Full wwPDB EM Validation Report ⓘ

Feb 24, 2024 – 06:27 PM EST

PDB ID	:	7LT3
EMDB ID	:	EMD-23510
Title	:	NHEJ Long-range synaptic complex
Authors	:	He, Y.; Chen, S.
Deposited on	:	2021-02-18
Resolution	:	4.60 Å(reported)
Based on initial models	:	2R9A, 1JEY, 6ZHA, 5Y3R, 3II6, 5LUQ, 6ERH

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

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

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

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

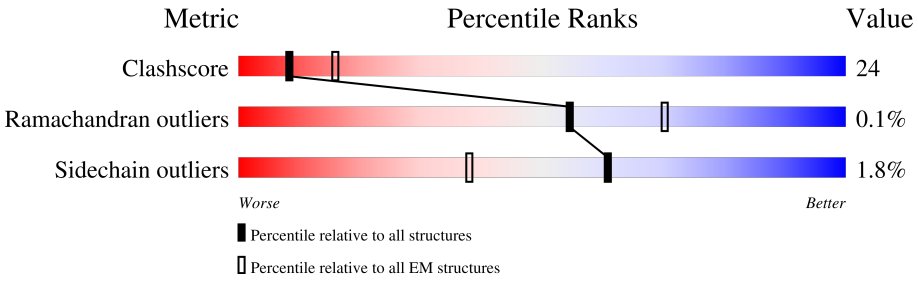
EMDB validation analysis	:	0.0.1.dev70
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.60 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	609	6% 39% 42% 18%
1	J	609	5% 39% 42% 18%
2	B	732	15% 39% 33% 27%
2	K	732	19% 39% 34% 27%
3	C	4128	8% 47% 42% 10%
3	L	4128	10% 47% 43% 10%
4	Q	20	80% 85% 15%
4	R	20	65% 85% 15%

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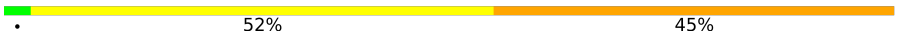
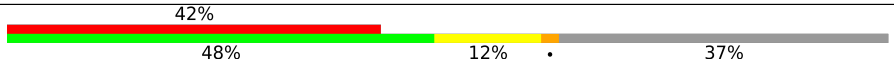
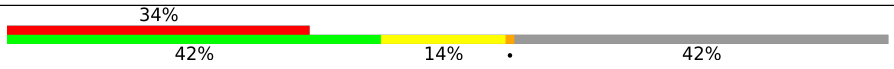
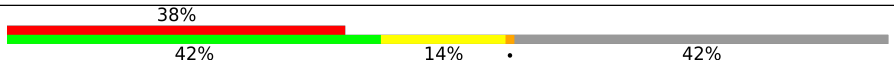
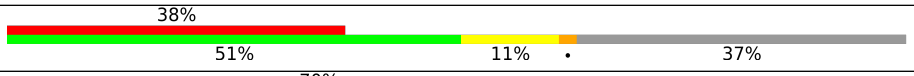
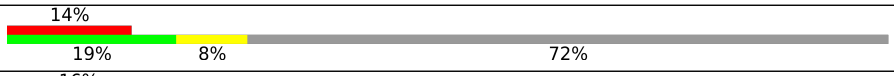
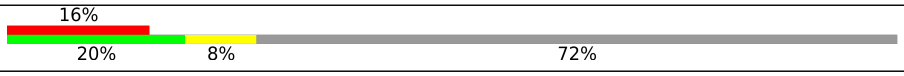
Mol	Chain	Length	Quality of chain
5	D	31	
5	M	31	
6	E	30	
6	N	30	
7	F	336	
7	G	336	
7	O	336	
7	P	336	
8	H	299	
8	I	299	
9	X	911	
9	Y	911	

2 Entry composition (i)

There are 10 unique types of molecules in this entry. The entry contains 93244 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 X-ray repair cross-complementing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	497	Total	C	N	O	S	0	0
			4021	2577	680	746	18		
1	J	497	Total	C	N	O	S	0	0
			4021	2577	680	746	18		

- Molecule 2 is a protein called X-ray repair cross-complementing protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	531	Total	C	N	O	S	0	0
			4259	2723	711	801	24		
2	K	531	Total	C	N	O	S	0	0
			4259	2723	711	801	24		

- Molecule 3 is a protein called DNA-dependent protein kinase catalytic subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	3720	Total	C	N	O	S	0	0
			29811	19106	5059	5451	195		
3	L	3720	Total	C	N	O	S	0	0
			29811	19106	5059	5451	195		

- Molecule 4 is a protein called Unknown peptide.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	Q	20	Total	C	N	O	0	0
			101	60	20	21		
4	R	20	Total	C	N	O	0	0
			101	60	20	21		

- Molecule 5 is a DNA chain called DNA (31-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
5	D	31	Total	C	N	O	P	0	0
			634	304	113	186	31		
5	M	31	Total	C	N	O	P	0	0
			634	304	113	186	31		

- Molecule 6 is a DNA chain called DNA (30-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
6	E	30	Total	C	N	O	P	0	0
			616	295	110	181	30		
6	N	30	Total	C	N	O	P	0	0
			616	295	110	181	30		

- Molecule 7 is a protein called DNA repair protein XRCC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	F	213	Total	C	N	O	S	0	0
			1736	1093	308	327	8		
7	G	195	Total	C	N	O	S	0	0
			1595	1012	272	304	7		
7	O	195	Total	C	N	O	S	0	0
			1595	1012	272	304	7		
7	P	213	Total	C	N	O	S	0	0
			1736	1093	308	327	8		

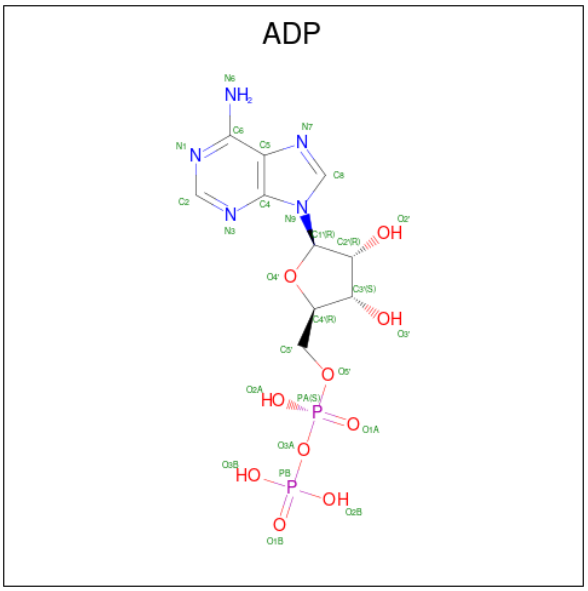
- Molecule 8 is a protein called Non-homologous end-joining factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	223	Total	C	N	O	S	0	0
			1779	1140	298	326	15		
8	I	218	Total	C	N	O	S	0	0
			1737	1111	290	321	15		

- Molecule 9 is a protein called DNA ligase 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	X	254	Total	C	N	O	S	0	0
			2064	1314	348	389	13		
9	Y	254	Total	C	N	O	S	0	0
			2064	1314	348	389	13		

- Molecule 10 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$) (labeled as "Ligand of Interest" by depositor).

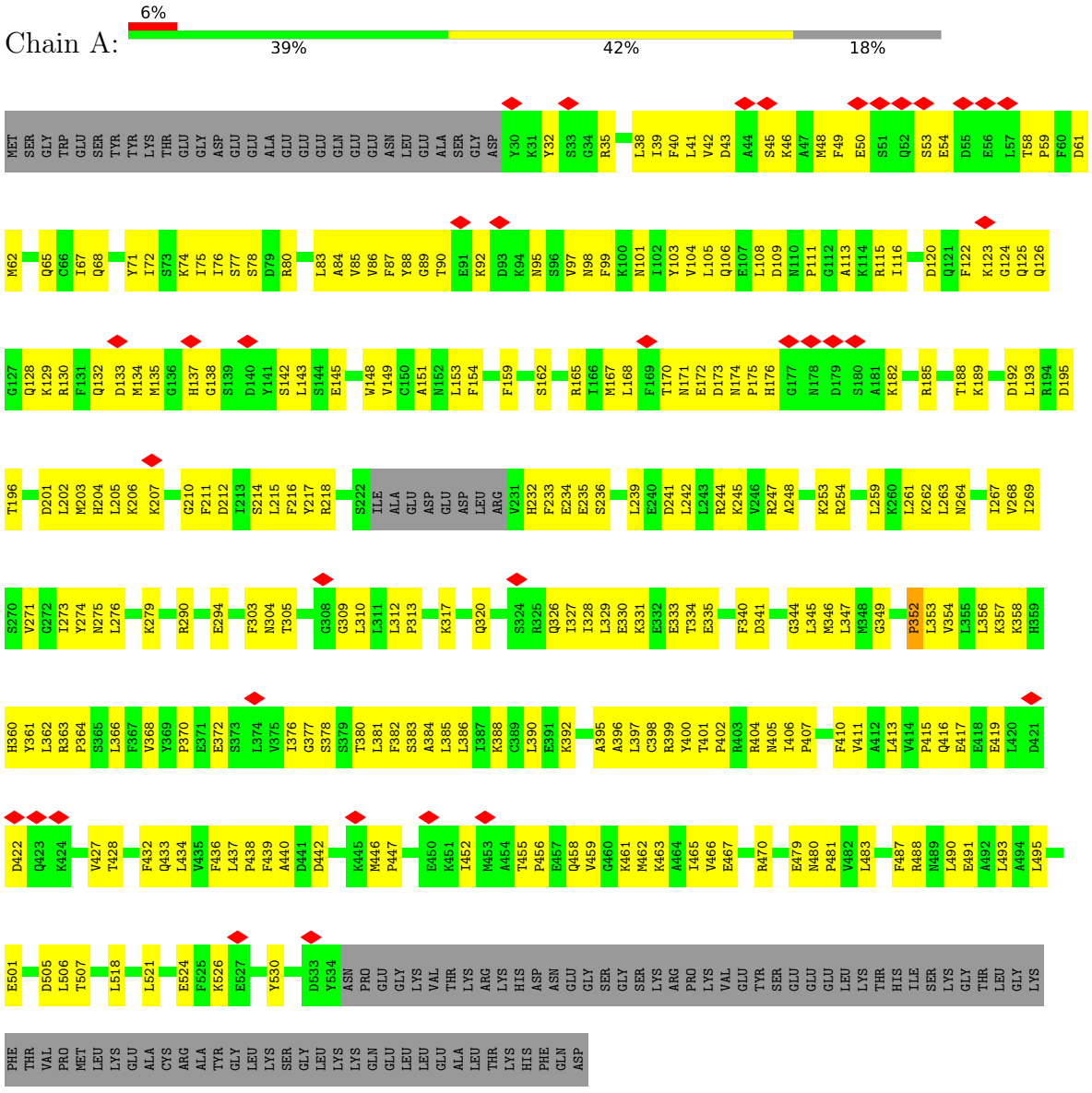


Mol	Chain	Residues	Atoms					AltConf
10	C	1	Total	C	N	O	P	0
			27	10	5	10	2	
10	L	1	Total	C	N	O	P	0
			27	10	5	10	2	

3 Residue-property plots (i)

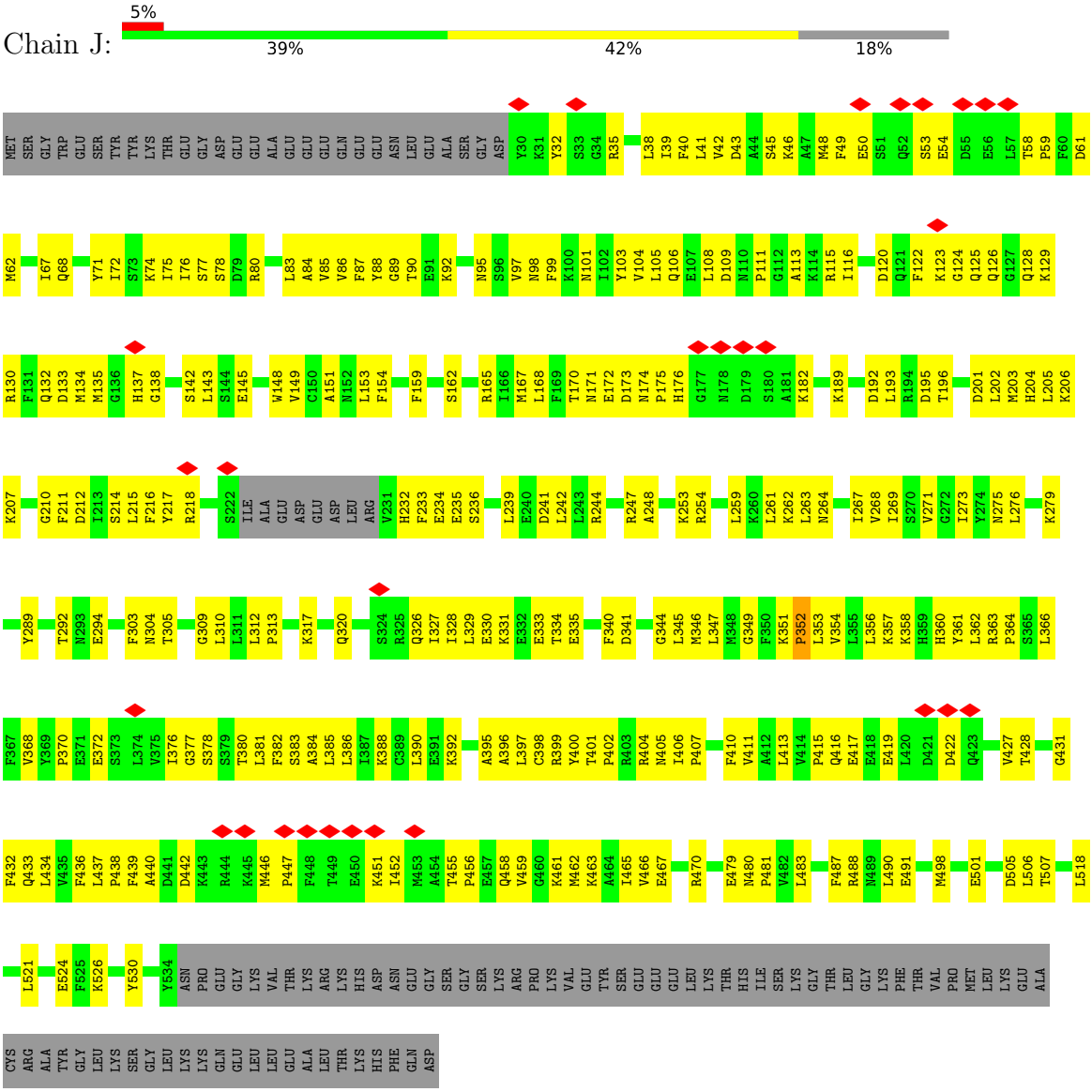
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: X-ray repair cross-complementing protein 6



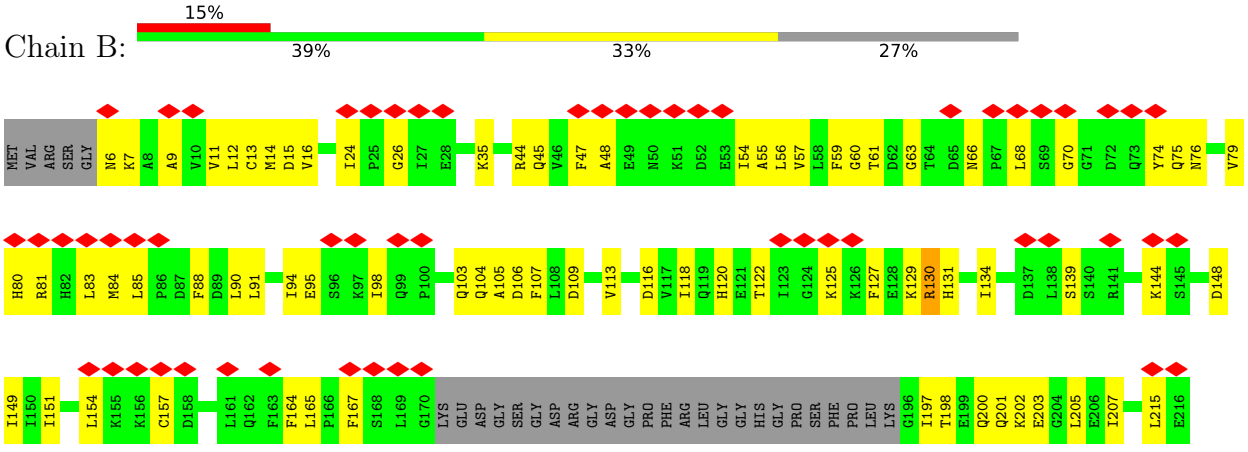
• Molecule 1: X-ray repair cross-complementing protein 6

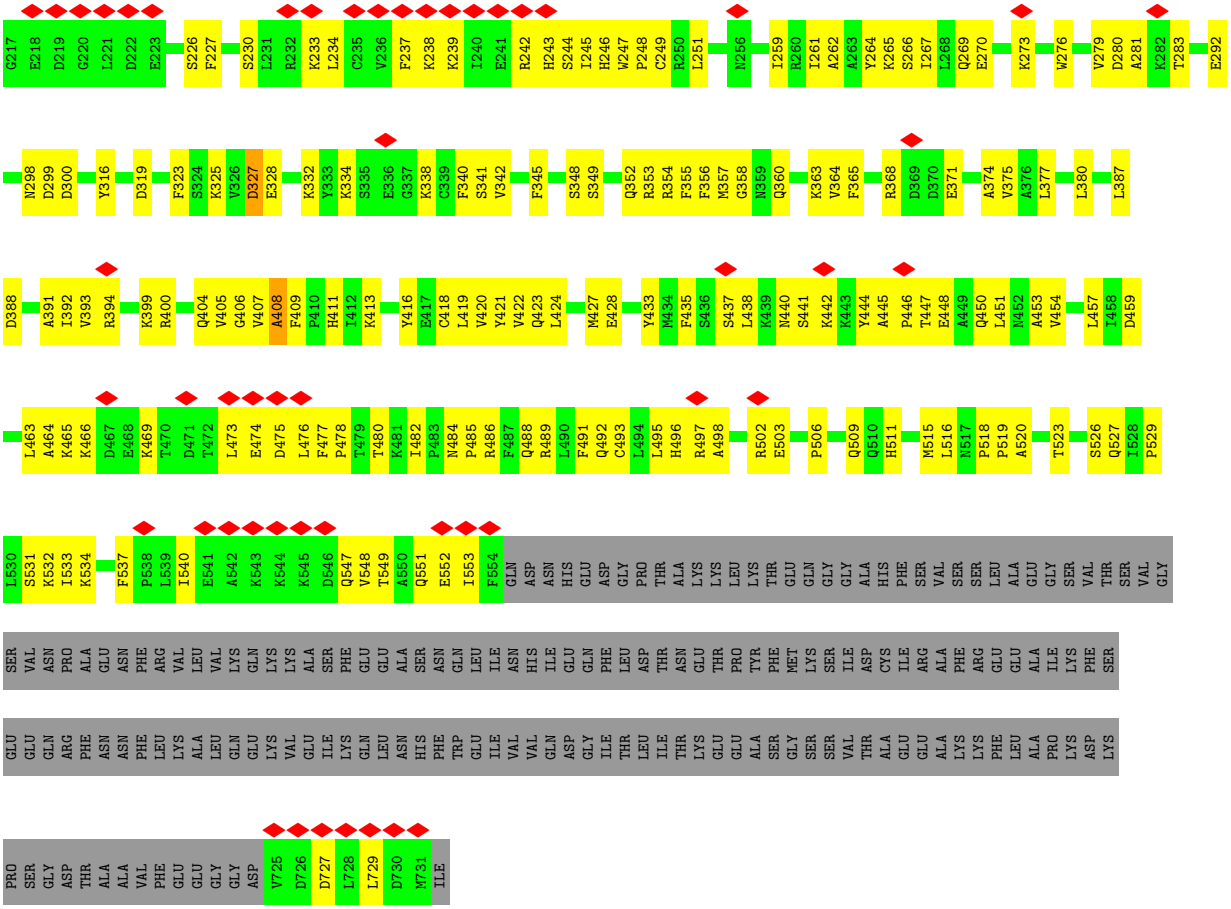
Chain J:



• Molecule 2: X-ray repair cross-complementing protein 5

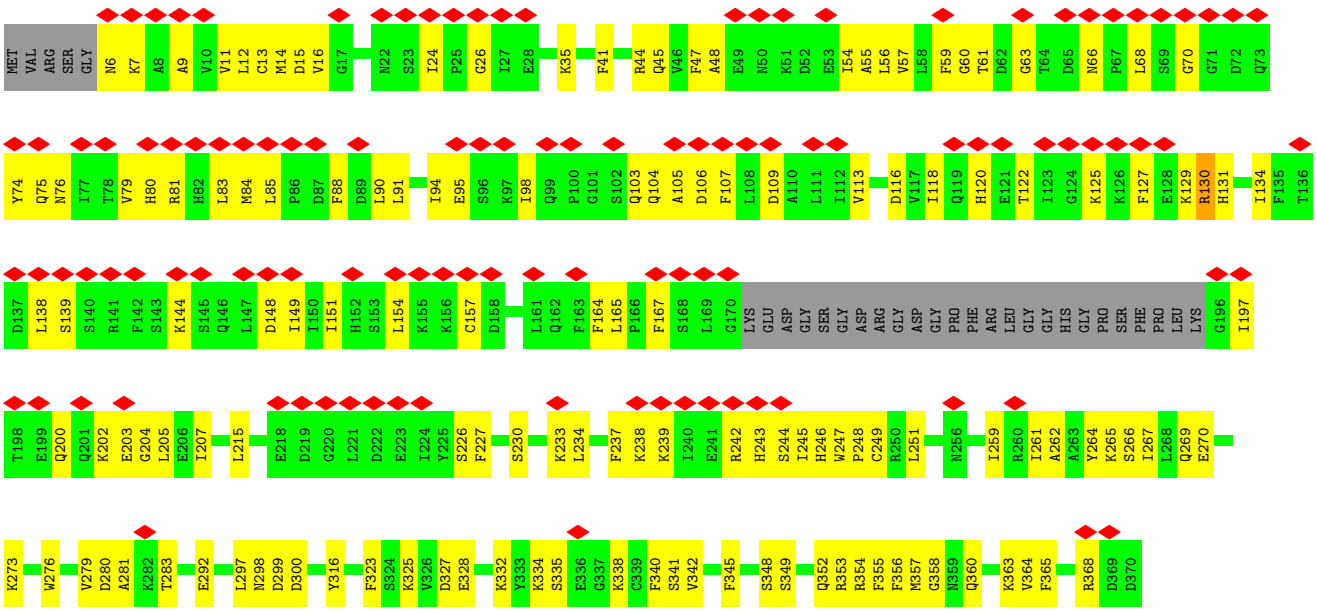
Chain B:

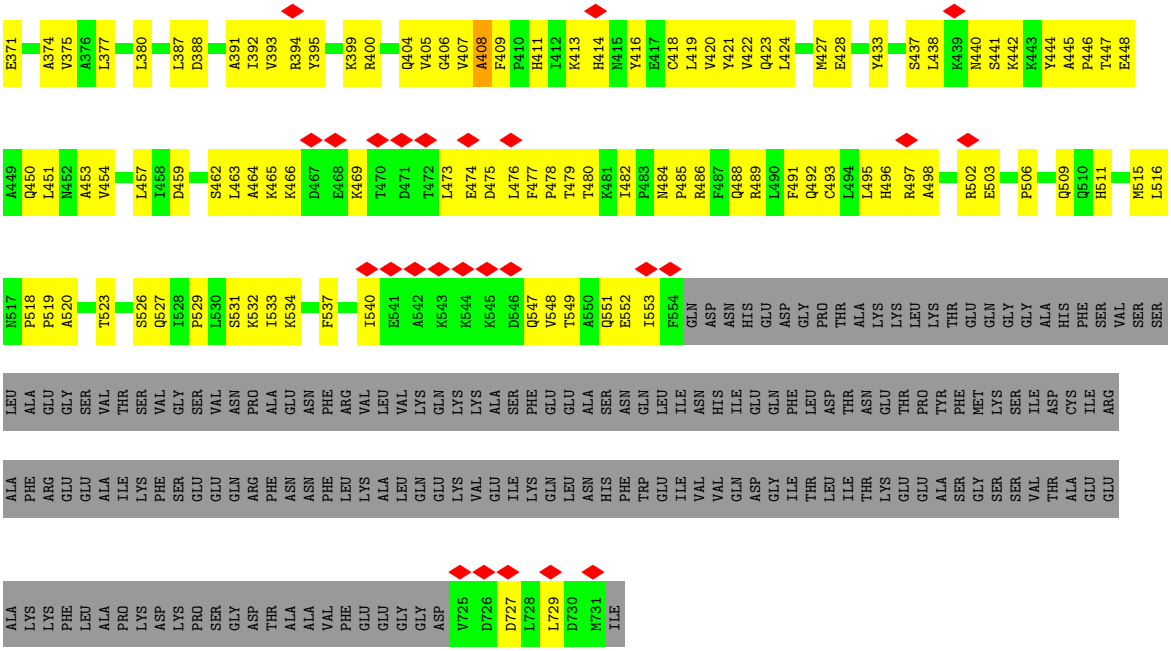




• Molecule 2: X-ray repair cross-complementing protein 5

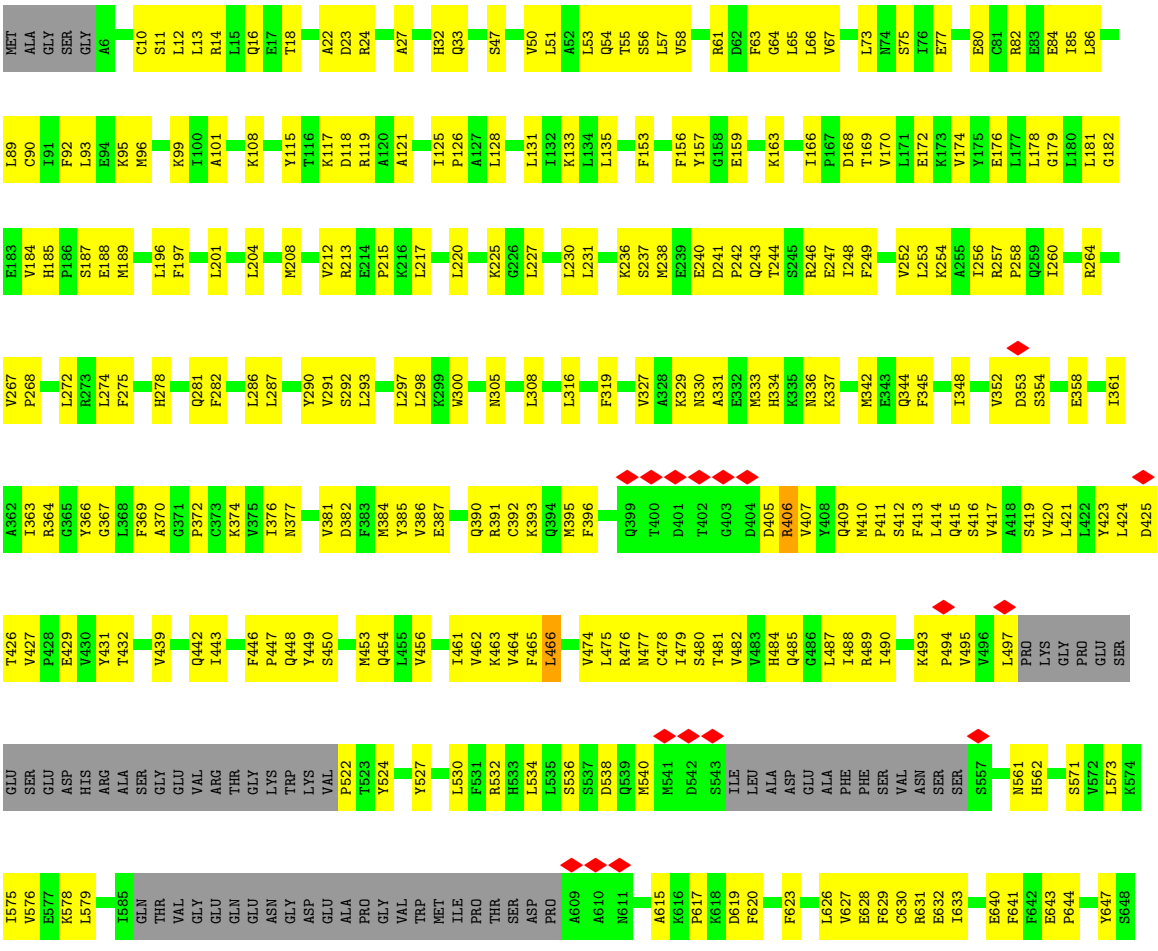
Chain K:

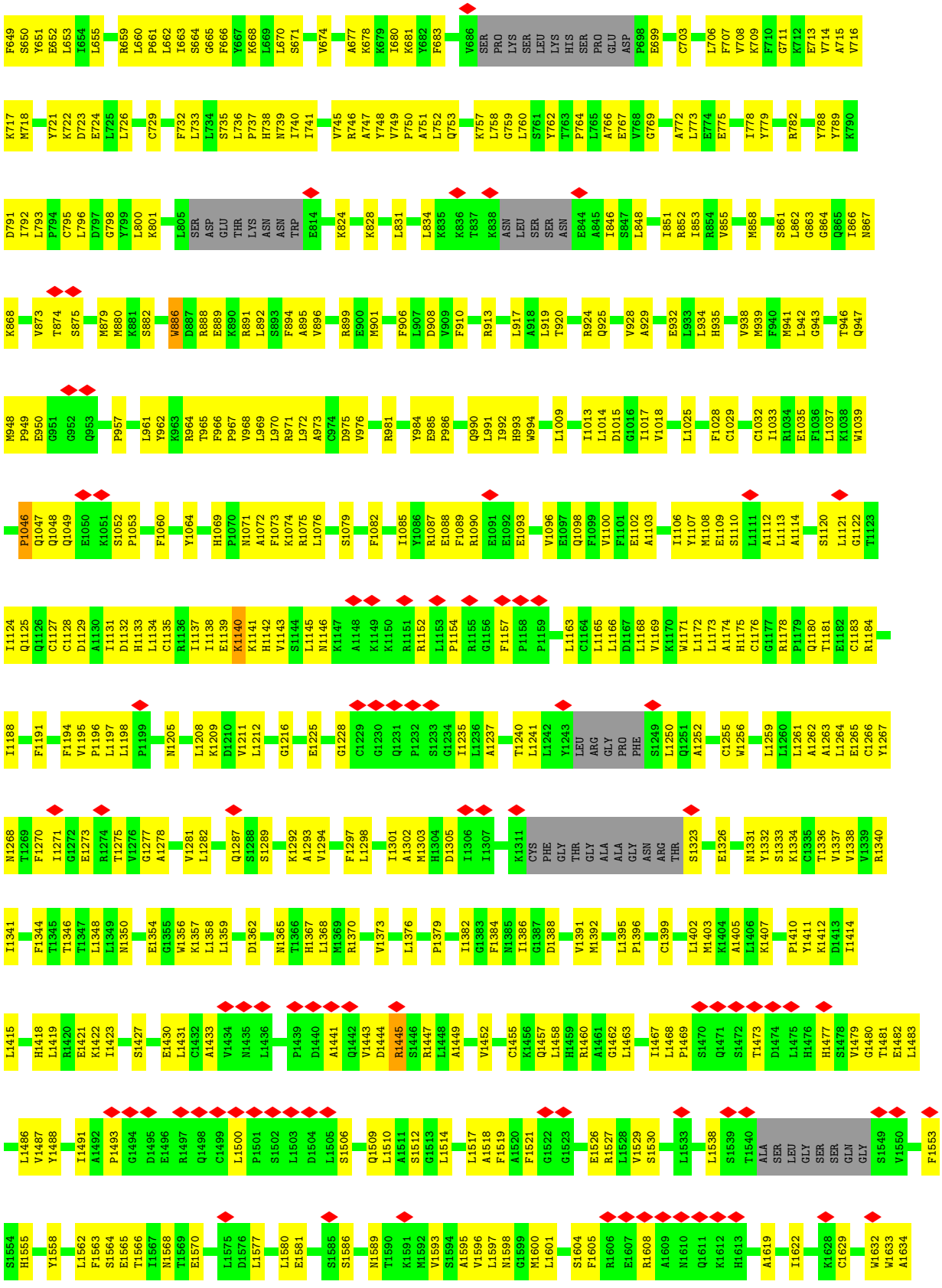


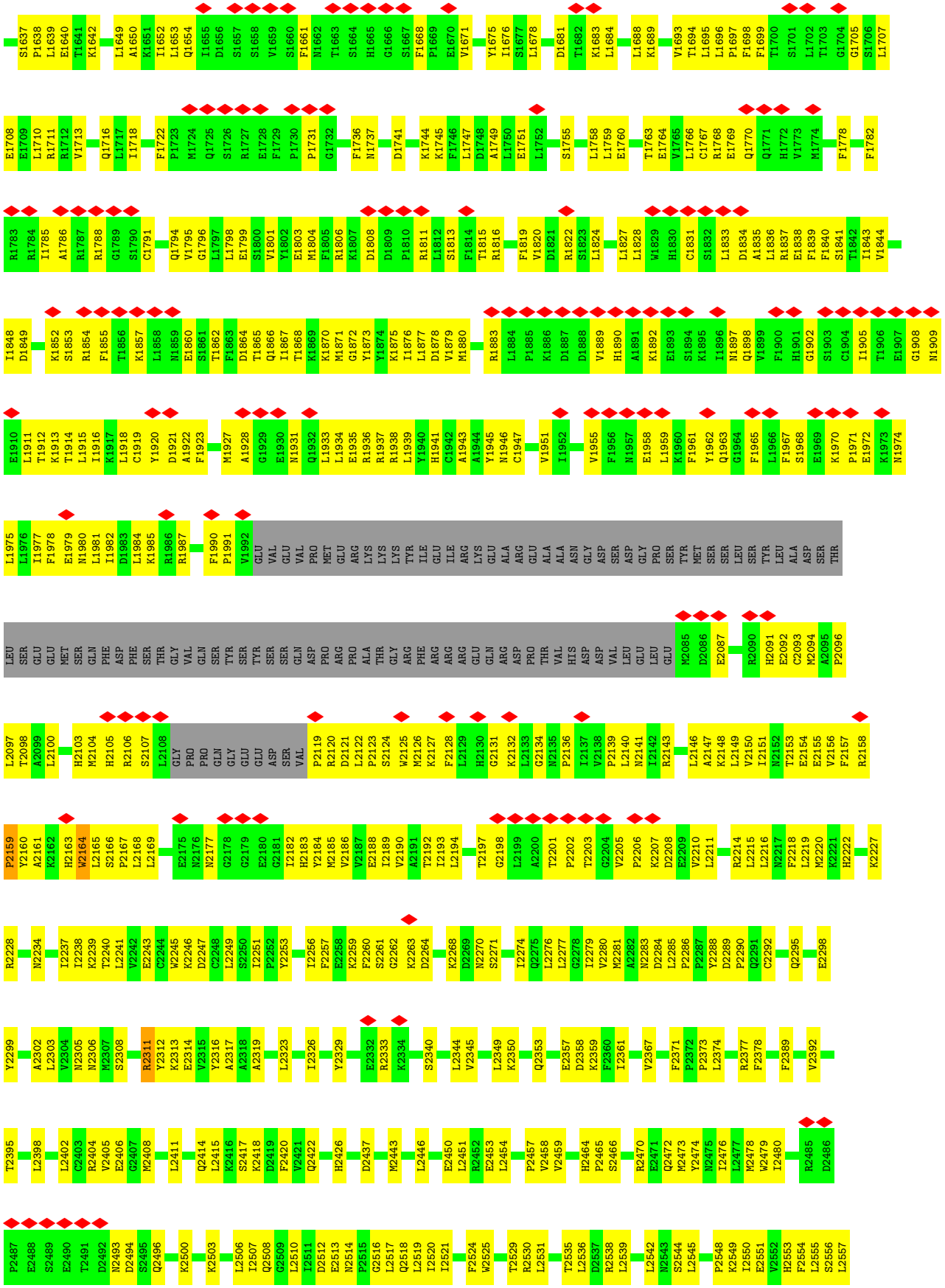


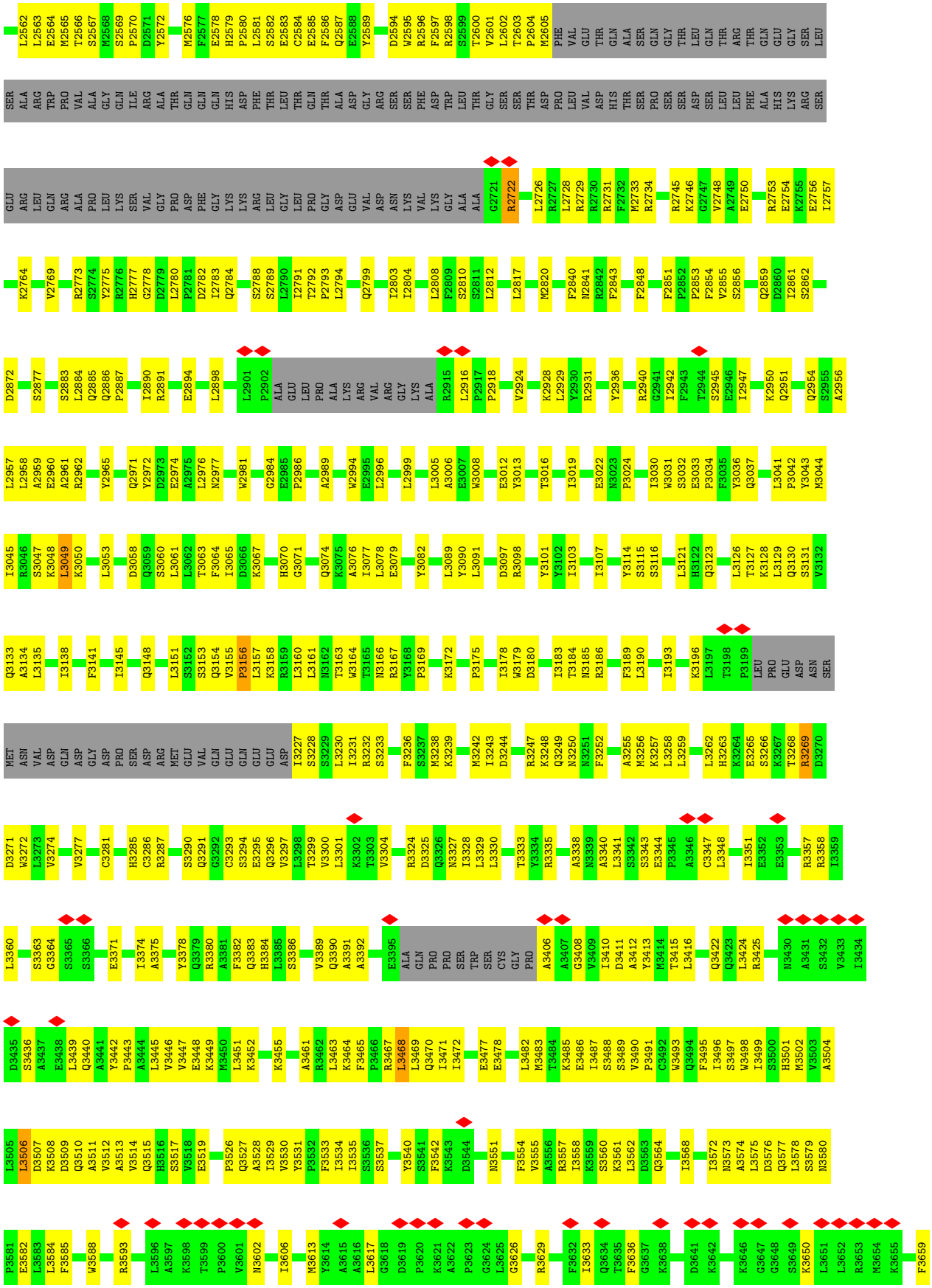
• Molecule 3: DNA-dependent protein kinase catalytic subunit

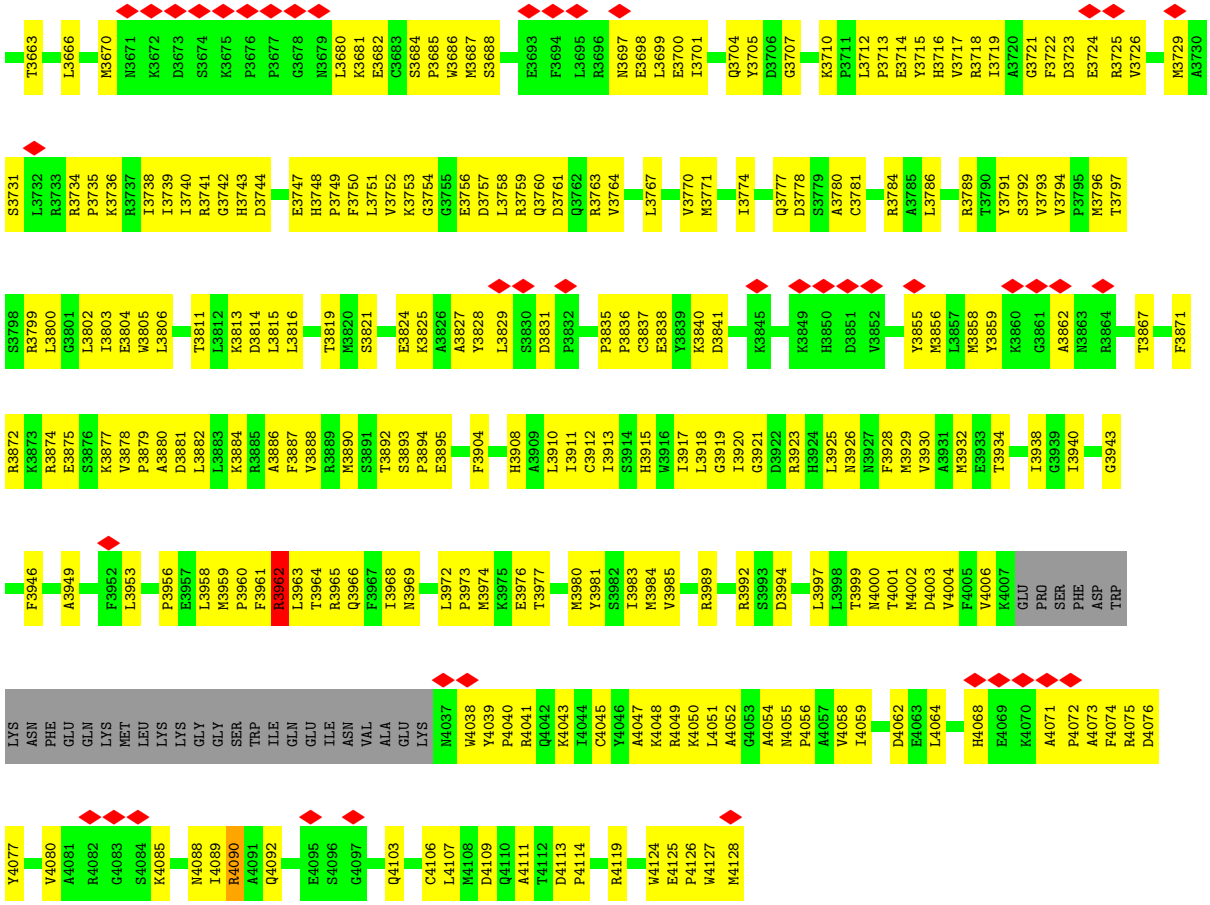
Chain C:




F649 S650 Y651 E652 L653 I654 L655 R659 L660 P661 L662 I663 S664 G665 F666 Y667 K668 L669 L670 S671 V674 A677 K678 K679 I680 K681 Y682 F683 V686 SER PRO LYS SER LEU LYS HIS SER PRO GLU ASP P698 E699 C703 L706 F707 V708 K709 F710 G711 K712 E713 V714 A715 V716
K717 M718 Y721 K722 D723 E724 L725 L726 C729 F732 L733 L734 S735 L736 P737 H738 N739 I740 I741 V745 R746 A747 Y748 V749 P750 A751 L752 Q753 K757 L758 G759 L760 S761 Y762 T763 P764 L765 A766 E767 V768 G769 A772 L773 E774 E775 I778 Y779 R782 Y788 Y789 K790
D791 I792 L793 P794 C795 L796 D797 G798 Y799 L800 K801 L805 SER ASP GLU THR LYS ASN ASN TRP E814 K824 K828 L831 L834 K835 K836 T837 K838 ASN LEU SER SER ASN E844 A845 I846 S847 L848 I851 R852 I853 R854 V855 M858 S861 L862 G863 G864 Q865 I866 N867
K868 V873 T874 S875 M879 M880 K881 S882 W886 D887 R888 E889 K890 R891 L892 S893 F894 A895 V896 B899 E900 N901 F906 L907 D908 Y909 F910 R913 L917 A918 L919 T920 R924 Q925 V928 A929 E932 L933 L934 H935 V938 M939 F940 M941 L942 G943 T946 Q947
M948 P949 E950 G951 G952 Q953 P957 L961 Y962 K963 R964 T965 P966 P967 V968 L969 L970 R971 L972 A973 C974 D975 V976 R981 Y984 E985 P986 Q990 L991 I992 H993 W994 L1009 I1013 L1014 D1015 G1016 I1017 V1018 L1025 F1028 C1029 C1032 I1033 R1034 E1035 F1036 L1037 K1038 W1039
P1046 Q1047 Q1048 Q1049 E1050 K1051 S1052 P1053 F1060 Y1064 H1069 P1070 N1071 A1072 F1073 K1074 R1075 L1076 S1079 F1082 I1085 Y1086 R1087 E1088 F1089 R1090 E1091 E1092 E1093 V1096 E1097 Q1098 F1099 V1100 F1101 E1102 A1103 I1106 Y1107 M1108 E1109 S1110 L1111 A1112 L1113 A1114 S1120 L1121 G1122 T1123
I1124 Q1125 Q1126 C1127 C1128 D1129 A1130 I1131 D1132 H1133 L1134 C1135 R1136 I1137 I1138 E1139 K1140 K1141 H1142 V1143 S1144 L1145 N1146 K1147 A1148 K1149 K1150 R1151 R1152 L1153 P1154 R1155 G1156 F1157 P1158 P1159 L1163 C1164 L1165 L1166 D1167 L1168 V1169 K1170 W1171 L1172 L1173 A1174 H1175 C1176 G1177 R1178 P1179 Q1180 T1181 E1182 C1183 R1184
I1188 F1191 F1194 V1195 P1196 L1197 L1198 P1199 N1205 L1208 K1209 D1210 V1211 L1212 G1216 E1225 G1228 C1229 G1230 Q1231 P1232 S1233 G1234 I1235 L1236 A1237 T1240 L1241 L1242 Y1243 LEU ARG GLY PRO PHE S1249 L1250 Q1251 A1252 C1255 W1256 L1259 L1260 L1261 A1262 A1263 L1264 E1265 C1266 Y1267
N1268 T1269 F1270 I1271 G1272 E1273 R1274 T1275 V1276 G1277 A1278 V1281 L1282 Q1287 S1288 S1289 K1292 A1293 V1294 F1297 L1298 I1301 A1302 M1303 H1304 D1305 I1306 I1307 K1311 CYS PHE GLY THR GLY ALA ALA GLY ASN ARG THR S1323 E1326 N1331 Y1332 S1333 K1334 C1335 T1336 V1337 V1338 V1339 R1340
I1341 F1344 T1345 T1346 T1347 L1348 L1349 N1350 E1354 G1355 W1356 K1357 L1358 L1359 D1362 N1365 T1366 H1367 L1368 M1369 R1370 V1373 L1376 P1379 I1382 G1383 F1384 N1385 I1386 G1387 D1388 V1391 M1392 L1395 P1396 C1399 L1402 M1403 K1404 A1405 L1406 K1407 P1410 Y1411 K1412 D1413 I1414
L1415 H1418 L1419 R1420 E1421 K1422 I1423 S1427 E1430 L1431 C1432 A1433 V1434 N1435 L1436 P1439 D1440 A1441 Q1442 V1443 D1444 R1445 S1446 R1447 L1448 A1449 V1452 C1455 K1456 Q1457 L1458 H1459 R1460 A1461 G1462 L1463 I1467 L1468 P1469 S1470 Q1471 S1472 T1473 D1474 L1475 H1476 H1477 S1478 V1479 G1480 T1481 E1482 L1483
L1486 V1487 Y1488 I1491 A1492 P1493 G1494 D1495 E1496 R1497 Q1498 C1499 L1500 P1501 S1502 L1503 D1504 L1505 S1506 Q1509 L1510 A1511 S1512 G1513 L1514 L1517 A1518 F1519 A1520 F1521 G1522 G1523 E1526 R1527 L1528 V1529 S1530 L1533 L1538 S1539 T1540 ALA SER LEU GLY SER SER GLN GLY S1549 V1550 F1553
S1554 H1555 Y1558 L1562 F1563 S1564 E1565 T1566 T1567 N1568 T1569 E1570 L1575 D1576 L1577 L1580 E1581 S1585 S1586 N1589 T1590 K1591 M1592 V1593 S1594 A1595 V1596 L1597 N1598 G1599 M1600 L1601 S1604 F1605 R1606 E1607 R1608 A1609 N1610 Q1611 K1612 H1613 A1619 I1622 K1628 C1629 W1632 W1633 A1634

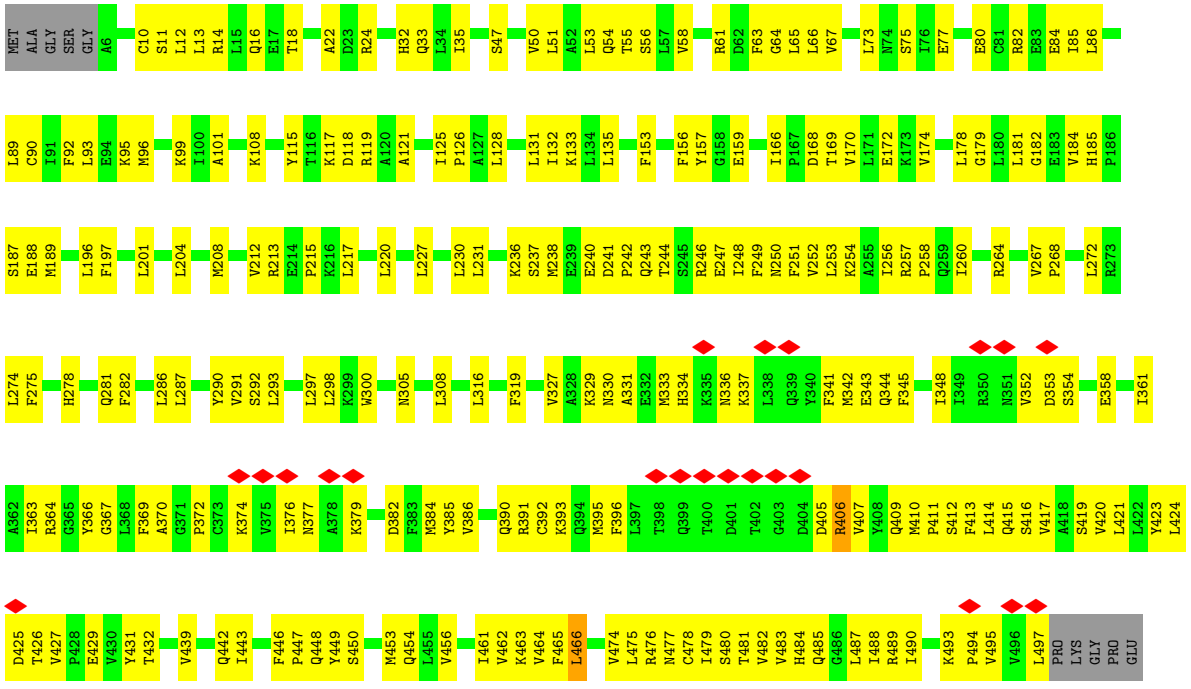


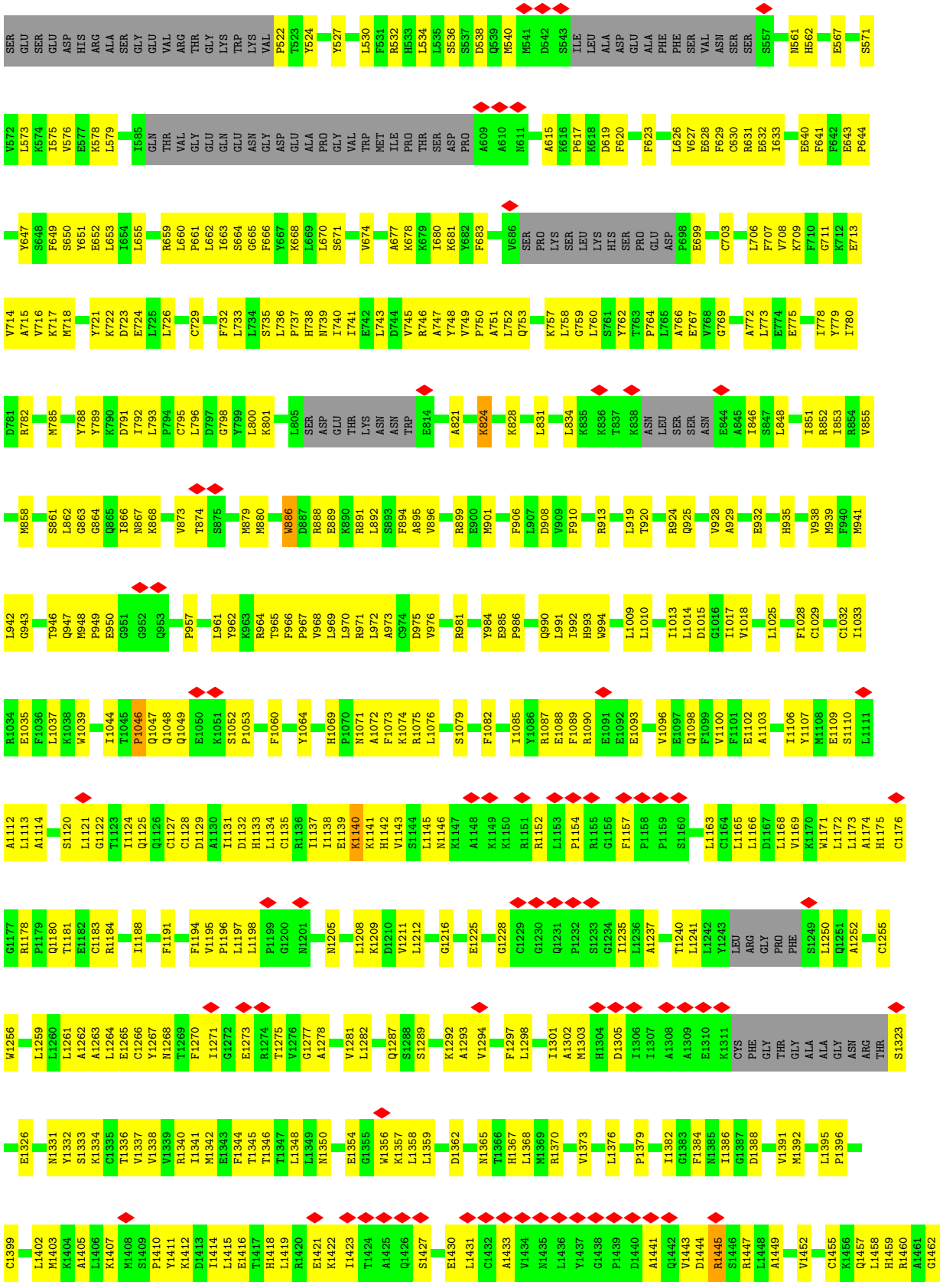


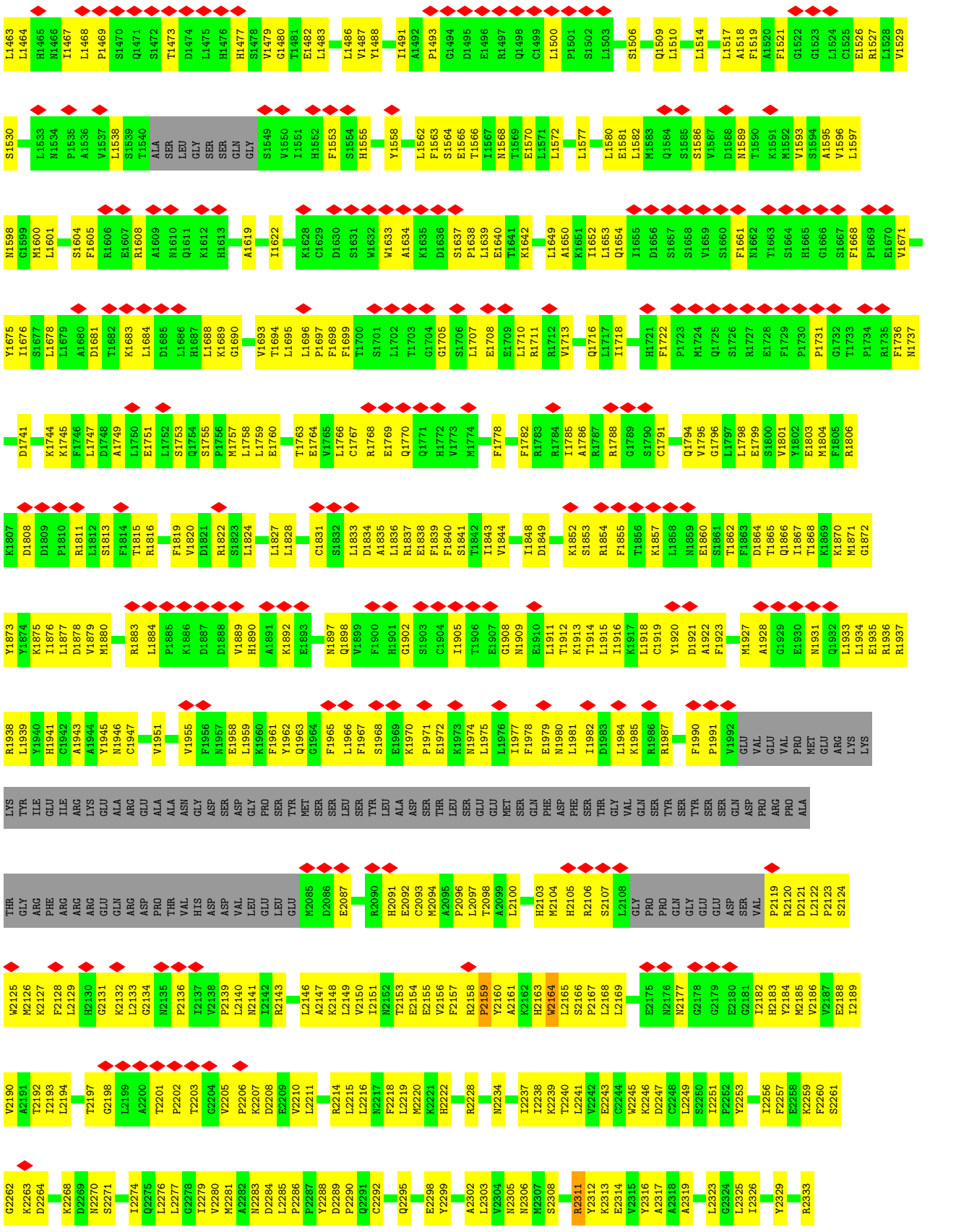


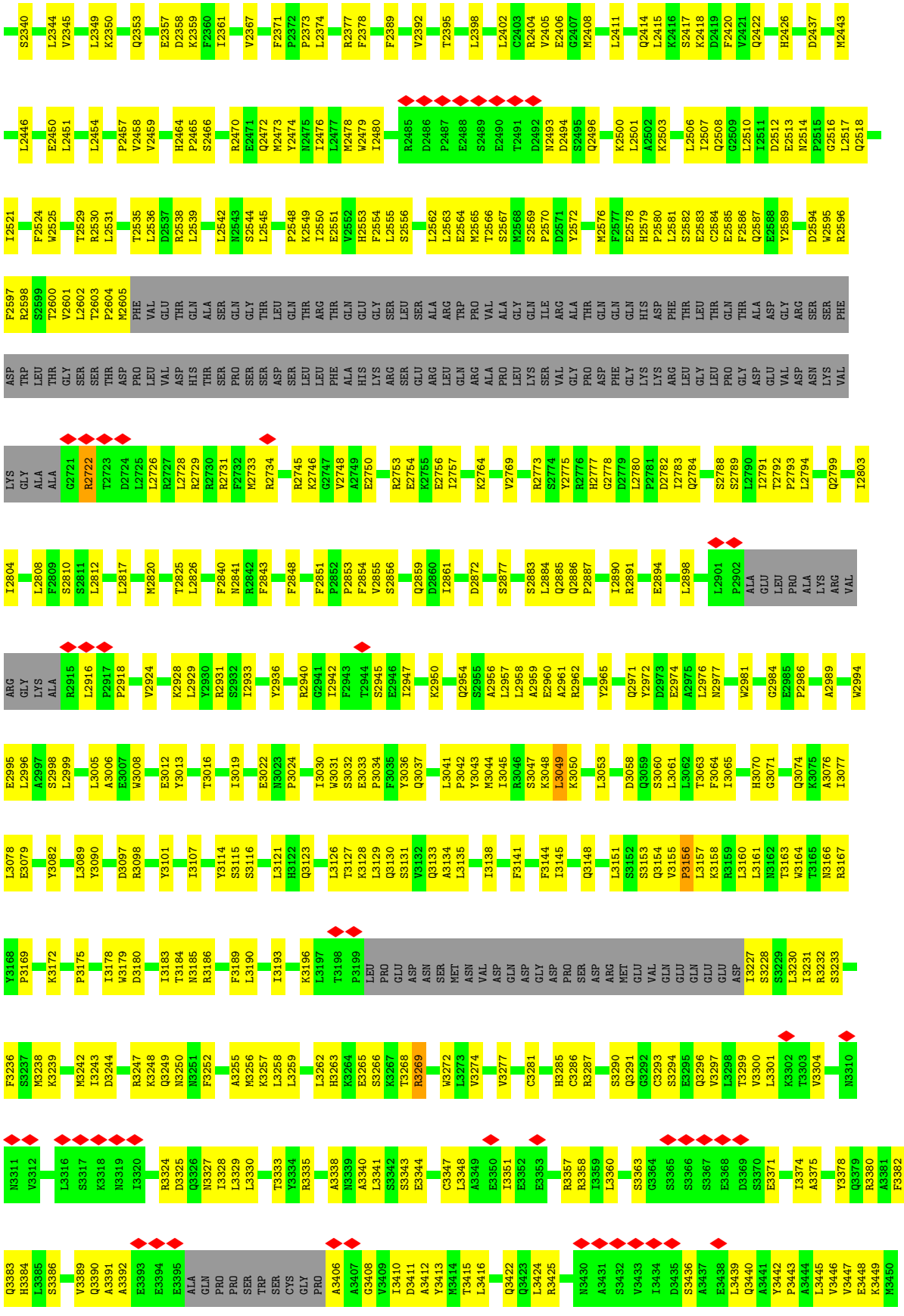
• Molecule 3: DNA-dependent protein kinase catalytic subunit

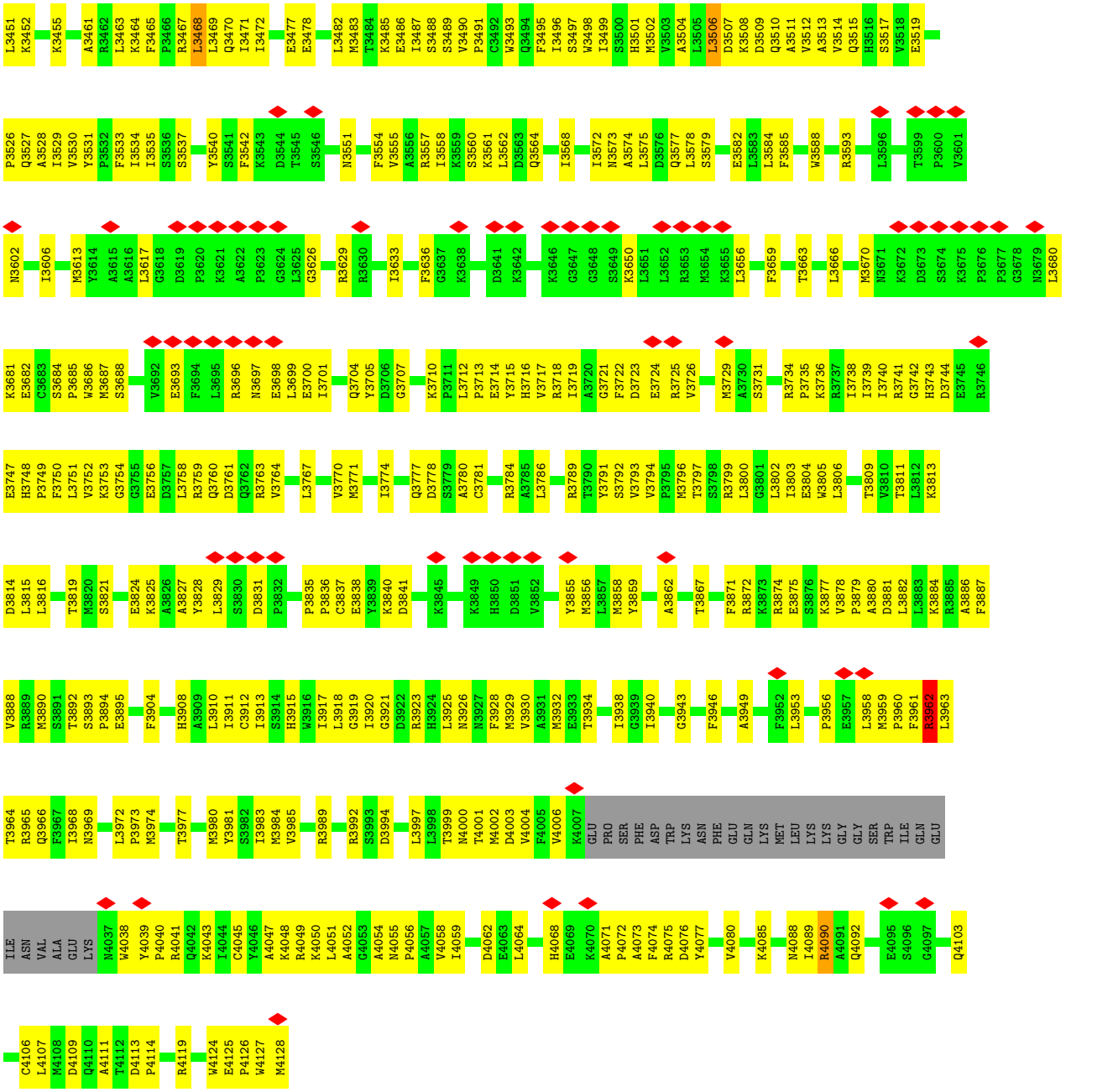
Chain L:



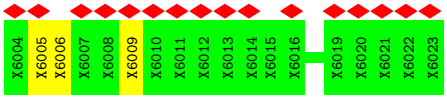




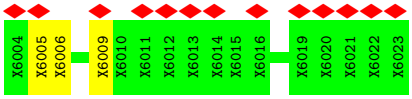




• Molecule 4: Unknown peptide

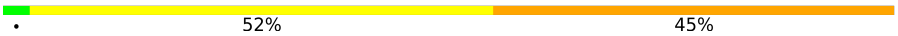


• Molecule 4: Unknown peptide



• Molecule 5: DNA (31-MER)

Chain D:



• Molecule 5: DNA (31-MER)

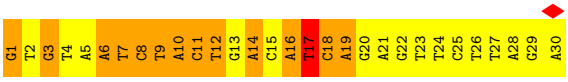
Chain M:

• Molecule 6: DNA (30-MER)

