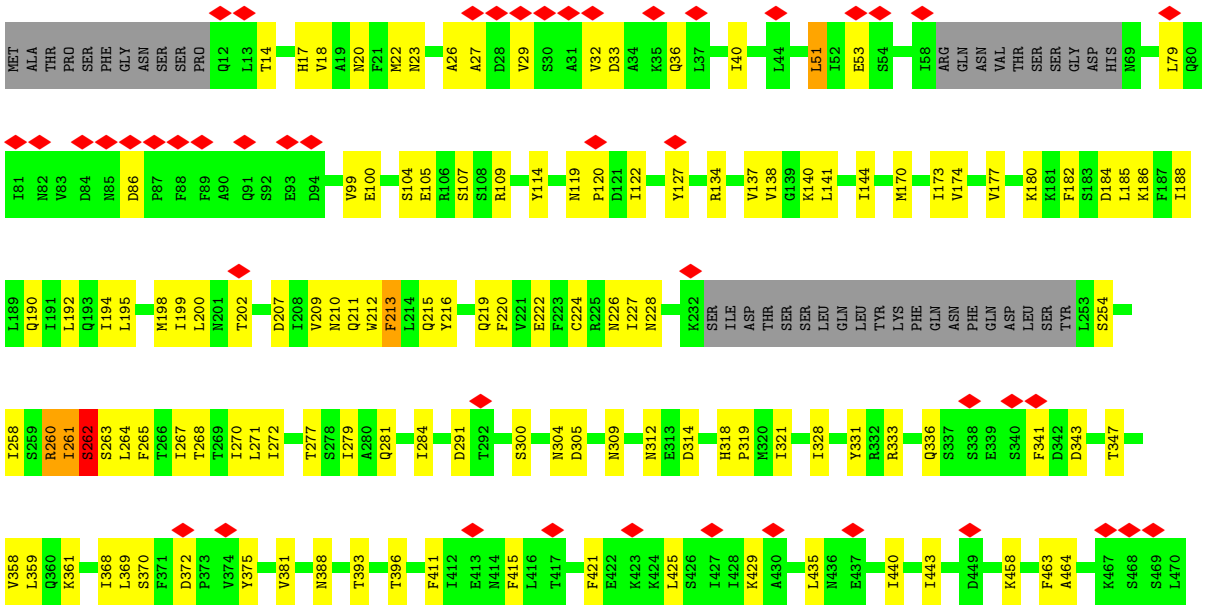
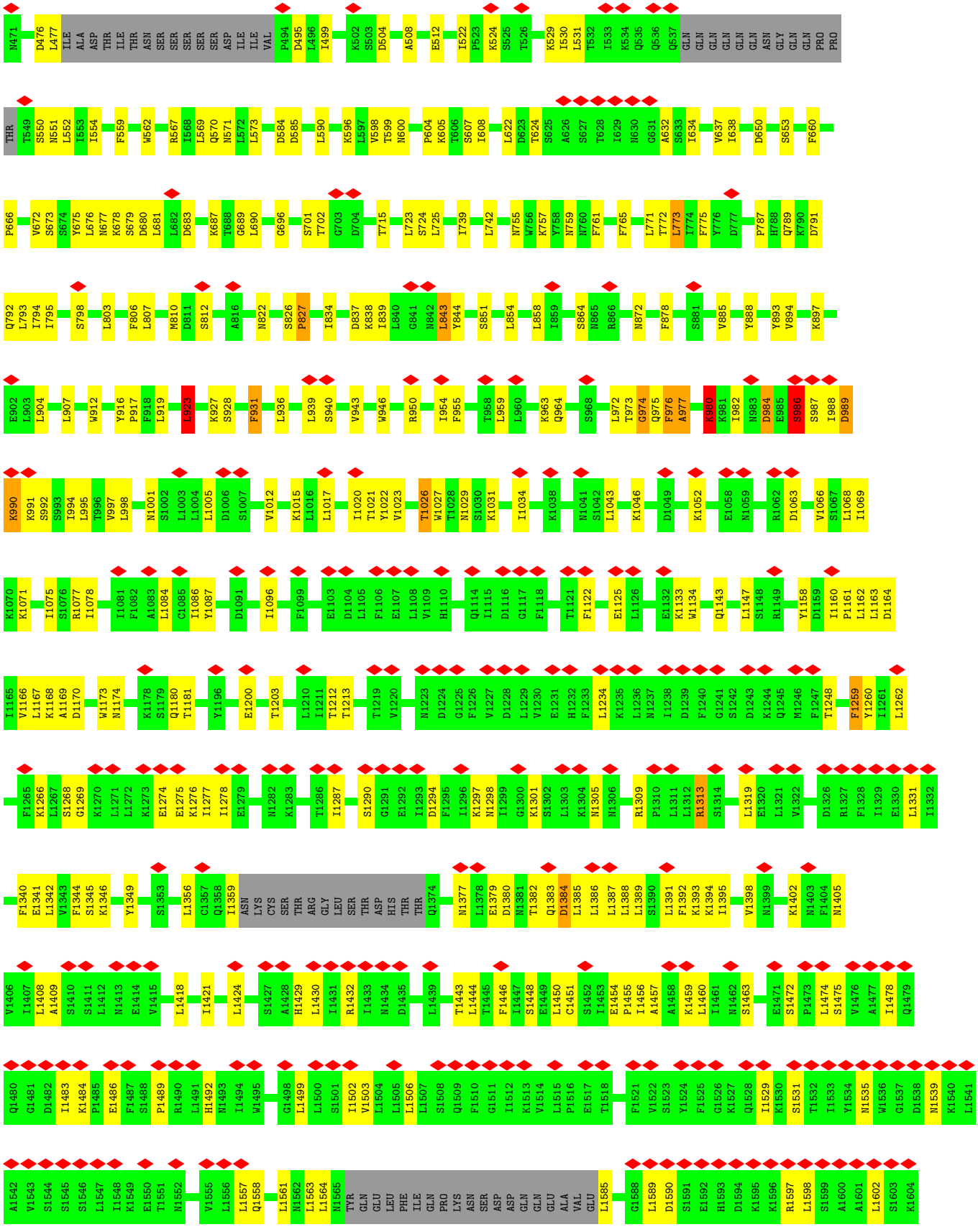


• Molecule 4: Nucleoporin NUP188

Chain E:

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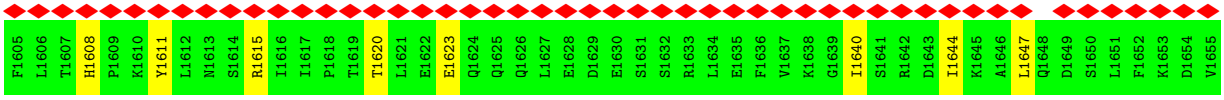
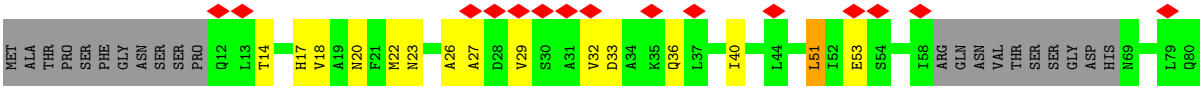
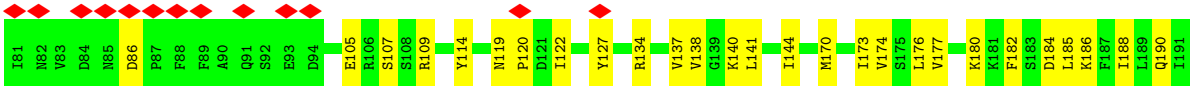
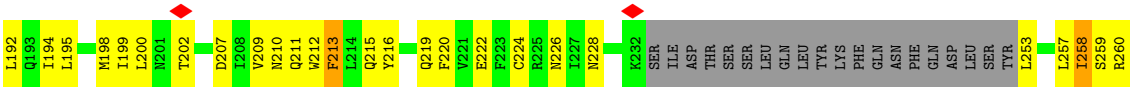


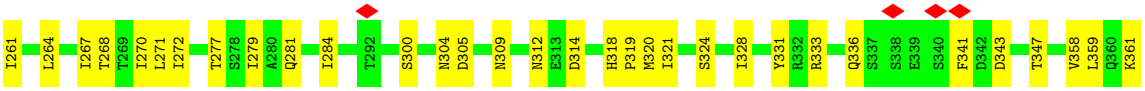
• Molecule 4: Nucleoporin NUP188

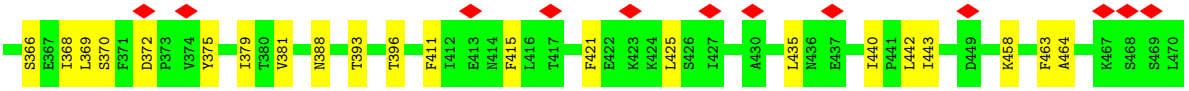
Chain Q:

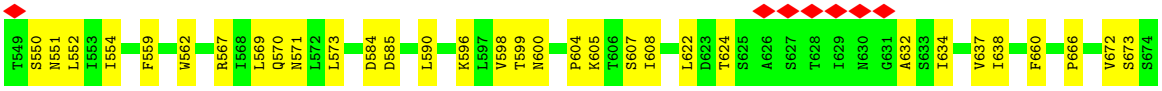


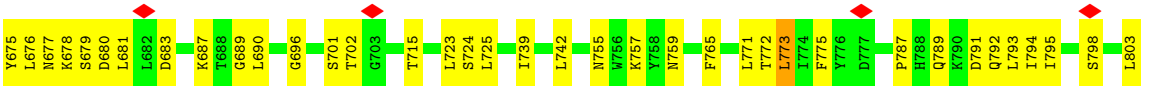


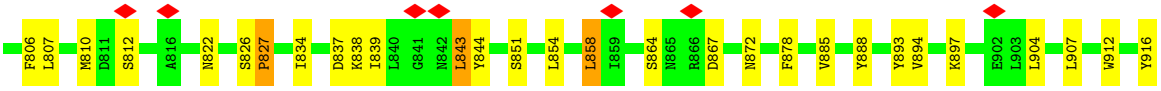


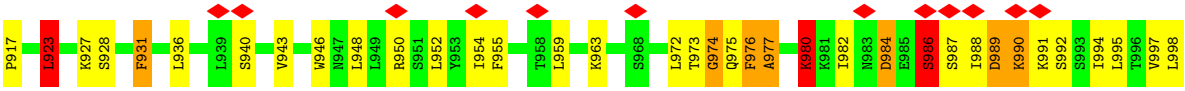


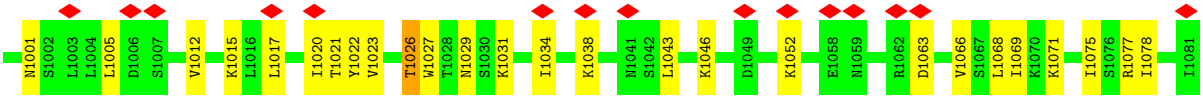


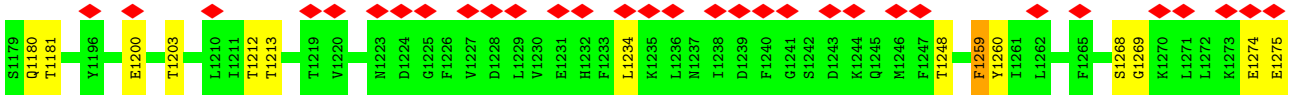


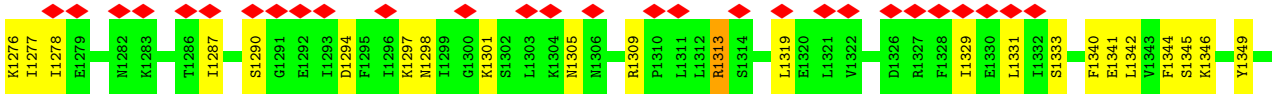


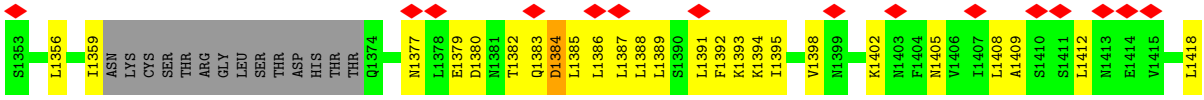


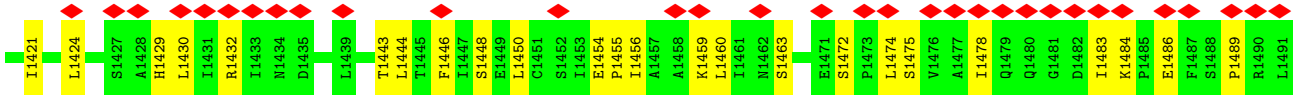


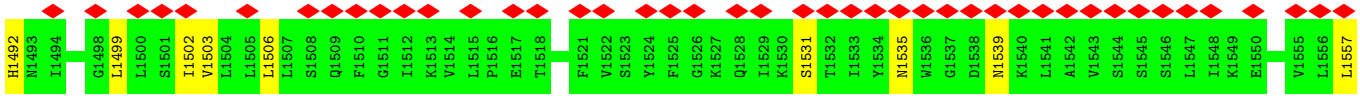


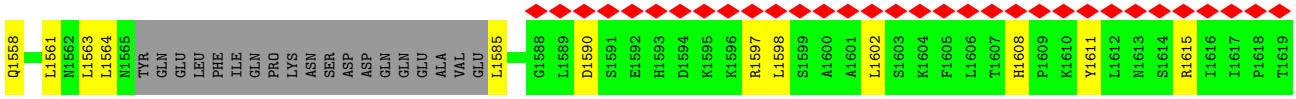


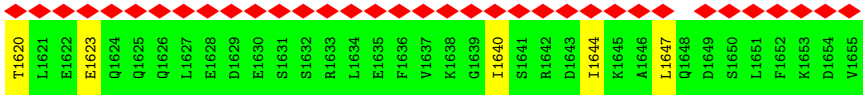






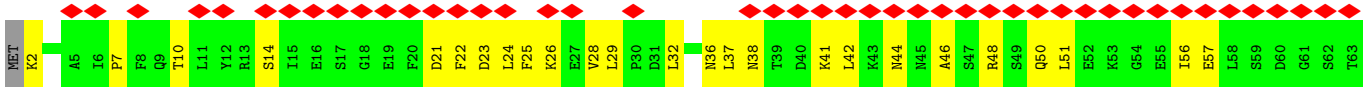


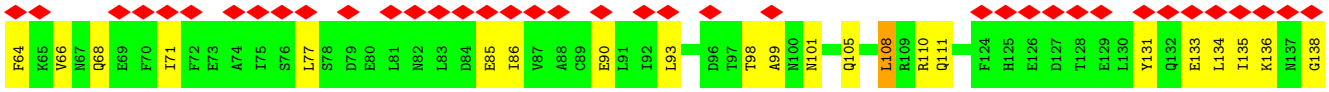


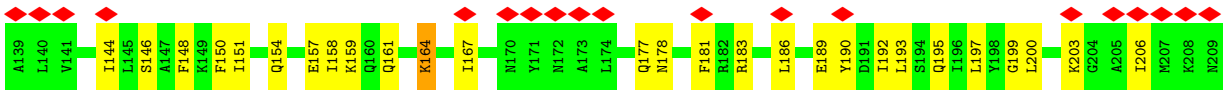


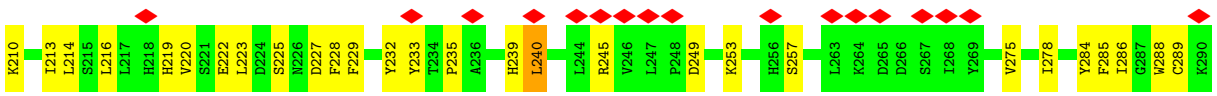
• Molecule 5: Nucleoporin NUP192

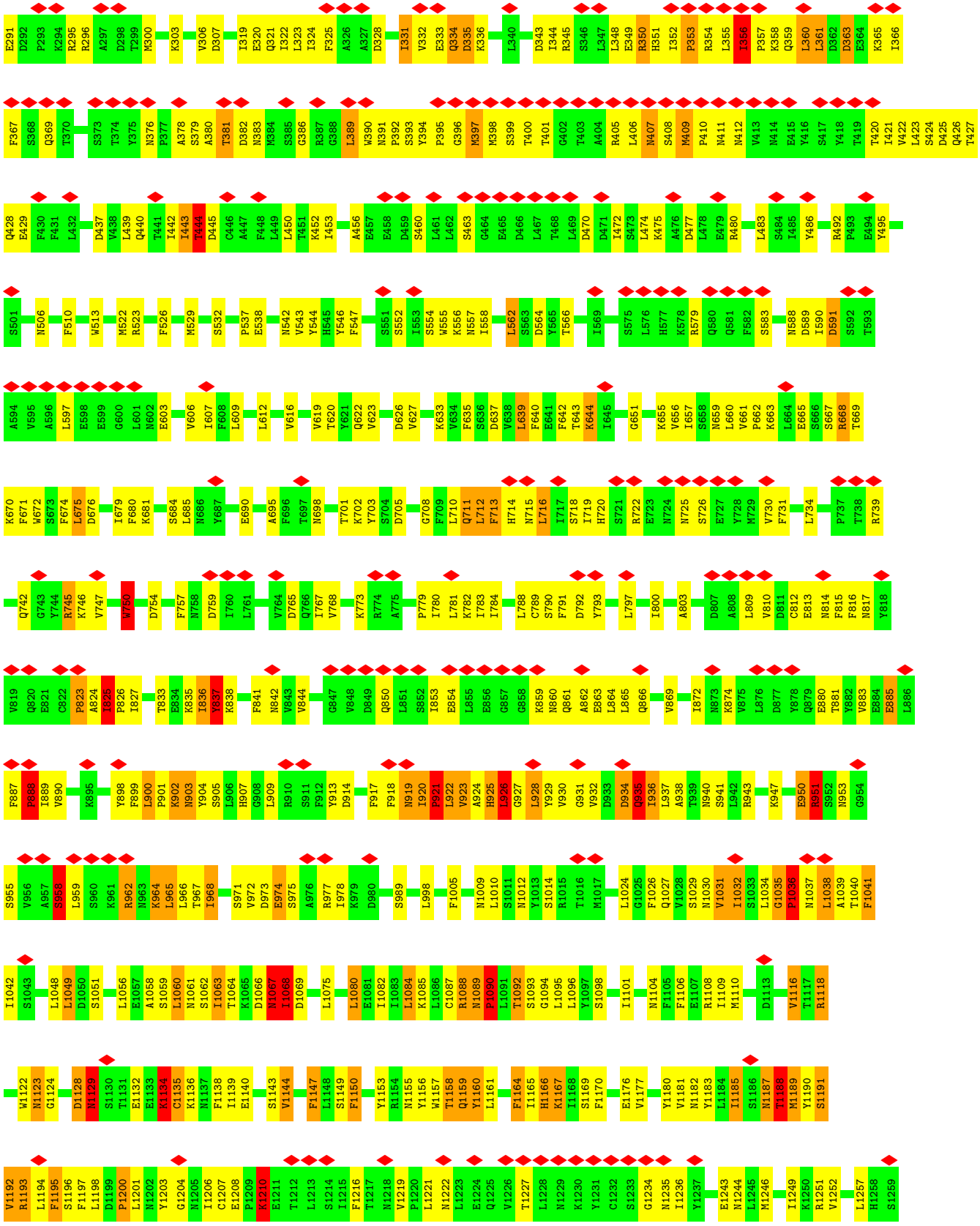
Chain F:







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F367 S368 Q369 T370 S373 T374 Y375 N376 P377 A378 S379 A380 T381 D382 N383 M384 S385 G386 R387 G388 L389 W390 N391 P392 S393 Y394 P395 G396 M397 M398 S399 T400 T401 G402 T403 A404 R405 L406 N407 S408 M409 P410 N411 N412 V413 N414 E415 Y416 S417 Y418 T419 T420 I421 V422 L423 S424 D425 Q426 T427
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K670 F671 W672 S673 F674 L675 D676 I679 F680 K681 S684 L685 N686 Y687 E690 A695 F696 T697 N698 T701 K702 Y703 S704 D705 G708 F709 L710 Q711 L712 F713 H714 N715 L716 I717 S718 I719 H720 S721 R722 E723 N724 N725 S726 E727 Y728 M729 V730 F731 L734 P737 T738 R739
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V819 Q820 E821 C822 P823 A824 I825 P826 I827 T833 E834 K835 I836 Y837 K838 F841 N842 V843 V844 G847 V848 D849 Q850 L851 S852 I853 E854 L855 E856 G857 G858 K859 N860 Q861 A862 E863 L864 L865 Q866 V869 I872 N873 K874 V875 L876 D877 Y878 Q879 E880 T881 Y882 V883 E884 E885 L886
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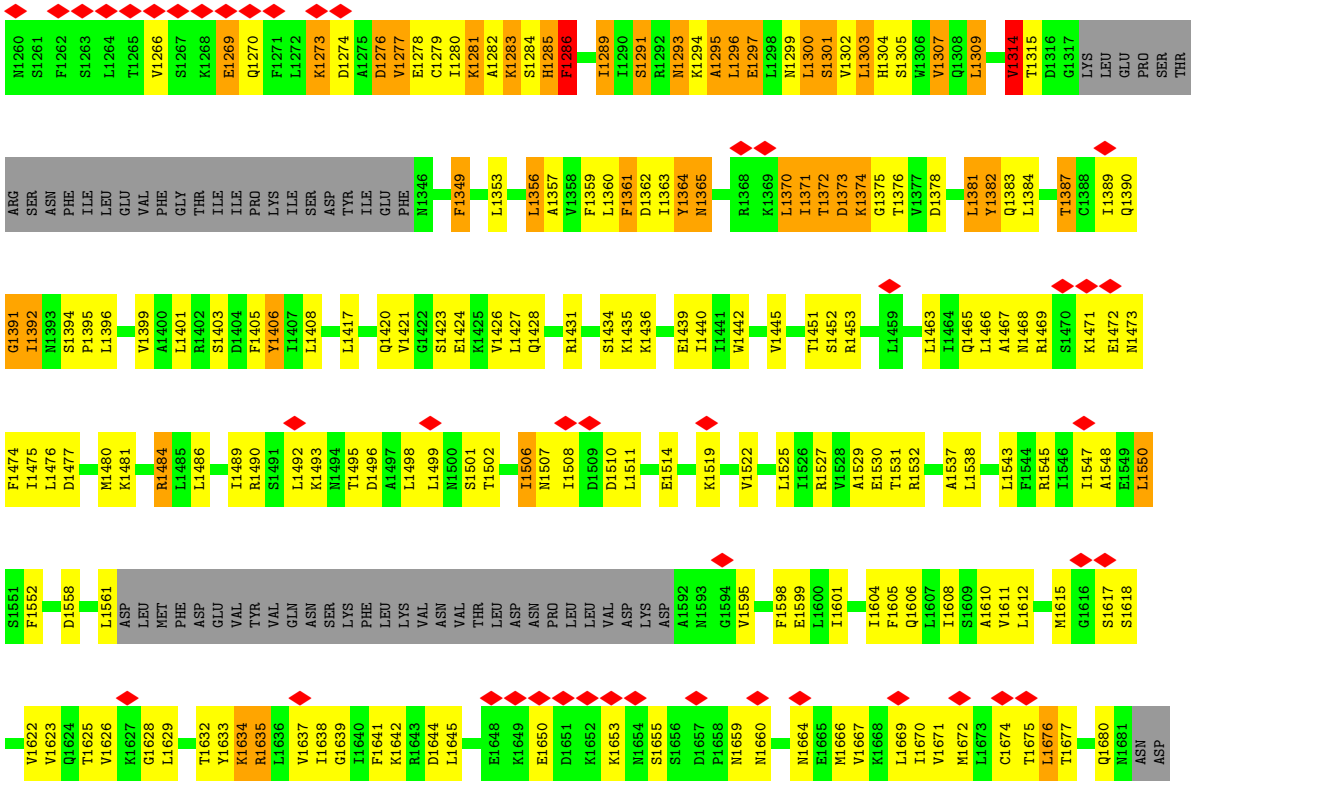
I1042 S1043 L1048 L1049 D1050 S1051 L1056 E1057 A1058 S1059 L1060 N1061 S1062 I1063 T1064 K1065 D1066 N1067 I1068 D1069 L1075 L1080 E1081 I1082 I1083 L1084 K1085 L1086 C1087 R1088 N1089 P1090 L1091 T1092 S1093 G1094 L1095 L1096 Y1097 S1098 I1101 N1104 F1105 F1106 E1107 R1108 I1109 M1110 D1113 V1116 T1117 R1118
W1122 N1123 G1124 D1128 N1129 S1130 T1131 E1132 E1133 K1134 C1135 K1136 N1137 F1138 I1139 E1140 S1143 V1144 F1147 L1148 S1149 F1150 Y1153 R1154 N1155 Y1156 W1157 T1158 Q1159 Y1160 L1161 F1164 I1165 H1166 K1167 I1168 S1169 F1170 E1176 V1177 Y1180 V1181 N1182 Y1183 L1184 I1185 S1186 N1187 T1188 M1189 Y1190 S1191
V1192 R1193 L1194 F1195 S1196 F1197 L1198 D1199 P1200 L1201 N1202 Y1203 G1204 N1205 I1206 C1207 E1208 P1209 K1210 E1211 T1212 L1213 S1214 I1215 F1216 T1217 N1218 V1219 P1220 L1221 N1222 L1223 E1224 Q1225 V1226 T1227 L1228 N1229 K1230 Y1231 C1232 S1233 G1234 N1235 I1236 Y1237 E1243 N1244 L1245 M1246 I1249 K1250 R1251 V1252 L1257 H1258 S1259



• Molecule 5: Nucleoporin NUP192

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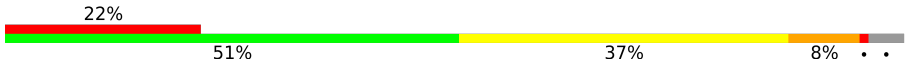

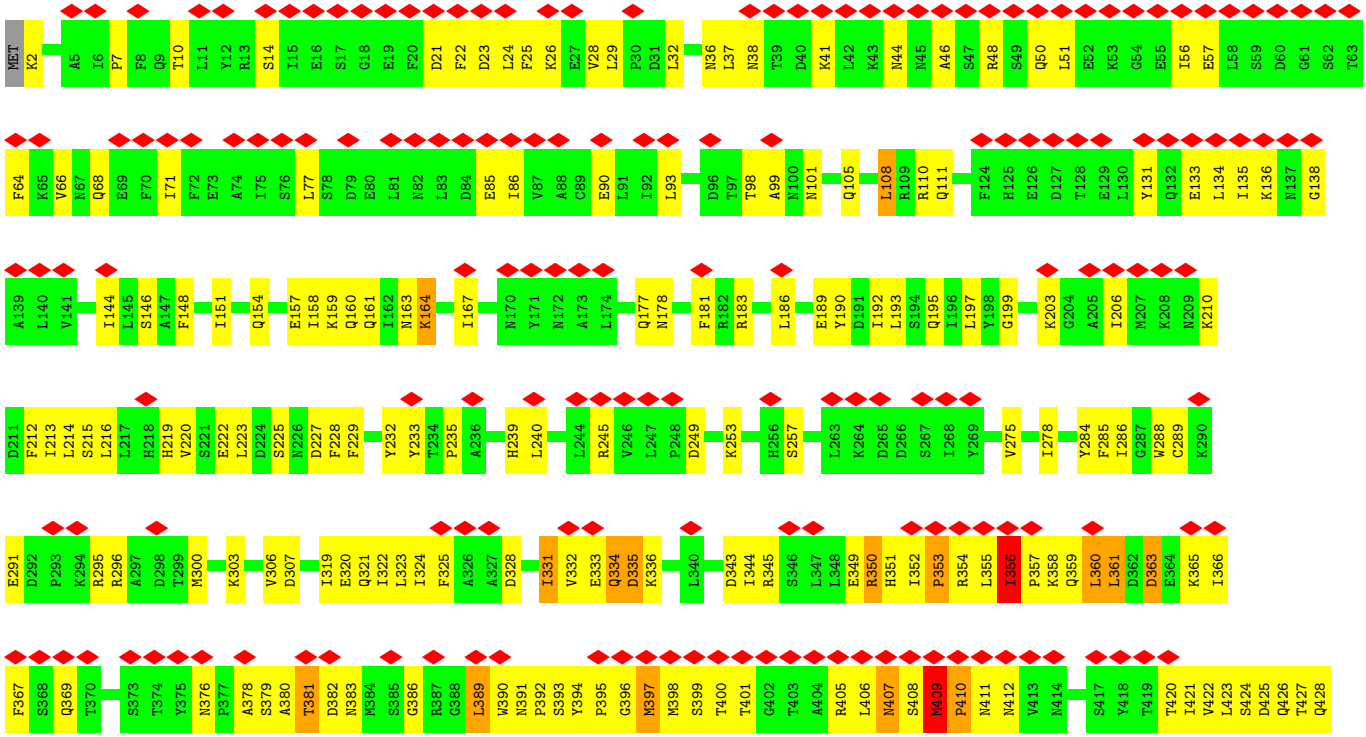

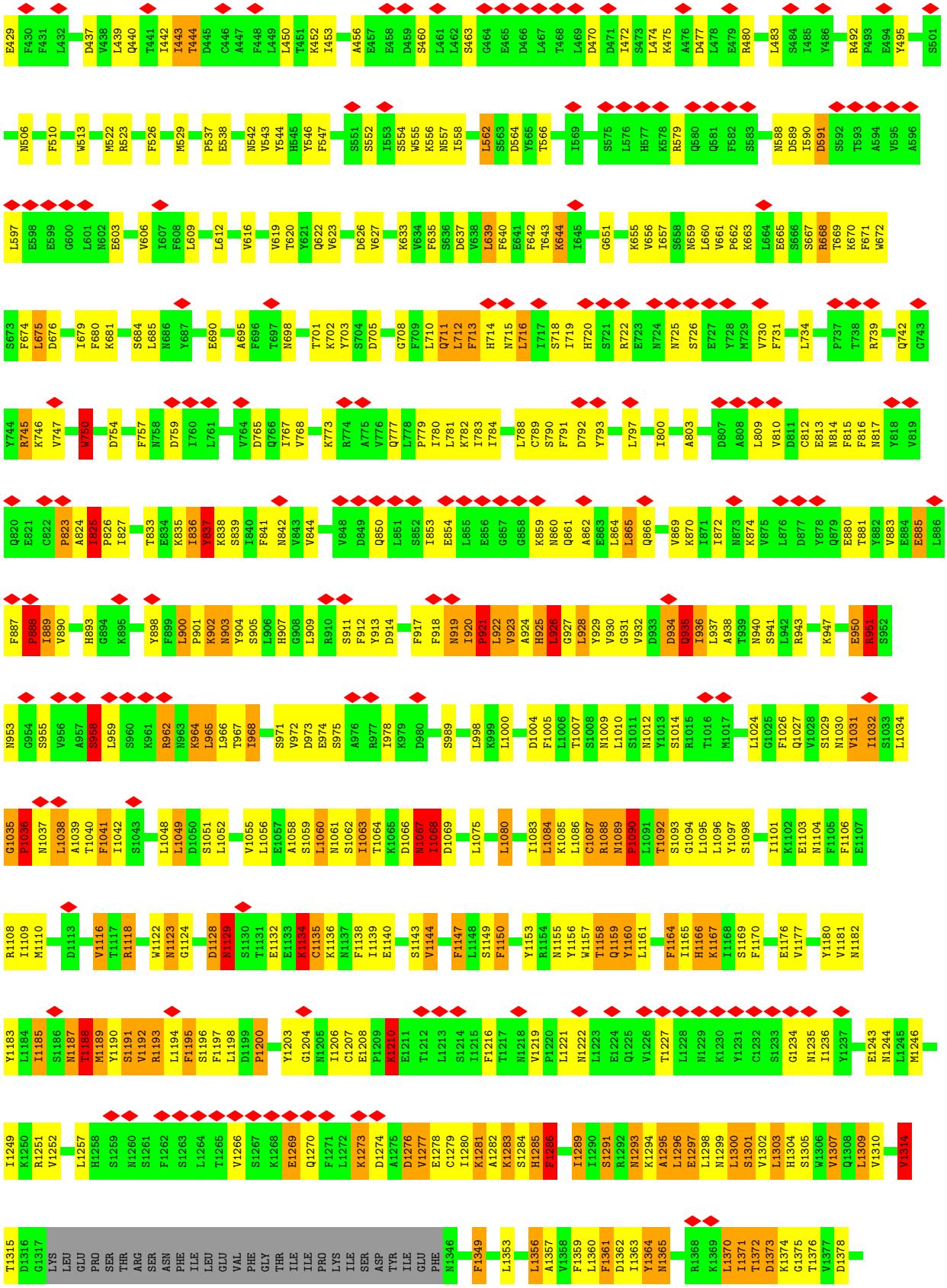
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G1035 P1036 N1037 L1038 A1039 T1040 F1041 I1042 S1043 L1048 L1049 D1050 S1051 L1052 V1055 L1056 E1057 A1058 S1059 L1060 N1061 S1062 I1063 T1064 K1065 D1066 N1067 I1068 D1069 L1075 L1080 I1083 L1084 K1085 L1086 C1087 R1088 N1089 P1090 L1091 T1092 S1093 G1094 L1095 L1096 Y1097 S1098 I1101 K1102 E1103 N1104 F1105 F1106 E1107
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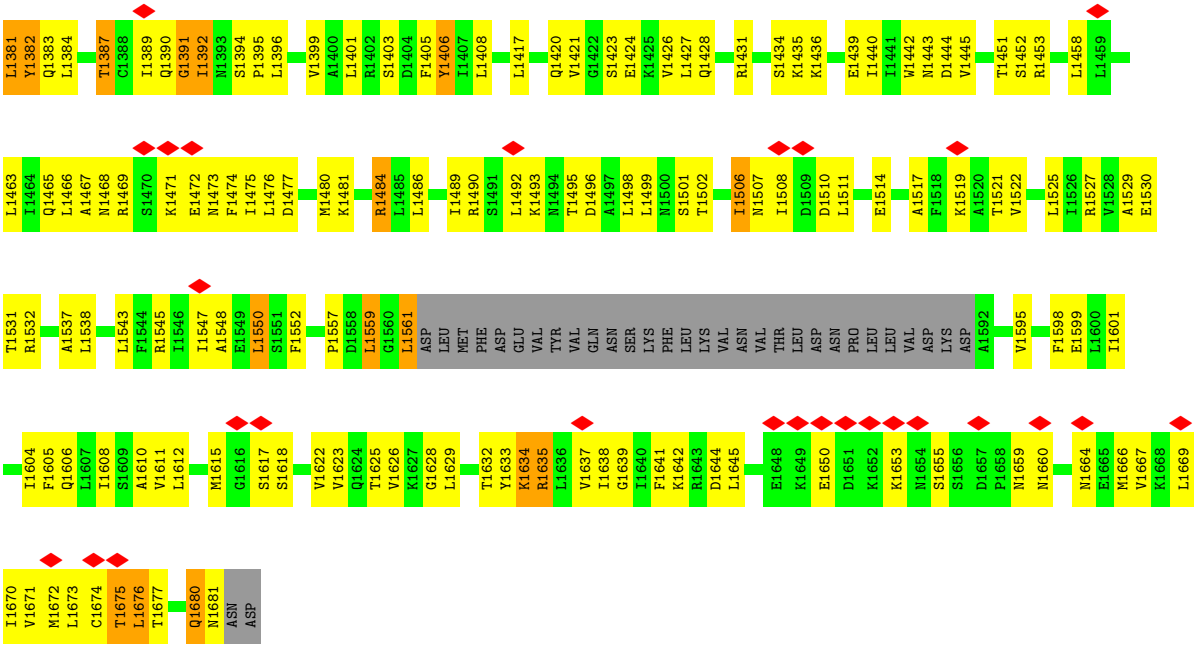
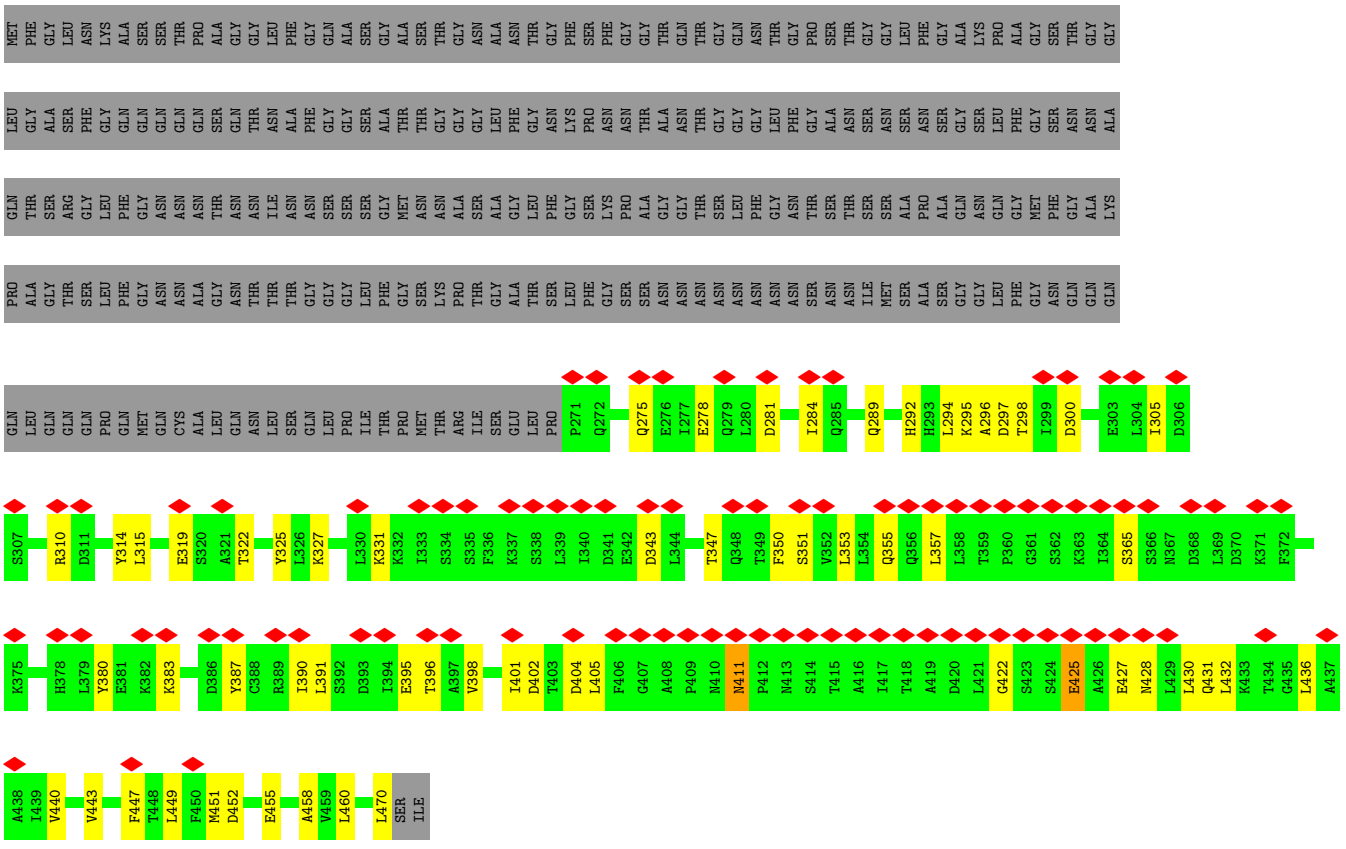
T1315 D1316 G1317 LYS LEU GLU PRO SER THR ARG SER ASN PHE ILE LEU GLU VAL PHE GLY THR ILE ILE PRO LYS ILE SER ASP TYR ILE GLU PHE N1346 F1349 L1353 L1356 A1357 V1358 F1359 L1360 F1361 D1362 I1363 Y1364 N1365 R1368 K1369 L1370 I1371 T1372 D1373 K1374 G1375 T1376 V1377 D1378



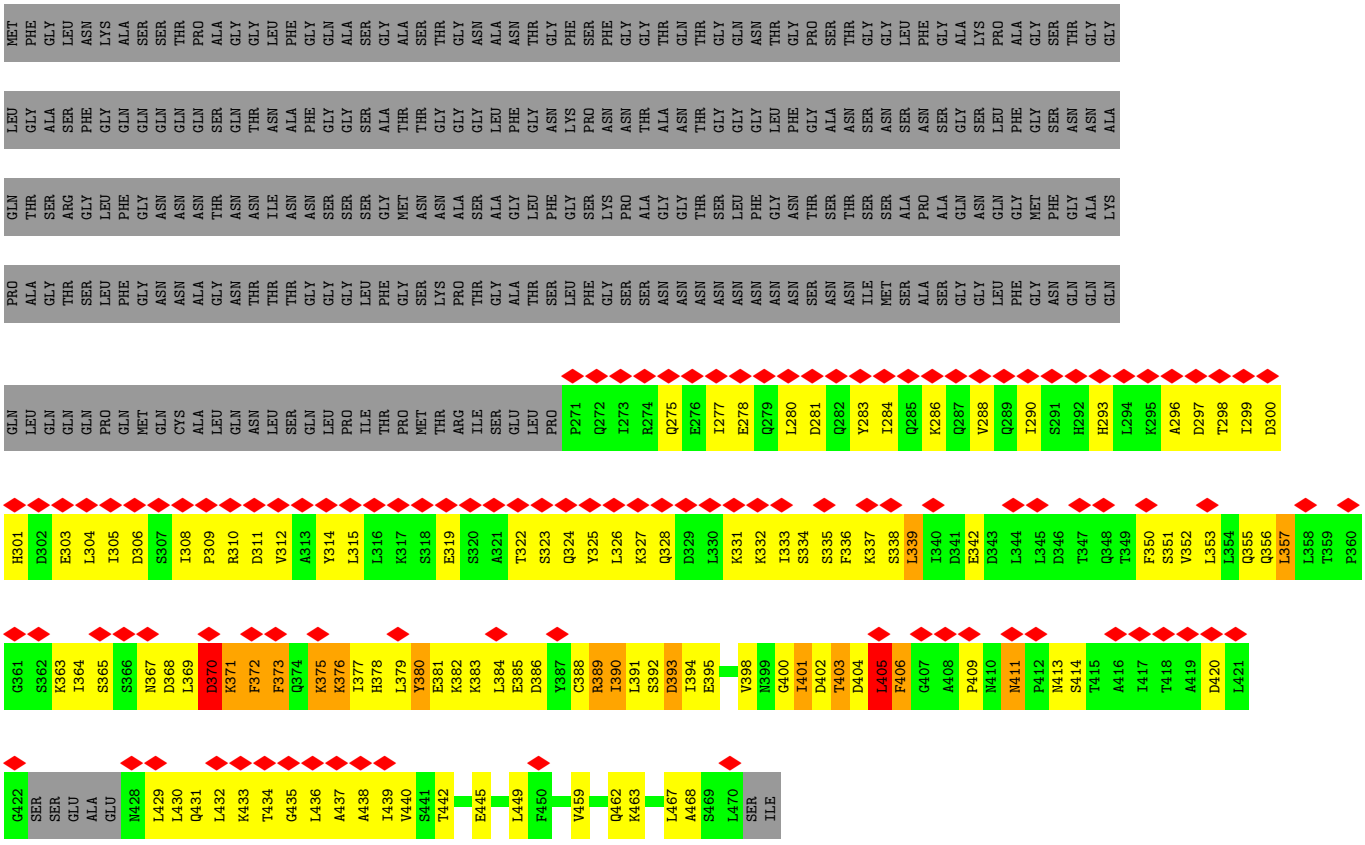
• Molecule 6: Nucleoporin NUP49/NSP49

Chain G:



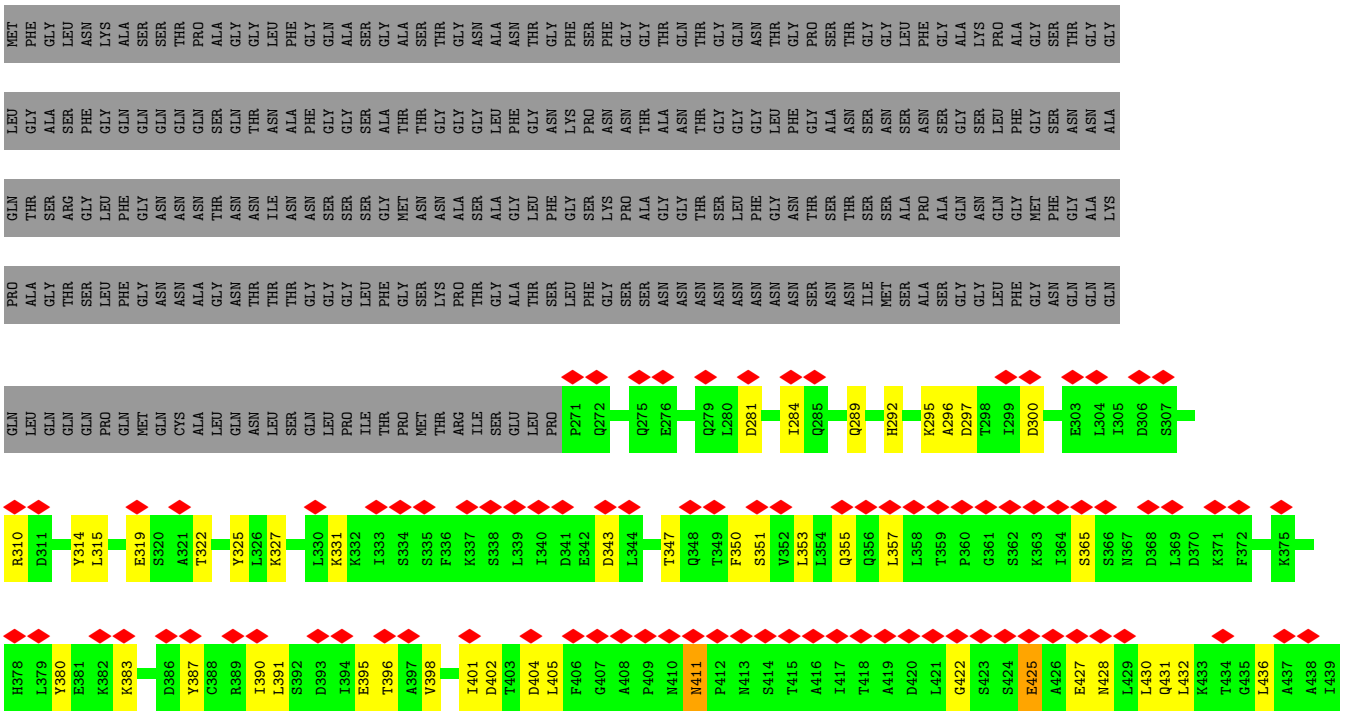
• Molecule 6: Nucleoporin NUP49/NSP49

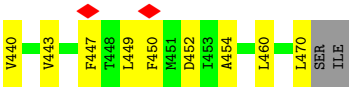
Chain J:



• Molecule 6: Nucleoporin NUP49/NSP49

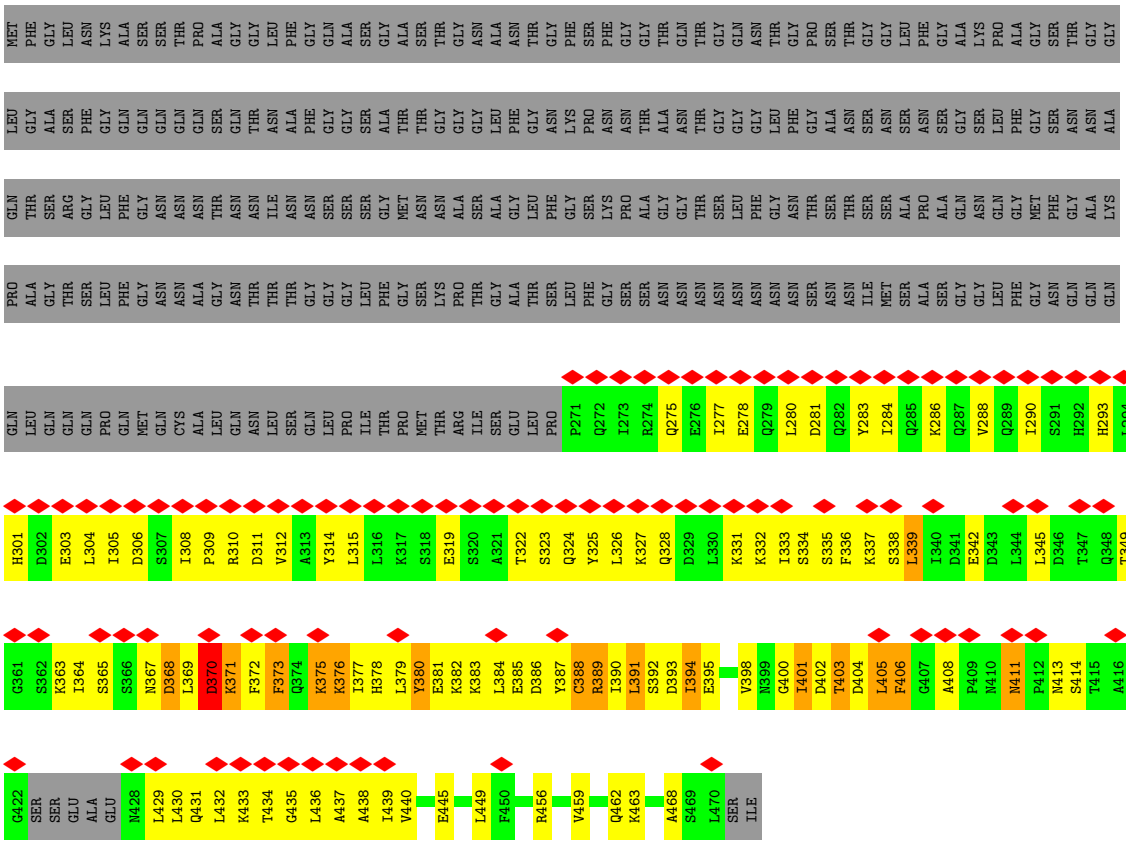
Chain S:





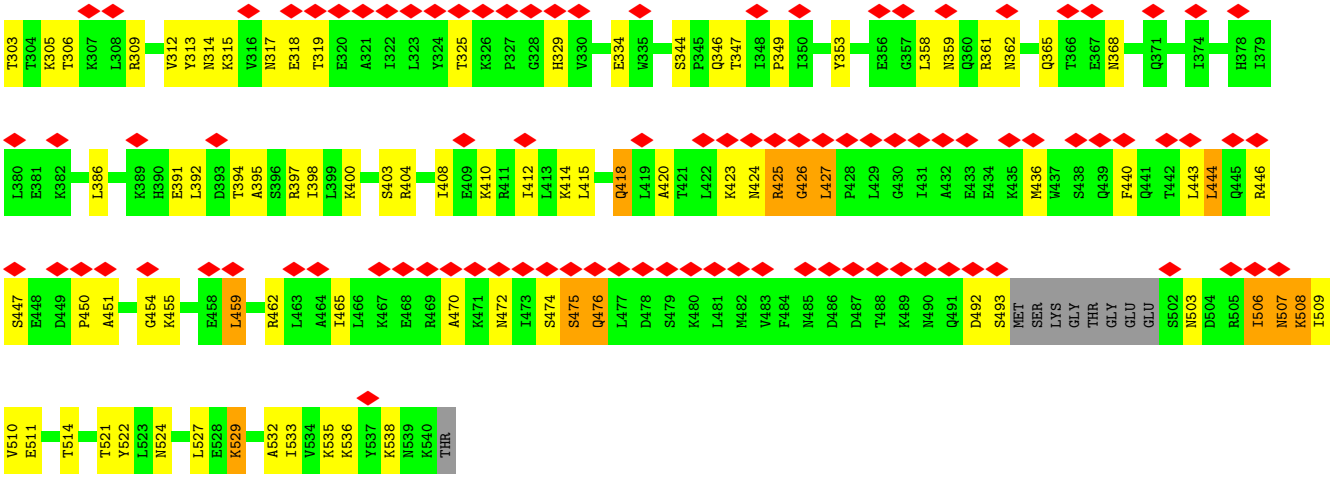
• Molecule 6: Nucleoporin NUP49/NSP49

Chain V:



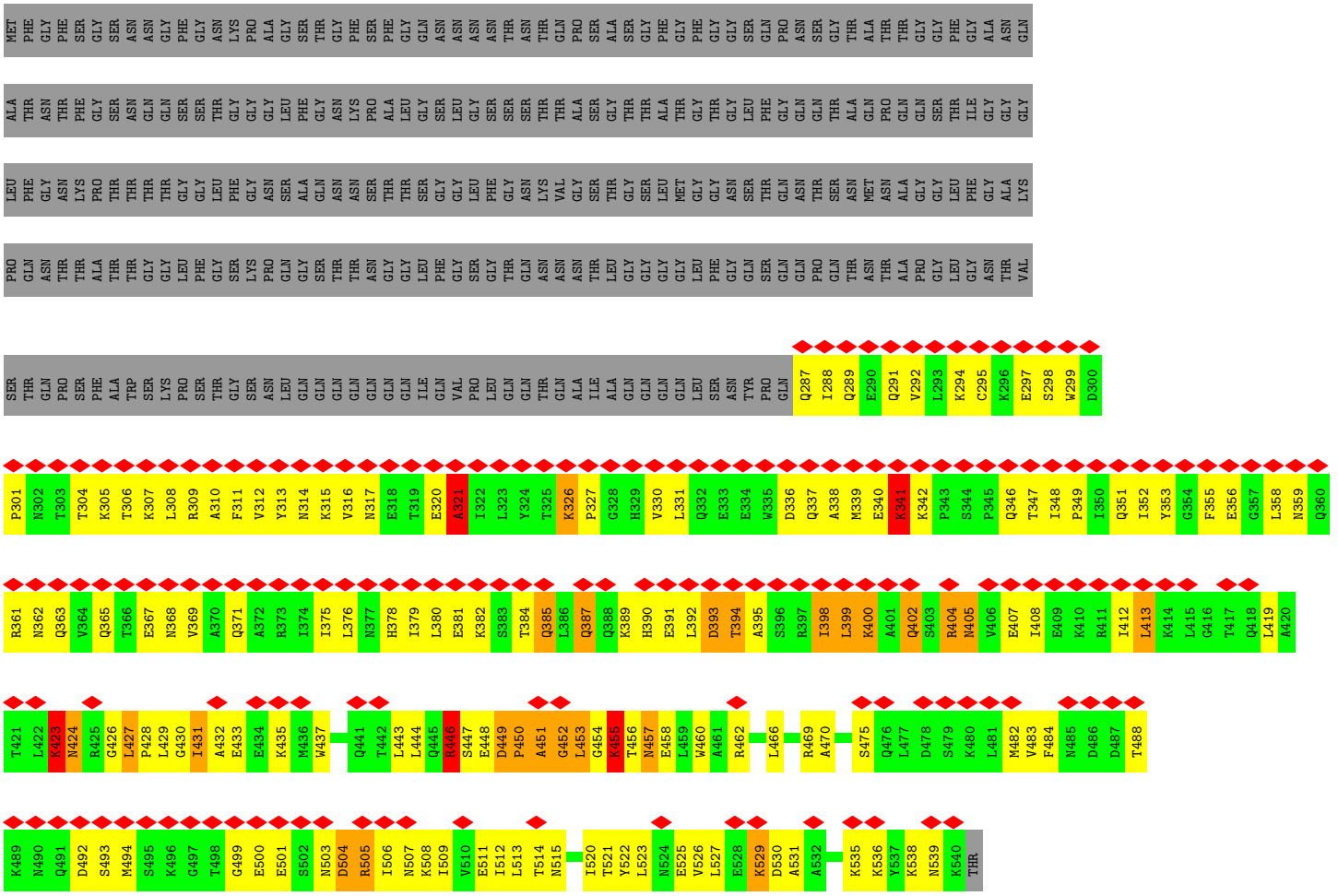
• Molecule 7: Nucleoporin NUP57

Chain H:



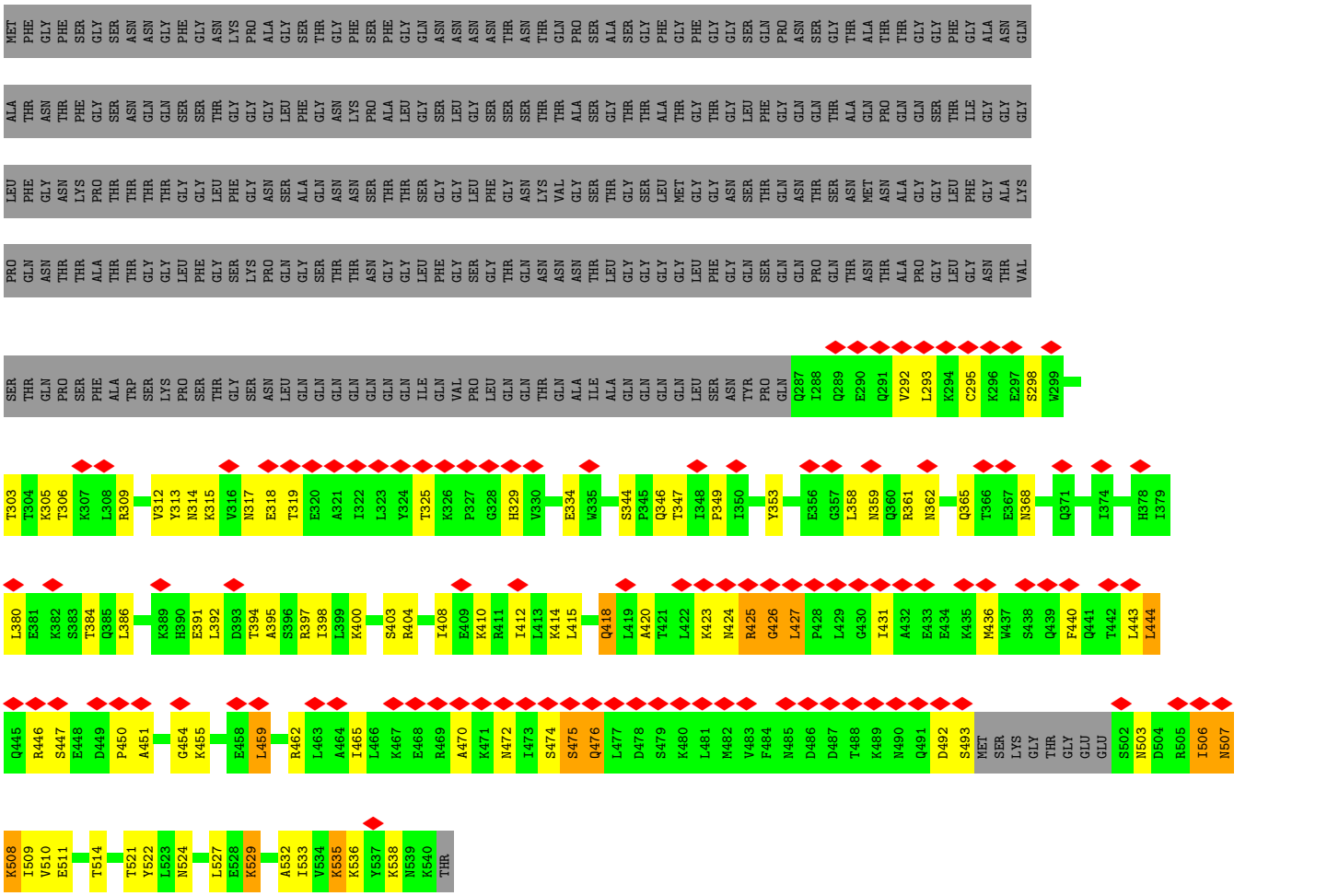
• Molecule 7: Nucleoporin NUP57

Chain K:



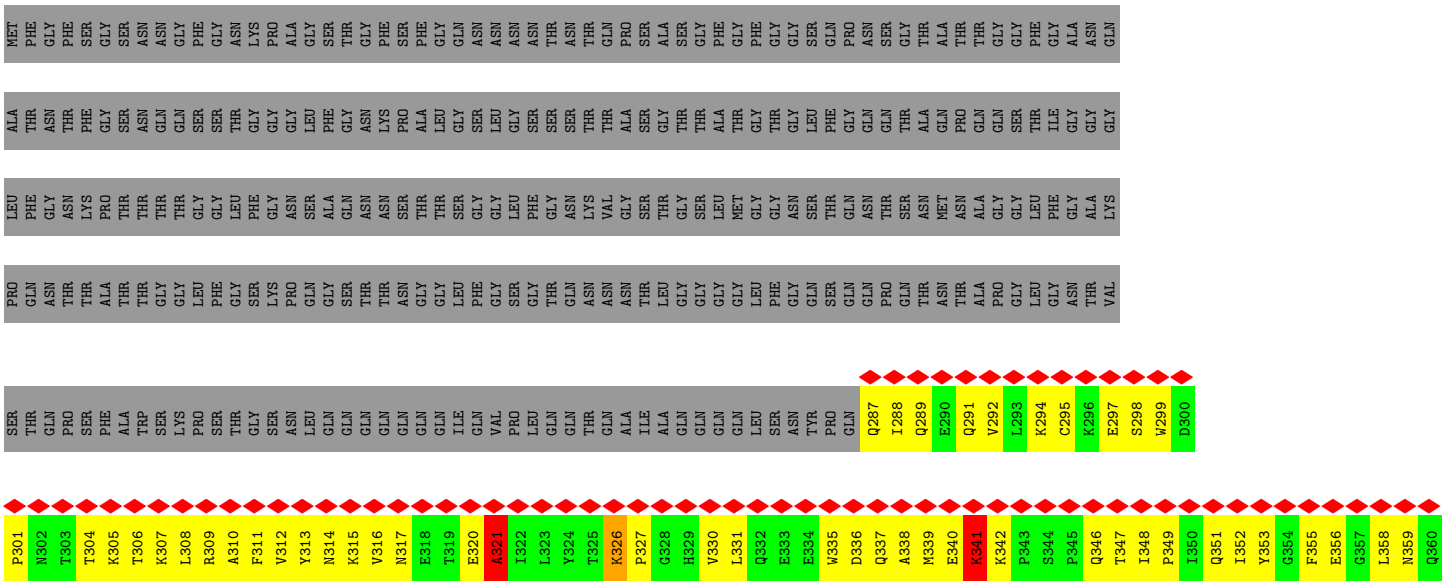
• Molecule 7: Nucleoporin NUP57

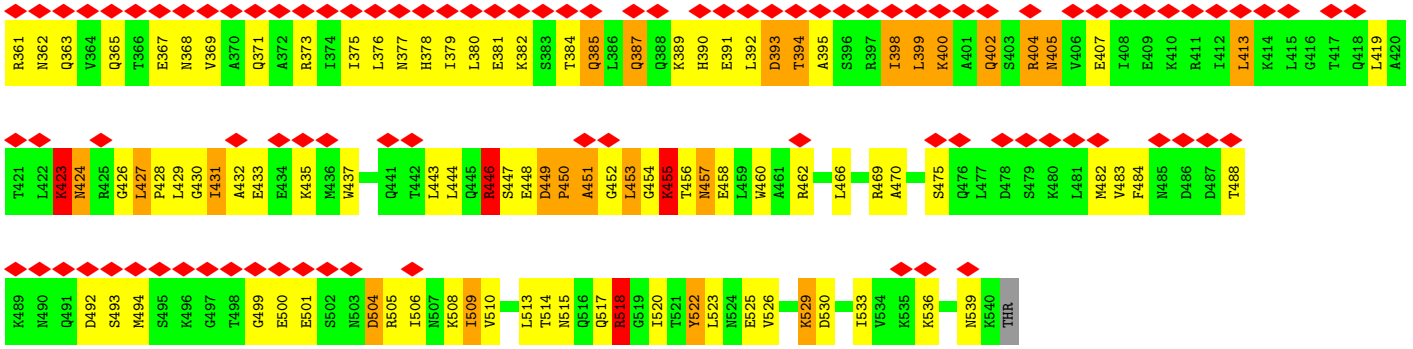
Chain T:



• Molecule 7: Nucleoporin NUP57

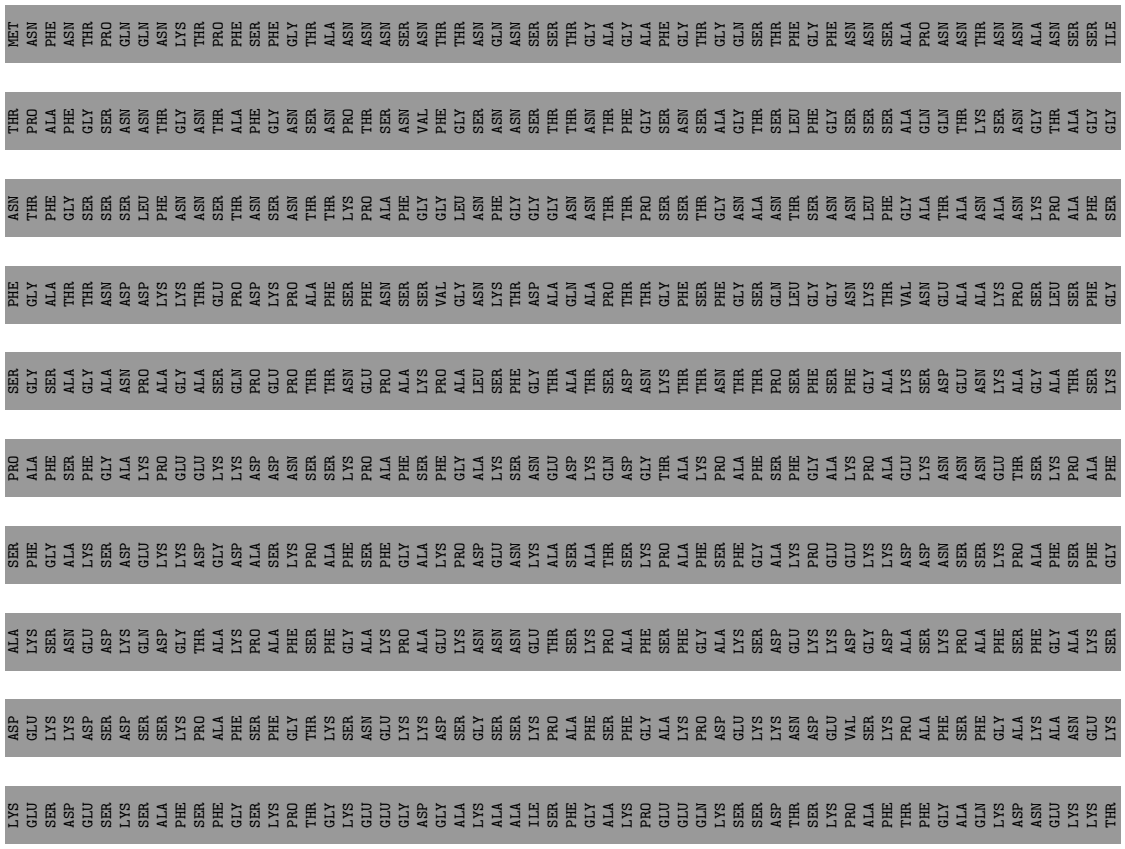
Chain W:



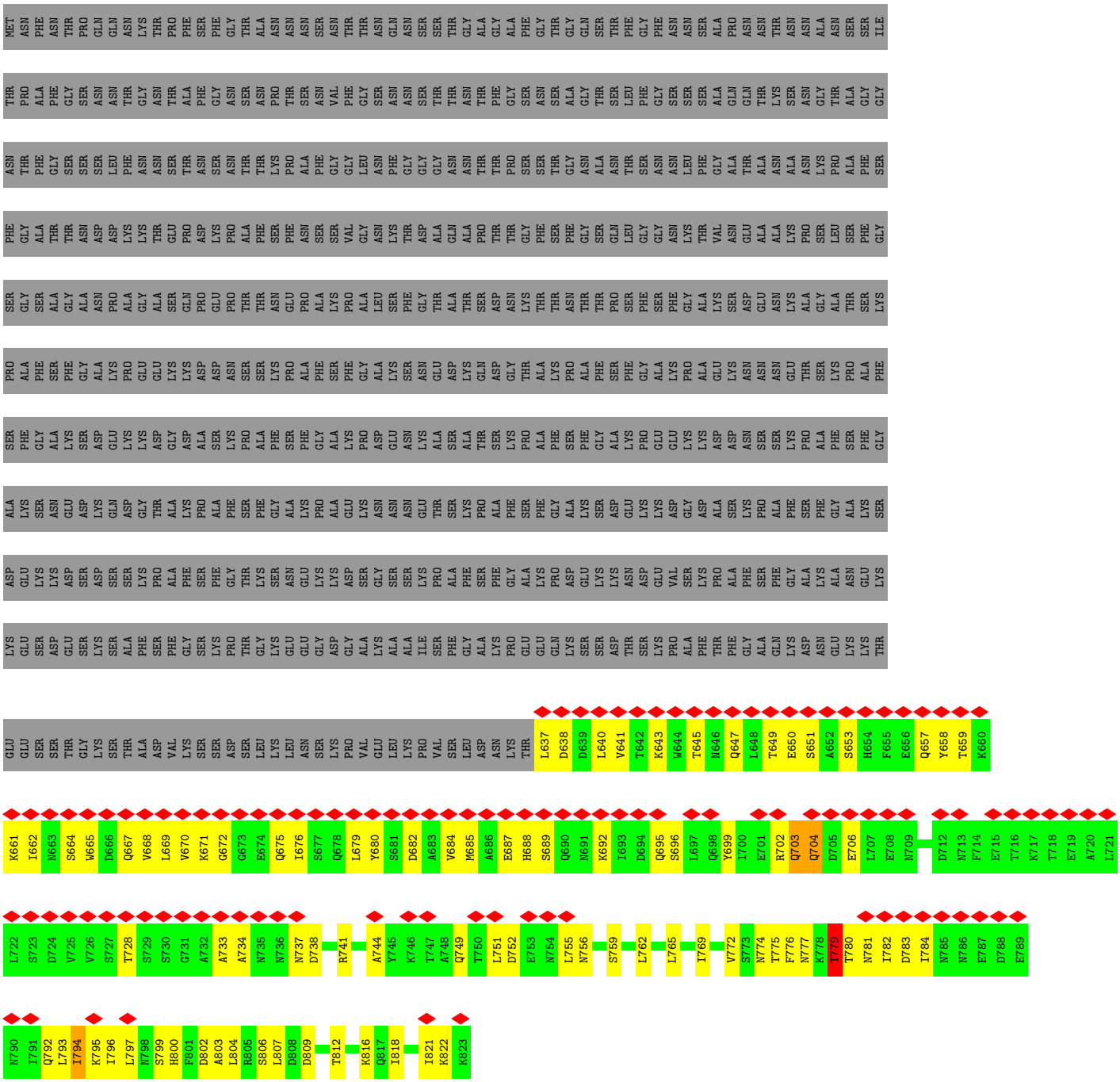


• Molecule 8: Nucleoporin NSP1

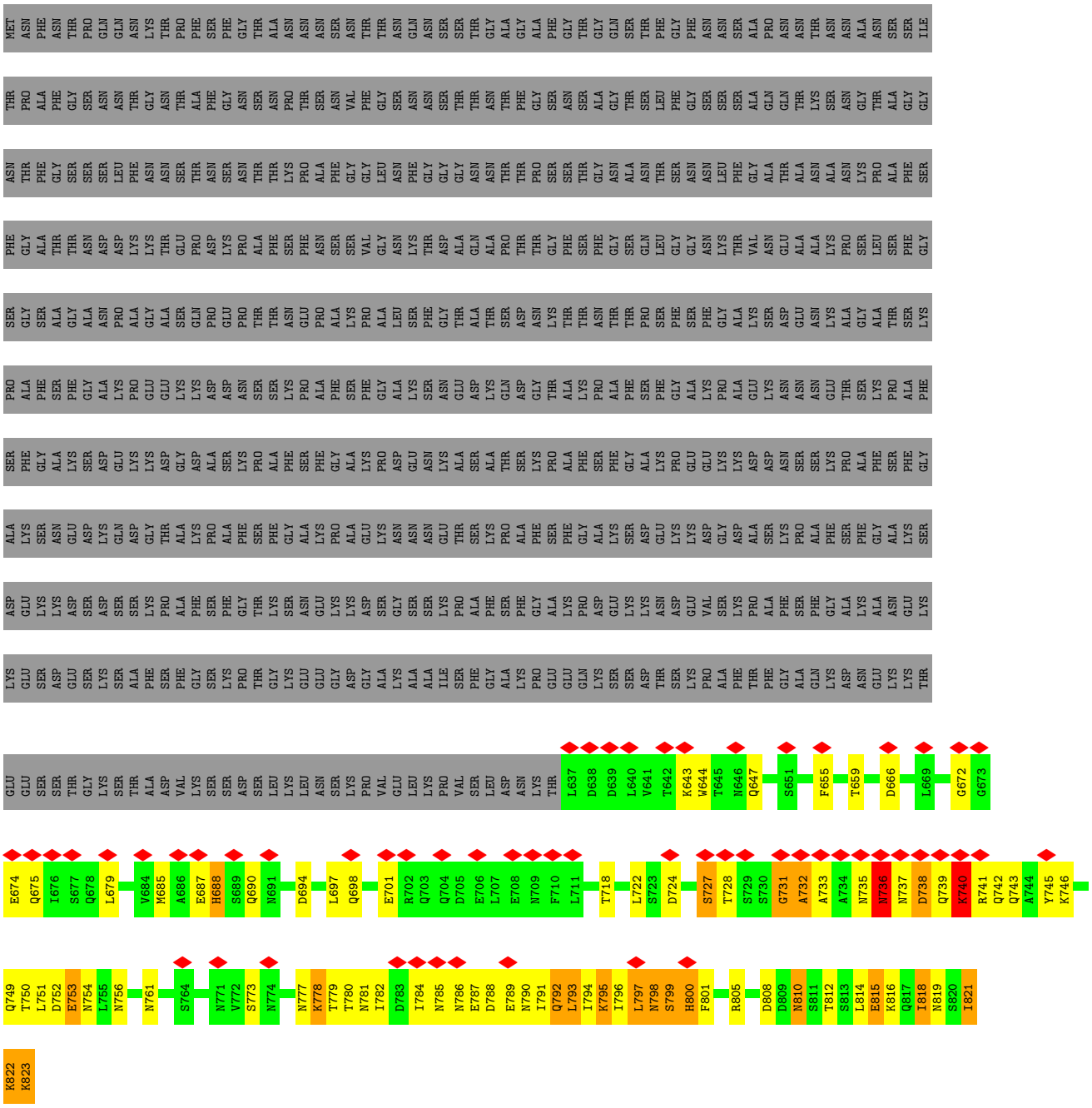
Chain I:



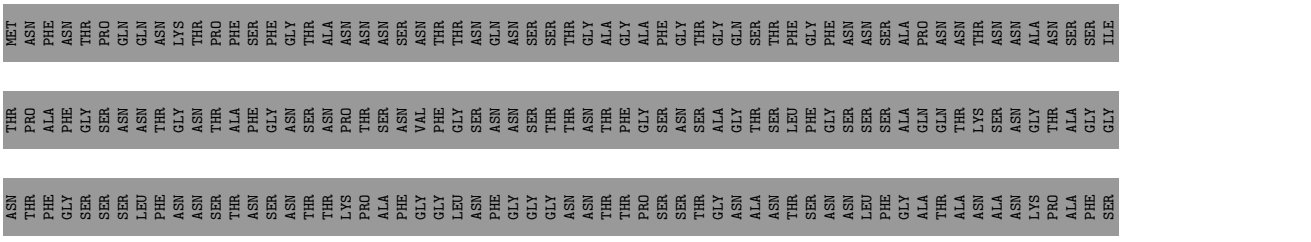
• Molecule 8: Nucleoporin NSP1

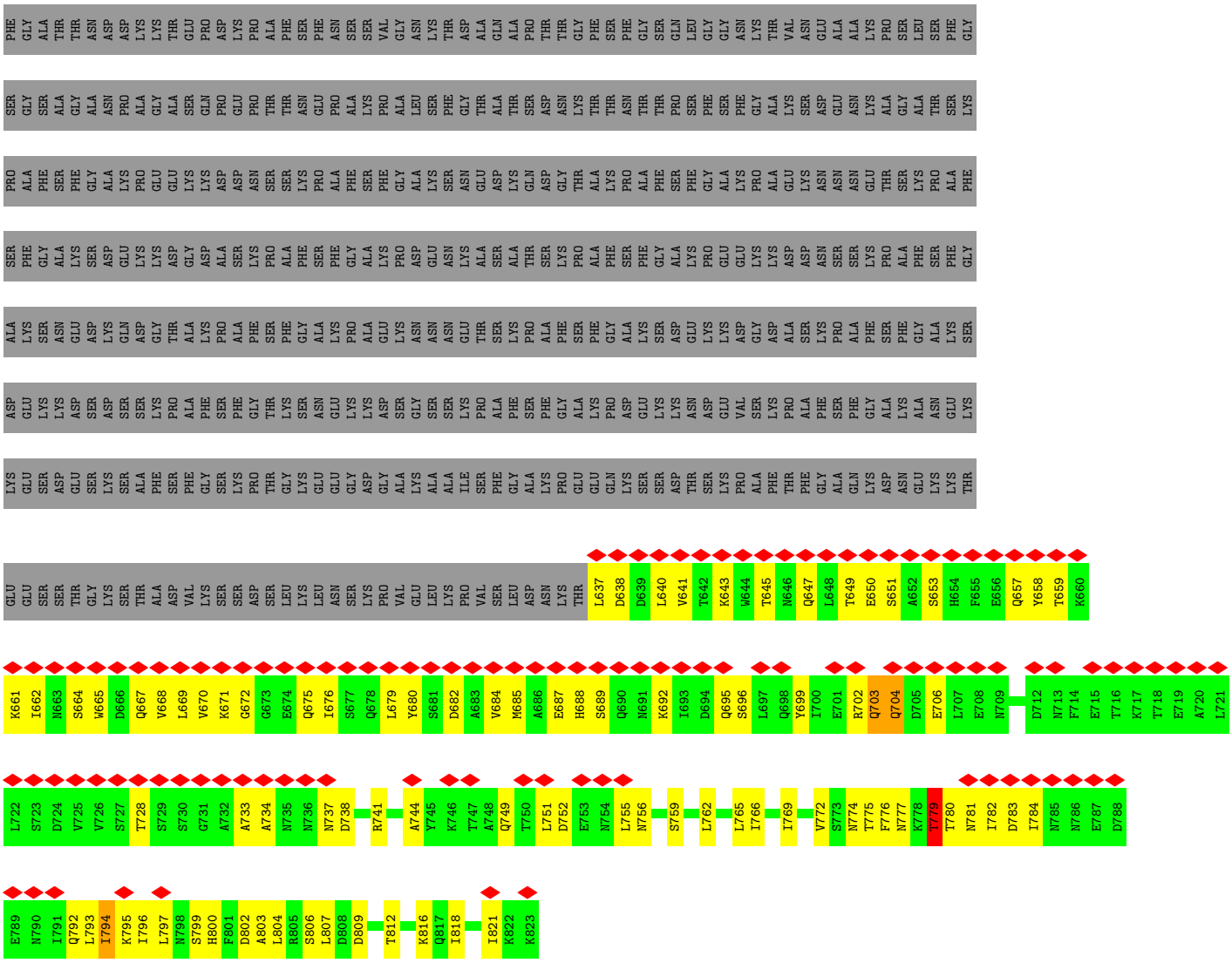


• Molecule 8: Nucleoporin NSP1



• Molecule 8: Nucleoporin NSP1

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SER GLY SER ALA GLY ALA ASN PRO ALA GLY ALA SER GLN PRO GLU PRO THR THR ASN GLU PRO ALA LYS PRO ALA LEU SER PHE GLY THR ALA THR SER ASP ASN LYS THR THR ASN THR THR PRO SER PHE SER PHE GLY ALA LYS SER ASP GLU ASN LYS ALA GLY ALA THR SER LYS
PRO ALA PHE SER PHE GLY ALA LYS PRO GLU GLU LYS LYS ASP ASP ASN SER SER LYS PRO ALA PHE SER PHE GLY ALA LYS SER ASN GLU ASP LYS GLN ASP GLY THR ALA LYS PRO ALA PHE SER PHE GLY ALA LYS PRO GLU GLU LYS LYS ASN ASN GLU THR SER LYS PRO ALA PHE
SER PHE GLY ALA LYS SER ASP GLU LYS LYS ASP GLY ASP ALA SER LYS PRO ALA PHE SER PHE GLY ALA LYS PRO ASP GLU ASN LYS ALA SER ALA THR SER LYS PRO ALA PHE SER PHE GLY ALA LYS PRO GLU GLU LYS LYS ASP ASP ASN SER SER LYS PRO ALA PHE SER PHE GLY
ALA LYS SER ASN GLU ASP GLY THR ALA LYS PHE SER PHE GLY ALA LYS PRO ALA PHE SER PHE GLY ALA LYS SER ASP GLU LYS LYS ASP ALA SER PHE GLY ALA LYS PRO ALA PHE SER PHE GLY ALA LYS SER ASN ASN ASN GLU LYS LYS ASP ALA SER PHE GLY ALA LYS SER
ASP GLU LYS LYS ASP SER PHE GLY THR LYS SER ASN GLU LYS LYS ASP SER GLY SER SER LYS PRO ALA PHE SER PHE GLY ALA LYS PRO ASP GLU VAL SER LYS PRO ALA PHE SER PHE GLY ALA LYS SER
LYS GLU SER ASP GLU SER LYS SER ALA PHE SER PHE GLY SER LYS PRO THR GLY LYS GLU GLU GLY ASP GLY ALA LYS ALA ALA ILE SER PHE GLY ALA LYS PRO GLU GLU GLN LYS SER SER ASP THR SER LYS PRO ALA PHE THR PHE GLY ALA LYS LYS ASN GLU LYS LYS THR
GLU GLU SER SER THR GLY LYS SER THR ALA ASP VAL LYS SER SER ASP SER LEU LYS LEU ASN SER LYS PRO VAL GLU GLU LEU LYS PRO VAL SER LEU ASP ASN LYS THR L637 D638 D639 L640 V641 T642 K643 W644 T645 N646 Q647 L648 T649 E650 S651 A652 S653 H654 F655 E656 Q657 Y658 T659 K660
K661 I662 M663 S664 W665 D666 Q667 V668 L669 V670 K671 G672 G673 E674 Q675 I676 S677 Q678 L679 Y680 S681 D682 A683 V684 M685 A686 E687 H688 S689 Q690 N691 K692 I693 D694 Q695 S696 L697 Q698 Y699 I700 E701 R702 Q703 Q704 D705 E706 L707 E708 N709 D712 N713 F714 E715 T716 K717 T718 E719 A720 L721
L722 S723 D724 V725 V726 S727 T728 S729 S730 G731 A732 A733 A734 N735 N736 N737 D738 R741 A744 Y745 K746 T747 A748 Q749 T750 L751 D752 E753 N754 L755 N756 S759 L762 L765 I766 I769 V772 S773 N774 T775 F776 N777 K778 T779 T780 N781 I782 D783 I784 N785 N786 E787 D788
E789 N790 I791 Q792 L793 I794 K795 I796 L797 N798 S799 H800 F801 D802 A803 L804 R805 S806 L807 D808 D809 T812 K816 Q817 I818 I821 K822 K823

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	633134	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	2.483	Depositor
Minimum map value	-1.449	Depositor
Average map value	0.006	Depositor
Map value standard deviation	0.048	Depositor
Recommended contour level	0.18	Depositor
Map size (Å)	467.59998, 467.59998, 467.59998	wwPDB
Map dimensions	350, 350, 350	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.336, 1.336, 1.336	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	A	0.37	0/5810	0.59	6/7863 (0.1%)
1	M	0.36	0/5787	0.58	5/7832 (0.1%)
1	N	0.46	0/5852	0.82	9/7931 (0.1%)
1	Z	0.46	0/5853	0.84	11/7931 (0.1%)
2	C	0.66	0/10658	0.90	22/14443 (0.2%)
2	O	0.66	0/10658	0.90	23/14443 (0.2%)
3	D	0.46	0/11182	0.63	5/15160 (0.0%)
3	P	0.46	0/11171	0.63	5/15145 (0.0%)
4	E	0.43	0/12583	0.68	9/17054 (0.1%)
4	Q	0.43	0/12583	0.68	8/17054 (0.0%)
5	F	0.63	5/12443 (0.0%)	1.18	91/16898 (0.5%)
5	R	0.63	5/12443 (0.0%)	1.18	90/16898 (0.5%)
6	G	0.35	0/1553	0.62	0/2104
6	J	0.50	0/1509	1.00	11/2042 (0.5%)
6	S	0.35	0/1549	0.62	0/2100
6	V	0.50	0/1509	1.02	11/2042 (0.5%)
7	H	0.61	2/1832 (0.1%)	0.88	10/2482 (0.4%)
7	K	0.56	1/1829 (0.1%)	0.96	12/2485 (0.5%)
7	T	0.61	2/1832 (0.1%)	0.88	11/2482 (0.4%)
7	W	0.61	1/1826 (0.1%)	1.03	15/2481 (0.6%)
8	I	0.59	0/1431	0.93	4/1940 (0.2%)
8	L	0.40	0/1378	0.74	1/1873 (0.1%)
8	U	0.59	0/1431	0.93	4/1940 (0.2%)
8	X	0.40	0/1378	0.74	1/1873 (0.1%)
All	All	0.53	16/136080 (0.0%)	0.85	364/184496 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	N	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	Z	0	1
5	F	0	4
5	R	0	4
6	G	0	1
6	S	0	1
7	H	0	1
7	K	0	2
7	T	0	1
7	W	0	2
All	All	0	19

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	F	750	TRP	C-N	10.13	1.53	1.34
5	R	750	TRP	C-N	10.13	1.53	1.34
7	H	427	LEU	C-N	10.05	1.53	1.34
7	T	427	LEU	C-N	10.01	1.53	1.34
7	T	425	ARG	C-N	9.00	1.49	1.33
7	H	425	ARG	C-N	8.93	1.49	1.33
7	W	326	LYS	C-N	8.60	1.50	1.34
7	K	326	LYS	C-N	8.58	1.50	1.34
5	F	1235	ASN	C-N	8.51	1.53	1.34
5	F	1394	SER	C-N	8.48	1.50	1.34
5	R	1235	ASN	C-N	8.47	1.53	1.34
5	R	1394	SER	C-N	8.42	1.50	1.34
5	F	409	MET	C-N	8.26	1.50	1.34
5	R	409	MET	C-N	8.24	1.50	1.34
5	F	356	ILE	C-N	7.38	1.48	1.34
5	R	356	ILE	C-N	7.37	1.48	1.34

