



## Full wwPDB EM Validation Report ⓘ

Oct 13, 2024 – 06:48 am BST

PDB ID : 6TM5  
EMDB ID : EMD-10518  
Title : Cryo-EM structure of the Anaphase-promoting complex/Cyclosome, in complex with the Nek2A substrate at 3.9 angstrom resolution  
Authors : Alfieri, C.; Barford, D.  
Deposited on : 2019-12-03  
Resolution : 3.90 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39



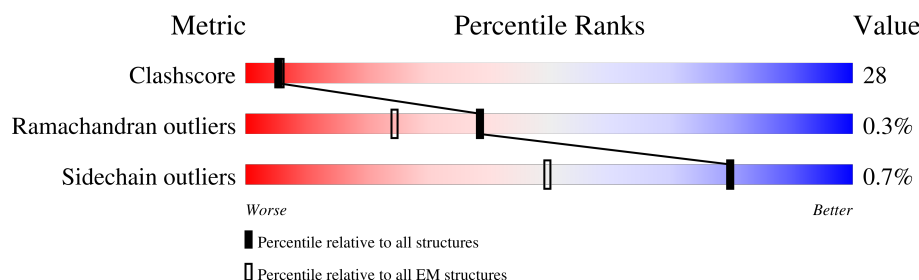
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.90 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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  $\geq 3$ , 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  $\leq 5\%$ . 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	1944	<div> <div>13%</div> <div>40%</div> <div>40%</div> <div>19%</div> </div>
2	B	84	<div> <div>100%</div> <div>50%</div> <div>48%</div> </div>
3	C	597	<div> <div>12%</div> <div>46%</div> <div>42%</div> <div>12%</div> </div>
3	P	597	<div> <div>21%</div> <div>43%</div> <div>40%</div> <div>18%</div> </div>
4	D	121	<div> <div>8%</div> <div>31%</div> <div>14%</div> <div>55%</div> </div>
5	E	110	<div> <div>49%</div> <div>28%</div> <div>23%</div> <div>49%</div> </div>
6	F	824	<div> <div>55%</div> <div>30%</div> <div>26%</div> <div>44%</div> </div>
6	H	824	<div> <div>58%</div> <div>32%</div> <div>27%</div> <div>41%</div> </div>

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Mol	Chain	Length	Quality of chain
7	G	85	
7	W	85	
8	I	808	
9	J	620	
9	K	620	
10	L	185	
11	M	74	
12	N	822	
13	O	755	
14	T	15	
15	X	599	
15	Y	599	
16	S	445	
17	Q	445	



## 2 Entry composition [i](#)

There are 18 unique types of molecules in this entry. The entry contains 63885 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 Anaphase-promoting complex subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1569	Total	C	N	O	S	0	0
			11890	7656	2014	2140	80		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	356	PHE	PRO	conflict	UNP Q9H1A4

- Molecule 2 is a protein called Anaphase-promoting complex subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	84	Total	C	N	O	S	1	0
			649	416	117	99	17		

- Molecule 3 is a protein called Cell division cycle protein 23 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	524	Total	C	N	O	S	0	0
			4306	2774	727	781	24		
3	P	492	Total	C	N	O	S	0	0
			4046	2613	679	730	24		

- Molecule 4 is a protein called Anaphase-promoting complex subunit 15.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	D	55	Total	C	N	O	0	0
			436	277	73	86		

- Molecule 5 is a protein called Anaphase-promoting complex subunit 16.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	56	Total	C	N	O	S	0	0
			450	290	74	85	1		



- Molecule 6 is a protein called Cell division cycle protein 27 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	460	Total	C	N	O	S	0	0
			3618	2320	608	666	24		
6	H	488	Total	C	N	O	S	0	0
			3879	2489	655	709	26		

- Molecule 7 is a protein called Anaphase-promoting complex subunit CDC26.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	25	Total	C	N	O	S	0	0
			220	137	41	41	1		
7	W	26	Total	C	N	O	S	0	0
			218	136	41	40	1		

- Molecule 8 is a protein called Anaphase-promoting complex subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	736	Total	C	N	O	S	0	0
			5726	3676	957	1059	34		

- Molecule 9 is a protein called Cell division cycle protein 16 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	504	Total	C	N	O	S	0	0
			4053	2604	687	737	25		
9	K	493	Total	C	N	O	S	0	0
			3988	2564	672	728	24		

- Molecule 10 is a protein called Anaphase-promoting complex subunit 10.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	L	182	Total	C	N	O	S	0	0
			1435	898	263	268	6		

- Molecule 11 is a protein called Anaphase-promoting complex subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	M	59	Total	C	N	O	S	0	0
			481	304	79	96	2		

- Molecule 12 is a protein called Anaphase-promoting complex subunit 2.



Mol	Chain	Residues	Atoms					AltConf	Trace
12	N	676	Total	C	N	O	S	0	0
			5337	3425	943	944	25		

- Molecule 13 is a protein called Anaphase-promoting complex subunit 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	O	688	Total	C	N	O	S	0	0
			5400	3443	940	989	28		

- Molecule 14 is a protein called Apc1 loop.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	T	15	Total	C	N	O	0	0
			79	47	16	16		

- Molecule 15 is a protein called Anaphase-promoting complex subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	X	484	Total	C	N	O	S	0	0
			3767	2390	649	704	24		
15	Y	496	Total	C	N	O	S	0	0
			3862	2446	666	724	26		

- Molecule 16 is a protein called Serine/threonine-protein kinase Nek2.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	S	2	Total	C	N	O	S	0	0
			19	11	5	2	1		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
S	449	ALA	MET	conflict	UNP P51955

- Molecule 17 is a protein called Serine/threonine-protein kinase Nek2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	3	Total	C	N	O	S	0	0
			23	13	6	3	1		

- Molecule 18 is ZINC ION (three-letter code: ZN) (formula: Zn).



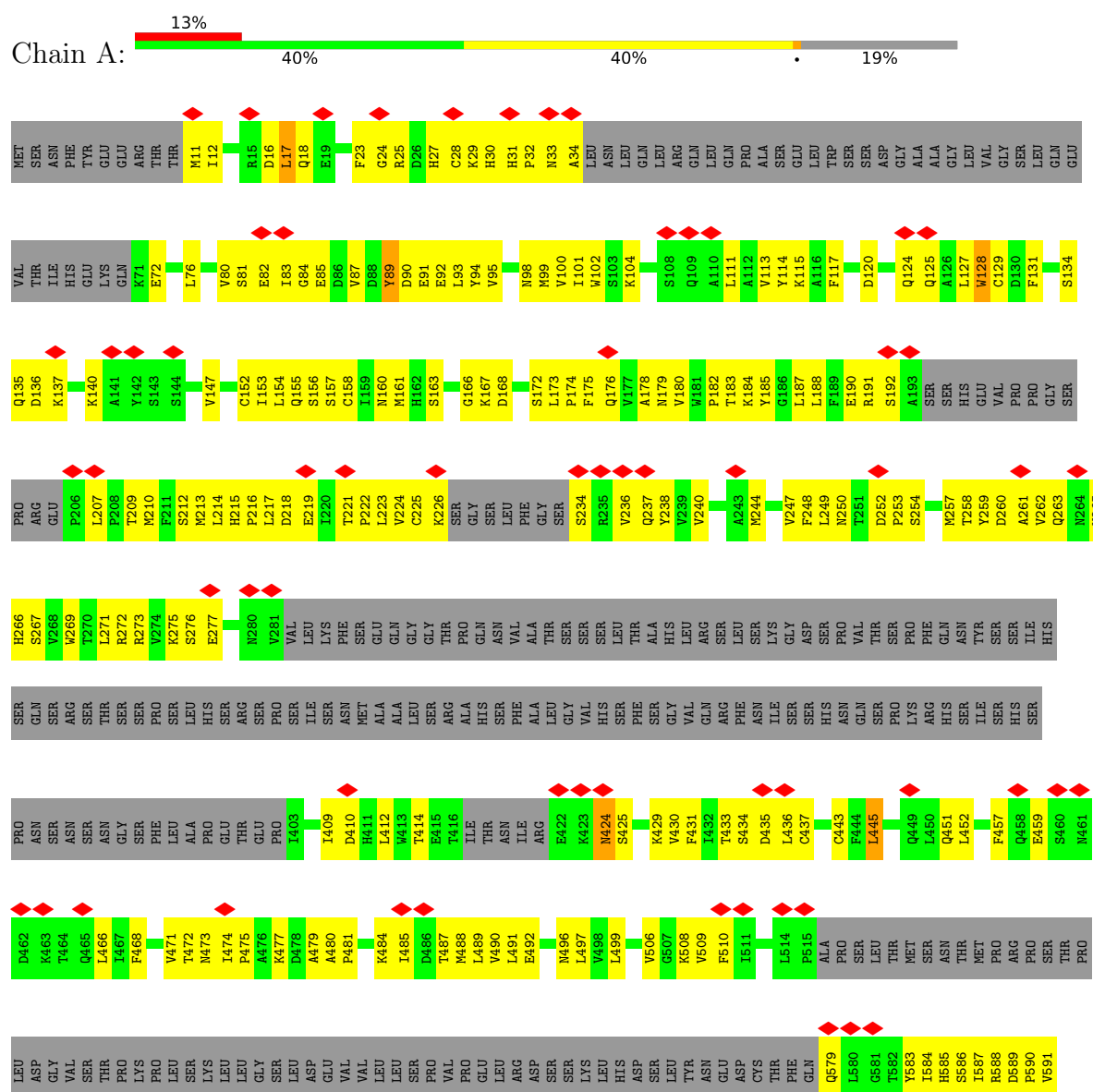
Mol	Chain	Residues	Atoms		AltConf
18	B	3	Total 3	Zn 3	0



### 3 Residue-property plots

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.

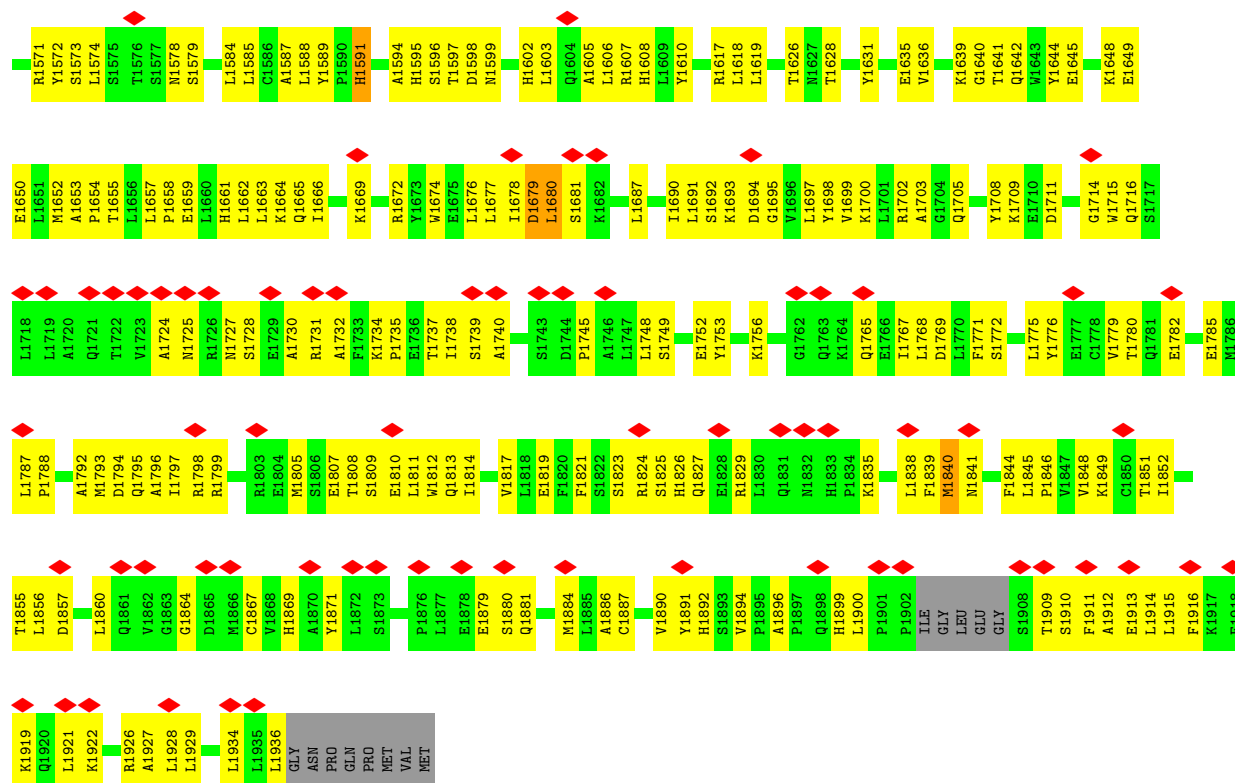
#### • Molecule 1: Anaphase-promoting complex subunit 1





L1488	L1489	H1489	K1493	D1494	F1495	M1503	A1504	S1505	V1506	T1507	G1508	P1509	H1510	M1511	L1512	C1515	V1519	L1520	L1521	S1522	L1523	V1526	M1527	A1528	L1533	K1534	V1535	L1536	Q1537	L1538	C1539	R1540	F1541	L1542	T1546	G1547	G1548	M1551	Y1552	H1558	H1559	M1560	A1561	L1562	G1563	L1564	L1565	F1566	L1567	G1568	S1483	E1480	N1481	L1482	
F1398	E1402	F1403	L1406	L1409	A1410	R1411	C1412	L1413	I1414	I1419	L1420	P1421	W1425	S1428	Q1432	I1433	I1434	R1435	I1439	SER	LEU	SER	GLU	ILE	GLU	LEU	L1536	Q1537	PRO	CYS	SER	L1569	GLU	ASP	L1452	E1455	T1456	L1457	S1458	Q1459	A1460	H1461	V1462	Y1463	I1465	G1473	E1480	N1481	L1482						
E1323	Q1324	L1325	Y1326	Q1327	Y1328	M1329	H1333	ARG	ARG	PHE	GLN	THR	GLY	MET	HIS	GLU	GLU	LYS	HIS	S1347	P1348	S1349	G1355	D1356	T1357	V1360	C1364	P1365	T1368	L1369	A1370	L1371	A1372	M1373	I1374	Y1375	L1376	K1377	T1378	M1379	M1380	R1381	S1382	D1385	W1386	L1387	R1388	D1391	L1395						
S1240	T1241	E1242	L1243	D1244	M1248	G1256	L1259	V1260	Y1261	T1264	A1265	H1266	R1267	H1268	V1272	L1273	L1274	A1275	E1276	R1279	P1280	P1281	G1282	P1283	E1284	Y1287	C1288	T1289	D1290	R1291	E1292	L1300	A1301	L1302	G1303	M1304	V1305	C1306	L1307	S1311	M1312	L1313	L1314	G1315	M1316	L1319	V1321	P1322							
V1159	Y1160	N1161	K1162	P1163	K1164	H1165	A1166	E1167	L1168	N1170	E1171	Y1172	L1176	L1181	H1184	L1185	T1186	K1187	L1191	N1192	I1193	H1194	D1195	Y1196	L1197	T1198	K1199	G1200	G1201	E1202	M1203	T1204	S1205	I1206	G1207	L1208	L1209	L1210	L1217	D1221	M1222	S1223	L1227	I1230	P1233	P1238	T1239								
A1079	L1080	R1084	G1085	M1086	F1087	T1088	L1089	F1090	S1091	E1098	P1099	L1100	P1101	P1102	P1103	K1104	L1105	M1106	L1107	T1108	G1109	R1110	A1111	R1114	N1115	T1116	D1119	L1120	N1121	S1122	G1123	N1124	T1125	D1126	V1127	P1128	N1130	M1131	T1132	S1133	M1134	H1138	N1139	G1140	V1141	P1149	Q1152	T1153	S1155	A1156					
LEU	SER	SER	ASP	VAL	PRO	SER	GLY	THR	GLU	GLU	E1011	E1012	I1027	W1028	D1031	L1032	R1033	W1034	Q1035	D1036	V1037	R1038	R1039	L1040	L1041	P1046	V1047	R1048	V1049	M1050	V1051	Q1053	Y1054	P1055	E1056	L1057	S1058	D1059	H1060	E1061	F1062	I1063	E1064	E1065	K1066	E1067	L1070	L1073	C1074	T1077	M1078				
W933	V937	G938	F939	T940	L941	R942	D943	L944	E945	P948	F949	G950	T951	A952	L953	P954	L955	R956	D957	A958	L959	Y960	R963	E964	Q965	P966	A967	S968	D969	P970	Y971	Y974	C975	L976	L977	I978	G979	R980	Q981	D982	L983	S984	Q985	A987	N991	L992	P993	LYS	GLY	LYS	SER	VAL			
R869	S870	R871	L872	V873	V874	L875	S876	I877	A878	L879	Y880	T881	L882	S886	L887	VAL	SER	ASP	GLU	S892	S893	Q894	Y895	L896	T897	R898	L899	T900	ILE	ALA	PRO	GLN	LYS	LEU	GLN	VAL	GLU	GLN	GLU	GLU	ASN	ARG	PHE	SER	THR	SER	V923	S924	S925	L926	A927	E928	R929	L930	
V803	D804	H805	R808	D809	L813	V814	R815	R816	T817	G818	Q819	V820	C821	T822	I823	D824	P825	G826	Q827	T828	G829	F830	M831	H832	H833	F836	F837	P841	P842	S843	I844	Y845	Q846	V847	V848	S849	S850	C851	L852	K853	G854	E855	G856	M857	P858	Y860	Y861	Y862	L863	P864	G865	I866	E868		
H592	N593	R594	V595	T596	L597	E598	L599	S600	S603	M604	V605	I612	A613	T614	S615	E616	L617	V618	Q619	T620	C621	L622	Q623	A624	I625	K626	F627	G628	E632	I633	Q636	M637	L638	V639	K640	W641	V644	A647	P648	G649	G650	P651	S652	Y653	E656	W657	N658	L659	F660	V661	T662				

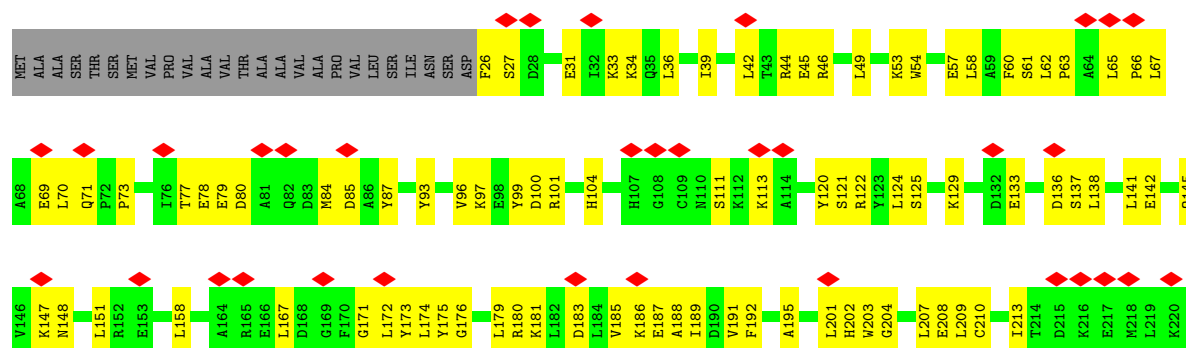




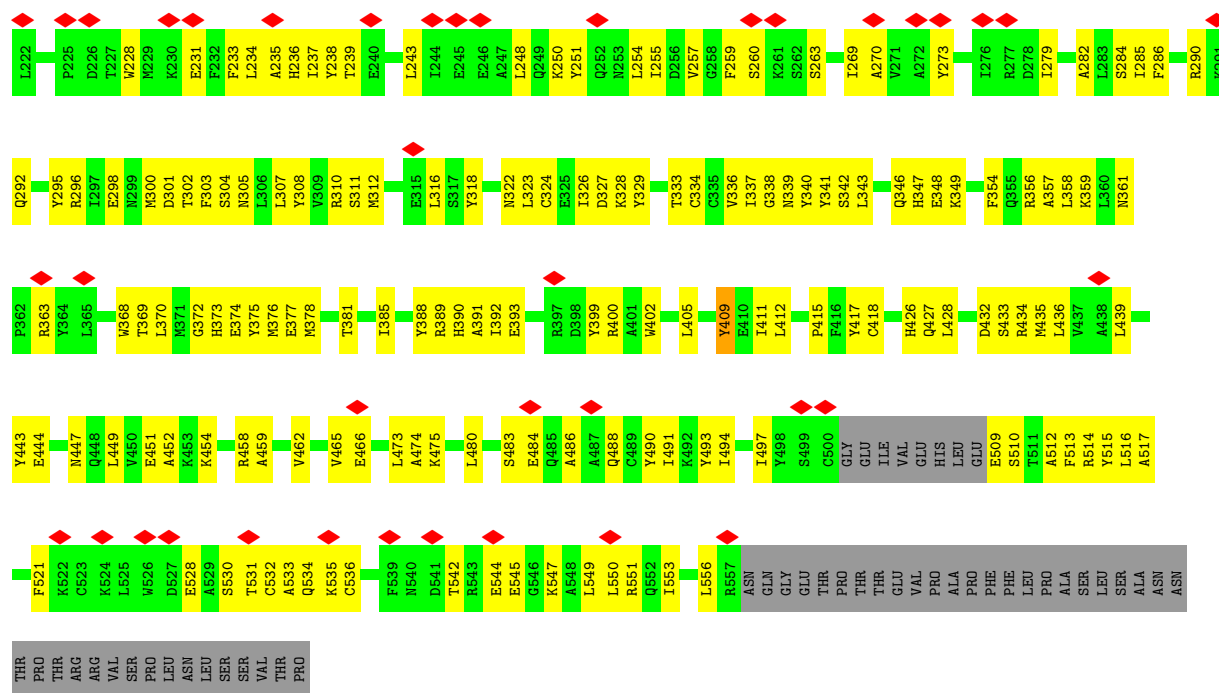
• Molecule 2: Anaphase-promoting complex subunit 11



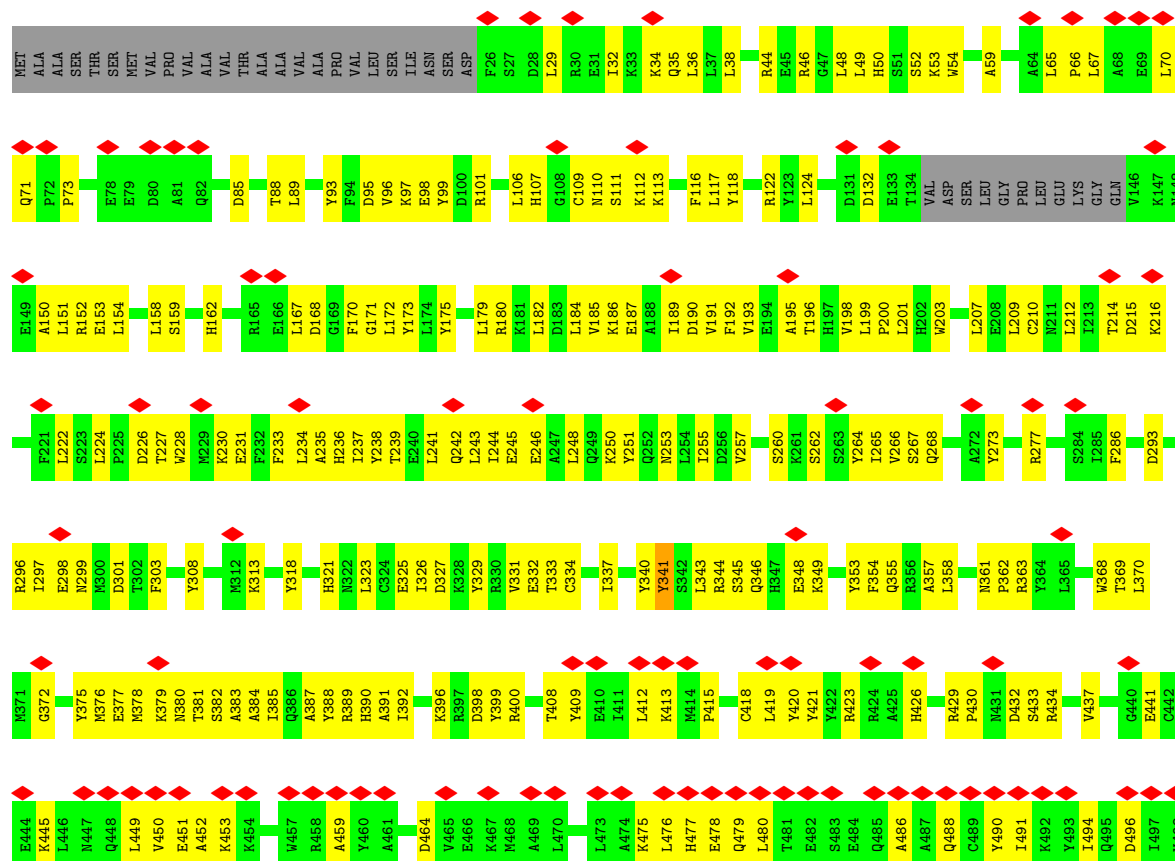
• Molecule 3: Cell division cycle protein 23 homolog







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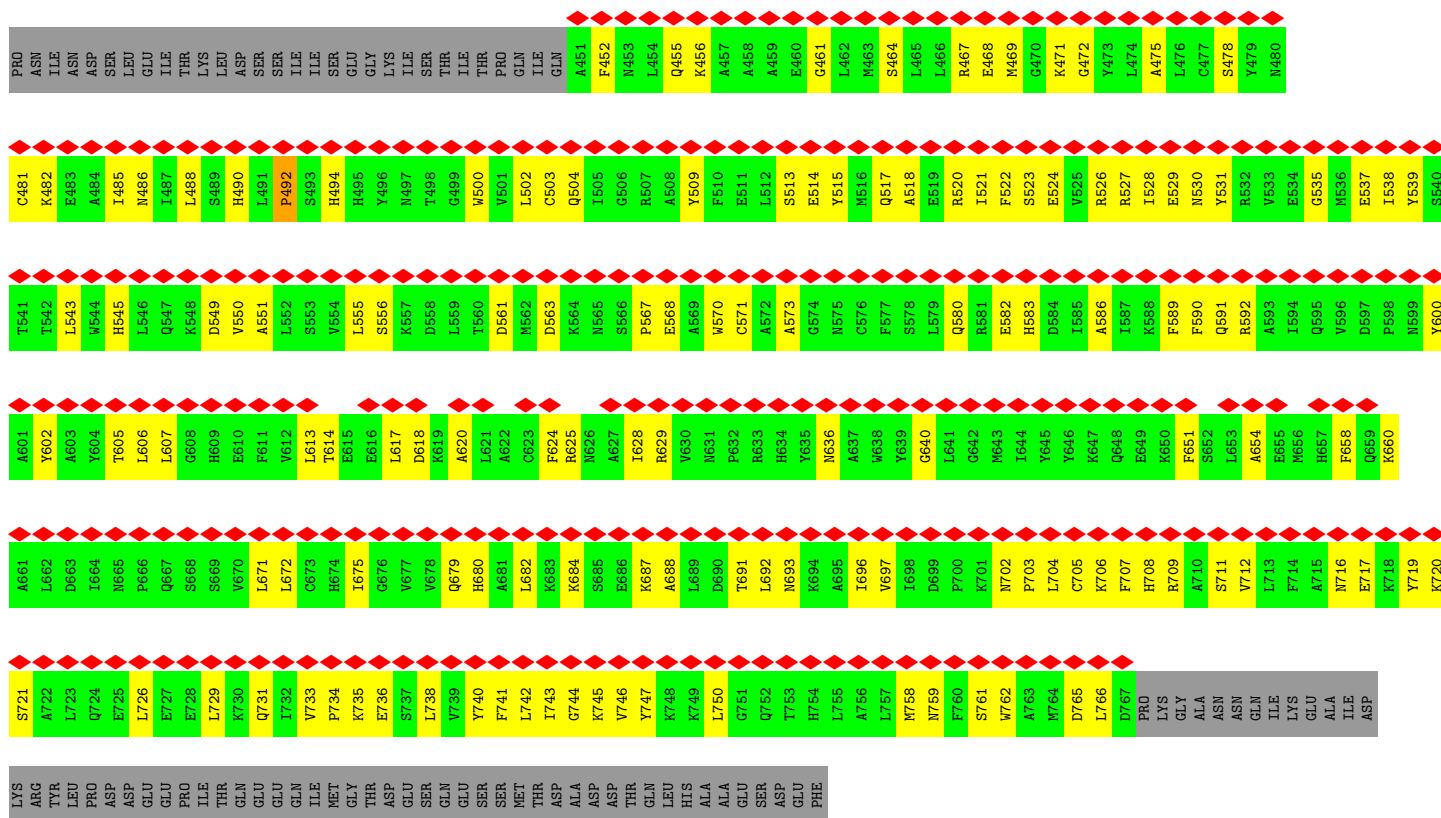




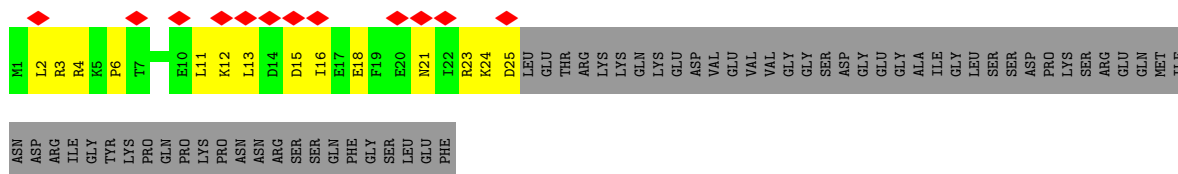








• Molecule 7: Anaphase-promoting complex subunit CDC26



• Molecule 7: Anaphase-promoting complex subunit CDC26



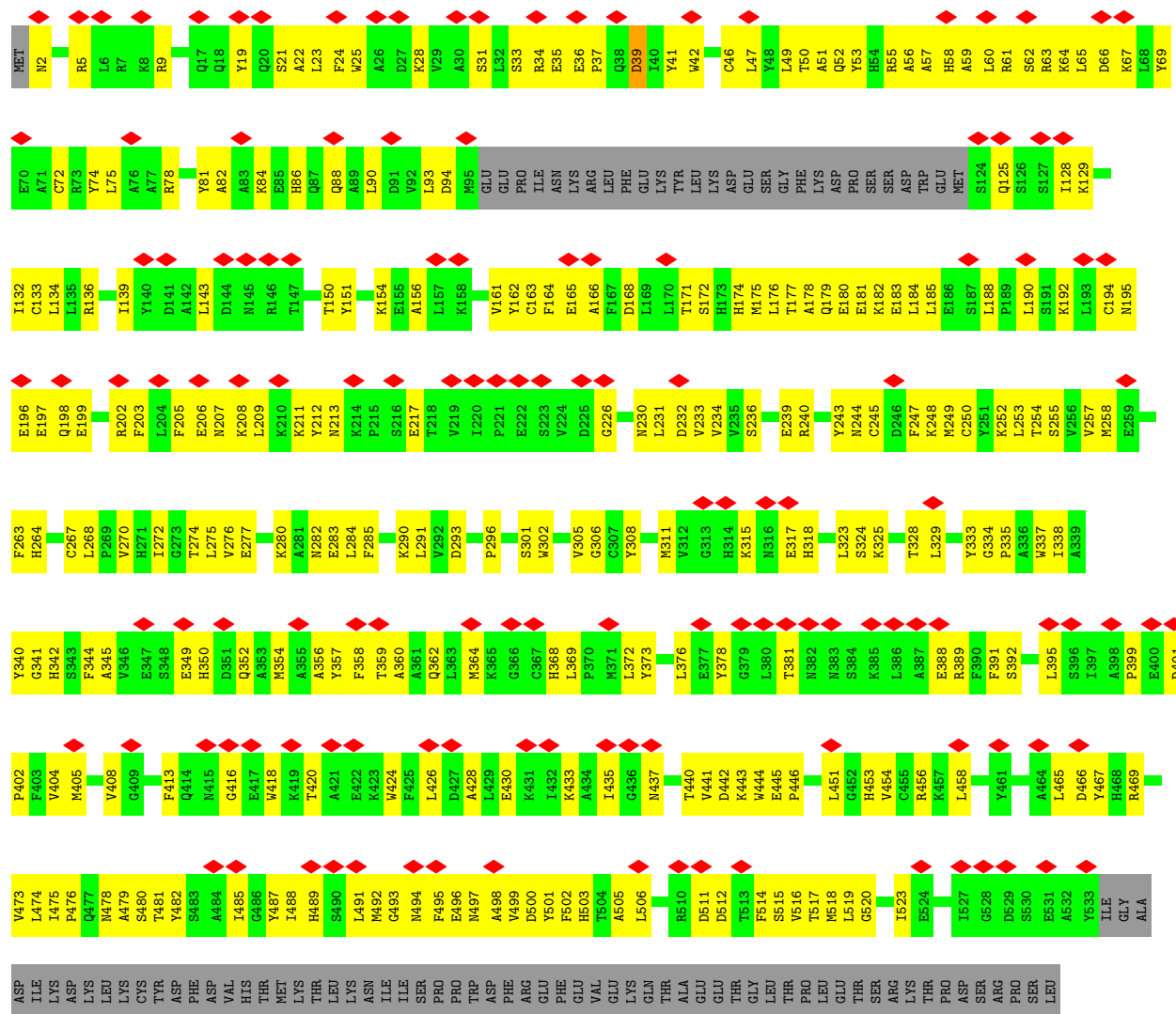
• Molecule 8: Anaphase-promoting complex subunit 4



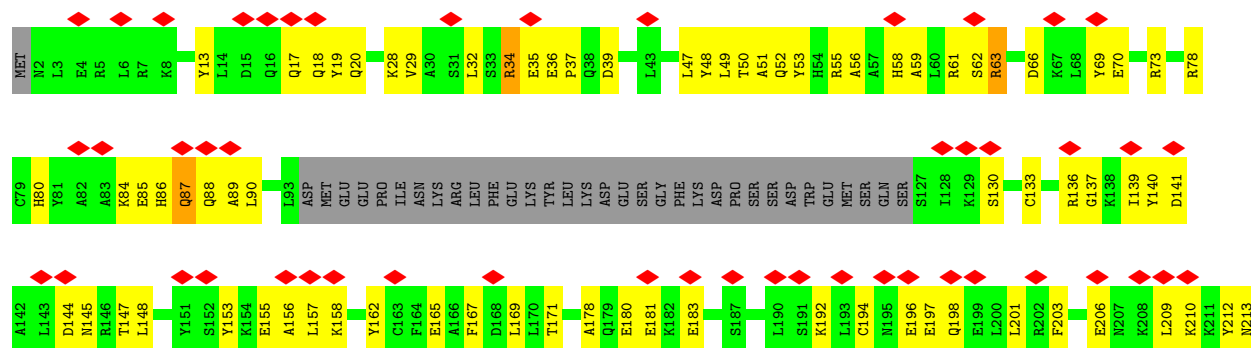




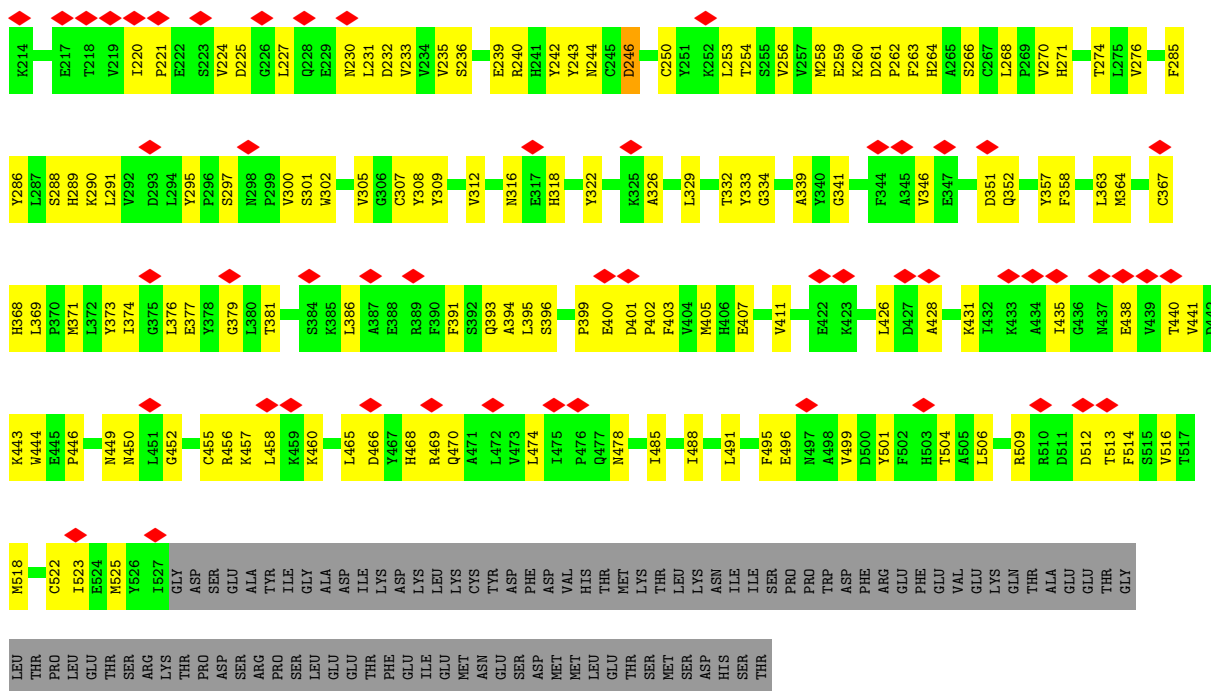




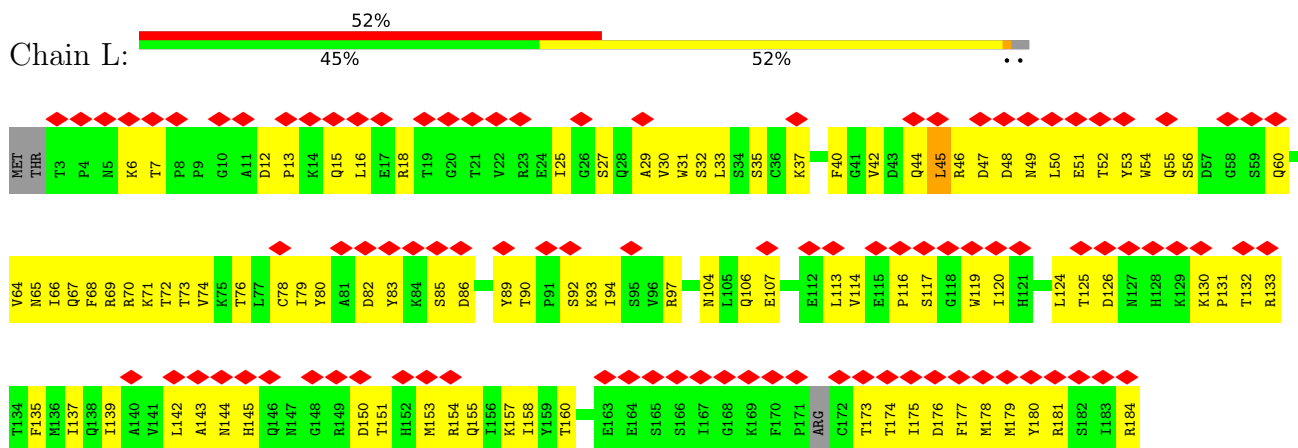
• Molecule 9: Cell division cycle protein 16 homolog



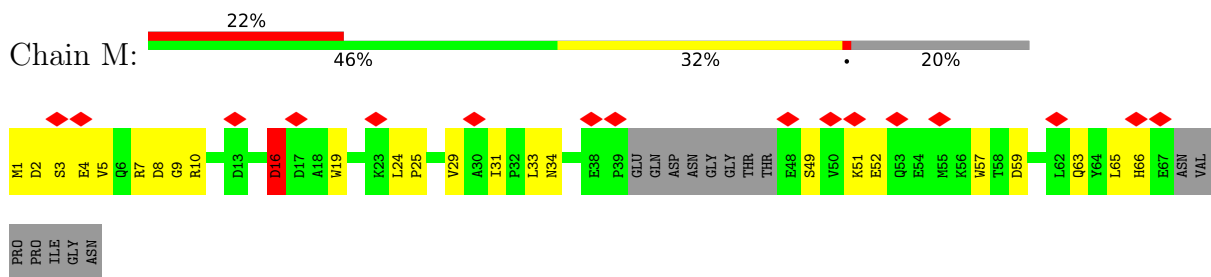




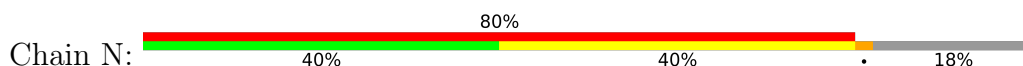
• Molecule 10: Anaphase-promoting complex subunit 10