Chain E:

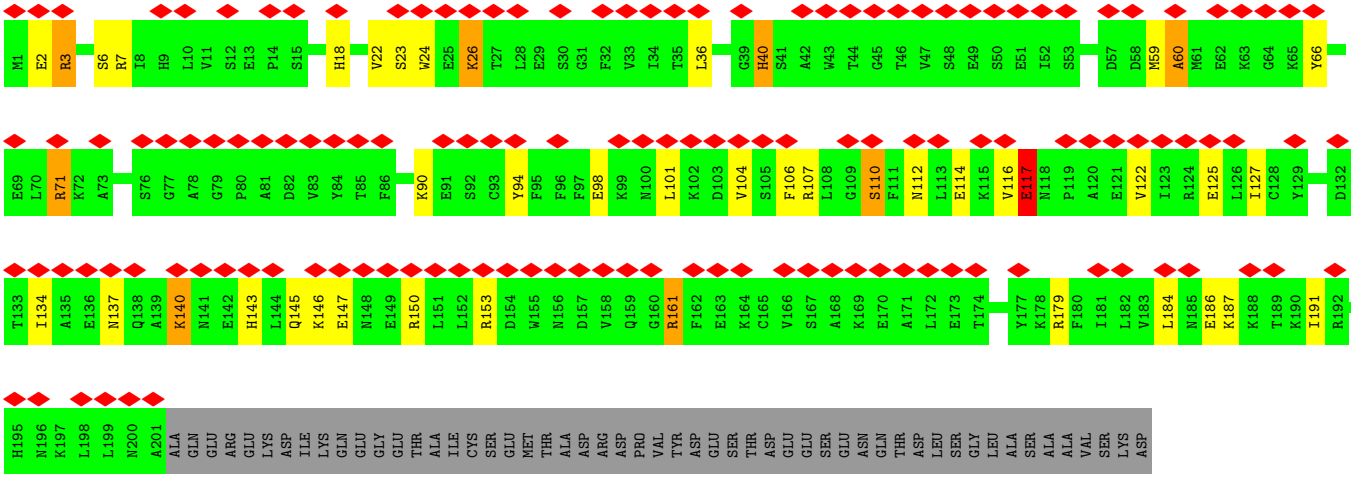
• Molecule 6: DNA (30-MER)

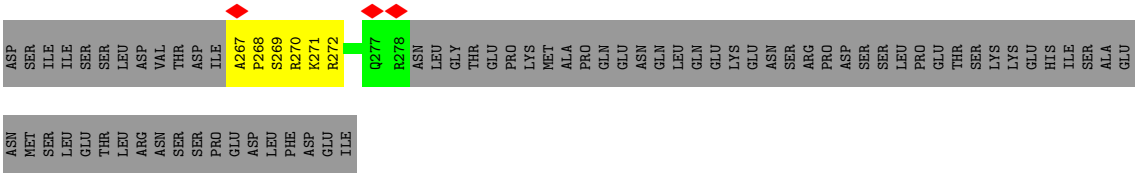
Chain N:



• Molecule 7: DNA repair protein XRCC4

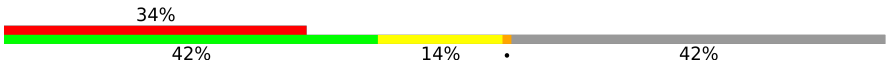
Chain F:

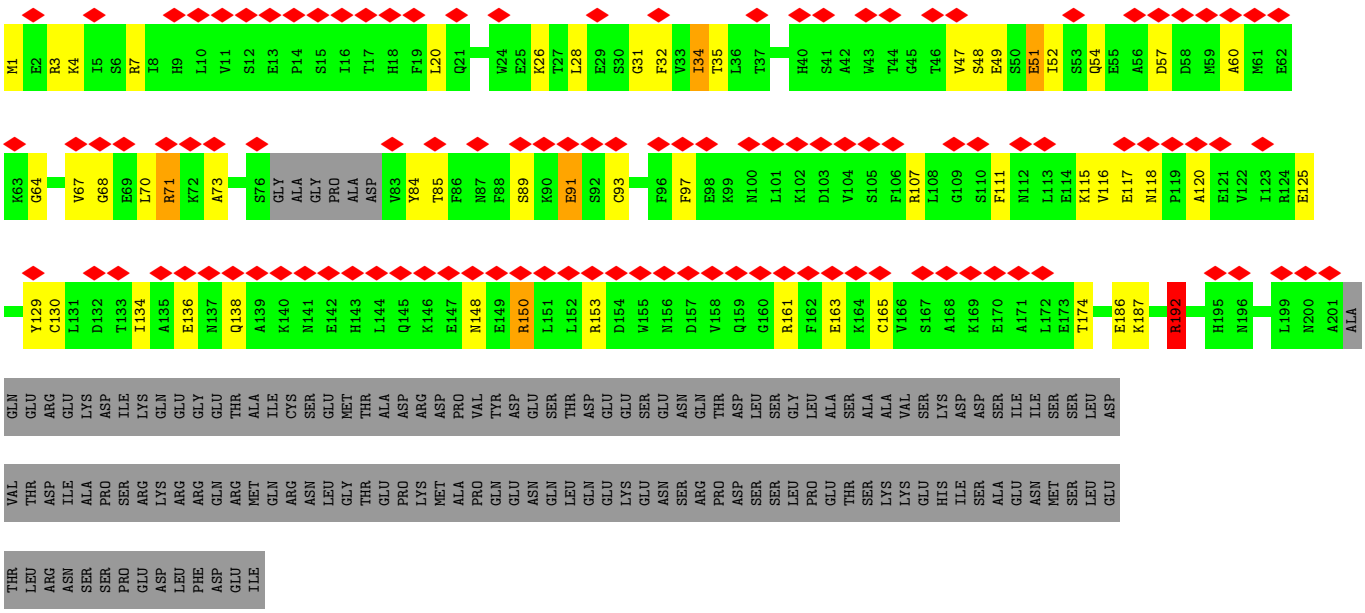




• Molecule 7: DNA repair protein XRCC4

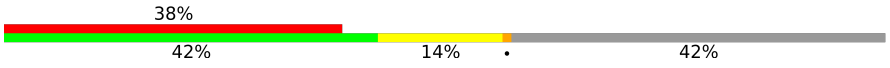
Chain G:

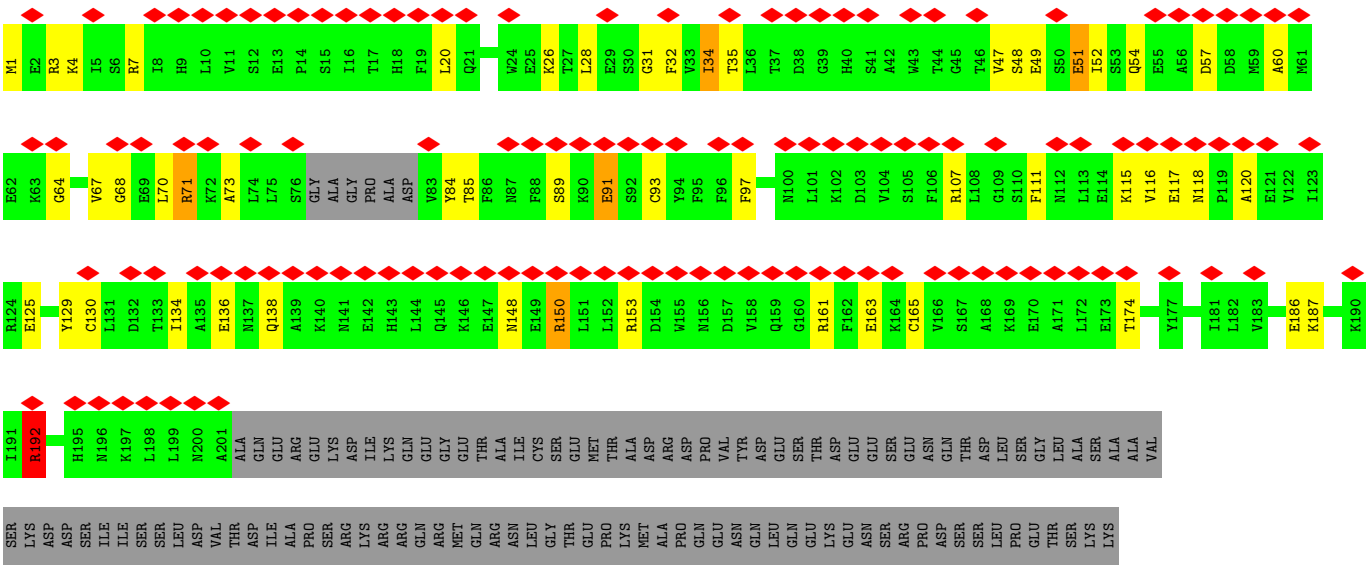




• Molecule 7: DNA repair protein XRCC4

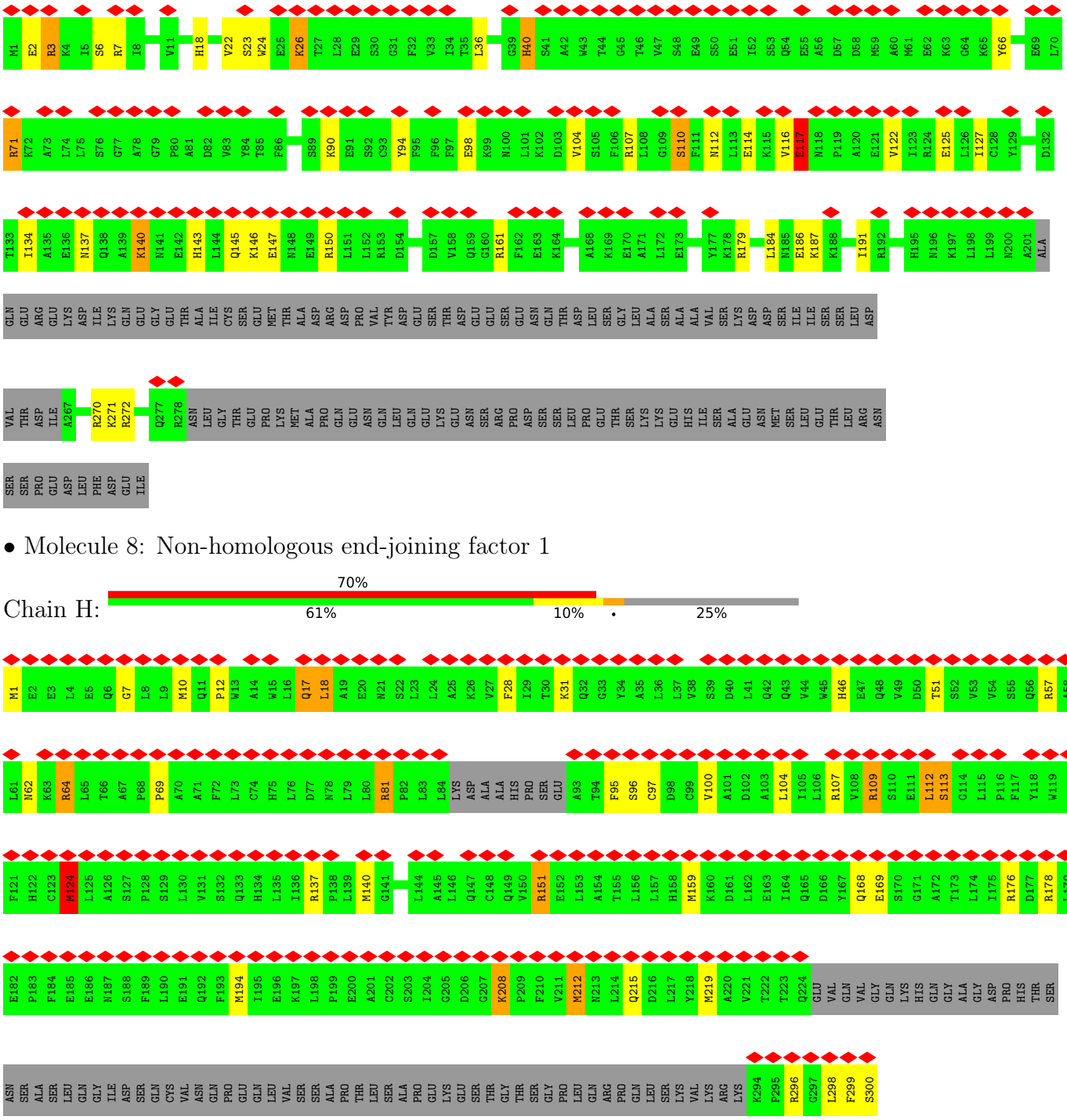
Chain O:





• Molecule 7: DNA repair protein XRCC4

Chain P:

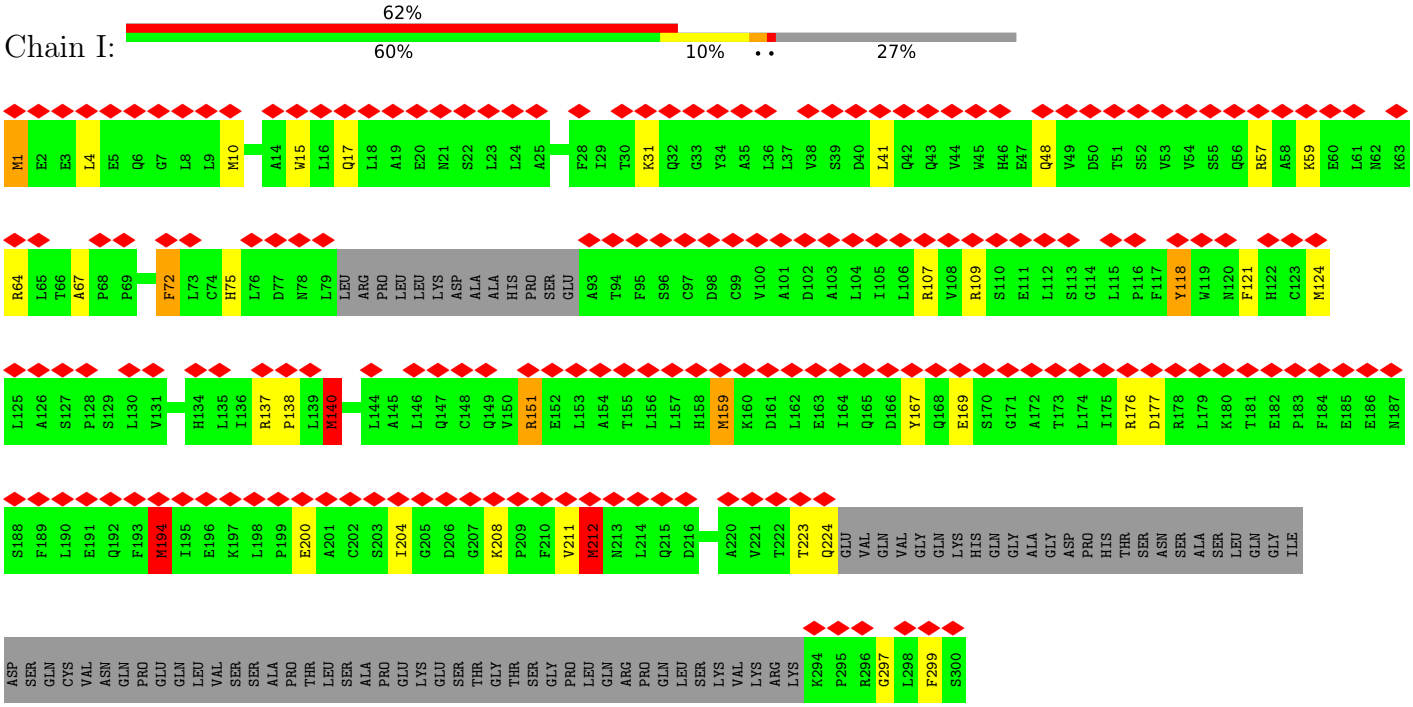


• Molecule 8: Non-homologous end-joining factor 1

Chain H:

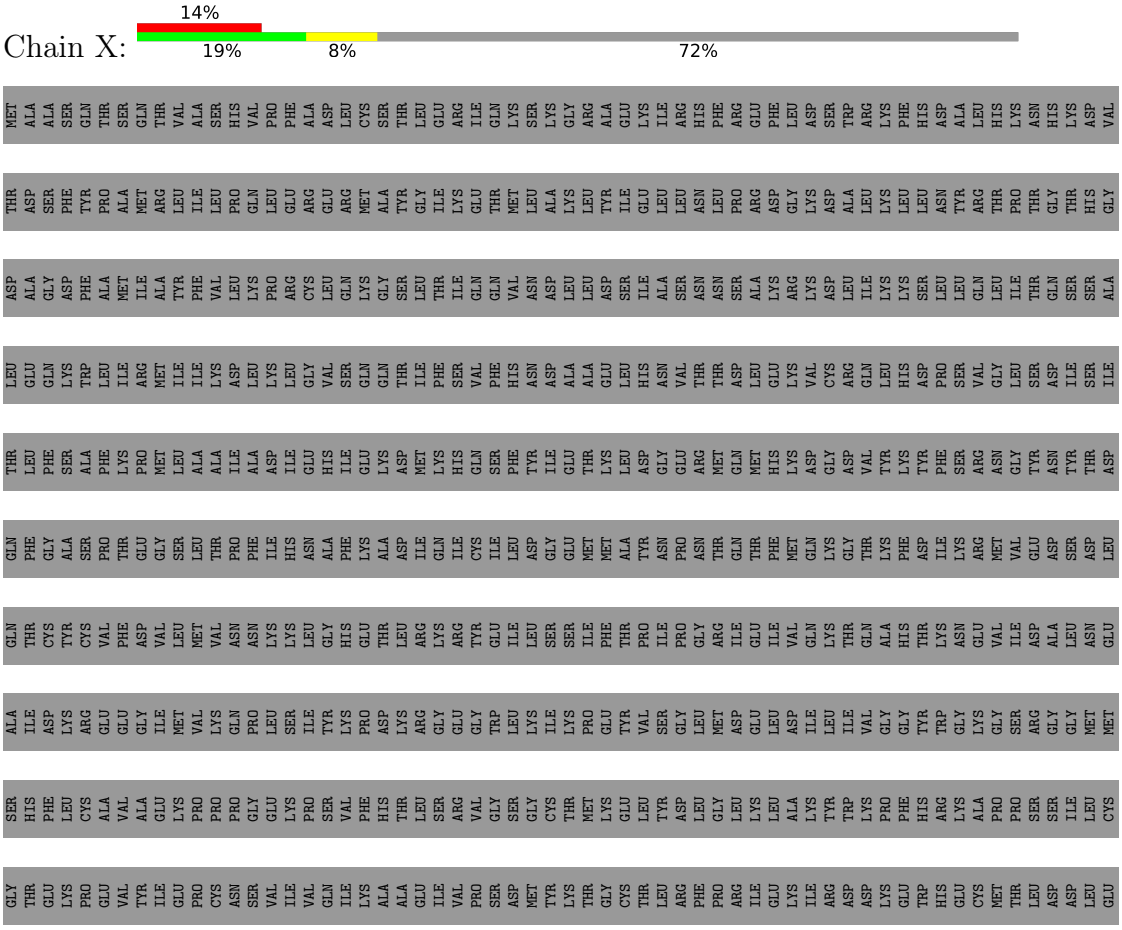
• Molecule 8: Non-homologous end-joining factor 1

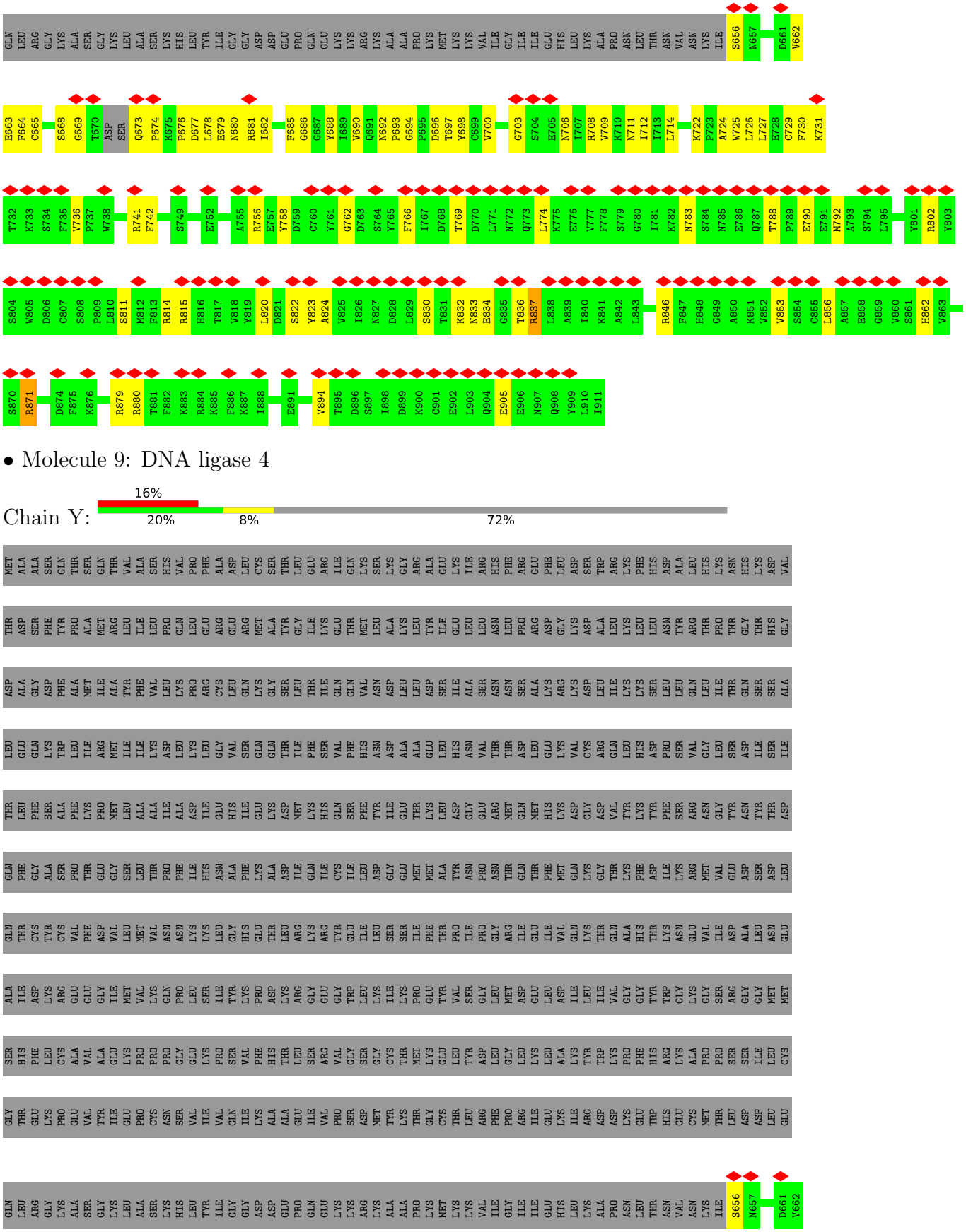
Chain I:



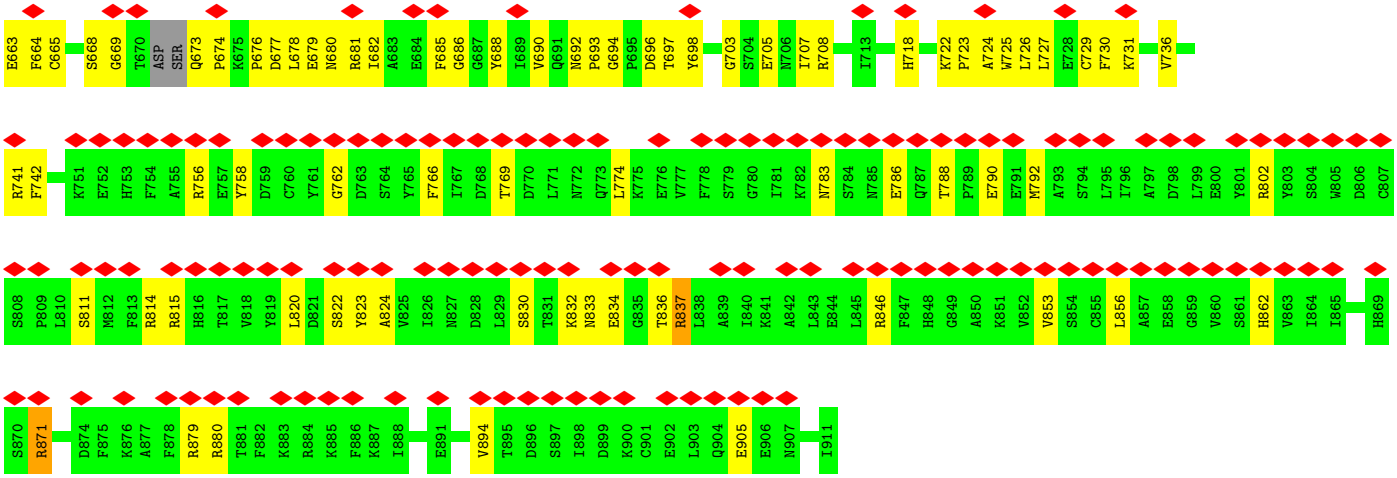
• Molecule 9: DNA ligase 4

Chain X:





• Molecule 9: DNA ligase 4


E663 F664 C665 S668 G669 T670 ASP SER Q673 P674 K675 P676 D677 L678 E679 N680 R681 I682 A683 E684 F685 G686 G687 Y688 I689 V690 Q691 N692 P693 G694 P695 D696 T697 Y698 G703 S704 E705 N706 I707 R708 I713 H718 K722 P723 A724 W725 L726 L727 E728 C729 F730 K731 V736
R741 F742 K751 E752 H753 F754 A755 R756 E757 Y758 D759 C760 Y761 G762 D763 S764 Y765 F766 I767 D768 T769 D770 L771 N772 Q773 L774 K775 E776 V777 F778 S779 G780 I781 K782 N783 S784 N785 E786 Q787 T788 P789 E790 E791 M792 A793 S794 L795 I796 A797 D798 L799 E800 Y801 R802 Y803 S804 W805 D806 C807
S808 P809 L810 S811 M812 F813 R814 R815 H816 T817 V818 Y819 L820 D821 S822 Y823 A824 V825 I826 N827 D828 L829 S830 T831 K832 N833 E834 G835 T836 R837 L838 A839 I840 K841 A842 L843 E844 L845 R846 F847 H848 G849 A850 K851 V852 V853 S854 C855 L856 A857 E858 G859 V860 S861 H862 V863 I864 I865 H869
S870 R871 D874 F875 K876 A877 F878 R879 R880 T881 F882 K883 R884 K885 F886 K887 I888 E891 V894 T895 D896 S897 I898 D899 K900 C901 E902 L903 Q904 E905 E906 N907 I911

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	329784	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	JEOL 3200FS	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	76.5	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	30000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.874	Depositor
Minimum map value	-0.009	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.042	Depositor
Recommended contour level	0.02	Depositor
Map size (Å)	319.0, 319.0, 319.0	wwPDB
Map dimensions	290, 290, 290	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1, 1.1, 1.1	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ADP

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	0.58	0/4101	0.68	1/5523 (0.0%)
1	J	0.58	0/4101	0.68	1/5523 (0.0%)
2	B	0.46	0/4340	0.56	1/5853 (0.0%)
2	K	0.46	0/4340	0.56	1/5853 (0.0%)
3	C	0.57	2/30414 (0.0%)	0.63	8/41079 (0.0%)
3	L	0.57	2/30414 (0.0%)	0.64	8/41079 (0.0%)
5	D	2.09	13/710 (1.8%)	1.37	7/1093 (0.6%)
5	M	2.10	14/710 (2.0%)	1.37	6/1093 (0.5%)
6	E	2.15	19/690 (2.8%)	1.32	5/1063 (0.5%)
6	N	2.15	18/690 (2.6%)	1.32	5/1063 (0.5%)
7	F	0.71	2/1765 (0.1%)	1.13	7/2367 (0.3%)
7	G	0.74	0/1622	1.22	11/2178 (0.5%)
7	O	0.74	0/1622	1.22	11/2178 (0.5%)
7	P	0.71	2/1765 (0.1%)	1.12	7/2367 (0.3%)
8	H	0.77	7/1814 (0.4%)	1.17	14/2454 (0.6%)
8	I	0.78	6/1771 (0.3%)	1.11	6/2395 (0.3%)
9	X	0.69	2/2112 (0.1%)	1.06	14/2851 (0.5%)
9	Y	0.70	2/2112 (0.1%)	1.08	16/2851 (0.6%)
All	All	0.69	89/95093 (0.1%)	0.76	129/128863 (0.1%)

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
3	C	0	2
3	L	0	2
5	D	0	4
5	M	0	4
6	E	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
6	N	0	1
7	F	0	4
7	G	0	3
7	O	0	3
7	P	0	4
8	H	0	2
8	I	0	4
9	X	0	1
9	Y	0	1
All	All	0	36

All (89) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	M	29	DA	C3'-O3'	-7.31	1.34	1.44
5	M	24	DA	C3'-O3'	-7.30	1.34	1.44
5	D	24	DA	C3'-O3'	-7.20	1.34	1.44
5	D	29	DA	C3'-O3'	-7.19	1.34	1.44
6	E	10	DA	C3'-O3'	-7.09	1.34	1.44
6	N	10	DA	C3'-O3'	-7.05	1.34	1.44
6	E	16	DA	N7-C5	-6.75	1.35	1.39
6	N	16	DA	N7-C5	-6.65	1.35	1.39
5	M	30	DC	C3'-O3'	-6.61	1.35	1.44
8	H	1	MET	CG-SD	6.57	1.98	1.81
5	D	30	DC	C3'-O3'	-6.50	1.35	1.44
6	E	11	DC	N1-C6	-6.46	1.33	1.37
6	E	10	DA	N9-C4	-6.42	1.33	1.37
6	N	10	DA	N9-C4	-6.37	1.34	1.37
6	N	3	DG	C3'-O3'	-6.36	1.35	1.44
6	E	3	DG	C3'-O3'	-6.32	1.35	1.44
6	N	11	DC	N1-C6	-6.28	1.33	1.37
8	H	140	MET	CG-SD	6.21	1.97	1.81
7	F	117	GLU	CD-OE2	-6.20	1.18	1.25
8	H	10	MET	CG-SD	6.18	1.97	1.81
6	E	9	DT	C3'-O3'	-6.15	1.35	1.44
6	N	9	DT	C3'-O3'	-6.11	1.36	1.44
8	I	1	MET	CG-SD	6.00	1.96	1.81
8	I	124	MET	CG-SD	5.99	1.96	1.81
6	N	6	DA	N7-C5	-5.93	1.35	1.39
7	P	117	GLU	CD-OE2	-5.91	1.19	1.25
6	N	16	DA	C3'-O3'	-5.91	1.36	1.44
5	M	25	DT	C3'-O3'	-5.87	1.36	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	N	12	DT	C3'-O3'	-5.87	1.36	1.44
8	I	140	MET	CG-SD	5.87	1.96	1.81
5	D	25	DT	C3'-O3'	-5.86	1.36	1.44
8	I	194	MET	CG-SD	5.82	1.96	1.81
6	E	15	DC	C4-N4	-5.82	1.28	1.33
5	M	11	DC	N1-C6	-5.80	1.33	1.37
6	E	16	DA	C3'-O3'	-5.80	1.36	1.44
6	E	12	DT	C3'-O3'	-5.79	1.36	1.44
8	H	212	MET	CG-SD	5.78	1.96	1.81
6	N	15	DC	C4-N4	-5.71	1.28	1.33
5	D	23	DG	C3'-O3'	-5.70	1.36	1.44
5	D	30	DC	N1-C6	-5.70	1.33	1.37
5	M	22	DA	N7-C5	-5.70	1.35	1.39
5	M	23	DG	C3'-O3'	-5.70	1.36	1.44
6	N	7	DT	C3'-O3'	-5.69	1.36	1.44
6	N	19	DA	C3'-O3'	-5.68	1.36	1.44
6	E	6	DA	N7-C5	-5.66	1.35	1.39
5	M	19	DA	C3'-O3'	-5.66	1.36	1.44
5	D	11	DC	N1-C6	-5.65	1.33	1.37
8	I	212	MET	CG-SD	5.64	1.95	1.81
6	E	19	DA	C3'-O3'	-5.61	1.36	1.44
6	E	7	DT	C3'-O3'	-5.59	1.36	1.44
6	E	8	DC	N1-C6	-5.59	1.33	1.37
8	H	124	MET	CG-SD	5.58	1.95	1.81
5	D	19	DA	C3'-O3'	-5.55	1.36	1.44
6	N	8	DC	N1-C6	-5.47	1.33	1.37
3	L	886	TRP	CB-CG	-5.45	1.40	1.50
8	I	159	MET	CG-SD	5.44	1.95	1.81
3	C	886	TRP	CB-CG	-5.40	1.40	1.50
5	M	30	DC	N1-C6	-5.39	1.33	1.37
7	P	110	SER	CB-OG	-5.37	1.35	1.42
8	H	194	MET	CG-SD	5.36	1.95	1.81
9	Y	762	GLY	N-CA	-5.36	1.38	1.46
5	D	22	DA	N7-C5	-5.34	1.36	1.39
9	X	762	GLY	N-CA	-5.33	1.38	1.46
8	H	159	MET	CG-SD	5.29	1.95	1.81
5	D	23	DG	C5-C4	-5.29	1.34	1.38
6	E	6	DA	C5-C6	-5.28	1.36	1.41
5	M	22	DA	N9-C4	-5.26	1.34	1.37
6	N	14	DA	C3'-O3'	-5.25	1.37	1.44
9	X	790	GLU	CD-OE2	-5.24	1.19	1.25
6	E	14	DA	C3'-O3'	-5.22	1.37	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	Y	790	GLU	CD-OE2	-5.21	1.20	1.25
5	M	22	DA	C3'-O3'	-5.21	1.37	1.44
7	F	110	SER	CB-OG	-5.21	1.35	1.42
5	M	23	DG	C5-C4	-5.20	1.34	1.38
6	E	18	DC	N3-C4	-5.19	1.30	1.33
6	N	6	DA	C3'-O3'	-5.18	1.37	1.44
5	D	22	DA	C3'-O3'	-5.16	1.37	1.44
6	E	6	DA	C3'-O3'	-5.16	1.37	1.44
6	E	14	DA	N7-C5	-5.16	1.36	1.39
6	N	6	DA	C5-C6	-5.14	1.36	1.41
5	D	20	DG	C3'-O3'	-5.14	1.37	1.44
5	D	22	DA	N9-C4	-5.14	1.34	1.37
6	N	18	DC	N3-C4	-5.13	1.30	1.33
5	M	20	DG	C3'-O3'	-5.11	1.37	1.44
6	E	5	DA	C5-C4	-5.05	1.35	1.38
3	C	2164	TRP	CB-CG	-5.03	1.41	1.50
3	L	2164	TRP	CB-CG	-5.03	1.41	1.50
6	N	11	DC	C3'-O3'	-5.02	1.37	1.44
5	M	9	DC	C3'-O3'	-5.01	1.37	1.44

All (129) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	P	150	ARG	NE-CZ-NH1	9.79	125.19	120.30
7	F	150	ARG	NE-CZ-NH1	9.76	125.18	120.30
8	H	109	ARG	NE-CZ-NH1	9.58	125.09	120.30
8	I	176	ARG	NE-CZ-NH1	9.54	125.07	120.30
1	A	352	PRO	CA-N-CD	-9.24	98.57	111.50
1	J	352	PRO	CA-N-CD	-9.23	98.57	111.50
8	I	57	ARG	NE-CZ-NH1	8.69	124.64	120.30
6	N	15	DC	N3-C2-O2	-8.51	115.94	121.90
6	E	15	DC	N3-C2-O2	-8.48	115.96	121.90
7	O	7	ARG	NE-CZ-NH1	8.30	124.45	120.30
9	X	879	ARG	NE-CZ-NH1	8.12	124.36	120.30
7	G	7	ARG	NE-CZ-NH1	8.08	124.34	120.30
8	H	57	ARG	NE-CZ-NH1	8.05	124.33	120.30
8	H	151	ARG	NE-CZ-NH1	7.99	124.30	120.30
7	F	3	ARG	NE-CZ-NH1	7.99	124.29	120.30
9	Y	879	ARG	NE-CZ-NH1	7.98	124.29	120.30
7	P	3	ARG	NE-CZ-NH1	7.98	124.29	120.30
3	L	3962	ARG	NE-CZ-NH1	7.91	124.26	120.30
8	H	178	ARG	NE-CZ-NH1	7.81	124.21	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	P	161	ARG	NE-CZ-NH1	7.81	124.20	120.30
3	C	3962	ARG	NE-CZ-NH1	7.80	124.20	120.30
7	F	161	ARG	NE-CZ-NH1	7.63	124.11	120.30
7	G	153	ARG	NE-CZ-NH1	7.55	124.07	120.30
7	O	153	ARG	NE-CZ-NH1	7.39	124.00	120.30
8	H	18	LEU	CD1-CG-CD2	7.39	132.66	110.50
8	I	151	ARG	NE-CZ-NH1	7.31	123.95	120.30
9	X	758	TYR	CB-CG-CD2	-7.29	116.62	121.00
9	Y	846	ARG	NE-CZ-NH1	7.26	123.93	120.30
9	X	846	ARG	NE-CZ-NH1	7.16	123.88	120.30
9	Y	758	TYR	CB-CG-CD2	-7.16	116.70	121.00
7	F	179	ARG	NE-CZ-NH1	7.15	123.88	120.30
6	N	1	DG	OP1-P-OP2	-7.10	108.96	119.60
6	E	1	DG	OP1-P-OP2	-7.08	108.97	119.60
7	P	179	ARG	NE-CZ-NH1	7.05	123.82	120.30
5	D	18	DC	N3-C2-O2	-6.99	117.01	121.90
5	M	18	DC	N3-C2-O2	-6.90	117.07	121.90
9	X	758	TYR	CB-CG-CD1	6.89	125.13	121.00
9	Y	758	TYR	CB-CG-CD1	6.84	125.10	121.00
8	H	64	ARG	NE-CZ-NH1	6.80	123.70	120.30
3	C	1046	PRO	CA-N-CD	-6.78	102.01	111.50
8	H	176	ARG	NE-CZ-NH1	6.72	123.66	120.30
3	L	1046	PRO	CA-N-CD	-6.72	102.09	111.50
5	M	1	DT	OP1-P-OP2	-6.71	109.54	119.60
5	D	1	DT	OP1-P-OP2	-6.68	109.58	119.60
3	C	4090	ARG	NE-CZ-NH1	6.64	123.62	120.30
3	L	4090	ARG	NE-CZ-NH1	6.58	123.59	120.30
9	Y	802	ARG	NE-CZ-NH1	6.56	123.58	120.30
6	N	17	DT	C5-C6-N1	-6.51	119.79	123.70
6	E	17	DT	C5-C6-N1	-6.50	119.80	123.70
9	X	837	ARG	NE-CZ-NH1	6.49	123.54	120.30
9	X	802	ARG	NE-CZ-NH1	6.45	123.53	120.30
7	P	71	ARG	NE-CZ-NH1	6.39	123.49	120.30
9	Y	837	ARG	NE-CZ-NH1	6.38	123.49	120.30
7	F	71	ARG	NE-CZ-NH1	6.35	123.47	120.30
9	X	756	ARG	NE-CZ-NH1	6.33	123.46	120.30
8	H	137	ARG	NE-CZ-NH1	6.25	123.43	120.30
9	Y	814	ARG	NE-CZ-NH1	6.24	123.42	120.30
7	G	148	ASN	CB-CA-C	6.23	122.87	110.40
7	O	148	ASN	CB-CA-C	6.19	122.79	110.40
9	X	814	ARG	NE-CZ-NH1	6.18	123.39	120.30
9	Y	756	ARG	NE-CZ-NH1	6.14	123.37	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	Y	871	ARG	NE-CZ-NH1	6.12	123.36	120.30
5	M	17	DT	O4'-C4'-C3'	6.07	109.64	106.00
8	H	109	ARG	NE-CZ-NH2	-6.01	117.30	120.30
9	X	871	ARG	NE-CZ-NH1	5.97	123.29	120.30
7	G	97	PHE	CB-CG-CD2	-5.93	116.64	120.80
5	D	17	DT	O4'-C4'-C3'	5.93	109.56	106.00
7	P	150	ARG	NE-CZ-NH2	-5.91	117.34	120.30
7	G	150	ARG	NE-CZ-NH1	5.87	123.24	120.30
3	C	3468	LEU	CA-CB-CG	-5.84	101.86	115.30
3	L	3468	LEU	CA-CB-CG	-5.82	101.91	115.30
7	O	129	TYR	CB-CG-CD1	-5.78	117.53	121.00
7	O	192	ARG	NE-CZ-NH1	5.75	123.17	120.30
9	Y	905	GLU	CB-CA-C	5.73	121.85	110.40
7	F	150	ARG	NE-CZ-NH2	-5.72	117.44	120.30
7	O	97	PHE	CB-CG-CD2	-5.70	116.81	120.80
8	H	17	GLN	CA-C-N	-5.69	104.69	117.20
7	G	161	ARG	NE-CZ-NH1	5.68	123.14	120.30
7	O	71	ARG	NE-CZ-NH1	5.68	123.14	120.30
5	D	18	DC	N1-C2-O2	5.66	122.30	118.90
6	E	15	DC	N1-C2-O2	5.66	122.30	118.90
7	O	161	ARG	NE-CZ-NH1	5.64	123.12	120.30
7	O	150	ARG	NE-CZ-NH1	5.63	123.12	120.30
3	C	3156	PRO	CA-N-CD	-5.63	103.62	111.50
9	X	758	TYR	CA-CB-CG	5.63	124.09	113.40
9	Y	758	TYR	CA-CB-CG	5.62	124.08	113.40
9	X	905	GLU	CB-CA-C	5.62	121.64	110.40
7	G	192	ARG	NE-CZ-NH1	5.62	123.11	120.30
3	L	3156	PRO	CA-N-CD	-5.60	103.66	111.50
7	G	129	TYR	CB-CG-CD1	-5.59	117.64	121.00
6	N	15	DC	N1-C2-O2	5.59	122.25	118.90
9	X	823	TYR	CB-CG-CD1	-5.58	117.65	121.00
5	M	18	DC	N1-C2-O2	5.53	122.22	118.90
7	G	107	ARG	NE-CZ-NH1	5.50	123.05	120.30
9	Y	880	ARG	NE-CZ-NH1	5.48	123.04	120.30
7	G	71	ARG	NE-CZ-NH1	5.47	123.04	120.30
9	Y	815	ARG	NE-CZ-NH1	5.47	123.04	120.30
9	Y	823	TYR	CB-CG-CD1	-5.47	117.72	121.00
9	Y	708	ARG	NE-CZ-NH1	5.46	123.03	120.30
8	H	57	ARG	NH1-CZ-NH2	-5.43	113.42	119.40
2	B	408	ALA	C-N-CA	-5.42	108.16	121.70
3	L	466	LEU	CA-CB-CG	5.36	127.64	115.30
2	K	408	ALA	C-N-CA	-5.36	108.30	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	466	LEU	CA-CB-CG	5.36	127.62	115.30
9	X	880	ARG	NE-CZ-NH1	5.36	122.98	120.30
5	D	13	DG	C5-C6-N1	5.35	114.17	111.50
8	H	18	LEU	CB-CG-CD1	-5.34	101.92	111.00
5	M	13	DG	C5-C6-N1	5.31	114.16	111.50
8	I	107	ARG	NE-CZ-NH1	5.27	122.94	120.30
9	X	815	ARG	NE-CZ-NH1	5.26	122.93	120.30
7	O	107	ARG	NE-CZ-NH1	5.23	122.91	120.30
5	D	13	DG	O4'-C4'-C3'	5.22	109.13	106.00
7	F	153	ARG	NE-CZ-NH1	5.21	122.90	120.30
7	O	32	PHE	CB-CG-CD2	-5.20	117.16	120.80
6	N	8	DC	C1'-O4'-C4'	-5.19	104.91	110.10
7	G	32	PHE	CB-CG-CD2	-5.17	117.18	120.80
6	E	8	DC	C1'-O4'-C4'	-5.14	104.96	110.10
7	P	107	ARG	NE-CZ-NH1	5.14	122.87	120.30
9	Y	707	ILE	CA-CB-CG1	5.11	120.71	111.00
8	I	121	PHE	CB-CG-CD1	-5.09	117.23	120.80
3	C	3506	LEU	CA-CB-CG	5.08	126.99	115.30
3	L	3506	LEU	CA-CB-CG	5.07	126.97	115.30
8	H	107	ARG	NE-CZ-NH1	5.06	122.83	120.30
3	L	3049	LEU	CA-CB-CG	5.06	126.94	115.30
5	M	13	DG	O4'-C4'-C3'	5.05	109.03	106.00
3	C	3049	LEU	CA-CB-CG	5.04	126.88	115.30
8	H	81	ARG	NE-CZ-NH2	5.03	122.82	120.30
5	D	23	DG	O4'-C4'-C3'	-5.03	102.49	104.50
8	I	64	ARG	NE-CZ-NH1	5.00	122.80	120.30

There are no chirality outliers.

All (36) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	C	3962	ARG	Sidechain
3	C	4090	ARG	Sidechain
5	D	13	DG	Sidechain
5	D	16	DG	Sidechain
5	D	17	DT	Sidechain
5	D	18	DC	Sidechain
6	E	17	DT	Sidechain
7	F	143	HIS	Sidechain
7	F	66	TYR	Sidechain
7	F	7	ARG	Sidechain
7	F	94	TYR	Sidechain

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Mol	Chain	Res	Type	Group
7	G	111	PHE	Sidechain
7	G	192	ARG	Sidechain
7	G	3	ARG	Sidechain
8	H	17	GLN	Mainchain
8	H	81	ARG	Sidechain
8	I	118	TYR	Sidechain
8	I	167	TYR	Sidechain
8	I	72	PHE	Sidechain
8	I	75	HIS	Sidechain
3	L	3962	ARG	Sidechain
3	L	4090	ARG	Sidechain
5	M	13	DG	Sidechain
5	M	16	DG	Sidechain
5	M	17	DT	Sidechain
5	M	18	DC	Sidechain
6	N	17	DT	Sidechain
7	O	111	PHE	Sidechain
7	O	192	ARG	Sidechain
7	O	3	ARG	Sidechain
7	P	143	HIS	Sidechain
7	P	66	TYR	Sidechain
7	P	7	ARG	Sidechain
7	P	94	TYR	Sidechain
9	X	766	PHE	Sidechain
9	Y	766	PHE	Sidechain