All (364) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	1090	PRO	CA-N-CD	-37.79	58.60	111.50
5	R	1090	PRO	CA-N-CD	-37.74	58.66	111.50
7	T	425	ARG	C-N-CA	-13.43	94.11	122.30
7	H	425	ARG	C-N-CA	-13.39	94.18	122.30
6	V	388	CYS	CB-CA-C	-12.61	85.19	110.40
5	R	1036	PRO	N-CA-CB	10.88	116.36	103.30
5	F	1036	PRO	N-CA-CB	10.79	116.25	103.30
5	F	1089	ASN	C-N-CD	10.16	149.74	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	R	1089	ASN	C-N-CD	10.09	149.60	128.40
8	I	800	HIS	CB-CA-C	10.07	130.53	110.40
1	N	772	PRO	CA-N-CD	-10.03	97.45	111.50
8	U	800	HIS	CB-CA-C	10.02	130.44	110.40
1	Z	772	PRO	CA-N-CD	-10.01	97.48	111.50
5	R	1067	ASN	CB-CA-C	-9.88	90.64	110.40
5	F	1067	ASN	CB-CA-C	-9.88	90.65	110.40
2	C	104	ARG	NE-CZ-NH1	9.72	125.16	120.30
2	O	104	ARG	NE-CZ-NH1	9.69	125.14	120.30
5	F	837	TYR	CB-CA-C	9.41	129.22	110.40
5	R	837	TYR	CB-CA-C	9.38	129.16	110.40
5	R	1235	ASN	CA-C-N	9.20	137.44	117.20
5	F	1235	ASN	CA-C-N	9.20	137.43	117.20
5	F	823	PRO	N-CA-C	9.07	135.67	112.10
5	R	823	PRO	N-CA-C	9.06	135.67	112.10
5	R	1089	ASN	CB-CA-C	8.81	128.03	110.40
1	Z	91	GLN	CB-CA-C	-8.78	92.84	110.40
5	F	1089	ASN	CB-CA-C	8.77	127.95	110.40
5	R	711	GLN	CB-CA-C	8.76	127.93	110.40
5	F	711	GLN	CB-CA-C	8.73	127.87	110.40
1	N	91	GLN	CB-CA-C	-8.71	92.98	110.40
1	Z	27	GLU	CB-CA-C	-8.71	92.99	110.40
5	R	1235	ASN	CA-C-O	-8.69	101.86	120.10
5	F	1235	ASN	CA-C-O	-8.67	101.90	120.10
1	Z	30	ASP	CB-CA-C	8.48	127.36	110.40
2	C	268	ARG	NE-CZ-NH1	8.42	124.51	120.30
4	E	51	LEU	CA-CB-CG	8.41	134.64	115.30
4	Q	51	LEU	CA-CB-CG	8.38	134.57	115.30
2	O	268	ARG	NE-CZ-NH1	8.27	124.44	120.30
7	H	476	GLN	CB-CA-C	8.26	126.92	110.40
7	T	476	GLN	CB-CA-C	8.26	126.91	110.40
7	K	450	PRO	N-CA-C	8.25	133.55	112.10
7	W	450	PRO	N-CA-C	8.21	133.44	112.10
5	F	921	PRO	CA-N-CD	-8.17	100.06	111.50
7	W	504	ASP	O-C-N	8.17	135.77	122.70
5	F	1068	ILE	N-CA-C	-8.16	88.96	111.00
5	R	1068	ILE	N-CA-C	-8.16	88.97	111.00
5	R	1056	LEU	CA-CB-CG	8.11	133.95	115.30
5	R	921	PRO	CA-N-CD	-8.09	100.18	111.50
5	F	1056	LEU	CA-CB-CG	8.07	133.86	115.30
6	V	406	PHE	C-N-CA	-8.04	105.41	122.30
6	J	406	PHE	C-N-CA	-8.03	105.43	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	R	1506	ILE	CG1-CB-CG2	-7.95	93.92	111.40
5	F	1506	ILE	CG1-CB-CG2	-7.93	93.94	111.40
6	J	335	SER	O-C-N	7.90	135.34	122.70
6	V	335	SER	O-C-N	7.79	135.16	122.70
2	O	512	ARG	NE-CZ-NH1	7.77	124.19	120.30
5	R	1090	PRO	N-CA-CB	7.76	112.61	103.30
2	C	512	ARG	NE-CZ-NH1	7.67	124.13	120.30
4	E	262	SER	C-N-CA	7.65	140.83	121.70
5	F	1090	PRO	N-CA-CB	7.62	112.45	103.30
5	R	750	TRP	CA-C-N	7.56	138.27	117.10
5	F	750	TRP	CA-C-N	7.56	138.26	117.10
2	O	1221	ARG	NE-CZ-NH2	7.55	124.07	120.30
2	C	1221	ARG	NE-CZ-NH2	7.54	124.07	120.30
2	C	1130	ARG	NE-CZ-NH1	7.51	124.05	120.30
2	O	1130	ARG	NE-CZ-NH1	7.49	124.04	120.30
5	R	668	ARG	NE-CZ-NH1	7.43	124.02	120.30
2	C	1277	ARG	NE-CZ-NH1	7.41	124.01	120.30
5	F	644	LYS	C-N-CA	7.38	140.15	121.70
5	F	668	ARG	NE-CZ-NH1	7.37	123.99	120.30
5	R	644	LYS	C-N-CA	7.35	140.08	121.70
4	E	759	ASN	CB-CA-C	7.31	125.03	110.40
8	I	736	ASN	CB-CA-C	7.31	125.02	110.40
8	U	736	ASN	CB-CA-C	7.31	125.02	110.40
5	F	935	GLN	N-CA-CB	7.30	123.75	110.60
4	Q	759	ASN	CB-CA-C	7.30	125.00	110.40
7	W	504	ASP	C-N-CA	7.27	139.88	121.70
2	O	1277	ARG	NE-CZ-NH1	7.27	123.93	120.30
5	R	935	GLN	N-CA-CB	7.25	123.66	110.60
5	F	966	LEU	CA-CB-CG	7.20	131.87	115.30
5	R	966	LEU	CA-CB-CG	7.20	131.85	115.30
5	R	1391	GLY	C-N-CA	7.17	139.62	121.70
5	F	1286	PHE	CB-CA-C	7.17	124.74	110.40
5	F	1391	GLY	C-N-CA	7.17	139.62	121.70
5	R	668	ARG	NE-CZ-NH2	-7.17	116.72	120.30
5	R	1286	PHE	CB-CA-C	7.16	124.72	110.40
5	R	1090	PRO	C-N-CA	-7.14	103.85	121.70
5	F	921	PRO	N-CA-CB	-7.12	94.76	103.30
5	F	1090	PRO	C-N-CA	-7.12	103.90	121.70
5	F	668	ARG	NE-CZ-NH2	-7.10	116.75	120.30
5	R	921	PRO	N-CA-CB	-7.09	94.79	103.30
2	C	770	ARG	NE-CZ-NH1	7.09	123.84	120.30
2	O	770	ARG	NE-CZ-NH1	7.07	123.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	1090	PRO	CA-CB-CG	-7.06	90.59	104.00
5	R	1164	PHE	CB-CA-C	-7.05	96.30	110.40
1	A	23	ASN	CB-CA-C	7.04	124.47	110.40
3	D	1232	ARG	NE-CZ-NH1	7.03	123.82	120.30
5	F	1164	PHE	CB-CA-C	-7.03	96.35	110.40
5	R	1090	PRO	CA-CB-CG	-7.02	90.66	104.00
5	F	888	PRO	N-CA-C	6.91	130.06	112.10
5	R	888	PRO	N-CA-C	6.87	129.97	112.10
5	F	797	LEU	CA-CB-CG	6.87	131.09	115.30
5	R	1234	GLY	O-C-N	6.86	133.67	122.70
5	R	797	LEU	CA-CB-CG	6.85	131.06	115.30
5	F	1234	GLY	O-C-N	6.84	133.65	122.70
3	P	1232	ARG	NE-CZ-NH1	6.81	123.71	120.30
1	Z	750	GLU	C-N-CA	6.79	138.68	121.70
1	N	750	GLU	C-N-CA	6.78	138.66	121.70
5	F	716	LEU	CA-CB-CG	6.67	130.64	115.30
5	R	716	LEU	CA-CB-CG	6.64	130.57	115.30
4	E	858	LEU	CA-CB-CG	-6.56	100.21	115.30
5	R	1378	ASP	CB-CA-C	6.53	123.47	110.40
2	O	364	ARG	NE-CZ-NH1	6.51	123.56	120.30
4	Q	858	LEU	CA-CB-CG	-6.51	100.33	115.30
5	F	1378	ASP	CB-CA-C	6.50	123.41	110.40
2	C	364	ARG	NE-CZ-NH1	6.48	123.54	120.30
2	O	693	LEU	C-N-CA	6.47	137.89	121.70
3	P	1012	ARG	NE-CZ-NH1	6.47	123.54	120.30
7	H	476	GLN	N-CA-CB	-6.45	98.98	110.60
5	R	1049	LEU	CA-CB-CG	6.45	130.14	115.30
7	T	476	GLN	N-CA-CB	-6.45	99.00	110.60
2	C	693	LEU	C-N-CA	6.42	137.76	121.70
5	F	1049	LEU	CA-CB-CG	6.42	130.06	115.30
7	K	341	LYS	N-CA-C	-6.40	93.71	111.00
4	Q	213	PHE	CB-CA-C	6.39	123.18	110.40
7	W	341	LYS	N-CA-C	-6.39	93.75	111.00
4	E	213	PHE	CB-CA-C	6.38	123.15	110.40
1	N	506	LEU	CA-CB-CG	6.34	129.89	115.30
1	Z	506	LEU	CA-CB-CG	6.32	129.83	115.30
3	D	1012	ARG	NE-CZ-NH1	6.30	123.45	120.30
6	J	335	SER	CA-C-N	-6.29	103.37	117.20
5	F	968	ILE	CG1-CB-CG2	-6.28	97.59	111.40
5	R	968	ILE	CG1-CB-CG2	-6.27	97.60	111.40
5	F	1222	ASN	C-N-CA	6.26	137.35	121.70
5	F	1378	ASP	C-N-CA	6.26	135.45	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	V	335	SER	CA-C-N	-6.26	103.43	117.20
5	R	1378	ASP	C-N-CA	6.25	135.42	122.30
5	F	1408	LEU	CB-CG-CD2	6.24	121.60	111.00
5	R	1061	ASN	CB-CA-C	6.24	122.88	110.40
2	C	727	ARG	NE-CZ-NH2	-6.23	117.19	120.30
5	F	1061	ASN	CB-CA-C	6.22	122.84	110.40
5	R	1222	ASN	C-N-CA	6.21	137.23	121.70
5	R	1408	LEU	CB-CG-CD2	6.20	121.53	111.00
7	W	423	LYS	C-N-CA	6.19	137.17	121.70
7	K	423	LYS	C-N-CA	6.17	137.12	121.70
5	F	1406	TYR	CA-CB-CG	6.16	125.11	113.40
6	V	335	SER	C-N-CA	6.15	137.08	121.70
2	O	718	ARG	NE-CZ-NH1	6.15	123.37	120.30
6	V	406	PHE	CA-C-O	-6.15	107.19	120.10
5	F	935	GLN	CA-C-O	-6.14	107.20	120.10
5	R	1406	TYR	CA-CB-CG	6.14	125.06	113.40
5	F	1080	LEU	CA-CB-CG	6.13	129.41	115.30
6	J	335	SER	C-N-CA	6.13	137.03	121.70
6	J	406	PHE	CA-C-O	-6.13	107.23	120.10
4	E	435	LEU	CA-CB-CG	6.13	129.39	115.30
5	R	935	GLN	CA-C-O	-6.13	107.23	120.10
5	R	1080	LEU	CA-CB-CG	6.12	129.38	115.30
2	C	718	ARG	NE-CZ-NH1	6.11	123.36	120.30
4	Q	435	LEU	CA-CB-CG	6.11	129.35	115.30
5	F	833	THR	CA-C-N	-6.10	103.78	117.20
2	O	727	ARG	NE-CZ-NH2	-6.09	117.25	120.30
2	C	431	ARG	NE-CZ-NH1	6.09	123.34	120.30
7	T	459	LEU	CA-CB-CG	6.09	129.30	115.30
8	I	731	GLY	C-N-CA	6.08	136.90	121.70
5	R	639	LEU	CB-CA-C	6.08	121.75	110.20
8	U	731	GLY	C-N-CA	6.08	136.89	121.70
7	H	459	LEU	CA-CB-CG	6.07	129.26	115.30
2	O	1182	ARG	NE-CZ-NH1	6.06	123.33	120.30
5	R	925	HIS	C-N-CA	6.06	136.85	121.70
5	R	833	THR	CA-C-N	-6.04	103.91	117.20
5	F	344	ILE	C-N-CA	6.04	136.79	121.70
5	F	639	LEU	CB-CA-C	6.02	121.64	110.20
8	X	779	THR	C-N-CA	6.02	136.75	121.70
8	L	779	THR	C-N-CA	6.02	136.74	121.70
1	M	55	GLN	CB-CA-C	6.02	122.43	110.40
5	R	344	ILE	C-N-CA	6.02	136.74	121.70
5	F	793	TYR	CA-CB-CG	6.01	124.82	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	925	HIS	C-N-CA	6.00	136.71	121.70
1	A	55	GLN	CB-CA-C	6.00	122.41	110.40
5	R	1010	LEU	CB-CG-CD2	-6.00	100.81	111.00
7	H	475	SER	O-C-N	6.00	132.29	122.70
7	K	424	ASN	CB-CA-C	5.97	122.35	110.40
5	F	1134	LYS	N-CA-CB	5.97	121.34	110.60
5	R	1134	LYS	N-CA-CB	5.97	121.35	110.60
7	T	475	SER	O-C-N	5.96	132.24	122.70
7	W	424	ASN	CB-CA-C	5.96	122.32	110.40
5	R	793	TYR	CA-CB-CG	5.95	124.70	113.40
6	J	386	ASP	CB-CA-C	5.94	122.28	110.40
5	F	1010	LEU	CB-CG-CD2	-5.93	100.91	111.00
5	F	1234	GLY	CA-C-N	-5.92	104.17	117.20
7	W	446	ARG	CG-CD-NE	-5.92	99.36	111.80
7	K	446	ARG	CG-CD-NE	-5.92	99.36	111.80
5	R	1234	GLY	CA-C-N	-5.91	104.19	117.20
2	O	385	ARG	NE-CZ-NH1	5.91	123.25	120.30
7	K	450	PRO	CB-CA-C	-5.90	97.25	112.00
7	W	450	PRO	CB-CA-C	-5.90	97.26	112.00
3	P	1128	GLN	N-CA-CB	5.88	121.18	110.60
5	F	644	LYS	O-C-N	5.87	132.10	122.70
5	R	750	TRP	O-C-N	-5.87	109.94	121.10
5	R	644	LYS	O-C-N	5.86	132.07	122.70
5	F	750	TRP	O-C-N	-5.86	109.97	121.10
5	R	1090	PRO	N-CD-CG	5.86	111.98	103.20
2	C	1182	ARG	NE-CZ-NH1	5.85	123.23	120.30
7	T	426	GLY	O-C-N	5.84	132.05	122.70
5	F	833	THR	O-C-N	5.83	132.04	122.70
3	D	1128	GLN	N-CA-CB	5.83	121.10	110.60
5	F	865	LEU	CB-CG-CD1	-5.81	101.12	111.00
7	H	426	GLY	O-C-N	5.81	131.99	122.70
5	R	1088	ARG	O-C-N	5.80	131.99	122.70
5	R	833	THR	O-C-N	5.80	131.99	122.70
2	C	385	ARG	NE-CZ-NH1	5.80	123.20	120.30
5	R	865	LEU	CB-CG-CD1	-5.79	101.15	111.00
5	F	1090	PRO	N-CD-CG	5.79	111.88	103.20
7	T	425	ARG	CA-C-O	-5.78	107.95	120.10
5	R	443	ILE	CG1-CB-CG2	-5.78	98.68	111.40
5	F	750	TRP	CA-CB-CG	5.78	124.67	113.70
7	H	425	ARG	CA-C-O	-5.78	107.97	120.10
5	F	443	ILE	CG1-CB-CG2	-5.77	98.70	111.40
5	F	1088	ARG	O-C-N	5.76	131.92	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	R	750	TRP	CA-CB-CG	5.76	124.65	113.70
1	A	114	ARG	N-CA-CB	5.76	120.97	110.60
2	O	431	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	M	114	ARG	N-CA-CB	5.75	120.96	110.60
5	F	186	LEU	CA-CB-CG	5.74	128.50	115.30
1	Z	54	PHE	CB-CA-C	-5.74	98.92	110.40
5	R	186	LEU	CA-CB-CG	5.72	128.46	115.30
5	F	1158	THR	CB-CA-C	5.70	127.00	111.60
1	N	294	MET	CA-CB-CG	5.70	122.98	113.30
1	Z	294	MET	CA-CB-CG	5.69	122.98	113.30
1	N	54	PHE	CB-CA-C	-5.69	99.02	110.40
5	R	1158	THR	CB-CA-C	5.68	126.95	111.60
2	C	718	ARG	NE-CZ-NH2	-5.68	117.46	120.30
5	R	833	THR	C-N-CA	5.67	135.87	121.70
2	O	718	ARG	NE-CZ-NH2	-5.66	117.47	120.30
7	H	427	LEU	CA-C-N	5.65	132.93	117.10
5	F	833	THR	C-N-CA	5.65	135.83	121.70
5	F	1075	LEU	CB-CG-CD1	-5.65	101.39	111.00
1	M	54	PHE	CB-CA-C	-5.65	99.10	110.40
5	R	1075	LEU	CB-CG-CD1	-5.65	101.40	111.00
1	Z	283	LEU	CA-CB-CG	5.64	128.28	115.30
1	N	283	LEU	CA-CB-CG	5.64	128.27	115.30
7	T	427	LEU	CA-C-N	5.62	132.84	117.10
7	W	518	ARG	CB-CA-C	5.62	121.64	110.40
5	R	1116	VAL	CG1-CB-CG2	-5.62	101.91	110.90
5	F	366	ILE	C-N-CA	5.60	135.70	121.70
5	R	1401	LEU	CB-CG-CD2	5.60	120.52	111.00
1	A	54	PHE	CB-CA-C	-5.59	99.21	110.40
5	R	77	LEU	CA-CB-CG	5.59	128.16	115.30
5	R	366	ILE	C-N-CA	5.56	135.60	121.70
5	F	1116	VAL	CG1-CB-CG2	-5.56	102.01	110.90
5	F	77	LEU	CA-CB-CG	5.55	128.08	115.30
5	F	1401	LEU	CB-CG-CD2	5.55	120.43	111.00
7	K	320	GLU	C-N-CA	5.54	135.54	121.70
4	E	1384	ASP	CB-CA-C	5.53	121.47	110.40
1	A	43	GLN	O-C-N	-5.53	113.85	122.70
4	Q	1384	ASP	CB-CA-C	5.52	121.44	110.40
5	F	889	ILE	CA-C-N	5.51	129.33	117.20
7	W	320	GLU	C-N-CA	5.51	135.47	121.70
5	F	1188	THR	C-N-CA	5.51	135.47	121.70
5	F	1314	VAL	N-CA-C	5.50	125.84	111.00
5	R	1314	VAL	N-CA-C	5.50	125.84	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	803	ALA	N-CA-CB	5.49	117.79	110.10
5	F	193	LEU	CA-CB-CG	5.48	127.91	115.30
5	R	1188	THR	C-N-CA	5.48	135.40	121.70
2	O	1198	ARG	NE-CZ-NH1	5.47	123.04	120.30
5	R	193	LEU	CA-CB-CG	5.47	127.88	115.30
5	R	889	ILE	CA-C-N	5.46	129.22	117.20
7	K	413	LEU	CA-CB-CG	5.46	127.87	115.30
6	V	380	TYR	CB-CA-C	5.46	121.31	110.40
5	R	803	ALA	N-CA-CB	5.46	117.74	110.10
7	W	413	LEU	CA-CB-CG	5.45	127.84	115.30
5	F	356	ILE	C-N-CA	5.44	144.86	122.00
3	P	1284	ARG	NE-CZ-NH1	5.44	123.02	120.30
5	R	903	ASN	C-N-CA	5.44	135.30	121.70
5	R	356	ILE	C-N-CA	5.44	144.84	122.00
2	C	104	ARG	NE-CZ-NH2	-5.43	117.58	120.30
5	F	803	ALA	C-N-CA	-5.43	108.11	121.70
5	F	903	ASN	C-N-CA	5.43	135.28	121.70
1	M	43	GLN	O-C-N	-5.43	114.02	122.70
2	C	1198	ARG	NE-CZ-NH1	5.41	123.01	120.30
6	J	380	TYR	CB-CA-C	5.39	121.19	110.40
5	F	1075	LEU	CA-CB-CG	5.39	127.70	115.30
5	F	1382	TYR	CB-CG-CD1	5.39	124.23	121.00
5	R	803	ALA	C-N-CA	-5.39	108.22	121.70
1	M	43	GLN	C-N-CA	-5.37	108.28	121.70
7	W	452	GLY	C-N-CA	5.37	135.12	121.70
5	R	781	LEU	CA-CB-CG	5.37	127.64	115.30
5	R	1075	LEU	CA-CB-CG	5.36	127.63	115.30
5	F	781	LEU	CA-CB-CG	5.35	127.61	115.30
7	T	444	LEU	CA-CB-CG	5.35	127.61	115.30
7	K	452	GLY	C-N-CA	5.35	135.07	121.70
5	R	827	ILE	C-N-CA	5.34	135.06	121.70
1	A	43	GLN	C-N-CA	-5.33	108.38	121.70
6	V	370	ASP	CA-CB-CG	5.32	125.10	113.40
5	R	1160	TYR	CB-CG-CD2	5.31	124.19	121.00
6	J	370	ASP	CA-CB-CG	5.31	125.09	113.40
7	W	431	ILE	C-N-CA	-5.30	108.44	121.70
7	K	451	ALA	N-CA-C	5.30	125.32	111.00
5	F	827	ILE	C-N-CA	5.30	134.95	121.70
5	F	1010	LEU	CA-CB-CG	5.30	127.49	115.30
7	H	444	LEU	CA-CB-CG	5.30	127.48	115.30
4	Q	212	TRP	O-C-N	5.29	131.17	122.70
5	R	1010	LEU	CA-CB-CG	5.29	127.47	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	W	451	ALA	N-CA-C	5.29	125.27	111.00
5	R	345	ARG	N-CA-CB	5.28	120.11	110.60
1	Z	642	LEU	CA-CB-CG	5.28	127.44	115.30
7	K	431	ILE	C-N-CA	-5.28	108.51	121.70
2	O	1240	ARG	NE-CZ-NH1	5.27	122.94	120.30
5	F	1160	TYR	CB-CG-CD2	5.27	124.16	121.00
1	N	642	LEU	CA-CB-CG	5.27	127.41	115.30
4	E	212	TRP	O-C-N	5.26	131.12	122.70
4	E	585	ASP	CB-CG-OD2	5.26	123.03	118.30
5	F	345	ARG	N-CA-CB	5.25	120.06	110.60
2	C	708	ARG	NE-CZ-NH1	5.25	122.92	120.30
8	U	753	GLU	CB-CA-C	-5.24	99.93	110.40
8	I	753	GLU	CB-CA-C	-5.22	99.96	110.40
5	R	1208	GLU	N-CA-C	-5.21	96.92	111.00
5	F	108	LEU	CA-CB-CG	5.21	127.29	115.30
2	O	708	ARG	NE-CZ-NH1	5.21	122.91	120.30
5	R	108	LEU	CA-CB-CG	5.21	127.28	115.30
5	F	1208	GLU	N-CA-C	-5.21	96.94	111.00
2	C	1386	ARG	NE-CZ-NH1	5.20	122.90	120.30
6	V	380	TYR	CB-CG-CD1	-5.20	117.88	121.00
7	W	321	ALA	N-CA-CB	5.20	117.37	110.10
2	O	104	ARG	NE-CZ-NH2	-5.18	117.71	120.30
3	D	1284	ARG	NE-CZ-NH1	5.17	122.89	120.30
2	O	1386	ARG	NE-CZ-NH1	5.17	122.88	120.30
5	F	597	LEU	CA-CB-CG	5.16	127.17	115.30
4	Q	585	ASP	CB-CG-OD2	5.16	122.94	118.30
5	R	675	LEU	CA-CB-CG	5.15	127.14	115.30
7	H	506	ILE	C-N-CA	5.15	134.57	121.70
5	F	675	LEU	CA-CB-CG	5.15	127.14	115.30
2	O	1057	TYR	CB-CG-CD2	-5.15	117.91	121.00
7	T	506	ILE	C-N-CA	5.14	134.56	121.70
2	C	749	ARG	NE-CZ-NH1	5.14	122.87	120.30
6	J	380	TYR	CB-CG-CD1	-5.14	117.92	121.00
7	K	321	ALA	N-CA-CB	5.14	117.30	110.10
5	R	1382	TYR	CB-CG-CD1	5.14	124.08	121.00
5	R	1185	ILE	O-C-N	-5.14	114.48	122.70
3	P	528	PRO	CA-N-CD	-5.13	104.32	111.50
5	R	597	LEU	CA-CB-CG	5.13	127.09	115.30
5	F	1088	ARG	NE-CZ-NH1	-5.12	117.74	120.30
5	R	1088	ARG	NE-CZ-NH1	-5.11	117.74	120.30
2	O	749	ARG	NE-CZ-NH1	5.11	122.86	120.30
2	C	1057	TYR	CB-CG-CD2	-5.10	117.94	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	562	LEU	CA-CB-CG	5.10	127.03	115.30
5	F	1087	CYS	CA-CB-SG	5.10	123.18	114.00
5	R	880	GLU	CB-CA-C	-5.08	100.23	110.40
5	R	562	LEU	CA-CB-CG	5.08	126.98	115.30
5	F	1185	ILE	O-C-N	-5.08	114.58	122.70
2	C	386	ARG	NE-CZ-NH1	5.07	122.84	120.30
3	D	528	PRO	CA-N-CD	-5.07	104.40	111.50
5	R	1087	CYS	CA-CB-SG	5.07	123.13	114.00
1	N	751	LEU	N-CA-CB	-5.07	100.26	110.40
1	Z	751	LEU	N-CA-CB	-5.07	100.26	110.40
5	F	880	GLU	CB-CA-C	-5.07	100.26	110.40
6	V	373	PHE	N-CA-CB	5.06	119.70	110.60
6	J	370	ASP	CB-CA-C	5.05	120.51	110.40
5	R	1183	TYR	C-N-CA	-5.03	109.13	121.70
6	J	373	PHE	N-CA-CB	5.03	119.64	110.60
6	V	370	ASP	CB-CA-C	5.02	120.45	110.40
2	O	727	ARG	NE-CZ-NH1	5.02	122.81	120.30
5	F	1183	TYR	C-N-CA	-5.02	109.15	121.70
7	T	535	LYS	CB-CA-C	5.01	120.42	110.40
5	F	240	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (19) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	F	1185	ILE	Mainchain
5	F	1188	THR	Mainchain
5	F	360	LEU	Mainchain
5	F	814	ASN	Mainchain
6	G	422	GLY	Mainchain
7	H	509	ILE	Mainchain
7	K	380	LEU	Mainchain
7	K	488	THR	Mainchain
1	N	249	ARG	Mainchain
1	N	748	SER	Mainchain
5	R	1185	ILE	Mainchain
5	R	1188	THR	Mainchain
5	R	360	LEU	Mainchain
5	R	814	ASN	Mainchain
6	S	422	GLY	Mainchain
7	T	509	ILE	Mainchain
7	W	380	LEU	Mainchain

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Mol	Chain	Res	Type	Group
7	W	488	THR	Mainchain
1	Z	748	SER	Mainchain

5.2 Too-close contacts (i)

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	A	5720	0	5578	305	0
1	M	5697	0	5563	302	0
1	N	5766	0	5590	494	0
1	Z	5767	0	5596	531	0
2	C	10452	0	10392	51	0
2	O	10452	0	10392	50	0
3	D	10966	0	10812	459	0
3	P	10956	0	10803	473	0
4	E	12362	0	12566	356	0
4	Q	12362	0	12566	336	0
5	F	12239	0	11567	842	0
5	R	12239	0	11568	850	0
6	G	1533	0	1515	124	0
6	J	1492	0	1465	287	0
6	S	1529	0	1504	112	0
6	V	1492	0	1465	323	0
7	H	1811	0	1697	146	0
7	K	1808	0	1614	306	0
7	T	1811	0	1697	152	0
7	W	1805	0	1605	321	0
8	I	1418	0	1293	168	0
8	L	1366	0	1211	160	0
8	U	1418	0	1293	168	0
8	X	1366	0	1211	145	0
All	All	133827	0	130563	6256	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 24.