• Molecule 11: Anaphase-promoting complex subunit 13



• Molecule 12: Anaphase-promoting complex subunit 2

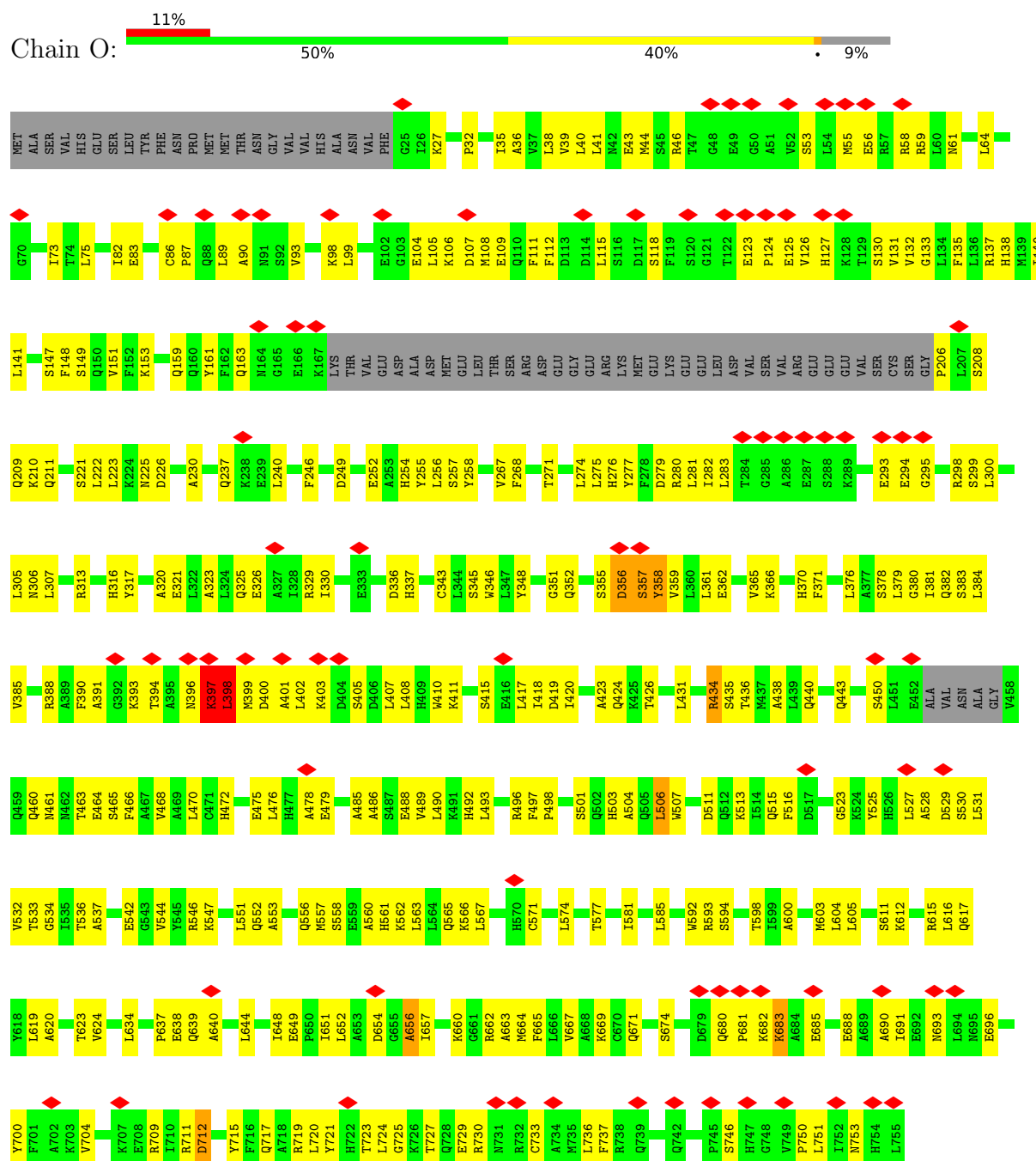




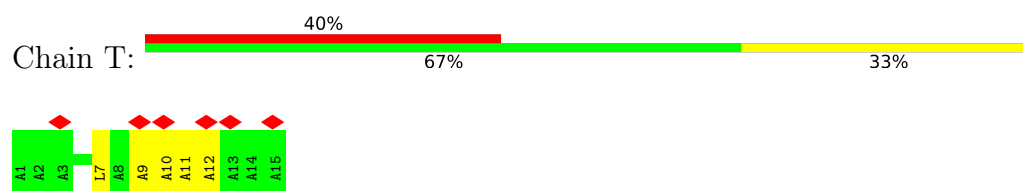
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N726	M727	V728	L729	I730	ASP	SER	ASP	GLU	ASP	ASP	GLY	MET	ALA	SER	GLN	ASP	K747	E748	E749	E750	L751	L752	L753	F754	W755	T756	Y757	V758	Y759	A760	M761	L762	T763	N764	L765	E766	S767	L768	S769	L770	D771	R772	I773	Y774	N775	M776	L777	R778	M779	F780	V781	W782	T783	G784	P785					
I666	L667	L668	Y669	F670	G671	D672	Q673	A674	S675	W676	T677	L678	E679	E680	L681	S682	K683	A684	V685	K686	E687	P688	V689	A690	L691	L692	R693	R694	G695	M696	S697	V698	W699	L700	Q701	Q702	G703	V704	L705	R706	E707	E708	P709	F710	G711	T712	F713	S714	V715	I716	E717	E718	E719	R720	P721	Q722	Q723	R724	D725	
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K546	L547	R548	F549	G550	E551	A552	P553	M554	H555	F556	C557	E558	V559	M560	L561	K562	D563	M564	A565	D566	E567	R568	I569	N570	A571	A572	N573	I574	R575	E576	E577	D578	E579	K580	R581	P582	E583	E584	E585	Q586	P587	P588	F589	G590	V591	Y592	A593	V594	I595	L596	S597	S598	E599	F600	W601	P602	G603	F604	K605	
D486	ALA	ASP	PRO	GLY	SER	SER	LYS	ARG	ARG	SER	S499	D500	I501	I502	S503	L504	L505	V506	M564	A565	D566	E567	R568	I569	N570	A571	A572	N573	I574	R575	E576	E577	D578	E579	K580	R581	P582	E583	E584	E585	Q586	P587	P588	F589	G590	V591	Y592	A593	V594	I595	L596	S597	S598	E599	F600	W601	P602	G603	F604	K605
E422	P423	I424	R425	G426	Y427	L428	R429	T430	R431	E432	D433	T434	V435	R436	Q437	L438	A440	G441	L442	L443	GLY	ASP	SER	ASP	GLY	THR	GLY	GLY	VAL	GLU	LEU	ALA	VAL	GLU	LEU	SER	LYS	THR	GLY	GLN	ASP	SER	GLU	ASP	S474	W480	V481	P482	D483	P484	W485									
K362	Y363	C364	L365	E366	T368	D369	Q370	R371	Q372	Q373	L374	L375	V376	S377	L378	K379	A380	A381	L382	E383	T384	R385	L386	L387	H388	P389	G390	V391	I392	T393	C394	D395	I396	I397	T398	L399	E400	I401	S402	A403	I404	K405	A406	L407	R408	V409	L410	D411	P412	S413	M414	V415	I416	L417	E418	V419	A420	C421		
K302	V303	F304	LEU	GLN	ASP	PRO	ALA	ARG	PRO	ALA	R371	E432	D433	T434	V435	R436	Q437	L438	A440	G441	L442	L443	GLY	ASP	SER	ASP	GLY	THR	GLY	GLY	VAL	GLU	LEU	ALA	VAL	GLU	LEU	SER	LYS	THR	GLY	GLN	ASP	SER	GLU	ASP	S474	W480	V481	P482	D483	P484	W485							
Q242	L243	S244	Q245	V246	L247	H248	R249	L250	S251	L252	E254	R255	V256	S257	A258	R322	E259	A260	V261	T262	T263	T264	H266	Q267	V268	T269	R270	E271	R272	E273	E274	D275	R276	C277	R278	G279	E280	Y281	E282	R283	S284	F285	L286	R287	E288	F289	H290	K291	W292	I293	E294	R296	V296	V297	G298	W299	L300	G301		
V61	L62	R63	G64	H65	G66	L67	H68	S69	V70	L71	E72	E73	W74	F75	W76	L79	Q80	N81	D82	L83	Q84	A85	N86	I87	S88	P89	E90	F91	W92	A93	A94	I95	S96	Q97	C98	E99	N100	S101	A102	D103	E104	P105	Q106	C107	L108	L109	L110	L111	L112	D113	A114	F115	G116	L117	L118	E119	S120	R121		
L122	D123	P124	Y125	H126	R127	S128	L129	E130	L131	L132	E133	K134	R255	T136	R137	L138	G139	L140	L141	M142	G143	T144	G145	A146	Q147	G148	L149	R150	E151	E152	V153	H154	T155	L156	L157	R158	G159	V160	L161	F162	F163	T165	P166	R167	T168	F169	Q170	E171	M172	D173	Q174	R175	L176	Y177	G178	C179	F180	L181		
R182	V183	Y184	M185	Q186	Q187	K188	R189	K190	G191	GLU	GLY	THR	ASP	PRO	GLY	LEU	GLY	GLY	LEU	ASP	ARG	TYR	ALA	ARG	ARG	ARG	TYR	ARG	LEU	LEU	GLN	ALA	GLY	CYS	ALA	GLY	CYS	ASP	ASP	LYS	GLN	CYS	W232	C233	R234	Q235	A236	L237	E238	Q239	F240	H241								
Q242	L243	S244	Q245	V246	L247	H248	R249	L250	S251	L252	E254	R255	V256	S257	A258	R322	E259	A260	V261	T262	T263	T264	H266	Q267	V268	T269	R270	E271	R272	E273	E274	D275	R276	C277	R278	G279	E280	Y281	E282	R283	S284	F285	L286	R287	E288	F289	H290	K291	W292	I293	E294	R296	V296	V297	G298	W299	L300	G301		
K302	V303	F304	LEU	GLN	ASP	PRO	ALA	ARG	PRO	ALA	R371	E432	D433	T434	V435	R436	Q437	L438	A440	G441	L442	L443	GLY	ASP	SER	ASP	GLY	THR	GLY	GLY	VAL	GLU	LEU	ALA	VAL	GLU	LEU	SER	LYS	THR	GLY	GLN	ASP	SER	GLU	ASP	S474	W480	V481	P482	D483	P484	W485							
K362	Y363	C364	L365	E366	T368	D369	Q370	R371	Q372	Q373	L374	L375	V376	S377	L378	K379	A380	A381	L382	E383	T384	R385	L386	L387	H388	P389	G390	V391	I392	T393	C394	D395	I396	I397	T398	L399	E400	I401	S402	A403	I404	K405	A406	L407	R408	V409	L410	D411	P412	S413	M414	V415	I416	L417	E418	V419	A420	C421		
E422	P423	I424	R425	G426	Y427	L428	R429	T430	R431	E432	D433	T434	V435	R436	Q437	L438	A440	G441	L442	L443	GLY	ASP	SER	ASP	GLY	THR	GLY	GLY	VAL	GLU	LEU	ALA	VAL	GLU	LEU	SER	LYS	THR	GLY	GLN	ASP	SER	GLU	ASP	S474	W480	V481	P482	D483	P484	W485									
D486	ALA	ASP	PRO	GLY	LYS	SER	SER	LYS	ARG	SER	S499	D500	I501	I502	S503	L504	L505	V506	M564	A565	D566	E567	R568	I570	N571	A572	N573	I574	R575	E576	E577	D578	E579	K580	R581	P582	E583	E584	E585	Q586	P587	P588	F589	G590	V591	Y592	A593	V594	I595	L596	S597	S598	E599	F600	W601	P602	G603	F604	K605	
K546	L547	R548	F549	G550	E551	A552	P553	M554	H555	F556	C557	E558	V559	M560	L561	K562	D563	M564	A565	D566	E567	R568	I569	N570	A571	A572	N573	I574	R575	E576	E577	D578	E579	K580	R581	P582	E583	E584	E585	Q586	P587	P588	F589	G590	V591	Y592	A593	V594	I595	L596	S597	S598	E599	F600	W601	P602	G603	F604	K605	
D606	E607	K608	L609	E610	V611	P612	E613	D614	I615	R616	A617	A618	L619	E620	A621	Y622	K623	K624	K625	E626	E627	Q628	L629	K630	A631	M632	R633	T634	L635	S636	S637	K638	H639	T640	L641	G642	L643	V644	T645	M646	D647	V648	E649	L650	A651	D652	R653	T654	L655	S656	V657	A658	V659	T660	P661	V662	Q663	A664	V665	
I666	L667	L668	Y669	F670	G671	D672	Q673	A674	S675	W676	T677	L678	E679	E680	L681	S682	K683	A684	V685	K686	E687	P688	V689	A690	L691	L692	R693	R694	G695	M696	S697	V698	W699	L700	Q701	Q702	G703	V704	L705	R706	E707	E708	P709	F710	G711	T712	F713	S714	V715	I716	E717	E718	E719	R720	P721	Q722	Q723	R724	D725	
N726	M727	V728	L729	I730	ASP	SER	ASP	GLU	ASP	ASP	GLY	MET	ALA	SER	GLN	ASP	K747	E748	E749	E750	L751	L752	L753	F754	W755	T756	Y757	V758	Y759	A760	M761	L762	T763	N764	L765	E766	S767	L768	S769	L770	D771	R772	I773	Y774	N775	M776	L777	R778	M779	F780	V781	W782	T783	G784	P785					
A786	L787	A788	E789	I790	D791	L792	Q793	E794	L795	Q796	G797	Y798	L799	Q800	K801	K802	V803	R804	D805	Q806	Q807	L808	V809	Y810	S811	A812	G813	V814	Y815	R816	L817	P818	LYS	ASN	CYS	SER																								



- Molecule 13: Anaphase-promoting complex subunit 5

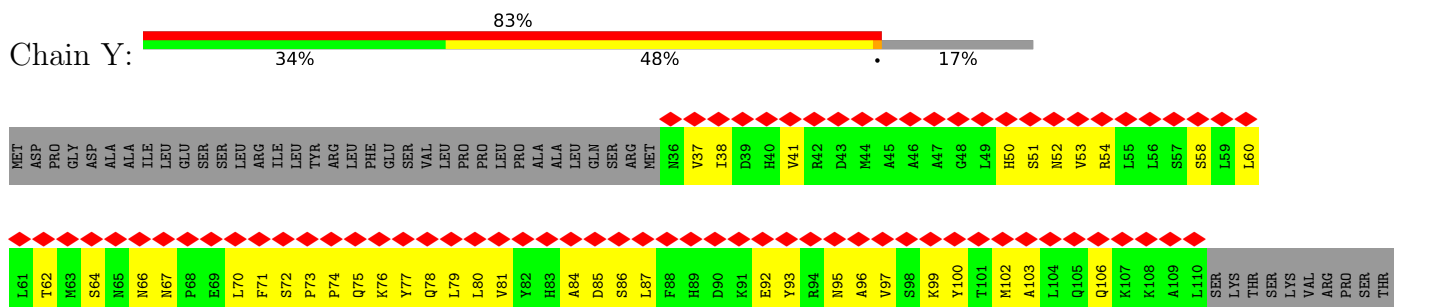


- Molecule 14: Apc1 loop



- Molecule 15: Anaphase-promoting complex subunit 7











- Molecule 17: Serine/threonine-protein kinase Nek2

G497 M498 R499	GLN	LEU	LEU	ARG	GLN	PRO	SER	TYR	THR	GLU	MET
	LEU	ARG	PHE	LEU	VAL	LEU	GLU	TYR	LEU	LEU	PRO
	ALA	LEU	LEU	SER	SER	SER	LEU	SER	ALA	HIS	SER
	GLN	SER	GLU	GLU	GLU	ASN	PRO	PRO	LEU	PRO	ALA
	ALA	LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	ASN	GLU
	LEU	ALA	LEU	LEU	LEU	LEU	LEU	GLN	CYS	ILE	TYR
	LEU	SER	SER	PRO	GLY	GLY	GLU	GLU	GLU	VAL	ASP
	ASP	ASP	SER	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU
	ILE	ILE	PRO	PRO	GLU	GLU	GLU	GLU	GLU	GLU	GLU
	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	ASN	LEU	LEU	GLN	LEU	ASN	SER	ASP	ASP	TYR	
ASN	TYR	ASN	GLN	GLN	GLN	LEU	ASN	TYR	GLY	ARG	
GLN	GLN	LEU	LEU	LEU	LEU	LYS	LYS	GLY	ILE	ILE	
LEU	LEU	PRO	PRO	ARG	ARG	TYR	ASP	THR	ASP	GLY	
LYS	LEU	SER	SER	GLU	GLU	GLU	HIS	VAL	ARG	THR	
SER	SER	SER	VAL	ALA	ALA	ARG	ASP	LEU	THR	ASN	
ARG	ARG	VAL	VAL	ALA	ALA	ARG	ILE	ASP	THR	TYR	
GLN	ILE	ILE	GLY	LEU	LEU	PRO	TRP	ARG	GLY	GLY	
LYS	LYS	LYS	LYS	ALA	ALA	VAL	SER	LEU	LEU	CYS	
LEU	LEU	LEU	LEU	LEU	LEU	GLU	GLY	GLY	LEU	GLN	
G497	M498	R499	VAL	VAL	GLU	GLU	GLU	CYS	PRO	ILE	LYS
			HIS	PHE	GLU	ILE	ILE	LEU	ALA	VAL	ILE
			ARG	ARG	ASN	LEU	LEU	CYS	ASP	GLY	GLY
			GLY	GLY	GLU	ASN	GLU	LEU	GLN	ASP	LYS
			SER	SER	LYS	LEU	LEU	CYS	ASP	GLU	ASP
			LYS	GLN	GLN	ALA	ILE	ALA	GLY	GLY	LYS
			ASN	ASN	GLU	ALA	LEU	ALA	LEU	LEU	LEU
			ASN	ASN	ARG	GLN	GLM	PHE	GLY	THR	LEU
			GLU	GLU	GLU	GLU	GLN	GLN	GLY	GLY	ASP
			SER	SER	VAL	CYS	VAL	PHE	LYS	SER	TRP
			SER	SER	GLU	ALA	ASP	THR	LEU	VAL	LYS
			GLU	GLU	GLU	GLU	GLU	ALA	ALA	GLU	GLU
			LEU	LEU	LYS	GLU	GLU	LEU	ARG	GLU	MET
			THR	THR	LEU	LEU	ARG	ALA	ILE	ARG	THR
			SER	SER	ALA	ALA	ARG	GLY	LEU	GLN	GLU
			LYS	LYS	ARG	GLY	ARG	LYS	ASN	TYR	ALA
			GLN	GLN	GLU	ALA	GLY	ILE	HIS	LEU	GLU
			CYS	CYS	GLU	ASN	GLN	ARG	ASP	ASP	LYS
			LYS	LYS	ASN	LEU	LEU	GLU	THR	GLU	GLU
			ASP	ASP	LEU	GLU	GLY	PHE	SER	PHL	MET
			LEU	LEU	LEU	LEU	LYS	PHE	GLY	VAL	VAL
			LYS	LYS	ASN	GLU	GLU	ARG	LYS	SER	LEU
			LYS	LYS	TYR	TYR	ARG	THR	ARG	GLU	GLU
			ARG	ARG	SER	SER	ILE	PHE	VAL	VAL	VAL
			LEU	LEU	LEU	GLN	PRO	THR	GLY	MET	ASN
			HIS	HIS	LEU	LEU	TYR	GLY	THR	THR	LEU
			ALA	ALA	GLU	SER	ARG	THR	PRO	GLN	ARG



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	233840	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	29	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.201	Depositor
Minimum map value	-0.165	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.023	Depositor
Map size (Å)	388.69998, 388.69998, 388.69998	wwPDB
Map dimensions	338, 338, 338	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.15, 1.15, 1.15	Depositor



## 5 Model quality

### 5.1 Standard geometry

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

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	0.57	0/12168	0.64	0/16587
2	B	0.35	0/674	0.53	0/913
3	C	0.63	0/4404	0.60	0/5945
3	P	0.49	0/4141	0.55	0/5593
4	D	0.50	0/446	0.55	0/610
5	E	0.51	0/459	0.52	0/619
6	F	0.46	0/3704	0.54	0/5019
6	H	0.55	0/3969	0.58	1/5366 (0.0%)
7	G	0.34	0/221	0.53	0/292
7	W	0.50	0/219	0.67	0/291
8	I	0.52	0/5849	0.60	2/7937 (0.0%)
9	J	0.48	0/4152	0.53	0/5623
9	K	0.51	0/4086	0.54	0/5533
10	L	0.44	0/1468	0.56	0/1993
11	M	0.45	0/490	0.62	1/665 (0.2%)
12	N	0.42	0/5442	0.57	3/7376 (0.0%)
13	O	0.60	0/5499	0.63	0/7432
14	T	0.38	0/78	0.87	0/107
15	X	0.34	0/3827	0.51	0/5180
15	Y	0.35	0/3922	0.54	1/5304 (0.0%)
16	S	0.19	0/18	0.29	0/21
17	Q	0.67	0/22	0.65	0/26
All	All	0.51	0/65258	0.58	8/88432 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	B	0	2
6	F	0	1
6	H	0	1
8	I	0	4
9	K	0	1
12	N	0	7
13	O	0	7
14	T	0	1
All	All	0	32

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	N	121	ARG	C-N-CA	6.52	138.00	121.70
6	H	148	LEU	CA-CB-CG	6.34	129.88	115.30
8	I	489	PRO	C-N-CD	-6.19	106.97	120.60
15	Y	413	LEU	CA-CB-CG	6.11	129.34	115.30
11	M	16	ASP	CB-CG-OD1	5.76	123.48	118.30
8	I	487	VAL	C-N-CA	5.59	135.67	121.70
12	N	109	LEU	CA-CB-CG	-5.53	102.58	115.30
12	N	704	VAL	N-CA-C	5.48	125.81	111.00

There are no chirality outliers.

All (32) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	128	TRP	Peptide
1	A	140	LYS	Peptide
1	A	1455	GLU	Peptide
1	A	1679	ASP	Peptide
1	A	424	ASN	Peptide
1	A	824	ASP	Peptide
1	A	855	GLU	Peptide
1	A	856	GLY	Peptide
2	B	14	TRP	Peptide
2	B	15	LEU	Peptide
6	F	96	VAL	Peptide
6	H	101	LYS	Peptide
8	I	119	THR	Peptide
8	I	120	VAL	Peptide

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Mol	Chain	Res	Type	Group
8	I	489	PRO	Peptide
8	I	514	PHE	Peptide
9	K	87	GLN	Peptide
12	N	122	LEU	Peptide
12	N	432	GLU	Peptide
12	N	433	ASP	Peptide
12	N	530	GLN	Peptide
12	N	531	PHE	Peptide
12	N	534	SER	Peptide
12	N	703	GLY	Peptide
13	O	355	SER	Peptide
13	O	356	ASP	Peptide
13	O	357	SER	Peptide
13	O	396	ASN	Peptide
13	O	397	LYS	Peptide
13	O	398	LEU	Peptide
13	O	656	ALA	Peptide
14	T	10	ALA	Peptide

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11890	0	11565	689	0
2	B	649	0	597	65	0
3	C	4306	0	4275	222	0
3	P	4046	0	3998	241	0
4	D	436	0	396	24	0
5	E	450	0	435	22	0
6	F	3618	0	3452	199	0
6	H	3879	0	3805	209	0
7	G	220	0	233	19	0
7	W	218	0	222	32	0
8	I	5726	0	5594	368	0
9	J	4053	0	3960	228	0
9	K	3988	0	3913	172	0
10	L	1435	0	1382	86	0
11	M	481	0	457	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	N	5337	0	5257	359	0
13	O	5400	0	5418	280	0
14	T	79	0	77	3	0
15	X	3767	0	3820	234	0
15	Y	3862	0	3915	286	0
16	S	19	0	21	7	0
17	Q	23	0	24	30	0
18	B	3	0	0	0	0
All	All	63885	0	62816	3499	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 28.