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	4021	0	4100	278	0
1	J	4021	0	4100	278	0
2	B	4259	0	4301	254	0
2	K	4259	0	4301	259	0
3	C	29811	0	30286	1585	0
3	L	29811	0	30286	1583	0
4	Q	101	0	23	2	0
4	R	101	0	23	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	D	634	0	352	65	0
5	M	634	0	352	66	0
6	E	616	0	339	64	0
6	N	616	0	339	60	0
7	F	1736	0	1739	44	0
7	G	1595	0	1592	38	0
7	O	1595	0	1592	37	0
7	P	1736	0	1739	33	0
8	H	1779	0	1797	30	0
8	I	1737	0	1744	16	0
9	X	2064	0	2012	41	0
9	Y	2064	0	2012	41	0
10	C	27	0	12	5	0
10	L	27	0	12	5	0
All	All	93244	0	93053	4499	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 (4499) 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)
7:O:130:CYS:CA	7:P:134:ILE:HD11	1.44	1.46
7:F:134:ILE:HD11	7:G:130:CYS:CA	1.44	1.45
7:F:134:ILE:CD1	7:G:130:CYS:HA	1.60	1.31
7:O:130:CYS:HA	7:P:134:ILE:CD1	1.60	1.31
7:F:134:ILE:HG12	7:G:134:ILE:HG13	1.22	1.16
7:O:134:ILE:HG13	7:P:134:ILE:HG12	1.21	1.14
7:O:130:CYS:CB	7:P:134:ILE:HD11	1.79	1.12
7:F:134:ILE:HD11	7:G:130:CYS:CB	1.79	1.11
3:C:949:PRO:HB3	3:L:2579:HIS:CG	1.86	1.09
3:C:2579:HIS:CG	3:L:949:PRO:HB3	1.89	1.08
7:G:134:ILE:HG23	7:G:138:GLN:HE22	1.22	1.05
8:H:299:PHE:CE1	2:K:234:LEU:HD21	1.93	1.03
7:O:134:ILE:CG2	7:O:138:GLN:HE22	1.73	1.01
7:O:134:ILE:HG23	7:O:138:GLN:HE22	1.21	1.01
7:G:134:ILE:CG2	7:G:138:GLN:HE22	1.74	1.00
7:O:134:ILE:HG13	7:P:134:ILE:CG1	1.92	0.99
7:F:134:ILE:CG1	7:G:134:ILE:HG13	1.92	0.99
7:F:134:ILE:HD11	7:G:130:CYS:HA	0.98	0.96
7:O:130:CYS:HA	7:P:134:ILE:HD11	0.98	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3575:LEU:O	3:C:3579:SER:HB3	1.67	0.95
3:C:949:PRO:HB3	3:L:2579:HIS:CD2	2.02	0.94
3:L:3575:LEU:O	3:L:3579:SER:HB3	1.67	0.93
2:K:44:ARG:NH1	2:K:234:LEU:O	2.02	0.93
2:B:44:ARG:NH1	2:B:234:LEU:O	2.02	0.93
3:C:2579:HIS:CD2	3:L:949:PRO:HB3	2.04	0.92
3:C:1970:LYS:HD2	3:C:1971:PRO:HD2	1.51	0.92
3:L:1102:GLU:HG3	3:L:1154:PRO:HA	1.53	0.90
3:L:1979:GLU:OE2	3:L:2091:HIS:NE2	2.04	0.90
3:C:1979:GLU:OE2	3:C:2091:HIS:NE2	2.04	0.89
3:L:1970:LYS:HD2	3:L:1971:PRO:HD2	1.51	0.89
3:C:1407:LYS:HB2	3:C:1463:LEU:HD21	1.53	0.89
7:F:134:ILE:CD1	7:G:130:CYS:CA	2.33	0.88
8:I:15:TRP:HB2	8:I:211:VAL:HG21	1.55	0.88
3:C:1102:GLU:HG3	3:C:1154:PRO:HA	1.53	0.88
3:L:1407:LYS:HB2	3:L:1463:LEU:HD21	1.53	0.88
3:C:3929:MET:HB2	3:C:3940:ILE:HD11	1.56	0.87
3:L:3179:TRP:CD1	3:L:3242:MET:HG3	2.10	0.87
3:C:3179:TRP:CD1	3:C:3242:MET:HG3	2.10	0.87
3:L:1264:LEU:HD22	3:L:1341:ILE:HG22	1.57	0.86
1:A:366:LEU:HB2	1:A:434:LEU:HD12	1.58	0.86
3:C:1974:ASN:OD1	3:C:1975:LEU:N	2.08	0.86
3:C:1264:LEU:HD22	3:C:1341:ILE:HG22	1.57	0.86
3:C:90:CYS:SG	3:C:133:LYS:NZ	2.49	0.85
1:J:366:LEU:HB2	1:J:434:LEU:HD12	1.58	0.85
3:L:3835:PRO:HG3	3:L:3841:ASP:H	1.40	0.85
3:L:3929:MET:HB2	3:L:3940:ILE:HD11	1.56	0.85
3:L:90:CYS:SG	3:L:133:LYS:NZ	2.50	0.85
3:L:4088:ASN:ND2	3:L:4113:ASP:OD1	2.09	0.85
7:O:130:CYS:CB	7:P:134:ILE:CD1	2.55	0.85
3:L:1622:ILE:HD11	3:L:1652:ILE:HD13	1.59	0.85
3:L:1974:ASN:OD1	3:L:1975:LEU:N	2.08	0.85
3:C:3835:PRO:HG3	3:C:3841:ASP:H	1.40	0.84
3:C:405:ASP:O	3:C:409:GLN:NE2	2.11	0.84
3:L:2855:VAL:O	3:L:2859:GLN:NE2	2.10	0.84
3:L:128:LEU:HD11	3:L:156:PHE:HE2	1.42	0.84
3:L:3050:LYS:HA	3:L:3053:LEU:HG	1.59	0.84
3:C:2855:VAL:O	3:C:2859:GLN:NE2	2.10	0.84
3:C:4088:ASN:ND2	3:C:4113:ASP:OD1	2.09	0.84
3:C:3050:LYS:HA	3:C:3053:LEU:HG	1.59	0.83
3:L:3617:LEU:HB3	3:L:3633:ILE:HD13	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1519:PHE:CD2	3:C:1570:GLU:HG3	2.14	0.83
1:J:340:PHE:HE1	2:K:485:PRO:HB2	1.44	0.82
3:L:789:TYR:HA	3:L:792:ILE:HG22	1.62	0.82
3:C:1857:LYS:HE3	3:C:1866:GLN:HE21	1.43	0.82
3:L:405:ASP:O	3:L:409:GLN:NE2	2.11	0.82
3:L:1857:LYS:HE3	3:L:1866:GLN:HE21	1.44	0.82
7:F:134:ILE:CD1	7:G:130:CYS:CB	2.55	0.82
3:L:3154:GLN:OE1	3:L:3158:LYS:NZ	2.13	0.82
3:C:1820:VAL:HA	3:C:1824:LEU:HB3	1.61	0.82
3:C:3575:LEU:O	3:C:3579:SER:CB	2.28	0.82
3:L:3575:LEU:O	3:L:3579:SER:CB	2.28	0.82
3:C:1622:ILE:HD11	3:C:1652:ILE:HD13	1.59	0.82
3:C:3617:LEU:HB3	3:C:3633:ILE:HD13	1.60	0.82
3:C:128:LEU:HD11	3:C:156:PHE:HE2	1.42	0.81
8:I:211:VAL:HG23	8:I:212:MET:SD	2.20	0.81
3:L:1093:GLU:O	3:L:1096:VAL:N	2.13	0.81
3:C:3154:GLN:OE1	3:C:3158:LYS:NZ	2.13	0.81
3:C:789:TYR:HA	3:C:792:ILE:HG22	1.62	0.81
3:L:1362:ASP:O	3:L:1365:ASN:ND2	2.13	0.81
3:C:1970:LYS:HG3	3:C:1972:GLU:H	1.46	0.81
3:L:1241:LEU:HB2	3:L:1292:LYS:HZ1	1.44	0.81
3:L:1519:PHE:CD2	3:L:1570:GLU:HG3	2.14	0.81
3:L:1970:LYS:HG3	3:L:1972:GLU:H	1.46	0.80
2:B:234:LEU:HD21	8:I:299:PHE:CE1	2.16	0.80
3:L:1820:VAL:HA	3:L:1824:LEU:HB3	1.61	0.80
3:L:2123:PRO:HB3	3:L:2164:TRP:HZ2	1.46	0.80
9:X:706:ASN:OD1	9:X:709:VAL:N	2.14	0.80
3:C:1362:ASP:O	3:C:1365:ASN:ND2	2.13	0.80
3:C:2311:ARG:NH2	6:E:7:DT:OP2	2.14	0.80
3:C:2123:PRO:HB3	3:C:2164:TRP:HZ2	1.46	0.80
3:L:2280:VAL:HA	3:L:2283:ASN:HD21	1.46	0.80
3:C:1093:GLU:O	3:C:1096:VAL:N	2.13	0.80
7:F:134:ILE:HD11	7:G:130:CYS:HB3	1.62	0.80
3:C:1838:GLU:OE1	3:C:1838:GLU:N	2.15	0.79
3:L:485:GLN:HA	3:L:488:ILE:HD12	1.63	0.79
3:C:485:GLN:HA	3:C:488:ILE:HD12	1.63	0.79
3:L:1166:LEU:HD22	3:L:1198:LEU:HD12	1.64	0.79
7:F:134:ILE:HD13	7:G:130:CYS:HA	1.64	0.79
3:L:1990:PHE:HB3	3:L:1991:PRO:HD2	1.64	0.79
3:L:3469:LEU:HA	3:L:3472:ILE:HD12	1.64	0.79
3:C:2280:VAL:HA	3:C:2283:ASN:HD21	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:340:PHE:HE1	2:B:485:PRO:HB2	1.44	0.79
3:C:2268:LYS:NZ	3:C:2314:GLU:OE2	2.15	0.79
6:N:5:DA:N7	6:N:6:DA:N6	2.31	0.79
2:B:70:GLY:O	2:B:75:GLN:NE2	2.16	0.79
6:E:5:DA:N7	6:E:6:DA:N6	2.31	0.79
2:K:70:GLY:O	2:K:75:GLN:NE2	2.16	0.79
3:C:3806:LEU:HD23	10:C:4201:ADP:HN62	1.48	0.79
7:O:130:CYS:HB3	7:P:134:ILE:HD11	1.62	0.79
7:O:130:CYS:HA	7:P:134:ILE:HD13	1.64	0.78
3:C:1166:LEU:HD22	3:C:1198:LEU:HD12	1.64	0.78
3:C:3469:LEU:HA	3:C:3472:ILE:HD12	1.64	0.78
3:C:1241:LEU:HB2	3:C:1292:LYS:HZ1	1.47	0.78
3:L:3806:LEU:HD23	10:L:4201:ADP:HN62	1.48	0.78
3:L:3912:CYS:HB3	3:L:3961:PHE:CD1	2.19	0.78
3:C:1990:PHE:HB3	3:C:1991:PRO:HD2	1.64	0.78
1:J:455:THR:OG1	1:J:458:GLN:OE1	2.02	0.78
3:L:2268:LYS:NZ	3:L:2314:GLU:OE2	2.15	0.78
1:A:363:ARG:HB2	1:A:364:PRO:HD2	1.65	0.78
3:L:3855:TYR:HD1	3:L:3858:MET:HE3	1.49	0.78
5:M:22:DA:N1	6:N:8:DC:N4	2.32	0.78
3:L:2271:SER:HA	3:L:2274:ILE:HD12	1.66	0.77
1:A:174:ASN:HB2	1:A:215:LEU:HD21	1.66	0.77
1:J:174:ASN:HB2	1:J:215:LEU:HD21	1.66	0.77
7:O:134:ILE:CG1	7:P:134:ILE:CG1	2.63	0.77
3:C:2271:SER:HA	3:C:2274:ILE:HD12	1.66	0.77
1:A:455:THR:OG1	1:A:458:GLN:OE1	2.02	0.77
2:B:44:ARG:HG3	2:B:238:LYS:HB2	1.66	0.77
2:K:407:VAL:H	2:K:424:LEU:HD23	1.49	0.77
3:L:95:LYS:HG3	3:L:96:MET:SD	2.24	0.77
3:L:722:LYS:HG3	3:L:723:ASP:H	1.49	0.77
7:O:134:ILE:HD11	7:P:134:ILE:HG13	1.67	0.77
2:B:407:VAL:H	2:B:424:LEU:HD23	1.49	0.77
7:F:134:ILE:HG12	7:G:134:ILE:CG1	2.11	0.77
3:L:1889:VAL:O	3:L:1909:ASN:ND2	2.18	0.77
3:C:95:LYS:HG3	3:C:96:MET:SD	2.24	0.77
1:J:363:ARG:HB2	1:J:364:PRO:HD2	1.65	0.77
2:B:411:HIS:O	2:B:418:CYS:N	2.18	0.76
3:C:3912:CYS:HB3	3:C:3961:PHE:CD1	2.19	0.76
1:A:85:VAL:HG13	1:A:105:LEU:HB3	1.66	0.76
3:L:2311:ARG:NH2	6:N:7:DT:OP2	2.14	0.76
3:L:3164:TRP:CE3	3:L:3186:ARG:HD3	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1331:ASN:HA	3:C:1334:LYS:HZ3	1.50	0.76
3:C:722:LYS:HG3	3:C:723:ASP:H	1.50	0.76
3:C:1889:VAL:O	3:C:1909:ASN:ND2	2.18	0.76
3:L:65:LEU:HD23	3:L:85:ILE:HG13	1.67	0.76
1:A:261:LEU:HD23	1:A:269:ILE:HD11	1.68	0.75
7:F:134:ILE:CG1	7:G:134:ILE:CG1	2.63	0.75
2:K:44:ARG:HG3	2:K:238:LYS:HB2	1.66	0.75
3:L:2894:GLU:HG3	3:L:3973:PRO:HG3	1.68	0.75
3:C:1985:LYS:HG2	3:C:1987:ARG:HH12	1.51	0.75
7:F:134:ILE:HG13	7:G:134:ILE:HD11	1.68	0.75
1:J:85:VAL:HG13	1:J:105:LEU:HB3	1.66	0.75
2:K:547:GLN:HG3	2:K:548:VAL:H	1.50	0.75
3:L:3724:GLU:HG3	3:L:3725:ARG:HG3	1.67	0.75
3:C:1538:LEU:HD11	3:C:1555:HIS:HD2	1.52	0.75
3:C:3164:TRP:CE3	3:C:3186:ARG:HD3	2.21	0.75
3:L:1838:GLU:OE1	3:L:1838:GLU:N	2.15	0.75
2:K:353:ARG:HA	2:K:356:PHE:HE1	1.52	0.75
3:L:3031:TRP:HB3	3:L:3074:GLN:HE22	1.50	0.75
3:C:3724:GLU:HG3	3:C:3725:ARG:HG3	1.67	0.75
3:C:3855:TYR:HD1	3:C:3858:MET:HE3	1.51	0.75
5:D:22:DA:N1	6:E:8:DC:N4	2.32	0.74
3:C:3031:TRP:HB3	3:C:3074:GLN:HE22	1.50	0.74
3:L:2810:SER:HA	3:L:2861:ILE:HD11	1.69	0.74
2:B:547:GLN:HG3	2:B:548:VAL:H	1.50	0.74
3:C:65:LEU:HD23	3:C:85:ILE:HG13	1.67	0.74
3:L:2977:ASN:CG	7:P:272:ARG:HH22	1.90	0.74
3:C:2894:GLU:HG3	3:C:3973:PRO:HG3	1.68	0.74
1:J:35:ARG:HD3	1:J:80:ARG:HG2	1.69	0.74
1:J:261:LEU:HD23	1:J:269:ILE:HD11	1.68	0.74
3:L:1237:ALA:O	3:L:1292:LYS:NZ	2.19	0.74
3:C:3923:ARG:HB2	3:C:4124:TRP:HE1	1.53	0.74
2:B:353:ARG:HA	2:B:356:PHE:HE1	1.52	0.74
1:A:142:SER:HA	1:A:182:LYS:HE3	1.70	0.73
2:B:76:ASN:ND2	2:B:103:GLN:OE1	2.22	0.73
3:C:2810:SER:HA	3:C:2861:ILE:HD11	1.69	0.73
3:C:3121:LEU:HD21	3:C:3895:GLU:HB2	1.69	0.73
1:J:95:ASN:HD21	1:J:99:PHE:H	1.35	0.73
2:K:56:LEU:HD11	2:K:90:LEU:HD21	1.70	0.73
3:L:1985:LYS:HG2	3:L:1987:ARG:HH12	1.51	0.73
3:C:2928:LYS:HD2	3:C:2996:LEU:HD13	1.71	0.73
3:C:2977:ASN:CG	7:F:272:ARG:HH22	1.92	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:176:HIS:CD2	1:J:182:LYS:HD3	2.24	0.73
3:L:1331:ASN:HA	3:L:1334:LYS:HZ3	1.52	0.73
3:L:2928:LYS:HD2	3:L:2996:LEU:HD13	1.71	0.73
3:C:425:ASP:OD1	3:C:426:THR:N	2.21	0.73
3:C:1980:ASN:HD21	3:C:1982:ILE:HG22	1.54	0.73
3:C:3958:LEU:HD11	3:C:4064:LEU:HD11	1.70	0.73
2:K:411:HIS:O	2:K:418:CYS:N	2.18	0.73
3:L:1538:LEU:HD11	3:L:1555:HIS:HD2	1.52	0.73
1:A:95:ASN:HD21	1:A:99:PHE:H	1.35	0.73
3:C:1146:ASN:OD1	3:C:1165:LEU:N	2.17	0.73
3:C:3467:ARG:O	3:C:3467:ARG:NH2	2.22	0.73
3:L:425:ASP:OD1	3:L:426:THR:N	2.21	0.73
3:C:757:LYS:NZ	3:C:795:CYS:SG	2.62	0.73
3:L:1980:ASN:HD21	3:L:1982:ILE:HG22	1.54	0.73
3:L:2127:LYS:HE2	3:L:2164:TRP:CD2	2.24	0.73
3:L:3121:LEU:HD21	3:L:3895:GLU:HB2	1.69	0.73
3:L:3467:ARG:O	3:L:3467:ARG:NH2	2.21	0.73
3:C:2127:LYS:HE2	3:C:2164:TRP:CD2	2.24	0.73
3:L:3958:LEU:HD11	3:L:4064:LEU:HD11	1.70	0.73
1:A:35:ARG:HD3	1:A:80:ARG:HG2	1.69	0.72
3:C:439:VAL:HG13	3:C:461:ILE:HD11	1.70	0.72
2:K:76:ASN:ND2	2:K:103:GLN:OE1	2.21	0.72
3:L:538:ASP:OD1	3:L:561:ASN:ND2	2.22	0.72
3:L:2127:LYS:HE2	3:L:2164:TRP:CE2	2.24	0.72
3:L:3363:SER:O	3:L:3380:ARG:NH1	2.22	0.72
3:C:714:VAL:HG11	3:C:732:PHE:HE2	1.55	0.72
1:J:142:SER:HA	1:J:182:LYS:HE3	1.70	0.72
2:B:56:LEU:HD11	2:B:90:LEU:HD21	1.70	0.72
2:B:262:ALA:N	2:B:365:PHE:O	2.22	0.72
3:L:757:LYS:NZ	3:L:795:CYS:SG	2.62	0.72
3:C:2123:PRO:HB3	3:C:2164:TRP:CZ2	2.24	0.72
3:C:3778:ASP:OD1	3:C:3780:ALA:N	2.22	0.72
3:C:3977:THR:HA	3:C:3981:TYR:HB3	1.72	0.72
3:L:439:VAL:HG13	3:L:461:ILE:HD11	1.70	0.72
3:L:3923:ARG:HB2	3:L:4124:TRP:HE1	1.53	0.72
3:L:3977:THR:HA	3:L:3981:TYR:HB3	1.72	0.72
3:C:1277:GLY:O	3:C:1281:VAL:N	2.21	0.72
3:C:2127:LYS:HE2	3:C:2164:TRP:CE2	2.24	0.72
2:B:61:THR:O	2:B:76:ASN:ND2	2.22	0.72
3:C:3363:SER:O	3:C:3380:ARG:NH1	2.22	0.72
3:L:66:LEU:HD11	3:L:89:LEU:HD11	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1129:ASP:O	3:L:1133:HIS:ND1	2.22	0.72
3:C:538:ASP:OD1	3:C:561:ASN:ND2	2.22	0.72
8:H:296:ARG:HD2	2:K:131:HIS:NE2	2.04	0.72
8:H:299:PHE:CE1	2:K:234:LEU:CD2	2.72	0.72
8:H:299:PHE:HE1	2:K:234:LEU:HD21	1.50	0.72
1:J:330:GLU:OE2	2:K:502:ARG:NH2	2.23	0.72
3:L:1255:CYS:SG	3:L:1256:TRP:N	2.63	0.72
3:L:3778:ASP:OD1	3:L:3780:ALA:N	2.22	0.72
3:C:66:LEU:HD11	3:C:89:LEU:HD11	1.71	0.72
3:C:1255:CYS:SG	3:C:1256:TRP:N	2.63	0.72
7:F:134:ILE:CD1	7:G:130:CYS:HB3	2.19	0.72
3:L:1479:VAL:HG12	3:L:1518:ALA:HA	1.72	0.72
7:O:134:ILE:CG1	7:P:134:ILE:HG12	2.11	0.72
3:C:1082:PHE:CE2	3:C:1134:LEU:HG	2.25	0.72
3:L:714:VAL:HG11	3:L:732:PHE:HE2	1.55	0.72
1:A:330:GLU:OE2	2:B:502:ARG:NH2	2.23	0.71
3:C:947:GLN:HB3	3:L:2578:GLU:OE2	1.90	0.71
3:C:1237:ALA:O	3:C:1292:LYS:NZ	2.19	0.71
9:Y:824:ALA:HB2	9:Y:833:ASN:HD21	1.53	0.71
3:C:2848:PHE:HB2	3:C:3077:ILE:HD11	1.72	0.71
1:A:176:HIS:CD2	1:A:182:LYS:HD3	2.24	0.71
3:C:1174:ALA:O	3:C:1228:GLY:N	2.23	0.71
3:L:1277:GLY:O	3:L:1281:VAL:N	2.21	0.71
3:C:3917:ILE:HG23	3:C:4051:LEU:HD21	1.72	0.71
3:L:2123:PRO:HB3	3:L:2164:TRP:CZ2	2.24	0.71
3:L:3921:GLY:O	3:L:3923:ARG:NE	2.22	0.71
3:C:1935:GLU:OE1	3:C:1935:GLU:N	2.22	0.71
3:C:2508:GLN:HE22	3:C:2549:LYS:HD2	1.56	0.71
3:C:3386:SER:O	3:C:3390:GLN:NE2	2.24	0.71
3:L:2189:ILE:O	3:L:2192:THR:OG1	2.09	0.71
1:A:346:MET:HB2	1:A:399:ARG:HB2	1.73	0.71
3:C:56:SER:HB2	3:C:3097:ASP:HB2	1.72	0.71
3:L:3467:ARG:NH2	3:L:3470:GLN:HB3	2.06	0.71
3:C:1129:ASP:O	3:C:1133:HIS:ND1	2.22	0.71
9:X:824:ALA:HB2	9:X:833:ASN:HD21	1.54	0.71
3:C:3467:ARG:NH2	3:C:3470:GLN:HB3	2.06	0.71
7:F:106:PHE:CE2	8:H:112:LEU:HD21	2.26	0.71
3:L:3917:ILE:HG23	3:L:4051:LEU:HD21	1.72	0.71
3:C:2274:ILE:HD11	3:C:2306:ASN:HD21	1.56	0.70
1:J:106:GLN:HB3	1:J:115:ARG:HE	1.56	0.70
3:L:1075:ARG:HH12	3:L:1114:ALA:HB3	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1935:GLU:OE1	3:L:1935:GLU:N	2.21	0.70
7:O:134:ILE:HG12	7:P:134:ILE:HA	1.73	0.70
3:C:1479:VAL:HG12	3:C:1518:ALA:HA	1.72	0.70
3:C:3439:LEU:O	3:C:3442:TYR:N	2.22	0.70
2:K:61:THR:O	2:K:76:ASN:ND2	2.22	0.70
3:L:3281:CYS:O	3:L:3285:HIS:ND1	2.24	0.70
3:L:3502:MET:HB2	3:L:3514:VAL:HG11	1.73	0.70
3:L:3722:PHE:HB3	3:L:3740:ILE:HA	1.73	0.70
3:C:121:ALA:N	6:E:12:DT:OP1	2.23	0.70
3:L:1082:PHE:CE2	3:L:1134:LEU:HG	2.25	0.70
3:L:56:SER:HB2	3:L:3097:ASP:HB2	1.72	0.70
3:L:3386:SER:O	3:L:3390:GLN:NE2	2.24	0.70
3:C:3502:MET:HB2	3:C:3514:VAL:HG11	1.73	0.70
3:C:3031:TRP:HE1	3:C:3064:PHE:HZ	1.38	0.70
3:L:2848:PHE:HB2	3:L:3077:ILE:HD11	1.72	0.70
3:C:1075:ARG:HH12	3:C:1114:ALA:HB3	1.56	0.70
3:C:2578:GLU:OE2	3:L:947:GLN:HB3	1.92	0.70
3:L:1146:ASN:OD1	3:L:1165:LEU:N	2.16	0.70
3:L:3439:LEU:O	3:L:3442:TYR:N	2.23	0.70
3:L:752:LEU:HD22	3:L:792:ILE:HD11	1.74	0.70
1:A:106:GLN:HB3	1:A:115:ARG:HE	1.57	0.70
1:A:481:PRO:HD3	1:A:507:THR:HG21	1.74	0.70
3:C:305:ASN:OD1	3:C:308:LEU:N	2.25	0.70
3:C:3921:GLY:O	3:C:3923:ARG:NE	2.22	0.70
2:K:266:SER:HB3	2:K:363:LYS:HG3	1.72	0.70
3:L:121:ALA:N	6:N:12:DT:OP1	2.23	0.70
1:A:271:VAL:HG11	1:A:368:VAL:HG13	1.74	0.69
3:C:476:ARG:O	3:C:479:ILE:HG22	1.92	0.69
3:C:3582:GLU:O	3:C:3585:PHE:N	2.20	0.69
1:J:456:PRO:HA	1:J:459:VAL:HG12	1.74	0.69
1:A:452:ILE:HD11	2:B:374:ALA:HB3	1.74	0.69
3:C:1877:LEU:HD13	3:C:1915:LEU:HD21	1.74	0.69
3:L:1174:ALA:O	3:L:1228:GLY:N	2.23	0.69
7:O:130:CYS:HB3	7:P:134:ILE:CD1	2.20	0.69
1:A:253:LYS:HA	2:B:433:TYR:HE1	1.57	0.69
1:A:352:PRO:HD2	1:A:352:PRO:O	1.92	0.69
1:J:271:VAL:HG11	1:J:368:VAL:HG13	1.74	0.69
1:J:346:MET:HB2	1:J:399:ARG:HB2	1.72	0.69
3:C:465:PHE:HD1	3:C:479:ILE:HD11	1.57	0.69
2:B:266:SER:HB3	2:B:363:LYS:HG3	1.72	0.69
3:L:476:ARG:O	3:L:479:ILE:HG22	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3797:THR:HG23	3:L:3799:ARG:H	1.58	0.69
1:J:481:PRO:HD3	1:J:507:THR:HG21	1.74	0.69
3:L:305:ASN:OD1	3:L:308:LEU:N	2.25	0.69
3:C:118:ASP:OD1	3:C:119:ARG:N	2.26	0.69
3:C:3281:CYS:O	3:C:3285:HIS:ND1	2.24	0.69
3:C:3722:PHE:HB3	3:C:3740:ILE:HA	1.73	0.69
3:L:118:ASP:OD1	3:L:119:ARG:N	2.26	0.69
3:L:449:TYR:HB3	3:L:453:MET:HB3	1.75	0.69
9:Y:741:ARG:NH1	9:Y:741:ARG:O	2.26	0.69
3:C:801:LYS:O	3:C:3115:SER:OG	2.11	0.69
3:C:3530:VAL:HG21	3:C:3568:ILE:HD13	1.75	0.69
3:C:3701:ILE:HG13	3:C:3717:VAL:HG13	1.74	0.69
2:K:262:ALA:N	2:K:365:PHE:O	2.22	0.69
3:L:3156:PRO:HD2	3:L:3157:LEU:H	1.57	0.69
3:C:994:TRP:CH2	3:C:2581:LEU:HB3	2.27	0.69
3:C:2773:ARG:HH11	3:C:2775:TYR:HE1	1.39	0.69
3:L:1235:ILE:HG13	3:L:1259:LEU:HG	1.75	0.69
3:L:2274:ILE:HD11	3:L:2306:ASN:HD21	1.56	0.69
3:L:2773:ARG:HH11	3:L:2775:TYR:HE1	1.39	0.69
3:L:3701:ILE:HG13	3:L:3717:VAL:HG13	1.74	0.69
3:C:1271:ILE:HD12	3:C:1348:LEU:HA	1.75	0.68
3:C:1945:TYR:HE2	3:C:2097:LEU:HD21	1.59	0.68
3:C:3797:THR:HG23	3:C:3799:ARG:H	1.58	0.68
3:L:2977:ASN:OD1	7:P:272:ARG:NH2	2.26	0.68
3:C:752:LEU:HD22	3:C:792:ILE:HD11	1.74	0.68
3:L:994:TRP:CH2	3:L:2581:LEU:HB3	2.28	0.68
2:B:358:GLY:HA2	2:B:423:GLN:HB3	1.76	0.68
3:C:2329:TYR:CE2	3:C:2333:ARG:HG3	2.28	0.68
3:L:1237:ALA:O	3:L:1240:THR:OG1	2.11	0.68
3:L:2508:GLN:HE22	3:L:2549:LYS:HD2	1.56	0.68
3:C:1235:ILE:HG13	3:C:1259:LEU:HG	1.75	0.68
1:J:452:ILE:HD11	2:K:374:ALA:HB3	1.74	0.68
3:L:2405:VAL:HA	3:L:2408:MET:HE1	1.75	0.68
3:L:135:LEU:HD12	3:L:184:VAL:HG21	1.76	0.68
3:L:465:PHE:HD1	3:L:479:ILE:HD11	1.57	0.68
3:L:3031:TRP:HE1	3:L:3064:PHE:HZ	1.38	0.68
3:C:3465:PHE:HB3	3:C:3498:TRP:HZ2	1.58	0.68
2:K:358:GLY:HA2	2:K:423:GLN:HB3	1.76	0.68
3:L:2203:THR:HG21	3:L:2247:ASP:HB2	1.75	0.68
3:L:3465:PHE:HB3	3:L:3498:TRP:HZ2	1.58	0.68
3:C:2198:GLY:HA3	3:C:2722:ARG:HB3	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:2891:ARG:HH21	3:L:2891:ARG:HG3	1.59	0.68
3:L:3148:GLN:HA	3:L:3151:LEU:HB2	1.76	0.68
1:A:71:TYR:CD2	1:A:116:ILE:HD11	2.29	0.68
1:A:456:PRO:HA	1:A:459:VAL:HG12	1.74	0.68
3:C:135:LEU:HD12	3:C:184:VAL:HG21	1.76	0.68
3:C:1237:ALA:O	3:C:1240:THR:OG1	2.11	0.68
3:C:3156:PRO:HD2	3:C:3157:LEU:H	1.57	0.68
1:J:253:LYS:HA	2:K:433:TYR:HE1	1.57	0.68
9:X:741:ARG:NH1	9:X:741:ARG:O	2.26	0.68
1:A:253:LYS:HA	2:B:433:TYR:CE1	2.29	0.68
3:C:449:TYR:HB3	3:C:453:MET:HB3	1.75	0.68
1:J:71:TYR:CD2	1:J:116:ILE:HD11	2.29	0.68
3:L:2329:TYR:CE2	3:L:2333:ARG:HG3	2.28	0.68
3:L:3530:VAL:HG21	3:L:3568:ILE:HD13	1.75	0.68
3:C:1098:GLN:HB2	3:C:1152:ARG:HE	1.59	0.68
3:L:3227:ILE:O	3:L:3230:LEU:N	2.27	0.68
3:C:1455:CYS:SG	3:C:1517:LEU:HD13	2.34	0.67
3:C:3227:ILE:O	3:C:3230:LEU:N	2.27	0.67
1:J:352:PRO:O	1:J:352:PRO:HD2	1.92	0.67
3:L:938:VAL:HG21	3:L:969:LEU:HD11	1.76	0.67
3:L:1751:GLU:OE1	3:L:1788:ARG:NH2	2.27	0.67
3:L:1820:VAL:HG12	3:L:1824:LEU:HD13	1.75	0.67
2:B:116:ASP:O	2:B:120:HIS:ND1	2.27	0.67
3:C:1820:VAL:HG12	3:C:1824:LEU:HD13	1.74	0.67
3:C:2977:ASN:OD1	7:F:272:ARG:NH2	2.27	0.67
3:L:1696:LEU:HB3	3:L:1758:LEU:HD21	1.76	0.67
3:L:1909:ASN:ND2	3:L:1912:THR:OG1	2.26	0.67
3:C:2189:ILE:O	3:C:2192:THR:OG1	2.09	0.67
3:L:1877:LEU:HD13	3:L:1915:LEU:HD21	1.75	0.67
3:L:1945:TYR:HE2	3:L:2097:LEU:HD21	1.59	0.67
3:L:2981:TRP:CD1	3:L:2986:PRO:HD3	2.29	0.67
2:B:61:THR:OG1	2:B:63:GLY:O	2.12	0.67
2:B:234:LEU:HD21	8:I:299:PHE:HE1	1.60	0.67
2:B:411:HIS:N	2:B:418:CYS:O	2.23	0.67
3:C:2203:THR:HG21	3:C:2247:ASP:HB2	1.75	0.67
3:C:3006:ALA:HA	3:C:3008:TRP:HE1	1.60	0.67
3:C:3148:GLN:HA	3:C:3151:LEU:HB2	1.76	0.67
3:C:3263:HIS:O	3:C:3266:SER:N	2.23	0.67
7:F:134:ILE:HA	7:G:134:ILE:HG12	1.74	0.67
1:J:253:LYS:HA	2:K:433:TYR:CE1	2.29	0.67
3:L:1098:GLN:HB2	3:L:1152:ARG:HE	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:243:GLN:O	3:C:247:GLU:HG3	1.95	0.67
3:C:2753:ARG:NH2	3:C:2756:GLU:OE2	2.28	0.67
3:C:2981:TRP:CD1	3:C:2986:PRO:HD3	2.29	0.67
8:H:299:PHE:HE1	2:K:234:LEU:CD2	2.06	0.67
2:K:116:ASP:O	2:K:120:HIS:ND1	2.27	0.67
3:L:1271:ILE:HD12	3:L:1348:LEU:HA	1.76	0.67
3:C:1958:GLU:HB2	3:C:1961:PHE:HD1	1.60	0.67
1:J:370:PRO:HG3	1:J:382:PHE:CG	2.30	0.67
3:L:1455:CYS:SG	3:L:1517:LEU:HD13	2.34	0.67
3:L:2241:LEU:HD12	3:L:2245:TRP:HE1	1.60	0.67
3:L:2198:GLY:HA3	3:L:2722:ARG:HB3	1.76	0.67
1:A:59:PRO:HB3	1:A:205:LEU:HD13	1.77	0.67
3:C:970:LEU:HD11	3:C:1013:ILE:HD13	1.77	0.67
1:J:363:ARG:HD2	1:J:436:PHE:CE1	2.30	0.67
1:A:370:PRO:HG3	1:A:382:PHE:CG	2.30	0.66
3:C:51:LEU:HD21	3:C:96:MET:HG2	1.77	0.66
3:C:3328:ILE:HD11	3:C:3415:THR:HG21	1.77	0.66
2:K:61:THR:OG1	2:K:63:GLY:O	2.12	0.66
3:L:243:GLN:O	3:L:247:GLU:HG3	1.95	0.66
3:L:1449:ALA:HA	3:L:1452:VAL:HG22	1.77	0.66
1:A:363:ARG:HD2	1:A:436:PHE:CE1	2.30	0.66
3:L:3328:ILE:HD11	3:L:3415:THR:HG21	1.77	0.66
3:L:3360:LEU:O	3:L:3363:SER:OG	2.11	0.66
1:A:317:LYS:HA	1:A:317:LYS:HE3	1.77	0.66
2:B:265:LYS:HZ2	5:D:8:DA:H5"	1.59	0.66
3:L:51:LEU:HD21	3:L:96:MET:HG2	1.77	0.66
3:L:3425:ARG:CZ	3:L:3467:ARG:HH11	2.08	0.66
3:C:938:VAL:HG21	3:C:969:LEU:HD11	1.76	0.66
3:C:1751:GLU:OE1	3:C:1788:ARG:NH2	2.27	0.66
3:C:1696:LEU:HB3	3:C:1758:LEU:HD21	1.76	0.66
1:J:78:SER:O	1:J:80:ARG:N	2.29	0.66
3:L:1897:ASN:N	3:L:1898:GLN:OE1	2.28	0.66
3:L:3006:ALA:HA	3:L:3008:TRP:HE1	1.60	0.66
1:A:78:SER:O	1:A:80:ARG:N	2.29	0.66
3:C:58:VAL:HG13	3:C:65:LEU:HD13	1.76	0.66
3:C:1449:ALA:HA	3:C:1452:VAL:HG22	1.77	0.66
3:C:1799:GLU:O	3:C:1803:GLU:HG2	1.95	0.66
3:C:1897:ASN:N	3:C:1898:GLN:OE1	2.28	0.66
3:C:1909:ASN:ND2	3:C:1912:THR:OG1	2.27	0.66
3:C:3425:ARG:CZ	3:C:3467:ARG:HH11	2.08	0.66
3:L:946:THR:HG21	3:L:2581:LEU:HD21	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:58:VAL:HG13	3:L:65:LEU:HD13	1.77	0.66
1:A:58:THR:HB	1:A:61:ASP:HB2	1.77	0.66
3:C:2603:THR:HB	3:C:2604:PRO:HD3	1.78	0.66
7:O:134:ILE:CD1	7:P:134:ILE:HG13	2.25	0.66
3:C:2891:ARG:HH21	3:C:2891:ARG:HG3	1.59	0.66
3:L:935:HIS:HB2	3:L:984:TYR:HE1	1.60	0.66
3:L:970:LEU:HD11	3:L:1013:ILE:HD13	1.77	0.66
3:L:1799:GLU:O	3:L:1803:GLU:HG2	1.95	0.66
2:K:265:LYS:HZ2	5:M:8:DA:H5"	1.61	0.66
3:L:1958:GLU:HB2	3:L:1961:PHE:HD1	1.60	0.66
3:L:3448:GLU:HG3	3:L:3485:LYS:HG2	1.78	0.66
3:C:724:GLU:HG2	3:C:2602:LEU:HA	1.79	0.65
3:C:2405:VAL:HA	3:C:2408:MET:HE1	1.78	0.65
3:L:724:GLU:HG2	3:L:2602:LEU:HA	1.78	0.65
3:L:801:LYS:O	3:L:3115:SER:OG	2.11	0.65
9:Y:724:ALA:HA	9:Y:727:LEU:HD12	1.78	0.65
2:B:265:LYS:NZ	5:D:8:DA:H5"	2.12	0.65
3:L:3881:ASP:H	3:L:3969:ASN:ND2	1.94	0.65
1:A:368:VAL:HG12	1:A:382:PHE:HE2	1.62	0.65
3:C:2241:LEU:HD12	3:C:2245:TRP:HE1	1.60	0.65
1:J:58:THR:HB	1:J:61:ASP:HB2	1.77	0.65
1:J:204:HIS:O	1:J:236:SER:OG	2.10	0.65
3:L:2753:ARG:NH2	3:L:2756:GLU:OE2	2.28	0.65
1:J:317:LYS:HA	1:J:317:LYS:HE3	1.77	0.65
3:L:2587:GLN:O	3:L:2777:HIS:N	2.29	0.65
7:F:134:ILE:HG13	7:G:134:ILE:CD1	2.26	0.65
1:J:115:ARG:HB2	1:J:115:ARG:NH2	2.12	0.65
2:K:246:HIS:HA	2:K:264:TYR:CE1	2.32	0.65
3:L:713:GLU:O	3:L:717:LYS:HG3	1.96	0.65
1:A:40:PHE:N	1:A:84:ALA:O	2.29	0.65
2:B:242:ARG:NH1	2:B:243:HIS:O	2.29	0.65
3:C:3360:LEU:O	3:C:3363:SER:OG	2.11	0.65
3:L:3239:LYS:O	3:L:3243:ILE:HD12	1.96	0.65
9:Y:722:LYS:HZ3	9:Y:742:PHE:HD1	1.45	0.65
3:C:935:HIS:HB2	3:C:984:TYR:HE1	1.60	0.65
3:C:3151:LEU:HG	3:C:3196:LYS:HE2	1.79	0.65
1:A:108:LEU:HD11	1:A:154:PHE:HD1	1.62	0.65
1:A:207:LYS:HD3	1:A:210:GLY:HA3	1.79	0.65
3:C:16:GLN:NE2	3:C:64:GLY:H	1.95	0.65
3:C:713:GLU:O	3:C:717:LYS:HG3	1.96	0.65
2:K:242:ARG:NH1	2:K:243:HIS:O	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:919:LEU:HD11	3:C:968:VAL:HG13	1.77	0.65
3:C:946:THR:HG21	3:C:2581:LEU:HD21	1.78	0.65
2:K:245:ILE:HD13	5:M:8:DA:H5'	1.79	0.65
3:L:2603:THR:HB	3:L:2604:PRO:HD3	1.78	0.65
3:C:853:ILE:HG13	3:C:3107:ILE:HG21	1.79	0.64
3:C:3060:SER:O	3:C:3063:THR:OG1	2.15	0.64
1:J:59:PRO:HB3	1:J:205:LEU:HD13	1.77	0.64
3:C:3448:GLU:HG3	3:C:3485:LYS:HG2	1.78	0.64
3:C:3881:ASP:H	3:C:3969:ASN:ND2	1.94	0.64
1:J:41:LEU:HD13	1:J:86:VAL:HG13	1.79	0.64
3:L:932:GLU:OE1	3:L:2793:PRO:HB3	1.97	0.64
3:C:204:LEU:O	3:C:208:MET:HG2	1.97	0.64
3:C:1711:ARG:NH1	3:C:1760:GLU:OE2	2.22	0.64
3:C:1860:GLU:N	3:C:1860:GLU:OE1	2.31	0.64
2:K:409:PHE:N	2:K:420:VAL:O	2.31	0.64
3:L:853:ILE:HG13	3:L:3107:ILE:HG21	1.79	0.64
3:L:910:PHE:HE1	3:L:2794:LEU:HD21	1.63	0.64
9:X:724:ALA:HA	9:X:727:LEU:HD12	1.78	0.64
3:C:32:HIS:CD2	3:C:84:GLU:HG3	2.32	0.64
3:C:1018:VAL:HG23	3:C:1074:LYS:HA	1.79	0.64
3:C:1619:ALA:HA	3:C:1652:ILE:HD11	1.79	0.64
3:C:2587:GLN:O	3:C:2777:HIS:N	2.29	0.64
3:C:3579:SER:HA	3:C:3736:LYS:HZ1	1.63	0.64
3:L:631:ARG:HH11	3:L:668:LYS:HD3	1.62	0.64
3:L:1035:GLU:OE2	3:L:1039:TRP:NE1	2.31	0.64
3:L:3330:LEU:HB3	3:L:3384:HIS:NE2	2.11	0.64
3:C:493:LYS:HG2	3:C:494:PRO:HD2	1.80	0.64
1:J:207:LYS:HD3	1:J:210:GLY:HA3	1.79	0.64
2:K:265:LYS:NZ	5:M:8:DA:H5"	2.12	0.64
3:L:1069:HIS:CE1	3:L:1074:LYS:HD2	2.33	0.64
3:L:1860:GLU:OE1	3:L:1860:GLU:N	2.31	0.64
3:L:2159:PRO:O	3:L:2161:ALA:N	2.31	0.64
1:A:490:LEU:HD11	2:B:316:TYR:HB2	1.79	0.64
2:B:242:ARG:HD3	2:B:273:LYS:HZ2	1.62	0.64
2:B:245:ILE:HD13	5:D:8:DA:H5'	1.79	0.64
3:C:3006:ALA:HB3	3:C:3257:LYS:HD2	1.80	0.64
1:J:368:VAL:HG12	1:J:382:PHE:HE2	1.62	0.64
3:L:919:LEU:HD11	3:L:968:VAL:HG13	1.78	0.64
3:L:1018:VAL:HG23	3:L:1074:LYS:HA	1.79	0.64
3:L:2148:LYS:HA	3:L:2151:ILE:HD12	1.80	0.64
3:L:3060:SER:O	3:L:3063:THR:OG1	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:134:ILE:CG2	7:O:138:GLN:NE2	2.55	0.64
9:X:663:GLU:HA	9:X:688:TYR:HB3	1.80	0.64
1:A:115:ARG:HB2	1:A:115:ARG:NH2	2.12	0.64
2:B:549:THR:HA	2:B:552:GLU:HB3	1.80	0.64
3:C:1069:HIS:CE1	3:C:1074:LYS:HD2	2.33	0.64
3:C:1990:PHE:HA	3:C:2734:ARG:HD3	1.78	0.64
1:J:108:LEU:HD11	1:J:154:PHE:HD1	1.62	0.64
3:L:16:GLN:NE2	3:L:64:GLY:H	1.95	0.64
2:B:246:HIS:HA	2:B:264:TYR:CE1	2.32	0.64
3:C:910:PHE:HE1	3:C:2794:LEU:HD21	1.63	0.64
3:C:2159:PRO:O	3:C:2161:ALA:N	2.31	0.64
3:C:3330:LEU:HB3	3:C:3384:HIS:NE2	2.12	0.64
1:J:360:HIS:HB2	1:J:438:PRO:HG3	1.80	0.64
2:K:406:GLY:HA2	2:K:424:LEU:HB2	1.80	0.64
3:L:1967:PHE:HD2	3:L:2122:LEU:HG	1.63	0.64
3:L:1990:PHE:HA	3:L:2734:ARG:HD3	1.78	0.64
3:L:2773:ARG:NE	3:L:2789:SER:OG	2.30	0.64
3:L:3582:GLU:O	3:L:3585:PHE:N	2.20	0.64
2:B:406:GLY:HA2	2:B:424:LEU:HB2	1.80	0.64
2:B:409:PHE:N	2:B:420:VAL:O	2.31	0.64
3:C:2446:LEU:HB2	3:C:2450:GLU:OE2	1.98	0.64
3:C:3239:LYS:O	3:C:3243:ILE:HD12	1.97	0.64
2:K:465:LYS:H	2:K:474:GLU:H	1.46	0.64
3:L:2329:TYR:HE2	3:L:2333:ARG:HG3	1.61	0.64
2:B:465:LYS:H	2:B:474:GLU:H	1.46	0.64
3:C:2329:TYR:HE2	3:C:2333:ARG:HG3	1.61	0.64
3:C:3483:MET:O	3:C:3488:SER:OG	2.14	0.64
3:C:1035:GLU:OE2	3:C:1039:TRP:NE1	2.31	0.63
3:L:392:CYS:HA	3:L:395:MET:HG3	1.79	0.63
1:A:75:ILE:HD13	1:A:111:PRO:HB2	1.80	0.63
3:C:169:THR:O	3:C:172:GLU:HG2	1.98	0.63
1:J:415:PRO:O	1:J:416:GLN:NE2	2.31	0.63
3:L:1046:PRO:HA	3:L:1049:GLN:HB3	1.80	0.63
3:L:1181:THR:O	3:L:1184:ARG:HG2	1.99	0.63
3:L:2358:ASP:OD1	3:L:2359:LYS:N	2.31	0.63
3:L:2446:LEU:HB2	3:L:2450:GLU:OE2	1.98	0.63
3:L:3856:MET:HE2	3:L:4072:PRO:HD2	1.81	0.63
2:B:56:LEU:HB2	2:B:80:HIS:HB3	1.80	0.63
3:C:1443:VAL:O	3:C:1447:ARG:NH1	2.31	0.63
1:J:483:LEU:HD13	2:K:428:GLU:HG3	1.81	0.63
2:K:264:TYR:O	2:K:363:LYS:N	2.20	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:32:HIS:CD2	3:L:84:GLU:HG3	2.33	0.63
3:L:3443:PRO:HA	3:L:3446:VAL:HG12	1.80	0.63
7:O:134:ILE:HG22	7:O:138:GLN:HE22	1.63	0.63
2:B:151:ILE:HA	2:B:154:LEU:HD12	1.80	0.63
3:C:4047:ALA:O	3:C:4050:LYS:HG2	1.99	0.63
3:L:204:LEU:O	3:L:208:MET:HG2	1.97	0.63
3:L:3467:ARG:HH22	3:L:3471:ILE:N	1.97	0.63
1:A:455:THR:H	1:A:458:GLN:NE2	1.96	0.63
3:C:275:PHE:HZ	3:C:286:LEU:HD11	1.64	0.63
3:C:932:GLU:OE1	3:C:2793:PRO:HB3	1.98	0.63
3:C:1281:VAL:HG12	3:C:1282:LEU:HD12	1.80	0.63
3:C:1935:GLU:HG2	3:C:1936:ARG:HD2	1.80	0.63
3:C:1967:PHE:HD2	3:C:2122:LEU:HG	1.63	0.63
5:D:23:DG:H2'	5:D:24:DA:C8	2.34	0.63
3:L:1443:VAL:O	3:L:1447:ARG:NH1	2.31	0.63
1:A:41:LEU:HD13	1:A:86:VAL:HG13	1.79	0.63
3:L:477:ASN:O	3:L:480:SER:OG	2.16	0.63
3:L:493:LYS:HG2	3:L:494:PRO:HD2	1.80	0.63
3:L:1619:ALA:HA	3:L:1652:ILE:HD11	1.79	0.63
3:L:3151:LEU:HG	3:L:3196:LYS:HE2	1.79	0.63
1:A:415:PRO:O	1:A:416:GLN:NE2	2.31	0.63
3:C:392:CYS:HA	3:C:395:MET:HG3	1.79	0.63
3:C:892:LEU:HD11	3:C:961:LEU:HD21	1.80	0.63
3:C:1878:ASP:OD1	3:C:1879:VAL:N	2.31	0.63
2:K:56:LEU:HB2	2:K:80:HIS:HB3	1.80	0.63
3:L:892:LEU:HD11	3:L:961:LEU:HD21	1.80	0.63
3:L:1169:VAL:HG21	3:L:1198:LEU:HD21	1.81	0.63
3:L:1878:ASP:OD1	3:L:1879:VAL:N	2.31	0.63
3:L:3183:ILE:HD11	3:L:3239:LYS:HG2	1.81	0.63
1:A:360:HIS:HB2	1:A:438:PRO:HG3	1.80	0.63
1:A:483:LEU:HD13	2:B:428:GLU:HG3	1.81	0.63
3:C:3179:TRP:HD1	3:C:3242:MET:HG3	1.62	0.63
3:C:3183:ILE:HD11	3:C:3239:LYS:HG2	1.81	0.63
3:C:3977:THR:HA	3:C:3981:TYR:CB	2.29	0.63
2:K:242:ARG:HD3	2:K:273:LYS:HZ2	1.64	0.63
3:L:493:LYS:HE3	3:L:522:PRO:C	2.19	0.63
3:L:1479:VAL:O	3:L:1482:GLU:HG3	1.99	0.63
3:L:3179:TRP:HD1	3:L:3242:MET:HG3	1.61	0.63
2:B:300:ASP:H	3:C:117:LYS:NZ	1.97	0.63
3:C:631:ARG:HH11	3:C:668:LYS:HD3	1.62	0.63
3:C:2582:SER:OG	3:C:2583:GLU:N	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3467:ARG:HH22	3:C:3471:ILE:N	1.97	0.63
1:J:43:ASP:HA	1:J:88:TYR:CE1	2.34	0.63
3:L:275:PHE:HZ	3:L:286:LEU:HD11	1.64	0.63
3:L:1981:LEU:HD13	3:L:2139:PRO:HG2	1.81	0.63
5:M:2:DC:N3	6:N:29:DG:N2	2.47	0.63
3:C:1046:PRO:HA	3:C:1049:GLN:HB3	1.80	0.62
2:K:549:THR:HA	2:K:552:GLU:HB3	1.80	0.62
3:L:446:PHE:CD2	3:L:530:LEU:HD13	2.34	0.62
3:L:1323:SER:OG	3:L:1326:GLU:OE1	2.17	0.62
3:L:3006:ALA:HB3	3:L:3257:LYS:HD2	1.80	0.62
3:C:1287:GLN:OE1	3:C:1289:SER:OG	2.13	0.62
3:C:1444:ASP:OD1	3:C:1445:ARG:N	2.32	0.62
3:C:1479:VAL:O	3:C:1482:GLU:HG3	1.99	0.62
3:C:3443:PRO:HA	3:C:3446:VAL:HG12	1.80	0.62
2:K:300:ASP:H	3:L:117:LYS:NZ	1.97	0.62
3:L:3493:TRP:O	3:L:3496:ILE:N	2.30	0.62
3:L:3786:LEU:HB3	3:L:3910:LEU:HD22	1.81	0.62
1:A:124:GLY:O	1:A:128:GLN:N	2.30	0.62
3:C:1181:THR:O	3:C:1184:ARG:HG2	1.99	0.62
3:C:1938:ARG:NH1	3:C:1978:PHE:O	2.32	0.62
3:C:2148:LYS:HA	3:C:2151:ILE:HD12	1.80	0.62
3:C:2358:ASP:OD1	3:C:2359:LYS:N	2.31	0.62
1:J:455:THR:H	1:J:458:GLN:NE2	1.96	0.62
2:K:151:ILE:HA	2:K:154:LEU:HD12	1.80	0.62
2:K:353:ARG:HA	2:K:356:PHE:CE1	2.34	0.62
3:L:1287:GLN:OE1	3:L:1289:SER:OG	2.13	0.62
5:M:23:DG:H2'	5:M:24:DA:C8	2.34	0.62
3:C:348:ILE:O	3:C:352:VAL:HG12	1.99	0.62
3:C:446:PHE:CD2	3:C:530:LEU:HD13	2.35	0.62
3:C:3486:GLU:O	3:C:3489:SER:N	2.24	0.62
3:C:3786:LEU:HB3	3:C:3910:LEU:HD22	1.81	0.62
1:J:490:LEU:HD11	2:K:316:TYR:HB2	1.79	0.62
3:L:1281:VAL:HG12	3:L:1282:LEU:HD12	1.80	0.62
3:L:1938:ARG:NH1	3:L:1978:PHE:O	2.32	0.62
3:L:3813:LYS:HB3	3:L:3925:LEU:HB3	1.82	0.62
3:C:153:PHE:HE1	3:C:196:LEU:HD12	1.65	0.62
3:C:1046:PRO:HD2	3:C:1047:GLN:H	1.64	0.62
3:C:3151:LEU:O	3:C:3196:LYS:NZ	2.33	0.62
3:C:3327:ASN:HD22	3:C:3384:HIS:CE1	2.17	0.62
1:J:124:GLY:O	1:J:128:GLN:N	2.30	0.62
3:L:169:THR:O	3:L:172:GLU:HG2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:416:SER:O	3:L:419:SER:OG	2.14	0.62
3:L:3327:ASN:HD22	3:L:3384:HIS:CE1	2.17	0.62
3:L:3731:SER:H	3:L:3734:ARG:NE	1.97	0.62
3:L:4047:ALA:O	3:L:4050:LYS:HG2	1.99	0.62
3:C:493:LYS:HE3	3:C:522:PRO:C	2.19	0.62
1:A:204:HIS:O	1:A:236:SER:OG	2.10	0.62
3:C:416:SER:O	3:C:419:SER:OG	2.14	0.62
3:C:1981:LEU:HD13	3:C:2139:PRO:HG2	1.81	0.62
5:D:24:DA:C2	5:D:25:DT:C2	2.88	0.62
3:L:348:ILE:O	3:L:352:VAL:HG12	1.99	0.62
3:L:3792:SER:N	3:L:3804:GLU:OE2	2.25	0.62
1:A:109:ASP:OD2	1:A:115:ARG:NH1	2.33	0.62
3:C:409:GLN:O	3:C:412:SER:N	2.32	0.62
3:C:4073:ALA:O	3:C:4076:ASP:N	2.33	0.62
3:L:1087:ARG:HE	3:L:1090:ARG:HE	1.47	0.62
3:L:1684:LEU:HD12	3:L:1688:LEU:HB3	1.82	0.62
3:L:2582:SER:OG	3:L:2583:GLU:N	2.32	0.62
1:A:372:GLU:OE2	1:A:377:GLY:N	2.22	0.62
3:C:769:GLY:O	3:C:772:ALA:N	2.33	0.62
3:C:3731:SER:H	3:C:3734:ARG:NE	1.97	0.62
3:L:1294:VAL:HA	3:L:1298:LEU:HD12	1.82	0.62
3:L:3465:PHE:HB3	3:L:3498:TRP:CZ2	2.35	0.62
1:A:43:ASP:HA	1:A:88:TYR:CE1	2.34	0.62
2:B:35:LYS:HE3	2:B:98:ILE:HG21	1.82	0.62
3:C:2773:ARG:NE	3:C:2789:SER:OG	2.30	0.62
3:C:737:PRO:O	3:C:740:ILE:HG22	2.00	0.61
3:C:1169:VAL:HG21	3:C:1198:LEU:HD21	1.80	0.61
3:C:1493:PRO:HG3	3:C:1500:LEU:HA	1.81	0.61
5:D:2:DC:N3	6:E:29:DG:N2	2.47	0.61
3:L:769:GLY:O	3:L:772:ALA:N	2.33	0.61
3:L:3263:HIS:O	3:L:3266:SER:N	2.23	0.61
5:M:24:DA:C2	5:M:25:DT:C2	2.88	0.61
3:C:85:ILE:HG23	3:C:86:LEU:HD12	1.80	0.61
3:C:330:ASN:OD1	3:C:331:ALA:N	2.32	0.61
3:C:3058:ASP:OD1	3:C:3060:SER:N	2.33	0.61
3:C:3493:TRP:O	3:C:3496:ILE:N	2.30	0.61
3:L:85:ILE:HG23	3:L:86:LEU:HD12	1.80	0.61
3:L:670:LEU:HD11	3:L:707:PHE:HE2	1.65	0.61
3:L:2239:LYS:HD3	3:L:2279:ILE:HG23	1.81	0.61
3:C:3465:PHE:HB3	3:C:3498:TRP:CZ2	2.35	0.61
3:C:3792:SER:N	3:C:3804:GLU:OE2	2.25	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:109:ASP:OD2	1:J:115:ARG:NH1	2.33	0.61
3:L:474:VAL:HG13	3:L:475:LEU:HG	1.81	0.61
3:L:2773:ARG:HE	3:L:2789:SER:HG	1.48	0.61
2:B:353:ARG:HA	2:B:356:PHE:CE1	2.34	0.61
3:C:2595:TRP:CD2	3:C:2764:LYS:HE2	2.35	0.61
6:E:25:DC:O2	6:E:26:DT:N3	2.33	0.61
1:J:75:ILE:HG21	2:K:316:TYR:CZ	2.36	0.61
3:L:237:SER:HB2	3:L:281:GLN:HA	1.82	0.61
3:L:2595:TRP:CD2	3:L:2764:LYS:HE2	2.36	0.61
1:A:467:GLU:O	1:A:470:ARG:HG3	2.01	0.61
3:C:463:LYS:HA	3:C:466:LEU:HD23	1.81	0.61
3:C:1897:ASN:OD1	3:C:1898:GLN:NE2	2.33	0.61
3:C:3856:MET:HE2	3:C:4072:PRO:HD2	1.82	0.61
1:J:75:ILE:HD13	1:J:111:PRO:HB2	1.81	0.61
2:K:35:LYS:HE3	2:K:98:ILE:HG21	1.82	0.61
3:L:3151:LEU:O	3:L:3196:LYS:NZ	2.33	0.61
3:L:3723:ASP:HB2	3:L:3741:ARG:HH11	1.66	0.61
3:C:670:LEU:HD11	3:C:707:PHE:HE2	1.65	0.61
3:C:928:VAL:HG11	3:C:2769:VAL:HB	1.82	0.61
3:C:1834:ASP:OD1	3:C:1837:ARG:NH2	2.27	0.61
3:C:3031:TRP:HH2	3:C:3078:LEU:HG	1.66	0.61
7:G:134:ILE:HG22	7:G:138:GLN:HE22	1.64	0.61
8:H:299:PHE:CE1	2:K:233:LYS:HD2	2.36	0.61
1:J:40:PHE:N	1:J:84:ALA:O	2.29	0.61
2:K:227:PHE:O	2:K:230:SER:OG	2.16	0.61
2:K:465:LYS:O	2:K:474:GLU:N	2.34	0.61
3:L:345:PHE:CE2	3:L:366:TYR:HA	2.36	0.61
3:L:3977:THR:HA	3:L:3981:TYR:CB	2.29	0.61
3:L:4073:ALA:O	3:L:4076:ASP:N	2.33	0.61
3:C:524:TYR:OH	3:C:628:GLU:HG2	2.01	0.61
3:C:2239:LYS:HD3	3:C:2279:ILE:HG23	1.81	0.61
3:L:868:LYS:HD3	3:L:3126:LEU:HD11	1.82	0.61
3:L:1444:ASP:OD1	3:L:1445:ARG:N	2.32	0.61
3:L:1935:GLU:HG2	3:L:1936:ARG:HD2	1.80	0.61
1:A:75:ILE:HG21	2:B:316:TYR:CZ	2.36	0.61
2:B:465:LYS:O	2:B:474:GLU:N	2.34	0.61
3:C:367:GLY:O	3:C:369:PHE:N	2.34	0.61
3:C:474:VAL:HG13	3:C:475:LEU:HG	1.81	0.61
3:C:1087:ARG:HE	3:C:1090:ARG:HE	1.47	0.61
3:C:3763:ARG:O	3:C:3767:LEU:HD12	2.01	0.61
1:J:233:PHE:CG	1:J:234:GLU:N	2.68	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:368:VAL:HB	1:J:432:PHE:HB2	1.83	0.61
2:K:411:HIS:N	2:K:418:CYS:O	2.23	0.61
3:L:1493:PRO:HG3	3:L:1500:LEU:HA	1.81	0.61
3:L:3032:SER:OG	3:L:3033:GLU:OE1	2.16	0.61
3:C:1373:VAL:HG22	3:C:1423:ILE:HG21	1.83	0.61
3:C:3228:SER:HB2	3:C:3232:ARG:HH12	1.66	0.61
1:J:134:MET:HG3	1:J:135:MET:HG2	1.81	0.61
3:L:153:PHE:HE1	3:L:196:LEU:HD12	1.65	0.61
3:L:3141:PHE:CD1	3:L:3189:PHE:HB3	2.36	0.61
1:A:368:VAL:HB	1:A:432:PHE:HB2	1.83	0.61
2:B:9:ALA:HB3	2:B:130:ARG:HG3	1.83	0.61
1:J:168:LEU:HB2	1:J:202:LEU:HB2	1.82	0.61
2:K:509:GLN:OE1	2:K:511:HIS:NE2	2.28	0.61
3:L:1009:LEU:O	3:L:1013:ILE:HG12	2.01	0.61
3:L:1338:VAL:HA	3:L:1341:ILE:HG12	1.83	0.61
3:L:1373:VAL:HG22	3:L:1423:ILE:HG21	1.83	0.61
3:L:3031:TRP:HH2	3:L:3078:LEU:HG	1.65	0.61
3:L:3058:ASP:OD1	3:L:3060:SER:N	2.33	0.61
3:L:3681:LYS:HG2	3:L:3724:GLU:HA	1.83	0.61
3:L:4049:ARG:NH1	3:L:4062:ASP:OD2	2.34	0.61
9:X:674:PRO:HB2	9:X:677:ASP:HB3	1.83	0.61
9:Y:663:GLU:HA	9:Y:688:TYR:HB3	1.81	0.61
3:C:1268:ASN:HD21	3:C:1344:PHE:HA	1.66	0.60
2:K:9:ALA:HB3	2:K:130:ARG:HG3	1.83	0.60
3:L:367:GLY:O	3:L:369:PHE:N	2.34	0.60
3:L:409:GLN:O	3:L:412:SER:N	2.32	0.60
3:L:524:TYR:OH	3:L:628:GLU:HG2	2.01	0.60
3:L:737:PRO:O	3:L:740:ILE:HG22	2.00	0.60
3:L:928:VAL:HG11	3:L:2769:VAL:HB	1.82	0.60
3:L:1711:ARG:NH1	3:L:1760:GLU:OE2	2.22	0.60
3:C:409:GLN:O	3:C:412:SER:OG	2.16	0.60
3:C:1367:HIS:HA	3:C:1370:ARG:HE	1.66	0.60
3:C:1601:LEU:O	3:C:1604:SER:OG	2.18	0.60
3:C:1946:ASN:ND2	3:C:2096:PRO:HG2	2.16	0.60
3:C:2891:ARG:HD3	3:C:3894:PRO:HB3	1.83	0.60
3:C:3141:PHE:CD1	3:C:3189:PHE:HB3	2.36	0.60
3:C:3771:MET:O	3:C:3774:ILE:HG22	2.01	0.60
3:C:3813:LYS:HB3	3:C:3925:LEU:HB3	1.82	0.60
3:C:4049:ARG:NH1	3:C:4062:ASP:OD2	2.34	0.60
3:L:1346:THR:HB	3:L:1402:LEU:HD13	1.82	0.60
3:L:2251:ILE:HG21	3:L:2280:VAL:HG21	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:441:SER:OG	2:B:445:ALA:N	2.28	0.60
3:C:1294:VAL:HA	3:C:1298:LEU:HD12	1.82	0.60
3:C:2147:ALA:O	3:C:2150:VAL:N	2.35	0.60
1:J:304:ASN:OD1	1:J:305:THR:N	2.34	0.60
3:L:463:LYS:HA	3:L:466:LEU:HD23	1.82	0.60
3:L:2182:ILE:H	3:L:2182:ILE:HD12	1.67	0.60
3:L:2581:LEU:HD12	3:L:2783:ILE:HG13	1.83	0.60
3:L:3533:PHE:CD2	3:L:3562:LEU:HD21	2.36	0.60
1:A:134:MET:HG3	1:A:135:MET:HG2	1.81	0.60
3:C:2361:ILE:HG13	3:C:2389:PHE:CE2	2.37	0.60
3:L:2165:LEU:HD11	3:L:2193:ILE:HG23	1.84	0.60
1:A:233:PHE:CG	1:A:234:GLU:N	2.69	0.60
3:C:868:LYS:HD3	3:C:3126:LEU:HD11	1.82	0.60
3:C:1346:THR:HB	3:C:1402:LEU:HD13	1.83	0.60
3:C:2474:TYR:HB3	3:C:2521:ILE:HD11	1.83	0.60
7:G:20:LEU:HD11	7:G:34:ILE:HD11	1.84	0.60
1:J:461:LYS:O	1:J:465:ILE:HD12	2.02	0.60
3:L:668:LYS:O	3:L:671:SER:OG	2.17	0.60
3:L:1946:ASN:ND2	3:L:2096:PRO:HG2	2.16	0.60
3:L:2361:ILE:HG13	3:L:2389:PHE:CE2	2.37	0.60
3:L:2474:TYR:HB3	3:L:2521:ILE:HD11	1.83	0.60
3:L:2954:GLN:HE21	3:L:2958:LEU:CD2	2.14	0.60
3:L:3763:ARG:O	3:L:3767:LEU:HD12	2.01	0.60
1:A:304:ASN:OD1	1:A:305:THR:N	2.34	0.60
3:C:237:SER:HB2	3:C:281:GLN:HA	1.81	0.60
3:C:1278:ALA:HB1	3:C:1358:LEU:HD21	1.84	0.60
3:C:1338:VAL:HA	3:C:1341:ILE:HG12	1.83	0.60
3:C:1684:LEU:HD12	3:C:1688:LEU:HB3	1.82	0.60
1:J:205:LEU:HD12	1:J:206:LYS:N	2.17	0.60
3:L:1367:HIS:HA	3:L:1370:ARG:HE	1.66	0.60
3:L:2891:ARG:HD3	3:L:3894:PRO:HB3	1.83	0.60
3:L:3771:MET:O	3:L:3774:ILE:HG22	2.01	0.60
6:N:25:DC:O2	6:N:26:DT:N3	2.33	0.60
3:C:24:ARG:HH21	3:C:75:SER:HB2	1.67	0.60
3:C:297:LEU:HD12	3:C:316:LEU:HD22	1.84	0.60
3:C:1916:ILE:HD12	3:C:1919:CYS:HB2	1.83	0.60
3:C:2954:GLN:HE21	3:C:2958:LEU:CD2	2.14	0.60
3:C:3032:SER:OG	3:C:3033:GLU:OE1	2.16	0.60
1:J:49:PHE:CD2	1:J:50:GLU:HG2	2.37	0.60
3:L:1991:PRO:HD3	3:L:2734:ARG:HE	1.67	0.60
3:L:3061:LEU:HD23	3:L:3089:LEU:HD13	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:VAL:HB	1:A:87:PHE:HD1	1.66	0.60
1:A:49:PHE:CD2	1:A:50:GLU:HG2	2.37	0.60
3:C:1009:LEU:O	3:C:1013:ILE:HG12	2.01	0.60
3:C:2182:ILE:HD12	3:C:2182:ILE:H	1.66	0.60
3:C:2562:LEU:HD13	3:C:2812:LEU:HD22	1.84	0.60
3:C:3533:PHE:CD2	3:C:3562:LEU:HD21	2.36	0.60
1:J:363:ARG:HH22	2:K:269:GLN:HE22	1.49	0.60
1:J:467:GLU:O	1:J:470:ARG:HG3	2.01	0.60
3:L:447:PRO:HG3	3:L:527:TYR:CE2	2.37	0.60
3:L:2417:SER:OG	3:L:2418:LYS:NZ	2.32	0.60
3:L:2572:TYR:CE1	3:L:2788:SER:HB2	2.37	0.60
3:L:2587:GLN:N	3:L:2777:HIS:O	2.31	0.60
1:A:346:MET:N	1:A:398:CYS:SG	2.75	0.60
2:B:464:ALA:HB1	2:B:473:LEU:HB3	1.84	0.60
3:C:3134:ALA:O	3:C:3138:ILE:HG12	2.02	0.60
1:J:106:GLN:CB	1:J:115:ARG:HE	2.14	0.60
2:K:441:SER:OG	2:K:445:ALA:N	2.28	0.60
3:L:1897:ASN:OD1	3:L:1898:GLN:NE2	2.33	0.60
3:L:2589:TYR:CE1	3:L:2777:HIS:HB2	2.37	0.60
3:L:2950:LYS:NZ	3:L:2984:GLY:O	2.35	0.60
1:A:168:LEU:HB2	1:A:202:LEU:HB2	1.82	0.60
3:C:345:PHE:CE2	3:C:366:TYR:HA	2.36	0.60
3:C:3153:SER:OG	3:C:3154:GLN:N	2.35	0.60
3:C:3269:ARG:NE	3:C:3272:TRP:HZ3	2.00	0.60
1:J:42:VAL:HB	1:J:87:PHE:HD1	1.66	0.60
3:L:2147:ALA:O	3:L:2150:VAL:N	2.35	0.60
3:L:3486:GLU:O	3:L:3489:SER:N	2.24	0.60
3:C:1384:PHE:O	3:C:1386:ILE:N	2.35	0.59
3:C:3815:LEU:O	3:C:3819:THR:HG23	2.02	0.59
3:L:128:LEU:HD11	3:L:156:PHE:CE2	2.32	0.59
3:L:409:GLN:O	3:L:412:SER:OG	2.16	0.59
3:L:2945:SER:HB3	3:L:2947:ILE:HG12	1.84	0.59
1:A:205:LEU:HD12	1:A:206:LYS:N	2.17	0.59
1:A:363:ARG:HH22	2:B:269:GLN:HE22	1.49	0.59
3:C:1367:HIS:O	3:C:1370:ARG:HG2	2.02	0.59
3:L:1046:PRO:HD2	3:L:1047:GLN:H	1.65	0.59
3:L:1911:LEU:O	3:L:1914:THR:OG1	2.10	0.59
3:L:3153:SER:OG	3:L:3154:GLN:N	2.35	0.59
7:O:20:LEU:HD11	7:O:34:ILE:HD11	1.84	0.59
3:C:715:ALA:O	3:C:718:MET:HG3	2.02	0.59
3:C:1124:ILE:O	3:C:1127:CYS:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2572:TYR:CE1	3:C:2788:SER:HB2	2.37	0.59
3:C:3681:LYS:HG2	3:C:3724:GLU:HA	1.83	0.59
1:J:346:MET:N	1:J:398:CYS:SG	2.75	0.59
3:L:330:ASN:OD1	3:L:331:ALA:N	2.32	0.59
3:L:3819:THR:HG21	3:L:3886:ALA:HB2	1.84	0.59
1:A:461:LYS:O	1:A:465:ILE:HD12	2.02	0.59
3:C:3723:ASP:HB2	3:C:3741:ARG:HH11	1.66	0.59
1:J:43:ASP:HB2	1:J:170:THR:HG22	1.83	0.59
2:K:251:LEU:N	2:K:259:ILE:O	2.35	0.59
3:L:231:LEU:HB3	3:L:278:HIS:CD2	2.38	0.59
3:L:715:ALA:O	3:L:718:MET:HG3	2.03	0.59
3:L:1916:ILE:HD12	3:L:1919:CYS:HB2	1.83	0.59
3:L:2246:LYS:HA	3:L:2249:LEU:HD12	1.83	0.59
1:A:43:ASP:HB2	1:A:170:THR:HG22	1.83	0.59
3:C:2165:LEU:HD11	3:C:2193:ILE:HG23	1.84	0.59
3:C:2531:LEU:HD21	3:C:2545:LEU:HD21	1.85	0.59
3:C:2999:LEU:HB3	3:C:3043:TYR:CD2	2.38	0.59
3:C:3061:LEU:HD23	3:C:3089:LEU:HD13	1.84	0.59
3:C:3582:GLU:N	3:C:3582:GLU:OE1	2.34	0.59
3:C:3747:GLU:O	3:C:3748:HIS:ND1	2.35	0.59
5:D:15:DT:C2	5:D:16:DG:C8	2.91	0.59
3:L:1764:GLU:O	3:L:1768:ARG:NH2	2.25	0.59
3:L:3134:ALA:O	3:L:3138:ILE:HG12	2.02	0.59
3:L:3269:ARG:NE	3:L:3272:TRP:HZ3	2.00	0.59
3:L:3815:LEU:O	3:L:3819:THR:HG23	2.02	0.59
5:M:15:DT:C2	5:M:16:DG:C8	2.91	0.59
1:A:400:TYR:CE2	1:A:402:PRO:HB3	2.38	0.59
3:C:2164:TRP:O	3:C:2167:PRO:HD2	2.03	0.59
3:C:2251:ILE:HG21	3:C:2280:VAL:HG21	1.83	0.59
3:C:3425:ARG:NH2	3:C:3467:ARG:HH11	2.00	0.59
3:C:3923:ARG:HH11	3:C:3928:PHE:HE1	1.49	0.59
3:L:2562:LEU:HD13	3:L:2812:LEU:HD22	1.84	0.59
3:L:4040:PRO:HA	3:L:4043:LYS:HG2	1.85	0.59
3:C:1804:MET:O	3:C:1811:ARG:NH2	2.36	0.59
3:C:1963:GLN:HG3	3:C:2125:TRP:HZ3	1.68	0.59
3:C:2589:TYR:CE1	3:C:2777:HIS:HB2	2.37	0.59
7:F:101:LEU:HD12	8:H:113:SER:HA	1.85	0.59
3:L:1278:ALA:HB1	3:L:1358:LEU:HD21	1.83	0.59
9:Y:674:PRO:HB2	9:Y:677:ASP:HB3	1.83	0.59
3:C:1333:SER:O	3:C:1336:THR:OG1	2.19	0.59
3:C:2841:ASN:HD21	3:C:2872:ASP:HB2	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3161:LEU:HD11	3:C:3190:LEU:HD11	1.85	0.59
1:J:95:ASN:OD1	1:J:98:ASN:N	2.36	0.59
2:K:237:PHE:HB2	2:K:488:GLN:HE22	1.68	0.59
3:L:3180:ASP:HA	3:L:3183:ILE:HG22	1.85	0.59
3:L:3425:ARG:NH2	3:L:3467:ARG:HH11	2.00	0.59
1:A:95:ASN:OD1	1:A:98:ASN:N	2.36	0.59
3:C:3180:ASP:HA	3:C:3183:ILE:HG22	1.85	0.59
3:C:3551:ASN:O	3:C:3555:VAL:HG23	2.03	0.59
1:J:400:TYR:CE2	1:J:402:PRO:HB3	2.37	0.59
3:L:24:ARG:HH21	3:L:75:SER:HB2	1.67	0.59
3:L:297:LEU:HD12	3:L:316:LEU:HD22	1.84	0.59
3:L:782:ARG:NH2	3:L:3166:ASN:O	2.36	0.59
3:L:1017:ILE:HD13	3:L:1029:CYS:HB3	1.84	0.59
3:L:1804:MET:O	3:L:1811:ARG:NH2	2.36	0.59
3:L:3923:ARG:HH11	3:L:3928:PHE:HE1	1.49	0.59
1:A:106:GLN:CB	1:A:115:ARG:HE	2.14	0.59
3:C:447:PRO:HG3	3:C:527:TYR:CE2	2.37	0.59
3:C:573:LEU:HD11	3:C:649:PHE:HA	1.85	0.59
3:C:1237:ALA:HA	3:C:1292:LYS:HD2	1.85	0.59
7:G:134:ILE:HG22	7:G:138:GLN:OE1	2.03	0.59
1:J:75:ILE:HG21	2:K:316:TYR:CE1	2.38	0.59
1:J:345:LEU:HD21	1:J:400:TYR:HD1	1.68	0.59
3:L:1384:PHE:O	3:L:1386:ILE:N	2.35	0.59
3:L:2531:LEU:HD21	3:L:2545:LEU:HD21	1.85	0.59
3:L:3228:SER:HB2	3:L:3232:ARG:HH12	1.66	0.59
5:M:14:DA:C2	5:M:15:DT:C2	2.91	0.59
9:Y:656:SER:HB3	9:Y:685:PHE:HA	1.85	0.59
3:C:231:LEU:HB3	3:C:278:HIS:CD2	2.38	0.58
3:C:477:ASN:O	3:C:480:SER:OG	2.16	0.58
3:C:1483:LEU:O	3:C:1487:VAL:HG12	2.03	0.58
3:C:1991:PRO:HD3	3:C:2734:ARG:HE	1.67	0.58
3:C:2945:SER:HB3	3:C:2947:ILE:HG12	1.84	0.58
3:C:3819:THR:HG21	3:C:3886:ALA:HB2	1.84	0.58
1:J:115:ARG:HB2	1:J:115:ARG:CZ	2.33	0.58
2:K:342:VAL:HG22	2:K:393:VAL:HG22	1.84	0.58
2:K:464:ALA:HB1	2:K:473:LEU:HB3	1.84	0.58
3:L:573:LEU:HD11	3:L:649:PHE:HA	1.85	0.58
3:L:738:HIS:O	3:L:741:ILE:N	2.35	0.58
3:L:3747:GLU:O	3:L:3748:HIS:ND1	2.35	0.58
9:X:656:SER:HB3	9:X:685:PHE:HA	1.85	0.58
2:B:509:GLN:OE1	2:B:511:HIS:NE2	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1017:ILE:HD13	3:C:1029:CYS:HB3	1.84	0.58
3:C:2246:LYS:HA	3:C:2249:LEU:HD12	1.83	0.58
3:C:3879:PRO:HB2	3:C:3882:LEU:HD21	1.84	0.58
3:L:484:HIS:NE2	3:L:488:ILE:HD11	2.18	0.58
3:L:1367:HIS:O	3:L:1370:ARG:HG2	2.02	0.58
3:L:2164:TRP:O	3:L:2167:PRO:HD2	2.03	0.58
3:L:3879:PRO:HB2	3:L:3882:LEU:HD21	1.83	0.58
5:M:29:DA:C4	5:M:30:DC:C5	2.91	0.58
1:A:115:ARG:HB2	1:A:115:ARG:CZ	2.34	0.58
5:D:29:DA:C4	5:D:30:DC:C5	2.91	0.58
2:K:531:SER:HA	2:K:534:LYS:NZ	2.18	0.58
3:L:1184:ARG:HH22	3:L:1265:GLU:HB3	1.69	0.58
1:A:42:VAL:HB	1:A:87:PHE:CD1	2.38	0.58
2:B:531:SER:HA	2:B:534:LYS:NZ	2.18	0.58
3:C:738:HIS:O	3:C:741:ILE:N	2.35	0.58
3:C:2131:GLY:C	3:C:2134:GLY:H	2.07	0.58
3:C:3579:SER:HA	3:C:3736:LYS:NZ	2.18	0.58
3:L:477:ASN:OD1	3:L:478:CYS:N	2.36	0.58
3:L:2131:GLY:C	3:L:2134:GLY:H	2.07	0.58
3:L:2999:LEU:HB3	3:L:3043:TYR:CD2	2.38	0.58
3:L:3509:ASP:OD1	3:L:3510:GLN:N	2.36	0.58
3:L:3551:ASN:O	3:L:3555:VAL:HG23	2.03	0.58
7:O:134:ILE:HG22	7:O:138:GLN:OE1	2.03	0.58
9:Y:696:ASP:OD1	9:Y:697:THR:N	2.36	0.58
3:C:479:ILE:O	3:C:482:VAL:HG12	2.03	0.58
3:C:767:GLU:HG3	3:C:846:ILE:HG13	1.85	0.58
3:C:3509:ASP:OD1	3:C:3510:GLN:N	2.36	0.58
3:C:3918:LEU:O	3:C:3920:ILE:N	2.36	0.58
3:L:1483:LEU:O	3:L:1487:VAL:HG12	2.03	0.58
3:L:2216:LEU:HD11	3:L:2249:LEU:HD22	1.86	0.58
3:L:2578:GLU:O	3:L:2784:GLN:NE2	2.37	0.58
2:B:342:VAL:HG22	2:B:393:VAL:HG22	1.85	0.58
3:C:484:HIS:NE2	3:C:488:ILE:HD11	2.18	0.58
3:C:1487:VAL:O	3:C:1491:ILE:N	2.29	0.58
3:C:1933:LEU:O	3:C:1937:ARG:HG2	2.04	0.58
3:C:2581:LEU:HD12	3:C:2783:ILE:HG13	1.83	0.58
3:L:1268:ASN:HD21	3:L:1344:PHE:HA	1.66	0.58
3:L:1297:PHE:HD1	3:L:1301:ILE:HB	1.69	0.58
5:M:22:DA:H1'	5:M:23:DG:C8	2.39	0.58
6:N:8:DC:N3	6:N:9:DT:N3	2.51	0.58
1:A:75:ILE:HG21	2:B:316:TYR:CE1	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:376:ILE:HD12	2:B:540:ILE:HG21	1.86	0.58
2:B:251:LEU:N	2:B:259:ILE:O	2.35	0.58
3:C:477:ASN:OD1	3:C:478:CYS:N	2.36	0.58
3:C:782:ARG:NH2	3:C:3166:ASN:O	2.36	0.58
6:E:8:DC:N3	6:E:9:DT:N3	2.51	0.58
7:F:134:ILE:HG13	7:G:134:ILE:CG1	2.32	0.58
7:G:134:ILE:CG2	7:G:138:GLN:NE2	2.56	0.58
3:L:1124:ILE:O	3:L:1127:CYS:N	2.36	0.58
3:L:1963:GLN:HG3	3:L:2125:TRP:HZ3	1.68	0.58
3:L:2185:MET:HE3	3:L:2189:ILE:HD11	1.86	0.58
3:L:3161:LEU:HD11	3:L:3190:LEU:HD11	1.85	0.58
3:L:3496:ILE:HD11	3:L:3528:ALA:HB1	1.86	0.58
3:L:3579:SER:HA	3:L:3736:LYS:NZ	2.18	0.58
3:C:364:ARG:HG2	3:C:364:ARG:HH11	1.69	0.58
3:C:1184:ARG:HH22	3:C:1265:GLU:HB3	1.68	0.58
3:C:1323:SER:OG	3:C:1326:GLU:OE1	2.17	0.58
5:D:14:DA:C2	5:D:15:DT:C2	2.91	0.58
9:X:696:ASP:OD1	9:X:697:THR:N	2.36	0.58
1:A:345:LEU:HD21	1:A:400:TYR:HD1	1.68	0.58
2:B:131:HIS:CD2	8:I:297:GLY:HA2	2.39	0.58
3:C:75:SER:OG	3:C:77:GLU:OE1	2.17	0.58
3:C:2578:GLU:O	3:C:2784:GLN:NE2	2.36	0.58
3:C:2587:GLN:N	3:C:2777:HIS:O	2.31	0.58
1:J:42:VAL:HB	1:J:87:PHE:CD1	2.38	0.58
1:J:376:ILE:HD12	2:K:540:ILE:HG21	1.86	0.58
1:J:419:GLU:HG2	1:J:428:THR:OG1	2.04	0.58
1:J:439:PHE:HE2	2:K:485:PRO:HD2	1.69	0.58
3:L:479:ILE:O	3:L:482:VAL:HG12	2.03	0.58
3:L:1098:GLN:CB	3:L:1152:ARG:HE	2.17	0.58
3:L:4055:ASN:O	3:L:4058:VAL:N	2.37	0.58
7:O:134:ILE:CG1	7:P:134:ILE:HG13	2.32	0.58
3:C:286:LEU:HD12	3:C:319:PHE:CE1	2.39	0.58
3:C:3710:LYS:NZ	3:C:3712:LEU:HD22	2.19	0.58
7:G:31:GLY:HA3	7:G:48:SER:HA	1.86	0.58
2:K:547:GLN:HG3	2:K:548:VAL:N	2.18	0.58
3:L:333:MET:N	3:L:333:MET:SD	2.77	0.58
3:L:1237:ALA:HA	3:L:1292:LYS:HD2	1.85	0.58
3:L:1708:GLU:OE1	3:L:1708:GLU:N	2.30	0.58
3:L:3582:GLU:OE1	3:L:3582:GLU:N	2.34	0.58
3:L:3710:LYS:NZ	3:L:3712:LEU:HD22	2.19	0.58
1:A:439:PHE:HD2	2:B:484:ASN:HA	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:482:ILE:HD11	2:B:515:MET:CG	2.34	0.57
3:C:1076:LEU:O	3:C:1079:SER:OG	2.21	0.57
3:C:3527:GLN:HG3	3:C:3700:GLU:OE1	2.04	0.57
3:C:3862:ALA:HB1	3:C:3867:THR:HG21	1.86	0.57
2:K:242:ARG:NH1	5:M:7:DA:O5'	2.37	0.57
3:L:2754:GLU:HA	3:L:2757:ILE:HG22	1.85	0.57
3:L:3467:ARG:NH2	3:L:3471:ILE:HG13	2.19	0.57
6:N:10:DA:N7	6:N:11:DC:N4	2.52	0.57
3:C:2972:TYR:HE1	3:C:2994:TRP:HA	1.70	0.57
3:L:166:ILE:HG22	3:L:170:VAL:HG13	1.86	0.57
3:L:714:VAL:HG11	3:L:732:PHE:CE2	2.38	0.57
3:L:1970:LYS:CD	3:L:1971:PRO:HD2	2.30	0.57
3:L:2841:ASN:HD21	3:L:2872:ASP:HB2	1.68	0.57
1:A:176:HIS:CG	1:A:182:LYS:HD3	2.40	0.57
2:B:237:PHE:HB2	2:B:488:GLN:HE22	1.68	0.57
2:B:404:GLN:HG3	2:B:423:GLN:OE1	2.04	0.57
3:C:1098:GLN:CB	3:C:1152:ARG:HE	2.17	0.57
3:C:2105:HIS:CG	3:C:2106:ARG:HH12	2.22	0.57
3:C:2754:GLU:HA	3:C:2757:ILE:HG22	1.84	0.57
3:C:3784:ARG:HG3	3:C:3784:ARG:NH1	2.20	0.57
3:C:4126:PRO:HD2	3:C:4127:TRP:CE3	2.40	0.57
6:E:10:DA:H2'	6:E:11:DC:C6	2.40	0.57
3:C:1836:LEU:HD11	3:C:1883:ARG:HH21	1.69	0.57
3:C:2216:LEU:HD11	3:C:2249:LEU:HD22	1.86	0.57
3:C:2311:ARG:HD3	3:C:2312:TYR:CD1	2.39	0.57
3:C:4055:ASN:O	3:C:4058:VAL:N	2.37	0.57
3:L:286:LEU:HD12	3:L:319:PHE:CE1	2.39	0.57
3:L:767:GLU:HG3	3:L:846:ILE:HG13	1.85	0.57
3:L:1076:LEU:O	3:L:1079:SER:OG	2.21	0.57
3:L:2311:ARG:HD3	3:L:2312:TYR:CD1	2.39	0.57
2:B:227:PHE:O	2:B:230:SER:OG	2.16	0.57
2:B:242:ARG:NH1	5:D:7:DA:O5'	2.37	0.57
3:C:1479:VAL:HG21	3:C:1521:PHE:CE1	2.40	0.57
3:C:2280:VAL:HA	3:C:2283:ASN:ND2	2.18	0.57
3:C:3508:LYS:HG3	3:C:3509:ASP:H	1.70	0.57
3:C:4040:PRO:HA	3:C:4043:LYS:HG2	1.85	0.57
5:D:22:DA:H1'	5:D:23:DG:C8	2.39	0.57
1:J:317:LYS:HZ3	1:J:330:GLU:CD	2.08	0.57
2:K:482:ILE:HD11	2:K:515:MET:CG	2.34	0.57
3:L:708:VAL:HA	3:L:740:ILE:HD11	1.87	0.57
3:L:1100:VAL:HA	3:L:1103:ALA:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:2977:ASN:HA	7:P:272:ARG:HH12	1.69	0.57
1:A:439:PHE:HE2	2:B:485:PRO:HD2	1.69	0.57
1:A:488:ARG:HD2	1:A:501:GLU:HB3	1.86	0.57
1:J:48:MET:HB3	1:J:59:PRO:HB2	1.86	0.57
1:J:488:ARG:HD2	1:J:501:GLU:HB3	1.86	0.57
3:L:758:LEU:HD13	3:L:976:VAL:HG21	1.86	0.57
3:L:2422:GLN:HE22	3:L:2426:HIS:CE1	2.23	0.57
3:L:3006:ALA:HA	3:L:3008:TRP:NE1	2.19	0.57
2:B:264:TYR:O	2:B:363:LYS:N	2.20	0.57
3:C:128:LEU:HD11	3:C:156:PHE:CE2	2.32	0.57
3:C:3006:ALA:HA	3:C:3008:TRP:NE1	2.19	0.57
7:G:116:VAL:HG12	7:G:117:GLU:H	1.70	0.57
1:J:203:MET:N	1:J:203:MET:SD	2.69	0.57
2:K:404:GLN:HG3	2:K:423:GLN:OE1	2.04	0.57
3:L:1933:LEU:O	3:L:1937:ARG:HG2	2.04	0.57
3:L:3483:MET:O	3:L:3488:SER:OG	2.14	0.57
5:M:28:DC:C2	5:M:29:DA:C8	2.93	0.57
1:A:48:MET:HB3	1:A:59:PRO:HB2	1.86	0.57
1:A:126:GLN:O	1:A:130:ARG:HG3	2.05	0.57
3:C:1297:PHE:HD1	3:C:1301:ILE:HB	1.69	0.57
3:C:2510:LEU:O	3:C:2518:GLN:NE2	2.38	0.57
1:J:176:HIS:CG	1:J:182:LYS:HD3	2.40	0.57
3:L:1836:LEU:HD11	3:L:1883:ARG:HH21	1.69	0.57
3:L:2851:PHE:CG	3:L:2853:PRO:HD2	2.40	0.57
1:A:263:LEU:HD12	1:A:267:ILE:HG21	1.87	0.57
2:B:404:GLN:HG2	2:B:421:TYR:OH	2.05	0.57
2:B:547:GLN:HG3	2:B:548:VAL:N	2.18	0.57
3:C:257:ARG:NH1	3:C:257:ARG:HB2	2.19	0.57
3:C:2851:PHE:CG	3:C:2853:PRO:HD2	2.40	0.57
6:E:10:DA:N7	6:E:11:DC:N4	2.52	0.57
2:K:106:ASP:OD1	2:K:107:PHE:N	2.38	0.57
3:L:2840:PHE:HA	3:L:2843:PHE:HD2	1.70	0.57
3:L:2898:LEU:HD22	3:L:3972:LEU:HD23	1.87	0.57
3:L:3469:LEU:HD13	3:L:3472:ILE:HD12	1.86	0.57
3:L:3784:ARG:HG3	3:L:3784:ARG:NH1	2.20	0.57
3:L:4126:PRO:HD2	3:L:4127:TRP:CE3	2.40	0.57
3:C:493:LYS:NZ	3:C:495:VAL:HG22	2.20	0.57
3:C:647:TYR:O	3:C:650:SER:OG	2.20	0.57
3:C:3049:LEU:HD22	3:C:3061:LEU:HD21	1.86	0.57
3:C:3699:LEU:HB3	3:C:3719:ILE:HD12	1.87	0.57
3:C:3872:ARG:NH1	3:C:4114:PRO:HB3	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:28:DC:C2	5:D:29:DA:C8	2.93	0.57
3:L:257:ARG:NH1	3:L:257:ARG:HB2	2.19	0.57
3:L:1172:LEU:O	3:L:1176:CYS:N	2.38	0.57
3:L:1980:ASN:OD1	3:L:1981:LEU:N	2.37	0.57
3:L:3862:ALA:HB1	3:L:3867:THR:HG21	1.86	0.57
3:L:3994:ASP:HB2	3:L:3997:LEU:HD12	1.87	0.57
1:A:113:ALA:O	1:A:115:ARG:N	2.38	0.56
1:A:173:ASP:OD2	1:A:212:ASP:N	2.38	0.56
1:A:419:GLU:HG2	1:A:428:THR:OG1	2.04	0.56
3:C:1205:ASN:HB3	3:C:1275:THR:HA	1.87	0.56
3:C:2950:LYS:NZ	3:C:2984:GLY:O	2.35	0.56
3:C:3966:GLN:HG2	3:C:4128:MET:HB2	1.87	0.56
5:D:7:DA:H2'	5:D:8:DA:H8	1.70	0.56
1:J:263:LEU:HD12	1:J:267:ILE:HG21	1.87	0.56
1:J:439:PHE:HD2	2:K:484:ASN:HA	1.69	0.56
3:L:1601:LEU:O	3:L:1604:SER:OG	2.18	0.56
3:L:3966:GLN:HG2	3:L:4128:MET:HB2	1.87	0.56
1:A:205:LEU:HD12	1:A:206:LYS:H	1.70	0.56
3:C:798:GLY:HA2	3:C:801:LYS:HB2	1.87	0.56
3:C:1172:LEU:O	3:C:1176:CYS:N	2.38	0.56
3:C:2422:GLN:HE22	3:C:2426:HIS:CE1	2.23	0.56
3:C:2957:LEU:HA	3:C:2960:GLU:HG2	1.87	0.56
3:C:3469:LEU:HD13	3:C:3472:ILE:HD12	1.86	0.56