All (6256) 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:N:810:ALA:CB	1:N:836:ASP:HA	1.26	1.63
6:G:451:MET:CE	1:M:14:THR:HG21	1.19	1.62
1:A:15:SER:HB2	6:S:447:PHE:CZ	1.35	1.61
3:D:955:PRO:CB	3:D:994:SER:CB	1.78	1.61
5:R:1357:ALA:HB2	5:R:1381:LEU:CB	1.19	1.60
1:Z:810:ALA:CB	1:Z:836:ASP:HA	1.26	1.59
3:P:955:PRO:CB	3:P:994:SER:CB	1.78	1.58
5:R:841:PHE:CD2	5:R:918:PHE:HE1	1.21	1.57
7:H:522:TYR:CB	1:Z:54:PHE:CB	1.82	1.57
5:F:841:PHE:CD2	5:F:918:PHE:HE1	1.21	1.56
1:N:54:PHE:CB	7:T:522:TYR:CB	1.82	1.55
5:R:376:ASN:CB	5:R:381:THR:CA	1.82	1.55
5:F:1357:ALA:HB2	5:F:1381:LEU:CB	1.19	1.55
5:F:376:ASN:CB	5:F:381:THR:CA	1.83	1.53
3:P:1140:LYS:NZ	1:Z:204:GLU:HA	1.24	1.53
6:J:325:TYR:CE2	7:K:390:HIS:HA	1.44	1.52
7:K:538:LYS:HA	8:L:822:LYS:CB	1.10	1.52
6:J:383:LYS:NZ	8:L:756:ASN:CA	1.73	1.51
6:V:325:TYR:CE2	7:W:390:HIS:HA	1.45	1.49
7:H:420:ALA:HB1	8:I:745:TYR:CE1	1.49	1.47
6:V:383:LYS:NZ	8:X:756:ASN:CA	1.73	1.46
1:N:245:ALA:HB2	1:N:250:ASN:CB	1.43	1.46
1:N:753:ALA:HB1	1:N:815:ILE:C	1.35	1.45
6:V:357:LEU:HB3	7:W:423:LYS:CE	1.46	1.45
1:Z:252:GLN:OE1	1:Z:498:PHE:CE2	1.70	1.45
6:J:357:LEU:HB3	7:K:423:LYS:CE	1.46	1.44
7:H:418:GLN:NE2	8:I:718:THR:CG2	1.81	1.44
1:A:772:PRO:CB	1:A:828:THR:HG21	1.47	1.43
6:S:404:ASP:CB	6:S:425:GLU:CB	1.97	1.43
7:W:389:LYS:HA	7:W:393:ASP:CB	1.49	1.43
7:T:420:ALA:HB1	8:U:745:TYR:CE1	1.49	1.43
7:W:389:LYS:CA	7:W:393:ASP:HB3	1.49	1.43
7:K:483:VAL:O	7:K:492:ASP:CB	1.66	1.42
1:Z:753:ALA:HB1	1:Z:815:ILE:C	1.35	1.42
7:T:418:GLN:NE2	8:U:718:THR:CG2	1.81	1.42
7:K:321:ALA:CA	7:K:348:ILE:HD11	1.50	1.42
7:W:483:VAL:O	7:W:492:ASP:CB	1.66	1.41
3:D:1140:LYS:NZ	1:N:204:GLU:HA	1.28	1.41
3:D:920:GLU:CB	1:N:294:MET:HG2	1.51	1.41
1:N:757:ALA:CB	1:N:819:MET:O	1.68	1.41
1:M:772:PRO:CB	1:M:828:THR:HG21	1.47	1.40
1:Z:757:ALA:CB	1:Z:819:MET:O	1.68	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:15:SER:CB	6:S:447:PHE:CE2	2.04	1.40
6:G:404:ASP:CB	6:G:425:GLU:CB	1.97	1.39
8:I:818:ILE:O	8:I:821:ILE:CG2	1.68	1.39
1:Z:746:PRO:CB	1:Z:753:ALA:HA	1.52	1.39
1:A:15:SER:CB	6:S:447:PHE:CZ	2.05	1.39
5:R:1353:LEU:CB	5:R:1384:LEU:CB	2.01	1.39
8:U:818:ILE:O	8:U:821:ILE:CG2	1.68	1.39
7:K:389:LYS:HA	7:K:393:ASP:CB	1.49	1.38
3:P:1136:ASP:CB	1:Z:203:ASN:O	1.67	1.38
5:F:841:PHE:CD2	5:F:918:PHE:CE1	2.11	1.38
5:F:1353:LEU:CB	5:F:1384:LEU:CB	2.01	1.38
3:P:920:GLU:CB	1:Z:294:MET:HG2	1.54	1.38
5:F:1116:VAL:HG11	5:F:1150:PHE:CE2	1.58	1.38
7:K:389:LYS:CA	7:K:393:ASP:HB3	1.49	1.38
1:N:810:ALA:CB	1:N:836:ASP:CA	2.02	1.38
5:R:1116:VAL:HG11	5:R:1150:PHE:CE2	1.58	1.38
7:W:321:ALA:CA	7:W:348:ILE:HD11	1.50	1.38
1:N:746:PRO:CB	1:N:753:ALA:HA	1.52	1.37
5:R:228:PHE:H	5:R:361:LEU:CB	1.37	1.37
5:R:841:PHE:CD2	5:R:918:PHE:CE1	2.11	1.37
1:A:15:SER:HB3	6:S:447:PHE:CE2	1.58	1.37
4:E:1022:TYR:CE2	4:E:1026:THR:HG21	1.60	1.37
7:K:483:VAL:CB	7:K:493:SER:O	1.72	1.36
7:W:483:VAL:CB	7:W:493:SER:O	1.72	1.36
5:R:376:ASN:CB	5:R:381:THR:HA	0.88	1.36
5:F:334:GLN:NE2	5:F:859:LYS:NZ	1.73	1.35
1:N:49:LEU:CD1	6:S:331:LYS:HE2	1.56	1.35
1:A:128:LEU:HD22	4:E:1260:TYR:CE2	1.61	1.35
6:J:388:CYS:CB	7:K:455:LYS:HD2	1.52	1.35
3:D:1134:SER:O	1:N:206:ASN:ND2	1.58	1.35
1:Z:810:ALA:CB	1:Z:836:ASP:CA	2.02	1.35
6:J:383:LYS:NZ	8:L:756:ASN:HA	1.03	1.35
7:K:538:LYS:CA	8:L:822:LYS:CB	2.01	1.35
5:F:228:PHE:H	5:F:361:LEU:CB	1.37	1.35
5:F:1227:THR:CB	7:H:475:SER:OG	1.74	1.35
5:R:334:GLN:NE2	5:R:859:LYS:HZ2	1.20	1.35
5:F:334:GLN:HE21	5:F:859:LYS:NZ	1.24	1.34
5:F:376:ASN:CB	5:F:381:THR:HA	0.88	1.34
5:F:1357:ALA:CB	5:F:1381:LEU:CB	2.05	1.34
1:M:128:LEU:HD22	4:Q:1260:TYR:CE2	1.61	1.34
6:V:383:LYS:NZ	8:X:756:ASN:HA	1.03	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:1022:TYR:CE2	4:Q:1026:THR:HG21	1.60	1.34
5:F:902:LYS:HE2	7:H:414:LYS:CD	1.58	1.34
5:R:1227:THR:CB	7:T:475:SER:OG	1.74	1.34
5:F:1633:TYR:CE2	5:F:1635:ARG:HB2	1.63	1.33
6:G:331:LYS:HE2	1:Z:49:LEU:CD1	1.56	1.33
5:R:1357:ALA:CB	5:R:1381:LEU:CB	2.05	1.33
5:R:334:GLN:HG3	5:R:854:GLU:OE2	1.25	1.33
5:R:334:GLN:HE21	5:R:859:LYS:NZ	1.24	1.33
6:J:388:CYS:HB2	7:K:455:LYS:CD	1.59	1.33
5:R:334:GLN:NE2	5:R:859:LYS:NZ	1.73	1.33
5:R:902:LYS:HE2	7:T:414:LYS:CD	1.58	1.32
5:R:1084:LEU:HA	5:R:1156:TYR:OH	1.29	1.32
5:F:1561:LEU:CD2	5:R:1667:VAL:HG21	1.58	1.32
7:H:418:GLN:HE21	8:I:718:THR:CG2	1.38	1.31
1:Z:810:ALA:HB1	1:Z:836:ASP:CA	1.57	1.31
5:R:1633:TYR:CE2	5:R:1635:ARG:HB2	1.63	1.31
5:F:334:GLN:HG3	5:F:854:GLU:OE2	1.24	1.30
1:N:810:ALA:HB3	1:N:836:ASP:O	1.30	1.30
1:A:43:GLN:O	1:A:44:VAL:CB	1.68	1.30
6:V:357:LEU:CB	7:W:423:LYS:HE3	1.61	1.30
6:V:400:GLY:O	6:V:403:THR:HG22	1.21	1.30
5:R:902:LYS:CE	7:T:414:LYS:HD2	1.62	1.30
5:F:902:LYS:CE	7:H:414:LYS:HD2	1.62	1.29
3:P:1140:LYS:HZ2	1:Z:204:GLU:CA	1.44	1.29
5:F:1116:VAL:HG11	5:F:1150:PHE:CZ	1.68	1.29
1:M:43:GLN:O	1:M:44:VAL:CB	1.68	1.29
1:M:128:LEU:HD22	4:Q:1260:TYR:CD2	1.67	1.29
1:M:140:ILE:CG2	4:Q:1393:LYS:HD3	1.62	1.29
7:T:418:GLN:HE21	8:U:718:THR:CG2	1.38	1.29
8:X:775:THR:O	8:X:779:THR:CB	1.78	1.29
1:A:140:ILE:CG2	4:E:1393:LYS:HD3	1.62	1.28
5:R:1116:VAL:HG11	5:R:1150:PHE:CZ	1.68	1.28
6:J:357:LEU:CB	7:K:423:LYS:HE3	1.60	1.28
7:K:321:ALA:N	7:K:348:ILE:HD11	1.47	1.28
1:M:128:LEU:HD13	4:Q:1260:TYR:CZ	1.67	1.28
1:N:207:ILE:CD1	1:N:247:GLY:HA3	1.61	1.28
8:L:775:THR:O	8:L:779:THR:CB	1.78	1.28
7:W:321:ALA:N	7:W:348:ILE:HD11	1.47	1.28
1:A:128:LEU:HD13	4:E:1260:TYR:CZ	1.67	1.28
6:V:383:LYS:HZ1	8:X:756:ASN:CA	1.39	1.28
5:F:675:LEU:O	5:F:679:ILE:HG12	1.13	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:333:ILE:O	6:J:336:PHE:CB	1.82	1.27
1:N:753:ALA:CB	1:N:815:ILE:C	2.02	1.27
3:P:242:MET:SD	3:P:298:TYR:CE2	2.28	1.27
1:A:128:LEU:HD22	4:E:1260:TYR:CD2	1.68	1.27
3:D:242:MET:SD	3:D:298:TYR:CE2	2.28	1.27
1:Z:810:ALA:HB3	1:Z:836:ASP:O	1.30	1.27
1:N:810:ALA:HB1	1:N:836:ASP:CA	1.57	1.27
5:F:1084:LEU:HA	5:F:1156:TYR:OH	1.29	1.26
6:V:333:ILE:O	6:V:336:PHE:CB	1.82	1.26
7:H:418:GLN:NE2	8:I:718:THR:HG23	1.42	1.26
1:A:59:LYS:C	8:L:807:LEU:CB	2.03	1.26
1:M:59:LYS:C	8:X:807:LEU:CB	2.03	1.26
1:Z:753:ALA:CB	1:Z:815:ILE:C	2.02	1.26
7:K:321:ALA:HA	7:K:348:ILE:CG1	1.65	1.25
7:W:321:ALA:HA	7:W:348:ILE:CG1	1.65	1.25
6:J:383:LYS:NZ	8:L:756:ASN:CG	1.89	1.24
1:N:746:PRO:CB	1:N:816:TYR:CB	2.16	1.24
1:A:772:PRO:HB3	1:A:828:THR:CG2	1.68	1.23
1:N:753:ALA:HB1	1:N:816:TYR:N	1.54	1.23
5:R:675:LEU:O	5:R:679:ILE:HG12	1.13	1.23
6:G:451:MET:CE	1:M:14:THR:CG2	2.15	1.23
6:V:383:LYS:NZ	8:X:756:ASN:CG	1.89	1.23
6:G:431:GLN:HA	7:H:503:ASN:CB	1.67	1.23
6:V:390:ILE:O	6:V:394:ILE:HG23	1.37	1.23
1:Z:746:PRO:CB	1:Z:816:TYR:CB	2.16	1.23
5:F:800:ILE:HG12	5:F:885:GLU:OE1	1.37	1.23
6:V:463:LYS:HG2	7:W:530:ASP:OD2	1.06	1.22
1:N:252:GLN:OE1	1:N:498:PHE:HD2	1.20	1.22
6:G:327:LYS:NZ	1:Z:46:ILE:HB	1.54	1.22
6:S:431:GLN:HA	7:T:503:ASN:CB	1.67	1.22
1:N:824:MET:HG2	1:N:825:PRO:CD	1.70	1.22
1:M:772:PRO:HB3	1:M:828:THR:CG2	1.68	1.21
6:V:400:GLY:O	6:V:403:THR:CG2	1.87	1.21
1:Z:753:ALA:HB1	1:Z:816:TYR:N	1.54	1.21
5:F:1129:ASN:ND2	5:F:1132:GLU:HB3	1.55	1.21
1:N:46:ILE:HB	6:S:327:LYS:NZ	1.54	1.21
3:P:1136:ASP:OD2	1:Z:203:ASN:O	1.57	1.21
5:R:800:ILE:HG12	5:R:885:GLU:OE1	1.37	1.21
1:M:814:MET:HG3	1:M:833:ILE:CD1	1.71	1.20
3:P:1020:ASN:CB	1:Z:251:ALA:HB3	1.71	1.20
6:J:383:LYS:HZ1	8:L:756:ASN:CA	1.39	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:824:MET:HG2	1:Z:825:PRO:CD	1.70	1.20
7:T:418:GLN:NE2	8:U:718:THR:HG23	1.42	1.20
1:Z:807:LYS:HA	1:Z:836:ASP:O	1.41	1.20
4:E:1022:TYR:CE2	4:E:1026:THR:CG2	2.25	1.19
5:F:800:ILE:CG1	5:F:885:GLU:OE1	1.90	1.19
8:U:773:SER:O	8:U:777:ASN:CB	1.90	1.19
3:D:1244:ASN:CB	1:Z:826:ARG:CB	2.21	1.19
4:Q:1022:TYR:CD2	4:Q:1026:THR:HG21	1.76	1.19
5:R:800:ILE:CG1	5:R:885:GLU:OE1	1.90	1.19
1:N:826:ARG:CB	3:P:1244:ASN:CB	2.21	1.19
4:Q:1022:TYR:CE2	4:Q:1026:THR:CG2	2.25	1.19
1:A:814:MET:HG3	1:A:833:ILE:CD1	1.72	1.18
4:E:1022:TYR:CD2	4:E:1026:THR:HG21	1.76	1.18
7:H:418:GLN:NE2	8:I:718:THR:HG21	1.55	1.18
5:R:1129:ASN:ND2	5:R:1132:GLU:HB3	1.55	1.18
6:V:398:VAL:HG21	7:W:462:ARG:O	1.41	1.18
5:R:1529:ALA:HB2	5:R:1611:VAL:HG13	1.22	1.18
6:J:364:ILE:HA	7:K:424:ASN:ND2	1.55	1.18
8:I:773:SER:O	8:I:777:ASN:CB	1.90	1.18
1:N:807:LYS:HA	1:N:836:ASP:O	1.41	1.18
3:P:920:GLU:CB	1:Z:294:MET:CG	2.21	1.18
3:D:920:GLU:CB	1:N:294:MET:CG	2.21	1.17
6:S:430:LEU:CB	8:U:780:THR:HA	1.74	1.17
1:M:28:SER:CB	1:Z:23:ASN:HA	1.74	1.17
6:V:364:ILE:HA	7:W:424:ASN:ND2	1.55	1.17
6:V:383:LYS:NZ	8:X:756:ASN:CB	2.07	1.17
1:Z:252:GLN:OE1	1:Z:498:PHE:HE2	0.86	1.17
4:E:1309:ARG:O	4:E:1313:ARG:HG3	1.45	1.17
6:G:430:LEU:CB	8:I:780:THR:HA	1.74	1.17
1:Z:757:ALA:HB2	1:Z:819:MET:C	1.64	1.17
3:D:1134:SER:O	1:N:206:ASN:CG	1.67	1.16
6:J:383:LYS:NZ	8:L:756:ASN:CB	2.07	1.16
4:Q:1309:ARG:O	4:Q:1313:ARG:HG3	1.45	1.16
8:I:810:ASN:OD1	1:Z:59:LYS:CB	1.94	1.16
1:M:783:SER:HA	1:M:839:LEU:HA	1.26	1.16
3:D:1140:LYS:HZ2	1:N:204:GLU:CA	1.57	1.16
3:P:1020:ASN:OD1	1:Z:252:GLN:HG2	1.41	1.16
7:W:446:ARG:HH22	7:W:455:LYS:NZ	1.44	1.16
3:D:1238:ARG:HA	1:Z:830:SER:HB3	1.28	1.15
1:N:757:ALA:HB2	1:N:819:MET:C	1.64	1.15
7:H:425:ARG:C	7:H:427:LEU:H	1.48	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:814:MET:CB	1:Z:833:ILE:HD13	1.76	1.15
7:K:444:LEU:O	7:K:447:SER:CB	1.95	1.15
3:P:1136:ASP:CG	1:Z:203:ASN:O	1.83	1.15
5:F:354:ARG:HB2	5:F:356:ILE:HG22	1.28	1.14
7:K:446:ARG:HH22	7:K:455:LYS:NZ	1.44	1.14
1:N:59:LYS:CB	8:U:810:ASN:OD1	1.94	1.14
1:N:814:MET:CB	1:N:833:ILE:HD13	1.76	1.14
6:V:380:TYR:HE2	8:X:751:LEU:HD21	1.08	1.14
7:W:444:LEU:O	7:W:447:SER:CB	1.95	1.14
7:T:425:ARG:C	7:T:427:LEU:H	1.48	1.14
5:F:1529:ALA:HB2	5:F:1611:VAL:HG13	1.21	1.14
7:W:336:ASP:O	7:W:340:GLU:HB2	1.48	1.14
6:V:431:GLN:HA	7:W:500:GLU:H	1.10	1.14
5:R:841:PHE:HD2	5:R:918:PHE:CE1	1.55	1.13
1:N:753:ALA:CB	1:N:816:TYR:N	2.11	1.13
3:D:1137:ASP:CB	1:N:205:ASN:CB	2.26	1.13
1:Z:753:ALA:CB	1:Z:816:TYR:N	2.11	1.13
5:F:675:LEU:O	5:F:679:ILE:CG1	1.96	1.13
5:R:675:LEU:O	5:R:679:ILE:CG1	1.96	1.13
1:A:775:LEU:HB3	1:A:832:LEU:CD1	1.79	1.13
5:F:1558:ASP:O	5:R:1681:ASN:CB	1.97	1.12
7:K:336:ASP:O	7:K:340:GLU:HB2	1.48	1.12
1:M:775:LEU:HB3	1:M:832:LEU:CD1	1.79	1.12
5:R:690:GLU:CD	8:U:722:LEU:HD21	1.69	1.12
6:V:398:VAL:CG2	7:W:466:LEU:CD1	2.26	1.12
1:N:46:ILE:HB	6:S:327:LYS:HZ3	0.96	1.12
1:N:810:ALA:HB3	1:N:836:ASP:C	1.69	1.12
5:R:734:LEU:CD2	5:R:817:ASN:OD1	1.98	1.12
1:Z:824:MET:CG	1:Z:825:PRO:HD3	1.80	1.12
6:J:380:TYR:HE2	8:L:751:LEU:HD21	1.08	1.12
7:W:321:ALA:CA	7:W:348:ILE:CD1	2.27	1.12
7:W:321:ALA:HA	7:W:348:ILE:CD1	1.80	1.12
5:F:734:LEU:CD2	5:F:817:ASN:OD1	1.98	1.12
1:N:830:SER:HB3	3:P:1238:ARG:HA	1.28	1.12
6:V:404:ASP:O	6:V:408:ALA:CB	1.97	1.12
1:Z:810:ALA:CA	1:Z:836:ASP:HA	1.80	1.11
3:D:1493:ASN:HA	5:F:1471:LYS:HD2	1.32	1.11
7:W:509:ILE:HG22	1:Z:12:SER:OG	1.50	1.11
5:F:1203:TYR:CB	5:F:1299:ASN:HD21	1.63	1.11
3:P:1493:ASN:HA	5:R:1471:LYS:HD2	1.32	1.11
5:R:354:ARG:HB2	5:R:356:ILE:HG22	1.28	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:463:LYS:CG	7:W:530:ASP:OD2	1.98	1.11
1:Z:757:ALA:HB1	1:Z:819:MET:O	1.40	1.11
6:G:289:GLN:HE22	6:J:352:VAL:HG22	0.96	1.11
7:K:321:ALA:CA	7:K:348:ILE:CD1	2.27	1.11
7:K:321:ALA:HA	7:K:348:ILE:CD1	1.80	1.11
1:Z:810:ALA:HB3	1:Z:836:ASP:C	1.69	1.11
5:F:841:PHE:HD2	5:F:918:PHE:CE1	1.55	1.11
5:F:1550:LEU:CD2	5:F:1552:PHE:CZ	2.34	1.11
1:N:810:ALA:CA	1:N:836:ASP:HA	1.80	1.11
5:R:800:ILE:CD1	5:R:885:GLU:OE1	1.98	1.11
7:T:418:GLN:NE2	8:U:718:THR:HG21	1.55	1.11
5:F:922:LEU:HD23	7:H:400:LYS:CE	1.81	1.10
1:N:252:GLN:OE1	1:N:498:PHE:CD2	2.04	1.10
5:R:922:LEU:HD23	7:T:400:LYS:CE	1.81	1.10
1:Z:746:PRO:CB	1:Z:753:ALA:CA	2.29	1.10
5:F:800:ILE:CD1	5:F:885:GLU:OE1	1.98	1.10
5:F:690:GLU:CD	8:I:722:LEU:HD21	1.69	1.10
6:G:289:GLN:NE2	6:J:352:VAL:HG22	1.67	1.10
1:N:243:SER:HA	1:N:254:LEU:HD21	1.30	1.10
1:N:757:ALA:HB1	1:N:819:MET:O	1.40	1.10
5:R:1203:TYR:CB	5:R:1299:ASN:HD21	1.63	1.10
6:V:432:LEU:CB	8:X:782:ILE:C	2.20	1.10
6:V:432:LEU:CB	8:X:782:ILE:O	2.00	1.10
1:A:783:SER:HA	1:A:839:LEU:HA	1.25	1.10
6:J:405:LEU:HD12	7:K:470:ALA:HA	1.33	1.10
6:J:432:LEU:CB	8:L:782:ILE:O	2.00	1.10
6:V:398:VAL:HG23	7:W:466:LEU:CD1	1.79	1.10
1:Z:753:ALA:HB1	1:Z:815:ILE:O	1.52	1.10
1:N:824:MET:CG	1:N:825:PRO:HD3	1.79	1.10
3:P:1020:ASN:HB2	1:Z:251:ALA:CB	1.80	1.10
3:P:1136:ASP:HB3	1:Z:203:ASN:O	1.28	1.10
5:R:334:GLN:CG	5:R:854:GLU:OE2	1.99	1.10
5:R:1550:LEU:CD2	5:R:1552:PHE:CZ	2.34	1.10
6:V:405:LEU:HD12	7:W:470:ALA:HA	1.33	1.09
5:F:334:GLN:CG	5:F:854:GLU:OE2	1.99	1.09
1:N:746:PRO:CB	1:N:753:ALA:CA	2.29	1.09
6:J:432:LEU:CB	8:L:782:ILE:C	2.19	1.09
5:F:334:GLN:NE2	5:F:859:LYS:HZ3	1.36	1.09
6:J:431:GLN:HA	7:K:500:GLU:H	1.10	1.09
1:N:757:ALA:HB2	1:N:819:MET:O	1.46	1.08
5:F:922:LEU:HD23	7:H:400:LYS:NZ	1.68	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1529:ALA:CB	5:F:1611:VAL:HG13	1.84	1.08
5:F:1561:LEU:HD22	5:R:1667:VAL:HG21	1.20	1.08
1:M:128:LEU:HD13	4:Q:1260:TYR:OH	1.53	1.08
5:R:1550:LEU:CD1	5:R:1604:ILE:HD13	1.84	1.08
6:S:430:LEU:CB	8:U:780:THR:HG22	1.83	1.08
1:Z:814:MET:CB	1:Z:833:ILE:CD1	2.32	1.08
3:D:977:LYS:HE2	1:N:315:LYS:HA	1.27	1.08
5:R:922:LEU:HD23	7:T:400:LYS:NZ	1.68	1.08
3:D:977:LYS:HE2	1:N:315:LYS:CA	1.83	1.07
7:K:317:ASN:CB	7:K:346:GLN:HB3	1.83	1.07
7:K:482:MET:CB	8:L:784:ILE:HA	1.83	1.07
6:S:289:GLN:NE2	6:V:352:VAL:HG22	1.66	1.07
7:H:426:GLY:HA2	8:I:736:ASN:N	1.69	1.07
6:J:383:LYS:HZ2	8:L:756:ASN:CB	1.65	1.07
1:N:254:LEU:HB3	1:N:258:LYS:HE2	1.32	1.07
5:R:928:LEU:H	5:R:928:LEU:HD12	1.15	1.07
5:F:1550:LEU:CD1	5:F:1604:ILE:HD13	1.84	1.07
5:R:1529:ALA:CB	5:R:1611:VAL:HG13	1.84	1.07
7:W:482:MET:CB	8:X:784:ILE:HA	1.83	1.07
1:Z:824:MET:CB	1:Z:825:PRO:HD3	1.85	1.07
1:A:55:GLN:CB	7:K:521:THR:CB	2.32	1.07
3:D:1019:ARG:HB3	1:N:251:ALA:HB2	1.19	1.07
6:G:331:LYS:HE2	1:Z:49:LEU:HD11	1.29	1.07
6:G:430:LEU:CB	8:I:780:THR:HG22	1.83	1.07
1:N:753:ALA:HB1	1:N:815:ILE:O	1.52	1.07
7:T:420:ALA:CB	8:U:745:TYR:CE1	2.36	1.07
5:F:928:LEU:H	5:F:928:LEU:HD12	1.15	1.07
7:H:420:ALA:CB	8:I:745:TYR:CE1	2.36	1.07
6:J:383:LYS:HZ2	8:L:756:ASN:CG	1.48	1.07
1:A:814:MET:HG3	1:A:833:ILE:HD11	1.07	1.06
5:F:228:PHE:N	5:F:361:LEU:CB	2.18	1.06
6:G:327:LYS:HZ3	1:Z:46:ILE:HB	0.96	1.06
7:H:412:ILE:HG23	7:H:415:LEU:HD22	1.37	1.06
1:M:772:PRO:CA	1:M:828:THR:HG21	1.86	1.06
1:N:824:MET:CB	1:N:825:PRO:HD3	1.85	1.06
7:W:317:ASN:CB	7:W:346:GLN:HB3	1.83	1.06
1:A:128:LEU:HD13	4:E:1260:TYR:OH	1.53	1.06
3:D:242:MET:SD	3:D:298:TYR:CD2	2.48	1.06
5:F:837:TYR:HB2	5:F:918:PHE:CE2	1.90	1.06
3:P:1134:SER:HB3	1:Z:206:ASN:ND2	1.48	1.06
1:A:772:PRO:CA	1:A:828:THR:HG21	1.86	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:532:ALA:HB2	8:I:818:ILE:HD12	1.34	1.06
7:K:535:LYS:HA	8:L:818:ILE:CB	1.86	1.06
1:M:814:MET:HG3	1:M:833:ILE:HD11	1.07	1.06
1:N:814:MET:CB	1:N:833:ILE:CD1	2.32	1.06
7:H:412:ILE:HG23	7:H:415:LEU:CD2	1.86	1.06
3:P:242:MET:SD	3:P:298:TYR:CD2	2.48	1.06
3:P:1021:TYR:H	1:Z:249:ARG:HA	1.20	1.06
7:T:535:LYS:CB	8:U:821:ILE:HD11	1.86	1.06
6:V:383:LYS:HZ2	8:X:756:ASN:CG	1.49	1.06
5:F:1034:LEU:HD22	5:F:1092:THR:HB	1.37	1.05
6:J:391:LEU:HD22	7:K:452:GLY:O	1.56	1.05
7:K:513:LEU:HD21	8:L:800:HIS:CE1	1.90	1.05
2:O:1258:GLN:HG2	2:O:1299:LYS:CE	1.86	1.05
5:F:841:PHE:CE2	5:F:918:PHE:CE1	2.44	1.05
6:G:451:MET:HE1	1:M:14:THR:HG21	1.10	1.05
5:R:837:TYR:HB2	5:R:918:PHE:CE2	1.90	1.05
6:V:383:LYS:NZ	8:X:756:ASN:OD1	1.87	1.05
7:H:535:LYS:CB	8:I:821:ILE:HD11	1.86	1.05
1:N:49:LEU:HD11	6:S:331:LYS:HE2	1.29	1.05
4:Q:977:ALA:O	7:W:460:TRP:CB	2.04	1.05
1:N:751:LEU:O	1:N:753:ALA:N	1.89	1.05
6:S:289:GLN:HE22	6:V:352:VAL:HG22	0.95	1.05
7:T:426:GLY:HA2	8:U:736:ASN:N	1.69	1.05
2:C:1258:GLN:HG2	2:C:1299:LYS:CE	1.86	1.04
1:M:53:VAL:HG21	8:X:799:SER:OG	1.57	1.04
4:E:977:ALA:O	7:K:460:TRP:CB	2.04	1.04
6:J:383:LYS:NZ	8:L:756:ASN:OD1	1.87	1.04
7:T:532:ALA:HB2	8:U:818:ILE:HD12	1.34	1.04
6:V:383:LYS:HZ2	8:X:756:ASN:CB	1.66	1.04
6:V:463:LYS:HE2	7:W:526:VAL:HG12	1.37	1.04
1:A:814:MET:CG	1:A:833:ILE:HD11	1.86	1.04
1:M:814:MET:CG	1:M:833:ILE:HD11	1.86	1.04
3:P:1137:ASP:CB	1:Z:205:ASN:CB	2.35	1.04
5:R:841:PHE:CE2	5:R:918:PHE:CE1	2.44	1.04
5:R:228:PHE:N	5:R:361:LEU:CB	2.18	1.04
4:E:1022:TYR:CD2	4:E:1026:THR:CG2	2.39	1.04
1:M:140:ILE:HG21	4:Q:1393:LYS:HD3	1.05	1.04
1:Z:751:LEU:O	1:Z:753:ALA:N	1.89	1.04
5:F:1203:TYR:CB	5:F:1299:ASN:ND2	2.20	1.03
7:T:412:ILE:HG23	7:T:415:LEU:CD2	1.86	1.03
1:M:140:ILE:HG22	4:Q:1393:LYS:NZ	1.73	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:U:739:GLN:O	8:U:741:ARG:N	1.91	1.03
6:V:325:TYR:CE2	7:W:390:HIS:CA	2.41	1.03
3:D:1140:LYS:NZ	1:N:204:GLU:CA	2.17	1.03
1:N:27:GLU:OE2	1:N:30:ASP:HB3	1.58	1.03
5:R:350:ARG:O	5:R:393:SER:CB	2.06	1.03
4:E:1394:LYS:O	4:E:1398:VAL:HG23	1.59	1.03
6:J:325:TYR:CE2	7:K:390:HIS:CA	2.41	1.03
1:N:116:LYS:HZ3	1:N:116:LYS:HB3	1.23	1.03
5:R:1203:TYR:CB	5:R:1299:ASN:ND2	2.20	1.03
7:T:418:GLN:HE21	8:U:718:THR:HG23	0.86	1.03
2:C:318:ILE:H	2:C:318:ILE:HD12	1.17	1.02
4:E:1319:LEU:HD21	4:E:1398:VAL:CG2	1.89	1.02
5:F:690:GLU:CD	8:I:722:LEU:CD2	2.28	1.02
1:N:817:ALA:O	1:N:821:GLN:N	1.91	1.02
7:W:518:ARG:HH11	7:W:518:ARG:HB2	1.20	1.02
1:A:140:ILE:HG22	4:E:1393:LYS:NZ	1.73	1.02
5:F:350:ARG:O	5:F:393:SER:CB	2.06	1.02
1:N:824:MET:HG2	1:N:825:PRO:HD2	1.36	1.02
3:P:920:GLU:CB	1:Z:294:MET:SD	2.47	1.02
3:P:1136:ASP:HB2	1:Z:203:ASN:ND2	1.74	1.02
4:Q:1022:TYR:O	4:Q:1026:THR:HG23	1.59	1.02
1:Z:817:ALA:O	1:Z:821:GLN:N	1.91	1.02
1:M:59:LYS:CB	8:X:807:LEU:CB	2.38	1.02
4:Q:1022:TYR:CD2	4:Q:1026:THR:CG2	2.39	1.02
4:Q:1394:LYS:O	4:Q:1398:VAL:HG23	1.58	1.02
5:R:1034:LEU:HD22	5:R:1092:THR:HB	1.37	1.02
5:R:1129:ASN:HD21	5:R:1132:GLU:CB	1.73	1.02
1:A:53:VAL:HG21	8:L:799:SER:OG	1.57	1.02
5:F:159:LYS:HE3	5:F:363:ASP:HA	1.39	1.02
4:Q:210:ASN:HA	4:Q:213:PHE:CB	1.90	1.02
7:T:412:ILE:HG23	7:T:415:LEU:HD22	1.38	1.02
1:Z:753:ALA:HB1	1:Z:816:TYR:CA	1.90	1.02
1:A:59:LYS:CB	8:L:807:LEU:CB	2.38	1.02
1:M:814:MET:CG	1:M:833:ILE:CD1	2.37	1.02
2:O:318:ILE:HD12	2:O:318:ILE:H	1.17	1.02
4:Q:1319:LEU:HD21	4:Q:1398:VAL:CG2	1.88	1.02
5:R:159:LYS:HE3	5:R:363:ASP:HA	1.39	1.02
1:A:814:MET:CG	1:A:833:ILE:CD1	2.37	1.01
5:F:920:ILE:HG21	5:F:924:ALA:O	1.59	1.01
7:K:482:MET:CB	8:L:784:ILE:CA	2.38	1.01
5:R:920:ILE:HG21	5:R:924:ALA:O	1.59	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:920:GLU:CB	1:N:294:MET:SD	2.48	1.01
4:E:210:ASN:HA	4:E:213:PHE:CB	1.90	1.01
8:I:739:GLN:O	8:I:741:ARG:N	1.92	1.01
5:F:1129:ASN:HD21	5:F:1132:GLU:CB	1.73	1.01
6:G:331:LYS:CE	1:Z:49:LEU:HD11	1.91	1.01
6:G:451:MET:HE3	1:M:14:THR:HG21	1.06	1.01
1:N:811:ARG:N	1:N:836:ASP:CB	2.24	1.01
6:S:431:GLN:CA	7:T:503:ASN:CB	2.38	1.01
1:A:140:ILE:HG21	4:E:1393:LYS:HD3	1.06	1.01
3:D:1019:ARG:CB	1:N:251:ALA:HB2	1.90	1.01
5:F:1116:VAL:CG1	5:F:1150:PHE:CE2	2.42	1.01
5:F:1561:LEU:HD23	5:R:1667:VAL:HG21	1.43	1.01
1:N:810:ALA:HB1	1:N:836:ASP:HA	1.01	1.01
5:R:1116:VAL:CG1	5:R:1150:PHE:CE2	2.42	1.01
6:V:389:ARG:O	6:V:392:SER:OG	1.76	1.01
6:V:404:ASP:O	6:V:408:ALA:HB3	1.59	1.01
1:Z:824:MET:HG2	1:Z:825:PRO:HD2	1.36	1.01
5:R:690:GLU:CD	8:U:722:LEU:CD2	2.28	1.01
1:Z:810:ALA:HB3	1:Z:836:ASP:CA	1.86	1.01
1:Z:811:ARG:N	1:Z:836:ASP:CB	2.24	1.01
3:D:401:ILE:HG21	3:D:462:LEU:HB3	1.43	1.00
5:F:228:PHE:CD1	5:F:360:LEU:O	2.14	1.00
5:F:909:LEU:CB	7:H:404:ARG:HA	1.91	1.00
5:F:1550:LEU:CD2	5:F:1552:PHE:CE2	2.44	1.00
6:G:451:MET:HE1	1:M:14:THR:CG2	1.80	1.00
8:I:798:ASN:O	8:I:801:PHE:N	1.92	1.00
1:M:140:ILE:HG21	4:Q:1393:LYS:CD	1.91	1.00
1:N:49:LEU:HD11	6:S:331:LYS:CE	1.91	1.00
6:V:383:LYS:HZ2	8:X:756:ASN:CA	1.54	1.00
5:F:1167:LYS:HA	5:F:1167:LYS:HE3	1.44	1.00
1:N:753:ALA:HB1	1:N:816:TYR:CA	1.90	1.00
5:R:909:LEU:CB	7:T:404:ARG:HA	1.91	1.00
3:D:938:LEU:HB2	3:D:940:VAL:HG22	1.41	1.00
8:U:798:ASN:O	8:U:801:PHE:N	1.92	1.00
6:V:463:LYS:CE	7:W:526:VAL:HG12	1.92	1.00
5:F:887:PHE:N	5:F:888:PRO:HD2	1.77	1.00
5:F:1550:LEU:HD22	5:F:1552:PHE:CZ	1.97	1.00
6:G:431:GLN:CA	7:H:503:ASN:CB	2.38	1.00
1:N:810:ALA:HB3	1:N:836:ASP:CA	1.86	1.00
3:P:938:LEU:HB2	3:P:940:VAL:HG22	1.41	1.00
7:K:321:ALA:HA	7:K:348:ILE:HG12	1.43	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:211:LYS:NZ	1:Z:246:ASN:CG	1.94	0.99
1:Z:810:ALA:HB1	1:Z:836:ASP:HA	1.01	0.99
5:F:228:PHE:CE1	5:F:360:LEU:O	2.15	0.99
1:N:245:ALA:CB	1:N:250:ASN:CB	2.39	0.99
5:R:228:PHE:CD1	5:R:360:LEU:O	2.15	0.99
5:R:1550:LEU:CD2	5:R:1552:PHE:CE2	2.45	0.99
5:R:1550:LEU:HD21	5:R:1552:PHE:CZ	1.98	0.99
5:F:1529:ALA:HB2	5:F:1611:VAL:CG1	1.92	0.99
5:R:1167:LYS:HA	5:R:1167:LYS:HE3	1.44	0.99
1:A:140:ILE:HG21	4:E:1393:LYS:CD	1.91	0.99
1:N:133:THR:HG22	1:N:134:LYS:N	1.77	0.99
1:N:753:ALA:CA	1:N:816:TYR:HA	1.92	0.99
6:J:365:SER:H	7:K:424:ASN:ND2	1.60	0.99
6:J:380:TYR:CE2	8:L:751:LEU:HD21	1.98	0.99
5:R:228:PHE:CE1	5:R:360:LEU:O	2.15	0.99
1:Z:753:ALA:CA	1:Z:816:TYR:HA	1.92	0.99
5:F:1550:LEU:HD22	5:F:1552:PHE:CE2	1.97	0.99
6:G:289:GLN:HE22	6:J:352:VAL:CG2	1.76	0.99
5:R:1529:ALA:HB2	5:R:1611:VAL:CG1	1.92	0.99
6:V:365:SER:H	7:W:424:ASN:ND2	1.60	0.99
7:H:420:ALA:HB1	8:I:745:TYR:CZ	1.98	0.99
1:Z:133:THR:HG22	1:Z:134:LYS:N	1.77	0.99
4:E:1022:TYR:O	4:E:1026:THR:HG23	1.59	0.98
5:F:1558:ASP:CB	5:R:1680:GLN:O	2.11	0.98
7:W:482:MET:CB	8:X:784:ILE:CA	2.38	0.98
5:F:1550:LEU:HD21	5:F:1552:PHE:CZ	1.98	0.98
1:Z:757:ALA:HB2	1:Z:819:MET:O	1.46	0.98
6:G:331:LYS:CE	1:Z:49:LEU:CD1	2.41	0.98
7:H:418:GLN:HE21	8:I:718:THR:HG23	0.86	0.98
1:N:49:LEU:CD1	6:S:331:LYS:CE	2.41	0.98
7:W:446:ARG:HH22	7:W:455:LYS:CE	1.76	0.98
3:D:1137:ASP:CB	1:N:205:ASN:HB2	1.92	0.98
5:R:1550:LEU:HD22	5:R:1552:PHE:CE2	1.97	0.98
3:P:977:LYS:HE2	1:Z:315:LYS:HA	1.41	0.98
3:P:1021:TYR:CB	1:Z:248:THR:O	2.12	0.98
5:R:887:PHE:N	5:R:888:PRO:HD2	1.77	0.98
1:Z:807:LYS:CA	1:Z:836:ASP:O	2.12	0.98
3:D:1136:ASP:HB2	1:N:203:ASN:ND2	1.79	0.98
7:H:426:GLY:CA	8:I:736:ASN:N	2.27	0.98
6:V:380:TYR:CE2	8:X:751:LEU:HD21	1.98	0.98
1:N:807:LYS:CA	1:N:836:ASP:O	2.12	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:951:ARG:HH21	5:R:953:ASN:H	1.08	0.97
5:R:1550:LEU:HD22	5:R:1552:PHE:CZ	1.97	0.97
3:D:1238:ARG:HA	1:Z:830:SER:CB	1.94	0.97
6:G:331:LYS:HE2	1:Z:49:LEU:HD12	1.46	0.97
7:K:538:LYS:CB	8:L:818:ILE:O	2.13	0.97
1:M:128:LEU:CD2	4:Q:1260:TYR:CE2	2.47	0.97
7:T:420:ALA:HB1	8:U:745:TYR:CZ	1.98	0.97
6:J:281:ASP:HA	6:J:284:ILE:HD12	1.46	0.97
6:J:389:ARG:O	6:J:392:SER:OG	1.80	0.97
7:K:446:ARG:HH22	7:K:455:LYS:CE	1.76	0.97
1:M:775:LEU:HB3	1:M:832:LEU:HD11	1.44	0.97
7:T:493:SER:O	8:U:784:ILE:O	1.83	0.97
5:F:968:ILE:HG13	7:H:392:LEU:HD13	1.46	0.97
5:R:1085:LYS:O	5:R:1089:ASN:CB	2.12	0.97
1:A:775:LEU:HB3	1:A:832:LEU:HD11	1.44	0.97
6:J:388:CYS:HA	6:J:391:LEU:HD12	1.44	0.97
6:S:289:GLN:HE22	6:V:352:VAL:CG2	1.76	0.97
7:T:426:GLY:CA	8:U:736:ASN:N	2.27	0.97
3:P:401:ILE:HG21	3:P:462:LEU:HB3	1.43	0.97
1:Z:817:ALA:O	1:Z:821:GLN:CB	2.13	0.97
1:A:32:LEU:HD12	1:N:22:LEU:HD22	1.41	0.97
6:G:455:GLU:CB	1:Z:32:LEU:HD23	1.95	0.96
1:N:830:SER:CB	3:P:1238:ARG:HA	1.94	0.96
7:K:298:SER:HA	7:K:306:THR:HA	1.47	0.96
1:A:128:LEU:CD2	4:E:1260:TYR:CE2	2.47	0.96
5:F:1085:LYS:O	5:F:1089:ASN:CB	2.12	0.96
3:D:242:MET:SD	3:D:298:TYR:HE2	1.78	0.96
5:F:1034:LEU:CD2	5:F:1092:THR:HB	1.95	0.96
5:F:1216:PHE:HE2	5:F:1282:ALA:CB	1.77	0.96
7:H:493:SER:O	8:I:784:ILE:O	1.83	0.96
5:R:1129:ASN:HD21	5:R:1132:GLU:HB3	0.82	0.96
5:R:1216:PHE:HE2	5:R:1282:ALA:CB	1.77	0.96
6:V:380:TYR:HE2	8:X:751:LEU:CD2	1.79	0.96
6:V:383:LYS:CD	8:X:756:ASN:OD1	2.13	0.96
1:Z:253:LEU:HD21	1:Z:498:PHE:HD2	1.30	0.96
1:N:817:ALA:O	1:N:821:GLN:CB	2.13	0.96
6:G:430:LEU:O	7:H:503:ASN:CB	2.13	0.96
6:S:430:LEU:O	7:T:503:ASN:CB	2.13	0.96
5:F:951:ARG:HH21	5:F:953:ASN:H	1.08	0.96
7:W:298:SER:HA	7:W:306:THR:HA	1.46	0.96
7:W:321:ALA:HA	7:W:348:ILE:HG12	1.44	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:824:MET:HB2	1:N:825:PRO:HD3	1.47	0.95
3:P:1019:ARG:O	1:Z:250:ASN:N	1.96	0.95
6:V:383:LYS:HZ3	8:X:756:ASN:CG	1.65	0.95
6:V:431:GLN:HA	7:W:500:GLU:N	1.81	0.95
4:E:260:ARG:NH2	4:E:761:PHE:HZ	1.64	0.95
3:P:1020:ASN:CG	1:Z:252:GLN:HG2	1.85	0.95
7:K:526:VAL:O	7:K:530:ASP:HB2	1.66	0.95
6:J:431:GLN:HA	7:K:500:GLU:N	1.81	0.95
3:P:528:PRO:HG3	3:P:624:PHE:CE2	2.02	0.95
1:Z:824:MET:HG2	1:Z:825:PRO:HD3	1.42	0.95
6:J:380:TYR:HE2	8:L:751:LEU:CD2	1.79	0.95
3:P:977:LYS:HE2	1:Z:315:LYS:CA	1.95	0.95
1:N:810:ALA:C	1:N:836:ASP:CB	2.35	0.95
5:R:968:ILE:HG13	7:T:392:LEU:HD13	1.46	0.95
3:D:528:PRO:HG3	3:D:624:PHE:CE2	2.02	0.95
6:J:383:LYS:CD	8:L:756:ASN:OD1	2.13	0.95
1:A:751:LEU:HD22	2:C:1313:LEU:HA	1.49	0.95
1:Z:810:ALA:C	1:Z:836:ASP:CB	2.35	0.95
5:F:1129:ASN:HD21	5:F:1132:GLU:HB3	0.82	0.95
5:F:920:ILE:CG2	5:F:924:ALA:O	2.15	0.94
6:J:325:TYR:HE2	7:K:390:HIS:HA	1.17	0.94
6:V:463:LYS:HE2	7:W:526:VAL:CG1	1.96	0.94
3:P:1020:ASN:HB2	1:Z:251:ALA:HB3	0.96	0.94
5:R:841:PHE:CE2	5:R:918:PHE:HE1	1.85	0.94
5:R:968:ILE:CG1	7:T:392:LEU:HD13	1.97	0.94
3:P:242:MET:SD	3:P:298:TYR:HE2	1.78	0.94
6:V:281:ASP:HA	6:V:284:ILE:HD12	1.46	0.94
3:D:1019:ARG:O	1:N:251:ALA:N	2.01	0.94
7:K:321:ALA:H	7:K:348:ILE:HD11	1.09	0.94
6:V:383:LYS:HD2	8:X:756:ASN:OD1	1.68	0.94
3:D:1137:ASP:CB	1:N:205:ASN:HA	1.97	0.94
4:E:260:ARG:NH2	4:E:761:PHE:CZ	2.35	0.94
6:J:383:LYS:HD2	8:L:756:ASN:OD1	1.68	0.94
1:N:46:ILE:CB	6:S:327:LYS:NZ	2.31	0.94
1:N:59:LYS:CB	8:U:814:LEU:HD21	1.97	0.94
6:V:383:LYS:CE	8:X:756:ASN:OD1	2.16	0.94
1:A:772:PRO:HB3	1:A:828:THR:HG21	0.95	0.94
8:U:818:ILE:C	8:U:821:ILE:HG22	1.87	0.94
5:F:968:ILE:CG1	7:H:392:LEU:HD13	1.97	0.94
6:J:383:LYS:HZ2	8:L:756:ASN:CA	1.55	0.94
5:R:1034:LEU:CD2	5:R:1092:THR:HB	1.95	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:U:818:ILE:O	8:U:821:ILE:HG22	0.76	0.94
8:I:818:ILE:O	8:I:821:ILE:HG22	0.76	0.94
5:R:350:ARG:O	5:R:393:SER:HB3	1.68	0.94
5:R:1550:LEU:HD11	5:R:1604:ILE:HD13	1.48	0.94
6:J:383:LYS:CE	8:L:756:ASN:OD1	2.16	0.94
3:P:1140:LYS:HZ1	1:Z:204:GLU:HA	1.33	0.94
5:F:350:ARG:O	5:F:393:SER:HB3	1.68	0.93
5:F:1068:ILE:HD12	5:F:1150:PHE:CD2	2.04	0.93
5:R:1012:ASN:O	8:U:787:GLU:HG2	1.68	0.93
5:F:354:ARG:CB	5:F:356:ILE:HG22	1.98	0.93
8:I:814:LEU:HD21	1:Z:59:LYS:CB	1.97	0.93
1:N:49:LEU:HD12	6:S:331:LYS:HE2	1.46	0.93
1:N:207:ILE:HD13	1:N:247:GLY:HA3	1.50	0.93
5:R:920:ILE:CG2	5:R:924:ALA:O	2.15	0.93
1:Z:824:MET:HB2	1:Z:825:PRO:HD3	1.47	0.93
6:J:433:LYS:N	7:K:499:GLY:HA3	1.84	0.93
1:N:255:GLU:OE2	1:N:480:GLN:NE2	2.00	0.93
6:V:463:LYS:CE	7:W:526:VAL:CG1	2.46	0.93
3:P:118:THR:HB	3:P:623:GLY:HA2	1.51	0.93
1:Z:753:ALA:HA	1:Z:816:TYR:CB	1.98	0.93
5:F:1550:LEU:HD11	5:F:1604:ILE:HD13	1.48	0.93
3:P:1137:ASP:CB	1:Z:205:ASN:HB2	1.99	0.93
6:V:405:LEU:HD11	7:W:469:ARG:C	1.89	0.93
6:G:327:LYS:NZ	1:Z:46:ILE:CB	2.31	0.93
6:G:455:GLU:HB2	1:Z:32:LEU:HD23	1.51	0.93
1:N:621:HIS:NE2	3:P:1467:SER:HB2	1.84	0.93
3:D:1467:SER:HB2	1:Z:621:HIS:NE2	1.84	0.92
5:F:837:TYR:HB2	5:F:918:PHE:HE2	1.29	0.92
8:I:818:ILE:C	8:I:821:ILE:HG22	1.87	0.92
1:M:140:ILE:CG2	4:Q:1393:LYS:CD	2.47	0.92
5:R:354:ARG:CB	5:R:356:ILE:HG22	1.98	0.92
1:M:751:LEU:HD22	2:O:1313:LEU:HA	1.49	0.92
4:Q:989:ASP:O	4:Q:991:LYS:N	2.03	0.92
1:A:15:SER:HB3	6:S:447:PHE:CD2	2.03	0.92
5:R:1116:VAL:HG11	5:R:1150:PHE:HE2	1.32	0.92
5:R:1167:LYS:HA	5:R:1167:LYS:CE	1.99	0.92
1:A:15:SER:CA	6:S:447:PHE:CE2	2.53	0.92
3:D:515:VAL:HG12	3:D:644:SER:HB3	1.51	0.92
1:N:753:ALA:HA	1:N:816:TYR:CB	1.98	0.92
3:P:515:VAL:HG12	3:P:644:SER:HB3	1.52	0.92
3:P:1140:LYS:NZ	1:Z:204:GLU:CA	2.15	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:388:CYS:O	6:V:388:CYS:SG	2.28	0.92
5:R:711:GLN:OE1	5:R:779:PRO:HA	1.70	0.92
6:V:325:TYR:HE2	7:W:390:HIS:HA	1.18	0.92
4:E:260:ARG:HG2	4:E:260:ARG:HH11	1.31	0.92
6:J:405:LEU:HD11	7:K:469:ARG:C	1.89	0.92
6:V:433:LYS:N	7:W:499:GLY:HA3	1.84	0.92
3:D:483:HIS:HB2	3:D:486:GLN:HG2	1.52	0.92
3:D:1020:ASN:HB2	1:N:251:ALA:HB3	1.51	0.92
1:M:772:PRO:HB3	1:M:828:THR:HG21	0.95	0.92
1:A:140:ILE:CG2	4:E:1393:LYS:CD	2.47	0.92
6:G:451:MET:HE3	1:M:14:THR:CG2	1.86	0.92
6:J:383:LYS:HZ3	8:L:756:ASN:CG	1.67	0.92
6:J:388:CYS:HA	6:J:391:LEU:HB2	1.52	0.92
4:Q:1398:VAL:HG12	4:Q:1398:VAL:O	1.69	0.92
3:D:1140:LYS:HZ1	1:N:204:GLU:HA	1.17	0.91
4:E:1398:VAL:O	4:E:1398:VAL:HG12	1.69	0.91
3:P:971:ILE:HD11	3:P:984:THR:HB	1.52	0.91
6:V:405:LEU:HD12	7:W:470:ALA:CA	2.00	0.91
3:D:971:ILE:HD11	3:D:984:THR:HB	1.52	0.91
5:F:1012:ASN:O	8:I:787:GLU:HG2	1.68	0.91
1:M:59:LYS:CA	8:X:807:LEU:CB	2.48	0.91
5:R:800:ILE:HD11	5:R:885:GLU:OE1	1.69	0.91
7:W:321:ALA:H	7:W:348:ILE:CD1	1.83	0.91
5:F:711:GLN:OE1	5:F:779:PRO:HA	1.69	0.91
5:F:800:ILE:HD11	5:F:885:GLU:OE1	1.69	0.91
7:K:456:THR:O	7:K:458:GLU:N	2.03	0.91
7:K:525:GLU:O	7:K:529:LYS:HB3	1.70	0.91
4:E:687:LYS:CB	5:F:1391:GLY:HA3	2.00	0.91
1:N:362:LYS:O	1:N:365:GLN:HB2	1.71	0.91
1:N:824:MET:CG	1:N:825:PRO:CD	2.43	0.91
1:Z:362:LYS:O	1:Z:365:GLN:HB2	1.71	0.91
1:A:59:LYS:CA	8:L:807:LEU:CB	2.48	0.91
3:P:483:HIS:HB2	3:P:486:GLN:HG2	1.52	0.91
1:A:27:GLU:CB	6:J:467:LEU:CD2	2.49	0.91
3:D:118:THR:HB	3:D:623:GLY:HA2	1.51	0.91
7:K:321:ALA:H	7:K:348:ILE:CD1	1.83	0.91
3:P:1134:SER:CB	1:Z:206:ASN:ND2	2.31	0.91
6:G:295:LYS:HG2	6:J:363:LYS:NZ	1.86	0.91
5:R:1068:ILE:HD12	5:R:1150:PHE:CD2	2.04	0.91
6:V:388:CYS:HB2	7:W:455:LYS:HD2	1.51	0.91
7:W:379:ILE:O	7:W:382:LYS:CB	2.19	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:810:ALA:C	1:Z:836:ASP:HA	1.91	0.91
4:Q:687:LYS:CB	5:R:1391:GLY:HA3	2.00	0.91
7:W:456:THR:O	7:W:458:GLU:N	2.03	0.91
5:R:1038:LEU:C	5:R:1040:THR:H	1.74	0.90
7:K:379:ILE:O	7:K:382:LYS:CB	2.19	0.90
4:E:989:ASP:O	4:E:991:LYS:N	2.03	0.90
4:E:1029:ASN:ND2	7:K:475:SER:CB	2.35	0.90
7:H:425:ARG:C	7:H:427:LEU:N	2.21	0.90
2:O:1258:GLN:HG2	2:O:1299:LYS:NZ	1.86	0.90
3:D:716:VAL:HG11	3:D:889:GLU:HB2	1.54	0.90
5:F:1038:LEU:C	5:F:1040:THR:H	1.74	0.90
6:V:405:LEU:HD11	7:W:469:ARG:HG2	1.53	0.90
5:F:334:GLN:HG2	5:F:860:ASN:ND2	1.85	0.90
6:J:364:ILE:CA	7:K:424:ASN:ND2	2.35	0.90
6:J:405:LEU:HD12	7:K:470:ALA:CA	2.00	0.90
7:K:484:PHE:O	7:K:492:ASP:CB	2.20	0.90
1:N:810:ALA:C	1:N:836:ASP:HA	1.91	0.90
6:S:292:HIS:ND1	6:V:352:VAL:HG11	1.87	0.90
3:P:1021:TYR:H	1:Z:249:ARG:CA	1.83	0.90
1:A:27:GLU:HB2	6:J:467:LEU:HD21	1.52	0.90
2:C:1258:GLN:HG2	2:C:1299:LYS:NZ	1.86	0.90
6:V:364:ILE:CA	7:W:424:ASN:ND2	2.35	0.90
5:F:1167:LYS:HA	5:F:1167:LYS:CE	1.99	0.90
5:R:922:LEU:CD2	7:T:400:LYS:HE3	2.02	0.90
6:J:342:GLU:OE1	6:J:375:LYS:NZ	2.04	0.90
6:V:342:GLU:OE1	6:V:375:LYS:NZ	2.04	0.90
1:Z:810:ALA:CB	1:Z:836:ASP:O	2.20	0.90
1:A:27:GLU:HB2	6:J:467:LEU:CD2	2.02	0.89
1:N:117:LYS:NZ	1:N:117:LYS:HB3	1.87	0.89
1:N:810:ALA:CB	1:N:836:ASP:O	2.20	0.89
1:N:824:MET:HG2	1:N:825:PRO:HD3	1.43	0.89
3:P:1137:ASP:CB	1:Z:205:ASN:HA	2.02	0.89
5:R:837:TYR:HB2	5:R:918:PHE:HE2	1.29	0.89
5:R:967:THR:O	7:T:392:LEU:HD21	1.72	0.89
5:R:334:GLN:HG2	5:R:860:ASN:ND2	1.85	0.89
1:A:15:SER:HB2	6:S:447:PHE:CE1	2.06	0.89
5:F:922:LEU:CD2	7:H:400:LYS:HE3	2.02	0.89
7:T:425:ARG:C	7:T:427:LEU:N	2.21	0.89
1:Z:117:LYS:NZ	1:Z:117:LYS:HB3	1.87	0.89
3:D:1134:SER:C	1:N:206:ASN:ND2	2.25	0.89
4:Q:1029:ASN:ND2	7:W:475:SER:CB	2.35	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S:295:LYS:HG2	6:V:363:LYS:NZ	1.86	0.89
7:T:535:LYS:CB	8:U:821:ILE:CD1	2.51	0.89
3:D:499:LEU:HB2	3:D:502:SER:HB3	1.55	0.89
5:F:1116:VAL:HG11	5:F:1150:PHE:HE2	1.32	0.89
7:W:326:LYS:CB	7:W:327:PRO:HD2	2.02	0.89
7:W:484:PHE:O	7:W:492:ASP:CB	2.20	0.89
1:Z:116:LYS:HB3	1:Z:116:LYS:HZ3	1.38	0.89
5:R:914:ASP:HA	5:R:917:PHE:CB	2.03	0.89
5:F:750:TRP:HZ2	5:F:901:PRO:CB	1.86	0.89
5:F:1672:MET:CB	1:Z:149:ALA:HB2	2.03	0.89
5:R:1294:LYS:O	5:R:1295:ALA:O	1.91	0.89
7:W:446:ARG:NH2	7:W:455:LYS:NZ	2.21	0.89
1:Z:817:ALA:O	1:Z:821:GLN:CA	2.20	0.89
6:G:292:HIS:ND1	6:J:352:VAL:HG11	1.87	0.89
1:N:817:ALA:O	1:N:821:GLN:CA	2.20	0.89
3:P:1140:LYS:HD2	1:Z:204:GLU:O	1.72	0.89
5:R:750:TRP:HZ2	5:R:901:PRO:CB	1.86	0.89
6:V:433:LYS:CB	7:W:499:GLY:HA2	2.03	0.89
6:V:459:VAL:O	6:V:463:LYS:HB2	1.73	0.89
5:F:967:THR:O	7:H:392:LEU:HD21	1.72	0.89
7:K:446:ARG:NH1	7:K:446:ARG:O	2.06	0.89
1:N:149:ALA:HB2	5:R:1672:MET:CB	2.03	0.89
7:W:446:ARG:NH1	7:W:446:ARG:O	2.06	0.89
5:F:657:ILE:O	5:F:712:LEU:HD12	1.74	0.88
3:P:499:LEU:HB2	3:P:502:SER:HB3	1.55	0.88
5:R:968:ILE:HG13	7:T:392:LEU:CD1	2.03	0.88
5:F:334:GLN:HE21	5:F:859:LYS:HZ2	0.96	0.88
1:N:27:GLU:OE2	1:N:30:ASP:CB	2.21	0.88
7:W:321:ALA:H	7:W:348:ILE:HD11	1.09	0.88
1:M:57:ARG:HH11	1:M:57:ARG:HG2	1.38	0.88
6:J:459:VAL:O	6:J:463:LYS:HB2	1.73	0.88
1:Z:127:GLN:HA	1:Z:127:GLN:HE21	1.38	0.88
5:F:1561:LEU:CD2	5:R:1667:VAL:CG2	2.50	0.88
7:K:326:LYS:CB	7:K:327:PRO:HD2	2.02	0.88
3:D:1140:LYS:HD2	1:N:204:GLU:O	1.73	0.88
5:F:968:ILE:HG13	7:H:392:LEU:CD1	2.03	0.88
7:H:426:GLY:HA2	8:I:736:ASN:H	1.37	0.88
1:N:255:GLU:HB2	1:N:480:GLN:HE21	1.36	0.88
3:P:716:VAL:HG11	3:P:889:GLU:HB2	1.53	0.88
1:Z:810:ALA:HB3	1:Z:836:ASP:HA	1.46	0.88
1:A:27:GLU:CB	6:J:467:LEU:HD21	2.03	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:753:ALA:CB	1:N:816:TYR:CA	2.50	0.88
5:F:1084:LEU:HA	5:F:1156:TYR:CZ	2.09	0.88
6:J:405:LEU:HD11	7:K:469:ARG:HG2	1.53	0.88
7:K:446:ARG:NH2	7:K:455:LYS:NZ	2.21	0.88
5:R:1680:GLN:O	5:R:1680:GLN:NE2	2.07	0.88
5:F:887:PHE:H	5:F:888:PRO:HD2	1.37	0.88
7:H:535:LYS:CB	8:I:821:ILE:CD1	2.51	0.88
5:R:657:ILE:O	5:R:712:LEU:HD12	1.73	0.88
7:W:533:ILE:HA	7:W:536:LYS:HD2	1.56	0.88
1:Z:753:ALA:CB	1:Z:816:TYR:CA	2.50	0.88
5:F:914:ASP:HA	5:F:917:PHE:CB	2.03	0.88
5:F:935:GLN:O	5:F:938:ALA:N	2.07	0.88
5:F:1294:LYS:O	5:F:1295:ALA:O	1.90	0.88
6:J:433:LYS:CB	7:K:499:GLY:HA2	2.03	0.88
1:N:252:GLN:NE2	1:N:498:PHE:CE2	2.41	0.88
2:O:1258:GLN:HG2	2:O:1299:LYS:HZ1	1.38	0.87
1:N:746:PRO:O	1:N:812:GLN:O	1.92	0.87
7:W:404:ARG:NE	7:W:404:ARG:HA	1.88	0.87
6:V:323:SER:HA	6:V:326:LEU:HD12	1.56	0.87
6:V:387:TYR:HA	8:X:762:LEU:HD22	1.55	0.87
1:M:751:LEU:CD2	2:O:1313:LEU:HD23	2.04	0.87
6:J:429:LEU:CB	6:J:434:THR:OG1	2.23	0.87
1:Z:16:LYS:O	1:Z:16:LYS:NZ	2.07	0.87
3:D:944:LEU:HD12	3:D:947:LEU:HD12	1.57	0.87
4:Q:504:ASP:HA	4:Q:522:ILE:O	1.73	0.87
3:D:910:LEU:HD23	3:D:913:LEU:HD12	1.57	0.87
1:N:127:GLN:HA	1:N:127:GLN:HE21	1.38	0.87
5:R:968:ILE:HG23	7:T:392:LEU:HD11	1.56	0.86
6:S:430:LEU:CB	8:U:780:THR:CA	2.53	0.86
4:E:504:ASP:HA	4:E:522:ILE:O	1.73	0.86
5:R:1084:LEU:HA	5:R:1156:TYR:CZ	2.09	0.86
1:Z:824:MET:CG	1:Z:825:PRO:CD	2.43	0.86
1:A:751:LEU:CD2	2:C:1313:LEU:HD23	2.04	0.86
3:D:830:SER:HB3	3:D:934:SER:HB3	1.58	0.86
5:F:1251:ARG:HH22	5:F:1276:ASP:HB2	1.38	0.86
1:N:811:ARG:CA	1:N:836:ASP:CB	2.53	0.86
6:V:398:VAL:CG2	7:W:466:LEU:HD11	2.04	0.86
5:R:734:LEU:HD21	5:R:817:ASN:OD1	1.74	0.86
1:Z:746:PRO:O	1:Z:812:GLN:O	1.92	0.86
1:Z:811:ARG:CA	1:Z:836:ASP:CB	2.53	0.86
5:F:354:ARG:HB2	5:F:356:ILE:CG2	2.04	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:28:SER:CB	1:Z:23:ASN:CA	2.53	0.86
4:Q:182:PHE:CE2	5:R:1189:MET:CB	2.59	0.86
5:R:1251:ARG:HH22	5:R:1276:ASP:HB2	1.39	0.86
3:P:430:GLU:CD	3:P:528:PRO:HD3	1.96	0.86
3:P:944:LEU:HD12	3:P:947:LEU:HD12	1.57	0.86
4:E:182:PHE:CE2	5:F:1189:MET:CB	2.59	0.86
5:R:1216:PHE:CE2	5:R:1282:ALA:CB	2.59	0.86
7:T:426:GLY:HA2	8:U:736:ASN:H	1.38	0.86
5:F:968:ILE:HG23	7:H:392:LEU:HD11	1.56	0.86
7:K:315:LYS:HA	7:K:347:THR:HA	1.58	0.86
1:N:807:LYS:CB	1:N:837:VAL:O	2.24	0.86
6:J:405:LEU:CD1	7:K:470:ALA:HA	2.06	0.86
1:N:49:LEU:O	1:N:49:LEU:HD22	1.76	0.86
3:P:175:ILE:HD11	3:P:642:LEU:HB2	1.55	0.86
5:R:935:GLN:O	5:R:938:ALA:N	2.07	0.86
7:W:315:LYS:HA	7:W:347:THR:HA	1.58	0.86
3:D:175:ILE:HD11	3:D:642:LEU:HB2	1.56	0.86
5:F:389:LEU:H	5:F:389:LEU:HD12	1.41	0.86
5:F:734:LEU:HD21	5:F:817:ASN:OD1	1.74	0.86
6:J:324:GLN:HA	6:J:327:LYS:HE2	1.56	0.85
7:K:455:LYS:HD3	7:K:455:LYS:N	1.91	0.85
5:R:354:ARG:HB2	5:R:356:ILE:CG2	2.04	0.85
6:V:398:VAL:CG2	7:W:466:LEU:HD12	2.04	0.85
6:V:429:LEU:CB	6:V:434:THR:OG1	2.23	0.85
1:A:783:SER:CA	1:A:839:LEU:HA	2.06	0.85
1:A:57:ARG:HG2	1:A:57:ARG:HH11	1.38	0.85
6:G:327:LYS:HZ3	1:Z:46:ILE:CB	1.87	0.85
5:R:334:GLN:NE2	5:R:859:LYS:HZ3	1.67	0.85
5:R:401:THR:CB	5:R:411:ASN:CB	2.53	0.85
5:F:401:THR:CB	5:F:411:ASN:CB	2.53	0.85
8:I:822:LYS:HZ2	8:I:822:LYS:HA	1.42	0.85
3:P:528:PRO:HG3	3:P:624:PHE:CD2	2.11	0.85
1:Z:807:LYS:CB	1:Z:837:VAL:O	2.24	0.85
6:V:432:LEU:CB	8:X:782:ILE:CA	2.55	0.85
3:D:768:PRO:HA	3:D:771:TYR:HB2	1.57	0.85
3:D:1137:ASP:CB	1:N:205:ASN:CA	2.55	0.85
7:W:455:LYS:HD3	7:W:455:LYS:N	1.91	0.85
5:F:1167:LYS:O	5:F:1167:LYS:HD3	1.77	0.85
6:G:430:LEU:CB	8:I:780:THR:CA	2.53	0.85
3:D:430:GLU:CD	3:D:528:PRO:HD3	1.96	0.85
5:R:1167:LYS:O	5:R:1167:LYS:HD3	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:405:LEU:CD1	7:W:470:ALA:HA	2.06	0.85
6:V:405:LEU:CD1	7:W:470:ALA:N	2.40	0.85
7:K:404:ARG:HA	7:K:404:ARG:NE	1.88	0.85
5:R:887:PHE:H	5:R:888:PRO:HD2	1.37	0.85
6:V:324:GLN:HA	6:V:327:LYS:HE2	1.56	0.85
3:D:537:LYS:HE2	3:D:572:LEU:HD23	1.57	0.85
5:F:1216:PHE:CE2	5:F:1282:ALA:CB	2.59	0.85
3:P:1136:ASP:HB2	1:Z:203:ASN:HD22	1.38	0.85
1:Z:49:LEU:O	1:Z:49:LEU:HD22	1.76	0.85
6:J:388:CYS:SG	7:K:453:LEU:HA	2.16	0.84
1:M:50:ARG:HA	1:M:53:VAL:HG12	1.58	0.84
1:M:783:SER:CA	1:M:839:LEU:HA	2.06	0.84
3:P:910:LEU:HD23	3:P:913:LEU:HD12	1.57	0.84
3:D:977:LYS:HD3	1:N:316:ALA:H	1.42	0.84
6:J:323:SER:HA	6:J:326:LEU:HD12	1.56	0.84
6:J:371:LYS:O	6:J:371:LYS:NZ	2.10	0.84
1:Z:811:ARG:HA	1:Z:836:ASP:CB	2.07	0.84
1:A:50:ARG:HA	1:A:53:VAL:HG12	1.58	0.84
1:N:207:ILE:HD12	1:N:247:GLY:HA3	1.58	0.84
3:P:537:LYS:HE2	3:P:572:LEU:HD23	1.57	0.84
6:V:365:SER:N	7:W:424:ASN:ND2	2.25	0.84
6:J:432:LEU:CB	8:L:782:ILE:CA	2.55	0.84
3:D:528:PRO:HG3	3:D:624:PHE:CD2	2.11	0.84
1:N:811:ARG:HA	1:N:836:ASP:CB	2.07	0.84
3:P:830:SER:HB3	3:P:934:SER:HB3	1.58	0.84
5:F:1037:ASN:H	5:F:1040:THR:CB	1.91	0.84
6:G:295:LYS:CG	6:J:363:LYS:NZ	2.41	0.84
6:J:365:SER:N	7:K:424:ASN:ND2	2.25	0.84
1:N:252:GLN:NE2	1:N:498:PHE:HE2	1.74	0.84
5:R:914:ASP:HA	5:R:917:PHE:HB3	1.58	0.84
4:E:687:LYS:CB	5:F:1391:GLY:CA	2.56	0.84
6:J:405:LEU:CD1	7:K:470:ALA:N	2.40	0.84
8:U:822:LYS:HZ1	8:U:822:LYS:HA	1.39	0.84
1:A:772:PRO:CB	1:A:828:THR:CG2	2.39	0.84
1:A:787:HIS:CE1	1:A:838:SER:O	2.31	0.84
4:Q:1163:LEU:O	4:Q:1167:LEU:HB2	1.78	0.84
6:S:295:LYS:CG	6:V:363:LYS:NZ	2.40	0.84
3:P:768:PRO:HA	3:P:771:TYR:HB2	1.57	0.83
6:S:295:LYS:HG2	6:V:363:LYS:HZ1	1.41	0.83
4:E:1163:LEU:O	4:E:1167:LEU:HB2	1.78	0.83
5:F:1134:LYS:C	5:F:1136:LYS:H	1.81	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:690:GLU:CG	8:U:722:LEU:HD21	2.08	0.83
1:Z:747:PHE:HA	1:Z:812:GLN:CB	2.08	0.83
3:P:734:LEU:HB3	3:P:739:THR:HG21	1.61	0.83
6:V:390:ILE:CG2	6:V:394:ILE:CG2	2.56	0.83
4:Q:687:LYS:CB	5:R:1391:GLY:CA	2.56	0.83
1:Z:756:LYS:CB	1:Z:816:TYR:CB	2.56	0.83
1:M:128:LEU:CD1	4:Q:1260:TYR:CZ	2.60	0.83
1:N:747:PHE:HA	1:N:812:GLN:CB	2.09	0.83
1:N:756:LYS:CB	1:N:816:TYR:CB	2.57	0.83
1:N:758:GLN:HE21	3:P:1377:ASN:ND2	1.76	0.83
1:Z:242:LEU:HG	1:Z:254:LEU:CD2	2.09	0.83
1:Z:252:GLN:CD	1:Z:498:PHE:HE2	1.81	0.83
1:M:787:HIS:CE1	1:M:838:SER:O	2.31	0.83
1:N:810:ALA:CB	1:N:836:ASP:C	2.37	0.83
6:J:405:LEU:CD1	7:K:469:ARG:HG2	2.08	0.83
5:R:389:LEU:H	5:R:389:LEU:HD12	1.41	0.83
5:R:1037:ASN:H	5:R:1040:THR:CB	1.91	0.83
5:F:334:GLN:HE22	5:F:859:LYS:HZ3	1.27	0.82
5:F:929:TYR:O	5:F:932:VAL:HG13	1.79	0.82
5:F:1561:LEU:HD23	5:R:1667:VAL:CG2	2.09	0.82
6:V:398:VAL:HG23	7:W:466:LEU:HD13	1.61	0.82
1:Z:46:ILE:HD12	1:Z:46:ILE:O	1.78	0.82
1:Z:753:ALA:CB	1:Z:816:TYR:HA	2.09	0.82
3:D:977:LYS:CD	1:N:316:ALA:H	1.92	0.82
6:J:405:LEU:CD1	7:K:470:ALA:CA	2.57	0.82
5:R:1134:LYS:C	5:R:1136:LYS:H	1.81	0.82
3:D:1136:ASP:HB2	1:N:203:ASN:HD22	1.44	0.82
1:N:782:ILE:CB	1:N:839:LEU:C	2.48	0.82
4:Q:923:LEU:HD11	4:Q:931:PHE:HE2	1.45	0.82
6:V:371:LYS:O	6:V:371:LYS:NZ	2.10	0.82
1:Z:753:ALA:CA	1:Z:816:TYR:CA	2.57	0.82
1:A:15:SER:HA	6:S:447:PHE:HE2	1.45	0.82
5:F:227:ASP:HA	5:F:379:SER:CB	2.10	0.82
5:F:914:ASP:HA	5:F:917:PHE:HB3	1.59	0.82
1:M:772:PRO:HB3	1:M:828:THR:CB	2.09	0.82
5:R:227:ASP:HA	5:R:379:SER:CB	2.10	0.82
6:V:405:LEU:CD1	7:W:469:ARG:HG2	2.08	0.82
7:W:400:LYS:HD2	7:W:400:LYS:O	1.80	0.82
4:E:923:LEU:HD11	4:E:931:PHE:HE2	1.44	0.82
5:F:690:GLU:CG	8:I:722:LEU:HD21	2.08	0.82
5:F:1116:VAL:CG1	5:F:1150:PHE:HE2	1.87	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:333:ILE:O	6:J:336:PHE:CA	2.28	0.82
1:N:753:ALA:HB1	1:N:816:TYR:HA	1.61	0.82
1:A:128:LEU:CD1	4:E:1260:TYR:CZ	2.60	0.82
3:D:977:LYS:CE	1:N:315:LYS:HA	2.07	0.82
1:Z:253:LEU:HD21	1:Z:498:PHE:CD2	2.14	0.82
3:D:1457:LYS:O	1:Z:651:ASP:CB	2.27	0.82
5:F:922:LEU:CD2	7:H:400:LYS:CE	2.58	0.82
1:N:46:ILE:HD12	1:N:46:ILE:O	1.78	0.82
1:N:753:ALA:CB	1:N:816:TYR:HA	2.09	0.82
6:V:405:LEU:CD1	7:W:470:ALA:CA	2.57	0.82
1:Z:753:ALA:HA	1:Z:816:TYR:CA	2.10	0.82
1:Z:782:ILE:CB	1:Z:839:LEU:C	2.48	0.82
5:F:1109:ILE:HD11	5:F:1160:TYR:OH	1.80	0.82
1:N:651:ASP:CB	3:P:1457:LYS:O	2.28	0.82
5:R:1251:ARG:HH22	5:R:1276:ASP:CB	1.92	0.82
5:F:1251:ARG:HH22	5:F:1276:ASP:CB	1.92	0.81
5:R:922:LEU:HD23	7:T:400:LYS:HE3	1.58	0.81
5:R:929:TYR:O	5:R:932:VAL:HG13	1.79	0.81
1:A:775:LEU:CB	1:A:832:LEU:CD1	2.57	0.81
2:C:1258:GLN:HG2	2:C:1299:LYS:HZ1	1.41	0.81
3:D:1377:ASN:ND2	1:Z:758:GLN:HE21	1.76	0.81
1:M:27:GLU:CB	1:Z:26:LEU:HD23	2.09	0.81
3:P:368:ILE:HB	3:P:380:TYR:HB2	1.63	0.81
5:R:1106:PHE:CD2	5:R:1164:PHE:CE2	2.69	0.81
5:R:1357:ALA:HB2	5:R:1381:LEU:CA	2.10	0.81
1:Z:753:ALA:HB1	1:Z:816:TYR:HA	1.61	0.81
1:A:46:ILE:HA	8:L:792:GLN:H	1.45	0.81
3:D:734:LEU:HB3	3:D:739:THR:HG21	1.60	0.81
6:G:470:LEU:HB2	7:H:538:LYS:HZ3	1.45	0.81
1:N:59:LYS:CB	8:U:814:LEU:CD2	2.58	0.81
1:N:255:GLU:CB	1:N:480:GLN:HE21	1.93	0.81
5:R:1068:ILE:CD1	5:R:1150:PHE:CD2	2.63	0.81
1:N:753:ALA:HA	1:N:816:TYR:CA	2.10	0.81
1:N:774:LEU:HA	1:N:777:ILE:HG22	1.63	0.81
5:R:1116:VAL:CG1	5:R:1150:PHE:HE2	1.87	0.81
5:F:334:GLN:NE2	5:F:859:LYS:HZ2	1.50	0.81
1:M:140:ILE:HG22	4:Q:1393:LYS:HZ2	1.42	0.81
6:S:430:LEU:CB	8:U:780:THR:CG2	2.58	0.81
6:V:325:TYR:CD2	7:W:390:HIS:HA	2.15	0.81
7:W:314:ASN:HB2	7:W:361:ARG:HH12	1.46	0.81
3:D:1140:LYS:HZ2	1:N:204:GLU:CB	1.92	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:430:LEU:CB	8:I:780:THR:CG2	2.58	0.81
7:K:337:GLN:O	7:K:341:LYS:HE2	1.79	0.81
7:K:400:LYS:HD2	7:K:400:LYS:O	1.80	0.81
5:F:1068:ILE:CD1	5:F:1150:PHE:CD2	2.63	0.81
1:N:753:ALA:CA	1:N:816:TYR:CA	2.57	0.81
1:Z:810:ALA:CB	1:Z:836:ASP:C	2.37	0.81
1:A:15:SER:HA	6:S:447:PHE:CE2	2.14	0.81
7:K:446:ARG:NH2	7:K:455:LYS:HZ1	1.78	0.81
1:M:775:LEU:CB	1:M:832:LEU:CD1	2.57	0.81
7:W:508:LYS:NZ	1:Z:15:SER:OG	2.14	0.81
1:M:46:ILE:HA	8:X:792:GLN:H	1.45	0.80
1:Z:774:LEU:HA	1:Z:777:ILE:HG22	1.63	0.80
1:A:772:PRO:HB3	1:A:828:THR:CB	2.09	0.80
3:D:160:ILE:HG23	3:D:191:ILE:HG21	1.64	0.80
6:V:333:ILE:O	6:V:336:PHE:CA	2.28	0.80
1:N:88:LYS:NZ	8:U:805:ARG:CB	2.45	0.80
1:N:804:ASP:O	1:N:808:ASN:HB3	1.82	0.80
5:R:935:GLN:O	5:R:937:LEU:N	2.15	0.80
7:T:412:ILE:CG2	7:T:415:LEU:HD23	2.11	0.80
7:W:337:GLN:O	7:W:341:LYS:HE2	1.79	0.80
6:V:386:ASP:HA	6:V:389:ARG:HB2	1.63	0.80
3:D:368:ILE:HB	3:D:380:TYR:HB2	1.63	0.80
8:I:805:ARG:CB	1:Z:88:LYS:NZ	2.45	0.80
8:X:643:LYS:HG3	8:X:647:GLN:HE22	1.47	0.80
5:F:1106:PHE:CD2	5:F:1164:PHE:CE2	2.69	0.80
5:F:1216:PHE:HE2	5:F:1282:ALA:HB2	1.47	0.80
7:H:412:ILE:CG2	7:H:415:LEU:HD23	2.12	0.80
6:J:333:ILE:C	6:J:336:PHE:CB	2.50	0.80
8:L:643:LYS:HG3	8:L:647:GLN:HE22	1.47	0.80
5:R:1109:ILE:HD11	5:R:1160:TYR:OH	1.80	0.80
8:I:822:LYS:HA	8:I:822:LYS:CE	2.12	0.80
6:J:369:LEU:HD13	7:K:419:LEU:HD22	1.62	0.80
1:N:824:MET:CB	1:N:825:PRO:CD	2.60	0.80
3:P:160:ILE:HG23	3:P:191:ILE:HG21	1.64	0.80
8:U:822:LYS:HA	8:U:822:LYS:CE	2.12	0.80
6:V:333:ILE:C	6:V:336:PHE:CB	2.50	0.80
6:V:369:LEU:HD13	7:W:419:LEU:HD22	1.62	0.80
5:F:1357:ALA:HB2	5:F:1381:LEU:CA	2.10	0.80
1:N:762:ASN:CA	3:P:1376:LYS:CB	2.60	0.80
7:W:310:ALA:HB3	7:W:352:ILE:HB	1.64	0.80
6:J:384:LEU:HD23	6:J:384:LEU:O	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:390:ILE:HB	8:X:762:LEU:HD11	1.62	0.79
2:C:1388:HIS:O	4:E:1331:LEU:CD1	2.31	0.79
8:I:814:LEU:CD2	1:Z:59:LYS:CB	2.59	0.79
6:J:305:ILE:HD11	8:L:668:VAL:HG12	1.61	0.79
7:K:314:ASN:HB2	7:K:361:ARG:HH12	1.46	0.79
7:K:337:GLN:O	7:K:341:LYS:CE	2.30	0.79
7:K:385:GLN:HA	7:K:385:GLN:HE21	1.47	0.79
6:V:305:ILE:HD11	8:X:668:VAL:HG12	1.61	0.79
1:Z:804:ASP:O	1:Z:808:ASN:HB3	1.81	0.79
4:E:988:ILE:O	4:E:990:LYS:N	2.16	0.79
5:R:1134:LYS:O	5:R:1136:LYS:N	2.16	0.79
5:R:1436:LYS:O	5:R:1440:ILE:HB	1.83	0.79
6:V:384:LEU:O	6:V:384:LEU:HD23	1.82	0.79
7:W:337:GLN:O	7:W:341:LYS:CE	2.30	0.79
1:Z:779:LEU:CB	1:Z:835:ILE:CB	2.60	0.79
3:P:1021:TYR:H	1:Z:249:ARG:CB	1.94	0.79
5:F:734:LEU:HD22	5:F:817:ASN:OD1	1.81	0.79
1:N:779:LEU:CB	1:N:835:ILE:CB	2.60	0.79
4:Q:988:ILE:O	4:Q:990:LYS:N	2.16	0.79
5:R:1068:ILE:CD1	5:R:1150:PHE:HD2	1.95	0.79
1:N:84:ASP:CG	6:S:449:LEU:HD23	2.03	0.79
3:P:977:LYS:CE	1:Z:316:ALA:H	1.95	0.79
6:V:390:ILE:HG22	6:V:394:ILE:CG2	2.13	0.79
5:F:935:GLN:O	5:F:937:LEU:N	2.14	0.79
7:H:423:LYS:O	8:I:735:ASN:CB	2.31	0.79
2:O:1388:HIS:O	4:Q:1331:LEU:CD1	2.31	0.79
3:D:1376:LYS:CB	1:Z:762:ASN:CA	2.60	0.79
6:J:353:LEU:HG	7:K:419:LEU:HD11	1.64	0.79
7:T:423:LYS:O	8:U:735:ASN:CB	2.31	0.79
7:T:532:ALA:HB2	8:U:818:ILE:CD1	2.12	0.79
1:Z:133:THR:CG2	1:Z:134:LYS:N	2.45	0.79
6:J:325:TYR:CD2	7:K:390:HIS:HA	2.15	0.79
6:J:388:CYS:CA	6:J:391:LEU:HB2	2.13	0.79
1:N:762:ASN:HA	3:P:1376:LYS:CB	2.13	0.79
4:Q:1022:TYR:CE2	4:Q:1026:THR:HG22	2.18	0.79
3:D:1376:LYS:CB	1:Z:762:ASN:HA	2.13	0.78
1:M:783:SER:HA	1:M:839:LEU:CA	2.12	0.78
4:Q:182:PHE:HE2	5:R:1189:MET:CB	1.96	0.78
5:R:1435:LYS:NZ	5:R:1484:ARG:NH2	2.31	0.78
6:V:333:ILE:HA	6:V:336:PHE:CB	2.14	0.78
7:W:513:LEU:HD23	7:W:513:LEU:O	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:116:LYS:HB3	1:Z:116:LYS:NZ	1.95	0.78
1:Z:211:LYS:HZ2	1:Z:246:ASN:CG	1.70	0.78
1:Z:824:MET:CB	1:Z:825:PRO:CD	2.60	0.78
3:D:515:VAL:HB	3:D:604:PRO:HG3	1.66	0.78
5:F:1068:ILE:CD1	5:F:1150:PHE:HD2	1.95	0.78
7:H:532:ALA:HB2	8:I:818:ILE:CD1	2.12	0.78
7:K:310:ALA:HB3	7:K:352:ILE:HB	1.64	0.78
3:P:395:PRO:HB3	3:P:418:LEU:HD23	1.65	0.78
3:P:515:VAL:HB	3:P:604:PRO:HG3	1.66	0.78
1:N:133:THR:CG2	1:N:134:LYS:N	2.46	0.78
3:P:263:VAL:HB	3:P:311:LYS:HE3	1.66	0.78
5:R:922:LEU:CD2	7:T:400:LYS:CE	2.58	0.78
5:R:1606:GLN:O	5:R:1610:ALA:HB2	1.83	0.78
6:S:470:LEU:HB2	7:T:538:LYS:HZ3	1.47	0.78
8:U:737:ASN:OD1	8:U:738:ASP:OD1	2.01	0.78
8:U:822:LYS:HA	8:U:822:LYS:NZ	1.99	0.78
6:V:398:VAL:HG23	7:W:466:LEU:HD12	1.62	0.78
1:A:775:LEU:CB	1:A:832:LEU:HD11	2.13	0.78
5:F:1035:GLY:O	5:F:1042:ILE:CB	2.32	0.78
4:E:182:PHE:HE2	5:F:1189:MET:CB	1.96	0.78
5:F:1436:LYS:O	5:F:1440:ILE:HB	1.83	0.78
5:F:1606:GLN:O	5:F:1610:ALA:HB2	1.82	0.78
3:P:1020:ASN:ND2	1:Z:252:GLN:HB3	1.98	0.78
6:V:353:LEU:HG	7:W:419:LEU:HD11	1.64	0.78
7:W:358:LEU:HD22	8:X:662:ILE:HD13	1.64	0.78
4:E:973:THR:OG1	4:E:974:GLY:N	2.14	0.78
5:F:928:LEU:H	5:F:928:LEU:CD1	1.92	0.78
6:G:449:LEU:HD23	1:Z:84:ASP:CG	2.03	0.78
1:A:140:ILE:HG22	4:E:1393:LYS:HZ3	1.47	0.78
1:N:207:ILE:CD1	1:N:247:GLY:CA	2.54	0.78
1:Z:663:ASP:O	1:Z:667:ALA:HB3	1.84	0.78
1:A:53:VAL:CG2	8:L:799:SER:OG	2.30	0.78
5:R:1035:GLY:O	5:R:1042:ILE:CB	2.32	0.78
1:A:779:LEU:CB	1:A:835:ILE:CB	2.61	0.78
3:D:1238:ARG:CA	1:Z:830:SER:HB3	2.13	0.78
4:E:1022:TYR:CE2	4:E:1026:THR:HG22	2.18	0.78
5:F:1633:TYR:CZ	5:F:1635:ARG:HB2	2.19	0.78
1:M:53:VAL:CG2	8:X:799:SER:OG	2.30	0.78
1:M:779:LEU:CB	1:M:835:ILE:CB	2.61	0.78
3:D:1137:ASP:CB	1:N:205:ASN:HB3	2.13	0.77
1:N:663:ASP:O	1:N:667:ALA:HB3	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:446:ARG:NH2	7:W:455:LYS:HZ1	1.80	0.77
1:Z:810:ALA:HB1	1:Z:835:ILE:O	1.84	0.77
2:C:1258:GLN:CG	2:C:1299:LYS:CE	2.62	0.77
3:D:445:ARG:HB2	3:D:466:LYS:HB2	1.67	0.77
6:G:327:LYS:HZ2	1:Z:46:ILE:HA	1.50	0.77
1:N:621:HIS:CE1	3:P:1468:TYR:H	2.02	0.77
6:V:387:TYR:CB	8:X:759:SER:OG	2.33	0.77
1:Z:242:LEU:O	1:Z:254:LEU:HD21	1.84	0.77
1:A:253:LEU:HD22	1:A:502:ASP:HB3	1.66	0.77
3:D:744:SER:HA	3:D:758:ASP:HB2	1.67	0.77
5:F:1435:LYS:NZ	5:F:1484:ARG:NH2	2.32	0.77
6:J:319:GLU:HA	6:J:322:THR:HG22	1.66	0.77
7:K:446:ARG:HH22	7:K:455:LYS:HZ1	1.29	0.77
7:W:359:ASN:HA	7:W:362:ASN:HD22	1.49	0.77
7:W:483:VAL:CB	7:W:493:SER:C	2.53	0.77
1:Z:91:GLN:O	1:Z:93:ASN:N	2.18	0.77
6:J:333:ILE:HA	6:J:336:PHE:CB	2.13	0.77
7:K:358:LEU:HD22	8:L:662:ILE:HD13	1.64	0.77
3:P:1020:ASN:HD21	1:Z:252:GLN:HB3	1.49	0.77
5:R:734:LEU:HD22	5:R:817:ASN:OD1	1.82	0.77
5:R:1357:ALA:CA	5:R:1381:LEU:CB	2.63	0.77
3:D:263:VAL:HB	3:D:311:LYS:HE3	1.66	0.77
6:J:390:ILE:HG21	8:L:762:LEU:HD11	1.64	0.77
1:N:91:GLN:O	1:N:93:ASN:N	2.18	0.77
7:T:412:ILE:HA	7:T:415:LEU:HB2	1.67	0.77
1:Z:768:VAL:HA	1:Z:771:ILE:HD12	1.66	0.77
8:I:737:ASN:OD1	8:I:738:ASP:OD1	2.01	0.77
6:J:388:CYS:HA	6:J:391:LEU:CD1	2.14	0.77
3:P:1137:ASP:CB	1:Z:205:ASN:CA	2.62	0.77
5:R:1633:TYR:CZ	5:R:1635:ARG:HB2	2.19	0.77
7:W:509:ILE:HG22	1:Z:12:SER:HG	1.49	0.77
3:D:395:PRO:HB3	3:D:418:LEU:HD23	1.65	0.77
3:D:1468:TYR:H	1:Z:621:HIS:CE1	2.02	0.77
5:F:1139:ILE:HG12	5:F:1291:SER:OG	1.84	0.77
6:G:295:LYS:HG2	6:J:363:LYS:HZ1	1.48	0.77
5:R:968:ILE:HG23	7:T:392:LEU:CD1	2.14	0.77
5:F:968:ILE:HG23	7:H:392:LEU:CD1	2.14	0.77
4:Q:973:THR:OG1	4:Q:974:GLY:N	2.14	0.77
7:T:412:ILE:HG23	7:T:415:LEU:HD23	1.67	0.77
1:M:775:LEU:CB	1:M:832:LEU:HD11	2.13	0.77
2:O:1258:GLN:CG	2:O:1299:LYS:CE	2.62	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:445:ARG:HB2	3:P:466:LYS:HB2	1.67	0.77
5:F:1038:LEU:O	5:F:1040:THR:N	2.18	0.76
1:M:253:LEU:HD22	1:M:502:ASP:HB3	1.67	0.76
1:N:810:ALA:HB1	1:N:835:ILE:O	1.84	0.76
1:N:810:ALA:HB2	1:N:839:LEU:CA	2.15	0.76
1:Z:810:ALA:HB2	1:Z:839:LEU:CA	2.15	0.76
1:A:140:ILE:HG22	4:E:1393:LYS:HZ2	1.50	0.76
4:E:1359:ILE:HG21	1:Z:453:VAL:HG11	1.68	0.76
1:N:146:LEU:HD12	1:N:146:LEU:O	1.85	0.76
1:N:810:ALA:C	1:N:836:ASP:CA	2.54	0.76
5:R:506:ASN:O	5:R:510:PHE:HB2	1.85	0.76
5:R:1216:PHE:HE2	5:R:1282:ALA:HB1	1.48	0.76
1:M:772:PRO:CB	1:M:828:THR:CG2	2.39	0.76
5:R:159:LYS:HE3	5:R:363:ASP:CA	2.16	0.76
5:R:1034:LEU:O	5:R:1095:LEU:HD11	1.85	0.76
5:R:1216:PHE:HE2	5:R:1282:ALA:HB2	1.47	0.76
4:Q:984:ASP:OD1	4:Q:984:ASP:N	2.17	0.76
5:R:1274:ASP:HA	5:R:1277:VAL:HB	1.67	0.76
6:V:383:LYS:HZ3	8:X:756:ASN:CB	1.94	0.76
6:V:404:ASP:O	6:V:408:ALA:HB2	1.85	0.76
1:A:128:LEU:HD13	4:E:1260:TYR:CE2	2.21	0.76
3:D:1238:ARG:HG2	1:Z:830:SER:HB2	1.66	0.76
5:F:1606:GLN:HB3	1:Z:141:ASN:HD22	1.50	0.76
7:K:359:ASN:HA	7:K:362:ASN:HD22	1.49	0.76
7:K:483:VAL:CB	7:K:493:SER:C	2.53	0.76
1:N:141:ASN:HD22	5:R:1606:GLN:HB3	1.50	0.76
6:V:319:GLU:HA	6:V:322:THR:HG22	1.66	0.76
6:V:376:LYS:NZ	8:X:756:ASN:HD22	1.84	0.76
1:Z:133:THR:HG22	1:Z:134:LYS:H	1.48	0.76
5:F:506:ASN:O	5:F:510:PHE:HB2	1.84	0.76
1:N:133:THR:HG22	1:N:134:LYS:H	1.49	0.76
7:W:313:TYR:HA	7:W:349:PRO:HB3	1.68	0.76
3:D:509:PHE:HA	3:D:517:LEU:HG	1.68	0.76
5:F:1216:PHE:HE2	5:F:1282:ALA:HB1	1.48	0.76
8:I:822:LYS:HA	8:I:822:LYS:NZ	1.99	0.76
1:N:830:SER:HB2	3:P:1238:ARG:HG2	1.66	0.76
3:P:744:SER:HA	3:P:758:ASP:HB2	1.67	0.76
5:R:1139:ILE:HG12	5:R:1291:SER:OG	1.84	0.76
5:R:1370:LEU:O	5:R:1371:ILE:HG12	1.86	0.76
6:V:398:VAL:CG2	7:W:462:ARG:O	2.30	0.76
7:W:385:GLN:HE21	7:W:385:GLN:HA	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:298:TYR:CE1	3:D:311:LYS:HE2	2.21	0.76
3:P:298:TYR:CE1	3:P:311:LYS:HE2	2.21	0.76
5:R:1038:LEU:O	5:R:1040:THR:N	2.18	0.76
3:D:977:LYS:CE	1:N:316:ALA:H	1.99	0.76
4:E:1319:LEU:HD21	4:E:1398:VAL:HG23	1.67	0.76
3:P:508:LYS:HG3	3:P:517:LEU:H	1.49	0.76
4:Q:923:LEU:HD11	4:Q:931:PHE:CE2	2.21	0.76
5:R:951:ARG:HH21	5:R:953:ASN:N	1.84	0.76
5:R:951:ARG:NH2	5:R:953:ASN:H	1.84	0.76
4:E:923:LEU:HD11	4:E:931:PHE:CE2	2.21	0.76
1:N:88:LYS:CE	8:U:805:ARG:CB	2.64	0.76
4:Q:1319:LEU:HD21	4:Q:1398:VAL:HG23	1.67	0.76
5:R:334:GLN:HE22	5:R:859:LYS:NZ	1.84	0.76
1:Z:810:ALA:C	1:Z:836:ASP:CA	2.54	0.76
3:D:1249:LEU:CB	5:F:1502:THR:O	2.34	0.75
5:F:1357:ALA:CA	5:F:1381:LEU:CB	2.63	0.75
5:F:1442:TRP:CE2	5:F:1484:ARG:HB3	2.21	0.75
6:J:376:LYS:NZ	8:L:756:ASN:HD22	1.84	0.75
7:K:321:ALA:C	7:K:348:ILE:HD11	2.06	0.75
3:P:977:LYS:CD	1:Z:316:ALA:H	1.98	0.75
8:I:805:ARG:CB	1:Z:88:LYS:CE	2.64	0.75
1:N:768:VAL:HA	1:N:771:ILE:HD12	1.67	0.75
3:D:508:LYS:HG3	3:D:517:LEU:H	1.50	0.75
5:F:159:LYS:NZ	5:F:363:ASP:CB	2.49	0.75
5:F:1550:LEU:HD21	5:F:1552:PHE:CE2	2.19	0.75
7:H:412:ILE:HA	7:H:415:LEU:HB2	1.67	0.75
7:K:313:TYR:HA	7:K:349:PRO:HB3	1.68	0.75
1:N:453:VAL:HG11	4:Q:1359:ILE:HG21	1.68	0.75
1:N:810:ALA:HB2	1:N:839:LEU:HA	1.68	0.75
1:N:826:ARG:O	3:P:1241:GLY:HA2	1.86	0.75
7:W:518:ARG:HH11	7:W:518:ARG:CB	1.96	0.75
5:F:227:ASP:CB	5:F:361:LEU:CB	2.64	0.75
5:F:1370:LEU:O	5:F:1371:ILE:HG12	1.86	0.75
6:J:365:SER:H	7:K:424:ASN:HD21	1.34	0.75
1:M:226:ARG:NH2	1:M:230:GLY:O	2.20	0.75
5:R:1116:VAL:HG11	5:R:1150:PHE:HZ	1.51	0.75
5:R:1216:PHE:CZ	5:R:1282:ALA:HA	2.22	0.75
1:Z:146:LEU:O	1:Z:146:LEU:HD12	1.85	0.75
1:A:120:ASN:OD1	6:J:413:ASN:ND2	2.20	0.75
5:F:1134:LYS:O	5:F:1136:LYS:N	2.16	0.75
7:K:538:LYS:CB	8:L:821:ILE:HG23	2.15	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:365:GLN:O	1:N:368:LEU:HB2	1.87	0.75
1:Z:810:ALA:HB2	1:Z:839:LEU:HA	1.68	0.75
1:A:192:ILE:HD12	1:A:571:LEU:HD11	1.68	0.75
1:A:783:SER:HA	1:A:839:LEU:CA	2.12	0.75
3:D:1140:LYS:HZ2	1:N:204:GLU:HA	0.95	0.75
6:J:388:CYS:CA	6:J:391:LEU:HD12	2.17	0.75
1:N:117:LYS:HB3	1:N:117:LYS:HZ1	1.49	0.75
3:P:413:LEU:HD11	3:P:444:VAL:HG11	1.69	0.75
3:D:576:LEU:HD22	3:D:601:THR:HB	1.69	0.75
5:R:159:LYS:NZ	5:R:363:ASP:CB	2.49	0.75
1:A:226:ARG:NH2	1:A:230:GLY:O	2.20	0.75
7:K:513:LEU:CD2	8:L:800:HIS:CE1	2.69	0.75
5:R:1442:TRP:CE2	5:R:1484:ARG:HB3	2.21	0.75
6:V:395:GLU:OE1	7:W:462:ARG:CB	2.34	0.75
3:D:402:ILE:HG21	3:D:406:THR:H	1.52	0.75
7:K:538:LYS:CB	8:L:821:ILE:CG2	2.64	0.75
1:N:207:ILE:HD11	1:N:247:GLY:HA3	1.64	0.75
4:Q:224:CYS:O	4:Q:228:ASN:HB2	1.87	0.75
7:W:321:ALA:C	7:W:348:ILE:HD11	2.06	0.75
7:W:517:GLN:HA	7:W:520:ILE:HB	1.68	0.75
1:Z:44:VAL:CB	1:Z:47:ASN:ND2	2.50	0.75
5:R:227:ASP:CB	5:R:361:LEU:CB	2.64	0.74
5:F:1034:LEU:O	5:F:1095:LEU:HD11	1.85	0.74
5:F:1274:ASP:HA	5:F:1277:VAL:HB	1.68	0.74
7:K:446:ARG:NH2	7:K:455:LYS:CE	2.50	0.74
1:N:44:VAL:CB	1:N:47:ASN:ND2	2.50	0.74
1:N:830:SER:HB3	3:P:1238:ARG:CA	2.13	0.74
7:T:412:ILE:CG2	7:T:415:LEU:CD2	2.62	0.74
1:Z:116:LYS:HE2	1:Z:116:LYS:O	1.87	0.74
1:A:82:ASP:OD1	1:A:82:ASP:N	2.14	0.74
1:A:137:ASP:HB2	4:E:1386:LEU:HA	1.69	0.74
3:D:1241:GLY:HA2	1:Z:826:ARG:O	1.87	0.74
7:H:420:ALA:HB1	8:I:745:TYR:HE1	1.48	0.74
1:A:22:LEU:HB3	1:N:32:LEU:HD22	1.70	0.74
1:A:233:ASP:OD2	1:A:236:ASN:ND2	2.21	0.74
5:F:1216:PHE:CZ	5:F:1282:ALA:HA	2.22	0.74
3:P:402:ILE:HG21	3:P:406:THR:H	1.51	0.74
5:R:424:SER:O	5:R:428:GLN:NE2	2.21	0.74
6:V:398:VAL:HG22	7:W:466:LEU:HD11	1.69	0.74
1:Z:810:ALA:HB1	1:Z:836:ASP:N	2.02	0.74
1:M:128:LEU:HD13	4:Q:1260:TYR:CE2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:387:GLN:HA	7:W:387:GLN:HE21	1.51	0.74
7:H:425:ARG:O	7:H:427:LEU:N	2.19	0.74
1:M:19:ASN:HA	1:M:22:LEU:HD12	1.67	0.74
1:N:116:LYS:HE2	1:N:116:LYS:O	1.88	0.74
1:N:810:ALA:HB1	1:N:836:ASP:N	2.02	0.74
3:P:509:PHE:HA	3:P:517:LEU:HG	1.68	0.74
3:P:977:LYS:HE2	1:Z:316:ALA:N	2.03	0.74
3:P:1249:LEU:CB	5:R:1502:THR:O	2.34	0.74
5:R:1550:LEU:HD21	5:R:1552:PHE:CE2	2.19	0.74
3:D:490:LYS:HE2	3:D:533:SER:HB3	1.70	0.74
6:G:431:GLN:CB	7:H:503:ASN:N	2.51	0.74
6:V:390:ILE:HG23	6:V:394:ILE:CG2	2.18	0.74
6:V:390:ILE:C	6:V:394:ILE:HG23	2.08	0.74
7:W:379:ILE:O	7:W:382:LYS:N	2.21	0.74
6:G:357:LEU:O	8:I:732:ALA:O	2.06	0.74
1:M:120:ASN:OD1	6:V:413:ASN:ND2	2.20	0.74
1:M:137:ASP:HB2	4:Q:1386:LEU:HA	1.69	0.74
1:N:822:TYR:O	1:N:828:THR:HG23	1.88	0.74
3:P:576:LEU:HD22	3:P:601:THR:HB	1.69	0.74
6:S:470:LEU:CB	7:T:538:LYS:NZ	2.50	0.74
6:J:350:PHE:CD1	7:K:419:LEU:HD12	2.23	0.74
1:Z:754:ARG:HA	1:Z:819:MET:CB	2.17	0.74
2:C:1258:GLN:HG2	2:C:1299:LYS:HE2	1.68	0.73
1:N:453:VAL:HG11	4:Q:1359:ILE:CG2	2.18	0.73
6:V:433:LYS:H	7:W:499:GLY:HA3	1.52	0.73
7:K:387:GLN:HA	7:K:387:GLN:HE21	1.51	0.73
1:N:767:ILE:O	1:N:771:ILE:N	2.20	0.73
6:S:357:LEU:O	8:U:732:ALA:O	2.06	0.73
8:U:822:LYS:HA	8:U:822:LYS:HE3	1.70	0.73
6:V:303:GLU:HG2	6:V:304:LEU:HD12	1.70	0.73
1:Z:365:GLN:O	1:Z:368:LEU:HB2	1.87	0.73
1:Z:753:ALA:HB2	1:Z:816:TYR:N	2.02	0.73
4:E:1359:ILE:CG2	1:Z:453:VAL:HG11	2.18	0.73
1:M:192:ILE:HD12	1:M:571:LEU:HD11	1.68	0.73
1:N:116:LYS:HB3	1:N:116:LYS:NZ	1.95	0.73
1:N:754:ARG:HA	1:N:819:MET:CB	2.17	0.73
1:N:127:GLN:HE21	1:N:127:GLN:CA	2.01	0.73
1:A:128:LEU:HB3	4:E:1260:TYR:HE2	1.54	0.73
3:D:750:LYS:HB2	3:D:751:PRO:HD3	1.70	0.73
3:D:1134:SER:C	1:N:206:ASN:HD22	1.89	0.73
4:E:224:CYS:O	4:E:228:ASN:HB2	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1635:ARG:O	5:F:1639:GLY:HA3	1.89	0.73
4:Q:182:PHE:CZ	5:R:1189:MET:CB	2.71	0.73
6:V:376:LYS:HD2	6:V:376:LYS:O	1.89	0.73
5:F:951:ARG:NH2	5:F:953:ASN:H	1.84	0.73
5:F:1669:LEU:CB	1:Z:145:ASN:CB	2.67	0.73
6:J:433:LYS:H	7:K:499:GLY:HA3	1.52	0.73
7:K:287:GLN:O	7:K:291:GLN:N	2.18	0.73
1:N:125:ILE:CD1	5:R:1363:ILE:HG22	2.19	0.73
7:T:426:GLY:CA	8:U:736:ASN:H	1.98	0.73
1:Z:117:LYS:HB3	1:Z:117:LYS:HZ1	1.53	0.73
1:Z:211:LYS:HZ3	1:Z:246:ASN:CG	1.89	0.73
3:D:413:LEU:HD11	3:D:444:VAL:HG11	1.69	0.73
4:E:182:PHE:CZ	5:F:1189:MET:CB	2.71	0.73
6:S:431:GLN:CB	7:T:503:ASN:N	2.51	0.73
7:W:446:ARG:NH2	7:W:455:LYS:CE	2.50	0.73
1:Z:753:ALA:CB	1:Z:815:ILE:O	2.29	0.73
3:D:155:ASN:HA	3:D:646:SER:HB3	1.71	0.73
3:D:472:VAL:HG23	3:D:474:PRO:HD2	1.71	0.73
5:F:968:ILE:CG1	7:H:392:LEU:CD1	2.65	0.73
6:J:364:ILE:HA	7:K:424:ASN:HD22	1.52	0.73
1:M:24:GLU:CB	1:Z:26:LEU:HG	2.18	0.73
1:N:753:ALA:C	1:N:816:TYR:HA	2.09	0.73
3:P:750:LYS:HB2	3:P:751:PRO:HD3	1.70	0.73
6:V:365:SER:H	7:W:424:ASN:HD21	1.34	0.73
3:D:1019:ARG:HB3	1:N:251:ALA:CB	2.09	0.73
5:F:750:TRP:CZ2	5:F:901:PRO:CB	2.70	0.73
7:K:379:ILE:O	7:K:382:LYS:N	2.21	0.73
2:O:1258:GLN:HG2	2:O:1299:LYS:HE2	1.68	0.73
5:F:1216:PHE:CE2	5:F:1282:ALA:HB2	2.23	0.73
6:G:451:MET:SD	1:M:14:THR:HG21	2.28	0.73
1:N:771:ILE:HG22	1:N:772:PRO:CD	2.19	0.73
7:W:448:GLU:OE2	7:W:448:GLU:HA	1.89	0.73
1:Z:771:ILE:HG22	1:Z:772:PRO:CD	2.19	0.73
1:A:60:ASN:N	8:L:807:LEU:CB	2.52	0.72
5:F:334:GLN:HE22	5:F:859:LYS:NZ	1.83	0.72
5:F:951:ARG:HH21	5:F:953:ASN:N	1.84	0.72
1:M:16:LYS:HG3	6:V:468:ALA:HB1	1.69	0.72
7:T:425:ARG:O	7:T:427:LEU:N	2.19	0.72
6:V:350:PHE:CD1	7:W:419:LEU:HD12	2.23	0.72
6:V:364:ILE:HA	7:W:424:ASN:HD22	1.52	0.72
1:Z:127:GLN:HE21	1:Z:127:GLN:CA	2.01	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:822:TYR:O	1:Z:828:THR:CG2	2.38	0.72
7:K:312:VAL:HG23	7:K:352:ILE:HG13	1.71	0.72
1:N:145:ASN:CB	5:R:1669:LEU:CB	2.67	0.72
1:N:822:TYR:O	1:N:828:THR:CG2	2.38	0.72
3:P:155:ASN:HA	3:P:646:SER:HB3	1.71	0.72
5:R:1633:TYR:HE2	5:R:1635:ARG:HB2	1.47	0.72
1:Z:822:TYR:O	1:Z:828:THR:HG23	1.88	0.72
5:F:159:LYS:HE3	5:F:363:ASP:CA	2.15	0.72
5:F:354:ARG:CZ	5:F:354:ARG:HB3	2.20	0.72
1:N:254:LEU:CB	1:N:258:LYS:HE2	2.14	0.72
1:N:753:ALA:HB2	1:N:816:TYR:N	2.02	0.72
5:F:1363:ILE:HG22	1:Z:125:ILE:CD1	2.19	0.72
6:J:303:GLU:HG2	6:J:304:LEU:HD12	1.70	0.72
1:Z:753:ALA:C	1:Z:816:TYR:HA	2.08	0.72
6:J:376:LYS:O	6:J:376:LYS:HD2	1.89	0.72
1:M:233:ASP:OD2	1:M:236:ASN:ND2	2.21	0.72
5:R:354:ARG:HB3	5:R:354:ARG:CZ	2.20	0.72
8:U:724:ASP:O	8:U:727:SER:HB2	1.89	0.72
5:F:1027:GLN:HG2	5:F:1036:PRO:HA	1.71	0.72
7:K:404:ARG:HA	7:K:404:ARG:HE	1.55	0.72
7:K:520:ILE:HA	7:K:523:LEU:HB2	1.71	0.72
1:M:60:ASN:N	8:X:807:LEU:CB	2.52	0.72
3:P:490:LYS:HE2	3:P:533:SER:HB3	1.70	0.72
3:D:915:GLU:OE1	3:D:980:SER:HB3	1.90	0.72
5:F:424:SER:O	5:F:428:GLN:NE2	2.21	0.72
5:F:837:TYR:CB	5:F:918:PHE:CE2	2.71	0.72
6:J:391:LEU:HD23	6:J:394:ILE:HD11	1.71	0.72
3:P:268:ILE:HG21	3:P:284:PHE:HE2	1.54	0.72
5:R:750:TRP:CZ2	5:R:901:PRO:CB	2.70	0.72
7:W:312:VAL:HG23	7:W:352:ILE:HG13	1.71	0.72
1:A:315:LYS:HE3	1:A:321:LYS:HA	1.72	0.72
8:I:724:ASP:O	8:I:727:SER:HB2	1.89	0.72
1:M:128:LEU:CD2	4:Q:1260:TYR:CD2	2.62	0.72
1:N:207:ILE:HD12	1:N:246:ASN:O	1.89	0.72
6:V:400:GLY:O	6:V:403:THR:CB	2.37	0.72
7:W:404:ARG:HA	7:W:404:ARG:HE	1.55	0.72
8:X:637:LEU:HD21	8:X:640:LEU:HD23	1.72	0.72
1:Z:18:ALA:HA	1:Z:21:LYS:HB3	1.72	0.72
1:A:634:ASP:O	1:A:636:ARG:NH1	2.22	0.72
1:M:21:LYS:C	1:M:21:LYS:HD3	2.08	0.72
3:P:472:VAL:HG23	3:P:474:PRO:HD2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:470:LEU:HB2	7:H:538:LYS:NZ	2.05	0.71
8:L:637:LEU:HD21	8:L:640:LEU:HD23	1.72	0.71
8:I:822:LYS:HA	8:I:822:LYS:HE3	1.70	0.71
7:K:378:HIS:O	7:K:381:GLU:CB	2.38	0.71
3:P:935:PHE:HD2	3:P:936:VAL:HG22	1.55	0.71
5:R:1635:ARG:O	5:R:1639:GLY:HA3	1.89	0.71
7:W:509:ILE:CG2	1:Z:12:SER:CB	2.68	0.71
1:A:775:LEU:HB3	1:A:832:LEU:HD12	1.72	0.71
1:M:59:LYS:O	8:X:807:LEU:CB	2.39	0.71
1:N:44:VAL:O	1:N:47:ASN:HB2	1.91	0.71
1:Z:252:GLN:HG3	1:Z:253:LEU:HD23	1.73	0.71
5:F:1283:LYS:HA	5:F:1283:LYS:CE	2.17	0.71
6:J:390:ILE:CG2	8:L:762:LEU:HD11	2.19	0.71
3:P:860:ILE:HG21	3:P:893:ILE:HG13	1.72	0.71
3:P:977:LYS:HD3	1:Z:316:ALA:CB	2.20	0.71
6:V:404:ASP:O	6:V:408:ALA:N	2.23	0.71
6:V:432:LEU:CB	8:X:782:ILE:HA	2.19	0.71
7:W:287:GLN:O	7:W:291:GLN:N	2.18	0.71
7:W:426:GLY:HA2	8:X:738:ASP:HB3	1.72	0.71
4:E:984:ASP:N	4:E:984:ASP:OD1	2.17	0.71
6:G:470:LEU:CB	7:H:538:LYS:NZ	2.50	0.71
7:K:448:GLU:HA	7:K:448:GLU:OE2	1.89	0.71
1:M:128:LEU:HB3	4:Q:1260:TYR:HE2	1.54	0.71
3:P:1140:LYS:HZ2	1:Z:204:GLU:CB	2.04	0.71
1:M:634:ASP:O	1:M:636:ARG:NH1	2.22	0.71
3:P:451:SER:H	3:P:458:GLU:HB3	1.55	0.71
5:R:1027:GLN:HG2	5:R:1036:PRO:HA	1.71	0.71
1:Z:746:PRO:CB	1:Z:753:ALA:N	2.53	0.71
2:C:318:ILE:H	2:C:318:ILE:CD1	1.96	0.71
3:D:451:SER:H	3:D:458:GLU:HB3	1.55	0.71
3:D:935:PHE:HD2	3:D:936:VAL:HG22	1.55	0.71
6:J:432:LEU:CB	8:L:782:ILE:HA	2.19	0.71
6:V:389:ARG:O	6:V:389:ARG:NH1	2.23	0.71
1:Z:28:SER:HA	1:Z:32:LEU:HD13	1.71	0.71
6:G:458:ALA:HB1	1:Z:32:LEU:HD11	1.73	0.71
6:V:383:LYS:HE3	8:X:759:SER:HB2	1.73	0.71
7:W:321:ALA:N	7:W:348:ILE:CD1	2.39	0.71
5:F:887:PHE:N	5:F:888:PRO:CD	2.54	0.71
8:L:800:HIS:O	8:L:804:LEU:HB3	1.90	0.71
1:M:24:GLU:HA	1:M:24:GLU:OE2	1.91	0.71
1:M:24:GLU:HA	1:Z:26:LEU:HG	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1216:PHE:CE2	5:R:1282:ALA:HB2	2.23	0.71
1:Z:746:PRO:CB	1:Z:752:SER:C	2.59	0.71
5:F:1435:LYS:CE	5:F:1484:ARG:NH2	2.53	0.71
6:J:383:LYS:HE3	8:L:759:SER:HB2	1.73	0.71
1:M:315:LYS:HE3	1:M:321:LYS:HA	1.72	0.71
1:N:254:LEU:HG	1:N:258:LYS:NZ	2.05	0.71
1:N:746:PRO:CB	1:N:752:SER:C	2.59	0.71
5:R:376:ASN:CB	5:R:381:THR:C	2.60	0.71
5:R:837:TYR:CB	5:R:918:PHE:HE2	2.04	0.71
5:R:1435:LYS:CE	5:R:1484:ARG:NH2	2.53	0.71
7:W:317:ASN:CA	7:W:346:GLN:HB3	2.21	0.71
1:Z:44:VAL:O	1:Z:47:ASN:HB2	1.91	0.71
1:Z:242:LEU:HG	1:Z:254:LEU:HD22	1.71	0.71
5:F:376:ASN:CB	5:F:382:ASP:H	2.04	0.70
6:G:296:ALA:HB2	6:J:363:LYS:HD2	1.72	0.70
1:N:753:ALA:HB2	1:N:815:ILE:C	2.08	0.70
3:P:977:LYS:HD3	1:Z:316:ALA:H	1.54	0.70
3:P:1021:TYR:N	1:Z:249:ARG:HA	2.02	0.70
5:R:1024:LEU:HA	5:R:1048:LEU:HB3	1.72	0.70
5:F:1550:LEU:CD1	5:F:1604:ILE:CD1	2.68	0.70
1:M:140:ILE:HG22	4:Q:1393:LYS:HZ3	1.54	0.70
3:P:915:GLU:OE1	3:P:980:SER:HB3	1.90	0.70
7:W:321:ALA:HA	7:W:348:ILE:HD11	1.42	0.70
1:Z:767:ILE:O	1:Z:771:ILE:N	2.20	0.70
5:F:841:PHE:CE2	5:F:918:PHE:CD1	2.79	0.70
5:F:900:LEU:C	5:F:900:LEU:HD12	2.12	0.70
1:M:775:LEU:HB3	1:M:832:LEU:HD12	1.72	0.70
1:N:453:VAL:CG2	4:Q:1356:LEU:HB2	2.21	0.70
2:O:1388:HIS:O	4:Q:1331:LEU:HD11	1.91	0.70
3:P:617:ALA:HA	3:P:630:THR:HG21	1.73	0.70
4:Q:1029:ASN:HD21	7:W:475:SER:CB	2.04	0.70
5:R:333:GLU:O	5:R:335:ASP:N	2.23	0.70
5:R:1283:LYS:HA	5:R:1283:LYS:CE	2.17	0.70
8:X:800:HIS:O	8:X:804:LEU:HB3	1.90	0.70
1:A:59:LYS:O	8:L:807:LEU:CB	2.39	0.70
3:D:528:PRO:CG	3:D:624:PHE:CE2	2.73	0.70
1:N:16:LYS:HA	1:N:19:ASN:HD22	1.57	0.70
3:P:475:GLU:O	3:P:486:GLN:NE2	2.24	0.70
2:C:318:ILE:HD12	2:C:318:ILE:N	2.01	0.70
3:D:268:ILE:HG21	3:D:284:PHE:HE2	1.54	0.70
6:J:376:LYS:HZ1	8:L:756:ASN:HD22	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:317:ASN:CA	7:K:346:GLN:HB3	2.21	0.70
1:M:133:THR:O	1:M:136:PHE:N	2.25	0.70
1:N:746:PRO:CB	1:N:753:ALA:N	2.53	0.70
5:R:837:TYR:CB	5:R:918:PHE:CE2	2.71	0.70
1:Z:753:ALA:O	1:Z:816:TYR:HA	1.92	0.70
3:D:860:ILE:HG21	3:D:893:ILE:HG13	1.72	0.70
5:F:1294:LYS:O	5:F:1295:ALA:C	2.28	0.70
1:N:753:ALA:HA	1:N:816:TYR:HA	1.72	0.70
5:R:968:ILE:HG12	7:T:392:LEU:HD13	1.74	0.70
5:R:1134:LYS:C	5:R:1136:LYS:N	2.45	0.70
6:S:296:ALA:HB2	6:V:363:LYS:HD2	1.72	0.70
7:W:378:HIS:O	7:W:381:GLU:CB	2.39	0.70
1:Z:601:PRO:HB3	1:Z:605:GLU:HB2	1.74	0.70
3:D:937:SER:HB3	3:D:941:GLN:HB2	1.73	0.70
4:E:1309:ARG:O	4:E:1313:ARG:CG	2.35	0.70
5:F:1080:LEU:HG	5:F:1156:TYR:HD2	1.56	0.70
5:F:1216:PHE:HZ	5:F:1282:ALA:HA	1.55	0.70
1:N:46:ILE:HA	6:S:327:LYS:HZ2	1.56	0.70
1:N:601:PRO:HB3	1:N:605:GLU:HB2	1.74	0.70
7:W:310:ALA:O	7:W:352:ILE:N	2.25	0.70
7:W:520:ILE:HA	7:W:523:LEU:HB2	1.72	0.70
1:Z:242:LEU:HG	1:Z:254:LEU:HD21	1.73	0.70
4:E:1029:ASN:HD21	7:K:475:SER:CB	2.04	0.70
5:F:1088:ARG:HH11	5:F:1088:ARG:HG3	1.56	0.70
1:N:255:GLU:HB2	1:N:480:GLN:NE2	2.07	0.70
4:E:1356:LEU:HB2	1:Z:453:VAL:CG2	2.22	0.70
6:G:295:LYS:CD	6:J:363:LYS:HZ3	2.05	0.70
6:J:429:LEU:HA	6:J:434:THR:H	1.57	0.70
5:R:967:THR:O	7:T:392:LEU:CD2	2.40	0.70
7:T:420:ALA:HB1	8:U:745:TYR:HE1	1.48	0.70
6:V:429:LEU:HA	6:V:434:THR:H	1.57	0.70
1:Z:753:ALA:HB2	1:Z:815:ILE:C	2.08	0.70
3:D:475:GLU:O	3:D:486:GLN:NE2	2.24	0.70
3:P:828:ILE:HD13	3:P:925:GLN:HA	1.74	0.70
5:R:376:ASN:CB	5:R:382:ASP:H	2.03	0.70
6:V:463:LYS:HE3	7:W:526:VAL:HG12	1.74	0.70
3:D:617:ALA:HA	3:D:630:THR:HG21	1.73	0.69
5:F:328:ASP:HB3	5:F:331:ILE:HD11	1.74	0.69
5:F:914:ASP:OD1	5:F:917:PHE:HB2	1.91	0.69
1:M:82:ASP:OD1	1:M:82:ASP:N	2.14	0.69
3:P:763:ASP:HB3	3:P:765:ILE:HD11	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1036:PRO:CB	5:R:1042:ILE:CB	2.70	0.69
7:K:505:ARG:HA	7:K:508:LYS:HB3	1.73	0.69
5:R:841:PHE:CE2	5:R:918:PHE:CD1	2.79	0.69
5:F:376:ASN:CB	5:F:382:ASP:N	2.55	0.69
5:F:1024:LEU:HA	5:F:1048:LEU:HB3	1.72	0.69
7:H:412:ILE:O	7:H:415:LEU:HB3	1.92	0.69
1:M:682:GLU:HG2	1:M:691:ARG:HH22	1.58	0.69
3:P:222:ASN:H	3:P:301:SER:HB2	1.57	0.69
3:P:937:SER:HB3	3:P:941:GLN:HB2	1.73	0.69
5:R:1080:LEU:HG	5:R:1156:TYR:HD2	1.56	0.69
7:T:508:LYS:HG3	7:T:510:VAL:HG13	1.75	0.69
5:F:1116:VAL:HG11	5:F:1150:PHE:HZ	1.51	0.69
7:H:508:LYS:HG3	7:H:510:VAL:HG13	1.75	0.69
3:P:528:PRO:CG	3:P:624:PHE:CE2	2.73	0.69
3:P:977:LYS:CE	1:Z:315:LYS:HA	2.20	0.69
5:R:900:LEU:C	5:R:900:LEU:HD12	2.12	0.69
6:S:470:LEU:HB2	7:T:538:LYS:NZ	2.05	0.69
3:D:763:ASP:HB3	3:D:765:ILE:HD11	1.74	0.69
7:K:310:ALA:O	7:K:352:ILE:N	2.25	0.69
1:N:46:ILE:HA	6:S:327:LYS:NZ	2.08	0.69
5:R:914:ASP:OD1	5:R:917:PHE:HB2	1.91	0.69
6:S:430:LEU:C	7:T:503:ASN:CB	2.61	0.69
5:F:1036:PRO:CB	5:F:1042:ILE:CB	2.70	0.69
6:J:389:ARG:HG2	6:J:389:ARG:HH11	1.58	0.69
1:M:669:ASP:O	1:M:724:ARG:NH2	2.25	0.69
1:N:753:ALA:O	1:N:816:TYR:HA	1.92	0.69
3:P:261:LEU:HD13	3:P:311:LYS:HB2	1.75	0.69
5:R:376:ASN:CB	5:R:382:ASP:N	2.55	0.69
7:T:412:ILE:O	7:T:415:LEU:HB3	1.92	0.69
1:Z:810:ALA:HB1	1:Z:835:ILE:C	2.12	0.69
1:A:15:SER:CA	6:S:447:PHE:CZ	2.73	0.69
1:A:301:ASN:HB3	1:A:345:LEU:HD13	1.74	0.69
1:A:775:LEU:HD13	1:A:832:LEU:HD11	1.75	0.69
5:F:1157:TRP:CD1	5:F:1160:TYR:CE1	2.81	0.69
1:N:810:ALA:HB1	1:N:835:ILE:C	2.12	0.69
1:A:775:LEU:HD13	1:A:832:LEU:CD1	2.23	0.69
3:D:828:ILE:HD13	3:D:925:GLN:HA	1.73	0.69
3:D:1019:ARG:HA	1:N:245:ALA:HB3	1.74	0.69
5:F:376:ASN:CB	5:F:381:THR:C	2.59	0.69
5:F:968:ILE:HG12	7:H:392:LEU:HD13	1.74	0.69
6:G:327:LYS:NZ	1:Z:46:ILE:HA	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:412:ILE:CG2	7:H:415:LEU:CD2	2.62	0.69
7:H:426:GLY:CA	8:I:736:ASN:H	1.97	0.69
1:M:24:GLU:CA	1:Z:26:LEU:HG	2.23	0.69
2:O:318:ILE:HD12	2:O:318:ILE:N	2.01	0.69
3:P:545:GLN:HG3	3:P:572:LEU:HD13	1.74	0.69
5:R:926:LEU:HD12	5:R:926:LEU:O	1.93	0.69
5:R:1088:ARG:HH11	5:R:1088:ARG:HG3	1.57	0.69
5:R:1294:LYS:O	5:R:1295:ALA:C	2.28	0.69
6:S:295:LYS:CD	6:V:363:LYS:HZ3	2.05	0.69
1:A:682:GLU:HG2	1:A:691:ARG:HH22	1.58	0.69
1:A:816:TYR:HA	1:A:819:MET:HG2	1.74	0.69
2:C:1388:HIS:O	4:E:1331:LEU:HD11	1.92	0.69
3:D:545:GLN:HG3	3:D:572:LEU:HD13	1.74	0.69
4:E:260:ARG:HH11	4:E:260:ARG:CG	2.05	0.69
6:J:383:LYS:HZ3	8:L:756:ASN:CB	1.95	0.69
1:N:748:SER:OG	1:N:752:SER:HB3	1.92	0.69
6:V:357:LEU:HB3	7:W:423:LYS:HE2	1.68	0.69
6:V:390:ILE:HG22	6:V:394:ILE:HG21	1.74	0.69
1:A:15:SER:HB2	6:S:447:PHE:HZ	1.48	0.69
3:D:222:ASN:H	3:D:301:SER:HB2	1.57	0.69
7:K:426:GLY:HA2	8:L:738:ASP:HB3	1.72	0.69
1:M:816:TYR:HA	1:M:819:MET:HG2	1.74	0.69
1:N:133:THR:O	1:N:136:PHE:N	2.25	0.69
5:R:968:ILE:CG1	7:T:392:LEU:CD1	2.65	0.69
8:U:738:ASP:HB2	8:U:740:LYS:HE2	1.74	0.69
1:Z:782:ILE:CB	1:Z:839:LEU:O	2.41	0.69
1:M:775:LEU:HD13	1:M:832:LEU:CD1	2.23	0.68
1:N:250:ASN:HA	1:N:253:LEU:HB2	1.74	0.68
3:P:977:LYS:CE	1:Z:316:ALA:N	2.56	0.68
8:U:821:ILE:C	8:U:821:ILE:HD13	2.13	0.68
1:Z:748:SER:OG	1:Z:752:SER:HB3	1.92	0.68
1:A:669:ASP:O	1:A:724:ARG:NH2	2.25	0.68
5:F:333:GLU:O	5:F:335:ASP:N	2.22	0.68
8:I:738:ASP:HB2	8:I:740:LYS:HE2	1.74	0.68
8:I:821:ILE:HD13	8:I:821:ILE:C	2.13	0.68
1:M:814:MET:HG2	1:M:833:ILE:HG12	1.76	0.68
3:P:1137:ASP:CB	1:Z:205:ASN:HB3	2.24	0.68
5:R:1157:TRP:CD1	5:R:1160:TYR:CE1	2.81	0.68
5:F:926:LEU:HD12	5:F:926:LEU:O	1.93	0.68
6:G:396:THR:CB	1:Z:89:ASP:OD2	2.41	0.68
1:M:775:LEU:HD13	1:M:832:LEU:HD11	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:1398:VAL:O	4:Q:1398:VAL:CG1	2.41	0.68
5:R:376:ASN:CB	5:R:381:THR:N	2.55	0.68
5:R:750:TRP:HE1	5:R:754:ASP:HB2	1.59	0.68
1:A:814:MET:HG2	1:A:833:ILE:HG12	1.75	0.68
6:G:430:LEU:C	7:H:503:ASN:CB	2.61	0.68
1:N:89:ASP:OD2	6:S:396:THR:CB	2.41	0.68
1:N:782:ILE:CB	1:N:839:LEU:O	2.41	0.68
3:P:1134:SER:HB3	1:Z:206:ASN:HD22	1.55	0.68
5:F:376:ASN:CB	5:F:381:THR:N	2.55	0.68
6:J:388:CYS:SG	7:K:453:LEU:CA	2.82	0.68
1:N:46:ILE:CA	6:S:327:LYS:NZ	2.57	0.68
5:R:328:ASP:HB3	5:R:331:ILE:HD11	1.74	0.68
7:W:483:VAL:H	7:W:493:SER:C	1.96	0.68
5:F:922:LEU:HD23	7:H:400:LYS:HZ1	1.54	0.68
5:F:1558:ASP:C	5:R:1681:ASN:CB	2.61	0.68
1:M:23:ASN:HA	1:M:26:LEU:HD12	1.74	0.68
5:R:1216:PHE:HZ	5:R:1282:ALA:HA	1.55	0.68
6:S:289:GLN:OE1	6:V:352:VAL:HA	1.94	0.68
3:D:977:LYS:HE2	1:N:316:ALA:N	2.09	0.68
6:G:289:GLN:OE1	6:J:352:VAL:HA	1.94	0.68
7:W:509:ILE:CG2	1:Z:12:SER:OG	2.34	0.68
3:D:421:VAL:HG21	3:D:490:LYS:HB3	1.74	0.68
7:K:483:VAL:H	7:K:493:SER:C	1.96	0.68
5:R:661:VAL:HG11	5:R:712:LEU:CD1	2.23	0.68
5:R:1550:LEU:CD1	5:R:1604:ILE:CD1	2.68	0.68
5:F:320:GLU:OE1	5:F:351:HIS:CE1	2.47	0.68
5:F:661:VAL:HG11	5:F:712:LEU:CD1	2.23	0.68
5:F:1633:TYR:HE2	5:F:1635:ARG:HB2	1.47	0.68
6:J:388:CYS:SG	7:K:453:LEU:C	2.72	0.68
8:L:728:THR:HB	8:L:734:ALA:HB2	1.76	0.68
1:N:774:LEU:HD23	1:N:774:LEU:C	2.14	0.68
7:W:308:LEU:HD13	7:W:355:PHE:HE2	1.58	0.68
1:Z:774:LEU:HD23	1:Z:774:LEU:C	2.14	0.68
1:A:133:THR:O	1:A:136:PHE:N	2.25	0.68
1:A:364:GLU:OE1	1:A:408:ARG:NH1	2.26	0.68
5:F:967:THR:O	7:H:392:LEU:CD2	2.40	0.68
5:R:1303:LEU:HD13	5:R:1303:LEU:O	1.94	0.68
1:A:57:ARG:HG2	1:A:57:ARG:NH1	2.01	0.67
1:A:128:LEU:CD2	4:E:1260:TYR:CD2	2.62	0.67
3:D:261:LEU:HD13	3:D:311:LYS:HB2	1.75	0.67
5:F:1303:LEU:O	5:F:1303:LEU:HD13	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:364:GLU:OE1	1:M:408:ARG:NH1	2.26	0.67
3:P:421:VAL:HG21	3:P:490:LYS:HB3	1.74	0.67
7:W:451:ALA:HB3	7:W:453:LEU:HD12	1.76	0.67
1:Z:211:LYS:NZ	1:Z:246:ASN:ND2	2.42	0.67
6:J:297:ASP:OD2	7:K:362:ASN:ND2	2.27	0.67
7:K:451:ALA:HB3	7:K:453:LEU:HD12	1.76	0.67
3:P:1021:TYR:N	1:Z:249:ARG:CB	2.56	0.67
1:A:249:ARG:NH1	1:A:494:TYR:OH	2.27	0.67
5:F:249:ASP:OD2	5:F:295:ARG:NH1	2.27	0.67
5:F:667:SER:HA	5:F:670:LYS:HB3	1.76	0.67
6:G:327:LYS:NZ	1:Z:46:ILE:CA	2.57	0.67
7:K:308:LEU:HD13	7:K:355:PHE:HE2	1.58	0.67
1:N:87:ILE:HD13	1:N:87:ILE:N	2.10	0.67
3:P:292:ASN:ND2	3:P:380:TYR:OH	2.28	0.67
5:R:320:GLU:OE1	5:R:351:HIS:CE1	2.47	0.67
7:T:412:ILE:O	7:T:415:LEU:CB	2.42	0.67
6:G:295:LYS:CG	6:J:363:LYS:HZ3	2.07	0.67
6:J:357:LEU:CB	7:K:423:LYS:CE	2.43	0.67
2:O:784:ALA:HB3	3:P:1357:LYS:H	1.59	0.67
6:V:390:ILE:O	6:V:394:ILE:N	2.19	0.67
1:Z:746:PRO:O	1:Z:812:GLN:C	2.33	0.67
5:F:750:TRP:HE1	5:F:754:ASP:HB2	1.59	0.67
1:M:249:ARG:NH1	1:M:494:TYR:OH	2.27	0.67
1:N:724:ARG:NH1	1:N:724:ARG:O	2.27	0.67
5:R:928:LEU:H	5:R:928:LEU:CD1	1.92	0.67
6:V:297:ASP:OD2	7:W:362:ASN:ND2	2.28	0.67
3:D:235:SER:HB2	3:D:240:LEU:HD13	1.77	0.67
6:J:380:TYR:CE2	8:L:751:LEU:CD2	2.68	0.67
1:N:29:SER:HA	1:N:32:LEU:HG	1.75	0.67
1:N:810:ALA:HB2	1:N:839:LEU:CB	2.24	0.67
5:R:926:LEU:HD12	5:R:926:LEU:C	2.15	0.67
5:R:1359:PHE:CE1	5:R:1363:ILE:HG23	2.29	0.67
5:F:1359:PHE:CE1	5:F:1363:ILE:HG23	2.29	0.67
7:H:412:ILE:O	7:H:415:LEU:CB	2.42	0.67
6:J:364:ILE:CA	7:K:424:ASN:HD22	2.07	0.67
1:N:644:TYR:HB3	1:N:653:VAL:HG22	1.77	0.67
6:V:365:SER:N	7:W:424:ASN:HD22	1.91	0.67
7:W:520:ILE:HA	7:W:523:LEU:HD12	1.75	0.67
7:K:513:LEU:CD2	8:L:800:HIS:HE1	2.08	0.67
1:Z:724:ARG:NH1	1:Z:724:ARG:O	2.27	0.67
2:C:784:ALA:HB3	3:D:1357:LYS:H	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:977:LYS:CE	1:N:316:ALA:N	2.57	0.67
6:G:295:LYS:C	6:J:363:LYS:NZ	2.48	0.67
1:N:49:LEU:CG	6:S:331:LYS:HE2	2.25	0.67
4:Q:440:ILE:HG12	4:Q:590:LEU:HD13	1.77	0.67
7:T:527:LEU:HD23	7:T:527:LEU:C	2.15	0.67
8:U:739:GLN:C	8:U:741:ARG:H	1.97	0.67
7:W:326:LYS:CB	7:W:327:PRO:CD	2.72	0.67
1:Z:133:THR:O	1:Z:136:PHE:N	2.25	0.67
3:D:292:ASN:ND2	3:D:380:TYR:OH	2.28	0.67
5:F:837:TYR:CB	5:F:918:PHE:HE2	2.04	0.67
5:F:1134:LYS:C	5:F:1136:LYS:N	2.45	0.67
7:K:326:LYS:CB	7:K:327:PRO:CD	2.72	0.67
1:M:301:ASN:HB3	1:M:345:LEU:HD13	1.74	0.67
1:N:252:GLN:CD	1:N:498:PHE:CD2	2.67	0.67
5:R:667:SER:HA	5:R:670:LYS:HB3	1.76	0.67
5:R:1559:LEU:C	5:R:1559:LEU:HD12	2.14	0.67
7:T:418:GLN:HE22	8:U:718:THR:CG2	2.03	0.67
1:M:218:ILE:HD11	1:M:241:ILE:HD12	1.77	0.66
3:P:235:SER:HB2	3:P:240:LEU:HD13	1.77	0.66
3:P:583:TYR:HE2	3:P:628:PHE:HB2	1.59	0.66
7:W:509:ILE:C	7:W:509:ILE:HD12	2.15	0.66
5:F:926:LEU:HD12	5:F:926:LEU:C	2.15	0.66
5:R:860:ASN:HD22	5:R:861:GLN:HG3	1.59	0.66
7:W:355:PHE:HD1	7:W:358:LEU:HD12	1.60	0.66
8:X:728:THR:HB	8:X:734:ALA:HB2	1.76	0.66
1:Z:810:ALA:HB2	1:Z:839:LEU:CB	2.24	0.66
7:H:527:LEU:HD23	7:H:527:LEU:C	2.15	0.66
7:K:538:LYS:C	8:L:822:LYS:CB	2.64	0.66
1:N:49:LEU:HD12	6:S:331:LYS:CE	2.19	0.66
1:N:746:PRO:CB	1:N:752:SER:O	2.44	0.66
5:R:334:GLN:CB	5:R:860:ASN:CG	2.59	0.66
6:S:295:LYS:C	6:V:363:LYS:HZ2	1.99	0.66
7:W:429:LEU:C	7:W:429:LEU:HD12	2.15	0.66
3:D:583:TYR:HE2	3:D:628:PHE:HB2	1.59	0.66
3:D:753:PRO:HD2	3:D:756:LYS:HD2	1.77	0.66
4:E:440:ILE:HG12	4:E:590:LEU:HD13	1.77	0.66
7:K:429:LEU:C	7:K:429:LEU:HD12	2.15	0.66
5:R:249:ASP:OD2	5:R:295:ARG:NH1	2.28	0.66
5:R:690:GLU:OE1	8:U:722:LEU:HD23	1.95	0.66
5:R:1128:ASP:OD2	5:R:1206:ILE:HG23	1.96	0.66
7:T:532:ALA:CB	8:U:818:ILE:HD12	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:746:PRO:O	1:N:812:GLN:C	2.32	0.66
5:R:336:LYS:NZ	5:R:703:TYR:OH	2.29	0.66
5:R:350:ARG:O	5:R:393:SER:HB2	1.94	0.66
5:R:555:TRP:HB2	5:R:633:LYS:HD3	1.77	0.66
5:R:883:VAL:O	8:U:761:ASN:ND2	2.28	0.66
5:R:887:PHE:N	5:R:888:PRO:CD	2.54	0.66
7:T:404:ARG:O	7:T:408:ILE:HB	1.96	0.66
1:A:218:ILE:HD11	1:A:241:ILE:HD12	1.78	0.66
5:F:860:ASN:HD22	5:F:861:GLN:HG3	1.59	0.66
6:G:331:LYS:HE2	1:Z:49:LEU:CG	2.25	0.66
6:J:388:CYS:HA	6:J:391:LEU:CB	2.25	0.66
6:S:295:LYS:C	6:V:363:LYS:NZ	2.48	0.66
5:F:690:GLU:OE1	8:I:722:LEU:HD23	1.95	0.66
7:K:399:LEU:HD12	7:K:399:LEU:O	1.96	0.66
5:R:690:GLU:OE2	8:U:722:LEU:HD21	1.96	0.66
5:R:711:GLN:OE1	5:R:779:PRO:CA	2.44	0.66
7:W:387:GLN:HA	7:W:387:GLN:NE2	2.11	0.66
3:D:611:LEU:HD11	3:D:640:ALA:HB2	1.78	0.66
6:J:365:SER:N	7:K:424:ASN:HD22	1.91	0.66
3:P:260:HIS:CG	3:P:261:LEU:HA	2.31	0.66
3:P:915:GLU:OE1	3:P:980:SER:CB	2.44	0.66
5:R:809:LEU:HG	5:R:810:VAL:HG13	1.77	0.66
3:D:260:HIS:CG	3:D:261:LEU:HA	2.31	0.66
5:F:883:VAL:O	8:I:761:ASN:ND2	2.28	0.66
1:N:254:LEU:O	1:N:258:LYS:N	2.21	0.66
4:Q:1405:ASN:HB3	4:Q:1455:PRO:HG2	1.78	0.66
5:R:355:LEU:HD12	5:R:355:LEU:N	2.11	0.66
5:R:690:GLU:OE1	8:U:722:LEU:CD2	2.44	0.66
5:R:1116:VAL:CG1	5:R:1150:PHE:CZ	2.64	0.66
5:R:1642:LYS:HA	5:R:1645:LEU:HD23	1.77	0.66
7:W:352:ILE:HG21	7:W:358:LEU:HG	1.77	0.66
4:E:209:VAL:O	4:E:213:PHE:CB	2.44	0.66
5:F:711:GLN:OE1	5:F:779:PRO:CA	2.44	0.66
7:H:532:ALA:CB	8:I:818:ILE:HD12	2.20	0.66
6:J:333:ILE:CA	6:J:336:PHE:CB	2.74	0.66
8:U:786:ASN:O	8:U:786:ASN:ND2	2.29	0.66
6:V:357:LEU:CB	7:W:423:LYS:CE	2.43	0.66
5:F:1642:LYS:HA	5:F:1645:LEU:HD23	1.77	0.65
5:R:1424:GLU:O	5:R:1428:GLN:HB2	1.96	0.65
6:V:333:ILE:CA	6:V:336:PHE:CB	2.74	0.65
6:V:339:LEU:CB	7:W:405:ASN:OD1	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:509:ILE:HG22	1:Z:12:SER:CB	2.25	0.65
1:Z:87:ILE:HD13	1:Z:87:ILE:N	2.10	0.65
1:A:27:GLU:HB3	6:J:467:LEU:CD2	2.25	0.65
5:F:1314:VAL:HG11	5:F:1373:ASP:HB3	1.78	0.65
7:K:404:ARG:HG3	8:L:704:GLN:NE2	2.11	0.65
3:P:753:PRO:HD2	3:P:756:LYS:HD2	1.77	0.65
6:S:296:ALA:HA	6:V:363:LYS:HE3	1.79	0.65
6:V:334:SER:O	6:V:337:LYS:N	2.27	0.65
6:V:376:LYS:HZ1	8:X:756:ASN:HD22	1.42	0.65
7:W:399:LEU:HD12	7:W:399:LEU:O	1.96	0.65
3:D:863:ILE:HG21	3:D:887:GLN:HA	1.79	0.65
5:F:1303:LEU:O	5:F:1303:LEU:HD22	1.96	0.65
5:F:1442:TRP:CD2	5:F:1484:ARG:HD2	2.31	0.65
7:H:404:ARG:O	7:H:408:ILE:HB	1.96	0.65
6:J:370:ASP:HA	6:J:373:PHE:HB2	1.78	0.65
7:K:387:GLN:HA	7:K:387:GLN:NE2	2.11	0.65
1:N:49:LEU:HD22	1:N:49:LEU:C	2.15	0.65
1:N:116:LYS:HE2	1:N:116:LYS:C	2.17	0.65
5:R:1314:VAL:HG11	5:R:1373:ASP:HB3	1.78	0.65
1:Z:644:TYR:HB3	1:Z:653:VAL:HG22	1.77	0.65
5:F:555:TRP:HB2	5:F:633:LYS:HD3	1.77	0.65
5:F:809:LEU:HG	5:F:810:VAL:HG13	1.77	0.65
5:F:1116:VAL:CG1	5:F:1150:PHE:CZ	2.64	0.65
5:F:1435:LYS:HZ3	5:F:1484:ARG:NH2	1.93	0.65
7:K:291:GLN:HA	7:K:294:LYS:HB2	1.79	0.65
3:P:362:ASP:HB2	3:P:369:TYR:HE2	1.62	0.65
6:V:398:VAL:HG11	7:W:462:ARG:CB	2.26	0.65
1:Z:746:PRO:CB	1:Z:752:SER:O	2.44	0.65
3:D:580:VAL:O	3:D:595:ASN:N	2.29	0.65
5:F:355:LEU:N	5:F:355:LEU:HD12	2.11	0.65
6:G:449:LEU:HD21	1:Z:84:ASP:O	1.97	0.65
7:K:527:LEU:O	7:K:531:ALA:CB	2.45	0.65
1:N:196:ASN:HD21	1:N:530:ARG:HE	1.44	0.65
3:P:943:ASP:O	3:P:947:LEU:HG	1.97	0.65
5:R:22:PHE:O	5:R:26:LYS:NZ	2.30	0.65
5:R:389:LEU:HD12	5:R:389:LEU:N	2.10	0.65
3:D:454:ARG:HB3	3:D:455:PHE:HD1	1.62	0.65
1:N:84:ASP:O	6:S:449:LEU:HD21	1.97	0.65
1:N:824:MET:N	1:N:824:MET:SD	2.70	0.65
1:N:827:GLU:HA	1:N:827:GLU:OE2	1.97	0.65
3:P:611:LEU:HD11	3:P:640:ALA:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:914:ASP:CA	5:R:917:PHE:HB3	2.26	0.65
7:W:404:ARG:HG3	8:X:704:GLN:NE2	2.11	0.65
3:D:449:ASN:HD22	3:D:463:GLU:HG2	1.61	0.65
5:F:1128:ASP:OD2	5:F:1206:ILE:HG23	1.96	0.65
6:G:430:LEU:CB	8:I:780:THR:CB	2.75	0.65
1:M:192:ILE:HA	1:M:195:SER:HB3	1.79	0.65
4:Q:209:VAL:O	4:Q:213:PHE:CB	2.44	0.65
6:S:430:LEU:CB	8:U:780:THR:CB	2.75	0.65
3:D:971:ILE:HD11	3:D:984:THR:CB	2.26	0.65
6:G:296:ALA:HA	6:J:363:LYS:HE3	1.78	0.65
8:I:786:ASN:O	8:I:786:ASN:ND2	2.29	0.65
3:P:971:ILE:HD11	3:P:984:THR:CB	2.26	0.65
6:S:295:LYS:CG	6:V:363:LYS:HZ3	2.10	0.65
3:D:943:ASP:O	3:D:947:LEU:HG	1.96	0.65
4:E:1405:ASN:HB3	4:E:1455:PRO:HG2	1.78	0.65
5:F:22:PHE:O	5:F:26:LYS:NZ	2.30	0.65
5:F:900:LEU:HD12	5:F:900:LEU:O	1.97	0.65
7:K:352:ILE:HG21	7:K:358:LEU:HG	1.78	0.65
1:M:28:SER:CB	1:Z:23:ASN:CB	2.75	0.65
1:M:57:ARG:HH11	1:M:57:ARG:CG	2.09	0.65
1:N:146:LEU:HD12	1:N:146:LEU:C	2.17	0.65
1:N:762:ASN:N	3:P:1376:LYS:CB	2.60	0.65
3:P:377:ILE:HD11	3:P:420:ILE:HD13	1.79	0.65
3:P:412:ILE:HG13	3:P:413:LEU:HD12	1.79	0.65
5:R:844:VAL:HG22	5:R:862:ALA:HA	1.79	0.65
5:R:922:LEU:HD23	7:T:400:LYS:HZ2	1.59	0.65
8:U:792:GLN:HB2	8:U:795:LYS:HG3	1.79	0.65
1:Z:410:ALA:HB2	1:Z:428:VAL:HG11	1.79	0.65
1:Z:804:ASP:O	1:Z:808:ASN:CB	2.45	0.65
1:A:192:ILE:HA	1:A:195:SER:HB3	1.79	0.65
3:D:362:ASP:HB2	3:D:369:TYR:HE2	1.61	0.65
3:D:915:GLU:OE1	3:D:980:SER:CB	2.44	0.65
3:D:1376:LYS:CB	1:Z:762:ASN:N	2.60	0.65
5:F:690:GLU:OE1	8:I:722:LEU:CD2	2.44	0.65
8:I:792:GLN:HB2	8:I:795:LYS:HG3	1.79	0.65
6:J:339:LEU:CB	7:K:405:ASN:OD1	2.44	0.65
7:K:513:LEU:HD21	8:L:800:HIS:HE1	1.54	0.65
3:P:919:VAL:HG21	3:P:927:LEU:H	1.62	0.65
5:R:902:LYS:CE	7:T:414:LYS:CD	2.46	0.65
5:R:1088:ARG:HG3	5:R:1088:ARG:NH1	2.12	0.65
1:Z:116:LYS:HE2	1:Z:116:LYS:C	2.17	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:249:ASP:O	5:F:253:LYS:HB2	1.98	0.64
5:F:350:ARG:O	5:F:393:SER:HB2	1.94	0.64
5:F:690:GLU:OE2	8:I:722:LEU:HD21	1.96	0.64
6:G:350:PHE:CE2	7:H:418:GLN:NE2	2.65	0.64
3:P:581:PRO:HA	3:P:594:GLU:HA	1.79	0.64
4:Q:1022:TYR:O	4:Q:1026:THR:CG2	2.41	0.64
5:R:1303:LEU:O	5:R:1303:LEU:HD22	1.96	0.64
8:U:795:LYS:HZ2	8:U:795:LYS:C	2.00	0.64
1:Z:827:GLU:HA	1:Z:827:GLU:OE2	1.97	0.64
5:F:336:LYS:NZ	5:F:703:TYR:OH	2.29	0.64
5:F:382:ASP:HB3	5:F:386:GLY:H	1.62	0.64
8:I:643:LYS:HG3	8:I:647:GLN:HE22	1.63	0.64
5:R:249:ASP:O	5:R:253:LYS:HB2	1.98	0.64
5:R:1283:LYS:O	5:R:1284:SER:C	2.32	0.64
6:V:377:ILE:HG22	6:V:378:HIS:HD2	1.62	0.64
1:Z:49:LEU:HD22	1:Z:49:LEU:C	2.15	0.64
4:E:1319:LEU:HD21	4:E:1398:VAL:HG22	1.79	0.64
5:F:844:VAL:HG22	5:F:862:ALA:HA	1.80	0.64
5:F:1088:ARG:HG3	5:F:1088:ARG:NH1	2.12	0.64
7:K:355:PHE:HD1	7:K:358:LEU:HD12	1.60	0.64
1:M:449:GLU:O	1:M:456:ARG:NH2	2.31	0.64
1:N:410:ALA:HB2	1:N:428:VAL:HG11	1.79	0.64
3:P:449:ASN:HD22	3:P:463:GLU:HG2	1.61	0.64
3:P:454:ARG:HB3	3:P:455:PHE:HD1	1.62	0.64
5:R:1297:GLU:OE1	5:R:1297:GLU:HA	1.96	0.64
5:R:1442:TRP:CD2	5:R:1484:ARG:HD2	2.31	0.64
5:R:1635:ARG:O	5:R:1639:GLY:CA	2.46	0.64
6:S:350:PHE:CE2	7:T:418:GLN:NE2	2.65	0.64
1:Z:590:LEU:HD23	1:Z:604:ILE:HG21	1.80	0.64
3:D:260:HIS:CD2	3:D:261:LEU:HD23	2.33	0.64
5:F:914:ASP:CA	5:F:917:PHE:HB3	2.27	0.64
5:F:1084:LEU:HA	5:F:1156:TYR:HH	1.60	0.64
5:F:1297:GLU:OE1	5:F:1297:GLU:HA	1.96	0.64
4:Q:687:LYS:CB	5:R:1391:GLY:HA2	2.27	0.64
5:R:900:LEU:HD12	5:R:900:LEU:O	1.96	0.64
1:A:449:GLU:O	1:A:456:ARG:NH2	2.31	0.64
7:K:505:ARG:O	7:K:509:ILE:N	2.28	0.64
1:N:590:LEU:HD23	1:N:604:ILE:HG21	1.80	0.64
6:V:322:THR:O	6:V:326:LEU:HG	1.98	0.64
7:W:419:LEU:O	7:W:419:LEU:HD23	1.97	0.64
2:C:885:VAL:HG13	2:C:901:ILE:HG23	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:919:VAL:HG21	3:D:927:LEU:H	1.62	0.64
1:M:57:ARG:HG2	1:M:57:ARG:NH1	2.01	0.64
3:P:977:LYS:HE2	1:Z:316:ALA:H	1.57	0.64
3:P:977:LYS:HD3	1:Z:316:ALA:HB3	1.80	0.64
1:Z:824:MET:SD	1:Z:824:MET:N	2.70	0.64
1:A:210:GLU:O	1:A:213:GLU:N	2.31	0.64
3:D:529:GLY:O	3:D:581:PRO:HD3	1.98	0.64
3:D:977:LYS:HD3	1:N:316:ALA:CB	2.27	0.64
4:E:1022:TYR:O	4:E:1026:THR:CG2	2.41	0.64
5:F:442:ILE:HG23	5:F:443:ILE:HG13	1.80	0.64
8:I:731:GLY:C	8:I:733:ALA:H	2.01	0.64
6:J:377:ILE:HG22	6:J:378:HIS:HD2	1.62	0.64
1:M:210:GLU:O	1:M:213:GLU:N	2.31	0.64
5:R:38:ASN:HD22	5:R:41:LYS:HB2	1.63	0.64
5:R:177:GLN:NE2	5:R:178:ASN:OD1	2.31	0.64
4:E:687:LYS:CB	5:F:1391:GLY:HA2	2.27	0.64
5:F:177:GLN:NE2	5:F:178:ASN:OD1	2.31	0.64
5:F:389:LEU:HD12	5:F:389:LEU:N	2.11	0.64
5:F:718:SER:O	5:F:722:ARG:NH2	2.30	0.64
1:M:776:ILE:HG23	1:M:831:THR:HG22	1.79	0.64
1:N:92:THR:O	1:N:92:THR:OG1	2.15	0.64
3:P:260:HIS:CD2	3:P:261:LEU:HD23	2.33	0.64
3:P:863:ILE:HG21	3:P:887:GLN:HA	1.79	0.64
5:R:159:LYS:HZ2	5:R:363:ASP:CB	2.09	0.64
5:R:382:ASP:HB3	5:R:386:GLY:H	1.62	0.64
1:Z:577:ARG:HH21	1:Z:630:ARG:HE	1.46	0.64
1:Z:821:GLN:CB	1:Z:829:TYR:CB	2.76	0.64
5:F:1424:GLU:O	5:F:1428:GLN:HB2	1.97	0.64
1:N:45:SER:O	1:N:48:GLU:N	2.31	0.64
3:P:483:HIS:HB2	3:P:486:GLN:CG	2.28	0.64
8:U:643:LYS:HG3	8:U:647:GLN:HE22	1.63	0.64
1:Z:12:SER:OG	1:Z:15:SER:OG	2.16	0.64
5:F:1216:PHE:CE2	5:F:1282:ALA:HB1	2.29	0.64
6:G:331:LYS:CE	1:Z:49:LEU:HD12	2.20	0.64
1:M:775:LEU:CB	1:M:832:LEU:HD12	2.28	0.64
2:O:885:VAL:HG13	2:O:901:ILE:HG23	1.79	0.64
7:W:291:GLN:HA	7:W:294:LYS:HB2	1.79	0.64
1:A:772:PRO:CA	1:A:828:THR:CG2	2.72	0.63
4:E:1377:ASN:CB	4:E:1380:ASP:CB	2.76	0.63
5:F:321:GLN:HA	5:F:324:ILE:HG12	1.81	0.63
5:F:1309:LEU:O	5:F:1309:LEU:HD22	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1633:TYR:CE2	5:F:1635:ARG:CB	2.60	0.63
6:J:334:SER:O	6:J:337:LYS:N	2.27	0.63
1:M:92:THR:O	6:V:400:GLY:C	2.37	0.63
1:N:125:ILE:HD12	5:R:1363:ILE:CG2	2.28	0.63
1:N:821:GLN:CB	1:N:829:TYR:CB	2.76	0.63
3:P:1020:ASN:ND2	1:Z:252:GLN:CB	2.60	0.63
3:P:1494:ASN:O	5:R:1471:LYS:HE2	1.98	0.63
4:Q:1377:ASN:CB	4:Q:1380:ASP:CB	2.76	0.63
5:R:1314:VAL:HG23	5:R:1314:VAL:O	1.98	0.63
7:W:518:ARG:NH1	7:W:518:ARG:O	2.31	0.63
1:A:776:ILE:HG23	1:A:831:THR:HG22	1.79	0.63
6:J:322:THR:O	6:J:326:LEU:HG	1.98	0.63
1:M:60:ASN:CB	8:X:803:ALA:O	2.47	0.63
1:N:310:ASP:HA	1:N:314:LYS:HB3	1.80	0.63
5:R:101:ASN:OD1	5:R:105:GLN:NE2	2.31	0.63
5:R:656:VAL:HG13	5:R:657:ILE:HG13	1.80	0.63
3:D:977:LYS:HE2	1:N:315:LYS:CB	2.28	0.63
4:E:1418:LEU:HG	4:E:1421:ILE:HD12	1.81	0.63
5:F:101:ASN:OD1	5:F:105:GLN:NE2	2.31	0.63
5:F:902:LYS:CE	7:H:414:LYS:CD	2.46	0.63
5:F:1084:LEU:CA	5:F:1156:TYR:OH	2.25	0.63
5:F:1543:LEU:C	5:F:1543:LEU:HD12	2.18	0.63
1:M:313:LEU:HD11	1:M:339:TYR:HE2	1.64	0.63
1:M:654:ILE:HD11	1:M:696:TYR:HD2	1.63	0.63
8:U:731:GLY:C	8:U:733:ALA:H	2.01	0.63
7:W:508:LYS:HZ1	1:Z:16:LYS:HB2	1.62	0.63
3:D:581:PRO:HA	3:D:594:GLU:HA	1.79	0.63
3:D:1494:ASN:O	5:F:1471:LYS:HE2	1.98	0.63
1:N:804:ASP:O	1:N:808:ASN:CB	2.45	0.63
5:R:1309:LEU:HD22	5:R:1309:LEU:O	1.98	0.63
5:R:1633:TYR:CE2	5:R:1635:ARG:CB	2.60	0.63
6:V:364:ILE:CA	7:W:424:ASN:HD22	2.07	0.63
6:V:405:LEU:HD11	7:W:470:ALA:N	2.11	0.63
7:W:365:GLN:HB3	8:X:669:LEU:HD13	1.81	0.63
1:Z:45:SER:O	1:Z:48:GLU:N	2.31	0.63
3:D:377:ILE:HD11	3:D:420:ILE:HD13	1.79	0.63
5:F:841:PHE:HD2	5:F:918:PHE:HE1	0.69	0.63
5:F:971:SER:HB3	7:H:392:LEU:HD21	1.80	0.63
5:F:1283:LYS:O	5:F:1284:SER:C	2.32	0.63
5:F:1363:ILE:CG2	1:Z:125:ILE:HD12	2.28	0.63
7:H:511:GLU:CB	8:I:800:HIS:CE1	2.82	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:315:LEU:HD23	8:L:679:LEU:HG	1.81	0.63
1:N:44:VAL:O	1:N:47:ASN:CB	2.46	0.63
3:P:529:GLY:O	3:P:581:PRO:HD3	1.98	0.63
5:R:442:ILE:HG23	5:R:443:ILE:HG13	1.80	0.63
5:R:1084:LEU:CA	5:R:1156:TYR:OH	2.25	0.63
1:A:654:ILE:HD11	1:A:696:TYR:HD2	1.63	0.63
5:F:36:ASN:HD22	5:F:110:ARG:HH11	1.47	0.63
5:F:656:VAL:HG13	5:F:657:ILE:HG13	1.80	0.63
8:I:778:LYS:O	8:I:778:LYS:HD3	1.98	0.63
7:K:419:LEU:HD23	7:K:419:LEU:O	1.97	0.63
8:L:703:GLN:HA	8:L:706:GLU:OE1	1.98	0.63
5:R:657:ILE:HG23	5:R:660:LEU:HB3	1.81	0.63
5:R:971:SER:HB3	7:T:392:LEU:HD21	1.80	0.63
8:U:778:LYS:O	8:U:778:LYS:HD3	1.98	0.63
6:V:389:ARG:HG2	6:V:389:ARG:HH11	1.63	0.63
1:Z:44:VAL:O	1:Z:47:ASN:CB	2.46	0.63
1:Z:196:ASN:HD21	1:Z:530:ARG:HE	1.44	0.63
1:Z:814:MET:CB	1:Z:833:ILE:HD12	2.28	0.63
5:F:1129:ASN:CG	5:F:1132:GLU:HB3	2.17	0.63
1:N:253:LEU:HD23	1:N:253:LEU:N	2.13	0.63
4:Q:1418:LEU:HG	4:Q:1421:ILE:HD12	1.81	0.63
6:V:370:ASP:HA	6:V:373:PHE:HB2	1.78	0.63
3:D:412:ILE:HG13	3:D:413:LEU:HD12	1.79	0.63
6:J:388:CYS:O	6:J:391:LEU:HB2	1.99	0.63
6:V:390:ILE:HG12	8:X:766:ILE:HD12	1.80	0.63
8:X:640:LEU:HA	8:X:643:LYS:HB3	1.81	0.63
8:X:703:GLN:HA	8:X:706:GLU:OE1	1.98	0.63
5:F:1406:TYR:HH	5:F:1452:SER:HG	1.46	0.63
3:P:850:ASN:HD22	3:P:904:LYS:HD3	1.64	0.63
4:Q:1143:GLN:HA	4:Q:1158:TYR:HA	1.81	0.63
4:Q:1309:ARG:O	4:Q:1313:ARG:CG	2.34	0.63
5:R:1314:VAL:HG11	5:R:1373:ASP:CB	2.29	0.63
5:R:1363:ILE:C	5:R:1363:ILE:HD12	2.19	0.63
5:R:1406:TYR:HH	5:R:1452:SER:HG	1.44	0.63
5:R:1543:LEU:C	5:R:1543:LEU:HD12	2.18	0.63
6:V:333:ILE:O	6:V:336:PHE:C	2.37	0.63
1:A:775:LEU:CB	1:A:832:LEU:HD12	2.28	0.62
3:D:557:THR:HG21	3:D:571:THR:HG21	1.81	0.62
4:E:421:PHE:O	4:E:425:LEU:HB2	1.99	0.62
5:F:657:ILE:HG23	5:F:660:LEU:HB3	1.80	0.62
6:J:393:ASP:N	6:J:393:ASP:OD1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:811:LEU:CD1	2:O:867:LEU:HD21	2.29	0.62
7:W:526:VAL:O	7:W:530:ASP:N	2.23	0.62
5:F:38:ASN:HD22	5:F:41:LYS:HB2	1.63	0.62
3:P:557:THR:HG21	3:P:571:THR:HG21	1.81	0.62
7:W:321:ALA:HA	7:W:348:ILE:HG13	1.76	0.62
7:W:508:LYS:NZ	1:Z:15:SER:HG	1.96	0.62
7:W:525:GLU:OE1	7:W:525:GLU:HA	1.99	0.62
1:Z:422:ARG:HE	1:Z:424:ASN:H	1.47	0.62
2:C:811:LEU:CD1	2:C:867:LEU:HD21	2.30	0.62
5:F:1305:SER:C	5:F:1307:VAL:H	2.03	0.62
5:F:1635:ARG:O	5:F:1639:GLY:CA	2.46	0.62
6:J:333:ILE:O	6:J:336:PHE:C	2.37	0.62
8:L:640:LEU:HA	8:L:643:LYS:HB3	1.80	0.62
1:N:577:ARG:HH21	1:N:630:ARG:HE	1.46	0.62
3:P:1136:ASP:OD2	1:Z:203:ASN:C	2.36	0.62
4:Q:1319:LEU:HD21	4:Q:1398:VAL:HG22	1.79	0.62
7:W:385:GLN:HE21	7:W:385:GLN:CA	2.12	0.62
8:X:682:ASP:O	8:X:685:MET:HG2	2.00	0.62
4:E:1640:ILE:O	4:E:1644:ILE:HB	1.99	0.62
6:J:357:LEU:HB3	7:K:423:LYS:HE2	1.68	0.62
7:K:365:GLN:HB3	8:L:669:LEU:HD13	1.81	0.62
8:L:643:LYS:O	8:L:647:GLN:NE2	2.33	0.62
1:M:123:MET:O	6:V:414:SER:HB2	2.00	0.62
1:M:137:ASP:CB	4:Q:1386:LEU:HG	2.30	0.62
3:P:421:VAL:HG22	3:P:491:ARG:HB3	1.82	0.62
5:R:1399:VAL:O	5:R:1399:VAL:HG12	2.00	0.62
1:A:123:MET:O	6:J:414:SER:HB2	2.00	0.62
1:A:337:ILE:HG23	1:A:349:ALA:HB1	1.81	0.62
4:E:980:LYS:O	4:E:980:LYS:HD2	2.00	0.62
4:E:1143:GLN:HA	4:E:1158:TYR:HA	1.81	0.62
5:F:1314:VAL:HG23	5:F:1314:VAL:O	1.98	0.62
5:F:1399:VAL:O	5:F:1399:VAL:HG12	2.00	0.62
7:K:338:ALA:HA	7:K:341:LYS:HE2	1.80	0.62
3:P:929:PHE:O	3:P:932:ILE:HG22	1.99	0.62
4:Q:421:PHE:O	4:Q:425:LEU:HB2	1.99	0.62
5:R:321:GLN:HA	5:R:324:ILE:HG12	1.81	0.62
5:R:1084:LEU:HA	5:R:1156:TYR:HH	1.60	0.62
8:X:685:MET:HA	8:X:688:HIS:ND1	2.14	0.62
3:D:850:ASN:HD22	3:D:904:LYS:HD3	1.64	0.62
5:F:603:GLU:HA	5:F:606:VAL:HG12	1.82	0.62
5:F:1363:ILE:C	5:F:1363:ILE:HD12	2.19	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:400:LYS:HD2	7:K:400:LYS:C	2.19	0.62
1:N:227:GLN:NE2	1:N:606:GLU:O	2.30	0.62
6:V:301:HIS:CE1	8:X:665:TRP:HB3	2.35	0.62
1:Z:310:ASP:HA	1:Z:314:LYS:HB3	1.80	0.62
1:A:60:ASN:CB	8:L:803:ALA:O	2.47	0.62
3:D:932:ILE:HG23	3:D:933:ILE:HG13	1.82	0.62
3:D:1137:ASP:CA	1:N:205:ASN:HA	2.30	0.62
7:H:426:GLY:HA2	8:I:736:ASN:CA	2.30	0.62
7:K:527:LEU:O	7:K:531:ALA:HB2	2.00	0.62
8:L:682:ASP:O	8:L:685:MET:HG2	2.00	0.62
5:R:36:ASN:HD22	5:R:110:ARG:HH11	1.47	0.62
5:R:690:GLU:HG3	8:U:722:LEU:HG	1.82	0.62
7:T:521:THR:HA	7:T:524:ASN:HB2	1.82	0.62
7:W:456:THR:C	7:W:458:GLU:H	2.03	0.62
8:X:643:LYS:O	8:X:647:GLN:NE2	2.33	0.62
3:D:412:ILE:HB	3:D:476:VAL:HG21	1.81	0.62
3:D:929:PHE:O	3:D:932:ILE:HG22	1.99	0.62
7:H:521:THR:HA	7:H:524:ASN:HB2	1.82	0.62
1:M:56:LEU:CB	8:X:804:LEU:HD13	2.30	0.62
1:M:542:THR:HA	1:M:545:PHE:CE1	2.35	0.62
1:N:56:LEU:HD22	1:N:60:ASN:HD21	1.65	0.62
1:N:84:ASP:OD2	6:S:452:ASP:CB	2.48	0.62
5:R:195:GLN:NE2	5:R:232:TYR:O	2.33	0.62
5:R:739:ARG:NH2	5:R:813:GLU:OE2	2.33	0.62
1:A:27:GLU:HB3	6:J:467:LEU:HD22	1.79	0.62
1:A:56:LEU:CB	8:L:804:LEU:HD13	2.30	0.62
3:D:518:GLU:HA	3:D:536:ILE:HD12	1.81	0.62
5:F:690:GLU:CD	8:I:722:LEU:HD23	2.19	0.62
3:P:1019:ARG:O	1:Z:250:ASN:CB	2.34	0.62
4:Q:567:ARG:O	4:Q:571:ASN:ND2	2.33	0.62
5:R:718:SER:O	5:R:722:ARG:NH2	2.30	0.62
7:T:511:GLU:CB	8:U:800:HIS:CE1	2.82	0.62
7:W:338:ALA:HA	7:W:341:LYS:HE2	1.80	0.62
1:A:542:THR:HA	1:A:545:PHE:CE1	2.35	0.62
1:A:742:LEU:HD13	1:A:744:LEU:HD12	1.82	0.62
3:D:483:HIS:HB2	3:D:486:GLN:CG	2.28	0.62
5:F:1469:ARG:HH12	5:F:1530:GLU:HG2	1.65	0.62
8:L:685:MET:HA	8:L:688:HIS:ND1	2.14	0.62
1:N:777:ILE:HG23	1:N:777:ILE:O	2.00	0.62
3:P:147:PRO:HB2	3:P:580:VAL:HG21	1.81	0.62
4:Q:1640:ILE:O	4:Q:1644:ILE:HB	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1129:ASN:CG	5:R:1132:GLU:HB3	2.17	0.62
1:A:137:ASP:CB	4:E:1386:LEU:HG	2.30	0.61
5:F:138:GLY:H	5:F:206:ILE:HD11	1.64	0.61
6:J:293:HIS:HB3	7:K:359:ASN:HD21	1.64	0.61
6:J:301:HIS:CE1	8:L:665:TRP:HB3	2.35	0.61
7:K:295:CYS:O	7:K:299:TRP:HB2	2.00	0.61
7:K:359:ASN:O	7:K:363:GLN:HG2	2.00	0.61
1:M:814:MET:HG2	1:M:833:ILE:CD1	2.28	0.61
5:R:303:LYS:O	5:R:307:ASP:HB2	2.00	0.61
5:R:334:GLN:HE22	5:R:859:LYS:CD	2.13	0.61
6:S:431:GLN:CB	7:T:503:ASN:CB	2.78	0.61
2:C:867:LEU:HD22	2:C:888:LEU:HD21	1.82	0.61
5:F:334:GLN:CB	5:F:860:ASN:CG	2.59	0.61
6:G:455:GLU:HB3	1:Z:32:LEU:HD23	1.78	0.61
1:N:826:ARG:O	3:P:1241:GLY:CA	2.48	0.61
4:Q:673:SER:O	4:Q:677:ASN:ND2	2.33	0.61
4:Q:982:ILE:O	4:Q:982:ILE:HG22	2.00	0.61
5:R:668:ARG:HH22	5:R:719:ILE:HA	1.65	0.61
5:R:759:ASP:O	5:R:773:LYS:NZ	2.33	0.61
5:R:1653:LYS:HG2	5:R:1655:SER:H	1.66	0.61
7:T:386:LEU:O	8:U:690:GLN:NE2	2.33	0.61
1:Z:25:LEU:HD13	1:Z:25:LEU:C	2.20	0.61
5:F:1314:VAL:HG11	5:F:1373:ASP:CB	2.29	0.61
7:K:456:THR:C	7:K:458:GLU:H	2.03	0.61
4:Q:980:LYS:HD2	4:Q:980:LYS:O	2.00	0.61
5:R:1469:ARG:HH12	5:R:1530:GLU:HG2	1.65	0.61
1:A:313:LEU:HD11	1:A:339:TYR:HE2	1.64	0.61
3:D:242:MET:SD	3:D:298:TYR:HD2	2.17	0.61
6:G:431:GLN:CB	7:H:503:ASN:CB	2.78	0.61
8:L:637:LEU:HD23	8:L:640:LEU:H	1.65	0.61
1:M:814:MET:HG3	1:M:833:ILE:HD13	1.79	0.61
1:N:46:ILE:HD12	1:N:46:ILE:C	2.21	0.61
5:R:922:LEU:H	5:R:922:LEU:HD12	1.65	0.61
3:D:470:SER:HB3	3:D:475:GLU:HG2	1.82	0.61