All (3499) 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)
3:P:400:ARG:NH1	17:Q:499:ARG:HB2	1.18	1.42
3:P:277:ARG:NH2	17:Q:498:MET:HE2	1.11	1.38
3:P:400:ARG:NH1	17:Q:499:ARG:CB	1.91	1.33
3:P:400:ARG:NH1	17:Q:498:MET:O	1.62	1.33
3:P:277:ARG:NH2	17:Q:498:MET:CE	1.92	1.32
3:P:400:ARG:HH12	17:Q:498:MET:C	1.40	1.25
3:P:400:ARG:CZ	17:Q:499:ARG:HB2	1.69	1.23
3:P:277:ARG:CZ	17:Q:498:MET:CE	2.18	1.19
16:S:498:MET:O	16:S:499:ARG:HG2	1.51	1.10
3:P:277:ARG:CZ	17:Q:498:MET:HE1	1.80	1.09
3:P:400:ARG:HH12	17:Q:499:ARG:N	1.51	1.07
3:P:400:ARG:HH12	17:Q:499:ARG:CA	1.66	1.07
3:P:400:ARG:NH1	17:Q:498:MET:C	2.08	1.02
3:P:400:ARG:NH1	17:Q:499:ARG:CA	2.21	1.01
16:S:498:MET:O	16:S:499:ARG:CG	2.15	0.94
15:Y:393:ILE:HG22	15:Y:397:ARG:HH11	1.33	0.94
1:A:267:SER:HG	1:A:269:TRP:HE1	0.94	0.93
2:B:14:TRP:HA	2:B:15:LEU:HG	1.50	0.93
3:P:277:ARG:HH22	17:Q:498:MET:HE2	1.12	0.91
12:N:523:LEU:HD23	12:N:526:ARG:HH12	1.36	0.91
15:Y:383:LEU:HB2	15:Y:392:ALA:HB2	1.52	0.90
15:Y:302:PRO:O	15:Y:330:ARG:NH2	2.05	0.89
3:P:400:ARG:HH11	17:Q:499:ARG:HB2	1.34	0.89
15:X:397:ARG:HA	15:X:400:ILE:HD12	1.52	0.89
13:O:691:ILE:HD11	13:O:717:GLN:HG3	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:391:ALA:O	13:O:615:ARG:NH1	2.06	0.88
12:N:121:ARG:HB3	12:N:122:LEU:HB2	1.56	0.88
3:P:400:ARG:CZ	17:Q:499:ARG:CB	2.42	0.88
8:I:74:ARG:HA	8:I:115:TRP:HE3	1.39	0.87
13:O:326:GLU:OE1	13:O:329:ARG:NH2	2.08	0.87
15:Y:238:VAL:HA	15:Y:241:LYS:HD2	1.56	0.87
6:H:12:ILE:HG21	6:H:43:LEU:HD21	1.55	0.86
3:C:347:HIS:NE2	3:C:377:GLU:OE1	2.08	0.86
9:K:264:HIS:HD2	9:K:266:SER:H	1.22	0.86
3:P:186:LYS:HA	3:P:189:ILE:HD12	1.58	0.86
12:N:645:THR:HA	12:N:658:ALA:HA	1.58	0.85
6:H:102:SER:O	6:H:105:ASP:N	2.09	0.85
13:O:721:TYR:O	13:O:725:GLY:N	2.09	0.85
6:F:77:LYS:HZ1	6:H:19:TYR:HD2	1.23	0.85
8:I:89:LYS:HA	8:I:105:SER:HA	1.59	0.84
1:A:1191:LEU:HD11	1:A:1196:TYR:HE2	1.42	0.84
3:C:531:THR:HA	3:C:534:GLN:HE21	1.42	0.84
6:H:526:ARG:NH2	6:H:530:ASN:O	2.10	0.84
1:A:808:ARG:HH22	1:A:1894:VAL:HG13	1.42	0.84
15:X:164:SER:HA	15:X:167:ARG:HE	1.42	0.83
1:A:1455:GLU:H	1:A:1458:SER:H	1.21	0.83
10:L:32:SER:HB2	10:L:65:ASN:HB2	1.61	0.83
1:A:809:ASP:O	1:A:1808:THR:OG1	1.96	0.83
3:P:400:ARG:CZ	17:Q:498:MET:O	2.27	0.83
1:A:153:ILE:HB	1:A:160:ASN:HB2	1.60	0.83
15:X:512:HIS:HB3	15:X:531:GLN:HE21	1.44	0.82
15:Y:434:TYR:HA	15:Y:444:LEU:HD13	1.57	0.82
6:F:23:ASP:HB3	6:H:150:SER:H	1.43	0.82
15:X:63:MET:SD	15:Y:235:TRP:NE1	2.52	0.82
8:I:145:LEU:HD21	8:I:267:LEU:HG	1.61	0.82
8:I:51:SER:HB3	12:N:806:GLN:NE2	1.94	0.82
1:A:155:GLN:NE2	1:A:158:CYS:SG	2.52	0.82
1:A:506:VAL:HG13	1:A:639:VAL:HG23	1.61	0.82
1:A:879:LEU:HG	1:A:929:ARG:HH21	1.44	0.82
3:C:305:ASN:HD22	3:C:339:ASN:HD21	1.26	0.82
9:K:478:ASN:HD21	7:W:8:ARG:HH22	1.28	0.82
12:N:250:LEU:HB3	12:N:252:LEU:HD12	1.59	0.81
12:N:621:ALA:HA	12:N:624:LYS:HD2	1.61	0.81
6:H:16:LEU:HD22	6:H:50:ARG:HH11	1.45	0.81
12:N:334:ARG:NH1	12:N:368:THR:OG1	2.13	0.81
2:B:8:TRP:HA	12:N:644:VAL:HG12	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:554:VAL:HG21	9:K:286:TYR:HB2	1.61	0.81
6:H:660:LYS:NZ	9:K:496:GLU:OE2	2.11	0.81
1:A:1133:SER:OG	1:A:1170:ASN:ND2	2.13	0.81
1:A:1672:ARG:HG3	1:A:1708:TYR:HE1	1.44	0.81
12:N:520:ARG:HA	12:N:523:LEU:HD12	1.63	0.81
1:A:628:ILE:HD13	1:A:765:VAL:HG21	1.62	0.80
13:O:55:MET:HB3	13:O:59:ARG:HH21	1.45	0.80
15:Y:261:LEU:HD22	15:Y:267:LEU:HD22	1.62	0.80
1:A:1573:SER:O	1:A:1617:ARG:NH1	2.13	0.80
15:Y:359:LEU:HD11	15:Y:386:MET:HG3	1.61	0.80
1:A:1388:ARG:HA	1:A:1411:ARG:HD2	1.62	0.80
12:N:392:ASN:ND2	12:N:395:ASP:H	1.79	0.80
11:M:3:SER:HB3	3:P:180:ARG:HH22	1.46	0.80
1:A:1653:ALA:O	1:A:1655:THR:N	2.15	0.80
1:A:1807:GLU:HG3	1:A:1809:SER:H	1.47	0.80
9:J:61:ARG:NH2	9:J:66:ASP:OD2	2.15	0.80
12:N:392:ASN:HD21	12:N:395:ASP:H	1.30	0.80
2:B:7:CYS:HB3	12:N:645:THR:HG22	1.62	0.79
1:A:1432:GLN:HA	1:A:1435:ARG:HD2	1.65	0.79
8:I:688:THR:HG22	8:I:690:SER:H	1.48	0.79
3:C:73:PRO:HG3	3:P:73:PRO:HG2	1.63	0.79
6:H:693:ASN:OD1	6:H:709:ARG:NH1	2.15	0.79
8:I:524:PHE:HZ	8:I:528:ARG:HH21	1.30	0.79
15:Y:186:ARG:HA	15:Y:189:VAL:HG12	1.64	0.79
1:A:757:THR:O	1:A:758:HIS:ND1	2.16	0.79
12:N:706:ARG:HB3	12:N:714:SER:HB2	1.65	0.78
12:N:433:ASP:O	12:N:435:VAL:N	2.15	0.78
1:A:137:LYS:HA	1:A:273:ARG:HH21	1.47	0.78
9:J:165:GLU:HG2	9:K:20:GLN:HB2	1.64	0.78
13:O:43:GLU:OE1	13:O:46:ARG:NH2	2.17	0.78
1:A:1495:PHE:HE1	1:A:1515:CYS:HB3	1.48	0.78
7:G:13:LEU:HA	7:G:16:ILE:HG12	1.66	0.78
8:I:205:CYS:HA	8:I:221:THR:HA	1.65	0.78
15:Y:214:VAL:O	15:Y:216:GLY:N	2.17	0.78
15:Y:84:ALA:HA	15:Y:87:LEU:HD12	1.66	0.77
12:N:429:ARG:NH2	12:N:508:ILE:O	2.17	0.77
9:K:136:ARG:NH1	9:K:140:TYR:OH	2.17	0.77
3:P:297:ILE:N	3:P:298:GLU:OE1	2.18	0.77
4:D:31:GLN:OE1	13:O:137:ARG:NH2	2.16	0.77
15:X:85:ASP:OD1	15:X:100:TYR:OH	2.02	0.77
6:F:512:LEU:HG	6:F:514:GLU:H	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:96:VAL:N	6:F:97:PHE:HB2	2.00	0.77
10:L:45:LEU:O	10:L:155:GLN:NE2	2.18	0.77
13:O:511:ASP:OD2	13:O:515:GLN:NE2	2.18	0.77
16:S:498:MET:C	16:S:499:ARG:HG2	2.05	0.77
1:A:1839:PHE:O	1:A:1841:ASN:N	2.17	0.77
12:N:527:LEU:HA	12:N:530:GLN:HA	1.65	0.77
10:L:7:THR:HG23	10:L:114:VAL:HG12	1.66	0.76
8:I:625:TYR:HB2	8:I:628:THR:HG22	1.66	0.76
7:G:3:ARG:HH12	9:J:243:TYR:HA	1.49	0.76
12:N:75:PHE:HE2	12:N:129:LEU:HD13	1.50	0.76
7:G:16:ILE:HD12	9:J:514:PHE:CD1	2.20	0.76
12:N:162:PHE:HB2	12:N:255:ARG:HH22	1.51	0.76
13:O:357:SER:O	13:O:359:VAL:N	2.18	0.76
3:P:189:ILE:HG23	3:P:209:LEU:HD11	1.66	0.76
1:A:616:GLU:HB2	13:O:556:GLN:HG3	1.67	0.76
6:H:130:ARG:HG2	9:K:469:ARG:HD3	1.66	0.76
9:J:239:GLU:HG2	9:J:270:VAL:HG21	1.67	0.76
1:A:1884:MET:N	1:A:1884:MET:SD	2.59	0.76
8:I:341:TYR:HA	8:I:344:ILE:HD12	1.68	0.76
6:F:77:LYS:NZ	6:H:18:HIS:O	2.18	0.76
13:O:109:GLU:OE2	3:P:346:GLN:NE2	2.19	0.76
3:P:308:TYR:CE2	17:Q:499:ARG:NH1	2.54	0.76
1:A:1292:GLU:OE1	1:A:1292:GLU:N	2.19	0.75
9:J:264:HIS:HD2	9:J:267:CYS:H	1.33	0.75
3:P:400:ARG:HH22	17:Q:499:ARG:HA	1.52	0.75
2:B:44:CYS:HG	2:B:58:HIS:HD1	1.32	0.75
6:H:583:HIS:O	6:H:586:ALA:N	2.19	0.75
6:F:25:VAL:HG12	6:F:47:CYS:HB3	1.68	0.75
1:A:775:LEU:HD23	1:A:869:ARG:HB3	1.68	0.75
13:O:557:MET:SD	13:O:593:ARG:NH1	2.60	0.75
15:Y:246:VAL:HG13	15:Y:280:LEU:HD21	1.68	0.75
14:T:11:ALA:HA	14:T:12:ALA:HB3	1.68	0.75
1:A:459:GLU:HB3	1:A:466:LEU:HD23	1.69	0.75
6:F:112:ASP:OD1	6:F:113:SER:N	2.18	0.75
1:A:715:TYR:HE1	13:O:750:PRO:HD2	1.51	0.74
1:A:830:PHE:O	1:A:833:HIS:N	2.20	0.74
1:A:1574:LEU:O	1:A:1617:ARG:NH1	2.20	0.74
6:H:702:ASN:OD1	6:H:705:CYS:N	2.14	0.74
7:G:3:ARG:NH2	9:J:245:CYS:SG	2.60	0.74
15:Y:356:SER:HA	15:Y:359:LEU:HD12	1.69	0.74
1:A:963:ARG:O	1:A:980:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:93:CYS:SG	8:I:94:ASP:N	2.60	0.74
1:A:134:SER:OG	1:A:136:ASP:N	2.13	0.74
15:X:383:LEU:HB3	15:X:392:ALA:HB2	1.68	0.74
1:A:1672:ARG:HG3	1:A:1708:TYR:CE1	2.23	0.74
6:H:25:VAL:HG13	6:H:48:TYR:HE1	1.51	0.74
6:H:726:LEU:HD21	6:H:742:LEU:HD23	1.68	0.74
12:N:422:GLU:HA	12:N:425:ARG:HD2	1.69	0.74
1:A:431:PHE:HB2	1:A:481:PRO:HG3	1.70	0.74
1:A:1626:THR:OG1	1:A:1628:THR:OG1	2.04	0.74
13:O:493:LEU:HD13	13:O:507:TRP:HB2	1.70	0.73
6:F:97:PHE:HB3	6:F:99:LYS:H	1.52	0.73
8:I:578:ASN:OD1	8:I:581:SER:N	2.21	0.73
10:L:113:LEU:O	10:L:145:HIS:NE2	2.19	0.73
12:N:386:LEU:HD22	12:N:399:LEU:HD23	1.71	0.73
3:C:96:VAL:H	3:C:97:LYS:HA	1.54	0.73
8:I:666:LEU:HB2	8:I:714:LEU:HD21	1.71	0.73
12:N:63:ARG:NH2	12:N:139:GLY:O	2.22	0.73
13:O:356:ASP:HA	13:O:357:SER:CB	2.19	0.73
13:O:415:SER:HA	13:O:418:ILE:HD12	1.69	0.73
15:X:63:MET:HG2	15:Y:266:LEU:HB3	1.71	0.73
15:X:434:TYR:HA	15:X:444:LEU:HD13	1.69	0.73
15:X:492:TYR:O	15:X:495:GLY:N	2.22	0.73
1:A:433:THR:HG22	1:A:434:SER:H	1.53	0.73
2:B:13:THR:OG1	12:N:605:LYS:NZ	2.21	0.73
9:K:36:GLU:OE2	9:K:39:ASP:N	2.18	0.73
9:K:85:GLU:HB3	9:K:88:GLN:HB2	1.70	0.73
15:Y:179:TYR:O	15:Y:183:GLY:N	2.19	0.73
1:A:774:LYS:NZ	1:A:809:ASP:OD2	2.20	0.73
12:N:431:ARG:O	12:N:434:THR:OG1	2.07	0.73
12:N:545:LEU:O	12:N:549:PHE:N	2.22	0.73
6:F:626:ASN:HA	6:F:629:ARG:HD2	1.71	0.72
7:G:18:GLU:OE1	7:G:21:ASN:ND2	2.20	0.72
11:M:34:ASN:HD22	11:M:51:LYS:HE2	1.54	0.72
6:F:92:LEU:HB2	6:F:121:LEU:HD21	1.69	0.72
13:O:222:LEU:O	13:O:226:ASP:N	2.20	0.72
15:Y:137:GLU:OE1	15:Y:141:LYS:NZ	2.22	0.72
8:I:310:TRP:CD1	13:O:126:VAL:HG22	2.23	0.72
1:A:1753:TYR:O	13:O:639:GLN:NE2	2.23	0.72
4:D:10:PRO:O	13:O:313:ARG:NH2	2.23	0.72
6:F:644:ILE:O	6:F:648:GLN:HB2	1.90	0.72
3:P:400:ARG:NH2	17:Q:499:ARG:HA	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:511:THR:OG1	3:P:512:ALA:N	2.22	0.72
12:N:553:PRO:HB2	12:N:554:MET:HE2	1.70	0.72
15:X:340:GLU:CD	15:X:340:GLU:H	1.93	0.72
1:A:966:PRO:HD3	1:A:980:ARG:HH22	1.55	0.72
3:C:390:HIS:CE1	13:O:280:ARG:HH22	2.07	0.72
3:C:493:TYR:HH	3:C:509:GLU:N	1.87	0.72
13:O:133:GLY:O	13:O:137:ARG:HG3	1.90	0.72
13:O:435:SER:N	13:O:654:ASP:OD2	2.19	0.72
5:E:86:VAL:HG22	6:H:589:PHE:HE1	1.55	0.72
6:F:19:TYR:OH	6:H:50:ARG:NE	2.22	0.72
15:X:276:SER:O	15:X:280:LEU:HG	1.90	0.72
15:X:459:GLU:HA	15:X:462:LYS:HD3	1.72	0.72
1:A:489:LEU:HD11	1:A:497:LEU:HB3	1.69	0.72
8:I:315:ALA:HA	8:I:318:GLN:HE21	1.55	0.72
12:N:517:ASN:HA	12:N:520:ARG:HG2	1.70	0.72
1:A:1835:LYS:HB2	1:A:1838:LEU:HB2	1.72	0.71
11:M:31:ILE:HG22	11:M:33:LEU:H	1.54	0.71
12:N:500:ASP:O	12:N:503:SER:OG	2.05	0.71
12:N:574:ILE:HG13	12:N:625:LYS:HG2	1.72	0.71
6:F:639:TYR:HD1	6:F:672:LEU:HD13	1.55	0.71
9:J:5:ARG:NH1	9:K:194:CYS:SG	2.63	0.71
12:N:629:LEU:HB3	12:N:633:ARG:HH12	1.55	0.71
13:O:504:ALA:HB1	13:O:507:TRP:HE1	1.55	0.71
5:E:78:ARG:NH2	15:Y:329:CYS:SG	2.63	0.71
8:I:451:PHE:O	8:I:453:THR:N	2.23	0.71
9:J:94:ASP:OD1	9:J:136:ARG:NH1	2.19	0.71
10:L:80:TYR:HD1	10:L:154:ARG:HB2	1.55	0.71
1:A:1032:LEU:H	12:N:483:ASP:CB	2.03	0.71
2:B:14:TRP:HA	2:B:15:LEU:CG	2.20	0.71
8:I:622:SER:H	8:I:706:HIS:HA	1.55	0.71
8:I:653:LEU:O	8:I:665:LEU:N	2.21	0.71
13:O:415:SER:O	13:O:418:ILE:N	2.22	0.71
10:L:78:CYS:SG	10:L:79:ILE:N	2.63	0.71
12:N:762:LEU:O	12:N:766:GLU:N	2.23	0.71
12:N:769:SER:HB2	12:N:772:ARG:HD3	1.71	0.71
6:H:658:PHE:HB3	6:H:675:ILE:HG12	1.71	0.71
15:X:509:CYS:HA	15:X:512:HIS:HD2	1.55	0.71
15:Y:93:TYR:CZ	15:Y:148:MET:HG3	2.26	0.71
1:A:125:GLN:NE2	1:A:179:ASN:OD1	2.24	0.71
8:I:621:GLY:N	8:I:705:MET:O	2.21	0.71
9:K:466:ASP:OD2	9:K:470:GLN:NE2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:356:ASP:HA	13:O:357:SER:HB3	1.71	0.71
1:A:710:LEU:O	1:A:713:SER:OG	2.08	0.71
8:I:51:SER:HB3	12:N:806:GLN:HE21	1.55	0.71
8:I:725:ASN:OD1	8:I:726:GLY:N	2.23	0.71
13:O:435:SER:O	13:O:438:ALA:N	2.23	0.71
9:K:376:LEU:HD13	9:K:407:GLU:HB3	1.72	0.71
1:A:1805:MET:HE3	1:A:1807:GLU:HB3	1.72	0.70
8:I:717:MET:SD	8:I:742:ARG:NH2	2.64	0.70
12:N:571:ASN:HD21	12:N:593:ALA:H	1.37	0.70
1:A:434:SER:OG	1:A:435:ASP:N	2.23	0.70
6:F:736:GLU:HB2	6:F:739:VAL:HG23	1.72	0.70
13:O:254:HIS:O	13:O:257:SER:OG	2.09	0.70
3:P:222:LEU:HB2	3:P:224:LEU:HD11	1.71	0.70
15:Y:147:THR:HG22	15:Y:178:LEU:HD21	1.74	0.70
1:A:879:LEU:HD21	1:A:929:ARG:HE	1.55	0.70
1:A:1635:GLU:HB2	1:A:1669:LYS:HE2	1.73	0.70
6:F:544:TRP:CD1	6:F:579:LEU:HG	2.26	0.70
6:F:16:LEU:O	6:F:19:TYR:N	2.23	0.70
7:W:13:LEU:H	7:W:13:LEU:HD12	1.56	0.70
15:Y:141:LYS:HA	15:Y:144:GLU:HG2	1.72	0.70
1:A:1672:ARG:HD2	1:A:1705:GLN:HB3	1.74	0.70
1:A:1459:GLN:NE2	1:A:1507:THR:O	2.24	0.70
8:I:93:CYS:SG	8:I:99:GLU:N	2.64	0.70
15:Y:248:THR:OG1	15:Y:250:ASP:OD2	2.07	0.70
1:A:1619:LEU:HD21	1:A:1697:LEU:HD23	1.72	0.70
9:K:456:ARG:HH22	7:W:11:LEU:HD21	1.57	0.70
3:P:415:PRO:O	3:P:419:LEU:N	2.22	0.70
1:A:1728:SER:HB3	12:N:255:ARG:HG3	1.73	0.70
12:N:577:GLU:HG2	12:N:583:ALA:HB2	1.74	0.70
3:P:277:ARG:NH1	17:Q:498:MET:CE	2.55	0.70
15:Y:475:TYR:HE2	15:Y:477:LYS:HB3	1.57	0.70
1:A:1060:HIS:HA	1:A:1063:ILE:HD12	1.74	0.69
3:P:477:HIS:HA	3:P:480:LEU:HB2	1.74	0.69
15:X:52:ASN:OD1	15:Y:204:ASP:N	2.22	0.69
15:Y:428:VAL:O	15:Y:432:ASN:ND2	2.20	0.69
15:X:500:ARG:HE	15:X:515:LEU:HD11	1.57	0.69
1:A:1574:LEU:HD23	1:A:1574:LEU:H	1.58	0.69
8:I:74:ARG:O	8:I:77:GLY:N	2.24	0.69
1:A:1799:ARG:NH1	1:A:1810:GLU:OE2	2.24	0.69
8:I:9:PRO:HB2	8:I:712:ARG:HD2	1.75	0.69
8:I:74:ARG:HA	8:I:115:TRP:CE3	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:M:8:ASP:OD2	11:M:10:ARG:NH1	2.26	0.69
3:C:449:LEU:O	3:C:452:ALA:N	2.25	0.69
8:I:337:ILE:O	8:I:340:SER:OG	2.10	0.69
1:A:880:TYR:HE1	1:A:958:ALA:HB2	1.56	0.69
13:O:637:PRO:O	13:O:640:ALA:N	2.25	0.69
1:A:795:ARG:NH1	1:A:814:VAL:O	2.25	0.69
1:A:1702:ARG:NE	1:A:1782:GLU:OE2	2.25	0.69
8:I:349:ILE:O	8:I:353:GLN:HB2	1.93	0.69
10:L:73:THR:O	10:L:160:THR:OG1	2.09	0.69
12:N:136:THR:HA	12:N:140:LEU:HB2	1.72	0.69
3:P:277:ARG:NH1	17:Q:498:MET:SD	2.66	0.69
15:Y:87:LEU:HD13	15:Y:96:ALA:HA	1.75	0.69
2:B:15:LEU:HD21	12:N:636:SER:H	1.56	0.69
8:I:124:VAL:O	8:I:127:SER:OG	2.10	0.69
1:A:861:PRO:HB2	1:A:899:ILE:HD11	1.74	0.69
1:A:1128:PRO:HG2	1:A:1131:MET:HB2	1.75	0.69
9:J:19:TYR:O	9:J:22:ALA:N	2.26	0.69
1:A:1084:ARG:NH2	1:A:1139:ASN:OD1	2.27	0.68
6:F:544:TRP:HD1	6:F:579:LEU:HG	1.58	0.68
9:J:47:LEU:HB3	9:J:56:ALA:HB2	1.74	0.68
9:K:35:GLU:OE1	9:K:63:ARG:NH1	2.26	0.68
3:P:348:GLU:N	3:P:348:GLU:OE2	2.25	0.68
6:F:483:GLU:HA	6:F:486:ASN:HD22	1.57	0.68
6:F:695:ALA:HB3	6:F:709:ARG:HH11	1.58	0.68
15:Y:92:GLU:OE2	15:Y:95:ASN:N	2.26	0.68
9:J:174:HIS:HB2	9:J:364:MET:SD	2.34	0.68
6:F:23:ASP:N	6:F:23:ASP:OD1	2.25	0.68
15:Y:162:ILE:O	15:Y:167:ARG:NH2	2.27	0.68
15:Y:171:ILE:O	15:Y:175:LEU:HB2	1.94	0.68
15:Y:433:VAL:HA	15:Y:436:THR:HG22	1.76	0.68
15:Y:149:LEU:O	15:Y:150:LYS:HG2	1.94	0.68
9:K:261:ASP:OD1	9:K:264:HIS:N	2.26	0.68
13:O:98:LYS:HD2	13:O:99:LEU:HD22	1.75	0.68
8:I:171:VAL:O	8:I:190:TYR:OH	2.08	0.68
3:P:494:ILE:HG21	3:P:516:LEU:HD13	1.75	0.68
1:A:950:GLY:H	1:A:1813:GLN:HE22	1.42	0.68
9:J:236:SER:HA	9:J:239:GLU:OE1	1.93	0.68
1:A:477:LYS:HB2	1:A:491:LEU:HD12	1.76	0.67
12:N:148:GLY:O	12:N:152:GLU:HB2	1.94	0.67
12:N:663:GLN:HE22	12:N:698:VAL:HB	1.59	0.67
13:O:370:HIS:HD2	13:O:371:PHE:H	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:81:VAL:HG21	15:X:133:PRO:HG2	1.76	0.67
15:X:146:TYR:HB2	15:X:155:ALA:HB2	1.75	0.67
15:Y:509:CYS:O	15:Y:512:HIS:N	2.26	0.67
1:A:1919:LYS:HD2	12:N:67:LEU:HB3	1.74	0.67
3:C:385:ILE:HG23	3:C:405:LEU:HD11	1.76	0.67
3:P:65:LEU:HD23	3:P:70:LEU:HD12	1.76	0.67
1:A:1813:GLN:O	1:A:1817:VAL:HG23	1.95	0.67
9:J:388:GLU:OE2	9:J:392:SER:OG	2.11	0.67
3:P:99:TYR:CE2	3:P:124:LEU:HB3	2.29	0.67
15:X:204:ASP:OD2	15:Y:51:SER:OG	2.10	0.67
15:Y:321:LEU:O	15:Y:324:VAL:N	2.27	0.67
1:A:894:GLN:OE1	1:A:895:TYR:N	2.26	0.67
6:H:103:HIS:HB2	6:H:140:LYS:HE3	1.76	0.67
8:I:247:GLU:OE1	8:I:247:GLU:N	2.19	0.67
8:I:574:PHE:HB3	8:I:587:LEU:HB2	1.76	0.67
1:A:1792:ALA:HB2	13:O:598:THR:HG21	1.77	0.67
1:A:158:CYS:SG	3:C:427:GLN:NE2	2.67	0.67
9:J:217:GLU:HG3	9:J:240:ARG:HD3	1.75	0.67
12:N:663:GLN:NE2	12:N:695:ARG:O	2.27	0.67
6:H:720:LYS:NZ	6:H:721:SER:OG	2.28	0.67
9:K:446:PRO:HB3	7:W:8:ARG:HB2	1.77	0.67
11:M:5:VAL:O	11:M:7:ARG:NH2	2.27	0.67
1:A:1639:LYS:HB3	1:A:1664:LYS:HB2	1.75	0.67
3:C:536:CYS:O	3:C:542:THR:OG1	2.12	0.67
5:E:99:ILE:HD12	6:H:591:GLN:HG2	1.77	0.67
6:F:88:GLY:HA2	6:F:91:ILE:HD12	1.77	0.67
8:I:514:PHE:H	13:O:443:GLN:HE22	1.41	0.67
3:C:426:HIS:HB2	3:C:435:MET:HB3	1.76	0.67
8:I:18:GLN:HG2	8:I:740:HIS:HD2	1.59	0.67
3:P:409:TYR:HE2	3:P:421:TYR:HE2	1.43	0.67
1:A:1119:ASP:OD1	1:A:1119:ASP:N	2.27	0.67
8:I:589:THR:HA	8:I:598:MET:HA	1.75	0.67
9:J:378:TYR:O	9:J:381:THR:OG1	2.11	0.67
3:P:255:ILE:HG13	3:P:260:SER:HA	1.77	0.67
1:A:1916:PHE:HD1	12:N:67:LEU:HD23	1.60	0.66
9:K:395:LEU:HD12	9:K:399:PRO:HA	1.78	0.66
6:H:132:ALA:O	6:H:135:SER:OG	2.13	0.66
6:H:761:SER:O	6:H:765:ASP:HB2	1.95	0.66
13:O:388:ARG:NH1	13:O:397:LYS:O	2.28	0.66
13:O:664:MET:HG3	13:O:696:GLU:HG2	1.77	0.66
1:A:134:SER:H	1:A:135:GLN:HA	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:712:ASP:N	13:O:712:ASP:OD1	2.23	0.66
15:Y:376:LEU:HD21	15:Y:398:GLU:HG3	1.75	0.66
1:A:1064:GLU:OE1	1:A:1124:ASN:ND2	2.28	0.66
8:I:669:LEU:HD12	8:I:670:PRO:HD2	1.76	0.66
1:A:1589:TYR:CE2	1:A:1591:HIS:HB2	2.31	0.66
1:A:1434:ILE:HA	1:A:1457:LEU:HD21	1.77	0.66
3:C:80:ASP:O	3:C:84:MET:HB2	1.95	0.66
13:O:504:ALA:HB1	13:O:507:TRP:NE1	2.10	0.66
15:Y:414:ILE:HG23	15:Y:426:ALA:HB1	1.76	0.66
1:A:131:PHE:CD1	1:A:215:HIS:HA	2.31	0.66
2:B:9:ASN:HA	12:N:592:TYR:HB3	1.77	0.66
10:L:49:ASN:O	10:L:52:THR:OG1	2.13	0.66
1:A:91:GLU:OE1	1:A:102:TRP:NE1	2.19	0.66
6:H:85:LEU:O	6:H:88:GLY:N	2.28	0.66
15:Y:170:LYS:HG3	15:Y:171:ILE:HD12	1.76	0.66
15:Y:462:LYS:NZ	15:Y:489:GLU:OE2	2.29	0.66
15:Y:509:CYS:SG	15:Y:510:VAL:N	2.69	0.66
1:A:72:GLU:OE1	1:A:72:GLU:N	2.29	0.65
1:A:641:TRP:HE1	1:A:660:PHE:HA	1.61	0.65
1:A:1089:LEU:O	1:A:1091:SER:OG	2.14	0.65
6:F:159:GLY:O	6:F:161:LYS:NZ	2.28	0.65
8:I:505:SER:OG	13:O:488:GLU:OE2	2.14	0.65
1:A:1674:TRP:CZ3	1:A:1782:GLU:HG2	2.30	0.65
15:Y:207:LEU:O	15:Y:211:SER:OG	2.13	0.65
1:A:866:ILE:HG13	1:A:867:CYS:N	2.10	0.65
8:I:356:SER:HB2	8:I:397:ILE:HG12	1.77	0.65
15:X:343:VAL:HG22	15:X:375:ALA:HB2	1.78	0.65
15:X:361:LEU:HA	15:X:364:LYS:HD2	1.78	0.65
1:A:1910:SER:OG	1:A:1913:GLU:N	2.27	0.65
9:K:50:THR:O	9:K:52:GLN:NE2	2.29	0.65
3:P:277:ARG:HH21	17:Q:498:MET:HE2	1.50	0.65
10:L:73:THR:HG1	10:L:133:ARG:HE	1.42	0.65
3:P:96:VAL:HB	3:P:98:GLU:H	1.62	0.65
1:A:647:ALA:O	1:A:649:GLY:N	2.23	0.65
3:C:358:LEU:HD21	3:C:368:TRP:CE2	2.31	0.65
7:G:24:LYS:HG3	7:G:25:ASP:HB3	1.79	0.65
6:H:684:LYS:HZ2	6:H:687:LYS:H	1.43	0.65
9:J:52:GLN:OE1	9:J:55:ARG:NE	2.29	0.65
3:P:36:LEU:HD21	3:P:228:TRP:HH2	1.60	0.65
1:A:822:THR:OG1	1:A:823:ILE:N	2.30	0.65
9:K:309:TYR:OH	11:M:59:ASP:OD1	2.07	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:M:2:ASP:OD1	3:P:48:LEU:HD13	1.97	0.65
15:X:443:THR:O	15:X:447:LEU:HG	1.97	0.65
15:Y:176:ALA:HB2	15:Y:191:SER:OG	1.95	0.65
1:A:980:ARG:HG2	1:A:983:LEU:HD12	1.78	0.65
2:B:2:LYS:H	12:N:650:LEU:HD23	1.61	0.65
3:C:286:PHE:HB3	3:C:303:PHE:CD1	2.32	0.65
6:F:7:PRO:HG3	6:H:455:GLN:HG3	1.78	0.65
8:I:115:TRP:HE1	8:I:176:LEU:HB2	1.61	0.65
8:I:139:LEU:HD11	8:I:361:TYR:CG	2.32	0.65
3:P:264:TYR:O	3:P:267:SER:OG	2.13	0.65
1:A:1749:SER:HA	1:A:1752:GLU:HG2	1.78	0.65
6:H:537:GLU:OE2	6:H:600:TYR:OH	2.14	0.65
6:H:568:GLU:N	6:H:568:GLU:OE1	2.30	0.65
9:J:23:LEU:HG	9:J:46:CYS:HB3	1.77	0.65
9:J:161:VAL:HG23	9:J:188:LEU:HD13	1.79	0.65
1:A:1599:ASN:HB2	1:A:1603:LEU:HA	1.78	0.64
15:X:196:LEU:HD11	15:X:206:ILE:HG12	1.78	0.64
1:A:187:LEU:HB3	1:A:213:MET:HB3	1.77	0.64
3:C:389:ARG:NH1	13:O:279:ASP:OD2	2.30	0.64
12:N:770:LEU:HA	12:N:773:ILE:HD12	1.79	0.64
13:O:148:PHE:O	13:O:151:VAL:N	2.30	0.64
13:O:382:GLN:NE2	13:O:424:GLN:OE1	2.29	0.64
13:O:551:LEU:HB3	13:O:560:ALA:HB2	1.79	0.64
15:X:203:LEU:HA	15:X:206:ILE:HD12	1.79	0.64
1:A:1036:ASP:OD1	1:A:1039:ARG:NH1	2.30	0.64
3:C:67:LEU:HD12	3:C:70:LEU:HB3	1.78	0.64
6:H:42:PHE:O	6:H:46:THR:HG23	1.97	0.64
8:I:56:TRP:CE3	8:I:98:PRO:HB3	2.33	0.64
8:I:502:GLN:O	8:I:508:LYS:NZ	2.29	0.64
9:J:466:ASP:OD1	9:J:469:ARG:NH2	2.29	0.64
3:C:305:ASN:ND2	3:C:339:ASN:HD21	1.96	0.64
8:I:176:LEU:HB3	8:I:188:TYR:HB2	1.78	0.64
9:J:276:VAL:HA	9:J:311:MET:SD	2.38	0.64
15:X:446:LEU:HD13	15:X:477:LYS:HD2	1.80	0.64
1:A:981:GLN:HG2	1:A:1700:LYS:HZ2	1.62	0.64
1:A:1540:ARG:HD3	12:N:480:TRP:CE2	2.33	0.64
8:I:219:VAL:HB	8:I:234:PHE:HB2	1.79	0.64
8:I:474:ARG:O	8:I:477:GLN:HG2	1.98	0.64
9:J:35:GLU:OE2	9:J:63:ARG:NH1	2.28	0.64
10:L:25:ILE:O	10:L:27:SER:N	2.30	0.64
3:P:96:VAL:N	3:P:97:LYS:HA	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:164:SER:HA	15:X:167:ARG:NE	2.12	0.64
15:X:446:LEU:O	15:X:481:LYS:NZ	2.30	0.64
1:A:872:LEU:HD21	1:A:937:VAL:HG11	1.79	0.64
8:I:110:VAL:HG22	8:I:111:SER:H	1.63	0.64
8:I:65:GLY:H	8:I:84:LEU:HD13	1.61	0.64
12:N:385:ARG:O	12:N:388:HIS:NE2	2.31	0.64
15:X:409:CYS:SG	15:X:410:TYR:N	2.71	0.64
1:A:219:GLU:HA	3:C:458:ARG:NH1	2.13	0.64
1:A:1645:GLU:OE1	1:A:1645:GLU:N	2.30	0.64
2:B:44:CYS:SG	2:B:58:HIS:ND1	2.65	0.64
6:F:621:LEU:O	6:F:625:ARG:HG2	1.98	0.64
6:H:79:CYS:O	6:H:84:LYS:N	2.31	0.64
8:I:115:TRP:CD1	8:I:176:LEU:HA	2.33	0.64
13:O:147:SER:OG	3:P:353:TYR:OH	2.12	0.64
12:N:693:ARG:HA	12:N:696:MET:HG2	1.80	0.64
13:O:498:PRO:O	13:O:501:SER:OG	2.14	0.64
15:X:460:LYS:H	15:X:460:LYS:HZ3	1.44	0.64
15:Y:452:LEU:HD13	15:Y:460:LYS:HB3	1.80	0.64
1:A:715:TYR:O	1:A:719:VAL:HG23	1.97	0.64
2:B:14:TRP:N	12:N:596:LEU:O	2.31	0.64
6:F:49:TYR:OH	6:F:81:ASP:OD2	2.16	0.64
12:N:121:ARG:CB	12:N:122:LEU:HB2	2.27	0.64
12:N:134:LYS:HA	12:N:137:ARG:HH11	1.62	0.64
15:X:407:LEU:HA	15:X:410:TYR:HD2	1.63	0.64
1:A:866:ILE:O	1:A:868:GLU:N	2.30	0.63
9:J:192:LYS:H	9:J:192:LYS:HD2	1.62	0.63
12:N:571:ASN:ND2	12:N:593:ALA:O	2.31	0.63
3:P:341:TYR:CE2	3:P:349:LYS:HB3	2.33	0.63
2:B:15:LEU:HD11	12:N:635:LEU:HA	1.80	0.63
3:C:393:GLU:OE2	13:O:276:HIS:NE2	2.31	0.63
8:I:392:ALA:O	8:I:395:SER:OG	2.17	0.63
12:N:610:GLU:HB2	12:N:685:VAL:HA	1.79	0.63
13:O:394:THR:HG23	13:O:615:ARG:HH22	1.63	0.63
15:Y:271:VAL:HG12	15:Y:300:LEU:HD23	1.80	0.63
1:A:176:GLN:OE1	1:A:176:GLN:N	2.29	0.63
2:B:8:TRP:HB3	12:N:591:VAL:HA	1.79	0.63
9:K:402:PRO:HG3	9:K:435:ILE:HD11	1.80	0.63
15:X:255:ILE:HA	15:X:258:ILE:HG22	1.80	0.63
3:C:36:LEU:HD21	3:C:58:LEU:HB2	1.81	0.63
6:H:452:PHE:O	6:H:456:LYS:HB2	1.99	0.63
9:J:36:GLU:HB2	9:J:39:ASP:OD1	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:194:CYS:O	9:J:197:GLU:N	2.26	0.63
10:L:86:ASP:OD2	10:L:90:THR:OG1	2.17	0.63
10:L:92:SER:HA	10:L:113:LEU:HB2	1.81	0.63
11:M:5:VAL:HB	3:P:124:LEU:HD22	1.81	0.63
12:N:655:LEU:HD21	12:N:721:PRO:HG2	1.80	0.63
13:O:293:GLU:HG2	13:O:295:GLY:H	1.63	0.63
3:P:514:ARG:O	3:P:518:GLN:NE2	2.30	0.63
1:A:163:SER:OG	1:A:167:LYS:N	2.32	0.63
6:H:513:SER:HB2	6:H:515:TYR:HE1	1.64	0.63
9:J:489:HIS:HB3	9:J:498:ALA:HB2	1.80	0.63
9:K:405:MET:HB2	9:K:428:ALA:HB2	1.81	0.63
10:L:93:LYS:HB2	10:L:143:ALA:HB3	1.80	0.63
15:Y:320:ARG:NH2	15:Y:323:ASP:OD1	2.27	0.63
1:A:168:ASP:OD1	1:A:168:ASP:N	2.25	0.63
1:A:950:GLY:H	1:A:1813:GLN:NE2	1.95	0.63
1:A:1891:TYR:O	1:A:1926:ARG:NH2	2.31	0.63
3:C:528:GLU:HA	3:C:531:THR:HG22	1.80	0.63
8:I:536:CYS:O	8:I:540:PRO:HD3	1.99	0.63
9:J:59:ALA:O	9:J:62:SER:OG	2.16	0.63
9:J:317:GLU:OE2	9:J:318:HIS:ND1	2.31	0.63
3:P:298:GLU:OE1	3:P:298:GLU:N	2.32	0.63
15:X:496:ILE:HG13	15:X:518:PHE:HB3	1.80	0.63
15:Y:465:LEU:HD21	15:Y:482:LYS:HB2	1.79	0.63
3:C:77:THR:N	3:C:80:ASP:OD1	2.25	0.63
6:F:164:PRO:HD3	6:F:474:LEU:HD11	1.81	0.63
8:I:74:ARG:HE	8:I:76:ASP:HB3	1.63	0.63
8:I:102:HIS:HE1	8:I:263:GLN:HE22	1.45	0.63
9:J:33:SER:O	9:J:34:ARG:NH1	2.31	0.63
15:X:153:LYS:HA	15:X:156:ILE:HD12	1.80	0.63
2:B:14:TRP:HH2	2:B:42:ASP:H	1.46	0.63
6:F:130:ARG:HH11	15:Y:506:GLN:HB3	1.64	0.63
9:K:376:LEU:O	9:K:379:GLY:N	2.32	0.63
12:N:609:LEU:HD21	12:N:662:VAL:HG22	1.81	0.63
15:X:44:MET:HB3	15:X:49:LEU:HD11	1.81	0.63
15:X:168:THR:O	15:X:172:ASN:ND2	2.32	0.63
15:Y:146:TYR:HE2	15:Y:158:ILE:HG13	1.63	0.63
1:A:127:LEU:HD21	1:A:180:VAL:HG23	1.81	0.62
6:F:653:LEU:HD21	15:Y:552:MET:HE2	1.80	0.62
6:H:629:ARG:HB2	9:K:504:THR:HG23	1.80	0.62
9:J:391:PHE:HB3	9:J:408:VAL:HG12	1.81	0.62
9:K:291:LEU:HB3	9:K:301:SER:OG	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:414:MET:N	12:N:414:MET:SD	2.72	0.62
12:N:699:TRP:CE3	12:N:704:VAL:HG21	2.34	0.62
1:A:1919:LYS:NZ	12:N:66:GLY:O	2.32	0.62
8:I:224:SER:OG	8:I:225:THR:N	2.31	0.62
11:M:8:ASP:OD1	11:M:9:GLY:N	2.32	0.62
3:P:199:LEU:HD12	3:P:200:PRO:HD2	1.81	0.62
1:A:29:LYS:HG3	1:A:30:HIS:CD2	2.34	0.62
3:C:301:ASP:OD1	3:C:302:THR:N	2.33	0.62
9:J:180:GLU:OE1	9:J:180:GLU:N	2.32	0.62
9:K:130:SER:OG	9:K:156:ALA:O	2.17	0.62
10:L:71:LYS:NZ	10:L:133:ARG:O	2.32	0.62
15:Y:245:PHE:O	15:Y:248:THR:OG1	2.17	0.62
15:Y:441:ALA:HB3	15:Y:444:LEU:HG	1.80	0.62
1:A:131:PHE:CE1	1:A:216:PRO:HD3	2.34	0.62
1:A:1134:TRP:HD1	1:A:1597:THR:HA	1.63	0.62
1:A:1636:VAL:HB	1:A:1663:LEU:HD11	1.80	0.62
2:B:8:TRP:O	12:N:592:TYR:N	2.31	0.62
15:X:446:LEU:O	15:X:449:THR:OG1	2.14	0.62
8:I:186:GLU:OE1	8:I:188:TYR:OH	2.11	0.62
15:X:152:ASP:OD2	15:X:153:LYS:N	2.33	0.62
15:Y:143:ALA:O	15:Y:147:THR:HG23	1.99	0.62
15:Y:532:TYR:HD2	15:Y:545:SER:HA	1.63	0.62
1:A:1191:LEU:HD11	1:A:1196:TYR:CE2	2.30	0.62
1:A:1692:SER:OG	1:A:1693:LYS:N	2.29	0.62
9:J:341:GLY:HA3	9:J:357:TYR:CE1	2.34	0.62
10:L:178:MET:O	10:L:181:ARG:HG2	2.00	0.62
3:C:329:TYR:HE2	3:P:132:ASP:HB3	1.64	0.62
6:F:96:VAL:H	6:F:97:PHE:HB2	1.64	0.62
6:F:583:HIS:ND1	6:F:610:GLU:OE2	2.31	0.62
9:J:230:ASN:O	9:J:233:VAL:HG12	1.99	0.62
12:N:383:GLU:HA	12:N:387:LEU:HB2	1.82	0.62
1:A:1851:THR:O	1:A:1855:THR:HG23	2.00	0.62
3:C:354:PHE:CE2	3:C:370:LEU:HB3	2.35	0.62
9:J:493:GLY:HA2	9:J:495:PHE:CZ	2.35	0.62
12:N:151:GLU:HA	12:N:154:HIS:HD2	1.64	0.62
6:F:82:LEU:HB3	6:F:84:LYS:HZ2	1.65	0.62
8:I:388:GLU:O	8:I:391:THR:OG1	2.13	0.62
8:I:474:ARG:HH21	8:I:490:PRO:HA	1.65	0.62
8:I:640:ASP:OD1	8:I:641:ALA:N	2.32	0.62
12:N:109:LEU:HD21	12:N:239:GLN:HG3	1.82	0.62
1:A:588:ARG:O	1:A:596:THR:HG22	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:389:ARG:HH21	13:O:276:HIS:CD2	2.18	0.62
9:J:441:VAL:HG21	9:J:444:TRP:CD1	2.34	0.62
10:L:46:ARG:HH12	10:L:157:LYS:HA	1.63	0.62
15:Y:184:GLN:HB3	15:Y:187:PRO:HG2	1.82	0.62
15:Y:373:VAL:O	15:Y:377:LEU:HG	2.00	0.62
8:I:620:PHE:HD2	8:I:707:PHE:HE1	1.48	0.61
8:I:624:THR:O	8:I:711:TRP:NE1	2.32	0.61
9:J:445:GLU:OE2	9:J:475:ILE:HG21	2.00	0.61
12:N:59:VAL:HA	12:N:62:LEU:HD12	1.82	0.61
13:O:397:LYS:O	13:O:398:LEU:HB2	2.00	0.61
15:Y:73:PRO:HA	15:Y:76:LYS:HD2	1.82	0.61
1:A:178:ALA:HB2	1:A:192:SER:HB3	1.82	0.61
1:A:1376:LEU:HD23	1:A:1377:LYS:HG3	1.82	0.61
3:C:122:ARG:O	3:C:125:SER:OG	2.15	0.61
8:I:302:ASP:OD1	8:I:303:GLU:N	2.33	0.61
9:J:500:ASP:O	9:J:503:HIS:HB2	2.00	0.61
9:K:236:SER:HA	9:K:239:GLU:CD	2.20	0.61
15:X:203:LEU:HD11	15:X:239:TRP:HZ3	1.63	0.61
3:C:100:ASP:OD1	3:C:100:ASP:N	2.33	0.61
3:C:210:CYS:HA	3:C:237:ILE:HD11	1.82	0.61
6:F:28:ALA:HB1	6:F:44:LEU:HD22	1.82	0.61
8:I:28:TRP:HA	8:I:35:ILE:HD13	1.82	0.61
8:I:734:LEU:HA	8:I:741:VAL:HG12	1.82	0.61
9:K:351:ASP:OD1	9:K:352:GLN:N	2.33	0.61
12:N:509:TYR:H	12:N:510:GLY:HA2	1.64	0.61
1:A:1373:MET:O	1:A:1376:LEU:HB2	2.00	0.61
10:L:85:SER:HB2	10:L:154:ARG:NH2	2.15	0.61
12:N:253:LEU:O	12:N:257:SER:N	2.33	0.61