2:K:404:GLN:HG2	2:K:421:TYR:OH	2.05	0.56
3:L:798:GLY:HA2	3:L:801:LYS:HB2	1.87	0.56
3:L:3031:TRP:CD1	3:L:3031:TRP:N	2.73	0.56
9:Y:722:LYS:HZ1	9:Y:741:ARG:HG3	1.69	0.56
2:B:106:ASP:OD1	2:B:107:PHE:N	2.38	0.56
3:C:95:LYS:HD3	3:C:834:LEU:HD12	1.87	0.56
3:C:166:ILE:HG22	3:C:170:VAL:HG13	1.86	0.56
3:C:333:MET:N	3:C:333:MET:SD	2.78	0.56
3:C:374:LYS:HD2	3:C:423:TYR:HB3	1.86	0.56
3:C:1046:PRO:HD2	3:C:1047:GLN:N	2.20	0.56
3:C:1764:GLU:O	3:C:1768:ARG:NH2	2.25	0.56
3:C:1911:LEU:O	3:C:1914:THR:OG1	2.10	0.56
3:C:1970:LYS:CD	3:C:1971:PRO:HD2	2.30	0.56
3:C:3467:ARG:NH2	3:C:3471:ILE:HG13	2.19	0.56
3:C:3496:ILE:HD11	3:C:3528:ALA:HB1	1.86	0.56
3:C:3887:PHE:O	3:C:3890:MET:N	2.39	0.56
1:J:113:ALA:O	1:J:115:ARG:N	2.38	0.56
3:L:75:SER:OG	3:L:77:GLU:OE1	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:185:HIS:NE2	3:L:187:SER:OG	2.38	0.56
3:L:623:PHE:O	3:L:627:VAL:HG23	2.05	0.56
3:L:1278:ALA:O	3:L:1282:LEU:N	2.35	0.56
3:L:2564:GLU:O	3:L:2567:SER:OG	2.16	0.56
3:L:2957:LEU:HA	3:L:2960:GLU:HG2	1.87	0.56
3:L:3335:ARG:NH1	3:L:3422:GLN:OE1	2.38	0.56
3:L:3527:GLN:HG3	3:L:3700:GLU:OE1	2.04	0.56
3:L:3699:LEU:HB3	3:L:3719:ILE:HD12	1.87	0.56
1:A:203:MET:N	1:A:203:MET:SD	2.69	0.56
3:C:73:LEU:HG	3:C:117:LYS:HG2	1.88	0.56
3:C:623:PHE:O	3:C:627:VAL:HG23	2.05	0.56
6:E:27:DT:H2"	6:E:28:DA:C8	2.41	0.56
1:J:380:THR:O	1:J:383:SER:OG	2.20	0.56
1:J:419:GLU:HG3	1:J:427:VAL:HB	1.87	0.56
3:L:493:LYS:NZ	3:L:495:VAL:HG22	2.20	0.56
3:L:2972:TYR:HE1	3:L:2994:TRP:HA	1.70	0.56
3:L:3022:GLU:OE1	3:L:3022:GLU:N	2.35	0.56
3:L:3805:TRP:CD2	10:L:4201:ADP:C2	2.94	0.56
2:B:13:CYS:HB3	2:B:134:ILE:HA	1.88	0.56
3:C:758:LEU:HD13	3:C:976:VAL:HG21	1.86	0.56
3:C:1072:ALA:O	3:C:1075:ARG:HG2	2.06	0.56
1:J:126:GLN:O	1:J:130:ARG:HG3	2.05	0.56
3:L:1205:ASN:HB3	3:L:1275:THR:HA	1.87	0.56
3:L:1479:VAL:HG21	3:L:1521:PHE:CE1	2.40	0.56
3:L:1529:VAL:HG11	3:L:1581:GLU:OE1	2.05	0.56
3:L:1962:TYR:HE2	3:L:2103:HIS:HD2	1.53	0.56
3:L:2105:HIS:CG	3:L:2106:ARG:HH12	2.22	0.56
3:L:3183:ILE:CD1	3:L:3238:MET:HG2	2.36	0.56
3:L:3425:ARG:NH1	3:L:3467:ARG:HH11	2.04	0.56
5:M:7:DA:H2'	5:M:8:DA:H8	1.70	0.56
7:O:116:VAL:HG12	7:O:117:GLU:H	1.70	0.56
1:A:77:SER:HA	1:A:248:ALA:O	2.06	0.56
1:A:148:TRP:CE3	1:A:189:LYS:HE3	2.41	0.56
1:A:331:LYS:O	1:A:334:THR:HG22	2.06	0.56
2:B:151:ILE:HG23	2:B:215:LEU:HD23	1.87	0.56
2:B:247:TRP:HZ2	2:B:338:LYS:HG3	1.70	0.56
3:C:1100:VAL:HA	3:C:1103:ALA:HB3	1.86	0.56
3:C:1865:THR:OG1	3:C:1866:GLN:OE1	2.24	0.56
3:C:3718:ARG:H	3:C:3743:HIS:HB2	1.71	0.56
3:C:1946:ASN:HD22	3:C:2096:PRO:HG2	1.71	0.56
3:C:2898:LEU:HD22	3:C:3972:LEU:HD23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3183:ILE:CD1	3:C:3238:MET:HG2	2.36	0.56
3:C:3452:LYS:O	3:C:3455:LYS:NZ	2.33	0.56
1:J:89:GLY:N	1:J:101:ASN:O	2.38	0.56
2:K:247:TRP:HZ2	2:K:338:LYS:HG3	1.70	0.56
9:Y:669:GLY:O	9:Y:673:GLN:HG3	2.06	0.56
1:A:89:GLY:N	1:A:101:ASN:O	2.38	0.56
3:C:185:HIS:NE2	3:C:187:SER:OG	2.39	0.56
3:C:1962:TYR:HE2	3:C:2103:HIS:HD2	1.53	0.56
3:C:2570:PRO:HG3	3:L:899:ARG:O	2.06	0.56
3:C:3805:TRP:CD2	10:C:4201:ADP:C2	2.94	0.56
3:L:374:LYS:HD2	3:L:423:TYR:HB3	1.86	0.56
3:L:1928:ALA:HB3	3:L:1931:ASN:HB2	1.87	0.56
3:L:1946:ASN:HD22	3:L:2096:PRO:HG2	1.71	0.56
6:N:10:DA:H2'	6:N:11:DC:C6	2.40	0.56
9:Y:703:GLY:HA2	9:Y:723:PRO:HG3	1.88	0.56
3:L:364:ARG:HG2	3:L:364:ARG:HH11	1.69	0.56
3:L:410:MET:HG2	3:L:442:GLN:NE2	2.21	0.56
3:L:1388:ASP:O	3:L:1392:MET:HG3	2.06	0.56
3:L:1770:GLN:OE1	3:L:1770:GLN:N	2.33	0.56
3:L:3913:ILE:HB	3:L:3984:MET:SD	2.46	0.56
3:C:708:VAL:HA	3:C:740:ILE:HD11	1.87	0.56
3:C:1278:ALA:O	3:C:1282:LEU:N	2.35	0.56
3:C:1928:ALA:HB3	3:C:1931:ASN:HB2	1.87	0.56
3:C:2894:GLU:HG3	3:C:3973:PRO:CG	2.36	0.56
5:D:7:DA:H2'	5:D:8:DA:C8	2.41	0.56
8:H:18:LEU:HD13	8:H:96:SER:HA	1.87	0.56
1:J:71:TYR:OH	1:J:115:ARG:HD2	2.06	0.56
3:L:1046:PRO:HD2	3:L:1047:GLN:N	2.20	0.56
3:L:1132:ASP:O	3:L:1135:CYS:HB3	2.06	0.56
3:L:1755:SER:HB3	3:L:1758:LEU:HB2	1.88	0.56
3:L:2464:HIS:HD1	3:L:2466:SER:H	1.54	0.56
3:L:3918:LEU:O	3:L:3920:ILE:HG13	2.06	0.56
1:A:419:GLU:HG3	1:A:427:VAL:HB	1.87	0.55
3:C:714:VAL:HG11	3:C:732:PHE:CE2	2.38	0.55
3:C:1529:VAL:HG11	3:C:1581:GLU:OE1	2.05	0.55
3:C:1980:ASN:OD1	3:C:1981:LEU:N	2.37	0.55
3:C:2205:VAL:H	3:C:2208:ASP:HB3	1.72	0.55
3:C:3123:GLN:O	3:C:3127:THR:HG23	2.06	0.55
3:C:3425:ARG:NH1	3:C:3467:ARG:HH11	2.04	0.55
2:K:81:ARG:NH2	2:K:85:LEU:O	2.39	0.55
3:L:858:MET:O	3:L:861:SER:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:2512:ASP:OD1	3:L:2513:GLU:N	2.39	0.55
3:L:3828:TYR:OH	3:L:3878:VAL:HG13	2.06	0.55
3:L:3918:LEU:O	3:L:3920:ILE:N	2.36	0.55
3:L:3925:LEU:HD21	3:L:3962:ARG:CZ	2.37	0.55
3:C:2155:GLU:HA	3:C:2158:ARG:HG3	1.89	0.55
3:C:3335:ARG:NH1	3:C:3422:GLN:OE1	2.38	0.55
3:L:73:LEU:HG	3:L:117:LYS:HG2	1.88	0.55
3:L:2280:VAL:HA	3:L:2283:ASN:ND2	2.18	0.55
3:L:3705:TYR:HE1	3:L:3716:HIS:CD2	2.25	0.55
9:Y:663:GLU:HG2	9:Y:698:TYR:HD1	1.72	0.55
3:C:858:MET:O	3:C:861:SER:N	2.39	0.55
3:C:1184:ARG:NH2	3:C:1265:GLU:HB3	2.22	0.55
3:C:1708:GLU:OE1	3:C:1708:GLU:N	2.30	0.55
3:C:3190:LEU:HD12	3:C:3231:ILE:HD12	1.88	0.55
1:J:148:TRP:CE3	1:J:189:LYS:HE3	2.41	0.55
3:L:678:LYS:NZ	3:L:735:SER:O	2.31	0.55
3:L:1865:THR:OG1	3:L:1866:GLN:OE1	2.24	0.55
3:L:1967:PHE:CD2	3:L:2122:LEU:HG	2.41	0.55
3:L:2155:GLU:HA	3:L:2158:ARG:HG3	1.89	0.55
3:L:2510:LEU:O	3:L:2518:GLN:NE2	2.38	0.55
3:C:1770:GLN:OE1	3:C:1770:GLN:N	2.33	0.55
3:C:3828:TYR:OH	3:C:3878:VAL:HG13	2.06	0.55
1:J:77:SER:HA	1:J:248:ALA:O	2.06	0.55
3:L:962:TYR:HA	3:L:965:THR:HG22	1.87	0.55
3:L:1072:ALA:O	3:L:1075:ARG:HG2	2.06	0.55
3:L:3049:LEU:HD22	3:L:3061:LEU:HD21	1.86	0.55
7:O:31:GLY:HA3	7:O:48:SER:HA	1.87	0.55
3:C:1356:TRP:CD1	3:C:1359:LEU:HD23	2.41	0.55
3:C:1458:LEU:O	3:C:1462:GLY:N	2.40	0.55
3:C:1681:ASP:HB3	3:C:1684:LEU:HD22	1.89	0.55
3:C:3751:LEU:HD12	3:C:3805:TRP:CZ3	2.41	0.55
3:C:3994:ASP:HB2	3:C:3997:LEU:HD12	1.87	0.55
3:C:4126:PRO:HD2	3:C:4127:TRP:CZ3	2.42	0.55
1:J:35:ARG:HD3	1:J:80:ARG:CG	2.37	0.55
3:L:95:LYS:HD3	3:L:834:LEU:HD12	1.87	0.55
3:L:532:ARG:HH11	3:L:532:ARG:HG3	1.71	0.55
3:L:1356:TRP:CD1	3:L:1359:LEU:HD23	2.42	0.55
3:L:1766:LEU:HD21	3:L:1778:PHE:CD1	2.42	0.55
3:L:1834:ASP:OD1	3:L:1837:ARG:NH2	2.27	0.55
3:L:2971:GLN:O	3:L:2974:GLU:HG2	2.07	0.55
3:L:3123:GLN:O	3:L:3127:THR:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3446:VAL:HG11	3:L:3471:ILE:HD13	1.88	0.55
3:L:3508:LYS:HG3	3:L:3509:ASP:H	1.70	0.55
3:L:3751:LEU:HD12	3:L:3805:TRP:CZ3	2.41	0.55
3:L:3872:ARG:NH1	3:L:4114:PRO:HB3	2.20	0.55
5:M:7:DA:H2'	5:M:8:DA:C8	2.41	0.55
9:X:663:GLU:HG2	9:X:698:TYR:HD1	1.72	0.55
1:A:317:LYS:HZ3	1:A:330:GLU:CD	2.10	0.55
3:C:410:MET:HG2	3:C:442:GLN:NE2	2.21	0.55
3:C:962:TYR:HA	3:C:965:THR:HG22	1.88	0.55
3:C:1388:ASP:O	3:C:1392:MET:HG3	2.06	0.55
3:C:1411:TYR:CE1	3:C:1414:ILE:HD13	2.42	0.55
3:C:3925:LEU:HD21	3:C:3962:ARG:CZ	2.36	0.55
2:K:13:CYS:HB3	2:K:134:ILE:HA	1.87	0.55
2:K:130:ARG:NH2	2:K:157:CYS:O	2.39	0.55
3:L:2408:MET:N	3:L:2408:MET:SD	2.79	0.55
3:L:3718:ARG:H	3:L:3743:HIS:HB2	1.71	0.55
3:C:3022:GLU:OE1	3:C:3022:GLU:N	2.35	0.55
1:J:32:TYR:CE2	1:J:254:ARG:HD3	2.41	0.55
2:K:56:LEU:HD13	2:K:94:ILE:HD11	1.89	0.55
3:L:647:TYR:O	3:L:650:SER:OG	2.20	0.55
3:L:913:ARG:CZ	3:L:2803:ILE:HG21	2.37	0.55
3:L:1184:ARG:NH2	3:L:1265:GLU:HB3	2.22	0.55
3:L:1696:LEU:HB2	3:L:1749:ALA:HB1	1.88	0.55
3:L:3718:ARG:NH2	3:L:3743:HIS:HD2	2.05	0.55
3:C:532:ARG:HG3	3:C:532:ARG:HH11	1.71	0.55
3:C:913:ARG:CZ	3:C:2803:ILE:HG21	2.37	0.55
3:C:1132:ASP:O	3:C:1135:CYS:HB3	2.06	0.55
3:C:1403:MET:HE3	3:C:1463:LEU:HG	1.87	0.55
3:C:1708:GLU:H	3:C:1708:GLU:CD	2.10	0.55
3:C:1813:SER:HB2	3:C:1868:THR:HG21	1.89	0.55
3:C:1967:PHE:CD2	3:C:2122:LEU:HG	2.41	0.55
3:C:2464:HIS:HD1	3:C:2466:SER:H	1.54	0.55
8:I:10:MET:SD	8:I:223:THR:HA	2.47	0.55
2:K:151:ILE:HG23	2:K:215:LEU:HD23	1.87	0.55
3:L:1848:ILE:HG22	3:L:1852:LYS:HE3	1.89	0.55
3:L:2894:GLU:HG3	3:L:3973:PRO:CG	2.36	0.55
3:L:3579:SER:HA	3:L:3736:LYS:HZ1	1.72	0.55
3:L:3764:VAL:HA	3:L:3767:LEU:HD12	1.89	0.55
1:A:32:TYR:CE2	1:A:254:ARG:HD3	2.41	0.55
2:B:56:LEU:HD13	2:B:94:ILE:HD11	1.89	0.55
3:C:738:HIS:HB3	3:C:775:GLU:OE2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2503:LYS:NZ	3:C:2544:SER:O	2.34	0.55
3:C:2512:ASP:OD1	3:C:2513:GLU:N	2.39	0.55
3:C:2840:PHE:HA	3:C:2843:PHE:HD2	1.70	0.55
3:C:2977:ASN:HA	7:F:272:ARG:HH12	1.71	0.55
3:C:3424:LEU:HD11	3:C:3439:LEU:HD21	1.88	0.55
3:C:3913:ILE:HB	3:C:3984:MET:SD	2.46	0.55
3:C:3997:LEU:O	3:C:4001:THR:OG1	2.19	0.55
1:J:331:LYS:O	1:J:334:THR:HG22	2.06	0.55
1:J:398:CYS:SG	1:J:399:ARG:N	2.79	0.55
3:L:2205:VAL:H	3:L:2208:ASP:HB3	1.72	0.55
3:L:3236:PHE:CZ	3:L:3268:THR:HG21	2.42	0.55
3:L:3731:SER:H	3:L:3734:ARG:HE	1.54	0.55
3:L:3781:CYS:SG	3:L:3786:LEU:HD12	2.47	0.55
3:L:4126:PRO:HD2	3:L:4127:TRP:CZ3	2.42	0.55
1:A:53:SER:OG	1:A:54:GLU:OE1	2.22	0.55
3:C:629:PHE:O	3:C:632:GLU:N	2.39	0.55
3:C:2408:MET:SD	3:C:2408:MET:N	2.80	0.55
3:C:3918:LEU:O	3:C:3920:ILE:HG13	2.07	0.55
8:H:299:PHE:CD1	2:K:234:LEU:HD21	2.40	0.55
1:J:95:ASN:HD21	1:J:99:PHE:HB2	1.72	0.55
1:J:312:LEU:HD11	3:L:157:TYR:CE1	2.42	0.55
3:L:1241:LEU:HB2	3:L:1292:LYS:NZ	2.19	0.55
3:L:1411:TYR:CE1	3:L:1414:ILE:HD13	2.41	0.55
3:L:1813:SER:HB2	3:L:1868:THR:HG21	1.89	0.55
3:L:1877:LEU:HD12	3:L:1878:ASP:N	2.22	0.55
3:L:2503:LYS:NZ	3:L:2544:SER:O	2.34	0.55
3:L:2567:SER:HA	3:L:2572:TYR:CD2	2.42	0.55
3:L:3887:PHE:O	3:L:3890:MET:N	2.39	0.55
3:C:1048:GLN:O	3:C:1053:PRO:HD3	2.07	0.54
3:C:1696:LEU:HB2	3:C:1749:ALA:HB1	1.88	0.54
3:C:2454:LEU:O	3:C:2457:PRO:HD2	2.07	0.54
7:F:106:PHE:CZ	8:H:112:LEU:HD21	2.43	0.54
2:K:391:ALA:HB3	2:K:408:ALA:HB3	1.88	0.54
3:L:629:PHE:O	3:L:632:GLU:N	2.39	0.54
3:L:3190:LEU:HD12	3:L:3231:ILE:HD12	1.88	0.54
1:A:108:LEU:HD11	1:A:154:PHE:CD1	2.42	0.54
2:B:391:ALA:HB3	2:B:408:ALA:HB3	1.88	0.54
2:B:411:HIS:HB3	2:B:418:CYS:HB3	1.90	0.54
3:C:1477:HIS:O	3:C:1481:THR:OG1	2.16	0.54
3:C:1755:SER:HB3	3:C:1758:LEU:HB2	1.88	0.54
3:C:2119:PRO:O	3:C:2123:PRO:HD2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2954:GLN:HE21	3:C:2958:LEU:HD21	1.72	0.54
3:C:3446:VAL:HG11	3:C:3471:ILE:HD13	1.89	0.54
1:J:273:ILE:HD12	1:J:434:LEU:HD11	1.89	0.54
2:K:411:HIS:HB3	2:K:418:CYS:HB3	1.90	0.54
2:K:729:LEU:HD21	3:L:1965:PHE:HB2	1.89	0.54
3:L:450:SER:O	3:L:454:GLN:N	2.38	0.54
3:L:738:HIS:CG	3:L:739:ASN:N	2.76	0.54
3:L:1048:GLN:O	3:L:1053:PRO:HD3	2.08	0.54
3:L:3008:TRP:CE3	3:L:3050:LYS:HB3	2.42	0.54
1:A:71:TYR:OH	1:A:115:ARG:HD2	2.07	0.54
1:A:312:LEU:HD11	3:C:157:TYR:CE1	2.42	0.54
2:B:81:ARG:NH2	2:B:85:LEU:O	2.39	0.54
3:C:1877:LEU:HD12	3:C:1878:ASP:N	2.22	0.54
3:C:3031:TRP:N	3:C:3031:TRP:CD1	2.73	0.54
3:C:3236:PHE:CZ	3:C:3268:THR:HG21	2.42	0.54
3:C:3717:VAL:HG23	3:C:3743:HIS:HB3	1.89	0.54
3:C:3718:ARG:NH2	3:C:3743:HIS:HD2	2.05	0.54
3:C:4056:PRO:HA	3:C:4059:ILE:HG22	1.89	0.54
1:J:173:ASP:OD2	1:J:212:ASP:N	2.38	0.54
3:L:3424:LEU:HD11	3:L:3439:LEU:HD21	1.89	0.54
9:X:669:GLY:O	9:X:673:GLN:HG3	2.06	0.54
1:A:398:CYS:SG	1:A:399:ARG:N	2.79	0.54
2:B:495:LEU:O	2:B:498:ALA:N	2.37	0.54
3:C:1235:ILE:HG12	3:C:1263:ALA:HB2	1.89	0.54
3:C:1816:ARG:HA	3:C:1819:PHE:HD2	1.73	0.54
3:C:2201:THR:N	3:C:2202:PRO:HD3	2.23	0.54
3:C:2733:MET:H	5:D:31:DT:H3	1.55	0.54
3:C:3478:GLU:N	3:C:3478:GLU:OE2	2.41	0.54
1:J:90:THR:HG21	1:J:103:TYR:HB2	1.89	0.54
1:J:205:LEU:HD12	1:J:206:LYS:H	1.70	0.54
2:K:364:VAL:N	2:K:419:LEU:O	2.33	0.54
3:L:880:MET:HG3	3:L:3934:THR:HG1	1.72	0.54
3:L:1681:ASP:HB3	3:L:1684:LEU:HD22	1.89	0.54
3:L:2350:LYS:O	3:L:2353:GLN:N	2.41	0.54
3:L:2947:ILE:O	3:L:2947:ILE:HG13	2.07	0.54
3:L:3285:HIS:NE2	3:L:3333:THR:OG1	2.28	0.54
3:L:3498:TRP:CZ3	3:L:3501:HIS:HB3	2.42	0.54
3:C:3498:TRP:CZ3	3:C:3501:HIS:HB3	2.42	0.54
3:C:3573:ASN:ND2	3:C:3577:GLN:OE1	2.40	0.54
3:C:3705:TYR:HE1	3:C:3716:HIS:CD2	2.25	0.54
3:L:170:VAL:O	3:L:174:VAL:HG23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:27:DT:H2"	6:N:28:DA:C8	2.41	0.54
1:A:95:ASN:HD21	1:A:99:PHE:HB2	1.72	0.54
3:C:170:VAL:O	3:C:174:VAL:HG23	2.07	0.54
3:C:938:VAL:HA	3:C:941:MET:HE2	1.90	0.54
3:C:1766:LEU:HD21	3:C:1778:PHE:CD1	2.42	0.54
3:C:2136:PRO:HA	3:C:2143:ARG:HH22	1.73	0.54
3:C:2567:SER:HA	3:C:2572:TYR:CD2	2.42	0.54
3:C:3008:TRP:CE3	3:C:3050:LYS:HB3	2.42	0.54
3:L:738:HIS:HB3	3:L:775:GLU:OE2	2.07	0.54
3:L:880:MET:HG3	3:L:3934:THR:OG1	2.07	0.54
3:L:1102:GLU:OE2	3:L:1106:ILE:HD11	2.08	0.54
3:L:1240:THR:HG21	3:L:1256:TRP:CD1	2.43	0.54
3:L:1816:ARG:HA	3:L:1819:PHE:HD2	1.73	0.54
3:L:2119:PRO:O	3:L:2123:PRO:HD2	2.08	0.54
3:L:2237:ILE:HD13	3:L:2728:LEU:HD23	1.89	0.54
1:A:90:THR:HG21	1:A:103:TYR:HB2	1.89	0.54
2:B:130:ARG:NH2	2:B:157:CYS:O	2.39	0.54
3:C:450:SER:O	3:C:454:GLN:N	2.38	0.54
3:C:942:LEU:HD11	3:C:991:LEU:HD21	1.90	0.54
3:C:2277:LEU:HA	3:C:2280:VAL:HG12	1.89	0.54
3:C:3764:VAL:HA	3:C:3767:LEU:HD12	1.89	0.54
1:J:108:LEU:HD11	1:J:154:PHE:CD1	2.42	0.54
2:K:197:ILE:O	2:K:202:LYS:NZ	2.41	0.54
2:K:408:ALA:HB1	2:K:419:LEU:HD21	1.89	0.54
3:L:443:ILE:HD11	3:L:461:ILE:HG12	1.89	0.54
3:L:1458:LEU:O	3:L:1462:GLY:N	2.40	0.54
3:L:3478:GLU:N	3:L:3478:GLU:OE2	2.41	0.54
3:L:3573:ASN:ND2	3:L:3577:GLN:OE1	2.40	0.54
3:C:443:ILE:HD11	3:C:461:ILE:HG12	1.89	0.54
3:C:2417:SER:OG	3:C:2418:LYS:NZ	2.32	0.54
3:C:3285:HIS:NE2	3:C:3333:THR:OG1	2.28	0.54
3:C:3731:SER:H	3:C:3734:ARG:HE	1.55	0.54
5:D:14:DA:N6	6:E:17:DT:H3	2.06	0.54
3:L:778:ILE:HG23	3:L:779:TYR:CD1	2.43	0.54
3:L:3685:PRO:O	3:L:3688:SER:OG	2.18	0.54
2:B:12:LEU:HB2	2:B:56:LEU:HD23	1.90	0.54
2:B:408:ALA:HB1	2:B:419:LEU:HD21	1.89	0.54
3:C:778:ILE:HG23	3:C:779:TYR:CD1	2.43	0.54
3:C:1365:ASN:O	3:C:1368:LEU:HG	2.08	0.54
3:C:1857:LYS:HE3	3:C:1866:GLN:NE2	2.20	0.54
3:C:1936:ARG:HE	3:C:1939:LEU:HD21	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2285:LEU:HD23	3:C:2329:TYR:HA	1.90	0.54
3:C:2474:TYR:O	3:C:2478:MET:HG3	2.08	0.54
3:C:2971:GLN:O	3:C:2974:GLU:HG2	2.07	0.54
3:C:3781:CYS:SG	3:C:3786:LEU:HD12	2.47	0.54
1:J:521:LEU:HA	1:J:524:GLU:OE1	2.08	0.54
2:K:245:ILE:HD11	5:M:7:DA:O3'	2.08	0.54
3:L:852:ARG:O	3:L:855:VAL:HG12	2.08	0.54
3:L:938:VAL:HA	3:L:941:MET:HE2	1.88	0.54
3:L:2136:PRO:HA	3:L:2143:ARG:HH22	1.73	0.54
1:A:86:VAL:HG23	1:A:104:VAL:HA	1.90	0.54
1:A:236:SER:O	1:A:239:LEU:HG	2.08	0.54
3:C:950:GLU:HB2	3:C:957:PRO:HG3	1.90	0.54
3:C:2220:MET:HG2	3:C:2276:LEU:HD11	1.90	0.54
3:C:2538:ARG:HH21	3:C:2565:MET:HE3	1.72	0.54
3:C:3451:LEU:HD21	3:C:3468:LEU:HD22	1.89	0.54
3:C:4074:PHE:HA	3:C:4077:TYR:HB2	1.89	0.54
1:J:236:SER:O	1:J:239:LEU:HG	2.08	0.54
3:L:943:GLY:O	3:L:946:THR:HG22	2.08	0.54
3:L:985:GLU:HG3	3:L:1028:PHE:HE1	1.73	0.54
3:L:1225:GLU:HG3	3:L:1235:ILE:HB	1.90	0.54
3:L:1305:ASP:HB2	3:L:1334:LYS:HE3	1.90	0.54
3:L:1862:THR:O	3:L:1865:THR:OG1	2.24	0.54
3:L:3451:LEU:HD21	3:L:3468:LEU:HD22	1.89	0.54
1:A:521:LEU:HA	1:A:524:GLU:OE1	2.08	0.53
3:C:880:MET:HG3	3:C:3934:THR:OG1	2.07	0.53
3:C:971:ARG:HA	3:C:1025:LEU:HD13	1.90	0.53
3:C:1195:VAL:HA	3:C:1198:LEU:HD23	1.90	0.53
3:C:1305:ASP:HB2	3:C:1334:LYS:HE3	1.90	0.53
3:C:1538:LEU:HG	3:C:1555:HIS:HB2	1.91	0.53
3:C:2506:LEU:HD22	3:C:2525:TRP:NE1	2.23	0.53
3:C:3499:ILE:HA	3:C:3502:MET:SD	2.48	0.53
1:J:254:ARG:HB3	1:J:254:ARG:CZ	2.37	0.53
1:J:275:ASN:OD1	1:J:276:LEU:N	2.41	0.53
3:L:1235:ILE:HG12	3:L:1263:ALA:HB2	1.89	0.53
3:L:1936:ARG:HE	3:L:1939:LEU:HD21	1.73	0.53
3:L:2277:LEU:HA	3:L:2280:VAL:HG12	1.89	0.53
3:L:2474:TYR:O	3:L:2478:MET:HG3	2.08	0.53
3:L:3784:ARG:HG3	3:L:3784:ARG:HH11	1.72	0.53
7:O:134:ILE:HG23	7:O:138:GLN:NE2	2.06	0.53
1:A:275:ASN:OD1	1:A:276:LEU:N	2.41	0.53
2:B:245:ILE:HD11	5:D:7:DA:O3'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:356:PHE:HD2	2:B:422:VAL:HG11	1.73	0.53
2:B:477:PHE:HD1	2:B:519:PRO:HD3	1.73	0.53
3:C:417:VAL:HA	3:C:420:VAL:HG22	1.90	0.53
3:C:789:TYR:CD2	3:C:866:ILE:HG23	2.43	0.53
3:C:1848:ILE:HG22	3:C:1852:LYS:HE3	1.89	0.53
3:C:3041:LEU:O	3:C:3044:MET:N	2.42	0.53
3:L:910:PHE:CZ	3:L:2808:LEU:HA	2.44	0.53
3:L:1048:GLN:HB2	3:L:1052:SER:HB3	1.90	0.53
3:L:1195:VAL:HA	3:L:1198:LEU:HD23	1.91	0.53
3:L:1382:ILE:O	3:L:1384:PHE:N	2.40	0.53
3:L:2977:ASN:CG	7:P:272:ARG:NH2	2.59	0.53
3:L:3893:SER:O	3:L:3895:GLU:N	2.41	0.53
1:A:254:ARG:HB3	1:A:254:ARG:CZ	2.37	0.53
2:B:270:GLU:OE2	2:B:273:LYS:NZ	2.32	0.53
2:B:729:LEU:HD21	3:C:1965:PHE:HB2	1.89	0.53
3:C:899:ARG:O	3:L:2570:PRO:HG3	2.08	0.53
3:C:3528:ALA:HB2	3:C:3705:TYR:CD2	2.43	0.53
6:E:1:DG:N2	6:E:2:DT:C2	2.77	0.53
2:K:165:LEU:O	2:K:226:SER:HA	2.09	0.53
2:K:437:SER:OG	2:K:438:LEU:N	2.41	0.53
3:L:1963:GLN:HE22	3:L:1968:SER:HB3	1.72	0.53
3:L:3815:LEU:HD13	3:L:3930:VAL:HG11	1.90	0.53
3:L:3953:LEU:HD13	3:L:4068:HIS:CG	2.44	0.53
1:A:262:LYS:HB3	1:A:268:VAL:HG12	1.90	0.53
3:C:985:GLU:HG3	3:C:1028:PHE:HE1	1.73	0.53
3:C:1240:THR:HG21	3:C:1256:TRP:CD1	2.43	0.53
3:C:1838:GLU:O	3:C:1841:SER:OG	2.27	0.53
3:C:2237:ILE:HD13	3:C:2728:LEU:HD23	1.89	0.53
3:C:2848:PHE:HB2	3:C:3077:ILE:CD1	2.38	0.53
3:C:3445:LEU:O	3:C:3449:LYS:HB2	2.09	0.53
3:L:1708:GLU:H	3:L:1708:GLU:CD	2.10	0.53
3:L:2119:PRO:O	3:L:2122:LEU:N	2.39	0.53
3:L:2201:THR:N	3:L:2202:PRO:HD3	2.23	0.53
3:L:2454:LEU:O	3:L:2457:PRO:HD2	2.07	0.53
3:L:2999:LEU:HB3	3:L:3043:TYR:HD2	1.73	0.53
1:A:171:ASN:O	1:A:173:ASP:N	2.42	0.53
3:C:738:HIS:CG	3:C:739:ASN:N	2.76	0.53
3:C:1102:GLU:OE2	3:C:1106:ILE:HD11	2.08	0.53
3:C:1482:GLU:O	3:C:1486:LEU:HB2	2.09	0.53
3:C:3815:LEU:HD13	3:C:3930:VAL:HG11	1.90	0.53
3:C:3953:LEU:HD13	3:C:4068:HIS:CG	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:477:PHE:HD1	2:K:519:PRO:HD3	1.72	0.53
3:L:950:GLU:HB2	3:L:957:PRO:HG3	1.90	0.53
3:L:971:ARG:HA	3:L:1025:LEU:HD13	1.91	0.53
3:L:2506:LEU:HD22	3:L:2525:TRP:NE1	2.23	0.53
3:L:3294:SER:O	3:L:3297:VAL:HG12	2.08	0.53
3:L:3499:ILE:HA	3:L:3502:MET:SD	2.48	0.53
3:L:4089:ILE:HG12	3:L:4109:ASP:OD2	2.09	0.53
1:A:95:ASN:OD1	1:A:97:VAL:N	2.42	0.53
3:C:709:LYS:HG2	3:C:1388:ASP:HB2	1.91	0.53
3:C:1382:ILE:O	3:C:1384:PHE:N	2.41	0.53
3:C:3294:SER:O	3:C:3297:VAL:HG12	2.08	0.53
3:C:3784:ARG:HG3	3:C:3784:ARG:HH11	1.72	0.53
3:C:3875:GLU:HG2	3:C:3965:ARG:HD3	1.90	0.53
6:E:21:DA:H2"	6:E:22:DG:C8	2.44	0.53
1:J:262:LYS:HB3	1:J:268:VAL:HG12	1.91	0.53
3:L:789:TYR:CD2	3:L:866:ILE:HG23	2.43	0.53
3:L:1337:VAL:O	3:L:1341:ILE:HG23	2.08	0.53
3:L:1403:MET:HE3	3:L:1463:LEU:HG	1.90	0.53
3:L:1482:GLU:O	3:L:1486:LEU:HB2	2.09	0.53
3:L:2954:GLN:HE21	3:L:2958:LEU:HD21	1.72	0.53
3:L:3528:ALA:HB2	3:L:3705:TYR:CD2	2.44	0.53
3:L:4054:ALA:O	3:L:4103:GLN:NE2	2.41	0.53
3:L:4074:PHE:HA	3:L:4077:TYR:HB2	1.90	0.53
6:N:23:DT:C6	6:N:23:DT:H5'	2.43	0.53
1:A:214:SER:HA	1:A:218:ARG:HB2	1.90	0.53
2:B:129:LYS:HZ3	2:B:131:HIS:CD2	2.26	0.53
3:C:2350:LYS:O	3:C:2353:GLN:N	2.41	0.53
3:C:3585:PHE:HA	3:C:3588:TRP:NE1	2.23	0.53
2:K:356:PHE:HD2	2:K:422:VAL:HG11	1.73	0.53
3:L:1344:PHE:CE1	3:L:1348:LEU:HD13	2.44	0.53
3:L:1857:LYS:HE3	3:L:1866:GLN:NE2	2.20	0.53
3:L:1987:ARG:HA	3:L:1987:ARG:HE	1.74	0.53
3:L:2584:CYS:SG	3:L:2780:LEU:HB2	2.49	0.53
3:L:3250:ASN:HA	3:L:3252:PHE:CE1	2.44	0.53
3:L:3467:ARG:CZ	3:L:3471:ILE:HG13	2.39	0.53
9:X:711:ASN:O	9:X:714:LEU:N	2.42	0.53
2:B:197:ILE:O	2:B:202:LYS:NZ	2.41	0.53
3:C:264:ARG:NH1	6:E:9:DT:H5'	2.24	0.53
3:C:1225:GLU:HG3	3:C:1235:ILE:HB	1.90	0.53
3:C:1634:ALA:HB3	3:C:1637:SER:HB2	1.91	0.53
3:C:1892:LYS:O	3:C:1908:GLY:N	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1991:PRO:HD3	3:C:2734:ARG:NE	2.24	0.53
3:C:3827:ALA:HA	3:C:3831:ASP:HB3	1.91	0.53
6:E:23:DT:C6	6:E:23:DT:H5'	2.43	0.53
1:J:86:VAL:HG23	1:J:104:VAL:HA	1.90	0.53
1:J:294:GLU:OE2	2:K:298:ASN:ND2	2.41	0.53
3:L:417:VAL:HA	3:L:420:VAL:HG22	1.89	0.53
3:L:942:LEU:HD11	3:L:991:LEU:HD21	1.90	0.53
3:L:3585:PHE:HA	3:L:3588:TRP:NE1	2.23	0.53
5:M:14:DA:N6	6:N:17:DT:H3	2.06	0.53
1:A:330:GLU:HB2	1:A:333:GLU:HG2	1.90	0.53
2:B:478:PRO:C	2:B:480:THR:H	2.13	0.53
3:C:196:LEU:HD22	3:C:230:LEU:HD22	1.90	0.53
3:C:275:PHE:CZ	3:C:286:LEU:HD11	2.43	0.53
3:C:852:ARG:O	3:C:855:VAL:HG12	2.08	0.53
3:C:943:GLY:O	3:C:946:THR:HG22	2.08	0.53
3:C:1048:GLN:HB2	3:C:1052:SER:HB3	1.90	0.53
3:C:1256:TRP:CD1	3:C:1259:LEU:HD23	2.44	0.53
3:C:3511:ALA:O	3:C:3515:GLN:HG2	2.08	0.53
3:C:3564:GLN:O	3:C:3697:ASN:ND2	2.42	0.53
3:C:4039:TYR:C	3:C:4043:LYS:HE3	2.29	0.53
3:C:4054:ALA:O	3:C:4103:GLN:NE2	2.41	0.53
1:J:95:ASN:OD1	1:J:97:VAL:N	2.42	0.53
1:J:171:ASN:O	1:J:173:ASP:N	2.42	0.53
3:L:1125:GLN:OE1	3:L:1125:GLN:N	2.39	0.53
3:L:2220:MET:HG2	3:L:2276:LEU:HD11	1.90	0.53
3:L:2733:MET:H	5:M:31:DT:H3	1.55	0.53
3:L:3827:ALA:HA	3:L:3831:ASP:HB3	1.91	0.53
1:A:327:ILE:O	1:A:328:ILE:HD13	2.09	0.53
1:A:352:PRO:HG3	2:B:473:LEU:HD22	1.91	0.53
3:C:2999:LEU:HB3	3:C:3043:TYR:HD2	1.74	0.53
3:C:3250:ASN:HA	3:C:3252:PHE:CE1	2.44	0.53
3:C:3467:ARG:CZ	3:C:3471:ILE:HG13	2.39	0.53
8:I:10:MET:SD	8:I:223:THR:HG22	2.49	0.53
1:J:214:SER:HA	1:J:218:ARG:HB2	1.90	0.53
3:L:3156:PRO:HD2	3:L:3157:LEU:N	2.23	0.53
3:L:3511:ALA:O	3:L:3515:GLN:HG2	2.08	0.53
3:C:910:PHE:CZ	3:C:2808:LEU:HA	2.44	0.52
3:C:3008:TRP:N	3:C:3008:TRP:CD1	2.76	0.52
8:H:12:PRO:HB3	8:H:219:MET:SD	2.48	0.52
3:L:709:LYS:HG2	3:L:1388:ASP:HB2	1.91	0.52
3:L:1256:TRP:CD1	3:L:1259:LEU:HD23	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3436:SER:HA	3:L:3439:LEU:HB3	1.91	0.52
3:L:3825:LYS:HG3	3:L:3829:LEU:HD23	1.91	0.52
3:L:3959:MET:HG3	3:L:4124:TRP:CH2	2.44	0.52
6:N:1:DG:N2	6:N:2:DT:C2	2.77	0.52
1:A:273:ILE:HD12	1:A:434:LEU:HD11	1.89	0.52
2:B:165:LEU:O	2:B:226:SER:HA	2.09	0.52
2:B:540:ILE:H	2:B:540:ILE:HD12	1.74	0.52
3:C:385:TYR:CE2	3:C:424:LEU:HD11	2.44	0.52
3:C:1337:VAL:O	3:C:1341:ILE:HG23	2.08	0.52
3:C:2584:CYS:SG	3:C:2780:LEU:HB2	2.49	0.52
3:C:2947:ILE:O	3:C:2947:ILE:HG13	2.07	0.52
1:J:262:LYS:HA	1:J:268:VAL:HA	1.91	0.52
1:J:330:GLU:HB2	1:J:333:GLU:HG2	1.90	0.52
2:K:354:ARG:HG3	2:K:355:PHE:N	2.24	0.52
3:L:196:LEU:HD22	3:L:230:LEU:HD22	1.90	0.52
3:L:275:PHE:CZ	3:L:286:LEU:HD11	2.43	0.52
3:L:1365:ASN:O	3:L:1368:LEU:HG	2.08	0.52
3:L:3008:TRP:N	3:L:3008:TRP:CD1	2.76	0.52
3:L:3585:PHE:HA	3:L:3588:TRP:CD1	2.45	0.52
3:L:3717:VAL:HG23	3:L:3743:HIS:HB3	1.90	0.52
3:L:3875:GLU:HG2	3:L:3965:ARG:HD3	1.90	0.52
3:L:4039:TYR:C	3:L:4043:LYS:HE3	2.30	0.52
3:L:4056:PRO:HA	3:L:4059:ILE:HG22	1.89	0.52
5:M:27:DA:H1'	5:M:28:DC:H5"	1.91	0.52
1:A:294:GLU:OE2	2:B:298:ASN:ND2	2.41	0.52
3:C:227:LEU:HD21	3:C:248:ILE:HD12	1.91	0.52
3:C:484:HIS:CE1	3:C:488:ILE:HD11	2.44	0.52
3:C:668:LYS:O	3:C:671:SER:OG	2.17	0.52
3:C:1713:VAL:O	3:C:1716:GLN:HG2	2.10	0.52
3:C:3893:SER:O	3:C:3895:GLU:N	2.41	0.52
1:J:216:PHE:HD2	1:J:217:TYR:CE1	2.27	0.52
1:J:422:ASP:N	1:J:422:ASP:OD1	2.42	0.52
3:L:484:HIS:CE1	3:L:488:ILE:HD11	2.44	0.52
3:L:3041:LEU:O	3:L:3044:MET:N	2.42	0.52
3:L:3443:PRO:O	3:L:3446:VAL:HG12	2.09	0.52
6:N:1:DG:H2'	6:N:2:DT:H71	1.92	0.52
6:N:21:DA:H2"	6:N:22:DG:C8	2.44	0.52
1:A:192:ASP:O	1:A:195:ASP:N	2.42	0.52
2:B:529:PRO:O	2:B:532:LYS:HG2	2.10	0.52
3:C:385:TYR:CD2	3:C:424:LEU:HD11	2.44	0.52
3:C:972:LEU:HD23	3:C:984:TYR:HE2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1410:PRO:O	3:C:1411:TYR:HB3	2.10	0.52
3:C:1963:GLN:HE22	3:C:1968:SER:HB3	1.72	0.52
3:C:1987:ARG:HA	3:C:1987:ARG:HE	1.74	0.52
3:C:2551:GLU:O	3:C:2554:PHE:N	2.36	0.52
3:C:3959:MET:HG3	3:C:4124:TRP:CH2	2.44	0.52
3:C:4089:ILE:HG12	3:C:4109:ASP:OD2	2.09	0.52
5:D:6:DG:C4	5:D:7:DA:C8	2.97	0.52
3:L:385:TYR:CD2	3:L:424:LEU:HD11	2.44	0.52
3:L:1487:VAL:O	3:L:1491:ILE:N	2.29	0.52
3:L:1595:ALA:HA	3:L:1598:ASN:HD22	1.74	0.52
3:L:1898:GLN:OE1	3:L:1898:GLN:N	2.43	0.52
3:L:2285:LEU:HD23	3:L:2329:TYR:HA	1.90	0.52
3:L:2848:PHE:HB2	3:L:3077:ILE:CD1	2.38	0.52
9:X:681:ARG:HG2	9:X:730:PHE:CE2	2.44	0.52
2:B:526:SER:O	2:B:529:PRO:HD2	2.10	0.52
3:C:1046:PRO:HA	3:C:1049:GLN:CB	2.40	0.52
3:C:1898:GLN:OE1	3:C:1898:GLN:N	2.43	0.52
3:C:2166:SER:OG	3:C:2167:PRO:HD3	2.10	0.52
3:C:2279:ILE:O	3:C:2283:ASN:ND2	2.43	0.52
3:C:4056:PRO:HD2	3:C:4106:CYS:SG	2.49	0.52
5:D:21:DT:H2"	5:D:22:DA:H8	1.74	0.52
2:K:45:GLN:NE2	2:K:54:ILE:HD12	2.24	0.52
3:L:385:TYR:CE2	3:L:424:LEU:HD11	2.44	0.52
3:L:732:PHE:O	3:L:735:SER:OG	2.20	0.52
3:L:1184:ARG:NH2	3:L:1262:ALA:O	2.42	0.52
3:L:1634:ALA:HB3	3:L:1637:SER:HB2	1.91	0.52
3:L:1713:VAL:O	3:L:1716:GLN:HG2	2.10	0.52
3:L:2367:VAL:HG11	3:L:2374:LEU:HD13	1.91	0.52
3:L:2551:GLU:O	3:L:2553:HIS:N	2.43	0.52
6:N:20:DG:H2"	6:N:21:DA:H8	1.75	0.52
2:B:446:PRO:HB2	2:B:451:LEU:HD21	1.92	0.52
2:B:551:GLN:NE2	3:C:208:MET:HB2	2.25	0.52
3:C:993:HIS:CE1	3:C:1039:TRP:CZ2	2.97	0.52
3:C:2119:PRO:O	3:C:2122:LEU:N	2.40	0.52
2:K:529:PRO:O	2:K:532:LYS:HG2	2.10	0.52
3:L:61:ARG:O	3:L:67:VAL:HG21	2.10	0.52
3:L:1297:PHE:CD1	3:L:1301:ILE:HB	2.44	0.52
3:L:1913:LYS:O	3:L:1916:ILE:HG22	2.10	0.52
3:L:3090:TYR:OH	3:L:3098:ARG:NH2	2.43	0.52
3:L:3797:THR:HG22	3:L:3800:LEU:HB3	1.91	0.52
3:L:3886:ALA:O	3:L:3890:MET:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:GLN:NE2	2:B:354:ARG:HB3	2.25	0.52
3:C:47:SER:HB3	3:C:50:VAL:HG12	1.92	0.52
3:C:3357:ARG:NH2	3:C:3358:ARG:HH12	2.08	0.52
3:C:3825:LYS:HG3	3:C:3829:LEU:HD23	1.91	0.52
6:E:1:DG:H2'	6:E:2:DT:H71	1.92	0.52
7:F:106:PHE:CD1	8:H:113:SER:HB2	2.44	0.52
1:J:41:LEU:HA	1:J:86:VAL:O	2.10	0.52
1:J:95:ASN:ND2	1:J:99:PHE:H	2.06	0.52
1:J:327:ILE:O	1:J:328:ILE:HD13	2.09	0.52
1:J:352:PRO:HG3	2:K:473:LEU:HD22	1.92	0.52
3:L:2166:SER:OG	3:L:2167:PRO:HD3	2.10	0.52
3:L:3357:ARG:NH2	3:L:3358:ARG:HH12	2.08	0.52
3:L:3445:LEU:O	3:L:3449:LYS:HB2	2.09	0.52
3:C:1297:PHE:CD1	3:C:1301:ILE:HB	2.44	0.52
3:C:2122:LEU:HB3	3:C:2123:PRO:HD3	1.92	0.52
5:D:14:DA:H2'	5:D:15:DT:H71	1.91	0.52
3:L:1838:GLU:O	3:L:1841:SER:OG	2.27	0.52
3:L:1991:PRO:HD3	3:L:2734:ARG:NE	2.24	0.52
3:L:3710:LYS:HZ1	3:L:3712:LEU:HD22	1.74	0.52
3:L:3892:THR:OG1	3:L:3893:SER:N	2.42	0.52
9:Y:681:ARG:HG2	9:Y:730:PHE:CE2	2.44	0.52
1:A:263:LEU:HD11	1:A:381:LEU:HD21	1.92	0.52
1:A:446:MET:HG2	1:A:447:PRO:HD2	1.92	0.52
3:C:1184:ARG:NH2	3:C:1262:ALA:O	2.42	0.52
3:C:2367:VAL:HG11	3:C:2374:LEU:HD13	1.91	0.52
3:C:3413:TYR:O	3:C:3416:LEU:HG	2.10	0.52
3:C:3763:ARG:HH11	3:C:4004:VAL:HG13	1.75	0.52
3:C:3929:MET:HB2	3:C:3940:ILE:CD1	2.35	0.52
1:J:113:ALA:C	1:J:115:ARG:H	2.13	0.52
2:K:413:LYS:O	2:K:416:TYR:N	2.42	0.52
3:L:227:LEU:HD21	3:L:248:ILE:HD12	1.91	0.52
3:L:264:ARG:NH1	6:N:9:DT:H5'	2.24	0.52
3:L:386:VAL:HG22	3:L:431:TYR:HE2	1.74	0.52
3:L:2092:GLU:OE1	3:L:2092:GLU:N	2.43	0.52
3:L:3483:MET:SD	3:L:3513:ALA:HA	2.50	0.52
3:L:3881:ASP:H	3:L:3969:ASN:HD22	1.58	0.52
3:L:4056:PRO:HD2	3:L:4106:CYS:SG	2.49	0.52
1:A:41:LEU:HA	1:A:86:VAL:O	2.10	0.52
3:C:248:ILE:O	3:C:252:VAL:HG23	2.10	0.52
3:C:2551:GLU:O	3:C:2553:HIS:N	2.43	0.52
3:C:3443:PRO:O	3:C:3446:VAL:HG12	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:244:SER:OG	2:K:245:ILE:N	2.43	0.52
3:L:1527:ARG:O	3:L:1530:SER:OG	2.16	0.52
3:L:3338:ALA:HB1	3:L:3378:TYR:CZ	2.45	0.52
5:M:6:DG:C4	5:M:7:DA:C8	2.97	0.52
5:M:21:DT:H2"	5:M:22:DA:H8	1.74	0.52
7:O:130:CYS:C	7:P:134:ILE:HD11	2.23	0.52
1:A:271:VAL:CG1	1:A:368:VAL:HG13	2.39	0.51
2:B:45:GLN:NE2	2:B:54:ILE:HD12	2.24	0.51
2:B:486:ARG:NH1	6:E:19:DA:OP2	2.40	0.51
3:C:364:ARG:HE	3:C:415:GLN:HG2	1.75	0.51
3:C:1595:ALA:HA	3:C:1598:ASN:HD22	1.75	0.51
3:C:2361:ILE:HG13	3:C:2389:PHE:HE2	1.73	0.51
3:C:3886:ALA:O	3:C:3890:MET:HG3	2.10	0.51
1:J:303:PHE:CE1	2:K:292:GLU:HG2	2.46	0.51
2:K:12:LEU:HB2	2:K:56:LEU:HD23	1.90	0.51
3:L:248:ILE:O	3:L:252:VAL:HG23	2.10	0.51
3:L:364:ARG:HE	3:L:415:GLN:HG2	1.75	0.51
3:L:993:HIS:CE1	3:L:1039:TRP:CZ2	2.97	0.51
3:L:1538:LEU:HG	3:L:1555:HIS:HB2	1.91	0.51
3:L:1990:PHE:HB3	3:L:1991:PRO:CD	2.37	0.51
3:L:2361:ILE:HG13	3:L:2389:PHE:HE2	1.73	0.51
3:L:2538:ARG:HH21	3:L:2565:MET:HE3	1.74	0.51
3:L:4040:PRO:HA	3:L:4043:LYS:CG	2.40	0.51
5:M:11:DC:H42	6:N:19:DA:N6	2.09	0.51
1:A:35:ARG:HD3	1:A:80:ARG:CG	2.37	0.51
1:A:216:PHE:HD2	1:A:217:TYR:CE1	2.27	0.51
1:A:262:LYS:HA	1:A:268:VAL:HA	1.91	0.51
1:A:303:PHE:CE1	2:B:292:GLU:HG2	2.46	0.51
3:C:1577:LEU:O	3:C:1580:LEU:HG	2.11	0.51
3:C:2151:ILE:O	3:C:2154:GLU:HG3	2.10	0.51
3:C:3330:LEU:HB3	3:C:3384:HIS:HE2	1.75	0.51
8:H:298:LEU:CD1	2:K:41:PHE:CG	2.93	0.51
1:J:263:LEU:HD11	1:J:381:LEU:HD21	1.92	0.51
2:K:45:GLN:HE21	2:K:54:ILE:HD12	1.75	0.51
3:L:47:SER:HB3	3:L:50:VAL:HG12	1.92	0.51
3:L:1840:PHE:HD2	3:L:1880:MET:HB3	1.75	0.51
3:L:1963:GLN:NE2	3:L:1968:SER:HB3	2.25	0.51
3:L:2510:LEU:HB3	3:L:2550:ILE:HD11	1.91	0.51
5:M:14:DA:H2'	5:M:15:DT:H71	1.91	0.51
2:B:45:GLN:HE21	2:B:54:ILE:HD12	1.75	0.51
2:B:244:SER:OG	2:B:245:ILE:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:371:GLU:O	2:B:374:ALA:N	2.44	0.51
3:C:1815:THR:HG22	3:C:1819:PHE:CE2	2.46	0.51
3:C:2564:GLU:O	3:C:2567:SER:OG	2.15	0.51
3:C:3244:ASP:OD1	3:C:3247:ARG:NH2	2.43	0.51
3:C:3713:PRO:HA	3:C:3716:HIS:NE2	2.26	0.51
3:C:3892:THR:OG1	3:C:3893:SER:N	2.42	0.51
7:F:134:ILE:HD11	7:G:130:CYS:C	2.23	0.51
1:J:372:GLU:OE2	1:J:377:GLY:N	2.22	0.51
2:K:270:GLU:OE2	2:K:273:LYS:NZ	2.32	0.51
2:K:371:GLU:O	2:K:374:ALA:N	2.44	0.51
2:K:526:SER:O	2:K:529:PRO:HD2	2.10	0.51
3:L:478:CYS:O	3:L:481:THR:OG1	2.23	0.51
3:L:929:ALA:O	3:L:932:GLU:HG3	2.11	0.51
3:L:1749:ALA:O	3:L:1753:SER:OG	2.20	0.51
3:L:2916:LEU:HG	3:L:2918:PRO:HD2	1.93	0.51
3:L:3564:GLN:O	3:L:3697:ASN:ND2	2.42	0.51
2:B:437:SER:OG	2:B:438:LEU:N	2.41	0.51
3:C:1344:PHE:CE1	3:C:1348:LEU:HD13	2.44	0.51
3:C:2510:LEU:HB3	3:C:2550:ILE:HD11	1.91	0.51
3:C:3380:ARG:O	3:C:3383:GLN:HG3	2.10	0.51
3:C:3585:PHE:HA	3:C:3588:TRP:CD1	2.45	0.51
3:C:3912:CYS:HB3	3:C:3961:PHE:CE1	2.46	0.51
5:D:11:DC:H42	6:E:19:DA:N6	2.08	0.51
2:K:405:VAL:O	2:K:423:GLN:NE2	2.44	0.51
2:K:540:ILE:H	2:K:540:ILE:HD12	1.74	0.51
3:L:920:THR:HG22	3:L:920:THR:O	2.11	0.51
3:L:1892:LYS:O	3:L:1908:GLY:N	2.27	0.51
3:L:2106:ARG:HG2	3:L:2106:ARG:HH11	1.75	0.51
3:L:3713:PRO:HA	3:L:3716:HIS:NE2	2.26	0.51
6:N:13:DG:H1'	6:N:14:DA:O4'	2.10	0.51
1:A:380:THR:O	1:A:383:SER:OG	2.20	0.51
2:B:353:ARG:O	2:B:356:PHE:HD1	1.93	0.51
2:B:477:PHE:CE1	2:B:518:PRO:HA	2.46	0.51
3:C:61:ARG:O	3:C:67:VAL:HG21	2.10	0.51
3:C:678:LYS:NZ	3:C:735:SER:O	2.31	0.51
3:C:888:ARG:HH11	3:C:3932:MET:HG2	1.75	0.51
3:C:920:THR:O	3:C:920:THR:HG22	2.11	0.51
3:C:1527:ARG:O	3:C:1530:SER:OG	2.16	0.51
3:C:1913:LYS:O	3:C:1916:ILE:HG22	2.10	0.51
3:C:1990:PHE:HB3	3:C:1991:PRO:CD	2.37	0.51
3:C:2106:ARG:HG2	3:C:2106:ARG:HH11	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3338:ALA:HB1	3:C:3378:TYR:CZ	2.46	0.51
3:L:972:LEU:HD23	3:L:984:TYR:HE2	1.75	0.51
3:L:2151:ILE:O	3:L:2154:GLU:HG3	2.10	0.51
3:L:2443:MET:O	3:L:2446:LEU:HD23	2.11	0.51
3:L:2891:ARG:HG3	3:L:2891:ARG:NH2	2.25	0.51
3:L:3325:ASP:O	3:L:3328:ILE:HG22	2.10	0.51
3:L:3763:ARG:HH11	3:L:4004:VAL:HG13	1.75	0.51
2:B:11:VAL:HG22	2:B:55:ALA:HB3	1.92	0.51
3:C:22:ALA:O	3:C:24:ARG:N	2.44	0.51
3:C:789:TYR:HA	3:C:792:ILE:CG2	2.39	0.51
3:C:1828:LEU:HD23	3:C:1880:MET:HE3	1.92	0.51
3:C:1963:GLN:NE2	3:C:1968:SER:HB3	2.25	0.51
3:C:2092:GLU:N	3:C:2092:GLU:OE1	2.43	0.51
3:C:3797:THR:HG22	3:C:3800:LEU:HB3	1.91	0.51
6:E:9:DT:H2"	6:E:10:DA:C8	2.46	0.51
1:J:53:SER:OG	1:J:54:GLU:OE1	2.22	0.51
1:J:271:VAL:CG1	1:J:368:VAL:HG13	2.39	0.51
2:K:11:VAL:HG22	2:K:55:ALA:HB3	1.92	0.51
3:L:671:SER:HA	3:L:674:VAL:HG12	1.93	0.51
3:L:1109:GLU:OE1	3:L:1178:ARG:NH1	2.44	0.51
3:L:2418:LYS:O	3:L:2420:PHE:N	2.43	0.51
3:L:3236:PHE:CE1	3:L:3265:GLU:HB3	2.46	0.51
3:L:3413:TYR:O	3:L:3416:LEU:HG	2.10	0.51
9:Y:722:LYS:NZ	9:Y:741:ARG:HG3	2.25	0.51
2:B:354:ARG:HG3	2:B:355:PHE:N	2.24	0.51
3:C:406:ARG:NH2	3:C:407:VAL:HG12	2.26	0.51
3:C:848:LEU:O	3:C:851:ILE:HG22	2.11	0.51
3:C:862:LEU:HB3	3:C:866:ILE:HG21	1.92	0.51
3:C:1681:ASP:OD2	3:C:1683:LYS:N	2.44	0.51
3:C:3483:MET:SD	3:C:3513:ALA:HA	2.50	0.51
6:E:19:DA:C2	6:E:20:DG:C4	2.99	0.51
2:K:477:PHE:CE1	2:K:518:PRO:HA	2.46	0.51
3:L:579:LEU:HD22	3:L:619:ASP:OD1	2.11	0.51
3:L:1046:PRO:HA	3:L:1049:GLN:CB	2.40	0.51
3:L:2279:ILE:O	3:L:2283:ASN:ND2	2.43	0.51
2:B:327:ASP:HB3	9:X:711:ASN:ND2	2.26	0.51
3:C:3090:TYR:OH	3:C:3098:ARG:NH2	2.43	0.51
3:C:3406:ALA:O	3:C:3410:ILE:HG12	2.10	0.51
6:E:13:DG:H1'	6:E:14:DA:O4'	2.10	0.51
2:K:74:TYR:HA	2:K:109:ASP:OD1	2.11	0.51
3:L:1681:ASP:OD2	3:L:1683:LYS:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3244:ASP:OD1	3:L:3247:ARG:NH2	2.43	0.51
3:L:3330:LEU:HB3	3:L:3384:HIS:HE2	1.75	0.51
9:Y:682:ILE:O	9:Y:686:GLY:N	2.44	0.51
3:C:386:VAL:HG22	3:C:431:TYR:HE2	1.74	0.51
3:C:1082:PHE:CZ	3:C:1134:LEU:HG	2.46	0.51
3:C:1102:GLU:HG3	3:C:1154:PRO:CA	2.36	0.51
3:C:1109:GLU:OE1	3:C:1178:ARG:NH1	2.44	0.51
3:C:1866:GLN:OE1	3:C:1866:GLN:N	2.43	0.51
3:C:1913:LYS:O	3:C:1916:ILE:N	2.41	0.51
3:C:3255:ALA:O	3:C:3259:LEU:HD23	2.10	0.51
3:C:3382:PHE:HZ	3:C:3445:LEU:HD12	1.76	0.51
3:C:3436:SER:HA	3:C:3439:LEU:HB3	1.91	0.51
3:C:3700:GLU:HA	3:C:3718:ARG:HA	1.93	0.51
3:C:3921:GLY:HA3	3:C:3949:ALA:HB2	1.93	0.51
6:E:20:DG:H2"	6:E:21:DA:H8	1.75	0.51
2:K:353:ARG:O	2:K:356:PHE:HD1	1.93	0.51
3:L:848:LEU:O	3:L:851:ILE:HG22	2.11	0.51
3:L:1411:TYR:CD1	3:L:1414:ILE:HD13	2.46	0.51
3:L:1415:LEU:HA	3:L:1419:LEU:HD13	1.93	0.51
3:L:3325:ASP:O	3:L:3329:LEU:HG	2.11	0.51
3:L:3759:ARG:HD2	3:L:3763:ARG:HH21	1.76	0.51
1:A:357:LYS:HB2	1:A:360:HIS:NE2	2.26	0.51
1:A:384:ALA:HB1	2:B:454:VAL:HG21	1.92	0.51
2:B:447:THR:N	2:B:450:GLN:OE1	2.44	0.51
3:C:1241:LEU:HB2	3:C:1292:LYS:NZ	2.19	0.51
3:C:2262:GLY:O	3:C:2264:ASP:N	2.44	0.51
1:J:206:LYS:HA	1:J:234:GLU:O	2.11	0.51
1:J:433:GLN:NE2	2:K:354:ARG:HB3	2.25	0.51
3:L:862:LEU:HB3	3:L:866:ILE:HG21	1.93	0.51
3:L:1195:VAL:HG23	3:L:1196:PRO:HD3	1.93	0.51
3:L:1564:SER:O	3:L:1568:ASN:ND2	2.44	0.51
3:L:1577:LEU:O	3:L:1580:LEU:HG	2.11	0.51
3:L:2122:LEU:HB3	3:L:2123:PRO:HD3	1.92	0.51
6:N:19:DA:C2	6:N:20:DG:C4	2.99	0.51
6:N:20:DG:C2	6:N:21:DA:C4	2.99	0.51
9:X:682:ILE:HA	9:X:730:PHE:HZ	1.76	0.51
9:Y:694:GLY:O	9:Y:718:HIS:NE2	2.44	0.51
1:A:95:ASN:ND2	1:A:99:PHE:H	2.06	0.50
3:C:487:LEU:HA	3:C:490:ILE:HG22	1.93	0.50
3:C:723:ASP:OD2	3:C:981:ARG:NH2	2.43	0.50
3:C:1919:CYS:O	3:C:1923:PHE:HB2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2726:LEU:HD11	3:C:2729:ARG:HH22	1.76	0.50
6:E:19:DA:H2"	6:E:20:DG:H8	1.75	0.50
1:J:151:ALA:HB2	1:J:193:LEU:HD11	1.93	0.50
3:L:732:PHE:CZ	3:L:736:LEU:HD21	2.46	0.50
3:L:1410:PRO:O	3:L:1411:TYR:HB3	2.10	0.50
3:L:1919:CYS:O	3:L:1923:PHE:HB2	2.10	0.50
3:L:3033:GLU:OE2	3:L:3036:TYR:HE2	1.94	0.50
6:N:9:DT:H2"	6:N:10:DA:C8	2.45	0.50
9:X:682:ILE:O	9:X:686:GLY:N	2.44	0.50
1:A:151:ALA:HB2	1:A:193:LEU:HD11	1.93	0.50
2:B:74:TYR:HA	2:B:109:ASP:OD1	2.11	0.50
3:C:50:VAL:O	3:C:54:GLN:HG2	2.11	0.50
3:C:461:ILE:O	3:C:464:VAL:HG12	2.11	0.50
3:C:732:PHE:CZ	3:C:736:LEU:HD21	2.46	0.50
3:C:1840:PHE:HD2	3:C:1880:MET:HB3	1.75	0.50
3:C:1862:THR:O	3:C:1865:THR:OG1	2.24	0.50
3:C:2285:LEU:HB3	3:C:2329:TYR:CD2	2.45	0.50
3:C:2443:MET:O	3:C:2446:LEU:HD23	2.11	0.50
3:C:3325:ASP:O	3:C:3328:ILE:HG22	2.10	0.50
3:C:3588:TRP:CH2	3:C:3613:MET:HG2	2.46	0.50
3:C:4040:PRO:HA	3:C:4043:LYS:CG	2.40	0.50
3:L:1037:LEU:HD22	3:L:1088:GLU:HB3	1.93	0.50
3:L:1082:PHE:CZ	3:L:1134:LEU:HG	2.46	0.50
3:L:3380:ARG:O	3:L:3383:GLN:HG3	2.10	0.50
3:L:3382:PHE:HZ	3:L:3445:LEU:HD12	1.76	0.50
1:A:35:ARG:CD	1:A:80:ARG:HG2	2.41	0.50
1:A:167:MET:HA	1:A:201:ASP:O	2.11	0.50
2:B:457:LEU:HD13	2:B:529:PRO:HB2	1.94	0.50
3:C:393:LYS:HA	3:C:396:PHE:CE1	2.46	0.50
3:C:671:SER:HA	3:C:674:VAL:HG12	1.93	0.50
3:C:929:ALA:O	3:C:932:GLU:HG3	2.11	0.50
3:C:1379:PRO:O	3:C:1384:PHE:HB3	2.11	0.50
3:C:1564:SER:O	3:C:1568:ASN:ND2	2.44	0.50
3:C:2418:LYS:O	3:C:2420:PHE:N	2.43	0.50
3:C:2556:SER:HB2	3:C:2799:GLN:HA	1.93	0.50
3:C:3992:ARG:NH2	3:C:4052:ALA:O	2.45	0.50
5:D:7:DA:C4	5:D:8:DA:C8	3.00	0.50
7:F:117:GLU:H	7:F:117:GLU:CD	2.15	0.50
2:K:478:PRO:C	2:K:480:THR:H	2.13	0.50
2:K:551:GLN:NE2	3:L:208:MET:HB2	2.25	0.50
3:L:421:LEU:HA	3:L:424:LEU:HG	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:630:CYS:HA	3:L:633:ILE:HG22	1.93	0.50
3:L:723:ASP:OD2	3:L:981:ARG:NH2	2.43	0.50
3:L:1102:GLU:HG3	3:L:1154:PRO:CA	2.36	0.50
3:L:1815:THR:HG22	3:L:1819:PHE:CE2	2.46	0.50
3:L:3255:ALA:O	3:L:3259:LEU:HD23	2.11	0.50
6:N:19:DA:H2"	6:N:20:DG:H8	1.75	0.50
6:N:23:DT:C2	6:N:24:DT:C4	3.00	0.50
1:A:206:LYS:HA	1:A:234:GLU:O	2.11	0.50
2:B:405:VAL:O	2:B:423:GLN:NE2	2.44	0.50
3:C:334:HIS:C	3:C:336:ASN:H	2.15	0.50
3:C:462:VAL:HG11	3:C:540:MET:HG3	1.94	0.50
3:C:1125:GLN:OE1	3:C:1125:GLN:N	2.39	0.50
3:C:1415:LEU:HA	3:C:1419:LEU:HD13	1.93	0.50
3:C:3325:ASP:O	3:C:3329:LEU:HG	2.11	0.50
3:C:3343:SER:OG	3:C:3344:GLU:N	2.45	0.50
3:C:3535:ILE:HG12	3:C:3797:THR:HA	1.93	0.50
3:C:3698:GLU:HB3	3:C:3718:ARG:HD2	1.94	0.50
5:D:27:DA:H1'	5:D:28:DC:H5"	1.92	0.50
1:J:446:MET:HG2	1:J:447:PRO:HD2	1.92	0.50
3:L:178:LEU:HB3	3:L:196:LEU:HD11	1.94	0.50
3:L:197:PHE:O	3:L:201:LEU:HD23	2.11	0.50
3:L:393:LYS:HA	3:L:396:PHE:CE1	2.46	0.50
3:L:2285:LEU:HB3	3:L:2329:TYR:CD2	2.45	0.50
3:L:2295:GLN:CD	3:L:2295:GLN:H	2.15	0.50
3:L:3141:PHE:CD1	3:L:3189:PHE:CD1	2.99	0.50
3:L:3141:PHE:CG	3:L:3189:PHE:CD1	3.00	0.50
3:L:3940:ILE:HG23	10:L:4201:ADP:N7	2.27	0.50
3:L:3992:ARG:NH2	3:L:4052:ALA:O	2.45	0.50
9:Y:682:ILE:HA	9:Y:730:PHE:HZ	1.76	0.50
2:B:233:LYS:HD2	8:I:299:PHE:CE1	2.46	0.50
3:C:178:LEU:HB3	3:C:196:LEU:HD11	1.94	0.50
3:C:879:MET:N	3:C:879:MET:SD	2.85	0.50
3:C:2094:MET:O	3:C:2098:THR:HG23	2.12	0.50
3:C:2496:GLN:HG3	3:C:2500:LYS:HE2	1.93	0.50
3:C:3033:GLU:OE2	3:C:3036:TYR:HE2	1.94	0.50
3:C:3340:ALA:HA	3:C:3343:SER:HB3	1.94	0.50
1:J:192:ASP:O	1:J:195:ASP:N	2.42	0.50
1:J:211:PHE:HB2	1:J:233:PHE:O	2.11	0.50
1:J:439:PHE:CD2	2:K:484:ASN:HA	2.46	0.50
3:L:406:ARG:NH2	3:L:407:VAL:HG12	2.26	0.50
3:L:406:ARG:HH21	3:L:407:VAL:HA	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:879:MET:N	3:L:879:MET:SD	2.85	0.50
3:L:1089:PHE:O	3:L:1093:GLU:HB2	2.12	0.50
3:L:1828:LEU:HA	3:L:1831:CYS:SG	2.52	0.50
3:L:1913:LYS:HE3	3:L:1955:VAL:HG11	1.93	0.50
3:L:2262:GLY:O	3:L:2264:ASP:N	2.44	0.50
3:L:2726:LEU:HD11	3:L:2729:ARG:HH22	1.76	0.50
3:L:3327:ASN:HD22	3:L:3384:HIS:HE1	1.59	0.50
3:L:3588:TRP:CH2	3:L:3613:MET:HG2	2.46	0.50
3:L:3626:GLY:HA3	3:L:3629:ARG:HB2	1.94	0.50
7:P:117:GLU:CD	7:P:117:GLU:H	2.14	0.50
9:X:681:ARG:HH21	9:X:731:LYS:HE3	1.77	0.50
1:A:113:ALA:C	1:A:115:ARG:H	2.13	0.50
2:B:131:HIS:CD2	8:I:297:GLY:CA	2.95	0.50
3:C:1154:PRO:HG3	3:C:1163:LEU:HD21	1.94	0.50
3:C:2891:ARG:HG3	3:C:2891:ARG:NH2	2.25	0.50
3:C:3141:PHE:CD1	3:C:3189:PHE:CD1	2.99	0.50
3:C:3726:VAL:HG21	3:C:3736:LYS:HD2	1.94	0.50
3:C:3759:ARG:HD2	3:C:3763:ARG:HH21	1.76	0.50
3:L:22:ALA:O	3:L:24:ARG:N	2.43	0.50
3:L:410:MET:N	3:L:411:PRO:HD2	2.27	0.50
3:L:3343:SER:OG	3:L:3344:GLU:N	2.45	0.50
3:L:3406:ALA:O	3:L:3410:ILE:HG12	2.10	0.50
3:L:3786:LEU:HD21	3:L:3983:ILE:HD11	1.94	0.50
1:A:347:LEU:HD12	1:A:397:LEU:O	2.11	0.50
1:A:422:ASP:N	1:A:422:ASP:OD1	2.42	0.50
2:B:238:LYS:HD3	2:B:239:LYS:O	2.11	0.50
3:C:298:LEU:HD12	3:C:316:LEU:HD11	1.94	0.50
3:C:414:LEU:HA	3:C:417:VAL:HG12	1.93	0.50
3:C:938:VAL:HA	3:C:941:MET:CE	2.42	0.50
3:C:949:PRO:HB3	3:L:2579:HIS:CB	2.39	0.50
3:C:1089:PHE:O	3:C:1093:GLU:HB2	2.11	0.50
3:C:1112:ALA:CB	3:C:1183:CYS:HB2	2.41	0.50
3:C:1913:LYS:HE3	3:C:1955:VAL:HG11	1.93	0.50
7:F:187:LYS:HE2	7:F:187:LYS:HA	1.92	0.50
2:K:348:SER:HB3	2:K:388:ASP:OD1	2.11	0.50
2:K:531:SER:HA	2:K:534:LYS:HZ3	1.76	0.50
3:L:1263:ALA:O	3:L:1266:CYS:N	2.45	0.50
3:L:2496:GLN:HG3	3:L:2500:LYS:HE2	1.93	0.50
3:L:3340:ALA:HA	3:L:3343:SER:HB3	1.93	0.50
3:L:3700:GLU:HA	3:L:3718:ARG:HA	1.93	0.50
1:A:211:PHE:HB2	1:A:233:PHE:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:490:ILE:HD11	3:C:524:TYR:HA	1.94	0.50
3:C:630:CYS:HA	3:C:633:ILE:HG22	1.93	0.50
3:C:1261:LEU:HB2	3:C:1337:VAL:HG22	1.93	0.50
3:C:1298:LEU:HA	3:C:1302:ALA:HB2	1.94	0.50
3:C:2281:MET:HA	3:C:2288:TYR:OH	2.12	0.50
3:C:2877:SER:HA	3:C:2929:LEU:HD21	1.93	0.50
3:C:3156:PRO:HD2	3:C:3157:LEU:N	2.23	0.50
6:E:20:DG:C2	6:E:21:DA:C4	3.00	0.50
3:L:50:VAL:O	3:L:54:GLN:HG2	2.11	0.50
3:L:2289:ASP:N	3:L:2290:PRO:HD3	2.27	0.50
3:L:3452:LYS:HD2	3:L:3455:LYS:NZ	2.27	0.50
3:L:3726:VAL:HG21	3:L:3736:LYS:HD2	1.94	0.50
3:L:3729:MET:HG2	3:L:3735:PRO:HG2	1.93	0.50
3:L:3912:CYS:HB3	3:L:3961:PHE:CE1	2.46	0.50
3:L:3921:GLY:HA3	3:L:3949:ALA:HB2	1.93	0.50
2:B:35:LYS:NZ	2:B:95:GLU:HA	2.26	0.50
3:C:406:ARG:HH21	3:C:407:VAL:HA	1.76	0.50
3:C:575:ILE:O	3:C:579:LEU:HG	2.12	0.50
3:C:579:LEU:HD22	3:C:619:ASP:OD1	2.11	0.50
3:C:1553:PHE:HE2	3:C:1558:TYR:HB2	1.77	0.50
3:C:1828:LEU:HA	3:C:1831:CYS:SG	2.52	0.50
3:C:2128:PHE:O	3:C:2132:LYS:HB2	2.12	0.50
3:C:2578:GLU:HG2	3:C:2579:HIS:CD2	2.47	0.50
3:C:3436:SER:O	3:C:3440:GLN:NE2	2.45	0.50
3:C:3502:MET:SD	3:C:3502:MET:N	2.85	0.50
3:C:3666:LEU:O	3:C:3670:MET:HG2	2.12	0.50
3:C:3718:ARG:NH2	3:C:3743:HIS:CD2	2.80	0.50
3:C:4092:GLN:N	3:C:4092:GLN:OE1	2.45	0.50
1:J:35:ARG:CD	1:J:80:ARG:HG2	2.41	0.50
1:J:58:THR:O	1:J:62:MET:N	2.45	0.50
2:K:446:PRO:HB2	2:K:451:LEU:HD21	1.92	0.50
3:L:414:LEU:HA	3:L:417:VAL:HG12	1.93	0.50
3:L:461:ILE:O	3:L:464:VAL:HG12	2.11	0.50
3:L:789:TYR:HB3	3:L:793:LEU:HD23	1.94	0.50
3:L:1379:PRO:O	3:L:1384:PHE:HB3	2.11	0.50
3:L:1913:LYS:O	3:L:1916:ILE:N	2.41	0.50
3:L:1959:LEU:HD21	3:L:2107:SER:HB2	1.94	0.50
3:L:2281:MET:HA	3:L:2288:TYR:OH	2.12	0.50
3:L:3141:PHE:CD1	3:L:3189:PHE:HD1	2.30	0.50
3:L:3815:LEU:HD11	3:L:3890:MET:HE1	1.94	0.50
7:P:187:LYS:HE2	7:P:187:LYS:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:ARG:NH2	1:A:488:ARG:NH1	2.60	0.49
3:C:410:MET:N	3:C:411:PRO:HD2	2.27	0.49
3:C:861:SER:O	3:C:3167:ARG:NH1	2.34	0.49
3:C:3236:PHE:CE1	3:C:3265:GLU:HB3	2.46	0.49
3:C:3940:ILE:HG23	10:C:4201:ADP:N7	2.27	0.49
6:E:4:DT:O2	6:E:5:DA:H1'	2.12	0.49
1:J:384:ALA:HB1	2:K:454:VAL:HG21	1.92	0.49
3:L:487:LEU:HA	3:L:490:ILE:HG22	1.93	0.49
3:L:778:ILE:HD11	3:L:3163:THR:HG22	1.95	0.49
3:L:1298:LEU:HA	3:L:1302:ALA:HB2	1.94	0.49
3:L:1796:GLY:HA2	3:L:1799:GLU:OE2	2.12	0.49
3:L:1866:GLN:OE1	3:L:1866:GLN:N	2.43	0.49
3:L:3508:LYS:HG3	3:L:3509:ASP:N	2.27	0.49
3:L:3718:ARG:NH2	3:L:3743:HIS:CD2	2.80	0.49
3:L:3749:PRO:HG2	3:L:3805:TRP:HB3	1.94	0.49
6:N:26:DT:H2'	6:N:27:DT:C6	2.47	0.49
3:C:1529:VAL:HG11	3:C:1581:GLU:CD	2.33	0.49
3:C:2281:MET:HE3	3:C:2326:ILE:HA	1.94	0.49
3:C:2289:ASP:N	3:C:2290:PRO:HD3	2.27	0.49
3:C:2589:TYR:CD1	3:C:2777:HIS:HB2	2.47	0.49
3:C:2916:LEU:HG	3:C:2918:PRO:HD2	1.93	0.49
3:C:3452:LYS:HD2	3:C:3455:LYS:NZ	2.27	0.49
2:K:238:LYS:HD3	2:K:239:LYS:O	2.11	0.49
3:L:1479:VAL:CG1	3:L:1518:ALA:HA	2.42	0.49
3:L:1553:PHE:HE2	3:L:1558:TYR:HB2	1.77	0.49
3:L:2345:VAL:O	3:L:2349:LEU:HD23	2.12	0.49
3:L:3666:LEU:O	3:L:3670:MET:HG2	2.12	0.49
2:B:348:SER:HB3	2:B:388:ASP:OD1	2.11	0.49
3:C:489:ARG:NH1	3:C:489:ARG:HB2	2.27	0.49
3:C:490:ILE:HD13	3:C:527:TYR:CD1	2.48	0.49
3:C:762:TYR:CE2	3:C:764:PRO:HG2	2.47	0.49
3:C:1760:GLU:O	3:C:1763:THR:OG1	2.17	0.49
3:C:1864:ASP:O	3:C:1867:ILE:HG22	2.12	0.49
3:C:2345:VAL:O	3:C:2349:LEU:HD23	2.12	0.49
3:C:3252:PHE:HZ	3:C:3286:CYS:HG	1.57	0.49
3:C:3626:GLY:HA3	3:C:3629:ARG:HB2	1.94	0.49
3:C:3687:MET:HG3	3:C:3722:PHE:CZ	2.48	0.49
3:C:3881:ASP:H	3:C:3969:ASN:HD22	1.58	0.49
1:J:247:ARG:NH2	1:J:488:ARG:NH1	2.60	0.49
1:J:303:PHE:HB2	1:J:309:GLY:O	2.13	0.49
1:J:309:GLY:O	1:J:310:LEU:HD23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:347:LEU:HD12	1:J:397:LEU:O	2.11	0.49
3:L:888:ARG:HH11	3:L:3932:MET:HG2	1.75	0.49
3:L:1154:PRO:HG3	3:L:1163:LEU:HD21	1.94	0.49
3:L:1839:PHE:O	3:L:1843:ILE:HG12	2.12	0.49
3:L:2228:ARG:HD2	5:M:29:DA:H3'	1.94	0.49
3:L:2887:PRO:HA	3:L:2890:ILE:HD13	1.94	0.49
3:L:3701:ILE:HG23	3:L:3750:PHE:CE2	2.48	0.49
3:L:4003:ASP:O	3:L:4006:VAL:HG23	2.12	0.49
5:M:7:DA:C4	5:M:8:DA:C8	3.00	0.49
2:B:348:SER:OG	2:B:349:SER:N	2.46	0.49
3:C:197:PHE:O	3:C:201:LEU:HD23	2.12	0.49
3:C:1037:LEU:HD22	3:C:1088:GLU:HB3	1.93	0.49
3:C:1411:TYR:CD1	3:C:1414:ILE:HD13	2.46	0.49
3:C:1760:GLU:O	3:C:1764:GLU:OE1	2.30	0.49
3:C:2286:PRO:HD2	3:C:2288:TYR:OH	2.13	0.49
3:C:2602:LEU:HB2	3:C:2605:MET:HE3	1.95	0.49
3:C:2886:GLN:O	3:C:2890:ILE:HD12	2.13	0.49
3:C:3701:ILE:HG23	3:C:3750:PHE:CE2	2.48	0.49
1:J:167:MET:HA	1:J:201:ASP:O	2.11	0.49
1:J:357:LYS:HB2	1:J:360:HIS:NE2	2.26	0.49
1:J:487:PHE:O	1:J:490:LEU:HB3	2.13	0.49
2:K:35:LYS:NZ	2:K:95:GLU:HA	2.27	0.49
3:L:201:LEU:HD21	3:L:248:ILE:HD11	1.94	0.49
3:L:258:PRO:HG3	3:L:300:TRP:CZ3	2.47	0.49
3:L:342:MET:HA	3:L:345:PHE:CZ	2.47	0.49
3:L:489:ARG:HB2	3:L:489:ARG:NH1	2.27	0.49
3:L:1112:ALA:CB	3:L:1183:CYS:HB2	2.42	0.49
3:L:2274:ILE:CD1	3:L:2306:ASN:HD21	2.25	0.49
3:L:2877:SER:HA	3:L:2929:LEU:HD21	1.93	0.49
3:L:2886:GLN:O	3:L:2890:ILE:HD12	2.13	0.49
3:L:3042:PRO:HB3	3:L:3082:TYR:OH	2.12	0.49
3:L:3791:TYR:OH	3:L:3940:ILE:O	2.26	0.49
2:B:280:ASP:OD1	2:B:281:ALA:N	2.45	0.49
2:B:413:LYS:O	2:B:416:TYR:N	2.42	0.49
3:C:99:LYS:C	3:C:101:ALA:H	2.15	0.49
3:C:258:PRO:HG3	3:C:300:TRP:CZ3	2.47	0.49
3:C:741:ILE:HG23	3:C:748:TYR:CD2	2.48	0.49
3:C:889:GLU:HB3	3:C:891:ARG:NH2	2.28	0.49
3:C:1839:PHE:O	3:C:1843:ILE:HG12	2.12	0.49
3:C:2443:MET:HG3	3:C:2479:TRP:CE3	2.48	0.49
3:C:3141:PHE:CG	3:C:3189:PHE:CD1	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3584:LEU:HD21	3:C:3629:ARG:NH2	2.28	0.49
3:C:3786:LEU:HD21	3:C:3983:ILE:HD11	1.93	0.49
7:G:134:ILE:HG22	7:G:138:GLN:NE2	2.25	0.49
2:K:457:LEU:HD13	2:K:529:PRO:HB2	1.94	0.49
3:L:298:LEU:HD12	3:L:316:LEU:HD11	1.94	0.49
3:L:364:ARG:NE	3:L:415:GLN:HG2	2.28	0.49
3:L:490:ILE:HD13	3:L:527:TYR:CD1	2.48	0.49
3:L:1141:LYS:O	3:L:1145:LEU:HB2	2.12	0.49
3:L:1261:LEU:HB2	3:L:1337:VAL:HG22	1.93	0.49
3:L:1864:ASP:O	3:L:1867:ILE:HG22	2.12	0.49
3:L:1913:LYS:H	3:L:1913:LYS:HD2	1.78	0.49
3:L:2146:LEU:O	3:L:2149:LEU:HB3	2.13	0.49
3:L:2286:PRO:HD2	3:L:2288:TYR:OH	2.13	0.49
3:L:3296:GLN:O	3:L:3299:THR:OG1	2.21	0.49
3:L:3499:ILE:HD11	3:L:3529:ILE:HD13	1.94	0.49
3:L:3531:TYR:O	3:L:3534:ILE:HG22	2.13	0.49
3:L:3557:ARG:O	3:L:3560:SER:OG	2.30	0.49
7:O:187:LYS:HZ2	7:P:184:LEU:HD22	1.77	0.49
1:A:269:ILE:HG21	1:A:381:LEU:HD22	1.94	0.49
1:A:416:GLN:HG3	2:B:354:ARG:NH2	2.27	0.49
2:B:489:ARG:NH1	2:B:493:CYS:HB2	2.28	0.49
3:C:342:MET:HA	3:C:345:PHE:CZ	2.47	0.49
3:C:421:LEU:HA	3:C:424:LEU:HG	1.93	0.49
3:C:789:TYR:HB3	3:C:793:LEU:HD23	1.94	0.49
3:C:1225:GLU:O	3:C:1235:ILE:N	2.39	0.49
3:C:2157:PHE:CD2	3:C:2164:TRP:HZ3	2.31	0.49
3:C:2169:LEU:HD11	3:C:2215:LEU:HG	1.93	0.49
3:C:2274:ILE:CD1	3:C:2306:ASN:HD21	2.24	0.49
3:C:2295:GLN:CD	3:C:2295:GLN:H	2.15	0.49
3:C:2371:PHE:CD2	3:C:2373:PRO:HD2	2.47	0.49
3:C:2579:HIS:CB	3:L:949:PRO:HB3	2.41	0.49
3:C:3531:TYR:HE1	3:C:3568:ILE:HG23	1.78	0.49
3:C:3687:MET:HG3	3:C:3722:PHE:HZ	1.77	0.49
3:C:3815:LEU:HD11	3:C:3890:MET:HE1	1.94	0.49
3:C:4003:ASP:O	3:C:4006:VAL:HG23	2.12	0.49
6:E:23:DT:C2	6:E:24:DT:C4	3.00	0.49
1:J:72:ILE:HA	1:J:75:ILE:HG12	1.94	0.49
1:J:416:GLN:HG3	2:K:354:ARG:NH2	2.27	0.49
2:K:242:ARG:NH2	2:K:243:HIS:H	2.11	0.49
2:K:280:ASP:OD1	2:K:281:ALA:N	2.45	0.49
3:L:1015:ASP:HA	3:L:1018:VAL:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1134:LEU:HA	3:L:1137:ILE:HG12	1.94	0.49
3:L:1834:ASP:HA	3:L:1837:ARG:CZ	2.43	0.49
3:L:2157:PHE:CD2	3:L:2164:TRP:HZ3	2.30	0.49
3:L:2556:SER:HB2	3:L:2799:GLN:HA	1.93	0.49
1:A:38:LEU:HD11	1:A:167:MET:HG2	1.94	0.49
1:A:309:GLY:O	1:A:310:LEU:HD23	2.13	0.49
1:A:439:PHE:CD2	2:B:484:ASN:HA	2.46	0.49
2:B:68:LEU:O	2:B:74:TYR:HB2	2.13	0.49
3:C:1141:LYS:O	3:C:1145:LEU:HB2	2.12	0.49
3:C:1195:VAL:HG23	3:C:1196:PRO:HD3	1.94	0.49
3:C:1479:VAL:CG1	3:C:1518:ALA:HA	2.42	0.49
3:C:1920:TYR:O	3:C:1923:PHE:HB3	2.12	0.49
3:C:3729:MET:HG2	3:C:3735:PRO:HG2	1.93	0.49
3:C:3791:TYR:OH	3:C:3940:ILE:O	2.26	0.49
3:C:4076:ASP:OD1	3:C:4077:TYR:N	2.46	0.49
6:E:26:DT:H2'	6:E:27:DT:C6	2.47	0.49
2:K:68:LEU:O	2:K:74:TYR:HB2	2.13	0.49
3:L:462:VAL:HG11	3:L:540:MET:HG3	1.93	0.49
3:L:575:ILE:O	3:L:579:LEU:HG	2.12	0.49
3:L:2371:PHE:CD2	3:L:2373:PRO:HD2	2.47	0.49
3:L:2443:MET:HG3	3:L:2479:TRP:CE3	2.48	0.49
3:L:2454:LEU:O	3:L:2458:VAL:HG23	2.13	0.49
3:L:3044:MET:O	3:L:3047:SER:OG	2.31	0.49
3:L:3436:SER:O	3:L:3440:GLN:NE2	2.45	0.49
3:L:4076:ASP:OD1	3:L:4077:TYR:N	2.46	0.49
3:L:4092:GLN:OE1	3:L:4092:GLN:N	2.45	0.49
1:A:49:PHE:HZ	1:A:128:GLN:O	1.96	0.49
1:A:487:PHE:O	1:A:490:LEU:HB3	2.13	0.49
2:B:340:PHE:HA	2:B:394:ARG:O	2.13	0.49
2:B:352:GLN:OE1	2:B:354:ARG:NH1	2.46	0.49
3:C:51:LEU:HD11	3:C:96:MET:SD	2.52	0.49
3:C:910:PHE:HZ	3:C:2808:LEU:HA	1.77	0.49
3:C:3449:LYS:O	3:C:3452:LYS:HB3	2.13	0.49
3:C:3508:LYS:HG3	3:C:3509:ASP:N	2.27	0.49
3:C:3749:PRO:HG2	3:C:3805:TRP:HB3	1.94	0.49
8:H:97:CYS:SG	8:H:104:LEU:HD11	2.53	0.49
1:J:376:ILE:HB	2:K:540:ILE:HB	1.95	0.49
2:K:348:SER:OG	2:K:349:SER:N	2.46	0.49
3:L:490:ILE:HD11	3:L:524:TYR:HA	1.94	0.49
3:L:762:TYR:CE2	3:L:764:PRO:HG2	2.47	0.49
3:L:789:TYR:HA	3:L:792:ILE:CG2	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1920:TYR:O	3:L:1923:PHE:HB3	2.12	0.49
3:L:2598:ARG:O	3:L:2598:ARG:NE	2.42	0.49
3:L:3535:ILE:HG12	3:L:3797:THR:HA	1.93	0.49
3:L:4038:TRP:O	3:L:4041:ARG:HG2	2.13	0.49
1:A:493:LEU:CD1	9:X:708:ARG:HG3	2.42	0.49
3:C:16:GLN:CD	3:C:63:PHE:HB2	2.33	0.49
3:C:364:ARG:NE	3:C:415:GLN:HG2	2.28	0.49
3:C:395:MET:HE1	3:C:410:MET:HB3	1.95	0.49
3:C:478:CYS:O	3:C:481:THR:OG1	2.23	0.49
3:C:1834:ASP:HA	3:C:1837:ARG:CZ	2.43	0.49
3:C:3327:ASN:HD22	3:C:3384:HIS:HE1	1.59	0.49
3:C:3880:ALA:HB2	3:C:3965:ARG:HH22	1.78	0.49
2:K:447:THR:N	2:K:450:GLN:OE1	2.44	0.49
3:L:51:LEU:HD11	3:L:96:MET:SD	2.52	0.49
3:L:664:SER:OG	3:L:665:GLY:N	2.46	0.49
3:L:2580:PRO:HD3	3:L:2784:GLN:OE1	2.13	0.49
3:L:3929:MET:HB2	3:L:3940:ILE:CD1	2.36	0.49
1:A:72:ILE:HA	1:A:75:ILE:HG12	1.94	0.49
3:C:406:ARG:NE	3:C:448:GLN:OE1	2.46	0.49
3:C:778:ILE:HD11	3:C:3163:THR:HG22	1.94	0.49
3:C:972:LEU:HD23	3:C:984:TYR:CE2	2.48	0.49
3:C:2257:PHE:HE1	3:C:2302:ALA:HB3	1.78	0.49
3:C:2542:LEU:HA	3:C:2545:LEU:HD23	1.95	0.49
3:C:2580:PRO:HD3	3:C:2784:GLN:OE1	2.13	0.49
3:C:3169:PRO:HB2	3:C:3179:TRP:CZ3	2.48	0.49
3:L:972:LEU:HD23	3:L:984:TYR:CE2	2.48	0.49
3:L:1760:GLU:O	3:L:1763:THR:OG1	2.17	0.49
3:L:1890:HIS:CE1	3:L:1955:VAL:HA	2.48	0.49
3:L:3452:LYS:HD2	3:L:3455:LYS:HZ1	1.78	0.49
5:M:19:DA:C4	5:M:20:DG:C8	3.01	0.49
2:B:242:ARG:NH2	2:B:243:HIS:H	2.11	0.48
2:B:465:LYS:HG2	2:B:474:GLU:HB2	1.95	0.48
3:C:2185:MET:HE3	3:C:2189:ILE:HD11	1.94	0.48
3:C:2228:ARG:HD2	5:D:29:DA:H3'	1.94	0.48
3:C:2581:LEU:CD1	3:C:2783:ILE:HG13	2.43	0.48
3:C:3065:ILE:HD12	3:C:3089:LEU:HD22	1.94	0.48
3:C:3141:PHE:CD1	3:C:3189:PHE:HD1	2.31	0.48
1:J:206:LYS:NZ	1:J:235:GLU:HB2	2.28	0.48
3:L:910:PHE:HZ	3:L:2808:LEU:HA	1.78	0.48
3:L:1909:ASN:O	3:L:1913:LYS:NZ	2.43	0.48
1:A:264:ASN:OD1	1:A:267:ILE:N	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:376:ILE:HB	2:B:540:ILE:HB	1.95	0.48
3:C:252:VAL:O	3:C:256:ILE:HG12	2.13	0.48
3:C:2105:HIS:HB2	3:C:2156:VAL:HG13	1.95	0.48
7:G:134:ILE:HG23	7:G:138:GLN:NE2	2.07	0.48
3:L:99:LYS:C	3:L:101:ALA:H	2.15	0.48