5:F:334:GLN:HE22	5:F:859:LYS:CD	2.13	0.61
6:G:427:GLU:CB	8:I:779:THR:HG21	2.31	0.61
3:P:927:LEU:HD13	3:P:973:ARG:HH22	1.65	0.61
5:R:398:MET:O	5:R:400:THR:HG23	2.01	0.61
7:T:426:GLY:HA2	8:U:736:ASN:CA	2.30	0.61
6:V:390:ILE:HG23	6:V:394:ILE:HG22	1.83	0.61
1:Z:146:LEU:HD12	1:Z:146:LEU:C	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:357:LEU:HB3	7:K:423:LYS:HE3	0.67	0.61
2:O:867:LEU:HD22	2:O:888:LEU:HD21	1.82	0.61
3:P:412:ILE:HB	3:P:476:VAL:HG21	1.81	0.61
5:R:138:GLY:H	5:R:206:ILE:HD11	1.64	0.61
5:R:334:GLN:HG3	5:R:854:GLU:CD	2.18	0.61
5:R:1435:LYS:HE2	5:R:1484:ARG:HH21	1.65	0.61
5:R:1561:LEU:HD23	5:R:1561:LEU:O	1.99	0.61
6:V:380:TYR:CE2	8:X:751:LEU:CD2	2.68	0.61
7:W:317:ASN:HA	7:W:346:GLN:HB3	1.82	0.61
8:X:637:LEU:HD23	8:X:640:LEU:H	1.64	0.61
3:D:147:PRO:HB2	3:D:580:VAL:HG21	1.81	0.61
3:D:971:ILE:CD1	3:D:984:THR:HB	2.30	0.61
4:E:215:GLN:NE2	4:E:219:GLN:OE1	2.34	0.61
4:E:567:ARG:O	4:E:571:ASN:ND2	2.33	0.61
4:E:673:SER:O	4:E:677:ASN:ND2	2.33	0.61
4:E:679:SER:OG	4:E:680:ASP:N	2.34	0.61
5:F:1156:TYR:O	5:F:1159:GLN:N	2.33	0.61
6:G:452:ASP:CB	1:Z:84:ASP:OD2	2.48	0.61
1:M:337:ILE:HG23	1:M:349:ALA:HB1	1.81	0.61
1:N:459:LEU:O	1:N:463:GLN:HB2	2.01	0.61
3:P:237:THR:O	3:P:266:GLN:HA	2.01	0.61
3:P:713:ILE:HD12	3:P:769:ARG:HD3	1.83	0.61
4:Q:987:SER:O	4:Q:987:SER:OG	2.14	0.61
6:V:293:HIS:HB3	7:W:359:ASN:HD21	1.63	0.61
1:Z:814:MET:HA	1:Z:817:ALA:HB3	1.82	0.61
1:A:557:LEU:HG	1:A:579:LEU:HD11	1.83	0.61
4:E:982:ILE:HG22	4:E:982:ILE:O	2.01	0.61
5:F:195:GLN:NE2	5:F:232:TYR:O	2.33	0.61
5:F:1653:LYS:HG2	5:F:1655:SER:H	1.66	0.61
6:J:327:LYS:O	6:J:331:LYS:HG3	2.01	0.61
7:K:317:ASN:HA	7:K:346:GLN:HB3	1.82	0.61
1:N:814:MET:CB	1:N:833:ILE:HD12	2.28	0.61
2:O:811:LEU:HD11	2:O:867:LEU:HD21	1.83	0.61
5:R:1305:SER:C	5:R:1307:VAL:H	2.03	0.61
6:V:371:LYS:O	6:V:371:LYS:HD2	2.00	0.61
7:W:295:CYS:O	7:W:299:TRP:HB2	2.00	0.61
1:Z:459:LEU:O	1:Z:463:GLN:HB2	2.01	0.61
7:K:298:SER:CA	7:K:306:THR:HA	2.27	0.61
7:K:523:LEU:O	7:K:527:LEU:CB	2.49	0.61
1:M:742:LEU:HD13	1:M:744:LEU:HD12	1.82	0.61
1:M:772:PRO:CA	1:M:828:THR:CG2	2.72	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:814:MET:HA	1:N:817:ALA:HB3	1.82	0.61
3:P:518:GLU:HA	3:P:536:ILE:HD12	1.82	0.61
3:P:932:ILE:HG23	3:P:933:ILE:HG13	1.82	0.61
3:P:1134:SER:CB	1:Z:206:ASN:HD22	2.12	0.61
6:V:315:LEU:HD23	8:X:679:LEU:HG	1.81	0.61
5:F:690:GLU:HG3	8:I:722:LEU:HG	1.82	0.61
8:I:739:GLN:C	8:I:741:ARG:H	1.97	0.61
7:K:385:GLN:HE21	7:K:385:GLN:CA	2.12	0.61
5:R:1156:TYR:O	5:R:1159:GLN:N	2.33	0.61
6:V:433:LYS:N	7:W:499:GLY:CA	2.63	0.61
1:Z:46:ILE:HD12	1:Z:46:ILE:C	2.21	0.61
3:D:1241:GLY:CA	1:Z:826:ARG:O	2.48	0.60
6:J:325:TYR:HE2	7:K:390:HIS:CA	1.96	0.60
6:J:371:LYS:O	6:J:371:LYS:HD2	2.00	0.60
1:N:753:ALA:CB	1:N:815:ILE:O	2.29	0.60
1:Z:753:ALA:HA	1:Z:816:TYR:HA	1.71	0.60
3:D:237:THR:O	3:D:266:GLN:HA	2.01	0.60
5:F:227:ASP:CA	5:F:379:SER:CB	2.79	0.60
5:F:1118:ARG:HG2	5:F:1118:ARG:HH11	1.66	0.60
1:N:422:ARG:HE	1:N:424:ASN:H	1.47	0.60
1:N:501:MET:O	1:N:505:HIS:ND1	2.34	0.60
3:P:580:VAL:O	3:P:595:ASN:N	2.29	0.60
7:W:359:ASN:O	7:W:363:GLN:HG2	2.00	0.60
3:D:421:VAL:HG22	3:D:491:ARG:HB3	1.82	0.60
3:D:454:ARG:HB3	3:D:455:PHE:CD1	2.37	0.60
5:F:759:ASP:O	5:F:773:LYS:NZ	2.34	0.60
7:K:312:VAL:HG12	7:K:361:ARG:HH21	1.66	0.60
3:P:641:VAL:HB	3:P:648:GLU:HG2	1.83	0.60
4:Q:215:GLN:NE2	4:Q:219:GLN:OE1	2.34	0.60
5:R:1032:ILE:O	5:R:1032:ILE:HG22	2.01	0.60
5:R:1139:ILE:CG1	5:R:1291:SER:OG	2.49	0.60
6:S:292:HIS:ND1	6:V:352:VAL:CG1	2.63	0.60
7:W:298:SER:CA	7:W:306:THR:HA	2.27	0.60
7:W:308:LEU:HB3	7:W:355:PHE:CE2	2.36	0.60
7:W:312:VAL:HG12	7:W:361:ARG:HH21	1.66	0.60
1:Z:56:LEU:HD22	1:Z:60:ASN:HD21	1.65	0.60
3:D:449:ASN:HD21	3:D:461:ARG:HB2	1.65	0.60
5:F:389:LEU:C	5:F:389:LEU:HD13	2.22	0.60
5:F:668:ARG:HH22	5:F:719:ILE:HA	1.66	0.60
7:H:412:ILE:HG23	7:H:415:LEU:HD23	1.67	0.60
6:J:432:LEU:CA	8:L:782:ILE:O	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:679:SER:OG	4:Q:680:ASP:N	2.34	0.60
5:R:332:VAL:HG13	5:R:335:ASP:HA	1.84	0.60
5:R:603:GLU:HA	5:R:606:VAL:HG12	1.82	0.60
5:R:1435:LYS:NZ	5:R:1484:ARG:HH22	2.00	0.60
6:S:427:GLU:CB	8:U:779:THR:HG21	2.31	0.60
7:T:436:MET:O	7:T:440:PHE:HB3	2.02	0.60
8:X:702:ARG:O	8:X:706:GLU:OE1	2.20	0.60
3:D:927:LEU:HD13	3:D:973:ARG:HH22	1.66	0.60
3:D:1493:ASN:OD1	5:F:1471:LYS:HG2	2.02	0.60
6:J:308:ILE:HD11	7:K:369:VAL:HG13	1.83	0.60
3:P:989:GLN:HA	3:P:998:ALA:HA	1.82	0.60
1:Z:777:ILE:HG23	1:Z:777:ILE:O	2.00	0.60
1:A:57:ARG:HH11	1:A:57:ARG:CG	2.08	0.60
3:D:298:TYR:CD1	3:D:311:LYS:HE2	2.37	0.60
3:D:863:ILE:CG2	3:D:887:GLN:HA	2.32	0.60
3:D:989:GLN:HA	3:D:998:ALA:HA	1.82	0.60
5:F:398:MET:O	5:F:400:THR:HG23	2.01	0.60
5:F:922:LEU:H	5:F:922:LEU:HD12	1.66	0.60
5:F:1435:LYS:HE2	5:F:1484:ARG:HH21	1.65	0.60
7:H:386:LEU:O	8:I:690:GLN:NE2	2.33	0.60
7:H:450:PRO:O	7:H:454:GLY:N	2.35	0.60
1:N:255:GLU:O	1:N:259:ILE:HG13	2.02	0.60
1:N:287:ASP:HA	1:N:290:TYR:HB3	1.84	0.60
2:O:318:ILE:H	2:O:318:ILE:CD1	1.96	0.60
3:P:454:ARG:HB3	3:P:455:PHE:CD1	2.36	0.60
5:R:1116:VAL:HG21	5:R:1150:PHE:HZ	1.67	0.60
6:V:390:ILE:O	6:V:394:ILE:CG2	2.31	0.60
7:W:529:LYS:HD2	7:W:529:LYS:C	2.21	0.60
3:D:1467:SER:HA	1:Z:621:HIS:HE1	1.67	0.60
5:F:303:LYS:O	5:F:307:ASP:HB2	2.00	0.60
7:H:436:MET:O	7:H:440:PHE:HB3	2.02	0.60
7:K:308:LEU:HB3	7:K:355:PHE:CE2	2.37	0.60
8:L:776:PHE:HA	8:L:779:THR:CB	2.32	0.60
1:M:236:ASN:ND2	1:M:261:GLU:OE1	2.35	0.60
3:P:353:GLN:HB3	3:P:372:SER:HB2	1.84	0.60
3:P:470:SER:HB3	3:P:475:GLU:HG2	1.82	0.60
3:P:789:VAL:HG11	3:P:952:LEU:HD11	1.84	0.60
5:R:405:ARG:NH1	5:R:407:ASN:HB3	2.17	0.60
6:S:295:LYS:CB	6:V:363:LYS:NZ	2.65	0.60
1:Z:218:ILE:HD11	1:Z:241:ILE:HD12	1.84	0.60
1:Z:287:ASP:HA	1:Z:290:TYR:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:510:LEU:HD22	1:A:515:LEU:HD22	1.82	0.60
3:D:789:VAL:HG11	3:D:952:LEU:HD11	1.84	0.60
4:E:1620:THR:HB	4:E:1623:GLU:HB2	1.84	0.60
7:K:321:ALA:N	7:K:348:ILE:CD1	2.39	0.60
3:P:863:ILE:CG2	3:P:887:GLN:HA	2.32	0.60
5:R:334:GLN:HE21	5:R:859:LYS:HZ2	0.76	0.60
5:R:1349:PHE:N	5:R:1349:PHE:CD1	2.70	0.60
6:V:357:LEU:HB3	7:W:423:LYS:HE3	0.67	0.60
1:A:208:LEU:O	1:A:212:PHE:HB2	2.02	0.60
1:A:613:VAL:HG11	1:A:619:PHE:HB2	1.84	0.60
4:E:210:ASN:CA	4:E:213:PHE:CB	2.76	0.60
5:F:29:LEU:HD13	5:F:134:LEU:HG	1.84	0.60
5:F:332:VAL:HG13	5:F:335:ASP:HA	1.84	0.60
5:F:739:ARG:NH2	5:F:813:GLU:OE2	2.33	0.60
5:F:920:ILE:HB	5:F:924:ALA:C	2.21	0.60
5:F:1157:TRP:CD1	5:F:1160:TYR:HE1	2.20	0.60
7:H:361:ARG:NH2	8:I:666:ASP:OD2	2.35	0.60
8:L:702:ARG:O	8:L:706:GLU:OE1	2.20	0.60
1:N:393:GLU:HA	1:N:396:GLN:HG2	1.84	0.60
3:P:1493:ASN:OD1	5:R:1471:LYS:HG2	2.02	0.60
5:R:389:LEU:HD13	5:R:389:LEU:C	2.22	0.60
5:R:1216:PHE:CE2	5:R:1282:ALA:HB1	2.29	0.60
1:Z:751:LEU:C	1:Z:753:ALA:H	2.03	0.60
1:A:236:ASN:ND2	1:A:261:GLU:OE1	2.35	0.60
3:D:713:ILE:HD12	3:D:769:ARG:HD3	1.83	0.60
5:F:1349:PHE:N	5:F:1349:PHE:CD1	2.70	0.60
3:P:242:MET:SD	3:P:298:TYR:HD2	2.17	0.60
5:R:51:LEU:HD23	5:R:71:ILE:HG13	1.84	0.60
5:R:841:PHE:HD2	5:R:918:PHE:HE1	0.69	0.60
5:R:920:ILE:HB	5:R:924:ALA:C	2.21	0.60
5:R:1093:SER:O	5:R:1096:LEU:CB	2.50	0.60
6:V:432:LEU:CA	8:X:782:ILE:O	2.50	0.60
5:F:1561:LEU:HD22	5:R:1667:VAL:CG2	2.13	0.59
1:M:557:LEU:HG	1:M:579:LEU:HD11	1.83	0.59
1:M:589:LEU:HA	1:M:603:VAL:HG22	1.83	0.59
3:P:449:ASN:HD21	3:P:461:ARG:HB2	1.65	0.59
5:R:1014:SER:H	8:U:788:ASP:H	1.49	0.59
1:Z:227:GLN:NE2	1:Z:606:GLU:O	2.30	0.59
2:C:811:LEU:HD11	2:C:867:LEU:HD21	1.83	0.59
5:F:1032:ILE:HG22	5:F:1032:ILE:O	2.01	0.59
6:G:292:HIS:ND1	6:J:352:VAL:CG1	2.63	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:351:SER:O	6:J:355:GLN:NE2	2.35	0.59
7:K:444:LEU:HA	7:K:447:SER:CB	2.32	0.59
1:M:510:LEU:HD22	1:M:515:LEU:HD22	1.82	0.59
4:Q:1620:THR:HB	4:Q:1623:GLU:HB2	1.84	0.59
5:R:323:LEU:HD11	5:R:483:LEU:HD23	1.84	0.59
5:R:690:GLU:CD	8:U:722:LEU:HD23	2.19	0.59
5:R:1118:ARG:HG2	5:R:1118:ARG:HH11	1.66	0.59
7:T:450:PRO:O	7:T:454:GLY:N	2.35	0.59
7:W:444:LEU:HA	7:W:447:SER:CB	2.32	0.59
8:X:776:PHE:HA	8:X:779:THR:CB	2.32	0.59
1:Z:501:MET:O	1:Z:505:HIS:ND1	2.34	0.59
1:A:128:LEU:CG	4:E:1260:TYR:CE2	2.86	0.59
1:A:193:LEU:HA	1:A:539:ALA:HB1	1.84	0.59
1:A:590:LEU:HD23	1:A:604:ILE:HG21	1.84	0.59
5:F:334:GLN:NE2	5:F:859:LYS:CD	2.65	0.59
5:R:1303:LEU:HD22	5:R:1303:LEU:C	2.23	0.59
5:R:1538:LEU:HD11	5:R:1543:LEU:HD23	1.84	0.59
1:A:814:MET:CG	1:A:833:ILE:CG1	2.81	0.59
5:F:633:LYS:HZ2	5:F:635:PHE:HB2	1.66	0.59
5:F:661:VAL:O	5:F:667:SER:OG	2.21	0.59
5:F:837:TYR:CG	5:F:918:PHE:CE2	2.90	0.59
5:F:1139:ILE:CG1	5:F:1291:SER:OG	2.49	0.59
1:M:208:LEU:O	1:M:212:PHE:HB2	2.02	0.59
4:E:757:LYS:HG3	5:F:1195:PHE:HB2	1.84	0.59
4:E:793:LEU:HD11	4:E:1162:LEU:HD21	1.84	0.59
5:F:235:PRO:O	5:F:239:HIS:ND1	2.35	0.59
5:F:510:PHE:HA	5:F:513:TRP:HB3	1.85	0.59
6:G:295:LYS:CB	6:J:363:LYS:NZ	2.65	0.59
7:K:379:ILE:HG21	8:L:680:TYR:CE1	2.38	0.59
1:M:193:LEU:HA	1:M:539:ALA:HB1	1.84	0.59
3:P:507:LEU:HG	3:P:512:LYS:HB3	1.85	0.59
4:Q:1319:LEU:CD2	4:Q:1398:VAL:CG2	2.76	0.59
6:V:327:LYS:O	6:V:331:LYS:HG3	2.01	0.59
1:Z:766:ASN:O	1:Z:769:LYS:CB	2.50	0.59
1:Z:771:ILE:HB	1:Z:772:PRO:HD2	1.84	0.59
1:A:46:ILE:HA	8:L:792:GLN:N	2.16	0.59
5:F:725:ASN:ND2	5:F:789:CYS:SG	2.76	0.59
5:F:1093:SER:O	5:F:1096:LEU:CB	2.50	0.59
1:M:123:MET:CB	6:V:413:ASN:HB3	2.32	0.59
1:N:766:ASN:O	1:N:769:LYS:CB	2.50	0.59
1:N:767:ILE:O	1:N:770:ASN:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:227:ASP:CA	5:R:379:SER:CB	2.79	0.59
5:R:492:ARG:HH12	5:R:495:TYR:H	1.51	0.59
5:R:679:ILE:O	5:R:679:ILE:HG22	2.03	0.59
5:R:837:TYR:CG	5:R:918:PHE:CE2	2.90	0.59
5:R:1356:LEU:HG	5:R:1356:LEU:O	2.03	0.59
1:Z:531:ASP:OD2	1:Z:540:ASN:ND2	2.36	0.59
1:A:775:LEU:CG	1:A:832:LEU:HD11	2.33	0.59
1:A:814:MET:HG2	1:A:833:ILE:CD1	2.28	0.59
4:E:987:SER:O	4:E:987:SER:OG	2.15	0.59
5:F:405:ARG:NH1	5:F:407:ASN:HB3	2.17	0.59
5:F:1084:LEU:CA	5:F:1156:TYR:CZ	2.85	0.59
1:M:21:LYS:HE3	1:Z:27:GLU:HG2	1.85	0.59
5:R:510:PHE:HA	5:R:513:TRP:HB3	1.85	0.59
6:S:470:LEU:CB	7:T:538:LYS:HZ1	2.03	0.59
3:D:268:ILE:HG21	3:D:284:PHE:CE2	2.36	0.59
5:F:51:LEU:HD23	5:F:71:ILE:HG13	1.84	0.59
5:F:159:LYS:HZ2	5:F:363:ASP:CB	2.14	0.59
6:J:324:GLN:OE1	6:J:328:GLN:NE2	2.35	0.59
1:M:814:MET:CG	1:M:833:ILE:CG1	2.81	0.59
1:N:218:ILE:HD11	1:N:241:ILE:HD12	1.84	0.59
2:O:786:THR:CB	2:O:789:ASP:OD2	2.50	0.59
5:R:1129:ASN:OD1	5:R:1132:GLU:N	2.36	0.59
5:R:1467:ALA:HB1	5:R:1473:ASN:HB3	1.84	0.59
5:R:1468:ASN:ND2	5:R:1530:GLU:OE1	2.36	0.59
8:U:737:ASN:OD1	8:U:738:ASP:CG	2.41	0.59
3:D:641:VAL:HB	3:D:648:GLU:HG2	1.83	0.59
4:E:1031:LYS:NZ	4:E:1084:LEU:O	2.36	0.59
5:F:935:GLN:CB	5:F:998:LEU:HD23	2.33	0.59
4:Q:757:LYS:HG3	5:R:1195:PHE:HB2	1.85	0.59
5:R:1434:SER:OG	5:R:1435:LYS:N	2.36	0.59
6:S:295:LYS:HD3	6:V:363:LYS:HZ3	1.67	0.59
7:W:518:ARG:HB2	7:W:518:ARG:NH1	2.05	0.59
1:Z:393:GLU:HA	1:Z:396:GLN:HG2	1.84	0.59
2:C:121:LEU:HD23	2:C:123:TYR:CZ	2.38	0.59
2:C:786:THR:CB	2:C:789:ASP:OD2	2.50	0.59
3:D:744:SER:HA	3:D:758:ASP:CB	2.33	0.59
5:F:323:LEU:HD11	5:F:483:LEU:HD23	1.85	0.59
5:R:2:LYS:HG2	5:R:7:PRO:HG2	1.84	0.59
5:R:29:LEU:HD13	5:R:134:LEU:HG	1.84	0.59
5:R:1157:TRP:CD1	5:R:1160:TYR:HE1	2.20	0.59
5:R:1246:MET:CB	5:R:1279:CYS:CB	2.81	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1473:ASN:OD1	5:R:1476:LEU:N	2.34	0.59
1:Z:757:ALA:CB	1:Z:819:MET:C	2.39	0.59
4:E:260:ARG:NH2	4:E:761:PHE:CE1	2.68	0.58
5:F:353:PRO:HA	5:F:393:SER:HA	1.85	0.58
5:F:1246:MET:CB	5:F:1279:CYS:CB	2.81	0.58
7:K:312:VAL:CG2	7:K:352:ILE:HG13	2.33	0.58
1:M:590:LEU:HD23	1:M:604:ILE:HG21	1.84	0.58
1:N:771:ILE:HB	1:N:772:PRO:HD2	1.84	0.58
3:P:298:TYR:CD1	3:P:311:LYS:HE2	2.37	0.58
4:Q:258:ILE:O	4:Q:261:ILE:N	2.35	0.58
5:R:235:PRO:O	5:R:239:HIS:ND1	2.35	0.58
5:R:334:GLN:NE2	5:R:859:LYS:CD	2.66	0.58
5:R:661:VAL:O	5:R:667:SER:OG	2.21	0.58
5:R:883:VAL:O	8:U:761:ASN:CG	2.41	0.58
6:V:324:GLN:OE1	6:V:328:GLN:NE2	2.35	0.58
1:Z:767:ILE:O	1:Z:770:ASN:N	2.36	0.58
1:A:123:MET:CB	6:J:413:ASN:HB3	2.32	0.58
6:G:449:LEU:HA	1:Z:84:ASP:OD2	2.03	0.58
6:J:388:CYS:SG	7:K:453:LEU:O	2.61	0.58
1:M:92:THR:O	6:V:401:ILE:HD12	2.03	0.58
1:M:613:VAL:HG11	1:M:619:PHE:HB2	1.84	0.58
1:N:621:HIS:CE1	3:P:1467:SER:HA	2.38	0.58
3:P:1020:ASN:HB2	1:Z:251:ALA:CA	2.32	0.58
4:Q:793:LEU:HD11	4:Q:1162:LEU:HD21	1.84	0.58
5:R:725:ASN:ND2	5:R:789:CYS:SG	2.76	0.58
5:R:914:ASP:CB	5:R:917:PHE:HB3	2.33	0.58
5:R:1031:VAL:CB	6:S:314:TYR:HB3	2.34	0.58
1:A:589:LEU:HA	1:A:603:VAL:HG22	1.83	0.58
3:D:1140:LYS:HZ2	1:N:204:GLU:CG	2.15	0.58
5:F:492:ARG:HH12	5:F:495:TYR:H	1.51	0.58
5:F:746:LYS:HD2	5:F:898:TYR:H	1.69	0.58
6:G:401:ILE:O	6:G:405:LEU:HB2	2.03	0.58
8:I:795:LYS:HZ2	8:I:795:LYS:C	2.04	0.58
1:N:531:ASP:OD2	1:N:540:ASN:ND2	2.36	0.58
1:A:21:LYS:HD3	1:A:24:GLU:HG3	1.85	0.58
3:D:491:ARG:HG3	3:D:521:LYS:HB2	1.85	0.58
4:E:267:ILE:HA	4:E:270:ILE:HD12	1.85	0.58
5:F:679:ILE:O	5:F:679:ILE:HG22	2.03	0.58
5:F:883:VAL:O	8:I:761:ASN:CG	2.42	0.58
5:F:1492:LEU:O	5:F:1495:THR:OG1	2.22	0.58
7:K:429:LEU:HD12	7:K:429:LEU:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L:793:LEU:O	8:L:796:ILE:N	2.37	0.58
1:N:810:ALA:CB	1:N:835:ILE:O	2.51	0.58
3:P:298:TYR:HE1	3:P:311:LYS:CE	2.17	0.58
4:Q:267:ILE:HA	4:Q:270:ILE:HD12	1.85	0.58
6:V:463:LYS:HE3	7:W:526:VAL:CG1	2.28	0.58
1:A:440:LEU:HA	1:A:443:ILE:HD12	1.85	0.58
3:D:507:LEU:HG	3:D:512:LYS:HB3	1.85	0.58
3:D:860:ILE:CG2	3:D:893:ILE:HG13	2.33	0.58
5:F:2:LYS:HG2	5:F:7:PRO:HG2	1.84	0.58
5:F:1031:VAL:CB	6:G:314:TYR:HB3	2.34	0.58
5:F:1303:LEU:HD22	5:F:1303:LEU:C	2.23	0.58
1:M:128:LEU:CG	4:Q:1260:TYR:CE2	2.86	0.58
1:M:391:HIS:NE2	1:M:416:GLY:O	2.33	0.58
3:P:528:PRO:HG3	3:P:624:PHE:HE2	1.67	0.58
4:Q:1022:TYR:CZ	4:Q:1026:THR:HG22	2.37	0.58
6:V:308:ILE:HD11	7:W:369:VAL:HG13	1.83	0.58
7:W:379:ILE:HG21	8:X:680:TYR:CE1	2.38	0.58
3:D:353:GLN:HB3	3:D:372:SER:HB2	1.84	0.58
3:D:1467:SER:HA	1:Z:621:HIS:CE1	2.38	0.58
5:F:914:ASP:CB	5:F:917:PHE:HB3	2.34	0.58
5:F:1110:MET:HE1	5:F:1161:LEU:HD11	1.85	0.58
5:F:1116:VAL:HG21	5:F:1150:PHE:HZ	1.67	0.58
5:F:1434:SER:OG	5:F:1435:LYS:N	2.36	0.58
1:N:84:ASP:OD2	6:S:449:LEU:HA	2.03	0.58
3:P:268:ILE:HG21	3:P:284:PHE:CE2	2.36	0.58
3:P:860:ILE:CG2	3:P:893:ILE:HG13	2.33	0.58
6:V:351:SER:O	6:V:355:GLN:NE2	2.36	0.58
7:W:312:VAL:CG2	7:W:352:ILE:HG13	2.33	0.58
1:Z:421:SER:O	1:Z:423:LYS:NZ	2.37	0.58
1:Z:531:ASP:OD1	1:Z:531:ASP:N	2.36	0.58
1:Z:751:LEU:C	1:Z:753:ALA:N	2.57	0.58
5:F:199:GLY:O	5:F:203:LYS:NZ	2.37	0.58
5:F:334:GLN:CG	5:F:854:GLU:CD	2.72	0.58
5:F:1473:ASN:HB2	5:F:1475:ILE:H	1.69	0.58
6:G:295:LYS:HB3	6:J:363:LYS:HZ2	1.68	0.58
8:L:774:ASN:HD22	8:L:777:ASN:HD22	1.51	0.58
1:M:440:LEU:HA	1:M:443:ILE:HD12	1.85	0.58
5:R:334:GLN:CG	5:R:854:GLU:CD	2.72	0.58
7:W:297:GLU:HB3	7:W:304:THR:OG1	2.04	0.58
7:W:313:TYR:HD1	7:W:349:PRO:HB3	1.68	0.58
7:W:404:ARG:O	7:W:407:GLU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:16:LYS:HD2	6:V:468:ALA:HB1	1.86	0.58
1:M:133:THR:O	1:M:135:ASP:N	2.37	0.58
1:M:559:LEU:HA	1:M:562:LEU:HD13	1.86	0.58
1:M:775:LEU:CG	1:M:832:LEU:HD11	2.33	0.58
2:O:121:LEU:HD23	2:O:123:TYR:CZ	2.38	0.58
4:Q:1031:LYS:NZ	4:Q:1084:LEU:O	2.36	0.58
7:T:361:ARG:NH2	8:U:666:ASP:OD2	2.35	0.58
6:V:308:ILE:HB	6:V:309:PRO:HD3	1.86	0.58
7:W:446:ARG:HH22	7:W:455:LYS:HZ3	1.47	0.58
3:D:119:PRO:HB3	3:D:739:THR:HG22	1.85	0.58
3:D:853:PHE:CE2	3:D:900:VAL:HG21	2.39	0.58
5:F:1005:PHE:O	5:F:1009:ASN:HB2	2.03	0.58
5:F:1508:ILE:HA	5:F:1511:LEU:HB3	1.85	0.58
5:F:1538:LEU:HD11	5:F:1543:LEU:HD23	1.85	0.58
1:N:127:GLN:HA	1:N:127:GLN:NE2	2.16	0.58
1:N:133:THR:O	1:N:135:ASP:N	2.37	0.58
3:P:1136:ASP:HB3	1:Z:203:ASN:C	2.19	0.58
4:Q:986:SER:O	4:Q:986:SER:OG	2.22	0.58
5:R:935:GLN:CB	5:R:998:LEU:HD23	2.33	0.58
5:R:1650:GLU:OE1	5:R:1659:ASN:ND2	2.37	0.58
7:W:510:VAL:O	7:W:514:THR:OG1	2.21	0.58
1:Z:133:THR:O	1:Z:135:ASP:N	2.37	0.58
3:D:298:TYR:HE1	3:D:311:LYS:CE	2.17	0.58
3:D:753:PRO:HG2	3:D:756:LYS:HE3	1.86	0.58
5:F:28:VAL:O	5:F:32:LEU:N	2.30	0.58
5:F:1356:LEU:HG	5:F:1356:LEU:O	2.03	0.58
8:I:737:ASN:OD1	8:I:738:ASP:CG	2.41	0.58
8:I:823:LYS:HD2	8:I:823:LYS:O	2.04	0.58
6:J:332:LYS:HE3	7:K:402:GLN:HG3	1.86	0.58
7:K:313:TYR:HD1	7:K:349:PRO:HB3	1.68	0.58
1:N:252:GLN:HG2	1:N:253:LEU:HD23	1.84	0.58
3:P:328:LEU:HD11	3:P:334:VAL:HG22	1.86	0.58
5:R:552:SER:O	5:R:557:ASN:ND2	2.37	0.58
5:R:746:LYS:HD2	5:R:898:TYR:H	1.69	0.58
6:S:401:ILE:O	6:S:405:LEU:HB2	2.03	0.58
7:W:509:ILE:CG2	1:Z:12:SER:HB3	2.33	0.58
4:E:837:ASP:HB3	4:E:839:ILE:H	1.69	0.57
4:E:1022:TYR:CZ	4:E:1026:THR:HG22	2.37	0.57
5:F:1129:ASN:OD1	5:F:1132:GLU:N	2.36	0.57
5:F:1435:LYS:NZ	5:F:1484:ARG:HH22	2.00	0.57
5:F:1435:LYS:O	5:F:1439:GLU:N	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:785:ASN:CB	1:Z:112:TYR:HA	2.34	0.57
1:M:46:ILE:HA	8:X:792:GLN:N	2.16	0.57
1:N:421:SER:O	1:N:423:LYS:NZ	2.37	0.57
1:N:621:HIS:HE1	3:P:1467:SER:HA	1.67	0.57
3:P:119:PRO:HB3	3:P:739:THR:HG22	1.85	0.57
3:P:298:TYR:CE1	3:P:311:LYS:CE	2.87	0.57
3:P:799:THR:HA	3:P:803:PHE:HB2	1.85	0.57
5:R:633:LYS:HZ2	5:R:635:PHE:HB2	1.69	0.57
7:W:429:LEU:HD12	7:W:429:LEU:O	2.03	0.57
3:D:799:THR:HA	3:D:803:PHE:HB2	1.85	0.57
5:F:397:MET:N	5:F:397:MET:SD	2.77	0.57
5:F:1468:ASN:ND2	5:F:1530:GLU:OE1	2.36	0.57
7:H:397:ARG:NH2	8:I:698:GLN:OE1	2.37	0.57
1:M:417:ARG:NH2	1:M:442:LEU:O	2.38	0.57
1:N:751:LEU:C	1:N:753:ALA:N	2.57	0.57
3:P:744:SER:HA	3:P:758:ASP:CB	2.33	0.57
3:P:773:ILE:O	3:P:777:ILE:HG12	2.04	0.57
5:R:397:MET:N	5:R:397:MET:SD	2.77	0.57
6:V:402:ASP:C	6:V:404:ASP:H	2.08	0.57
1:A:706:ILE:HB	1:A:711:LYS:HE2	1.86	0.57
7:H:418:GLN:HE22	8:I:718:THR:CG2	2.03	0.57
7:K:444:LEU:O	7:K:447:SER:N	2.38	0.57
7:K:513:LEU:HD11	8:L:800:HIS:ND1	2.20	0.57
5:R:590:ILE:HG13	5:R:591:ASP:H	1.70	0.57
5:R:909:LEU:O	7:T:403:SER:HB2	2.05	0.57
5:R:1084:LEU:CA	5:R:1156:TYR:CZ	2.85	0.57
5:R:1118:ARG:HG2	5:R:1118:ARG:NH1	2.19	0.57
7:W:321:ALA:C	7:W:348:ILE:CD1	2.69	0.57
7:W:400:LYS:HD2	7:W:400:LYS:C	2.20	0.57
1:Z:44:VAL:O	1:Z:47:ASN:N	2.37	0.57
1:A:133:THR:O	1:A:135:ASP:N	2.37	0.57
3:D:328:LEU:HD11	3:D:334:VAL:HG22	1.87	0.57
5:F:1063:ILE:HG22	5:F:1063:ILE:O	2.05	0.57
5:F:1467:ALA:HB1	5:F:1473:ASN:HB3	1.84	0.57
8:L:765:LEU:O	8:L:769:ILE:HB	2.03	0.57
3:P:449:ASN:HB3	3:P:463:GLU:HG2	1.86	0.57
3:P:515:VAL:HB	3:P:604:PRO:CG	2.35	0.57
5:R:353:PRO:O	5:R:356:ILE:CG2	2.53	0.57
5:R:579:ARG:HH11	5:R:698:ASN:HB3	1.70	0.57
5:R:1063:ILE:O	5:R:1063:ILE:HG22	2.05	0.57
5:R:1110:MET:HE1	5:R:1161:LEU:HD11	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:25:LEU:O	1:Z:25:LEU:HD22	2.05	0.57
1:A:559:LEU:HA	1:A:562:LEU:HD13	1.86	0.57
3:D:832:VAL:H	3:D:929:PHE:HE2	1.52	0.57
4:E:262:SER:O	4:E:265:PHE:HB2	2.03	0.57
4:E:888:TYR:O	4:E:897:LYS:NZ	2.37	0.57
5:F:579:ARG:HH11	5:F:698:ASN:HB3	1.69	0.57
5:F:1606:GLN:HB3	1:Z:141:ASN:ND2	2.19	0.57
1:M:706:ILE:HB	1:M:711:LYS:HE2	1.86	0.57
1:N:23:ASN:C	1:N:25:LEU:H	2.08	0.57
3:P:242:MET:O	3:P:259:THR:OG1	2.21	0.57
3:P:491:ARG:HG3	3:P:521:LYS:HB2	1.86	0.57
5:R:750:TRP:NE1	5:R:754:ASP:HB2	2.20	0.57
5:R:1005:PHE:O	5:R:1009:ASN:HB2	2.03	0.57
5:R:1559:LEU:HD12	5:R:1559:LEU:O	2.04	0.57
7:T:397:ARG:NH2	8:U:698:GLN:OE1	2.38	0.57
8:U:823:LYS:O	8:U:823:LYS:HD2	2.04	0.57
6:V:332:LYS:HE3	7:W:402:GLN:HG3	1.86	0.57
1:Z:824:MET:HB2	1:Z:825:PRO:CD	2.30	0.57
3:D:515:VAL:HB	3:D:604:PRO:CG	2.35	0.57
5:F:552:SER:O	5:F:557:ASN:ND2	2.37	0.57
5:F:1558:ASP:CB	5:R:1680:GLN:NE2	2.67	0.57
1:M:435:TRP:HA	1:M:438:MET:SD	2.44	0.57
4:Q:1611:TYR:O	4:Q:1615:ARG:HB2	2.04	0.57
5:R:712:LEU:HG	5:R:716:LEU:CD2	2.35	0.57
5:R:1431:ARG:HD2	5:R:1474:PHE:H	1.70	0.57
5:R:1508:ILE:HA	5:R:1511:LEU:HB3	1.85	0.57
6:V:389:ARG:NH2	6:V:393:ASP:OD2	2.37	0.57
1:Z:810:ALA:CB	1:Z:835:ILE:O	2.51	0.57
5:F:712:LEU:HG	5:F:716:LEU:CD2	2.35	0.57
5:F:712:LEU:HG	5:F:716:LEU:HD23	1.86	0.57
5:F:841:PHE:CD2	5:F:918:PHE:CD1	2.89	0.57
7:H:397:ARG:HB2	8:I:697:LEU:HD21	1.86	0.57
7:H:426:GLY:HA3	8:I:736:ASN:N	2.18	0.57
1:N:46:ILE:CB	6:S:327:LYS:HZ3	1.89	0.57
1:N:80:PHE:N	1:N:80:PHE:CD1	2.73	0.57
5:R:389:LEU:H	5:R:389:LEU:CD1	2.16	0.57
8:U:822:LYS:HZ1	8:U:822:LYS:CA	2.13	0.57
1:A:417:ARG:NH2	1:A:442:LEU:O	2.38	0.57
3:D:298:TYR:CE1	3:D:311:LYS:CE	2.87	0.57
4:E:216:TYR:HD1	4:E:220:PHE:HB2	1.70	0.57
1:N:334:TRP:HA	1:N:337:ILE:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:531:ASP:N	1:N:531:ASP:OD1	2.36	0.57
4:Q:837:ASP:HB3	4:Q:839:ILE:H	1.69	0.57
5:R:702:LYS:HA	5:R:767:ILE:HD11	1.86	0.57
5:R:1403:SER:OG	5:R:1451:THR:O	2.22	0.57
5:R:1492:LEU:O	5:R:1495:THR:OG1	2.22	0.57
7:T:397:ARG:HB2	8:U:697:LEU:HD21	1.86	0.57
3:D:611:LEU:CD1	3:D:640:ALA:HB2	2.34	0.57
3:D:853:PHE:HE2	3:D:900:VAL:HG21	1.70	0.57
5:F:1118:ARG:HH11	5:F:1118:ARG:CG	2.18	0.57
5:F:1650:GLU:OE1	5:F:1659:ASN:ND2	2.37	0.57
6:G:402:ASP:OD2	7:H:462:ARG:NH1	2.38	0.57
7:K:404:ARG:O	7:K:407:GLU:N	2.37	0.57
8:L:799:SER:O	8:L:803:ALA:HB3	2.05	0.57
3:P:403:GLY:O	3:P:408:ARG:NE	2.37	0.57
3:P:971:ILE:CD1	3:P:984:THR:HB	2.29	0.57
4:Q:888:TYR:O	4:Q:897:LYS:NZ	2.37	0.57
5:R:1123:ASN:HB3	5:R:1143:SER:OG	2.05	0.57
5:R:1550:LEU:HD21	5:R:1552:PHE:HZ	1.66	0.57
5:R:1598:PHE:HA	5:R:1601:ILE:HB	1.86	0.57
3:D:485:GLN:HA	3:D:577:PHE:CZ	2.40	0.57
4:E:358:VAL:HG13	4:E:359:LEU:HG	1.87	0.57
5:F:702:LYS:HA	5:F:767:ILE:HD11	1.87	0.57
8:I:822:LYS:HZ2	8:I:822:LYS:CA	2.17	0.57
6:J:308:ILE:HB	6:J:309:PRO:HD3	1.86	0.57
7:K:427:LEU:N	7:K:428:PRO:HD3	2.20	0.57
1:N:112:TYR:HA	8:U:785:ASN:CB	2.35	0.57
3:P:853:PHE:CE2	3:P:900:VAL:HG21	2.39	0.57
4:Q:812:SER:O	4:Q:872:ASN:ND2	2.38	0.57
5:R:353:PRO:HA	5:R:393:SER:HA	1.85	0.57
7:T:358:LEU:O	7:T:362:ASN:ND2	2.38	0.57
7:W:509:ILE:HG21	1:Z:12:SER:CB	2.34	0.57
3:D:535:VAL:HB	3:D:575:LYS:HB2	1.87	0.56
3:D:970:ILE:HG23	3:D:975:ILE:HD12	1.87	0.56
4:E:972:LEU:HD23	4:E:995:LEU:HD11	1.86	0.56
4:E:1611:TYR:O	4:E:1615:ARG:HB2	2.04	0.56
5:F:353:PRO:O	5:F:356:ILE:CG2	2.53	0.56
5:F:750:TRP:NE1	5:F:754:ASP:HB2	2.20	0.56
5:F:1014:SER:H	8:I:788:ASP:H	1.49	0.56
5:F:1118:ARG:HG2	5:F:1118:ARG:NH1	2.19	0.56
5:F:1666:MET:O	5:F:1670:ILE:HB	2.05	0.56
8:I:818:ILE:HD13	8:I:818:ILE:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:607:ARG:HD2	1:M:610:LEU:HD12	1.87	0.56
1:N:751:LEU:C	1:N:753:ALA:H	2.03	0.56
3:P:832:VAL:H	3:P:929:PHE:HE2	1.52	0.56
5:R:199:GLY:O	5:R:203:LYS:NZ	2.37	0.56
5:R:1251:ARG:NH2	5:R:1276:ASP:CB	2.66	0.56
5:R:1473:ASN:HB2	5:R:1475:ILE:H	1.69	0.56
6:V:391:LEU:HD13	7:W:455:LYS:HA	1.86	0.56
8:X:765:LEU:O	8:X:769:ILE:HB	2.03	0.56
3:D:186:ILE:HG22	3:D:189:LYS:HB2	1.87	0.56
3:D:527:SER:HB3	3:D:528:PRO:HD2	1.87	0.56
3:D:773:ILE:O	3:D:777:ILE:HG12	2.04	0.56
4:E:812:SER:O	4:E:872:ASN:ND2	2.38	0.56
1:N:766:ASN:C	1:N:770:ASN:HD22	2.09	0.56
3:P:481:LEU:HD23	3:P:488:GLN:HB3	1.86	0.56
4:Q:134:ARG:NH2	4:Q:198:MET:O	2.39	0.56
4:Q:997:VAL:O	4:Q:1001:ASN:ND2	2.38	0.56
5:R:354:ARG:HB3	5:R:354:ARG:NH1	2.20	0.56
6:S:357:LEU:O	8:U:732:ALA:C	2.44	0.56
7:T:426:GLY:HA3	8:U:736:ASN:N	2.18	0.56
6:V:309:PRO:HA	6:V:312:VAL:CG2	2.35	0.56
1:Z:12:SER:OG	1:Z:12:SER:O	2.21	0.56
1:A:751:LEU:HD22	2:C:1313:LEU:HD23	1.86	0.56
1:A:775:LEU:HB3	1:A:832:LEU:CG	2.34	0.56
3:D:242:MET:CE	3:D:298:TYR:CD2	2.88	0.56
4:E:1443:THR:O	4:E:1446:PHE:HB2	2.06	0.56
5:F:590:ILE:HG13	5:F:591:ASP:H	1.70	0.56
5:F:1038:LEU:C	5:F:1040:THR:N	2.45	0.56
5:F:1403:SER:OG	5:F:1451:THR:O	2.22	0.56
7:H:358:LEU:O	7:H:362:ASN:ND2	2.38	0.56
6:J:309:PRO:HA	6:J:312:VAL:CG2	2.35	0.56
1:N:22:LEU:O	1:N:25:LEU:HB3	2.04	0.56
3:P:186:ILE:HG22	3:P:189:LYS:HB2	1.87	0.56
3:P:242:MET:CE	3:P:298:TYR:CD2	2.88	0.56
3:P:985:ALA:O	3:P:988:LEU:CB	2.54	0.56
4:Q:210:ASN:CA	4:Q:213:PHE:CB	2.76	0.56
5:R:537:PRO:HA	5:R:622:GLN:HB3	1.86	0.56
5:R:1118:ARG:HH11	5:R:1118:ARG:CG	2.18	0.56
8:U:778:LYS:HD3	8:U:778:LYS:C	2.26	0.56
8:U:818:ILE:HD13	8:U:818:ILE:N	2.20	0.56
6:V:325:TYR:HE2	7:W:390:HIS:CA	1.97	0.56
7:W:311:PHE:CD2	7:W:341:LYS:NZ	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:X:774:ASN:HD22	8:X:777:ASN:HD22	1.51	0.56
8:X:799:SER:O	8:X:803:ALA:HB3	2.05	0.56
1:Z:80:PHE:CD1	1:Z:80:PHE:N	2.73	0.56
1:Z:253:LEU:HD23	1:Z:253:LEU:N	2.20	0.56
1:Z:277:TYR:O	1:Z:280:GLN:NE2	2.37	0.56
3:D:449:ASN:HB3	3:D:463:GLU:HG2	1.86	0.56
3:D:481:LEU:HD23	3:D:488:GLN:HB3	1.87	0.56
3:D:606:GLN:N	3:D:642:LEU:O	2.36	0.56
4:E:989:ASP:O	4:E:992:SER:N	2.35	0.56
4:E:1398:VAL:O	4:E:1398:VAL:CG1	2.42	0.56
5:F:1270:GLN:O	5:F:1274:ASP:HB2	2.06	0.56
7:K:297:GLU:HB3	7:K:304:THR:OG1	2.04	0.56
1:N:409:LEU:O	1:N:413:LYS:HB2	2.05	0.56
1:N:453:VAL:HG21	4:Q:1356:LEU:HB2	1.88	0.56
2:O:1258:GLN:CG	2:O:1299:LYS:HE3	2.36	0.56
3:P:535:VAL:HB	3:P:575:LYS:HB2	1.87	0.56
5:R:661:VAL:HG11	5:R:712:LEU:HD12	1.87	0.56
6:S:402:ASP:OD2	7:T:462:ARG:NH1	2.38	0.56
6:V:433:LYS:CB	7:W:499:GLY:CA	2.81	0.56
8:X:793:LEU:O	8:X:796:ILE:N	2.37	0.56
1:Z:692:MET:O	1:Z:696:TYR:HB2	2.06	0.56
1:A:435:TRP:HA	1:A:438:MET:SD	2.44	0.56
3:D:441:VAL:HA	3:D:490:LYS:HB2	1.87	0.56
4:E:997:VAL:O	4:E:1001:ASN:ND2	2.38	0.56
5:F:620:THR:HG23	5:F:627:VAL:HG21	1.87	0.56
5:F:1123:ASN:HB3	5:F:1143:SER:OG	2.05	0.56
5:F:1431:ARG:HD2	5:F:1474:PHE:H	1.70	0.56
1:M:779:LEU:C	1:M:835:ILE:CB	2.74	0.56
3:P:508:LYS:HB3	3:P:516:LEU:HA	1.87	0.56
3:P:611:LEU:CD1	3:P:640:ALA:HB2	2.35	0.56
4:Q:928:SER:HA	4:Q:931:PHE:HB2	1.88	0.56
5:R:869:VAL:HA	5:R:872:ILE:HD12	1.87	0.56
5:R:1092:THR:O	5:R:1092:THR:OG1	2.23	0.56
8:X:640:LEU:HD13	8:X:643:LYS:HG2	1.88	0.56
1:Z:409:LEU:O	1:Z:413:LYS:HB2	2.04	0.56
1:Z:638:TYR:HA	1:Z:641:ILE:HG22	1.88	0.56
3:D:398:ILE:O	3:D:402:ILE:HG12	2.06	0.56
3:D:654:THR:HB	3:D:655:PRO:HD2	1.87	0.56
4:E:765:PHE:HB3	4:E:843:LEU:HD22	1.88	0.56
4:E:986:SER:OG	4:E:986:SER:O	2.22	0.56
6:G:295:LYS:CB	6:J:363:LYS:HZ2	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:84:ASP:CG	6:S:449:LEU:HA	2.26	0.56
1:N:289:LEU:HD21	1:N:312:LYS:HG2	1.88	0.56
1:N:692:MET:O	1:N:696:TYR:HB2	2.06	0.56
3:P:402:ILE:HG13	3:P:406:THR:HB	1.88	0.56
3:P:654:THR:HB	3:P:655:PRO:HD2	1.87	0.56
3:P:753:PRO:HG2	3:P:756:LYS:HE3	1.87	0.56
5:R:657:ILE:HG12	5:R:660:LEU:HD13	1.87	0.56
5:R:1068:ILE:O	5:R:1068:ILE:HG22	2.05	0.56
5:R:1501:SER:OG	5:R:1502:THR:N	2.38	0.56
6:V:305:ILE:HD11	8:X:668:VAL:CG1	2.35	0.56
1:A:27:GLU:CG	6:J:467:LEU:HD21	2.35	0.56
5:F:333:GLU:HA	5:F:420:THR:CB	2.36	0.56
5:F:537:PRO:HA	5:F:622:GLN:HB3	1.86	0.56
5:F:661:VAL:HG11	5:F:712:LEU:HD12	1.87	0.56
5:F:668:ARG:HD2	5:F:716:LEU:HD13	1.88	0.56
6:J:296:ALA:O	6:J:299:ILE:HG12	2.06	0.56
6:J:319:GLU:HA	6:J:322:THR:CG2	2.36	0.56
3:P:853:PHE:HE2	3:P:900:VAL:HG21	1.70	0.56
3:P:915:GLU:OE2	3:P:980:SER:OG	2.23	0.56
5:R:28:VAL:O	5:R:32:LEU:N	2.30	0.56
5:R:159:LYS:CE	5:R:363:ASP:HA	2.26	0.56
5:R:1595:VAL:O	5:R:1599:GLU:HB2	2.06	0.56
1:Z:334:TRP:HA	1:Z:337:ILE:HD12	1.87	0.56
1:A:643:LEU:O	1:A:647:ALA:N	2.38	0.56
5:F:909:LEU:O	7:H:403:SER:HB2	2.05	0.56
5:F:1063:ILE:HB	5:F:1066:ASP:HB3	1.87	0.56
8:I:778:LYS:HD3	8:I:778:LYS:C	2.26	0.56
8:L:658:TYR:O	8:L:662:ILE:HG22	2.06	0.56
1:M:16:LYS:CG	6:V:468:ALA:HB1	2.35	0.56
1:M:46:ILE:HA	8:X:792:GLN:CB	2.36	0.56
1:M:814:MET:CG	1:M:833:ILE:HG12	2.35	0.56
3:P:164:PHE:HA	3:P:186:ILE:HD12	1.88	0.56
3:P:1137:ASP:CA	1:Z:205:ASN:HA	2.36	0.56
4:Q:358:VAL:HG13	4:Q:359:LEU:HG	1.87	0.56
5:R:1067:ASN:HD22	5:R:1069:ASP:HB2	1.71	0.56
5:R:1286:PHE:O	5:R:1286:PHE:HD1	1.89	0.56
5:R:1498:LEU:HG	5:R:1514:GLU:HB3	1.88	0.56
5:R:1550:LEU:HD13	5:R:1552:PHE:CE1	2.40	0.56
5:R:1666:MET:O	5:R:1670:ILE:HB	2.05	0.56
7:T:309:ARG:NE	7:T:353:TYR:OH	2.38	0.56
6:V:403:THR:HG23	6:V:403:THR:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1388:HIS:C	4:E:1331:LEU:HD11	2.26	0.56
4:E:277:THR:HG22	4:E:381:VAL:HG21	1.88	0.56
4:E:1644:ILE:HD13	4:E:1647:LEU:HD21	1.86	0.56
5:F:657:ILE:HG12	5:F:660:LEU:HD13	1.87	0.56
5:F:869:VAL:HA	5:F:872:ILE:HD12	1.87	0.56
5:F:885:GLU:HG3	5:F:885:GLU:O	2.06	0.56
5:F:1501:SER:OG	5:F:1502:THR:N	2.39	0.56
5:F:1550:LEU:HD13	5:F:1552:PHE:CE1	2.40	0.56
7:K:311:PHE:CD2	7:K:341:LYS:NZ	2.58	0.56
7:K:538:LYS:O	8:L:822:LYS:CB	2.54	0.56
1:N:254:LEU:HG	1:N:258:LYS:HZ1	1.69	0.56
3:P:527:SER:HB3	3:P:528:PRO:HD2	1.87	0.56
4:Q:723:LEU:HD23	4:Q:794:ILE:HD12	1.88	0.56
5:R:355:LEU:CD1	5:R:355:LEU:H	2.19	0.56
5:R:712:LEU:HG	5:R:716:LEU:HD23	1.86	0.56
6:S:351:SER:O	6:S:355:GLN:NE2	2.39	0.56
1:Z:289:LEU:HD21	1:Z:312:LYS:HG2	1.88	0.56
1:A:27:GLU:HG2	6:J:467:LEU:HD21	1.88	0.56
3:D:985:ALA:O	3:D:988:LEU:CB	2.54	0.56
4:E:928:SER:HA	4:E:931:PHE:HB2	1.88	0.56
5:F:354:ARG:HB3	5:F:354:ARG:NH1	2.20	0.56
5:F:825:ILE:HG22	5:F:890:VAL:HG13	1.87	0.56
5:F:1176:GLU:OE1	5:F:1176:GLU:N	2.39	0.56
5:F:1598:PHE:HA	5:F:1601:ILE:HB	1.86	0.56
6:G:351:SER:O	6:G:355:GLN:NE2	2.39	0.56
6:G:391:LEU:O	6:G:395:GLU:HB2	2.06	0.56
7:H:533:ILE:HA	7:H:536:LYS:HB2	1.87	0.56
8:L:672:GLY:HA2	8:L:675:GLN:HG2	1.87	0.56
1:N:829:TYR:CB	3:P:1237:SER:CB	2.84	0.56
3:P:605:VAL:HG13	3:P:641:VAL:HG13	1.88	0.56
4:Q:216:TYR:HD1	4:Q:220:PHE:HB2	1.70	0.56
5:R:885:GLU:HG3	5:R:885:GLU:O	2.06	0.56
5:R:1063:ILE:HB	5:R:1066:ASP:HB3	1.87	0.56
8:X:658:TYR:O	8:X:662:ILE:HG22	2.06	0.56
1:A:776:ILE:HD11	1:A:828:THR:HA	1.88	0.55
4:E:264:LEU:O	4:E:268:THR:OG1	2.23	0.55
5:F:1068:ILE:HG22	5:F:1068:ILE:O	2.05	0.55
6:G:449:LEU:HA	1:Z:84:ASP:CG	2.26	0.55
6:J:309:PRO:HA	6:J:312:VAL:HB	1.88	0.55
1:M:776:ILE:HD11	1:M:828:THR:HA	1.88	0.55
1:N:589:LEU:HA	1:N:603:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:155:ASN:HA	3:P:646:SER:CB	2.36	0.55
3:P:485:GLN:HA	3:P:577:PHE:CZ	2.40	0.55
3:P:911:ASN:HA	3:P:914:TYR:CD2	2.42	0.55
4:Q:312:ASN:ND2	4:Q:314:ASP:O	2.39	0.55
5:R:333:GLU:HA	5:R:420:THR:CB	2.35	0.55
5:R:668:ARG:HD2	5:R:716:LEU:HD13	1.88	0.55
5:R:1176:GLU:N	5:R:1176:GLU:OE1	2.39	0.55
6:S:295:LYS:CB	6:V:363:LYS:HZ2	2.19	0.55
6:V:324:GLN:OE1	6:V:327:LYS:HE3	2.06	0.55
1:Z:288:ASN:O	1:Z:292:LYS:HB2	2.06	0.55
1:A:46:ILE:HA	8:L:792:GLN:CB	2.36	0.55
3:D:710:VAL:HG22	3:D:711:VAL:H	1.71	0.55
3:D:911:ASN:HA	3:D:914:TYR:CD2	2.41	0.55
4:E:134:ARG:NH2	4:E:198:MET:O	2.39	0.55
4:E:312:ASN:ND2	4:E:314:ASP:O	2.39	0.55
5:F:554:SER:OG	5:F:555:TRP:N	2.39	0.55
5:F:902:LYS:HD3	5:F:903:ASN:H	1.71	0.55
6:J:433:LYS:N	7:K:499:GLY:CA	2.63	0.55
7:K:321:ALA:HA	7:K:348:ILE:HG13	1.76	0.55
1:M:492:ILE:HD11	1:M:510:LEU:HD12	1.89	0.55
1:M:643:LEU:O	1:M:647:ALA:N	2.38	0.55
4:Q:463:PHE:O	4:Q:554:ILE:HA	2.07	0.55
5:R:1040:THR:O	5:R:1042:ILE:N	2.40	0.55
6:S:391:LEU:O	6:S:395:GLU:HB2	2.06	0.55
7:W:427:LEU:N	7:W:428:PRO:HD3	2.20	0.55
3:D:1237:SER:CB	1:Z:829:TYR:CB	2.84	0.55
4:E:331:TYR:OH	4:E:388:ASN:ND2	2.40	0.55
4:E:1450:LEU:HD22	4:E:1456:ILE:HG21	1.88	0.55
5:F:679:ILE:O	5:F:745:ARG:NH1	2.39	0.55
5:F:928:LEU:HD12	5:F:928:LEU:N	2.01	0.55
5:F:1595:VAL:O	5:F:1599:GLU:HB2	2.06	0.55
1:M:140:ILE:CG2	4:Q:1393:LYS:NZ	2.61	0.55
3:P:139:LYS:HE3	3:P:600:GLU:HB2	1.88	0.55
3:P:284:PHE:CE1	3:P:296:LEU:HG	2.42	0.55
3:P:515:VAL:CG1	3:P:644:SER:HB3	2.32	0.55
3:P:970:ILE:HG23	3:P:975:ILE:HD12	1.87	0.55
4:Q:333:ARG:NH1	4:Q:341:PHE:O	2.40	0.55
4:Q:972:LEU:HD23	4:Q:995:LEU:HD11	1.86	0.55
4:Q:1309:ARG:HH21	4:Q:1313:ARG:HH12	1.55	0.55
8:X:682:ASP:HA	8:X:685:MET:CE	2.37	0.55
1:A:140:ILE:CG2	4:E:1393:LYS:NZ	2.61	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:492:ILE:HD11	1:A:510:LEU:HD12	1.89	0.55
1:A:814:MET:CG	1:A:833:ILE:HG12	2.35	0.55
3:D:545:GLN:HG3	3:D:572:LEU:CD1	2.36	0.55
3:D:903:ILE:HG23	3:D:953:PHE:CE1	2.42	0.55
5:F:334:GLN:HG3	5:F:854:GLU:CD	2.18	0.55
6:G:357:LEU:O	8:I:732:ALA:C	2.44	0.55
8:L:792:GLN:HA	8:L:796:ILE:HB	1.88	0.55
1:M:642:LEU:HA	1:M:645:GLN:NE2	2.22	0.55
1:M:775:LEU:CD1	1:M:832:LEU:HD11	2.37	0.55
5:R:10:THR:O	5:R:14:SER:HB3	2.06	0.55
5:R:554:SER:OG	5:R:555:TRP:N	2.40	0.55
6:V:390:ILE:CG2	6:V:394:ILE:HG21	2.33	0.55
1:Z:589:LEU:HA	1:Z:603:VAL:HG22	1.88	0.55
1:A:779:LEU:C	1:A:835:ILE:CB	2.74	0.55
3:D:175:ILE:HG12	3:D:182:CYS:SG	2.47	0.55
5:F:1040:THR:O	5:F:1042:ILE:N	2.40	0.55
5:F:1674:CYS:HA	5:F:1677:THR:OG1	2.07	0.55
6:G:411:ASN:OD1	6:G:411:ASN:N	2.37	0.55
6:J:384:LEU:HD23	6:J:384:LEU:C	2.26	0.55
7:K:389:LYS:CB	7:K:393:ASP:HB3	2.32	0.55
1:N:125:ILE:HG21	5:R:1362:ASP:CB	2.37	0.55
3:P:103:LEU:HG	3:P:107:TYR:CE2	2.41	0.55
3:P:441:VAL:HA	3:P:490:LYS:HB2	1.87	0.55
4:Q:318:HIS:H	4:Q:321:ILE:HD11	1.71	0.55
4:Q:765:PHE:HB3	4:Q:843:LEU:HD22	1.88	0.55
5:R:620:THR:HG23	5:R:627:VAL:HG21	1.87	0.55
5:R:1309:LEU:HD22	5:R:1309:LEU:C	2.27	0.55
7:W:389:LYS:CB	7:W:393:ASP:HB3	2.32	0.55
7:W:444:LEU:O	7:W:447:SER:N	2.38	0.55
1:Z:652:ILE:HA	1:Z:655:THR:HG22	1.87	0.55
1:Z:766:ASN:C	1:Z:770:ASN:HD22	2.09	0.55
3:D:139:LYS:HE3	3:D:600:GLU:HB2	1.88	0.55
3:D:222:ASN:O	3:D:301:SER:N	2.40	0.55
5:F:1067:ASN:HD22	5:F:1069:ASP:HB2	1.71	0.55
7:K:431:ILE:O	7:K:435:LYS:CB	2.55	0.55
1:M:751:LEU:HD22	2:O:1313:LEU:HD23	1.86	0.55
1:N:25:LEU:HD23	1:N:25:LEU:O	2.07	0.55
3:P:710:VAL:HG22	3:P:711:VAL:H	1.71	0.55
4:Q:14:THR:HB	4:Q:17:HIS:HB2	1.88	0.55
4:Q:1443:THR:O	4:Q:1446:PHE:HB2	2.06	0.55
4:Q:1644:ILE:HD13	4:Q:1647:LEU:HD21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:349:GLU:O	5:R:480:ARG:NH2	2.40	0.55
1:A:501:MET:HA	1:A:541:TYR:CE1	2.41	0.55
1:A:642:LEU:HA	1:A:645:GLN:NE2	2.22	0.55
3:D:484:GLN:HG2	3:D:568:GLN:OE1	2.07	0.55
3:D:956:ASN:O	3:D:960:LYS:N	2.37	0.55
3:D:1140:LYS:HZ2	1:N:204:GLU:HG2	1.70	0.55
4:E:1585:LEU:N	4:E:1590:ASP:OD2	2.40	0.55
5:F:1243:GLU:HB3	5:F:1283:LYS:HD2	1.89	0.55
6:J:324:GLN:OE1	6:J:327:LYS:HE3	2.06	0.55
6:J:334:SER:C	6:J:337:LYS:H	2.09	0.55
1:M:255:GLU:OE2	1:M:480:GLN:NE2	2.40	0.55
1:M:501:MET:HA	1:M:541:TYR:CE1	2.41	0.55
1:N:288:ASN:O	1:N:292:LYS:HB2	2.06	0.55
4:Q:277:THR:HG22	4:Q:381:VAL:HG21	1.88	0.55
5:R:902:LYS:HD3	5:R:903:ASN:H	1.71	0.55
5:R:1435:LYS:CE	5:R:1484:ARG:HH21	2.18	0.55
5:R:1435:LYS:O	5:R:1439:GLU:N	2.28	0.55
5:R:1635:ARG:O	5:R:1639:GLY:N	2.40	0.55
6:V:384:LEU:HD23	6:V:384:LEU:C	2.26	0.55
6:V:388:CYS:HA	6:V:391:LEU:HB2	1.88	0.55
1:A:607:ARG:HD2	1:A:610:LEU:HD12	1.87	0.55
5:F:355:LEU:H	5:F:355:LEU:CD1	2.20	0.55
5:F:637:ASP:HA	5:F:640:PHE:HD2	1.71	0.55
5:F:788:LEU:HD12	5:F:874:LYS:HE2	1.89	0.55
5:F:1286:PHE:O	5:F:1286:PHE:HD1	1.89	0.55
5:F:1362:ASP:CB	1:Z:125:ILE:HG21	2.37	0.55
8:I:674:GLU:OE1	8:I:675:GLN:NE2	2.40	0.55
6:J:305:ILE:HD11	8:L:668:VAL:CG1	2.35	0.55
1:N:652:ILE:HA	1:N:655:THR:HG22	1.88	0.55
3:P:545:GLN:HG3	3:P:572:LEU:CD1	2.36	0.55
4:Q:331:TYR:OH	4:Q:388:ASN:ND2	2.40	0.55
4:Q:584:ASP:OD1	4:Q:584:ASP:N	2.38	0.55
5:R:227:ASP:CB	5:R:379:SER:CB	2.84	0.55
5:R:679:ILE:O	5:R:745:ARG:NH1	2.39	0.55
5:R:1445:VAL:HG12	5:R:1453:ARG:HG3	1.89	0.55
6:V:389:ARG:CZ	6:V:389:ARG:CB	2.84	0.55
1:A:19:ASN:HA	1:A:22:LEU:HG	1.88	0.55
1:A:309:ILE:HG23	1:A:313:LEU:HD12	1.88	0.55
1:A:660:LEU:HG	1:A:685:PRO:HB3	1.88	0.55
1:A:775:LEU:CD1	1:A:832:LEU:HD11	2.37	0.55
1:A:814:MET:HG3	1:A:833:ILE:HD13	1.79	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:507:LEU:HG	3:D:512:LYS:CB	2.37	0.55
3:D:508:LYS:HB3	3:D:516:LEU:HA	1.88	0.55
3:D:528:PRO:HG3	3:D:624:PHE:HE2	1.67	0.55
4:E:1309:ARG:HH21	4:E:1313:ARG:HH12	1.55	0.55
4:E:1319:LEU:CD2	4:E:1398:VAL:CG2	2.76	0.55
5:F:349:GLU:O	5:F:480:ARG:NH2	2.40	0.55
5:F:1309:LEU:HD22	5:F:1309:LEU:C	2.27	0.55
8:I:751:LEU:HA	8:I:754:ASN:HD22	1.72	0.55
1:N:44:VAL:O	1:N:47:ASN:N	2.37	0.55
1:N:638:TYR:HA	1:N:641:ILE:HG22	1.87	0.55
4:Q:20:ASN:ND2	4:Q:894:VAL:O	2.40	0.55
4:Q:137:VAL:HA	4:Q:140:LYS:HG2	1.88	0.55
4:Q:264:LEU:O	4:Q:268:THR:OG1	2.23	0.55
8:U:795:LYS:C	8:U:795:LYS:HD3	2.28	0.55
3:D:187:ASP:O	3:D:210:THR:HA	2.07	0.55
3:D:467:PHE:CG	3:D:473:THR:HG23	2.42	0.55
3:D:977:LYS:HE2	1:N:315:LYS:C	2.27	0.55
4:E:1356:LEU:HB2	1:Z:453:VAL:HG21	1.88	0.55
5:F:10:THR:O	5:F:14:SER:HB3	2.06	0.55
5:F:1251:ARG:NH2	5:F:1276:ASP:CB	2.66	0.55
5:F:1364:TYR:HD1	5:F:1364:TYR:O	1.90	0.55
5:F:1435:LYS:CE	5:F:1484:ARG:HH21	2.18	0.55
6:J:389:ARG:HH22	6:J:393:ASP:CG	2.10	0.55
6:J:405:LEU:HD23	6:J:405:LEU:O	2.07	0.55
8:L:640:LEU:HD13	8:L:643:LYS:HG2	1.88	0.55
8:L:682:ASP:HA	8:L:685:MET:CE	2.37	0.55
1:M:691:ARG:O	1:M:695:ILE:HG12	2.07	0.55
1:N:125:ILE:HD12	5:R:1363:ILE:HG23	1.88	0.55
2:O:1388:HIS:C	4:Q:1331:LEU:HD11	2.26	0.55
5:R:1088:ARG:HH12	8:U:785:ASN:HA	1.72	0.55
5:R:1243:GLU:HB3	5:R:1283:LYS:HD2	1.89	0.55
7:T:533:ILE:HA	7:T:536:LYS:HB2	1.88	0.55
8:U:674:GLU:OE1	8:U:675:GLN:NE2	2.40	0.55
6:V:296:ALA:O	6:V:299:ILE:HG12	2.06	0.55
1:Z:92:THR:O	1:Z:92:THR:OG1	2.15	0.55
1:Z:779:LEU:CB	1:Z:835:ILE:HA	2.37	0.55
1:A:814:MET:CG	1:A:833:ILE:HD13	2.35	0.54
2:C:1258:GLN:CG	2:C:1299:LYS:HE3	2.36	0.54
3:D:691:LYS:O	3:D:696:ARG:NH2	2.41	0.54
4:E:318:HIS:H	4:E:321:ILE:HD11	1.71	0.54
5:F:1088:ARG:HH12	8:I:785:ASN:HA	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1200:PRO:O	5:F:1299:ASN:OD1	2.26	0.54
6:J:389:ARG:HH11	6:J:389:ARG:CG	2.19	0.54
3:P:222:ASN:O	3:P:301:SER:N	2.40	0.54
5:R:1200:PRO:O	5:R:1299:ASN:OD1	2.25	0.54
5:R:1270:GLN:O	5:R:1274:ASP:HB2	2.06	0.54
5:R:1364:TYR:O	5:R:1364:TYR:HD1	1.90	0.54
6:S:281:ASP:HA	6:S:284:ILE:HD12	1.89	0.54
7:T:529:LYS:HB2	8:U:814:LEU:HD11	1.88	0.54
6:V:309:PRO:HA	6:V:312:VAL:HB	1.88	0.54
6:V:398:VAL:HG21	7:W:466:LEU:HD12	1.86	0.54
8:X:792:GLN:HA	8:X:796:ILE:HB	1.88	0.54
3:D:155:ASN:HA	3:D:646:SER:CB	2.36	0.54
3:D:164:PHE:HA	3:D:186:ILE:HD12	1.88	0.54
3:D:475:GLU:OE2	3:D:487:GLU:N	2.40	0.54
4:E:723:LEU:HD23	4:E:794:ILE:HD12	1.88	0.54
4:E:1022:TYR:CZ	4:E:1026:THR:CG2	2.89	0.54
5:F:334:GLN:NE2	5:F:859:LYS:CE	2.68	0.54
5:F:837:TYR:CG	5:F:918:PHE:HE2	2.25	0.54
5:F:1445:VAL:HG12	5:F:1453:ARG:HG3	1.89	0.54
6:G:281:ASP:HA	6:G:284:ILE:HD12	1.89	0.54
1:M:767:ILE:O	1:M:771:ILE:HG12	2.08	0.54
1:M:775:LEU:HB3	1:M:832:LEU:CG	2.34	0.54
1:N:223:ASN:ND2	1:N:555:GLU:OE2	2.35	0.54
1:N:779:LEU:CB	1:N:835:ILE:HA	2.37	0.54
3:P:398:ILE:O	3:P:402:ILE:HG12	2.06	0.54
3:P:484:GLN:HG2	3:P:568:GLN:OE1	2.07	0.54
4:Q:1450:LEU:HD22	4:Q:1456:ILE:HG21	1.88	0.54
5:R:637:ASP:HA	5:R:640:PHE:HD2	1.71	0.54
5:R:690:GLU:CG	8:U:722:LEU:CD2	2.80	0.54
5:R:825:ILE:HG22	5:R:890:VAL:HG13	1.87	0.54
5:R:1187:ASN:CB	5:R:1190:TYR:CB	2.85	0.54
8:U:778:LYS:HA	8:U:778:LYS:HZ2	1.72	0.54
1:Z:127:GLN:HA	1:Z:127:GLN:NE2	2.16	0.54
1:Z:661:LEU:HB2	1:Z:717:LEU:HD13	1.89	0.54
3:D:443:GLY:HA2	3:D:490:LYS:HG3	1.90	0.54
3:D:605:VAL:HG13	3:D:641:VAL:HG13	1.88	0.54
5:F:225:SER:HA	5:F:383:ASN:HD21	1.73	0.54
5:F:227:ASP:CB	5:F:379:SER:CB	2.84	0.54
5:F:837:TYR:CD2	5:F:918:PHE:HE2	2.26	0.54
8:I:795:LYS:C	8:I:795:LYS:HD3	2.28	0.54
1:M:128:LEU:CD1	4:Q:1260:TYR:CE2	2.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:197:GLU:O	1:N:530:ARG:NH2	2.40	0.54
1:N:262:SER:O	1:N:266:LYS:NZ	2.41	0.54
4:Q:170:MET:HA	4:Q:173:ILE:HG22	1.89	0.54
5:R:46:ALA:O	5:R:50:GLN:HB3	2.07	0.54
6:V:281:ASP:HA	6:V:284:ILE:CD1	2.31	0.54
1:A:215:TYR:HB3	1:A:505:HIS:NE2	2.23	0.54
1:A:691:ARG:O	1:A:695:ILE:HG12	2.07	0.54
2:C:786:THR:H	2:C:789:ASP:HB2	1.72	0.54
3:D:103:LEU:HG	3:D:107:TYR:CE2	2.41	0.54
4:E:14:THR:HB	4:E:17:HIS:HB2	1.88	0.54
4:E:20:ASN:ND2	4:E:894:VAL:O	2.40	0.54
4:E:137:VAL:HA	4:E:140:LYS:HG2	1.88	0.54
4:E:180:LYS:NZ	4:E:184:ASP:OD1	2.40	0.54
7:K:379:ILE:O	7:K:382:LYS:CA	2.55	0.54
1:N:112:TYR:CB	8:U:785:ASN:CB	2.85	0.54
1:N:252:GLN:CD	1:N:498:PHE:CE2	2.79	0.54
1:N:277:TYR:O	1:N:280:GLN:NE2	2.37	0.54
1:N:661:LEU:HB2	1:N:717:LEU:HD13	1.89	0.54
2:O:786:THR:H	2:O:789:ASP:HB2	1.72	0.54
4:Q:885:VAL:HG21	4:Q:923:LEU:HD21	1.90	0.54
5:R:354:ARG:CB	5:R:354:ARG:CZ	2.85	0.54
5:R:788:LEU:HA	5:R:791:PHE:HB3	1.88	0.54
8:U:822:LYS:CE	8:U:822:LYS:CA	2.84	0.54
7:W:379:ILE:O	7:W:382:LYS:CA	2.55	0.54
8:X:672:GLY:HA2	8:X:675:GLN:HG2	1.87	0.54
1:Z:197:GLU:O	1:Z:530:ARG:NH2	2.40	0.54
1:Z:463:GLN:HE21	1:Z:487:LEU:HD11	1.72	0.54
3:D:1377:ASN:CG	1:Z:758:GLN:HE21	2.11	0.54
4:E:207:ASP:OD1	4:E:207:ASP:N	2.41	0.54
4:E:463:PHE:O	4:E:554:ILE:HA	2.07	0.54
5:F:579:ARG:HH22	5:F:701:THR:HG21	1.71	0.54
5:F:788:LEU:HA	5:F:791:PHE:HB3	1.88	0.54
5:F:1283:LYS:CE	5:F:1283:LYS:CA	2.85	0.54
7:K:352:ILE:HG21	7:K:358:LEU:CG	2.38	0.54
3:P:440:THR:OG1	3:P:444:VAL:HG12	2.07	0.54
8:X:751:LEU:HA	8:X:755:LEU:HD13	1.90	0.54
1:Z:24:GLU:OE1	1:Z:24:GLU:HA	2.07	0.54
1:A:116:LYS:O	1:A:116:LYS:HD3	2.08	0.54
1:A:814:MET:HG2	1:A:833:ILE:CG1	2.37	0.54
3:D:402:ILE:HG13	3:D:406:THR:HB	1.88	0.54
4:E:227:ILE:CD1	4:E:258:ILE:HG21	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:333:ARG:NH1	4:E:341:PHE:O	2.40	0.54
4:E:1319:LEU:HD22	4:E:1394:LYS:HB3	1.90	0.54
5:F:690:GLU:CG	8:I:722:LEU:CD2	2.80	0.54
5:F:1187:ASN:CB	5:F:1190:TYR:CB	2.85	0.54
8:L:645:THR:O	8:L:649:THR:HG23	2.08	0.54
1:M:215:TYR:HB3	1:M:505:HIS:NE2	2.23	0.54
3:P:903:ILE:HG23	3:P:953:PHE:CE1	2.42	0.54
4:Q:715:THR:HB	4:Q:742:LEU:HD22	1.90	0.54
4:Q:1585:LEU:N	4:Q:1590:ASP:OD2	2.40	0.54
6:S:427:GLU:HG2	8:U:779:THR:HG21	1.90	0.54
8:U:751:LEU:HA	8:U:754:ASN:HD22	1.72	0.54
7:W:394:THR:HB	7:W:398:ILE:HG13	1.90	0.54
7:W:431:ILE:O	7:W:435:LYS:CB	2.55	0.54
3:D:1238:ARG:HA	1:Z:830:SER:HB2	1.87	0.54
4:E:33:ASP:OD2	4:E:946:TRP:NE1	2.40	0.54
4:E:885:VAL:HG21	4:E:923:LEU:HD21	1.90	0.54
5:F:44:ASN:OD1	5:F:44:ASN:N	2.40	0.54
5:F:46:ALA:O	5:F:50:GLN:HB3	2.07	0.54
7:H:529:LYS:HB2	8:I:814:LEU:HD11	1.88	0.54
6:J:382:LYS:HE2	6:J:382:LYS:N	2.22	0.54
1:N:463:GLN:HE21	1:N:487:LEU:HD11	1.72	0.54
3:P:175:ILE:HG12	3:P:182:CYS:SG	2.47	0.54
3:P:467:PHE:CG	3:P:473:THR:HG23	2.42	0.54
3:P:475:GLU:OE2	3:P:487:GLU:N	2.40	0.54
3:P:507:LEU:HG	3:P:512:LYS:CB	2.37	0.54
3:P:784:ILE:O	3:P:949:PHE:HB2	2.08	0.54
5:R:133:GLU:HA	5:R:136:LYS:HD3	1.89	0.54
5:R:1550:LEU:CD1	5:R:1604:ILE:HG21	2.38	0.54
7:T:426:GLY:HA3	8:U:735:ASN:C	2.28	0.54
4:E:1290:SER:OG	4:E:1297:LYS:NZ	2.40	0.54
5:F:133:GLU:HA	5:F:136:LYS:HD3	1.89	0.54
5:F:1550:LEU:CD1	5:F:1604:ILE:HG21	2.38	0.54
7:H:298:SER:HA	7:H:306:THR:HA	1.90	0.54
8:I:752:ASP:OD1	8:I:756:ASN:ND2	2.40	0.54
7:K:433:GLU:HB2	8:L:741:ARG:HH11	1.73	0.54
3:P:187:ASP:O	3:P:210:THR:HA	2.07	0.54
3:P:443:GLY:HA2	3:P:490:LYS:HG3	1.90	0.54
4:Q:1382:THR:OG1	4:Q:1383:GLN:NE2	2.41	0.54
5:R:1529:ALA:HB1	5:R:1611:VAL:HG13	1.83	0.54
7:W:444:LEU:C	7:W:447:SER:CB	2.75	0.54
7:W:509:ILE:HD12	7:W:509:ILE:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:262:SER:O	1:Z:266:LYS:NZ	2.41	0.54
1:A:545:PHE:HD2	1:A:549:ASP:HB2	1.73	0.54
1:A:772:PRO:HA	1:A:828:THR:HG21	1.87	0.54
3:D:784:ILE:O	3:D:949:PHE:HB2	2.08	0.54
5:F:159:LYS:CE	5:F:363:ASP:HA	2.26	0.54
5:F:1498:LEU:HG	5:F:1514:GLU:HB3	1.88	0.54
8:I:805:ARG:CB	1:Z:88:LYS:HZ1	2.21	0.54
8:I:814:LEU:HD21	1:Z:59:LYS:CA	2.38	0.54
1:M:660:LEU:HG	1:M:685:PRO:HB3	1.88	0.54
4:Q:757:LYS:HA	5:R:1195:PHE:CD2	2.43	0.54
4:Q:1005:LEU:HD13	4:Q:1046:LYS:HZ1	1.73	0.54
5:R:1097:TYR:OH	5:R:1164:PHE:CD1	2.49	0.54
5:R:1674:CYS:HA	5:R:1677:THR:OG1	2.07	0.54
6:V:405:LEU:O	6:V:405:LEU:HD23	2.07	0.54
3:D:222:ASN:HB3	3:D:301:SER:HA	1.90	0.54
5:F:389:LEU:H	5:F:389:LEU:CD1	2.16	0.54
5:F:1363:ILE:HG23	1:Z:125:ILE:HD12	1.89	0.54
5:F:1635:ARG:O	5:F:1639:GLY:N	2.40	0.54
8:L:751:LEU:HA	8:L:755:LEU:HD13	1.90	0.54
1:N:141:ASN:ND2	5:R:1606:GLN:HB3	2.19	0.54
2:O:1261:PHE:CZ	2:O:1265:ILE:HD11	2.43	0.54
3:P:160:ILE:CG2	3:P:191:ILE:HG21	2.37	0.54
4:Q:1409:ALA:HB1	4:Q:1459:LYS:HG3	1.90	0.54
7:W:352:ILE:HG21	7:W:358:LEU:CG	2.38	0.54
1:Z:462:PHE:HA	1:Z:465:ILE:HD12	1.89	0.54
1:Z:789:LEU:HB3	1:Z:799:LYS:HD2	1.90	0.54
1:A:625:GLU:OE1	1:A:629:ARG:NH2	2.33	0.53
2:C:197:ILE:HD13	2:C:224:VAL:HG11	1.91	0.53
3:D:585:ILE:HG21	3:D:593:VAL:HB	1.90	0.53
3:D:662:LEU:HB3	3:D:667:LEU:HD13	1.90	0.53
7:H:426:GLY:HA3	8:I:735:ASN:C	2.27	0.53
7:K:321:ALA:C	7:K:348:ILE:CD1	2.69	0.53
1:M:116:LYS:O	1:M:116:LYS:HD3	2.08	0.53
1:M:128:LEU:HB3	4:Q:1260:TYR:CE2	2.40	0.53
4:Q:207:ASP:N	4:Q:207:ASP:OD1	2.41	0.53
4:Q:826:SER:OG	4:Q:844:TYR:OH	2.26	0.53
5:R:579:ARG:HH22	5:R:701:THR:HG21	1.71	0.53
5:R:917:PHE:CE2	5:R:922:LEU:HD21	2.43	0.53
5:R:920:ILE:HG13	5:R:924:ALA:HA	1.89	0.53
5:R:1024:LEU:HD22	5:R:1049:LEU:HD23	1.90	0.53
5:R:1098:SER:O	5:R:1101:ILE:HB	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:T:298:SER:HA	7:T:306:THR:HA	1.90	0.53
7:T:303:THR:OG1	7:T:329:HIS:O	2.22	0.53
8:U:752:ASP:OD1	8:U:756:ASN:ND2	2.40	0.53
7:W:337:GLN:O	7:W:341:LYS:CD	2.56	0.53
8:X:645:THR:O	8:X:649:THR:HG23	2.08	0.53
1:Z:16:LYS:HA	1:Z:16:LYS:CE	2.36	0.53
4:E:1382:THR:OG1	4:E:1383:GLN:NE2	2.41	0.53
5:F:354:ARG:CB	5:F:354:ARG:CZ	2.85	0.53
5:F:427:THR:OG1	5:F:428:GLN:NE2	2.41	0.53
5:F:1014:SER:N	8:I:788:ASP:O	2.40	0.53
6:G:295:LYS:HD3	6:J:363:LYS:HZ3	1.73	0.53
6:J:281:ASP:HA	6:J:284:ILE:CD1	2.31	0.53
6:J:388:CYS:C	6:J:391:LEU:HB2	2.28	0.53
1:M:814:MET:CG	1:M:833:ILE:HD13	2.35	0.53
4:Q:607:SER:OG	4:Q:608:ILE:N	2.40	0.53
6:S:411:ASN:OD1	6:S:411:ASN:N	2.37	0.53
6:V:311:ASP:HA	6:V:314:TYR:CD2	2.43	0.53
7:W:433:GLU:HB2	8:X:741:ARG:HH11	1.73	0.53
1:A:128:LEU:CD1	4:E:1260:TYR:CE2	2.89	0.53
1:A:391:HIS:NE2	1:A:416:GLY:O	2.33	0.53
2:C:786:THR:N	2:C:789:ASP:HB2	2.24	0.53
3:D:440:THR:OG1	3:D:444:VAL:HG12	2.07	0.53
4:E:29:VAL:HG12	4:E:32:VAL:HG11	1.91	0.53
4:E:1268:SER:OG	4:E:1269:GLY:N	2.42	0.53
5:F:909:LEU:O	7:H:403:SER:C	2.47	0.53
5:F:1037:ASN:N	5:F:1040:THR:CB	2.69	0.53
5:F:1473:ASN:OD1	5:F:1476:LEU:N	2.34	0.53
6:G:296:ALA:HA	6:J:363:LYS:CE	2.39	0.53
1:M:83:VAL:HA	1:M:86:PHE:CD2	2.43	0.53
1:N:799:LYS:HA	1:N:802:GLN:HE21	1.73	0.53
3:P:501:SER:O	3:P:508:LYS:NZ	2.41	0.53
5:R:726:SER:O	5:R:726:SER:OG	2.27	0.53
5:R:837:TYR:CD2	5:R:918:PHE:HE2	2.26	0.53
5:R:922:LEU:HD12	5:R:922:LEU:N	2.23	0.53
5:R:1634:LYS:HD3	5:R:1638:ILE:HD12	1.91	0.53
6:V:310:ARG:HG2	6:V:314:TYR:CZ	2.44	0.53
1:Z:674:LEU:HD21	1:Z:724:ARG:HG3	1.90	0.53
4:E:607:SER:OG	4:E:608:ILE:N	2.40	0.53
4:E:789:GLN:OE1	4:E:792:GLN:NE2	2.40	0.53
8:I:785:ASN:CB	1:Z:112:TYR:CB	2.85	0.53
7:K:394:THR:HB	7:K:398:ILE:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:87:ILE:N	1:N:87:ILE:CD1	2.72	0.53
3:P:1020:ASN:ND2	1:Z:252:GLN:HG2	2.23	0.53
5:R:757:PHE:HD1	5:R:780:ILE:HD11	1.74	0.53
5:R:788:LEU:HD12	5:R:874:LYS:HE2	1.88	0.53
5:R:824:ALA:O	5:R:826:PRO:N	2.41	0.53
5:R:1110:MET:HE3	5:R:1157:TRP:HZ2	1.74	0.53
8:U:752:ASP:O	8:U:756:ASN:ND2	2.42	0.53
3:D:284:PHE:CE1	3:D:296:LEU:HG	2.42	0.53
4:E:864:SER:OG	4:E:1147:LEU:O	2.24	0.53
4:E:1531:SER:O	4:E:1535:ASN:ND2	2.42	0.53
5:F:286:ILE:HA	5:F:289:CYS:HB2	1.91	0.53
5:F:320:GLU:OE1	5:F:351:HIS:HE1	1.92	0.53
5:F:835:LYS:O	5:F:838:LYS:N	2.42	0.53
5:F:917:PHE:CE2	5:F:922:LEU:HD21	2.43	0.53
5:F:1027:GLN:CG	5:F:1036:PRO:HA	2.37	0.53
6:G:295:LYS:C	6:J:363:LYS:HZ1	2.10	0.53
7:H:303:THR:OG1	7:H:329:HIS:O	2.22	0.53
6:J:389:ARG:CG	6:J:389:ARG:NH1	2.71	0.53
1:M:16:LYS:HG3	6:V:468:ALA:CB	2.37	0.53
1:N:758:GLN:HE21	3:P:1377:ASN:CG	2.11	0.53
3:P:222:ASN:HB3	3:P:301:SER:HA	1.90	0.53
3:P:977:LYS:HE2	1:Z:315:LYS:CB	2.39	0.53
5:R:922:LEU:HD23	7:T:400:LYS:HZ1	1.66	0.53
1:A:255:GLU:OE2	1:A:480:GLN:NE2	2.40	0.53
4:E:170:MET:HA	4:E:173:ILE:HG22	1.89	0.53
4:E:826:SER:OG	4:E:844:TYR:OH	2.26	0.53
5:F:1098:SER:O	5:F:1101:ILE:HB	2.09	0.53
6:G:327:LYS:HZ2	1:Z:46:ILE:CA	2.18	0.53
8:I:778:LYS:HG2	8:I:794:ILE:CB	2.39	0.53
6:J:310:ARG:HG2	6:J:314:TYR:CZ	2.43	0.53
6:J:389:ARG:CB	6:J:389:ARG:CZ	2.84	0.53
7:K:367:GLU:O	7:K:371:GLN:HG3	2.09	0.53
1:M:21:LYS:HE2	1:M:25:LEU:HG	1.90	0.53
1:M:289:LEU:HD22	1:M:308:PHE:HA	1.91	0.53
1:M:687:LEU:HD23	1:M:690:ARG:HH11	1.74	0.53
1:M:814:MET:HG2	1:M:833:ILE:CG1	2.37	0.53
3:P:576:LEU:HD13	3:P:601:THR:O	2.08	0.53
4:Q:1234:LEU:HD12	4:Q:1287:ILE:HG13	1.90	0.53
8:U:778:LYS:HG2	8:U:794:ILE:CB	2.39	0.53
6:V:382:LYS:HE2	6:V:382:LYS:N	2.23	0.53
1:Z:623:ILE:HG23	1:Z:624:THR:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:799:LYS:HA	1:Z:802:GLN:HE21	1.73	0.53
3:D:515:VAL:CG1	3:D:644:SER:HB3	2.32	0.53
3:D:576:LEU:HD13	3:D:601:THR:O	2.08	0.53
3:D:775:LEU:O	3:D:779:ARG:HG3	2.09	0.53
4:E:1259:PHE:CD1	4:E:1259:PHE:C	2.81	0.53
5:F:1024:LEU:HD22	5:F:1049:LEU:HD23	1.90	0.53
6:G:295:LYS:C	6:J:363:LYS:HZ2	2.12	0.53
7:K:427:LEU:N	7:K:428:PRO:CD	2.72	0.53
7:K:444:LEU:C	7:K:447:SER:CB	2.75	0.53
7:K:483:VAL:H	7:K:494:MET:N	2.07	0.53
1:N:789:LEU:HB3	1:N:799:LYS:HD2	1.90	0.53
3:P:662:LEU:HB3	3:P:667:LEU:HD13	1.90	0.53
3:P:775:LEU:O	3:P:779:ARG:HG3	2.09	0.53
4:Q:789:GLN:OE1	4:Q:792:GLN:NE2	2.40	0.53
4:Q:1341:GLU:OE1	4:Q:1346:LYS:NZ	2.42	0.53
6:S:295:LYS:HB3	6:V:363:LYS:HZ2	1.73	0.53
7:W:367:GLU:O	7:W:371:GLN:HG3	2.09	0.53
2:C:172:CYS:HB2	2:C:183:TRP:CE2	2.44	0.53
2:C:1261:PHE:CZ	2:C:1265:ILE:HD11	2.43	0.53
3:D:403:GLY:O	3:D:408:ARG:NE	2.37	0.53
3:D:470:SER:HB3	3:D:475:GLU:CG	2.39	0.53
4:E:715:THR:HB	4:E:742:LEU:HD22	1.90	0.53
4:E:757:LYS:HA	5:F:1195:PHE:CD2	2.44	0.53
4:E:1341:GLU:OE1	4:E:1346:LYS:NZ	2.42	0.53
5:F:333:GLU:C	5:F:335:ASP:H	2.11	0.53
5:F:936:ILE:O	5:F:940:ASN:ND2	2.42	0.53
6:J:384:LEU:HD21	7:K:455:LYS:HG2	1.91	0.53
1:M:309:ILE:HG23	1:M:313:LEU:HD12	1.89	0.53
1:M:681:SER:HB2	1:M:691:ARG:HD3	1.91	0.53
1:N:431:SER:OG	1:N:432:ILE:N	2.42	0.53
2:O:693:LEU:HB3	2:O:694:PHE:HD1	1.74	0.53
5:R:836:ILE:N	5:R:836:ILE:CD1	2.72	0.53
5:R:1283:LYS:CE	5:R:1283:LYS:CA	2.85	0.53
6:V:334:SER:C	6:V:337:LYS:H	2.09	0.53
6:V:411:ASN:OD1	6:V:411:ASN:N	2.41	0.53
7:W:385:GLN:CA	7:W:385:GLN:NE2	2.72	0.53
1:Z:127:GLN:CA	1:Z:127:GLN:NE2	2.72	0.53
1:A:48:GLU:O	7:K:514:THR:HG23	2.09	0.53
1:A:289:LEU:HD22	1:A:308:PHE:HA	1.91	0.53
1:A:681:SER:HB2	1:A:691:ARG:HD3	1.91	0.53
4:E:1005:LEU:HD13	4:E:1046:LYS:HZ1	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:1234:LEU:HD12	4:E:1287:ILE:HG13	1.90	0.53
5:F:333:GLU:C	5:F:335:ASP:N	2.61	0.53
7:K:337:GLN:O	7:K:341:LYS:CD	2.56	0.53
1:N:462:PHE:HA	1:N:465:ILE:HD12	1.89	0.53
2:O:172:CYS:HB2	2:O:183:TRP:CE2	2.44	0.53
4:Q:827:PRO:HB3	4:Q:893:TYR:CZ	2.44	0.53
4:Q:1290:SER:OG	4:Q:1297:LYS:NZ	2.40	0.53
4:Q:1294:ASP:O	4:Q:1298:ASN:N	2.42	0.53
4:Q:1319:LEU:HD22	4:Q:1394:LYS:HB3	1.90	0.53
5:R:835:LYS:O	5:R:838:LYS:N	2.42	0.53
5:R:837:TYR:CD2	5:R:918:PHE:CE2	2.97	0.53
5:R:841:PHE:HE2	5:R:918:PHE:CE1	2.22	0.53
1:A:20:LYS:CB	6:J:468:ALA:HB1	2.39	0.53
2:C:693:LEU:HB3	2:C:694:PHE:HD1	1.74	0.53
3:D:150:LYS:HD3	3:D:153:VAL:CG2	2.39	0.53
5:F:824:ALA:O	5:F:826:PRO:N	2.41	0.53
8:I:752:ASP:O	8:I:756:ASN:ND2	2.42	0.53
1:N:127:GLN:CA	1:N:127:GLN:NE2	2.72	0.53
2:O:885:VAL:CG1	2:O:901:ILE:HG23	2.39	0.53
5:R:286:ILE:HA	5:R:289:CYS:HB2	1.91	0.53
1:Z:87:ILE:N	1:Z:87:ILE:CD1	2.72	0.53
5:F:1360:LEU:CD1	5:F:1360:LEU:N	2.73	0.52
5:F:1370:LEU:O	5:F:1371:ILE:CG1	2.56	0.52
5:F:1634:LYS:HD3	5:F:1638:ILE:HD12	1.91	0.52
6:G:458:ALA:CB	1:Z:32:LEU:HD11	2.38	0.52
6:J:433:LYS:CB	7:K:499:GLY:CA	2.81	0.52
1:N:125:ILE:CD1	5:R:1363:ILE:CG2	2.85	0.52
1:N:125:ILE:HD12	5:R:1363:ILE:HG22	1.91	0.52
1:N:252:GLN:NE2	1:N:498:PHE:CD2	2.77	0.52
1:N:439:HIS:HD1	1:N:457:TYR:HH	1.49	0.52
3:P:691:LYS:O	3:P:696:ARG:NH2	2.41	0.52
4:Q:864:SER:OG	4:Q:1147:LEU:O	2.24	0.52
5:R:355:LEU:HD12	5:R:355:LEU:H	1.74	0.52
5:R:922:LEU:N	5:R:922:LEU:CD1	2.72	0.52
5:R:958:SER:HB3	5:R:962:ARG:HA	1.91	0.52
1:A:767:ILE:O	1:A:771:ILE:HG12	2.08	0.52
3:D:977:LYS:HD3	1:N:316:ALA:HB3	1.89	0.52
6:J:383:LYS:CE	8:L:756:ASN:HA	2.23	0.52
7:K:511:GLU:O	7:K:515:ASN:ND2	2.42	0.52
1:N:536:ASN:O	1:N:540:ASN:ND2	2.42	0.52
3:P:263:VAL:HB	3:P:311:LYS:CE	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:585:ILE:HG21	3:P:593:VAL:HB	1.90	0.52
4:Q:1259:PHE:C	4:Q:1259:PHE:CD1	2.81	0.52
5:R:389:LEU:N	5:R:389:LEU:CD1	2.72	0.52
5:R:1376:THR:O	5:R:1376:THR:OG1	2.24	0.52
6:V:324:GLN:O	6:V:328:GLN:HG2	2.09	0.52
6:V:350:PHE:HD1	7:W:419:LEU:HD12	1.73	0.52
1:A:590:LEU:HD13	1:A:624:THR:HG23	1.91	0.52
4:E:954:ILE:HG12	4:E:1015:LYS:HG2	1.92	0.52
4:E:1170:ASP:O	4:E:1174:ASN:ND2	2.43	0.52
5:F:210:LYS:HG2	5:F:214:LEU:HD13	1.92	0.52
5:F:757:PHE:HD1	5:F:780:ILE:HD11	1.74	0.52
5:F:1672:MET:CB	1:Z:149:ALA:CB	2.84	0.52
1:M:818:GLY:O	1:M:821:GLN:NE2	2.40	0.52
1:N:46:ILE:CA	6:S:327:LYS:HZ2	2.21	0.52
1:N:59:LYS:CA	8:U:814:LEU:HD21	2.38	0.52
1:N:757:ALA:CB	1:N:819:MET:C	2.39	0.52
1:N:807:LYS:O	1:N:836:ASP:O	2.27	0.52
3:P:956:ASN:O	3:P:960:LYS:N	2.37	0.52
4:Q:724:SER:HA	4:Q:1166:VAL:HA	1.90	0.52
4:Q:954:ILE:HG12	4:Q:1015:LYS:HG2	1.92	0.52
4:Q:976:PHE:CZ	7:W:457:ASN:HB3	2.44	0.52
5:R:543:VAL:HA	5:R:546:TYR:HB2	1.91	0.52
5:R:909:LEU:O	7:T:403:SER:C	2.47	0.52
5:R:1251:ARG:HH22	5:R:1276:ASP:HB3	1.73	0.52
5:R:1251:ARG:NH2	5:R:1276:ASP:HB3	2.25	0.52
6:V:332:LYS:HG2	7:W:398:ILE:HG21	1.91	0.52
6:V:376:LYS:NZ	8:X:756:ASN:ND2	2.57	0.52
1:A:83:VAL:HA	1:A:86:PHE:CD2	2.43	0.52
3:D:186:ILE:CG2	3:D:189:LYS:HB2	2.40	0.52
4:E:368:ILE:HG22	4:E:369:LEU:HD12	1.91	0.52
5:F:837:TYR:CD2	5:F:918:PHE:CE2	2.97	0.52
5:F:920:ILE:HG13	5:F:924:ALA:HA	1.89	0.52
5:F:1363:ILE:CG2	1:Z:125:ILE:CD1	2.85	0.52
6:G:427:GLU:HG2	8:I:779:THR:HG21	1.90	0.52
6:J:311:ASP:HA	6:J:314:TYR:CD2	2.43	0.52
6:J:390:ILE:N	6:J:390:ILE:CD1	2.72	0.52
7:K:385:GLN:CA	7:K:385:GLN:NE2	2.72	0.52
1:M:274:GLY:HA2	1:M:484:LEU:HD22	1.91	0.52
1:N:391:HIS:NE2	1:N:417:ARG:O	2.42	0.52
3:P:664:ASP:O	3:P:667:LEU:N	2.43	0.52
4:Q:29:VAL:HG12	4:Q:32:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:368:ILE:HG22	4:Q:369:LEU:HD12	1.92	0.52
4:Q:1531:SER:O	4:Q:1535:ASN:ND2	2.42	0.52
6:V:390:ILE:CG1	8:X:766:ILE:HD12	2.40	0.52
7:W:309:ARG:HG3	7:W:353:TYR:CZ	2.44	0.52
1:Z:289:LEU:HD23	1:Z:308:PHE:HA	1.91	0.52
1:Z:807:LYS:O	1:Z:836:ASP:O	2.27	0.52
1:A:687:LEU:HD23	1:A:690:ARG:HH11	1.74	0.52
3:D:944:LEU:O	3:D:947:LEU:HB2	2.10	0.52
3:D:1467:SER:HB2	1:Z:621:HIS:CE1	2.45	0.52
4:E:976:PHE:CZ	7:K:457:ASN:HB3	2.44	0.52
5:F:1251:ARG:NH2	5:F:1276:ASP:HB3	2.25	0.52
5:F:1522:VAL:HA	5:F:1525:LEU:HD12	1.91	0.52
7:H:522:TYR:CB	1:Z:54:PHE:C	2.77	0.52
8:I:781:ASN:HD22	8:I:781:ASN:N	2.08	0.52
6:J:332:LYS:HG2	7:K:398:ILE:HG21	1.91	0.52
1:M:224:ASN:OD1	1:M:607:ARG:NH2	2.41	0.52
3:P:421:VAL:HG13	3:P:491:ARG:CB	2.39	0.52
5:R:210:LYS:HG2	5:R:214:LEU:HD13	1.92	0.52
5:R:333:GLU:C	5:R:335:ASP:N	2.61	0.52
5:R:1027:GLN:CG	5:R:1036:PRO:HA	2.37	0.52
5:R:1605:PHE:HA	5:R:1608:ILE:HG12	1.91	0.52
3:D:421:VAL:HG13	3:D:491:ARG:CB	2.39	0.52
3:D:501:SER:O	3:D:508:LYS:NZ	2.41	0.52
3:D:1019:ARG:C	1:N:251:ALA:H	2.05	0.52
4:E:107:SER:HB2	4:E:190:GLN:HE22	1.74	0.52
4:E:584:ASP:N	4:E:584:ASP:OD1	2.38	0.52
4:E:827:PRO:HB3	4:E:893:TYR:CZ	2.44	0.52
4:E:1409:ALA:HB1	4:E:1459:LYS:HG3	1.90	0.52
4:E:1563:LEU:HD12	4:E:1564:LEU:HG	1.92	0.52
5:F:154:GLN:HA	5:F:157:GLU:HG3	1.92	0.52
5:F:836:ILE:N	5:F:836:ILE:CD1	2.72	0.52
5:F:1067:ASN:N	5:F:1067:ASN:OD1	2.42	0.52
5:F:1360:LEU:C	5:F:1362:ASP:H	2.13	0.52
5:F:1664:ASN:HA	5:F:1667:VAL:HG12	1.92	0.52
6:J:364:ILE:HG22	6:J:367:ASN:HD21	1.75	0.52
1:M:812:GLN:HA	1:M:815:ILE:HD12	1.91	0.52
1:N:54:PHE:C	7:T:522:TYR:CB	2.77	0.52
1:N:830:SER:HB2	3:P:1238:ARG:HA	1.87	0.52
3:P:970:ILE:HG23	3:P:975:ILE:CD1	2.40	0.52
4:Q:1563:LEU:HD12	4:Q:1564:LEU:HG	1.92	0.52
5:R:328:ASP:O	5:R:331:ILE:HD11	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:427:THR:OG1	5:R:428:GLN:NE2	2.41	0.52
5:R:928:LEU:HD12	5:R:928:LEU:N	2.01	0.52
5:R:936:ILE:O	5:R:940:ASN:ND2	2.42	0.52
7:W:310:ALA:CB	7:W:352:ILE:HB	2.39	0.52
7:W:483:VAL:H	7:W:494:MET:N	2.06	0.52
1:A:812:GLN:HA	1:A:815:ILE:HD12	1.91	0.52
3:D:160:ILE:CG2	3:D:191:ILE:HG21	2.37	0.52
4:E:33:ASP:OD1	4:E:33:ASP:N	2.43	0.52
4:E:739:ILE:HG21	4:E:795:ILE:HG22	1.92	0.52
5:F:328:ASP:O	5:F:331:ILE:HD11	2.09	0.52
5:F:639:LEU:HA	5:F:642:PHE:HB3	1.91	0.52
5:F:1605:PHE:HA	5:F:1608:ILE:HG12	1.91	0.52
7:H:314:ASN:HB2	7:H:361:ARG:HH12	1.75	0.52
6:J:405:LEU:HD11	7:K:469:ARG:O	2.10	0.52
6:J:432:LEU:HA	8:L:782:ILE:O	2.10	0.52
7:K:339:MET:SD	7:K:342:LYS:NZ	2.68	0.52
8:L:643:LYS:HG3	8:L:647:GLN:NE2	2.22	0.52
8:L:675:GLN:O	8:L:679:LEU:HD13	2.10	0.52
2:O:786:THR:N	2:O:789:ASP:HB2	2.24	0.52
4:Q:33:ASP:N	4:Q:33:ASP:OD1	2.42	0.52
5:R:44:ASN:N	5:R:44:ASN:OD1	2.40	0.52
5:R:841:PHE:CD2	5:R:918:PHE:CD1	2.89	0.52
6:V:388:CYS:CB	7:W:455:LYS:HD2	2.32	0.52
7:W:313:TYR:CD1	7:W:349:PRO:HB3	2.45	0.52
1:Z:414:LEU:HD11	1:Z:438:MET:HB2	1.92	0.52
1:A:274:GLY:HA2	1:A:484:LEU:HD22	1.91	0.52
3:D:233:LEU:HD11	3:D:282:ILE:HD13	1.92	0.52
3:D:263:VAL:HB	3:D:311:LYS:CE	2.37	0.52
3:D:664:ASP:O	3:D:667:LEU:N	2.42	0.52
3:D:1020:ASN:CB	1:N:251:ALA:HB3	2.33	0.52
5:F:922:LEU:N	5:F:922:LEU:CD1	2.72	0.52
5:F:1392:ILE:CB	5:F:1405:PHE:CE2	2.93	0.52
8:I:814:LEU:HD23	1:Z:59:LYS:CB	2.39	0.52
7:K:309:ARG:HG3	7:K:353:TYR:CZ	2.44	0.52
7:K:352:ILE:HG21	7:K:358:LEU:CD2	2.40	0.52
7:K:387:GLN:NE2	7:K:387:GLN:CA	2.73	0.52
8:L:692:LYS:HD2	8:L:695:GLN:HE21	1.75	0.52
1:M:342:ARG:NE	1:M:434:ASP:OD1	2.41	0.52
1:N:414:LEU:HD11	1:N:438:MET:HB2	1.92	0.52
1:N:670:LEU:HD13	1:N:724:ARG:HD3	1.92	0.52
3:P:528:PRO:CG	3:P:624:PHE:HE2	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:177:GLN:O	5:R:181:PHE:HB2	2.10	0.52
5:R:1427:LEU:HD22	5:R:1466:LEU:HG	1.91	0.52
5:R:1522:VAL:HA	5:R:1525:LEU:HD12	1.91	0.52
6:V:370:ASP:HA	6:V:373:PHE:CB	2.40	0.52
6:V:384:LEU:HD21	7:W:455:LYS:HG2	1.91	0.52
7:W:427:LEU:N	7:W:428:PRO:CD	2.72	0.52
3:D:242:MET:O	3:D:259:THR:OG1	2.21	0.52
3:D:969:SER:O	3:D:972:ASN:HB2	2.10	0.52
5:F:157:GLU:OE1	5:F:183:ARG:NH1	2.42	0.52
5:F:389:LEU:N	5:F:389:LEU:CD1	2.72	0.52
5:F:690:GLU:HG2	8:I:722:LEU:HD21	1.92	0.52
5:F:711:GLN:HG2	5:F:779:PRO:HB3	1.92	0.52
5:F:1094:GLY:O	5:F:1098:SER:N	2.42	0.52
7:K:535:LYS:CA	8:L:818:ILE:CB	2.75	0.52
8:L:692:LYS:HD2	8:L:695:GLN:NE2	2.25	0.52
1:M:545:PHE:HD2	1:M:549:ASP:HB2	1.74	0.52
1:N:734:GLU:OE2	1:N:738:GLN:NE2	2.43	0.52
2:O:197:ILE:HD13	2:O:224:VAL:HG11	1.91	0.52
2:O:317:LEU:HB2	2:O:318:ILE:HD12	1.92	0.52
3:P:421:VAL:HG13	3:P:491:ARG:HB3	1.92	0.52
3:P:484:GLN:NE2	3:P:565:VAL:HA	2.24	0.52
3:P:944:LEU:O	3:P:947:LEU:HB2	2.10	0.52
4:Q:107:SER:HB2	4:Q:190:GLN:HE22	1.74	0.52
4:Q:180:LYS:NZ	4:Q:184:ASP:OD1	2.40	0.52
5:R:157:GLU:OE1	5:R:183:ARG:NH1	2.42	0.52
5:R:639:LEU:HA	5:R:642:PHE:HB3	1.91	0.52
5:R:929:TYR:O	5:R:931:GLY:N	2.43	0.52
5:R:1360:LEU:C	5:R:1362:ASP:H	2.12	0.52
6:S:296:ALA:HA	6:V:363:LYS:CE	2.39	0.52
7:T:391:GLU:O	7:T:395:ALA:HB3	2.10	0.52
6:V:364:ILE:HG22	6:V:367:ASN:HD21	1.75	0.52
6:V:390:ILE:N	6:V:390:ILE:CD1	2.72	0.52
7:W:321:ALA:HB2	7:W:346:GLN:HA	1.92	0.52
1:Z:431:SER:OG	1:Z:432:ILE:N	2.42	0.52
1:Z:536:ASN:O	1:Z:540:ASN:ND2	2.42	0.52
3:D:792:THR:HA	3:D:830:SER:HB2	1.92	0.52
4:E:681:LEU:HA	4:E:690:LEU:CB	2.40	0.52
4:E:724:SER:HA	4:E:1166:VAL:HA	1.90	0.52
5:F:1227:THR:HA	7:H:472:ASN:HB3	1.92	0.52
6:G:455:GLU:CB	1:Z:32:LEU:CD2	2.79	0.52
8:I:818:ILE:CD1	8:I:818:ILE:N	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:324:GLN:O	6:J:328:GLN:HG2	2.09	0.52
6:J:442:THR:CB	7:K:509:ILE:CD1	2.88	0.52
1:M:590:LEU:HD13	1:M:624:THR:HG23	1.91	0.52
1:N:207:ILE:HD12	1:N:247:GLY:CA	2.29	0.52
1:N:289:LEU:HD23	1:N:308:PHE:HA	1.91	0.52
3:P:186:ILE:CG2	3:P:189:LYS:HB2	2.40	0.52
3:P:233:LEU:HD11	3:P:282:ILE:HD13	1.92	0.52
3:P:977:LYS:HE2	1:Z:315:LYS:C	2.30	0.52
4:Q:1170:ASP:O	4:Q:1174:ASN:ND2	2.42	0.52
5:R:690:GLU:HG3	8:U:722:LEU:CG	2.40	0.52
5:R:711:GLN:HG2	5:R:779:PRO:HB3	1.92	0.52
5:R:838:LYS:HA	5:R:841:PHE:HB2	1.92	0.52
5:R:950:GLU:N	5:R:950:GLU:OE2	2.43	0.52
5:R:1227:THR:HA	7:T:472:ASN:HB3	1.91	0.52
6:V:319:GLU:HA	6:V:322:THR:CG2	2.36	0.52
6:V:382:LYS:N	6:V:382:LYS:CE	2.73	0.52
6:V:404:ASP:O	6:V:408:ALA:CA	2.58	0.52
6:V:405:LEU:HD11	7:W:469:ARG:O	2.10	0.52
8:X:671:LYS:O	8:X:675:GLN:HG2	2.10	0.52
1:Z:391:HIS:NE2	1:Z:417:ARG:O	2.42	0.52
1:A:27:GLU:OE1	1:A:27:GLU:HA	2.10	0.51
4:E:141:LEU:HA	4:E:144:ILE:HD12	1.92	0.51
4:E:182:PHE:HZ	5:F:1189:MET:CB	2.23	0.51
4:E:254:SER:HG	5:F:1191:SER:HG	0.68	0.51
5:F:726:SER:O	5:F:726:SER:OG	2.27	0.51
5:F:929:TYR:O	5:F:931:GLY:N	2.43	0.51
5:F:1510:ASP:N	5:F:1510:ASP:OD1	2.42	0.51
6:J:389:ARG:CZ	6:J:389:ARG:HB3	2.40	0.51
1:N:88:LYS:HZ1	8:U:805:ARG:CB	2.22	0.51
1:N:634:ASP:O	5:R:1618:SER:HB2	2.10	0.51
1:N:639:ASP:OD1	1:N:639:ASP:N	2.43	0.51
1:N:674:LEU:HD21	1:N:724:ARG:HG3	1.91	0.51
3:P:470:SER:HB3	3:P:475:GLU:CG	2.40	0.51
3:P:887:GLN:OE1	3:P:887:GLN:N	2.43	0.51
4:Q:739:ILE:HG21	4:Q:795:ILE:HG22	1.92	0.51
4:Q:1268:SER:OG	4:Q:1269:GLY:N	2.42	0.51
5:R:1370:LEU:O	5:R:1371:ILE:CG1	2.56	0.51
7:T:359:ASN:HA	7:T:362:ASN:HD22	1.75	0.51
8:U:795:LYS:CA	8:U:795:LYS:NZ	2.73	0.51
1:Z:670:LEU:HD13	1:Z:724:ARG:HD3	1.92	0.51
1:A:139:PHE:CD1	1:A:139:PHE:C	2.84	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:451:ASP:O	1:A:456:ARG:NE	2.38	0.51
1:A:641:ILE:HG23	1:A:653:VAL:HG13	1.91	0.51
1:A:817:ALA:HB2	1:A:832:LEU:HD13	1.92	0.51
2:C:1258:GLN:CD	2:C:1299:LYS:HE3	2.30	0.51
3:D:240:LEU:HB3	3:D:263:VAL:CG1	2.40	0.51
3:D:484:GLN:NE2	3:D:565:VAL:HA	2.24	0.51
3:D:528:PRO:CG	3:D:624:PHE:HE2	2.21	0.51
5:F:355:LEU:N	5:F:355:LEU:CD1	2.72	0.51
5:F:950:GLU:N	5:F:950:GLU:OE2	2.43	0.51
5:F:958:SER:HB3	5:F:962:ARG:HA	1.91	0.51
5:F:1150:PHE:CD1	5:F:1150:PHE:C	2.83	0.51
5:F:1550:LEU:HD12	5:F:1604:ILE:HD13	1.87	0.51
6:J:404:ASP:C	6:J:406:PHE:H	2.13	0.51
1:M:817:ALA:HB2	1:M:832:LEU:HD13	1.92	0.51
1:N:830:SER:HB2	3:P:1238:ARG:CG	2.40	0.51
3:P:790:PHE:HB3	3:P:933:ILE:HG21	1.92	0.51
4:Q:33:ASP:OD2	4:Q:946:TRP:NE1	2.40	0.51
5:R:837:TYR:CG	5:R:918:PHE:HE2	2.25	0.51
5:R:1435:LYS:HZ3	5:R:1484:ARG:NH2	2.06	0.51
5:R:1550:LEU:HD12	5:R:1604:ILE:HD13	1.87	0.51
1:Z:215:TYR:HA	1:Z:218:ILE:HD12	1.92	0.51
4:E:1342:LEU:HA	4:E:1346:LYS:HD3	1.92	0.51
5:F:544:TYR:HA	5:F:547:PHE:HD2	1.76	0.51
5:F:809:LEU:HD13	5:F:1252:VAL:HG23	1.93	0.51
5:F:1251:ARG:HH22	5:F:1276:ASP:HB3	1.73	0.51
1:N:623:ILE:HG23	1:N:624:THR:HG23	1.90	0.51
1:N:767:ILE:HD12	1:N:768:VAL:H	1.74	0.51
2:O:1258:GLN:CD	2:O:1299:LYS:HE3	2.30	0.51
5:R:562:LEU:O	5:R:566:THR:OG1	2.23	0.51
5:R:1472:GLU:OE1	5:R:1531:THR:OG1	2.25	0.51
6:V:463:LYS:HE2	7:W:526:VAL:HG11	1.89	0.51
8:X:637:LEU:HD22	8:X:640:LEU:HB2	1.92	0.51
1:A:749:ASP:HB2	2:C:1274:LYS:HZ3	1.75	0.51
3:D:662:LEU:HB3	3:D:667:LEU:CD1	2.40	0.51
4:E:258:ILE:HG22	4:E:261:ILE:HD11	1.92	0.51
4:E:550:SER:OG	4:E:551:ASN:N	2.44	0.51
5:F:562:LEU:O	5:F:566:THR:OG1	2.23	0.51
5:F:841:PHE:HZ	5:F:922:LEU:HD22	1.75	0.51
5:F:1363:ILE:HD12	5:F:1364:TYR:N	2.25	0.51
5:F:1373:ASP:O	5:F:1376:THR:N	2.28	0.51
7:H:391:GLU:O	7:H:395:ALA:HB3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:337:GLN:O	7:K:341:LYS:HD3	2.10	0.51
1:M:641:ILE:HG23	1:M:653:VAL:HG13	1.91	0.51
1:M:760:PHE:CZ	1:M:768:VAL:HG13	2.45	0.51
1:M:837:VAL:HG11	2:O:1142:ASP:HB2	1.93	0.51
3:P:662:LEU:HB3	3:P:667:LEU:CD1	2.40	0.51
3:P:753:PRO:HD2	3:P:756:LYS:CD	2.40	0.51
3:P:863:ILE:HD12	3:P:887:GLN:HG3	1.92	0.51
4:Q:1402:LYS:NZ	4:Q:1454:GLU:OE1	2.43	0.51
5:R:225:SER:HA	5:R:383:ASN:HD21	1.73	0.51
7:T:314:ASN:HB2	7:T:361:ARG:HH12	1.75	0.51
8:U:781:ASN:HD22	8:U:781:ASN:N	2.08	0.51
6:V:324:GLN:HA	6:V:327:LYS:CE	2.35	0.51
6:V:401:ILE:N	6:V:401:ILE:CD1	2.73	0.51
7:W:352:ILE:HG21	7:W:358:LEU:CD2	2.40	0.51
1:A:48:GLU:HA	7:K:514:THR:HG21	1.93	0.51
2:C:885:VAL:CG1	2:C:901:ILE:HG23	2.39	0.51
3:D:421:VAL:HG13	3:D:491:ARG:HB3	1.92	0.51
5:F:543:VAL:HA	5:F:546:TYR:HB2	1.91	0.51
5:F:1132:GLU:HG3	5:F:1135:CYS:HB2	1.93	0.51
5:F:1674:CYS:C	5:F:1676:LEU:H	2.13	0.51
6:G:387:TYR:HA	6:G:390:ILE:HB	1.92	0.51
8:L:671:LYS:O	8:L:675:GLN:HG2	2.10	0.51
3:P:150:LYS:HD3	3:P:153:VAL:CG2	2.39	0.51
3:P:1140:LYS:HZ2	1:Z:204:GLU:HA	0.71	0.51
4:Q:1342:LEU:HA	4:Q:1346:LYS:HD3	1.92	0.51
5:R:1664:ASN:HA	5:R:1667:VAL:HG12	1.92	0.51
6:V:389:ARG:HH11	6:V:389:ARG:CG	2.23	0.51
7:W:389:LYS:CB	7:W:393:ASP:CB	2.88	0.51
8:X:675:GLN:O	8:X:679:LEU:HD13	2.10	0.51
1:Z:482:LEU:O	1:Z:487:LEU:N	2.43	0.51
1:A:128:LEU:HB3	4:E:1260:TYR:CE2	2.40	0.51
3:D:484:GLN:HG3	3:D:564:THR:O	2.10	0.51
3:D:568:GLN:HE21	3:D:573:GLN:HG2	1.76	0.51
3:D:832:VAL:HG23	3:D:929:PHE:CE2	2.46	0.51
3:D:915:GLU:OE2	3:D:980:SER:OG	2.23	0.51
3:D:1018:LEU:HD13	1:N:247:GLY:H	1.76	0.51
4:E:508:ALA:HB1	4:E:512:GLU:HG2	1.93	0.51
4:E:1340:PHE:O	4:E:1344:PHE:HB2	2.11	0.51
5:F:1177:VAL:HA	5:F:1180:TYR:CB	2.40	0.51
5:F:1496:ASP:HA	5:F:1499:LEU:HG	1.93	0.51
5:F:1550:LEU:HD21	5:F:1552:PHE:HZ	1.66	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:795:LYS:CA	8:I:795:LYS:NZ	2.73	0.51
1:N:482:LEU:O	1:N:487:LEU:N	2.43	0.51
1:N:621:HIS:CE1	3:P:1467:SER:HB2	2.45	0.51
3:P:832:VAL:HG23	3:P:929:PHE:CE2	2.46	0.51
4:Q:681:LEU:HA	4:Q:690:LEU:CB	2.40	0.51
5:R:1150:PHE:C	5:R:1150:PHE:CD1	2.83	0.51
5:R:1177:VAL:HA	5:R:1180:TYR:CB	2.40	0.51
5:R:1363:ILE:HD12	5:R:1364:TYR:N	2.25	0.51
5:R:1496:ASP:HA	5:R:1499:LEU:HG	1.93	0.51
8:X:647:GLN:HA	8:X:650:GLU:HG2	1.93	0.51
1:Z:139:PHE:CD1	1:Z:139:PHE:C	2.84	0.51
1:Z:278:LEU:HD22	1:Z:437:TRP:HB2	1.92	0.51
1:Z:734:GLU:OE2	1:Z:738:GLN:NE2	2.43	0.51
3:D:863:ILE:HD12	3:D:887:GLN:HG3	1.92	0.51
4:E:86:ASP:OD1	4:E:86:ASP:N	2.44	0.51
5:F:1427:LEU:HD22	5:F:1466:LEU:HG	1.91	0.51
6:J:433:LYS:CA	7:K:499:GLY:CA	2.88	0.51
3:P:240:LEU:HB3	3:P:263:VAL:CG1	2.41	0.51
3:P:358:GLN:OE1	3:P:422:LYS:HG3	2.11	0.51
3:P:377:ILE:HB	3:P:393:ILE:HB	1.93	0.51
3:P:484:GLN:HG3	3:P:564:THR:O	2.10	0.51
3:P:828:ILE:CD1	3:P:925:GLN:HA	2.41	0.51
4:Q:114:TYR:HB2	4:Q:194:ILE:HD11	1.93	0.51
5:R:665:GLU:HB2	5:R:720:HIS:NE2	2.25	0.51
5:R:836:ILE:N	5:R:836:ILE:HD12	2.26	0.51
5:R:841:PHE:HZ	5:R:922:LEU:HD22	1.75	0.51
5:R:1132:GLU:HG3	5:R:1135:CYS:HB2	1.92	0.51
5:R:1435:LYS:HZ2	5:R:1484:ARG:HH22	1.57	0.51
6:S:431:GLN:CB	7:T:503:ASN:H	2.22	0.51
6:V:383:LYS:CE	8:X:756:ASN:HA	2.22	0.51
7:W:402:GLN:C	7:W:402:GLN:HE21	2.14	0.51
8:X:692:LYS:HD2	8:X:695:GLN:NE2	2.25	0.51
3:D:790:PHE:HB3	3:D:933:ILE:HG21	1.92	0.51
5:F:177:GLN:O	5:F:181:PHE:HB2	2.10	0.51
5:F:355:LEU:HD12	5:F:355:LEU:H	1.74	0.51
5:F:1012:ASN:O	8:I:787:GLU:CG	2.52	0.51
5:F:1300:LEU:HD23	5:F:1300:LEU:C	2.31	0.51
1:M:139:PHE:C	1:M:139:PHE:CD1	2.84	0.51
1:N:533:ARG:HH21	1:N:534:PHE:HB3	1.76	0.51
3:P:499:LEU:CB	3:P:502:SER:HB3	2.35	0.51
3:P:792:THR:HA	3:P:830:SER:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:969:SER:O	3:P:972:ASN:HB2	2.10	0.51
4:Q:508:ALA:HB1	4:Q:512:GLU:HG2	1.93	0.51
4:Q:550:SER:OG	4:Q:551:ASN:N	2.44	0.51
5:R:1360:LEU:N	5:R:1360:LEU:CD1	2.73	0.51
5:R:1370:LEU:O	5:R:1371:ILE:CB	2.58	0.51
7:T:511:GLU:CB	8:U:800:HIS:HE1	2.24	0.51
8:U:794:ILE:HA	8:U:797:LEU:HD13	1.93	0.51
6:V:432:LEU:HA	8:X:782:ILE:O	2.10	0.51
7:W:526:VAL:O	7:W:530:ASP:HB2	2.11	0.51
1:Z:639:ASP:OD1	1:Z:639:ASP:N	2.43	0.51
1:Z:767:ILE:HD12	1:Z:768:VAL:H	1.74	0.51
1:A:193:LEU:HB3	1:A:546:ARG:HH12	1.76	0.51
3:D:353:GLN:OE1	3:D:374:LYS:HB2	2.11	0.51
5:F:378:ALA:O	5:F:383:ASN:HA	2.11	0.51
5:F:690:GLU:HG3	8:I:722:LEU:CG	2.40	0.51
5:F:1376:THR:O	5:F:1376:THR:OG1	2.24	0.51
5:F:1529:ALA:HB1	5:F:1611:VAL:HG13	1.83	0.51
7:H:309:ARG:NE	7:H:353:TYR:OH	2.38	0.51
6:J:382:LYS:N	6:J:382:LYS:CE	2.73	0.51
7:K:308:LEU:HB3	7:K:355:PHE:CZ	2.46	0.51
7:K:313:TYR:CD1	7:K:349:PRO:HB3	2.45	0.51
1:M:626:GLN:O	1:M:630:ARG:HG2	2.11	0.51
1:N:139:PHE:CD1	1:N:139:PHE:C	2.84	0.51
5:R:154:GLN:HA	5:R:157:GLU:HG3	1.92	0.51
5:R:1037:ASN:N	5:R:1040:THR:CB	2.69	0.51
5:R:1532:ARG:NH1	5:R:1615:MET:SD	2.84	0.51
6:S:387:TYR:HA	6:S:390:ILE:HB	1.92	0.51
7:T:418:GLN:CD	8:U:718:THR:HG21	2.26	0.51
8:U:750:THR:O	8:U:753:GLU:HB3	2.11	0.51
7:W:308:LEU:HB3	7:W:355:PHE:CZ	2.46	0.51
7:W:336:ASP:HB3	7:W:340:GLU:OE1	2.11	0.51
7:W:508:LYS:NZ	1:Z:16:LYS:HB2	2.26	0.51
1:A:123:MET:O	6:J:414:SER:CB	2.59	0.51
1:A:626:GLN:O	1:A:630:ARG:HG2	2.11	0.51
3:D:377:ILE:HB	3:D:393:ILE:HB	1.93	0.51
3:D:970:ILE:HG23	3:D:975:ILE:CD1	2.40	0.51
4:E:1259:PHE:O	4:E:1259:PHE:HD1	1.94	0.51
5:F:334:GLN:NE2	5:F:859:LYS:HD2	2.26	0.51
5:F:914:ASP:HA	5:F:917:PHE:H	1.76	0.51
5:F:920:ILE:HB	5:F:924:ALA:CA	2.41	0.51
5:F:1370:LEU:O	5:F:1371:ILE:CB	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1439:GLU:HA	5:F:1442:TRP:HB3	1.93	0.51
5:F:1532:ARG:NH1	5:F:1615:MET:SD	2.84	0.51
6:G:350:PHE:CZ	7:H:418:GLN:NE2	2.79	0.51
6:J:310:ARG:NE	6:J:314:TYR:OH	2.44	0.51
7:K:321:ALA:HB2	7:K:346:GLN:HA	1.92	0.51
1:M:137:ASP:OD2	4:Q:1385:LEU:HD12	2.11	0.51
1:N:254:LEU:O	1:N:258:LYS:HG2	2.10	0.51
1:N:621:HIS:CE1	3:P:1468:TYR:N	2.77	0.51
3:P:586:LEU:HD21	3:P:592:TYR:HD1	1.76	0.51
4:Q:141:LEU:HA	4:Q:144:ILE:HD12	1.92	0.51
4:Q:725:LEU:HD23	4:Q:1167:LEU:HA	1.93	0.51
5:R:332:VAL:CG1	5:R:335:ASP:HA	2.40	0.51
5:R:334:GLN:NE2	5:R:859:LYS:HD2	2.26	0.51
5:R:616:VAL:HG12	5:R:656:VAL:HG21	1.93	0.51
6:V:390:ILE:CG2	6:V:394:ILE:HG23	2.40	0.51
7:W:337:GLN:O	7:W:341:LYS:HD3	2.10	0.51
1:A:599:ARG:NH1	1:A:605:GLU:OE2	2.44	0.50
1:A:760:PHE:CZ	1:A:768:VAL:HG13	2.45	0.50
2:C:317:LEU:HB2	2:C:318:ILE:HD12	1.92	0.50
4:E:1402:LYS:NZ	4:E:1454:GLU:OE1	2.43	0.50
5:F:332:VAL:CG1	5:F:335:ASP:HA	2.40	0.50
5:F:838:LYS:HA	5:F:841:PHE:HB2	1.92	0.50
6:J:437:ALA:O	6:J:439:ILE:N	2.44	0.50
6:J:462:GLN:HE22	8:L:812:THR:HG23	1.76	0.50
1:N:140:ILE:HA	1:N:143:ASN:HB3	1.93	0.50
4:Q:1017:LEU:O	4:Q:1021:THR:OG1	2.26	0.50
5:R:452:LYS:HE3	5:R:456:ALA:HB2	1.92	0.50
5:R:544:TYR:HA	5:R:547:PHE:HD2	1.76	0.50
5:R:914:ASP:HA	5:R:917:PHE:H	1.76	0.50
5:R:1392:ILE:CB	5:R:1405:PHE:CE2	2.93	0.50
8:U:643:LYS:O	8:U:647:GLN:NE2	2.44	0.50
8:U:742:GLN:HB3	8:U:746:LYS:HZ2	1.75	0.50
6:V:437:ALA:O	6:V:439:ILE:N	2.44	0.50
6:V:462:GLN:HE22	8:X:812:THR:HG23	1.76	0.50
8:X:692:LYS:HD2	8:X:695:GLN:HE21	1.75	0.50
8:X:696:SER:O	8:X:699:TYR:HB2	2.11	0.50
1:Z:12:SER:HG	1:Z:15:SER:HG	1.44	0.50
1:A:837:VAL:HG11	2:C:1142:ASP:HB2	1.93	0.50
2:C:970:PHE:CE2	2:C:974:ILE:HD11	2.46	0.50
3:D:977:LYS:HD3	1:N:316:ALA:N	2.19	0.50
4:E:1017:LEU:O	4:E:1021:THR:OG1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:1022:TYR:CD2	4:E:1026:THR:HG22	2.38	0.50
5:F:665:GLU:HB2	5:F:720:HIS:NE2	2.25	0.50
5:F:914:ASP:CA	5:F:917:PHE:CB	2.85	0.50
7:H:397:ARG:NH1	8:I:701:GLU:OE1	2.43	0.50
8:I:643:LYS:O	8:I:647:GLN:NE2	2.44	0.50
7:K:365:GLN:HA	7:K:368:ASN:HD22	1.76	0.50
7:K:536:LYS:HA	7:K:539:ASN:HB2	1.94	0.50
1:M:516:PHE:HZ	1:M:532:ILE:HG22	1.76	0.50
4:Q:477:LEU:HA	4:Q:499:ILE:HA	1.93	0.50
4:Q:936:LEU:O	4:Q:940:SER:OG	2.26	0.50
5:R:812:CYS:SG	5:R:813:GLU:N	2.84	0.50
5:R:838:LYS:O	5:R:842:ASN:HB2	2.12	0.50
5:R:1147:PHE:CD1	5:R:1147:PHE:C	2.85	0.50
5:R:1469:ARG:HH22	5:R:1530:GLU:HB3	1.76	0.50
5:R:1674:CYS:C	5:R:1676:LEU:H	2.13	0.50
6:V:433:LYS:CA	7:W:499:GLY:CA	2.88	0.50
7:W:375:ILE:O	7:W:379:ILE:HG22	2.11	0.50
7:W:522:TYR:C	7:W:522:TYR:CD1	2.85	0.50
8:X:692:LYS:O	8:X:695:GLN:HG3	2.11	0.50
3:D:518:GLU:HA	3:D:536:ILE:CD1	2.41	0.50
3:D:828:ILE:CD1	3:D:925:GLN:HA	2.41	0.50
5:F:713:PHE:HA	5:F:716:LEU:HB2	1.93	0.50
5:F:812:CYS:SG	5:F:813:GLU:N	2.84	0.50
5:F:836:ILE:N	5:F:836:ILE:HD12	2.26	0.50
7:K:389:LYS:CA	7:K:393:ASP:CB	2.39	0.50
1:M:128:LEU:CD1	4:Q:1260:TYR:OH	2.44	0.50
1:M:414:LEU:HD21	1:M:438:MET:HB2	1.94	0.50
1:N:116:LYS:HZ3	1:N:116:LYS:CB	2.11	0.50
1:N:242:LEU:O	1:N:250:ASN:CB	2.59	0.50
2:O:970:PHE:CE2	2:O:974:ILE:HD11	2.46	0.50
3:P:1494:ASN:O	5:R:1471:LYS:CE	2.60	0.50
5:R:472:ILE:HG23	5:R:474:LEU:H	1.76	0.50
5:R:713:PHE:HA	5:R:716:LEU:HB2	1.93	0.50
5:R:1674:CYS:C	5:R:1676:LEU:N	2.65	0.50
7:T:397:ARG:NH1	8:U:701:GLU:OE1	2.43	0.50
6:V:281:ASP:O	6:V:284:ILE:HB	2.11	0.50
7:W:387:GLN:NE2	7:W:387:GLN:CA	2.73	0.50
8:X:637:LEU:CD2	8:X:640:LEU:H	2.24	0.50
8:X:667:GLN:NE2	8:X:668:VAL:HG23	2.26	0.50
1:A:414:LEU:HD21	1:A:438:MET:HB2	1.94	0.50
3:D:873:SER:CB	3:D:877:VAL:HB	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:616:VAL:HG12	5:F:656:VAL:HG21	1.92	0.50
5:F:681:LYS:HE3	5:F:685:LEU:HA	1.93	0.50
5:F:1502:THR:H	5:F:1510:ASP:HB2	1.77	0.50
5:F:1618:SER:HB2	1:Z:634:ASP:O	2.10	0.50
8:I:794:ILE:HA	8:I:797:LEU:HD13	1.93	0.50
6:J:281:ASP:O	6:J:284:ILE:HB	2.11	0.50
8:L:696:SER:O	8:L:699:TYR:HB2	2.11	0.50
1:M:764:ASP:O	1:M:768:VAL:HG23	2.12	0.50
1:N:820:ILE:O	1:N:821:GLN:C	2.49	0.50
4:Q:1259:PHE:O	4:Q:1259:PHE:HD1	1.94	0.50
5:R:920:ILE:HB	5:R:924:ALA:CA	2.41	0.50
6:V:429:LEU:HA	6:V:434:THR:N	2.24	0.50
7:W:289:GLN:O	7:W:292:VAL:HB	2.11	0.50
1:A:818:GLY:O	1:A:821:GLN:NE2	2.40	0.50
3:D:175:ILE:CD1	3:D:642:LEU:HB2	2.36	0.50
4:E:757:LYS:HA	5:F:1195:PHE:HD2	1.77	0.50
7:K:389:LYS:CB	7:K:393:ASP:CB	2.87	0.50
1:M:787:HIS:HE1	1:M:838:SER:O	1.90	0.50
1:N:59:LYS:CB	8:U:814:LEU:HD23	2.39	0.50
1:N:215:TYR:HA	1:N:218:ILE:HD12	1.92	0.50
3:P:518:GLU:HA	3:P:536:ILE:CD1	2.41	0.50
5:R:159:LYS:CE	5:R:363:ASP:CA	2.88	0.50
6:V:277:ILE:CD1	6:V:280:LEU:HD23	2.42	0.50
1:Z:136:PHE:C	1:Z:136:PHE:CD1	2.85	0.50
1:Z:576:LEU:HA	1:Z:579:LEU:HB2	1.94	0.50
1:A:516:PHE:HZ	1:A:532:ILE:HG22	1.76	0.50
3:D:507:LEU:HA	3:D:512:LYS:O	2.12	0.50
8:I:742:GLN:HB3	8:I:746:LYS:HZ2	1.76	0.50
6:J:309:PRO:O	6:J:312:VAL:HB	2.12	0.50
7:K:402:GLN:HE21	7:K:402:GLN:C	2.14	0.50
7:K:504:ASP:O	7:K:507:ASN:N	2.44	0.50
8:L:647:GLN:HA	8:L:650:GLU:HG2	1.93	0.50
1:N:55:GLN:N	7:T:522:TYR:CB	2.75	0.50
3:P:412:ILE:HG22	3:P:476:VAL:HB	1.93	0.50
5:R:378:ALA:O	5:R:383:ASN:HA	2.11	0.50
5:R:555:TRP:HA	5:R:558:ILE:HG12	1.94	0.50
5:R:1502:THR:H	5:R:1510:ASP:HB2	1.76	0.50
6:V:390:ILE:N	6:V:390:ILE:HD12	2.26	0.50
8:X:638:ASP:HA	8:X:641:VAL:CG2	2.42	0.50
8:X:650:GLU:HG3	8:X:651:SER:N	2.27	0.50
1:A:137:ASP:OD2	4:E:1385:LEU:HD12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:810:MET:N	4:E:810:MET:SD	2.84	0.50
5:F:452:LYS:HE3	5:F:456:ALA:HB2	1.92	0.50
5:F:555:TRP:HA	5:F:558:ILE:HG12	1.94	0.50
5:F:1167:LYS:HD3	5:F:1167:LYS:C	2.30	0.50
5:F:1370:LEU:O	5:F:1371:ILE:HB	2.12	0.50
5:F:1674:CYS:C	5:F:1676:LEU:N	2.65	0.50
7:K:336:ASP:HB3	7:K:340:GLU:OE1	2.11	0.50
8:L:637:LEU:CD2	8:L:640:LEU:H	2.24	0.50
8:L:650:GLU:HG3	8:L:651:SER:N	2.27	0.50
1:M:413:LYS:HD2	1:M:425:ILE:HD11	1.94	0.50
1:N:771:ILE:HG22	1:N:772:PRO:HD3	1.94	0.50
3:P:375:SER:HB3	3:P:420:ILE:HG13	1.93	0.50
3:P:568:GLN:HE21	3:P:573:GLN:HG2	1.76	0.50
3:P:578:VAL:O	3:P:596:ALA:HA	2.12	0.50
3:P:586:LEU:HD11	3:P:592:TYR:HA	1.94	0.50
4:Q:411:PHE:O	4:Q:415:PHE:HB3	2.11	0.50
4:Q:810:MET:SD	4:Q:810:MET:N	2.84	0.50
5:R:1014:SER:N	8:U:788:ASP:O	2.41	0.50
6:S:350:PHE:CZ	7:T:418:GLN:NE2	2.79	0.50
8:U:740:LYS:O	8:U:743:GLN:NE2	2.45	0.50
7:W:310:ALA:HB3	7:W:352:ILE:CB	2.40	0.50
1:A:224:ASN:OD1	1:A:607:ARG:NH2	2.41	0.50
3:D:358:GLN:OE1	3:D:422:LYS:HG3	2.11	0.50
3:D:586:LEU:HD21	3:D:592:TYR:HD1	1.75	0.50
3:D:887:GLN:OE1	3:D:887:GLN:N	2.43	0.50
3:D:1137:ASP:N	1:N:205:ASN:HA	2.27	0.50
4:E:725:LEU:HD23	4:E:1167:LEU:HA	1.93	0.50
4:E:1275:GLU:HA	4:E:1278:ILE:HD12	1.94	0.50
5:F:838:LYS:O	5:F:842:ASN:HB2	2.12	0.50
8:I:740:LYS:O	8:I:743:GLN:NE2	2.45	0.50
6:J:433:LYS:CA	7:K:499:GLY:HA3	2.42	0.50
7:K:355:PHE:CD1	7:K:358:LEU:HD12	2.45	0.50
1:M:54:PHE:HA	1:M:57:ARG:HD3	1.94	0.50
1:M:193:LEU:HB3	1:M:546:ARG:HH12	1.76	0.50
1:M:739:MET:SD	1:M:778:THR:OG1	2.63	0.50
1:N:46:ILE:CB	6:S:327:LYS:HZ2	2.23	0.50
1:N:86:PHE:CD1	1:N:86:PHE:N	2.79	0.50
1:N:576:LEU:HA	1:N:579:LEU:HB2	1.94	0.50
1:N:771:ILE:HG22	1:N:772:PRO:HD2	1.94	0.50
3:P:631:GLN:NE2	3:P:656:ASP:OD2	2.44	0.50
4:Q:1022:TYR:CZ	4:Q:1026:THR:CG2	2.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:1275:GLU:HA	4:Q:1278:ILE:HD12	1.94	0.50
4:Q:1429:HIS:HD2	4:Q:1474:LEU:HD22	1.77	0.50
5:R:50:GLN:NE2	5:R:57:GLU:OE2	2.45	0.50
5:R:1300:LEU:C	5:R:1300:LEU:HD23	2.32	0.50
5:R:1477:ASP:O	5:R:1481:LYS:N	2.45	0.50
6:S:427:GLU:CG	8:U:779:THR:HG21	2.41	0.50
7:T:443:LEU:HA	7:T:446:ARG:HB2	1.94	0.50
7:W:456:THR:C	7:W:458:GLU:N	2.64	0.50
1:Z:223:ASN:ND2	1:Z:555:GLU:OE2	2.35	0.50
1:Z:440:LEU:HA	1:Z:443:ILE:HG12	1.94	0.50
5:F:343:ASP:OD2	5:F:702:LYS:NZ	2.38	0.50
5:F:1088:ARG:NH1	5:F:1088:ARG:CG	2.73	0.50
5:F:1469:ARG:HH22	5:F:1530:GLU:HB3	1.76	0.50
6:G:427:GLU:CG	8:I:779:THR:HG21	2.41	0.50
7:H:317:ASN:HA	7:H:346:GLN:HB3	1.94	0.50
7:H:359:ASN:HA	7:H:362:ASN:HD22	1.75	0.50
7:H:412:ILE:HG22	7:H:415:LEU:HD23	1.94	0.50
8:I:750:THR:O	8:I:753:GLU:HB3	2.11	0.50
6:J:400:GLY:HA2	6:J:403:THR:HB	1.93	0.50
7:K:375:ILE:O	7:K:379:ILE:HG22	2.11	0.50
7:K:429:LEU:HB2	8:L:741:ARG:CZ	2.42	0.50
8:L:637:LEU:HD22	8:L:640:LEU:HB2	1.92	0.50
1:M:814:MET:HB2	1:M:836:ASP:OD2	2.12	0.50
1:N:149:ALA:CB	5:R:1672:MET:CB	2.84	0.50
1:N:275:LYS:NZ	1:N:441:MET:SD	2.81	0.50
4:Q:1340:PHE:O	4:Q:1344:PHE:HB2	2.11	0.50
5:R:681:LYS:HE3	5:R:685:LEU:HA	1.93	0.50
5:R:684:SER:HB3	5:R:695:ALA:HB2	1.94	0.50
5:R:809:LEU:HD13	5:R:1252:VAL:HG23	1.92	0.50
5:R:900:LEU:HD13	5:R:904:TYR:CE1	2.47	0.50
5:R:1439:GLU:HA	5:R:1442:TRP:HB3	1.93	0.50
1:Z:253:LEU:N	1:Z:253:LEU:CD2	2.74	0.50
1:Z:494:TYR:O	1:Z:497:THR:OG1	2.26	0.50
1:Z:771:ILE:HG22	1:Z:772:PRO:HD3	1.94	0.50
1:A:558:VAL:HG22	1:A:611:LEU:HD21	1.93	0.49
1:A:814:MET:HB2	1:A:836:ASP:OD2	2.12	0.49
4:E:185:LEU:HD23	4:E:188:ILE:HD11	1.94	0.49
4:E:200:LEU:HD13	4:E:271:LEU:HD22	1.94	0.49
4:E:260:ARG:HG2	4:E:260:ARG:NH1	2.12	0.49
4:E:411:PHE:O	4:E:415:PHE:HB3	2.11	0.49
5:F:668:ARG:O	5:F:672:TRP:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:900:LEU:HD22	5:F:904:TYR:CZ	2.47	0.49
5:F:968:ILE:CG2	7:H:392:LEU:HD11	2.37	0.49
5:F:1477:ASP:O	5:F:1481:LYS:N	2.45	0.49
7:H:522:TYR:CB	1:Z:55:GLN:N	2.75	0.49
1:M:123:MET:O	6:V:414:SER:CB	2.60	0.49
1:M:451:ASP:O	1:M:456:ARG:NE	2.38	0.49
1:N:149:ALA:HB1	5:R:1671:VAL:HG13	1.94	0.49
1:N:761:SER:C	1:N:763:LEU:H	2.15	0.49
3:P:119:PRO:HB3	3:P:739:THR:CG2	2.42	0.49
3:P:653:ARG:HG3	3:P:657:GLU:HB2	1.94	0.49
5:R:320:GLU:OE1	5:R:351:HIS:HE1	1.92	0.49
7:T:418:GLN:HE22	8:U:718:THR:HG23	1.61	0.49
1:Z:245:ALA:HA	1:Z:250:ASN:CB	2.42	0.49
3:D:449:ASN:HB3	3:D:463:GLU:CG	2.41	0.49
3:D:499:LEU:CB	3:D:502:SER:HB3	2.35	0.49
7:H:418:GLN:CD	8:I:718:THR:HG21	2.26	0.49
7:H:443:LEU:HA	7:H:446:ARG:HB2	1.94	0.49
8:L:692:LYS:O	8:L:695:GLN:HG3	2.11	0.49
1:M:558:VAL:HG22	1:M:611:LEU:HD21	1.93	0.49
1:N:771:ILE:CB	1:N:772:PRO:HD2	2.42	0.49
3:P:442:GLY:HA2	3:P:488:GLN:HG2	1.94	0.49
3:P:836:LYS:HB2	3:P:914:TYR:CD1	2.47	0.49
5:R:334:GLN:NE2	5:R:859:LYS:CE	2.68	0.49
5:R:900:LEU:HD22	5:R:904:TYR:CZ	2.47	0.49
5:R:1139:ILE:HG12	5:R:1291:SER:CB	2.42	0.49
5:R:1370:LEU:O	5:R:1371:ILE:HB	2.12	0.49
8:U:795:LYS:HE3	8:U:799:SER:HB3	1.94	0.49
6:V:405:LEU:CD1	7:W:469:ARG:C	2.65	0.49
1:Z:533:ARG:HH21	1:Z:534:PHE:HB3	1.76	0.49
1:A:505:HIS:HE1	1:A:541:TYR:OH	1.96	0.49
1:A:764:ASP:O	1:A:768:VAL:HG23	2.12	0.49
3:D:375:SER:HB3	3:D:420:ILE:HG13	1.93	0.49
3:D:412:ILE:HG22	3:D:476:VAL:HB	1.93	0.49
4:E:822:ASN:O	4:E:826:SER:HB3	2.13	0.49
5:F:684:SER:HB3	5:F:695:ALA:HB2	1.94	0.49
5:F:959:LEU:CB	6:G:325:TYR:HB2	2.42	0.49
7:K:310:ALA:CB	7:K:352:ILE:HB	2.38	0.49
7:K:430:GLY:C	7:K:432:ALA:N	2.65	0.49
1:M:599:ARG:NH1	1:M:605:GLU:OE2	2.44	0.49
1:N:84:ASP:CB	6:S:449:LEU:HD23	2.42	0.49
3:P:353:GLN:OE1	3:P:374:LYS:HB2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:449:ASN:HB3	3:P:463:GLU:CG	2.41	0.49
3:P:491:ARG:CB	3:P:520:THR:HB	2.42	0.49
3:P:745:ILE:HG13	3:P:746:THR:H	1.77	0.49
5:R:355:LEU:N	5:R:355:LEU:CD1	2.72	0.49
5:R:1510:ASP:OD1	5:R:1510:ASP:N	2.42	0.49
6:V:310:ARG:NE	6:V:314:TYR:OH	2.44	0.49
1:Z:771:ILE:CB	1:Z:772:PRO:HD2	2.42	0.49
1:Z:820:ILE:O	1:Z:821:GLN:C	2.49	0.49
1:A:684:ASN:HB3	1:A:687:LEU:HB2	1.93	0.49
3:D:836:LYS:HB2	3:D:914:TYR:CD1	2.47	0.49
4:E:477:LEU:HA	4:E:499:ILE:HA	1.93	0.49
4:E:1294:ASP:O	4:E:1298:ASN:N	2.42	0.49
4:E:1429:HIS:HD2	4:E:1474:LEU:HD22	1.77	0.49
5:F:159:LYS:CE	5:F:363:ASP:CA	2.88	0.49
5:F:669:THR:HA	5:F:672:TRP:HB2	1.94	0.49
5:F:913:TYR:O	5:F:917:PHE:N	2.46	0.49
5:F:1667:VAL:HA	5:F:1670:ILE:HG22	1.95	0.49
7:H:344:SER:O	7:H:347:THR:OG1	2.31	0.49
6:J:277:ILE:CD1	6:J:280:LEU:HD23	2.42	0.49
6:J:364:ILE:C	7:K:424:ASN:HD22	2.15	0.49
7:K:289:GLN:O	7:K:292:VAL:HB	2.12	0.49
1:N:278:LEU:HD22	1:N:437:TRP:HB2	1.92	0.49
1:N:440:LEU:HA	1:N:443:ILE:HG12	1.94	0.49
3:P:449:ASN:ND2	3:P:461:ARG:HB2	2.27	0.49
4:Q:878:PHE:HZ	4:Q:917:PRO:HB3	1.77	0.49
4:Q:989:ASP:O	4:Q:992:SER:N	2.36	0.49
4:Q:1484:LYS:HZ2	4:Q:1486:GLU:HB2	1.77	0.49
5:R:973:ASP:O	5:R:975:SER:N	2.44	0.49
5:R:1373:ASP:O	5:R:1376:THR:N	2.28	0.49
7:W:365:GLN:HA	7:W:368:ASN:HD22	1.77	0.49
7:W:429:LEU:HB2	8:X:741:ARG:CZ	2.42	0.49
8:X:643:LYS:HG3	8:X:647:GLN:NE2	2.22	0.49
3:D:170:LYS:NZ	3:D:212:GLN:O	2.37	0.49
3:D:653:ARG:HG3	3:D:657:GLU:HB2	1.93	0.49
4:E:186:LYS:HE2	4:E:834:ILE:HG23	1.95	0.49
5:F:50:GLN:NE2	5:F:57:GLU:OE2	2.45	0.49
5:F:472:ILE:HG23	5:F:474:LEU:H	1.76	0.49
5:F:900:LEU:HD13	5:F:904:TYR:CE1	2.47	0.49
5:F:1641:PHE:HA	5:F:1644:ASP:HB2	1.95	0.49
6:G:431:GLN:CB	7:H:503:ASN:H	2.22	0.49
6:G:455:GLU:HB2	1:Z:32:LEU:CD2	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:816:LYS:HE2	8:I:816:LYS:N	2.28	0.49
6:J:388:CYS:SG	6:J:391:LEU:HB2	2.52	0.49
8:L:667:GLN:NE2	8:L:668:VAL:HG23	2.26	0.49
1:M:205:ASN:OD1	1:M:208:LEU:HB2	2.12	0.49
3:P:507:LEU:HA	3:P:512:LYS:O	2.12	0.49
3:P:932:ILE:CG2	3:P:933:ILE:HG13	2.41	0.49
4:Q:27:ALA:O	4:Q:119:ASN:ND2	2.45	0.49
4:Q:186:LYS:HE2	4:Q:834:ILE:HG23	1.95	0.49
5:R:161:GLN:HA	5:R:164:LYS:HG3	1.95	0.49
5:R:1529:ALA:HB2	5:R:1611:VAL:CG2	2.42	0.49
5:R:1529:ALA:HB2	5:R:1611:VAL:HG22	1.95	0.49
7:T:309:ARG:NH2	7:T:334:GLU:OE2	2.45	0.49
6:V:309:PRO:O	6:V:312:VAL:HB	2.12	0.49
7:W:313:TYR:HA	7:W:349:PRO:CB	2.40	0.49
1:Z:140:ILE:HA	1:Z:143:ASN:HB3	1.93	0.49
1:A:32:LEU:C	1:A:32:LEU:HD23	2.33	0.49
1:A:54:PHE:HA	1:A:57:ARG:HD3	1.94	0.49
1:A:270:ILE:HD13	1:A:486:GLY:HA3	1.95	0.49
4:E:936:LEU:O	4:E:940:SER:OG	2.26	0.49
4:E:1460:LEU:O	4:E:1463:SER:OG	2.31	0.49
5:F:1092:THR:O	5:F:1092:THR:OG1	2.23	0.49
5:F:1543:LEU:O	5:F:1547:ILE:HG22	2.13	0.49
5:F:1671:VAL:HG13	1:Z:149:ALA:HB1	1.94	0.49
8:I:795:LYS:HE3	8:I:799:SER:HB3	1.94	0.49
6:J:377:ILE:HG22	6:J:378:HIS:CD2	2.47	0.49
6:J:391:LEU:HA	6:J:394:ILE:HG12	1.95	0.49
3:P:873:SER:CB	3:P:877:VAL:HB	2.42	0.49
4:Q:1063:ASP:N	4:Q:1063:ASP:OD1	2.45	0.49
5:R:959:LEU:CB	6:S:325:TYR:HB2	2.43	0.49
5:R:1048:LEU:O	5:R:1051:SER:OG	2.26	0.49
8:U:818:ILE:CD1	8:U:818:ILE:N	2.72	0.49
6:V:364:ILE:C	7:W:424:ASN:HD22	2.15	0.49
6:V:364:ILE:C	7:W:424:ASN:ND2	2.65	0.49
6:V:433:LYS:CA	7:W:499:GLY:HA3	2.42	0.49
1:Z:211:LYS:HZ3	1:Z:246:ASN:ND2	2.06	0.49
1:Z:766:ASN:OD1	1:Z:766:ASN:N	2.39	0.49
1:A:787:HIS:HE1	1:A:838:SER:O	1.90	0.49
3:D:442:GLY:HA2	3:D:488:GLN:HG2	1.95	0.49
4:E:114:TYR:HB2	4:E:194:ILE:HD11	1.93	0.49
4:E:995:LEU:HA	4:E:998:LEU:HB2	1.95	0.49
4:E:1259:PHE:C	4:E:1259:PHE:HD1	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:973:ASP:O	5:F:975:SER:N	2.44	0.49
5:F:1139:ILE:HG12	5:F:1291:SER:CB	2.42	0.49
5:F:1373:ASP:O	5:F:1375:GLY:N	2.45	0.49
5:F:1529:ALA:HB2	5:F:1611:VAL:CG2	2.42	0.49
6:G:449:LEU:HD23	1:Z:84:ASP:CB	2.42	0.49
6:G:449:LEU:HD23	1:Z:84:ASP:OD1	2.13	0.49
6:G:470:LEU:CB	7:H:538:LYS:HZ1	2.06	0.49
8:I:822:LYS:CE	8:I:822:LYS:CA	2.84	0.49
6:J:350:PHE:HD1	7:K:419:LEU:HD12	1.73	0.49
6:J:370:ASP:HA	6:J:373:PHE:CB	2.40	0.49
6:J:388:CYS:HB2	7:K:455:LYS:HD2	0.64	0.49
1:N:753:ALA:HB2	1:N:815:ILE:CB	2.43	0.49
3:P:421:VAL:HG21	3:P:490:LYS:CB	2.41	0.49
4:Q:258:ILE:O	4:Q:260:ARG:N	2.45	0.49
4:Q:1259:PHE:C	4:Q:1259:PHE:HD1	2.16	0.49
5:R:288:TRP:O	5:R:295:ARG:NH2	2.45	0.49
5:R:1249:ILE:HA	5:R:1252:VAL:HG12	1.95	0.49
6:V:390:ILE:HG22	6:V:394:ILE:HG23	1.92	0.49
1:Z:771:ILE:CG2	1:Z:772:PRO:HD2	2.42	0.49
1:A:342:ARG:NE	1:A:434:ASP:OD1	2.41	0.49
3:D:631:GLN:NE2	3:D:656:ASP:OD2	2.44	0.49
3:D:753:PRO:HD2	3:D:756:LYS:CD	2.40	0.49
4:E:27:ALA:O	4:E:119:ASN:ND2	2.45	0.49
5:F:989:SER:O	5:F:989:SER:OG	2.26	0.49
7:K:315:LYS:HA	7:K:347:THR:CA	2.38	0.49
1:M:270:ILE:HD13	1:M:486:GLY:HA3	1.95	0.49
1:M:315:LYS:HD2	1:M:319:SER:OG	2.13	0.49
1:N:23:ASN:C	1:N:25:LEU:N	2.64	0.49
1:N:136:PHE:CD1	1:N:136:PHE:C	2.85	0.49
1:N:771:ILE:CG2	1:N:772:PRO:HD2	2.42	0.49
3:P:539:SER:HA	3:P:545:GLN:HE22	1.78	0.49
3:P:1020:ASN:HA	1:Z:249:ARG:C	2.33	0.49
4:Q:757:LYS:HA	5:R:1195:PHE:HD2	1.76	0.49
5:R:923:VAL:HG23	5:R:925:HIS:H	1.77	0.49
5:R:927:GLY:HA3	5:R:978:ILE:HD11	1.95	0.49
5:R:971:SER:OG	5:R:972:VAL:N	2.46	0.49
5:R:1067:ASN:OD1	5:R:1067:ASN:N	2.42	0.49
5:R:1304:HIS:O	5:R:1304:HIS:CG	2.66	0.49
7:T:344:SER:O	7:T:347:THR:OG1	2.31	0.49
1:Z:753:ALA:HB2	1:Z:815:ILE:CB	2.43	0.49
1:A:621:HIS:ND1	1:A:625:GLU:OE2	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:491:ARG:CB	3:D:520:THR:HB	2.42	0.49
3:D:578:VAL:O	3:D:596:ALA:HA	2.12	0.49
3:D:932:ILE:CG2	3:D:933:ILE:HG13	2.41	0.49
3:D:1018:LEU:HD22	1:N:247:GLY:CA	2.43	0.49
3:D:1494:ASN:O	5:F:1471:LYS:CE	2.60	0.49
5:F:866:GLN:HA	5:F:869:VAL:HG12	1.95	0.49
5:F:1628:GLY:O	5:F:1632:THR:HB	2.13	0.49
8:I:822:LYS:NZ	8:I:822:LYS:CA	2.73	0.49
6:J:370:ASP:HA	6:J:373:PHE:CG	2.48	0.49
7:K:456:THR:C	7:K:458:GLU:N	2.64	0.49
8:L:774:ASN:HA	8:L:777:ASN:HB2	1.95	0.49
1:M:625:GLU:OE1	1:M:629:ARG:NH2	2.33	0.49
1:N:25:LEU:HD23	1:N:25:LEU:C	2.33	0.49
3:P:976:THR:CB	3:P:981:ILE:CB	2.91	0.49
4:Q:86:ASP:OD1	4:Q:86:ASP:N	2.44	0.49
4:Q:185:LEU:HD23	4:Q:188:ILE:HD11	1.94	0.49
4:Q:200:LEU:HD13	4:Q:271:LEU:HD22	1.94	0.49
4:Q:995:LEU:HA	4:Q:998:LEU:HB2	1.95	0.49
5:R:902:LYS:HE2	7:T:414:LYS:HD2	0.67	0.49
5:R:1094:GLY:O	5:R:1098:SER:N	2.42	0.49
5:R:1219:VAL:O	5:R:1221:LEU:N	2.44	0.49
5:R:1373:ASP:O	5:R:1375:GLY:N	2.45	0.49
5:R:1628:GLY:O	5:R:1632:THR:HB	2.13	0.49
6:V:370:ASP:HA	6:V:373:PHE:CG	2.48	0.49
1:A:205:ASN:OD1	1:A:208:LEU:HB2	2.12	0.49
3:D:119:PRO:HB3	3:D:739:THR:CG2	2.42	0.49
3:D:896:MET:O	3:D:900:VAL:HG23	2.13	0.49
4:E:994:ILE:HG13	4:E:995:LEU:HD12	1.95	0.49
5:F:835:LYS:HD3	5:F:835:LYS:N	2.28	0.49
5:F:914:ASP:HA	5:F:917:PHE:HB2	1.93	0.49
5:F:1357:ALA:HA	5:F:1381:LEU:CB	2.42	0.49
7:H:315:LYS:HA	7:H:347:THR:HA	1.95	0.49
6:J:388:CYS:HA	6:J:391:LEU:CG	2.43	0.49
1:M:571:LEU:O	1:M:574:GLU:HG3	2.13	0.49
1:N:758:GLN:HE21	3:P:1377:ASN:HD21	1.59	0.49
3:P:401:ILE:CG2	3:P:462:LEU:HB3	2.30	0.49
3:P:503:GLU:OE1	3:P:503:GLU:N	2.45	0.49
3:P:585:ILE:HG12	3:P:591:LYS:HB2	1.94	0.49
4:Q:1598:LEU:O	4:Q:1602:LEU:HB2	2.13	0.49
5:R:665:GLU:HA	5:R:668:ARG:HG2	1.94	0.49
5:R:668:ARG:O	5:R:672:TRP:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:835:LYS:HD3	5:R:835:LYS:N	2.27	0.49
5:R:913:TYR:O	5:R:917:PHE:N	2.46	0.49
5:R:938:ALA:O	5:R:941:SER:OG	2.22	0.49
5:R:1058:ALA:C	5:R:1060:LEU:H	2.16	0.49
5:R:1269:GLU:O	5:R:1273:LYS:HB3	2.13	0.49
5:R:1641:PHE:HA	5:R:1644:ASP:HB2	1.95	0.49
8:U:750:THR:O	8:U:754:ASN:ND2	2.46	0.49
1:A:642:LEU:HA	1:A:645:GLN:CD	2.33	0.48
3:D:539:SER:HA	3:D:545:GLN:HE22	1.78	0.48
5:F:288:TRP:O	5:F:295:ARG:NH2	2.45	0.48
5:F:1465:GLN:HG3	5:F:1527:ARG:NH2	2.28	0.48
6:G:436:LEU:HD13	7:H:503:ASN:CB	2.43	0.48
1:M:684:ASN:HB3	1:M:687:LEU:HB2	1.93	0.48
1:M:723:ILE:HG23	1:M:735:THR:HG23	1.95	0.48
1:N:305:ILE:HG21	1:N:336:LEU:HA	1.94	0.48
4:Q:476:ASP:N	4:Q:476:ASP:OD1	2.45	0.48
5:R:1370:LEU:C	5:R:1371:ILE:HG12	2.34	0.48
6:V:380:TYR:CD1	6:V:380:TYR:O	2.66	0.48
1:Z:767:ILE:HD12	1:Z:768:VAL:HG23	1.95	0.48
1:A:413:LYS:HD2	1:A:425:ILE:HD11	1.94	0.48
1:A:571:LEU:O	1:A:574:GLU:HG3	2.13	0.48
3:D:1238:ARG:CA	1:Z:830:SER:CB	2.81	0.48
3:D:1468:TYR:N	1:Z:621:HIS:CE1	2.77	0.48
5:F:665:GLU:HA	5:F:668:ARG:HG2	1.94	0.48
5:F:1304:HIS:CG	5:F:1304:HIS:O	2.66	0.48
5:F:1472:GLU:OE1	5:F:1531:THR:OG1	2.25	0.48
6:G:395:GLU:HA	6:G:398:VAL:HB	1.95	0.48
7:H:309:ARG:NH2	7:H:334:GLU:OE2	2.45	0.48
7:K:538:LYS:CB	8:L:822:LYS:CB	2.85	0.48
1:M:341:LEU:HD21	1:M:371:PHE:HZ	1.78	0.48
2:O:1216:TYR:HB2	2:O:1241:LEU:HD13	1.95	0.48
3:P:910:LEU:HD23	3:P:913:LEU:CD1	2.38	0.48
5:R:463:SER:O	5:R:463:SER:OG	2.31	0.48
5:R:669:THR:HA	5:R:672:TRP:HB2	1.94	0.48
5:R:951:ARG:CA	5:R:951:ARG:NE	2.76	0.48
7:T:317:ASN:HA	7:T:346:GLN:HB3	1.94	0.48
6:V:406:PHE:CD1	6:V:406:PHE:C	2.86	0.48
8:X:643:LYS:CG	8:X:647:GLN:HE22	2.23	0.48
2:C:914:GLN:HE21	2:C:953:ILE:HG23	1.78	0.48
3:D:503:GLU:OE1	3:D:508:LYS:HD3	2.14	0.48
3:D:586:LEU:HD11	3:D:592:TYR:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:134:ARG:NH1	4:E:198:MET:SD	2.86	0.48
4:E:1598:LEU:O	4:E:1602:LEU:HB2	2.13	0.48
5:F:1031:VAL:CB	6:G:314:TYR:O	2.61	0.48
5:F:1269:GLU:O	5:F:1273:LYS:HB3	2.13	0.48
6:G:294:LEU:O	6:G:298:THR:OG1	2.21	0.48
6:J:364:ILE:C	7:K:424:ASN:ND2	2.65	0.48
8:L:638:ASP:HA	8:L:641:VAL:CG2	2.42	0.48
1:M:255:GLU:HB3	1:M:480:GLN:HE21	1.79	0.48
1:M:829:TYR:C	1:M:829:TYR:CD1	2.85	0.48
3:P:539:SER:HA	3:P:545:GLN:NE2	2.29	0.48
3:P:919:VAL:CG2	3:P:927:LEU:H	2.26	0.48
3:P:1020:ASN:HB3	1:Z:251:ALA:HB3	1.82	0.48
4:Q:134:ARG:NH1	4:Q:198:MET:SD	2.87	0.48
5:R:710:LEU:HA	5:R:713:PHE:HB3	1.95	0.48
5:R:1031:VAL:CB	6:S:314:TYR:O	2.61	0.48
5:R:1465:GLN:HG3	5:R:1527:ARG:NH2	2.28	0.48
6:S:315:LEU:HD23	8:U:679:LEU:HD23	1.95	0.48
7:T:315:LYS:HA	7:T:347:THR:HA	1.94	0.48
1:Z:275:LYS:NZ	1:Z:441:MET:SD	2.81	0.48
1:A:140:ILE:HG22	4:E:1393:LYS:CE	2.43	0.48
3:D:449:ASN:ND2	3:D:461:ARG:HB2	2.27	0.48
3:D:539:SER:HA	3:D:545:GLN:NE2	2.29	0.48
3:D:927:LEU:HD13	3:D:973:ARG:NH2	2.29	0.48
4:E:570:GLN:HE21	4:E:622:LEU:HB3	1.78	0.48
4:E:573:LEU:HD22	4:E:637:VAL:HG13	1.96	0.48
4:E:878:PHE:HZ	4:E:917:PRO:HB3	1.77	0.48
5:F:923:VAL:HG23	5:F:925:HIS:H	1.77	0.48
6:G:428:ASN:HD21	6:G:432:LEU:HD23	1.78	0.48
6:J:380:TYR:O	6:J:380:TYR:CD1	2.66	0.48
6:J:401:ILE:HG23	7:K:466:LEU:HD22	1.77	0.48
6:J:445:GLU:O	6:J:449:LEU:HB2	2.13	0.48
1:N:88:LYS:HZ3	8:U:805:ARG:CB	2.24	0.48
1:N:494:TYR:O	1:N:497:THR:OG1	2.26	0.48
4:Q:573:LEU:HD22	4:Q:637:VAL:HG13	1.96	0.48
1:A:315:LYS:HD2	1:A:319:SER:OG	2.13	0.48
4:E:795:ILE:O	4:E:798:SER:OG	2.29	0.48
5:F:161:GLN:HA	5:F:164:LYS:HG3	1.94	0.48
5:F:929:TYR:C	5:F:931:GLY:H	2.17	0.48
5:F:951:ARG:NE	5:F:951:ARG:CA	2.76	0.48
5:F:1289:ILE:HD12	5:F:1289:ILE:HA	1.65	0.48
5:F:1529:ALA:HB2	5:F:1611:VAL:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:429:LEU:HA	6:J:434:THR:N	2.24	0.48
3:P:315:THR:HG22	3:P:317:SER:H	1.79	0.48
3:P:896:MET:O	3:P:900:VAL:HG23	2.13	0.48
4:Q:605:LYS:O	4:Q:605:LYS:NZ	2.37	0.48
5:R:334:GLN:HG2	5:R:860:ASN:HD21	1.73	0.48
5:R:929:TYR:C	5:R:931:GLY:H	2.17	0.48
5:R:1027:GLN:HG3	5:R:1027:GLN:O	2.13	0.48
5:R:1543:LEU:O	5:R:1547:ILE:HG22	2.13	0.48
5:R:1667:VAL:HA	5:R:1670:ILE:HG22	1.95	0.48
6:V:384:LEU:CD2	7:W:455:LYS:HG2	2.43	0.48
7:W:444:LEU:O	7:W:447:SER:CA	2.61	0.48
1:Z:305:ILE:HG21	1:Z:336:LEU:HA	1.94	0.48
1:Z:761:SER:C	1:Z:763:LEU:H	2.15	0.48
3:D:421:VAL:HG21	3:D:490:LYS:CB	2.41	0.48
3:D:911:ASN:HA	3:D:914:TYR:CE2	2.48	0.48
3:D:977:LYS:HE2	1:N:316:ALA:H	1.67	0.48
4:E:258:ILE:HA	4:E:261:ILE:HD11	1.96	0.48
8:I:739:GLN:C	8:I:741:ARG:N	2.61	0.48
8:I:750:THR:O	8:I:754:ASN:ND2	2.46	0.48
8:I:795:LYS:CE	8:I:799:SER:HB3	2.43	0.48
1:M:642:LEU:HA	1:M:645:GLN:CD	2.33	0.48
1:N:18:ALA:HA	1:N:21:LYS:HB2	1.95	0.48
4:Q:675:TYR:HA	4:Q:678:LYS:HG2	1.96	0.48
4:Q:822:ASN:O	4:Q:826:SER:HB3	2.12	0.48
4:Q:1499:LEU:HA	4:Q:1502:ILE:HG12	1.95	0.48
5:R:303:LYS:HA	5:R:306:VAL:HG22	1.96	0.48
6:S:428:ASN:HD21	6:S:432:LEU:HD23	1.78	0.48
7:W:430:GLY:C	7:W:432:ALA:N	2.65	0.48
1:Z:341:LEU:HD22	1:Z:415:ILE:HD11	1.95	0.48
1:A:341:LEU:HD21	1:A:371:PHE:HZ	1.78	0.48
3:D:745:ILE:HG13	3:D:746:THR:H	1.77	0.48
3:D:971:ILE:HD11	3:D:984:THR:CG2	2.43	0.48
5:F:965:LEU:O	5:F:965:LEU:HG	2.13	0.48
5:F:1300:LEU:HD23	5:F:1301:SER:HA	1.96	0.48
7:H:292:VAL:HG22	8:I:644:TRP:HZ3	1.79	0.48
7:H:511:GLU:CB	8:I:800:HIS:HE1	2.24	0.48
8:I:795:LYS:HZ3	8:I:795:LYS:HA	1.78	0.48
1:M:27:GLU:CB	1:Z:26:LEU:CD2	2.86	0.48
1:M:301:ASN:HA	1:M:304:LYS:HE3	1.96	0.48
3:P:971:ILE:HD11	3:P:984:THR:CG2	2.43	0.48
4:Q:1166:VAL:HG23	4:Q:1167:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:965:LEU:O	5:R:965:LEU:HG	2.13	0.48
8:U:738:ASP:O	8:U:740:LYS:HG3	2.14	0.48
8:U:792:GLN:O	8:U:794:ILE:N	2.46	0.48
6:V:293:HIS:CB	7:W:359:ASN:HD21	2.27	0.48
6:V:311:ASP:HA	6:V:314:TYR:CG	2.48	0.48
7:W:433:GLU:HB3	7:W:437:TRP:CZ3	2.49	0.48
7:W:446:ARG:HD3	7:W:446:ARG:C	2.34	0.48
8:X:774:ASN:HA	8:X:777:ASN:HB2	1.95	0.48
1:A:19:ASN:HA	1:A:22:LEU:CD1	2.44	0.48
1:A:128:LEU:CD1	4:E:1260:TYR:OH	2.44	0.48
1:A:255:GLU:HB3	1:A:480:GLN:HE21	1.79	0.48
3:D:453:GLY:O	3:D:456:ASN:N	2.45	0.48
3:D:919:VAL:CG2	3:D:927:LEU:H	2.26	0.48
4:E:476:ASP:OD1	4:E:476:ASP:N	2.45	0.48
5:F:938:ALA:O	5:F:941:SER:OG	2.22	0.48
5:F:1147:PHE:CD1	5:F:1147:PHE:C	2.85	0.48
6:G:295:LYS:NZ	6:J:363:LYS:HZ3	2.11	0.48
7:H:426:GLY:CA	8:I:735:ASN:C	2.82	0.48
8:I:814:LEU:HD21	1:Z:59:LYS:HA	1.96	0.48
6:J:371:LYS:HZ2	6:J:371:LYS:C	2.08	0.48
1:M:269:ASN:HB3	1:M:272:GLU:HB2	1.96	0.48
3:P:491:ARG:HA	3:P:520:THR:HB	1.96	0.48
4:Q:1460:LEU:O	4:Q:1463:SER:OG	2.31	0.48
5:R:1357:ALA:HA	5:R:1381:LEU:CB	2.42	0.48
8:U:795:LYS:CE	8:U:799:SER:HB3	2.43	0.48
8:U:816:LYS:N	8:U:816:LYS:HE2	2.28	0.48
7:W:314:ASN:H	7:W:349:PRO:HA	1.79	0.48
7:W:339:MET:SD	7:W:342:LYS:NZ	2.68	0.48
1:Z:810:ALA:O	1:Z:836:ASP:CB	2.62	0.48
1:A:723:ILE:HG23	1:A:735:THR:HG23	1.96	0.48