13:O:727:THR:HA	13:O:730:ARG:HB3	1.82	0.61
1:A:1912:ALA:HA	1:A:1915:LEU:HB3	1.82	0.61
3:C:334:CYS:SG	3:C:357:ALA:HB2	2.41	0.61
3:C:368:TRP:HB3	3:C:391:ALA:HB2	1.82	0.61
6:F:471:LYS:HA	6:F:474:LEU:HD12	1.81	0.61
8:I:115:TRP:HE1	8:I:176:LEU:CB	2.13	0.61
9:J:252:LYS:O	9:J:255:SER:OG	2.19	0.61
9:J:441:VAL:HG21	9:J:444:TRP:HD1	1.65	0.61
15:Y:475:TYR:CE2	15:Y:477:LYS:HB3	2.35	0.61
6:F:47:CYS:O	6:F:51:SER:OG	2.19	0.61
8:I:369:MET:HB3	8:I:376:TYR:CE2	2.35	0.61
9:J:51:ALA:HA	9:J:53:TYR:CE1	2.36	0.61
9:J:247:PHE:O	9:J:250:CYS:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:179:MET:HG3	10:L:180:TYR:CD2	2.36	0.61
15:Y:513:ARG:NH1	15:Y:517:ASP:OD2	2.33	0.61
1:A:1102:ILE:HG12	1:A:1171:GLU:OE2	2.01	0.61
12:N:334:ARG:NH1	12:N:369:ASP:OD1	2.34	0.61
1:A:34:ALA:O	13:O:237:GLN:NE2	2.33	0.61
1:A:771:GLU:OE2	1:A:844:ILE:N	2.34	0.61
6:F:559:LEU:HD23	6:F:569:ALA:HA	1.82	0.61
6:F:739:VAL:O	6:F:743:ILE:HG13	2.01	0.61
6:H:712:VAL:HG12	6:H:716:ASN:HD21	1.65	0.61
12:N:615:ILE:HG12	12:N:619:LEU:HD12	1.83	0.61
13:O:493:LEU:O	13:O:497:PHE:N	2.32	0.61
15:X:199:CYS:SG	15:X:202:ALA:HB2	2.41	0.61
1:A:124:GLN:HB2	1:A:154:LEU:HG	1.83	0.61
1:A:1734:LYS:O	1:A:1737:THR:OG1	2.19	0.61
8:I:74:ARG:NH1	8:I:166:LYS:O	2.34	0.61
8:I:452:LEU:HD12	8:I:453:THR:N	2.15	0.61
9:J:125:GLN:HA	9:J:128:ILE:HD12	1.81	0.61
3:P:389:ARG:O	3:P:392:ILE:HG12	2.01	0.61
1:A:1489:HIS:CD2	1:A:1493:LYS:HE3	2.35	0.60
1:A:1658:PRO:HG3	1:A:1663:LEU:HD13	1.83	0.60
3:C:324:CYS:SG	3:C:328:LYS:HE3	2.41	0.60
8:I:309:LEU:HD22	13:O:61:ASN:OD1	2.01	0.60
9:J:442:ASP:HA	9:J:474:LEU:HD21	1.83	0.60
15:X:462:LYS:HG2	15:X:485:LEU:HD21	1.81	0.60
1:A:1433:ILE:HG22	1:A:1457:LEU:HD11	1.82	0.60
3:C:235:ALA:HB1	3:C:251:TYR:CE2	2.36	0.60
6:F:512:LEU:HD12	6:F:513:SER:H	1.66	0.60
6:H:29:GLU:OE2	6:H:48:TYR:OH	2.19	0.60
8:I:622:SER:HB2	8:I:633:ARG:HH21	1.66	0.60
10:L:35:SER:OG	10:L:56:SER:HA	2.00	0.60
12:N:112:LEU:HD21	12:N:243:LEU:HB2	1.84	0.60
15:X:270:ASN:HB3	15:X:273:LEU:HB2	1.82	0.60
15:X:338:HIS:HB3	15:X:340:GLU:OE1	2.00	0.60
1:A:174:PRO:HG2	1:A:175:PHE:HD2	1.65	0.60
1:A:1864:GLY:HA2	1:A:1867:CYS:SG	2.41	0.60
3:C:531:THR:O	3:C:535:LYS:HG2	2.01	0.60
13:O:357:SER:HB2	13:O:358:TYR:CD2	2.36	0.60
6:F:516:MET:N	6:F:516:MET:SD	2.74	0.60
6:H:736:GLU:OE2	10:L:173:THR:N	2.31	0.60
10:L:82:ASP:HA	10:L:117:SER:HA	1.81	0.60
12:N:292:TRP:HE3	12:N:293:ILE:HD13	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:570:ILE:HA	12:N:573:ASN:ND2	2.17	0.60
12:N:571:ASN:ND2	12:N:593:ALA:H	1.98	0.60
13:O:336:ASP:O	13:O:337:HIS:ND1	2.35	0.60
13:O:547:LYS:HE3	13:O:551:LEU:HD13	1.83	0.60
15:Y:215:LYS:O	15:Y:218:GLU:N	2.34	0.60
1:A:212:SER:OG	1:A:221:THR:OG1	2.13	0.60
8:I:185:ILE:HG12	8:I:201:ILE:HG13	1.83	0.60
12:N:164:SER:N	12:N:165:THR:HA	2.17	0.60
1:A:612:ILE:HG13	1:A:641:TRP:CZ3	2.37	0.60
5:E:86:VAL:HG22	6:H:589:PHE:CE1	2.37	0.60
12:N:706:ARG:O	12:N:714:SER:N	2.34	0.60
13:O:53:SER:H	13:O:56:GLU:HB2	1.66	0.60
3:P:331:VAL:HG21	3:P:361:ASN:HB2	1.83	0.60
15:X:466:ASP:O	15:X:470:THR:HG23	2.01	0.60
8:I:207:ALA:HB3	8:I:220:VAL:HB	1.82	0.60
13:O:407:LEU:O	13:O:411:LYS:HB2	2.02	0.60
15:Y:140:TYR:CZ	15:Y:170:LYS:HD3	2.37	0.60
1:A:980:ARG:HG3	1:A:983:LEU:H	1.66	0.60
6:H:165:ASP:OD1	6:H:467:ARG:HD2	2.00	0.60
9:J:478:ASN:OD1	9:J:480:SER:N	2.35	0.60
12:N:361:LEU:HD23	12:N:410:LEU:HD11	1.83	0.60
15:Y:143:ALA:HB2	15:Y:159:LEU:HD21	1.82	0.60
15:Y:457:THR:OG1	15:Y:460:LYS:NZ	2.19	0.60
1:A:1785:GLU:OE1	1:A:1785:GLU:N	2.34	0.60
8:I:102:HIS:CE1	8:I:263:GLN:HE22	2.20	0.60
9:K:465:LEU:HB3	9:K:469:ARG:NH1	2.17	0.60
12:N:811:SER:O	12:N:816:ARG:NH2	2.34	0.60
1:A:1462:VAL:HG11	1:A:1512:LEU:HD21	1.84	0.60
1:A:1589:TYR:HE2	1:A:1591:HIS:HB2	1.67	0.60
3:C:254:LEU:O	3:C:257:VAL:HG12	2.02	0.60
5:E:99:ILE:O	5:E:102:LEU:N	2.35	0.60
6:F:537:GLU:OE1	6:F:537:GLU:N	2.35	0.60
8:I:655:ASP:N	8:I:663:ASP:O	2.22	0.60
9:J:315:LYS:O	9:J:318:HIS:N	2.33	0.60
9:J:476:PRO:HG2	3:P:182:LEU:HG	1.84	0.60
10:L:73:THR:HA	10:L:133:ARG:HA	1.82	0.60
3:C:96:VAL:N	3:C:97:LYS:HA	2.15	0.59
6:H:590:PHE:HB2	6:H:607:LEU:HD13	1.84	0.59
9:J:469:ARG:O	9:J:473:VAL:HG23	2.02	0.59
1:A:24:GLY:HA3	1:A:94:TYR:CG	2.37	0.59
10:L:70:ARG:O	10:L:72:THR:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:476:LEU:O	3:P:480:LEU:N	2.28	0.59
1:A:880:TYR:CE1	1:A:958:ALA:HB2	2.37	0.59
7:G:2:LEU:HD11	9:J:276:VAL:HG21	1.82	0.59
12:N:480:TRP:CE3	12:N:482:PRO:HA	2.38	0.59
13:O:657:ILE:HD12	13:O:700:TYR:HD1	1.67	0.59
13:O:671:GLN:OE1	13:O:693:ASN:ND2	2.35	0.59
1:A:867:CYS:O	1:A:870:SER:OG	2.18	0.59
8:I:186:GLU:HB3	8:I:188:TYR:HE1	1.67	0.59
9:J:66:ASP:OD1	9:J:67:LYS:N	2.35	0.59
13:O:513:LYS:NZ	13:O:542:GLU:OE1	2.27	0.59
3:P:36:LEU:HB3	3:P:59:ALA:HB2	1.84	0.59
1:A:628:ILE:HD12	1:A:761:ALA:HB1	1.84	0.59
1:A:1046:PRO:HD3	1:A:1106:ASN:HD21	1.68	0.59
1:A:1571:ARG:NH2	1:A:1694:ASP:HB2	2.17	0.59
3:C:145:GLN:NE2	13:O:206:PRO:O	2.28	0.59
3:C:550:LEU:HD23	3:C:553:ILE:HD11	1.83	0.59
8:I:56:TRP:CD2	8:I:98:PRO:HB3	2.37	0.59
10:L:44:GLN:HA	10:L:47:ASP:OD1	2.03	0.59
12:N:754:PHE:CZ	12:N:782:VAL:HG22	2.37	0.59
1:A:1571:ARG:NH1	1:A:1694:ASP:O	2.35	0.59
8:I:491:ASN:OD1	8:I:493:GLU:N	2.35	0.59
7:W:25:ASP:H	7:W:26:LEU:HA	1.67	0.59
6:F:625:ARG:HB3	6:F:629:ARG:HH21	1.67	0.59
8:I:90:ILE:N	8:I:104:PHE:O	2.36	0.59
9:K:258:MET:HG3	9:K:271:HIS:CD2	2.37	0.59
9:K:291:LEU:HD23	9:K:301:SER:HA	1.84	0.59
12:N:612:PRO:O	12:N:616:ARG:HG3	2.02	0.59
15:X:210:LEU:HD12	15:X:244:ALA:HA	1.84	0.59
15:Y:80:LEU:HB3	15:Y:103:ALA:HB2	1.85	0.59
3:C:307:LEU:HD22	3:C:316:LEU:HB2	1.85	0.59
6:H:77:LYS:NZ	6:H:120:LEU:HD21	2.18	0.59
8:I:122:SER:HB3	8:I:125:LEU:HD12	1.85	0.59
12:N:158:ARG:HD3	12:N:255:ARG:HE	1.68	0.59
12:N:560:MET:O	12:N:564:MET:HG2	2.02	0.59
3:P:398:ASP:OD2	3:P:399:TYR:N	2.36	0.59
3:P:400:ARG:CZ	17:Q:499:ARG:CA	2.79	0.59
7:W:12:LYS:O	7:W:15:ASP:N	2.27	0.59
15:X:49:LEU:HD13	15:X:52:ASN:HB2	1.85	0.59
6:F:120:LEU:O	6:F:124:VAL:HG23	2.03	0.59
6:H:482:LYS:HA	6:H:485:ILE:HD12	1.84	0.59
6:H:684:LYS:NZ	6:H:687:LYS:HD3	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:58:HIS:ND1	9:K:262:PRO:HD3	2.18	0.59
15:Y:54:ARG:HB2	15:Y:86:SER:HB2	1.85	0.59
6:F:85:LEU:N	6:F:87:GLU:OE2	2.36	0.59
8:I:111:SER:OG	8:I:205:CYS:O	2.15	0.59
8:I:725:ASN:ND2	8:I:728:ARG:HB2	2.17	0.59
15:Y:364:LYS:HE2	15:Y:368:LEU:HD11	1.84	0.59
15:Y:405:CYS:N	15:Y:410:TYR:OH	2.35	0.59
15:Y:476:ILE:HG13	15:Y:477:LYS:H	1.68	0.59
2:B:10:GLY:N	12:N:592:TYR:O	2.35	0.58
6:H:712:VAL:O	6:H:716:ASN:ND2	2.35	0.58
9:K:288:SER:HB3	9:K:305:VAL:HG22	1.85	0.58
15:Y:146:TYR:HD1	15:Y:149:LEU:HD12	1.68	0.58
1:A:759:ILE:O	1:A:762:ILE:N	2.35	0.58
1:A:953:LEU:HD22	1:A:1817:VAL:HG13	1.85	0.58
1:A:1595:HIS:NE2	1:A:1598:ASP:HB2	2.18	0.58
6:H:567:PRO:O	6:H:571:CYS:CB	2.50	0.58
8:I:591:LEU:HB3	8:I:596:TYR:CE1	2.39	0.58
8:I:597:LYS:HE2	8:I:617:ALA:HB1	1.85	0.58
13:O:435:SER:OG	13:O:436:THR:N	2.36	0.58
13:O:577:THR:HG22	13:O:581:ILE:HD11	1.86	0.58
3:P:35:GLN:HE21	3:P:201:LEU:HD11	1.67	0.58
15:Y:93:TYR:O	15:Y:97:VAL:HG23	2.02	0.58
9:K:440:THR:HG21	9:K:443:LYS:HD3	1.85	0.58
15:X:384:ARG:NH1	15:X:412:GLY:O	2.36	0.58
1:A:1155:SER:OG	1:A:1156:ALA:N	2.36	0.58
1:A:1727:ASN:HB2	12:N:163:PHE:HE2	1.66	0.58
3:C:97:LYS:HD2	3:C:99:TYR:OH	2.03	0.58
3:C:444:GLU:O	3:C:447:ASN:N	2.30	0.58
6:H:113:SER:O	6:H:117:THR:HG23	2.03	0.58
6:H:651:PHE:O	6:H:654:ALA:N	2.36	0.58
12:N:118:LEU:O	12:N:122:LEU:HB3	2.04	0.58
12:N:509:TYR:N	12:N:510:GLY:HA2	2.18	0.58
1:A:715:TYR:CE1	13:O:750:PRO:HD2	2.35	0.58
9:K:371:MET:SD	9:K:393:GLN:NE2	2.59	0.58
10:L:73:THR:OG1	10:L:133:ARG:NE	2.24	0.58
3:P:299:ASN:O	3:P:301:ASP:N	2.36	0.58
15:X:219:VAL:O	15:X:223:THR:HG23	2.02	0.58
15:Y:311:TYR:HE2	15:Y:327:LEU:HD22	1.68	0.58
1:A:1528:ALA:O	1:A:1573:SER:OG	2.20	0.58
6:F:639:TYR:CD1	6:F:672:LEU:HD13	2.36	0.58
7:G:4:ARG:HH21	9:J:345:ALA:HB1	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:2:ASN:N	9:K:196:GLU:OE1	2.37	0.58
13:O:274:LEU:HD11	13:O:306:ASN:ND2	2.18	0.58
3:P:243:LEU:HG	3:P:246:GLU:HB3	1.85	0.58
15:X:149:LEU:HB3	15:X:151:GLN:HE21	1.67	0.58
15:X:279:ASP:HA	15:X:282:PHE:HB3	1.85	0.58
1:A:209:THR:OG1	1:A:210:MET:N	2.34	0.58
1:A:272:ARG:HH12	1:A:275:LYS:HZ2	1.52	0.58
1:A:1567:LEU:HB3	1:A:1572:TYR:O	2.03	0.58
1:A:1603:LEU:HD23	1:A:1603:LEU:O	2.04	0.58
8:I:45:LEU:HG	8:I:57:SER:HA	1.85	0.58
13:O:370:HIS:CD2	13:O:371:PHE:H	2.20	0.58
2:B:3:VAL:H	12:N:671:GLN:NE2	2.01	0.58
6:F:148:LEU:HB3	6:F:151:PRO:HG2	1.84	0.58
6:H:12:ILE:HD11	6:H:27:LEU:HB2	1.85	0.58
15:X:225:ASN:O	15:X:229:THR:HG23	2.03	0.58
1:A:1041:LEU:HD21	1:A:1562:LEU:HD23	1.86	0.58
1:A:1378:THR:HG23	1:A:1380:ASN:H	1.68	0.58
3:C:338:GLY:HA3	3:C:354:PHE:CE1	2.39	0.58
3:C:483:SER:HG	3:C:515:TYR:HH	1.51	0.58
4:D:53:PRO:HB3	3:P:385:ILE:HG21	1.85	0.58
6:H:35:VAL:HG12	6:H:37:SER:H	1.67	0.58
8:I:186:GLU:HG3	8:I:197:ARG:HG3	1.84	0.58
8:I:604:HIS:ND1	8:I:606:ASP:HB3	2.19	0.58
3:P:491:ILE:HB	3:P:519:TYR:CZ	2.38	0.58
1:A:585:HIS:N	1:A:598:GLU:O	2.37	0.58
1:A:951:ILE:O	1:A:954:PRO:HD2	2.04	0.58
1:A:1074:CYS:O	1:A:1078:MET:HG2	2.04	0.58
6:F:82:LEU:HB3	6:F:84:LYS:NZ	2.19	0.58
6:H:549:ASP:OD1	6:H:550:VAL:N	2.37	0.58
6:H:708:HIS:O	6:H:712:VAL:HG23	2.03	0.58
8:I:160:ASN:O	8:I:164:ILE:HD12	2.04	0.58
9:K:276:VAL:HG21	7:W:2:LEU:HD21	1.85	0.58
15:X:52:ASN:OD1	15:Y:203:LEU:N	2.37	0.58
15:X:336:ASP:OD1	15:X:337:GLN:N	2.31	0.58
15:X:434:TYR:O	15:X:438:GLY:N	2.37	0.58
1:A:25:ARG:O	1:A:29:LYS:NZ	2.32	0.57
1:A:27:HIS:HB3	1:A:101:ILE:HD13	1.86	0.57
8:I:318:GLN:NE2	8:I:319:THR:HG23	2.18	0.57
8:I:406:VAL:O	8:I:409:SER:OG	2.15	0.57
9:K:13:TYR:HD1	9:K:18:GLN:HB2	1.69	0.57
3:P:441:GLU:O	3:P:445:LYS:HG3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:169:PRO:HA	15:Y:172:ASN:ND2	2.19	0.57
5:E:89:LEU:HD11	6:H:592:ARG:HG2	1.84	0.57
8:I:676:ASN:HB3	8:I:703:ARG:HH12	1.69	0.57
12:N:263:THR:O	12:N:267:GLN:HG3	2.04	0.57
13:O:357:SER:HB2	13:O:358:TYR:HD2	1.69	0.57
15:Y:260:SER:O	15:Y:264:LYS:NZ	2.34	0.57
15:Y:509:CYS:HA	15:Y:512:HIS:HD2	1.69	0.57
8:I:308:LEU:O	13:O:130:SER:OG	2.22	0.57
9:K:386:LEU:H	9:K:386:LEU:HD12	1.69	0.57
1:A:183:THR:OG1	1:A:184:LYS:N	2.38	0.57
1:A:641:TRP:NE1	1:A:660:PHE:HD1	2.01	0.57
1:A:1221:ASP:OD1	1:A:1223:SER:N	2.35	0.57
1:A:1357:THR:O	10:L:69:ARG:NH2	2.36	0.57
12:N:654:THR:HB	12:N:724:ARG:HH21	1.69	0.57
3:P:214:THR:OG1	3:P:215:ASP:OD1	2.15	0.57
15:Y:338:HIS:O	15:Y:341:PRO:HD2	2.03	0.57
1:A:244:MET:HG3	1:A:258:THR:HG21	1.86	0.57
1:A:1134:TRP:CZ3	1:A:1605:ALA:HB2	2.40	0.57
1:A:1909:THR:H	1:A:1936:LEU:HD22	1.70	0.57
3:C:286:PHE:HB3	3:C:303:PHE:HD1	1.69	0.57
6:H:146:PRO:O	6:H:148:LEU:HG	2.04	0.57
6:H:500:TRP:O	6:H:504:GLN:HG2	2.05	0.57
9:J:86:HIS:HB2	9:J:143:LEU:HD21	1.87	0.57
9:K:452:GLY:HA3	9:K:468:HIS:CE1	2.40	0.57
10:L:53:TYR:HB3	10:L:154:ARG:HD3	1.86	0.57
13:O:365:VAL:HG21	13:O:381:ILE:HG13	1.86	0.57
13:O:450:SER:HB3	13:O:461:ASN:HB2	1.86	0.57
3:P:409:TYR:CE2	3:P:421:TYR:HE2	2.21	0.57
1:A:799:LEU:HD21	1:A:837:PHE:HZ	1.68	0.57
1:A:949:PHE:HA	1:A:952:ALA:HB3	1.85	0.57
1:A:963:ARG:NH1	1:A:979:GLY:H	2.03	0.57
6:F:80:VAL:HG21	6:F:120:LEU:HD11	1.87	0.57
9:J:456:ARG:HD2	9:J:487:TYR:HD2	1.69	0.57
9:K:455:CYS:SG	9:K:460:LYS:HG3	2.44	0.57
12:N:187:SER:O	12:N:191:GLY:N	2.37	0.57
12:N:558:GLU:O	12:N:561:LEU:HG	2.05	0.57
12:N:806:GLN:O	12:N:806:GLN:HG2	2.04	0.57
15:Y:291:VAL:O	15:Y:295:GLU:HG3	2.04	0.57
3:C:228:TRP:O	3:C:231:GLU:N	2.37	0.57
3:C:474:ALA:HB1	3:C:490:TYR:CE2	2.40	0.57
6:F:15:ALA:O	6:F:19:TYR:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:703:PRO:HG2	6:H:704:LEU:HD12	1.87	0.57
6:H:731:GLN:O	15:X:184:GLN:HG3	2.05	0.57
6:H:758:MET:SD	15:X:432:ASN:ND2	2.78	0.57
8:I:181:SER:H	8:I:204:THR:HA	1.70	0.57
8:I:204:THR:O	8:I:221:THR:OG1	2.23	0.57
9:J:405:MET:HB2	9:J:428:ALA:HB2	1.84	0.57
10:L:60:GLN:NE2	10:L:144:ASN:OD1	2.38	0.57
13:O:249:ASP:HA	13:O:280:ARG:HH21	1.69	0.57
6:F:524:GLU:OE2	6:F:527:ARG:NH2	2.37	0.57
6:H:492:PRO:O	6:H:494:HIS:ND1	2.38	0.57
8:I:389:ALA:O	8:I:393:VAL:HG23	2.05	0.57
15:X:400:ILE:HD11	15:X:413:LEU:HD22	1.85	0.57
1:A:799:LEU:HD21	1:A:837:PHE:CZ	2.39	0.57
4:D:26:GLU:HG3	4:D:27:GLU:H	1.69	0.57
6:H:696:ILE:HD13	6:H:706:LYS:HG2	1.86	0.57
8:I:305:MET:O	8:I:308:LEU:N	2.38	0.57
10:L:125:THR:HA	10:L:126:ASP:HB3	1.86	0.57
12:N:274:GLU:HA	12:N:277:CYS:SG	2.44	0.57
12:N:414:MET:HB3	12:N:418:GLU:HG3	1.87	0.57
12:N:589:PHE:O	12:N:591:VAL:HG13	2.04	0.57
12:N:605:LYS:HZ2	12:N:638:LYS:HB2	1.68	0.57
13:O:682:LYS:O	13:O:685:GLU:HG2	2.04	0.57
1:A:963:ARG:NH2	1:A:1785:GLU:OE2	2.37	0.57
9:K:51:ALA:HA	9:K:53:TYR:CZ	2.39	0.57
9:K:212:TYR:OH	9:K:368:HIS:ND1	2.32	0.57
9:K:230:ASN:OD1	9:K:231:LEU:N	2.37	0.57
10:L:175:ILE:HA	10:L:178:MET:HB2	1.86	0.57
13:O:611:SER:OG	13:O:612:LYS:N	2.36	0.57
1:A:597:LEU:HD12	1:A:597:LEU:O	2.05	0.56
1:A:827:GLN:HE21	1:A:829:GLY:H	1.52	0.56
3:C:372:GLY:O	3:C:375:TYR:N	2.38	0.56
3:C:490:TYR:CE1	3:C:512:ALA:HA	2.39	0.56
6:F:737:SER:HA	6:F:740:TYR:HD2	1.70	0.56
8:I:361:TYR:O	8:I:365:GLU:HG2	2.05	0.56
12:N:362:LYS:HB2	12:N:410:LEU:HD23	1.87	0.56
3:P:527:ASP:O	3:P:531:THR:HG23	2.05	0.56
15:Y:499:LEU:HD23	15:Y:515:LEU:HD13	1.87	0.56
6:F:152:PHE:HA	6:F:155:LEU:HD12	1.87	0.56
12:N:345:PHE:O	12:N:348:VAL:HG12	2.05	0.56
12:N:345:PHE:CZ	12:N:399:LEU:HD21	2.40	0.56
3:P:437:VAL:HG12	3:P:441:GLU:OE2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:13:LEU:O	7:W:16:ILE:N	2.37	0.56
1:A:127:LEU:HD12	1:A:152:CYS:HB3	1.87	0.56
1:A:215:HIS:O	1:A:217:LEU:N	2.37	0.56
1:A:267:SER:OG	1:A:269:TRP:NE1	2.16	0.56
1:A:1563:GLY:O	1:A:1566:PHE:N	2.38	0.56
1:A:1900:LEU:HD12	1:A:1921:LEU:HG	1.87	0.56
3:C:167:LEU:HD23	3:C:172:LEU:HD23	1.88	0.56
7:G:4:ARG:N	9:J:373:TYR:OH	2.27	0.56
6:H:486:ASN:OD1	6:H:490:HIS:NE2	2.38	0.56
8:I:102:HIS:NE2	8:I:104:PHE:HB3	2.21	0.56
9:J:33:SER:OG	9:J:34:ARG:N	2.37	0.56
9:J:474:LEU:HD23	9:J:475:ILE:HG23	1.86	0.56
12:N:162:PHE:CB	12:N:255:ARG:HH12	2.18	0.56
3:P:195:ALA:HA	3:P:198:VAL:HG22	1.87	0.56
3:P:235:ALA:HB1	3:P:251:TYR:CE2	2.40	0.56
3:P:253:ASN:O	3:P:257:VAL:HG23	2.04	0.56
3:P:513:PHE:CD1	3:P:535:LYS:HB3	2.39	0.56
1:A:1659:GLU:OE1	1:A:1661:HIS:NE2	2.37	0.56
2:B:19:ASN:H	2:B:48:TRP:HE1	1.52	0.56
3:C:327:ASP:O	3:C:333:THR:HG21	2.05	0.56
6:H:522:PHE:HE2	6:H:538:ILE:HG22	1.70	0.56
8:I:558:ARG:N	8:I:692:ARG:HE	2.02	0.56
9:J:190:LEU:O	9:J:198:GLN:NE2	2.36	0.56
10:L:179:MET:HG3	10:L:180:TYR:HD2	1.69	0.56
12:N:15:ARG:O	12:N:19:GLU:N	2.25	0.56
12:N:567:SER:OG	12:N:595:ILE:N	2.38	0.56
12:N:638:LYS:HE2	12:N:641:LEU:HD12	1.86	0.56
3:P:187:GLU:H	3:P:187:GLU:CD	2.08	0.56
15:X:262:GLU:HA	15:X:267:LEU:O	2.05	0.56
15:X:407:LEU:HD11	15:X:437:LEU:HD21	1.88	0.56
1:A:1141:VAL:HG11	1:A:1608:HIS:CD2	2.40	0.56
2:B:6:LYS:HB3	12:N:645:THR:HG23	1.88	0.56
8:I:25:PHE:HE2	8:I:71:LEU:H	1.51	0.56
9:J:270:VAL:O	9:J:274:THR:HG23	2.06	0.56
12:N:629:LEU:HB3	12:N:633:ARG:NH1	2.20	0.56
15:X:495:GLY:HA3	15:X:518:PHE:CE2	2.40	0.56
15:Y:396:PHE:O	15:Y:400:ILE:HG23	2.06	0.56
15:Y:510:VAL:HG13	15:Y:513:ARG:HH21	1.70	0.56
1:A:451:GLN:HB2	1:A:475:PRO:HA	1.86	0.56
6:F:147:PHE:HE1	6:H:8:VAL:HG12	1.70	0.56
8:I:231:VAL:HG13	8:I:556:LEU:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:49:LEU:HD12	9:K:50:THR:HG23	1.88	0.56
9:K:465:LEU:HG	9:K:488:ILE:HG21	1.87	0.56
10:L:49:ASN:HB3	10:L:51:GLU:CD	2.26	0.56
12:N:422:GLU:OE2	12:N:426:ARG:NE	2.38	0.56
13:O:513:LYS:HG2	13:O:546:ARG:HH21	1.70	0.56
3:P:227:THR:O	3:P:230:LYS:N	2.31	0.56
15:Y:92:GLU:OE1	15:Y:96:ALA:N	2.37	0.56
1:A:1856:LEU:HD13	1:A:1892:HIS:HE1	1.70	0.56
6:F:517:GLN:HA	6:F:520:ARG:HH11	1.71	0.56
8:I:572:PHE:CZ	8:I:588:PHE:HA	2.40	0.56
8:I:621:GLY:H	8:I:705:MET:C	2.09	0.56
9:J:24:PHE:O	9:J:28:LYS:HG2	2.05	0.56
9:K:210:LYS:HG2	9:K:213:ASN:HD22	1.71	0.56
13:O:294:GLU:HA	13:O:298:ARG:HH11	1.71	0.56
15:X:168:THR:OG1	15:X:171:ILE:HG12	2.05	0.56
15:X:453:GLU:OE2	15:X:488:ARG:NH1	2.38	0.56
15:Y:394:ILE:HG22	15:Y:397:ARG:NH2	2.21	0.56
1:A:76:LEU:HG	1:A:92:GLU:HB3	1.87	0.56
1:A:1281:PRO:HB2	1:A:1349:SER:HB2	1.88	0.56
3:C:33:LYS:HD2	3:C:62:LEU:HB2	1.86	0.56
3:C:298:GLU:OE2	3:P:101:ARG:NH2	2.39	0.56
12:N:704:VAL:HA	12:N:719:GLU:HG2	1.86	0.56
13:O:637:PRO:HB2	13:O:674:SER:OG	2.06	0.56
15:X:51:SER:O	15:X:54:ARG:HB3	2.06	0.56
15:X:413:LEU:HD12	15:X:414:ILE:HG13	1.88	0.56
1:A:275:LYS:O	1:A:277:GLU:N	2.39	0.56
3:C:148:ASN:HB3	3:C:151:LEU:HG	1.87	0.56
9:J:190:LEU:C	9:J:198:GLN:HE22	2.09	0.56
9:K:441:VAL:HB	9:K:474:LEU:HD22	1.87	0.56
15:X:383:LEU:HG	15:X:388:ARG:HB2	1.86	0.56
15:Y:287:ASN:O	15:Y:291:VAL:HG23	2.05	0.56
1:A:763:PHE:CD1	1:A:793:LEU:HD22	2.41	0.56
1:A:985:LYS:HD3	1:A:1698:TYR:CZ	2.41	0.56
1:A:1195:ASP:O	1:A:1198:THR:OG1	2.19	0.56
1:A:1631:TYR:HE2	1:A:1709:LYS:HE2	1.72	0.56
3:C:372:GLY:HA3	3:C:388:TYR:CE1	2.41	0.56
6:F:140:LYS:HE3	6:F:144:LEU:HD11	1.87	0.56
8:I:665:LEU:HG	8:I:713:LEU:HG	1.87	0.56
9:K:90:LEU:HB2	9:K:139:ILE:HG21	1.88	0.56
10:L:174:THR:O	10:L:176:ASP:N	2.39	0.56
15:X:194:GLU:HA	15:X:197:ARG:HG2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:254:SER:OG	1:A:271:LEU:HB2	2.06	0.55
1:A:975:CYS:SG	1:A:983:LEU:HB3	2.47	0.55
1:A:1086:MET:HE1	1:A:1560:MET:HG3	1.87	0.55
2:B:7:CYS:SG	2:B:8:TRP:N	2.79	0.55
3:C:185:VAL:O	3:C:189:ILE:HG13	2.05	0.55
9:J:333:TYR:O	9:J:337:TRP:HD1	1.88	0.55
9:K:400:GLU:OE2	9:K:431:LYS:NZ	2.28	0.55
12:N:811:SER:OG	12:N:816:ARG:NE	2.29	0.55
3:P:111:SER:OG	3:P:112:LYS:N	2.37	0.55
8:I:168:LEU:HB3	8:I:253:ARG:HH12	1.69	0.55
8:I:317:LEU:HD13	8:I:320:LEU:HD13	1.87	0.55
8:I:619:LYS:HB2	8:I:702:THR:HG22	1.88	0.55
3:P:192:PHE:HB3	3:P:209:LEU:HD22	1.87	0.55
1:A:1167:GLU:HG2	1:A:1168:LEU:H	1.72	0.55
1:A:1641:THR:OG1	1:A:1642:GLN:N	2.36	0.55
1:A:1725:ASN:C	1:A:1727:ASN:H	2.08	0.55
15:Y:384:ARG:HG3	15:Y:416:CYS:SG	2.47	0.55
1:A:1849:LYS:HA	1:A:1852:ILE:HD12	1.87	0.55
10:L:126:ASP:OD1	10:L:130:LYS:HB2	2.07	0.55
13:O:525:TYR:CZ	13:O:553:ALA:HB1	2.41	0.55
3:P:477:HIS:CD2	3:P:480:LEU:HD22	2.41	0.55
15:X:465:LEU:HG	15:X:482:LYS:HD2	1.87	0.55
3:C:547:LYS:O	3:C:551:ARG:HG2	2.07	0.55
8:I:22:GLU:OE1	8:I:22:GLU:N	2.39	0.55
10:L:82:ASP:OD1	10:L:85:SER:OG	2.21	0.55
15:X:331:LEU:HD12	15:X:334:ILE:HD11	1.88	0.55
15:X:375:ALA:HA	15:X:378:LEU:HD12	1.89	0.55
1:A:95:VAL:HG22	1:A:100:VAL:HG22	1.87	0.55
1:A:1155:SER:HB2	1:A:1184:HIS:CE1	2.42	0.55
6:H:567:PRO:O	6:H:571:CYS:HB2	2.06	0.55
8:I:361:TYR:O	8:I:364:SER:OG	2.21	0.55
8:I:750:ASP:OD1	8:I:751:GLU:N	2.38	0.55
12:N:480:TRP:O	12:N:480:TRP:CG	2.59	0.55
3:P:151:LEU:HB3	3:P:182:LEU:HD11	1.89	0.55
15:Y:265:SER:OG	15:Y:268:ARG:NH2	2.39	0.55
2:B:4:LYS:NZ	12:N:649:GLU:OE1	2.38	0.55
8:I:202:ALA:O	8:I:221:THR:OG1	2.22	0.55
9:J:258:MET:HE1	9:J:268:LEU:HD23	1.88	0.55
13:O:516:PHE:CE1	13:O:546:ARG:HD2	2.42	0.55
3:P:167:LEU:HD23	3:P:172:LEU:HD13	1.89	0.55
15:X:443:THR:O	15:X:446:LEU:HG	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:532:TYR:CD2	15:Y:545:SER:HA	2.42	0.55
1:A:1063:ILE:HG23	1:A:1066:LYS:HE3	1.88	0.55
4:D:45:ALA:HA	3:P:378:MET:SD	2.47	0.55
5:E:82:LEU:O	5:E:86:VAL:HG23	2.07	0.55
6:H:121:LEU:HB3	6:H:137:CYS:SG	2.47	0.55
12:N:704:VAL:HA	12:N:719:GLU:CG	2.37	0.55
12:N:806:GLN:OE1	16:S:499:ARG:NH1	2.40	0.55
3:P:151:LEU:HD23	3:P:154:LEU:HD13	1.87	0.55
3:P:334:CYS:SG	3:P:357:ALA:HB2	2.47	0.55
15:X:445:THR:O	15:X:449:THR:HG23	2.07	0.55
3:C:78:GLU:OE1	3:C:78:GLU:N	2.37	0.55
6:F:533:VAL:HG12	6:F:559:LEU:HD11	1.88	0.55
6:F:741:PHE:HB3	6:F:745:LYS:HE2	1.89	0.55
8:I:220:VAL:HA	8:I:232:SER:O	2.07	0.55
12:N:162:PHE:HB2	12:N:255:ARG:HH12	1.71	0.55
12:N:748:GLU:O	12:N:752:LEU:HD12	2.07	0.55
1:A:152:CYS:HA	1:A:161:MET:HG3	1.88	0.55
2:B:18:ALA:HA	2:B:48:TRP:HZ2	1.72	0.55
3:C:31:GLU:OE1	3:C:34:LYS:NZ	2.36	0.55
9:J:466:ASP:HA	9:J:469:ARG:NH1	2.22	0.55
1:A:156:SER:OG	1:A:157:SER:N	2.39	0.54
1:A:769:VAL:HG13	1:A:866:ILE:HD13	1.89	0.54
8:I:24:ILE:HA	8:I:569:LEU:HD22	1.88	0.54
8:I:720:GLN:N	8:I:734:LEU:O	2.32	0.54
9:J:496:GLU:OE1	9:J:496:GLU:N	2.31	0.54
13:O:390:PHE:HE1	13:O:431:LEU:HD22	1.71	0.54
13:O:750:PRO:O	13:O:751:LEU:HG	2.06	0.54
15:X:530:ASP:O	15:X:534:ILE:HG12	2.07	0.54
1:A:492:GLU:N	1:A:496:ASN:O	2.37	0.54
1:A:1086:MET:CE	1:A:1560:MET:HG3	2.38	0.54
1:A:1463:TYR:HE2	1:A:1511:ASN:HB3	1.70	0.54
1:A:1679:ASP:N	1:A:1679:ASP:OD1	2.36	0.54
2:B:25:ILE:HG12	2:B:74:PRO:HG2	1.89	0.54
3:C:432:ASP:OD1	3:C:434:ARG:NH1	2.41	0.54
8:I:183:GLY:HA2	8:I:201:ILE:O	2.08	0.54
8:I:272:MET:SD	8:I:348:VAL:HG23	2.47	0.54
9:K:221:PRO:O	9:K:225:ASP:N	2.40	0.54
11:M:5:VAL:HG13	11:M:7:ARG:HH21	1.71	0.54
13:O:486:ALA:O	13:O:490:LEU:HG	2.07	0.54
7:W:13:LEU:HA	7:W:16:ILE:HG13	1.89	0.54
15:Y:60:LEU:HD23	15:Y:79:LEU:HD11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:12:ALA:HA	12:N:637:TRP:O	2.06	0.54
8:I:33:ASP:OD1	8:I:34:LEU:N	2.40	0.54
8:I:221:THR:HG22	8:I:232:SER:HB3	1.90	0.54
8:I:288:THR:HA	8:I:291:VAL:HG22	1.89	0.54
9:J:90:LEU:HB2	9:J:139:ILE:HG21	1.89	0.54
9:K:514:PHE:HE2	7:W:11:LEU:HD13	1.72	0.54
12:N:392:ASN:OD1	16:S:499:ARG:NH2	2.40	0.54
15:X:76:LYS:O	15:X:80:LEU:HG	2.07	0.54
15:Y:50:HIS:HA	15:Y:53:VAL:HG22	1.88	0.54
15:Y:73:PRO:HB2	15:Y:74:PRO:HD3	1.88	0.54
15:Y:226:VAL:HA	15:Y:229:THR:HG23	1.88	0.54
15:Y:311:TYR:CE2	15:Y:327:LEU:HD22	2.42	0.54
15:Y:532:TYR:CZ	15:Y:548:GLY:HA3	2.43	0.54
1:A:1053:GLN:HB3	1:A:1062:PHE:CD1	2.42	0.54
3:C:361:ASN:HD22	3:C:363:ARG:N	2.06	0.54
3:C:392:ILE:HD13	3:C:402:TRP:CE2	2.41	0.54
6:F:655:GLU:OE2	6:F:705:CYS:N	2.40	0.54
8:I:282:GLN:HA	12:N:686:LYS:HE2	1.89	0.54
9:J:23:LEU:HD11	9:J:50:THR:HG21	1.90	0.54
9:K:86:HIS:O	9:K:87:GLN:HB3	2.07	0.54
12:N:292:TRP:CE3	12:N:293:ILE:HD13	2.42	0.54
12:N:564:MET:O	12:N:568:ARG:HG3	2.08	0.54
13:O:274:LEU:HD11	13:O:306:ASN:HD21	1.73	0.54
1:A:586:SER:OG	1:A:587:ILE:N	2.40	0.54
2:B:16:TRP:CZ2	2:B:45:PRO:HB3	2.43	0.54
2:B:26:CYS:HB2	2:B:59:CYS:SG	2.48	0.54
3:C:270:ALA:HB1	3:C:286:PHE:CE2	2.43	0.54
6:F:705:CYS:SG	6:F:706:LYS:N	2.80	0.54
6:H:734:PRO:HG2	6:H:735:LYS:HD2	1.89	0.54
8:I:622:SER:OG	8:I:706:HIS:HB3	2.06	0.54
9:K:236:SER:O	9:K:240:ARG:HG3	2.08	0.54
13:O:665:PHE:CZ	13:O:669:LYS:HD2	2.42	0.54
15:X:353:LYS:O	15:X:355:TYR:N	2.41	0.54
15:Y:475:TYR:HD2	15:Y:478:ALA:H	1.54	0.54
3:C:373:HIS:NE2	3:C:377:GLU:OE2	2.40	0.54
6:F:79:CYS:SG	6:F:87:GLU:HB2	2.47	0.54
6:H:120:LEU:O	6:H:124:VAL:HG23	2.07	0.54
9:J:514:PHE:HA	9:J:517:THR:HG22	1.89	0.54
9:K:441:VAL:O	9:K:444:TRP:N	2.41	0.54
1:A:489:LEU:HD21	1:A:497:LEU:HD13	1.89	0.54
3:C:513:PHE:HB3	3:C:536:CYS:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:168:LEU:HB3	8:I:253:ARG:NH1	2.23	0.54
9:J:482:TYR:HB3	9:J:505:ALA:HB2	1.90	0.54
12:N:811:SER:HG	12:N:816:ARG:HE	1.53	0.54
3:P:239:THR:HG21	3:P:268:GLN:OE1	2.07	0.54
3:P:277:ARG:NH1	17:Q:498:MET:HE1	2.20	0.54
3:P:388:TYR:O	3:P:392:ILE:HG23	2.07	0.54
15:X:399:ALA:O	15:X:403:ALA:N	2.39	0.54
15:X:408:ASP:O	15:X:411:GLU:HG3	2.08	0.54
1:A:1825:SER:O	1:A:1829:ARG:NH2	2.41	0.54
2:B:10:GLY:O	12:N:594:VAL:HG22	2.08	0.54
2:B:56:HIS:HB2	2:B:59:CYS:HB2	1.89	0.54
3:C:141:LEU:HD23	3:C:141:LEU:H	1.73	0.54
3:C:494:ILE:O	3:C:497:ILE:HG22	2.08	0.54
6:H:142:LEU:HD21	6:H:151:PRO:CG	2.38	0.54
8:I:255:PHE:HA	8:I:258:ILE:HD12	1.89	0.54
8:I:639:LEU:HD12	8:I:720:GLN:HE22	1.71	0.54
8:I:713:LEU:HD23	8:I:714:LEU:N	2.22	0.54
3:P:341:TYR:CD2	3:P:349:LYS:HB3	2.43	0.54
1:A:23:PHE:CD1	1:A:111:LEU:HD13	2.43	0.54
1:A:773:LEU:O	1:A:776:ASN:N	2.40	0.54
1:A:773:LEU:HB3	1:A:783:ILE:HD11	1.89	0.54
1:A:1194:HIS:O	1:A:1198:THR:HG23	2.08	0.54
3:C:300:MET:HG3	3:C:323:LEU:HD11	1.90	0.54
7:G:3:ARG:HG2	9:J:369:LEU:HD11	1.89	0.54
8:I:225:THR:OG1	8:I:226:ASN:OD1	2.24	0.54
8:I:523:HIS:HB3	8:I:527:ARG:HH12	1.73	0.54
9:K:300:VAL:HG12	9:K:333:TYR:OH	2.08	0.54
12:N:535:PRO:O	12:N:539:ILE:HG12	2.08	0.54
12:N:670:PHE:HZ	12:N:713:PHE:CD1	2.25	0.54
3:P:450:VAL:HA	3:P:453:LYS:HD2	1.90	0.54
7:W:25:ASP:N	7:W:26:LEU:HA	2.21	0.54
15:Y:99:LYS:HD3	15:Y:102:MET:SD	2.48	0.54
1:A:412:LEU:HD22	1:A:468:PHE:CD1	2.43	0.54
3:C:33:LYS:NZ	3:C:63:PRO:O	2.28	0.54
8:I:561:ARG:NH2	8:I:589:THR:O	2.27	0.54
8:I:721:TYR:O	8:I:734:LEU:N	2.31	0.54
10:L:32:SER:O	10:L:33:LEU:HD23	2.08	0.54
15:Y:72:SER:N	15:Y:75:GLN:OE1	2.33	0.54
1:A:1273:LEU:O	1:A:1276:GLU:N	2.41	0.53
1:A:1313:LEU:HB2	1:A:1316:MET:HB2	1.89	0.53
3:C:101:ARG:NH1	3:P:293:ASP:OD2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:17:TRP:HA	13:O:283:LEU:HD11	1.90	0.53
8:I:56:TRP:HB2	8:I:98:PRO:HG3	1.90	0.53
8:I:221:THR:O	8:I:232:SER:N	2.31	0.53
9:K:285:PHE:HB2	9:K:308:TYR:CE1	2.43	0.53
13:O:73:ILE:O	13:O:161:TYR:OH	2.18	0.53
15:X:226:VAL:HG22	15:X:236:LEU:HD12	1.89	0.53
15:X:360:TYR:HB3	15:X:364:LYS:NZ	2.23	0.53
15:X:512:HIS:HB3	15:X:531:GLN:NE2	2.20	0.53
1:A:1053:GLN:N	1:A:1053:GLN:OE1	2.41	0.53
8:I:126:THR:O	8:I:130:ASN:ND2	2.42	0.53
9:J:478:ASN:OD1	9:J:479:ALA:N	2.41	0.53
12:N:531:PHE:HB3	12:N:533:PHE:HA	1.91	0.53
12:N:685:VAL:HB	12:N:687:MET:HG2	1.89	0.53
15:X:499:LEU:HB3	15:X:515:LEU:HD12	1.89	0.53
15:Y:235:TRP:CD2	15:Y:267:LEU:HD21	2.43	0.53
1:A:1523:LEU:HD21	1:A:1535:VAL:HG22	1.89	0.53
6:H:77:LYS:O	6:H:80:VAL:N	2.41	0.53
6:H:149:TRP:O	6:H:153:GLU:HG3	2.09	0.53
8:I:706:HIS:HB2	8:I:708:GLU:OE1	2.08	0.53
9:K:254:THR:HG22	9:K:271:HIS:CD2	2.42	0.53
3:P:513:PHE:HD1	3:P:535:LYS:HB3	1.74	0.53
15:Y:513:ARG:NH2	15:Y:514:ILE:HG12	2.24	0.53
1:A:711:LEU:HA	1:A:716:HIS:ND1	2.23	0.53
1:A:1473:GLY:HA2	1:A:1526:VAL:HG22	1.90	0.53
6:F:157:GLU:O	6:F:633:ARG:NH1	2.42	0.53
8:I:321:LEU:O	8:I:325:LEU:N	2.41	0.53
8:I:520:LYS:HD3	8:I:524:PHE:CD2	2.43	0.53
15:X:476:ILE:H	15:X:476:ILE:HD12	1.73	0.53
1:A:926:LEU:HD12	1:A:929:ARG:HH22	1.73	0.53
1:A:1047:VAL:HG21	1:A:1073:LEU:HD13	1.90	0.53
6:F:662:LEU:HA	6:F:665:ASN:O	2.09	0.53
8:I:441:THR:HG23	8:I:444:ASP:H	1.73	0.53
13:O:225:ASN:ND2	13:O:461:ASN:HD21	2.05	0.53
13:O:419:ASP:OD2	13:O:419:ASP:N	2.42	0.53
3:P:216:LYS:NZ	3:P:242:GLN:HB2	2.24	0.53
15:X:349:SER:OG	15:X:357:ARG:HB3	2.08	0.53
15:Y:77:TYR:HB2	15:Y:106:GLN:HG3	1.91	0.53
15:Y:87:LEU:HD11	15:Y:99:LYS:HG3	1.90	0.53
15:Y:274:LEU:HD23	15:Y:297:ALA:HA	1.91	0.53
15:Y:418:LEU:HD13	15:Y:423:ILE:HG22	1.89	0.53