3:L:334:HIS:C	3:L:336:ASN:H	2.15	0.48
3:L:1760:GLU:O	3:L:1764:GLU:OE1	2.30	0.48
3:L:2169:LEU:HD11	3:L:2215:LEU:HG	1.94	0.48
3:L:3465:PHE:HD2	3:L:3498:TRP:CZ2	2.30	0.48
1:A:312:LEU:HB3	1:A:313:PRO:HD2	1.95	0.48
3:C:201:LEU:HD21	3:C:248:ILE:HD11	1.95	0.48
3:C:479:ILE:HA	3:C:482:VAL:HG12	1.95	0.48
3:C:1959:LEU:HD21	3:C:2107:SER:HB2	1.95	0.48
3:C:2887:PRO:HA	3:C:2890:ILE:HD13	1.94	0.48
3:C:3925:LEU:HD11	3:C:4128:MET:SD	2.53	0.48
3:C:4038:TRP:O	3:C:4041:ARG:HG2	2.13	0.48
5:D:27:DA:C4	5:D:28:DC:C5	3.02	0.48
1:J:193:LEU:HA	1:J:196:THR:HG22	1.95	0.48
1:J:279:LYS:HB2	2:K:357:MET:SD	2.54	0.48
1:J:312:LEU:HB3	1:J:313:PRO:HD2	1.95	0.48
2:K:47:PHE:HZ	2:K:495:LEU:HB2	1.77	0.48
3:L:16:GLN:CD	3:L:63:PHE:HB2	2.33	0.48
3:L:938:VAL:HA	3:L:941:MET:CE	2.42	0.48
3:L:1921:ASP:OD1	3:L:1922:ALA:N	2.47	0.48
3:L:2128:PHE:O	3:L:2132:LYS:HB2	2.12	0.48
3:L:2311:ARG:HD3	3:L:2312:TYR:CE1	2.48	0.48
3:L:2589:TYR:CD1	3:L:2777:HIS:HB2	2.47	0.48
3:L:3496:ILE:HD11	3:L:3528:ALA:CB	2.43	0.48
3:L:3659:PHE:O	3:L:3663:THR:HG23	2.13	0.48
3:L:3687:MET:HG3	3:L:3722:PHE:HZ	1.77	0.48
7:P:140:LYS:HE2	7:P:140:LYS:HA	1.95	0.48
9:Y:681:ARG:HH21	9:Y:731:LYS:HE3	1.77	0.48
1:A:58:THR:O	1:A:62:MET:N	2.45	0.48
1:A:303:PHE:HB2	1:A:309:GLY:O	2.13	0.48
1:A:392:LYS:HZ2	2:B:459:ASP:CG	2.16	0.48
3:C:13:LEU:HD21	3:C:3070:HIS:HD2	1.78	0.48
3:C:333:MET:HB3	3:C:337:LYS:HZ3	1.77	0.48
3:C:1015:ASP:HA	3:C:1018:VAL:HG12	1.94	0.48
3:C:1134:LEU:HA	3:C:1137:ILE:HG12	1.94	0.48
3:C:2454:LEU:O	3:C:2458:VAL:HG23	2.13	0.48
3:C:2503:LYS:O	3:C:2507:ILE:HG12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3044:MET:O	3:C:3047:SER:OG	2.31	0.48
2:K:340:PHE:HA	2:K:394:ARG:O	2.13	0.48
3:L:13:LEU:HD21	3:L:3070:HIS:HD2	1.78	0.48
3:L:741:ILE:HG23	3:L:748:TYR:CD2	2.48	0.48
3:L:889:GLU:HB3	3:L:891:ARG:NH2	2.28	0.48
3:L:1840:PHE:O	3:L:1844:VAL:HB	2.14	0.48
3:L:2281:MET:HE3	3:L:2326:ILE:HA	1.94	0.48
3:L:2578:GLU:HG2	3:L:2579:HIS:CD2	2.47	0.48
3:L:3247:ARG:HG2	3:L:3247:ARG:HH11	1.79	0.48
3:L:3584:LEU:HD21	3:L:3629:ARG:NH2	2.28	0.48
3:L:3717:VAL:HG23	3:L:3744:ASP:H	1.78	0.48
6:N:6:DA:H8	6:N:6:DA:O5'	1.96	0.48
1:A:142:SER:HA	1:A:182:LYS:CE	2.43	0.48
2:B:125:LYS:HG3	2:B:127:PHE:CE2	2.48	0.48
3:C:125:ILE:HB	3:C:126:PRO:HD3	1.96	0.48
3:C:220:LEU:HD22	3:C:267:VAL:HG13	1.95	0.48
3:C:1913:LYS:H	3:C:1913:LYS:HD2	1.78	0.48
3:C:1921:ASP:OD1	3:C:1922:ALA:N	2.47	0.48
3:C:2261:SER:O	3:C:2263:LYS:HE2	2.14	0.48
3:C:3042:PRO:HB3	3:C:3082:TYR:OH	2.12	0.48
3:C:3554:PHE:CZ	3:C:3558:ILE:HD11	2.48	0.48
3:C:3710:LYS:HZ1	3:C:3712:LEU:HD22	1.77	0.48
1:J:340:PHE:CE1	2:K:485:PRO:HB2	2.36	0.48
3:L:333:MET:HB3	3:L:337:LYS:HZ3	1.77	0.48
3:L:367:GLY:O	3:L:370:ALA:N	2.47	0.48
3:L:406:ARG:NE	3:L:448:GLN:OE1	2.46	0.48
3:L:745:VAL:HG22	3:L:746:ARG:H	1.79	0.48
3:L:1407:LYS:HA	3:L:1412:LYS:HE2	1.94	0.48
3:L:1529:VAL:HG11	3:L:1581:GLU:CD	2.33	0.48
3:L:1795:VAL:HG12	3:L:1799:GLU:OE1	2.14	0.48
3:L:2094:MET:O	3:L:2098:THR:HG23	2.12	0.48
3:L:3172:LYS:HE3	3:L:3248:LYS:HE2	1.95	0.48
3:L:3493:TRP:O	3:L:3496:ILE:HG22	2.14	0.48
3:L:3698:GLU:HB3	3:L:3718:ARG:HD2	1.93	0.48
6:N:4:DT:O2	6:N:5:DA:H1'	2.12	0.48
1:A:35:ARG:NH1	1:A:159:PHE:CG	2.81	0.48
3:C:664:SER:OG	3:C:665:GLY:N	2.46	0.48
3:C:1122:GLY:C	3:C:1124:ILE:H	2.17	0.48
3:C:1796:GLY:HA2	3:C:1799:GLU:OE2	2.12	0.48
3:C:3465:PHE:HD2	3:C:3498:TRP:CZ2	2.31	0.48
3:C:3499:ILE:HD11	3:C:3529:ILE:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:478:PRO:O	2:K:479:THR:OG1	2.23	0.48
3:L:252:VAL:O	3:L:256:ILE:HG12	2.13	0.48
3:L:532:ARG:HG3	3:L:532:ARG:NH1	2.28	0.48
3:L:1073:PHE:CE2	3:L:1121:LEU:HD13	2.49	0.48
3:L:1122:GLY:C	3:L:1124:ILE:H	2.17	0.48
3:L:1538:LEU:HD12	3:L:1553:PHE:CE2	2.49	0.48
3:L:2256:ILE:HG22	3:L:2260:PHE:CE2	2.49	0.48
3:L:3449:LYS:O	3:L:3452:LYS:HB3	2.13	0.48
3:L:3554:PHE:CZ	3:L:3558:ILE:HD11	2.48	0.48
3:L:3687:MET:HG3	3:L:3722:PHE:CZ	2.48	0.48
7:O:134:ILE:HG22	7:O:138:GLN:NE2	2.24	0.48
9:Y:729:CYS:SG	9:Y:736:VAL:HB	2.54	0.48
1:A:317:LYS:NZ	1:A:330:GLU:HA	2.28	0.48
3:C:264:ARG:HD3	3:C:264:ARG:HA	1.68	0.48
3:C:367:GLY:O	3:C:370:ALA:N	2.47	0.48
3:C:683:PHE:CD1	3:C:737:PRO:HG3	2.48	0.48
3:C:1816:ARG:HA	3:C:1819:PHE:CD2	2.48	0.48
3:C:2146:LEU:O	3:C:2149:LEU:HB3	2.13	0.48
3:C:3531:TYR:O	3:C:3534:ILE:HG22	2.13	0.48
3:C:3659:PHE:O	3:C:3663:THR:HG23	2.13	0.48
3:C:3712:LEU:O	3:C:3714:GLU:N	2.46	0.48
3:C:3717:VAL:HG23	3:C:3744:ASP:H	1.78	0.48
5:D:1:DT:N3	6:E:30:DA:N7	2.62	0.48
7:F:184:LEU:HD22	7:G:187:LYS:HZ2	1.78	0.48
1:J:269:ILE:HG21	1:J:381:LEU:HD22	1.94	0.48
1:J:329:LEU:HD21	2:K:493:CYS:SG	2.54	0.48
2:K:465:LYS:HG2	2:K:474:GLU:HB2	1.95	0.48
3:L:1110:SER:O	3:L:1113:LEU:N	2.47	0.48
3:L:1816:ARG:HA	3:L:1819:PHE:CD2	2.49	0.48
3:L:2105:HIS:HB2	3:L:2156:VAL:HG13	1.95	0.48
3:L:2261:SER:O	3:L:2263:LYS:HE2	2.14	0.48
3:L:2595:TRP:CE3	3:L:2764:LYS:HE2	2.49	0.48
3:L:3684:SER:HB3	3:L:3687:MET:HE2	1.96	0.48
3:L:3760:GLN:O	3:L:3763:ARG:HG2	2.14	0.48
1:A:206:LYS:NZ	1:A:235:GLU:HB2	2.28	0.48
2:B:47:PHE:CZ	2:B:495:LEU:HB2	2.49	0.48
2:B:164:PHE:HB3	2:B:227:PHE:HE1	1.79	0.48
2:B:281:ALA:O	2:B:283:THR:N	2.47	0.48
3:C:344:GLN:O	3:C:348:ILE:HG12	2.14	0.48
3:C:1487:VAL:HG21	3:C:1563:PHE:HE2	1.78	0.48
3:C:1935:GLU:HG2	3:C:1936:ARG:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:19:DA:C4	5:D:20:DG:C8	3.01	0.48
1:J:38:LEU:HD11	1:J:167:MET:HG2	1.94	0.48
2:K:66:ASN:ND2	2:K:74:TYR:O	2.44	0.48
3:L:125:ILE:HB	3:L:126:PRO:HD3	1.96	0.48
3:L:650:SER:O	3:L:653:LEU:N	2.45	0.48
3:L:1176:CYS:SG	3:L:1188:ILE:HG12	2.54	0.48
3:L:1333:SER:O	3:L:1336:THR:OG1	2.19	0.48
3:L:1705:GLY:O	3:L:1707:LEU:HD12	2.14	0.48
3:L:1834:ASP:HA	3:L:1837:ARG:NH1	2.29	0.48
3:L:2257:PHE:HE1	3:L:2302:ALA:HB3	1.78	0.48
3:L:2319:ALA:O	3:L:2323:LEU:HD23	2.14	0.48
3:L:2542:LEU:HA	3:L:2545:LEU:HD23	1.95	0.48
3:L:3065:ILE:HD12	3:L:3089:LEU:HD22	1.94	0.48
3:L:3230:LEU:O	3:L:3233:SER:OG	2.22	0.48
3:L:3542:PHE:CZ	3:L:3555:VAL:HG21	2.49	0.48
9:Y:663:GLU:HG3	9:Y:697:THR:HA	1.95	0.48
2:B:391:ALA:O	2:B:408:ALA:N	2.44	0.48
2:B:523:THR:O	2:B:527:GLN:NE2	2.47	0.48
3:C:89:LEU:HD23	3:C:89:LEU:HA	1.68	0.48
3:C:617:PRO:O	3:C:620:PHE:N	2.47	0.48
3:C:924:ARG:HD2	3:C:2597:PHE:CE1	2.48	0.48
3:C:935:HIS:HB2	3:C:984:TYR:CE1	2.46	0.48
3:C:1176:CYS:SG	3:C:1188:ILE:HG12	2.54	0.48
3:C:1890:HIS:CE1	3:C:1955:VAL:HA	2.48	0.48
3:C:1959:LEU:HA	3:C:1962:TYR:HB2	1.96	0.48
3:C:2595:TRP:CE3	3:C:2764:LYS:HE2	2.49	0.48
6:E:6:DA:H8	6:E:6:DA:O5'	1.96	0.48
2:K:392:ILE:HD13	2:K:407:VAL:HA	1.95	0.48
3:L:479:ILE:HA	3:L:482:VAL:HG12	1.95	0.48
3:L:617:PRO:O	3:L:620:PHE:N	2.47	0.48
3:L:990:GLN:NE2	3:L:2778:GLY:O	2.47	0.48
3:L:2256:ILE:O	3:L:2259:LYS:N	2.46	0.48
3:L:2503:LYS:O	3:L:2507:ILE:HG12	2.13	0.48
3:L:3880:ALA:HB2	3:L:3965:ARG:HH22	1.78	0.48
1:A:465:ILE:HG23	1:A:518:LEU:HD11	1.96	0.48
2:B:441:SER:HG	2:B:445:ALA:H	1.57	0.48
3:C:287:LEU:O	3:C:290:TYR:HD1	1.97	0.48
3:C:532:ARG:HG3	3:C:532:ARG:NH1	2.28	0.48
3:C:650:SER:O	3:C:653:LEU:N	2.45	0.48
3:C:828:LYS:HA	3:C:831:LEU:HD13	1.95	0.48
3:C:1017:ILE:HD13	3:C:1029:CYS:CB	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1407:LYS:HA	3:C:1412:LYS:HE2	1.94	0.48
3:C:2936:TYR:HD2	3:C:2961:ALA:HA	1.79	0.48
3:C:3467:ARG:HA	3:C:3467:ARG:HD2	1.48	0.48
6:E:5:DA:H2'	6:E:6:DA:C8	2.49	0.48
1:J:35:ARG:NH1	1:J:159:PHE:CG	2.81	0.48
1:J:488:ARG:O	1:J:491:GLU:N	2.47	0.48
2:K:352:GLN:OE1	2:K:354:ARG:NH1	2.45	0.48
2:K:391:ALA:O	2:K:408:ALA:N	2.44	0.48
2:K:523:THR:O	2:K:527:GLN:NE2	2.47	0.48
3:L:287:LEU:O	3:L:290:TYR:HD1	1.97	0.48
3:L:683:PHE:CD1	3:L:737:PRO:HG3	2.48	0.48
3:L:1421:GLU:C	3:L:1422:LYS:HD3	2.35	0.48
3:L:1487:VAL:HG21	3:L:1563:PHE:HE2	1.79	0.48
3:L:2936:TYR:HD2	3:L:2961:ALA:HA	1.79	0.48
5:M:27:DA:C4	5:M:28:DC:C5	3.02	0.48
6:N:5:DA:H2'	6:N:6:DA:C8	2.49	0.48
1:A:193:LEU:HA	1:A:196:THR:HG22	1.95	0.47
1:A:340:PHE:CE1	2:B:485:PRO:HB2	2.36	0.47
1:A:462:MET:HA	1:A:465:ILE:HD13	1.96	0.47
3:C:290:TYR:CE2	3:C:291:VAL:HG13	2.49	0.47
3:C:1595:ALA:HA	3:C:1598:ASN:ND2	2.29	0.47
3:C:1638:PRO:HB2	3:C:1640:GLU:OE2	2.14	0.47
3:C:2256:ILE:O	3:C:2259:LYS:N	2.46	0.47
3:C:3045:ILE:O	3:C:3049:LEU:HD23	2.14	0.47
3:C:3496:ILE:HD11	3:C:3528:ALA:CB	2.43	0.47
3:C:3856:MET:CE	3:C:4071:ALA:HB1	2.44	0.47
3:C:3915:HIS:O	3:C:3919:GLY:N	2.46	0.47
6:E:11:DC:C2	6:E:12:DT:C5	3.02	0.47
1:J:317:LYS:NZ	1:J:330:GLU:HA	2.28	0.47
2:K:54:ILE:N	2:K:84:MET:O	2.33	0.47
2:K:125:LYS:HG3	2:K:127:PHE:CE2	2.48	0.47
2:K:281:ALA:O	2:K:283:THR:N	2.47	0.47
2:K:447:THR:O	2:K:451:LEU:HG	2.14	0.47
3:L:290:TYR:CE2	3:L:291:VAL:HG13	2.48	0.47
3:L:716:VAL:HG22	3:L:1120:SER:O	2.14	0.47
3:L:3712:LEU:O	3:L:3714:GLU:N	2.46	0.47
3:L:3925:LEU:HD11	3:L:4128:MET:SD	2.53	0.47
5:M:23:DG:C2	5:M:24:DA:C4	3.02	0.47
6:N:11:DC:C2	6:N:12:DT:C5	3.02	0.47
1:A:480:ASN:ND2	1:A:483:LEU:H	2.12	0.47
3:C:661:PRO:O	3:C:662:LEU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:709:LYS:HG2	3:C:1388:ASP:CB	2.44	0.47
3:C:1073:PHE:CE2	3:C:1121:LEU:HD13	2.49	0.47
5:D:23:DG:H2'	5:D:24:DA:H8	1.78	0.47
8:H:298:LEU:HD23	2:K:164:PHE:CE2	2.49	0.47
2:K:486:ARG:NH1	6:N:19:DA:OP2	2.41	0.47
2:K:495:LEU:O	2:K:498:ALA:N	2.37	0.47
3:L:924:ARG:HD2	3:L:2597:PHE:CE1	2.48	0.47
3:L:1017:ILE:HD13	3:L:1029:CYS:CB	2.44	0.47
3:L:1388:ASP:OD1	3:L:1391:VAL:HB	2.15	0.47
3:L:1959:LEU:HA	3:L:1962:TYR:HB2	1.97	0.47
3:L:3531:TYR:HE1	3:L:3568:ILE:HG23	1.78	0.47
3:L:3915:HIS:O	3:L:3919:GLY:N	2.46	0.47
1:A:488:ARG:O	1:A:491:GLU:N	2.47	0.47
2:B:392:ILE:HD13	2:B:407:VAL:HA	1.95	0.47
3:C:1333:SER:O	3:C:1337:VAL:HG23	2.15	0.47
3:C:1538:LEU:HD12	3:C:1553:PHE:CE2	2.49	0.47
3:C:3721:GLY:O	3:C:3741:ARG:HG2	2.14	0.47
6:E:5:DA:C8	6:E:6:DA:N7	2.82	0.47
1:J:49:PHE:HZ	1:J:128:GLN:O	1.96	0.47
1:J:320:GLN:HG2	2:K:276:TRP:CZ3	2.49	0.47
1:J:463:LYS:HG2	2:K:387:LEU:HD11	1.96	0.47
2:K:440:ASN:O	2:K:442:LYS:N	2.43	0.47
3:L:2295:GLN:HE21	3:L:2298:GLU:HB2	1.78	0.47
3:L:3290:SER:OG	3:L:3291:GLN:N	2.48	0.47
3:L:3467:ARG:HD2	3:L:3467:ARG:HA	1.48	0.47
3:L:3575:LEU:O	3:L:3579:SER:OG	2.32	0.47
5:M:1:DT:N3	6:N:30:DA:N7	2.62	0.47
9:X:729:CYS:SG	9:X:736:VAL:HB	2.54	0.47
1:A:279:LYS:HB2	2:B:357:MET:SD	2.54	0.47
1:A:411:VAL:HG21	1:A:434:LEU:HB3	1.96	0.47
2:B:47:PHE:HZ	2:B:495:LEU:HB2	1.77	0.47
3:C:828:LYS:HA	3:C:831:LEU:CD1	2.45	0.47
3:C:1110:SER:O	3:C:1113:LEU:N	2.47	0.47
3:C:1694:THR:O	3:C:1697:PRO:HD2	2.14	0.47
3:C:1791:CYS:O	3:C:1795:VAL:HG23	2.14	0.47
3:C:2256:ILE:HG22	3:C:2260:PHE:CE2	2.49	0.47
3:C:2311:ARG:HD3	3:C:2312:TYR:CE1	2.48	0.47
3:C:3274:VAL:HA	3:C:3277:VAL:HG12	1.97	0.47
3:C:3493:TRP:O	3:C:3496:ILE:HG22	2.14	0.47
1:J:479:GLU:HG2	2:K:427:MET:HG2	1.96	0.47
2:K:68:LEU:HD12	2:K:113:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:129:LYS:HZ3	2:K:131:HIS:CD2	2.32	0.47
2:K:358:GLY:CA	2:K:423:GLN:HB3	2.44	0.47
3:L:334:HIS:CD2	3:L:334:HIS:N	2.81	0.47
3:L:641:PHE:O	3:L:644:PRO:HD2	2.15	0.47
3:L:828:LYS:HA	3:L:831:LEU:HD13	1.96	0.47
3:L:861:SER:O	3:L:3167:ARG:NH1	2.34	0.47
3:L:1741:ASP:O	3:L:1745:LYS:HG2	2.15	0.47
3:L:1828:LEU:HD23	3:L:1880:MET:HE3	1.95	0.47
3:L:3493:TRP:O	3:L:3495:PHE:N	2.48	0.47
3:L:3721:GLY:O	3:L:3741:ARG:HG2	2.14	0.47
5:M:8:DA:H2'	5:M:9:DC:C6	2.49	0.47
5:M:9:DC:H2"	5:M:10:DT:O4'	2.14	0.47
6:N:5:DA:C8	6:N:6:DA:N7	2.83	0.47
1:A:132:GLN:NE2	1:A:133:ASP:HB3	2.30	0.47
2:B:24:ILE:HG22	2:B:26:GLY:H	1.79	0.47
3:C:1388:ASP:OD1	3:C:1391:VAL:HB	2.15	0.47
3:C:1795:VAL:HG12	3:C:1799:GLU:OE1	2.13	0.47
3:C:1946:ASN:HD21	3:C:2093:CYS:HA	1.80	0.47
3:C:2205:VAL:HG22	3:C:2208:ASP:HB2	1.96	0.47
3:C:3172:LYS:HE3	3:C:3248:LYS:HE2	1.95	0.47
7:F:59:MET:O	7:F:60:ALA:HB3	2.14	0.47
1:J:400:TYR:CZ	1:J:402:PRO:HB3	2.49	0.47
1:J:480:ASN:ND2	1:J:483:LEU:H	2.12	0.47
2:K:489:ARG:NH1	2:K:493:CYS:HB2	2.28	0.47
3:L:709:LYS:HG2	3:L:1388:ASP:CB	2.44	0.47
3:L:1694:THR:O	3:L:1697:PRO:HD2	2.14	0.47
3:L:3155:VAL:HA	3:L:3158:LYS:NZ	2.30	0.47
3:L:3764:VAL:HA	3:L:3767:LEU:CD1	2.45	0.47
5:M:20:DG:C2	5:M:21:DT:C2	3.03	0.47
9:X:676:PRO:HA	9:X:679:GLU:OE2	2.15	0.47
1:A:329:LEU:HD21	2:B:493:CYS:SG	2.54	0.47
2:B:57:VAL:HG22	2:B:79:VAL:HG22	1.96	0.47
2:B:299:ASP:HA	3:C:117:LYS:NZ	2.30	0.47
2:B:399:LYS:O	2:B:400:ARG:HG3	2.15	0.47
3:C:51:LEU:HD21	3:C:96:MET:CG	2.44	0.47
3:C:75:SER:O	3:C:82:ARG:NH2	2.48	0.47
3:C:2340:SER:O	3:C:2344:LEU:HD23	2.15	0.47
3:C:3031:TRP:HZ3	3:C:3074:GLN:O	1.98	0.47
3:C:3128:LYS:HD3	3:C:3128:LYS:HA	1.72	0.47
3:C:3493:TRP:O	3:C:3495:PHE:N	2.47	0.47
3:C:3575:LEU:O	3:C:3579:SER:OG	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3760:GLN:O	3:C:3763:ARG:HG2	2.14	0.47
5:D:8:DA:H2'	5:D:9:DC:C6	2.49	0.47
2:K:6:ASN:OD1	2:K:7:LYS:N	2.47	0.47
2:K:399:LYS:O	2:K:400:ARG:HG3	2.15	0.47
3:L:220:LEU:HD22	3:L:267:VAL:HG13	1.95	0.47
3:L:327:VAL:HG21	3:L:337:LYS:HE3	1.97	0.47
3:L:395:MET:HE1	3:L:410:MET:HB3	1.96	0.47
3:L:828:LYS:HA	3:L:831:LEU:CD1	2.45	0.47
3:L:1060:PHE:HB3	3:L:1064:TYR:CE2	2.50	0.47
3:L:1638:PRO:HB2	3:L:1640:GLU:OE2	2.14	0.47
3:L:2581:LEU:CD1	3:L:2783:ILE:HG13	2.43	0.47
9:Y:722:LYS:HD3	9:Y:741:ARG:NH2	2.30	0.47
1:A:71:TYR:OH	1:A:111:PRO:HA	2.14	0.47
1:A:400:TYR:CZ	1:A:402:PRO:HB3	2.49	0.47
2:B:60:GLY:HA2	2:B:105:ALA:HB3	1.96	0.47
2:B:234:LEU:CD2	8:I:299:PHE:HE1	2.25	0.47
2:B:245:ILE:CD1	5:D:8:DA:H5'	2.43	0.47
2:B:249:CYS:O	2:B:261:ILE:HG22	2.15	0.47
3:C:14:ARG:CZ	3:C:14:ARG:HB2	2.44	0.47
3:C:393:LYS:HA	3:C:396:PHE:CD1	2.50	0.47
3:C:641:PHE:O	3:C:644:PRO:HD2	2.14	0.47
3:C:659:ARG:HD2	3:C:660:LEU:HG	1.96	0.47
3:C:745:VAL:HG22	3:C:746:ARG:H	1.79	0.47
3:C:990:GLN:NE2	3:C:2778:GLY:O	2.47	0.47
3:C:1421:GLU:C	3:C:1422:LYS:HD3	2.35	0.47
3:C:1731:PRO:HA	3:C:1736:PHE:CD2	2.50	0.47
3:C:1769:GLU:O	3:C:1822:ARG:NH2	2.47	0.47
3:C:1834:ASP:HA	3:C:1837:ARG:NH1	2.29	0.47
3:C:1943:ALA:O	3:C:1946:ASN:N	2.48	0.47
3:C:2122:LEU:HD23	3:C:2126:MET:HE1	1.96	0.47
3:C:2295:GLN:HE21	3:C:2298:GLU:HB2	1.78	0.47
3:C:2859:GLN:O	3:C:2862:SER:OG	2.24	0.47
3:C:3013:TYR:HE2	7:F:270:ARG:HA	1.79	0.47
3:C:3155:VAL:HA	3:C:3158:LYS:NZ	2.30	0.47
3:C:3290:SER:OG	3:C:3291:GLN:N	2.48	0.47
3:C:3980:MET:O	3:C:3984:MET:HG2	2.15	0.47
5:D:9:DC:H2"	5:D:10:DT:O4'	2.14	0.47
7:F:140:LYS:HA	7:F:140:LYS:HE2	1.96	0.47
1:J:71:TYR:OH	1:J:111:PRO:HA	2.15	0.47
1:J:132:GLN:NE2	1:J:133:ASP:HB3	2.30	0.47
1:J:411:VAL:HG21	1:J:434:LEU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:24:ILE:HG22	2:K:26:GLY:H	1.79	0.47
2:K:57:VAL:HG22	2:K:79:VAL:HG22	1.96	0.47
3:L:386:VAL:HG13	3:L:390:GLN:HE22	1.79	0.47
3:L:661:PRO:O	3:L:662:LEU:HB2	2.14	0.47
3:L:1596:VAL:O	3:L:1600:MET:HG2	2.15	0.47
3:L:1747:LEU:HD21	3:L:1778:PHE:CD1	2.50	0.47
3:L:2157:PHE:CG	3:L:2164:TRP:HZ3	2.32	0.47
3:L:2205:VAL:HG22	3:L:2208:ASP:HB2	1.96	0.47
3:L:3045:ILE:O	3:L:3049:LEU:HD23	2.14	0.47
3:L:3585:PHE:CE2	3:L:3666:LEU:HD22	2.49	0.47
9:Y:677:ASP:HA	9:Y:680:ASN:HB2	1.96	0.47
1:A:241:ASP:OD1	1:A:242:LEU:N	2.48	0.47
1:A:463:LYS:HG2	2:B:387:LEU:HD11	1.97	0.47
2:B:325:LYS:O	2:B:328:GLU:HB3	2.15	0.47
2:B:447:THR:O	2:B:451:LEU:HG	2.14	0.47
3:C:93:LEU:HD12	3:C:93:LEU:HA	1.70	0.47
3:C:789:TYR:HD2	3:C:866:ILE:HG23	1.80	0.47
3:C:2514:ASN:OD1	3:C:2516:GLY:N	2.40	0.47
3:C:2529:THR:HG23	3:C:2530:ARG:HD2	1.96	0.47
3:C:3542:PHE:CZ	3:C:3555:VAL:HG21	2.49	0.47
3:C:3585:PHE:CE2	3:C:3666:LEU:HD22	2.49	0.47
3:C:3764:VAL:HA	3:C:3767:LEU:CD1	2.45	0.47
2:K:47:PHE:CZ	2:K:495:LEU:HB2	2.49	0.47
2:K:60:GLY:HA2	2:K:105:ALA:HB3	1.96	0.47
3:L:51:LEU:HD21	3:L:96:MET:CG	2.44	0.47
3:L:344:GLN:O	3:L:348:ILE:HG12	2.14	0.47
3:L:1142:HIS:CE1	3:L:1143:VAL:HG13	2.50	0.47
3:L:1769:GLU:O	3:L:1822:ARG:NH2	2.47	0.47
3:L:3157:LEU:O	3:L:3161:LEU:HD23	2.14	0.47
3:L:3274:VAL:HA	3:L:3277:VAL:HG12	1.97	0.47
9:X:663:GLU:HG3	9:X:697:THR:HA	1.95	0.47
9:Y:676:PRO:HA	9:Y:679:GLU:OE2	2.15	0.47
1:A:46:LYS:CE	1:A:137:HIS:HB3	2.45	0.47
1:A:77:SER:OG	1:A:78:SER:N	2.48	0.47
1:A:442:ASP:HB3	2:B:267:ILE:HG23	1.97	0.47
2:B:6:ASN:OD1	2:B:7:LYS:N	2.47	0.47
2:B:360:GLN:OE1	2:B:360:GLN:N	2.48	0.47
3:C:395:MET:HG2	3:C:413:PHE:CE1	2.50	0.47
3:C:880:MET:HE2	3:C:880:MET:HA	1.97	0.47
3:C:1747:LEU:HD21	3:C:1778:PHE:CD1	2.50	0.47
3:C:1840:PHE:O	3:C:1844:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2157:PHE:CG	3:C:2164:TRP:HZ3	2.32	0.47
3:C:3157:LEU:O	3:C:3161:LEU:HD23	2.14	0.47
3:C:3389:VAL:HG23	3:C:3413:TYR:CE1	2.50	0.47
5:D:20:DG:C2	5:D:21:DT:C2	3.03	0.47
5:D:23:DG:C2	5:D:24:DA:C4	3.02	0.47
6:E:16:DA:H5'	6:E:16:DA:H8	1.79	0.47
7:F:40:HIS:CD2	7:G:120:ALA:HB2	2.50	0.47
8:H:298:LEU:HD12	2:K:41:PHE:CG	2.50	0.47
1:J:241:ASP:OD1	1:J:242:LEU:N	2.48	0.47
1:J:317:LYS:NZ	1:J:330:GLU:OE1	2.48	0.47
2:K:466:LYS:HD3	2:K:469:LYS:HA	1.97	0.47
3:L:1595:ALA:HA	3:L:1598:ASN:ND2	2.29	0.47
3:L:1791:CYS:O	3:L:1795:VAL:HG23	2.14	0.47
3:L:1935:GLU:HG2	3:L:1936:ARG:N	2.29	0.47
6:N:16:DA:C5'	6:N:16:DA:H8	2.28	0.47
6:N:28:DA:H2"	6:N:29:DG:C8	2.50	0.47
1:A:149:VAL:O	1:A:153:LEU:HD23	2.15	0.47
3:C:939:MET:HE3	3:C:2782:ASP:H	1.79	0.47
3:C:1263:ALA:O	3:C:1266:CYS:N	2.45	0.47
3:C:1705:GLY:O	3:C:1707:LEU:HD12	2.14	0.47
3:C:1741:ASP:O	3:C:1745:LYS:HG2	2.15	0.47
3:C:2319:ALA:O	3:C:2323:LEU:HD23	2.14	0.47
3:C:2598:ARG:O	3:C:2598:ARG:NE	2.42	0.47
3:C:2745:ARG:O	3:C:2748:VAL:HG12	2.15	0.47
3:C:3650:LYS:O	3:C:3650:LYS:HD3	2.15	0.47
3:C:3958:LEU:O	3:C:3960:PRO:HD3	2.15	0.47
1:J:46:LYS:CE	1:J:137:HIS:HB3	2.45	0.47
1:J:392:LYS:HZ2	2:K:459:ASP:CG	2.19	0.47
1:J:416:GLN:N	1:J:431:GLY:O	2.45	0.47
1:J:442:ASP:HB3	2:K:267:ILE:HG23	1.97	0.47
2:K:237:PHE:CD2	2:K:491:PHE:HB2	2.51	0.47
3:L:82:ARG:O	3:L:85:ILE:HG22	2.16	0.47
3:L:393:LYS:HA	3:L:396:PHE:CD1	2.50	0.47
3:L:726:LEU:HD12	3:L:729:CYS:SG	2.55	0.47
3:L:1943:ALA:O	3:L:1946:ASN:N	2.48	0.47
3:L:2157:PHE:CG	3:L:2164:TRP:CZ3	3.03	0.47
3:L:2256:ILE:HG22	3:L:2260:PHE:HE2	1.80	0.47
3:L:2303:LEU:HG	3:L:2323:LEU:HD21	1.97	0.47
3:L:2411:LEU:HD21	3:L:2415:LEU:HD22	1.97	0.47
3:L:2600:THR:HG23	3:L:2601:VAL:HG13	1.97	0.47
3:L:3049:LEU:HD22	3:L:3061:LEU:CD2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3169:PRO:HB2	3:L:3179:TRP:CZ3	2.48	0.47
6:N:1:DG:C2	6:N:2:DT:C4	3.03	0.47
7:O:120:ALA:HB2	7:P:40:HIS:CD2	2.50	0.47
1:A:113:ALA:C	1:A:115:ARG:N	2.68	0.46
1:A:172:GLU:HG2	1:A:174:ASN:O	2.15	0.46
2:B:66:ASN:ND2	2:B:74:TYR:O	2.44	0.46
3:C:895:ALA:O	3:C:896:VAL:C	2.53	0.46
3:C:1184:ARG:HH12	3:C:1265:GLU:CG	2.28	0.46
3:C:2313:LYS:HA	3:C:2316:TYR:CE1	2.50	0.46
3:C:2349:LEU:CB	3:C:2378:PHE:HE2	2.29	0.46
3:C:2417:SER:OG	3:C:2418:LYS:N	2.46	0.46
3:C:2600:THR:HG23	3:C:2601:VAL:HG13	1.97	0.46
5:D:5:DA:H2"	5:D:6:DG:H5"	1.97	0.46
1:J:77:SER:OG	1:J:78:SER:N	2.48	0.46
1:J:142:SER:HA	1:J:182:LYS:CE	2.43	0.46
1:J:172:GLU:HG2	1:J:174:ASN:O	2.15	0.46
1:J:462:MET:HA	1:J:465:ILE:HD13	1.96	0.46
1:J:465:ILE:HG23	1:J:518:LEU:HD11	1.96	0.46
3:L:886:TRP:CH2	3:L:964:ARG:HG2	2.50	0.46
3:L:895:ALA:O	3:L:896:VAL:C	2.54	0.46
3:L:2122:LEU:HD23	3:L:2126:MET:HE1	1.97	0.46
3:L:2153:THR:HG22	3:L:2153:THR:O	2.15	0.46
3:L:2153:THR:HG22	3:L:2156:VAL:HB	1.96	0.46
3:L:2281:MET:SD	3:L:2285:LEU:HG	2.56	0.46
3:L:2398:LEU:HD23	3:L:2398:LEU:HA	1.77	0.46
3:L:3650:LYS:O	3:L:3650:LYS:HD3	2.15	0.46
3:L:3958:LEU:O	3:L:3960:PRO:HD3	2.15	0.46
6:N:16:DA:H8	6:N:16:DA:H5'	1.79	0.46
1:A:68:GLN:NE2	1:A:120:ASP:HA	2.30	0.46
2:B:237:PHE:CD2	2:B:491:PHE:HB2	2.51	0.46
2:B:393:VAL:HG12	2:B:394:ARG:O	2.15	0.46
3:C:376:ILE:HG13	3:C:377:ASN:N	2.30	0.46
3:C:386:VAL:HG13	3:C:390:GLN:HE22	1.79	0.46
3:C:716:VAL:HG22	3:C:1120:SER:O	2.14	0.46
3:C:717:LYS:HB3	3:C:721:TYR:OH	2.15	0.46
3:C:726:LEU:HD12	3:C:729:CYS:SG	2.55	0.46
3:C:1060:PHE:HB3	3:C:1064:TYR:CE2	2.50	0.46
3:C:2153:THR:HG22	3:C:2156:VAL:HB	1.96	0.46
3:C:2281:MET:SD	3:C:2285:LEU:HG	2.56	0.46
3:C:2411:LEU:HD21	3:C:2415:LEU:HD22	1.97	0.46
3:C:2956:ALA:HB1	3:C:2972:TYR:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3012:GLU:HG3	3:C:3048:LYS:HD3	1.97	0.46
2:K:35:LYS:HZ1	2:K:95:GLU:HA	1.80	0.46
3:L:75:SER:O	3:L:82:ARG:NH2	2.48	0.46
3:L:236:LYS:N	3:L:281:GLN:OE1	2.42	0.46
3:L:1333:SER:O	3:L:1337:VAL:HG23	2.15	0.46
3:L:3856:MET:CE	3:L:4071:ALA:HB1	2.44	0.46
2:B:230:SER:O	2:B:234:LEU:HB2	2.16	0.46
2:B:492:GLN:OE1	2:B:509:GLN:HG3	2.15	0.46
3:C:358:GLU:O	3:C:361:ILE:HG22	2.16	0.46
3:C:664:SER:O	3:C:666:PHE:N	2.49	0.46
3:C:748:TYR:O	3:C:751:ALA:N	2.48	0.46
3:C:1601:LEU:HD21	3:C:1622:ILE:HD11	1.97	0.46
3:C:2572:TYR:CE2	3:C:2791:ILE:HD11	2.50	0.46
3:C:3031:TRP:N	3:C:3031:TRP:HD1	2.14	0.46
3:C:3049:LEU:HD22	3:C:3061:LEU:CD2	2.45	0.46
3:C:3247:ARG:HG2	3:C:3247:ARG:HH11	1.79	0.46
3:C:3374:ILE:HG13	3:C:3375:ALA:N	2.30	0.46
1:J:68:GLN:NE2	1:J:120:ASP:HA	2.30	0.46
2:K:249:CYS:O	2:K:261:ILE:HG22	2.15	0.46
3:L:948:MET:SD	3:L:950:GLU:N	2.89	0.46
3:L:2122:LEU:HB3	3:L:2123:PRO:CD	2.46	0.46
3:L:2572:TYR:CE2	3:L:2791:ILE:HD11	2.50	0.46
3:L:2924:VAL:HG11	3:L:2989:ALA:HB1	1.97	0.46
3:L:3374:ILE:HG13	3:L:3375:ALA:N	2.30	0.46
7:O:134:ILE:HG12	7:P:134:ILE:CA	2.44	0.46
1:A:241:ASP:HA	1:A:244:ARG:HG2	1.96	0.46
2:B:399:LYS:HG3	2:B:400:ARG:H	1.80	0.46
2:B:466:LYS:HD3	2:B:469:LYS:HA	1.98	0.46
2:B:531:SER:HA	2:B:534:LYS:HZ3	1.78	0.46
3:C:975:ASP:OD1	3:C:976:VAL:N	2.44	0.46
3:C:1267:TYR:CD1	3:C:1270:PHE:CE2	3.04	0.46
3:C:1909:ASN:O	3:C:1913:LYS:NZ	2.43	0.46
3:C:1931:ASN:HB3	3:C:1934:LEU:HD22	1.97	0.46
3:C:2153:THR:HG22	3:C:2153:THR:O	2.15	0.46
3:C:3447:VAL:HG13	3:C:3448:GLU:N	2.31	0.46
3:C:3767:LEU:HD21	3:C:4002:MET:SD	2.56	0.46
8:H:296:ARG:HA	8:H:300:SER:HB3	1.97	0.46
1:J:480:ASN:HB2	2:K:428:GLU:OE2	2.16	0.46
2:K:299:ASP:HA	3:L:117:LYS:NZ	2.30	0.46
2:K:393:VAL:HG12	2:K:394:ARG:O	2.15	0.46
3:L:55:THR:HG22	3:L:92:PHE:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:748:TYR:O	3:L:751:ALA:N	2.48	0.46
3:L:1653:LEU:HB3	3:L:1698:PHE:CE2	2.51	0.46
3:L:1707:LEU:O	3:L:1710:LEU:HB3	2.16	0.46
3:L:2417:SER:OG	3:L:2418:LYS:N	2.46	0.46
3:L:3389:VAL:HG23	3:L:3413:TYR:CE1	2.50	0.46
6:N:10:DA:H2'	6:N:11:DC:C5	2.51	0.46
9:X:668:SER:OG	9:X:703:GLY:N	2.49	0.46
9:X:669:GLY:HA2	9:X:703:GLY:HA3	1.98	0.46
1:A:317:LYS:NZ	1:A:330:GLU:OE1	2.48	0.46
1:A:356:LEU:HD12	1:A:437:LEU:HD21	1.98	0.46
3:C:327:VAL:HG21	3:C:337:LYS:HE3	1.96	0.46
3:C:462:VAL:HG22	3:C:534:LEU:HD13	1.98	0.46
3:C:948:MET:SD	3:C:950:GLU:N	2.89	0.46
3:C:985:GLU:HG3	3:C:1028:PHE:CE1	2.51	0.46
3:C:1142:HIS:CE1	3:C:1143:VAL:HG13	2.50	0.46
3:C:1265:GLU:O	3:C:1268:ASN:HB2	2.15	0.46
3:C:2358:ASP:OD1	3:C:2359:LYS:HG2	2.16	0.46
7:F:107:ARG:CG	8:H:64:ARG:HD2	2.45	0.46
2:K:48:ALA:HB2	2:K:238:LYS:HD2	1.98	0.46
2:K:164:PHE:HB3	2:K:227:PHE:HE1	1.79	0.46
3:L:51:LEU:O	3:L:55:THR:HG23	2.15	0.46
3:L:376:ILE:HG13	3:L:377:ASN:N	2.30	0.46
3:L:717:LYS:HB3	3:L:721:TYR:OH	2.15	0.46
3:L:1684:LEU:HD21	3:L:1689:LYS:HE3	1.97	0.46
3:L:1828:LEU:HD21	3:L:1839:PHE:CE2	2.51	0.46
3:L:2313:LYS:HA	3:L:2316:TYR:CE1	2.50	0.46
3:L:2340:SER:O	3:L:2344:LEU:HD23	2.15	0.46
3:L:3491:PRO:HB3	3:L:3493:TRP:CH2	2.51	0.46
3:L:3704:GLN:OE1	3:L:3716:HIS:HB3	2.16	0.46
3:L:3758:LEU:O	3:L:3761:ASP:N	2.49	0.46
3:L:3811:THR:HB	3:L:3814:ASP:HB2	1.97	0.46
3:L:3980:MET:O	3:L:3984:MET:HG2	2.15	0.46
5:M:23:DG:H2'	5:M:24:DA:H8	1.78	0.46
6:N:18:DC:H2"	6:N:19:DA:O5'	2.15	0.46
1:A:320:GLN:HG2	2:B:276:TRP:CZ3	2.49	0.46
2:B:68:LEU:HD12	2:B:113:VAL:HG22	1.96	0.46
3:C:886:TRP:CH2	3:C:964:ARG:HG2	2.50	0.46
3:C:1344:PHE:HE1	3:C:1348:LEU:HD13	1.79	0.46
3:C:2256:ILE:HG22	3:C:2260:PHE:HE2	1.80	0.46
3:C:3961:PHE:CE2	3:C:4107:LEU:HG	2.51	0.46
5:D:28:DC:N3	5:D:29:DA:C5	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:113:ALA:C	1:J:115:ARG:N	2.68	0.46
2:K:15:ASP:OD1	2:K:16:VAL:N	2.49	0.46
2:K:360:GLN:N	2:K:360:GLN:OE1	2.48	0.46
2:K:399:LYS:HG3	2:K:400:ARG:H	1.80	0.46
3:L:664:SER:O	3:L:666:PHE:N	2.49	0.46
3:L:1135:CYS:O	3:L:1138:ILE:HG12	2.16	0.46
3:L:1601:LEU:HD21	3:L:1622:ILE:HD11	1.97	0.46
3:L:1849:ASP:HA	3:L:1852:LYS:HG2	1.98	0.46
3:L:2529:THR:HG23	3:L:2530:ARG:HD2	1.96	0.46
3:L:2569:SER:OG	3:L:2570:PRO:HD2	2.15	0.46
3:L:3425:ARG:NE	3:L:3425:ARG:HA	2.31	0.46
3:L:3961:PHE:CE2	3:L:4107:LEU:HG	2.51	0.46
7:O:34:ILE:HD13	7:O:35:THR:N	2.31	0.46
1:A:480:ASN:HB2	2:B:428:GLU:OE2	2.15	0.46
2:B:15:ASP:OD1	2:B:16:VAL:N	2.49	0.46
2:B:364:VAL:N	2:B:419:LEU:O	2.33	0.46
3:C:1082:PHE:CB	3:C:1107:TYR:HE2	2.29	0.46
3:C:1596:VAL:O	3:C:1600:MET:HG2	2.15	0.46
3:C:3183:ILE:HD12	3:C:3238:MET:HG2	1.98	0.46
3:C:3557:ARG:O	3:C:3560:SER:OG	2.30	0.46
3:C:3758:LEU:O	3:C:3761:ASP:N	2.49	0.46
2:K:230:SER:O	2:K:234:LEU:HB2	2.16	0.46
2:K:273:LYS:HD3	2:K:273:LYS:HA	1.67	0.46
2:K:325:LYS:O	2:K:328:GLU:HB3	2.15	0.46
3:L:53:LEU:HD22	3:L:3101:TYR:CE2	2.51	0.46
3:L:391:ARG:HG2	3:L:1737:ASN:HD21	1.80	0.46
3:L:429:GLU:HA	3:L:432:THR:OG1	2.16	0.46
3:L:659:ARG:HD2	3:L:660:LEU:HG	1.96	0.46
3:L:737:PRO:O	3:L:741:ILE:HG12	2.16	0.46
3:L:1946:ASN:HD21	3:L:2093:CYS:HA	1.80	0.46
3:L:2316:TYR:CG	3:L:2317:ALA:N	2.84	0.46
3:L:2883:SER:C	3:L:2885:GLN:H	2.19	0.46
3:L:2956:ALA:HB1	3:L:2972:TYR:CE2	2.50	0.46
3:L:3012:GLU:HG3	3:L:3048:LYS:HD3	1.97	0.46
3:L:3502:MET:SD	3:L:3502:MET:N	2.85	0.46
5:M:5:DA:H2"	5:M:6:DG:H5"	1.97	0.46
9:X:692:ASN:OD1	9:X:693:PRO:HD2	2.15	0.46
9:X:722:LYS:HG3	9:X:725:TRP:H	1.81	0.46
9:Y:692:ASN:OD1	9:Y:693:PRO:HD2	2.15	0.46
1:A:479:GLU:HG2	2:B:427:MET:HG2	1.97	0.46
3:C:82:ARG:O	3:C:85:ILE:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:737:PRO:O	3:C:741:ILE:HG12	2.16	0.46
3:C:2303:LEU:HG	3:C:2323:LEU:HD21	1.97	0.46
3:C:3704:GLN:OE1	3:C:3716:HIS:HB3	2.16	0.46
6:E:1:DG:C2	6:E:2:DT:C4	3.03	0.46
6:E:16:DA:H8	6:E:16:DA:C5'	2.28	0.46
6:E:28:DA:H2"	6:E:29:DG:C8	2.50	0.46
2:K:245:ILE:CD1	5:M:8:DA:H5'	2.43	0.46
3:L:286:LEU:HD12	3:L:319:PHE:HE1	1.81	0.46
3:L:759:GLY:HA3	3:L:766:ALA:HB2	1.98	0.46
3:L:863:GLY:O	3:L:867:ASN:N	2.43	0.46
3:L:1649:LEU:HD22	3:L:1675:TYR:OH	2.15	0.46
3:L:2349:LEU:CB	3:L:2378:PHE:HE2	2.29	0.46
3:L:3013:TYR:HE2	7:P:270:ARG:HA	1.80	0.46
3:L:3031:TRP:HZ3	3:L:3074:GLN:O	1.98	0.46
3:L:3705:TYR:HE1	3:L:3716:HIS:NE2	2.13	0.46
3:L:3884:LYS:O	3:L:3888:VAL:HG23	2.16	0.46
1:A:171:ASN:OD1	1:A:171:ASN:N	2.48	0.46
1:A:216:PHE:CD2	1:A:217:TYR:CE1	3.04	0.46
3:C:1277:GLY:O	3:C:1281:VAL:HG23	2.16	0.46
3:C:1653:LEU:HB3	3:C:1698:PHE:CE2	2.51	0.46
3:C:2551:GLU:OE2	3:C:2854:PHE:HB3	2.16	0.46
3:C:3239:LYS:HD2	3:C:3262:LEU:HD21	1.98	0.46
7:G:34:ILE:HD13	7:G:35:THR:N	2.30	0.46
1:J:241:ASP:HA	1:J:244:ARG:HG2	1.96	0.46
3:L:14:ARG:HB2	3:L:14:ARG:CZ	2.44	0.46
3:L:462:VAL:HG22	3:L:534:LEU:HD13	1.98	0.46
3:L:733:LEU:O	3:L:735:SER:N	2.49	0.46
3:L:1264:LEU:HD11	3:L:1293:ALA:HB2	1.98	0.46
3:L:1370:ARG:HA	3:L:1373:VAL:HG12	1.98	0.46
3:L:1379:PRO:HB2	3:L:1384:PHE:CG	2.50	0.46
3:L:1731:PRO:HA	3:L:1736:PHE:CD2	2.50	0.46
3:L:2745:ARG:O	3:L:2748:VAL:HG12	2.15	0.46
3:L:3256:MET:SD	3:L:3287:ARG:NH1	2.89	0.46
3:L:3794:VAL:HG13	3:L:3794:VAL:O	2.16	0.46
9:X:677:ASP:HA	9:X:680:ASN:HB2	1.96	0.46
1:A:45:SER:HA	1:A:138:GLY:HA3	1.97	0.46
2:B:54:ILE:N	2:B:84:MET:O	2.33	0.46
3:C:268:PRO:O	3:C:272:LEU:HD23	2.16	0.46
3:C:949:PRO:CB	3:L:2579:HIS:CD2	2.89	0.46
3:C:1354:GLU:OE1	3:C:1357:LYS:HG2	2.16	0.46
3:C:1649:LEU:HD22	3:C:1675:TYR:OH	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1828:LEU:HD21	3:C:1839:PHE:CE2	2.51	0.46
3:C:1849:ASP:HA	3:C:1852:LYS:HG2	1.98	0.46
3:C:1855:PHE:HB3	3:C:1870:LYS:NZ	2.31	0.46
3:C:2157:PHE:CG	3:C:2164:TRP:CZ3	3.03	0.46
3:C:2316:TYR:CG	3:C:2317:ALA:N	2.84	0.46
3:C:2472:GLN:HA	3:C:2472:GLN:OE1	2.16	0.46
3:C:3341:LEU:HD23	3:C:3348:LEU:HD13	1.98	0.46
3:C:3472:ILE:HD11	3:C:3482:LEU:HD22	1.98	0.46
1:J:247:ARG:HD2	1:J:488:ARG:NH1	2.31	0.46
2:K:247:TRP:HZ3	2:K:395:TYR:HH	1.62	0.46
2:K:492:GLN:OE1	2:K:509:GLN:HG3	2.15	0.46
2:K:496:HIS:ND1	2:K:506:PRO:HD3	2.31	0.46
3:L:1171:TRP:NE1	3:L:1175:HIS:NE2	2.64	0.46
3:L:1332:TYR:O	3:L:1336:THR:HG23	2.16	0.46
3:L:2358:ASP:OD1	3:L:2359:LYS:HG2	2.16	0.46
3:L:3031:TRP:N	3:L:3031:TRP:HD1	2.14	0.46
3:L:3472:ILE:HD11	3:L:3482:LEU:HD22	1.98	0.46
3:L:3504:ALA:C	3:L:3506:LEU:H	2.20	0.46
3:L:3767:LEU:HD21	3:L:4002:MET:SD	2.56	0.46
9:Y:668:SER:OG	9:Y:703:GLY:N	2.49	0.46
1:A:335:GLU:OE1	3:C:213:ARG:NH1	2.47	0.45
2:B:273:LYS:HD3	2:B:273:LYS:HA	1.67	0.45
2:B:440:ASN:O	2:B:442:LYS:N	2.43	0.45
3:C:55:THR:HG22	3:C:92:PHE:CZ	2.51	0.45
3:C:429:GLU:HA	3:C:432:THR:OG1	2.16	0.45
3:C:792:ILE:HG23	3:C:793:LEU:HD22	1.99	0.45
3:C:899:ARG:HB2	3:C:899:ARG:CZ	2.46	0.45
3:C:1379:PRO:HB2	3:C:1384:PHE:CG	2.50	0.45
3:C:1395:LEU:HB3	3:C:1396:PRO:HD3	1.98	0.45
3:C:1684:LEU:HD21	3:C:1689:LYS:HE3	1.97	0.45
3:C:1806:ARG:CZ	3:C:1806:ARG:HB3	2.46	0.45
3:C:1913:LYS:HD2	3:C:1913:LYS:N	2.31	0.45
3:C:2164:TRP:C	3:C:2167:PRO:HD2	2.37	0.45
3:C:3172:LYS:O	3:C:3249:GLN:NE2	2.49	0.45
3:C:3250:ASN:HA	3:C:3252:PHE:HE1	1.80	0.45
3:C:3425:ARG:NE	3:C:3425:ARG:HA	2.31	0.45
3:C:3884:LYS:O	3:C:3888:VAL:HG23	2.16	0.45
6:E:18:DC:H2"	6:E:19:DA:O5'	2.15	0.45
1:J:38:LEU:HB3	1:J:83:LEU:HD13	1.98	0.45
1:J:264:ASN:OD1	1:J:267:ILE:N	2.37	0.45
3:L:395:MET:HG2	3:L:413:PHE:CE1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:536:SER:O	3:L:538:ASP:N	2.49	0.45
3:L:1135:CYS:O	3:L:1139:GLU:OE1	2.34	0.45
3:L:1344:PHE:HE1	3:L:1348:LEU:HD13	1.80	0.45
3:L:1354:GLU:OE1	3:L:1357:LYS:HG2	2.17	0.45
3:L:1668:PHE:O	3:L:1671:VAL:HG12	2.16	0.45
3:L:1711:ARG:HH22	3:L:1757:MET:HE3	1.81	0.45
3:L:2514:ASN:OD1	3:L:2516:GLY:N	2.40	0.45
3:L:2551:GLU:OE2	3:L:2854:PHE:HB3	2.16	0.45
3:L:2589:TYR:HE1	3:L:2777:HIS:HB2	1.81	0.45
3:L:2976:LEU:CD1	7:P:271:LYS:HE3	2.46	0.45
3:L:3172:LYS:O	3:L:3249:GLN:NE2	2.49	0.45
3:L:3183:ILE:HD12	3:L:3238:MET:HG2	1.98	0.45
3:L:3575:LEU:HD13	3:L:3575:LEU:HA	1.75	0.45
3:L:3974:MET:HE2	3:L:3974:MET:HB3	1.82	0.45
5:M:22:DA:C6	6:N:8:DC:N4	2.84	0.45
5:M:28:DC:N3	5:M:29:DA:C5	2.84	0.45
1:A:74:LYS:HA	1:A:77:SER:OG	2.17	0.45
1:A:247:ARG:HD2	1:A:488:ARG:NH1	2.31	0.45
1:A:407:PRO:HG3	2:B:486:ARG:CD	2.46	0.45
2:B:365:PHE:CE1	2:B:418:CYS:HA	2.51	0.45
3:C:51:LEU:O	3:C:55:THR:HG23	2.15	0.45
3:C:53:LEU:HD22	3:C:3101:TYR:CE2	2.51	0.45
3:C:3389:VAL:O	3:C:3392:ALA:N	2.49	0.45
3:C:3705:TYR:HE1	3:C:3716:HIS:NE2	2.13	0.45
3:C:3794:VAL:HG13	3:C:3794:VAL:O	2.16	0.45
5:D:26:DT:C2	5:D:27:DA:N7	2.84	0.45
1:J:267:ILE:HD11	2:K:534:LYS:HG2	1.98	0.45
3:L:268:PRO:O	3:L:272:LEU:HD23	2.16	0.45
3:L:749:VAL:N	3:L:750:PRO:HD2	2.31	0.45
3:L:880:MET:HE2	3:L:880:MET:HA	1.98	0.45
3:L:1267:TYR:CD1	3:L:1270:PHE:CE2	3.04	0.45
3:L:1395:LEU:HB3	3:L:1396:PRO:HD3	1.98	0.45
3:L:1443:VAL:CG1	3:L:1447:ARG:HH22	2.29	0.45
3:L:1833:LEU:C	3:L:1835:ALA:H	2.20	0.45
3:L:2164:TRP:C	3:L:2167:PRO:HD2	2.37	0.45
3:L:2976:LEU:HD12	7:P:271:LYS:HE3	1.98	0.45
3:L:3252:PHE:HZ	3:L:3286:CYS:HG	1.63	0.45
3:L:3530:VAL:HG11	3:L:3568:ILE:HD13	1.98	0.45
1:A:71:TYR:O	1:A:75:ILE:HG12	2.16	0.45
1:A:370:PRO:HG3	1:A:382:PHE:CD1	2.51	0.45
3:C:182:GLY:HA2	3:C:189:MET:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:334:HIS:C	3:C:336:ASN:N	2.69	0.45
3:C:382:ASP:O	3:C:386:VAL:HG23	2.17	0.45
3:C:1014:LEU:HD22	3:C:1033:ILE:HD11	1.99	0.45
3:C:1509:GLN:O	3:C:1512:SER:OG	2.30	0.45
3:C:2122:LEU:HB3	3:C:2123:PRO:CD	2.46	0.45
3:C:3008:TRP:N	3:C:3008:TRP:HD1	2.14	0.45
3:C:3791:TYR:HB3	3:C:3806:LEU:HD21	1.98	0.45
3:C:3855:TYR:HA	3:C:3858:MET:HE2	1.98	0.45
3:C:4068:HIS:HD2	3:C:4071:ALA:HB3	1.81	0.45
5:D:15:DT:N3	5:D:16:DG:C5	2.84	0.45
6:E:10:DA:H2'	6:E:11:DC:C5	2.51	0.45
2:K:104:GLN:NE2	2:K:139:SER:OG	2.50	0.45
2:K:365:PHE:CE1	2:K:418:CYS:HA	2.51	0.45
3:L:93:LEU:HA	3:L:93:LEU:HD12	1.70	0.45
3:L:358:GLU:O	3:L:361:ILE:HG22	2.16	0.45
3:L:1801:VAL:HG11	3:L:1827:LEU:HD23	1.98	0.45
3:L:1913:LYS:HD2	3:L:1913:LYS:N	2.31	0.45
3:L:2472:GLN:OE1	3:L:2472:GLN:HA	2.17	0.45
3:L:3447:VAL:HG13	3:L:3448:GLU:N	2.30	0.45
3:L:3477:GLU:HB3	3:L:3478:GLU:OE2	2.16	0.45
3:L:3748:HIS:HB3	3:L:3750:PHE:CZ	2.51	0.45
3:L:4068:HIS:HD2	3:L:4071:ALA:HB3	1.81	0.45
5:M:15:DT:N3	5:M:16:DG:C5	2.84	0.45
9:Y:679:GLU:HA	9:Y:682:ILE:HB	1.98	0.45
2:B:423:GLN:NE2	2:B:424:LEU:O	2.48	0.45
2:B:496:HIS:ND1	2:B:506:PRO:HD3	2.31	0.45
3:C:759:GLY:HA3	3:C:766:ALA:HB2	1.98	0.45
3:C:1079:SER:O	3:C:1082:PHE:N	2.49	0.45
3:C:1135:CYS:O	3:C:1138:ILE:HG12	2.16	0.45
3:C:1241:LEU:CB	3:C:1292:LYS:HZ1	2.25	0.45
3:C:2602:LEU:HB2	3:C:2605:MET:CE	2.46	0.45
3:C:3510:GLN:O	3:C:3513:ALA:N	2.29	0.45
3:C:3530:VAL:HG11	3:C:3568:ILE:HD13	1.99	0.45
3:C:3685:PRO:O	3:C:3688:SER:OG	2.19	0.45
3:C:3754:GLY:O	3:C:3756:GLU:N	2.50	0.45
8:I:194:MET:N	8:I:194:MET:SD	2.89	0.45
1:J:335:GLU:OE1	3:L:213:ARG:NH1	2.47	0.45
1:J:386:LEU:HD12	1:J:415:PRO:HB3	1.98	0.45
2:K:441:SER:OG	2:K:444:TYR:HB2	2.16	0.45
2:K:482:ILE:HD11	2:K:515:MET:HG2	1.99	0.45
3:L:382:ASP:O	3:L:386:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1184:ARG:HH12	3:L:1265:GLU:CG	2.28	0.45
3:L:1582:LEU:O	3:L:1586:SER:OG	2.27	0.45
3:L:1966:LEU:HD12	3:L:1966:LEU:HA	1.79	0.45
3:L:3239:LYS:HD2	3:L:3262:LEU:HD21	1.98	0.45
3:L:3250:ASN:HA	3:L:3252:PHE:HE1	1.80	0.45
5:M:26:DT:C2	5:M:27:DA:N7	2.84	0.45
1:A:352:PRO:O	1:A:354:VAL:N	2.50	0.45
2:B:319:ASP:OD1	2:B:319:ASP:N	2.45	0.45
2:B:421:TYR:CD1	2:B:422:VAL:N	2.85	0.45
3:C:56:SER:CB	3:C:3098:ARG:HG3	2.47	0.45
3:C:749:VAL:N	3:C:750:PRO:HD2	2.31	0.45
3:C:992:ILE:HG13	3:C:1032:CYS:SG	2.57	0.45
3:C:1833:LEU:C	3:C:1835:ALA:H	2.20	0.45
3:C:2506:LEU:HD22	3:C:2525:TRP:HE1	1.81	0.45
3:C:2521:ILE:O	3:C:2524:PHE:HB3	2.17	0.45
3:C:3477:GLU:HB3	3:C:3478:GLU:OE2	2.16	0.45
3:C:3491:PRO:HB3	3:C:3493:TRP:CH2	2.51	0.45
3:C:3498:TRP:HZ3	3:C:3501:HIS:HB3	1.80	0.45
8:I:67:ALA:HB3	8:I:72:PHE:CE2	2.52	0.45
1:J:45:SER:HA	1:J:138:GLY:HA3	1.97	0.45
1:J:216:PHE:CD2	1:J:217:TYR:CE1	3.04	0.45
1:J:352:PRO:O	1:J:354:VAL:N	2.50	0.45
1:J:356:LEU:HD12	1:J:437:LEU:HD21	1.98	0.45
3:L:56:SER:CB	3:L:3098:ARG:HG3	2.47	0.45
3:L:334:HIS:C	3:L:336:ASN:N	2.69	0.45
3:L:1212:LEU:O	3:L:1216:GLY:N	2.50	0.45
3:L:1277:GLY:O	3:L:1281:VAL:HG23	2.16	0.45
3:L:3071:GLY:O	3:L:3074:GLN:HB2	2.17	0.45
3:L:3487:ILE:HA	3:L:3490:VAL:HG23	1.98	0.45
3:L:3754:GLY:O	3:L:3756:GLU:N	2.50	0.45
3:L:3809:THR:HG23	3:L:3929:MET:HE3	1.99	0.45
1:A:259:LEU:HB3	1:A:344:GLY:HA2	1.98	0.45
2:B:246:HIS:CD2	2:B:368:ARG:HH12	2.35	0.45
3:C:443:ILE:HD12	3:C:530:LEU:HD21	1.99	0.45
3:C:703:CYS:O	3:C:706:LEU:HG	2.17	0.45
3:C:894:PHE:CE1	3:C:2576:MET:HE3	2.52	0.45
3:C:1178:ARG:HD3	3:C:1183:CYS:SG	2.57	0.45
3:C:1668:PHE:O	3:C:1671:VAL:HG12	2.16	0.45
3:C:1684:LEU:HD23	3:C:1684:LEU:H	1.81	0.45
3:C:3145:ILE:HA	3:C:3151:LEU:HD11	1.98	0.45
3:C:3472:ILE:CD1	3:C:3482:LEU:HD22	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3687:MET:N	3:C:3687:MET:SD	2.90	0.45
1:J:171:ASN:N	1:J:171:ASN:OD1	2.48	0.45
2:K:475:ASP:C	2:K:477:PHE:H	2.20	0.45
3:L:757:LYS:O	3:L:760:LEU:HG	2.17	0.45
3:L:1684:LEU:HD23	3:L:1684:LEU:H	1.81	0.45
3:L:1931:ASN:HB3	3:L:1934:LEU:HD22	1.97	0.45
3:L:2163:HIS:O	3:L:2164:TRP:HD1	2.00	0.45
3:L:2357:GLU:HB3	3:L:2389:PHE:CZ	2.52	0.45
3:L:3341:LEU:HD23	3:L:3348:LEU:HD13	1.98	0.45
3:L:3451:LEU:HD11	3:L:3468:LEU:HD22	1.99	0.45
3:L:3472:ILE:CD1	3:L:3482:LEU:HD22	2.47	0.45
3:L:3731:SER:O	3:L:3734:ARG:NE	2.44	0.45
3:L:3751:LEU:O	3:L:3751:LEU:HD23	2.17	0.45
3:L:3821:SER:HB3	3:L:3824:GLU:OE1	2.17	0.45
5:M:21:DT:C2	5:M:22:DA:N7	2.85	0.45
9:Y:681:ARG:NH2	9:Y:731:LYS:HE3	2.31	0.45
1:A:290:ARG:CZ	9:X:694:GLY:HA3	2.47	0.45
2:B:482:ILE:HD11	2:B:515:MET:HG3	1.99	0.45
3:C:115:TYR:HE2	3:C:159:GLU:HG3	1.82	0.45
3:C:334:HIS:N	3:C:334:HIS:CD2	2.81	0.45
3:C:757:LYS:O	3:C:760:LEU:HG	2.17	0.45
3:C:1264:LEU:HD11	3:C:1293:ALA:HB2	1.98	0.45
3:C:1565:GLU:HG2	3:C:1566:THR:N	2.32	0.45
3:C:1707:LEU:O	3:C:1710:LEU:HB3	2.16	0.45
3:C:3133:GLN:OE1	3:C:3133:GLN:HA	2.16	0.45
3:C:3448:GLU:O	3:C:3452:LYS:HB2	2.17	0.45
3:C:3751:LEU:O	3:C:3751:LEU:HD23	2.17	0.45
3:C:3811:THR:HB	3:C:3814:ASP:HB2	1.97	0.45
5:D:24:DA:H2	5:D:25:DT:C2	2.34	0.45
2:K:421:TYR:CD1	2:K:422:VAL:N	2.85	0.45
2:K:533:ILE:HG23	2:K:537:PHE:CE2	2.52	0.45
3:L:215:PRO:O	3:L:217:LEU:N	2.50	0.45
3:L:405:ASP:OD1	3:L:406:ARG:N	2.49	0.45
3:L:789:TYR:HD2	3:L:866:ILE:HG23	1.80	0.45
3:L:899:ARG:CZ	3:L:899:ARG:HB2	2.46	0.45
3:L:970:LEU:O	3:L:973:ALA:N	2.49	0.45
3:L:1184:ARG:HH12	3:L:1265:GLU:HB3	1.82	0.45
3:L:1305:ASP:OD1	3:L:1305:ASP:N	2.42	0.45
3:L:1565:GLU:HG2	3:L:1566:THR:N	2.32	0.45
3:L:1855:PHE:HB3	3:L:1870:LYS:NZ	2.31	0.45
3:L:1890:HIS:HA	3:L:1909:ASN:HD22	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:2414:GLN:O	3:L:2417:SER:OG	2.21	0.45
3:L:2493:ASN:OD1	3:L:2494:ASP:N	2.50	0.45
3:L:3175:PRO:O	3:L:3178:ILE:HG22	2.17	0.45
3:L:3497:SER:HA	3:L:3707:GLY:HA3	1.99	0.45
3:L:3687:MET:N	3:L:3687:MET:SD	2.90	0.45
3:L:3701:ILE:CG1	3:L:3717:VAL:HG13	2.45	0.45
3:L:3813:LYS:HD3	3:L:3926:ASN:ND2	2.32	0.45
5:M:3:DT:C2	6:N:28:DA:N1	2.85	0.45
5:M:20:DG:C5	5:M:21:DT:C4	3.05	0.45
1:A:122:PHE:N	1:A:122:PHE:CD1	2.85	0.45
2:B:407:VAL:HG23	2:B:424:LEU:HG	1.99	0.45
2:B:441:SER:OG	2:B:444:TYR:HB2	2.16	0.45
2:B:475:ASP:C	2:B:477:PHE:H	2.20	0.45
3:C:746:ARG:O	3:C:746:ARG:HD2	2.17	0.45
3:C:961:LEU:HD12	3:C:961:LEU:HA	1.86	0.45
3:C:970:LEU:O	3:C:973:ALA:N	2.49	0.45
3:C:1744:LYS:HD2	3:C:1744:LYS:HA	1.79	0.45
3:C:2414:GLN:O	3:C:2417:SER:OG	2.21	0.45
3:C:3487:ILE:HA	3:C:3490:VAL:HG23	1.98	0.45
3:C:3497:SER:HA	3:C:3707:GLY:HA3	1.99	0.45
1:J:259:LEU:HB3	1:J:344:GLY:HA2	1.98	0.45
1:J:407:PRO:HG3	2:K:486:ARG:CD	2.46	0.45
3:L:493:LYS:HZ3	3:L:495:VAL:HG22	1.80	0.45
3:L:992:ILE:HG13	3:L:1032:CYS:SG	2.57	0.45
3:L:1049:GLN:HA	3:L:1053:PRO:CG	2.47	0.45
3:L:1079:SER:O	3:L:1082:PHE:N	2.49	0.45
3:L:1265:GLU:O	3:L:1268:ASN:HB2	2.16	0.45
3:L:1786:ALA:HB2	3:L:1827:LEU:HD12	1.98	0.45
3:L:2234:ASN:O	3:L:2238:ILE:HG12	2.17	0.45
3:L:2459:VAL:HA	3:L:2473:MET:HE3	1.99	0.45
3:L:2578:GLU:HG2	3:L:2579:HIS:CG	2.52	0.45
3:L:3154:GLN:HE21	3:L:3227:ILE:CD1	2.30	0.45
3:L:3389:VAL:O	3:L:3392:ALA:N	2.49	0.45
3:L:3506:LEU:HD21	3:L:3555:VAL:HG22	1.98	0.45
1:A:38:LEU:HB3	1:A:83:LEU:HD13	1.98	0.45
2:B:553:ILE:H	3:C:254:LYS:NZ	2.15	0.45
3:C:117:LYS:HD3	3:C:117:LYS:HA	1.76	0.45
3:C:352:VAL:HG13	3:C:354:SER:H	1.82	0.45
3:C:405:ASP:OD1	3:C:406:ARG:N	2.49	0.45
3:C:1128:CYS:O	3:C:1131:ILE:HB	2.17	0.45
3:C:1256:TRP:CZ2	3:C:1292:LYS:HD3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1878:ASP:HB3	3:C:1947:CYS:SG	2.57	0.45
3:C:2493:ASN:OD1	3:C:2494:ASP:N	2.50	0.45
3:C:2569:SER:OG	3:C:2570:PRO:HD2	2.15	0.45
3:C:2924:VAL:HG11	3:C:2989:ALA:HB1	1.97	0.45
3:C:2977:ASN:CG	7:F:272:ARG:NH2	2.62	0.45
3:C:3154:GLN:HE21	3:C:3227:ILE:CD1	2.30	0.45
3:C:3256:MET:SD	3:C:3287:ARG:NH1	2.89	0.45
3:C:3410:ILE:HG13	3:C:3411:ASP:N	2.32	0.45
5:D:19:DA:C2	5:D:20:DG:C4	3.05	0.45
1:J:149:VAL:O	1:J:153:LEU:HD23	2.15	0.45
1:J:262:LYS:CB	1:J:268:VAL:HG12	2.47	0.45
2:K:88:PHE:O	2:K:91:LEU:N	2.50	0.45
3:L:1184:ARG:NH1	3:L:1265:GLU:HB3	2.32	0.45
3:L:1225:GLU:O	3:L:1235:ILE:N	2.39	0.45
3:L:1878:ASP:HB3	3:L:1947:CYS:SG	2.57	0.45
3:L:2506:LEU:HD22	3:L:2525:TRP:HE1	1.82	0.45
5:M:19:DA:C2	5:M:20:DG:C4	3.05	0.45
1:A:76:ILE:HG21	1:A:487:PHE:CD1	2.51	0.45
1:A:125:GLN:O	1:A:128:GLN:HG2	2.17	0.45
1:A:388:LYS:HG3	2:B:454:VAL:HB	1.99	0.45
2:B:88:PHE:O	2:B:91:LEU:N	2.50	0.45
2:B:482:ILE:HD11	2:B:515:MET:HG2	1.99	0.45
3:C:168:ASP:HB2	6:E:11:DC:OP1	2.17	0.45
3:C:1367:HIS:HA	3:C:1370:ARG:NE	2.31	0.45
3:C:1558:TYR:O	3:C:1562:LEU:HD23	2.17	0.45
3:C:1927:MET:CE	3:C:1977:ILE:HG12	2.47	0.45
3:C:2277:LEU:HD12	3:C:2280:VAL:CG1	2.47	0.45
3:C:2357:GLU:HB3	3:C:2389:PHE:CZ	2.52	0.45
3:C:2377:ARG:C	3:C:2378:PHE:HD1	2.21	0.45
3:C:2817:LEU:O	3:C:2820:MET:HG2	2.17	0.45
3:C:3129:LEU:O	3:C:3131:SER:N	2.50	0.45
3:C:3753:LYS:NZ	10:C:4201:ADP:O1A	2.50	0.45
3:C:3837:CYS:SG	3:C:3877:LYS:HB3	2.57	0.45
5:D:26:DT:C2	5:D:27:DA:C5	3.05	0.45
8:H:298:LEU:HD11	2:K:41:PHE:CG	2.52	0.45
1:J:74:LYS:HA	1:J:77:SER:OG	2.17	0.45
1:J:122:PHE:N	1:J:122:PHE:CD1	2.85	0.45
2:K:407:VAL:HG23	2:K:424:LEU:HG	1.99	0.45
2:K:423:GLN:NE2	2:K:424:LEU:O	2.48	0.45
2:K:448:GLU:HA	2:K:451:LEU:HD12	1.99	0.45
2:K:553:ILE:H	3:L:254:LYS:NZ	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:711:GLY:O	3:L:714:VAL:HG12	2.17	0.45
3:L:2197:THR:HG21	3:L:2245:TRP:HB3	1.98	0.45
3:L:2247:ASP:O	3:L:2249:LEU:HG	2.17	0.45
3:L:3133:GLN:OE1	3:L:3133:GLN:HA	2.16	0.45
9:X:674:PRO:O	9:X:678:LEU:HG	2.17	0.45
1:A:267:ILE:HD11	2:B:534:LYS:HG2	1.98	0.44
2:B:35:LYS:HZ1	2:B:95:GLU:HA	1.82	0.44
2:B:48:ALA:HB2	2:B:238:LYS:HD2	1.98	0.44
3:C:215:PRO:O	3:C:217:LEU:N	2.50	0.44
3:C:252:VAL:HG22	3:C:274:LEU:HD23	1.99	0.44
3:C:733:LEU:O	3:C:735:SER:N	2.49	0.44
3:C:1184:ARG:HH12	3:C:1265:GLU:HB3	1.82	0.44
3:C:1332:TYR:O	3:C:1336:THR:HG23	2.16	0.44
3:C:1370:ARG:HA	3:C:1373:VAL:HG12	1.98	0.44
3:C:1376:LEU:HD13	3:C:1399:CYS:SG	2.57	0.44
3:C:2792:THR:N	3:C:2793:PRO:HD2	2.33	0.44
3:C:2883:SER:C	3:C:2885:GLN:H	2.19	0.44
3:C:3451:LEU:HD11	3:C:3468:LEU:HD22	1.99	0.44
3:C:3731:SER:O	3:C:3734:ARG:NE	2.44	0.44
1:J:125:GLN:O	1:J:128:GLN:HG2	2.17	0.44
1:J:370:PRO:HG3	1:J:382:PHE:CD1	2.52	0.44
2:K:459:ASP:O	2:K:462:SER:OG	2.24	0.44
3:L:168:ASP:HB2	6:N:11:DC:OP1	2.17	0.44
3:L:461:ILE:O	3:L:465:PHE:HD2	2.00	0.44
3:L:891:ARG:N	3:L:891:ARG:HD2	2.32	0.44
3:L:3008:TRP:N	3:L:3008:TRP:HD1	2.13	0.44
3:L:3076:ALA:HA	3:L:3079:GLU:HG3	2.00	0.44
3:L:3408:GLY:O	3:L:3412:ALA:N	2.35	0.44
3:L:3756:GLU:OE2	3:L:3943:GLY:HA2	2.18	0.44
5:M:24:DA:N6	6:N:6:DA:H61	2.15	0.44
9:Y:669:GLY:HA2	9:Y:703:GLY:HA3	1.98	0.44
1:A:262:LYS:CB	1:A:268:VAL:HG12	2.47	0.44
1:A:312:LEU:HD11	3:C:157:TYR:HE1	1.81	0.44
3:C:176:GLU:OE2	3:C:225:LYS:NZ	2.46	0.44
3:C:236:LYS:N	3:C:281:GLN:OE1	2.42	0.44
3:C:1135:CYS:O	3:C:1139:GLU:OE1	2.34	0.44
3:C:1171:TRP:NE1	3:C:1175:HIS:NE2	2.64	0.44
3:C:1786:ALA:HB2	3:C:1827:LEU:HD12	1.98	0.44
3:C:2976:LEU:HD12	7:F:271:LYS:HE3	2.00	0.44
3:C:2976:LEU:CD1	7:F:271:LYS:HE3	2.47	0.44
3:C:3748:HIS:HB3	3:C:3750:PHE:CZ	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:346:MET:O	1:J:398:CYS:HA	2.17	0.44
3:L:12:LEU:HA	3:L:12:LEU:HD23	1.62	0.44
3:L:115:TYR:HE2	3:L:159:GLU:HG3	1.82	0.44
3:L:1128:CYS:O	3:L:1131:ILE:HB	2.17	0.44
3:L:1639:LEU:HD12	3:L:1642:LYS:HD2	2.00	0.44
3:L:2521:ILE:O	3:L:2524:PHE:HB3	2.17	0.44
3:L:2602:LEU:HB2	3:L:2605:MET:CE	2.47	0.44
3:L:2936:TYR:CD2	3:L:2961:ALA:HA	2.52	0.44
3:L:3138:ILE:HD11	3:L:3185:ASN:ND2	2.33	0.44
3:L:3145:ILE:HA	3:L:3151:LEU:HD11	1.98	0.44
3:L:3300:VAL:HG13	3:L:3301:LEU:N	2.32	0.44
3:L:3837:CYS:SG	3:L:3877:LYS:HB3	2.57	0.44
1:A:353:LEU:HD23	1:A:395:ALA:HB2	2.00	0.44
1:A:386:LEU:HD12	1:A:415:PRO:HB3	1.98	0.44
1:A:479:GLU:HG2	2:B:427:MET:CG	2.48	0.44
2:B:453:ALA:O	2:B:457:LEU:HD23	2.18	0.44
3:C:677:ALA:O	3:C:680:ILE:HG22	2.17	0.44
3:C:741:ILE:HG23	3:C:748:TYR:HD2	1.82	0.44
3:C:745:VAL:HG22	3:C:746:ARG:N	2.32	0.44
3:C:1212:LEU:O	3:C:1216:GLY:N	2.50	0.44
3:C:1305:ASP:N	3:C:1305:ASP:OD1	2.41	0.44
3:C:1820:VAL:HA	3:C:1824:LEU:CB	2.40	0.44
3:C:2197:THR:HG21	3:C:2245:TRP:HB3	1.98	0.44
3:C:3504:ALA:C	3:C:3506:LEU:H	2.19	0.44
5:D:21:DT:C2	5:D:22:DA:N7	2.85	0.44
5:D:25:DT:C2	5:D:26:DT:C6	3.05	0.44
1:J:175:PRO:HG3	1:J:216:PHE:CE2	2.52	0.44
3:L:798:GLY:HA3	3:L:920:THR:HG22	1.99	0.44
3:L:935:HIS:HB2	3:L:984:TYR:CE1	2.46	0.44
3:L:1014:LEU:HD22	3:L:1033:ILE:HD11	1.99	0.44
3:L:1082:PHE:CB	3:L:1107:TYR:HE2	2.29	0.44
3:L:1273:GLU:HB2	3:L:1275:THR:HG23	2.00	0.44
3:L:1744:LYS:HA	3:L:1744:LYS:HD2	1.80	0.44
3:L:2855:VAL:CG1	3:L:2859:GLN:HE22	2.31	0.44
5:M:8:DA:H2'	5:M:9:DC:H6	1.83	0.44
7:O:138:GLN:HE21	7:P:137:ASN:CG	2.21	0.44
1:A:206:LYS:HD2	1:A:234:GLU:O	2.18	0.44
3:C:391:ARG:HG2	3:C:1737:ASN:HD21	1.81	0.44
3:C:536:SER:O	3:C:538:ASP:N	2.49	0.44
3:C:662:LEU:O	3:C:663:ILE:HD13	2.17	0.44
3:C:1872:GLY:O	3:C:1876:ILE:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2246:LYS:HG3	3:C:2246:LYS:O	2.18	0.44
3:C:2247:ASP:O	3:C:2249:LEU:HG	2.17	0.44
3:C:2374:LEU:O	3:C:2374:LEU:HD23	2.18	0.44
3:C:3537:SER:HA	3:C:3540:TYR:CE1	2.53	0.44
8:H:18:LEU:CD2	8:H:95:PHE:O	2.65	0.44
2:K:237:PHE:HB2	2:K:488:GLN:NE2	2.33	0.44
3:L:182:GLY:HA2	3:L:189:MET:HG3	1.99	0.44
3:L:364:ARG:HG2	3:L:364:ARG:NH1	2.32	0.44
3:L:1526:GLU:O	3:L:1529:VAL:HG12	2.17	0.44
3:L:2277:LEU:HD12	3:L:2280:VAL:CG1	2.47	0.44
3:L:3410:ILE:HG13	3:L:3411:ASP:N	2.32	0.44
3:L:3878:VAL:HG21	3:L:4127:TRP:CD1	2.53	0.44
3:L:3961:PHE:HB2	3:L:4111:ALA:HB1	2.00	0.44
9:X:663:GLU:HG2	9:X:698:TYR:CD1	2.52	0.44
9:X:679:GLU:HA	9:X:682:ILE:HB	1.99	0.44
9:Y:663:GLU:HG2	9:Y:698:TYR:CD1	2.52	0.44
1:A:49:PHE:CZ	1:A:132:GLN:HB3	2.53	0.44
1:A:317:LYS:N	2:B:279:VAL:O	2.44	0.44
2:B:358:GLY:CA	2:B:423:GLN:HB3	2.44	0.44
3:C:1639:LEU:HD12	3:C:1642:LYS:HD2	2.00	0.44
3:C:2163:HIS:O	3:C:2164:TRP:HD1	2.00	0.44
3:C:2270:ASN:O	3:C:2274:ILE:HG13	2.17	0.44
3:C:2305:ASN:O	3:C:2308:SER:OG	2.22	0.44
3:C:2402:LEU:HD21	3:C:2437:ASP:OD2	2.17	0.44
3:C:3175:PRO:O	3:C:3178:ILE:HG22	2.17	0.44
3:C:3887:PHE:HZ	3:C:3904:PHE:CD2	2.36	0.44
3:C:3961:PHE:HB2	3:C:4111:ALA:HB1	2.00	0.44
5:D:20:DG:C5	5:D:21:DT:C4	3.05	0.44
1:J:48:MET:SD	1:J:171:ASN:ND2	2.91	0.44
1:J:71:TYR:O	1:J:75:ILE:HG12	2.17	0.44
1:J:76:ILE:HG21	1:J:487:PHE:CD1	2.52	0.44
2:K:200:GLN:O	2:K:203:GLU:HG3	2.18	0.44
2:K:441:SER:HG	2:K:445:ALA:H	1.56	0.44
3:L:1256:TRP:CZ2	3:L:1292:LYS:HD3	2.52	0.44
3:L:1376:LEU:HD13	3:L:1399:CYS:SG	2.57	0.44
3:L:2374:LEU:O	3:L:2374:LEU:HD23	2.18	0.44
3:L:2782:ASP:OD1	3:L:2782:ASP:O	2.35	0.44
3:L:3887:PHE:HZ	3:L:3904:PHE:CD2	2.36	0.44
6:N:17:DT:C2'	6:N:18:DC:H5"	2.48	0.44
9:Y:674:PRO:O	9:Y:678:LEU:HG	2.17	0.44
1:A:346:MET:O	1:A:398:CYS:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:493:LEU:HD12	9:X:708:ARG:HG3	1.98	0.44
2:B:533:ILE:HG23	2:B:537:PHE:CE2	2.52	0.44
3:C:108:LYS:HG3	3:C:131:LEU:HD21	1.99	0.44
3:C:1473:THR:HB	3:C:1477:HIS:CE1	2.53	0.44
3:C:1526:GLU:O	3:C:1529:VAL:HG12	2.17	0.44
3:C:1801:VAL:HG11	3:C:1827:LEU:HD23	1.98	0.44
5:D:24:DA:N6	6:E:6:DA:H61	2.15	0.44
6:E:3:DG:C2	6:E:4:DT:C4	3.06	0.44
2:K:246:HIS:CD2	2:K:368:ARG:HH12	2.35	0.44
3:L:117:LYS:HD3	3:L:117:LYS:HA	1.76	0.44
3:L:741:ILE:HG23	3:L:748:TYR:HD2	1.82	0.44
3:L:746:ARG:O	3:L:746:ARG:HD2	2.17	0.44
3:L:2251:ILE:O	3:L:2253:TYR:N	2.51	0.44
3:L:2567:SER:HA	3:L:2572:TYR:CE2	2.53	0.44
9:X:681:ARG:NH2	9:X:731:LYS:HE3	2.31	0.44
1:A:303:PHE:HE1	2:B:292:GLU:HG2	1.81	0.44
1:A:526:LYS:O	1:A:530:TYR:HB3	2.18	0.44
2:B:448:GLU:HA	2:B:451:LEU:HD12	1.99	0.44
3:C:879:MET:O	3:C:882:SER:OG	2.30	0.44
3:C:1184:ARG:NH1	3:C:1265:GLU:HB3	2.32	0.44
3:C:1441:ALA:C	3:C:1443:VAL:H	2.21	0.44
3:C:2121:ASP:HA	3:C:2124:SER:HB3	2.00	0.44
3:C:2183:HIS:O	3:C:2186:VAL:HG12	2.18	0.44
3:C:3076:ALA:HA	3:C:3079:GLU:HG3	2.00	0.44
3:C:3490:VAL:HG21	3:C:3495:PHE:CZ	2.52	0.44
3:C:3878:VAL:HG21	3:C:4127:TRP:CD1	2.53	0.44
5:D:5:DA:C6	5:D:6:DG:C6	3.06	0.44
5:D:10:DT:C2	5:D:11:DC:C6	3.05	0.44
8:H:51:THR:HG23	8:H:69:PRO:CG	2.47	0.44
1:J:49:PHE:CZ	1:J:132:GLN:HB3	2.53	0.44
1:J:470:ARG:NH1	1:J:470:ARG:HB3	2.33	0.44
3:L:252:VAL:HG22	3:L:274:LEU:HD23	1.99	0.44
3:L:762:TYR:CZ	3:L:764:PRO:HG2	2.53	0.44
3:L:1178:ARG:HD3	3:L:1183:CYS:SG	2.57	0.44
3:L:1872:GLY:O	3:L:1876:ILE:HG23	2.18	0.44
3:L:1927:MET:CE	3:L:1977:ILE:HG12	2.48	0.44
3:L:2464:HIS:CG	3:L:2465:PRO:HD2	2.53	0.44
3:L:3511:ALA:C	3:L:3513:ALA:N	2.70	0.44
3:L:3969:ASN:OD1	3:L:3972:LEU:HD13	2.18	0.44
5:M:26:DT:C2	5:M:27:DA:C5	3.05	0.44
6:N:27:DT:C4	6:N:28:DA:N6	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:12:LEU:HD23	3:C:12:LEU:HA	1.62	0.44
3:C:1261:LEU:HD11	3:C:1340:ARG:HG3	1.99	0.44
3:C:1370:ARG:HB3	3:C:1418:HIS:NE2	2.33	0.44
3:C:2234:ASN:O	3:C:2238:ILE:HG12	2.17	0.44
3:C:2567:SER:HA	3:C:2572:TYR:CE2	2.53	0.44
3:C:2578:GLU:HG2	3:C:2579:HIS:CG	2.52	0.44
3:C:2782:ASP:OD1	3:C:2782:ASP:O	2.35	0.44
3:C:2804:ILE:HD13	3:C:2804:ILE:HA	1.85	0.44
3:C:3813:LYS:HD3	3:C:3926:ASN:ND2	2.32	0.44
5:D:22:DA:C6	6:E:8:DC:N4	2.84	0.44
1:J:172:GLU:O	1:J:174:ASN:N	2.51	0.44
1:J:349:GLY:HA3	2:K:463:LEU:HB2	2.00	0.44
1:J:526:LYS:O	1:J:530:TYR:HB3	2.18	0.44
3:L:108:LYS:HG3	3:L:131:LEU:HD21	1.98	0.44
3:L:227:LEU:HD21	3:L:248:ILE:HG23	2.00	0.44
3:L:366:TYR:HE1	3:L:384:MET:HB2	1.83	0.44
3:L:703:CYS:O	3:L:706:LEU:HG	2.17	0.44
3:L:792:ILE:HG23	3:L:793:LEU:HD22	1.98	0.44
3:L:939:MET:HE3	3:L:2782:ASP:OD1	2.17	0.44
3:L:1370:ARG:HB3	3:L:1418:HIS:NE2	2.33	0.44
3:L:1798:LEU:HD21	3:L:1831:CYS:SG	2.58	0.44
3:L:1806:ARG:CZ	3:L:1806:ARG:HB3	2.47	0.44
3:L:1923:PHE:HE1	3:L:1945:TYR:CD1	2.35	0.44
3:L:2121:ASP:HA	3:L:2124:SER:HB3	2.00	0.44
3:L:2205:VAL:HB	3:L:2206:PRO:HD2	1.99	0.44
3:L:3129:LEU:O	3:L:3131:SER:N	2.50	0.44
3:L:3448:GLU:O	3:L:3452:LYS:HB2	2.17	0.44
3:L:3537:SER:HA	3:L:3540:TYR:CE1	2.53	0.44
3:L:3753:LYS:NZ	10:L:4201:ADP:O1A	2.50	0.44
5:M:5:DA:C6	5:M:6:DG:C6	3.06	0.44
1:A:35:ARG:O	1:A:162:SER:N	2.41	0.44
1:A:48:MET:SD	1:A:171:ASN:ND2	2.91	0.44
2:B:9:ALA:HB1	2:B:83:LEU:HD11	2.00	0.44
2:B:497:ARG:HH12	2:B:503:GLU:H	1.66	0.44
3:C:366:TYR:HE1	3:C:384:MET:HB2	1.83	0.44
3:C:891:ARG:N	3:C:891:ARG:HD2	2.32	0.44
3:C:1443:VAL:CG1	3:C:1447:ARG:HH22	2.29	0.44
3:C:1633:TRP:HB3	3:C:1678:LEU:HD21	1.99	0.44
3:C:1676:ILE:HG23	3:C:1713:VAL:HG11	1.99	0.44
3:C:2965:TYR:HB2	3:C:3005:LEU:HD21	2.00	0.44
3:C:3022:GLU:HG2	3:C:3024:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:E:17:DT:C2'	6:E:18:DC:H5"	2.48	0.44
7:F:107:ARG:HG2	8:H:64:ARG:HD2	1.99	0.44
8:H:298:LEU:HD12	2:K:41:PHE:CD2	2.53	0.44
1:J:105:LEU:HG	1:J:106:GLN:NE2	2.32	0.44
1:J:145:GLU:O	1:J:149:VAL:HG23	2.18	0.44
1:J:353:LEU:HD23	1:J:395:ALA:HB2	2.00	0.44
1:J:479:GLU:HG2	2:K:427:MET:CG	2.47	0.44
2:K:453:ALA:O	2:K:457:LEU:HD23	2.18	0.44
3:L:410:MET:O	3:L:414:LEU:HD23	2.17	0.44
3:L:443:ILE:HD12	3:L:530:LEU:HD21	1.99	0.44
3:L:741:ILE:HA	3:L:748:TYR:HE2	1.83	0.44
3:L:745:VAL:HG22	3:L:746:ARG:N	2.32	0.44
3:L:1225:GLU:O	3:L:1235:ILE:HD12	2.18	0.44
3:L:1261:LEU:HD11	3:L:1340:ARG:HG3	1.99	0.44
3:L:1488:TYR:CE2	3:L:1555:HIS:CE1	3.06	0.44
3:L:2246:LYS:HG3	3:L:2246:LYS:O	2.17	0.44
3:L:2817:LEU:O	3:L:2820:MET:HG2	2.17	0.44
3:L:3022:GLU:HG2	3:L:3024:PRO:HD2	1.99	0.44
3:L:3561:LYS:HD2	3:L:3561:LYS:O	2.18	0.44
3:L:3751:LEU:HD12	3:L:3805:TRP:CE3	2.53	0.44
5:M:10:DT:C2	5:M:11:DC:C6	3.05	0.44
5:M:25:DT:C2	5:M:26:DT:C6	3.05	0.44
1:A:415:PRO:HA	1:A:432:PHE:HD1	1.82	0.43
2:B:104:GLN:NE2	2:B:139:SER:OG	2.50	0.43
2:B:200:GLN:O	2:B:203:GLU:HG3	2.18	0.43
2:B:237:PHE:HB2	2:B:488:GLN:NE2	2.33	0.43
3:C:886:TRP:CZ3	3:C:964:ARG:HG2	2.53	0.43
3:C:1890:HIS:HA	3:C:1909:ASN:HD22	1.82	0.43
3:C:1914:THR:O	3:C:1918:LEU:HG	2.18	0.43
3:C:1923:PHE:HE1	3:C:1945:TYR:CD1	2.35	0.43
3:C:2257:PHE:HA	3:C:2260:PHE:CE2	2.53	0.43
3:C:2519:LEU:HD12	3:C:2519:LEU:HA	1.92	0.43
3:C:2563:LEU:O	3:C:2566:THR:HB	2.18	0.43
3:C:3071:GLY:O	3:C:3074:GLN:HB2	2.17	0.43
3:C:3127:THR:HA	3:C:3130:GLN:OE1	2.19	0.43
3:C:3160:LEU:HD21	3:C:3164:TRP:CE2	2.53	0.43
3:C:3506:LEU:HD21	3:C:3555:VAL:HG22	1.99	0.43
3:C:3821:SER:HB3	3:C:3824:GLU:OE1	2.17	0.43
6:E:2:DT:N3	6:E:3:DG:C5	2.86	0.43
1:J:320:GLN:HA	1:J:320:GLN:OE1	2.18	0.43