3:D:315:THR:HG22	3:D:317:SER:H	1.79	0.48
3:D:481:LEU:CD2	3:D:488:GLN:HB3	2.43	0.48
3:D:491:ARG:HA	3:D:520:THR:HB	1.96	0.48
3:D:910:LEU:HA	3:D:913:LEU:HD12	1.96	0.48
4:E:258:ILE:HA	4:E:261:ILE:HG13	1.95	0.48
4:E:1063:ASP:N	4:E:1063:ASP:OD1	2.45	0.48
5:F:1027:GLN:HG3	5:F:1027:GLN:O	2.13	0.48
8:I:778:LYS:HA	8:I:778:LYS:NZ	2.29	0.48
8:I:778:LYS:HA	8:I:778:LYS:HZ2	1.79	0.48
6:J:283:TYR:O	6:J:286:LYS:HG2	2.14	0.48
6:J:311:ASP:HA	6:J:314:TYR:CG	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:384:LEU:CD2	7:K:455:LYS:HG2	2.43	0.48
7:K:314:ASN:H	7:K:349:PRO:HA	1.79	0.48
7:K:433:GLU:HB3	7:K:437:TRP:CZ3	2.49	0.48
1:N:84:ASP:OD1	6:S:449:LEU:HD23	2.13	0.48
1:N:133:THR:O	1:N:134:LYS:C	2.52	0.48
2:O:888:LEU:HA	2:O:892:PHE:CD2	2.49	0.48
5:R:690:GLU:HG2	8:U:722:LEU:HD21	1.91	0.48
6:S:395:GLU:HA	6:S:398:VAL:HB	1.96	0.48
7:W:389:LYS:HA	7:W:393:ASP:HB3	0.61	0.48
8:X:777:ASN:HD22	8:X:795:LYS:HA	1.79	0.48
1:Z:254:LEU:O	1:Z:257:TRP:N	2.47	0.48
1:A:133:THR:O	1:A:134:LYS:C	2.52	0.48
3:D:426:VAL:CG2	3:D:437:VAL:HG23	2.44	0.48
3:D:503:GLU:HB2	3:D:507:LEU:N	2.29	0.48
3:D:585:ILE:HG12	3:D:591:LYS:HB2	1.94	0.48
3:D:976:THR:CB	3:D:981:ILE:CB	2.91	0.48
4:E:1260:TYR:O	4:E:1260:TYR:CD1	2.67	0.48
4:E:1384:ASP:HA	4:E:1388:LEU:HB2	1.96	0.48
5:F:161:GLN:HB2	5:F:183:ARG:HH12	1.79	0.48
5:F:291:GLU:HG3	5:F:295:ARG:HG2	1.95	0.48
5:F:837:TYR:CG	5:F:918:PHE:CZ	3.02	0.48
5:F:927:GLY:HA3	5:F:978:ILE:HD11	1.95	0.48
5:F:1167:LYS:HE3	5:F:1167:LYS:CA	2.27	0.48
7:H:492:ASP:O	7:H:493:SER:CB	2.62	0.48
6:J:376:LYS:NZ	8:L:756:ASN:ND2	2.57	0.48
1:M:133:THR:O	1:M:134:LYS:C	2.52	0.48
1:N:697:PHE:HA	1:N:703:SER:HB3	1.96	0.48
1:N:767:ILE:HD12	1:N:768:VAL:HG23	1.95	0.48
3:P:426:VAL:CG2	3:P:437:VAL:HG23	2.44	0.48
3:P:517:LEU:HB2	3:P:540:GLN:OE1	2.14	0.48
3:P:606:GLN:N	3:P:642:LEU:O	2.36	0.48
4:Q:1163:LEU:HB3	4:Q:1173:TRP:HH2	1.78	0.48
5:R:110:ARG:NH2	5:R:190:TYR:OH	2.47	0.48
5:R:1088:ARG:NH1	5:R:1088:ARG:CG	2.73	0.48
5:R:1506:ILE:HG22	5:R:1507:ASN:H	1.79	0.48
7:T:298:SER:OG	7:T:305:LYS:O	2.25	0.48
6:V:391:LEU:HA	6:V:394:ILE:CD1	2.43	0.48
3:D:442:GLY:O	3:D:468:PRO:HG3	2.14	0.47
3:D:538:SER:OG	3:D:545:GLN:HB2	2.13	0.47
4:E:675:TYR:HA	4:E:678:LYS:HG2	1.96	0.47
4:E:1166:VAL:HG23	4:E:1167:LEU:HD23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:320:GLU:CD	5:F:351:HIS:CE1	2.87	0.47
5:F:1493:LYS:HD2	5:F:1493:LYS:HA	1.66	0.47
6:J:376:LYS:HD2	6:J:376:LYS:C	2.34	0.47
1:M:630:ARG:O	1:M:634:ASP:N	2.41	0.47
1:N:116:LYS:HE2	1:N:116:LYS:CA	2.44	0.47
1:N:123:MET:SD	1:N:123:MET:C	2.93	0.47
1:N:242:LEU:HD21	1:N:253:LEU:HB3	1.96	0.47
2:O:1258:GLN:CG	2:O:1299:LYS:HE2	2.41	0.47
4:Q:604:PRO:HG3	4:Q:666:PRO:HG2	1.96	0.47
4:Q:994:ILE:HG13	4:Q:995:LEU:HD12	1.95	0.47
5:R:46:ALA:O	5:R:50:GLN:CB	2.62	0.47
5:R:1392:ILE:CB	5:R:1405:PHE:HE2	2.27	0.47
8:U:778:LYS:HA	8:U:778:LYS:NZ	2.29	0.47
7:W:312:VAL:CG1	7:W:361:ARG:HH21	2.27	0.47
1:Z:123:MET:SD	1:Z:123:MET:C	2.93	0.47
1:Z:271:VAL:HG22	1:Z:459:LEU:HD22	1.96	0.47
1:A:301:ASN:HA	1:A:304:LYS:HE3	1.96	0.47
3:D:445:ARG:HH11	3:D:466:LYS:HB3	1.79	0.47
3:D:628:PHE:O	3:D:779:ARG:HD2	2.14	0.47
4:E:1031:LYS:HB2	4:E:1034:ILE:HG12	1.96	0.47
5:F:710:LEU:HA	5:F:713:PHE:HB3	1.95	0.47
5:F:907:HIS:CB	7:H:410:LYS:HD3	2.44	0.47
5:F:971:SER:OG	5:F:972:VAL:N	2.46	0.47
5:F:1370:LEU:C	5:F:1371:ILE:HG12	2.33	0.47
5:F:1550:LEU:CD1	5:F:1552:PHE:CZ	2.97	0.47
6:J:388:CYS:SG	6:J:391:LEU:CB	3.02	0.47
7:K:538:LYS:CB	8:L:821:ILE:HG22	2.42	0.47
1:N:768:VAL:HA	1:N:771:ILE:CD1	2.41	0.47
2:O:914:GLN:HE21	2:O:953:ILE:HG23	1.78	0.47
3:P:917:SER:OG	3:P:975:ILE:HA	2.15	0.47
3:P:927:LEU:HD13	3:P:973:ARG:NH2	2.29	0.47
5:R:671:PHE:HA	5:R:674:PHE:HB2	1.96	0.47
5:R:792:ASP:OD2	5:R:1244:ASN:ND2	2.43	0.47
5:R:1012:ASN:O	8:U:787:GLU:CG	2.52	0.47
6:S:436:LEU:HD13	7:T:503:ASN:CB	2.43	0.47
6:V:283:TYR:O	6:V:286:LYS:HG2	2.14	0.47
6:V:376:LYS:HD2	6:V:376:LYS:C	2.34	0.47
6:V:389:ARG:NH1	6:V:389:ARG:CG	2.72	0.47
1:Z:641:ILE:HD13	1:Z:656:LEU:HD12	1.96	0.47
1:Z:771:ILE:HG22	1:Z:772:PRO:HD2	1.94	0.47
1:A:687:LEU:HA	1:A:690:ARG:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1018:LEU:HD22	1:N:247:GLY:HA2	1.95	0.47
4:E:18:VAL:HA	4:E:40:ILE:HD11	1.97	0.47
5:F:922:LEU:HD12	5:F:922:LEU:N	2.23	0.47
8:L:774:ASN:HB3	8:L:795:LYS:HE2	1.96	0.47
8:L:777:ASN:HD22	8:L:795:LYS:HA	1.79	0.47
8:L:818:ILE:HA	8:L:821:ILE:HG22	1.97	0.47
1:N:242:LEU:HD11	1:N:253:LEU:HD12	1.96	0.47
3:P:481:LEU:CD2	3:P:488:GLN:HB3	2.43	0.47
3:P:503:GLU:HB2	3:P:507:LEU:N	2.29	0.47
4:Q:570:GLN:HE21	4:Q:622:LEU:HB3	1.78	0.47
5:R:291:GLU:HG3	5:R:295:ARG:HG2	1.95	0.47
5:R:866:GLN:HA	5:R:869:VAL:HG12	1.95	0.47
5:R:925:HIS:HA	5:R:928:LEU:CD1	2.44	0.47
7:T:492:ASP:O	7:T:493:SER:CB	2.62	0.47
8:U:822:LYS:HG3	8:U:822:LYS:O	2.15	0.47
6:V:300:ASP:HA	6:V:303:GLU:OE1	2.14	0.47
3:D:149:GLU:OE2	3:D:653:ARG:NH1	2.37	0.47
3:D:1376:LYS:CB	1:Z:762:ASN:CB	2.93	0.47
4:E:604:PRO:HG3	4:E:666:PRO:HG2	1.96	0.47
4:E:803:LEU:HG	4:E:807:LEU:HD12	1.96	0.47
4:E:1200:GLU:HA	4:E:1203:THR:HG22	1.97	0.47
5:F:275:VAL:HA	5:F:278:ILE:HB	1.96	0.47
1:M:505:HIS:HE1	1:M:541:TYR:OH	1.96	0.47
1:N:341:LEU:HD22	1:N:415:ILE:HD11	1.96	0.47
1:N:774:LEU:HD23	1:N:774:LEU:O	2.15	0.47
3:P:515:VAL:HA	3:P:644:SER:HB3	1.97	0.47
3:P:893:ILE:O	3:P:897:ILE:HG13	2.15	0.47
3:P:1140:LYS:NZ	1:Z:204:GLU:CB	2.71	0.47
4:Q:18:VAL:HA	4:Q:40:ILE:HD11	1.96	0.47
7:T:472:ASN:O	7:T:476:GLN:CB	2.63	0.47
6:V:445:GLU:O	6:V:449:LEU:HB2	2.13	0.47
7:W:402:GLN:NE2	7:W:402:GLN:CA	2.76	0.47
7:W:427:LEU:H	7:W:428:PRO:HD3	1.79	0.47
8:X:769:ILE:HA	8:X:772:VAL:HG12	1.95	0.47
8:X:818:ILE:HA	8:X:821:ILE:HG22	1.97	0.47
2:C:1216:TYR:HB2	2:C:1241:LEU:HD13	1.95	0.47
3:D:182:CYS:SG	3:D:195:ILE:HD11	2.55	0.47
3:D:517:LEU:HB2	3:D:540:GLN:OE1	2.14	0.47
3:D:789:VAL:HG11	3:D:952:LEU:CD1	2.44	0.47
4:E:1345:SER:O	4:E:1349:TYR:HB2	2.14	0.47
5:F:900:LEU:HD22	5:F:904:TYR:CE2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:925:HIS:HA	5:F:928:LEU:CD1	2.44	0.47
5:F:1058:ALA:C	5:F:1060:LEU:H	2.16	0.47
5:F:1249:ILE:HA	5:F:1252:VAL:HG12	1.95	0.47
5:F:1392:ILE:CB	5:F:1405:PHE:HE2	2.28	0.47
7:H:472:ASN:O	7:H:476:GLN:CB	2.63	0.47
8:I:822:LYS:HG3	8:I:822:LYS:O	2.15	0.47
8:L:769:ILE:HA	8:L:772:VAL:HG12	1.95	0.47
1:N:271:VAL:HG22	1:N:459:LEU:HD22	1.96	0.47
3:P:442:GLY:O	3:P:468:PRO:HG3	2.15	0.47
3:P:445:ARG:HH11	3:P:466:LYS:HB3	1.79	0.47
4:Q:105:GLU:O	4:Q:109:ARG:N	2.47	0.47
5:R:275:VAL:HA	5:R:278:ILE:HB	1.95	0.47
5:R:320:GLU:CD	5:R:351:HIS:CE1	2.87	0.47
7:T:292:VAL:HG22	8:U:644:TRP:HZ3	1.79	0.47
6:V:391:LEU:HA	6:V:394:ILE:HD13	1.96	0.47
1:Z:199:ARG:NH2	1:Z:496:TYR:O	2.45	0.47
1:Z:786:ILE:CD1	1:Z:838:SER:HA	2.44	0.47
1:A:31:ASN:HA	7:K:522:TYR:HD2	1.80	0.47
1:A:688:LEU:O	1:A:692:MET:HG2	2.14	0.47
3:D:568:GLN:NE2	3:D:573:GLN:HG2	2.30	0.47
3:D:903:ILE:HG12	3:D:953:PHE:CG	2.50	0.47
3:D:917:SER:OG	3:D:975:ILE:HA	2.15	0.47
3:D:1133:ILE:CB	1:N:209:ARG:CB	2.92	0.47
4:E:725:LEU:HG	4:E:1169:ALA:HB3	1.97	0.47
4:E:954:ILE:HD11	4:E:1015:LYS:HE3	1.97	0.47
4:E:1163:LEU:HB3	4:E:1173:TRP:HH2	1.78	0.47
4:E:1499:LEU:HA	4:E:1502:ILE:HG12	1.95	0.47
5:F:110:ARG:NH2	5:F:190:TYR:OH	2.47	0.47
5:F:1486:LEU:HA	5:F:1489:ILE:HB	1.96	0.47
6:G:315:LEU:HD23	8:I:679:LEU:HD23	1.95	0.47
7:K:446:ARG:HH22	7:K:455:LYS:HZ3	1.49	0.47
7:K:446:ARG:C	7:K:446:ARG:HD3	2.34	0.47
1:M:688:LEU:O	1:M:692:MET:HG2	2.14	0.47
1:N:810:ALA:O	1:N:836:ASP:CB	2.62	0.47
3:P:538:SER:OG	3:P:545:GLN:HB2	2.13	0.47
4:Q:683:ASP:OD1	4:Q:689:GLY:N	2.36	0.47
5:R:25:PHE:HB3	5:R:26:LYS:HZ2	1.79	0.47
5:R:159:LYS:CE	5:R:363:ASP:CB	2.93	0.47
5:R:900:LEU:C	5:R:900:LEU:CD1	2.82	0.47
5:R:1283:LYS:NZ	5:R:1286:PHE:HB3	2.30	0.47
6:S:404:ASP:CB	6:S:425:GLU:O	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:432:LEU:CA	8:X:782:ILE:HA	2.45	0.47
7:W:483:VAL:O	7:W:493:SER:N	2.48	0.47
7:W:508:LYS:NZ	1:Z:12:SER:O	2.47	0.47
1:A:193:LEU:HB3	1:A:546:ARG:NH1	2.30	0.47
1:A:829:TYR:CD1	1:A:829:TYR:C	2.85	0.47
3:D:447:TYR:O	3:D:462:LEU:HD12	2.15	0.47
3:D:503:GLU:OE1	3:D:503:GLU:N	2.45	0.47
4:E:51:LEU:HA	4:E:109:ARG:HD3	1.97	0.47
4:E:227:ILE:HD11	4:E:258:ILE:HG21	1.95	0.47
4:E:1608:HIS:HB3	4:E:1611:TYR:HB3	1.97	0.47
5:F:21:ASP:HB2	5:F:24:LEU:HB2	1.97	0.47
5:F:46:ALA:O	5:F:50:GLN:CB	2.62	0.47
5:F:219:HIS:NE2	5:F:222:GLU:OE2	2.48	0.47
5:F:655:LYS:HG3	5:F:708:GLY:HA2	1.95	0.47
5:F:665:GLU:HG2	5:F:668:ARG:HG3	1.97	0.47
5:F:1058:ALA:C	5:F:1060:LEU:N	2.67	0.47
5:F:1210:LYS:HB2	5:F:1289:ILE:HD11	1.96	0.47
5:F:1423:SER:HA	5:F:1426:VAL:HG12	1.97	0.47
6:G:353:LEU:HD11	6:G:365:SER:HB2	1.97	0.47
6:G:380:TYR:HA	6:G:383:LYS:HE3	1.95	0.47
8:I:738:ASP:O	8:I:740:LYS:HG3	2.14	0.47
8:I:792:GLN:O	8:I:794:ILE:N	2.46	0.47
6:J:277:ILE:HD12	6:J:280:LEU:HD23	1.97	0.47
6:J:324:GLN:HA	6:J:327:LYS:CE	2.35	0.47
7:K:358:LEU:O	7:K:362:ASN:ND2	2.48	0.47
7:K:535:LYS:O	7:K:539:ASN:N	2.43	0.47
8:L:661:LYS:HE2	8:L:665:TRP:CH2	2.50	0.47
1:M:193:LEU:HB3	1:M:546:ARG:NH1	2.30	0.47
1:M:469:TYR:HB3	1:M:473:ARG:HB2	1.97	0.47
1:M:810:ALA:HB1	1:M:836:ASP:OD1	2.15	0.47
1:N:239:ILE:O	1:N:243:SER:OG	2.30	0.47
1:N:641:ILE:HD13	1:N:656:LEU:HD12	1.96	0.47
1:N:762:ASN:CB	3:P:1376:LYS:CB	2.93	0.47
3:P:182:CYS:SG	3:P:195:ILE:HD11	2.55	0.47
3:P:503:GLU:OE1	3:P:508:LYS:HD3	2.14	0.47
3:P:611:LEU:CG	3:P:640:ALA:HB2	2.45	0.47
3:P:911:ASN:HA	3:P:914:TYR:CE2	2.49	0.47
4:Q:51:LEU:HA	4:Q:109:ARG:HD3	1.97	0.47
4:Q:1031:LYS:HB2	4:Q:1034:ILE:HG12	1.97	0.47
4:Q:1260:TYR:CD1	4:Q:1260:TYR:O	2.67	0.47
5:R:10:THR:O	5:R:14:SER:CB	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:56:ILE:HD13	5:R:86:ILE:HD13	1.97	0.47
5:R:245:ARG:NH2	5:R:284:TYR:O	2.45	0.47
5:R:425:ASP:N	5:R:425:ASP:OD1	2.48	0.47
5:R:439:LEU:HA	5:R:442:ILE:HG22	1.97	0.47
5:R:711:GLN:NE2	5:R:714:HIS:HB2	2.29	0.47
5:R:900:LEU:HD22	5:R:904:TYR:CE2	2.49	0.47
5:R:907:HIS:CB	7:T:410:LYS:HD3	2.44	0.47
5:R:920:ILE:HB	5:R:924:ALA:HA	1.97	0.47
5:R:1014:SER:N	8:U:788:ASP:H	2.12	0.47
5:R:1058:ALA:C	5:R:1060:LEU:N	2.67	0.47
5:R:1086:LEU:HD23	5:R:1086:LEU:HA	1.77	0.47
5:R:1622:VAL:HA	5:R:1625:THR:HG22	1.97	0.47
6:S:380:TYR:HA	6:S:383:LYS:HE3	1.95	0.47
8:U:822:LYS:NZ	8:U:822:LYS:CA	2.73	0.47
6:V:326:LEU:HD22	8:X:689:SER:OG	2.14	0.47
6:V:357:LEU:CD2	7:W:423:LYS:HE3	2.44	0.47
8:X:664:SER:HA	8:X:667:GLN:HE21	1.80	0.47
8:X:774:ASN:HB3	8:X:795:LYS:HE2	1.96	0.47
1:Z:574:GLU:HA	1:Z:577:ARG:HB2	1.96	0.47
1:A:31:ASN:HA	7:K:522:TYR:CD2	2.50	0.47
1:A:615:ASP:HB2	1:A:618:GLU:HG3	1.97	0.47
1:A:817:ALA:CB	1:A:832:LEU:HD13	2.45	0.47
2:C:888:LEU:HA	2:C:892:PHE:CD2	2.49	0.47
3:D:125:SER:OG	3:D:734:LEU:HD13	2.15	0.47
3:D:1140:LYS:NZ	1:N:204:GLU:CB	2.67	0.47
4:E:105:GLU:O	4:E:109:ARG:N	2.47	0.47
4:E:141:LEU:HD11	4:E:195:LEU:HD13	1.97	0.47
5:F:228:PHE:CE2	5:F:359:GLN:HA	2.50	0.47
5:F:609:LEU:HA	5:F:612:LEU:HB2	1.96	0.47
5:F:850:GLN:HA	5:F:853:ILE:HD12	1.97	0.47
6:J:300:ASP:HA	6:J:303:GLU:OE1	2.14	0.47
6:J:326:LEU:HD22	8:L:689:SER:OG	2.14	0.47
6:J:405:LEU:HD11	7:K:469:ARG:CG	2.37	0.47
7:K:427:LEU:H	7:K:428:PRO:HD3	1.79	0.47
1:N:574:GLU:HA	1:N:577:ARG:HB2	1.96	0.47
1:N:786:ILE:CD1	1:N:838:SER:HA	2.44	0.47
3:P:175:ILE:CD1	3:P:642:LEU:HB2	2.36	0.47
3:P:903:ILE:HG12	3:P:953:PHE:CG	2.50	0.47
4:Q:279:ILE:HG23	4:Q:281:GLN:HG2	1.97	0.47
4:Q:393:THR:H	4:Q:396:THR:HG22	1.80	0.47
4:Q:954:ILE:HD11	4:Q:1015:LYS:HE3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:1345:SER:O	4:Q:1349:TYR:HB2	2.14	0.47
5:R:320:GLU:CD	5:R:351:HIS:HD1	2.18	0.47
5:R:837:TYR:CG	5:R:918:PHE:CZ	3.02	0.47
5:R:850:GLN:HA	5:R:853:ILE:HD12	1.97	0.47
5:R:1210:LYS:HB2	5:R:1289:ILE:HD11	1.96	0.47
5:R:1495:THR:HA	5:R:1498:LEU:HB2	1.97	0.47
5:R:1550:LEU:CD1	5:R:1552:PHE:CZ	2.97	0.47
6:S:296:ALA:N	6:V:363:LYS:HZ2	2.12	0.47
1:Z:211:LYS:HZ2	1:Z:246:ASN:ND2	2.06	0.47
1:A:630:ARG:O	1:A:634:ASP:N	2.41	0.47
2:C:1389:GLY:HA2	4:E:1331:LEU:CD1	2.45	0.47
3:D:893:ILE:O	3:D:897:ILE:HG13	2.15	0.47
3:D:1019:ARG:HA	1:N:245:ALA:CB	2.45	0.47
4:E:1380:ASP:C	4:E:1382:THR:N	2.68	0.47
5:F:711:GLN:NE2	5:F:714:HIS:HB2	2.29	0.47
5:F:1622:VAL:HA	5:F:1625:THR:HG22	1.97	0.47
7:H:312:VAL:HG12	7:H:361:ARG:HH21	1.80	0.47
6:J:371:LYS:C	6:J:371:LYS:CE	2.84	0.47
7:K:312:VAL:CG1	7:K:361:ARG:HH21	2.27	0.47
3:P:789:VAL:HG11	3:P:952:LEU:CD1	2.44	0.47
3:P:910:LEU:HA	3:P:913:LEU:HD12	1.96	0.47
4:Q:1086:ILE:HD11	4:Q:1096:ILE:HB	1.97	0.47
5:R:228:PHE:CE2	5:R:359:GLN:HA	2.50	0.47
5:R:655:LYS:HG3	5:R:708:GLY:HA2	1.95	0.47
5:R:1300:LEU:HD23	5:R:1301:SER:HA	1.96	0.47
6:V:434:THR:OG1	6:V:435:GLY:N	2.47	0.47
8:X:661:LYS:HE2	8:X:665:TRP:CH2	2.50	0.47
1:Z:539:ALA:HA	1:Z:542:THR:HG22	1.97	0.47
1:Z:551:ARG:HH12	1:Z:607:ARG:HH12	1.63	0.47
1:A:420:LEU:HD13	1:A:457:TYR:HB2	1.97	0.47
3:D:412:ILE:HG13	3:D:413:LEU:CD1	2.43	0.47
3:D:1238:ARG:CG	1:Z:830:SER:HB2	2.40	0.47
3:D:1465:ILE:HG23	3:D:1487:TYR:CZ	2.49	0.47
4:E:284:ILE:HD11	4:E:328:ILE:HD12	1.96	0.47
4:E:1558:GLN:NE2	4:E:1590:ASP:OD1	2.48	0.47
5:F:322:ILE:HA	5:F:325:PHE:HB3	1.97	0.47
5:F:1506:ILE:HG22	5:F:1507:ASN:H	1.79	0.47
5:F:1634:LYS:O	5:F:1638:ILE:N	2.34	0.47
7:K:310:ALA:HB3	7:K:352:ILE:CB	2.40	0.47
7:K:313:TYR:HA	7:K:349:PRO:CB	2.40	0.47
1:M:140:ILE:HG22	4:Q:1393:LYS:CE	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:539:ALA:HA	1:N:542:THR:HG22	1.96	0.47
1:N:710:ASN:OD1	1:N:710:ASN:N	2.48	0.47
4:Q:803:LEU:HG	4:Q:807:LEU:HD12	1.96	0.47
4:Q:1380:ASP:C	4:Q:1382:THR:N	2.68	0.47
4:Q:1384:ASP:HA	4:Q:1388:LEU:HB2	1.96	0.47
5:R:1104:ASN:O	5:R:1108:ARG:NH1	2.48	0.47
5:R:1517:ALA:O	5:R:1521:THR:OG1	2.24	0.47
8:U:655:PHE:O	8:U:659:THR:OG1	2.27	0.47
6:V:371:LYS:CE	6:V:371:LYS:C	2.84	0.47
1:Z:138:ASN:C	1:Z:138:ASN:HD22	2.19	0.47
1:Z:767:ILE:H	1:Z:767:ILE:HG13	1.47	0.47
1:Z:768:VAL:HA	1:Z:771:ILE:CD1	2.41	0.47
1:A:563:ASN:O	1:A:564:GLU:HG3	2.15	0.46
4:E:100:GLU:O	4:E:104:SER:OG	2.26	0.46
4:E:207:ASP:O	4:E:211:GLN:HB2	2.15	0.46
4:E:458:LYS:HG3	4:E:562:TRP:HE1	1.81	0.46
5:F:425:ASP:OD1	5:F:425:ASP:N	2.48	0.46
5:F:750:TRP:CG	5:F:750:TRP:O	2.68	0.46
5:F:1104:ASN:O	5:F:1108:ARG:NH1	2.49	0.46
5:F:1136:LYS:CB	5:F:1207:CYS:HA	2.45	0.46
5:F:1283:LYS:NZ	5:F:1286:PHE:HB3	2.30	0.46
6:G:404:ASP:CB	6:G:425:GLU:O	2.63	0.46
7:K:413:LEU:HG	8:L:749:GLN:HE21	1.80	0.46
7:K:466:LEU:O	7:K:470:ALA:N	2.40	0.46
8:L:664:SER:HA	8:L:667:GLN:HE21	1.80	0.46
1:M:354:VAL:HA	1:M:368:LEU:HD11	1.97	0.46
1:M:687:LEU:HA	1:M:690:ARG:HG2	1.96	0.46
1:N:59:LYS:HA	8:U:814:LEU:HD21	1.96	0.46
3:P:863:ILE:CD1	3:P:887:GLN:HG3	2.46	0.46
4:Q:284:ILE:HD11	4:Q:328:ILE:HD12	1.96	0.46
4:Q:1503:VAL:HA	4:Q:1506:LEU:HG	1.96	0.46
5:R:154:GLN:HG3	5:R:190:TYR:HE2	1.80	0.46
5:R:159:LYS:HE3	5:R:363:ASP:CB	2.46	0.46
5:R:322:ILE:HA	5:R:325:PHE:HB3	1.97	0.46
5:R:343:ASP:OD2	5:R:702:LYS:NZ	2.38	0.46
7:T:412:ILE:HG22	7:T:415:LEU:HD23	1.94	0.46
7:W:358:LEU:O	7:W:362:ASN:ND2	2.48	0.46
1:Z:116:LYS:HE2	1:Z:116:LYS:CA	2.44	0.46
2:C:285:GLU:HB2	2:C:304:LEU:HD11	1.96	0.46
3:D:361:ILE:HD12	3:D:368:ILE:HG12	1.97	0.46
3:D:611:LEU:CG	3:D:640:ALA:HB2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:797:ARG:NH2	3:D:799:THR:OG1	2.49	0.46
5:F:439:LEU:HA	5:F:442:ILE:HG22	1.97	0.46
5:F:538:GLU:O	5:F:542:ASN:ND2	2.49	0.46
5:F:623:VAL:HG11	5:F:626:ASP:HB2	1.97	0.46
5:F:1364:TYR:O	5:F:1364:TYR:CD1	2.68	0.46
5:F:1406:TYR:OH	5:F:1452:SER:O	2.33	0.46
8:I:795:LYS:CA	8:I:795:LYS:HZ3	2.28	0.46
6:J:432:LEU:CA	8:L:782:ILE:HA	2.45	0.46
1:N:820:ILE:O	1:N:822:TYR:N	2.48	0.46
3:P:453:GLY:O	3:P:456:ASN:N	2.45	0.46
4:Q:53:GLU:HB2	4:Q:140:LYS:HD2	1.98	0.46
4:Q:182:PHE:HZ	5:R:1189:MET:CB	2.23	0.46
4:Q:1180:GLN:NE2	4:Q:1181:THR:O	2.40	0.46
5:R:1136:LYS:CB	5:R:1207:CYS:HA	2.45	0.46
6:S:310:ARG:NE	6:S:314:TYR:OH	2.49	0.46
1:A:810:ALA:HB1	1:A:836:ASP:OD1	2.15	0.46
4:E:1029:ASN:HD22	7:K:475:SER:CB	2.26	0.46
4:E:1160:ILE:HG13	4:E:1161:PRO:HD3	1.98	0.46
5:F:154:GLN:HG3	5:F:190:TYR:HE2	1.81	0.46
5:F:951:ARG:NE	5:F:951:ARG:HA	2.29	0.46
8:I:788:ASP:N	8:I:788:ASP:OD1	2.49	0.46
8:I:821:ILE:HD13	8:I:821:ILE:O	2.16	0.46
6:J:353:LEU:HD12	7:K:423:LYS:HG2	1.97	0.46
6:J:357:LEU:CD2	7:K:423:LYS:HE3	2.45	0.46
7:K:483:VAL:O	7:K:493:SER:N	2.48	0.46
1:M:138:ASN:C	1:M:138:ASN:HD22	2.19	0.46
1:M:420:LEU:HD13	1:M:457:TYR:HB2	1.97	0.46
1:M:545:PHE:CD2	1:M:549:ASP:HB2	2.51	0.46
1:M:563:ASN:O	1:M:564:GLU:HG3	2.15	0.46
1:M:654:ILE:HG13	1:M:706:ILE:HG21	1.97	0.46
1:N:27:GLU:OE2	1:N:30:ASP:HB2	2.11	0.46
1:N:138:ASN:HD22	1:N:138:ASN:C	2.19	0.46
3:P:628:PHE:O	3:P:779:ARG:HD2	2.14	0.46
3:P:641:VAL:HB	3:P:648:GLU:CG	2.45	0.46
3:P:1000:ASP:OD1	3:P:1000:ASP:N	2.49	0.46
4:Q:207:ASP:O	4:Q:211:GLN:HB2	2.15	0.46
4:Q:858:LEU:HD23	4:Q:858:LEU:HA	1.73	0.46
5:R:564:ASP:OD1	5:R:564:ASP:N	2.49	0.46
5:R:1110:MET:CE	5:R:1157:TRP:CZ2	2.99	0.46
5:R:1281:LYS:HA	5:R:1281:LYS:HD2	1.54	0.46
5:R:1406:TYR:OH	5:R:1452:SER:O	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:86:PHE:N	1:Z:86:PHE:CD1	2.79	0.46
3:D:260:HIS:NE2	3:D:261:LEU:HD23	2.30	0.46
3:D:713:ILE:HD12	3:D:769:ARG:CG	2.46	0.46
5:F:899:PHE:O	5:F:904:TYR:OH	2.24	0.46
5:F:1014:SER:N	8:I:788:ASP:H	2.12	0.46
7:K:447:SER:CB	8:L:751:LEU:CD1	2.94	0.46
1:M:137:ASP:HB2	4:Q:1386:LEU:CA	2.42	0.46
1:N:88:LYS:O	1:N:92:THR:HG23	2.15	0.46
1:N:192:ILE:HG22	1:N:539:ALA:HB3	1.97	0.46
2:O:914:GLN:HE21	2:O:953:ILE:CG2	2.29	0.46
3:P:260:HIS:NE2	3:P:261:LEU:HD23	2.30	0.46
3:P:393:ILE:HD11	3:P:460:LEU:HB2	1.98	0.46
4:Q:624:THR:HG23	4:Q:632:ALA:HB2	1.97	0.46
5:R:21:ASP:HB2	5:R:24:LEU:HB2	1.97	0.46
5:R:161:GLN:HB2	5:R:183:ARG:HH12	1.79	0.46
5:R:219:HIS:NE2	5:R:222:GLU:OE2	2.48	0.46
5:R:538:GLU:O	5:R:542:ASN:ND2	2.49	0.46
5:R:609:LEU:HA	5:R:612:LEU:HB2	1.96	0.46
5:R:1486:LEU:HA	5:R:1489:ILE:HB	1.96	0.46
6:S:353:LEU:HD11	6:S:365:SER:HB2	1.97	0.46
7:T:312:VAL:HG12	7:T:361:ARG:HH21	1.80	0.46
8:U:778:LYS:HB2	8:U:794:ILE:CB	2.46	0.46
6:V:277:ILE:HD12	6:V:280:LEU:HD23	1.97	0.46
8:X:684:VAL:HA	8:X:687:GLU:OE1	2.16	0.46
1:Z:133:THR:O	1:Z:134:LYS:C	2.52	0.46
1:Z:306:LYS:HE2	1:Z:331:VAL:HG22	1.97	0.46
1:Z:599:ARG:NE	1:Z:605:GLU:OE1	2.39	0.46
1:Z:697:PHE:HA	1:Z:703:SER:HB3	1.96	0.46
1:A:269:ASN:HB3	1:A:272:GLU:HB2	1.96	0.46
2:C:229:ASP:CG	2:C:252:LYS:HE2	2.35	0.46
3:D:234:ILE:HD12	3:D:243:PHE:CE2	2.51	0.46
3:D:495:PHE:O	3:D:499:LEU:HG	2.16	0.46
3:D:515:VAL:HA	3:D:644:SER:HB3	1.97	0.46
5:F:10:THR:O	5:F:14:SER:CB	2.63	0.46
5:F:303:LYS:HA	5:F:306:VAL:HG22	1.96	0.46
5:F:319:ILE:HD11	5:F:477:ASP:HB2	1.97	0.46
5:F:320:GLU:CD	5:F:351:HIS:HD1	2.19	0.46
5:F:444:THR:HB	5:F:445:ASP:H	1.53	0.46
5:F:1110:MET:HE3	5:F:1157:TRP:HZ2	1.81	0.46
5:F:1480:MET:HG2	5:F:1537:ALA:HB1	1.98	0.46
6:G:310:ARG:NE	6:G:314:TYR:OH	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:288:ILE:O	7:K:292:VAL:HG23	2.15	0.46
1:M:16:LYS:CD	6:V:468:ALA:HB1	2.45	0.46
1:N:390:LEU:HD21	1:N:416:GLY:HA2	1.97	0.46
1:N:551:ARG:HH12	1:N:607:ARG:HH12	1.63	0.46
2:O:229:ASP:CG	2:O:252:LYS:HE2	2.36	0.46
3:P:125:SER:OG	3:P:734:LEU:HD13	2.15	0.46
3:P:735:SER:O	3:P:739:THR:OG1	2.32	0.46
3:P:1465:ILE:HG23	3:P:1487:TYR:CZ	2.49	0.46
4:Q:596:LYS:O	4:Q:600:ASN:ND2	2.49	0.46
4:Q:725:LEU:HG	4:Q:1169:ALA:HB3	1.97	0.46
4:Q:1608:HIS:HB3	4:Q:1611:TYR:HB3	1.97	0.46
5:R:665:GLU:HG2	5:R:668:ARG:HG3	1.97	0.46
5:R:750:TRP:CG	5:R:750:TRP:O	2.68	0.46
5:R:975:SER:HA	5:R:978:ILE:HG22	1.97	0.46
7:W:288:ILE:O	7:W:292:VAL:HG23	2.15	0.46
7:W:399:LEU:HD12	7:W:399:LEU:C	2.35	0.46
1:Z:192:ILE:HG22	1:Z:539:ALA:HB3	1.97	0.46
1:Z:210:GLU:O	1:Z:214:ASN:ND2	2.49	0.46
4:E:596:LYS:O	4:E:600:ASN:ND2	2.49	0.46
5:F:657:ILE:O	5:F:712:LEU:CD1	2.56	0.46
8:L:643:LYS:CG	8:L:647:GLN:HE22	2.23	0.46
1:N:210:GLU:O	1:N:214:ASN:ND2	2.49	0.46
3:P:437:VAL:HA	3:P:446:LEU:O	2.16	0.46
3:P:1020:ASN:CG	1:Z:252:GLN:H	2.19	0.46
5:R:526:PHE:HA	5:R:529:MET:HB3	1.97	0.46
5:R:917:PHE:O	5:R:917:PHE:CD1	2.69	0.46
5:R:1608:ILE:HA	5:R:1612:LEU:HD13	1.98	0.46
7:W:379:ILE:C	7:W:382:LYS:H	2.19	0.46
1:Z:820:ILE:O	1:Z:822:TYR:N	2.48	0.46
3:D:430:GLU:OE2	3:D:528:PRO:HA	2.16	0.46
3:D:863:ILE:CD1	3:D:887:GLN:HG3	2.46	0.46
3:D:910:LEU:HD23	3:D:913:LEU:CD1	2.38	0.46
4:E:279:ILE:HG23	4:E:281:GLN:HG2	1.97	0.46
4:E:393:THR:H	4:E:396:THR:HG22	1.80	0.46
4:E:559:PHE:HZ	4:E:567:ARG:HH22	1.64	0.46
4:E:851:SER:O	4:E:851:SER:OG	2.33	0.46
4:E:1503:VAL:HA	4:E:1506:LEU:HG	1.96	0.46
5:F:159:LYS:CE	5:F:363:ASP:CB	2.93	0.46
5:F:975:SER:HA	5:F:978:ILE:HG22	1.97	0.46
5:F:1034:LEU:HD22	5:F:1092:THR:CB	2.28	0.46
5:F:1110:MET:CE	5:F:1157:TRP:CZ2	2.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:694:ASP:OD2	8:I:698:GLN:NE2	2.37	0.46
6:J:431:GLN:C	7:K:499:GLY:H	2.19	0.46
7:K:399:LEU:HD12	7:K:399:LEU:C	2.35	0.46
1:M:514:LYS:HA	1:M:514:LYS:HD3	1.84	0.46
3:P:447:TYR:O	3:P:462:LEU:HD12	2.15	0.46
5:R:452:LYS:HA	5:R:452:LYS:HD2	1.70	0.46
5:R:1423:SER:HA	5:R:1426:VAL:HG12	1.97	0.46
7:W:316:VAL:H	7:W:347:THR:HA	1.81	0.46
1:Z:16:LYS:NZ	1:Z:16:LYS:HA	2.31	0.46
1:Z:239:ILE:O	1:Z:243:SER:OG	2.30	0.46
3:D:430:GLU:HA	3:D:624:PHE:CD2	2.50	0.46
3:D:1021:TYR:H	1:N:249:ARG:CB	2.29	0.46
5:F:750:TRP:O	5:F:750:TRP:CD1	2.69	0.46
5:F:1067:ASN:ND2	5:F:1069:ASP:HB2	2.31	0.46
5:F:1463:LEU:HD12	5:F:1463:LEU:HA	1.73	0.46
8:I:778:LYS:HB2	8:I:794:ILE:CB	2.46	0.46
8:I:805:ARG:CB	1:Z:88:LYS:HZ3	2.26	0.46
6:J:293:HIS:CB	7:K:359:ASN:HD21	2.27	0.46
6:J:406:PHE:CD1	6:J:406:PHE:C	2.87	0.46
7:K:301:PRO:HB3	7:K:353:TYR:O	2.16	0.46
1:M:24:GLU:HB3	1:Z:26:LEU:C	2.36	0.46
1:M:137:ASP:OD2	4:Q:1386:LEU:HG	2.16	0.46
1:M:615:ASP:HB2	1:M:618:GLU:HG3	1.97	0.46
1:M:739:MET:O	1:M:742:LEU:HB2	2.16	0.46
1:N:555:GLU:OE1	1:N:607:ARG:NH2	2.49	0.46
1:N:775:LEU:HD22	1:N:775:LEU:HA	1.64	0.46
2:O:285:GLU:HB2	2:O:304:LEU:HD11	1.96	0.46
3:P:462:LEU:HD21	3:P:465:ILE:CG2	2.46	0.46
3:P:568:GLN:NE2	3:P:573:GLN:HG2	2.30	0.46
4:Q:559:PHE:HZ	4:Q:567:ARG:HH22	1.64	0.46
4:Q:1160:ILE:HG13	4:Q:1161:PRO:HD3	1.98	0.46
4:Q:1276:LYS:HA	4:Q:1276:LYS:HD2	1.70	0.46
4:Q:1539:ASN:ND2	4:Q:1611:TYR:OH	2.48	0.46
5:R:859:LYS:HD2	5:R:860:ASN:H	1.81	0.46
5:R:1052:LEU:O	5:R:1055:VAL:N	2.42	0.46
5:R:1118:ARG:HD3	5:R:1118:ARG:HA	1.47	0.46
5:R:1480:MET:HG2	5:R:1537:ALA:HB1	1.98	0.46
6:S:289:GLN:OE1	6:V:352:VAL:HG13	2.16	0.46
6:V:431:GLN:C	7:W:499:GLY:H	2.19	0.46
6:V:433:LYS:CA	7:W:499:GLY:HA2	2.45	0.46
7:W:301:PRO:HB3	7:W:353:TYR:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:314:ASN:O	7:W:348:ILE:N	2.48	0.46
7:W:315:LYS:CG	7:W:347:THR:HG22	2.46	0.46
7:W:389:LYS:CA	7:W:393:ASP:CB	2.39	0.46
1:Z:807:LYS:CB	1:Z:837:VAL:C	2.84	0.46
1:A:739:MET:O	1:A:742:LEU:HB2	2.16	0.46
3:D:830:SER:CB	3:D:934:SER:HB3	2.38	0.46
4:E:1086:ILE:HD11	4:E:1096:ILE:HB	1.97	0.46
5:F:56:ILE:HD13	5:F:86:ILE:HD13	1.97	0.46
5:F:671:PHE:HA	5:F:674:PHE:HB2	1.96	0.46
6:J:434:THR:OG1	6:J:435:GLY:N	2.47	0.46
8:L:684:VAL:HA	8:L:687:GLU:OE1	2.16	0.46
1:M:761:SER:CB	2:O:1355:SER:OG	2.63	0.46
3:P:118:THR:HB	3:P:623:GLY:CA	2.35	0.46
3:P:234:ILE:HD12	3:P:243:PHE:CE2	2.51	0.46
3:P:430:GLU:HA	3:P:624:PHE:CD2	2.51	0.46
3:P:608:ILE:CD1	3:P:641:VAL:HG22	2.46	0.46
3:P:665:ASN:CG	3:P:666:PRO:HD3	2.37	0.46
3:P:713:ILE:HD12	3:P:769:ARG:CG	2.46	0.46
4:Q:258:ILE:H	4:Q:258:ILE:HG12	1.47	0.46
5:R:23:ASP:OD1	5:R:23:ASP:N	2.47	0.46
5:R:319:ILE:HD11	5:R:477:ASP:HB2	1.97	0.46
5:R:1305:SER:C	5:R:1307:VAL:N	2.69	0.46
7:T:420:ALA:CB	8:U:745:TYR:CD1	2.96	0.46
8:U:778:LYS:CG	8:U:794:ILE:CB	2.94	0.46
1:A:140:ILE:CG2	4:E:1393:LYS:CE	2.94	0.46
1:A:545:PHE:CD2	1:A:549:ASP:HB2	2.50	0.46
2:C:229:ASP:CG	2:C:252:LYS:CE	2.85	0.46
3:D:608:ILE:CD1	3:D:641:VAL:HG22	2.46	0.46
3:D:1494:ASN:O	5:F:1471:LYS:NZ	2.49	0.46
5:F:526:PHE:HA	5:F:529:MET:HB3	1.97	0.46
5:F:1090:PRO:HD3	5:F:1093:SER:OG	2.16	0.46
7:H:386:LEU:HG	8:I:690:GLN:HE21	1.81	0.46
7:K:314:ASN:O	7:K:348:ILE:N	2.48	0.46
7:K:522:TYR:HA	7:K:525:GLU:HG2	1.98	0.46
1:M:21:LYS:CE	1:Z:27:GLU:HG2	2.46	0.46
3:P:654:THR:O	3:P:658:ILE:HG13	2.16	0.46
4:Q:504:ASP:OD1	4:Q:524:LYS:NZ	2.49	0.46
5:R:750:TRP:O	5:R:750:TRP:CD1	2.69	0.46
5:R:1139:ILE:H	5:R:1139:ILE:HD12	1.80	0.46
7:T:318:GLU:CB	7:T:346:GLN:HA	2.46	0.46
8:U:794:ILE:HA	8:U:797:LEU:CD1	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V:300:ASP:O	6:V:304:LEU:HD13	2.16	0.46
6:V:406:PHE:HD1	6:V:406:PHE:O	1.99	0.46
7:W:429:LEU:HB2	8:X:741:ARG:NH2	2.31	0.46
1:Z:831:THR:HA	1:Z:834:ASN:HB2	1.97	0.46
1:A:761:SER:CB	2:C:1355:SER:OG	2.64	0.45
3:D:462:LEU:HD21	3:D:465:ILE:CG2	2.46	0.45
4:E:504:ASP:OD1	4:E:524:LYS:NZ	2.49	0.45
4:E:1484:LYS:HZ2	4:E:1486:GLU:HB2	1.81	0.45
5:F:159:LYS:HZ1	5:F:363:ASP:CB	2.28	0.45
5:F:564:ASP:N	5:F:564:ASP:OD1	2.49	0.45
5:F:672:TRP:CD1	5:F:675:LEU:HD22	2.52	0.45
5:F:920:ILE:HB	5:F:924:ALA:HA	1.97	0.45
8:I:778:LYS:CG	8:I:794:ILE:CB	2.94	0.45
7:K:315:LYS:CG	7:K:347:THR:HG22	2.46	0.45
7:K:402:GLN:CA	7:K:402:GLN:NE2	2.76	0.45
7:K:444:LEU:O	7:K:447:SER:CA	2.61	0.45
1:M:238:PHE:HZ	1:M:505:HIS:CD2	2.34	0.45
1:N:306:LYS:HE2	1:N:331:VAL:HG22	1.97	0.45
3:P:873:SER:OG	3:P:877:VAL:HB	2.17	0.45
4:Q:174:VAL:HA	4:Q:177:VAL:HG12	1.98	0.45
4:Q:982:ILE:N	4:Q:982:ILE:HD12	2.31	0.45
4:Q:1558:GLN:NE2	4:Q:1590:ASP:OD1	2.48	0.45
5:R:1364:TYR:O	5:R:1364:TYR:CD1	2.68	0.45
8:U:792:GLN:H	8:U:792:GLN:HG3	1.58	0.45
1:A:138:ASN:HD22	1:A:138:ASN:C	2.19	0.45
1:A:238:PHE:HZ	1:A:505:HIS:CD2	2.34	0.45
1:A:354:VAL:HA	1:A:368:LEU:HD11	1.98	0.45
1:A:679:ASP:HB3	1:A:684:ASN:HB2	1.99	0.45
3:D:519:THR:HG21	3:D:605:VAL:N	2.31	0.45
3:D:789:VAL:HA	3:D:949:PHE:CE1	2.51	0.45
5:F:917:PHE:CD1	5:F:917:PHE:O	2.69	0.45
5:F:1363:ILE:C	5:F:1363:ILE:CD1	2.85	0.45
7:H:318:GLU:CB	7:H:346:GLN:HA	2.46	0.45
7:K:429:LEU:HB2	8:L:741:ARG:NH2	2.31	0.45
1:M:675:VAL:HA	1:M:684:ASN:HD21	1.81	0.45
1:N:116:LYS:C	1:N:116:LYS:CE	2.85	0.45
4:Q:141:LEU:HD11	4:Q:195:LEU:HD13	1.97	0.45
4:Q:314:ASP:OD1	4:Q:314:ASP:N	2.48	0.45
4:Q:1200:GLU:HA	4:Q:1203:THR:HG22	1.97	0.45
5:R:1038:LEU:C	5:R:1040:THR:N	2.45	0.45
7:W:455:LYS:HD3	7:W:455:LYS:H	1.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:466:LEU:O	7:W:469:ARG:N	2.49	0.45
8:X:682:ASP:HA	8:X:685:MET:HE2	1.99	0.45
1:Z:88:LYS:O	1:Z:92:THR:HG23	2.15	0.45
2:C:914:GLN:HE21	2:C:953:ILE:CG2	2.29	0.45
3:D:654:THR:O	3:D:658:ILE:HG13	2.16	0.45
3:D:789:VAL:HG21	3:D:952:LEU:CD1	2.47	0.45
4:E:23:ASN:HD22	4:E:838:LYS:HD2	1.81	0.45
4:E:174:VAL:HA	4:E:177:VAL:HG12	1.97	0.45
5:F:48:ARG:NH1	5:F:85:GLU:OE2	2.47	0.45
5:F:98:THR:HG22	5:F:99:ALA:H	1.81	0.45
5:F:859:LYS:HD2	5:F:860:ASN:H	1.81	0.45
5:F:1139:ILE:HD12	5:F:1139:ILE:H	1.81	0.45
5:F:1285:HIS:ND1	5:F:1285:HIS:C	2.70	0.45
5:F:1608:ILE:HA	5:F:1612:LEU:HD13	1.98	0.45
8:I:793:LEU:HA	8:I:796:ILE:HG13	1.98	0.45
6:J:389:ARG:NH2	6:J:390:ILE:HD12	2.31	0.45
7:K:466:LEU:O	7:K:469:ARG:N	2.49	0.45
1:M:817:ALA:CB	1:M:832:LEU:HD13	2.45	0.45
1:N:555:GLU:HA	1:N:607:ARG:HH21	1.81	0.45
3:P:168:GLN:N	3:P:187:ASP:OD2	2.38	0.45
3:P:789:VAL:HA	3:P:949:PHE:CE1	2.51	0.45
3:P:797:ARG:NH2	3:P:799:THR:OG1	2.49	0.45
4:Q:458:LYS:HG3	4:Q:562:TRP:HE1	1.80	0.45
5:R:588:ASN:HB3	5:R:768:VAL:HG12	1.98	0.45
5:R:1036:PRO:CB	5:R:1042:ILE:H	2.30	0.45
5:R:1463:LEU:HD12	5:R:1463:LEU:HA	1.73	0.45
7:T:451:ALA:O	7:T:455:LYS:N	2.45	0.45
6:V:353:LEU:HD12	7:W:423:LYS:HG2	1.98	0.45
6:V:380:TYR:CD1	6:V:383:LYS:HD3	2.51	0.45
7:W:517:GLN:CA	7:W:520:ILE:HB	2.44	0.45
1:Z:555:GLU:OE1	1:Z:607:ARG:NH2	2.49	0.45
1:Z:774:LEU:HD23	1:Z:774:LEU:O	2.14	0.45
1:A:48:GLU:CA	7:K:514:THR:HG21	2.46	0.45
1:A:210:GLU:OE2	1:A:214:ASN:ND2	2.48	0.45
3:D:393:ILE:HD11	3:D:460:LEU:HB2	1.98	0.45
3:D:434:LEU:HD22	3:D:447:TYR:HB3	1.99	0.45
4:E:650:ASP:OD2	4:E:653:SER:OG	2.28	0.45
4:E:912:TRP:CD1	4:E:917:PRO:HD3	2.52	0.45
5:F:1110:MET:HE2	5:F:1157:TRP:CZ2	2.51	0.45
7:H:314:ASN:HB2	7:H:361:ARG:HH22	1.82	0.45
6:J:275:GLN:NE2	6:J:278:GLU:OE1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:389:LYS:HA	7:K:393:ASP:HB3	0.61	0.45
1:M:195:SER:OG	1:M:536:ASN:OD1	2.34	0.45
1:M:589:LEU:O	1:M:604:ILE:HG22	2.17	0.45
3:P:361:ILE:HD12	3:P:368:ILE:HG12	1.97	0.45
3:P:1020:ASN:CG	1:Z:252:GLN:CG	2.73	0.45
4:Q:253:LEU:N	5:R:1191:SER:O	2.50	0.45
4:Q:368:ILE:HD13	4:Q:368:ILE:HA	1.88	0.45
4:Q:755:ASN:CB	5:R:1376:THR:OG1	2.65	0.45
5:R:1067:ASN:ND2	5:R:1069:ASP:HB2	2.31	0.45
5:R:1090:PRO:HD3	5:R:1093:SER:OG	2.16	0.45
5:R:1285:HIS:C	5:R:1285:HIS:ND1	2.70	0.45
8:U:694:ASP:OD2	8:U:698:GLN:NE2	2.37	0.45
8:U:821:ILE:HD13	8:U:821:ILE:O	2.16	0.45
6:V:456:ARG:NH1	1:Z:25:LEU:HD12	2.31	0.45
7:W:358:LEU:HD22	8:X:662:ILE:CD1	2.41	0.45
7:W:404:ARG:CG	8:X:704:GLN:NE2	2.79	0.45
1:Z:390:LEU:HD21	1:Z:416:GLY:HA2	1.96	0.45
1:Z:555:GLU:HA	1:Z:607:ARG:HH21	1.81	0.45
1:A:469:TYR:HB3	1:A:473:ARG:HB2	1.97	0.45
3:D:111:LEU:HD22	3:D:775:LEU:HD21	1.97	0.45
3:D:437:VAL:HA	3:D:446:LEU:O	2.16	0.45
3:D:665:ASN:CG	3:D:666:PRO:HD3	2.37	0.45
4:E:227:ILE:HD11	4:E:258:ILE:CG2	2.47	0.45
4:E:1020:ILE:HA	4:E:1023:VAL:HG12	1.98	0.45
4:E:1180:GLN:NE2	4:E:1181:THR:O	2.40	0.45
5:F:902:LYS:HE2	7:H:414:LYS:HD2	0.67	0.45
5:F:1157:TRP:O	5:F:1158:THR:C	2.55	0.45
7:H:295:CYS:HA	7:H:298:SER:HB2	1.99	0.45
1:M:137:ASP:HB2	4:Q:1386:LEU:HG	1.98	0.45
3:P:111:LEU:HD22	3:P:775:LEU:HD21	1.97	0.45
3:P:434:LEU:HD22	3:P:447:TYR:HB3	1.99	0.45
3:P:476:VAL:HG13	3:P:488:GLN:HG3	1.99	0.45
3:P:519:THR:HG21	3:P:605:VAL:N	2.31	0.45
3:P:937:SER:HB3	3:P:941:GLN:CB	2.43	0.45
5:R:672:TRP:CD1	5:R:675:LEU:HD22	2.51	0.45
5:R:1617:SER:O	5:R:1617:SER:OG	2.29	0.45
6:V:364:ILE:HG23	7:W:424:ASN:HB3	1.99	0.45
7:W:413:LEU:HG	8:X:749:GLN:HE21	1.80	0.45
7:W:466:LEU:O	7:W:470:ALA:N	2.40	0.45
1:Z:807:LYS:CB	1:Z:836:ASP:O	2.63	0.45
1:A:128:LEU:CB	4:E:1260:TYR:HE2	2.26	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:234:ILE:O	3:D:240:LEU:HD12	2.16	0.45
3:D:1140:LYS:HD3	1:N:204:GLU:HG2	1.98	0.45
4:E:1052:LYS:HZ2	4:E:1068:LEU:HD23	1.80	0.45
4:E:1472:SER:HB2	4:E:1475:SER:H	1.81	0.45
5:F:1606:GLN:O	5:F:1610:ALA:CB	2.60	0.45
5:F:1635:ARG:N	5:R:1634:LYS:NZ	2.65	0.45
6:G:289:GLN:OE1	6:J:352:VAL:HG13	2.16	0.45
7:H:470:ALA:O	7:H:474:SER:HB2	2.17	0.45
8:I:795:LYS:HZ3	8:I:795:LYS:CB	2.30	0.45
6:J:380:TYR:CD1	6:J:383:LYS:HD3	2.51	0.45
2:O:229:ASP:CG	2:O:252:LYS:CE	2.85	0.45
2:O:1389:GLY:HA2	4:Q:1331:LEU:CD1	2.45	0.45
3:P:399:SER:O	3:P:407:ALA:HB2	2.17	0.45
4:Q:300:SER:O	4:Q:304:ASN:HB2	2.16	0.45
4:Q:1379:GLU:OE1	4:Q:1383:GLN:NE2	2.50	0.45
5:R:968:ILE:CG2	7:T:392:LEU:HD11	2.36	0.45
5:R:1359:PHE:O	5:R:1359:PHE:CG	2.69	0.45
8:U:793:LEU:HA	8:U:796:ILE:HG13	1.98	0.45
6:V:275:GLN:NE2	6:V:278:GLU:OE1	2.49	0.45
6:V:389:ARG:NH1	6:V:389:ARG:CA	2.79	0.45
6:V:389:ARG:CZ	6:V:389:ARG:C	2.85	0.45
6:V:392:SER:HG	6:V:393:ASP:H	1.65	0.45
7:W:315:LYS:HB2	8:X:670:VAL:HB	1.99	0.45
7:W:447:SER:CB	8:X:751:LEU:CD1	2.94	0.45
1:Z:16:LYS:NZ	1:Z:16:LYS:CA	2.80	0.45
3:D:937:SER:HB3	3:D:941:GLN:CB	2.43	0.45
5:F:359:GLN:CB	5:F:421:ILE:HA	2.47	0.45
5:F:1036:PRO:CB	5:F:1042:ILE:H	2.30	0.45
7:K:315:LYS:HB2	8:L:670:VAL:HB	1.99	0.45
7:K:316:VAL:H	7:K:347:THR:HA	1.81	0.45
8:L:682:ASP:HA	8:L:685:MET:HE2	1.98	0.45
1:N:125:ILE:HD11	5:R:1363:ILE:HG22	1.97	0.45
3:P:170:LYS:NZ	3:P:212:GLN:O	2.37	0.45
3:P:908:SER:O	3:P:911:ASN:HB3	2.17	0.45
4:Q:1421:ILE:HA	4:Q:1424:LEU:HD23	1.99	0.45
5:R:320:GLU:OE2	5:R:351:HIS:ND1	2.50	0.45
5:R:690:GLU:CG	8:U:722:LEU:CG	2.95	0.45
5:R:943:ARG:HB3	5:R:947:LYS:NZ	2.32	0.45
5:R:1435:LYS:HZ1	5:R:1481:LYS:HE3	1.82	0.45
5:R:1635:ARG:HD2	5:R:1635:ARG:HA	1.55	0.45
6:V:319:GLU:CA	6:V:322:THR:HG22	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:430:GLY:C	7:W:432:ALA:H	2.20	0.45
7:W:509:ILE:CG2	1:Z:12:SER:HG	2.25	0.45
8:X:802:ASP:O	8:X:806:SER:CB	2.65	0.45
1:Z:658:ASN:O	1:Z:662:SER:HB2	2.17	0.45
1:A:123:MET:CB	6:J:413:ASN:CB	2.95	0.45
1:A:675:VAL:HA	1:A:684:ASN:HD21	1.81	0.45
1:A:739:MET:SD	1:A:778:THR:OG1	2.63	0.45
3:D:476:VAL:HG13	3:D:488:GLN:HG3	1.99	0.45
3:D:763:ASP:O	3:D:765:ILE:HG12	2.17	0.45
3:D:908:SER:O	3:D:911:ASN:HB3	2.17	0.45
4:E:772:THR:HA	4:E:775:PHE:HB2	1.99	0.45
5:F:253:LYS:NZ	5:F:257:SER:OG	2.44	0.45
5:F:334:GLN:HG2	5:F:860:ASN:HD21	1.73	0.45
5:F:1080:LEU:HG	5:F:1156:TYR:CD2	2.45	0.45
7:H:527:LEU:C	7:H:527:LEU:CD2	2.85	0.45
6:J:433:LYS:CA	7:K:499:GLY:HA2	2.45	0.45
7:K:404:ARG:CG	8:L:704:GLN:NE2	2.79	0.45
7:K:426:GLY:CA	8:L:738:ASP:HB3	2.45	0.45
1:M:210:GLU:OE2	1:M:214:ASN:ND2	2.49	0.45
1:M:679:ASP:HB3	1:M:684:ASN:HB2	1.99	0.45
1:M:749:ASP:HB2	2:O:1274:LYS:HZ3	1.80	0.45
3:P:100:PRO:HG2	3:P:898:LYS:NZ	2.32	0.45
3:P:495:PHE:O	3:P:499:LEU:HG	2.16	0.45
3:P:617:ALA:HB1	3:P:782:ARG:HH22	1.82	0.45
4:Q:772:THR:HA	4:Q:775:PHE:HB2	1.99	0.45
5:R:148:PHE:HA	5:R:151:ILE:HG12	1.99	0.45
5:R:1084:LEU:CB	5:R:1156:TYR:CE1	3.00	0.45
5:R:1110:MET:CE	5:R:1157:TRP:HZ2	2.29	0.45
7:T:386:LEU:HG	8:U:690:GLN:HE21	1.81	0.45
7:T:455:LYS:O	7:T:459:LEU:HB2	2.17	0.45
6:V:277:ILE:HG12	8:X:641:VAL:HG22	1.99	0.45
6:V:372:PHE:O	6:V:372:PHE:CD1	2.70	0.45
6:V:402:ASP:C	6:V:404:ASP:N	2.69	0.45
1:A:195:SER:OG	1:A:536:ASN:OD1	2.34	0.45
1:A:654:ILE:HG13	1:A:706:ILE:HG21	1.98	0.45
3:D:716:VAL:HB	3:D:885:ALA:HB1	1.99	0.45
4:E:53:GLU:HB2	4:E:140:LYS:HD2	1.98	0.45
4:E:300:SER:O	4:E:304:ASN:HB2	2.16	0.45
4:E:755:ASN:CB	5:F:1376:THR:OG1	2.65	0.45
4:E:982:ILE:HD12	4:E:982:ILE:N	2.31	0.45
4:E:1379:GLU:OE1	4:E:1383:GLN:NE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:320:GLU:OE2	5:F:351:HIS:ND1	2.50	0.45
5:F:1285:HIS:O	5:F:1285:HIS:CG	2.70	0.45
5:F:1363:ILE:HG22	1:Z:125:ILE:HD12	1.91	0.45
5:F:1495:THR:HA	5:F:1498:LEU:HB2	1.97	0.45
7:H:451:ALA:O	7:H:455:LYS:N	2.45	0.45
6:J:405:LEU:HD13	7:K:470:ALA:N	2.30	0.45
1:N:831:THR:HA	1:N:834:ASN:HB2	1.98	0.45
3:P:149:GLU:OE2	3:P:653:ARG:NH1	2.37	0.45
3:P:585:ILE:O	3:P:589:HIS:HB2	2.17	0.45
4:Q:1472:SER:HB2	4:Q:1475:SER:H	1.81	0.45
5:R:98:THR:HG22	5:R:99:ALA:H	1.81	0.45
5:R:159:LYS:HA	5:R:159:LYS:HD3	1.82	0.45
5:R:359:GLN:CB	5:R:421:ILE:HA	2.47	0.45
5:R:547:PHE:HE2	5:R:619:VAL:HG11	1.82	0.45
5:R:623:VAL:HG11	5:R:626:ASP:HB2	1.97	0.45
5:R:1068:ILE:CD1	5:R:1150:PHE:CE2	3.00	0.45
5:R:1166:HIS:C	5:R:1166:HIS:ND1	2.70	0.45
5:R:1193:ARG:HA	5:R:1193:ARG:HD3	1.85	0.45
5:R:1673:LEU:O	5:R:1676:LEU:N	2.49	0.45
6:S:289:GLN:CD	6:V:352:VAL:HG22	2.32	0.45
7:W:515:ASN:HD22	1:Z:20:LYS:HZ1	1.64	0.45
1:Z:661:LEU:HA	1:Z:664:THR:HG22	1.99	0.45
3:D:100:PRO:HG2	3:D:898:LYS:NZ	2.32	0.45
3:D:641:VAL:HB	3:D:648:GLU:CG	2.45	0.45
3:D:873:SER:OG	3:D:877:VAL:HB	2.17	0.45
3:D:1000:ASP:OD1	3:D:1000:ASP:N	2.49	0.45
4:E:258:ILE:HA	4:E:261:ILE:CD1	2.47	0.45
4:E:624:THR:HG23	4:E:632:ALA:HB2	1.97	0.45
4:E:696:GLY:HA2	5:F:1383:GLN:CB	2.47	0.45
5:F:159:LYS:HE3	5:F:363:ASP:CB	2.45	0.45
5:F:365:LYS:HA	5:F:369:GLN:CB	2.47	0.45
5:F:1472:GLU:OE2	5:F:1473:ASN:ND2	2.50	0.45
7:H:412:ILE:CA	7:H:415:LEU:HB2	2.42	0.45
8:I:794:ILE:HA	8:I:797:LEU:CD1	2.46	0.45
6:J:284:ILE:O	6:J:288:VAL:HG23	2.17	0.45
6:J:384:LEU:C	6:J:384:LEU:CD2	2.85	0.45
6:J:405:LEU:HD23	6:J:405:LEU:C	2.37	0.45
6:J:406:PHE:O	6:J:406:PHE:HD1	1.99	0.45
1:M:833:ILE:HD13	1:M:833:ILE:HA	1.77	0.45
1:N:88:LYS:HE2	8:U:805:ARG:CB	2.47	0.45
1:N:196:ASN:HD21	1:N:530:ARG:NE	2.13	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:658:ASN:O	1:N:662:SER:HB2	2.17	0.45
3:P:234:ILE:O	3:P:240:LEU:HD12	2.16	0.45
5:R:1227:THR:HA	7:T:472:ASN:CB	2.47	0.45
6:S:427:GLU:HB3	8:U:779:THR:HG21	1.99	0.45
8:U:778:LYS:C	8:U:778:LYS:CD	2.85	0.45
6:V:334:SER:C	6:V:336:PHE:H	2.15	0.45
6:V:377:ILE:HG22	6:V:378:HIS:CD2	2.47	0.45
6:V:389:ARG:NH1	6:V:389:ARG:C	2.71	0.45
6:V:389:ARG:NH1	6:V:392:SER:OG	2.49	0.45
7:W:355:PHE:CD1	7:W:358:LEU:HD12	2.45	0.45
1:Z:54:PHE:HA	1:Z:57:ARG:CZ	2.47	0.45
1:Z:239:ILE:HD12	1:Z:258:LYS:HD3	1.99	0.45
1:A:137:ASP:HB2	4:E:1386:LEU:HG	1.98	0.44
1:A:775:LEU:HD22	1:A:832:LEU:HD11	1.99	0.44
3:D:929:PHE:HA	3:D:932:ILE:HG22	1.99	0.44
4:E:1395:ILE:HD12	4:E:1398:VAL:HB	2.00	0.44
5:F:792:ASP:OD2	5:F:1244:ASN:ND2	2.43	0.44
5:F:1359:PHE:O	5:F:1359:PHE:CG	2.69	0.44
8:I:655:PHE:O	8:I:659:THR:OG1	2.27	0.44
8:I:685:MET:O	8:I:688:HIS:ND1	2.45	0.44
6:J:286:LYS:O	6:J:290:ILE:HG12	2.18	0.44
6:J:300:ASP:O	6:J:304:LEU:HD13	2.17	0.44
6:J:372:PHE:O	6:J:372:PHE:CD1	2.69	0.44
3:P:430:GLU:OE2	3:P:528:PRO:HA	2.16	0.44
3:P:527:SER:HB2	3:P:614:LEU:HD22	1.99	0.44
4:Q:22:MET:HA	4:Q:26:ALA:HB3	1.99	0.44
5:R:378:ALA:O	5:R:383:ASN:OD1	2.35	0.44
5:R:389:LEU:C	5:R:389:LEU:CD1	2.85	0.44
5:R:935:GLN:C	5:R:937:LEU:N	2.71	0.44
5:R:1282:ALA:O	5:R:1286:PHE:N	2.47	0.44
5:R:1634:LYS:O	5:R:1638:ILE:N	2.34	0.44
8:U:822:LYS:HE3	8:U:822:LYS:CA	2.44	0.44
6:V:404:ASP:C	6:V:406:PHE:H	2.21	0.44
7:W:508:LYS:HZ2	1:Z:15:SER:HG	1.60	0.44
1:Z:122:LEU:HD23	1:Z:122:LEU:HA	1.73	0.44
1:A:32:LEU:C	1:A:32:LEU:CD2	2.86	0.44
1:A:54:PHE:HA	1:A:57:ARG:CD	2.47	0.44
1:A:589:LEU:O	1:A:604:ILE:HG22	2.17	0.44
5:F:351:HIS:O	5:F:351:HIS:CG	2.70	0.44
5:F:378:ALA:O	5:F:383:ASN:OD1	2.35	0.44
5:F:588:ASN:HB3	5:F:768:VAL:HG12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:900:LEU:C	5:F:900:LEU:CD1	2.82	0.44
5:F:1068:ILE:CD1	5:F:1150:PHE:CE2	3.00	0.44
5:F:1084:LEU:CB	5:F:1156:TYR:CZ	3.00	0.44
5:F:1166:HIS:ND1	5:F:1166:HIS:C	2.70	0.44
5:F:1634:LYS:NZ	5:R:1635:ARG:N	2.66	0.44
8:L:638:ASP:HA	8:L:641:VAL:HG23	1.99	0.44
1:M:212:PHE:CE2	1:M:541:TYR:CZ	3.05	0.44
1:N:54:PHE:HA	1:N:57:ARG:CZ	2.47	0.44
1:N:542:THR:HG21	1:N:557:LEU:HD21	1.99	0.44
1:N:807:LYS:CB	1:N:836:ASP:O	2.63	0.44
3:P:789:VAL:HG21	3:P:952:LEU:CD1	2.47	0.44
3:P:1494:ASN:N	5:R:1471:LYS:HE2	2.32	0.44
4:Q:1038:LYS:HA	4:Q:1038:LYS:HD2	1.79	0.44
4:Q:1359:ILE:HD12	4:Q:1430:LEU:HD23	2.00	0.44
5:R:334:GLN:HB3	5:R:860:ASN:CG	2.37	0.44
5:R:1084:LEU:CB	5:R:1156:TYR:CZ	3.00	0.44
5:R:1439:GLU:O	5:R:1443:ASN:N	2.34	0.44
6:V:371:LYS:NZ	6:V:371:LYS:C	2.70	0.44
7:W:508:LYS:CE	1:Z:16:LYS:HB2	2.47	0.44
3:D:123:GLU:HG2	3:D:124:ARG:H	1.82	0.44
3:D:878:ILE:HG22	3:D:879:ASP:H	1.83	0.44
3:D:936:VAL:O	3:D:936:VAL:HG12	2.18	0.44
3:D:1494:ASN:N	5:F:1471:LYS:HE2	2.32	0.44
5:F:1110:MET:CE	5:F:1157:TRP:HZ2	2.29	0.44
5:F:1191:SER:HB3	5:F:1192:VAL:H	1.51	0.44
5:F:1219:VAL:O	5:F:1221:LEU:N	2.44	0.44
5:F:1305:SER:C	5:F:1307:VAL:N	2.69	0.44
5:F:1359:PHE:CE1	5:F:1363:ILE:CG2	3.00	0.44
6:J:406:PHE:CD1	6:J:406:PHE:O	2.71	0.44
8:L:802:ASP:O	8:L:806:SER:CB	2.65	0.44
1:M:123:MET:CB	6:V:413:ASN:CB	2.95	0.44
1:M:140:ILE:CG2	4:Q:1393:LYS:CE	2.94	0.44
3:P:929:PHE:HA	3:P:932:ILE:HG22	1.99	0.44
5:R:148:PHE:HE2	5:R:216:LEU:HD11	1.83	0.44
5:R:662:PRO:HA	5:R:668:ARG:HE	1.83	0.44
5:R:1026:PHE:HD2	5:R:1034:LEU:HD11	1.83	0.44
6:S:297:ASP:HA	6:S:300:ASP:HB2	1.99	0.44
7:T:415:LEU:HD12	7:T:415:LEU:HA	1.79	0.44
1:Z:542:THR:HG21	1:Z:557:LEU:HD21	1.99	0.44
1:Z:637:ILE:O	1:Z:640:SER:OG	2.29	0.44
1:A:32:LEU:CD1	1:N:22:LEU:HD22	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:212:PHE:CE2	1:A:541:TYR:CZ	3.06	0.44
3:D:399:SER:O	3:D:407:ALA:HB2	2.17	0.44
3:D:445:ARG:NH1	3:D:466:LYS:HB3	2.32	0.44
4:E:429:LYS:HA	4:E:429:LYS:HD2	1.80	0.44
4:E:495:ASP:HB2	4:E:529:LYS:HG3	1.99	0.44
4:E:1356:LEU:CB	1:Z:453:VAL:CG2	2.94	0.44
5:F:690:GLU:CG	8:I:722:LEU:CG	2.95	0.44
5:F:905:SER:CB	8:I:753:GLU:HB2	2.48	0.44
5:F:1026:PHE:HD2	5:F:1034:LEU:HD11	1.83	0.44
5:F:1084:LEU:CB	5:F:1156:TYR:CE1	3.00	0.44
7:K:444:LEU:CA	7:K:447:SER:CB	2.95	0.44
1:M:333:ILE:HG13	1:M:334:TRP:N	2.33	0.44
1:N:505:HIS:HA	1:N:508:ILE:HD12	2.00	0.44
3:P:353:GLN:HG2	3:P:374:LYS:H	1.82	0.44
4:Q:598:VAL:HG11	4:Q:638:ILE:HD11	2.00	0.44
5:R:676:ASP:HA	5:R:679:ILE:HB	1.99	0.44
5:R:1118:ARG:NH1	5:R:1118:ARG:CG	2.80	0.44
5:R:1283:LYS:HA	5:R:1283:LYS:HD3	1.61	0.44
5:R:1363:ILE:C	5:R:1363:ILE:CD1	2.85	0.44
7:T:314:ASN:HB2	7:T:361:ARG:HH22	1.81	0.44
8:X:637:LEU:O	8:X:641:VAL:HG23	2.18	0.44
1:Z:757:ALA:HA	1:Z:820:ILE:CB	2.47	0.44
1:A:125:ILE:CB	4:E:1212:THR:OG1	2.65	0.44
1:A:644:TYR:O	1:A:648:GLU:N	2.51	0.44
3:D:617:ALA:HB1	3:D:782:ARG:HH22	1.82	0.44
4:E:22:MET:HA	4:E:26:ALA:HB3	1.99	0.44
4:E:806:PHE:HE2	4:E:854:LEU:HD21	1.82	0.44
4:E:1421:ILE:HA	4:E:1424:LEU:HD23	1.99	0.44
5:F:148:PHE:HA	5:F:151:ILE:HG12	1.99	0.44
5:F:452:LYS:HA	5:F:452:LYS:HD2	1.70	0.44
5:F:616:VAL:O	5:F:620:THR:OG1	2.24	0.44
5:F:841:PHE:HE2	5:F:918:PHE:CE1	2.22	0.44
5:F:1623:VAL:HA	5:F:1626:VAL:HG22	2.00	0.44
6:G:451:MET:HE3	1:M:14:THR:CB	2.44	0.44
7:K:395:ALA:O	7:K:399:LEU:HB3	2.17	0.44
1:M:619:PHE:O	1:M:623:ILE:HG22	2.18	0.44
3:P:235:SER:CB	3:P:240:LEU:HD13	2.45	0.44
3:P:412:ILE:HG13	3:P:413:LEU:CD1	2.44	0.44
3:P:445:ARG:NH1	3:P:466:LYS:HB3	2.32	0.44
3:P:615:PHE:CE2	3:P:627:GLU:HG2	2.52	0.44
3:P:799:THR:HG23	3:P:803:PHE:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:830:SER:CB	3:P:934:SER:HB3	2.38	0.44
3:P:986:THR:C	3:P:988:LEU:H	2.20	0.44
4:Q:806:PHE:HE2	4:Q:854:LEU:HD21	1.82	0.44
4:Q:955:PHE:O	4:Q:959:LEU:HB2	2.17	0.44
4:Q:1022:TYR:CD2	4:Q:1026:THR:HG22	2.38	0.44
4:Q:1122:PHE:HA	4:Q:1125:GLU:HG2	1.99	0.44
5:R:48:ARG:NH1	5:R:85:GLU:OE2	2.47	0.44
5:R:365:LYS:HA	5:R:369:GLN:CB	2.47	0.44
5:R:680:PHE:HA	5:R:745:ARG:HH12	1.83	0.44
5:R:881:THR:HA	5:R:885:GLU:HB3	2.00	0.44
5:R:1191:SER:HB3	5:R:1192:VAL:H	1.51	0.44
7:W:315:LYS:CD	7:W:347:THR:HG22	2.48	0.44
7:W:395:ALA:O	7:W:399:LEU:HB3	2.17	0.44
1:A:760:PHE:HD2	1:A:823:ARG:HH11	1.66	0.44
3:D:527:SER:HB2	3:D:614:LEU:HD22	1.99	0.44
5:F:943:ARG:HB3	5:F:947:LYS:NZ	2.32	0.44
5:F:1026:PHE:HE1	5:F:1049:LEU:HD11	1.83	0.44
5:F:1068:ILE:HD12	5:F:1150:PHE:HD2	1.52	0.44
5:F:1138:PHE:C	5:F:1140:GLU:H	2.21	0.44
6:G:289:GLN:CD	6:J:352:VAL:HG22	2.32	0.44
7:H:313:TYR:HD1	7:H:349:PRO:HB3	1.82	0.44
6:J:364:ILE:HG23	7:K:424:ASN:HB3	1.99	0.44
1:M:253:LEU:HG	1:M:257:TRP:CD1	2.53	0.44
1:N:822:TYR:HB3	1:N:824:MET:CE	2.48	0.44
3:P:445:ARG:O	3:P:465:ILE:HA	2.18	0.44
3:P:781:LEU:HD11	3:P:903:ILE:HG21	2.00	0.44
3:P:936:VAL:HG12	3:P:936:VAL:O	2.18	0.44
4:Q:23:ASN:HD22	4:Q:838:LYS:HD2	1.81	0.44
4:Q:119:ASN:OD1	4:Q:119:ASN:N	2.50	0.44
4:Q:216:TYR:CD1	4:Q:220:PHE:HB2	2.51	0.44
4:Q:696:GLY:HA2	5:R:1383:GLN:CB	2.47	0.44
4:Q:773:LEU:O	4:Q:773:LEU:HD22	2.17	0.44
5:R:56:ILE:HG13	5:R:66:VAL:HG21	1.99	0.44
5:R:300:MET:HG3	5:R:303:LYS:HE2	2.00	0.44
5:R:672:TRP:CE2	5:R:716:LEU:HD12	2.53	0.44
5:R:920:ILE:CG2	5:R:926:LEU:HG	2.48	0.44
5:R:1472:GLU:OE2	5:R:1473:ASN:ND2	2.50	0.44
1:A:30:ASP:OD1	1:A:30:ASP:N	2.49	0.44
1:A:193:LEU:CD1	1:A:578:GLU:HG3	2.48	0.44
3:D:445:ARG:O	3:D:465:ILE:HA	2.18	0.44
3:D:585:ILE:O	3:D:589:HIS:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:608:ILE:CD1	3:D:641:VAL:HG13	2.48	0.44
3:D:615:PHE:CE2	3:D:627:GLU:HG2	2.52	0.44
4:E:793:LEU:HD23	4:E:793:LEU:HA	1.77	0.44
4:E:1087:TYR:HB2	4:E:1213:THR:HG21	2.00	0.44
4:E:1134:TRP:NE1	4:E:1170:ASP:OD2	2.41	0.44
4:E:1276:LYS:HD2	4:E:1276:LYS:HA	1.71	0.44
4:E:1305:ASN:OD1	4:E:1305:ASN:N	2.51	0.44
4:E:1475:SER:HA	4:E:1478:ILE:HD12	2.00	0.44
5:F:56:ILE:HG13	5:F:66:VAL:HG21	1.99	0.44
5:F:547:PHE:HE2	5:F:619:VAL:HG11	1.82	0.44
5:F:663:LYS:HA	5:F:720:HIS:CE1	2.53	0.44
5:F:881:THR:HA	5:F:885:GLU:HB3	2.00	0.44
5:F:935:GLN:C	5:F:937:LEU:N	2.71	0.44
5:F:1543:LEU:HD12	5:F:1543:LEU:O	2.18	0.44
6:G:427:GLU:HB3	8:I:779:THR:HG21	1.99	0.44
8:I:778:LYS:C	8:I:778:LYS:CD	2.85	0.44
8:I:795:LYS:HZ3	8:I:795:LYS:HB2	1.82	0.44
6:J:389:ARG:CZ	6:J:389:ARG:C	2.85	0.44
7:K:315:LYS:CD	7:K:347:THR:HG22	2.48	0.44
7:K:413:LEU:HD21	8:L:749:GLN:HB3	2.00	0.44
1:M:227:GLN:NE2	1:M:606:GLU:O	2.50	0.44
1:M:775:LEU:HD22	1:M:832:LEU:HD11	1.99	0.44
1:N:661:LEU:HA	1:N:664:THR:HG22	2.00	0.44
2:O:899:ALA:HB3	2:O:941:ASN:HD22	1.83	0.44
3:P:763:ASP:O	3:P:765:ILE:HG12	2.17	0.44
4:Q:1043:LEU:HB3	4:Q:1078:ILE:HD11	2.00	0.44
4:Q:1430:LEU:O	4:Q:1432:ARG:NH1	2.51	0.44
7:T:295:CYS:HA	7:T:298:SER:HB2	1.99	0.44
7:T:470:ALA:O	7:T:474:SER:HB2	2.17	0.44
8:U:788:ASP:OD1	8:U:788:ASP:N	2.49	0.44
7:W:444:LEU:CA	7:W:447:SER:CB	2.95	0.44
1:Z:357:LYS:HA	1:Z:360:ILE:HB	2.00	0.44
1:Z:391:HIS:HE2	1:Z:417:ARG:HB3	1.82	0.44
1:Z:766:ASN:O	1:Z:769:LYS:N	2.50	0.44
1:Z:822:TYR:HB3	1:Z:824:MET:CE	2.48	0.44
1:A:128:LEU:CB	4:E:1260:TYR:CE2	3.00	0.44
1:A:333:ILE:HG13	1:A:334:TRP:N	2.33	0.44
4:E:683:ASP:OD1	4:E:689:GLY:N	2.36	0.44
4:E:955:PHE:O	4:E:959:LEU:HB2	2.17	0.44
4:E:1359:ILE:HD12	4:E:1430:LEU:HD23	2.00	0.44
5:F:1490:ARG:HE	5:F:1493:LYS:HB3	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:436:LEU:CD1	7:H:503:ASN:CB	2.96	0.44
6:G:447:PHE:CE2	1:M:14:THR:HB	2.53	0.44
6:J:277:ILE:HG12	8:L:641:VAL:HG22	1.99	0.44
1:M:644:TYR:O	1:M:648:GLU:N	2.51	0.44
1:N:474:PHE:HB3	1:N:477:TYR:HB3	2.00	0.44
3:P:608:ILE:CD1	3:P:641:VAL:HG13	2.48	0.44
3:P:878:ILE:HG22	3:P:879:ASP:H	1.83	0.44
4:Q:320:MET:O	4:Q:324:SER:OG	2.23	0.44
4:Q:912:TRP:CD1	4:Q:917:PRO:HD3	2.52	0.44
4:Q:1020:ILE:HA	4:Q:1023:VAL:HG12	1.99	0.44
4:Q:1052:LYS:HZ2	4:Q:1068:LEU:HD23	1.82	0.44
5:R:663:LYS:HA	5:R:720:HIS:CE1	2.53	0.44
5:R:900:LEU:HD13	5:R:904:TYR:CD1	2.53	0.44
5:R:1543:LEU:HD12	5:R:1543:LEU:O	2.18	0.44
7:T:303:THR:HG23	7:T:353:TYR:CZ	2.53	0.44
7:T:313:TYR:HD1	7:T:349:PRO:HB3	1.82	0.44
8:U:795:LYS:C	8:U:795:LYS:CD	2.85	0.44
6:V:284:ILE:O	6:V:288:VAL:HG23	2.17	0.44
6:V:406:PHE:CD1	6:V:406:PHE:O	2.71	0.44
8:X:637:LEU:CD2	8:X:640:LEU:HB2	2.48	0.44
1:Z:116:LYS:HZ3	1:Z:116:LYS:C	2.21	0.44
1:A:436:LEU:HD21	1:A:481:THR:HG23	2.00	0.44
1:A:628:ALA:HB1	1:A:644:TYR:CE2	2.53	0.44
3:D:986:THR:C	3:D:988:LEU:H	2.20	0.44
4:E:1122:PHE:HA	4:E:1125:GLU:HG2	1.99	0.44
5:F:200:LEU:HA	5:F:200:LEU:HD13	1.79	0.44
5:F:334:GLN:HB3	5:F:860:ASN:CG	2.37	0.44
5:F:389:LEU:C	5:F:389:LEU:CD1	2.86	0.44
5:F:1617:SER:O	5:F:1617:SER:OG	2.28	0.44
6:J:383:LYS:CD	8:L:756:ASN:CG	2.85	0.44
6:J:406:PHE:HB2	7:K:469:ARG:NH2	2.33	0.44
8:L:637:LEU:O	8:L:641:VAL:HG23	2.18	0.44
1:M:735:THR:O	1:M:739:MET:HG2	2.18	0.44
3:P:214:VAL:HA	3:P:233:LEU:O	2.18	0.44
3:P:394:GLU:O	3:P:398:ILE:HG13	2.18	0.44
4:Q:40:ILE:HD12	4:Q:40:ILE:HA	1.90	0.44
4:Q:1087:TYR:HB2	4:Q:1213:THR:HG21	2.00	0.44
5:R:426:GLN:HA	5:R:429:GLU:HG3	2.00	0.44
5:R:1406:TYR:OH	5:R:1444:ASP:OD2	2.33	0.44
7:T:431:ILE:H	7:T:431:ILE:HG13	1.57	0.44
8:X:749:GLN:NE2	8:X:752:ASP:OD2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:196:ASN:HD21	1:Z:530:ARG:NE	2.13	0.44
1:A:227:GLN:NE2	1:A:606:GLU:O	2.50	0.43
1:A:341:LEU:HD21	1:A:371:PHE:CZ	2.53	0.43
3:D:401:ILE:CG2	3:D:462:LEU:HB3	2.30	0.43
4:E:119:ASN:N	4:E:119:ASN:OD1	2.51	0.43
4:E:254:SER:OG	5:F:1191:SER:HA	2.17	0.43
4:E:605:LYS:O	4:E:605:LYS:NZ	2.37	0.43
5:F:148:PHE:HE2	5:F:216:LEU:HD11	1.83	0.43
5:F:1363:ILE:HG22	1:Z:125:ILE:HD11	1.97	0.43
7:H:303:THR:HG23	7:H:353:TYR:CZ	2.53	0.43
6:J:372:PHE:CD2	6:J:372:PHE:C	2.89	0.43
1:M:125:ILE:CB	4:Q:1212:THR:OG1	2.65	0.43
1:M:128:LEU:CB	4:Q:1260:TYR:CE2	3.00	0.43
1:M:591:GLY:HA3	1:M:600:ILE:O	2.18	0.43
1:M:621:HIS:ND1	1:M:625:GLU:OE2	2.32	0.43
1:M:628:ALA:HB1	1:M:644:TYR:CE2	2.53	0.43
1:M:709:LYS:O	1:M:713:ILE:HG12	2.18	0.43
1:N:239:ILE:HD12	1:N:258:LYS:HD3	1.99	0.43
3:P:605:VAL:HG11	3:P:608:ILE:HD11	2.00	0.43
3:P:648:GLU:HG3	3:P:650:TYR:HE1	1.83	0.43
5:R:285:PHE:O	5:R:289:CYS:N	2.48	0.43
5:R:659:ASN:OD1	5:R:659:ASN:N	2.51	0.43
5:R:1000:LEU:HA	5:R:1000:LEU:HD13	1.82	0.43
5:R:1623:VAL:HA	5:R:1626:VAL:HG22	2.00	0.43
5:R:1672:MET:O	5:R:1675:THR:OG1	2.29	0.43
6:V:384:LEU:C	6:V:384:LEU:CD2	2.85	0.43
1:Z:56:LEU:HD22	1:Z:60:ASN:ND2	2.32	0.43
1:Z:436:LEU:HD21	1:Z:481:THR:HG23	2.00	0.43
1:Z:807:LYS:C	1:Z:836:ASP:O	2.56	0.43
1:A:591:GLY:HA3	1:A:600:ILE:O	2.18	0.43
1:A:619:PHE:O	1:A:623:ILE:HG22	2.18	0.43
3:D:508:LYS:CG	3:D:516:LEU:HA	2.48	0.43
3:D:713:ILE:HD12	3:D:769:ARG:CD	2.48	0.43
3:D:799:THR:HG23	3:D:803:PHE:O	2.18	0.43
4:E:216:TYR:CD1	4:E:220:PHE:HB2	2.51	0.43
4:E:530:ILE:HA	4:E:552:LEU:O	2.19	0.43
4:E:773:LEU:O	4:E:773:LEU:HD22	2.17	0.43
5:F:659:ASN:N	5:F:659:ASN:OD1	2.51	0.43
5:F:676:ASP:HA	5:F:679:ILE:HB	1.99	0.43
7:H:394:THR:HA	8:I:697:LEU:HD22	2.01	0.43
7:H:455:LYS:O	7:H:459:LEU:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:511:GLU:HA	7:H:514:THR:CB	2.49	0.43
1:M:193:LEU:CD1	1:M:578:GLU:HG3	2.48	0.43
1:M:198:SER:HB3	1:M:543:LYS:HE2	2.01	0.43
1:N:599:ARG:NE	1:N:605:GLU:OE1	2.40	0.43
1:N:599:ARG:HH22	1:N:620:LEU:HD21	1.84	0.43
1:N:757:ALA:HA	1:N:820:ILE:CB	2.47	0.43
1:N:766:ASN:O	1:N:769:LYS:N	2.50	0.43
3:P:331:ILE:O	3:P:334:VAL:HG23	2.18	0.43
3:P:484:GLN:NE2	3:P:566:LYS:H	2.16	0.43
4:Q:319:PRO:HG2	4:Q:361:LYS:HD3	2.00	0.43
4:Q:343:ASP:O	4:Q:347:THR:OG1	2.36	0.43
4:Q:795:ILE:O	4:Q:798:SER:OG	2.29	0.43
4:Q:950:ARG:HG3	4:Q:1012:VAL:HA	2.00	0.43
4:Q:963:LYS:HB2	4:Q:963:LYS:HE3	1.84	0.43
4:Q:976:PHE:HZ	7:W:457:ASN:HB3	1.83	0.43
4:Q:1274:GLU:HA	4:Q:1277:ILE:HD12	1.99	0.43
4:Q:1395:ILE:HD12	4:Q:1398:VAL:HB	2.00	0.43
5:R:253:LYS:NZ	5:R:257:SER:OG	2.44	0.43
5:R:905:SER:CB	8:U:749:GLN:O	2.66	0.43
6:S:343:ASP:O	6:S:347:THR:OG1	2.31	0.43
6:V:286:LYS:O	6:V:290:ILE:HG12	2.17	0.43
6:V:405:LEU:HD13	7:W:470:ALA:N	2.30	0.43
7:W:508:LYS:HE3	1:Z:16:LYS:HB2	1.99	0.43
8:X:809:ASP:HA	8:X:812:THR:HB	2.00	0.43
1:Z:767:ILE:CD1	1:Z:768:VAL:HG23	2.48	0.43
1:Z:771:ILE:CG2	1:Z:772:PRO:CD	2.92	0.43
1:Z:775:LEU:HD22	1:Z:775:LEU:HA	1.64	0.43
1:A:253:LEU:HG	1:A:257:TRP:CD1	2.53	0.43
1:A:771:ILE:HD13	1:A:774:LEU:HD12	2.00	0.43
3:D:235:SER:CB	3:D:240:LEU:HD13	2.45	0.43
3:D:353:GLN:HG2	3:D:374:LYS:H	1.82	0.43
3:D:394:GLU:O	3:D:398:ILE:HG13	2.18	0.43
3:D:568:GLN:NE2	3:D:570:VAL:O	2.52	0.43
4:E:36:GLN:HE22	4:E:943:VAL:HA	1.83	0.43
4:E:1071:LYS:HD3	4:E:1071:LYS:HA	1.83	0.43
4:E:1274:GLU:HA	4:E:1277:ILE:HD12	1.99	0.43
5:F:23:ASP:OD1	5:F:23:ASP:N	2.47	0.43
5:F:583:SER:O	5:F:583:SER:OG	2.28	0.43
5:F:672:TRP:CE2	5:F:716:LEU:HD12	2.53	0.43
5:F:742:GLN:HG3	5:F:747:VAL:HA	2.01	0.43
5:F:1281:LYS:HA	5:F:1281:LYS:HD2	1.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:297:ASP:HA	6:G:300:ASP:HB2	2.00	0.43
6:G:350:PHE:HE2	7:H:418:GLN:HE22	1.63	0.43
7:H:386:LEU:HD21	8:I:687:GLU:HA	2.00	0.43
8:I:798:ASN:O	8:I:801:PHE:CB	2.66	0.43
8:L:667:GLN:O	8:L:670:VAL:HG22	2.18	0.43
1:M:54:PHE:HA	1:M:57:ARG:CD	2.47	0.43
1:M:222:PHE:HD1	1:M:232:PHE:HB3	1.83	0.43
1:N:453:VAL:CG2	4:Q:1356:LEU:CB	2.94	0.43
1:N:792:SER:OG	1:N:799:LYS:NZ	2.43	0.43
4:Q:495:ASP:HB2	4:Q:529:LYS:HG3	1.99	0.43
5:R:131:TYR:O	5:R:135:ILE:HG12	2.19	0.43
5:R:213:ILE:HB	5:R:240:LEU:HD13	2.00	0.43
5:R:905:SER:CB	8:U:753:GLU:HB2	2.48	0.43
5:R:1490:ARG:HE	5:R:1493:LYS:HB3	1.83	0.43
5:R:1606:GLN:O	5:R:1610:ALA:CB	2.60	0.43
6:S:436:LEU:CD1	7:T:503:ASN:CB	2.96	0.43
7:T:511:GLU:HA	7:T:514:THR:CB	2.48	0.43
8:U:795:LYS:HA	8:U:795:LYS:HZ3	1.82	0.43
6:V:372:PHE:CD2	6:V:372:PHE:C	2.89	0.43
6:V:389:ARG:CZ	6:V:389:ARG:HB3	2.44	0.43
7:W:437:TRP:HB3	8:X:744:ALA:HB3	2.00	0.43
1:Z:116:LYS:HZ3	1:Z:116:LYS:CB	2.21	0.43
1:A:137:ASP:OD2	4:E:1386:LEU:HG	2.16	0.43
1:A:735:THR:O	1:A:739:MET:HG2	2.18	0.43
3:D:735:SER:O	3:D:739:THR:OG1	2.32	0.43
3:D:909:PHE:O	3:D:913:LEU:HG	2.19	0.43
3:D:1140:LYS:HZ1	1:N:204:GLU:CA	2.06	0.43
4:E:950:ARG:HG3	4:E:1012:VAL:HA	2.00	0.43
5:F:213:ILE:HB	5:F:240:LEU:HD13	2.01	0.43
5:F:1283:LYS:HA	5:F:1283:LYS:NZ	2.34	0.43
5:F:1286:PHE:O	5:F:1286:PHE:CD1	2.70	0.43
8:I:731:GLY:C	8:I:733:ALA:N	2.71	0.43
1:M:225:SER:O	1:M:229:ASN:N	2.51	0.43
1:M:436:LEU:HD21	1:M:481:THR:HG23	2.00	0.43
1:N:78:LEU:HB3	1:N:83:VAL:CG2	2.48	0.43
1:N:510:LEU:HB3	1:N:516:PHE:HB2	2.00	0.43
3:P:123:GLU:HG2	3:P:124:ARG:H	1.82	0.43
3:P:430:GLU:OE1	3:P:528:PRO:HD3	2.18	0.43
4:Q:36:GLN:HE22	4:Q:943:VAL:HA	1.83	0.43
4:Q:305:ASP:O	4:Q:309:ASN:CB	2.67	0.43
4:Q:1408:LEU:HD21	4:Q:1456:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:351:HIS:CG	5:R:351:HIS:O	2.70	0.43
5:R:421:ILE:C	5:R:423:LEU:N	2.72	0.43
5:R:925:HIS:HA	5:R:928:LEU:HD11	2.00	0.43
5:R:1309:LEU:C	5:R:1309:LEU:CD2	2.86	0.43
7:T:420:ALA:CB	8:U:745:TYR:HE1	2.18	0.43
8:U:798:ASN:O	8:U:801:PHE:CB	2.66	0.43
6:V:298:THR:HA	8:X:658:TYR:CE1	2.54	0.43
6:V:398:VAL:HG21	7:W:466:LEU:CD1	2.36	0.43
6:V:406:PHE:HB2	7:W:469:ARG:NH2	2.33	0.43
6:V:431:GLN:O	8:X:782:ILE:HA	2.19	0.43
8:X:664:SER:O	8:X:668:VAL:HG23	2.18	0.43
8:X:695:GLN:NE2	8:X:696:SER:OG	2.51	0.43
8:X:816:LYS:HA	8:X:816:LYS:HD2	1.83	0.43
1:Z:786:ILE:HD11	1:Z:838:SER:HA	2.01	0.43
1:A:222:PHE:HD1	1:A:232:PHE:HB3	1.83	0.43
2:C:79:HIS:CE1	2:C:704:VAL:HG11	2.54	0.43
3:D:331:ILE:O	3:D:334:VAL:HG23	2.18	0.43
5:F:662:PRO:HA	5:F:668:ARG:HE	1.83	0.43
5:F:726:SER:HA	5:F:730:VAL:HG22	2.01	0.43
5:F:1227:THR:HA	7:H:472:ASN:CB	2.47	0.43
6:J:372:PHE:O	6:J:372:PHE:CG	2.70	0.43
6:J:379:LEU:HG	6:J:379:LEU:O	2.19	0.43
6:J:395:GLU:HA	6:J:398:VAL:HG22	2.01	0.43
7:K:385:GLN:HA	7:K:385:GLN:NE2	2.23	0.43
7:K:395:ALA:O	7:K:399:LEU:HD23	2.19	0.43
7:K:430:GLY:C	7:K:432:ALA:H	2.20	0.43
1:M:516:PHE:CE2	1:M:534:PHE:HB2	2.54	0.43
1:N:767:ILE:CD1	1:N:768:VAL:HG23	2.48	0.43
1:N:807:LYS:CB	1:N:837:VAL:C	2.84	0.43
3:P:568:GLN:NE2	3:P:570:VAL:O	2.52	0.43
3:P:716:VAL:HB	3:P:885:ALA:HB1	1.99	0.43
4:Q:787:PRO:HG2	4:Q:1143:GLN:HE21	1.84	0.43
5:R:783:ILE:HG13	5:R:784:ILE:H	1.83	0.43
5:R:935:GLN:CB	5:R:998:LEU:CD2	2.97	0.43
5:R:1227:THR:CB	7:T:475:SER:HG	2.14	0.43
7:T:380:LEU:O	7:T:384:THR:OG1	2.25	0.43
7:W:483:VAL:CB	7:W:494:MET:HA	2.49	0.43
8:X:733:ALA:HA	8:X:737:ASN:HD21	1.84	0.43
1:Z:505:HIS:HA	1:Z:508:ILE:HD12	2.00	0.43
1:A:198:SER:HB3	1:A:543:LYS:HE2	2.01	0.43
3:D:118:THR:HB	3:D:623:GLY:CA	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:214:VAL:HA	3:D:233:LEU:O	2.19	0.43
3:D:1467:SER:CA	1:Z:621:HIS:CE1	3.02	0.43
4:E:1430:LEU:O	4:E:1432:ARG:NH1	2.51	0.43
5:F:227:ASP:CA	5:F:361:LEU:CB	2.97	0.43
5:F:300:MET:HG3	5:F:303:LYS:HE2	2.00	0.43
5:F:421:ILE:C	5:F:423:LEU:N	2.72	0.43
5:F:1257:LEU:HD23	5:F:1257:LEU:HA	1.84	0.43
5:F:1519:LYS:HA	5:F:1522:VAL:HG12	2.00	0.43
5:F:1618:SER:CB	1:Z:634:ASP:O	2.67	0.43
6:G:458:ALA:HB3	1:Z:32:LEU:HD21	2.00	0.43
7:H:298:SER:OG	7:H:305:LYS:O	2.25	0.43
7:H:412:ILE:O	7:H:415:LEU:HB2	2.17	0.43
7:H:508:LYS:HD2	7:H:508:LYS:HA	1.43	0.43
7:K:454:GLY:C	7:K:456:THR:H	2.22	0.43
8:L:809:ASP:HA	8:L:812:THR:HB	2.00	0.43
3:P:508:LYS:CG	3:P:516:LEU:HA	2.49	0.43
3:P:509:PHE:CD1	3:P:515:VAL:HG23	2.54	0.43
3:P:667:LEU:HD12	3:P:669:PHE:HB2	2.00	0.43
3:P:684:PHE:O	3:P:688:LYS:HB2	2.19	0.43
3:P:793:PHE:CZ	3:P:934:SER:HB2	2.54	0.43
5:R:742:GLN:HG3	5:R:747:VAL:HA	2.01	0.43
5:R:841:PHE:CZ	5:R:922:LEU:HB2	2.54	0.43
5:R:909:LEU:O	7:T:403:SER:CB	2.66	0.43
5:R:1285:HIS:O	5:R:1285:HIS:CG	2.70	0.43
8:X:728:THR:OG1	8:X:733:ALA:O	2.33	0.43
1:Z:18:ALA:CA	1:Z:21:LYS:HB3	2.47	0.43
1:Z:138:ASN:C	1:Z:138:ASN:ND2	2.72	0.43
3:D:582:ASP:O	3:D:585:ILE:HG22	2.19	0.43
5:F:159:LYS:HD3	5:F:159:LYS:HA	1.82	0.43
5:F:680:PHE:HA	5:F:745:ARG:HH12	1.83	0.43
5:F:920:ILE:CG2	5:F:926:LEU:HG	2.48	0.43
5:F:1489:ILE:HA	5:F:1492:LEU:HD12	2.01	0.43
7:H:420:ALA:CB	8:I:745:TYR:CD1	2.96	0.43
8:L:664:SER:O	8:L:667:GLN:HG3	2.19	0.43
1:M:532:ILE:HG22	1:M:532:ILE:O	2.18	0.43
1:N:136:PHE:CD1	1:N:136:PHE:O	2.71	0.43
1:N:138:ASN:C	1:N:138:ASN:ND2	2.72	0.43
1:N:436:LEU:HD21	1:N:481:THR:HG23	2.00	0.43
1:N:687:LEU:HD23	1:N:690:ARG:HD2	2.01	0.43
3:P:454:ARG:HA	3:P:455:PHE:HA	1.73	0.43
3:P:909:PHE:O	3:P:913:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:220:VAL:HA	5:R:223:LEU:HG	2.01	0.43
5:R:227:ASP:CA	5:R:361:LEU:CB	2.97	0.43
5:R:320:GLU:CD	5:R:351:HIS:ND1	2.71	0.43
5:R:672:TRP:O	5:R:675:LEU:HB3	2.19	0.43
5:R:1283:LYS:HA	5:R:1283:LYS:NZ	2.34	0.43
6:V:305:ILE:HG21	8:X:665:TRP:NE1	2.34	0.43
6:V:435:GLY:O	6:V:440:VAL:CB	2.67	0.43
1:Z:121:ILE:HD12	1:Z:121:ILE:HA	1.64	0.43
1:A:138:ASN:C	1:A:138:ASN:ND2	2.72	0.43
1:A:140:ILE:HG23	4:E:1393:LYS:HD3	1.84	0.43
1:A:649:GLU:OE1	1:A:652:ILE:HD12	2.19	0.43
3:D:491:ARG:HG3	3:D:521:LYS:N	2.34	0.43
3:D:766:LEU:HD22	3:D:889:GLU:HA	2.01	0.43
3:D:781:LEU:HD11	3:D:903:ILE:HG21	2.00	0.43
4:E:260:ARG:CZ	4:E:761:PHE:CZ	3.00	0.43
4:E:305:ASP:O	4:E:309:ASN:CB	2.67	0.43
4:E:1408:LEU:HD21	4:E:1456:ILE:HD11	2.00	0.43
5:F:841:PHE:CZ	5:F:922:LEU:HB2	2.54	0.43
8:I:795:LYS:C	8:I:795:LYS:NZ	2.72	0.43
6:J:435:GLY:O	6:J:440:VAL:CB	2.67	0.43
8:L:637:LEU:CD2	8:L:640:LEU:HB2	2.48	0.43
1:M:370:TYR:CD2	1:M:390:LEU:HD13	2.54	0.43
1:M:776:ILE:CD1	1:M:828:THR:HG23	2.49	0.43
1:N:391:HIS:HE2	1:N:417:ARG:HB3	1.83	0.43
1:N:634:ASP:O	5:R:1618:SER:CB	2.67	0.43
1:N:709:LYS:NZ	1:N:764:ASP:HB3	2.34	0.43
3:P:375:SER:O	3:P:420:ILE:HD12	2.19	0.43
3:P:485:GLN:OE1	3:P:485:GLN:N	2.51	0.43
3:P:611:LEU:HG	3:P:640:ALA:HB2	2.00	0.43
3:P:766:LEU:HD22	3:P:889:GLU:HA	2.01	0.43
3:P:976:THR:CB	3:P:981:ILE:CA	2.97	0.43
4:Q:442:LEU:HD23	4:Q:442:LEU:HA	1.86	0.43
4:Q:1475:SER:HA	4:Q:1478:ILE:HD12	2.00	0.43
5:R:731:PHE:CD2	5:R:790:SER:HA	2.54	0.43
5:R:1182:ASN:OD1	5:R:1182:ASN:N	2.51	0.43
6:S:398:VAL:HA	6:S:401:ILE:HG12	2.01	0.43
6:V:405:LEU:HD23	6:V:405:LEU:C	2.38	0.43
1:Z:474:PHE:HB3	1:Z:477:TYR:HB3	2.00	0.43
1:A:703:SER:OG	1:A:711:LYS:NZ	2.39	0.43
3:D:451:SER:HB2	3:D:458:GLU:HB2	2.01	0.43
3:D:484:GLN:NE2	3:D:566:LYS:H	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:633:THR:OG1	3:D:783:ASP:OD1	2.27	0.43
4:E:787:PRO:HG2	4:E:1143:GLN:HE21	1.84	0.43
4:E:976:PHE:HZ	7:K:457:ASN:HB3	1.83	0.43
5:F:131:TYR:O	5:F:135:ILE:HG12	2.18	0.43
5:F:900:LEU:HD13	5:F:904:TYR:CD1	2.53	0.43
5:F:909:LEU:O	7:H:403:SER:CB	2.66	0.43
5:F:1349:PHE:N	5:F:1349:PHE:HD1	2.15	0.43
5:F:1362:ASP:CB	1:Z:125:ILE:CG2	2.97	0.43
6:G:452:ASP:CB	1:Z:84:ASP:CG	2.87	0.43
8:I:795:LYS:C	8:I:795:LYS:CD	2.85	0.43
8:I:805:ARG:CB	1:Z:88:LYS:HE2	2.47	0.43
6:J:305:ILE:HG21	8:L:665:TRP:NE1	2.34	0.43
7:K:437:TRP:HB3	8:L:744:ALA:HB3	2.00	0.43
8:L:664:SER:O	8:L:668:VAL:HG23	2.18	0.43
1:M:679:ASP:OD2	1:M:684:ASN:ND2	2.50	0.43
1:M:703:SER:OG	1:M:711:LYS:NZ	2.39	0.43
1:N:84:ASP:CG	6:S:452:ASP:CB	2.87	0.43
1:N:122:LEU:HD23	1:N:122:LEU:HA	1.73	0.43
3:P:582:ASP:O	3:P:585:ILE:HG22	2.19	0.43
3:P:988:LEU:HA	3:P:992:CYS:CB	2.49	0.43
4:Q:443:ILE:HD12	4:Q:590:LEU:HD11	2.01	0.43
4:Q:1319:LEU:CD2	4:Q:1398:VAL:HG22	2.46	0.43
5:R:229:PHE:O	5:R:233:TYR:N	2.52	0.43
5:R:1519:LYS:HA	5:R:1522:VAL:HG12	2.00	0.43
8:U:685:MET:O	8:U:688:HIS:ND1	2.45	0.43
8:X:638:ASP:HA	8:X:641:VAL:HG23	1.99	0.43
1:Z:136:PHE:CD1	1:Z:136:PHE:O	2.72	0.43
1:A:131:GLY:HA2	1:A:134:LYS:HD3	2.01	0.43
3:D:667:LEU:HD12	3:D:669:PHE:HB2	2.00	0.43
3:D:793:PHE:CZ	3:D:934:SER:HB2	2.54	0.43
3:D:1377:ASN:HD21	1:Z:758:GLN:HE21	1.59	0.43
4:E:598:VAL:HG11	4:E:638:ILE:HD11	2.00	0.43
4:E:963:LYS:HB2	4:E:963:LYS:HE3	1.84	0.43
4:E:1561:LEU:HD13	4:E:1585:LEU:HD11	2.01	0.43
5:F:135:ILE:HG23	5:F:206:ILE:HA	2.01	0.43
5:F:158:ILE:HA	5:F:183:ARG:CZ	2.49	0.43
5:F:606:VAL:HA	5:F:609:LEU:HG	2.01	0.43
5:F:917:PHE:O	5:F:919:ASN:N	2.52	0.43
5:F:1545:ARG:HA	5:F:1548:ALA:HB3	2.01	0.43
6:J:405:LEU:CD1	7:K:469:ARG:C	2.65	0.43
6:J:431:GLN:O	8:L:782:ILE:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L:695:GLN:NE2	8:L:696:SER:OG	2.51	0.43
1:N:90:LEU:HD23	1:N:90:LEU:HA	1.69	0.43
3:P:467:PHE:CD1	3:P:473:THR:HG23	2.54	0.43
3:P:884:VAL:HB	3:P:887:GLN:OE1	2.19	0.43
3:P:919:VAL:HG12	3:P:920:GLU:N	2.34	0.43
3:P:977:LYS:HD3	1:Z:316:ALA:N	2.29	0.43
4:Q:120:PRO:HB3	4:Q:127:TYR:CG	2.54	0.43
5:R:870:LYS:HA	5:R:870:LYS:HD2	1.85	0.43
5:R:919:ASN:HB3	5:R:920:ILE:H	1.41	0.43
1:A:681:SER:HA	1:A:687:LEU:HB3	2.01	0.42
2:C:1262:LEU:HD23	2:C:1310:MET:HE1	2.00	0.42
3:D:509:PHE:CD1	3:D:515:VAL:HG23	2.54	0.42
3:D:684:PHE:O	3:D:688:LYS:HB2	2.19	0.42
4:E:40:ILE:HD12	4:E:40:ILE:HA	1.90	0.42
5:F:731:PHE:CD2	5:F:790:SER:HA	2.54	0.42
5:F:783:ILE:HG13	5:F:784:ILE:H	1.83	0.42
5:F:825:ILE:O	5:F:825:ILE:HG23	2.19	0.42
5:F:905:SER:CB	8:I:749:GLN:O	2.67	0.42
7:H:444:LEU:HA	7:H:447:SER:HB3	2.01	0.42
7:K:483:VAL:CB	7:K:494:MET:HA	2.49	0.42
8:L:640:LEU:CD1	8:L:643:LYS:HG2	2.49	0.42
8:L:733:ALA:HA	8:L:737:ASN:HD21	1.84	0.42
2:O:79:HIS:CE1	2:O:704:VAL:HG11	2.54	0.42
3:P:212:GLN:N	3:P:235:SER:O	2.47	0.42
3:P:491:ARG:HG3	3:P:521:LYS:N	2.34	0.42
4:Q:569:LEU:HD22	4:Q:634:ILE:HD11	2.01	0.42
4:Q:1561:LEU:HD13	4:Q:1585:LEU:HD11	2.01	0.42
5:R:917:PHE:O	5:R:919:ASN:N	2.52	0.42
5:R:1489:ILE:HA	5:R:1492:LEU:HD12	2.01	0.42
7:T:386:LEU:HD21	8:U:687:GLU:HA	2.00	0.42
6:V:304:LEU:O	6:V:308:ILE:HG12	2.19	0.42
6:V:379:LEU:O	6:V:379:LEU:HG	2.19	0.42
8:X:664:SER:O	8:X:667:GLN:HG3	2.19	0.42
8:X:667:GLN:O	8:X:670:VAL:HG22	2.18	0.42
1:Z:78:LEU:HB3	1:Z:83:VAL:CG2	2.48	0.42
1:A:215:TYR:CD2	1:A:238:PHE:HE1	2.37	0.42
2:C:888:LEU:HA	2:C:892:PHE:HD2	1.84	0.42
3:D:491:ARG:HB2	3:D:521:LYS:H	1.84	0.42
3:D:822:ILE:HG22	3:D:824:GLN:H	1.84	0.42
3:D:988:LEU:HA	3:D:992:CYS:CB	2.49	0.42
4:E:260:ARG:CG	4:E:260:ARG:NH1	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:229:PHE:O	5:F:233:TYR:N	2.52	0.42
5:F:320:GLU:CD	5:F:351:HIS:ND1	2.72	0.42
5:F:437:ASP:HA	5:F:440:GLN:HG3	2.01	0.42
5:F:522:MET:SD	5:F:523:ARG:N	2.92	0.42
5:F:1499:LEU:HD23	5:F:1499:LEU:HA	1.92	0.42
6:G:440:VAL:HA	6:G:443:VAL:HB	2.01	0.42
6:G:449:LEU:HA	1:Z:84:ASP:OD1	2.19	0.42
8:I:672:GLY:HA2	8:I:675:GLN:HG2	2.00	0.42
8:I:822:LYS:NZ	8:I:822:LYS:CB	2.82	0.42
6:J:283:TYR:CD2	6:J:286:LYS:HE2	2.55	0.42
6:J:371:LYS:C	6:J:371:LYS:CD	2.88	0.42
7:K:365:GLN:O	7:K:369:VAL:HG23	2.19	0.42
1:M:215:TYR:CD2	1:M:238:PHE:HE1	2.37	0.42
1:M:341:LEU:HD21	1:M:371:PHE:CZ	2.53	0.42
1:N:250:ASN:HA	1:N:253:LEU:CB	2.47	0.42
1:N:748:SER:OG	1:N:752:SER:CB	2.65	0.42
1:N:807:LYS:C	1:N:836:ASP:O	2.56	0.42
5:R:1026:PHE:HE1	5:R:1049:LEU:HD11	1.83	0.42
7:T:532:ALA:HA	8:U:821:ILE:HG13	2.01	0.42
7:W:413:LEU:HD21	8:X:749:GLN:HB3	2.00	0.42
8:X:676:ILE:HD13	8:X:679:LEU:HD22	2.01	0.42
1:Z:444:LYS:HA	1:Z:444:LYS:HD3	1.89	0.42
1:Z:709:LYS:NZ	1:Z:764:ASP:HB3	2.34	0.42
1:Z:779:LEU:CB	1:Z:835:ILE:CA	2.97	0.42
1:A:531:ASP:OD2	1:A:536:ASN:ND2	2.41	0.42
2:C:899:ALA:HB3	2:C:941:ASN:HD22	1.83	0.42
3:D:605:VAL:HG11	3:D:608:ILE:HD11	2.00	0.42
3:D:648:GLU:HG3	3:D:650:TYR:HE1	1.83	0.42
4:E:291:ASP:OD1	4:E:291:ASP:N	2.51	0.42
4:E:569:LEU:HD22	4:E:634:ILE:HD11	2.01	0.42
4:E:1444:LEU:O	4:E:1448:SER:N	2.49	0.42
5:F:426:GLN:HA	5:F:429:GLU:HG3	2.00	0.42
5:F:1634:LYS:HA	5:F:1637:VAL:HG22	2.00	0.42
6:G:296:ALA:CB	6:J:363:LYS:HD2	2.45	0.42
7:H:365:GLN:HA	7:H:368:ASN:HD22	1.84	0.42
6:J:298:THR:HA	8:L:658:TYR:CE1	2.54	0.42
6:J:365:SER:N	7:K:424:ASN:HD21	2.04	0.42
6:J:406:PHE:HB2	7:K:469:ARG:HH21	1.84	0.42
7:K:321:ALA:O	7:K:339:MET:HE3	2.19	0.42
7:K:402:GLN:C	7:K:402:GLN:NE2	2.72	0.42
8:L:682:ASP:OD1	8:L:685:MET:HE3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:491:ARG:HB2	3:P:521:LYS:H	1.83	0.42
3:P:1367:LEU:HD23	3:P:1398:PHE:CE1	2.54	0.42
4:Q:773:LEU:HA	4:Q:773:LEU:HD23	1.50	0.42
5:R:158:ILE:HA	5:R:183:ARG:CZ	2.49	0.42
5:R:589:ASP:OD1	5:R:589:ASP:N	2.52	0.42
5:R:1138:PHE:C	5:R:1140:GLU:H	2.21	0.42
7:T:394:THR:HA	8:U:697:LEU:HD22	2.00	0.42
6:V:371:LYS:O	6:V:371:LYS:CD	2.68	0.42
1:Z:117:LYS:HB3	1:Z:117:LYS:HZ2	1.77	0.42
1:Z:432:ILE:HD12	1:Z:432:ILE:HA	1.91	0.42
1:Z:510:LEU:HB3	1:Z:516:PHE:HB2	2.00	0.42
1:Z:792:SER:OG	1:Z:799:LYS:NZ	2.43	0.42
1:A:225:SER:O	1:A:229:ASN:N	2.51	0.42
1:A:709:LYS:O	1:A:713:ILE:HG12	2.18	0.42
3:D:367:ILE:HA	3:D:380:TYR:O	2.20	0.42
3:D:381:VAL:O	3:D:385:LYS:HA	2.19	0.42
4:E:120:PRO:HB3	4:E:127:TYR:CG	2.54	0.42
4:E:319:PRO:HG2	4:E:361:LYS:HD3	2.00	0.42
4:E:1168:LYS:O	4:E:1174:ASN:ND2	2.45	0.42
4:E:1539:ASN:ND2	4:E:1611:TYR:OH	2.48	0.42
5:F:765:ASP:OD1	5:F:765:ASP:N	2.51	0.42
5:F:925:HIS:HA	5:F:928:LEU:HD11	2.00	0.42
6:G:343:ASP:O	6:G:347:THR:OG1	2.30	0.42
7:H:532:ALA:HA	8:I:821:ILE:HG13	2.01	0.42
6:J:311:ASP:OD2	7:K:376:LEU:HD11	2.20	0.42
6:J:311:ASP:CG	7:K:376:LEU:HD21	2.39	0.42
6:J:334:SER:HA	6:J:337:LYS:HB2	2.01	0.42
6:J:371:LYS:O	6:J:371:LYS:CD	2.68	0.42
1:M:681:SER:OG	1:M:691:ARG:NH1	2.53	0.42
1:M:760:PHE:HD2	1:M:823:ARG:HH11	1.66	0.42
1:N:357:LYS:HA	1:N:360:ILE:HB	2.00	0.42
1:N:453:VAL:CG1	4:Q:1359:ILE:HG21	2.44	0.42
3:P:131:VAL:HG21	3:P:467:PHE:H	1.84	0.42
3:P:381:VAL:O	3:P:385:LYS:HA	2.19	0.42
3:P:514:SER:O	3:P:515:VAL:HG13	2.20	0.42
3:P:873:SER:HB3	3:P:877:VAL:HB	2.01	0.42
3:P:1494:ASN:O	5:R:1471:LYS:NZ	2.49	0.42
4:Q:923:LEU:C	4:Q:923:LEU:CD2	2.88	0.42
4:Q:1412:LEU:HD23	4:Q:1412:LEU:HA	1.90	0.42
5:R:108:LEU:O	5:R:111:GLN:HB3	2.20	0.42
5:R:135:ILE:HG23	5:R:206:ILE:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:825:ILE:O	5:R:825:ILE:HG23	2.19	0.42
5:R:1157:TRP:O	5:R:1158:THR:C	2.55	0.42
5:R:1529:ALA:HB2	5:R:1611:VAL:CB	2.49	0.42
8:U:672:GLY:HA2	8:U:675:GLN:HG2	2.01	0.42
6:V:357:LEU:CG	7:W:423:LYS:HE3	2.40	0.42
6:V:400:GLY:O	6:V:403:THR:HB	2.14	0.42
6:V:406:PHE:HB2	7:W:469:ARG:HH21	1.84	0.42
7:W:454:GLY:C	7:W:456:THR:H	2.22	0.42
1:Z:20:LYS:HA	1:Z:20:LYS:HD3	1.46	0.42
1:Z:211:LYS:N	1:Z:246:ASN:HD21	2.17	0.42
1:Z:687:LEU:HD23	1:Z:690:ARG:HD2	2.01	0.42
1:A:532:ILE:HG22	1:A:532:ILE:O	2.19	0.42
2:C:693:LEU:HB3	2:C:694:PHE:CD1	2.54	0.42
3:D:467:PHE:CD1	3:D:473:THR:HG23	2.54	0.42
3:D:1241:GLY:O	1:Z:826:ARG:CB	2.67	0.42
4:E:36:GLN:NE2	4:E:36:GLN:O	2.53	0.42
5:F:1305:SER:O	5:F:1307:VAL:N	2.49	0.42
5:F:1508:ILE:HG22	5:F:1511:LEU:HD23	2.02	0.42
7:H:415:LEU:HD12	7:H:415:LEU:HA	1.80	0.42
8:I:815:GLU:HB3	8:I:816:LYS:HE3	2.02	0.42
7:K:311:PHE:HD1	7:K:351:GLN:HG3	1.85	0.42
7:K:352:ILE:CG2	7:K:358:LEU:HG	2.47	0.42
1:M:21:LYS:HB2	1:Z:31:ASN:HA	0.90	0.42
1:N:786:ILE:HD11	1:N:838:SER:HA	2.01	0.42
4:Q:192:LEU:HD23	4:Q:195:LEU:HD23	2.01	0.42
4:Q:530:ILE:HA	4:Q:552:LEU:O	2.19	0.42
4:Q:982:ILE:HD12	4:Q:982:ILE:H	1.85	0.42
4:Q:1017:LEU:HD23	4:Q:1017:LEU:HA	1.86	0.42
4:Q:1071:LYS:HA	4:Q:1071:LYS:HD3	1.83	0.42
4:Q:1389:LEU:HA	4:Q:1392:PHE:HD2	1.85	0.42
5:R:37:LEU:HD22	5:R:146:SER:HB2	2.02	0.42
5:R:296:ARG:H	5:R:296:ARG:HG3	1.71	0.42
5:R:914:ASP:HA	5:R:917:PHE:HB2	1.93	0.42
5:R:1359:PHE:CE1	5:R:1363:ILE:CG2	3.00	0.42
7:T:527:LEU:C	7:T:527:LEU:CD2	2.85	0.42
6:V:277:ILE:HD12	6:V:277:ILE:HA	1.95	0.42
6:V:371:LYS:C	6:V:371:LYS:CD	2.88	0.42
7:W:525:GLU:O	7:W:529:LYS:N	2.53	0.42
8:X:640:LEU:CD1	8:X:643:LYS:HG2	2.49	0.42
1:Z:116:LYS:C	1:Z:116:LYS:CE	2.85	0.42
1:Z:599:ARG:HH22	1:Z:620:LEU:HD21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:654:ILE:HG22	1:Z:710:ASN:HB2	2.01	0.42
1:A:682:GLU:HG2	1:A:691:ARG:NH2	2.30	0.42
3:D:919:VAL:HG12	3:D:920:GLU:N	2.34	0.42
4:E:314:ASP:OD1	4:E:314:ASP:N	2.48	0.42
4:E:443:ILE:HD12	4:E:590:LEU:HD11	2.01	0.42
5:F:390:TRP:CB	5:F:393:SER:HB3	2.49	0.42
5:F:929:TYR:C	5:F:931:GLY:N	2.73	0.42
5:F:1088:ARG:HH11	5:F:1088:ARG:CG	2.23	0.42
5:F:1090:PRO:CD	5:F:1093:SER:HB3	2.49	0.42
5:F:1182:ASN:N	5:F:1182:ASN:OD1	2.51	0.42
5:F:1550:LEU:HD11	5:F:1604:ILE:HG21	2.01	0.42
5:F:1558:ASP:CB	5:R:1680:GLN:HE21	2.31	0.42
6:G:398:VAL:HA	6:G:401:ILE:HG12	2.01	0.42
8:L:816:LYS:HD2	8:L:816:LYS:HA	1.82	0.42
1:N:621:HIS:CE1	3:P:1467:SER:CA	3.02	0.42
1:N:779:LEU:CB	1:N:835:ILE:CA	2.97	0.42
1:N:826:ARG:CB	3:P:1241:GLY:O	2.67	0.42
3:P:508:LYS:HE3	3:P:518:GLU:HG2	2.01	0.42
3:P:583:TYR:CE2	3:P:628:PHE:HB2	2.47	0.42
3:P:1137:ASP:N	1:Z:205:ASN:HA	2.34	0.42
5:R:390:TRP:CB	5:R:393:SER:HB3	2.49	0.42
5:R:657:ILE:O	5:R:712:LEU:CD1	2.56	0.42
5:R:726:SER:HA	5:R:730:VAL:HG22	2.01	0.42
5:R:951:ARG:NE	5:R:951:ARG:HA	2.29	0.42
5:R:1196:SER:HB2	5:R:1198:LEU:H	1.84	0.42
7:T:365:GLN:HA	7:T:368:ASN:HD22	1.84	0.42
6:V:311:ASP:CG	7:W:376:LEU:HD21	2.39	0.42
6:V:334:SER:HA	6:V:337:LYS:HB2	2.01	0.42
7:W:402:GLN:C	7:W:402:GLN:NE2	2.72	0.42
7:W:518:ARG:NH1	7:W:518:ARG:C	2.73	0.42
1:A:776:ILE:CD1	1:A:828:THR:HG23	2.49	0.42
3:D:375:SER:O	3:D:420:ILE:HD12	2.19	0.42
3:D:381:VAL:HB	3:D:457:ILE:CG2	2.50	0.42
3:D:1367:LEU:HD23	3:D:1398:PHE:CE1	2.54	0.42
4:E:199:ILE:O	4:E:202:THR:OG1	2.38	0.42
4:E:222:GLU:O	4:E:226:ASN:HB2	2.20	0.42
4:E:916:TYR:CZ	4:E:963:LYS:HB2	2.54	0.42
4:E:982:ILE:HD12	4:E:982:ILE:H	1.85	0.42
4:E:989:ASP:C	4:E:991:LYS:N	2.72	0.42
5:F:864:LEU:HD12	5:F:864:LEU:HA	1.81	0.42
5:F:935:GLN:CB	5:F:998:LEU:CD2	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:1118:ARG:HA	5:F:1118:ARG:HD3	1.47	0.42
5:F:1293:ASN:ND2	5:F:1293:ASN:C	2.73	0.42
6:G:305:ILE:HD12	6:G:305:ILE:HA	1.91	0.42
1:N:121:ILE:HD12	1:N:121:ILE:HA	1.64	0.42
3:P:681:THR:O	3:P:685:VAL:HG23	2.20	0.42
4:Q:199:ILE:O	4:Q:202:THR:OG1	2.38	0.42
5:R:144:ILE:HD13	5:R:197:LEU:HD23	2.01	0.42
5:R:929:TYR:C	5:R:931:GLY:N	2.73	0.42
5:R:1293:ASN:ND2	5:R:1293:ASN:C	2.73	0.42
5:R:1550:LEU:HD12	5:R:1604:ILE:HG21	2.01	0.42
5:R:1634:LYS:HA	5:R:1637:VAL:HG22	2.00	0.42
7:T:462:ARG:HA	7:T:465:ILE:HB	2.02	0.42
8:U:795:LYS:HZ3	8:U:795:LYS:HB2	1.85	0.42
6:V:389:ARG:NH1	6:V:389:ARG:HG2	2.31	0.42
6:V:391:LEU:CD1	7:W:455:LYS:HA	2.49	0.42
8:X:794:ILE:HA	8:X:797:LEU:HB3	2.01	0.42
1:A:478:TYR:O	1:A:482:LEU:HG	2.20	0.42
1:A:681:SER:OG	1:A:691:ARG:NH1	2.53	0.42
1:A:785:MET:SD	1:A:806:LEU:HD11	2.60	0.42
3:D:212:GLN:N	3:D:235:SER:O	2.47	0.42
3:D:491:ARG:HB2	3:D:520:THR:HB	2.01	0.42
3:D:611:LEU:HG	3:D:640:ALA:HB2	2.00	0.42
4:E:343:ASP:O	4:E:347:THR:OG1	2.36	0.42
4:E:599:THR:HG23	4:E:660:PHE:HA	2.02	0.42
4:E:923:LEU:C	4:E:923:LEU:CD2	2.88	0.42
4:E:1356:LEU:CB	1:Z:453:VAL:HG21	2.49	0.42
4:E:1387:LEU:O	4:E:1391:LEU:N	2.51	0.42
5:F:245:ARG:NH2	5:F:284:TYR:O	2.45	0.42
7:H:462:ARG:HA	7:H:465:ILE:HB	2.02	0.42
7:K:462:ARG:O	7:K:466:LEU:HD12	2.20	0.42
1:M:479:LEU:HD12	1:M:491:ALA:HB1	2.02	0.42
1:M:681:SER:HA	1:M:687:LEU:HB3	2.01	0.42
1:M:682:GLU:HG2	1:M:691:ARG:NH2	2.30	0.42
1:N:654:ILE:HG22	1:N:710:ASN:HB2	2.01	0.42
2:O:888:LEU:HA	2:O:892:PHE:HD2	1.84	0.42
3:P:381:VAL:HB	3:P:457:ILE:CG2	2.50	0.42
4:Q:1387:LEU:O	4:Q:1391:LEU:N	2.51	0.42
4:Q:1444:LEU:O	4:Q:1448:SER:N	2.49	0.42
5:R:522:MET:SD	5:R:523:ARG:N	2.92	0.42
5:R:911:SER:HB3	5:R:912:PHE:H	1.68	0.42
5:R:1090:PRO:CD	5:R:1093:SER:HB3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1257:LEU:HD23	5:R:1257:LEU:HA	1.84	0.42
5:R:1543:LEU:C	5:R:1543:LEU:CD1	2.88	0.42
7:T:444:LEU:HA	7:T:447:SER:HB3	2.02	0.42
6:V:290:ILE:HD12	7:W:356:GLU:OE2	2.19	0.42
6:V:327:LYS:HG3	6:V:328:GLN:NE2	2.34	0.42
7:W:462:ARG:O	7:W:466:LEU:HD12	2.20	0.42
7:W:509:ILE:HG21	1:Z:12:SER:HB3	1.96	0.42
8:X:679:LEU:O	8:X:682:ASP:HB2	2.20	0.42
1:Z:367:PHE:O	1:Z:370:TYR:HB2	2.20	0.42
1:A:137:ASP:HB2	4:E:1386:LEU:CA	2.43	0.42
1:A:370:TYR:CD2	1:A:390:LEU:HD13	2.54	0.42
2:C:1389:GLY:HA2	4:E:1331:LEU:HD11	2.02	0.42
3:D:884:VAL:HB	3:D:887:GLN:OE1	2.19	0.42
4:E:464:ALA:HB1	4:E:552:LEU:HD21	2.01	0.42
4:E:672:VAL:HG12	4:E:676:LEU:HD12	2.02	0.42
4:E:1043:LEU:HB3	4:E:1078:ILE:HD11	2.00	0.42
6:G:449:LEU:CD2	1:Z:84:ASP:O	2.67	0.42
6:J:290:ILE:HD12	7:K:356:GLU:OE2	2.20	0.42
1:M:92:THR:O	6:V:401:ILE:CD1	2.68	0.42
1:M:138:ASN:C	1:M:138:ASN:ND2	2.73	0.42
1:M:771:ILE:HD13	1:M:774:LEU:HD12	2.00	0.42
1:N:766:ASN:OD1	1:N:766:ASN:N	2.39	0.42
1:N:830:SER:CB	3:P:1238:ARG:CA	2.81	0.42
3:P:1020:ASN:ND2	1:Z:252:GLN:CG	2.83	0.42
5:R:437:ASP:HA	5:R:440:GLN:HG3	2.01	0.42
5:R:460:SER:HB2	5:R:475:LYS:HB3	2.02	0.42
5:R:640:PHE:O	5:R:643:THR:C	2.58	0.42
5:R:790:SER:O	5:R:790:SER:OG	2.36	0.42
6:S:440:VAL:HA	6:S:443:VAL:HB	2.01	0.42
8:U:822:LYS:NZ	8:U:822:LYS:CB	2.82	0.42
6:V:401:ILE:HD12	6:V:401:ILE:HA	1.84	0.42
7:W:315:LYS:HA	7:W:347:THR:CA	2.38	0.42
7:W:395:ALA:O	7:W:399:LEU:HD23	2.19	0.42
1:Z:16:LYS:NZ	1:Z:16:LYS:C	2.72	0.42
1:Z:776:ILE:C	1:Z:778:THR:H	2.23	0.42
3:D:514:SER:O	3:D:515:VAL:HG13	2.20	0.42
3:D:680:SER:OG	3:D:772:GLY:HA2	2.20	0.42
4:E:370:SER:O	4:E:372:ASP:N	2.48	0.42
4:E:421:PHE:O	4:E:425:LEU:CB	2.68	0.42
5:F:285:PHE:O	5:F:289:CYS:N	2.49	0.42
5:F:1196:SER:HB2	5:F:1198:LEU:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:K:379:ILE:C	7:K:382:LYS:H	2.19	0.42
8:L:749:GLN:NE2	8:L:752:ASP:OD2	2.51	0.42
1:M:649:GLU:OE1	1:M:652:ILE:HD12	2.19	0.42
1:N:56:LEU:HD22	1:N:60:ASN:ND2	2.32	0.42
1:N:436:LEU:HA	1:N:439:HIS:HB2	2.02	0.42
3:P:135:PHE:CZ	3:P:485:GLN:HB2	2.55	0.42
3:P:617:ALA:HA	3:P:630:THR:CG2	2.47	0.42
4:Q:36:GLN:O	4:Q:36:GLN:NE2	2.53	0.42
4:Q:599:THR:HG23	4:Q:660:PHE:HA	2.02	0.42
4:Q:952:LEU:HD23	4:Q:952:LEU:HA	1.81	0.42
5:R:1103:GLU:H	5:R:1103:GLU:HG2	1.63	0.42
5:R:1545:ARG:HA	5:R:1548:ALA:HB3	2.01	0.42
8:U:795:LYS:NZ	8:U:799:SER:HB3	2.35	0.42
6:V:383:LYS:HZ1	8:X:756:ASN:HA	0.48	0.42
7:W:315:LYS:HG3	7:W:347:THR:HG22	2.02	0.42
7:W:522:TYR:C	7:W:522:TYR:HD1	2.23	0.42
1:Z:558:VAL:HG21	1:Z:607:ARG:HE	1.85	0.42
1:A:516:PHE:CE2	1:A:534:PHE:HB2	2.54	0.41
3:D:131:VAL:HG21	3:D:467:PHE:H	1.85	0.41
3:D:295:GLU:CD	3:D:316:LYS:HE3	2.40	0.41
4:E:531:LEU:HD23	4:E:531:LEU:HA	1.87	0.41
4:E:923:LEU:CD1	4:E:931:PHE:HE2	2.26	0.41
5:F:672:TRP:O	5:F:675:LEU:HB3	2.19	0.41
5:F:917:PHE:HZ	7:H:400:LYS:HZ2	1.67	0.41
5:F:1082:ILE:HA	5:F:1082:ILE:HD13	1.87	0.41
5:F:1177:VAL:C	5:F:1180:TYR:CB	2.88	0.41
7:K:311:PHE:CD1	7:K:351:GLN:HG3	2.55	0.41
7:K:358:LEU:HD22	8:L:662:ILE:CD1	2.41	0.41
7:K:454:GLY:O	7:K:456:THR:N	2.52	0.41
1:N:49:LEU:C	1:N:49:LEU:HD13	2.40	0.41
1:N:558:VAL:HG21	1:N:607:ARG:HE	1.85	0.41
1:N:771:ILE:CG2	1:N:772:PRO:CD	2.92	0.41
1:N:776:ILE:C	1:N:778:THR:H	2.23	0.41
3:P:451:SER:HB2	3:P:458:GLU:HB2	2.01	0.41
4:Q:1086:ILE:HD13	4:Q:1086:ILE:HA	1.86	0.41
5:R:470:ASP:OD1	5:R:470:ASP:N	2.53	0.41
5:R:606:VAL:HA	5:R:609:LEU:HG	2.01	0.41
5:R:1177:VAL:C	5:R:1180:TYR:CB	2.88	0.41
5:R:1286:PHE:O	5:R:1286:PHE:CD1	2.70	0.41
5:R:1550:LEU:HD11	5:R:1604:ILE:HG21	2.01	0.41
8:X:659:THR:HA	8:X:662:ILE:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:710:ASN:OD1	1:Z:710:ASN:N	2.48	0.41
1:Z:807:LYS:CB	1:Z:837:VAL:HA	2.50	0.41
1:A:432:ILE:HD12	1:A:435:TRP:HB3	2.02	0.41
3:D:135:PHE:CZ	3:D:485:GLN:HB2	2.55	0.41
3:D:508:LYS:HE3	3:D:518:GLU:HG2	2.01	0.41
3:D:988:LEU:CB	3:D:1001:ILE:CB	2.98	0.41
4:E:1266:LYS:HD3	4:E:1266:LYS:HA	1.74	0.41
4:E:1389:LEU:HA	4:E:1392:PHE:HD2	1.85	0.41
5:F:42:LEU:HD12	5:F:42:LEU:HA	1.95	0.41
5:F:108:LEU:O	5:F:111:GLN:HB3	2.20	0.41
5:F:189:GLU:HA	5:F:192:ILE:HG12	2.02	0.41
5:F:321:GLN:O	5:F:325:PHE:CB	2.68	0.41
5:F:470:ASP:N	5:F:470:ASP:OD1	2.53	0.41
5:F:866:GLN:OE1	5:F:940:ASN:HB2	2.20	0.41
5:F:968:ILE:HA	7:H:392:LEU:HD11	2.02	0.41
5:F:1144:VAL:HG11	5:F:1291:SER:OG	2.20	0.41
5:F:1282:ALA:O	5:F:1286:PHE:N	2.47	0.41
8:I:792:GLN:HG2	1:Z:42:ILE:HD12	1.48	0.41
6:J:304:LEU:O	6:J:308:ILE:HG12	2.19	0.41
1:M:131:GLY:HA2	1:M:134:LYS:HD3	2.01	0.41
1:M:780:SER:O	1:M:784:ASN:ND2	2.53	0.41
3:P:178:GLU:HB3	3:P:230:HIS:NE2	2.35	0.41
3:P:421:VAL:HG22	3:P:491:ARG:N	2.35	0.41
4:Q:916:TYR:CZ	4:Q:963:LYS:HB2	2.54	0.41
5:R:164:LYS:HA	5:R:167:ILE:HG12	2.02	0.41
5:R:321:GLN:O	5:R:325:PHE:CB	2.69	0.41
5:R:409:MET:CB	5:R:410:PRO:HD2	2.51	0.41
8:U:694:ASP:O	8:U:698:GLN:NE2	2.54	0.41
6:V:306:ASP:O	6:V:309:PRO:HD2	2.20	0.41
6:V:309:PRO:HA	6:V:312:VAL:CB	2.50	0.41
7:W:419:LEU:O	7:W:419:LEU:CD2	2.68	0.41
8:X:682:ASP:OD1	8:X:685:MET:HE3	2.19	0.41
3:D:292:ASN:OD1	3:D:293:ILE:N	2.53	0.41
3:D:681:THR:O	3:D:685:VAL:HG23	2.20	0.41
3:D:846:ILE:HG13	3:D:907:LEU:CD1	2.51	0.41
4:E:268:THR:O	4:E:272:ILE:HG13	2.21	0.41
4:E:331:TYR:HD1	4:E:331:TYR:HA	1.71	0.41
5:F:450:LEU:HA	5:F:453:ILE:HG12	2.02	0.41
5:F:1198:LEU:HD22	5:F:1201:LEU:HD13	2.02	0.41
6:G:327:LYS:HZ2	1:Z:46:ILE:CB	2.28	0.41
8:L:659:THR:HA	8:L:662:ILE:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:432:ILE:HD12	1:M:435:TRP:HB3	2.02	0.41
1:M:650:TYR:CG	1:M:702:ILE:HG23	2.55	0.41
1:N:125:ILE:CG2	5:R:1362:ASP:CB	2.97	0.41
3:P:274:VAL:HG23	3:P:283:PHE:HB2	2.03	0.41
3:P:822:ILE:HG22	3:P:824:GLN:H	1.84	0.41
4:Q:464:ALA:HB1	4:Q:552:LEU:HD21	2.01	0.41
4:Q:793:LEU:HA	4:Q:793:LEU:HD23	1.77	0.41
4:Q:1483:ILE:HG21	4:Q:1492:HIS:CE1	2.56	0.41
5:R:386:GLY:HA3	5:R:392:PRO:O	2.21	0.41
5:R:719:ILE:HG12	5:R:731:PHE:CD2	2.56	0.41
7:W:335:TRP:CH2	7:W:339:MET:HE2	2.54	0.41
7:W:365:GLN:O	7:W:369:VAL:HG23	2.19	0.41
3:D:976:THR:CB	3:D:981:ILE:CA	2.97	0.41
4:E:1483:ILE:HG21	4:E:1492:HIS:CE1	2.56	0.41
5:F:220:VAL:HA	5:F:223:LEU:HG	2.01	0.41
5:F:1048:LEU:O	5:F:1051:SER:OG	2.26	0.41
6:J:306:ASP:O	6:J:309:PRO:HD2	2.20	0.41
6:J:391:LEU:CD2	7:K:452:GLY:O	2.47	0.41
7:K:352:ILE:HG21	7:K:358:LEU:HD21	2.02	0.41
1:M:785:MET:SD	1:M:806:LEU:HD11	2.60	0.41
1:N:84:ASP:OD1	6:S:449:LEU:HA	2.20	0.41
1:N:678:ASP:N	1:N:678:ASP:OD1	2.52	0.41
3:P:182:CYS:HB2	3:P:193:TRP:CE2	2.56	0.41
3:P:491:ARG:HB2	3:P:520:THR:HB	2.01	0.41
3:P:585:ILE:HG23	3:P:586:LEU:HD12	2.02	0.41
3:P:778:THR:O	3:P:782:ARG:HB2	2.20	0.41
3:P:988:LEU:CB	3:P:1001:ILE:CB	2.98	0.41
4:Q:1075:ILE:HA	4:Q:1078:ILE:HG22	2.03	0.41
4:Q:1168:LYS:O	4:Q:1174:ASN:ND2	2.45	0.41
5:R:90:GLU:HA	5:R:93:LEU:HB2	2.03	0.41
5:R:450:LEU:HA	5:R:453:ILE:HG12	2.02	0.41
5:R:1349:PHE:N	5:R:1349:PHE:HD1	2.15	0.41
7:T:313:TYR:O	7:T:361:ARG:NH2	2.53	0.41
6:V:283:TYR:CD2	6:V:286:LYS:HE2	2.54	0.41
6:V:356:GLN:HB3	7:W:423:LYS:NZ	2.36	0.41
6:V:405:LEU:O	6:V:405:LEU:CG	2.69	0.41
1:Z:436:LEU:HA	1:Z:439:HIS:HB2	2.01	0.41
1:Z:565:GLY:O	1:Z:569:VAL:N	2.51	0.41
3:D:178:GLU:HB3	3:D:230:HIS:NE2	2.35	0.41
3:D:903:ILE:HG12	3:D:953:PHE:CD1	2.56	0.41
4:E:919:LEU:HD12	4:E:919:LEU:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:640:PHE:O	5:F:643:THR:C	2.58	0.41
5:F:1626:VAL:HA	5:F:1629:LEU:HB3	2.02	0.41
6:G:275:GLN:NE2	6:G:278:GLU:OE1	2.40	0.41
8:I:694:ASP:O	8:I:698:GLN:NE2	2.54	0.41
6:J:327:LYS:HG3	6:J:328:GLN:NE2	2.34	0.41
6:J:389:ARG:HH21	6:J:390:ILE:HD12	1.86	0.41
6:J:391:LEU:HA	6:J:394:ILE:CG1	2.51	0.41
7:K:455:LYS:HD3	7:K:455:LYS:H	1.75	0.41
7:K:503:ASN:HB2	7:K:506:ILE:CD1	2.50	0.41
7:K:525:GLU:O	7:K:529:LYS:CB	2.56	0.41
1:M:603:VAL:O	1:M:606:GLU:HG2	2.21	0.41
1:N:680:ASN:O	1:N:684:ASN:N	2.36	0.41
3:P:295:GLU:CD	3:P:316:LYS:HE3	2.40	0.41
3:P:828:ILE:O	3:P:828:ILE:HG13	2.21	0.41
3:P:1431:LYS:HE2	3:P:1435:GLU:OE1	2.20	0.41
4:Q:1066:VAL:HA	4:Q:1069:ILE:HD12	2.02	0.41
5:R:189:GLU:HA	5:R:192:ILE:HG12	2.02	0.41
5:R:633:LYS:HD2	5:R:633:LYS:HA	1.82	0.41
5:R:1158:THR:HG22	5:R:1197:PHE:CD2	2.55	0.41
5:R:1626:VAL:HA	5:R:1629:LEU:HB3	2.02	0.41
7:T:412:ILE:O	7:T:415:LEU:HB2	2.17	0.41
8:U:795:LYS:C	8:U:795:LYS:NZ	2.72	0.41
6:V:311:ASP:OD2	7:W:376:LEU:HD11	2.19	0.41
7:W:311:PHE:CD1	7:W:351:GLN:HG3	2.55	0.41
7:W:330:VAL:C	7:W:331:LEU:HD12	2.41	0.41
7:W:352:ILE:HG21	7:W:358:LEU:HD21	2.01	0.41
1:Z:822:TYR:HB3	1:Z:824:MET:SD	2.60	0.41
1:A:479:LEU:HD12	1:A:491:ALA:HB1	2.02	0.41
3:D:182:CYS:HB2	3:D:193:TRP:CE2	2.56	0.41
4:E:192:LEU:HD23	4:E:195:LEU:HD23	2.01	0.41
4:E:369:LEU:HD23	4:E:375:TYR:CD2	2.56	0.41
4:E:1066:VAL:HA	4:E:1069:ILE:HD12	2.02	0.41
5:F:386:GLY:HA3	5:F:392:PRO:O	2.21	0.41
5:F:719:ILE:HG12	5:F:731:PHE:CD2	2.56	0.41
5:F:971:SER:HB3	7:H:392:LEU:CD2	2.50	0.41
5:F:974:GLU:OE1	5:F:977:ARG:NH2	2.51	0.41
5:F:1027:GLN:CG	5:F:1027:GLN:O	2.69	0.41
8:I:816:LYS:N	8:I:816:LYS:CE	2.83	0.41
6:J:371:LYS:O	6:J:371:LYS:CE	2.68	0.41
8:L:671:LYS:O	8:L:675:GLN:NE2	2.47	0.41
8:L:794:ILE:HA	8:L:797:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:12:SER:O	1:N:12:SER:OG	2.31	0.41
1:N:199:ARG:NH2	1:N:496:TYR:O	2.45	0.41
1:N:239:ILE:HG23	1:N:258:LYS:HZ2	1.85	0.41
1:N:487:LEU:HD23	1:N:487:LEU:HA	1.90	0.41
3:P:367:ILE:HA	3:P:380:TYR:O	2.20	0.41
4:Q:904:LEU:HD23	4:Q:907:LEU:HD23	2.02	0.41
4:Q:1329:ILE:O	4:Q:1333:SER:HB3	2.21	0.41
5:R:889:ILE:O	5:R:893:HIS:N	2.51	0.41
5:R:989:SER:O	5:R:989:SER:OG	2.26	0.41
6:S:319:GLU:HA	6:S:322:THR:HG22	2.03	0.41
7:T:412:ILE:CA	7:T:415:LEU:HB2	2.42	0.41
8:U:731:GLY:C	8:U:733:ALA:N	2.71	0.41
6:V:381:GLU:HA	6:V:381:GLU:OE2	2.19	0.41
7:W:311:PHE:HD1	7:W:351:GLN:HG3	1.85	0.41
1:A:780:SER:O	1:A:784:ASN:ND2	2.53	0.41
3:D:274:VAL:HG23	3:D:283:PHE:HB2	2.02	0.41
3:D:716:VAL:HG13	3:D:767:SER:HB3	2.02	0.41
3:D:778:THR:O	3:D:782:ARG:HB2	2.20	0.41
3:D:788:HIS:ND1	3:D:946:LYS:HA	2.36	0.41
3:D:1431:LYS:HE2	3:D:1435:GLU:OE1	2.20	0.41
5:F:348:LEU:HD22	5:F:483:LEU:HD22	2.03	0.41
5:F:460:SER:HB2	5:F:475:LYS:HB3	2.02	0.41
5:F:920:ILE:CB	5:F:924:ALA:O	2.69	0.41
8:I:822:LYS:HE3	8:I:822:LYS:CA	2.44	0.41
6:J:381:GLU:HA	6:J:381:GLU:OE2	2.19	0.41
7:K:305:LYS:O	7:K:307:LYS:HE2	2.20	0.41
7:K:330:VAL:C	7:K:331:LEU:HD12	2.41	0.41
7:K:506:ILE:HG13	7:K:507:ASN:H	1.86	0.41
1:M:478:TYR:O	1:M:482:LEU:HG	2.20	0.41
1:M:512:SER:O	1:M:514:LYS:NZ	2.50	0.41
1:N:571:LEU:HA	1:N:574:GLU:HG3	2.03	0.41
1:N:824:MET:HB2	1:N:825:PRO:CD	2.30	0.41
3:P:491:ARG:CA	3:P:520:THR:HB	2.51	0.41
3:P:680:SER:OG	3:P:772:GLY:HA2	2.20	0.41
3:P:713:ILE:HD12	3:P:769:ARG:CD	2.48	0.41
3:P:788:HIS:ND1	3:P:946:LYS:HA	2.35	0.41
3:P:869:LEU:HD23	3:P:869:LEU:HA	1.92	0.41
4:Q:222:GLU:O	4:Q:226:ASN:HB2	2.20	0.41
4:Q:980:LYS:O	4:Q:980:LYS:CG	2.69	0.41
4:Q:1380:ASP:C	4:Q:1382:THR:H	2.24	0.41
5:R:662:PRO:HG3	5:R:715:ASN:ND2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:920:ILE:CB	5:R:924:ALA:O	2.69	0.41
5:R:1034:LEU:HD22	5:R:1092:THR:CB	2.28	0.41
1:Z:206:ASN:OD1	1:Z:206:ASN:N	2.53	0.41
1:Z:571:LEU:HA	1:Z:574:GLU:HG3	2.03	0.41
1:A:232:PHE:CZ	1:A:237:GLU:HG3	2.56	0.41
1:A:586:PHE:CD2	1:A:642:LEU:HD11	2.56	0.41
3:D:617:ALA:HA	3:D:630:THR:CG2	2.47	0.41
3:D:873:SER:HB3	3:D:877:VAL:HB	2.02	0.41
4:E:927:LYS:O	4:E:931:PHE:N	2.37	0.41
5:F:144:ILE:HD13	5:F:197:LEU:HD23	2.01	0.41
5:F:164:LYS:HA	5:F:167:ILE:HG12	2.02	0.41
5:F:589:ASP:OD1	5:F:589:ASP:N	2.52	0.41
6:G:295:LYS:HB3	6:J:363:LYS:NZ	2.33	0.41
7:H:313:TYR:O	7:H:361:ARG:NH2	2.53	0.41
8:I:795:LYS:NZ	8:I:799:SER:HB3	2.35	0.41
6:J:381:GLU:OE2	6:J:381:GLU:CA	2.69	0.41
6:J:389:ARG:NH1	6:J:389:ARG:CA	2.84	0.41
7:K:315:LYS:HG3	7:K:347:THR:HG22	2.02	0.41
7:K:483:VAL:N	7:K:493:SER:C	2.70	0.41
8:L:676:ILE:HD13	8:L:679:LEU:HD22	2.01	0.41
1:M:128:LEU:CB	4:Q:1260:TYR:HE2	2.26	0.41
1:N:367:PHE:O	1:N:370:TYR:HB2	2.20	0.41
1:N:807:LYS:CB	1:N:837:VAL:HA	2.50	0.41
3:P:716:VAL:HG13	3:P:767:SER:HB3	2.02	0.41
4:Q:176:LEU:HD23	4:Q:176:LEU:HA	1.90	0.41
4:Q:268:THR:O	4:Q:272:ILE:HG13	2.20	0.41
4:Q:851:SER:O	4:Q:851:SER:OG	2.33	0.41
4:Q:1305:ASN:OD1	4:Q:1305:ASN:N	2.51	0.41
5:R:866:GLN:OE1	5:R:940:ASN:HB2	2.20	0.41
5:R:914:ASP:CG	5:R:917:PHE:CB	2.89	0.41
5:R:1370:LEU:C	5:R:1371:ILE:CG1	2.89	0.41
8:U:792:GLN:HB2	8:U:795:LYS:CG	2.48	0.41
6:V:382:LYS:HE2	6:V:382:LYS:CA	2.51	0.41
1:Z:49:LEU:C	1:Z:49:LEU:HD13	2.40	0.41
1:A:19:ASN:HA	1:A:22:LEU:CG	2.51	0.41
1:A:451:ASP:OD1	1:A:455:GLU:HB2	2.21	0.41
1:A:533:ARG:HE	1:A:534:PHE:N	2.19	0.41
3:D:422:LYS:HE2	3:D:524:THR:OG1	2.21	0.41
3:D:585:ILE:HG23	3:D:586:LEU:HD12	2.03	0.41
3:D:713:ILE:CD1	3:D:769:ARG:HD3	2.48	0.41
4:E:904:LEU:HD23	4:E:907:LEU:HD23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:917:PRO:O	4:E:964:GLN:NE2	2.52	0.41
4:E:1262:LEU:HD23	4:E:1262:LEU:HA	1.91	0.41
4:E:1319:LEU:CD2	4:E:1398:VAL:HG22	2.46	0.41
5:F:37:LEU:HD22	5:F:146:SER:HB2	2.02	0.41
5:F:68:GLN:HA	5:F:71:ILE:HD13	2.03	0.41
5:F:321:GLN:O	5:F:325:PHE:HB3	2.21	0.41
5:F:486:TYR:HD1	5:F:532:SER:HB3	1.86	0.41
5:F:662:PRO:HG3	5:F:715:ASN:ND2	2.36	0.41
5:F:885:GLU:O	5:F:885:GLU:CG	2.68	0.41
5:F:1139:ILE:HG12	5:F:1291:SER:HG	1.86	0.41
5:F:1431:ARG:HD2	5:F:1474:PHE:N	2.36	0.41
5:F:1550:LEU:HD12	5:F:1604:ILE:HG21	2.01	0.41
6:J:309:PRO:HA	6:J:312:VAL:CB	2.50	0.41
6:J:389:ARG:HG2	6:J:389:ARG:NH1	2.29	0.41
6:J:405:LEU:CD1	7:K:469:ARG:CG	2.91	0.41
6:J:406:PHE:O	6:J:409:PRO:HD2	2.21	0.41
7:K:315:LYS:HD2	7:K:347:THR:HG22	2.03	0.41
7:K:427:LEU:N	7:K:427:LEU:HD22	2.36	0.41
7:K:503:ASN:HB2	7:K:506:ILE:HD13	2.03	0.41
7:K:509:ILE:HA	7:K:512:ILE:HB	2.01	0.41
8:L:653:SER:O	8:L:657:GLN:HG2	2.21	0.41
1:N:254:LEU:HD12	1:N:254:LEU:HA	1.87	0.41
1:N:453:VAL:HG21	4:Q:1356:LEU:CB	2.49	0.41
1:N:565:GLY:O	1:N:569:VAL:N	2.51	0.41
1:N:822:TYR:HB3	1:N:824:MET:SD	2.60	0.41
4:Q:867:ASP:OD1	4:Q:867:ASP:N	2.52	0.41
5:R:160:GLN:HA	5:R:163:ASN:ND2	2.36	0.41
5:R:212:PHE:O	5:R:215:SER:OG	2.36	0.41
5:R:777:GLN:NE2	5:R:839:SER:OG	2.50	0.41
5:R:1027:GLN:CG	5:R:1027:GLN:O	2.69	0.41
5:R:1110:MET:HE3	5:R:1157:TRP:CZ2	2.53	0.41
5:R:1298:LEU:HD23	5:R:1298:LEU:HA	1.79	0.41
5:R:1300:LEU:HD23	5:R:1301:SER:N	2.36	0.41
5:R:1305:SER:O	5:R:1309:LEU:N	2.33	0.41
5:R:1508:ILE:HG22	5:R:1511:LEU:HD23	2.02	0.41
8:U:795:LYS:CA	8:U:795:LYS:HZ3	2.34	0.41
8:U:795:LYS:HZ3	8:U:795:LYS:CB	2.34	0.41
6:V:368:ASP:HA	6:V:371:LYS:CB	2.51	0.41
6:V:381:GLU:OE2	6:V:381:GLU:CA	2.69	0.41
6:V:389:ARG:O	6:V:389:ARG:CZ	2.69	0.41
7:W:433:GLU:HB2	8:X:741:ARG:HE	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:454:GLY:O	7:W:456:THR:N	2.52	0.41
7:W:508:LYS:NZ	1:Z:12:SER:OG	2.29	0.41
7:W:526:VAL:HG13	7:W:529:LYS:NZ	2.36	0.41
1:Z:81:GLU:H	1:Z:81:GLU:HG3	1.54	0.41
1:Z:239:ILE:HG23	1:Z:258:LYS:HZ2	1.85	0.41
1:Z:551:ARG:NH2	1:Z:606:GLU:OE2	2.46	0.41
1:A:603:VAL:O	1:A:606:GLU:HG2	2.21	0.41
1:A:650:TYR:CG	1:A:702:ILE:HG23	2.55	0.41
2:C:1388:HIS:O	4:E:1331:LEU:HD13	2.19	0.41
3:D:430:GLU:OE1	3:D:528:PRO:HD3	2.18	0.41
5:F:150:PHE:HD1	5:F:150:PHE:HA	1.75	0.41
5:F:651:GLY:HA3	5:F:705:ASP:HA	2.03	0.41
5:F:863:GLU:HA	5:F:866:GLN:HE21	1.86	0.41
5:F:1158:THR:HG22	5:F:1197:PHE:CD2	2.55	0.41
8:I:795:LYS:NZ	8:I:795:LYS:CB	2.84	0.41
1:M:538:LEU:HD13	1:M:556:TYR:O	2.21	0.41
1:M:586:PHE:CD2	1:M:642:LEU:HD11	2.56	0.41
1:M:776:ILE:HD11	1:M:828:THR:HG23	2.03	0.41
1:N:305:ILE:HG23	1:N:339:TYR:HD2	1.86	0.41
3:P:387:LEU:HA	3:P:391:MET:HE1	2.03	0.41
4:Q:366:SER:HB3	4:Q:379:ILE:HD13	2.03	0.41
4:Q:370:SER:O	4:Q:372:ASP:N	2.48	0.41
4:Q:672:VAL:HG12	4:Q:676:LEU:HD12	2.02	0.41
4:Q:927:LYS:O	4:Q:931:PHE:N	2.37	0.41
5:R:651:GLY:HA3	5:R:705:ASP:HA	2.03	0.41
5:R:1167:LYS:HE3	5:R:1167:LYS:CA	2.27	0.41
5:R:1493:LYS:HA	5:R:1493:LYS:HD2	1.66	0.41
7:W:305:LYS:O	7:W:307:LYS:HE2	2.21	0.41
7:W:373:ARG:HH21	7:W:377:ASN:ND2	2.19	0.41
3:D:135:PHE:HD1	3:D:596:ALA:HB3	1.86	0.40
3:D:421:VAL:HG22	3:D:491:ARG:N	2.35	0.40
3:D:673:TYR:O	3:D:677:GLU:HB2	2.22	0.40
3:D:1134:SER:OG	1:N:206:ASN:C	2.60	0.40
4:E:79:LEU:HD11	4:E:99:VAL:HG22	2.03	0.40
4:E:980:LYS:O	4:E:980:LYS:CG	2.69	0.40
5:F:25:PHE:HB3	5:F:26:LYS:NZ	2.36	0.40
5:F:918:PHE:HA	5:F:922:LEU:HD11	2.03	0.40
5:F:1442:TRP:NE1	5:F:1484:ARG:HB3	2.36	0.40
5:F:1543:LEU:C	5:F:1543:LEU:CD1	2.88	0.40
6:G:319:GLU:HA	6:G:322:THR:HG22	2.03	0.40
6:G:470:LEU:CB	7:H:538:LYS:HZ3	2.17	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:815:GLU:HB3	8:I:816:LYS:CE	2.51	0.40
7:K:408:ILE:O	7:K:412:ILE:HG13	2.22	0.40
8:L:703:GLN:OE1	8:L:704:GLN:N	2.54	0.40
8:L:800:HIS:O	8:L:804:LEU:CB	2.65	0.40
1:M:775:LEU:HB3	1:M:832:LEU:HG	2.04	0.40
1:N:199:ARG:HH12	1:N:500:GLU:H	1.69	0.40
1:N:493:ASP:HA	1:N:496:TYR:CD2	2.56	0.40
1:N:817:ALA:C	1:N:821:GLN:H	2.13	0.40
2:O:1389:GLY:HA2	4:Q:1331:LEU:HD11	2.02	0.40
3:P:157:PRO:HD2	3:P:160:ILE:HD12	2.03	0.40
3:P:1136:ASP:HB2	1:Z:203:ASN:O	1.96	0.40
5:R:68:GLN:HA	5:R:71:ILE:HD13	2.03	0.40
5:R:864:LEU:HD12	5:R:864:LEU:HA	1.81	0.40
5:R:971:SER:HB3	7:T:392:LEU:CD2	2.50	0.40
5:R:1004:ASP:HA	5:R:1007:THR:HB	2.03	0.40
6:S:350:PHE:HE2	7:T:418:GLN:HE22	1.63	0.40
7:T:527:LEU:HD23	7:T:527:LEU:O	2.21	0.40
6:V:345:LEU:O	6:V:349:THR:HG23	2.21	0.40
7:W:446:ARG:O	7:W:446:ARG:CD	2.69	0.40
8:X:653:SER:O	8:X:657:GLN:HG2	2.21	0.40
1:Z:90:LEU:HD23	1:Z:90:LEU:HA	1.69	0.40
1:A:776:ILE:HD11	1:A:828:THR:HG23	2.03	0.40
3:D:828:ILE:HG13	3:D:828:ILE:O	2.20	0.40
4:E:22:MET:HE1	4:E:122:ILE:HG21	2.03	0.40
5:F:245:ARG:HH22	5:F:288:TRP:N	2.18	0.40
5:F:633:LYS:HA	5:F:633:LYS:HD2	1.82	0.40
5:F:914:ASP:CG	5:F:917:PHE:CB	2.90	0.40
5:F:964:LYS:O	5:F:964:LYS:CG	2.69	0.40
5:F:1309:LEU:O	5:F:1309:LEU:CD2	2.68	0.40
5:F:1359:PHE:O	5:F:1359:PHE:CD1	2.74	0.40
8:I:818:ILE:HD12	8:I:818:ILE:HA	1.80	0.40
6:J:319:GLU:CA	6:J:322:THR:HG22	2.42	0.40
6:J:356:GLN:HB3	7:K:423:LYS:NZ	2.36	0.40
6:J:371:LYS:NZ	6:J:371:LYS:C	2.70	0.40
1:M:607:ARG:O	1:M:611:LEU:HG	2.21	0.40
1:M:687:LEU:HA	1:M:690:ARG:HH11	1.87	0.40
1:N:444:LYS:HA	1:N:444:LYS:HD3	1.90	0.40
3:P:422:LYS:HE2	3:P:524:THR:OG1	2.21	0.40
4:Q:22:MET:HE3	4:Q:122:ILE:HD13	2.02	0.40
5:R:405:ARG:HH12	5:R:407:ASN:HB3	1.86	0.40
5:R:841:PHE:HZ	5:R:922:LEU:HB2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:968:ILE:HA	7:T:392:LEU:HD11	2.02	0.40
6:S:450:PHE:O	6:S:454:ALA:HB2	2.21	0.40
7:T:293:LEU:HD23	7:T:293:LEU:HA	1.95	0.40
8:U:815:GLU:HB3	8:U:816:LYS:HE3	2.02	0.40
8:U:816:LYS:N	8:U:816:LYS:CE	2.84	0.40
6:V:389:ARG:NH1	6:V:389:ARG:HA	2.35	0.40
1:A:32:LEU:CD2	1:A:32:LEU:O	2.70	0.40
1:A:775:LEU:CD1	1:A:832:LEU:CD1	2.95	0.40
2:C:899:ALA:CB	2:C:941:ASN:HD22	2.34	0.40
3:D:328:LEU:CD1	3:D:334:VAL:HG22	2.50	0.40
3:D:371:LEU:HD21	3:D:420:ILE:HG22	2.04	0.40
4:E:1418:LEU:HD13	4:E:1460:LEU:HG	2.04	0.40
5:F:90:GLU:HA	5:F:93:LEU:HB2	2.03	0.40
5:F:463:SER:O	5:F:463:SER:OG	2.31	0.40
5:F:1060:LEU:HD12	5:F:1060:LEU:HA	1.68	0.40
5:F:1300:LEU:HD23	5:F:1301:SER:N	2.36	0.40
5:F:1360:LEU:N	5:F:1360:LEU:HD12	2.37	0.40
5:F:1364:TYR:HB2	5:F:1374:LYS:CB	2.52	0.40
7:H:394:THR:O	7:H:398:ILE:HB	2.21	0.40
8:L:658:TYR:HE1	8:L:665:TRP:HZ3	1.69	0.40
1:M:232:PHE:CZ	1:M:237:GLU:HG3	2.56	0.40
1:M:495:THR:HG22	1:M:503:ALA:HB2	2.03	0.40
1:M:772:PRO:HA	1:M:828:THR:HG21	1.87	0.40
3:P:903:ILE:HG12	3:P:953:PHE:CD1	2.56	0.40
4:Q:948:LEU:HD12	4:Q:948:LEU:HA	1.91	0.40
5:R:321:GLN:O	5:R:325:PHE:HB3	2.21	0.40
5:R:765:ASP:OD1	5:R:765:ASP:N	2.51	0.40
5:R:844:VAL:HG23	5:R:865:LEU:HD12	2.03	0.40
5:R:1026:PHE:CE1	5:R:1049:LEU:HD11	2.57	0.40
8:U:795:LYS:NZ	8:U:795:LYS:CB	2.84	0.40
6:V:371:LYS:O	6:V:371:LYS:CE	2.69	0.40
6:V:375:LYS:HZ2	6:V:375:LYS:HG2	1.69	0.40
6:V:420:ASP:HB2	6:V:436:LEU:HD22	2.04	0.40
7:W:309:ARG:HE	7:W:353:TYR:HE2	1.69	0.40
1:Z:493:ASP:HA	1:Z:496:TYR:CD2	2.56	0.40
1:A:16:LYS:HD2	1:A:16:LYS:HA	1.67	0.40
1:A:679:ASP:CG	1:A:684:ASN:HD22	2.24	0.40
3:D:391:MET:SD	3:D:457:ILE:HD11	2.62	0.40
3:D:574:HIS:HD1	3:D:576:LEU:HD12	1.87	0.40
4:E:1451:CYS:HA	4:E:1457:ALA:HB2	2.04	0.40
4:E:1529:ILE:HG21	4:E:1589:LEU:HD21	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:210:LYS:HB3	5:F:210:LYS:HE2	1.78	0.40
5:F:296:ARG:H	5:F:296:ARG:HG3	1.71	0.40
5:F:607:ILE:HD12	5:F:607:ILE:HA	1.99	0.40
5:F:825:ILE:O	5:F:825:ILE:CG2	2.69	0.40
5:F:1193:ARG:HD2	5:F:1195:PHE:CE1	2.56	0.40
6:J:334:SER:C	6:J:336:PHE:H	2.15	0.40
6:J:420:ASP:HB2	6:J:436:LEU:HD22	2.04	0.40
7:K:341:LYS:HE2	7:K:341:LYS:HB2	1.89	0.40
8:L:679:LEU:O	8:L:682:ASP:HB2	2.20	0.40
1:M:24:GLU:HG3	1:Z:26:LEU:HD12	1.91	0.40
1:M:533:ARG:HE	1:M:534:PHE:N	2.19	0.40
1:M:696:TYR:CD1	1:M:702:ILE:HG21	2.57	0.40
1:N:551:ARG:NH2	1:N:606:GLU:OE2	2.46	0.40
1:N:658:ASN:O	1:N:662:SER:CB	2.70	0.40
2:O:899:ALA:CB	2:O:941:ASN:HD22	2.35	0.40
2:O:1258:GLN:CG	2:O:1299:LYS:HZ1	2.22	0.40
3:P:311:LYS:HA	3:P:311:LYS:HD2	1.94	0.40
3:P:846:ILE:HG13	3:P:907:LEU:CD1	2.51	0.40
3:P:924:ASN:O	3:P:925:GLN:HB2	2.21	0.40
4:Q:369:LEU:HD23	4:Q:375:TYR:CD2	2.56	0.40
5:R:245:ARG:HH22	5:R:288:TRP:N	2.18	0.40
5:R:825:ILE:O	5:R:825:ILE:CG2	2.69	0.40
5:R:885:GLU:O	5:R:885:GLU:CG	2.68	0.40
5:R:964:LYS:CG	5:R:964:LYS:O	2.68	0.40
5:R:1083:ILE:O	5:R:1087:CYS:HB3	2.22	0.40
5:R:1144:VAL:HG11	5:R:1291:SER:OG	2.20	0.40
5:R:1310:VAL:O	5:R:1310:VAL:CG1	2.67	0.40
5:R:1458:LEU:HD23	5:R:1458:LEU:HA	1.88	0.40
6:S:295:LYS:C	6:V:363:LYS:HZ1	2.24	0.40
7:T:394:THR:O	7:T:398:ILE:HB	2.21	0.40
7:W:339:MET:HG3	7:W:339:MET:O	2.22	0.40
7:W:427:LEU:N	7:W:427:LEU:HD22	2.36	0.40
7:W:429:LEU:C	7:W:429:LEU:CD1	2.85	0.40
7:W:515:ASN:ND2	1:Z:20:LYS:HZ1	2.19	0.40
8:X:800:HIS:O	8:X:804:LEU:CB	2.65	0.40
1:A:48:GLU:CB	7:K:514:THR:HG21	2.52	0.40
1:A:495:THR:HG22	1:A:503:ALA:HB2	2.03	0.40
1:A:614:ARG:HB2	1:A:618:GLU:OE1	2.22	0.40
1:A:687:LEU:HA	1:A:690:ARG:HH11	1.86	0.40
1:A:696:TYR:CD1	1:A:702:ILE:HG21	2.57	0.40
3:D:157:PRO:HD2	3:D:160:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:939:LEU:HB3	4:E:997:VAL:HG11	2.04	0.40
4:E:1075:ILE:HA	4:E:1078:ILE:HG22	2.03	0.40
4:E:1133:LYS:HD2	4:E:1133:LYS:HA	1.90	0.40
5:F:1157:TRP:CD1	5:F:1161:LEU:HD13	2.56	0.40
5:F:1177:VAL:O	5:F:1180:TYR:CB	2.70	0.40
5:F:1660:ASN:O	5:F:1664:ASN:ND2	2.54	0.40
6:J:405:LEU:O	6:J:405:LEU:CG	2.69	0.40
6:J:411:ASN:OD1	6:J:411:ASN:N	2.41	0.40
7:K:433:GLU:HB2	8:L:741:ARG:HE	1.85	0.40
7:K:446:ARG:O	7:K:446:ARG:CD	2.69	0.40
1:M:451:ASP:OD1	1:M:455:GLU:HB2	2.21	0.40
1:N:305:ILE:HD12	1:N:339:TYR:HB3	2.02	0.40
3:P:586:LEU:HD11	3:P:593:VAL:H	1.86	0.40
3:P:682:ALA:O	3:P:699:ALA:HB1	2.21	0.40
3:P:831:LYS:HB2	3:P:929:PHE:CE2	2.56	0.40
5:R:914:ASP:OD1	5:R:917:PHE:CB	2.66	0.40
5:R:1511:LEU:HD12	5:R:1514:GLU:HB2	2.03	0.40
5:R:1660:ASN:O	5:R:1664:ASN:ND2	2.54	0.40
7:T:426:GLY:CA	8:U:736:ASN:HB2	2.51	0.40
7:W:315:LYS:HD2	7:W:347:THR:HG22	2.03	0.40
7:W:518:ARG:CB	7:W:518:ARG:NH1	2.72	0.40
7:W:529:LYS:HD2	7:W:530:ASP:N	2.36	0.40
8:X:640:LEU:HA	8:X:643:LYS:CB	2.51	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	A	722/839 (86%)	702 (97%)	18 (2%)	2 (0%)	41 74
1	M	719/839 (86%)	699 (97%)	18 (2%)	2 (0%)	41 74