1:A:435:ASP:N	1:A:435:ASP:OD1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1626:THR:O	1:A:1628:THR:HG23	2.09	0.53
3:C:483:SER:OG	3:C:515:TYR:OH	2.21	0.53
6:H:16:LEU:HD22	6:H:50:ARG:NH1	2.21	0.53
12:N:411:ASP:C	12:N:413:SER:H	2.10	0.53
13:O:592:TRP:HB3	13:O:753:ASN:OD1	2.07	0.53
13:O:649:GLU:OE1	13:O:649:GLU:N	2.42	0.53
3:P:449:LEU:O	3:P:452:ALA:N	2.42	0.53
3:P:453:LYS:HE2	3:P:480:LEU:HD11	1.90	0.53
7:W:8:ARG:HG2	7:W:9:LEU:O	2.08	0.53
15:Y:310:VAL:O	15:Y:314:LEU:HG	2.08	0.53
1:A:172:SER:C	1:A:173:LEU:HD22	2.29	0.53
1:A:802:TYR:CZ	1:A:841:PRO:HA	2.43	0.53
1:A:808:ARG:NH2	1:A:1871:TYR:OH	2.33	0.53
6:F:747:TYR:HA	6:F:750:LEU:HB2	1.90	0.53
6:H:600:TYR:HE2	6:H:602:TYR:HB3	1.74	0.53
9:K:230:ASN:HB3	9:K:233:VAL:HG12	1.90	0.53
3:P:375:TYR:CD2	3:P:383:ALA:HB1	2.43	0.53
15:X:87:LEU:HD12	15:X:92:GLU:HB3	1.91	0.53
15:Y:85:ASP:OD1	15:Y:100:TYR:OH	2.27	0.53
1:A:1852:ILE:O	1:A:1855:THR:OG1	2.24	0.53
3:C:510:SER:O	3:C:513:PHE:N	2.41	0.53
4:D:54:ILE:HG21	3:P:389:ARG:HH12	1.73	0.53
6:F:719:TYR:HB3	6:F:750:LEU:HD21	1.91	0.53
6:H:679:GLN:HA	6:H:682:LEU:HD12	1.91	0.53
8:I:74:ARG:HB2	8:I:79:LEU:HB3	1.91	0.53
8:I:555:PRO:HB2	8:I:692:ARG:HG3	1.91	0.53
9:K:256:VAL:O	9:K:259:GLU:HG2	2.09	0.53
12:N:65:HIS:HB2	12:N:66:GLY:HA2	1.89	0.53
15:X:424:ARG:O	15:X:428:VAL:HG23	2.09	0.53
1:A:435:ASP:OD2	1:A:437:CYS:HB2	2.09	0.53
1:A:1398:PHE:CD1	10:L:70:ARG:HG3	2.44	0.53
1:A:1775:LEU:O	1:A:1779:VAL:HG23	2.08	0.53
3:C:209:LEU:O	3:C:213:ILE:HG12	2.08	0.53
6:H:104:ASP:O	6:H:108:THR:HG23	2.08	0.53
6:H:582:GLU:OE2	10:L:18:ARG:HG2	2.09	0.53
9:K:264:HIS:CD2	9:K:266:SER:H	2.13	0.53
9:K:270:VAL:O	9:K:274:THR:HG23	2.09	0.53
10:L:74:VAL:HG11	10:L:158:ILE:HD11	1.90	0.53
12:N:421:CYS:SG	12:N:425:ARG:NH1	2.81	0.53
12:N:703:GLY:HA2	12:N:705:LEU:H	1.72	0.53
12:N:706:ARG:HG2	12:N:707:GLU:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:579:GLN:O	1:A:583:TYR:N	2.42	0.53
6:F:660:LYS:O	6:F:663:ASP:HB3	2.09	0.53
6:H:170:PHE:O	6:H:174:GLN:N	2.42	0.53
6:H:765:ASP:OD2	15:X:397:ARG:NH1	2.40	0.53
9:J:232:ASP:OD2	9:K:28:LYS:NZ	2.38	0.53
10:L:53:TYR:HA	10:L:153:MET:O	2.09	0.53
12:N:162:PHE:HB2	12:N:255:ARG:NH2	2.22	0.53
1:A:845:TYR:HB3	1:A:1812:TRP:CH2	2.44	0.52
6:F:147:PHE:CE1	6:H:8:VAL:HG12	2.44	0.52
6:F:645:TYR:HB3	6:F:654:ALA:HB2	1.91	0.52
6:F:737:SER:HA	6:F:740:TYR:CD2	2.44	0.52
6:F:740:TYR:HA	6:F:743:ILE:HD12	1.91	0.52
6:H:461:GLY:O	6:H:464:SER:OG	2.26	0.52
6:H:762:TRP:CD1	15:X:397:ARG:CZ	2.92	0.52
9:J:151:TYR:HA	9:J:154:LYS:HD2	1.91	0.52
9:J:275:LEU:HD11	9:J:283:GLU:HG3	1.91	0.52
9:K:84:LYS:HA	9:K:86:HIS:NE2	2.24	0.52
10:L:31:TRP:CZ3	10:L:66:ILE:HD11	2.44	0.52
12:N:386:LEU:HD22	12:N:399:LEU:CD2	2.37	0.52
12:N:698:VAL:HG13	12:N:728:VAL:HB	1.91	0.52
13:O:663:ALA:O	13:O:667:VAL:HG23	2.09	0.52
6:F:692:LEU:O	6:F:709:ARG:NH2	2.34	0.52
8:I:88:LYS:O	8:I:106:VAL:HG22	2.08	0.52
8:I:193:PHE:CE1	8:I:195:ILE:HA	2.44	0.52
8:I:229:SER:N	8:I:559:ASP:O	2.29	0.52
8:I:602:ARG:HG2	8:I:614:GLY:HA2	1.92	0.52
9:K:203:PHE:HA	9:K:206:GLU:OE2	2.09	0.52
9:K:261:ASP:OD1	9:K:263:PHE:N	2.42	0.52
12:N:411:ASP:OD1	12:N:413:SER:OG	2.13	0.52
15:X:242:ALA:HA	15:X:257:THR:HG21	1.91	0.52
15:X:390:GLN:O	15:X:394:ILE:HG12	2.08	0.52
15:Y:85:ASP:OD1	15:Y:141:LYS:HD3	2.09	0.52
15:Y:444:LEU:O	15:Y:447:LEU:HG	2.09	0.52
1:A:12:ILE:O	1:A:510:PHE:N	2.42	0.52
1:A:1652:MET:O	1:A:1655:THR:OG1	2.28	0.52
3:C:254:LEU:O	3:C:259:PHE:HB2	2.10	0.52
8:I:266:ASN:ND2	8:I:530:GLU:OE2	2.27	0.52
9:J:268:LEU:O	9:J:272:ILE:HG12	2.10	0.52
9:J:465:LEU:HD13	9:J:492:MET:HE1	1.91	0.52
9:K:302:TRP:HB2	9:K:326:ALA:HB2	1.90	0.52
10:L:13:PRO:O	10:L:16:LEU:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:258:ALA:HA	12:N:261:VAL:HG22	1.92	0.52
1:A:749:LEU:HD12	1:A:750:ASP:H	1.75	0.52
1:A:845:TYR:HB3	1:A:1812:TRP:CZ3	2.45	0.52
1:A:848:VAL:HA	1:A:851:CYS:SG	2.49	0.52
1:A:849:SER:O	1:A:852:LEU:HG	2.09	0.52
8:I:46:LEU:HD12	8:I:47:HIS:H	1.73	0.52
8:I:116:MET:SD	8:I:210:LEU:HB3	2.49	0.52
9:K:478:ASN:HD21	7:W:8:ARG:NH2	2.04	0.52
12:N:524:ALA:HA	12:N:601:TRP:HZ3	1.75	0.52
3:P:85:ASP:O	3:P:88:THR:OG1	2.27	0.52
15:X:414:ILE:HA	15:X:417:TYR:CD1	2.44	0.52
15:Y:180:LYS:HG2	15:Y:188:SER:OG	2.09	0.52
15:Y:458:GLN:OE1	15:Y:458:GLN:N	2.42	0.52
15:Y:518:PHE:O	15:Y:522:VAL:HG23	2.10	0.52
1:A:1640:GLY:HA2	1:A:1644:TYR:CE2	2.44	0.52
3:C:368:TRP:CE2	3:C:390:HIS:HB3	2.45	0.52
6:F:113:SER:O	6:F:117:THR:HG23	2.08	0.52
6:F:149:TRP:CD1	6:H:26:PHE:CG	2.98	0.52
8:I:570:PHE:C	8:I:572:PHE:H	2.11	0.52
9:K:518:MET:HE2	7:W:16:ILE:HG12	1.92	0.52
12:N:131:LEU:HB3	12:N:135:TRP:CZ3	2.45	0.52
12:N:703:GLY:HA2	12:N:705:LEU:N	2.25	0.52
1:A:76:LEU:HD22	1:A:606:ARG:HH12	1.74	0.52
2:B:8:TRP:N	12:N:590:GLY:O	2.43	0.52
3:C:45:GLU:OE1	3:C:87:TYR:OH	2.21	0.52
6:H:148:LEU:HB2	6:H:151:PRO:HG3	1.91	0.52
13:O:123:GLU:N	13:O:124:PRO:HA	2.25	0.52
15:X:53:VAL:HA	15:X:56:LEU:HD12	1.90	0.52
15:X:466:ASP:OD1	15:X:482:LYS:NZ	2.33	0.52
15:Y:58:SER:O	15:Y:62:THR:HG23	2.09	0.52
15:Y:510:VAL:CG1	15:Y:513:ARG:HH21	2.23	0.52
1:A:1268:HIS:O	1:A:1272:VAL:HG23	2.10	0.52
3:C:550:LEU:HA	3:C:553:ILE:HG12	1.91	0.52
6:F:585:ILE:HG12	11:M:66:HIS:ND1	2.25	0.52
6:H:742:LEU:O	6:H:746:VAL:HG23	2.10	0.52
8:I:719:ALA:HA	8:I:735:SER:HA	1.90	0.52
11:M:1:MET:N	3:P:48:LEU:HD11	2.25	0.52
12:N:333:TYR:HH	12:N:363:TYR:HE1	1.57	0.52
12:N:414:MET:HG3	12:N:417:LEU:HD13	1.90	0.52
12:N:644:VAL:HG22	12:N:661:PRO:HG3	1.90	0.52
3:P:187:GLU:OE2	3:P:187:GLU:N	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:244:ILE:HD12	3:P:244:ILE:H	1.74	0.52
15:X:146:TYR:O	15:X:150:LYS:N	2.43	0.52
1:A:215:HIS:N	1:A:218:ASP:OD2	2.37	0.52
1:A:226:LYS:HZ3	1:A:234:SER:N	2.08	0.52
1:A:1184:HIS:O	1:A:1186:THR:N	2.42	0.52
1:A:1261:TYR:O	1:A:1264:THR:HG22	2.10	0.52
1:A:1382:SER:O	1:A:1385:ASP:HB3	2.10	0.52
6:F:526:ARG:NH1	6:F:530:ASN:O	2.42	0.52
6:H:680:HIS:CD2	6:H:712:VAL:HG13	2.44	0.52
8:I:331:LYS:O	8:I:335:GLN:HG2	2.10	0.52
9:J:209:LEU:O	9:J:211:LYS:NZ	2.27	0.52
9:J:441:VAL:HG23	9:J:443:LYS:H	1.75	0.52
10:L:68:PHE:N	10:L:135:PHE:O	2.24	0.52
12:N:520:ARG:HH21	12:N:600:PHE:C	2.12	0.52
12:N:630:LYS:HB2	12:N:633:ARG:CZ	2.40	0.52
3:P:267:SER:HB2	3:P:299:ASN:ND2	2.25	0.52
15:Y:208:GLY:O	15:Y:212:LEU:HG	2.09	0.52
1:A:941:LEU:HB2	1:A:977:LEU:HD12	1.91	0.52
1:A:1535:VAL:HB	1:A:1565:LEU:HD11	1.91	0.52
6:H:468:GLU:HA	6:H:471:LYS:HD2	1.90	0.52
6:H:514:GLU:OE1	6:H:514:GLU:N	2.43	0.52
6:H:636:ASN:ND2	10:L:184:ARG:O	2.43	0.52
8:I:321:LEU:HD11	8:I:425:MET:SD	2.50	0.52
9:K:465:LEU:HB3	9:K:469:ARG:HH12	1.74	0.52
12:N:663:GLN:NE2	12:N:698:VAL:HB	2.25	0.52
15:X:495:GLY:HA3	15:X:518:PHE:HE2	1.75	0.52
15:X:518:PHE:O	15:X:522:VAL:HG23	2.09	0.52
1:A:477:LYS:HB2	1:A:491:LEU:CD1	2.39	0.52
1:A:1560:MET:HE1	1:A:1607:ARG:HB3	1.92	0.52
2:B:2:LYS:H	12:N:650:LEU:CD2	2.22	0.52
3:C:180:ARG:O	3:C:183:ASP:N	2.41	0.52
9:J:335:PRO:O	9:J:338:ILE:HG22	2.10	0.52
10:L:13:PRO:O	10:L:16:LEU:N	2.43	0.52
12:N:530:GLN:OE1	12:N:533:PHE:HE1	1.93	0.52
15:X:463:THR:O	15:X:467:LYS:HG3	2.09	0.52
15:X:519:LEU:HA	15:X:522:VAL:HG23	1.91	0.52
6:F:549:ASP:OD1	6:F:579:LEU:HD13	2.10	0.51
6:H:651:PHE:HB3	6:H:682:LEU:HD21	1.91	0.51
8:I:291:VAL:HG12	8:I:317:LEU:HD12	1.91	0.51
8:I:615:LEU:HB3	8:I:685:PHE:HB2	1.92	0.51
8:I:723:ALA:O	8:I:732:CYS:N	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:65:LEU:HD12	9:J:65:LEU:H	1.75	0.51
9:J:212:TYR:HB3	9:J:243:TYR:CG	2.45	0.51
12:N:516:ILE:HG21	12:N:553:PRO:HB3	1.92	0.51
13:O:594:SER:O	13:O:594:SER:OG	2.19	0.51
3:P:327:ASP:O	3:P:333:THR:HG21	2.09	0.51
15:X:185:GLU:HG3	15:X:186:ARG:H	1.73	0.51
15:X:245:PHE:CD2	15:X:253:ARG:HB3	2.45	0.51
15:X:509:CYS:HA	15:X:512:HIS:CD2	2.41	0.51
15:Y:272:ASP:N	15:Y:272:ASP:OD1	2.38	0.51
1:A:657:TRP:NE1	1:A:785:SER:HB3	2.25	0.51
3:C:180:ARG:NH1	3:C:208:GLU:OE1	2.43	0.51
6:H:469:MET:HG2	6:H:500:TRP:HZ3	1.75	0.51
6:H:712:VAL:HG12	6:H:716:ASN:ND2	2.25	0.51
8:I:9:PRO:HG2	8:I:750:ASP:HB3	1.92	0.51
8:I:115:TRP:NE1	8:I:176:LEU:HD13	2.25	0.51
8:I:593:ASP:HB3	8:I:595:LEU:HG	1.92	0.51
9:J:466:ASP:HA	9:J:469:ARG:HH12	1.74	0.51
9:J:516:VAL:O	9:J:519:LEU:HB3	2.10	0.51
9:K:254:THR:HG22	9:K:271:HIS:HD2	1.74	0.51
12:N:132:LEU:HD22	12:N:135:TRP:CZ3	2.46	0.51
12:N:676:TRP:HB3	12:N:681:LEU:HD21	1.91	0.51
3:P:265:ILE:HG13	3:P:266:VAL:N	2.24	0.51
15:Y:295:GLU:O	15:Y:299:MET:HG2	2.10	0.51
2:B:17:VAL:HG11	12:N:634:THR:HG23	1.91	0.51
4:D:25:VAL:HG12	4:D:26:GLU:O	2.10	0.51
6:H:38:GLU:OE2	6:H:66:CYS:HA	2.10	0.51
9:J:164:PHE:HZ	9:J:208:LYS:HG3	1.75	0.51
10:L:97:ARG:HG2	10:L:107:GLU:HA	1.92	0.51
12:N:83:LEU:HA	12:N:87:ILE:HB	1.93	0.51
12:N:411:ASP:O	12:N:413:SER:N	2.39	0.51
12:N:699:TRP:HE3	12:N:704:VAL:HG21	1.74	0.51
3:P:368:TRP:HB2	3:P:391:ALA:HB2	1.92	0.51
1:A:98:ASN:HB3	1:A:120:ASP:H	1.75	0.51
1:A:114:TYR:O	1:A:115:LYS:HG3	2.10	0.51
1:A:457:PHE:HB3	1:A:468:PHE:CE2	2.45	0.51
3:C:39:ILE:HG21	3:C:201:LEU:HB3	1.92	0.51
3:C:58:LEU:HA	3:C:61:SER:HB2	1.92	0.51
4:D:45:ALA:O	3:P:380:ASN:ND2	2.26	0.51
9:K:167:PHE:O	9:K:171:THR:HG22	2.10	0.51
10:L:74:VAL:HG21	10:L:137:ILE:HD11	1.92	0.51
3:P:368:TRP:CE3	3:P:390:HIS:HB2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:23:ARG:HG2	7:W:24:LYS:H	1.75	0.51
15:X:165:ARG:HH21	15:X:166:GLN:HG3	1.74	0.51
15:Y:180:LYS:HD3	15:Y:212:LEU:HD11	1.91	0.51
1:A:12:ILE:N	1:A:508:LYS:O	2.44	0.51
1:A:966:PRO:HA	1:A:970:TRP:CH2	2.45	0.51
2:B:15:LEU:HD12	12:N:626:TYR:HE2	1.75	0.51
3:C:42:LEU:O	3:C:46:ARG:NH1	2.44	0.51
3:C:147:LYS:HD3	3:C:148:ASN:H	1.76	0.51
3:C:179:LEU:HD13	3:C:187:GLU:HB3	1.92	0.51
6:F:695:ALA:HB3	6:F:709:ARG:NH1	2.24	0.51
6:H:154:SER:O	6:H:158:ILE:HG13	2.11	0.51
8:I:173:LEU:HA	8:I:190:TYR:HE1	1.75	0.51
8:I:572:PHE:HZ	8:I:589:THR:N	2.08	0.51
9:K:391:PHE:CE2	9:K:411:VAL:HG11	2.46	0.51
11:M:4:GLU:OE1	11:M:7:ARG:NH2	2.41	0.51
12:N:156:MET:O	12:N:160:VAL:HG22	2.10	0.51
12:N:184:TYR:OH	12:N:188:LYS:NZ	2.21	0.51
12:N:803:VAL:HG21	12:N:810:TYR:HB2	1.91	0.51
13:O:317:TYR:O	13:O:320:ALA:HB3	2.11	0.51
15:X:450:VAL:HB	15:X:481:LYS:HZ3	1.76	0.51
1:A:24:GLY:HA3	1:A:94:TYR:CD1	2.45	0.51
6:F:570:TRP:HZ3	11:M:65:LEU:HD11	1.75	0.51
8:I:176:LEU:HG	8:I:178:LEU:HG	1.91	0.51
8:I:708:GLU:N	8:I:708:GLU:OE2	2.43	0.51
9:J:372:LEU:O	9:J:376:LEU:HG	2.11	0.51
9:K:368:HIS:NE2	9:K:401:ASP:OD2	2.44	0.51
12:N:502:ILE:H	12:N:502:ILE:HD12	1.75	0.51
3:P:400:ARG:CZ	17:Q:499:ARG:HA	2.40	0.51
15:X:94:ARG:CZ	15:X:151:GLN:HE22	2.23	0.51
1:A:1206:ILE:HD11	1:A:1248:ASN:O	2.11	0.51
6:H:693:ASN:O	6:H:697:VAL:HG23	2.11	0.51
8:I:125:LEU:HB3	8:I:129:TYR:CZ	2.45	0.51
8:I:279:ILE:HD11	8:I:337:ILE:HG23	1.93	0.51
9:J:418:TRP:HB3	9:J:458:LEU:HD21	1.92	0.51
9:J:433:LYS:NZ	9:J:437:ASN:O	2.26	0.51
12:N:712:THR:O	12:N:712:THR:OG1	2.28	0.51
13:O:434:ARG:NH2	13:O:617:GLN:OE1	2.43	0.51
3:P:179:LEU:HD22	3:P:184:LEU:HD12	1.92	0.51
15:X:77:TYR:HE1	15:X:107:LYS:HB2	1.75	0.51
15:X:305:ILE:H	15:X:305:ILE:HD12	1.75	0.51
15:Y:244:ALA:O	15:Y:248:THR:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:258:ILE:HG21	15:Y:277:LEU:HB2	1.92	0.51
1:A:479:ALA:CB	1:A:490:VAL:HG12	2.41	0.51
1:A:795:ARG:CZ	1:A:817:THR:H	2.23	0.51
1:A:852:LEU:HD12	1:A:853:LYS:HG3	1.92	0.51
1:A:1677:LEU:HD12	1:A:1678:ILE:H	1.75	0.51
6:F:709:ARG:HA	6:F:712:VAL:HG22	1.93	0.51
6:H:684:LYS:NZ	6:H:687:LYS:H	2.09	0.51
8:I:86:ASP:OD1	8:I:86:ASP:N	2.44	0.51
8:I:302:ASP:HB3	13:O:58:ARG:HD2	1.93	0.51
9:J:293:ASP:O	9:J:296:PRO:HD3	2.10	0.51
10:L:126:ASP:OD2	10:L:130:LYS:N	2.36	0.51
10:L:178:MET:HG2	10:L:181:ARG:HE	1.75	0.51
12:N:121:ARG:HB3	12:N:122:LEU:CB	2.36	0.51
12:N:527:LEU:HD22	12:N:530:GLN:HG2	1.92	0.51
12:N:637:TRP:HE3	12:N:639:HIS:HB2	1.76	0.51
13:O:83:GLU:OE1	13:O:87:PRO:HA	2.11	0.51
13:O:104:GLU:O	13:O:107:ASP:N	2.30	0.51
13:O:385:VAL:HB	13:O:401:ALA:CB	2.41	0.51
4:D:11:ARG:HE	4:D:14:GLU:CD	2.12	0.51
6:F:730:LYS:O	6:F:734:PRO:HA	2.10	0.51
6:H:556:SER:OG	6:H:573:ALA:HA	2.11	0.51
6:H:702:ASN:OD1	6:H:704:LEU:N	2.44	0.51
9:J:192:LYS:HG3	9:J:198:GLN:NE2	2.26	0.51
9:J:305:VAL:CG2	11:M:29:VAL:HG11	2.41	0.51
13:O:542:GLU:O	13:O:546:ARG:HG2	2.10	0.51
13:O:593:ARG:HG2	13:O:753:ASN:ND2	2.26	0.51
15:X:253:ARG:O	15:X:256:SER:OG	2.16	0.51
15:X:365:ALA:HA	15:X:368:LEU:HD12	1.93	0.51
1:A:431:PHE:CE1	1:A:443:CYS:HB2	2.46	0.51
1:A:1138:HIS:HD2	1:A:1608:HIS:NE2	2.09	0.51
1:A:1195:ASP:OD2	1:A:1195:ASP:N	2.44	0.51
1:A:1503:ASN:O	1:A:1506:VAL:HG22	2.11	0.51
9:K:285:PHE:HB2	9:K:308:TYR:CZ	2.46	0.51
12:N:82:ASP:O	12:N:87:ILE:HG12	2.10	0.51
12:N:335:ILE:O	12:N:338:SER:OG	2.26	0.51
12:N:660:THR:HG22	12:N:729:LEU:HD23	1.92	0.51
15:X:66:ASN:ND2	15:Y:265:SER:O	2.44	0.51
1:A:31:HIS:CG	1:A:32:PRO:HD2	2.46	0.50
1:A:33:ASN:OD1	1:A:98:ASN:ND2	2.44	0.50
3:C:42:LEU:HD11	3:C:46:ARG:HH22	1.76	0.50
3:C:179:LEU:HB3	3:C:188:ALA:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:186:LYS:HA	3:C:189:ILE:HD12	1.92	0.50
3:C:337:ILE:HD12	11:M:24:LEU:HD21	1.92	0.50
8:I:48:ARG:NH1	12:N:392:ASN:HB3	2.26	0.50
8:I:721:TYR:HD2	8:I:734:LEU:HD23	1.76	0.50
9:J:368:HIS:NE2	9:J:401:ASP:OD2	2.44	0.50
9:K:147:THR:HG23	9:K:148:LEU:HD12	1.92	0.50
12:N:157:LEU:HD21	12:N:161:LEU:HD12	1.92	0.50
13:O:378:SER:OG	13:O:417:LEU:HG	2.11	0.50
13:O:620:ALA:O	13:O:623:THR:HG22	2.11	0.50
3:P:34:LYS:HD2	3:P:71:GLN:CD	2.32	0.50
3:P:98:GLU:OE2	3:P:101:ARG:NH2	2.35	0.50
3:P:333:THR:O	3:P:337:ILE:HG13	2.11	0.50
15:X:38:ILE:HG13	15:X:75:GLN:HG2	1.92	0.50
15:X:206:ILE:O	15:X:210:LEU:HD23	2.12	0.50
1:A:823:ILE:C	1:A:825:PRO:HD3	2.32	0.50
1:A:847:TRP:NE1	1:A:860:TYR:HB2	2.26	0.50
1:A:872:LEU:O	1:A:876:SER:OG	2.22	0.50
1:A:1347:SER:O	1:A:1347:SER:OG	2.29	0.50
1:A:1848:VAL:HG12	1:A:1852:ILE:HD11	1.93	0.50
6:F:522:PHE:HA	6:F:525:VAL:HG12	1.93	0.50
6:F:726:LEU:HD13	6:F:742:LEU:HD23	1.93	0.50
6:H:503:CYS:SG	6:H:535:GLY:HA3	2.52	0.50
8:I:176:LEU:HD12	8:I:177:VAL:N	2.25	0.50
8:I:644:TYR:HB2	8:I:650:THR:HG23	1.93	0.50
9:J:334:GLY:H	9:J:335:PRO:HD2	1.76	0.50
12:N:523:LEU:HD23	12:N:526:ARG:NH1	2.18	0.50
1:A:76:LEU:HD22	1:A:606:ARG:NH1	2.27	0.50
1:A:85:GLU:H	13:O:566:LYS:HZ3	1.60	0.50
1:A:129:CYS:SG	1:A:187:LEU:HD22	2.51	0.50
1:A:1769:ASP:O	1:A:1772:SER:OG	2.26	0.50
1:A:1910:SER:C	1:A:1912:ALA:H	2.14	0.50
3:C:173:TYR:CG	3:C:202:HIS:HE1	2.30	0.50
4:D:46:GLU:HA	3:P:380:ASN:ND2	2.27	0.50
4:D:53:PRO:HD3	3:P:382:SER:HB2	1.92	0.50
5:E:94:TRP:CZ2	6:F:592:ARG:HG3	2.46	0.50
7:G:12:LYS:O	7:G:15:ASP:HB3	2.11	0.50
6:H:77:LYS:HZ2	6:H:120:LEU:HD21	1.76	0.50
8:I:526:LYS:HE2	8:I:530:GLU:OE2	2.11	0.50
13:O:382:GLN:O	13:O:385:VAL:HG12	2.11	0.50
13:O:405:SER:O	13:O:408:LEU:N	2.43	0.50
15:X:287:ASN:OD1	15:X:288:LYS:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:360:TYR:O	15:X:364:LYS:HG3	2.12	0.50
15:Y:186:ARG:HA	15:Y:189:VAL:CG1	2.38	0.50
3:C:370:LEU:O	3:C:374:GLU:HG2	2.10	0.50
4:D:31:GLN:CD	13:O:137:ARG:HH22	2.15	0.50
6:H:125:TYR:O	6:H:128:THR:HB	2.12	0.50
8:I:70:CYS:SG	8:I:112:CYS:HA	2.52	0.50
8:I:721:TYR:HB2	8:I:734:LEU:HB3	1.93	0.50
9:J:226:GLY:HA2	9:K:34:ARG:HH12	1.76	0.50
9:K:403:PHE:O	9:K:407:GLU:HG2	2.11	0.50
9:K:506:LEU:HD21	9:K:516:VAL:HG22	1.94	0.50
12:N:151:GLU:HA	12:N:154:HIS:CD2	2.46	0.50
12:N:186:GLN:HG2	12:N:190:LYS:NZ	2.27	0.50
12:N:771:ASP:OD1	12:N:772:ARG:HD2	2.12	0.50
13:O:461:ASN:HB3	13:O:466:PHE:HE1	1.76	0.50
15:X:203:LEU:HD11	15:X:239:TRP:CZ3	2.45	0.50
15:Y:192:TYR:HA	15:Y:195:VAL:HG22	1.93	0.50
15:Y:205:ALA:O	15:Y:209:LEU:HG	2.11	0.50
15:Y:447:LEU:HA	15:Y:450:VAL:HG22	1.93	0.50
1:A:640:LYS:O	1:A:644:VAL:HG23	2.11	0.50
6:F:14:GLN:O	6:F:18:HIS:ND1	2.28	0.50
8:I:74:ARG:HE	8:I:76:ASP:CB	2.25	0.50
8:I:544:ILE:O	8:I:547:SER:OG	2.09	0.50
8:I:619:LYS:HB2	8:I:702:THR:CG2	2.41	0.50
12:N:663:GLN:HG2	12:N:699:TRP:NE1	2.27	0.50
13:O:255:TYR:HD1	13:O:277:TYR:CD2	2.28	0.50
13:O:620:ALA:O	13:O:624:VAL:HG23	2.12	0.50
3:P:496:ASP:O	3:P:500:CYS:N	2.45	0.50
15:Y:340:GLU:O	15:Y:344:VAL:HG23	2.10	0.50
15:Y:455:PRO:O	15:Y:457:THR:N	2.44	0.50
1:A:161:MET:CE	1:A:216:PRO:HB3	2.42	0.50
1:A:225:CYS:N	1:A:237:GLN:O	2.40	0.50
1:A:1107:LEU:HD12	1:A:1107:LEU:O	2.12	0.50
1:A:1316:MET:O	1:A:1319:LEU:N	2.44	0.50
3:C:389:ARG:HH21	13:O:276:HIS:HD2	1.57	0.50
3:C:494:ILE:HG12	3:C:513:PHE:HE1	1.77	0.50
6:H:142:LEU:HD21	6:H:151:PRO:HG3	1.94	0.50
8:I:111:SER:OG	8:I:179:GLY:O	2.28	0.50
8:I:451:PHE:CG	8:I:452:LEU:N	2.79	0.50
8:I:604:HIS:HB3	8:I:606:ASP:O	2.12	0.50
9:K:478:ASN:ND2	7:W:8:ARG:HH22	2.03	0.50
10:L:33:LEU:HG	10:L:42:VAL:HG22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:530:GLN:O	12:N:531:PHE:HB2	2.12	0.50
12:N:759:GLN:O	12:N:763:THR:HG23	2.12	0.50
3:P:159:SER:HA	3:P:175:TYR:HE1	1.75	0.50
3:P:248:LEU:HD22	3:P:273:TYR:HE1	1.76	0.50
15:X:91:LYS:HE2	15:Y:338:HIS:CE1	2.47	0.50
15:X:230:VAL:HG12	15:X:232:ASN:H	1.77	0.50
15:X:256:SER:OG	15:X:257:THR:N	2.44	0.50
1:A:894:GLN:HG3	1:A:895:TYR:CD2	2.47	0.50
1:A:1037:VAL:HA	1:A:1040:LEU:HD13	1.93	0.50
2:B:6:LYS:HB2	12:N:647:ASP:HB2	1.94	0.50
3:C:328:LYS:HB3	3:C:329:TYR:CD1	2.47	0.50
3:C:415:PRO:O	3:C:418:CYS:N	2.45	0.50
5:E:56:GLU:HA	5:E:59:PHE:HB3	1.93	0.50
6:F:736:GLU:O	6:F:739:VAL:N	2.45	0.50
6:H:110:PHE:CG	6:H:117:THR:HG21	2.46	0.50
6:H:467:ARG:O	6:H:471:LYS:HG3	2.12	0.50
8:I:75:PRO:HD3	8:I:115:TRP:HB3	1.93	0.50
8:I:251:MET:O	8:I:254:LYS:N	2.44	0.50
9:J:150:THR:HG23	9:J:154:LYS:NZ	2.26	0.50
9:J:416:GLY:HA2	9:J:418:TRP:CZ2	2.47	0.50
12:N:637:TRP:HB3	12:N:639:HIS:HB2	1.93	0.50
12:N:693:ARG:HA	12:N:696:MET:HE3	1.93	0.50
15:X:414:ILE:O	15:X:417:TYR:HB2	2.11	0.50
1:A:765:VAL:O	1:A:769:VAL:HG23	2.11	0.50
1:A:1793:MET:O	1:A:1797:ILE:HG23	2.12	0.50
3:C:176:GLY:HA3	3:C:192:PHE:CE1	2.47	0.50
5:E:67:LEU:HA	5:E:70:VAL:HG22	1.94	0.50
6:H:137:CYS:O	6:H:141:SER:OG	2.28	0.50
6:H:502:LEU:HD12	6:H:521:ILE:HG23	1.93	0.50
6:H:527:ARG:HB3	15:Y:302:PRO:HG3	1.94	0.50
12:N:264:THR:HA	12:N:267:GLN:HE21	1.76	0.50
12:N:673:GLN:O	12:N:676:TRP:NE1	2.45	0.50
12:N:691:LEU:HD21	12:N:695:ARG:NH1	2.27	0.50
13:O:38:LEU:HD21	13:O:115:LEU:HD22	1.92	0.50
3:P:228:TRP:O	3:P:231:GLU:HB3	2.12	0.50
3:P:412:LEU:HG	3:P:413:LYS:H	1.76	0.50
15:Y:235:TRP:CD1	15:Y:267:LEU:HD11	2.47	0.50
15:Y:410:TYR:O	15:Y:414:ILE:HG13	2.12	0.50
1:A:1511:ASN:HD21	10:L:104:ASN:ND2	2.10	0.50
1:A:1795:GLN:HB3	1:A:1799:ARG:NH2	2.27	0.50
3:C:136:ASP:OD1	3:C:137:SER:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:381:THR:HG21	3:C:412:LEU:HD11	1.94	0.50
8:I:19:LEU:O	8:I:739:ARG:HB3	2.11	0.50
8:I:32:ARG:HB3	12:N:388:HIS:CE1	2.47	0.50
9:J:194:CYS:O	9:J:196:GLU:N	2.44	0.50
9:J:254:THR:HA	9:J:257:VAL:HB	1.94	0.50
9:K:55:ARG:O	9:K:58:HIS:HB3	2.12	0.50
10:L:50:LEU:O	10:L:154:ARG:NH1	2.42	0.50
12:N:272:ARG:NH2	12:N:288:GLU:OE1	2.44	0.50
15:X:64:SER:HB3	15:X:71:PHE:HE2	1.76	0.50
15:X:204:ASP:H	15:Y:52:ASN:ND2	2.10	0.50
1:A:473:ASN:O	1:A:474:ILE:HD13	2.12	0.49
1:A:776:ASN:OD1	1:A:869:ARG:NH2	2.35	0.49
1:A:778:LEU:HD23	13:O:594:SER:HB2	1.93	0.49
1:A:1674:TRP:HE3	1:A:1702:ARG:HD3	1.76	0.49
3:C:361:ASN:HD22	3:C:363:ARG:H	1.57	0.49
10:L:29:ALA:HB2	10:L:68:PHE:CD2	2.47	0.49
13:O:258:TYR:CE2	13:O:274:LEU:HD12	2.47	0.49
13:O:657:ILE:HB	13:O:700:TYR:CD1	2.47	0.49
3:P:341:TYR:CZ	3:P:349:LYS:HD3	2.47	0.49
3:P:368:TRP:HB3	3:P:387:ALA:O	2.12	0.49
15:X:251:ASN:OD1	15:X:283:ARG:HD2	2.12	0.49
15:X:414:ILE:O	15:X:418:LEU:HG	2.12	0.49
1:A:776:ASN:ND2	1:A:778:LEU:HB2	2.27	0.49
3:C:175:TYR:HD2	3:C:191:VAL:HG11	1.76	0.49
4:D:48:ASP:N	4:D:48:ASP:OD1	2.42	0.49
5:E:101:GLN:NE2	5:E:107:PRO:O	2.37	0.49
6:H:741:PHE:O	6:H:745:LYS:HG2	2.11	0.49
8:I:45:LEU:HD22	8:I:54:ARG:CZ	2.42	0.49
8:I:310:TRP:CD1	13:O:126:VAL:HG13	2.47	0.49
9:J:168:ASP:HA	9:J:171:THR:HG22	1.94	0.49
9:J:401:ASP:HB3	9:J:404:VAL:HG22	1.94	0.49
12:N:753:LEU:HA	12:N:756:THR:OG1	2.13	0.49
13:O:127:HIS:ND1	13:O:127:HIS:O	2.45	0.49
15:X:271:VAL:HB	15:X:304:LEU:HD21	1.94	0.49
1:A:771:GLU:OE2	1:A:844:ILE:HG22	2.12	0.49
2:B:34:CYS:HB3	2:B:56:HIS:CG	2.47	0.49
6:F:670:VAL:HA	6:F:673:CYS:SG	2.52	0.49
6:H:103:HIS:O	6:H:107:VAL:HG23	2.12	0.49
6:H:617:LEU:O	6:H:620:ALA:N	2.45	0.49
8:I:310:TRP:HZ3	13:O:61:ASN:ND2	2.10	0.49
8:I:354:SER:HB3	13:O:403:LYS:HZ1	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:444:ASP:O	8:I:447:PHE:HB2	2.12	0.49
8:I:582:ASN:HB3	8:I:605:THR:HG21	1.93	0.49
9:K:203:PHE:HB2	9:K:221:PRO:HG3	1.94	0.49
10:L:83:TYR:N	10:L:116:PRO:O	2.44	0.49
12:N:153:VAL:HG13	12:N:154:HIS:H	1.77	0.49
12:N:235:GLN:O	12:N:239:GLN:HG2	2.11	0.49
12:N:706:ARG:HG2	12:N:707:GLU:H	1.76	0.49
13:O:662:ARG:HD3	13:O:709:ARG:HH12	1.76	0.49
15:X:44:MET:O	15:X:49:LEU:HG	2.13	0.49
1:A:731:SER:O	1:A:731:SER:OG	2.30	0.49
1:A:1546:THR:HG23	1:A:1547:GLY:H	1.76	0.49
6:F:568:GLU:OE2	6:F:568:GLU:N	2.31	0.49
8:I:320:LEU:HD23	8:I:321:LEU:N	2.27	0.49
9:J:25:TRP:HA	9:J:28:LYS:HG2	1.94	0.49
9:K:339:ALA:HB2	7:W:2:LEU:HD12	1.94	0.49
10:L:48:ASP:H	10:L:155:GLN:NE2	2.09	0.49
12:N:273:MET:SD	12:N:335:ILE:HG22	2.52	0.49
12:N:409:VAL:HG12	12:N:410:LEU:H	1.77	0.49
3:P:107:HIS:HA	3:P:118:TYR:CE1	2.47	0.49
3:P:293:ASP:HB3	3:P:296:ARG:HB2	1.93	0.49
3:P:520:TYR:CD2	3:P:528:GLU:HB3	2.47	0.49
15:Y:235:TRP:HZ3	15:Y:239:TRP:CD1	2.30	0.49
15:Y:285:GLY:O	15:Y:287:ASN:N	2.46	0.49
1:A:125:GLN:HB2	1:A:154:LEU:HD23	1.93	0.49
1:A:1063:ILE:HA	1:A:1066:LYS:HE2	1.95	0.49
1:A:1840:MET:HB3	1:A:1845:LEU:HD11	1.95	0.49
6:F:500:TRP:CH2	6:F:504:GLN:HG3	2.47	0.49
12:N:333:TYR:CZ	12:N:367:ARG:HG3	2.46	0.49
3:P:189:ILE:O	3:P:193:VAL:HG22	2.13	0.49
15:X:286:ASP:OD2	15:X:289:ASN:ND2	2.46	0.49
15:Y:37:VAL:O	15:Y:41:VAL:HG23	2.12	0.49
15:Y:236:LEU:O	15:Y:239:TRP:HB3	2.12	0.49
1:A:773:LEU:HD23	1:A:783:ILE:HG13	1.94	0.49
7:G:3:ARG:NH1	9:J:243:TYR:HD1	2.10	0.49
8:I:422:TYR:CZ	8:I:426:LEU:HD21	2.48	0.49
8:I:602:ARG:NH2	8:I:613:ASN:HB2	2.28	0.49
10:L:37:LYS:HB3	10:L:40:PHE:HD1	1.77	0.49
10:L:175:ILE:O	10:L:178:MET:N	2.45	0.49
12:N:278:ARG:O	12:N:280:GLU:N	2.46	0.49
12:N:663:GLN:HG3	12:N:695:ARG:HB3	1.95	0.49
15:X:507:SER:HB2	15:X:511:LEU:HD21	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:153:LYS:HA	15:Y:156:ILE:HB	1.94	0.49
1:A:23:PHE:HB2	1:A:111:LEU:HD22	1.95	0.49
1:A:226:LYS:HD2	1:A:236:VAL:HG13	1.95	0.49
1:A:594:ARG:O	1:A:606:ARG:NH2	2.46	0.49
1:A:1752:GLU:HA	1:A:1756:LYS:HD2	1.95	0.49
6:H:684:LYS:HZ1	6:H:687:LYS:HD3	1.78	0.49
8:I:96:GLU:HA	12:N:389:PRO:HG2	1.94	0.49
8:I:269:LEU:O	8:I:272:MET:HB2	2.13	0.49
9:J:41:TYR:HD2	9:J:72:CYS:SG	2.35	0.49
9:J:418:TRP:O	9:J:458:LEU:HD11	2.12	0.49
12:N:260:ALA:O	12:N:264:THR:HG23	2.12	0.49
12:N:352:PRO:O	12:N:355:ARG:HG3	2.12	0.49
12:N:508:ILE:HG23	12:N:509:TYR:CD2	2.48	0.49
3:P:193:VAL:O	3:P:196:THR:OG1	2.29	0.49
3:P:210:CYS:SG	3:P:236:HIS:HD2	2.34	0.49
15:X:134:SER:O	15:X:137:GLU:HG2	2.11	0.49
15:Y:72:SER:O	15:Y:75:GLN:HB2	2.13	0.49
15:Y:548:GLY:O	15:Y:551:LYS:HE3	2.13	0.49
1:A:862:TYR:CE2	1:A:864:PRO:HG3	2.47	0.49
1:A:940:THR:HG23	1:A:943:ASP:H	1.77	0.49
1:A:1520:LEU:O	1:A:1523:LEU:N	2.45	0.49
1:A:1680:LEU:HG	1:A:1681:SER:N	2.27	0.49
1:A:1765:GLN:OE1	1:A:1768:LEU:HD22	2.13	0.49
6:F:28:ALA:O	6:F:44:LEU:HD21	2.12	0.49
6:H:735:LYS:NZ	15:X:182:ALA:O	2.37	0.49
8:I:301:GLN:HE22	8:I:457:ASN:HB2	1.78	0.49
12:N:92:TRP:HA	12:N:95:ILE:HG22	1.95	0.49
12:N:755:TRP:O	12:N:759:GLN:HG3	2.12	0.49
13:O:254:HIS:CE1	13:O:276:HIS:CE1	3.01	0.49
15:X:44:MET:SD	15:X:49:LEU:HD21	2.52	0.49
15:X:215:LYS:O	15:X:218:GLU:N	2.46	0.49
15:Y:64:SER:HA	15:Y:70:LEU:HD12	1.94	0.49
15:Y:251:ASN:O	15:Y:255:ILE:HG12	2.13	0.49
15:Y:276:SER:HA	15:Y:279:ASP:OD1	2.11	0.49
1:A:1796:ALA:HA	1:A:1799:ARG:NH1	2.28	0.49
3:C:270:ALA:HB1	3:C:286:PHE:CD2	2.48	0.49
8:I:22:GLU:O	8:I:40:THR:HG23	2.12	0.49
9:J:180:GLU:HA	9:J:183:GLU:HB3	1.95	0.49
9:K:137:GLY:HA3	9:K:153:TYR:CE1	2.47	0.49
12:N:141:LEU:O	12:N:141:LEU:HD12	2.13	0.49
13:O:733:CYS:O	13:O:736:LEU:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:407:LEU:HA	15:X:410:TYR:CD2	2.46	0.49
1:A:1162:LYS:HG3	1:A:1163:PRO:HD2	1.95	0.49
2:B:12:ALA:O	12:N:596:LEU:HD12	2.13	0.49
4:D:8:LEU:HD11	13:O:424:GLN:HE21	1.78	0.49
6:F:27:LEU:HD21	6:H:147:PHE:O	2.12	0.49
6:H:766:LEU:HD23	15:X:394:ILE:HD12	1.93	0.49
8:I:224:SER:HB3	8:I:229:SER:HA	1.94	0.49
8:I:345:GLN:HE21	8:I:404:LEU:HD11	1.78	0.49
8:I:393:VAL:O	8:I:397:ILE:HG13	2.12	0.49
9:K:206:GLU:HA	9:K:209:LEU:HG	1.94	0.49
9:K:440:THR:CG2	9:K:443:LYS:HD3	2.43	0.49
13:O:435:SER:OG	13:O:654:ASP:OD1	2.25	0.49
15:Y:245:PHE:HB3	15:Y:253:ARG:HH11	1.77	0.49
15:Y:267:LEU:HG	15:Y:270:ASN:HD21	1.78	0.49
15:Y:400:ILE:HB	15:Y:410:TYR:HE1	1.77	0.49
1:A:657:TRP:CE2	1:A:785:SER:HB3	2.48	0.48
6:H:475:ALA:O	6:H:478:SER:OG	2.28	0.48
6:H:550:VAL:HG13	6:H:551:ALA:H	1.78	0.48
9:J:199:GLU:HG2	9:J:202:ARG:NH2	2.28	0.48
9:J:502:PHE:HE1	9:J:515:SER:HA	1.77	0.48
12:N:527:LEU:HD12	12:N:601:TRP:HH2	1.78	0.48
13:O:249:ASP:HA	13:O:280:ARG:NH2	2.28	0.48
15:Y:175:LEU:HG	15:Y:179:TYR:CZ	2.48	0.48
1:A:27:HIS:HB3	1:A:101:ILE:CD1	2.44	0.48
1:A:774:LYS:HD3	1:A:845:TYR:CE2	2.48	0.48
1:A:1412:CYS:HG	1:A:1425:TRP:HH2	1.59	0.48
1:A:1509:PRO:HD2	10:L:106:GLN:HE22	1.77	0.48
1:A:1542:LEU:HB3	1:A:1558:HIS:ND1	2.28	0.48
1:A:1821:PHE:HZ	1:A:1839:PHE:HD2	1.60	0.48
3:C:142:GLU:OE2	13:O:209:GLN:HB2	2.14	0.48
3:C:158:LEU:HD11	3:C:174:LEU:HD23	1.95	0.48
3:C:329:TYR:CE2	3:P:132:ASP:HB3	2.47	0.48
3:C:449:LEU:HD23	3:C:449:LEU:HA	1.60	0.48
9:J:333:TYR:O	9:J:337:TRP:CD1	2.67	0.48
9:K:357:TYR:HB3	9:K:374:ILE:HG13	1.95	0.48
11:M:1:MET:N	3:P:50:HIS:HB2	2.28	0.48
13:O:426:THR:OG1	13:O:438:ALA:O	2.30	0.48
3:P:238:TYR:CE1	3:P:243:LEU:HD23	2.48	0.48
15:Y:54:ARG:NH1	15:Y:87:LEU:HA	2.28	0.48
15:Y:171:ILE:HD12	15:Y:171:ILE:H	1.78	0.48
1:A:584:ILE:HG22	1:A:599:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:722:HIS:O	1:A:724:LEU:N	2.46	0.48
1:A:1141:VAL:HG11	1:A:1608:HIS:CG	2.48	0.48
1:A:1551:ASN:ND2	1:A:1594:ALA:HA	2.28	0.48
1:A:1595:HIS:CE1	1:A:1598:ASP:HB2	2.48	0.48
1:A:1702:ARG:HD2	1:A:1703:ALA:H	1.78	0.48
3:C:409:TYR:HB3	3:C:418:CYS:HB3	1.95	0.48
6:F:570:TRP:HB2	6:F:593:ALA:HB2	1.95	0.48
9:J:9:ARG:HD3	9:K:162:TYR:CD2	2.48	0.48
9:J:249:MET:HB3	9:J:249:MET:HE2	1.64	0.48
9:J:291:LEU:HB3	9:J:301:SER:OG	2.13	0.48
9:J:306:GLY:HA3	9:J:323:LEU:CD1	2.43	0.48
9:J:497:ASN:O	9:J:501:TYR:HD2	1.96	0.48