3:L:264:ARG:HD3	3:L:264:ARG:HA	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:677:ALA:O	3:L:680:ILE:HG22	2.18	0.43
3:L:1100:VAL:HA	3:L:1103:ALA:CB	2.48	0.43
3:L:1473:THR:HB	3:L:1477:HIS:CE1	2.53	0.43
3:L:1987:ARG:HA	3:L:1987:ARG:NE	2.33	0.43
3:L:2100:LEU:HG	3:L:2104:MET:CE	2.48	0.43
3:L:2371:PHE:CG	3:L:2373:PRO:HD2	2.53	0.43
3:L:3157:LEU:HD21	3:L:3231:ILE:HD11	2.00	0.43
3:L:3160:LEU:HD21	3:L:3164:TRP:CE2	2.53	0.43
3:L:3789:ARG:HB3	3:L:3938:ILE:HG23	2.00	0.43
9:Y:722:LYS:HD2	9:Y:724:ALA:HB3	2.00	0.43
1:A:125:GLN:HA	1:A:128:GLN:HG2	1.99	0.43
1:A:349:GLY:HA3	2:B:463:LEU:HB2	2.00	0.43
1:A:491:GLU:HG3	2:B:316:TYR:CE2	2.53	0.43
2:B:247:TRP:HD1	2:B:248:PRO:HD2	1.83	0.43
3:C:342:MET:HA	3:C:345:PHE:CE1	2.53	0.43
3:C:1049:GLN:HA	3:C:1053:PRO:CG	2.47	0.43
3:C:1766:LEU:HD11	3:C:1778:PHE:CG	2.53	0.43
3:C:3300:VAL:HG13	3:C:3301:LEU:N	2.32	0.43
3:C:3789:ARG:HB3	3:C:3938:ILE:HG23	2.00	0.43
3:C:4127:TRP:HD1	3:C:4128:MET:OXT	2.01	0.43
7:F:137:ASN:CG	7:G:138:GLN:HE21	2.21	0.43
1:J:439:PHE:CE2	2:K:485:PRO:HD2	2.51	0.43
1:J:491:GLU:HG3	2:K:316:TYR:CE2	2.53	0.43
2:K:247:TRP:HD1	2:K:248:PRO:HD2	1.83	0.43
2:K:466:LYS:HA	2:K:473:LEU:HA	2.00	0.43
3:L:61:ARG:HG2	3:L:61:ARG:HH21	1.83	0.43
3:L:662:LEU:O	3:L:663:ILE:HD13	2.17	0.43
3:L:1487:VAL:HG13	3:L:1488:TYR:N	2.33	0.43
3:L:1633:TRP:HB3	3:L:1678:LEU:HD21	1.99	0.43
3:L:2183:HIS:O	3:L:2186:VAL:HG12	2.18	0.43
3:L:2792:THR:N	3:L:2793:PRO:HD2	2.33	0.43
3:L:3006:ALA:C	3:L:3008:TRP:HD1	2.22	0.43
3:L:3701:ILE:HG23	3:L:3750:PHE:HE2	1.83	0.43
3:L:3791:TYR:HB3	3:L:3806:LEU:HD21	1.99	0.43
7:O:51:GLU:HA	7:O:54:GLN:HB3	2.00	0.43
1:A:38:LEU:O	1:A:83:LEU:HA	2.18	0.43
3:C:1256:TRP:HD1	3:C:1259:LEU:HD23	1.83	0.43
3:C:2371:PHE:CG	3:C:2373:PRO:HD2	2.53	0.43
3:C:2589:TYR:HE1	3:C:2777:HIS:HB2	1.81	0.43
3:C:2936:TYR:CD2	3:C:2961:ALA:HA	2.52	0.43
3:C:3090:TYR:CE1	3:C:3098:ARG:CZ	3.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3371:GLU:O	3:C:3374:ILE:HG12	2.18	0.43
3:C:3701:ILE:HG23	3:C:3750:PHE:HE2	1.83	0.43
3:C:3974:MET:HE2	3:C:3974:MET:HB3	1.79	0.43
6:E:16:DA:C5'	6:E:16:DA:C8	3.01	0.43
2:K:9:ALA:HB1	2:K:83:LEU:HD11	2.00	0.43
3:L:128:LEU:HD13	3:L:128:LEU:HA	1.80	0.43
3:L:651:TYR:CE2	3:L:655:LEU:HD11	2.54	0.43
3:L:1173:LEU:HD12	3:L:1191:PHE:CZ	2.53	0.43
3:L:1962:TYR:CE2	3:L:2103:HIS:HD2	2.35	0.43
3:L:2190:VAL:HG22	3:L:2194:LEU:HD23	2.00	0.43
3:L:2270:ASN:O	3:L:2274:ILE:HG13	2.17	0.43
3:L:2283:ASN:OD1	3:L:2284:ASP:N	2.50	0.43
3:L:2539:LEU:HD12	3:L:2539:LEU:HA	1.80	0.43
3:L:2551:GLU:O	3:L:2554:PHE:N	2.36	0.43
3:L:2965:TYR:HB2	3:L:3005:LEU:HD21	2.00	0.43
3:L:3180:ASP:O	3:L:3183:ILE:HG22	2.18	0.43
3:L:3371:GLU:O	3:L:3374:ILE:HG12	2.18	0.43
3:L:3486:GLU:C	3:L:3488:SER:N	2.71	0.43
3:L:3498:TRP:HZ3	3:L:3501:HIS:HB3	1.80	0.43
5:M:26:DT:H2"	5:M:27:DA:H5"	2.01	0.43
6:N:19:DA:C6	6:N:20:DG:C6	3.07	0.43
7:O:91:GLU:H	7:O:91:GLU:CD	2.22	0.43
9:Y:664:PHE:O	9:Y:690:VAL:HB	2.18	0.43
1:A:105:LEU:HG	1:A:106:GLN:NE2	2.32	0.43
3:C:240:GLU:O	3:C:244:THR:OG1	2.34	0.43
3:C:354:SER:OG	3:C:358:GLU:OE1	2.19	0.43
3:C:410:MET:O	3:C:414:LEU:HD23	2.17	0.43
3:C:753:GLN:NE2	3:C:791:ASP:O	2.52	0.43
3:C:762:TYR:CZ	3:C:764:PRO:HG2	2.53	0.43
3:C:991:LEU:HD23	3:C:991:LEU:HA	1.84	0.43
3:C:2585:GLU:OE1	3:C:2586:PHE:N	2.51	0.43
3:C:2855:VAL:CG1	3:C:2859:GLN:HE22	2.31	0.43
3:C:3561:LYS:O	3:C:3561:LYS:HD2	2.18	0.43
3:C:3761:ASP:HA	3:C:3764:VAL:HG12	2.00	0.43
3:C:3999:THR:C	3:C:4001:THR:H	2.22	0.43
6:E:13:DG:C5	6:E:14:DA:C5	3.07	0.43
1:J:38:LEU:O	1:J:83:LEU:HA	2.18	0.43
1:J:363:ARG:HB2	1:J:364:PRO:CD	2.43	0.43
1:J:388:LYS:HG3	2:K:454:VAL:HB	1.99	0.43
1:J:415:PRO:HA	1:J:432:PHE:HD1	1.82	0.43
3:L:352:VAL:HG22	3:L:353:ASP:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:615:ALA:O	3:L:617:PRO:HD3	2.19	0.43
3:L:1256:TRP:HD1	3:L:1259:LEU:HD23	1.83	0.43
3:L:1342:MET:O	3:L:1345:THR:OG1	2.33	0.43
3:L:2257:PHE:HA	3:L:2260:PHE:CE2	2.53	0.43
3:L:2402:LEU:HD21	3:L:2437:ASP:OD2	2.17	0.43
3:L:3490:VAL:HG21	3:L:3495:PHE:CZ	2.52	0.43
6:N:3:DG:C2	6:N:4:DT:C4	3.06	0.43
1:A:175:PRO:HG3	1:A:216:PHE:CE2	2.52	0.43
3:C:461:ILE:O	3:C:465:PHE:HD2	2.00	0.43
3:C:615:ALA:O	3:C:617:PRO:HD3	2.19	0.43
3:C:703:CYS:HA	3:C:706:LEU:HG	2.00	0.43
3:C:736:LEU:HB3	3:C:740:ILE:HG21	2.00	0.43
3:C:1273:GLU:HB2	3:C:1275:THR:HG23	2.00	0.43
3:C:1487:VAL:HG13	3:C:1488:TYR:N	2.33	0.43
3:C:1922:ALA:O	3:C:1941:HIS:ND1	2.48	0.43
3:C:2165:LEU:HD13	3:C:2202:PRO:HG2	1.99	0.43
3:C:2251:ILE:O	3:C:2253:TYR:N	2.51	0.43
3:C:3327:ASN:O	3:C:3384:HIS:NE2	2.51	0.43
3:C:3756:GLU:OE2	3:C:3943:GLY:HA2	2.18	0.43
7:G:68:GLY:HA2	7:G:71:ARG:HG2	2.00	0.43
8:H:46:HIS:HB3	8:H:124:MET:SD	2.59	0.43
1:J:125:GLN:HA	1:J:128:GLN:HG2	1.99	0.43
1:J:206:LYS:HD2	1:J:234:GLU:O	2.18	0.43
2:K:118:ILE:HG23	2:K:122:THR:HG21	2.00	0.43
2:K:482:ILE:HD11	2:K:515:MET:HG3	1.99	0.43
3:L:238:MET:H	3:L:241:ASP:CG	2.22	0.43
3:L:282:PHE:O	3:L:286:LEU:HD23	2.18	0.43
3:L:477:ASN:O	3:L:481:THR:HG23	2.19	0.43
3:L:703:CYS:HA	3:L:706:LEU:HG	2.00	0.43
3:L:1558:TYR:O	3:L:1562:LEU:HD23	2.18	0.43
3:L:1766:LEU:HD11	3:L:1778:PHE:CG	2.53	0.43
3:L:3090:TYR:CE1	3:L:3098:ARG:CZ	3.01	0.43
3:L:3160:LEU:HD21	3:L:3164:TRP:CZ2	2.54	0.43
3:L:3510:GLN:O	3:L:3513:ALA:N	2.29	0.43
3:L:3686:TRP:HE3	3:L:3687:MET:SD	2.42	0.43
6:N:16:DA:C5'	6:N:16:DA:C8	3.01	0.43
9:X:700:VAL:HG21	9:X:712:ILE:HD12	2.00	0.43
1:A:470:ARG:HB3	1:A:470:ARG:NH1	2.33	0.43
3:C:2100:LEU:HG	3:C:2104:MET:CE	2.48	0.43
3:C:2207:LYS:HG3	3:C:2211:LEU:HD13	2.01	0.43
3:C:3157:LEU:HD21	3:C:3231:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3180:ASP:O	3:C:3183:ILE:HG22	2.18	0.43
3:C:3511:ALA:C	3:C:3513:ALA:N	2.70	0.43
3:C:3681:LYS:HD3	3:C:3726:VAL:HB	2.01	0.43
3:C:3701:ILE:CG1	3:C:3717:VAL:HG13	2.46	0.43
3:C:3751:LEU:HD12	3:C:3805:TRP:CE3	2.53	0.43
3:C:3816:LEU:HD12	3:C:3882:LEU:HD13	2.01	0.43
3:C:3862:ALA:CB	3:C:4119:ARG:HH22	2.31	0.43
6:E:10:DA:C8	6:E:11:DC:H5	2.36	0.43
6:E:27:DT:C4	6:E:28:DA:N6	2.86	0.43
8:I:1:MET:SD	8:I:4:LEU:HB2	2.59	0.43
1:J:262:LYS:HD2	1:J:346:MET:CE	2.49	0.43
3:L:342:MET:HA	3:L:345:PHE:CE1	2.53	0.43
3:L:497:LEU:HD23	3:L:497:LEU:HA	1.86	0.43
3:L:985:GLU:HG3	3:L:1028:PHE:CE1	2.51	0.43
3:L:2392:VAL:O	3:L:2395:THR:OG1	2.28	0.43
3:L:3805:TRP:CD2	10:L:4201:ADP:H2	2.36	0.43
1:A:262:LYS:HD2	1:A:346:MET:CE	2.49	0.43
1:A:320:GLN:OE1	1:A:320:GLN:HA	2.18	0.43
1:A:362:LEU:HD11	2:B:269:GLN:HB2	2.01	0.43
1:A:416:GLN:HG2	1:A:433:GLN:HG3	2.01	0.43
1:A:439:PHE:CE2	2:B:485:PRO:HD2	2.51	0.43
2:B:547:GLN:CG	2:B:548:VAL:H	2.27	0.43
3:C:282:PHE:O	3:C:286:LEU:HD23	2.18	0.43
3:C:352:VAL:HG22	3:C:353:ASP:N	2.33	0.43
3:C:711:GLY:O	3:C:714:VAL:HG12	2.18	0.43
3:C:798:GLY:HA3	3:C:920:THR:HG22	1.99	0.43
3:C:1100:VAL:HA	3:C:1103:ALA:CB	2.48	0.43
3:C:1798:LEU:HD21	3:C:1831:CYS:SG	2.58	0.43
3:C:1902:GLY:HA2	3:C:1905:ILE:HG23	2.01	0.43
3:C:1987:ARG:HA	3:C:1987:ARG:NE	2.33	0.43
3:C:2190:VAL:HG22	3:C:2194:LEU:HD23	2.00	0.43
3:C:2464:HIS:CG	3:C:2465:PRO:HD2	2.53	0.43
3:C:3138:ILE:HD11	3:C:3185:ASN:ND2	2.33	0.43
3:C:3686:TRP:HE3	3:C:3687:MET:SD	2.42	0.43
3:C:3835:PRO:CB	3:C:3840:LYS:H	2.32	0.43
1:J:303:PHE:HE1	2:K:292:GLU:HG2	1.81	0.43
2:K:148:ASP:OD1	2:K:149:ILE:N	2.51	0.43
3:L:185:HIS:CD2	3:L:188:GLU:H	2.37	0.43
3:L:352:VAL:HG13	3:L:354:SER:H	1.81	0.43
3:L:530:LEU:O	3:L:534:LEU:HD23	2.19	0.43
3:L:894:PHE:CE1	3:L:2576:MET:HE3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1661:PHE:C	3:L:1668:PHE:HE1	2.22	0.43
3:L:2184:TYR:CZ	3:L:2188:GLU:OE2	2.72	0.43
3:L:2305:ASN:O	3:L:2308:SER:OG	2.22	0.43
3:L:2377:ARG:C	3:L:2378:PHE:HD1	2.21	0.43
3:L:3037:GLN:NE2	3:L:3077:ILE:HG13	2.34	0.43
3:L:3806:LEU:HD13	3:L:3806:LEU:HA	1.90	0.43
3:L:3816:LEU:HD12	3:L:3882:LEU:HD13	2.01	0.43
3:L:4127:TRP:HD1	3:L:4128:MET:OXT	2.01	0.43
5:M:24:DA:H2	5:M:25:DT:C2	2.34	0.43
1:A:90:THR:HG23	1:A:92:LYS:O	2.19	0.43
1:A:172:GLU:O	1:A:174:ASN:N	2.51	0.43
3:C:61:ARG:HH21	3:C:61:ARG:HG2	1.84	0.43
3:C:746:ARG:HG3	3:C:788:TYR:CZ	2.54	0.43
3:C:1180:GLN:CD	3:C:1180:GLN:H	2.22	0.43
3:C:1488:TYR:CE2	3:C:1555:HIS:CE1	3.06	0.43
3:C:1759:LEU:O	3:C:1763:THR:HG23	2.19	0.43
3:C:2313:LYS:HA	3:C:2316:TYR:HE1	1.83	0.43
3:C:2415:LEU:HD12	3:C:2415:LEU:HA	1.74	0.43
3:C:3763:ARG:HH12	3:C:4004:VAL:HG22	1.83	0.43
8:I:140:MET:SD	8:I:140:MET:C	2.97	0.43
1:J:461:LYS:HZ3	1:J:524:GLU:HB3	1.84	0.43
3:L:627:VAL:HG21	3:L:665:GLY:HA3	2.01	0.43
3:L:643:GLU:HB2	3:L:644:PRO:HD3	2.01	0.43
3:L:1209:LYS:HA	3:L:1212:LEU:HG	2.01	0.43
3:L:1914:THR:O	3:L:1918:LEU:HG	2.18	0.43
3:L:2210:VAL:O	3:L:2214:ARG:HG2	2.19	0.43
3:L:2415:LEU:HD12	3:L:2415:LEU:HA	1.74	0.43
3:L:3327:ASN:O	3:L:3384:HIS:NE2	2.51	0.43
3:L:3680:LEU:HB3	3:L:3682:GLU:HB2	2.01	0.43
3:L:3997:LEU:O	3:L:4001:THR:OG1	2.19	0.43
3:L:4076:ASP:O	3:L:4080:VAL:HG23	2.19	0.43
6:N:10:DA:C8	6:N:11:DC:H5	2.36	0.43
9:X:665:CYS:SG	9:X:693:PRO:HD3	2.58	0.43
2:B:529:PRO:O	2:B:533:ILE:HG12	2.19	0.43
3:C:227:LEU:HD21	3:C:248:ILE:HG23	2.00	0.43
3:C:651:TYR:CE2	3:C:655:LEU:HD11	2.54	0.43
3:C:1208:LEU:HA	3:C:1211:VAL:HG22	2.01	0.43
3:C:1414:ILE:H	3:C:1414:ILE:HD12	1.84	0.43
3:C:2210:VAL:O	3:C:2214:ARG:HG2	2.19	0.43
3:C:2464:HIS:CE1	3:C:2466:SER:HB3	2.54	0.43
3:C:3037:GLN:NE2	3:C:3077:ILE:HG13	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3160:LEU:HD21	3:C:3164:TRP:CZ2	2.54	0.43
3:C:3180:ASP:O	3:C:3184:THR:HG23	2.19	0.43
3:C:3408:GLY:O	3:C:3412:ALA:N	2.35	0.43
3:C:3805:TRP:CD2	10:C:4201:ADP:H2	2.35	0.43
3:C:3872:ARG:HH12	3:C:4114:PRO:HB3	1.83	0.43
3:C:3908:HIS:HA	3:C:3911:ILE:HG22	2.01	0.43
3:C:3969:ASN:OD1	3:C:3972:LEU:HD13	2.18	0.43
5:D:3:DT:C2	6:E:28:DA:N1	2.85	0.43
5:D:21:DT:C2	5:D:22:DA:C8	3.07	0.43
1:J:175:PRO:HB2	1:J:176:HIS:HD1	1.84	0.43
1:J:390:LEU:HD13	1:J:417:GLU:HG2	2.00	0.43
1:J:498:MET:SD	9:Y:705:GLU:OE1	2.76	0.43
2:K:497:ARG:HH12	2:K:503:GLU:H	1.66	0.43
3:L:753:GLN:NE2	3:L:791:ASP:O	2.52	0.43
3:L:975:ASP:OD1	3:L:976:VAL:N	2.44	0.43
3:L:1414:ILE:H	3:L:1414:ILE:HD12	1.84	0.43
3:L:1441:ALA:C	3:L:1443:VAL:H	2.21	0.43
3:L:1676:ILE:HG23	3:L:1713:VAL:HG11	1.99	0.43
3:L:2120:ARG:HB2	3:L:2160:TYR:HE1	1.83	0.43
3:L:2443:MET:HG3	3:L:2479:TRP:CZ3	2.54	0.43
3:L:2464:HIS:CE1	3:L:2466:SER:HB3	2.54	0.43
3:L:2585:GLU:OE1	3:L:2586:PHE:N	2.51	0.43
3:L:3750:PHE:HB3	3:L:3802:LEU:HD12	2.00	0.43
3:L:3763:ARG:HH12	3:L:4004:VAL:HG22	1.82	0.43
3:L:3856:MET:HE1	3:L:4071:ALA:HB1	2.01	0.43
3:L:3999:THR:C	3:L:4001:THR:H	2.22	0.43
3:L:4085:LYS:HB3	3:L:4085:LYS:HE3	1.72	0.43
5:M:21:DT:C2	5:M:22:DA:C8	3.07	0.43
1:A:345:LEU:HA	1:A:399:ARG:O	2.19	0.43
1:A:346:MET:HG3	1:A:399:ARG:NH2	2.34	0.43
1:A:390:LEU:HD13	1:A:417:GLU:HG2	2.00	0.43
3:C:364:ARG:HG2	3:C:364:ARG:NH1	2.33	0.43
3:C:1018:VAL:CG2	3:C:1074:LYS:HG2	2.49	0.43
3:C:1135:CYS:SG	3:C:1194:PHE:CE1	3.12	0.43
3:C:1225:GLU:O	3:C:1235:ILE:HD12	2.18	0.43
3:C:1661:PHE:C	3:C:1668:PHE:HE1	2.22	0.43
3:C:1962:TYR:CE2	3:C:2103:HIS:HD2	2.34	0.43
3:C:2884:LEU:HD23	3:C:3128:LYS:HG2	2.01	0.43
3:C:3091:LEU:HD12	3:C:3091:LEU:HA	1.71	0.43
3:C:3238:MET:HE3	3:C:3238:MET:HB2	1.97	0.43
3:C:3386:SER:O	3:C:3389:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3636:PHE:CZ	3:C:3666:LEU:HG	2.54	0.43
3:C:3750:PHE:HB3	3:C:3802:LEU:HD12	2.00	0.43
3:C:4076:ASP:O	3:C:4080:VAL:HG23	2.19	0.43
8:H:18:LEU:HD22	8:H:95:PHE:O	2.19	0.43
3:L:578:LYS:NZ	4:R:6006:UNK:O	2.50	0.43
3:L:886:TRP:CZ3	3:L:964:ARG:HG2	2.53	0.43
3:L:1871:MET:O	3:L:1875:LYS:HG3	2.19	0.43
3:L:1931:ASN:OD1	3:L:1933:LEU:N	2.48	0.43
3:L:2207:LYS:HG3	3:L:2211:LEU:HD13	2.01	0.43
3:L:2220:MET:HG2	3:L:2276:LEU:HD21	2.01	0.43
3:L:2313:LYS:HA	3:L:2316:TYR:HE1	1.82	0.43
3:L:3127:THR:HA	3:L:3130:GLN:OE1	2.19	0.43
3:L:3731:SER:C	3:L:3734:ARG:HH11	2.22	0.43
3:L:3946:PHE:HE2	3:L:4043:LYS:HG3	1.83	0.43
9:Y:665:CYS:SG	9:Y:693:PRO:HD3	2.58	0.43
2:B:466:LYS:HA	2:B:473:LEU:HA	2.00	0.42
3:C:1173:LEU:HD12	3:C:1191:PHE:CZ	2.53	0.42
3:C:2087:GLU:HB2	3:C:2731:ARG:HH22	1.83	0.42
3:C:2884:LEU:HD12	3:C:2884:LEU:HA	1.70	0.42
3:C:3684:SER:HB3	3:C:3687:MET:CE	2.49	0.42
3:C:3946:PHE:HE2	3:C:4043:LYS:HG3	1.84	0.42
1:J:90:THR:HG23	1:J:92:LYS:O	2.19	0.42
1:J:317:LYS:N	2:K:279:VAL:O	2.44	0.42
1:J:358:LYS:HA	2:K:353:ARG:HH11	1.84	0.42
1:J:404:ARG:O	1:J:406:ILE:HG12	2.19	0.42
1:J:405:ASN:CG	3:L:212:VAL:HG21	2.39	0.42
3:L:736:LEU:HB3	3:L:740:ILE:HG21	2.00	0.42
3:L:1018:VAL:CG2	3:L:1074:LYS:HG2	2.49	0.42
3:L:1759:LEU:O	3:L:1763:THR:HG23	2.19	0.42
3:L:1785:ILE:HG13	3:L:1786:ALA:N	2.34	0.42
3:L:1922:ALA:O	3:L:1941:HIS:ND1	2.48	0.42
3:L:2165:LEU:HD13	3:L:2202:PRO:HG2	1.99	0.42
3:L:2726:LEU:HD11	3:L:2729:ARG:NH2	2.34	0.42
6:N:2:DT:N3	6:N:3:DG:C5	2.86	0.42
9:X:664:PHE:O	9:X:690:VAL:HB	2.18	0.42
9:Y:722:LYS:HE2	9:Y:725:TRP:N	2.34	0.42
1:A:358:LYS:HA	2:B:353:ARG:NH1	2.34	0.42
1:A:405:ASN:CG	3:C:212:VAL:HG21	2.40	0.42
3:C:185:HIS:CD2	3:C:188:GLU:H	2.37	0.42
3:C:888:ARG:NH1	3:C:3932:MET:HG2	2.34	0.42
3:C:1931:ASN:OD1	3:C:1933:LEU:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1963:GLN:CG	3:C:2125:TRP:HZ3	2.32	0.42
3:C:1984:LEU:HD23	3:C:1985:LYS:H	1.83	0.42
3:C:2140:LEU:HD12	3:C:2141:ASN:N	2.35	0.42
3:C:2580:PRO:HD3	3:C:2784:GLN:CD	2.40	0.42
3:C:3968:ILE:H	3:C:3968:ILE:HD12	1.85	0.42
5:D:9:DC:C2	5:D:10:DT:C6	3.08	0.42
3:L:573:LEU:HD12	3:L:652:GLU:OE1	2.19	0.42
3:L:796:LEU:HD23	3:L:796:LEU:HA	1.74	0.42
3:L:873:VAL:HG12	3:L:874:THR:N	2.34	0.42
3:L:1180:GLN:H	3:L:1180:GLN:CD	2.22	0.42
3:L:1902:GLY:HA2	3:L:1905:ILE:HG23	2.01	0.42
3:L:2311:ARG:O	3:L:2312:TYR:HD1	2.02	0.42
3:L:2580:PRO:HD3	3:L:2784:GLN:CD	2.40	0.42
3:L:3180:ASP:O	3:L:3184:THR:HG23	2.19	0.42
3:L:3196:LYS:HD2	3:L:3196:LYS:C	2.40	0.42
3:L:3324:ARG:HG2	3:L:3391:ALA:HB1	2.01	0.42
3:L:3636:PHE:CZ	3:L:3666:LEU:HG	2.54	0.42
3:L:3811:THR:HA	3:L:3929:MET:SD	2.60	0.42
3:L:3862:ALA:HB1	3:L:4119:ARG:HH12	1.84	0.42
3:L:3862:ALA:CB	3:L:4119:ARG:HH22	2.31	0.42
9:Y:673:GLN:HA	9:Y:674:PRO:HD3	1.87	0.42
1:A:145:GLU:O	1:A:149:VAL:HG23	2.18	0.42
2:B:341:SER:C	2:B:393:VAL:HG13	2.40	0.42
3:C:249:PHE:CZ	3:C:253:LEU:HD21	2.54	0.42
3:C:258:PRO:O	3:C:260:ILE:N	2.52	0.42
3:C:573:LEU:HD12	3:C:652:GLU:OE1	2.19	0.42
3:C:741:ILE:HA	3:C:748:TYR:HE2	1.83	0.42
3:C:796:LEU:HD23	3:C:796:LEU:HA	1.74	0.42
3:C:1134:LEU:HD13	3:C:1137:ILE:HD11	2.02	0.42
3:C:1593:VAL:O	3:C:1597:LEU:HD23	2.18	0.42
3:C:1684:LEU:HB2	3:C:1688:LEU:HD23	2.01	0.42
3:C:2205:VAL:HB	3:C:2206:PRO:HD2	2.00	0.42
3:C:3033:GLU:HB2	3:C:3034:PRO:HD2	2.01	0.42
3:C:3487:ILE:HG23	3:C:3517:SER:HB2	2.01	0.42
3:C:4085:LYS:HE3	3:C:4085:LYS:HB3	1.72	0.42
1:J:148:TRP:CZ3	1:J:189:LYS:HE3	2.54	0.42
2:K:203:GLU:O	2:K:207:ILE:HG12	2.19	0.42
3:L:240:GLU:O	3:L:244:THR:OG1	2.34	0.42
3:L:773:LEU:HD22	3:L:858:MET:SD	2.60	0.42
3:L:1168:LEU:O	3:L:1171:TRP:HB3	2.19	0.42
3:L:1208:LEU:HA	3:L:1211:VAL:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1593:VAL:O	3:L:1597:LEU:HD23	2.18	0.42
3:L:1984:LEU:HD23	3:L:1985:LYS:H	1.83	0.42
3:L:2594:ASP:O	3:L:2596:ARG:HG3	2.20	0.42
3:L:2884:LEU:HD23	3:L:3128:LYS:HG2	2.01	0.42
3:L:3016:THR:O	3:L:3019:ILE:HG22	2.20	0.42
3:L:3242:MET:CE	3:L:3258:LEU:HG	2.49	0.42
3:L:3722:PHE:CB	3:L:3740:ILE:HA	2.47	0.42
3:L:3835:PRO:O	3:L:3836:PRO:C	2.58	0.42
6:N:13:DG:C6	6:N:14:DA:C6	3.08	0.42
1:A:68:GLN:HE22	1:A:123:LYS:HB2	1.84	0.42
1:A:263:LEU:HD21	1:A:385:LEU:HD11	2.02	0.42
1:A:396:ALA:HB3	1:A:413:LEU:HB2	2.02	0.42
2:B:14:MET:O	2:B:59:PHE:N	2.52	0.42
2:B:118:ILE:HG23	2:B:122:THR:HG21	2.00	0.42
3:C:14:ARG:O	3:C:18:THR:HG23	2.19	0.42
3:C:395:MET:HG2	3:C:413:PHE:CD1	2.54	0.42
3:C:680:ILE:O	3:C:681:LYS:HG2	2.20	0.42
3:C:934:LEU:HD12	3:C:934:LEU:HA	1.84	0.42
3:C:1871:MET:O	3:C:1875:LYS:HG3	2.19	0.42
3:C:2404:ARG:NH1	3:C:2406:GLU:OE2	2.53	0.42
3:C:3008:TRP:CZ3	3:C:3050:LYS:HB3	2.55	0.42
3:C:3242:MET:CE	3:C:3258:LEU:HG	2.49	0.42
3:C:3859:TYR:CG	3:C:4077:TYR:HE1	2.38	0.42
3:C:3985:VAL:HG12	3:C:3989:ARG:HH12	1.85	0.42
5:D:5:DA:N6	6:E:25:DC:N3	2.68	0.42
5:D:8:DA:N1	6:E:22:DG:N2	2.67	0.42
6:E:6:DA:C2	6:E:7:DT:C4	3.07	0.42
1:J:416:GLN:HG2	1:J:433:GLN:HG3	2.01	0.42
2:K:465:LYS:HG2	2:K:474:GLU:CB	2.49	0.42
3:L:258:PRO:O	3:L:260:ILE:N	2.52	0.42
3:L:291:VAL:HG23	3:L:292:SER:N	2.34	0.42
3:L:395:MET:HG2	3:L:413:PHE:CD1	2.54	0.42
3:L:493:LYS:HD3	3:L:495:VAL:H	1.85	0.42
3:L:571:SER:O	3:L:575:ILE:HG22	2.19	0.42
3:L:1350:ASN:CG	3:L:1405:ALA:HB1	2.40	0.42
3:L:2470:ARG:NH1	3:L:2517:LEU:HD12	2.35	0.42
3:L:2501:LEU:HD12	3:L:2501:LEU:HA	1.83	0.42
3:L:2563:LEU:O	3:L:2566:THR:HB	2.18	0.42
3:L:3008:TRP:CZ3	3:L:3050:LYS:CB	3.03	0.42
3:L:3487:ILE:HG23	3:L:3517:SER:HB2	2.01	0.42
3:L:3835:PRO:CB	3:L:3840:LYS:H	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3985:VAL:HG12	3:L:3989:ARG:HH12	1.85	0.42
5:M:10:DT:H2"	5:M:11:DC:H6	1.85	0.42
6:N:13:DG:C5	6:N:14:DA:C5	3.07	0.42
1:A:143:LEU:HD11	1:A:216:PHE:HE2	1.85	0.42
1:A:211:PHE:CE2	1:A:232:HIS:CE1	3.08	0.42
1:A:340:PHE:HZ	2:B:489:ARG:HB2	1.85	0.42
1:A:440:ALA:O	2:B:239:LYS:HE3	2.18	0.42
3:C:906:PHE:HB3	3:C:908:ASP:OD1	2.19	0.42
3:C:1457:GLN:O	3:C:1460:ARG:HB2	2.19	0.42
3:C:1650:ALA:O	3:C:1654:GLN:HG2	2.19	0.42
3:C:1785:ILE:HG13	3:C:1786:ALA:N	2.34	0.42
3:C:2184:TYR:CZ	3:C:2188:GLU:OE2	2.72	0.42
3:C:2260:PHE:HB2	3:C:2270:ASN:OD1	2.20	0.42
3:C:2311:ARG:O	3:C:2312:TYR:HD1	2.03	0.42
3:C:3006:ALA:C	3:C:3008:TRP:HD1	2.22	0.42
3:C:3008:TRP:CZ3	3:C:3050:LYS:CB	3.03	0.42
3:C:3528:ALA:HB2	3:C:3705:TYR:CE2	2.55	0.42
1:J:440:ALA:O	2:K:239:LYS:HE3	2.19	0.42
2:K:15:ASP:HA	2:K:59:PHE:O	2.19	0.42
2:K:167:PHE:HE1	2:K:205:LEU:HD13	1.85	0.42
3:L:249:PHE:CZ	3:L:253:LEU:HD21	2.54	0.42
3:L:1605:PHE:CE1	3:L:1608:ARG:HD3	2.55	0.42
3:L:2087:GLU:HB2	3:L:2731:ARG:HH22	1.83	0.42
3:L:2219:LEU:HB3	3:L:2238:ILE:HD12	2.02	0.42
3:L:2995:GLU:O	3:L:2998:SER:OG	2.26	0.42
3:L:3855:TYR:HA	3:L:3858:MET:HE2	2.02	0.42
3:L:3968:ILE:H	3:L:3968:ILE:HD12	1.85	0.42
5:M:11:DC:C2	5:M:12:DT:C5	3.08	0.42
7:O:116:VAL:CG1	7:O:117:GLU:H	2.31	0.42
1:A:269:ILE:HB	1:A:378:SER:HB2	2.02	0.42
2:B:465:LYS:HG2	2:B:474:GLU:CB	2.49	0.42
3:C:156:PHE:HB3	3:C:178:LEU:HD21	2.01	0.42
3:C:571:SER:O	3:C:575:ILE:HG22	2.19	0.42
3:C:627:VAL:HG21	3:C:665:GLY:HA3	2.01	0.42
3:C:643:GLU:HB2	3:C:644:PRO:HD3	2.01	0.42
3:C:713:GLU:HG3	3:C:717:LYS:HE2	2.01	0.42
3:C:2283:ASN:OD1	3:C:2284:ASP:N	2.50	0.42
3:C:2443:MET:HG3	3:C:2479:TRP:CZ3	2.54	0.42
3:C:2726:LEU:HD11	3:C:2729:ARG:NH2	2.34	0.42
3:C:3013:TYR:CE2	7:F:269:SER:O	2.73	0.42
3:C:3461:ALA:O	3:C:3464:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3519:GLU:CD	3:C:3557:ARG:HH12	2.23	0.42
3:C:3680:LEU:HB3	3:C:3682:GLU:HB2	2.01	0.42
3:C:3699:LEU:HD23	3:C:3699:LEU:HA	1.81	0.42
3:C:3774:ILE:O	3:C:3777:GLN:HG3	2.20	0.42
3:C:3793:VAL:HG22	3:C:3803:ILE:HD12	2.02	0.42
3:C:3813:LYS:HD3	3:C:3926:ASN:CG	2.40	0.42
5:D:26:DT:H2"	5:D:27:DA:H5"	2.00	0.42
7:G:116:VAL:CG1	7:G:117:GLU:H	2.31	0.42
1:J:263:LEU:HD21	1:J:385:LEU:HD11	2.02	0.42
3:L:345:PHE:HE2	3:L:366:TYR:HA	1.84	0.42
3:L:379:LYS:HA	3:L:379:LYS:HD2	1.78	0.42
3:L:446:PHE:CD1	3:L:446:PHE:C	2.93	0.42
3:L:1135:CYS:SG	3:L:1194:PHE:CE1	3.12	0.42
3:L:1154:PRO:HB2	3:L:1157:PHE:CD1	2.55	0.42
3:L:1430:GLU:O	3:L:1433:ALA:N	2.53	0.42
3:L:1487:VAL:HG21	3:L:1563:PHE:CE2	2.55	0.42
3:L:3008:TRP:CZ3	3:L:3050:LYS:HB3	2.54	0.42
3:L:3774:ILE:O	3:L:3777:GLN:HG3	2.20	0.42
9:X:824:ALA:HB2	9:X:833:ASN:ND2	2.29	0.42
1:A:78:SER:C	1:A:80:ARG:H	2.23	0.42
1:A:148:TRP:CZ3	1:A:189:LYS:HE3	2.54	0.42
2:B:15:ASP:HA	2:B:59:PHE:O	2.19	0.42
2:B:203:GLU:O	2:B:207:ILE:HG12	2.19	0.42
3:C:128:LEU:HA	3:C:128:LEU:HD13	1.80	0.42
3:C:291:VAL:HG23	3:C:292:SER:N	2.34	0.42
3:C:575:ILE:HG21	3:C:626:LEU:HD11	2.02	0.42
3:C:1649:LEU:O	3:C:1652:ILE:HG22	2.19	0.42
3:C:3449:LYS:HB3	3:C:3449:LYS:HE3	1.86	0.42
3:C:3835:PRO:O	3:C:3836:PRO:C	2.58	0.42
5:D:10:DT:H2"	5:D:11:DC:H6	1.85	0.42
6:E:13:DG:C6	6:E:14:DA:C6	3.08	0.42
7:F:267:ALA:HA	7:F:268:PRO:HD3	1.95	0.42
1:J:346:MET:HG3	1:J:399:ARG:NH2	2.34	0.42
1:J:362:LEU:HD11	2:K:269:GLN:HB2	2.01	0.42
2:K:476:LEU:HD23	2:K:476:LEU:HA	1.85	0.42
3:L:14:ARG:O	3:L:18:THR:HG23	2.19	0.42
3:L:293:LEU:O	3:L:297:LEU:HD23	2.20	0.42
3:L:1044:ILE:HD12	3:L:1044:ILE:HA	1.92	0.42
3:L:1331:ASN:HA	3:L:1334:LYS:NZ	2.28	0.42
3:L:2853:PRO:CG	3:L:3116:SER:HB2	2.50	0.42
3:L:3145:ILE:HD11	3:L:3193:ILE:HG12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3684:SER:HB3	3:L:3687:MET:CE	2.50	0.42
3:L:3761:ASP:HA	3:L:3764:VAL:HG12	2.00	0.42
3:L:3859:TYR:CG	3:L:4077:TYR:HE1	2.38	0.42
7:O:68:GLY:HA2	7:O:71:ARG:HG2	2.01	0.42
1:A:175:PRO:HB2	1:A:176:HIS:HD1	1.85	0.42
1:A:404:ARG:O	1:A:406:ILE:HG12	2.19	0.42
3:C:32:HIS:ND1	3:C:33:GLN:HG3	2.34	0.42
3:C:55:THR:HG22	3:C:92:PHE:CE2	2.55	0.42
3:C:493:LYS:HZ2	3:C:495:VAL:HG22	1.83	0.42
3:C:1250:LEU:O	3:C:1252:ALA:N	2.52	0.42
3:C:1350:ASN:CG	3:C:1405:ALA:HB1	2.40	0.42
3:C:1487:VAL:HG21	3:C:1563:PHE:CE2	2.55	0.42
3:C:1718:ILE:HA	3:C:1722:PHE:CD2	2.55	0.42
3:C:2853:PRO:CG	3:C:3116:SER:HB2	2.50	0.42
3:C:2931:ARG:HH12	3:C:2960:GLU:CD	2.23	0.42
3:C:3510:GLN:O	3:C:3512:VAL:N	2.53	0.42
3:C:3526:PRO:O	3:C:3529:ILE:HG22	2.19	0.42
3:C:3528:ALA:HB2	3:C:3705:TYR:HD2	1.84	0.42
3:C:3806:LEU:HD13	3:C:3806:LEU:HA	1.91	0.42
3:C:3862:ALA:HB1	3:C:4119:ARG:HH12	1.84	0.42
3:C:4125:GLU:HG3	3:C:4127:TRP:CE2	2.54	0.42
4:Q:6005:UNK:O	4:Q:6009:UNK:N	2.53	0.42
5:D:8:DA:H2'	5:D:9:DC:H6	1.83	0.42
6:E:19:DA:C6	6:E:20:DG:C6	3.07	0.42
7:F:106:PHE:CD2	8:H:112:LEU:HD21	2.54	0.42
8:H:208:LYS:O	8:H:212:MET:SD	2.78	0.42
1:J:143:LEU:HD11	1:J:216:PHE:HE2	1.85	0.42
1:J:329:LEU:HD13	2:K:276:TRP:CH2	2.54	0.42
1:J:358:LYS:HA	2:K:353:ARG:NH1	2.34	0.42
2:K:14:MET:O	2:K:59:PHE:N	2.52	0.42
3:L:156:PHE:HB3	3:L:178:LEU:HD21	2.01	0.42
3:L:888:ARG:NH1	3:L:3932:MET:HG2	2.34	0.42
3:L:892:LEU:HD21	3:L:941:MET:HG3	2.02	0.42
3:L:906:PHE:HB3	3:L:908:ASP:OD1	2.19	0.42
3:L:1010:LEU:HD12	3:L:1010:LEU:HA	1.79	0.42
3:L:1468:LEU:HD12	3:L:1469:PRO:HD2	2.02	0.42
3:L:1586:SER:HB2	3:L:1589:ASN:HD22	1.84	0.42
3:L:1649:LEU:O	3:L:1652:ILE:HG22	2.19	0.42
3:L:1696:LEU:CB	3:L:1758:LEU:HD21	2.47	0.42
3:L:1788:ARG:O	3:L:1794:GLN:NE2	2.53	0.42
3:L:2746:LYS:O	3:L:2750:GLU:OE1	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:2972:TYR:CE1	3:L:2994:TRP:HA	2.53	0.42
3:L:3742:GLY:O	3:L:3743:HIS:C	2.58	0.42
3:L:3908:HIS:HA	3:L:3911:ILE:HG22	2.01	0.42
3:L:3913:ILE:HD12	3:L:3913:ILE:HA	1.78	0.42
3:L:4125:GLU:HG3	3:L:4127:TRP:CE2	2.54	0.42
5:M:9:DC:N3	5:M:10:DT:C4	2.87	0.42
2:B:129:LYS:HZ2	2:B:129:LYS:HG2	1.67	0.42
2:B:365:PHE:HE1	2:B:418:CYS:HA	1.85	0.42
2:B:465:LYS:N	2:B:474:GLU:H	2.15	0.42
3:C:446:PHE:CD1	3:C:446:PHE:C	2.93	0.42
3:C:477:ASN:O	3:C:481:THR:HG23	2.19	0.42
3:C:530:LEU:O	3:C:534:LEU:HD23	2.19	0.42
3:C:717:LYS:HB3	3:C:721:TYR:CZ	2.55	0.42
3:C:800:LEU:HD13	3:C:3114:TYR:CE1	2.55	0.42
3:C:1695:LEU:HD22	3:C:1699:PHE:CE2	2.55	0.42
3:C:1911:LEU:HA	3:C:1914:THR:HG23	2.02	0.42
3:C:2120:ARG:HB2	3:C:2160:TYR:HE1	1.83	0.42
3:C:2594:ASP:O	3:C:2596:ARG:HG3	2.19	0.42
3:C:2746:LYS:O	3:C:2750:GLU:OE1	2.38	0.42
7:G:51:GLU:HA	7:G:54:GLN:HB3	2.00	0.42
8:I:208:LYS:HG2	8:I:212:MET:SD	2.59	0.42
1:J:345:LEU:HA	1:J:399:ARG:O	2.19	0.42
2:K:407:VAL:O	2:K:421:TYR:HD1	2.03	0.42
3:L:32:HIS:ND1	3:L:33:GLN:HG3	2.34	0.42
3:L:793:LEU:O	3:L:796:LEU:HB2	2.20	0.42
3:L:1256:TRP:HZ2	3:L:1292:LYS:HD3	1.85	0.42
3:L:1457:GLN:O	3:L:1460:ARG:HB2	2.19	0.42
3:L:1985:LYS:CG	3:L:1987:ARG:HH12	2.28	0.42
3:L:3236:PHE:HZ	3:L:3268:THR:HG21	1.85	0.42
3:L:3526:PRO:O	3:L:3529:ILE:HG22	2.19	0.42
3:L:3813:LYS:HD3	3:L:3926:ASN:CG	2.40	0.42
5:M:9:DC:C2	5:M:10:DT:C6	3.08	0.42
9:Y:722:LYS:NZ	9:Y:742:PHE:HA	2.35	0.42
1:A:41:LEU:HD12	1:A:86:VAL:O	2.20	0.42
1:A:329:LEU:HD13	2:B:276:TRP:CH2	2.55	0.42
1:A:505:ASP:OD1	1:A:506:LEU:N	2.53	0.42
3:C:257:ARG:HB2	3:C:257:ARG:CZ	2.50	0.42
3:C:333:MET:HB3	3:C:337:LYS:NZ	2.35	0.42
3:C:453:MET:HA	3:C:456:VAL:HG12	2.02	0.42
3:C:573:LEU:O	3:C:576:VAL:HG12	2.20	0.42
3:C:773:LEU:HD22	3:C:858:MET:SD	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1071:ASN:OD1	3:C:1072:ALA:N	2.53	0.42
3:C:1142:HIS:CD2	3:C:1197:LEU:HD12	2.55	0.42
3:C:1430:GLU:O	3:C:1433:ALA:N	2.53	0.42
3:C:1468:LEU:HD12	3:C:1469:PRO:HD2	2.02	0.42
3:C:2602:LEU:O	3:C:2605:MET:HE1	2.20	0.42
3:C:3196:LYS:HD2	3:C:3196:LYS:C	2.40	0.42
3:C:3324:ARG:HG2	3:C:3391:ALA:HB1	2.01	0.42
3:C:3486:GLU:C	3:C:3488:SER:N	2.71	0.42
3:C:3742:GLY:O	3:C:3743:HIS:C	2.59	0.42
3:C:3976:GLU:O	3:C:3977:THR:OG1	2.27	0.42
7:F:134:ILE:CA	7:G:134:ILE:HG12	2.45	0.42
7:G:91:GLU:H	7:G:91:GLU:CD	2.22	0.42
1:J:68:GLN:HE22	1:J:123:LYS:HB2	1.84	0.42
1:J:261:LEU:HA	1:J:345:LEU:HB2	2.01	0.42
1:J:361:TYR:HB2	2:K:353:ARG:HH22	1.85	0.42
2:K:281:ALA:C	2:K:283:THR:H	2.22	0.42
2:K:334:LYS:O	2:K:335:SER:OG	2.35	0.42
2:K:365:PHE:HE1	2:K:418:CYS:HA	1.85	0.42
3:L:35:ILE:HD12	3:L:35:ILE:HA	1.96	0.42
3:L:242:PRO:HA	3:L:246:ARG:CZ	2.50	0.42
3:L:573:LEU:O	3:L:576:VAL:HG12	2.20	0.42
3:L:575:ILE:HG21	3:L:626:LEU:HD11	2.02	0.42
3:L:1250:LEU:O	3:L:1252:ALA:N	2.52	0.42
3:L:1650:ALA:O	3:L:1654:GLN:HG2	2.20	0.42
3:L:1684:LEU:HB2	3:L:1688:LEU:HD23	2.01	0.42
3:L:1695:LEU:HD22	3:L:1699:PHE:CE2	2.55	0.42
3:L:1794:GLN:O	3:L:1798:LEU:HG	2.20	0.42
3:L:1911:LEU:HA	3:L:1914:THR:HG23	2.02	0.42
3:L:2855:VAL:HG12	3:L:2859:GLN:HE22	1.85	0.42
3:L:3107:ILE:HD13	3:L:3135:LEU:HD13	2.02	0.42
3:L:3386:SER:O	3:L:3389:VAL:HG12	2.19	0.42
3:L:3681:LYS:HD3	3:L:3726:VAL:HB	2.01	0.42
3:L:3774:ILE:HD13	3:L:3997:LEU:HD13	2.02	0.42
3:L:3871:PHE:HA	3:L:3874:ARG:HG2	2.02	0.42
4:R:6005:UNK:O	4:R:6009:UNK:N	2.53	0.42
5:M:5:DA:N6	6:N:25:DC:N3	2.68	0.42
5:M:8:DA:N1	6:N:22:DG:N2	2.67	0.42
6:N:25:DC:H2”	6:N:26:DT:C7	2.50	0.42
9:X:706:ASN:HD21	9:X:708:ARG:HB2	1.84	0.42
1:A:452:ILE:HD12	2:B:375:VAL:HB	2.02	0.41
2:B:251:LEU:HD13	2:B:340:PHE:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:377:LEU:O	2:B:380:LEU:HB3	2.19	0.41
3:C:722:LYS:CG	3:C:723:ASP:H	2.28	0.41
3:C:1137:ILE:O	3:C:1140:LYS:HG3	2.20	0.41
3:C:1209:LYS:HA	3:C:1212:LEU:HG	2.01	0.41
3:C:1443:VAL:HG13	3:C:1447:ARG:HH12	1.84	0.41
3:C:1844:VAL:O	3:C:1848:ILE:HG12	2.20	0.41
3:C:2451:LEU:HD21	3:C:2480:ILE:HD12	2.01	0.41
3:C:2548:PRO:O	3:C:2551:GLU:HB2	2.20	0.41
3:C:2942:ILE:H	3:C:2942:ILE:HD12	1.85	0.41
3:C:3774:ILE:HD13	3:C:3997:LEU:HD13	2.02	0.41
5:D:9:DC:N3	5:D:10:DT:C4	2.87	0.41
5:D:11:DC:C2	5:D:12:DT:C5	3.08	0.41
5:D:24:DA:H61	6:E:6:DA:N6	2.18	0.41
7:G:73:ALA:HA	7:G:84:TYR:CD2	2.55	0.41
1:J:41:LEU:HD12	1:J:86:VAL:O	2.19	0.41
3:L:746:ARG:HG3	3:L:788:TYR:CZ	2.54	0.41
3:L:864:GLY:HA2	3:L:867:ASN:ND2	2.35	0.41
3:L:1480:GLY:O	3:L:1483:LEU:HB3	2.20	0.41
3:L:1844:VAL:O	3:L:1848:ILE:HG12	2.20	0.41
3:L:2168:LEU:HD11	3:L:2189:ILE:HD12	2.02	0.41
3:L:2404:ARG:NH1	3:L:2406:GLU:OE2	2.53	0.41
1:A:317:LYS:HZ3	1:A:330:GLU:HA	1.84	0.41
1:A:491:GLU:HG3	2:B:316:TYR:HE2	1.84	0.41
1:A:521:LEU:HA	1:A:524:GLU:CD	2.41	0.41
2:B:148:ASP:OD1	2:B:149:ILE:N	2.51	0.41
2:B:167:PHE:CZ	2:B:205:LEU:HB2	2.55	0.41
2:B:167:PHE:HE1	2:B:205:LEU:HD13	1.85	0.41
3:C:363:ILE:HG21	3:C:413:PHE:CD2	2.56	0.41
3:C:939:MET:HE3	3:C:2782:ASP:OD1	2.20	0.41
3:C:994:TRP:HE3	3:C:2780:LEU:HD12	1.85	0.41
3:C:1427:SER:O	3:C:1431:LEU:HB2	2.20	0.41
3:C:1452:VAL:HG11	3:C:1514:LEU:HD22	2.03	0.41
3:C:1605:PHE:CE1	3:C:1608:ARG:HD3	2.55	0.41
3:C:1629:CYS:O	3:C:1632:TRP:N	2.53	0.41
3:C:1675:TYR:CD1	3:C:1695:LEU:HD21	2.55	0.41
3:C:1675:TYR:CE1	3:C:1695:LEU:HD21	2.55	0.41
3:C:1853:SER:OG	3:C:1854:ARG:N	2.52	0.41
3:C:2219:LEU:HB3	3:C:2238:ILE:HD12	2.02	0.41
3:C:2855:VAL:HG12	3:C:2859:GLN:HE22	1.85	0.41
3:C:2856:SER:HB3	3:C:2885:GLN:CD	2.41	0.41
3:C:3016:THR:O	3:C:3019:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3145:ILE:HD11	3:C:3193:ILE:HG12	2.02	0.41
3:C:3263:HIS:O	3:C:3265:GLU:N	2.54	0.41
3:C:3574:ALA:HB1	3:C:3687:MET:SD	2.60	0.41
3:C:3731:SER:C	3:C:3734:ARG:HH11	2.22	0.41
3:C:3811:THR:HA	3:C:3929:MET:SD	2.60	0.41
3:C:3835:PRO:HB3	3:C:3840:LYS:HB2	2.02	0.41
3:C:3872:ARG:HD3	3:C:3872:ARG:HA	1.85	0.41
5:D:6:DG:H2"	5:D:7:DA:O4'	2.20	0.41
8:H:215:GLN:O	8:H:219:MET:SD	2.78	0.41
1:J:99:PHE:CD2	1:J:145:GLU:HG2	2.55	0.41
1:J:326:GLN:HE22	1:J:328:ILE:CD1	2.33	0.41
2:K:167:PHE:CZ	2:K:205:LEU:HB2	2.55	0.41
3:L:372:PRO:O	3:L:376:ILE:HG12	2.21	0.41
3:L:925:GLN:OE1	3:L:2769:VAL:HA	2.20	0.41
3:L:1137:ILE:O	3:L:1140:LYS:HG3	2.20	0.41
3:L:1418:HIS:HA	3:L:1422:LYS:CE	2.50	0.41
3:L:1675:TYR:CD1	3:L:1695:LEU:HD21	2.55	0.41
3:L:1718:ILE:HA	3:L:1722:PHE:CD2	2.55	0.41
3:L:1884:LEU:HD23	3:L:1884:LEU:HA	1.91	0.41
3:L:3468:LEU:HD12	3:L:3468:LEU:HA	1.81	0.41
3:L:3714:GLU:HG2	3:L:3715:TYR:HD2	1.85	0.41
3:L:3956:PRO:HG3	3:L:4077:TYR:OH	2.20	0.41
6:N:6:DA:C2	6:N:7:DT:C4	3.07	0.41
9:X:673:GLN:HA	9:X:674:PRO:HD3	1.87	0.41
1:A:104:VAL:HG13	1:A:104:VAL:O	2.20	0.41
3:C:174:VAL:O	3:C:178:LEU:HD23	2.21	0.41
3:C:286:LEU:HD12	3:C:319:PHE:HE1	1.81	0.41
3:C:426:THR:OG1	3:C:427:VAL:N	2.53	0.41
3:C:578:LYS:NZ	4:Q:6006:UNK:O	2.50	0.41
3:C:873:VAL:HG12	3:C:874:THR:N	2.34	0.41
3:C:1467:ILE:H	3:C:1467:ILE:HD12	1.84	0.41
3:C:1480:GLY:O	3:C:1483:LEU:HB3	2.20	0.41
3:C:1506:SER:O	3:C:1509:GLN:HG3	2.20	0.41
3:C:1782:PHE:HA	3:C:1785:ILE:HG12	2.02	0.41
3:C:1806:ARG:HG3	3:C:1873:TYR:OH	2.21	0.41
3:C:2182:ILE:HD12	3:C:2182:ILE:N	2.34	0.41
3:C:3295:GLU:OE1	3:C:3295:GLU:N	2.50	0.41
3:C:3767:LEU:HD21	3:C:4002:MET:HB2	2.02	0.41
3:C:3964:THR:O	3:C:3968:ILE:HD12	2.20	0.41
1:J:452:ILE:HD12	2:K:375:VAL:HB	2.02	0.41
3:L:80:GLU:OE1	3:L:80:GLU:HA	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:640:GLU:OE2	3:L:680:ILE:HD11	2.21	0.41
3:L:1265:GLU:HA	3:L:1268:ASN:OD1	2.20	0.41
3:L:1443:VAL:HG13	3:L:1447:ARG:HH12	1.84	0.41
3:L:1676:ILE:HD13	3:L:1676:ILE:HA	1.92	0.41
3:L:2451:LEU:HD21	3:L:2480:ILE:HD12	2.01	0.41
3:L:2535:THR:OG1	3:L:2536:LEU:N	2.54	0.41
3:L:3169:PRO:HD2	3:L:3179:TRP:CZ2	2.55	0.41
3:L:3528:ALA:HB2	3:L:3705:TYR:HD2	1.84	0.41
3:L:3738:ILE:HG22	3:L:3739:ILE:N	2.36	0.41
3:L:3872:ARG:HH12	3:L:4114:PRO:HB3	1.83	0.41
6:N:12:DT:N3	6:N:13:DG:C6	2.89	0.41
7:P:18:HIS:HB3	7:P:36:LEU:HD11	2.02	0.41
9:X:725:TRP:CD1	9:X:742:PHE:CD2	3.09	0.41
9:Y:731:LYS:HA	9:Y:731:LYS:HE2	2.01	0.41
1:A:363:ARG:HB2	1:A:364:PRO:CD	2.43	0.41
3:C:10:CYS:SG	3:C:11:SER:N	2.93	0.41
3:C:23:ASP:O	3:C:27:ALA:N	2.42	0.41
3:C:179:GLY:O	3:C:181:LEU:N	2.53	0.41
3:C:293:LEU:O	3:C:297:LEU:HD23	2.20	0.41
3:C:640:GLU:OE2	3:C:680:ILE:HD11	2.20	0.41
3:C:1813:SER:HA	3:C:1816:ARG:HG3	2.02	0.41
3:C:2122:LEU:HD23	3:C:2126:MET:CE	2.51	0.41
3:C:2539:LEU:HD12	3:C:2539:LEU:HA	1.80	0.41
3:C:3078:LEU:HD23	3:C:3078:LEU:HA	1.84	0.41
3:C:3300:VAL:O	3:C:3304:VAL:N	2.42	0.41
3:C:3360:LEU:O	3:C:3364:GLY:N	2.53	0.41
3:C:3871:PHE:HA	3:C:3874:ARG:HG2	2.02	0.41
3:C:3963:LEU:O	3:C:3968:ILE:HD11	2.20	0.41
6:E:18:DC:C4	6:E:19:DA:C5	3.08	0.41
6:E:25:DC:H2"	6:E:26:DT:C7	2.50	0.41
8:H:7:GLY:HA3	8:H:28:PHE:CE2	2.55	0.41
2:K:129:LYS:NZ	2:K:131:HIS:CD2	2.88	0.41
2:K:377:LEU:O	2:K:380:LEU:HB3	2.19	0.41
3:L:10:CYS:SG	3:L:11:SER:N	2.93	0.41
3:L:1071:ASN:OD1	3:L:1072:ALA:N	2.53	0.41
3:L:1134:LEU:HD13	3:L:1137:ILE:HD11	2.02	0.41
3:L:1467:ILE:HD12	3:L:1467:ILE:H	1.84	0.41
3:L:1697:PRO:HG3	3:L:1749:ALA:HA	2.03	0.41
3:L:1808:ASP:OD1	3:L:1808:ASP:N	2.53	0.41
3:L:1853:SER:OG	3:L:1854:ARG:N	2.52	0.41
3:L:3033:GLU:HB2	3:L:3034:PRO:HD2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3263:HIS:O	3:L:3265:GLU:N	2.54	0.41
3:L:3461:ALA:O	3:L:3464:LYS:HG2	2.19	0.41
3:L:3530:VAL:HG13	3:L:3531:TYR:N	2.35	0.41
3:L:3786:LEU:HA	3:L:3786:LEU:HD23	1.84	0.41
3:L:3999:THR:OG1	3:L:4000:ASN:N	2.53	0.41
6:N:23:DT:O2	6:N:24:DT:N3	2.53	0.41
7:O:73:ALA:HA	7:O:84:TYR:CD2	2.55	0.41
9:X:726:LEU:O	9:X:730:PHE:HD1	2.04	0.41
1:A:65:GLN:OE1	1:A:65:GLN:HA	2.21	0.41
1:A:261:LEU:HA	1:A:345:LEU:HB2	2.01	0.41
2:B:281:ALA:C	2:B:283:THR:H	2.22	0.41
2:B:332:LYS:O	2:B:334:LYS:HD3	2.21	0.41
3:C:863:GLY:O	3:C:867:ASN:N	2.43	0.41
3:C:864:GLY:HA2	3:C:867:ASN:CG	2.40	0.41
3:C:864:GLY:HA2	3:C:867:ASN:ND2	2.35	0.41
3:C:925:GLN:OE1	3:C:2769:VAL:HA	2.20	0.41
3:C:1168:LEU:O	3:C:1171:TRP:HB3	2.19	0.41
3:C:1586:SER:HB2	3:C:1589:ASN:HD22	1.84	0.41
3:C:2228:ARG:H	3:C:2228:ARG:HG2	1.55	0.41
3:C:2398:LEU:HD23	3:C:2398:LEU:HA	1.77	0.41
3:C:2579:HIS:CD2	3:L:949:PRO:CB	2.91	0.41
3:C:3602:ASN:O	3:C:3606:ILE:HG12	2.20	0.41
3:C:3714:GLU:HG2	3:C:3715:TYR:HD2	1.85	0.41
3:C:3757:ASP:HB2	3:C:3799:ARG:HH22	1.86	0.41
7:F:2:GLU:HB2	7:F:24:TRP:CZ2	2.56	0.41
1:J:46:LYS:HE2	1:J:46:LYS:HB2	1.79	0.41
1:J:320:GLN:NE2	2:K:276:TRP:CD2	2.89	0.41
1:J:480:ASN:CG	1:J:483:LEU:H	2.24	0.41
2:K:529:PRO:HA	2:K:532:LYS:NZ	2.36	0.41
3:L:55:THR:HG22	3:L:92:PHE:CE2	2.55	0.41
3:L:426:THR:OG1	3:L:427:VAL:N	2.53	0.41
3:L:680:ILE:O	3:L:681:LYS:HG2	2.20	0.41
3:L:864:GLY:HA2	3:L:867:ASN:CG	2.40	0.41
3:L:966:PHE:N	3:L:967:PRO:HD2	2.36	0.41
3:L:1142:HIS:CD2	3:L:1197:LEU:HD12	2.56	0.41
3:L:1649:LEU:HD22	3:L:1675:TYR:CZ	2.56	0.41
3:L:1820:VAL:HA	3:L:1824:LEU:CB	2.40	0.41
3:L:2122:LEU:HD23	3:L:2126:MET:CE	2.51	0.41
3:L:2290:PRO:HD2	3:L:2292:CYS:SG	2.60	0.41
3:L:3031:TRP:CZ3	3:L:3074:GLN:HA	2.56	0.41
3:L:3448:GLU:O	3:L:3448:GLU:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3519:GLU:CD	3:L:3557:ARG:HH12	2.23	0.41
3:L:3602:ASN:O	3:L:3606:ILE:HG12	2.20	0.41
3:L:3793:VAL:HG22	3:L:3803:ILE:HD12	2.02	0.41
3:L:3963:LEU:O	3:L:3968:ILE:HD11	2.20	0.41
5:M:6:DG:H2"	5:M:7:DA:O4'	2.20	0.41
5:M:19:DA:H1'	5:M:20:DG:H5'	2.01	0.41
9:Y:725:TRP:CD1	9:Y:742:PHE:CD2	3.08	0.41
1:A:361:TYR:HB2	2:B:353:ARG:HH22	1.86	0.41
2:B:144:LYS:HD3	2:B:207:ILE:HD12	2.02	0.41
2:B:198:THR:OG1	2:B:201:GLN:N	2.36	0.41
2:B:457:LEU:HD22	2:B:529:PRO:HB3	2.03	0.41
3:C:242:PRO:HA	3:C:246:ARG:CZ	2.50	0.41
3:C:381:VAL:O	3:C:384:MET:HG2	2.21	0.41
3:C:1913:LYS:O	3:C:1915:LEU:N	2.54	0.41
3:C:2177:ASN:O	3:C:2183:HIS:CE1	2.73	0.41
3:C:2520:ILE:HD13	3:C:2520:ILE:HA	1.84	0.41
3:C:2521:ILE:HD13	3:C:2521:ILE:HA	1.94	0.41
3:C:3138:ILE:HD12	3:C:3189:PHE:HZ	1.86	0.41
3:C:3498:TRP:O	3:C:3498:TRP:CE3	2.74	0.41
3:C:3576:ASP:O	3:C:3579:SER:OG	2.29	0.41
3:C:3739:ILE:HG23	3:C:3739:ILE:O	2.21	0.41
5:D:19:DA:H1'	5:D:20:DG:H5'	2.01	0.41
5:D:22:DA:C2	5:D:23:DG:C5	3.09	0.41
5:D:22:DA:N3	5:D:23:DG:C5	2.89	0.41
6:E:23:DT:O2	6:E:24:DT:N3	2.53	0.41
1:J:129:LYS:O	1:J:132:GLN:HG3	2.21	0.41
1:J:165:ARG:HH11	1:J:165:ARG:HG3	1.86	0.41
1:J:312:LEU:HD11	3:L:157:TYR:HE1	1.82	0.41
1:J:340:PHE:HZ	2:K:489:ARG:HB2	1.85	0.41
2:K:265:LYS:HZ3	5:M:9:DC:P	2.43	0.41
3:L:257:ARG:HB2	3:L:257:ARG:CZ	2.50	0.41
3:L:800:LEU:HD13	3:L:3114:TYR:CE1	2.55	0.41
3:L:1782:PHE:HA	3:L:1785:ILE:HG12	2.03	0.41
3:L:2140:LEU:HD12	3:L:2141:ASN:N	2.35	0.41
3:L:2240:THR:HA	3:L:2243:GLU:HG3	2.03	0.41
3:L:2548:PRO:O	3:L:2551:GLU:HB2	2.20	0.41
3:L:3141:PHE:CG	3:L:3189:PHE:HD1	2.39	0.41
3:L:3656:LEU:H	3:L:3656:LEU:HD23	1.86	0.41
1:A:245:LYS:HA	1:A:245:LYS:HD3	1.88	0.41
1:A:405:ASN:OD1	3:C:212:VAL:HG21	2.21	0.41
2:B:129:LYS:NZ	2:B:131:HIS:CD2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:450:GLN:HG2	2:B:537:PHE:CE1	2.56	0.41
3:C:242:PRO:HA	3:C:246:ARG:NH2	2.36	0.41
3:C:892:LEU:HD21	3:C:941:MET:HG3	2.02	0.41
3:C:966:PHE:N	3:C:967:PRO:HD2	2.36	0.41
3:C:1082:PHE:CD1	3:C:1085:ILE:HD11	2.56	0.41
3:C:1140:LYS:NZ	3:C:1141:LYS:HE2	2.36	0.41
3:C:1265:GLU:HA	3:C:1268:ASN:OD1	2.20	0.41
3:C:1538:LEU:HD11	3:C:1555:HIS:CD2	2.43	0.41
3:C:1828:LEU:HD21	3:C:1839:PHE:CD2	2.55	0.41
3:C:2218:PHE:HE1	3:C:2222:HIS:CE1	2.38	0.41
3:C:2290:PRO:HD2	3:C:2292:CYS:SG	2.60	0.41
3:C:2392:VAL:O	3:C:2395:THR:OG1	2.28	0.41
3:C:3019:ILE:HD11	3:C:3030:ILE:HA	2.02	0.41
3:C:3271:ASP:OD1	3:C:3272:TRP:N	2.54	0.41
6:E:12:DT:N3	6:E:13:DG:C6	2.89	0.41
1:J:35:ARG:O	1:J:162:SER:N	2.41	0.41
1:J:211:PHE:CE2	1:J:232:HIS:CE1	3.08	0.41
1:J:466:VAL:HG23	2:K:345:PHE:CD2	2.56	0.41
2:K:138:LEU:HD22	2:K:204:GLY:HA3	2.03	0.41
2:K:251:LEU:HD13	2:K:340:PHE:HE2	1.85	0.41
2:K:457:LEU:HD22	2:K:529:PRO:HB3	2.03	0.41
3:L:333:MET:HB3	3:L:337:LYS:NZ	2.35	0.41
3:L:363:ILE:HG21	3:L:413:PHE:CD2	2.55	0.41
3:L:713:GLU:HG3	3:L:717:LYS:HE2	2.02	0.41
3:L:717:LYS:HB3	3:L:721:TYR:CZ	2.55	0.41
3:L:801:LYS:HE3	3:L:913:ARG:NH1	2.36	0.41
3:L:1103:ALA:HA	3:L:1106:ILE:HG13	2.03	0.41
3:L:2121:ASP:O	3:L:2124:SER:HB3	2.21	0.41
3:L:2454:LEU:HD12	3:L:2454:LEU:HA	1.87	0.41
3:L:2856:SER:HB3	3:L:2885:GLN:CD	2.41	0.41
3:L:3138:ILE:HD12	3:L:3189:PHE:HZ	1.86	0.41
3:L:3572:ILE:HG12	3:L:3796:MET:HE2	2.01	0.41
3:L:3793:VAL:HG13	3:L:3803:ILE:HD11	2.03	0.41
9:X:731:LYS:HE2	9:X:731:LYS:HA	2.01	0.41
9:Y:726:LEU:O	9:Y:730:PHE:HD1	2.04	0.41
1:A:38:LEU:HD12	1:A:165:ARG:O	2.21	0.41
1:A:185:ARG:O	1:A:188:THR:OG1	2.34	0.41
2:B:129:LYS:HG2	2:B:130:ARG:N	2.35	0.41
2:B:407:VAL:O	2:B:421:TYR:HD1	2.03	0.41
2:B:478:PRO:C	2:B:480:THR:N	2.74	0.41
2:B:529:PRO:HA	2:B:532:LYS:NZ	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:334:HIS:CD2	3:C:334:HIS:H	2.39	0.41
3:C:446:PHE:HD2	3:C:530:LEU:HD13	1.85	0.41
3:C:493:LYS:HD3	3:C:495:VAL:H	1.85	0.41
3:C:493:LYS:HZ3	3:C:495:VAL:HG22	1.85	0.41
3:C:497:LEU:HD23	3:C:497:LEU:HA	1.86	0.41
3:C:745:VAL:C	3:C:747:ALA:H	2.23	0.41
3:C:793:LEU:O	3:C:796:LEU:HB2	2.20	0.41
3:C:1154:PRO:HB2	3:C:1157:PHE:CD1	2.55	0.41
3:C:1705:GLY:C	3:C:1707:LEU:H	2.24	0.41
3:C:1808:ASP:OD1	3:C:1808:ASP:N	2.53	0.41
3:C:2168:LEU:HD11	3:C:2189:ILE:HD12	2.02	0.41
3:C:2220:MET:HG2	3:C:2276:LEU:HD21	2.01	0.41
3:C:3067:LYS:HA	3:C:3067:LYS:HD2	1.97	0.41
3:C:3169:PRO:HD2	3:C:3179:TRP:CZ2	2.56	0.41
3:C:3956:PRO:HG3	3:C:4077:TYR:OH	2.20	0.41
1:J:269:ILE:HB	1:J:378:SER:HB2	2.01	0.41
1:J:405:ASN:OD1	3:L:212:VAL:HG21	2.21	0.41
1:J:526:LYS:HG3	1:J:530:TYR:HD2	1.86	0.41
2:K:129:LYS:HG2	2:K:130:ARG:N	2.35	0.41
3:L:327:VAL:O	3:L:329:LYS:N	2.54	0.41
3:L:453:MET:HA	3:L:456:VAL:HG12	2.02	0.41
3:L:1452:VAL:HG11	3:L:1514:LEU:HD22	2.03	0.41
3:L:1958:GLU:O	3:L:1962:TYR:N	2.53	0.41
3:L:2177:ASN:O	3:L:2183:HIS:CE1	2.73	0.41
3:L:2288:TYR:O	3:L:2299:TYR:HE2	2.04	0.41
3:L:3019:ILE:HD11	3:L:3030:ILE:HA	2.02	0.41
3:L:3528:ALA:HB2	3:L:3705:TYR:CE2	2.55	0.41
3:L:3767:LEU:HD21	3:L:4002:MET:HB2	2.02	0.41
5:M:14:DA:C4	5:M:15:DT:C5	3.09	0.41
9:Y:722:LYS:HD3	9:Y:741:ARG:CZ	2.51	0.41
1:A:46:LYS:HB2	1:A:46:LYS:HE2	1.78	0.41
1:A:320:GLN:NE2	2:B:276:TRP:CD2	2.89	0.41
1:A:326:GLN:HE22	1:A:328:ILE:CD1	2.33	0.41
1:A:358:LYS:HA	2:B:353:ARG:HH11	1.84	0.41
2:B:473:LEU:O	2:B:475:ASP:N	2.52	0.41
2:B:727:ASP:N	2:B:727:ASP:OD1	2.54	0.41
3:C:57:LEU:HD13	3:C:57:LEU:HA	1.92	0.41
3:C:80:GLU:OE1	3:C:80:GLU:HA	2.21	0.41
3:C:185:HIS:CD2	3:C:187:SER:HG	2.39	0.41
3:C:238:MET:H	3:C:241:ASP:CG	2.22	0.41
3:C:327:VAL:O	3:C:329:LYS:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:450:SER:O	3:C:454:GLN:HG3	2.21	0.41
3:C:801:LYS:HE3	3:C:913:ARG:NH1	2.36	0.41
3:C:908:ASP:OD1	3:C:908:ASP:N	2.54	0.41
3:C:976:VAL:O	3:C:2598:ARG:HB3	2.21	0.41
3:C:1172:LEU:O	3:C:1175:HIS:N	2.54	0.41
3:C:1256:TRP:HZ2	3:C:1292:LYS:HD3	1.85	0.41
3:C:1418:HIS:HA	3:C:1422:LYS:CE	2.50	0.41
3:C:1441:ALA:O	3:C:1443:VAL:N	2.53	0.41
3:C:1510:LEU:O	3:C:1514:LEU:HD23	2.20	0.41
3:C:1649:LEU:HD22	3:C:1675:TYR:CZ	2.56	0.41
3:C:1652:ILE:HD12	3:C:1652:ILE:HA	1.92	0.41
3:C:1788:ARG:O	3:C:1794:GLN:NE2	2.53	0.41
3:C:1798:LEU:HA	3:C:1801:VAL:HG12	2.03	0.41
3:C:1916:ILE:HD13	3:C:1951:VAL:HG11	2.03	0.41
3:C:1958:GLU:O	3:C:1962:TYR:N	2.53	0.41
3:C:2203:THR:OG1	3:C:2245:TRP:HE3	2.03	0.41
3:C:2240:THR:HA	3:C:2243:GLU:HG3	2.03	0.41
3:C:2288:TYR:O	3:C:2299:TYR:HE2	2.04	0.41
3:C:2470:ARG:NH1	3:C:2517:LEU:HD12	2.35	0.41
3:C:2951:GLN:OE1	3:C:2951:GLN:N	2.42	0.41
3:C:2981:TRP:NE1	3:C:2986:PRO:HD3	2.36	0.41
3:C:3448:GLU:O	3:C:3448:GLU:HG2	2.20	0.41
3:C:3506:LEU:O	3:C:3506:LEU:HD23	2.20	0.41
3:C:3722:PHE:CB	3:C:3740:ILE:HA	2.47	0.41
3:C:3738:ILE:HG22	3:C:3739:ILE:N	2.36	0.41
3:C:3999:THR:OG1	3:C:4000:ASN:N	2.53	0.41
3:C:4045:CYS:O	3:C:4048:LYS:HG2	2.20	0.41
5:D:14:DA:C4	5:D:15:DT:C5	3.09	0.41
6:E:19:DA:H2"	6:E:20:DG:C8	2.55	0.41
1:J:40:PHE:CD2	1:J:67:ILE:HG23	2.56	0.41
1:J:104:VAL:HG13	1:J:104:VAL:O	2.20	0.41
1:J:396:ALA:HB3	1:J:413:LEU:HB2	2.02	0.41
1:J:491:GLU:HG3	2:K:316:TYR:HE2	1.84	0.41
1:J:505:ASP:OD1	1:J:506:LEU:N	2.53	0.41
2:K:341:SER:C	2:K:393:VAL:HG13	2.40	0.41
2:K:529:PRO:O	2:K:533:ILE:HG12	2.19	0.41
3:L:13:LEU:CD2	3:L:3070:HIS:HD2	2.34	0.41
3:L:179:GLY:O	3:L:181:LEU:N	2.53	0.41
3:L:490:ILE:HD13	3:L:527:TYR:CG	2.56	0.41
3:L:1172:LEU:O	3:L:1175:HIS:N	2.54	0.41
3:L:1367:HIS:HA	3:L:1370:ARG:NE	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1427:SER:O	3:L:1431:LEU:HB2	2.20	0.41
3:L:1441:ALA:O	3:L:1443:VAL:N	2.53	0.41
3:L:1506:SER:O	3:L:1509:GLN:HG3	2.20	0.41
3:L:1675:TYR:CE1	3:L:1695:LEU:HD21	2.55	0.41
3:L:1705:GLY:C	3:L:1707:LEU:H	2.24	0.41
3:L:1806:ARG:HG3	3:L:1873:TYR:OH	2.21	0.41
3:L:1813:SER:HA	3:L:1816:ARG:HG3	2.02	0.41
3:L:1828:LEU:HD21	3:L:1839:PHE:CD2	2.55	0.41
3:L:1913:LYS:O	3:L:1915:LEU:N	2.54	0.41
3:L:2260:PHE:HB2	3:L:2270:ASN:OD1	2.20	0.41
3:L:2476:ILE:O	3:L:2480:ILE:HG12	2.21	0.41
3:L:2555:LEU:HD21	3:L:2854:PHE:HD1	1.86	0.41
3:L:2733:MET:N	5:M:31:DT:H3	2.19	0.41
3:L:2933:ILE:HG13	3:L:2933:ILE:O	2.21	0.41
3:L:2942:ILE:H	3:L:2942:ILE:HD12	1.85	0.41
3:L:2959:ALA:HA	3:L:2962:ARG:NH2	2.35	0.41
3:L:3281:CYS:SG	3:L:3329:LEU:HD13	2.61	0.41
3:L:3300:VAL:O	3:L:3304:VAL:N	2.42	0.41
3:L:3510:GLN:O	3:L:3512:VAL:N	2.53	0.41
3:L:3574:ALA:HB1	3:L:3687:MET:SD	2.60	0.41
3:L:3752:VAL:CG2	3:L:3800:LEU:HD11	2.51	0.41
5:M:14:DA:C6	5:M:15:DT:C4	3.09	0.41
6:N:18:DC:C4	6:N:19:DA:C5	3.09	0.41
9:X:662:VAL:HA	9:X:698:TYR:CE1	2.56	0.41
1:A:40:PHE:CD2	1:A:67:ILE:HG23	2.56	0.41
1:A:116:ILE:HB	1:A:495:LEU:HD11	2.03	0.41
1:A:116:ILE:HD13	1:A:116:ILE:HA	1.90	0.41
1:A:165:ARG:HH11	1:A:165:ARG:HG3	1.86	0.41
2:B:474:GLU:OE2	2:B:476:LEU:HB2	2.20	0.41
3:C:917:LEU:HD23	3:C:917:LEU:HA	1.92	0.41
3:C:1303:MET:SD	3:C:1370:ARG:NH1	2.94	0.41
3:C:1767:CYS:SG	3:C:1819:PHE:HA	2.61	0.41
3:C:2121:ASP:O	3:C:2124:SER:HB3	2.21	0.41
3:C:2227:LYS:HD3	3:C:2228:ARG:H	1.86	0.41
3:C:2263:LYS:HZ1	3:C:2302:ALA:HB1	1.86	0.41
3:C:2535:THR:OG1	3:C:2536:LEU:N	2.54	0.41
3:C:2959:ALA:HA	3:C:2962:ARG:NH2	2.35	0.41
3:C:3107:ILE:HD13	3:C:3135:LEU:HD13	2.02	0.41
3:C:3578:LEU:HG	3:C:3684:SER:HA	2.02	0.41
3:C:3580:ASN:OD1	3:C:3580:ASN:N	2.54	0.41
3:C:3752:VAL:CG2	3:C:3800:LEU:HD11	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:E:25:DC:O2	6:E:26:DT:C2	2.74	0.41
6:E:26:DT:C4	6:E:27:DT:O4	2.74	0.41
8:I:137:ARG:HB2	8:I:138:PRO:HD3	2.03	0.41
1:J:39:ILE:HG13	1:J:84:ALA:HB3	2.03	0.41
3:L:733:LEU:C	3:L:735:SER:H	2.25	0.41
3:L:780:ILE:HB	3:L:785:MET:HE2	2.02	0.41
3:L:985:GLU:N	3:L:986:PRO:HD2	2.36	0.41
3:L:991:LEU:HD23	3:L:991:LEU:HA	1.83	0.41
3:L:1510:LEU:O	3:L:1514:LEU:HD23	2.20	0.41
3:L:2218:PHE:HE1	3:L:2222:HIS:CE1	2.38	0.41
3:L:2472:GLN:O	3:L:2476:ILE:HG12	2.21	0.41
3:L:3964:THR:O	3:L:3968:ILE:HD12	2.20	0.41
3:L:4074:PHE:CE2	3:L:4075:ARG:NH2	2.89	0.41
5:M:22:DA:N3	5:M:23:DG:C5	2.89	0.41
1:A:129:LYS:O	1:A:132:GLN:HG3	2.21	0.40
2:B:520:ALA:O	2:B:523:THR:OG1	2.23	0.40
3:C:163:LYS:HD2	3:C:163:LYS:HA	1.80	0.40
3:C:939:MET:SD	3:C:2783:ILE:HD13	2.61	0.40
3:C:1862:THR:O	3:C:1865:THR:N	2.47	0.40
3:C:2459:VAL:HA	3:C:2473:MET:HE3	2.02	0.40
3:C:2555:LEU:HD21	3:C:2854:PHE:HD1	1.86	0.40
3:C:2557:LEU:HD23	3:C:2557:LEU:HA	1.79	0.40
3:C:3579:SER:CA	3:C:3736:LYS:HZ1	2.33	0.40
1:J:289:TYR:CE1	2:K:297:LEU:HD21	2.56	0.40
1:J:405:ASN:HD21	3:L:212:VAL:HG11	1.86	0.40
1:J:487:PHE:O	1:J:491:GLU:OE1	2.39	0.40
2:K:478:PRO:C	2:K:480:THR:N	2.74	0.40
2:K:547:GLN:CG	2:K:548:VAL:H	2.26	0.40
3:L:65:LEU:HD12	3:L:65:LEU:N	2.37	0.40
3:L:901:MET:HE3	3:L:2536:LEU:HD23	2.02	0.40
3:L:1303:MET:SD	3:L:1370:ARG:NH1	2.94	0.40
3:L:1689:LYS:O	3:L:1693:VAL:HG13	2.21	0.40
3:L:1767:CYS:SG	3:L:1819:PHE:HA	2.61	0.40
3:L:2129:LEU:O	3:L:2133:LEU:HB2	2.21	0.40
3:L:2163:HIS:CE1	3:L:2164:TRP:NE1	2.89	0.40
3:L:2804:ILE:HD13	3:L:2804:ILE:HA	1.85	0.40
3:L:3154:GLN:HE21	3:L:3227:ILE:HD13	1.86	0.40
3:L:3347:CYS:HB3	3:L:3351:ILE:CD1	2.51	0.40
3:L:3348:LEU:HD23	3:L:3348:LEU:HA	1.80	0.40
3:L:3498:TRP:O	3:L:3498:TRP:CE3	2.74	0.40
3:L:3506:LEU:O	3:L:3506:LEU:HD23	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3507:ASP:OD2	3:L:3540:TYR:HA	2.21	0.40
5:M:22:DA:C2	5:M:23:DG:C5	3.09	0.40
1:A:99:PHE:CD2	1:A:145:GLU:HG2	2.55	0.40
1:A:361:TYR:OH	1:A:364:PRO:HA	2.21	0.40
1:A:410:PHE:CZ	2:B:516:LEU:HD12	2.57	0.40
2:B:423:GLN:O	2:B:424:LEU:HD22	2.22	0.40
3:C:372:PRO:O	3:C:376:ILE:HG12	2.21	0.40
3:C:740:ILE:HG23	3:C:741:ILE:HD13	2.04	0.40
3:C:901:MET:HE3	3:C:2536:LEU:HD23	2.03	0.40
3:C:985:GLU:N	3:C:986:PRO:HD2	2.35	0.40
3:C:1794:GLN:O	3:C:1798:LEU:HG	2.21	0.40
3:C:2472:GLN:O	3:C:2476:ILE:HG12	2.21	0.40
3:C:2972:TYR:CE1	3:C:2994:TRP:HA	2.53	0.40
3:C:3463:LEU:HD11	3:C:3770:VAL:HA	2.03	0.40
3:C:3498:TRP:CE3	3:C:3501:HIS:HB3	2.57	0.40
3:C:3572:ILE:HG12	3:C:3796:MET:HE2	2.03	0.40
3:C:3835:PRO:HG2	3:C:3838:GLU:C	2.42	0.40
3:C:3882:LEU:HD12	3:C:3966:GLN:HG3	2.03	0.40
6:E:26:DT:OP2	6:E:26:DT:H71	2.21	0.40
1:J:174:ASN:OD1	1:J:175:PRO:HD2	2.22	0.40
1:J:361:TYR:OH	1:J:364:PRO:HA	2.21	0.40
1:J:410:PHE:CZ	2:K:516:LEU:HD12	2.56	0.40
1:J:521:LEU:HA	1:J:524:GLU:CD	2.41	0.40
2:K:357:MET:SD	2:K:357:MET:O	2.79	0.40
3:L:341:PHE:C	3:L:343:GLU:N	2.75	0.40
3:L:483:VAL:HG11	3:L:567:GLU:HB3	2.04	0.40
3:L:745:VAL:C	3:L:747:ALA:H	2.23	0.40
3:L:752:LEU:HD22	3:L:792:ILE:CD1	2.49	0.40
3:L:821:ALA:O	3:L:824:LYS:HG3	2.21	0.40
3:L:1082:PHE:CD1	3:L:1085:ILE:HD11	2.56	0.40
3:L:1102:GLU:O	3:L:1106:ILE:HG13	2.22	0.40
3:L:1154:PRO:HB2	3:L:1157:PHE:HD1	1.86	0.40
3:L:1412:LYS:O	3:L:1416:GLU:N	2.30	0.40
3:L:1916:ILE:HD13	3:L:1951:VAL:HG11	2.03	0.40
3:L:2203:THR:OG1	3:L:2245:TRP:HE3	2.03	0.40
3:L:2281:MET:HG2	3:L:2325:LEU:HB3	2.03	0.40
3:L:2422:GLN:NE2	3:L:2426:HIS:CE1	2.89	0.40
3:L:2825:THR:HG22	3:L:2826:LEU:N	2.36	0.40
3:L:2931:ARG:HH12	3:L:2960:GLU:CD	2.23	0.40
3:L:3078:LEU:HD23	3:L:3078:LEU:HA	1.84	0.40
3:L:3238:MET:HE3	3:L:3238:MET:HB2	1.95	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:3293:CYS:SG	3:L:3294:SER:N	2.94	0.40
3:L:3739:ILE:O	3:L:3739:ILE:HG23	2.21	0.40
6:N:24:DT:C6	6:N:25:DC:H5	2.40	0.40
1:A:39:ILE:HG13	1:A:84:ALA:HB3	2.03	0.40
1:A:87:PHE:CE2	1:A:105:LEU:HD22	2.56	0.40
1:A:341:ASP:HB3	1:A:401:THR:HG21	2.03	0.40
1:A:462:MET:O	1:A:466:VAL:HG12	2.21	0.40
2:B:476:LEU:O	2:B:519:PRO:HG3	2.21	0.40
3:C:13:LEU:CD2	3:C:3070:HIS:HD2	2.34	0.40
3:C:387:GLU:OE1	3:C:391:ARG:NE	2.55	0.40
3:C:875:SER:HA	3:C:879:MET:SD	2.61	0.40
3:C:1046:PRO:CD	3:C:1047:GLN:N	2.84	0.40
3:C:1689:LYS:O	3:C:1693:VAL:HG13	2.21	0.40
3:C:2125:TRP:HD1	3:C:2128:PHE:HD2	1.68	0.40
3:C:2163:HIS:CE1	3:C:2164:TRP:NE1	2.90	0.40
3:C:2453:GLU:O	3:C:2457:PRO:HD3	2.22	0.40
3:C:3230:LEU:O	3:C:3233:SER:OG	2.22	0.40
3:C:3296:GLN:O	3:C:3299:THR:OG1	2.21	0.40
3:C:3793:VAL:HG13	3:C:3803:ILE:HD11	2.03	0.40
3:C:3815:LEU:HD11	3:C:3890:MET:CE	2.51	0.40
1:J:38:LEU:HD12	1:J:165:ARG:O	2.21	0.40
1:J:399:ARG:HH11	1:J:399:ARG:HD2	1.78	0.40
1:J:451:LYS:NZ	2:K:414:HIS:O	2.44	0.40
2:K:520:ALA:O	2:K:523:THR:N	2.54	0.40
2:K:727:ASP:N	2:K:727:ASP:OD1	2.54	0.40
3:L:334:HIS:CD2	3:L:334:HIS:H	2.39	0.40
3:L:562:HIS:CD2	3:L:641:PHE:HD2	2.40	0.40
3:L:743:LEU:HD13	3:L:743:LEU:HA	1.98	0.40
3:L:864:GLY:HA2	3:L:867:ASN:OD1	2.21	0.40
3:L:1568:ASN:O	3:L:1572:LEU:HG	2.22	0.40
3:L:1963:GLN:CG	3:L:2125:TRP:HZ3	2.32	0.40
3:L:3144:PHE:CD1	3:L:3160:LEU:HD13	2.57	0.40
3:L:3449:LYS:HB3	3:L:3449:LYS:HE3	1.86	0.40
3:L:3835:PRO:HB3	3:L:3840:LYS:HB2	2.02	0.40
6:N:26:DT:C4	6:N:27:DT:O4	2.74	0.40
1:A:487:PHE:O	1:A:491:GLU:OE1	2.39	0.40
2:B:482:ILE:HD12	2:B:482:ILE:HA	1.88	0.40
2:B:496:HIS:O	2:B:496:HIS:CD2	2.75	0.40
3:C:490:ILE:HD13	3:C:527:TYR:CG	2.56	0.40
3:C:562:HIS:CD2	3:C:641:PHE:HD2	2.39	0.40
3:C:699:GLU:OE1	3:C:1445:ARG:NH2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:708:VAL:HG22	3:C:740:ILE:HG13	2.04	0.40
3:C:733:LEU:C	3:C:735:SER:H	2.25	0.40
3:C:2476:ILE:O	3:C:2480:ILE:HG12	2.21	0.40
3:C:3103:ILE:HD12	3:C:3103:ILE:HA	1.97	0.40
3:C:3293:CYS:SG	3:C:3294:SER:N	2.94	0.40
3:C:3347:CYS:HB3	3:C:3351:ILE:CD1	2.52	0.40
3:C:3482:LEU:HD11	3:C:3487:ILE:HG13	2.04	0.40
3:C:3507:ASP:OD2	3:C:3540:TYR:HA	2.21	0.40
3:C:4074:PHE:CE2	3:C:4075:ARG:NH2	2.89	0.40
1:J:247:ARG:HH21	1:J:488:ARG:NH1	2.20	0.40
1:J:289:TYR:HD1	1:J:292:THR:HG1	1.66	0.40
1:J:341:ASP:HB3	1:J:401:THR:HG21	2.03	0.40
1:J:351:LYS:NZ	1:J:356:LEU:HD22	2.36	0.40
2:K:332:LYS:O	2:K:334:LYS:HD3	2.21	0.40
2:K:353:ARG:O	2:K:356:PHE:CD1	2.73	0.40
2:K:450:GLN:HG2	2:K:537:PHE:CE1	2.56	0.40
3:L:250:ASN:OD1	3:L:251:PHE:N	2.55	0.40
3:L:1459:HIS:HB2	3:L:1464:LEU:HD22	2.04	0.40
3:L:2981:TRP:NE1	3:L:2986:PRO:HD3	2.36	0.40
3:L:3497:SER:CA	3:L:3707:GLY:HA3	2.52	0.40
3:L:3693:GLU:HB2	3:L:3696:ARG:NH2	2.36	0.40
3:L:3704:GLN:HE22	3:L:3716:HIS:HA	1.86	0.40
1:A:203:MET:O	1:A:203:MET:HG2	2.22	0.40
1:A:274:TYR:CD2	2:B:435:PHE:CZ	3.10	0.40
1:A:466:VAL:HG23	2:B:345:PHE:CD2	2.56	0.40
1:A:526:LYS:HG3	1:A:530:TYR:HD2	1.86	0.40
2:B:477:PHE:HD1	2:B:519:PRO:CD	2.35	0.40
3:C:65:LEU:N	3:C:65:LEU:HD12	2.37	0.40
3:C:1108:MET:HA	3:C:1131:ILE:HD13	2.03	0.40
3:C:2422:GLN:NE2	3:C:2426:HIS:CE1	2.89	0.40
5:D:27:DA:H2'	5:D:27:DA:H5'	1.89	0.40
6:E:25:DC:H6	6:E:25:DC:O5'	2.05	0.40
7:F:18:HIS:HB3	7:F:36:LEU:HD11	2.03	0.40
1:J:386:LEU:HA	1:J:432:PHE:HE1	1.87	0.40
1:J:462:MET:O	1:J:466:VAL:HG12	2.22	0.40
2:K:144:LYS:HD3	2:K:207:ILE:HD12	2.02	0.40
2:K:489:ARG:HH12	2:K:493:CYS:HB2	1.87	0.40
3:L:32:HIS:O	3:L:35:ILE:HG22	2.22	0.40
3:L:132:ILE:HD13	3:L:132:ILE:HA	1.96	0.40
3:L:249:PHE:CD1	3:L:282:PHE:HB3	2.57	0.40
3:L:699:GLU:OE1	3:L:1445:ARG:NH2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:961:LEU:HD12	3:L:961:LEU:HA	1.86	0.40
3:L:1690:GLY:O	3:L:1693:VAL:HG22	2.22	0.40
3:L:1798:LEU:HA	3:L:1801:VAL:HG12	2.03	0.40
3:L:3145:ILE:HG22	3:L:3145:ILE:O	2.22	0.40
3:L:3463:LEU:HD11	3:L:3770:VAL:HA	2.03	0.40
3:L:3578:LEU:HG	3:L:3684:SER:HA	2.02	0.40
3:L:3739:ILE:HG13	3:L:3747:GLU:OE1	2.22	0.40
3:L:3815:LEU:HD11	3:L:3890:MET:CE	2.51	0.40
3:L:3835:PRO:HG2	3:L:3838:GLU:C	2.42	0.40
3:L:4045:CYS:O	3:L:4048:LYS:HG2	2.21	0.40
7:P:2:GLU:HB2	7:P:24:TRP:CZ2	2.56	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	493/609 (81%)	424 (86%)	69 (14%)	0	100 100
1	J	493/609 (81%)	424 (86%)	69 (14%)	0	100 100
2	B	525/732 (72%)	465 (89%)	60 (11%)	0	100 100
2	K	525/732 (72%)	466 (89%)	59 (11%)	0	100 100
3	C	3686/4128 (89%)	3269 (89%)	416 (11%)	1 (0%)	100 100
3	L	3686/4128 (89%)	3269 (89%)	416 (11%)	1 (0%)	100 100
7	F	209/336 (62%)	202 (97%)	5 (2%)	2 (1%)	15 54
7	G	191/336 (57%)	176 (92%)	12 (6%)	3 (2%)	9 45
7	O	191/336 (57%)	176 (92%)	12 (6%)	3 (2%)	9 45
7	P	209/336 (62%)	203 (97%)	5 (2%)	1 (0%)	29 68
8	H	217/299 (73%)	201 (93%)	15 (7%)	1 (0%)	29 68