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	N	736/839 (88%)	680 (92%)	39 (5%)	17 (2%)	6 38
1	Z	736/839 (88%)	681 (92%)	38 (5%)	17 (2%)	6 38
2	C	1323/1391 (95%)	1269 (96%)	41 (3%)	13 (1%)	15 51
2	O	1323/1391 (95%)	1270 (96%)	40 (3%)	13 (1%)	15 51
3	D	1396/1502 (93%)	1275 (91%)	113 (8%)	8 (1%)	25 61
3	P	1396/1502 (93%)	1275 (91%)	113 (8%)	8 (1%)	25 61
4	E	1538/1655 (93%)	1374 (89%)	150 (10%)	14 (1%)	17 53
4	Q	1538/1655 (93%)	1376 (90%)	149 (10%)	13 (1%)	19 56
5	F	1616/1683 (96%)	1200 (74%)	321 (20%)	95 (6%)	1 20
5	R	1616/1683 (96%)	1196 (74%)	324 (20%)	96 (6%)	1 20
6	G	198/472 (42%)	188 (95%)	9 (4%)	1 (0%)	29 65
6	J	191/472 (40%)	172 (90%)	15 (8%)	4 (2%)	7 40
6	S	198/472 (42%)	188 (95%)	9 (4%)	1 (0%)	29 65
6	V	191/472 (40%)	171 (90%)	16 (8%)	4 (2%)	7 40
7	H	242/541 (45%)	202 (84%)	36 (15%)	4 (2%)	9 43
7	K	252/541 (47%)	208 (82%)	33 (13%)	11 (4%)	2 25
7	T	242/541 (45%)	202 (84%)	36 (15%)	4 (2%)	9 43
7	W	252/541 (47%)	209 (83%)	32 (13%)	11 (4%)	2 25
8	I	185/823 (22%)	158 (85%)	16 (9%)	11 (6%)	1 20
8	L	185/823 (22%)	164 (89%)	15 (8%)	6 (3%)	4 32
8	U	185/823 (22%)	158 (85%)	16 (9%)	11 (6%)	1 20
8	X	185/823 (22%)	164 (89%)	15 (8%)	6 (3%)	4 32
All	All	17165/23162 (74%)	15181 (88%)	1612 (9%)	372 (2%)	10 39