13:O:159:GLN:O	13:O:163:GLN:HG2	2.12	0.48
15:X:295:GLU:O	15:X:299:MET:HG2	2.13	0.48
15:Y:393:ILE:O	15:Y:397:ARG:HD3	2.13	0.48
1:A:23:PHE:HE2	1:A:113:VAL:HB	1.78	0.48
1:A:89:TYR:CD1	13:O:537:ALA:HA	2.49	0.48
1:A:1602:HIS:O	1:A:1606:LEU:HD12	2.13	0.48
3:C:346:GLN:O	3:C:348:GLU:N	2.47	0.48
6:F:583:HIS:O	6:F:587:ILE:HG22	2.13	0.48
6:F:712:VAL:O	6:F:716:ASN:ND2	2.46	0.48
6:H:25:VAL:HG13	6:H:48:TYR:CE1	2.40	0.48
8:I:65:GLY:N	8:I:84:LEU:HD13	2.26	0.48
8:I:145:LEU:HD22	8:I:268:SER:HA	1.95	0.48
8:I:737:ASN:CG	8:I:739:ARG:H	2.17	0.48
9:J:523:ILE:HD11	3:P:420:TYR:CB	2.43	0.48
9:K:291:LEU:HB3	9:K:301:SER:HG	1.78	0.48
9:K:369:LEU:HD22	7:W:3:ARG:HG3	1.95	0.48
12:N:337:ALA:HB2	12:N:364:CYS:CB	2.43	0.48
12:N:802:LYS:HA	12:N:807:GLN:NE2	2.27	0.48
13:O:321:GLU:O	13:O:325:GLN:HG2	2.13	0.48
3:P:96:VAL:HG11	3:P:98:GLU:HG3	1.96	0.48
15:X:460:LYS:O	15:X:464:LEU:HG	2.13	0.48
15:X:517:ASP:O	15:X:520:VAL:HG22	2.13	0.48
15:Y:410:TYR:O	15:Y:413:LEU:HB3	2.13	0.48
1:A:224:VAL:HG12	1:A:238:TYR:HD1	1.79	0.48
1:A:248:PHE:HB2	1:A:430:VAL:HG21	1.96	0.48
1:A:869:ARG:O	1:A:873:VAL:HG12	2.13	0.48
1:A:1279:ARG:HG3	1:A:1280:PRO:HD2	1.96	0.48
3:C:436:LEU:HB3	3:C:459:ALA:HB2	1.96	0.48
3:C:439:LEU:HA	3:C:439:LEU:HD23	1.68	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:490:TYR:CD2	3:C:515:TYR:HD1	2.31	0.48
6:F:97:PHE:CD2	6:F:99:LYS:HG3	2.48	0.48
6:F:520:ARG:O	6:F:523:SER:OG	2.23	0.48
6:F:556:SER:O	6:F:560:THR:HG23	2.13	0.48
6:H:472:GLY:HA3	6:H:488:LEU:HD21	1.96	0.48
6:H:717:GLU:HA	6:H:719:TYR:CE1	2.48	0.48
9:J:325:LYS:HE3	9:J:329:LEU:HB2	1.94	0.48
9:K:458:LEU:HD12	9:K:458:LEU:HA	1.65	0.48
3:P:400:ARG:NH1	17:Q:499:ARG:HA	2.23	0.48
15:X:190:THR:O	15:X:194:GLU:HG2	2.12	0.48
15:Y:237:SER:OG	15:Y:241:LYS:HE3	2.13	0.48
15:Y:250:ASP:OD2	15:Y:253:ARG:NH1	2.46	0.48
15:Y:254:ALA:O	15:Y:258:ILE:HG12	2.14	0.48
1:A:1028:TRP:CH2	1:A:1566:PHE:HD1	2.32	0.48
2:B:13:THR:HB	12:N:598:SER:HB3	1.94	0.48
6:H:522:PHE:CE2	6:H:538:ILE:HG22	2.49	0.48
8:I:560:THR:OG1	8:I:563:GLU:HB2	2.13	0.48
9:J:420:THR:O	9:J:424:TRP:CD1	2.66	0.48
9:K:62:SER:OG	9:K:63:ARG:HD3	2.13	0.48
13:O:470:LEU:HD22	13:O:489:VAL:HG13	1.94	0.48
3:P:32:ILE:O	3:P:36:LEU:HD23	2.13	0.48
3:P:36:LEU:HD21	3:P:228:TRP:CH2	2.46	0.48
3:P:361:ASN:HB3	3:P:362:PRO:C	2.34	0.48
15:X:304:LEU:O	15:X:308:MET:HG2	2.14	0.48
15:X:349:SER:HA	15:X:352:SER:OG	2.14	0.48
15:Y:449:THR:HG22	15:Y:461:ALA:HA	1.96	0.48
1:A:1131:MET:HG2	1:A:1132:THR:N	2.28	0.48
1:A:1402:GLU:HA	1:A:1463:TYR:CE1	2.49	0.48
1:A:1892:HIS:HB3	1:A:1927:ALA:HB2	1.96	0.48
3:C:270:ALA:HB2	3:C:285:ILE:HG22	1.95	0.48
3:C:399:TYR:CD1	3:C:400:ARG:N	2.82	0.48
5:E:99:ILE:CD1	6:H:591:GLN:HG2	2.43	0.48
6:F:611:PHE:HB3	6:F:620:ALA:HB2	1.96	0.48
6:H:520:ARG:O	6:H:523:SER:OG	2.30	0.48
6:H:707:PHE:HA	6:H:729:LEU:HD11	1.96	0.48
8:I:404:LEU:HD21	13:O:410:TRP:NE1	2.28	0.48
9:J:315:LYS:HD2	9:J:318:HIS:ND1	2.29	0.48
9:K:48:TYR:OH	9:K:78:ARG:NH2	2.46	0.48
12:N:435:VAL:HG23	12:N:515:PHE:CE2	2.48	0.48
12:N:538:GLU:OE1	12:N:561:LEU:HD22	2.14	0.48
12:N:676:TRP:O	12:N:713:PHE:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:488:GLN:HA	3:P:491:ILE:HG22	1.95	0.48
15:X:258:ILE:O	15:X:262:GLU:HG2	2.13	0.48
15:Y:520:VAL:HA	15:Y:525:TYR:HE1	1.78	0.48
1:A:1256:GLY:O	1:A:1259:LEU:N	2.47	0.48
1:A:1595:HIS:CD2	1:A:1598:ASP:HB2	2.49	0.48
1:A:1749:SER:HB2	13:O:605:LEU:HD22	1.96	0.48
3:C:484:GLU:OE2	3:C:488:GLN:NE2	2.47	0.48
6:F:584:ASP:OD1	6:F:585:ILE:N	2.44	0.48
8:I:16:GLU:OE2	8:I:740:HIS:NE2	2.41	0.48
8:I:28:TRP:CE3	8:I:35:ILE:HB	2.49	0.48
8:I:184:PHE:O	8:I:185:ILE:HD13	2.14	0.48
8:I:620:PHE:HD2	8:I:707:PHE:CE1	2.29	0.48
12:N:502:ILE:HD11	12:N:548:ARG:HD2	1.96	0.48
12:N:629:LEU:HD23	12:N:633:ARG:HH22	1.79	0.48
13:O:435:SER:HB2	13:O:476:LEU:HD11	1.95	0.48
13:O:681:PRO:O	13:O:682:LYS:HB2	2.13	0.48
15:X:185:GLU:O	15:X:189:VAL:HG23	2.14	0.48
15:Y:193:LYS:HA	15:Y:196:LEU:HG	1.96	0.48
15:Y:350:PHE:O	15:Y:353:LYS:HE2	2.14	0.48
1:A:102:TRP:O	1:A:114:TYR:HB3	2.12	0.48
1:A:131:PHE:O	1:A:147:VAL:HG23	2.14	0.48
1:A:847:TRP:CD1	1:A:860:TYR:HB2	2.49	0.48
1:A:1856:LEU:HD12	1:A:1857:ASP:N	2.28	0.48
1:A:1869:HIS:HB2	1:A:1934:LEU:HD13	1.96	0.48
3:C:49:LEU:HD12	3:P:95:ASP:OD2	2.13	0.48
3:C:228:TRP:CD1	3:C:228:TRP:N	2.81	0.48
6:F:618:ASP:O	6:F:621:LEU:N	2.46	0.48
6:H:141:SER:HA	6:H:144:LEU:HD12	1.96	0.48
8:I:197:ARG:HG2	8:I:198:VAL:N	2.29	0.48
8:I:664:ARG:HB3	8:I:714:LEU:HD12	1.96	0.48
8:I:692:ARG:NH2	8:I:694:ASP:OD2	2.46	0.48
9:J:39:ASP:OD2	9:J:39:ASP:N	2.44	0.48
3:P:355:GLN:NE2	3:P:375:TYR:OH	2.46	0.48
15:Y:236:LEU:O	15:Y:240:ILE:HG13	2.13	0.48
1:A:480:ALA:O	1:A:488:MET:HG3	2.13	0.48
1:A:612:ILE:HG13	1:A:641:TRP:HZ3	1.78	0.48
1:A:1046:PRO:HB3	1:A:1108:THR:OG1	2.13	0.48
1:A:1745:PRO:HA	1:A:1748:LEU:HB2	1.95	0.48
8:I:286:ARG:NH2	8:I:325:LEU:HD13	2.29	0.48
8:I:737:ASN:OD1	8:I:740:HIS:N	2.47	0.48
9:K:192:LYS:HB2	9:K:198:GLN:HE21	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:37:LYS:HG3	10:L:55:GLN:HB3	1.96	0.48
10:L:73:THR:HG22	10:L:131:PRO:HB2	1.94	0.48
12:N:172:MET:O	12:N:176:LEU:HD23	2.14	0.48
3:P:226:ASP:HA	3:P:230:LYS:HE2	1.95	0.48
3:P:396:LYS:HD2	3:P:396:LYS:N	2.29	0.48
3:P:515:TYR:HA	3:P:518:GLN:HG2	1.95	0.48
15:X:315:LEU:CD2	15:X:320:ARG:HE	2.26	0.48
15:Y:190:THR:HA	15:Y:193:LYS:HE2	1.95	0.48
1:A:1159:VAL:HG22	1:A:1160:TYR:O	2.13	0.47
1:A:1635:GLU:OE2	1:A:1648:LYS:HD3	2.13	0.47
1:A:1649:GLU:HG2	1:A:1650:GLU:H	1.79	0.47
1:A:1690:ILE:O	1:A:1695:GLY:HA2	2.13	0.47
2:B:18:ALA:HA	2:B:48:TRP:CZ2	2.48	0.47
6:F:529:GLU:O	6:F:531:TYR:N	2.47	0.47
6:H:44:LEU:HD23	6:H:60:LEU:CD2	2.44	0.47
8:I:66:LYS:N	8:I:86:ASP:OD2	2.26	0.47
9:J:217:GLU:OE2	9:J:240:ARG:NH1	2.45	0.47
9:J:389:ARG:HA	9:J:389:ARG:NH1	2.29	0.47
10:L:89:TYR:HB3	10:L:151:THR:HA	1.96	0.47
12:N:659:VAL:HG23	12:N:728:VAL:HG23	1.97	0.47
15:X:271:VAL:HG23	15:X:272:ASP:H	1.79	0.47
15:Y:222:MET:O	15:Y:226:VAL:HG23	2.14	0.47
1:A:82:GLU:O	1:A:84:GLY:N	2.46	0.47
1:A:768:LEU:HA	1:A:768:LEU:HD23	1.59	0.47
3:C:284:SER:OG	3:C:285:ILE:N	2.47	0.47
6:F:611:PHE:O	6:F:614:THR:N	2.47	0.47
7:G:23:ARG:HG3	7:G:24:LYS:HD3	1.96	0.47
6:H:44:LEU:HD23	6:H:60:LEU:HD21	1.96	0.47
6:H:614:THR:HG22	6:H:614:THR:O	2.14	0.47
8:I:26:LEU:HB3	8:I:37:LEU:HA	1.95	0.47
8:I:34:LEU:H	8:I:34:LEU:HD23	1.79	0.47
8:I:224:SER:HB2	8:I:230:GLU:HB3	1.95	0.47
8:I:393:VAL:HG12	8:I:397:ILE:HD11	1.96	0.47
9:J:211:LYS:C	9:J:213:ASN:H	2.17	0.47
9:J:376:LEU:HD23	9:J:391:PHE:CZ	2.49	0.47
9:K:289:HIS:CE1	11:M:57:TRP:CH2	3.02	0.47
11:M:63:GLN:C	11:M:65:LEU:H	2.18	0.47
15:X:99:LYS:HA	15:X:102:MET:SD	2.54	0.47
15:X:340:GLU:O	15:X:344:VAL:HG22	2.13	0.47
15:X:417:TYR:O	15:X:422:SER:OG	2.32	0.47
15:X:460:LYS:O	15:X:463:THR:OG1	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:522:VAL:HG12	15:X:524:GLU:OE1	2.13	0.47
15:Y:146:TYR:HA	15:Y:149:LEU:HD12	1.95	0.47
15:Y:400:ILE:HG22	15:Y:409:CYS:SG	2.54	0.47
15:Y:458:GLN:O	15:Y:462:LYS:HG3	2.14	0.47
1:A:632:GLU:O	1:A:636:GLN:NE2	2.47	0.47
1:A:980:ARG:NE	1:A:1674:TRP:HE1	2.11	0.47
1:A:1051:VAL:HG21	1:A:1065:GLU:OE2	2.14	0.47
1:A:1284:GLU:HA	1:A:1349:SER:HA	1.95	0.47
3:C:93:TYR:CE1	3:C:101:ARG:HG2	2.49	0.47
6:F:655:GLU:HG3	6:F:702:ASN:ND2	2.30	0.47
7:G:18:GLU:HA	7:G:21:ASN:ND2	2.29	0.47
6:H:571:CYS:SG	6:H:606:LEU:HD12	2.54	0.47
8:I:37:LEU:HD23	8:I:45:LEU:O	2.14	0.47
8:I:569:LEU:HD12	8:I:721:TYR:CE2	2.50	0.47
9:J:58:HIS:HE1	9:K:260:LYS:O	1.96	0.47
9:K:61:ARG:HD2	9:K:66:ASP:OD2	2.14	0.47
12:N:369:ASP:O	12:N:370:GLN:HB3	2.15	0.47
12:N:557:CYS:HA	12:N:560:MET:SD	2.54	0.47
12:N:687:MET:HB2	12:N:691:LEU:HD22	1.95	0.47
15:Y:399:ALA:O	15:Y:402:LEU:N	2.47	0.47
1:A:633:ILE:H	1:A:633:ILE:HD12	1.79	0.47
1:A:1170:ASN:ND2	1:A:1203:MET:HG3	2.29	0.47
1:A:1375:TYR:O	1:A:1414:ILE:HG23	2.14	0.47
1:A:1910:SER:O	1:A:1911:PHE:HB3	2.14	0.47
2:B:31:ASN:N	2:B:31:ASN:OD1	2.47	0.47
3:C:311:SER:O	3:C:311:SER:OG	2.29	0.47
6:F:103:HIS:HA	6:F:106:ILE:HD12	1.96	0.47
6:H:118:LEU:HD12	6:H:118:LEU:HA	1.62	0.47
9:K:376:LEU:CD2	7:W:4:ARG:HH22	2.28	0.47
10:L:93:LYS:HB3	10:L:142:LEU:HB2	1.96	0.47
12:N:355:ARG:O	12:N:359:GLU:HG2	2.15	0.47
13:O:223:LEU:HD23	13:O:223:LEU:HA	1.59	0.47
13:O:561:HIS:O	13:O:565:GLN:HG3	2.14	0.47
15:X:135:GLU:OE2	15:X:135:GLU:N	2.46	0.47
15:Y:175:LEU:HG	15:Y:179:TYR:CE2	2.49	0.47
15:Y:486:LEU:HD13	15:Y:489:GLU:HG3	1.95	0.47
16:S:498:MET:C	16:S:499:ARG:CG	2.76	0.47
1:A:1306:CYS:HB2	1:A:1374:ILE:HG12	1.97	0.47
1:A:1307:LEU:HD21	1:A:1579:SER:HA	1.96	0.47
1:A:1364:CYS:N	1:A:1365:PRO:HD2	2.29	0.47
1:A:1473:GLY:HA2	1:A:1526:VAL:CG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1480:GLU:HG2	1:A:1527:MET:SD	2.54	0.47
1:A:1731:ARG:HA	1:A:1732:ALA:HA	1.70	0.47
1:A:1824:ARG:HH21	12:N:142:MET:HA	1.79	0.47
6:F:509:TYR:CE2	6:F:517:GLN:HG3	2.50	0.47
6:F:552:LEU:HD12	6:F:552:LEU:HA	1.62	0.47
6:H:481:CYS:O	6:H:485:ILE:HG13	2.14	0.47
8:I:386:ILE:O	8:I:390:ILE:HG13	2.14	0.47
9:J:84:LYS:HA	9:J:86:HIS:CE1	2.50	0.47
9:J:291:LEU:HD12	9:J:301:SER:HB2	1.95	0.47
9:J:426:LEU:O	9:J:430:GLU:HG2	2.15	0.47
9:K:290:LYS:HD3	9:K:290:LYS:HA	1.58	0.47
10:L:80:TYR:HA	10:L:120:ILE:HD12	1.96	0.47
12:N:248:HIS:O	12:N:248:HIS:ND1	2.47	0.47
12:N:534:SER:O	12:N:537:ARG:HG2	2.14	0.47
13:O:399:MET:O	13:O:399:MET:HG3	2.15	0.47
15:X:66:ASN:HD22	15:Y:266:LEU:C	2.18	0.47
15:Y:192:TYR:CB	15:Y:209:LEU:HD21	2.44	0.47
15:Y:196:LEU:O	15:Y:200:PRO:HB3	2.14	0.47
1:A:614:THR:HB	1:A:656:GLU:OE2	2.14	0.47
1:A:1086:MET:HG3	1:A:1610:TYR:OH	2.14	0.47
1:A:1676:LEU:HD23	1:A:1677:LEU:N	2.29	0.47
1:A:1824:ARG:HD2	1:A:1824:ARG:N	2.29	0.47
2:B:48:TRP:CH2	12:N:632:MET:HG2	2.49	0.47
2:B:63:TRP:CD1	2:B:74:PRO:HG3	2.49	0.47
3:C:316:LEU:HD12	3:C:316:LEU:HA	1.65	0.47
6:F:18:HIS:NE2	6:H:113:SER:OG	2.35	0.47
6:F:609:HIS:HA	6:F:612:VAL:HG22	1.96	0.47
6:H:522:PHE:CD2	6:H:539:TYR:HA	2.49	0.47
8:I:45:LEU:CG	8:I:57:SER:HA	2.45	0.47
8:I:317:LEU:O	8:I:320:LEU:HB3	2.14	0.47
8:I:326:THR:HG22	8:I:327:VAL:H	1.79	0.47
9:K:80:HIS:HB3	9:K:89:ALA:HB2	1.96	0.47
9:K:232:ASP:OD1	9:K:264:HIS:NE2	2.45	0.47
9:K:450:ASN:OD1	7:W:9:LEU:N	2.41	0.47
12:N:484:PRO:O	12:N:486:ASP:N	2.47	0.47
12:N:613:GLU:HA	12:N:616:ARG:HD2	1.96	0.47
12:N:798:TYR:O	12:N:802:LYS:HG2	2.14	0.47
1:A:1035:GLN:HG3	1:A:1039:ARG:HH12	1.80	0.47
1:A:1892:HIS:HA	1:A:1926:ARG:HH22	1.80	0.47
2:B:8:TRP:CH2	2:B:10:GLY:HA3	2.50	0.47
3:C:348:GLU:OE1	3:C:378:MET:HE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:376:MET:HE1	3:C:411:ILE:HG21	1.97	0.47
6:F:15:ALA:HA	6:H:116:PHE:CZ	2.50	0.47
6:F:101:LYS:HB3	6:F:105:ASP:OD1	2.15	0.47
8:I:275:ALA:O	8:I:278:GLU:HG3	2.15	0.47
8:I:286:ARG:HH21	8:I:325:LEU:HD13	1.80	0.47
9:J:52:GLN:HB3	9:J:55:ARG:HG3	1.97	0.47
9:J:134:LEU:HD13	9:J:166:ALA:HB2	1.97	0.47
9:J:338:ILE:HG12	9:J:342:HIS:CE1	2.50	0.47
9:J:488:ILE:O	9:J:492:MET:N	2.35	0.47
10:L:12:ASP:HB3	10:L:15:GLN:HG2	1.96	0.47
12:N:103:ASP:HA	12:N:104:GLU:HA	1.63	0.47
12:N:345:PHE:CE2	12:N:385:ARG:HD2	2.50	0.47
12:N:562:LYS:NZ	12:N:565:ALA:HB3	2.29	0.47
12:N:702:GLN:HG2	12:N:704:VAL:H	1.80	0.47
13:O:40:LEU:HD13	13:O:82:ILE:HD11	1.97	0.47
13:O:356:ASP:OD1	13:O:356:ASP:N	2.37	0.47
13:O:657:ILE:HD11	13:O:704:VAL:HB	1.97	0.47
3:P:187:GLU:O	3:P:191:VAL:HG22	2.14	0.47
15:Y:430:ALA:HB2	15:Y:451:CYS:SG	2.55	0.47
1:A:621:CYS:SG	1:A:622:LEU:N	2.88	0.47
1:A:843:SER:O	1:A:843:SER:OG	2.31	0.47
1:A:851:CYS:O	1:A:882:LEU:HD11	2.14	0.47
3:C:133:GLU:O	3:C:136:ASP:N	2.47	0.47
8:I:176:LEU:O	8:I:187:LEU:HA	2.15	0.47
8:I:557:TYR:C	8:I:692:ARG:HE	2.18	0.47
9:K:318:HIS:O	9:K:322:TYR:HD1	1.98	0.47
13:O:320:ALA:O	13:O:323:ALA:N	2.48	0.47
13:O:571:CYS:O	13:O:574:LEU:N	2.48	0.47
13:O:715:TYR:HB2	13:O:737:PHE:CE2	2.50	0.47
3:P:318:TYR:HA	3:P:321:HIS:CE1	2.50	0.47
3:P:323:LEU:O	3:P:326:ILE:N	2.46	0.47
3:P:344:ARG:O	3:P:345:SER:OG	2.31	0.47
1:A:659:LEU:O	1:A:662:THR:OG1	2.28	0.47
1:A:926:LEU:CD1	1:A:929:ARG:HH22	2.28	0.47
1:A:1274:LEU:HD13	1:A:1324:GLN:OE1	2.15	0.47
3:C:120:TYR:HD1	3:C:174:LEU:HD13	1.80	0.47
3:C:326:ILE:HD13	3:C:326:ILE:HA	1.72	0.47
6:F:560:THR:OG1	6:F:561:ASP:N	2.47	0.47
6:F:645:TYR:CE1	6:F:653:LEU:HD12	2.50	0.47
8:I:452:LEU:HD12	8:I:453:THR:H	1.80	0.47
9:J:285:PHE:HD1	9:J:308:TYR:CZ	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:438:GLU:OE2	9:K:440:THR:HG22	2.15	0.47
10:L:13:PRO:HG3	10:L:78:CYS:SG	2.55	0.47
12:N:762:LEU:O	12:N:765:LEU:N	2.48	0.47
13:O:299:SER:OG	13:O:300:LEU:N	2.47	0.47
13:O:506:LEU:HD12	13:O:507:TRP:N	2.30	0.47
15:X:510:VAL:O	15:X:514:ILE:HG13	2.15	0.47
15:Y:394:ILE:O	15:Y:398:GLU:HG2	2.14	0.47
1:A:24:GLY:HA3	1:A:94:TYR:CD2	2.50	0.47
1:A:90:ASP:N	1:A:90:ASP:OD1	2.47	0.47
1:A:174:PRO:HG2	1:A:175:PHE:CD2	2.49	0.47
1:A:776:ASN:HD21	1:A:778:LEU:HB2	1.80	0.47
1:A:1715:TRP:HB2	1:A:1716:GLN:NE2	2.29	0.47
2:B:1:MET:HA	12:N:650:LEU:HD22	1.96	0.47
3:C:167:LEU:HG	3:C:171:GLY:HA3	1.97	0.47
3:C:298:GLU:OE1	3:C:298:GLU:N	2.47	0.47
6:H:102:SER:HB2	6:H:105:ASP:HB2	1.96	0.47
8:I:167:LEU:H	8:I:167:LEU:HD12	1.79	0.47
9:J:177:THR:OG1	9:J:178:ALA:N	2.48	0.47
13:O:493:LEU:HD13	13:O:507:TRP:CB	2.43	0.47
15:Y:533:SER:O	15:Y:536:LEU:HB3	2.14	0.47
1:A:484:LYS:CB	1:A:593:ASN:HB2	2.44	0.46
1:A:636:GLN:O	1:A:639:VAL:HG12	2.15	0.46
1:A:772:GLU:OE1	1:A:869:ARG:HB2	2.15	0.46
1:A:1823:SER:O	1:A:1826:HIS:HD2	1.98	0.46
2:B:53:HIS:CE1	2:B:76:CYS:HB3	2.50	0.46
3:C:296:ARG:HE	3:C:298:GLU:HB2	1.80	0.46
3:C:465:VAL:HG23	3:C:466:GLU:CD	2.35	0.46
3:C:531:THR:HA	3:C:534:GLN:NE2	2.21	0.46
6:F:153:GLU:HA	6:F:473:TYR:CE2	2.50	0.46
6:F:165:ASP:HA	6:F:467:ARG:HD2	1.97	0.46
6:F:498:THR:HG21	6:H:30:ARG:NH2	2.29	0.46
6:H:747:TYR:O	6:H:750:LEU:N	2.48	0.46
8:I:310:TRP:HD1	13:O:126:VAL:HG22	1.77	0.46
9:K:140:TYR:O	9:K:144:ASP:N	2.48	0.46
10:L:33:LEU:HD13	10:L:54:TRP:CD2	2.50	0.46
12:N:132:LEU:HD22	12:N:135:TRP:CE3	2.50	0.46
12:N:366:GLU:N	12:N:366:GLU:OE2	2.47	0.46
12:N:575:ARG:NH2	12:N:592:TYR:HD1	2.13	0.46
13:O:361:LEU:HB2	13:O:384:LEU:HD13	1.97	0.46
13:O:715:TYR:HB2	13:O:737:PHE:CD2	2.49	0.46
3:P:449:LEU:HD13	3:P:476:LEU:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:304:LEU:HD23	15:X:304:LEU:HA	1.65	0.46
15:X:379:LYS:NZ	15:X:383:LEU:HD22	2.30	0.46
15:X:496:ILE:CG1	15:X:518:PHE:HB3	2.45	0.46
1:A:1807:GLU:O	1:A:1808:THR:OG1	2.31	0.46
3:C:73:PRO:CG	3:P:73:PRO:HG2	2.39	0.46
6:F:641:LEU:HB3	6:F:657:HIS:CD2	2.49	0.46
6:F:649:GLU:HA	6:F:651:PHE:CE2	2.51	0.46
6:H:509:TYR:O	6:H:513:SER:N	2.48	0.46
9:K:316:ASN:HD21	9:K:346:VAL:HG23	1.80	0.46
10:L:45:LEU:HB2	10:L:54:TRP:HB2	1.97	0.46
12:N:639:HIS:O	12:N:641:LEU:N	2.47	0.46
13:O:326:GLU:O	13:O:330:ILE:HG13	2.15	0.46
3:P:162:HIS:HB2	3:P:167:LEU:HD22	1.97	0.46
3:P:475:LYS:O	3:P:479:GLN:NE2	2.48	0.46
15:X:442:GLN:NE2	15:X:443:THR:HG22	2.31	0.46
1:A:628:ILE:HD11	1:A:762:ILE:HD13	1.97	0.46
1:A:763:PHE:CG	1:A:793:LEU:HD22	2.50	0.46
1:A:877:ILE:HG23	1:A:881:ILE:HD13	1.96	0.46
3:C:238:TYR:CD1	3:C:243:LEU:HD12	2.51	0.46
3:C:409:TYR:CE2	3:C:417:TYR:HE2	2.33	0.46
6:F:674:HIS:O	6:F:678:VAL:HG13	2.14	0.46
6:H:150:SER:N	6:H:151:PRO:HD2	2.30	0.46
8:I:93:CYS:SG	8:I:98:PRO:HA	2.54	0.46
8:I:409:SER:OG	8:I:410:SER:N	2.49	0.46
9:J:176:LEU:HD11	9:J:180:GLU:HB2	1.97	0.46
9:J:184:LEU:HA	9:J:184:LEU:HD23	1.70	0.46
9:K:59:ALA:O	9:K:63:ARG:NH2	2.48	0.46
9:K:194:CYS:SG	9:K:197:GLU:HG3	2.55	0.46
12:N:654:THR:HB	12:N:724:ARG:NH2	2.30	0.46
12:N:772:ARG:O	12:N:776:MET:HG2	2.15	0.46
13:O:53:SER:N	13:O:56:GLU:HB2	2.30	0.46
3:P:490:TYR:O	3:P:494:ILE:HD12	2.15	0.46
7:W:13:LEU:HB3	7:W:16:ILE:HD12	1.96	0.46
15:X:435:LYS:HA	15:X:435:LYS:HD2	1.74	0.46
15:X:441:ALA:HB3	15:X:444:LEU:CD1	2.45	0.46
1:A:12:ILE:HB	1:A:509:VAL:HA	1.97	0.46
1:A:436:LEU:HD13	1:A:638:LEU:HD23	1.97	0.46
1:A:452:LEU:N	1:A:474:ILE:O	2.48	0.46
1:A:804:ASP:O	1:A:808:ARG:HG3	2.14	0.46
1:A:1221:ASP:OD1	1:A:1222:MET:N	2.48	0.46
1:A:1248:ASN:OD1	1:A:1603:LEU:HD12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:30:PHE:HD1	2:B:46:LEU:HD22	1.80	0.46
3:C:204:GLY:O	3:C:208:GLU:HG2	2.15	0.46
6:F:149:TRP:O	6:F:152:PHE:N	2.43	0.46
6:H:671:LEU:O	6:H:675:ILE:HG13	2.15	0.46
9:J:74:TYR:OH	9:J:78:ARG:NH1	2.48	0.46
10:L:49:ASN:HB3	10:L:51:GLU:OE2	2.15	0.46
3:P:233:PHE:O	3:P:237:ILE:HG22	2.15	0.46
3:P:245:GLU:HG2	3:P:246:GLU:N	2.30	0.46
15:X:202:ALA:O	15:X:206:ILE:HG13	2.15	0.46
15:X:496:ILE:H	15:X:496:ILE:HD12	1.80	0.46
15:Y:163:PRO:O	15:Y:167:ARG:HG3	2.16	0.46
15:Y:364:LYS:O	15:Y:368:LEU:HG	2.14	0.46
1:A:953:LEU:HB3	1:A:954:PRO:HD3	1.97	0.46
1:A:1771:PHE:HZ	13:O:634:LEU:HD23	1.81	0.46
1:A:1785:GLU:O	1:A:1788:PRO:HD2	2.15	0.46
1:A:1922:LYS:HD3	1:A:1922:LYS:HA	1.68	0.46
3:C:323:LEU:HA	3:C:323:LEU:HD23	1.68	0.46
6:H:520:ARG:O	6:H:524:GLU:HG3	2.15	0.46
6:H:530:ASN:OD1	6:H:531:TYR:N	2.48	0.46
8:I:122:SER:OG	8:I:124:VAL:N	2.49	0.46
8:I:441:THR:O	8:I:444:ASP:HB3	2.15	0.46
9:J:93:LEU:HA	9:J:93:LEU:HD23	1.56	0.46
12:N:285:PHE:HB3	12:N:289:PHE:CD1	2.49	0.46
12:N:343:GLU:O	12:N:347:ILE:HG12	2.16	0.46
12:N:608:LYS:HD2	12:N:608:LYS:HA	1.74	0.46
13:O:147:SER:OG	13:O:148:PHE:N	2.49	0.46
3:P:35:GLN:O	3:P:38:LEU:HG	2.15	0.46
1:A:117:PHE:HD2	13:O:268:PHE:CE2	2.33	0.46
1:A:191:ARG:HG2	1:A:192:SER:H	1.79	0.46
1:A:259:TYR:HD1	1:A:266:HIS:CE1	2.33	0.46
1:A:431:PHE:CB	1:A:481:PRO:HG3	2.45	0.46
1:A:757:THR:OG1	1:A:758:HIS:N	2.43	0.46
1:A:1111:ALA:HB3	1:A:1116:THR:HB	1.97	0.46
1:A:1169:ALA:O	1:A:1172:TYR:N	2.48	0.46
1:A:1268:HIS:ND1	3:C:545:GLU:HG2	2.31	0.46
6:F:485:ILE:HD12	6:F:509:TYR:CE1	2.51	0.46
8:I:88:LYS:HD2	8:I:107:GLU:O	2.16	0.46
8:I:144:THR:H	8:I:160:ASN:CB	2.29	0.46
8:I:335:GLN:O	8:I:338:GLU:HG3	2.15	0.46
8:I:731:SER:OG	8:I:746:MET:SD	2.71	0.46
9:J:133:CYS:HB2	9:J:156:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:445:GLU:CD	9:J:475:ILE:HD13	2.36	0.46
9:J:482:TYR:HA	9:J:485:ILE:HG22	1.98	0.46
9:K:341:GLY:HA3	9:K:357:TYR:CE1	2.51	0.46
12:N:387:LEU:HD23	12:N:387:LEU:HA	1.70	0.46
3:P:262:SER:O	3:P:266:VAL:HG23	2.15	0.46
15:X:452:LEU:HB3	15:X:461:ALA:HB2	1.98	0.46
15:X:455:PRO:O	15:X:457:THR:N	2.49	0.46
15:X:465:LEU:HD21	15:X:482:LYS:HA	1.97	0.46
15:Y:72:SER:OG	15:Y:74:PRO:HD2	2.16	0.46
15:Y:538:LEU:HD23	15:Y:538:LEU:HA	1.64	0.46
1:A:117:PHE:HB3	13:O:268:PHE:CE2	2.51	0.46
1:A:131:PHE:HD1	1:A:214:LEU:O	1.98	0.46
1:A:1387:LEU:HD21	1:A:1410:ALA:HB3	1.97	0.46
1:A:1626:THR:HG1	1:A:1628:THR:HG1	1.51	0.46
1:A:1727:ASN:HB2	12:N:163:PHE:CE2	2.49	0.46
2:B:63:TRP:CD1	2:B:64:LEU:HD22	2.50	0.46
3:C:480:LEU:HD23	3:C:480:LEU:HA	1.65	0.46
6:F:26:PHE:HD2	6:F:27:LEU:HD12	1.78	0.46
6:F:26:PHE:CD1	6:H:149:TRP:CD1	3.03	0.46
6:F:543:LEU:HD23	6:F:543:LEU:HA	1.56	0.46
7:G:23:ARG:HG3	7:G:24:LYS:HB2	1.97	0.46
6:H:509:TYR:CD2	6:H:517:GLN:HG3	2.51	0.46
8:I:723:ALA:HB3	8:I:732:CYS:HB3	1.97	0.46
12:N:148:GLY:O	12:N:152:GLU:CB	2.64	0.46
12:N:716:ILE:HD12	12:N:718:GLU:HB2	1.97	0.46
13:O:276:HIS:CE1	13:O:280:ARG:HG3	2.51	0.46
13:O:529:ASP:O	13:O:532:VAL:HG12	2.15	0.46
3:P:477:HIS:HB3	3:P:486:ALA:HB2	1.98	0.46
15:X:193:LYS:HE2	15:X:193:LYS:HB3	1.83	0.46
15:X:259:CYS:O	15:X:263:LYS:HG2	2.16	0.46
1:A:1364:CYS:O	1:A:1368:THR:HG22	2.15	0.46
1:A:1511:ASN:HD21	10:L:104:ASN:HD21	1.63	0.46
3:C:307:LEU:HD22	3:C:316:LEU:HD13	1.97	0.46
3:C:521:PHE:CD2	3:C:549:LEU:HD11	2.51	0.46
6:F:644:ILE:HA	6:F:644:ILE:HD12	1.79	0.46
6:H:679:GLN:O	6:H:682:LEU:N	2.46	0.46
13:O:637:PRO:O	13:O:638:GLU:C	2.54	0.46
3:P:54:TRP:CD2	3:P:203:TRP:CD1	3.04	0.46
15:X:173:MET:HG2	15:X:177:ASN:HD21	1.81	0.46
15:Y:446:LEU:O	15:Y:449:THR:OG1	2.28	0.46
1:A:1300:LEU:HD13	1:A:1369:LEU:HD13	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1461:HIS:O	1:A:1465:ILE:HG12	2.16	0.46
1:A:1910:SER:OG	1:A:1912:ALA:N	2.46	0.46
1:A:1910:SER:CB	1:A:1913:GLU:H	2.28	0.46
3:C:58:LEU:O	3:C:61:SER:N	2.48	0.46
3:C:318:TYR:HD1	9:J:282:ASN:OD1	1.99	0.46
3:C:517:ALA:HA	3:C:532:CYS:SG	2.56	0.46
6:F:23:ASP:O	6:F:27:LEU:HD13	2.16	0.46
6:F:97:PHE:HB3	6:F:99:LYS:HB2	1.97	0.46
6:F:504:GLN:HE22	6:F:507:ARG:NH2	2.12	0.46
8:I:102:HIS:CG	8:I:103:SER:N	2.84	0.46
8:I:523:HIS:HB3	8:I:527:ARG:NH1	2.30	0.46
9:J:488:ILE:O	9:J:492:MET:HG2	2.16	0.46
12:N:180:PHE:HB2	12:N:240:PHE:CE2	2.50	0.46
12:N:392:ASN:HD22	12:N:394:CYS:N	2.14	0.46
13:O:380:GLY:O	13:O:383:SER:OG	2.31	0.46
3:P:433:SER:O	3:P:437:VAL:HG23	2.16	0.46
15:Y:383:LEU:CB	15:Y:392:ALA:HB2	2.36	0.46
1:A:217:LEU:HD23	1:A:217:LEU:HA	1.73	0.46
1:A:802:TYR:OH	1:A:842:PRO:HD3	2.16	0.46
1:A:872:LEU:HD23	1:A:933:TRP:HH2	1.81	0.46
1:A:1027:ILE:HG22	1:A:1028:TRP:CD1	2.50	0.46
1:A:1080:LEU:HD23	1:A:1080:LEU:HA	1.70	0.46
1:A:1210:LEU:HD23	1:A:1210:LEU:HA	1.63	0.46
3:C:328:LYS:HB3	3:C:329:TYR:CE1	2.50	0.46
9:J:31:SER:HB2	9:K:227:LEU:HD23	1.98	0.46
9:J:275:LEU:HA	9:J:275:LEU:HD23	1.64	0.46
9:J:324:SER:O	9:J:328:THR:HG22	2.15	0.46
9:J:349:GLU:OE1	9:J:352:GLN:HG3	2.16	0.46
9:J:451:LEU:HG	9:J:467:TYR:CE2	2.51	0.46
9:J:523:ILE:HD11	3:P:420:TYR:HB2	1.98	0.46
10:L:86:ASP:HB2	10:L:89:TYR:HD1	1.81	0.46
12:N:331:PHE:CZ	12:N:335:ILE:HD12	2.51	0.46
12:N:506:VAL:HA	12:N:510:GLY:O	2.16	0.46
12:N:637:TRP:N	12:N:637:TRP:CD1	2.84	0.46
13:O:240:LEU:HD23	13:O:240:LEU:HA	1.80	0.46
3:P:46:ARG:NH2	3:P:113:LYS:HB2	2.31	0.46
15:Y:192:TYR:O	15:Y:195:VAL:HG22	2.16	0.46
1:A:1533:LEU:HD11	12:N:482:PRO:HD3	1.97	0.45
1:A:1585:LEU:HA	1:A:1585:LEU:HD23	1.49	0.45
6:F:466:LEU:HD12	6:F:466:LEU:HA	1.77	0.45
8:I:717:MET:HG3	8:I:719:ALA:HB2	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:293:ILE:O	12:N:297:VAL:HG23	2.16	0.45
12:N:506:VAL:O	12:N:510:GLY:HA3	2.15	0.45
3:P:228:TRP:CD1	3:P:228:TRP:N	2.84	0.45
3:P:372:GLY:HA2	3:P:384:ALA:HA	1.98	0.45
15:X:77:TYR:OH	15:X:107:LYS:HD3	2.16	0.45
15:X:175:LEU:HD11	15:X:179:TYR:CZ	2.51	0.45
15:Y:193:LYS:HA	15:Y:196:LEU:CD2	2.46	0.45
15:Y:390:GLN:O	15:Y:394:ILE:HG23	2.15	0.45
1:A:252:ASP:OD2	1:A:253:PRO:HD3	2.16	0.45
1:A:485:ILE:O	1:A:487:THR:HG23	2.16	0.45
1:A:619:GLN:O	1:A:623:GLN:HG2	2.15	0.45
1:A:852:LEU:HD11	1:A:1819:GLU:HB3	1.98	0.45
1:A:1217:LEU:HD12	1:A:1259:LEU:O	2.16	0.45
1:A:1824:ARG:NH2	12:N:142:MET:HA	2.32	0.45
3:C:399:TYR:HA	3:C:428:LEU:HD12	1.98	0.45
3:C:517:ALA:HB1	3:C:549:LEU:HD23	1.97	0.45
6:F:613:LEU:HB2	6:F:679:GLN:NE2	2.31	0.45
8:I:10:SER:OG	8:I:710:HIS:HA	2.16	0.45
9:J:451:LEU:HD12	9:J:451:LEU:HA	1.49	0.45
9:J:469:ARG:HB3	9:J:469:ARG:CZ	2.46	0.45
12:N:503:SER:HA	12:N:506:VAL:HG22	1.97	0.45
12:N:528:LEU:HD22	12:N:529:HIS:CE1	2.51	0.45
13:O:39:VAL:HG22	13:O:93:VAL:HG23	1.98	0.45
13:O:127:HIS:O	13:O:127:HIS:CG	2.69	0.45
15:X:458:GLN:HE21	15:X:488:ARG:NH2	2.14	0.45
15:Y:74:PRO:O	15:Y:78:GLN:HG3	2.15	0.45
15:Y:515:LEU:O	15:Y:519:LEU:HD13	2.16	0.45
1:A:412:LEU:HD22	1:A:468:PHE:HD1	1.81	0.45
1:A:925:SER:C	1:A:927:ALA:H	2.18	0.45
1:A:1301:ALA:HA	1:A:1304:MET:HE3	1.99	0.45
1:A:1844:PHE:O	1:A:1848:VAL:HG23	2.17	0.45
2:B:3:VAL:HB	12:N:671:GLN:OE1	2.17	0.45
2:B:46:LEU:HB2	2:B:48:TRP:CH2	2.52	0.45
6:F:76:ALA:HB2	6:F:92:LEU:HD21	1.98	0.45
6:H:550:VAL:HG13	6:H:551:ALA:N	2.31	0.45
6:H:625:ARG:NH1	9:K:506:LEU:HB3	2.32	0.45
6:H:740:TYR:HA	6:H:743:ILE:HD12	1.98	0.45
8:I:644:TYR:OH	8:I:729:LYS:O	2.26	0.45
8:I:723:ALA:N	8:I:732:CYS:O	2.40	0.45
9:K:373:TYR:O	9:K:377:GLU:HG2	2.16	0.45
12:N:696:MET:HG3	12:N:697:SER:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:699:TRP:O	12:N:703:GLY:N	2.41	0.45
3:P:48:LEU:HD12	3:P:49:LEU:H	1.82	0.45
3:P:286:PHE:HB3	3:P:303:PHE:CD1	2.51	0.45
15:X:491:LYS:HG2	15:X:494:ASP:OD1	2.17	0.45
15:Y:169:PRO:HA	15:Y:172:ASN:HD22	1.79	0.45
15:Y:320:ARG:O	15:Y:324:VAL:HG23	2.16	0.45
1:A:85:GLU:H	13:O:566:LYS:NZ	2.14	0.45
1:A:153:ILE:N	1:A:160:ASN:O	2.49	0.45
1:A:881:ILE:HG23	1:A:1825:SER:HB2	1.97	0.45
1:A:1584:LEU:HB3	1:A:1588:LEU:HD23	1.99	0.45
1:A:1787:LEU:HD23	1:A:1788:PRO:N	2.31	0.45
6:F:559:LEU:HD12	6:F:559:LEU:HA	1.65	0.45
6:H:696:ILE:HG12	6:H:705:CYS:SG	2.56	0.45
8:I:500:PHE:CE2	13:O:492:HIS:HB2	2.51	0.45
8:I:557:TYR:HA	8:I:692:ARG:HE	1.82	0.45
8:I:640:ASP:HB3	8:I:722:VAL:HG12	1.97	0.45
9:J:33:SER:O	9:J:34:ARG:HG2	2.17	0.45
9:K:444:TRP:CE3	9:K:444:TRP:HA	2.52	0.45
12:N:55:LEU:HD13	12:N:55:LEU:HA	1.85	0.45
12:N:340:ARG:HA	12:N:340:ARG:HD3	1.81	0.45
12:N:793:GLN:OE1	12:N:793:GLN:N	2.49	0.45
13:O:472:HIS:O	13:O:476:LEU:HD23	2.15	0.45
15:X:137:GLU:HG3	15:X:138:VAL:N	2.30	0.45
15:X:218:GLU:O	15:X:221:SER:OG	2.27	0.45
15:X:339:ALA:O	15:X:343:VAL:HG23	2.15	0.45
15:Y:513:ARG:HH22	15:Y:514:ILE:HG12	1.80	0.45
1:A:226:LYS:HB2	1:A:236:VAL:HG12	1.98	0.45
1:A:637:MET:HG3	1:A:667:MET:SD	2.57	0.45
1:A:777:THR:OG1	1:A:948:PRO:HG3	2.16	0.45
1:A:1649:GLU:HG2	1:A:1650:GLU:N	2.32	0.45
2:B:60:ILE:O	2:B:64:LEU:HD23	2.16	0.45
6:F:154:SER:O	6:F:158:ILE:HG12	2.16	0.45
6:F:579:LEU:HD23	6:F:579:LEU:HA	1.65	0.45
8:I:534:ASP:O	8:I:538:GLN:HG2	2.16	0.45
8:I:557:TYR:HA	8:I:692:ARG:HG2	1.98	0.45
9:J:37:PRO:HB3	9:J:69:TYR:HE2	1.80	0.45
9:J:356:ALA:O	9:J:359:THR:OG1	2.31	0.45
9:J:369:LEU:HD22	9:J:373:TYR:CE2	2.52	0.45
9:K:253:LEU:HD23	9:K:253:LEU:HA	1.78	0.45
9:K:499:VAL:HG23	9:K:522:CYS:SG	2.56	0.45
13:O:690:ALA:HA	13:O:693:ASN:HD22	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:185:VAL:HG23	3:P:186:LYS:H	1.81	0.45
15:X:152:ASP:O	15:X:156:ILE:HG13	2.16	0.45
15:X:196:LEU:HD23	15:X:196:LEU:HA	1.72	0.45
15:Y:460:LYS:H	15:Y:460:LYS:HE2	1.82	0.45
1:A:16:ASP:OD1	1:A:17:LEU:N	2.49	0.45
1:A:1031:ASP:OD2	1:A:1033:ARG:N	2.49	0.45
1:A:1811:LEU:HG	1:A:1887:CYS:HB2	1.99	0.45
1:A:1845:LEU:N	1:A:1846:PRO:HD2	2.32	0.45
3:C:34:LYS:HD2	3:C:71:GLN:HG3	1.98	0.45
6:F:463:MET:HB3	6:F:467:ARG:HH12	1.81	0.45
8:I:206:LEU:HB2	8:I:222:GLU:OE2	2.15	0.45
12:N:299:TRP:O	12:N:303:VAL:HG23	2.17	0.45
12:N:392:ASN:HD22	12:N:392:ASN:C	2.20	0.45
12:N:401:ILE:HD11	12:N:504:LEU:HD12	1.98	0.45
13:O:256:LEU:HA	13:O:256:LEU:HD12	1.67	0.45
3:P:251:TYR:OH	3:P:268:GLN:HG2	2.16	0.45
15:X:87:LEU:O	15:X:90:ASP:N	2.50	0.45
15:X:362:GLY:O	15:X:366:ILE:HG13	2.16	0.45
15:Y:78:GLN:HG2	15:Y:133:PRO:HD2	1.98	0.45
1:A:117:PHE:HB3	13:O:268:PHE:CD2	2.52	0.45
1:A:799:LEU:O	1:A:801:PRO:HD2	2.16	0.45
1:A:1574:LEU:HD12	1:A:1584:LEU:HD11	1.98	0.45
2:B:55:PHE:CE1	2:B:75:MET:HG3	2.52	0.45
5:E:53:PHE:O	5:E:57:SER:OG	2.30	0.45