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	I	212/299 (71%)	200 (94%)	11 (5%)	1 (0%)	29 68
9	X	250/911 (27%)	230 (92%)	20 (8%)	0	100 100
9	Y	250/911 (27%)	231 (92%)	19 (8%)	0	100 100
All	All	11137/14702 (76%)	9936 (89%)	1188 (11%)	13 (0%)	54 85

All (13) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
7	F	26	LYS
7	P	26	LYS
7	G	26	LYS
7	G	64	GLY
8	H	208	LYS
7	O	26	LYS
7	O	64	GLY
7	F	60	ALA
7	G	60	ALA
8	I	177	ASP
7	O	60	ALA
3	C	2159	PRO
3	L	2159	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	452/548 (82%)	452 (100%)	0	100 100
1	J	452/548 (82%)	452 (100%)	0	100 100
2	B	481/649 (74%)	478 (99%)	3 (1%)	86 92
2	K	481/649 (74%)	478 (99%)	3 (1%)	86 92
3	C	3325/3671 (91%)	3316 (100%)	9 (0%)	92 95
3	L	3325/3671 (91%)	3316 (100%)	9 (0%)	92 95

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	F	191/303 (63%)	166 (87%)	25 (13%)	4 20
7	G	178/303 (59%)	153 (86%)	25 (14%)	3 19
7	O	178/303 (59%)	153 (86%)	25 (14%)	3 19
7	P	191/303 (63%)	167 (87%)	24 (13%)	4 21
8	H	198/262 (76%)	188 (95%)	10 (5%)	24 50
8	I	193/262 (74%)	177 (92%)	16 (8%)	11 36
9	X	230/808 (28%)	212 (92%)	18 (8%)	12 38
9	Y	230/808 (28%)	211 (92%)	19 (8%)	11 36
All	All	10105/13088 (77%)	9919 (98%)	186 (2%)	61 77