All (372) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	44	VAL
2	C	319	PRO
2	C	468	PHE
2	C	476	ASN
2	C	694	PHE
2	C	1255	SER
3	D	528	PRO

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Mol	Chain	Res	Type
3	D	665	ASN
3	D	1000	ASP
3	D	1128	GLN
3	D	1134	SER
4	E	923	LEU
4	E	986	SER
4	E	989	ASP
4	E	990	LYS
5	F	353	PRO
5	F	357	PRO
5	F	380	ALA
5	F	391	ASN
5	F	394	TYR
5	F	395	PRO
5	F	410	PRO
5	F	823	PRO
5	F	825	ILE
5	F	885	GLU
5	F	888	PRO
5	F	919	ASN
5	F	921	PRO
5	F	934	ASP
5	F	935	GLN
5	F	1031	VAL
5	F	1036	PRO
5	F	1090	PRO
5	F	1188	THR
5	F	1195	PHE
5	F	1295	ALA
5	F	1314	VAL
5	F	1371	ILE
5	F	1381	LEU
5	F	1387	THR
5	F	1392	ILE
5	F	1395	PRO
6	G	425	GLU
7	H	506	ILE
7	H	507	ASN
8	I	732	ALA
8	I	740	LYS
8	I	793	LEU
8	I	799	SER