6:F:77:LYS:NZ	6:H:19:TYR:HD2	2.03	0.45
6:F:474:LEU:O	6:F:478:SER:CB	2.65	0.45
6:F:670:VAL:HA	6:F:673:CYS:HG	1.80	0.45
6:H:592:ARG:HD3	6:H:592:ARG:HA	1.67	0.45
8:I:36:ALA:HB2	8:I:46:LEU:HD13	1.98	0.45
8:I:220:VAL:HG12	8:I:222:GLU:OE2	2.16	0.45
8:I:276:TRP:CH2	8:I:476:GLY:HA2	2.52	0.45
8:I:313:ALA:HA	8:I:314:SER:HA	1.58	0.45
8:I:737:ASN:O	8:I:739:ARG:HG3	2.15	0.45
9:K:157:LEU:HD13	9:K:157:LEU:HA	1.74	0.45
9:K:377:GLU:O	9:K:381:THR:HG22	2.17	0.45
9:K:485:ILE:O	9:K:488:ILE:HB	2.15	0.45
12:N:153:VAL:HG13	12:N:154:HIS:N	2.32	0.45
12:N:341:ILE:HG12	12:N:374:LEU:HD12	1.99	0.45
13:O:470:LEU:HD13	13:O:493:LEU:HG	1.98	0.45
13:O:680:GLN:HG3	13:O:683:LYS:N	2.32	0.45
15:X:503:LEU:C	15:X:506:GLN:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:188:LEU:HA	1:A:188:LEU:HD12	1.68	0.45
1:A:615:SER:O	1:A:615:SER:OG	2.27	0.45
1:A:624:ALA:O	1:A:627:PHE:N	2.48	0.45
1:A:898:ARG:H	1:A:898:ARG:HD2	1.82	0.45
1:A:1587:ALA:HB3	1:A:1588:LEU:HD22	1.98	0.45
2:B:7:CYS:CB	12:N:645:THR:HG22	2.40	0.45
3:C:203:TRP:HE1	3:C:207:LEU:HD13	1.82	0.45
5:E:94:TRP:CE2	6:F:592:ARG:HG3	2.51	0.45
8:I:236:LEU:HD21	8:I:548:MET:HB2	1.99	0.45
8:I:417:PHE:CD2	8:I:451:PHE:HD2	2.34	0.45
9:J:248:LYS:O	9:J:252:LYS:HG3	2.17	0.45
9:J:442:ASP:OD1	3:P:152:ARG:NH1	2.50	0.45
9:K:495:PHE:CZ	9:K:525:MET:HG2	2.51	0.45
10:L:50:LEU:HD21	10:L:119:TRP:CZ2	2.52	0.45
13:O:222:LEU:HD23	13:O:222:LEU:HA	1.65	0.45
13:O:258:TYR:CZ	13:O:274:LEU:HD12	2.52	0.45
13:O:464:GLU:OE2	13:O:503:HIS:HB3	2.17	0.45
13:O:600:ALA:O	13:O:603:MET:N	2.50	0.45
15:X:240:ILE:HG13	15:X:241:LYS:N	2.31	0.45
15:Y:288:LYS:O	15:Y:292:LEU:HG	2.17	0.45
1:A:949:PHE:N	1:A:1813:GLN:HE22	2.14	0.45
1:A:1032:LEU:HD12	1:A:1032:LEU:O	2.16	0.45
1:A:1657:LEU:HB3	1:A:1658:PRO:HD2	1.99	0.45
3:C:34:LYS:HE2	3:C:69:GLU:O	2.17	0.45
3:C:53:LYS:HD2	3:P:93:TYR:CE1	2.52	0.45
6:H:515:TYR:O	6:H:518:ALA:HB3	2.17	0.45
8:I:32:ARG:HD3	12:N:388:HIS:ND1	2.32	0.45
8:I:94:ASP:HB2	8:I:97:LYS:O	2.17	0.45
13:O:533:THR:OG1	13:O:534:GLY:N	2.50	0.45
3:P:122:ARG:HH22	3:P:153:GLU:HG2	1.82	0.45
3:P:122:ARG:HG2	3:P:154:LEU:HD21	1.99	0.45
15:X:467:LYS:O	15:X:471:GLN:HG2	2.16	0.45
15:Y:67:ASN:HB3	15:Y:70:LEU:HD11	1.99	0.45
15:Y:99:LYS:HA	15:Y:102:MET:HG2	1.99	0.45
15:Y:140:TYR:CE2	15:Y:170:LYS:HD3	2.51	0.45
15:Y:218:GLU:O	15:Y:222:MET:HG2	2.17	0.45
1:A:1521:LEU:HA	1:A:1521:LEU:HD23	1.70	0.45
2:B:23:CYS:O	2:B:27:ARG:HD3	2.16	0.45
3:C:46:ARG:NH2	3:C:113:LYS:HE2	2.31	0.45
3:C:235:ALA:HB1	3:C:251:TYR:CZ	2.51	0.45
4:D:51:LEU:O	3:P:382:SER:OG	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:60:SER:O	5:E:63:VAL:HG12	2.17	0.45
6:F:667:GLN:HG2	6:F:670:VAL:HG12	1.98	0.45
8:I:163:GLU:O	8:I:167:LEU:HD12	2.16	0.45
8:I:318:GLN:HE22	8:I:319:THR:HG23	1.82	0.45
8:I:590:ILE:O	8:I:597:LYS:N	2.47	0.45
9:J:325:LYS:HZ1	9:J:329:LEU:HB2	1.81	0.45
13:O:351:GLY:O	13:O:352:GLN:HG2	2.16	0.45
13:O:393:LYS:HD3	13:O:393:LYS:HA	1.74	0.45
3:P:535:LYS:HD3	3:P:535:LYS:HA	1.63	0.45
15:X:324:VAL:CG1	15:X:348:HIS:HB2	2.47	0.45
15:Y:486:LEU:HA	15:Y:489:GLU:HB2	1.99	0.45
1:A:613:ALA:HB1	1:A:619:GLN:HB2	1.99	0.44
1:A:795:ARG:NH1	1:A:817:THR:H	2.15	0.44
1:A:880:TYR:HD1	1:A:930:LEU:HD22	1.83	0.44
2:B:46:LEU:HB2	2:B:48:TRP:CZ3	2.52	0.44
3:C:85:ASP:OD1	3:C:85:ASP:N	2.50	0.44
3:C:137:SER:OG	3:C:138:LEU:N	2.50	0.44
3:C:530:SER:O	3:C:534:GLN:HG2	2.17	0.44
6:F:102:SER:O	6:F:104:ASP:N	2.50	0.44
6:H:13:TRP:HA	6:H:13:TRP:CE3	2.52	0.44
6:H:130:ARG:HG3	9:K:469:ARG:HB3	1.99	0.44
9:J:302:TRP:O	9:J:305:VAL:HG12	2.16	0.44
9:J:476:PRO:HB3	3:P:182:LEU:O	2.18	0.44
12:N:432:GLU:HG3	12:N:432:GLU:O	2.17	0.44
3:P:29:LEU:O	3:P:32:ILE:N	2.51	0.44
3:P:48:LEU:O	3:P:49:LEU:HD23	2.17	0.44
3:P:331:VAL:HG21	3:P:361:ASN:CB	2.47	0.44
3:P:354:PHE:CE2	3:P:370:LEU:HB3	2.51	0.44
3:P:429:ARG:HB3	3:P:432:ASP:CG	2.37	0.44
1:A:223:LEU:HD21	1:A:409:ILE:HD11	1.98	0.44
1:A:615:SER:O	1:A:618:VAL:N	2.50	0.44
1:A:790:LEU:HA	1:A:790:LEU:HD23	1.66	0.44
1:A:1155:SER:HB2	1:A:1184:HIS:HE1	1.81	0.44
2:B:16:TRP:HE1	2:B:42:ASP:HA	1.82	0.44
3:C:494:ILE:HG12	3:C:513:PHE:CE1	2.52	0.44
6:H:515:TYR:HB2	10:L:179:MET:HE1	1.99	0.44
8:I:28:TRP:CZ2	8:I:732:CYS:HB2	2.53	0.44
8:I:110:VAL:HG22	8:I:111:SER:N	2.30	0.44
8:I:601:LEU:HA	8:I:614:GLY:O	2.17	0.44
9:J:75:LEU:HD12	9:J:75:LEU:HA	1.85	0.44
9:K:295:TYR:O	9:K:297:SER:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:89:TYR:CD2	10:L:150:ASP:HB2	2.52	0.44
12:N:250:LEU:O	12:N:251:SER:OG	2.31	0.44
12:N:612:PRO:HB3	12:N:665:VAL:HG23	1.99	0.44
12:N:663:GLN:HG2	12:N:699:TRP:CE2	2.52	0.44
13:O:44:MET:HB2	13:O:89:LEU:HD21	2.00	0.44
13:O:147:SER:HG	3:P:353:TYR:HH	1.53	0.44
13:O:222:LEU:HB3	13:O:230:ALA:HB2	2.00	0.44
13:O:348:TYR:HB2	13:O:359:VAL:HG11	1.99	0.44
13:O:478:ALA:HB2	13:O:486:ALA:HB2	1.98	0.44
13:O:552:GLN:HB3	13:O:593:ARG:NH2	2.32	0.44
3:P:361:ASN:HD22	3:P:363:ARG:C	2.20	0.44
15:Y:443:THR:O	15:Y:446:LEU:HG	2.17	0.44
1:A:185:TYR:CD1	1:A:273:ARG:HD3	2.53	0.44
1:A:894:GLN:HG3	1:A:895:TYR:CG	2.52	0.44
1:A:1767:ILE:HG12	1:A:1798:ARG:CZ	2.47	0.44
1:A:1892:HIS:HA	1:A:1926:ARG:NH2	2.33	0.44
3:C:172:LEU:HD12	3:C:195:ALA:HA	1.98	0.44
3:C:339:ASN:O	3:C:342:SER:HB3	2.17	0.44
3:C:349:LYS:HE2	3:C:349:LYS:HB3	1.54	0.44
6:F:26:PHE:CG	6:H:149:TRP:CD1	3.05	0.44
6:H:515:TYR:HE2	6:H:545:HIS:CD2	2.35	0.44
6:H:688:ALA:O	6:H:692:LEU:HD23	2.17	0.44
6:H:731:GLN:OE1	15:X:186:ARG:NH1	2.50	0.44
8:I:69:THR:HG23	8:I:70:CYS:SG	2.57	0.44
9:J:441:VAL:O	9:J:442:ASP:HB3	2.18	0.44
9:K:268:LEU:HA	9:K:268:LEU:HD23	1.58	0.44
11:M:19:TRP:CD1	11:M:19:TRP:O	2.70	0.44
12:N:542:VAL:HG13	12:N:554:MET:SD	2.58	0.44
13:O:463:THR:O	13:O:465:SER:N	2.50	0.44
15:X:59:LEU:HD13	15:Y:235:TRP:HH2	1.82	0.44
15:Y:413:LEU:HG	15:Y:417:TYR:CE2	2.52	0.44
1:A:104:LYS:HE3	1:A:114:TYR:CD1	2.52	0.44
1:A:267:SER:HA	1:A:414:THR:CB	2.47	0.44
1:A:1036:ASP:O	1:A:1040:LEU:HD12	2.18	0.44
1:A:1879:GLU:O	1:A:1880:SER:OG	2.35	0.44
3:C:304:SER:OG	3:C:336:VAL:HG13	2.18	0.44
6:F:532:ARG:NH1	6:F:534:GLU:HB2	2.31	0.44
8:I:441:THR:HG22	8:I:444:ASP:HB2	2.00	0.44
8:I:495:ASN:HA	13:O:460:GLN:HG2	2.00	0.44
8:I:664:ARG:NE	8:I:719:ALA:O	2.42	0.44
9:J:395:LEU:HD12	9:J:399:PRO:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:509:ARG:HD3	9:K:512:ASP:OD1	2.16	0.44
12:N:571:ASN:HA	12:N:574:ILE:HG22	1.99	0.44
12:N:756:THR:O	12:N:759:GLN:HB2	2.18	0.44
13:O:149:SER:O	13:O:153:LYS:HG2	2.16	0.44
15:X:407:LEU:HD11	15:X:437:LEU:CD2	2.47	0.44
15:Y:233:LEU:HD21	15:Y:236:LEU:HB2	1.98	0.44
15:Y:383:LEU:HD22	15:Y:388:ARG:HB2	1.99	0.44
15:Y:532:TYR:CE2	15:Y:548:GLY:HA3	2.53	0.44
1:A:248:PHE:HB2	1:A:430:VAL:CG2	2.47	0.44
1:A:260:ASP:OD1	1:A:262:VAL:HG22	2.18	0.44
1:A:1048:ARG:HH21	1:A:1050:ASN:HD22	1.65	0.44
1:A:1412:CYS:HB3	1:A:1419:ILE:HD11	1.98	0.44
3:C:42:LEU:HD12	3:C:42:LEU:HA	1.75	0.44
3:C:491:ILE:HA	3:C:494:ILE:HG22	1.97	0.44
3:C:516:LEU:HD23	3:C:516:LEU:HA	1.75	0.44
6:F:149:TRP:HB3	6:H:23:ASP:OD2	2.17	0.44
6:H:716:ASN:O	6:H:717:GLU:HG3	2.16	0.44
8:I:233:TYR:HB3	8:I:554:ILE:O	2.18	0.44
8:I:269:LEU:HD21	8:I:523:HIS:NE2	2.33	0.44
8:I:317:LEU:HA	8:I:320:LEU:HB3	1.98	0.44
8:I:624:THR:OG1	8:I:625:TYR:N	2.50	0.44
9:J:373:TYR:HD1	9:J:376:LEU:HD12	1.82	0.44
9:J:475:ILE:HG13	9:J:475:ILE:O	2.18	0.44
12:N:121:ARG:CA	12:N:122:LEU:HB2	2.47	0.44
12:N:345:PHE:HZ	12:N:399:LEU:HD21	1.79	0.44
12:N:392:ASN:ND2	12:N:392:ASN:C	2.70	0.44
12:N:630:LYS:HE2	12:N:630:LYS:HB3	1.58	0.44
13:O:345:SER:HB3	13:O:376:LEU:HD11	2.00	0.44
3:P:358:LEU:O	3:P:362:PRO:HA	2.18	0.44
15:X:467:LYS:HB3	15:X:471:GLN:HE21	1.82	0.44
1:A:490:VAL:O	1:A:497:LEU:HA	2.18	0.44
1:A:787:VAL:O	1:A:791:VAL:HG12	2.17	0.44
6:F:613:LEU:HB2	6:F:679:GLN:CD	2.38	0.44
8:I:309:LEU:HA	13:O:131:VAL:CG2	2.48	0.44
8:I:554:ILE:HG12	8:I:689:TYR:O	2.17	0.44
9:J:81:TYR:HB2	9:J:139:ILE:HD11	2.00	0.44
9:J:211:LYS:O	9:J:213:ASN:N	2.50	0.44
12:N:655:LEU:HD23	12:N:655:LEU:HA	1.75	0.44
12:N:677:THR:O	12:N:680:GLU:HB3	2.18	0.44
12:N:709:PRO:HB3	12:N:712:THR:HG22	1.98	0.44
13:O:720:LEU:O	13:O:723:THR:OG1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:106:LEU:HD12	3:P:106:LEU:HA	1.53	0.44
3:P:478:GLU:HG2	3:P:522:LYS:NZ	2.32	0.44
15:Y:145:CYS:O	15:Y:149:LEU:HG	2.17	0.44
15:Y:271:VAL:HA	15:Y:274:LEU:HD22	1.99	0.44
15:Y:282:PHE:CD1	15:Y:314:LEU:HD21	2.53	0.44
1:A:1663:LEU:HD12	1:A:1663:LEU:HA	1.80	0.44
1:A:1680:LEU:HG	1:A:1681:SER:H	1.83	0.44
2:B:27:ARG:HD3	2:B:27:ARG:HA	1.56	0.44
3:C:433:SER:O	3:C:436:LEU:N	2.50	0.44
3:C:473:LEU:HD12	3:C:473:LEU:HA	1.71	0.44
6:F:71:CYS:SG	6:F:72:LYS:N	2.91	0.44
6:F:599:ASN:ND2	6:F:599:ASN:O	2.51	0.44
6:H:152:PHE:CE1	6:H:162:PRO:HG2	2.53	0.44
6:H:526:ARG:HH11	6:H:555:LEU:HD12	1.82	0.44
8:I:44:VAL:C	8:I:45:LEU:HD12	2.38	0.44
8:I:422:TYR:O	8:I:426:LEU:HD23	2.18	0.44
8:I:574:PHE:O	8:I:586:LEU:HD12	2.17	0.44
9:K:37:PRO:HB3	9:K:69:TYR:CE1	2.53	0.44
11:M:31:ILE:HB	11:M:33:LEU:HD12	1.99	0.44
12:N:131:LEU:HD23	12:N:131:LEU:HA	1.82	0.44
12:N:392:ASN:HD21	12:N:395:ASP:N	2.07	0.44
12:N:659:VAL:HG11	12:N:699:TRP:CH2	2.53	0.44
12:N:660:THR:OG1	12:N:663:GLN:HB2	2.18	0.44
13:O:423:ALA:O	13:O:426:THR:N	2.50	0.44
13:O:721:TYR:CE2	13:O:729:GLU:HB3	2.52	0.44
15:X:450:VAL:HB	15:X:481:LYS:NZ	2.32	0.44
15:Y:37:VAL:HG23	15:Y:38:ILE:HG12	2.00	0.44
15:Y:203:LEU:HD11	15:Y:236:LEU:HD11	1.99	0.44
15:Y:412:GLY:O	15:Y:415:GLU:HG3	2.17	0.44
15:Y:499:LEU:HA	15:Y:499:LEU:HD12	1.71	0.44
1:A:248:PHE:C	1:A:249:LEU:HD12	2.38	0.44
1:A:625:ILE:HG22	1:A:637:MET:HE1	2.00	0.44
1:A:658:ASN:O	1:A:662:THR:HG23	2.17	0.44
1:A:830:PHE:HD1	1:A:830:PHE:HA	1.73	0.44
1:A:831:MET:HA	1:A:832:HIS:HA	1.38	0.44
1:A:1027:ILE:HG12	1:A:1654:PRO:O	2.17	0.44
1:A:1041:LEU:O	1:A:1080:LEU:HD13	2.18	0.44
1:A:1070:LEU:HG	1:A:1120:LEU:HD11	2.00	0.44
6:F:16:LEU:HD12	6:F:50:ARG:HD2	1.99	0.44
6:F:543:LEU:CD2	6:F:548:LYS:HD2	2.47	0.44
6:F:635:TYR:HA	6:F:638:TRP:HD1	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:188:TYR:OH	8:I:194:LYS:HE2	2.17	0.44
8:I:720:GLN:HB2	8:I:736:SER:OG	2.18	0.44
9:J:66:ASP:OD1	9:J:66:ASP:N	2.51	0.44
9:K:180:GLU:HA	9:K:183:GLU:HB2	1.98	0.44
9:K:307:CYS:HB2	7:W:2:LEU:HD11	2.00	0.44
12:N:681:LEU:O	12:N:685:VAL:N	2.51	0.44
13:O:147:SER:O	13:O:151:VAL:HG23	2.17	0.44
3:P:246:GLU:O	3:P:250:LYS:HG2	2.18	0.44
7:W:9:LEU:HD23	7:W:9:LEU:HA	1.83	0.44
1:A:598:GLU:HG2	1:A:604:MET:HG2	1.99	0.44
1:A:1090:PHE:CG	1:A:1149:PRO:HG3	2.52	0.44
1:A:1274:LEU:HD11	1:A:1321:VAL:HG23	2.00	0.44
1:A:1539:CYS:SG	1:A:1562:LEU:HB2	2.58	0.44
1:A:1618:LEU:HD12	1:A:1619:LEU:H	1.82	0.44
1:A:1711:ASP:OD1	1:A:1714:GLY:N	2.51	0.44
1:A:1838:LEU:HD13	1:A:1838:LEU:HA	1.83	0.44
2:B:11:VAL:HA	12:N:594:VAL:HG23	1.99	0.44
3:C:483:SER:O	3:C:486:ALA:HB3	2.18	0.44
6:F:42:PHE:HD1	6:F:71:CYS:HA	1.83	0.44
6:F:617:LEU:HB2	6:F:619:LYS:HZ2	1.82	0.44
8:I:47:HIS:CD2	8:I:54:ARG:HA	2.53	0.44
8:I:732:CYS:SG	8:I:743:VAL:HB	2.58	0.44
9:J:47:LEU:HD13	9:J:56:ALA:N	2.32	0.44
9:K:262:PRO:HB2	9:K:263:PHE:CD2	2.52	0.44
9:K:457:LYS:HA	9:K:457:LYS:HD3	1.73	0.44
9:K:495:PHE:CE1	9:K:525:MET:HG2	2.53	0.44
13:O:32:PRO:O	13:O:35:ILE:HG22	2.18	0.44
13:O:271:THR:O	13:O:275:LEU:HD13	2.18	0.44
13:O:379:LEU:HA	13:O:417:LEU:HD11	2.00	0.44
3:P:158:LEU:HD23	3:P:158:LEU:HA	1.70	0.44
3:P:381:THR:O	3:P:385:ILE:HG12	2.18	0.44
15:X:194:GLU:OE2	15:X:197:ARG:HD3	2.18	0.44
15:X:357:ARG:O	15:X:361:LEU:HG	2.17	0.44
15:Y:135:GLU:HG2	15:Y:139:LYS:HE3	1.99	0.44
15:Y:476:ILE:HG13	15:Y:477:LYS:N	2.31	0.44
1:A:1193:ILE:HG23	1:A:1208:LEU:HD21	1.99	0.43
1:A:1737:THR:O	1:A:1740:ALA:N	2.33	0.43
3:C:286:PHE:CB	3:C:303:PHE:HD1	2.29	0.43
6:F:543:LEU:HD22	6:F:548:LYS:HD2	2.00	0.43
6:H:468:GLU:O	6:H:471:LYS:HB2	2.19	0.43
6:H:567:PRO:O	6:H:571:CYS:HB3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:495:ASN:CB	8:I:498:TYR:HD2	2.31	0.43
9:J:175:MET:HB2	9:J:175:MET:HE2	1.80	0.43
9:J:413:PHE:CD1	9:J:454:VAL:HG22	2.53	0.43
9:K:165:GLU:O	9:K:169:LEU:HG	2.17	0.43
9:K:426:LEU:HA	9:K:426:LEU:HD23	1.71	0.43
12:N:365:LEU:HD23	12:N:365:LEU:HA	1.64	0.43
12:N:544:LEU:O	12:N:548:ARG:HG2	2.18	0.43
13:O:27:LYS:HG2	13:O:210:LYS:HE3	1.99	0.43
15:X:40:HIS:CD2	15:Y:201:LEU:HD21	2.53	0.43
15:X:324:VAL:HG11	15:X:348:HIS:HB2	2.00	0.43
15:X:469:LEU:HG	15:X:478:ALA:HB1	2.00	0.43
15:Y:519:LEU:HD21	15:Y:527:GLU:HG2	2.00	0.43
1:A:614:THR:O	1:A:614:THR:HG22	2.18	0.43
1:A:1028:TRP:CH2	1:A:1566:PHE:CD1	3.06	0.43
1:A:1186:THR:OG1	1:A:1187:LYS:N	2.51	0.43
1:A:1222:MET:SD	3:C:514:ARG:NH2	2.91	0.43
3:C:124:LEU:HD23	3:C:124:LEU:HA	1.54	0.43
3:C:308:TYR:CD1	3:C:343:LEU:HG	2.53	0.43
3:C:462:VAL:O	3:C:462:VAL:HG12	2.18	0.43
3:C:475:LYS:HD3	3:C:475:LYS:HA	1.72	0.43
6:F:625:ARG:O	6:F:628:ILE:HB	2.18	0.43
6:F:656:MET:HE1	15:Y:526:GLN:H	1.83	0.43
6:H:43:LEU:O	6:H:46:THR:OG1	2.27	0.43
6:H:61:LEU:HB3	6:H:75:LEU:HD13	1.99	0.43
6:H:104:ASP:OD1	6:H:105:ASP:N	2.50	0.43
6:H:605:THR:HG21	6:H:636:ASN:HB3	1.98	0.43
8:I:163:GLU:HA	8:I:166:LYS:HD2	2.00	0.43
8:I:279:ILE:CD1	8:I:337:ILE:HG23	2.48	0.43
9:J:9:ARG:HH11	9:K:162:TYR:HD2	1.65	0.43
9:J:372:LEU:HD12	9:J:391:PHE:CE1	2.52	0.43
10:L:125:THR:HA	10:L:126:ASP:CB	2.48	0.43
12:N:435:VAL:O	12:N:439:VAL:HG23	2.18	0.43
12:N:538:GLU:O	12:N:542:VAL:HG23	2.19	0.43
13:O:293:GLU:HG2	13:O:295:GLY:N	2.31	0.43
13:O:435:SER:O	13:O:436:THR:C	2.57	0.43
13:O:492:HIS:O	13:O:496:ARG:HB2	2.18	0.43
13:O:585:LEU:HA	13:O:585:LEU:HD13	1.71	0.43
13:O:644:LEU:HD23	13:O:667:VAL:HG22	2.00	0.43
15:X:144:GLU:O	15:X:148:MET:HG2	2.18	0.43
15:Y:192:TYR:HB2	15:Y:209:LEU:HD21	2.00	0.43
15:Y:242:ALA:O	15:Y:246:VAL:HG23	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:305:ILE:HG13	15:Y:306:LYS:N	2.33	0.43
16:S:498:MET:O	16:S:499:ARG:HG3	2.10	0.43
1:A:83:ILE:O	1:A:85:GLU:HG2	2.18	0.43
1:A:93:LEU:HD12	1:A:93:LEU:HA	1.88	0.43
1:A:244:MET:N	1:A:244:MET:SD	2.92	0.43
1:A:875:LEU:HD22	1:A:933:TRP:CZ2	2.53	0.43
1:A:942:ARG:HA	1:A:945:GLU:HG3	1.99	0.43
1:A:1074:CYS:HA	1:A:1077:THR:OG1	2.18	0.43
1:A:1303:GLY:HA3	1:A:1373:MET:HG3	2.01	0.43
1:A:1481:ASN:HA	14:T:7:LEU:CB	2.48	0.43
1:A:1562:LEU:O	1:A:1565:LEU:HB2	2.19	0.43
1:A:1749:SER:HA	1:A:1752:GLU:CG	2.46	0.43
3:C:251:TYR:HB3	3:C:269:ILE:HD11	1.98	0.43
4:D:20:LEU:HD12	4:D:20:LEU:HA	1.87	0.43
6:F:125:TYR:HB3	6:F:130:ARG:O	2.18	0.43
6:F:543:LEU:HD22	6:F:548:LYS:HB3	1.99	0.43
6:H:8:VAL:HG23	6:H:31:LEU:HD21	1.99	0.43
6:H:79:CYS:SG	6:H:87:GLU:HG3	2.58	0.43
6:H:628:ILE:HD13	6:H:628:ILE:HA	1.86	0.43
8:I:372:TRP:CH2	13:O:667:VAL:HG11	2.53	0.43
9:J:213:ASN:N	9:J:213:ASN:OD1	2.50	0.43
9:K:243:TYR:OH	9:K:367:CYS:SG	2.59	0.43
9:K:393:GLN:HG3	9:K:394:ALA:N	2.32	0.43
11:M:34:ASN:O	11:M:49:SER:HB2	2.19	0.43
12:N:121:ARG:HB3	12:N:122:LEU:HD23	2.00	0.43
12:N:173:ILE:HD11	12:N:177:TYR:CE2	2.53	0.43
12:N:355:ARG:O	12:N:358:ILE:HG12	2.18	0.43
13:O:36:ALA:HA	13:O:39:VAL:HG12	2.00	0.43
13:O:267:VAL:O	13:O:271:THR:HG22	2.18	0.43
13:O:283:LEU:O	13:O:283:LEU:HD23	2.18	0.43
3:P:313:LYS:HG2	3:P:343:LEU:HD21	1.99	0.43
15:X:457:THR:C	15:X:460:LYS:HZ1	2.20	0.43
15:Y:72:SER:O	15:Y:76:LYS:HG3	2.18	0.43
15:Y:187:PRO:O	15:Y:190:THR:HG22	2.18	0.43
15:Y:338:HIS:HB3	15:Y:340:GLU:OE1	2.18	0.43
15:Y:435:LYS:HD2	15:Y:435:LYS:HA	1.70	0.43
15:Y:513:ARG:HH12	15:Y:514:ILE:HD13	1.83	0.43
1:A:774:LYS:HD3	1:A:845:TYR:CZ	2.52	0.43
1:A:844:ILE:O	1:A:848:VAL:HG22	2.19	0.43
1:A:1031:ASP:OD2	1:A:1032:LEU:N	2.51	0.43
1:A:1090:PHE:HB2	1:A:1572:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:34:CYS:SG	2:B:58:HIS:HB2	2.58	0.43
3:C:290:ARG:HH22	3:C:322:ASN:ND2	2.17	0.43
4:D:11:ARG:NE	4:D:14:GLU:OE2	2.42	0.43
6:F:480:ASN:HB3	6:F:483:GLU:CD	2.38	0.43
6:H:81:ASP:C	6:H:83:SER:H	2.22	0.43
8:I:301:GLN:NE2	8:I:457:ASN:HB2	2.33	0.43
8:I:732:CYS:HA	8:I:743:VAL:HA	2.00	0.43
9:J:21:SER:OG	9:K:165:GLU:HG3	2.18	0.43
9:J:209:LEU:HD23	9:J:209:LEU:HA	1.72	0.43
9:J:402:PRO:HB2	9:J:444:TRP:CZ2	2.53	0.43
9:K:268:LEU:HD13	9:K:291:LEU:HD21	2.00	0.43
11:M:63:GLN:HA	11:M:66:HIS:O	2.18	0.43
12:N:333:TYR:OH	12:N:363:TYR:HE1	2.01	0.43
13:O:141:LEU:HD12	13:O:141:LEU:HA	1.80	0.43
13:O:148:PHE:O	13:O:149:SER:C	2.56	0.43
13:O:281:LEU:HD12	13:O:282:ILE:N	2.34	0.43
13:O:528:ALA:O	13:O:531:LEU:N	2.51	0.43
13:O:648:ILE:HG13	13:O:651:ILE:HD12	2.00	0.43
3:P:377:GLU:O	3:P:379:LYS:HD2	2.19	0.43
15:X:506:GLN:HE22	15:X:512:HIS:CE1	2.36	0.43
15:Y:71:PHE:HB3	15:Y:75:GLN:OE1	2.18	0.43
15:Y:219:VAL:O	15:Y:223:THR:HG23	2.19	0.43
1:A:18:GLN:OE1	1:A:18:GLN:N	2.51	0.43
1:A:258:THR:HB	1:A:267:SER:OG	2.17	0.43
1:A:436:LEU:HB3	1:A:638:LEU:HD23	2.00	0.43
1:A:644:VAL:HG12	1:A:659:LEU:HD11	2.01	0.43
1:A:937:VAL:C	1:A:939:PHE:H	2.22	0.43
1:A:1371:LEU:HD23	1:A:1371:LEU:HA	1.83	0.43
8:I:118:VAL:HA	8:I:212:SER:O	2.18	0.43
9:J:129:LYS:O	9:J:132:ILE:HG22	2.18	0.43
9:K:368:HIS:HA	9:K:371:MET:HE3	2.00	0.43
10:L:30:VAL:HG22	10:L:31:TRP:H	1.83	0.43
10:L:76:THR:HA	10:L:124:LEU:HG	2.00	0.43
13:O:225:ASN:HB3	13:O:461:ASN:OD1	2.19	0.43
13:O:605:LEU:HD23	13:O:605:LEU:HA	1.79	0.43
3:P:151:LEU:HD23	3:P:151:LEU:HA	1.78	0.43
15:X:203:LEU:HA	15:X:206:ILE:CD1	2.47	0.43
15:X:251:ASN:O	15:X:255:ILE:HG12	2.18	0.43
15:Y:264:LYS:HB2	15:Y:267:LEU:HB2	2.00	0.43
15:Y:512:HIS:HB2	15:Y:535:ALA:HB2	2.00	0.43
1:A:11:MET:HB3	1:A:12:ILE:H	1.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:81:SER:OG	1:A:87:VAL:HG22	2.18	0.43
1:A:226:LYS:HD2	1:A:236:VAL:CG1	2.48	0.43
1:A:1088:THR:HG23	1:A:1088:THR:O	2.18	0.43
1:A:1302:LEU:O	1:A:1305:VAL:N	2.50	0.43
1:A:1665:GLN:HB2	1:A:1678:ILE:HA	2.00	0.43
2:B:13:THR:OG1	12:N:636:SER:HB2	2.19	0.43
3:C:236:HIS:O	3:C:239:THR:OG1	2.34	0.43
4:D:20:LEU:HD13	13:O:252:GLU:HG2	2.00	0.43
6:H:96:VAL:HG12	9:K:470:GLN:HB3	2.01	0.43
8:I:454:GLU:HG2	8:I:473:GLU:HA	1.99	0.43
9:J:511:ASP:OD1	9:J:512:ASP:N	2.52	0.43
9:K:334:GLY:HA3	9:K:364:MET:SD	2.59	0.43
12:N:277:CYS:SG	12:N:339:LEU:HD13	2.58	0.43
12:N:433:ASP:C	12:N:435:VAL:N	2.70	0.43
13:O:688:GLU:O	13:O:691:ILE:HG22	2.18	0.43
3:P:122:ARG:NH2	3:P:153:GLU:HG2	2.34	0.43
3:P:267:SER:OG	3:P:268:GLN:N	2.52	0.43
15:X:165:ARG:HE	15:X:166:GLN:NE2	2.16	0.43
15:X:325:GLU:OE2	15:X:348:HIS:NE2	2.49	0.43
15:X:450:VAL:HG23	15:X:481:LYS:HD3	1.99	0.43
1:A:980:ARG:CD	1:A:1674:TRP:HE1	2.32	0.43
3:C:316:LEU:HD23	3:C:340:TYR:HA	2.00	0.43
3:C:343:LEU:HD23	3:C:343:LEU:HA	1.69	0.43
3:C:409:TYR:CE2	3:C:417:TYR:CE2	3.07	0.43
6:F:14:GLN:HG2	6:F:18:HIS:CE1	2.53	0.43
6:F:94:GLY:O	6:F:101:LYS:HG3	2.18	0.43
6:F:506:GLY:HA3	6:F:522:PHE:CZ	2.54	0.43
6:F:526:ARG:NH2	6:F:558:ASP:OD2	2.52	0.43
6:H:8:VAL:O	6:H:12:ILE:HG12	2.19	0.43
6:H:543:LEU:HA	6:H:543:LEU:HD12	1.60	0.43
8:I:728:ARG:HD2	8:I:728:ARG:HA	1.66	0.43
12:N:82:ASP:OD2	12:N:83:LEU:N	2.51	0.43
12:N:551:GLU:HG3	12:N:554:MET:HG3	2.01	0.43
3:P:170:PHE:O	3:P:173:TYR:HB3	2.19	0.43
3:P:381:THR:HG23	3:P:382:SER:N	2.33	0.43
15:X:95:ASN:O	15:X:99:LYS:HG2	2.18	0.43
15:Y:486:LEU:HD12	15:Y:491:LYS:HB2	2.00	0.43
15:Y:519:LEU:HA	15:Y:522:VAL:HG23	2.01	0.43
1:A:247:VAL:HG22	1:A:257:MET:O	2.19	0.43
1:A:259:TYR:OH	1:A:261:ALA:HA	2.19	0.43
1:A:1540:ARG:HD3	12:N:480:TRP:CZ2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:60:PHE:HB2	3:P:89:LEU:HD23	2.01	0.43
3:C:234:LEU:HA	3:C:234:LEU:HD12	1.80	0.43
6:F:589:PHE:O	6:F:592:ARG:HB3	2.19	0.43
6:F:594:ILE:HD13	6:F:594:ILE:HA	1.88	0.43
6:H:469:MET:HG2	6:H:500:TRP:CZ3	2.51	0.43
6:H:761:SER:O	6:H:765:ASP:CB	2.65	0.43
8:I:371:SER:O	8:I:373:LYS:N	2.52	0.43
8:I:676:ASN:HB3	8:I:703:ARG:HH22	1.84	0.43
9:J:207:ASN:OD1	9:J:208:LYS:HG2	2.18	0.43
9:J:350:HIS:O	9:J:354:MET:HG2	2.18	0.43
9:J:520:GLY:O	9:J:523:ILE:HG22	2.19	0.43
10:L:44:GLN:HA	10:L:47:ASP:CG	2.39	0.43
11:M:9:GLY:HA3	3:P:329:TYR:CD1	2.54	0.43
12:N:546:LYS:HA	12:N:549:PHE:O	2.19	0.43
12:N:550:GLY:HA2	12:N:551:GLU:HA	1.66	0.43
13:O:464:GLU:O	13:O:468:VAL:HG13	2.18	0.43
15:X:40:HIS:CD2	15:Y:201:LEU:HD11	2.54	0.43
15:X:452:LEU:HD21	15:X:460:LYS:HE2	2.01	0.43
15:Y:87:LEU:HD22	15:Y:92:GLU:OE1	2.19	0.43
15:Y:445:THR:HG22	15:Y:464:LEU:HD12	2.01	0.43
1:A:771:GLU:HG2	1:A:860:TYR:OH	2.19	0.43
1:A:968:SER:OG	1:A:969:ASP:N	2.51	0.43
1:A:1046:PRO:CD	1:A:1106:ASN:HD21	2.31	0.43
1:A:1321:VAL:HG13	1:A:1322:PRO:HD3	2.01	0.43
1:A:1534:LYS:HA	1:A:1537:GLN:HE21	1.83	0.43
1:A:1661:HIS:CE1	1:A:1662:LEU:HD23	2.54	0.43
3:C:250:LYS:HD2	3:C:250:LYS:HA	1.75	0.43
3:C:303:PHE:CE2	3:C:307:LEU:HD12	2.54	0.43
3:C:428:LEU:HA	3:C:428:LEU:HD23	1.58	0.43
6:F:594:ILE:HD12	6:F:604:TYR:CZ	2.54	0.43
6:H:613:LEU:HA	6:H:613:LEU:HD12	1.80	0.43
8:I:620:PHE:HB3	8:I:623:PHE:CZ	2.54	0.43
8:I:634:SER:OG	8:I:635:ILE:N	2.51	0.43
9:J:244:ASN:HD22	9:J:435:ILE:HD13	1.83	0.43
9:K:47:LEU:HB3	9:K:56:ALA:HB2	2.00	0.43
13:O:527:LEU:O	13:O:530:SER:OG	2.19	0.43
13:O:652:LEU:HA	13:O:660:LYS:HD3	2.00	0.43
3:P:203:TRP:CZ2	3:P:207:LEU:HB2	2.53	0.43
15:Y:305:ILE:HG13	15:Y:306:LYS:H	1.84	0.43
1:A:590:PRO:HA	1:A:595:VAL:HG23	2.01	0.43
1:A:1542:LEU:HD13	1:A:1558:HIS:CE1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1814:ILE:O	1:A:1817:VAL:N	2.52	0.43
3:C:187:GLU:O	3:C:191:VAL:HG23	2.19	0.43
3:C:210:CYS:HA	3:C:237:ILE:CD1	2.47	0.43
3:C:295:TYR:HD2	3:P:101:ARG:HA	1.84	0.43
3:C:305:ASN:O	3:C:308:TYR:N	2.49	0.43
3:C:556:LEU:HD23	3:C:556:LEU:HA	1.90	0.43
6:F:513:SER:O	6:F:515:TYR:N	2.51	0.43
6:H:679:GLN:OE1	6:H:688:ALA:N	2.52	0.43
6:H:740:TYR:CE2	6:H:762:TRP:HE3	2.37	0.43
6:H:747:TYR:HD1	6:H:750:LEU:HD12	1.83	0.43
8:I:189:ALA:HB2	8:I:195:ILE:HB	2.01	0.43
8:I:238:THR:HA	8:I:548:MET:SD	2.59	0.43
8:I:311:GLY:HA3	13:O:127:HIS:HB3	2.00	0.43
8:I:625:TYR:OH	8:I:711:TRP:O	2.28	0.43
8:I:636:TYR:CD1	8:I:655:ASP:HA	2.54	0.43
9:J:190:LEU:HB3	9:J:198:GLN:NE2	2.34	0.43
12:N:362:LYS:HE3	12:N:362:LYS:HB3	1.74	0.43
13:O:115:LEU:O	13:O:118:SER:HB3	2.19	0.43
13:O:221:SER:O	13:O:225:ASN:HB2	2.19	0.43
13:O:506:LEU:H	13:O:506:LEU:HG	1.40	0.43
13:O:648:ILE:HA	13:O:651:ILE:HD12	2.01	0.43
13:O:724:LEU:HD23	13:O:724:LEU:HA	1.69	0.43
15:X:369:ASN:HB3	15:X:371:ASN:OD1	2.19	0.43
15:Y:53:VAL:HG23	15:Y:86:SER:HB3	2.00	0.43
15:Y:167:ARG:HB3	15:Y:172:ASN:OD1	2.19	0.43
1:A:459:GLU:CB	1:A:466:LEU:HD23	2.46	0.42
1:A:768:LEU:HD11	1:A:861:PRO:HG2	2.01	0.42
1:A:971:PRO:HG2	1:A:974:VAL:HG23	2.01	0.42
1:A:1360:VAL:HG23	1:A:1403:PHE:HE2	1.84	0.42
3:C:99:TYR:HB3	3:C:121:SER:OG	2.19	0.42
3:C:307:LEU:HD21	3:C:312:MET:O	2.19	0.42
6:F:88:GLY:O	6:F:91:ILE:HB	2.19	0.42
6:F:581:ARG:HA	6:F:583:HIS:NE2	2.33	0.42
6:F:597:ASP:OD1	6:F:599:ASN:N	2.46	0.42
6:H:696:ILE:HD11	6:H:706:LYS:HA	2.01	0.42
6:H:736:GLU:HG2	10:L:177:PHE:CG	2.55	0.42
8:I:387:GLU:O	8:I:391:THR:HG23	2.18	0.42
9:J:185:LEU:HA	9:J:185:LEU:HD23	1.80	0.42
9:J:413:PHE:CE1	9:J:454:VAL:HG22	2.54	0.42
12:N:179:CYS:O	12:N:183:VAL:HG22	2.19	0.42
13:O:41:LEU:HD11	13:O:132:VAL:HG11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:135:PHE:O	13:O:138:HIS:HB2	2.18	0.42
13:O:644:LEU:HD12	13:O:644:LEU:HA	1.80	0.42
3:P:368:TRP:HE3	3:P:387:ALA:HA	1.84	0.42
7:W:13:LEU:C	7:W:15:ASP:N	2.70	0.42
15:X:54:ARG:HD2	15:X:55:LEU:N	2.34	0.42
15:Y:421:ASN:ND2	15:Y:421:ASN:O	2.52	0.42
1:A:802:TYR:O	1:A:805:HIS:HB3	2.19	0.42
1:A:1037:VAL:O	1:A:1040:LEU:N	2.52	0.42
1:A:1086:MET:HG3	1:A:1610:TYR:CZ	2.54	0.42
1:A:1886:ALA:O	1:A:1890:VAL:HG12	2.19	0.42
3:C:356:ARG:O	3:C:359:LYS:HB3	2.19	0.42
3:C:375:TYR:HD1	3:C:378:MET:SD	2.42	0.42
6:F:76:ALA:O	6:F:80:VAL:HG22	2.19	0.42
6:H:62:LYS:O	6:H:62:LYS:HG2	2.19	0.42
6:H:744:GLY:HA2	6:H:759:ASN:HD22	1.83	0.42
8:I:540:PRO:O	8:I:544:ILE:HG13	2.19	0.42
8:I:590:ILE:HD11	8:I:599:CYS:SG	2.59	0.42
9:J:86:HIS:C	9:J:88:GLN:H	2.22	0.42
9:K:141:ASP:C	9:K:144:ASP:H	2.22	0.42
9:K:235:VAL:O	9:K:239:GLU:HG3	2.19	0.42
9:K:242:TYR:HB2	9:K:250:CYS:SG	2.59	0.42
11:M:1:MET:H2	3:P:48:LEU:HD11	1.84	0.42
12:N:247:LEU:O	12:N:251:SER:N	2.51	0.42
13:O:532:VAL:O	13:O:536:THR:HG22	2.18	0.42
13:O:544:VAL:HG22	13:O:567:LEU:HD12	2.01	0.42
15:Y:37:VAL:HG23	15:Y:38:ILE:N	2.34	0.42
15:Y:413:LEU:HG	15:Y:417:TYR:HE2	1.84	0.42
1:A:1176:LEU:HD22	1:A:1176:LEU:HA	1.79	0.42
1:A:1596:SER:O	1:A:1597:THR:HG22	2.19	0.42
1:A:1674:TRP:O	1:A:1674:TRP:CD1	2.72	0.42
1:A:1839:PHE:C	1:A:1841:ASN:N	2.71	0.42
2:B:12:ALA:O	12:N:595:ILE:HA	2.19	0.42
6:F:127:LYS:HD3	6:F:127:LYS:HA	1.80	0.42
6:F:145:ASN:CG	6:F:148:LEU:HD13	2.40	0.42
7:G:23:ARG:HA	7:G:24:LYS:HA	1.68	0.42
8:I:215:LYS:HE3	8:I:215:LYS:HB3	1.82	0.42
8:I:308:LEU:HD23	8:I:308:LEU:HA	1.89	0.42
8:I:309:LEU:HD23	13:O:64:LEU:HD22	2.01	0.42
8:I:505:SER:OG	8:I:507:LEU:N	2.40	0.42
9:K:309:TYR:HD1	9:K:309:TYR:HA	1.61	0.42
11:M:16:ASP:C	11:M:16:ASP:OD1	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:758:ILE:O	12:N:762:LEU:HG	2.19	0.42
12:N:766:GLU:OE2	12:N:816:ARG:HG2	2.19	0.42
13:O:86:CYS:SG	13:O:89:LEU:N	2.87	0.42
15:X:57:SER:CB	15:X:83:HIS:HB2	2.49	0.42
15:X:257:THR:O	15:X:260:SER:OG	2.20	0.42
15:Y:331:LEU:HA	15:Y:331:LEU:HD13	1.79	0.42
15:Y:475:TYR:HB3	15:Y:478:ALA:HB3	2.00	0.42
1:A:80:VAL:N	1:A:87:VAL:HG11	2.34	0.42
1:A:223:LEU:HD12	1:A:223:LEU:HA	1.77	0.42
1:A:661:VAL:HG23	1:A:789:LEU:HD12	2.02	0.42
1:A:827:GLN:HE21	1:A:829:GLY:N	2.15	0.42
1:A:1300:LEU:HA	1:A:1300:LEU:HD12	1.71	0.42
1:A:1455:GLU:N	1:A:1458:SER:H	2.02	0.42
1:A:1856:LEU:O	1:A:1860:LEU:HG	2.19	0.42
7:G:6:PRO:HB2	9:J:446:PRO:HG2	2.01	0.42
6:H:93:SER:HB2	6:H:121:LEU:HD11	2.01	0.42
8:I:225:THR:HG23	8:I:228:ALA:H	1.85	0.42
8:I:560:THR:O	8:I:563:GLU:N	2.52	0.42
9:J:185:LEU:HD21	9:J:205:PHE:HB3	2.01	0.42
9:J:253:LEU:HD23	9:J:253:LEU:HA	1.77	0.42
9:K:509:ARG:HG3	9:K:512:ASP:HB2	2.01	0.42
10:L:71:LYS:HG2	10:L:133:ARG:HG2	2.00	0.42
12:N:287:ARG:HD3	12:N:287:ARG:HA	1.85	0.42
12:N:433:ASP:O	12:N:435:VAL:HG12	2.19	0.42
12:N:560:MET:CE	12:N:600:PHE:HB3	2.49	0.42
13:O:542:GLU:OE2	13:O:546:ARG:NH2	2.52	0.42
3:P:150:ALA:O	3:P:154:LEU:HD12	2.20	0.42
3:P:376:MET:SD	3:P:408:THR:OG1	2.67	0.42
7:W:12:LYS:O	7:W:14:ASP:N	2.53	0.42
15:Y:143:ALA:CB	15:Y:159:LEU:HD11	2.50	0.42
15:Y:315:LEU:HD11	15:Y:320:ARG:HB2	2.01	0.42
15:Y:331:LEU:HD12	15:Y:341:PRO:HG3	2.01	0.42
15:Y:459:GLU:O	15:Y:463:THR:HG23	2.18	0.42
1:A:1515:CYS:O	1:A:1519:VAL:HG12	2.20	0.42
1:A:1608:HIS:O	1:A:1610:TYR:N	2.53	0.42
3:C:286:PHE:CG	3:C:303:PHE:HD1	2.37	0.42
3:C:544:GLU:HA	3:C:547:LYS:HB2	2.00	0.42