All (186) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	130	ARG
2	B	323	PHE
2	B	327	ASP
3	C	406	ARG
3	C	824	LYS
3	C	1140	LYS
3	C	1445	ARG
3	C	2311	ARG
3	C	2722	ARG
3	C	2940	ARG
3	C	3269	ARG
3	C	3593	ARG
7	F	3	ARG
7	F	6	SER
7	F	22	VAL
7	F	23	SER
7	F	26	LYS
7	F	40	HIS
7	F	71	ARG
7	F	90	LYS
7	F	98	GLU
7	F	104	VAL
7	F	110	SER
7	F	112	ASN
7	F	114	GLU
7	F	116	VAL

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Mol	Chain	Res	Type
7	F	117	GLU
7	F	122	VAL
7	F	125	GLU
7	F	127	ILE
7	F	140	LYS
7	F	145	GLN
7	F	146	LYS
7	F	147	GLU
7	F	161	ARG
7	F	186	GLU
7	F	191	ILE
7	G	1	MET
7	G	4	LYS
7	G	28	LEU
7	G	34	ILE
7	G	47	VAL
7	G	49	GLU
7	G	51	GLU
7	G	52	ILE
7	G	57	ASP
7	G	67	VAL
7	G	70	LEU
7	G	85	THR
7	G	89	SER
7	G	91	GLU
7	G	93	CYS
7	G	115	LYS
7	G	118	ASN
7	G	125	GLU
7	G	136	GLU
7	G	150	ARG
7	G	163	GLU
7	G	165	CYS
7	G	174	THR
7	G	186	GLU
7	G	192	ARG
8	H	31	LYS
8	H	62	ASN
8	H	100	VAL
8	H	109	ARG
8	H	112	LEU
8	H	113	SER

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Mol	Chain	Res	Type
8	H	124	MET
8	H	151	ARG
8	H	168	GLN
8	H	169	GLU
8	I	17	GLN
8	I	31	LYS
8	I	41	LEU
8	I	48	GLN
8	I	59	LYS
8	I	109	ARG
8	I	118	TYR
8	I	140	MET
8	I	151	ARG
8	I	159	MET
8	I	169	GLU
8	I	194	MET
8	I	200	GLU
8	I	204	ILE
8	I	212	MET
8	I	224	GLN
2	K	130	ARG
2	K	323	PHE
2	K	327	ASP
3	L	406	ARG
3	L	824	LYS
3	L	1140	LYS
3	L	1445	ARG
3	L	2311	ARG
3	L	2722	ARG
3	L	2940	ARG
3	L	3269	ARG
3	L	3593	ARG
7	O	1	MET
7	O	4	LYS
7	O	28	LEU
7	O	34	ILE
7	O	47	VAL
7	O	49	GLU
7	O	51	GLU
7	O	52	ILE
7	O	57	ASP
7	O	67	VAL

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Mol	Chain	Res	Type
7	O	70	LEU
7	O	85	THR
7	O	89	SER
7	O	91	GLU
7	O	93	CYS
7	O	115	LYS
7	O	118	ASN
7	O	125	GLU
7	O	136	GLU
7	O	150	ARG
7	O	163	GLU
7	O	165	CYS
7	O	174	THR
7	O	186	GLU
7	O	192	ARG
7	P	3	ARG
7	P	6	SER
7	P	22	VAL
7	P	23	SER
7	P	26	LYS
7	P	40	HIS
7	P	71	ARG
7	P	90	LYS
7	P	98	GLU
7	P	104	VAL
7	P	110	SER
7	P	112	ASN
7	P	114	GLU
7	P	116	VAL
7	P	117	GLU
7	P	122	VAL
7	P	125	GLU
7	P	127	ILE
7	P	140	LYS
7	P	145	GLN
7	P	146	LYS
7	P	147	GLU
7	P	186	GLU
7	P	191	ILE
9	X	769	THR
9	X	774	LEU
9	X	783	ASN

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Mol	Chain	Res	Type
9	X	788	THR
9	X	792	MET
9	X	811	SER
9	X	820	LEU
9	X	822	SER
9	X	830	SER
9	X	832	LYS
9	X	834	GLU
9	X	836	THR
9	X	837	ARG
9	X	853	VAL
9	X	856	LEU
9	X	862	HIS
9	X	871	ARG
9	X	894	VAL
9	Y	769	THR
9	Y	774	LEU
9	Y	783	ASN
9	Y	786	GLU
9	Y	788	THR
9	Y	792	MET
9	Y	811	SER
9	Y	820	LEU
9	Y	822	SER
9	Y	830	SER
9	Y	832	LYS
9	Y	834	GLU
9	Y	836	THR
9	Y	837	ARG
9	Y	853	VAL
9	Y	856	LEU
9	Y	862	HIS
9	Y	871	ARG
9	Y	894	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (53) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	204	HIS
1	A	293	ASN
2	B	131	HIS
2	B	496	HIS

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Mol	Chain	Res	Type
2	B	551	GLN
3	C	16	GLN
3	C	1331	ASN
3	C	1555	HIS
3	C	1909	ASN
3	C	1946	ASN
3	C	1963	GLN
3	C	2295	GLN
3	C	2426	HIS
3	C	2579	HIS
3	C	2859	GLN
3	C	3074	GLN
3	C	3327	ASN
3	C	3390	GLN
3	C	3743	HIS
3	C	3787	GLN
3	C	3969	ASN
3	C	4088	ASN
7	F	40	HIS
7	F	145	GLN
7	F	277	GLN
7	G	138	GLN
8	I	46	HIS
8	I	48	GLN
8	I	56	GLN
1	J	204	HIS
2	K	496	HIS
2	K	551	GLN
3	L	16	GLN
3	L	1331	ASN
3	L	1555	HIS
3	L	1909	ASN
3	L	1946	ASN
3	L	2295	GLN
3	L	2426	HIS
3	L	2579	HIS
3	L	2859	GLN
3	L	3074	GLN
3	L	3327	ASN
3	L	3390	GLN
3	L	3743	HIS
3	L	3787	GLN

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Mol	Chain	Res	Type
3	L	3969	ASN
3	L	4088	ASN
7	O	138	GLN
7	P	40	HIS
7	P	145	GLN
7	P	277	GLN
9	X	833	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

2 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
10	ADP	L	4201	-	24,29,29	1.20	4 (16%)	29,45,45	1.59	3 (10%)
10	ADP	C	4201	-	24,29,29	1.20	4 (16%)	29,45,45	1.58	3 (10%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns.

'-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
10	ADP	L	4201	-	-	2/12/32/32	0/3/3/3
10	ADP	C	4201	-	-	2/12/32/32	0/3/3/3

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	L	4201	ADP	C2'-C1'	-2.88	1.49	1.53
10	C	4201	ADP	C2'-C1'	-2.83	1.49	1.53
10	C	4201	ADP	C4-N3	-2.18	1.32	1.35
10	C	4201	ADP	O4'-C4'	-2.13	1.40	1.45
10	L	4201	ADP	C4-N3	-2.12	1.32	1.35
10	L	4201	ADP	O4'-C4'	-2.11	1.40	1.45
10	C	4201	ADP	C5-N7	-2.03	1.32	1.39
10	L	4201	ADP	C5-N7	-2.02	1.32	1.39

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	L	4201	ADP	PA-O3A-PB	-4.85	116.19	132.83
10	C	4201	ADP	PA-O3A-PB	-4.84	116.22	132.83
10	C	4201	ADP	C3'-C2'-C1'	2.65	104.97	100.98
10	L	4201	ADP	C1'-N9-C4	2.62	131.25	126.64
10	L	4201	ADP	C3'-C2'-C1'	2.61	104.90	100.98
10	C	4201	ADP	C1'-N9-C4	2.56	131.15	126.64

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
10	C	4201	ADP	C5'-O5'-PA-O3A
10	L	4201	ADP	C5'-O5'-PA-O3A
10	C	4201	ADP	C5'-O5'-PA-O1A
10	L	4201	ADP	C5'-O5'-PA-O1A

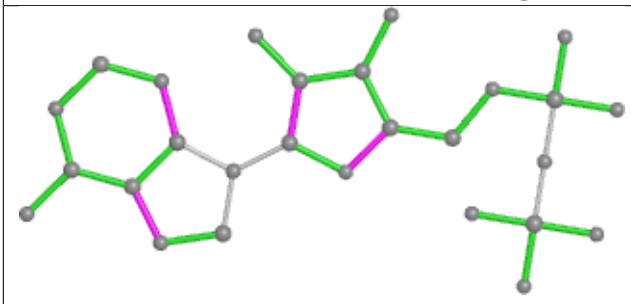
There are no ring outliers.

2 monomers are involved in 10 short contacts:

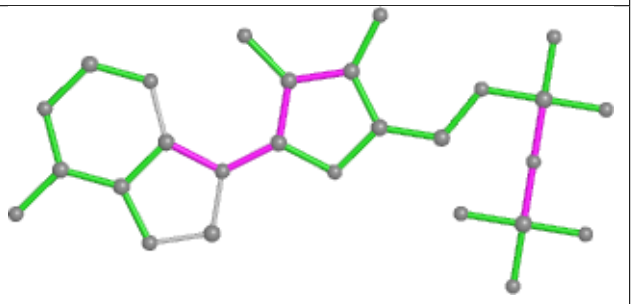
Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	L	4201	ADP	5	0
10	C	4201	ADP	5	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

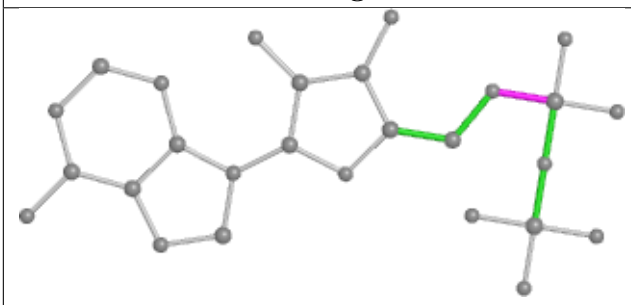
Ligand ADP L 4201



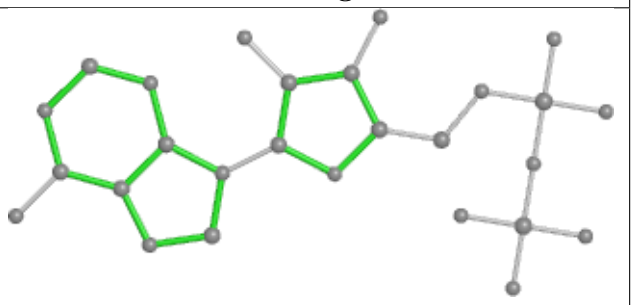
Bond lengths



Bond angles

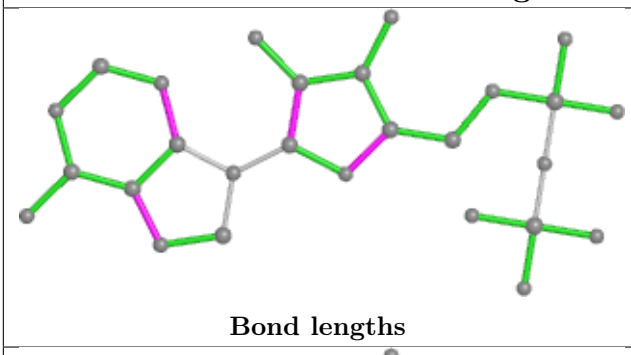


Torsions

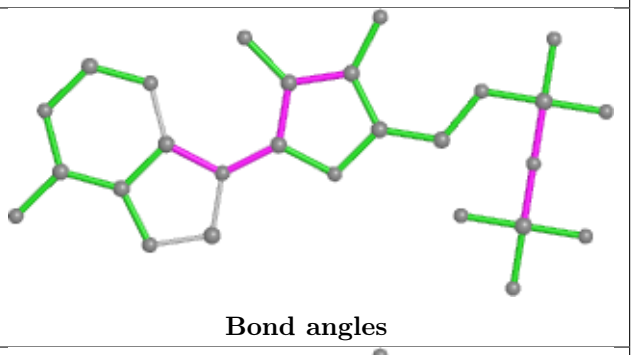


Rings

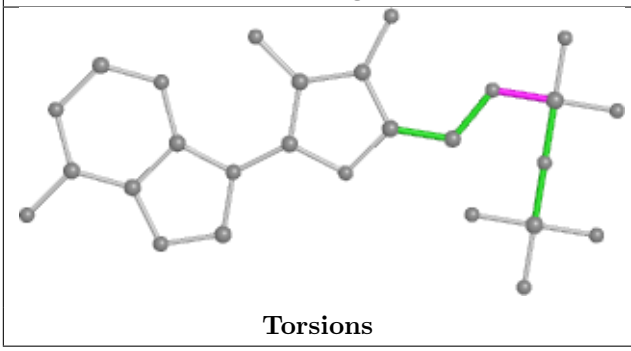
Ligand ADP C 4201



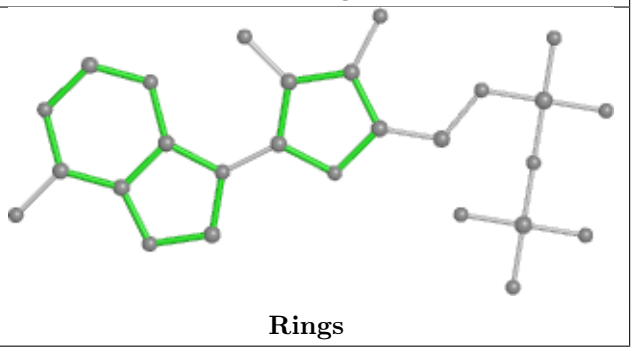
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

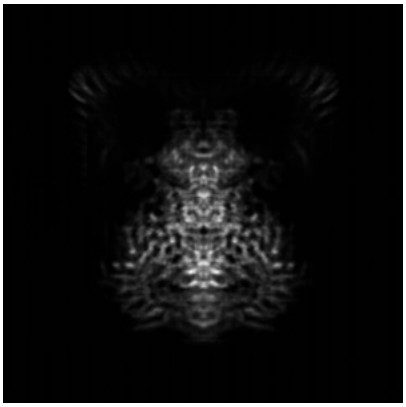
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-23510. These allow visual inspection of the internal detail of the map and identification of artifacts.

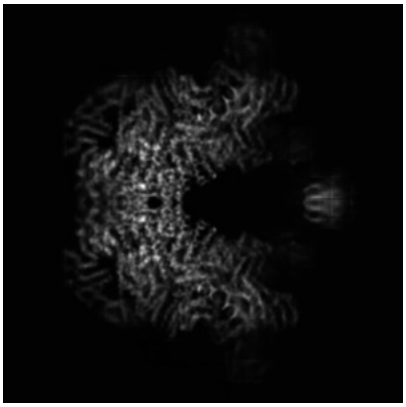
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

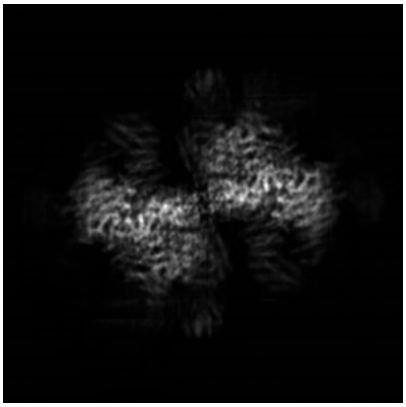
6.1.1 Primary map



X



Y



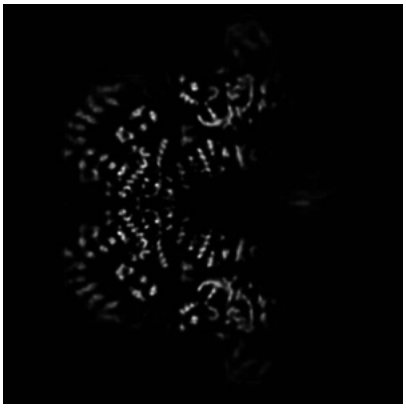
Z

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

6.2 Central slices

6.2.1 Primary map

X Index: 145



Y Index: 145

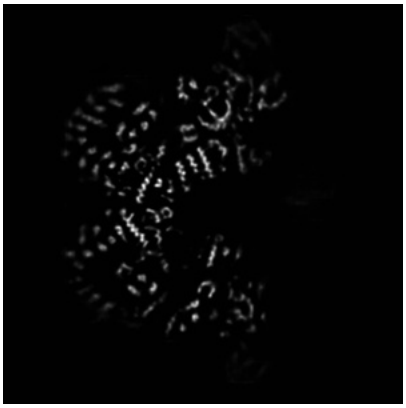
Z Index: 145

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

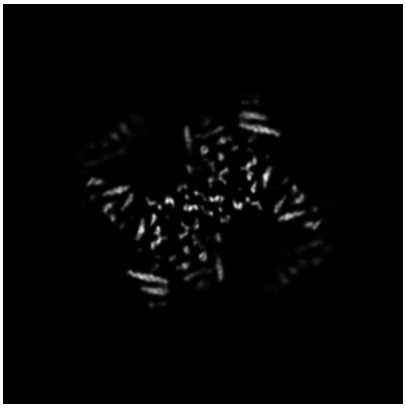
6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 185



Y Index: 147

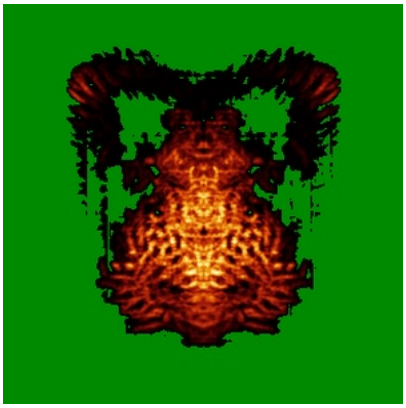


Z Index: 100

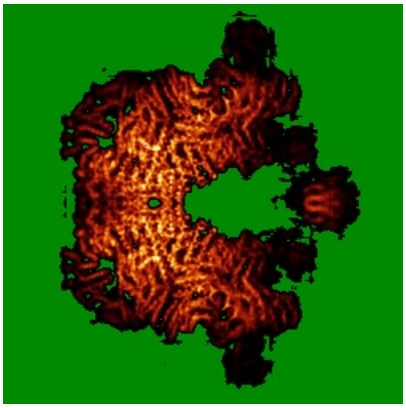
The images above show the largest variance slices of the map in three orthogonal directions.

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

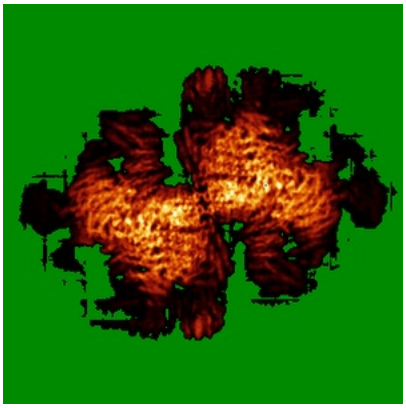
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.02. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

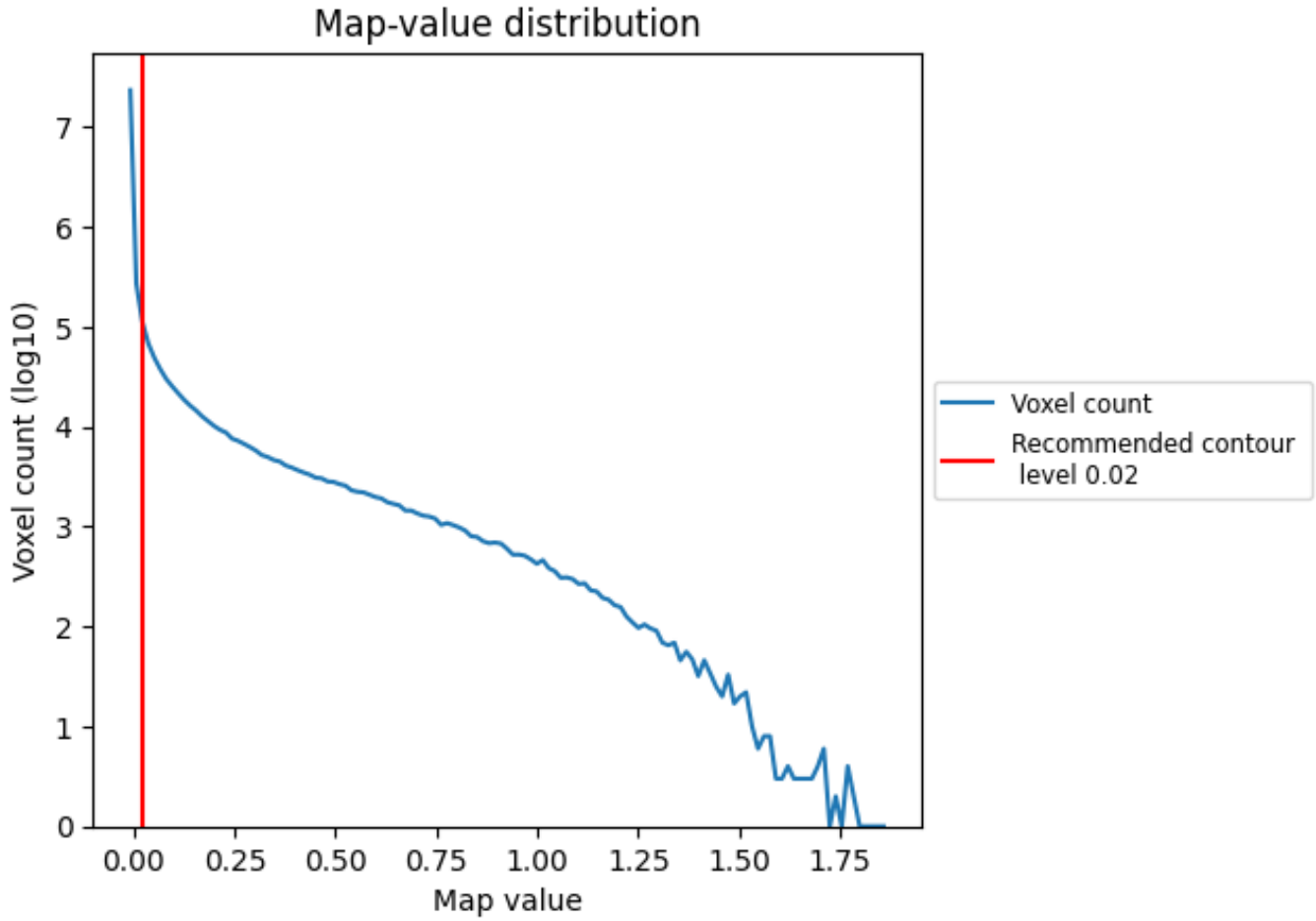
6.6 Mask visualisation (i)

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

7 Map analysis

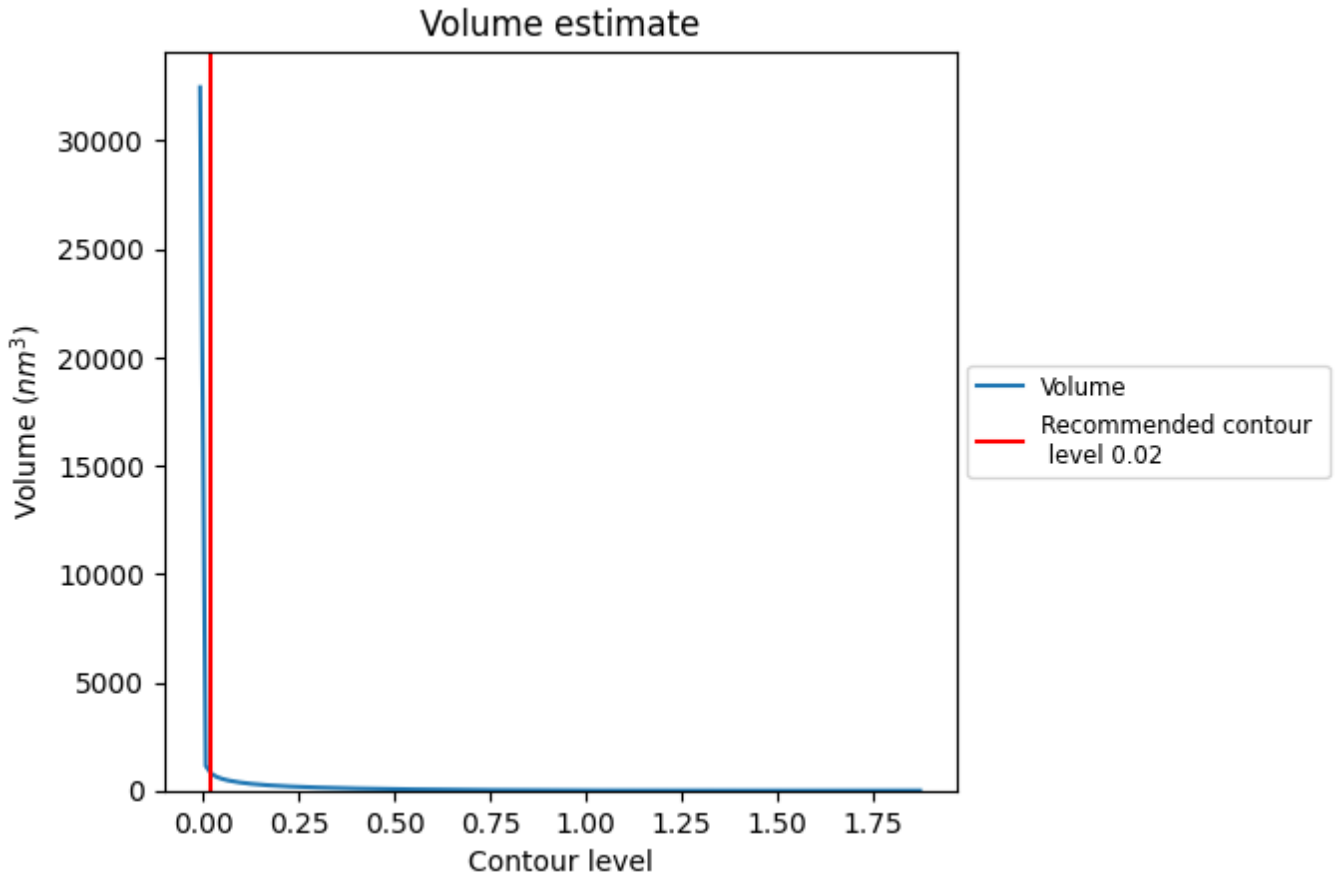
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

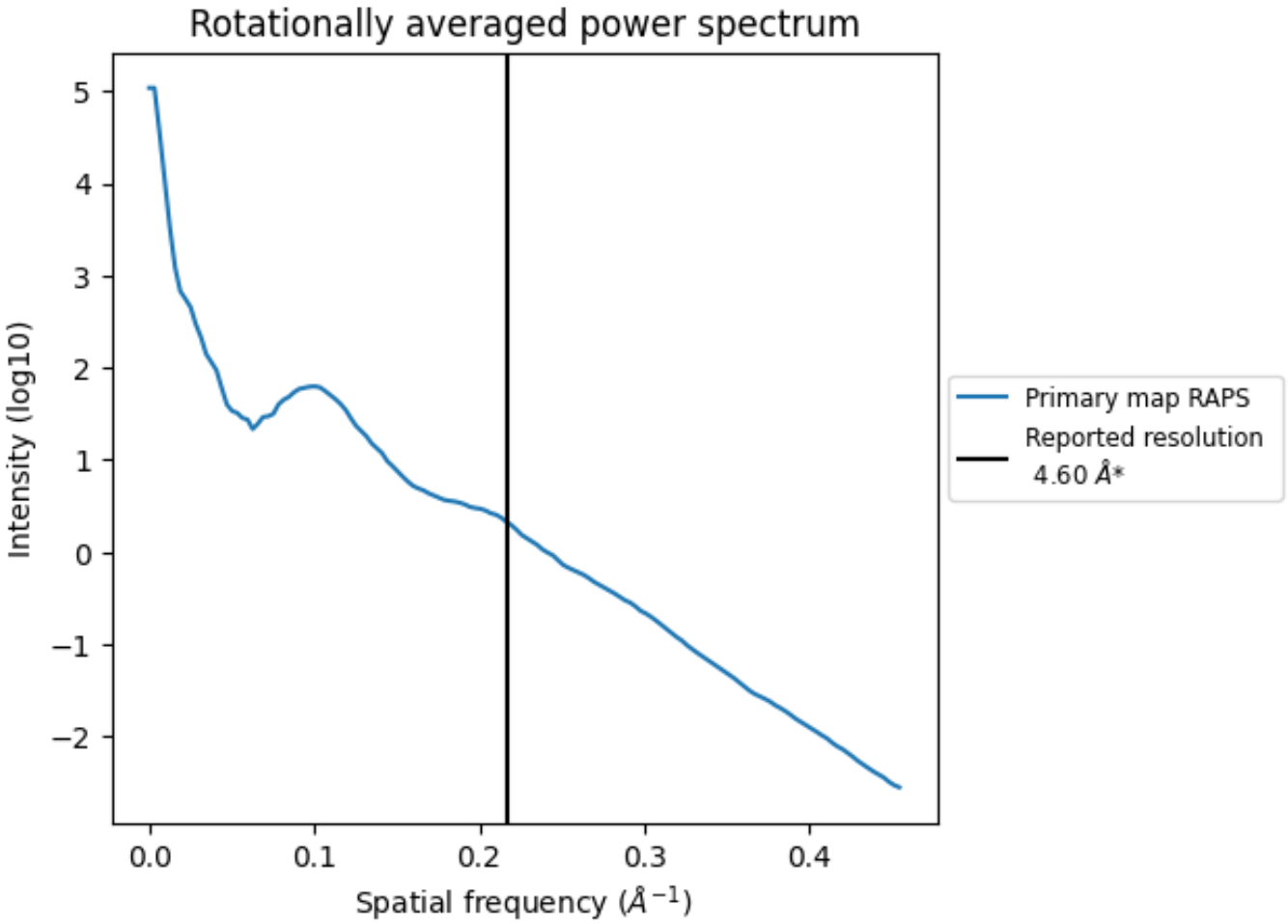
7.2 Volume estimate



The volume at the recommended contour level is 789 nm^3; this corresponds to an approximate mass of 713 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)

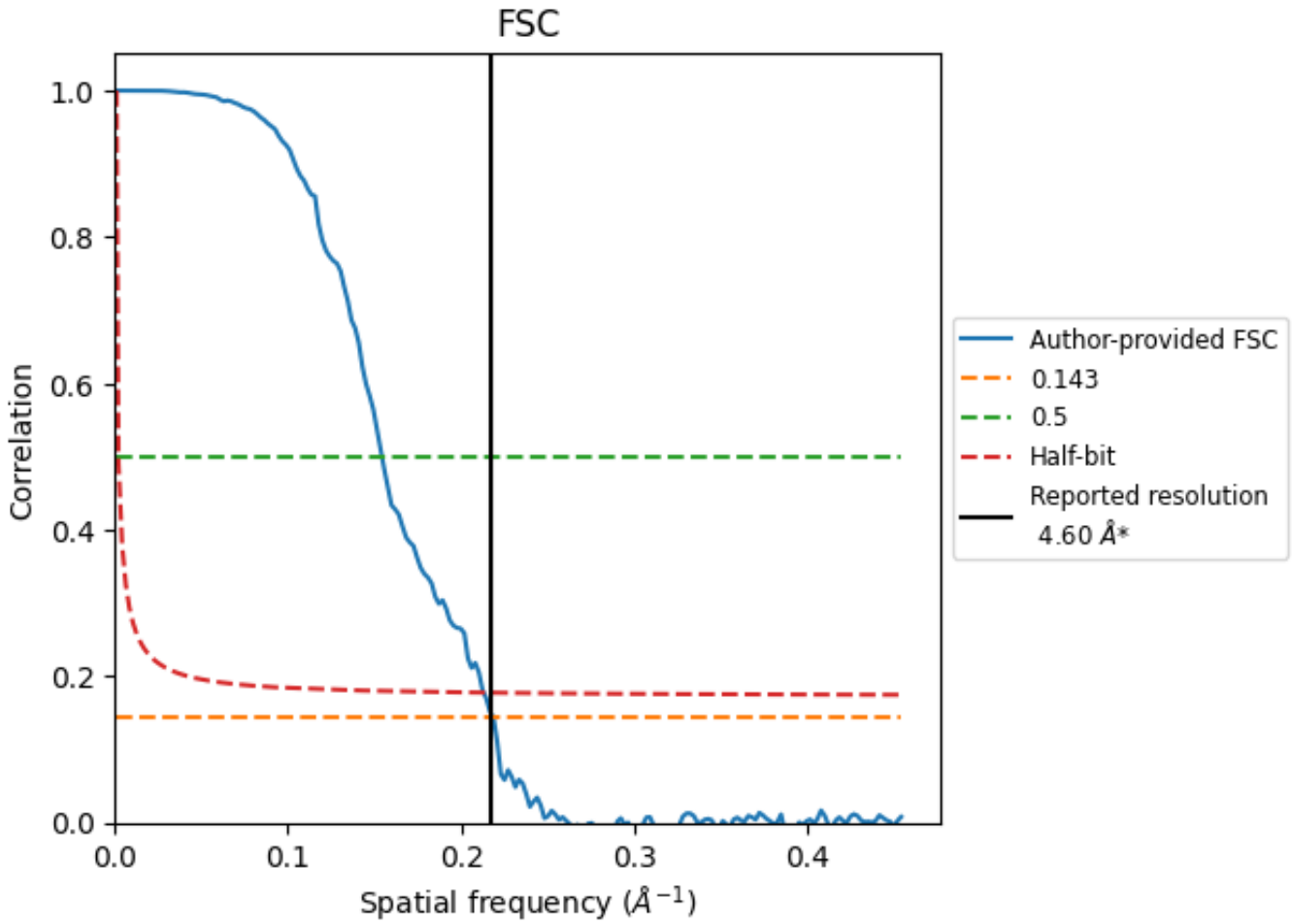


*Reported resolution corresponds to spatial frequency of 0.217 $Å^{-1}$

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.217 Å^{-1}

8.2 Resolution estimates (i)

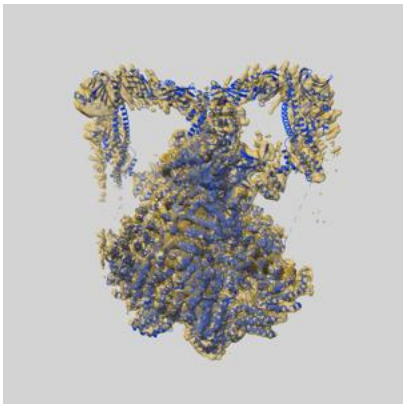
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.60	-	-
Author-provided FSC curve	4.57	6.48	4.69
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

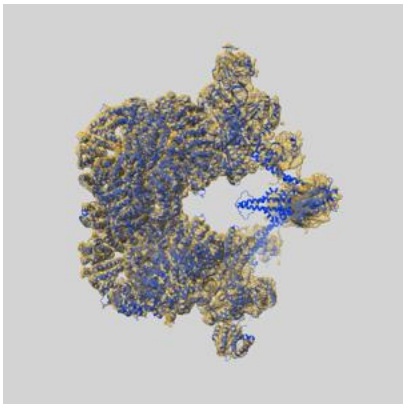
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-23510 and PDB model 7LT3. Per-residue inclusion information can be found in section 3 on page 7.

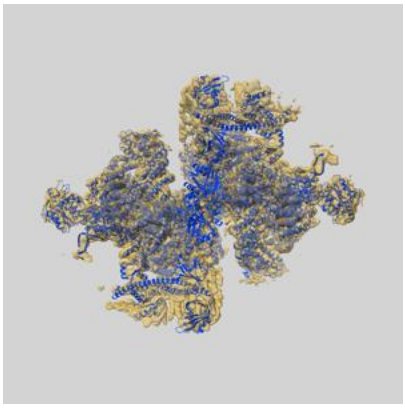
9.1 Map-model overlay



X



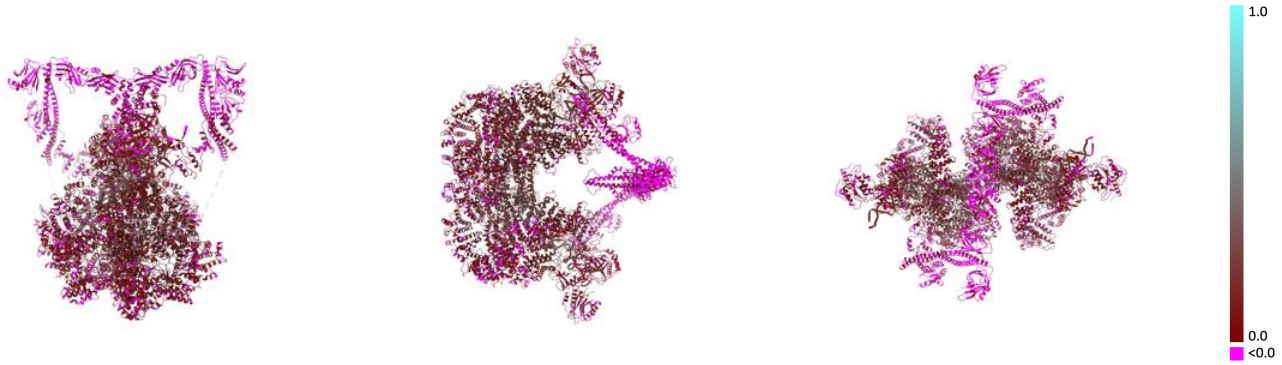
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.02 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.

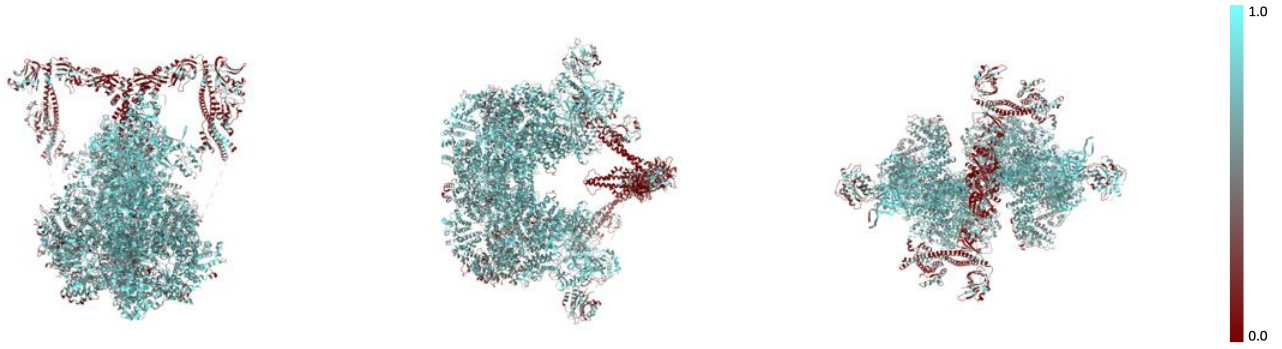
9.2 Q-score mapped to coordinate model (i)



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.

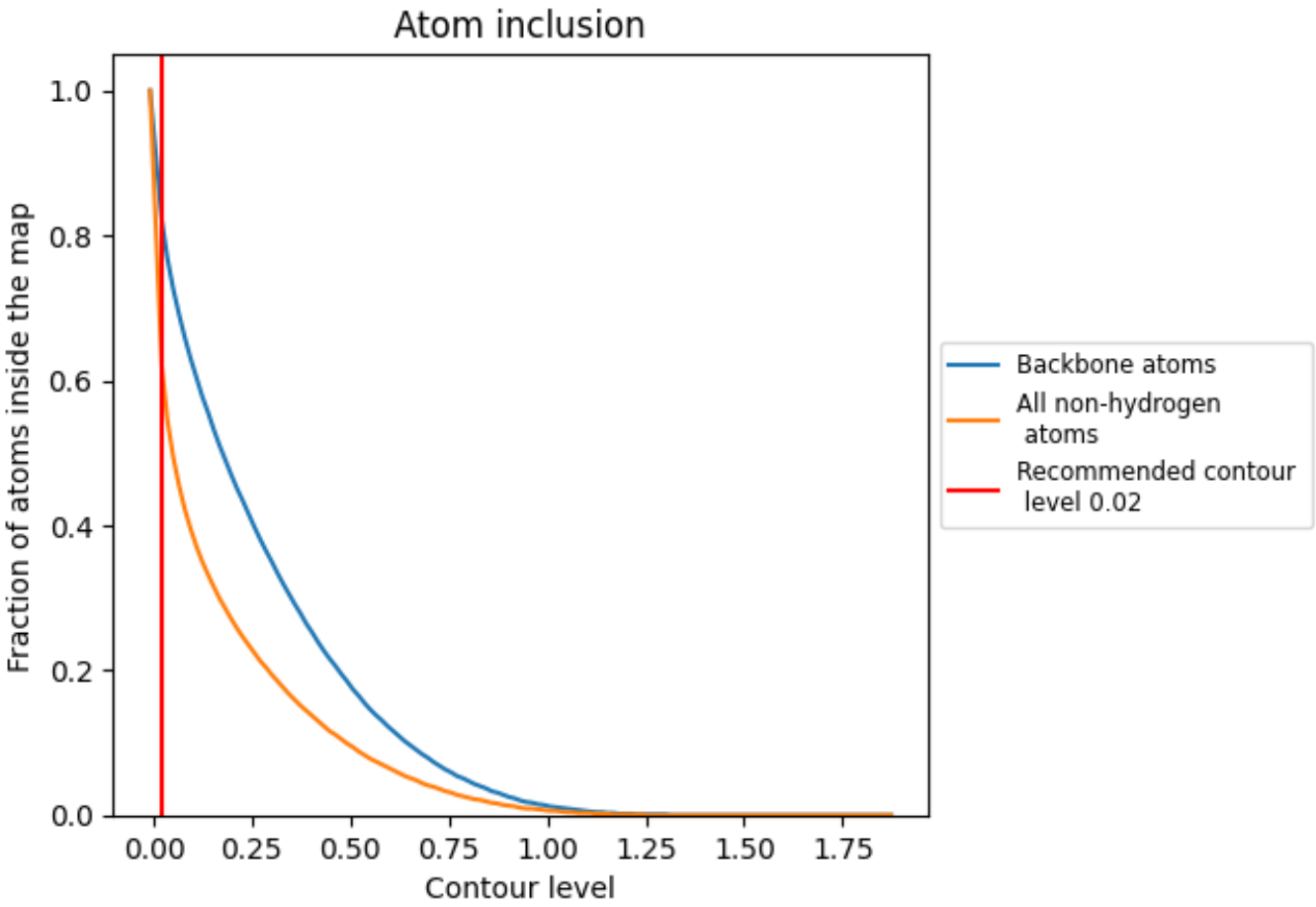
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.02).

9.4 Atom inclusion (i)



At the recommended contour level, 82% of all backbone atoms, 62% 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 (0.02) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6250	0.1180
A	0.6920	0.1410
B	0.6190	0.1190
C	0.6940	0.1450
D	0.9340	0.2740
E	0.9370	0.2930
F	0.3070	-0.0340
G	0.3670	-0.0580
H	0.0790	-0.0220
I	0.1360	-0.0420
J	0.7070	0.1420
K	0.5620	0.1120
L	0.6810	0.1410
M	0.9040	0.2740
N	0.9040	0.2910
O	0.3130	-0.0650
P	0.3470	-0.0230
Q	0.2470	0.1700
R	0.3660	0.1090
X	0.4100	0.0050
Y	0.3700	-0.0030