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Mol	Chain	Res	Type
6	J	338	SER
6	J	339	LEU
6	J	405	LEU
6	J	438	ALA
7	K	321	ALA
7	K	449	ASP
7	K	450	PRO
7	K	457	ASN
8	L	780	THR
8	L	781	ASN
1	M	44	VAL
1	N	44	VAL
1	N	92	THR
1	N	751	LEU
1	N	752	SER
1	N	765	ASP
1	N	767	ILE
1	N	824	MET
2	O	319	PRO
2	O	468	PHE
2	O	476	ASN
2	O	694	PHE
2	O	1255	SER
3	P	528	PRO
3	P	665	ASN
3	P	1000	ASP
3	P	1128	GLN
3	P	1134	SER
4	Q	259	SER
4	Q	923	LEU
4	Q	986	SER
4	Q	989	ASP
4	Q	990	LYS
5	R	353	PRO
5	R	357	PRO
5	R	380	ALA
5	R	391	ASN
5	R	394	TYR
5	R	395	PRO
5	R	410	PRO
5	R	823	PRO
5	R	825	ILE

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Mol	Chain	Res	Type
5	R	885	GLU
5	R	888	PRO
5	R	919	ASN
5	R	921	PRO
5	R	922	LEU
5	R	934	ASP
5	R	935	GLN
5	R	1031	VAL
5	R	1036	PRO
5	R	1090	PRO
5	R	1188	THR
5	R	1195	PHE
5	R	1295	ALA
5	R	1314	VAL
5	R	1371	ILE
5	R	1381	LEU
5	R	1387	THR
5	R	1392	ILE
5	R	1395	PRO
6	S	425	GLU
7	T	506	ILE
7	T	507	ASN
8	U	732	ALA
8	U	740	LYS
8	U	793	LEU
8	U	799	SER
6	V	338	SER
6	V	339	LEU
6	V	438	ALA
7	W	321	ALA
7	W	449	ASP
7	W	450	PRO
7	W	457	ASN
7	W	505	ARG
8	X	780	THR
8	X	781	ASN
1	Z	44	VAL
1	Z	92	THR
1	Z	751	LEU
1	Z	752	SER
1	Z	765	ASP
1	Z	767	ILE

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Mol	Chain	Res	Type
1	Z	824	MET
2	C	526	ASN
4	E	262	SER
4	E	263	SER
4	E	701	SER
4	E	1248	THR
5	F	361	LEU
5	F	396	GLY
5	F	412	ASN
5	F	922	LEU
5	F	926	LEU
5	F	936	ILE
5	F	958	SER
5	F	964	LYS
5	F	974	GLU
5	F	1035	GLY
5	F	1039	ALA
5	F	1041	PHE
5	F	1062	SER
5	F	1124	GLY
5	F	1134	LYS
5	F	1135	CYS
5	F	1189	MET
5	F	1204	GLY
5	F	1210	LYS
5	F	1374	LYS
5	F	1389	ILE
5	F	1421	VAL
7	H	319	THR
7	H	424	ASN
8	I	728	THR
7	K	405	ASN
7	K	501	GLU
7	K	504	ASP
7	K	505	ARG
8	L	779	THR
1	N	821	GLN
2	O	526	ASN
4	Q	701	SER
4	Q	1248	THR
5	R	361	LEU
5	R	396	GLY

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Mol	Chain	Res	Type
5	R	412	ASN
5	R	926	LEU
5	R	936	ILE
5	R	958	SER
5	R	964	LYS
5	R	974	GLU
5	R	1035	GLY
5	R	1039	ALA
5	R	1041	PHE
5	R	1059	SER
5	R	1062	SER
5	R	1124	GLY
5	R	1134	LYS
5	R	1135	CYS
5	R	1189	MET
5	R	1204	GLY
5	R	1210	LYS
5	R	1374	LYS
5	R	1389	ILE
5	R	1421	VAL
7	T	319	THR
7	T	424	ASN
8	U	728	THR
6	V	403	THR
7	W	405	ASN
7	W	501	GLU
7	W	504	ASP
8	X	779	THR
1	Z	821	GLN
1	A	134	LYS
2	C	75	ASP
2	C	334	ASP
2	C	479	ASP
4	E	980	LYS
5	F	335	ASP
5	F	350	ARG
5	F	358	LYS
5	F	367	PHE
5	F	381	THR
5	F	406	LEU
5	F	591	ASP
5	F	902	LYS

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Mol	Chain	Res	Type
5	F	1030	ASN
5	F	1038	LEU
5	F	1059	SER
5	F	1064	THR
5	F	1084	LEU
5	F	1123	ASN
5	F	1193	ARG
5	F	1200	PRO
5	F	1269	GLU
5	F	1370	LEU
5	F	1396	LEU
5	F	1675	THR
8	I	738	ASP
8	I	789	GLU
8	I	790	ASN
7	K	392	LEU
8	L	783	ASP
1	M	134	LYS
1	N	134	LYS
1	N	825	PRO
2	O	75	ASP
2	O	334	ASP
2	O	479	ASP
4	Q	980	LYS
5	R	335	ASP
5	R	350	ARG
5	R	358	LYS
5	R	367	PHE
5	R	381	THR
5	R	406	LEU
5	R	591	ASP
5	R	902	LYS
5	R	1030	ASN
5	R	1038	LEU
5	R	1064	THR
5	R	1084	LEU
5	R	1123	ASN
5	R	1193	ARG
5	R	1200	PRO
5	R	1269	GLU
5	R	1370	LEU
5	R	1396	LEU

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Mol	Chain	Res	Type
5	R	1557	PRO
5	R	1675	THR
8	U	738	ASP
8	U	789	GLU
8	U	790	ASN
7	W	392	LEU
8	X	783	ASP
1	Z	134	LYS
1	Z	825	PRO
2	C	315	THR
2	C	1252	ASP
3	D	1441	ASN
5	F	363	ASP
5	F	444	THR
5	F	816	PHE
5	F	930	VAL
5	F	951	ARG
5	F	1067	ASN
5	F	1187	ASN
5	F	1236	ILE
5	F	1361	PHE
5	F	1372	THR
5	F	1676	LEU
7	K	455	LYS
1	N	91	GLN
1	N	250	ASN
1	N	648	GLU
1	N	762	ASN
1	N	771	ILE
1	N	777	ILE
2	O	315	THR
2	O	1252	ASP
3	P	1441	ASN
5	R	363	ASP
5	R	444	THR
5	R	816	PHE
5	R	930	VAL
5	R	951	ARG
5	R	1067	ASN
5	R	1129	ASN
5	R	1187	ASN
5	R	1236	ILE

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Mol	Chain	Res	Type
5	R	1361	PHE
5	R	1372	THR
5	R	1676	LEU
7	W	455	LYS
1	Z	91	GLN
1	Z	648	GLU
1	Z	762	ASN
1	Z	771	ILE
1	Z	777	ILE
3	D	998	ALA
4	E	702	THR
4	E	977	ALA
4	E	1027	TRP
5	F	713	PHE
5	F	1122	TRP
5	F	1129	ASN
5	F	1194	LEU
5	F	1420	GLN
1	N	828	THR
3	P	998	ALA
4	Q	702	THR
4	Q	977	ALA
4	Q	1027	TRP
5	R	713	PHE
5	R	1122	TRP
5	R	1194	LEU
5	R	1420	GLN
1	Z	245	ALA
1	Z	828	THR
2	C	684	GLY
5	F	352	ILE
5	F	923	VAL
5	F	1296	LEU
5	F	1307	VAL
5	F	1365	ASN
5	F	1390	GLN
8	I	798	ASN
8	L	704	GLN
5	R	352	ILE
5	R	923	VAL
5	R	1296	LEU
5	R	1307	VAL

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Mol	Chain	Res	Type
5	R	1365	ASN
5	R	1390	GLN
8	U	798	ASN
8	X	704	GLN
4	E	1489	PRO
8	L	794	ILE
2	O	684	GLY
4	Q	1489	PRO
8	X	794	ILE
8	I	782	ILE
7	K	427	LEU
8	U	782	ILE
7	W	427	LEU
3	D	993	GLY
4	E	974	GLY
5	F	1032	ILE
5	F	1063	ILE
3	P	993	GLY
4	Q	974	GLY
5	R	1032	ILE
5	R	1063	ILE
5	F	422	VAL
8	I	791	ILE
5	R	422	VAL
8	U	791	ILE
2	C	469	ILE
5	F	1266	VAL
2	O	469	ILE
5	R	1266	VAL

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	A	608/762 (80%)	583 (96%)	25 (4%)	30 59
1	M	605/762 (79%)	578 (96%)	27 (4%)	27 57

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	N	609/762 (80%)	554 (91%)	55 (9%)	9 37
1	Z	609/762 (80%)	554 (91%)	55 (9%)	9 37
2	C	1177/1250 (94%)	1152 (98%)	25 (2%)	53 74
2	O	1177/1250 (94%)	1152 (98%)	25 (2%)	53 74
3	D	1212/1353 (90%)	1199 (99%)	13 (1%)	73 85
3	P	1210/1353 (89%)	1197 (99%)	13 (1%)	73 85
4	E	1421/1557 (91%)	1397 (98%)	24 (2%)	60 79
4	Q	1421/1557 (91%)	1397 (98%)	24 (2%)	60 79
5	F	1261/1538 (82%)	1165 (92%)	96 (8%)	13 43
5	R	1261/1538 (82%)	1163 (92%)	98 (8%)	12 43
6	G	167/377 (44%)	165 (99%)	2 (1%)	71 84
6	J	162/377 (43%)	145 (90%)	17 (10%)	7 31
6	S	166/377 (44%)	164 (99%)	2 (1%)	71 84
6	V	162/377 (43%)	148 (91%)	14 (9%)	10 40
7	H	171/439 (39%)	166 (97%)	5 (3%)	42 66
7	K	153/439 (35%)	134 (88%)	19 (12%)	4 24
7	T	171/439 (39%)	166 (97%)	5 (3%)	42 66
7	W	152/439 (35%)	128 (84%)	24 (16%)	2 17
8	I	152/674 (23%)	135 (89%)	17 (11%)	6 29
8	L	138/674 (20%)	137 (99%)	1 (1%)	84 91
8	U	152/674 (23%)	135 (89%)	17 (11%)	6 29
8	X	138/674 (20%)	137 (99%)	1 (1%)	84 91
All	All	14455/20404 (71%)	13851 (96%)	604 (4%)	33 58

All (604) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	19	ASN
1	A	21	LYS
1	A	24	GLU
1	A	29	SER
1	A	45	SER
1	A	53	VAL
1	A	54	PHE

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Mol	Chain	Res	Type
1	A	57	ARG
1	A	79	SER
1	A	82	ASP
1	A	115	THR
1	A	116	LYS
1	A	119	GLU
1	A	122	LEU
1	A	130	ASN
1	A	134	LYS
1	A	137	ASP
1	A	138	ASN
1	A	139	PHE
1	A	543	LYS
1	A	617	LYS
1	A	827	GLU
1	A	829	TYR
1	A	830	SER
1	A	833	ILE
2	C	68	THR
2	C	85	LEU
2	C	294	LEU
2	C	315	THR
2	C	318	ILE
2	C	326	LEU
2	C	331	LEU
2	C	337	THR
2	C	462	LEU
2	C	476	ASN
2	C	520	LEU
2	C	530	LEU
2	C	577	PHE
2	C	691	GLN
2	C	695	ASP
2	C	826	LEU
2	C	828	THR
2	C	896	CYS
2	C	1034	SER
2	C	1252	ASP
2	C	1253	VAL
2	C	1262	LEU
2	C	1299	LYS
2	C	1301	SER

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Mol	Chain	Res	Type
2	C	1387	HIS
3	D	445	ARG
3	D	528	PRO
3	D	980	SER
3	D	982	GLU
3	D	990	GLU
3	D	995	PHE
3	D	1000	ASP
3	D	1115	VAL
3	D	1118	LEU
3	D	1129	ASN
3	D	1160	HIS
3	D	1472	ILE
3	D	1495	LEU
4	E	138	VAL
4	E	260	ARG
4	E	261	ILE
4	E	336	GLN
4	E	771	LEU
4	E	773	LEU
4	E	791	ASP
4	E	827	PRO
4	E	843	LEU
4	E	923	LEU
4	E	931	PHE
4	E	975	GLN
4	E	976	PHE
4	E	980	LYS
4	E	984	ASP
4	E	986	SER
4	E	1026	THR
4	E	1077	ARG
4	E	1164	ASP
4	E	1259	PHE
4	E	1301	LYS
4	E	1313	ARG
4	E	1557	LEU
4	E	1597	ARG
5	F	64	PHE
5	F	164	LYS
5	F	331	ILE
5	F	334	GLN

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Mol	Chain	Res	Type
5	F	356	ILE
5	F	389	LEU
5	F	397	MET
5	F	399	SER
5	F	407	ASN
5	F	408	SER
5	F	409	MET
5	F	444	THR
5	F	556	LYS
5	F	644	LYS
5	F	712	LEU
5	F	745	ARG
5	F	750	TRP
5	F	782	LYS
5	F	815	PHE
5	F	825	ILE
5	F	836	ILE
5	F	837	TYR
5	F	888	PRO
5	F	900	LEU
5	F	920	ILE
5	F	921	PRO
5	F	926	LEU
5	F	928	LEU
5	F	934	ASP
5	F	950	GLU
5	F	951	ARG
5	F	955	SER
5	F	958	SER
5	F	962	ARG
5	F	965	LEU
5	F	1029	SER
5	F	1041	PHE
5	F	1060	LEU
5	F	1068	ILE
5	F	1090	PRO
5	F	1092	THR
5	F	1118	ARG
5	F	1128	ASP
5	F	1129	ASN
5	F	1144	VAL
5	F	1147	PHE

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Mol	Chain	Res	Type
5	F	1149	SER
5	F	1150	PHE
5	F	1153	TYR
5	F	1155	ASN
5	F	1159	GLN
5	F	1165	ILE
5	F	1166	HIS
5	F	1167	LYS
5	F	1169	SER
5	F	1170	PHE
5	F	1181	VAL
5	F	1191	SER
5	F	1192	VAL
5	F	1210	LYS
5	F	1273	LYS
5	F	1276	ASP
5	F	1277	VAL
5	F	1278	GLU
5	F	1280	ILE
5	F	1281	LYS
5	F	1283	LYS
5	F	1285	HIS
5	F	1286	PHE
5	F	1289	ILE
5	F	1291	SER
5	F	1293	ASN
5	F	1296	LEU
5	F	1297	GLU
5	F	1300	LEU
5	F	1301	SER
5	F	1302	VAL
5	F	1303	LEU
5	F	1309	LEU
5	F	1314	VAL
5	F	1315	THR
5	F	1349	PHE
5	F	1356	LEU
5	F	1361	PHE
5	F	1364	TYR
5	F	1365	ASN
5	F	1372	THR
5	F	1373	ASP

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Mol	Chain	Res	Type
5	F	1382	TYR
5	F	1387	THR
5	F	1417	LEU
5	F	1484	ARG
5	F	1550	LEU
5	F	1634	LYS
5	F	1635	ARG
5	F	1680	GLN
6	G	411	ASN
6	G	460	LEU
7	H	325	THR
7	H	418	GLN
7	H	507	ASN
7	H	508	LYS
7	H	529	LYS
8	I	688	HIS
8	I	727	SER
8	I	736	ASN
8	I	740	LYS
8	I	778	LYS
8	I	792	GLN
8	I	795	LYS
8	I	797	LEU
8	I	808	ASP
8	I	810	ASN
8	I	812	THR
8	I	815	GLU
8	I	818	ILE
8	I	819	ASN
8	I	821	ILE
8	I	822	LYS
8	I	823	LYS
6	J	357	LEU
6	J	368	ASP
6	J	370	ASP
6	J	371	LYS
6	J	372	PHE
6	J	375	LYS
6	J	376	LYS
6	J	385	GLU
6	J	389	ARG
6	J	390	ILE

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Mol	Chain	Res	Type
6	J	393	ASP
6	J	401	ILE
6	J	402	ASP
6	J	403	THR
6	J	405	LEU
6	J	411	ASN
6	J	430	LEU
7	K	341	LYS
7	K	384	THR
7	K	385	GLN
7	K	387	GLN
7	K	391	GLU
7	K	393	ASP
7	K	394	THR
7	K	398	ILE
7	K	399	LEU
7	K	400	LYS
7	K	402	GLN
7	K	404	ARG
7	K	423	LYS
7	K	443	LEU
7	K	446	ARG
7	K	449	ASP
7	K	453	LEU
7	K	455	LYS
7	K	529	LYS
8	L	703	GLN
1	M	15	SER
1	M	16	LYS
1	M	21	LYS
1	M	23	ASN
1	M	24	GLU
1	M	29	SER
1	M	45	SER
1	M	53	VAL
1	M	54	PHE
1	M	57	ARG
1	M	79	SER
1	M	82	ASP
1	M	115	THR
1	M	116	LYS
1	M	119	GLU

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Mol	Chain	Res	Type
1	M	122	LEU
1	M	130	ASN
1	M	134	LYS
1	M	137	ASP
1	M	138	ASN
1	M	139	PHE
1	M	543	LYS
1	M	617	LYS
1	M	827	GLU
1	M	829	TYR
1	M	830	SER
1	M	833	ILE
1	N	19	ASN
1	N	21	LYS
1	N	22	LEU
1	N	27	GLU
1	N	30	ASP
1	N	46	ILE
1	N	49	LEU
1	N	53	VAL
1	N	56	LEU
1	N	79	SER
1	N	80	PHE
1	N	81	GLU
1	N	84	ASP
1	N	87	ILE
1	N	88	LYS
1	N	89	ASP
1	N	90	LEU
1	N	92	THR
1	N	116	LYS
1	N	117	LYS
1	N	119	GLU
1	N	121	ILE
1	N	122	LEU
1	N	125	ILE
1	N	127	GLN
1	N	128	LEU
1	N	129	LEU
1	N	130	ASN
1	N	133	THR
1	N	134	LYS

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Mol	Chain	Res	Type
1	N	138	ASN
1	N	139	PHE
1	N	144	LEU
1	N	146	LEU
1	N	252	GLN
1	N	254	LEU
1	N	294	MET
1	N	399	LYS
1	N	446	LYS
1	N	551	ARG
1	N	731	GLN
1	N	758	GLN
1	N	765	ASP
1	N	766	ASN
1	N	767	ILE
1	N	772	PRO
1	N	775	LEU
1	N	776	ILE
1	N	777	ILE
1	N	793	LYS
1	N	805	SER
1	N	808	ASN
1	N	824	MET
1	N	827	GLU
1	N	828	THR
2	O	68	THR
2	O	85	LEU
2	O	294	LEU
2	O	315	THR
2	O	318	ILE
2	O	326	LEU
2	O	331	LEU
2	O	337	THR
2	O	462	LEU
2	O	476	ASN
2	O	520	LEU
2	O	530	LEU
2	O	577	PHE
2	O	691	GLN
2	O	695	ASP
2	O	826	LEU
2	O	828	THR

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Mol	Chain	Res	Type
2	O	896	CYS
2	O	1034	SER
2	O	1252	ASP
2	O	1253	VAL
2	O	1262	LEU
2	O	1299	LYS
2	O	1301	SER
2	O	1387	HIS
3	P	445	ARG
3	P	528	PRO
3	P	980	SER
3	P	982	GLU
3	P	990	GLU
3	P	995	PHE
3	P	1000	ASP
3	P	1115	VAL
3	P	1118	LEU
3	P	1129	ASN
3	P	1160	HIS
3	P	1472	ILE
3	P	1495	LEU
4	Q	138	VAL
4	Q	257	LEU
4	Q	258	ILE
4	Q	336	GLN
4	Q	771	LEU
4	Q	773	LEU
4	Q	791	ASP
4	Q	827	PRO
4	Q	843	LEU
4	Q	923	LEU
4	Q	931	PHE
4	Q	975	GLN
4	Q	976	PHE
4	Q	980	LYS
4	Q	984	ASP
4	Q	986	SER
4	Q	1026	THR
4	Q	1077	ARG
4	Q	1164	ASP
4	Q	1259	PHE
4	Q	1301	LYS

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Mol	Chain	Res	Type
4	Q	1313	ARG
4	Q	1557	LEU
4	Q	1597	ARG
5	R	64	PHE
5	R	164	LYS
5	R	331	ILE
5	R	334	GLN
5	R	356	ILE
5	R	389	LEU
5	R	397	MET
5	R	399	SER
5	R	407	ASN
5	R	408	SER
5	R	409	MET
5	R	444	THR
5	R	556	LYS
5	R	644	LYS
5	R	712	LEU
5	R	745	ARG
5	R	750	TRP
5	R	782	LYS
5	R	815	PHE
5	R	825	ILE
5	R	836	ILE
5	R	837	TYR
5	R	888	PRO
5	R	900	LEU
5	R	920	ILE
5	R	921	PRO
5	R	926	LEU
5	R	928	LEU
5	R	934	ASP
5	R	950	GLU
5	R	951	ARG
5	R	955	SER
5	R	958	SER
5	R	962	ARG
5	R	965	LEU
5	R	1029	SER
5	R	1041	PHE
5	R	1060	LEU
5	R	1068	ILE

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Mol	Chain	Res	Type
5	R	1090	PRO
5	R	1092	THR
5	R	1118	ARG
5	R	1128	ASP
5	R	1129	ASN
5	R	1144	VAL
5	R	1147	PHE
5	R	1149	SER
5	R	1150	PHE
5	R	1153	TYR
5	R	1155	ASN
5	R	1159	GLN
5	R	1165	ILE
5	R	1166	HIS
5	R	1167	LYS
5	R	1169	SER
5	R	1170	PHE
5	R	1181	VAL
5	R	1191	SER
5	R	1192	VAL
5	R	1210	LYS
5	R	1273	LYS
5	R	1276	ASP
5	R	1277	VAL
5	R	1278	GLU
5	R	1280	ILE
5	R	1281	LYS
5	R	1283	LYS
5	R	1285	HIS
5	R	1286	PHE
5	R	1289	ILE
5	R	1291	SER
5	R	1293	ASN
5	R	1296	LEU
5	R	1297	GLU
5	R	1300	LEU
5	R	1301	SER
5	R	1302	VAL
5	R	1303	LEU
5	R	1309	LEU
5	R	1314	VAL
5	R	1315	THR

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Mol	Chain	Res	Type
5	R	1349	PHE
5	R	1356	LEU
5	R	1361	PHE
5	R	1364	TYR
5	R	1365	ASN
5	R	1372	THR
5	R	1373	ASP
5	R	1382	TYR
5	R	1387	THR
5	R	1417	LEU
5	R	1484	ARG
5	R	1550	LEU
5	R	1559	LEU
5	R	1561	LEU
5	R	1634	LYS
5	R	1635	ARG
5	R	1680	GLN
6	S	411	ASN
6	S	460	LEU
7	T	325	THR
7	T	418	GLN
7	T	507	ASN
7	T	508	LYS
7	T	529	LYS
8	U	688	HIS
8	U	727	SER
8	U	736	ASN
8	U	740	LYS
8	U	778	LYS
8	U	792	GLN
8	U	795	LYS
8	U	797	LEU
8	U	808	ASP
8	U	810	ASN
8	U	812	THR
8	U	815	GLU
8	U	818	ILE
8	U	819	ASN
8	U	821	ILE
8	U	822	LYS
8	U	823	LYS
6	V	357	LEU

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Mol	Chain	Res	Type
6	V	368	ASP
6	V	370	ASP
6	V	371	LYS
6	V	375	LYS
6	V	376	LYS
6	V	385	GLU
6	V	389	ARG
6	V	391	LEU
6	V	394	ILE
6	V	401	ILE
6	V	405	LEU
6	V	411	ASN
6	V	430	LEU
7	W	341	LYS
7	W	384	THR
7	W	385	GLN
7	W	387	GLN
7	W	391	GLU
7	W	393	ASP
7	W	394	THR
7	W	398	ILE
7	W	399	LEU
7	W	400	LYS
7	W	402	GLN
7	W	404	ARG
7	W	423	LYS
7	W	443	LEU
7	W	446	ARG
7	W	449	ASP
7	W	453	LEU
7	W	455	LYS
7	W	506	ILE
7	W	509	ILE
7	W	518	ARG
7	W	522	TYR
7	W	529	LYS
7	W	539	ASN
8	X	703	GLN
1	Z	14	THR
1	Z	16	LYS
1	Z	20	LYS
1	Z	22	LEU

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Mol	Chain	Res	Type
1	Z	26	LEU
1	Z	28	SER
1	Z	46	ILE
1	Z	49	LEU
1	Z	53	VAL
1	Z	56	LEU
1	Z	79	SER
1	Z	80	PHE
1	Z	81	GLU
1	Z	84	ASP
1	Z	87	ILE
1	Z	88	LYS
1	Z	89	ASP
1	Z	90	LEU
1	Z	92	THR
1	Z	116	LYS
1	Z	117	LYS
1	Z	119	GLU
1	Z	121	ILE
1	Z	122	LEU
1	Z	125	ILE
1	Z	127	GLN
1	Z	128	LEU
1	Z	129	LEU
1	Z	130	ASN
1	Z	133	THR
1	Z	134	LYS
1	Z	138	ASN
1	Z	139	PHE
1	Z	144	LEU
1	Z	146	LEU
1	Z	253	LEU
1	Z	294	MET
1	Z	399	LYS
1	Z	446	LYS
1	Z	551	ARG
1	Z	731	GLN
1	Z	758	GLN
1	Z	765	ASP
1	Z	766	ASN
1	Z	767	ILE
1	Z	772	PRO

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Mol	Chain	Res	Type
1	Z	775	LEU
1	Z	776	ILE
1	Z	777	ILE
1	Z	793	LYS
1	Z	805	SER
1	Z	808	ASN
1	Z	824	MET
1	Z	827	GLU
1	Z	828	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (229) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	130	ASN
1	A	138	ASN
1	A	733	GLN
1	A	787	HIS
2	C	199	HIS
2	C	691	GLN
2	C	827	ASN
2	C	914	GLN
2	C	941	ASN
2	C	1387	HIS
3	D	449	ASN
3	D	484	GLN
3	D	850	ASN
3	D	1086	ASN
3	D	1129	ASN
4	E	36	GLN
4	E	190	GLN
4	E	210	ASN
4	E	299	ASN
4	E	388	ASN
4	E	571	ASN
4	E	600	ASN
4	E	636	GLN
4	E	677	ASN
4	E	759	ASN
4	E	763	GLN
4	E	770	HIS
4	E	822	ASN
4	E	1001	ASN

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Mol	Chain	Res	Type
4	E	1029	ASN
4	E	1383	GLN
4	E	1429	HIS
4	E	1493	ASN
4	E	1535	ASN
4	E	1539	ASN
4	E	1558	GLN
5	F	38	ASN
5	F	163	ASN
5	F	177	GLN
5	F	195	GLN
5	F	258	GLN
5	F	334	GLN
5	F	428	GLN
5	F	539	ASN
5	F	542	ASN
5	F	714	HIS
5	F	725	ASN
5	F	1260	ASN
5	F	1293	ASN
5	F	1299	ASN
5	F	1365	ASN
5	F	1541	ASN
6	G	328	GLN
6	G	355	GLN
6	G	428	ASN
7	H	362	ASN
7	H	365	GLN
7	H	368	ASN
7	H	377	ASN
7	H	524	ASN
8	I	647	GLN
8	I	654	HIS
8	I	690	GLN
8	I	695	GLN
8	I	743	GLN
8	I	754	ASN
8	I	781	ASN
8	I	800	HIS
8	I	819	ASN
6	J	324	GLN
6	J	328	GLN

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Mol	Chain	Res	Type
6	J	355	GLN
6	J	367	ASN
6	J	374	GLN
6	J	378	HIS
7	K	337	GLN
7	K	359	ASN
7	K	362	ASN
7	K	365	GLN
7	K	368	ASN
7	K	377	ASN
7	K	385	GLN
7	K	387	GLN
7	K	402	GLN
7	K	424	ASN
7	K	515	ASN
7	K	539	ASN
8	L	647	GLN
8	L	654	HIS
8	L	695	GLN
8	L	704	GLN
8	L	749	GLN
8	L	754	ASN
8	L	774	ASN
8	L	800	HIS
1	M	19	ASN
1	M	130	ASN
1	M	138	ASN
1	M	540	ASN
1	M	733	GLN
1	M	787	HIS
1	N	19	ASN
1	N	60	ASN
1	N	127	GLN
1	N	130	ASN
1	N	138	ASN
1	N	141	ASN
1	N	196	ASN
1	N	246	ASN
1	N	252	GLN
1	N	396	GLN
1	N	463	GLN
1	N	464	ASN

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Mol	Chain	Res	Type
1	N	621	HIS
1	N	658	ASN
1	N	738	GLN
1	N	758	GLN
1	N	770	ASN
1	N	802	GLN
1	N	834	ASN
2	O	199	HIS
2	O	691	GLN
2	O	827	ASN
2	O	914	GLN
2	O	941	ASN
2	O	1258	GLN
2	O	1387	HIS
3	P	449	ASN
3	P	484	GLN
3	P	850	ASN
3	P	1086	ASN
3	P	1129	ASN
4	Q	36	GLN
4	Q	190	GLN
4	Q	210	ASN
4	Q	299	ASN
4	Q	388	ASN
4	Q	571	ASN
4	Q	600	ASN
4	Q	636	GLN
4	Q	677	ASN
4	Q	759	ASN
4	Q	763	GLN
4	Q	770	HIS
4	Q	822	ASN
4	Q	1001	ASN
4	Q	1029	ASN
4	Q	1383	GLN
4	Q	1429	HIS
4	Q	1493	ASN
4	Q	1535	ASN
4	Q	1539	ASN
4	Q	1558	GLN
5	R	38	ASN
5	R	163	ASN

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Mol	Chain	Res	Type
5	R	177	GLN
5	R	195	GLN
5	R	258	GLN
5	R	334	GLN
5	R	428	GLN
5	R	539	ASN
5	R	542	ASN
5	R	714	HIS
5	R	725	ASN
5	R	1293	ASN
5	R	1299	ASN
5	R	1365	ASN
5	R	1541	ASN
5	R	1680	GLN
6	S	328	GLN
6	S	355	GLN
6	S	428	ASN
7	T	362	ASN
7	T	365	GLN
7	T	368	ASN
7	T	377	ASN
7	T	524	ASN
8	U	647	GLN
8	U	654	HIS
8	U	690	GLN
8	U	695	GLN
8	U	743	GLN
8	U	754	ASN
8	U	781	ASN
8	U	800	HIS
8	U	819	ASN
6	V	324	GLN
6	V	328	GLN
6	V	355	GLN
6	V	367	ASN
6	V	374	GLN
6	V	378	HIS
7	W	359	ASN
7	W	362	ASN
7	W	365	GLN
7	W	368	ASN
7	W	377	ASN

Continued on next page...

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Mol	Chain	Res	Type
7	W	385	GLN
7	W	387	GLN
7	W	402	GLN
7	W	424	ASN
7	W	515	ASN
7	W	539	ASN
8	X	647	GLN
8	X	654	HIS
8	X	695	GLN
8	X	704	GLN
8	X	749	GLN
8	X	754	ASN
8	X	774	ASN
8	X	777	ASN
1	Z	60	ASN
1	Z	127	GLN
1	Z	130	ASN
1	Z	138	ASN
1	Z	141	ASN
1	Z	196	ASN
1	Z	214	ASN
1	Z	252	GLN
1	Z	396	GLN
1	Z	463	GLN
1	Z	464	ASN
1	Z	621	HIS
1	Z	658	ASN
1	Z	738	GLN
1	Z	758	GLN
1	Z	770	ASN
1	Z	802	GLN
1	Z	834	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.

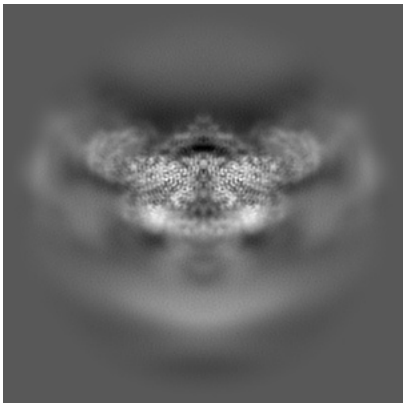
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-32658. These allow visual inspection of the internal detail of the map and identification of artifacts.

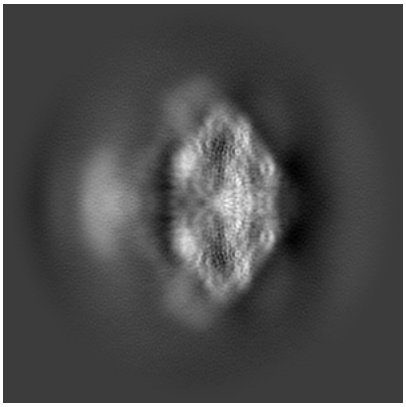
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

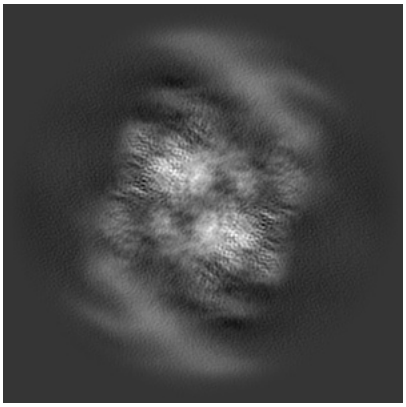
6.1.1 Primary map



X



Y

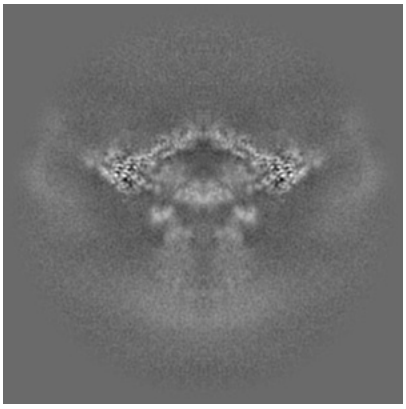


Z

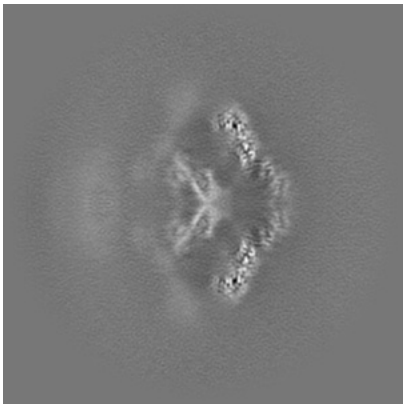
The images above show the map projected in three orthogonal directions.

6.2 Central slices

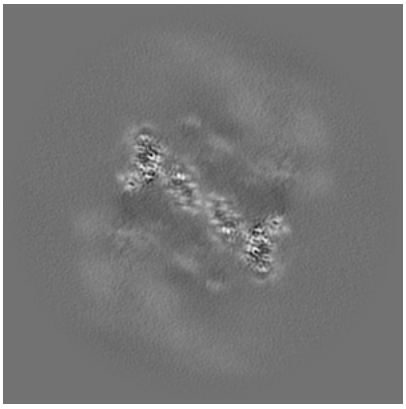
6.2.1 Primary map



X Index: 175



Y Index: 175

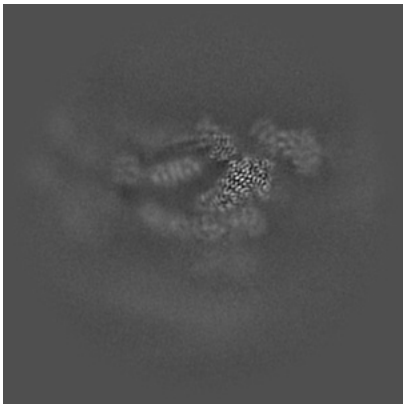


Z Index: 175

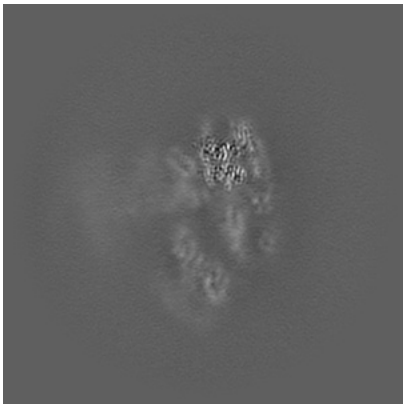
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

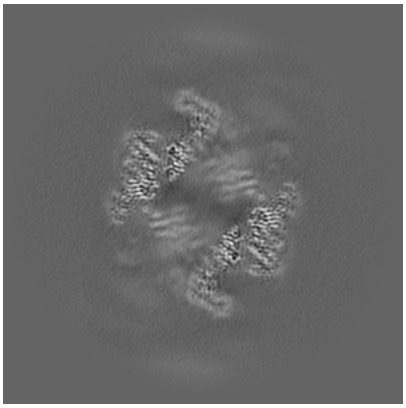
6.3.1 Primary map



X Index: 150



Y Index: 147



Z Index: 204

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.18. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

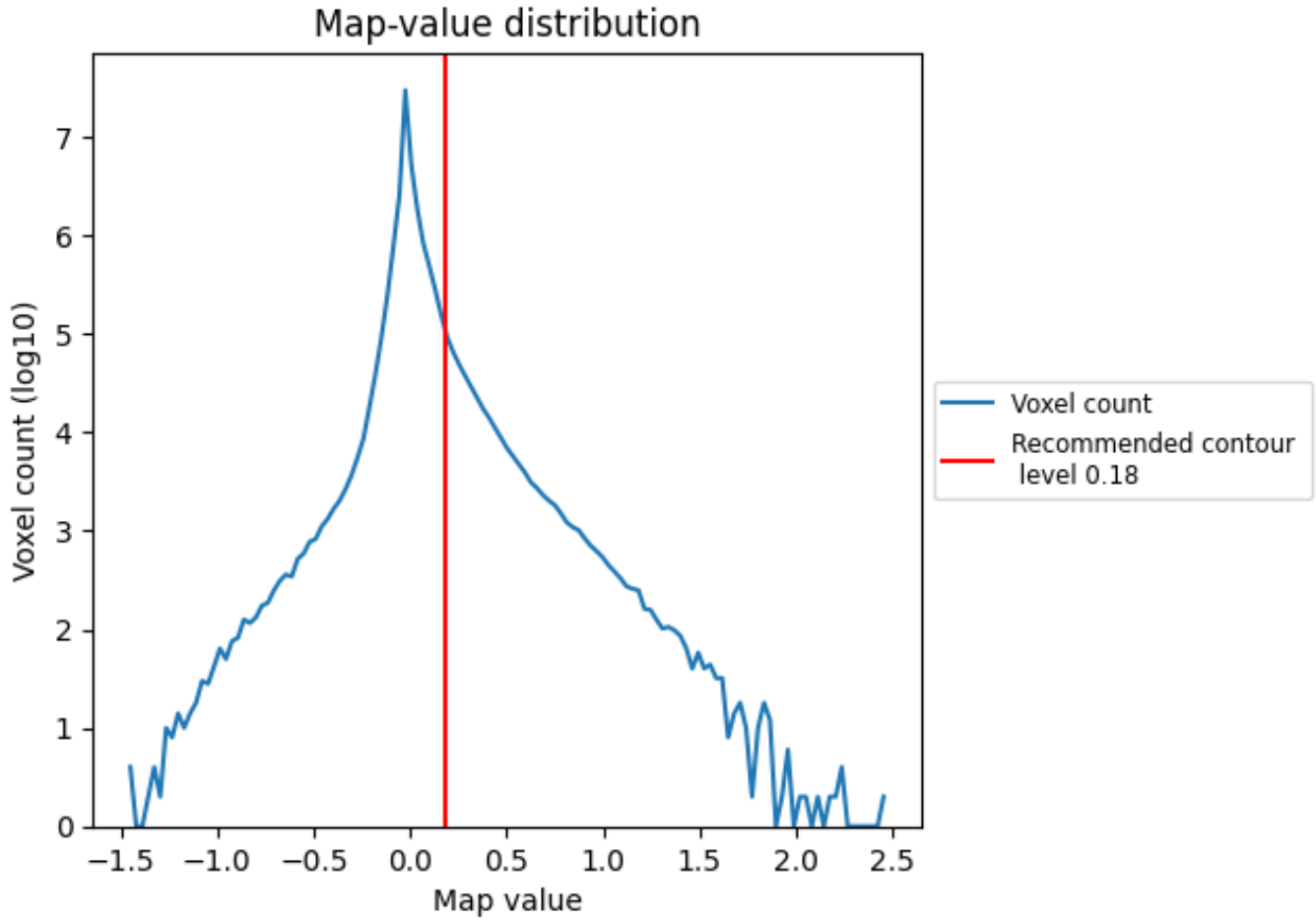
6.5 Mask visualisation (i)

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

7 Map analysis

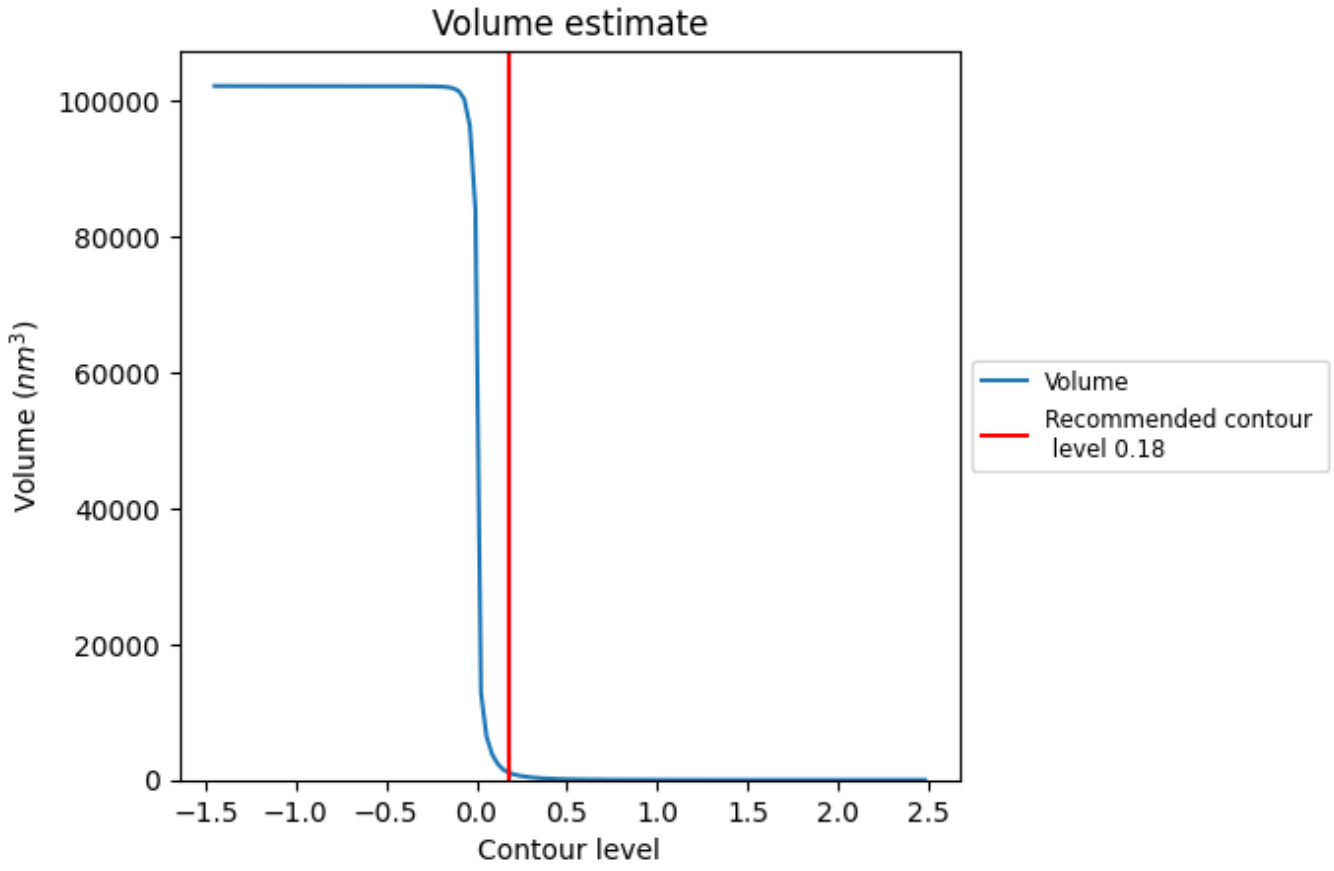
This section contains the results of statistical analysis of the map.

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.

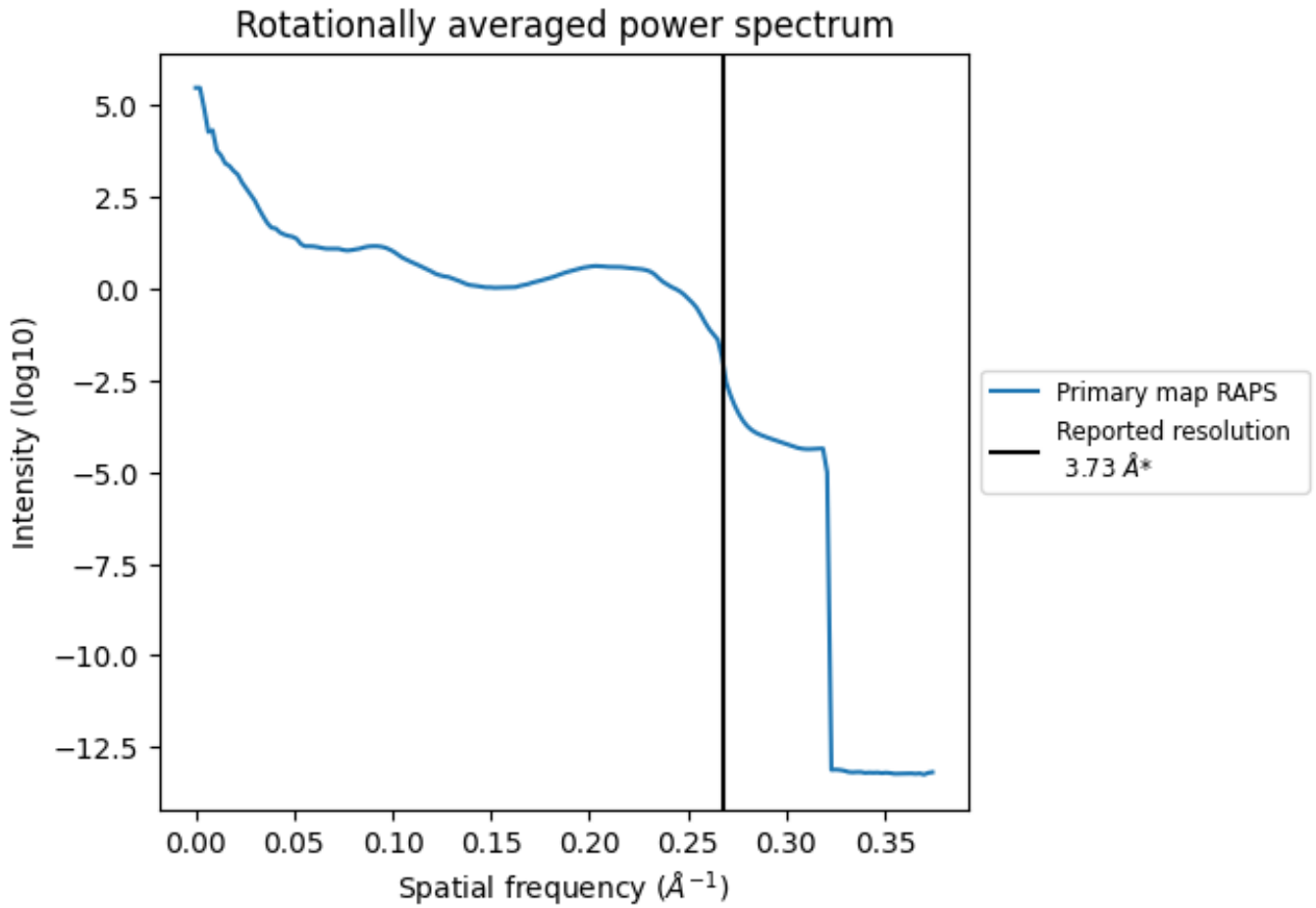
7.2 Volume estimate



The volume at the recommended contour level is 1052 nm^3; this corresponds to an approximate mass of 950 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 0.268 $Å^{-1}$

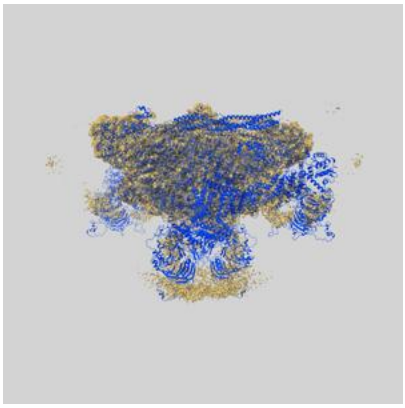
8 Fourier-Shell correlation

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

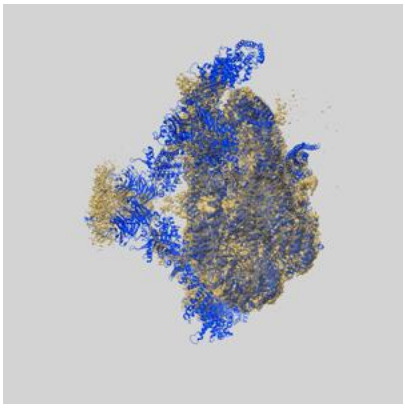
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-32658 and PDB model 7WOT. Per-residue inclusion information can be found in section 3 on page 6.

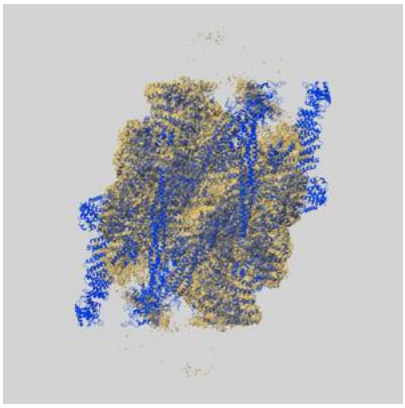
9.1 Map-model overlay



X



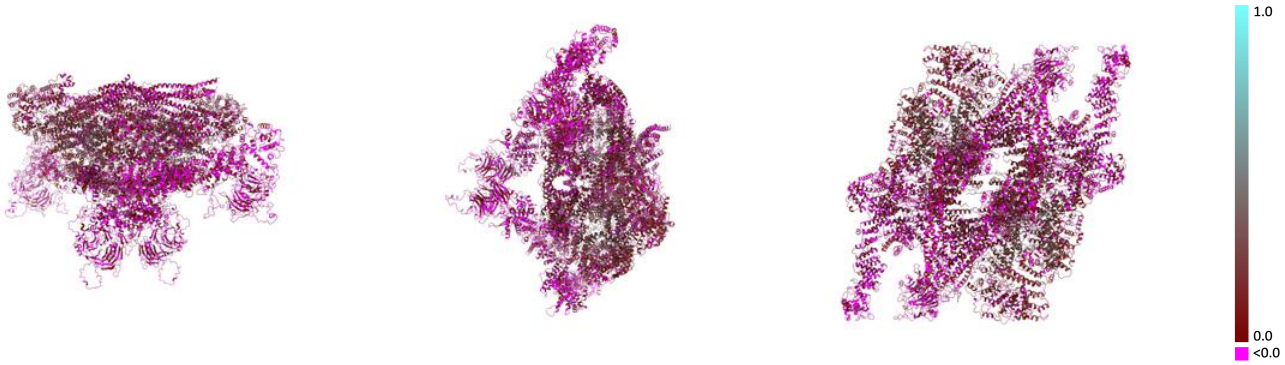
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.18 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.

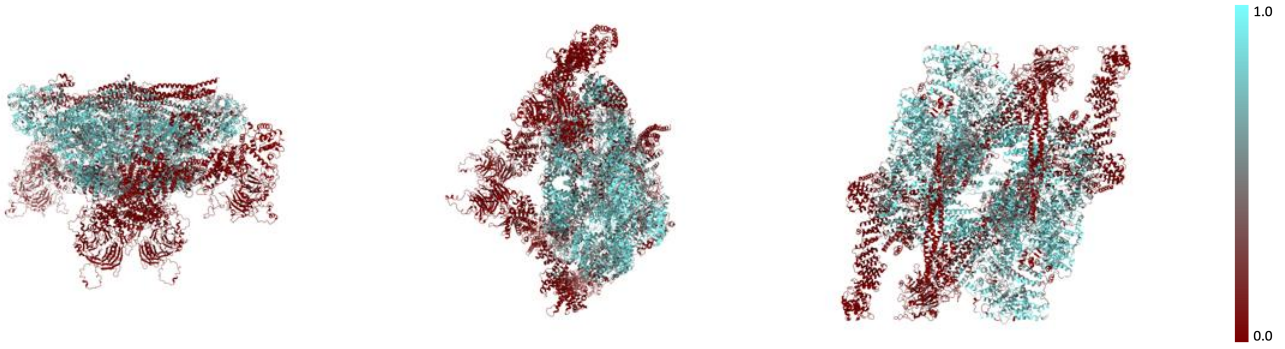
9.2 Q-score mapped to coordinate model (i)



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.

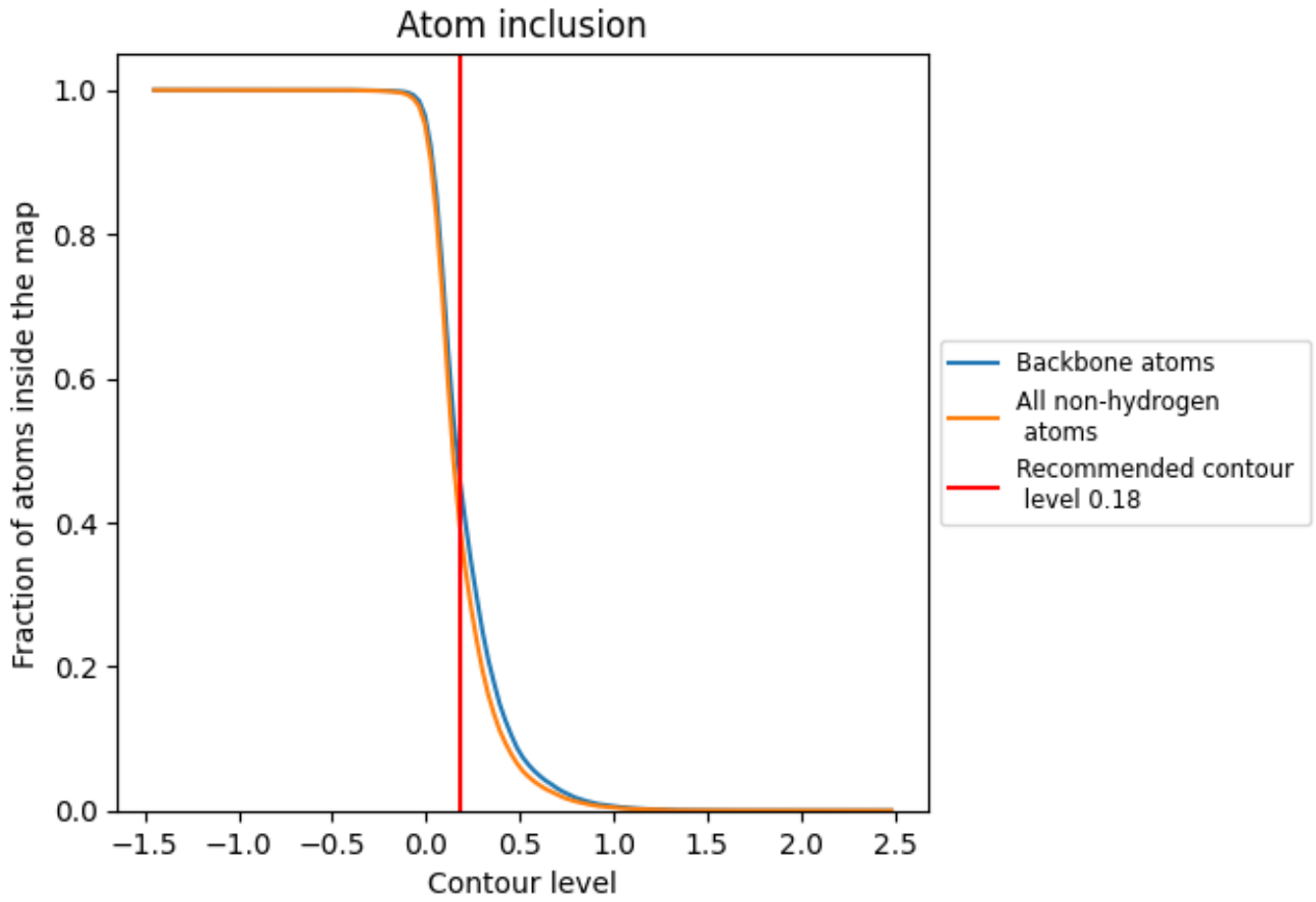
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.18).

9.4 Atom inclusion (i)



At the recommended contour level, 46% of all backbone atoms, 40% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.18) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.3966	0.0910
A	0.0875	-0.0000
C	0.0192	0.0100
D	0.2236	0.0340
E	0.6414	0.1690
F	0.6672	0.1830
G	0.4671	0.0620
H	0.4603	0.0580
I	0.5908	0.1040
J	0.3608	0.0640
K	0.2654	0.0540
L	0.3355	0.0640
M	0.0836	0.0000
N	0.5807	0.1030
O	0.0192	0.0090
P	0.2228	0.0340
Q	0.6449	0.1740
R	0.6700	0.1830
S	0.4671	0.0620
T	0.4609	0.0570
U	0.5936	0.1070
V	0.3642	0.0620
W	0.3035	0.0730
X	0.3333	0.0650
Z	0.5768	0.1050