5:E:94:TRP:HH2	6:F:596:VAL:HG22	1.85	0.42
8:I:125:LEU:HB3	8:I:129:TYR:OH	2.20	0.42
8:I:309:LEU:O	8:I:310:TRP:CG	2.72	0.42
8:I:590:ILE:N	8:I:597:LYS:O	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:19:TYR:CZ	9:J:49:LEU:HD23	2.55	0.42
9:J:358:PHE:O	9:J:362:GLN:HG2	2.20	0.42
9:J:514:PHE:CE1	9:J:518:MET:HB2	2.54	0.42
12:N:667:LEU:HA	12:N:670:PHE:HD2	1.85	0.42
13:O:105:LEU:HD23	3:P:340:TYR:OH	2.19	0.42
3:P:52:SER:OG	3:P:53:LYS:N	2.52	0.42
3:P:241:LEU:HD23	3:P:241:LEU:HA	1.75	0.42
15:X:325:GLU:HG2	15:X:348:HIS:CD2	2.55	0.42
15:Y:84:ALA:O	15:Y:87:LEU:HB2	2.19	0.42
1:A:166:GLY:HA2	13:O:316:HIS:ND1	2.34	0.42
3:C:129:LYS:NZ	3:P:325:GLU:O	2.36	0.42
3:C:263:SER:HA	3:C:292:GLN:HE22	1.83	0.42
6:F:540:SER:OG	6:F:552:LEU:HD11	2.19	0.42
7:G:11:LEU:HD22	7:G:15:ASP:OD2	2.20	0.42
6:H:85:LEU:HD23	6:H:85:LEU:HA	1.81	0.42
8:I:309:LEU:HG	13:O:131:VAL:HG21	2.00	0.42
8:I:399:LYS:HD3	8:I:399:LYS:HA	1.66	0.42
8:I:604:HIS:CE1	8:I:606:ASP:HB3	2.54	0.42
12:N:247:LEU:HD22	12:N:253:LEU:HA	2.01	0.42
13:O:222:LEU:HD22	13:O:226:ASP:HB3	2.01	0.42
3:P:65:LEU:HG	3:P:66:PRO:CD	2.50	0.42
3:P:109:CYS:C	3:P:110:ASN:HD22	2.22	0.42
15:X:525:TYR:O	15:X:529:MET:HG2	2.19	0.42
15:Y:447:LEU:HD12	15:Y:448:ALA:N	2.35	0.42
15:Y:465:LEU:CD2	15:Y:482:LYS:HB2	2.48	0.42
15:Y:525:TYR:HD1	15:Y:525:TYR:HA	1.72	0.42
17:Q:499:ARG:HD2	17:Q:499:ARG:C	2.40	0.42
1:A:25:ARG:HH22	1:A:604:MET:CE	2.33	0.42
1:A:942:ARG:HA	1:A:945:GLU:OE2	2.20	0.42
1:A:1110:ARG:HD3	1:A:1110:ARG:HA	1.64	0.42
1:A:1329:MET:CE	1:A:1371:LEU:HD12	2.49	0.42
1:A:1738:ILE:HD11	1:A:1779:VAL:HG11	2.02	0.42
3:C:279:ILE:HG21	3:C:310:ARG:HG3	2.01	0.42
6:F:516:MET:O	6:F:519:GLU:HG3	2.20	0.42
6:H:580:GLN:HB2	6:H:582:GLU:OE1	2.19	0.42
8:I:418:PHE:HD1	8:I:418:PHE:HA	1.59	0.42
11:M:34:ASN:ND2	11:M:51:LYS:HE2	2.29	0.42
12:N:553:PRO:HB2	12:N:554:MET:CE	2.46	0.42
12:N:610:GLU:OE1	12:N:610:GLU:N	2.53	0.42
13:O:470:LEU:HD23	13:O:470:LEU:HA	1.76	0.42
13:O:485:ALA:O	13:O:489:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:116:PHE:O	3:P:117:LEU:C	2.58	0.42
15:X:437:LEU:HD22	15:X:444:LEU:HD21	2.02	0.42
15:X:449:THR:OG1	15:X:450:VAL:N	2.52	0.42
15:Y:271:VAL:O	15:Y:274:LEU:HB2	2.19	0.42
15:Y:304:LEU:HD21	15:Y:307:GLY:H	1.83	0.42
15:Y:446:LEU:HD22	15:Y:477:LYS:HE3	2.01	0.42
17:Q:498:MET:HB3	17:Q:498:MET:HE3	1.87	0.42
1:A:185:TYR:CE1	1:A:273:ARG:HD3	2.54	0.42
1:A:599:LEU:HB2	1:A:603:SER:O	2.19	0.42
1:A:960:TYR:O	1:A:964:GLU:HG2	2.20	0.42
1:A:1406:LEU:O	1:A:1409:LEU:HB3	2.19	0.42
1:A:1428:SER:HA	1:A:1435:ARG:HH21	1.84	0.42
1:A:1691:LEU:HA	1:A:1691:LEU:HD23	1.81	0.42
2:B:23:CYS:O	2:B:27:ARG:HA	2.19	0.42
3:C:79:GLU:HB3	3:C:111:SER:HB3	2.02	0.42
3:C:409:TYR:HD1	3:C:409:TYR:HA	1.60	0.42
5:E:69:GLN:HB3	15:Y:357:ARG:HH21	1.85	0.42
6:F:87:GLU:OE2	6:F:87:GLU:N	2.47	0.42
6:F:522:PHE:O	6:F:525:VAL:HG12	2.19	0.42
6:H:142:LEU:O	6:H:146:PRO:HB3	2.19	0.42
6:H:464:SER:HA	6:H:467:ARG:CZ	2.49	0.42
6:H:590:PHE:HB3	6:H:607:LEU:HB2	2.02	0.42
8:I:185:ILE:O	8:I:197:ARG:HA	2.19	0.42
8:I:572:PHE:CE1	8:I:588:PHE:HA	2.54	0.42
8:I:684:GLN:C	8:I:701:PRO:HG3	2.40	0.42
9:J:19:TYR:OH	9:J:49:LEU:HD23	2.19	0.42
9:J:37:PRO:HB3	9:J:69:TYR:CE2	2.54	0.42
9:J:340:TYR:CZ	9:J:344:PHE:HE2	2.38	0.42
10:L:37:LYS:HD2	10:L:37:LYS:HA	1.88	0.42
12:N:567:SER:HB2	12:N:595:ILE:O	2.20	0.42
12:N:705:LEU:HB2	12:N:714:SER:O	2.19	0.42
12:N:769:SER:O	12:N:773:ILE:HG13	2.20	0.42
13:O:307:LEU:HD12	13:O:307:LEU:HA	1.60	0.42
13:O:525:TYR:CE1	13:O:553:ALA:HB1	2.55	0.42
3:P:168:ASP:O	3:P:171:GLY:N	2.47	0.42
15:X:330:ARG:O	15:X:334:ILE:HG12	2.20	0.42
15:Y:315:LEU:HG	15:Y:324:VAL:HG22	2.02	0.42
15:Y:394:ILE:HG22	15:Y:397:ARG:HH22	1.84	0.42
15:Y:445:THR:O	15:Y:449:THR:HG23	2.19	0.42
15:Y:509:CYS:SG	15:Y:510:VAL:HG23	2.59	0.42
1:A:128:TRP:O	1:A:182:PRO:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ASN:OD1	1:A:253:PRO:HD2	2.20	0.42
1:A:755:LEU:HD23	1:A:755:LEU:HA	1.88	0.42
1:A:1268:HIS:HD1	3:C:545:GLU:HG2	1.85	0.42
1:A:1420:LEU:HA	1:A:1420:LEU:HD23	1.82	0.42
1:A:1540:ARG:HD3	12:N:480:TRP:NE1	2.35	0.42
1:A:1730:ALA:HB2	1:A:1776:TYR:CD2	2.55	0.42
1:A:1735:PRO:O	1:A:1737:THR:N	2.53	0.42
3:C:179:LEU:HD23	3:C:179:LEU:HA	1.65	0.42
5:E:85:LEU:HA	5:E:88:GLU:HG3	2.01	0.42
6:F:133:LYS:HE2	6:F:133:LYS:HB3	1.77	0.42
6:H:45:ALA:HB2	6:H:61:LEU:HD23	2.01	0.42
6:H:158:ILE:HG22	6:H:159:GLY:H	1.85	0.42
6:H:738:LEU:HD12	6:H:738:LEU:HA	1.87	0.42
8:I:7:CYS:O	8:I:753:GLU:HG3	2.20	0.42
8:I:141:LYS:O	8:I:143:PRO:HD3	2.19	0.42
8:I:350:SER:HA	13:O:403:LYS:HZ3	1.84	0.42
8:I:572:PHE:HZ	8:I:589:THR:H	1.68	0.42
9:J:60:LEU:HD23	9:J:60:LEU:HA	1.81	0.42
9:J:263:PHE:CZ	9:J:290:LYS:HE3	2.55	0.42
9:J:284:LEU:HA	9:J:284:LEU:HD12	1.80	0.42
9:K:332:THR:O	9:K:363:LEU:HD21	2.19	0.42
9:K:449:ASN:HD22	7:W:8:ARG:NE	2.17	0.42
13:O:523:GLY:O	13:O:525:TYR:N	2.53	0.42
3:P:251:TYR:CZ	3:P:268:GLN:HG2	2.54	0.42
15:Y:193:LYS:HE2	15:Y:193:LYS:HB2	1.83	0.42
1:A:24:GLY:O	1:A:28:CYS:HB2	2.20	0.42
1:A:1574:LEU:H	1:A:1574:LEU:CD2	2.30	0.42
1:A:1666:ILE:O	1:A:1677:LEU:HB3	2.20	0.42
1:A:1776:TYR:O	1:A:1780:THR:HG23	2.19	0.42
3:C:248:LEU:HA	3:C:248:LEU:HD23	1.66	0.42
6:F:101:LYS:HB2	6:F:101:LYS:HE3	1.89	0.42
6:H:172:SER:HA	6:H:456:LYS:HE3	2.02	0.42
8:I:120:VAL:HG22	8:I:122:SER:H	1.85	0.42
8:I:676:ASN:CB	8:I:703:ARG:HH12	2.33	0.42
9:J:192:LYS:HD2	9:J:192:LYS:N	2.30	0.42
9:J:212:TYR:HB3	9:J:243:TYR:CD1	2.55	0.42
9:J:334:GLY:N	9:J:335:PRO:HD2	2.35	0.42
10:L:33:LEU:HD21	10:L:64:VAL:HG13	2.01	0.42
10:L:126:ASP:N	10:L:132:THR:OG1	2.53	0.42
12:N:253:LEU:O	12:N:257:SER:OG	2.37	0.42
12:N:356:PRO:HA	12:N:359:GLU:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:689:VAL:O	12:N:692:LEU:HB3	2.20	0.42
13:O:320:ALA:O	13:O:321:GLU:C	2.59	0.42
15:X:309:ASP:OD1	15:X:340:GLU:HA	2.20	0.42
15:X:467:LYS:HB3	15:X:471:GLN:NE2	2.34	0.42
15:Y:474:ASP:OD2	15:Y:505:ASN:HB2	2.20	0.42
15:Y:543:GLN:O	15:Y:547:GLU:HG2	2.20	0.42
1:A:1070:LEU:HA	1:A:1070:LEU:HD12	1.75	0.41
1:A:1455:GLU:HB2	1:A:1458:SER:HB2	2.02	0.41
1:A:1880:SER:OG	1:A:1881:GLN:OE1	2.28	0.41
2:B:15:LEU:CD1	12:N:626:TYR:HE2	2.33	0.41
2:B:16:TRP:O	2:B:31:ASN:HB3	2.20	0.41
3:C:532:CYS:SG	3:C:533:ALA:N	2.93	0.41
6:F:43:LEU:HD23	6:F:43:LEU:HA	1.75	0.41
6:F:509:TYR:O	6:F:512:LEU:N	2.52	0.41
6:H:729:LEU:O	6:H:733:VAL:N	2.44	0.41
8:I:47:HIS:HD2	8:I:53:HIS:C	2.23	0.41
9:J:305:VAL:HG23	11:M:29:VAL:HG11	2.01	0.41
9:J:495:PHE:O	9:J:499:VAL:HG13	2.20	0.41
9:K:29:VAL:HA	9:K:32:LEU:HB2	2.01	0.41
9:K:155:GLU:HA	9:K:158:LYS:HD2	2.01	0.41
9:K:244:ASN:HB3	9:K:246:ASP:OD2	2.20	0.41
9:K:393:GLN:O	9:K:396:SER:OG	2.27	0.41
10:L:80:TYR:HB2	10:L:119:TRP:CE3	2.55	0.41
12:N:775:ASN:HB3	12:N:776:MET:HE2	2.01	0.41
3:P:332:GLU:N	3:P:332:GLU:OE1	2.53	0.41
15:X:44:MET:SD	15:Y:201:LEU:HB2	2.60	0.41
15:X:271:VAL:HG11	15:X:301:ASP:OD2	2.20	0.41
15:X:361:LEU:HD23	15:X:364:LYS:HD2	2.02	0.41
15:Y:191:SER:HA	15:Y:194:GLU:CD	2.40	0.41
15:Y:191:SER:O	15:Y:195:VAL:HG13	2.20	0.41
15:Y:245:PHE:CG	15:Y:253:ARG:HD2	2.55	0.41
15:Y:255:ILE:HA	15:Y:277:LEU:HD11	2.02	0.41
1:A:179:ASN:HB2	1:A:190:GLU:OE2	2.20	0.41
1:A:191:ARG:HG2	1:A:192:SER:N	2.35	0.41
1:A:259:TYR:CG	1:A:260:ASP:N	2.88	0.41
1:A:429:LYS:HD2	1:A:479:ALA:O	2.19	0.41
1:A:974:VAL:O	1:A:977:LEU:N	2.53	0.41
1:A:1032:LEU:HD23	12:N:485:VAL:HA	2.02	0.41
1:A:1033:ARG:O	1:A:1037:VAL:HG23	2.20	0.41
1:A:1153:ILE:HD12	1:A:1153:ILE:HA	1.92	0.41
1:A:1488:LEU:HD23	1:A:1488:LEU:HA	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1520:LEU:HA	1:A:1520:LEU:HD12	1.81	0.41
3:C:54:TRP:O	3:C:57:GLU:HB2	2.20	0.41
4:D:46:GLU:HA	3:P:380:ASN:HD21	1.84	0.41
5:E:83:ALA:HA	5:E:86:VAL:HG23	2.03	0.41
6:F:541:THR:O	6:F:544:TRP:HB3	2.19	0.41
6:F:617:LEU:H	6:F:617:LEU:HD12	1.84	0.41
8:I:414:PHE:HE2	8:I:418:PHE:CE2	2.38	0.41
8:I:479:LEU:HD23	8:I:479:LEU:HA	1.68	0.41
8:I:591:LEU:HB3	8:I:596:TYR:CD1	2.55	0.41
8:I:717:MET:SD	8:I:740:HIS:CE1	3.13	0.41
9:J:231:LEU:HA	9:J:234:VAL:HG22	2.02	0.41
9:J:478:ASN:HB3	9:J:481:THR:HG22	2.02	0.41
9:K:17:GLN:O	9:K:19:TYR:N	2.53	0.41
9:K:28:LYS:HD3	9:K:28:LYS:HA	1.60	0.41
9:K:440:THR:O	9:K:443:LYS:HB2	2.20	0.41
12:N:131:LEU:HD13	12:N:135:TRP:CH2	2.55	0.41
12:N:292:TRP:CZ3	12:N:296:VAL:HG21	2.54	0.41
12:N:548:ARG:HD3	12:N:548:ARG:HA	1.71	0.41
12:N:768:LEU:HD22	12:N:772:ARG:HB3	2.02	0.41
13:O:38:LEU:O	13:O:41:LEU:HB3	2.19	0.41
13:O:729:GLU:N	13:O:729:GLU:OE1	2.53	0.41
3:P:348:GLU:N	3:P:348:GLU:CD	2.74	0.41
15:Y:173:MET:HE3	15:Y:192:TYR:HE1	1.85	0.41
15:Y:220:ALA:HA	15:Y:223:THR:HG23	2.02	0.41
15:Y:241:LYS:H	15:Y:241:LYS:HG3	1.72	0.41
15:Y:492:TYR:O	15:Y:496:ILE:HG22	2.20	0.41
1:A:591:VAL:O	1:A:592:HIS:C	2.59	0.41
1:A:769:VAL:HA	1:A:866:ILE:HD11	2.02	0.41
1:A:797:LEU:HD12	1:A:797:LEU:HA	1.74	0.41
1:A:1041:LEU:HD23	1:A:1041:LEU:HA	1.77	0.41
1:A:1376:LEU:HD22	1:A:1578:ASN:OD1	2.19	0.41
1:A:1421:PRO:HB2	1:A:1483:SER:OG	2.19	0.41
1:A:1724:ALA:O	1:A:1728:SER:OG	2.38	0.41
2:B:18:ALA:HB2	2:B:46:LEU:HD13	2.01	0.41
3:C:389:ARG:HG2	13:O:280:ARG:HD3	2.02	0.41
3:C:443:TYR:CD2	3:C:451:GLU:HB3	2.55	0.41
5:E:68:LYS:HG2	5:E:72:HIS:HD2	1.85	0.41
5:E:85:LEU:HD23	6:H:570:TRP:HZ3	1.85	0.41
6:F:105:ASP:OD1	6:F:106:ILE:N	2.53	0.41
6:F:672:LEU:O	6:F:675:ILE:HB	2.20	0.41
6:H:716:ASN:C	6:H:717:GLU:HG3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:412:LYS:HD2	8:I:447:PHE:CE2	2.54	0.41
9:J:275:LEU:CD2	9:J:280:LYS:HB2	2.49	0.41
9:J:360:ALA:O	9:J:364:MET:N	2.52	0.41
9:K:66:ASP:N	9:K:66:ASP:OD1	2.53	0.41
9:K:402:PRO:HG3	9:K:435:ILE:CD1	2.47	0.41
12:N:118:LEU:HD11	12:N:250:LEU:HG	2.03	0.41
12:N:319:ASN:C	12:N:321:LEU:H	2.24	0.41
12:N:660:THR:O	12:N:664:ALA:N	2.50	0.41
13:O:90:ALA:O	13:O:93:VAL:HG12	2.20	0.41
13:O:254:HIS:NE2	13:O:276:HIS:CE1	2.89	0.41
15:Y:255:ILE:HG13	15:Y:256:SER:N	2.35	0.41
15:Y:255:ILE:HG22	15:Y:277:LEU:HD11	2.02	0.41
1:A:207:LEU:O	1:A:240:VAL:HG23	2.20	0.41
1:A:219:GLU:HA	3:C:458:ARG:HH11	1.83	0.41
1:A:770:TYR:HB2	1:A:786:LEU:HD22	2.01	0.41
1:A:1073:LEU:HA	1:A:1073:LEU:HD23	1.52	0.41
2:B:16:TRP:HB2	2:B:31:ASN:HA	2.03	0.41
3:C:65:LEU:HA	3:C:66:PRO:HD3	1.92	0.41
6:F:639:TYR:HE1	6:F:708:HIS:NE2	2.17	0.41
6:H:134:GLY:O	6:H:138:TYR:HD2	2.03	0.41
8:I:185:ILE:H	8:I:198:VAL:HG22	1.84	0.41
8:I:528:ARG:O	8:I:532:ILE:HG13	2.20	0.41
8:I:664:ARG:NH1	8:I:718:LYS:HD2	2.36	0.41
9:J:487:TYR:O	9:J:491:LEU:HB2	2.20	0.41
9:J:488:ILE:HD12	9:J:491:LEU:HB3	2.03	0.41
10:L:6:LYS:HA	10:L:114:VAL:HG13	2.01	0.41
10:L:29:ALA:HB1	10:L:67:GLN:O	2.20	0.41
13:O:362:GLU:O	13:O:366:LYS:HG2	2.20	0.41
3:P:195:ALA:O	3:P:199:LEU:N	2.51	0.41
3:P:267:SER:HB2	3:P:299:ASN:HD21	1.85	0.41
3:P:426:HIS:NE2	3:P:430:PRO:O	2.50	0.41
15:X:382:ALA:O	15:X:385:ASN:HB2	2.21	0.41
15:Y:146:TYR:O	15:Y:149:LEU:HB2	2.20	0.41
15:Y:214:VAL:O	15:Y:214:VAL:HG12	2.21	0.41
1:A:491:LEU:HB3	1:A:497:LEU:CD2	2.50	0.41
1:A:761:ALA:O	1:A:765:VAL:HG23	2.21	0.41
1:A:1130:ASN:OD1	1:A:1130:ASN:N	2.52	0.41
1:A:1563:GLY:O	1:A:1565:LEU:N	2.54	0.41
4:D:54:ILE:HD13	3:P:389:ARG:HH22	1.86	0.41
6:F:8:VAL:H	6:F:8:VAL:HG22	1.67	0.41
6:F:522:PHE:CD2	6:F:539:TYR:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:548:LYS:HG2	6:F:551:ALA:HB3	2.02	0.41
6:F:644:ILE:O	6:F:648:GLN:CB	2.64	0.41
6:H:68:THR:O	6:H:72:LYS:HG3	2.20	0.41
8:I:22:GLU:HB3	8:I:738:LEU:HD12	2.03	0.41
8:I:70:CYS:O	8:I:71:LEU:HD12	2.20	0.41
8:I:350:SER:CB	13:O:403:LYS:HD3	2.50	0.41
8:I:399:LYS:HD2	8:I:478:TYR:CE2	2.55	0.41
8:I:514:PHE:CE2	13:O:440:GLN:HG2	2.55	0.41
9:J:150:THR:HG23	9:J:154:LYS:HZ2	1.84	0.41
11:M:49:SER:O	11:M:52:GLU:HG3	2.21	0.41
12:N:247:LEU:HA	12:N:247:LEU:HD23	1.88	0.41
12:N:345:PHE:HE2	12:N:349:ARG:NH2	2.18	0.41
12:N:432:GLU:O	12:N:434:THR:N	2.51	0.41
12:N:799:LEU:HD23	12:N:799:LEU:HA	1.95	0.41
13:O:109:GLU:HB3	3:P:344:ARG:HH21	1.84	0.41
3:P:107:HIS:CE1	3:P:118:TYR:HH	2.35	0.41
3:P:341:TYR:HD1	3:P:341:TYR:HA	1.68	0.41
15:Y:237:SER:O	15:Y:241:LYS:HG3	2.20	0.41
15:Y:261:LEU:HD23	15:Y:261:LEU:HA	1.71	0.41
15:Y:500:ARG:HD3	15:Y:503:LEU:HD21	2.02	0.41
1:A:27:HIS:CD2	1:A:113:VAL:HG21	2.55	0.41
1:A:445:LEU:HA	1:A:452:LEU:HA	2.02	0.41
1:A:926:LEU:HA	1:A:929:ARG:HH12	1.86	0.41
1:A:1227:LEU:O	1:A:1230:ILE:HG22	2.21	0.41
1:A:1369:LEU:HD23	1:A:1369:LEU:HA	1.60	0.41
1:A:1402:GLU:HA	1:A:1463:TYR:HE1	1.84	0.41
1:A:1413:LEU:HD23	1:A:1413:LEU:HA	1.83	0.41
3:C:255:ILE:HG23	3:C:260:SER:HA	2.03	0.41
3:C:279:ILE:HD12	3:C:310:ARG:HE	1.85	0.41
4:D:30:LEU:HD11	13:O:138:HIS:CD2	2.55	0.41
6:F:55:TYR:HH	6:H:563:ASP:CG	2.19	0.41
6:F:150:SER:OG	6:H:22:ARG:HB3	2.20	0.41
6:H:528:ILE:HG23	6:H:529:GLU:N	2.35	0.41
6:H:538:ILE:HD13	6:H:538:ILE:HA	1.85	0.41
8:I:245:LEU:HB3	8:I:246:PRO:HD3	2.02	0.41
8:I:357:GLU:O	8:I:358:SER:C	2.58	0.41
8:I:514:PHE:H	13:O:443:GLN:NE2	2.11	0.41
8:I:709:LYS:HE3	8:I:709:LYS:HB3	1.70	0.41
9:J:179:GLN:HA	9:J:182:LYS:HE2	2.01	0.41
9:K:260:LYS:HA	9:K:260:LYS:HE2	2.03	0.41
9:K:309:TYR:O	9:K:312:VAL:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:109:LEU:HA	12:N:109:LEU:HD23	1.78	0.41
12:N:162:PHE:HB2	12:N:255:ARG:NH1	2.36	0.41
13:O:108:MET:O	13:O:111:PHE:HB3	2.21	0.41
3:P:193:VAL:HG13	3:P:209:LEU:HD21	2.02	0.41
3:P:297:ILE:O	3:P:332:GLU:HG2	2.20	0.41
7:W:2:LEU:HA	7:W:2:LEU:HD23	1.57	0.41
15:X:270:ASN:O	15:X:274:LEU:HG	2.20	0.41
15:X:371:ASN:OD1	15:X:372:SER:N	2.53	0.41
15:X:383:LEU:HD12	15:X:383:LEU:HA	1.79	0.41
15:X:494:ASP:OD1	15:X:494:ASP:N	2.53	0.41
15:Y:211:SER:HA	15:Y:247:HIS:CG	2.56	0.41
15:Y:308:MET:HG3	15:Y:331:LEU:HD21	2.02	0.41
15:Y:417:TYR:O	15:Y:422:SER:N	2.54	0.41
1:A:31:HIS:HB3	1:A:99:MET:SD	2.60	0.41
1:A:1131:MET:HG2	1:A:1132:THR:H	1.85	0.41
1:A:1181:LEU:HA	1:A:1181:LEU:HD13	1.72	0.41
1:A:1911:PHE:O	1:A:1911:PHE:CG	2.74	0.41
6:H:672:LEU:HD11	6:H:691:THR:HB	2.02	0.41
8:I:134:GLU:O	8:I:137:LEU:HB3	2.19	0.41
8:I:261:LEU:HD23	8:I:261:LEU:HA	1.85	0.41
8:I:517:TYR:HE2	8:I:528:ARG:HD2	1.86	0.41
8:I:536:CYS:SG	8:I:537:LEU:N	2.94	0.41
13:O:400:ASP:O	13:O:402:LEU:HG	2.20	0.41
13:O:680:GLN:O	13:O:683:LYS:HB3	2.21	0.41
3:P:524:LYS:HA	3:P:524:LYS:HD2	1.84	0.41
15:X:77:TYR:CZ	15:X:107:LYS:HD3	2.55	0.41
15:X:500:ARG:HD3	15:X:500:ARG:HA	1.60	0.41
1:A:104:LYS:O	13:O:537:ALA:HB1	2.20	0.41
1:A:667:MET:O	1:A:755:LEU:HB3	2.21	0.41
1:A:1209:LEU:HA	1:A:1209:LEU:HD23	1.62	0.41
6:F:625:ARG:CB	6:F:629:ARG:HH21	2.32	0.41
6:F:673:CYS:O	6:F:677:VAL:HG13	2.20	0.41
8:I:572:PHE:CZ	8:I:589:THR:HG22	2.55	0.41
8:I:619:LYS:HD3	8:I:704:THR:HG22	2.02	0.41
8:I:740:HIS:HE1	8:I:742:ARG:HH21	1.69	0.41
9:J:203:PHE:O	9:J:206:GLU:HB3	2.21	0.41
9:J:492:MET:HG3	9:J:494:ASN:HD22	1.86	0.41
12:N:669:TYR:HA	12:N:672:ASP:OD2	2.21	0.41
13:O:558:SER:OG	13:O:562:LYS:HE3	2.21	0.41
13:O:711:ARG:NH2	13:O:746:SER:O	2.54	0.41
3:P:434:ARG:HD3	17:Q:498:MET:SD	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:265:SER:O	15:Y:66:ASN:HB3	2.20	0.41
15:X:379:LYS:HA	15:X:379:LYS:HD2	1.81	0.41
15:X:446:LEU:HD12	15:X:447:LEU:N	2.36	0.41
15:Y:321:LEU:HD13	15:Y:321:LEU:HA	1.92	0.41
1:A:76:LEU:HD13	1:A:589:ASP:HB3	2.03	0.41
1:A:163:SER:HG	1:A:167:LYS:N	2.16	0.41
1:A:173:LEU:HA	1:A:173:LEU:HD13	1.79	0.41
1:A:221:THR:HA	1:A:222:PRO:HD3	1.96	0.41
1:A:424:ASN:O	1:A:425:SER:OG	2.38	0.41
1:A:836:PHE:CD1	1:A:899:ILE:HG23	2.56	0.41
1:A:1140:GLY:HA2	1:A:1171:GLU:OE2	2.21	0.41
1:A:1241:THR:HG22	1:A:1243:LEU:HD23	2.01	0.41
1:A:1677:LEU:HD21	1:A:1687:LEU:HD12	2.02	0.41
1:A:1795:GLN:HB3	1:A:1799:ARG:HH22	1.85	0.41
1:A:1824:ARG:O	1:A:1827:GLN:HB2	2.21	0.41
1:A:1896:ALA:HB3	1:A:1899:HIS:HB3	2.02	0.41
1:A:1928:LEU:HD12	1:A:1928:LEU:HA	1.77	0.41
3:C:356:ARG:NE	11:M:19:TRP:HB2	2.36	0.41
3:C:369:THR:OG1	3:C:370:LEU:N	2.54	0.41
3:C:513:PHE:CE2	3:C:535:LYS:HB3	2.55	0.41
5:E:97:LYS:HA	5:E:98:PRO:HD3	1.91	0.41
6:F:53:LYS:HD2	6:F:55:TYR:OH	2.21	0.41
6:F:742:LEU:O	6:F:746:VAL:HG12	2.21	0.41
6:H:720:LYS:HE3	6:H:720:LYS:HB3	1.95	0.41
8:I:125:LEU:HD21	8:I:246:PRO:HB3	2.02	0.41
8:I:176:LEU:HD12	8:I:177:VAL:H	1.85	0.41
8:I:226:ASN:OD1	8:I:226:ASN:N	2.51	0.41
8:I:332:LYS:HE3	8:I:332:LYS:HB3	1.75	0.41
8:I:674:VAL:O	8:I:703:ARG:NH1	2.52	0.41
8:I:742:ARG:HD2	8:I:744:PHE:CZ	2.56	0.41
9:J:277:GLU:HA	9:J:277:GLU:OE2	2.21	0.41
9:J:333:TYR:CE2	9:J:335:PRO:HG2	2.56	0.41
9:J:392:SER:O	9:J:395:LEU:HB3	2.20	0.41
9:J:506:LEU:HD23	9:J:506:LEU:O	2.21	0.41
9:K:133:CYS:O	9:K:136:ARG:HB2	2.21	0.41
9:K:289:HIS:CE1	11:M:57:TRP:CZ3	3.08	0.41
9:K:485:ILE:HG22	9:K:501:TYR:CD2	2.56	0.41
9:K:514:PHE:CE2	7:W:11:LEU:HD13	2.53	0.41
10:L:94:ILE:HG23	10:L:139:ILE:HG23	2.01	0.41
11:M:3:SER:CB	3:P:180:ARG:HH12	2.33	0.41
11:M:49:SER:H	11:M:52:GLU:CG	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:M:65:LEU:HD12	11:M:65:LEU:HA	1.82	0.41
12:N:703:GLY:O	12:N:719:GLU:HA	2.20	0.41
13:O:208:SER:O	13:O:211:GLN:N	2.53	0.41
13:O:246:PHE:CD1	13:O:246:PHE:N	2.88	0.41
13:O:475:GLU:O	13:O:479:GLU:HG3	2.21	0.41
3:P:44:ARG:HB3	3:P:44:ARG:NH1	2.36	0.41
3:P:67:LEU:HA	3:P:70:LEU:HD13	2.03	0.41
3:P:286:PHE:HD1	3:P:286:PHE:HA	1.74	0.41
3:P:346:GLN:O	3:P:348:GLU:N	2.54	0.41
3:P:369:THR:OG1	3:P:370:LEU:N	2.54	0.41
3:P:409:TYR:HD1	3:P:409:TYR:HA	1.67	0.41
7:W:13:LEU:HD23	7:W:16:ILE:HD11	2.01	0.41
15:X:256:SER:HG	15:X:257:THR:H	1.68	0.41
15:X:340:GLU:CD	15:X:340:GLU:N	2.69	0.41
15:X:355:TYR:CE2	15:X:385:ASN:HB3	2.56	0.41
15:Y:279:ASP:HB3	15:Y:283:ARG:HE	1.86	0.41
15:Y:295:GLU:O	15:Y:298:GLN:HG2	2.21	0.41
15:Y:306:LYS:HG3	15:Y:307:GLY:N	2.35	0.41
15:Y:315:LEU:HD21	15:Y:323:ASP:HB3	2.01	0.41
15:Y:475:TYR:O	15:Y:479:VAL:HG22	2.21	0.41
1:A:99:MET:HA	1:A:117:PHE:O	2.21	0.41
1:A:707:TRP:NE1	13:O:730:ARG:HD2	2.35	0.41
1:A:1202:GLU:O	1:A:1205:SER:OG	2.30	0.41
2:B:52:SER:O	2:B:52:SER:OG	2.36	0.41
3:C:26:PHE:CD1	3:C:27:SER:N	2.89	0.41
3:C:136:ASP:OD1	3:C:136:ASP:C	2.59	0.41
3:C:375:TYR:HD1	3:C:375:TYR:HA	1.75	0.41
4:D:10:PRO:HG2	13:O:346:TRP:CE2	2.55	0.41
4:D:11:ARG:NH2	4:D:14:GLU:OE1	2.43	0.41
6:F:495:HIS:NE2	6:H:34:GLU:OE2	2.54	0.41
6:H:606:LEU:HD23	6:H:606:LEU:HA	1.68	0.41
6:H:617:LEU:O	6:H:618:ASP:C	2.60	0.41
8:I:310:TRP:NE1	13:O:126:VAL:HG22	2.36	0.41
8:I:733:VAL:HG12	8:I:742:ARG:O	2.21	0.41
9:J:285:PHE:HD1	9:J:308:TYR:CE2	2.38	0.41
9:J:487:TYR:CD1	9:J:514:PHE:HZ	2.38	0.41
9:J:489:HIS:HA	9:J:492:MET:HE2	2.03	0.41
9:J:489:HIS:HA	9:J:492:MET:HG2	2.02	0.41
9:K:192:LYS:HG3	9:K:198:GLN:HG3	2.03	0.41
9:K:233:VAL:O	9:K:236:SER:OG	2.30	0.41
9:K:491:LEU:HD22	7:W:22:ILE:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:626:TYR:CE2	12:N:633:ARG:HD3	2.56	0.41
12:N:629:LEU:HD23	12:N:633:ARG:HH12	1.85	0.41
13:O:476:LEU:O	13:O:479:GLU:HB2	2.21	0.41
13:O:604:LEU:HD23	13:O:604:LEU:HA	1.77	0.41
3:P:189:ILE:HG13	3:P:212:LEU:HD13	2.03	0.41
15:X:166:GLN:N	15:X:166:GLN:OE1	2.55	0.41
15:Y:78:GLN:O	15:Y:81:VAL:HG12	2.21	0.41
15:Y:258:ILE:HD12	15:Y:273:LEU:HD11	2.03	0.41
15:Y:423:ILE:HG21	15:Y:454:ASP:CG	2.41	0.41
15:Y:534:ILE:HD13	15:Y:534:ILE:HA	1.74	0.41
1:A:879:LEU:HG	1:A:929:ARG:NH2	2.23	0.40
1:A:941:LEU:O	1:A:944:LEU:HB3	2.20	0.40
1:A:956:ARG:O	1:A:959:ILE:HB	2.21	0.40
1:A:1520:LEU:O	1:A:1521:LEU:C	2.60	0.40
1:A:1794:ASP:O	1:A:1797:ILE:HG12	2.21	0.40
3:C:101:ARG:NH2	3:P:298:GLU:OE2	2.54	0.40
7:G:25:ASP:OD1	7:G:25:ASP:N	2.53	0.40
8:I:163:GLU:O	8:I:166:LYS:HB2	2.21	0.40
8:I:310:TRP:HD1	13:O:126:VAL:HG13	1.86	0.40
8:I:719:ALA:HB1	8:I:733:VAL:HG22	2.03	0.40
9:K:141:ASP:O	9:K:144:ASP:N	2.54	0.40
9:K:201:LEU:HD23	9:K:201:LEU:HA	1.82	0.40
9:K:513:THR:HG23	9:K:514:PHE:H	1.86	0.40
12:N:63:ARG:O	12:N:66:GLY:HA3	2.21	0.40
12:N:121:ARG:H	12:N:122:LEU:HB2	1.85	0.40
12:N:587:PRO:HA	12:N:588:PRO:HD3	1.89	0.40
12:N:706:ARG:HE	12:N:708:GLU:HG3	1.86	0.40
12:N:774:TYR:CG	12:N:792:LEU:HD13	2.56	0.40
3:P:185:VAL:HG23	3:P:186:LYS:N	2.36	0.40
3:P:187:GLU:HA	3:P:190:ASP:OD2	2.21	0.40
3:P:451:GLU:H	3:P:451:GLU:CD	2.18	0.40
15:X:83:HIS:CE1	15:X:87:LEU:HD23	2.55	0.40
15:X:225:ASN:O	15:X:228:GLN:N	2.54	0.40
15:X:253:ARG:O	15:X:257:THR:HG22	2.21	0.40
15:X:465:LEU:HD21	15:X:482:LYS:CA	2.51	0.40
1:A:215:HIS:HB3	3:C:454:LYS:NZ	2.36	0.40
1:A:254:SER:HG	1:A:271:LEU:HD23	1.87	0.40
1:A:263:GLN:HB3	1:A:265:VAL:HG22	2.03	0.40
1:A:596:THR:HA	1:A:606:ARG:HA	2.02	0.40
1:A:707:TRP:CD1	13:O:730:ARG:HD2	2.57	0.40
1:A:787:VAL:HG12	1:A:813:LEU:HD11	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1089:LEU:H	1:A:1568:GLY:HA2	1.86	0.40
1:A:1677:LEU:HD12	1:A:1678:ILE:N	2.36	0.40
1:A:1825:SER:OG	1:A:1829:ARG:NH2	2.33	0.40
1:A:1910:SER:C	1:A:1912:ALA:N	2.74	0.40
2:B:55:PHE:HE1	2:B:75:MET:HG3	1.85	0.40
3:C:79:GLU:H	3:C:79:GLU:HG3	1.69	0.40
6:F:16:LEU:HA	6:F:16:LEU:HD13	1.88	0.40
6:F:165:ASP:HA	6:F:467:ARG:CD	2.52	0.40
6:F:480:ASN:HB3	6:F:483:GLU:OE2	2.22	0.40
6:F:711:SER:O	6:F:714:PHE:N	2.53	0.40
6:H:102:SER:O	6:H:103:HIS:C	2.59	0.40
8:I:617:ALA:O	8:I:618:ILE:HD13	2.21	0.40
9:J:53:TYR:CZ	9:J:82:ALA:HB1	2.56	0.40
9:J:178:ALA:O	9:J:181:GLU:HB3	2.21	0.40
9:J:440:THR:O	9:J:440:THR:OG1	2.36	0.40
12:N:409:VAL:O	12:N:410:LEU:HB2	2.21	0.40
12:N:428:LEU:HD23	12:N:428:LEU:HA	1.71	0.40
13:O:282:ILE:HD13	13:O:282:ILE:HA	1.98	0.40
3:P:93:TYR:CE1	3:P:101:ARG:NE	2.89	0.40
15:X:86:SER:O	15:X:89:HIS:HB3	2.21	0.40
15:X:442:GLN:O	15:X:445:THR:OG1	2.34	0.40
15:Y:153:LYS:HA	15:Y:153:LYS:HD3	1.88	0.40
15:Y:207:LEU:HD13	15:Y:239:TRP:HH2	1.86	0.40
15:Y:443:THR:H	15:Y:443:THR:HG23	1.61	0.40
1:A:591:VAL:HG22	1:A:606:ARG:HH22	1.87	0.40
1:A:966:PRO:HA	1:A:970:TRP:CZ3	2.56	0.40
1:A:1552:TYR:CE2	1:A:1596:SER:HA	2.56	0.40
3:C:181:LYS:HA	3:C:181:LYS:HD3	1.85	0.40
6:F:161:LYS:HE2	6:F:161:LYS:HB2	1.90	0.40
6:F:733:VAL:HG13	6:F:733:VAL:O	2.22	0.40
6:H:726:LEU:HD23	6:H:729:LEU:HD12	2.03	0.40
8:I:46:LEU:HD23	8:I:56:TRP:NE1	2.36	0.40
8:I:162:ASP:O	8:I:166:LYS:HG3	2.22	0.40
8:I:717:MET:SD	8:I:740:HIS:HE1	2.45	0.40
9:K:220:ILE:O	9:K:224:VAL:HG23	2.20	0.40
9:K:297:SER:O	9:K:329:LEU:HD21	2.21	0.40
12:N:121:ARG:N	12:N:122:LEU:HB2	2.36	0.40
12:N:330:ARG:HE	12:N:330:ARG:HB3	1.63	0.40
12:N:405:LYS:HA	12:N:405:LYS:HD3	1.83	0.40
13:O:140:ILE:HD13	13:O:140:ILE:HA	1.90	0.40
3:P:297:ILE:HD11	3:P:326:ILE:CG2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:361:ASN:HB3	3:P:362:PRO:CA	2.50	0.40
3:P:459:ALA:HB1	3:P:464:ASP:OD1	2.21	0.40
7:W:5:LYS:HZ3	7:W:5:LYS:HG2	1.62	0.40
7:W:13:LEU:H	7:W:13:LEU:CD1	2.30	0.40
15:X:263:LYS:HA	15:X:263:LYS:HD3	1.71	0.40
15:Y:140:TYR:O	15:Y:144:GLU:HG2	2.21	0.40
15:Y:182:ALA:HB1	15:Y:184:GLN:HE22	1.86	0.40
1:A:85:GLU:HA	1:A:87:VAL:HG23	2.02	0.40
1:A:778:LEU:HD11	13:O:561:HIS:ND1	2.37	0.40
1:A:1149:PRO:HG2	1:A:1152:GLN:NE2	2.36	0.40
1:A:1217:LEU:HA	1:A:1259:LEU:O	2.21	0.40
1:A:1266:HIS:NE2	3:C:545:GLU:OE2	2.55	0.40
1:A:1325:LEU:HD23	1:A:1325:LEU:HA	1.77	0.40
1:A:1325:LEU:HD13	1:A:1371:LEU:HG	2.03	0.40
1:A:1482:LEU:H	14:T:7:LEU:CB	2.35	0.40
3:C:233:PHE:CZ	3:C:237:ILE:HG13	2.57	0.40
3:C:341:TYR:OH	11:M:25:PRO:HD3	2.20	0.40
3:C:488:GLN:HA	3:C:491:ILE:HG12	2.03	0.40
6:H:66:CYS:HB3	6:H:71:CYS:SG	2.61	0.40
6:H:624:PHE:CE2	6:H:640:GLY:HA3	2.56	0.40
6:H:711:SER:OG	6:H:712:VAL:N	2.54	0.40
8:I:36:ALA:HA	8:I:46:LEU:HA	2.02	0.40
8:I:43:GLU:HB2	8:I:58:PHE:O	2.21	0.40
8:I:167:LEU:HB3	8:I:192:MET:SD	2.61	0.40
8:I:366:LEU:HD12	8:I:366:LEU:HA	1.84	0.40
9:J:42:TRP:CE3	9:J:42:TRP:HA	2.56	0.40
9:J:63:ARG:O	9:J:65:LEU:HD12	2.21	0.40
9:J:64:LYS:HA	9:J:64:LYS:HD3	1.81	0.40
9:J:168:ASP:OD1	9:J:172:SER:OG	2.32	0.40
9:K:70:GLU:O	9:K:73:ARG:HB3	2.22	0.40
9:K:178:ALA:HA	9:K:181:GLU:HB2	2.03	0.40
9:K:523:ILE:HD13	9:K:523:ILE:HA	1.91	0.40
12:N:527:LEU:HD12	12:N:601:TRP:CH2	2.57	0.40
12:N:536:GLU:O	12:N:540:ARG:HG2	2.22	0.40
12:N:629:LEU:CB	12:N:633:ARG:HH12	2.30	0.40
12:N:663:GLN:O	12:N:699:TRP:HZ2	2.04	0.40
13:O:305:LEU:HD13	13:O:343:CYS:HA	2.03	0.40
13:O:544:VAL:HG23	13:O:563:LEU:HD21	2.04	0.40
13:O:681:PRO:O	13:O:682:LYS:HE2	2.21	0.40
13:O:725:GLY:O	13:O:727:THR:N	2.55	0.40
3:P:46:ARG:NH1	3:P:113:LYS:HD3	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:74:PRO:O	15:X:77:TYR:HB3	2.21	0.40
15:Y:282:PHE:HE2	15:Y:406:ARG:NH2	2.18	0.40
1:A:185:TYR:O	1:A:214:LEU:HD23	2.21	0.40
1:A:409:ILE:HG22	1:A:410:ASP:N	2.37	0.40
1:A:471:VAL:HG12	1:A:472:THR:N	2.37	0.40
1:A:499:LEU:HD23	1:A:499:LEU:HA	1.83	0.40
1:A:599:LEU:HD12	1:A:603:SER:OG	2.22	0.40
1:A:729:CYS:HB3	13:O:719:ARG:HH21	1.86	0.40
1:A:1307:LEU:HA	1:A:1307:LEU:HD12	1.73	0.40
1:A:1564:LEU:HD12	1:A:1567:LEU:HD13	2.03	0.40
1:A:1699:VAL:O	1:A:1699:VAL:HG23	2.22	0.40
1:A:1737:THR:O	1:A:1739:SER:N	2.55	0.40
1:A:1914:LEU:H	1:A:1914:LEU:HD12	1.86	0.40
1:A:1929:LEU:HA	1:A:1929:LEU:HD13	1.84	0.40
3:C:273:TYR:HB3	3:C:282:ALA:HB2	2.03	0.40
8:I:99:GLU:O	8:I:101:LEU:N	2.54	0.40
8:I:208:LEU:HD23	8:I:208:LEU:HA	1.87	0.40
8:I:269:LEU:HD21	8:I:523:HIS:CE1	2.56	0.40
8:I:729:LYS:HA	8:I:729:LYS:HD3	1.91	0.40
9:J:57:ALA:O	9:J:61:ARG:HG2	2.21	0.40
12:N:86:ASN:C	12:N:89:PRO:HD2	2.42	0.40
12:N:268:VAL:HA	12:N:271:GLU:OE1	2.21	0.40
12:N:585:GLU:CD	12:N:621:ALA:HB1	2.42	0.40
13:O:112:PHE:O	13:O:115:LEU:HB3	2.22	0.40
13:O:616:LEU:HD11	13:O:619:LEU:HB2	2.03	0.40
3:P:234:LEU:HD11	3:P:238:TYR:CZ	2.55	0.40
3:P:236:HIS:CE1	3:P:268:GLN:NE2	2.90	0.40
15:X:78:GLN:HA	15:X:81:VAL:HG22	2.04	0.40
15:X:147:THR:O	15:X:150:LYS:HD3	2.22	0.40
15:Y:335:SER:OG	15:Y:336:ASP:N	2.55	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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	1539/1944 (79%)	1253 (81%)	283 (18%)	3 (0%)	44	75
2	B	83/84 (99%)	73 (88%)	10 (12%)	0	100	100
3	C	520/597 (87%)	462 (89%)	58 (11%)	0	100	100
3	P	486/597 (81%)	437 (90%)	49 (10%)	0	100	100
4	D	53/121 (44%)	45 (85%)	8 (15%)	0	100	100
5	E	54/110 (49%)	52 (96%)	2 (4%)	0	100	100
6	F	454/824 (55%)	423 (93%)	30 (7%)	1 (0%)	44	75
6	H	484/824 (59%)	424 (88%)	57 (12%)	3 (1%)	22	57
7	G	23/85 (27%)	23 (100%)	0	0	100	100
7	W	24/85 (28%)	22 (92%)	1 (4%)	1 (4%)	2	21
8	I	732/808 (91%)	620 (85%)	108 (15%)	4 (0%)	25	60
9	J	500/620 (81%)	457 (91%)	42 (8%)	1 (0%)	44	75
9	K	489/620 (79%)	448 (92%)	41 (8%)	0	100	100
10	L	180/185 (97%)	154 (86%)	26 (14%)	0	100	100
11	M	55/74 (74%)	48 (87%)	7 (13%)	0	100	100
12	N	662/822 (80%)	592 (89%)	66 (10%)	4 (1%)	22	57
13	O	682/755 (90%)	588 (86%)	89 (13%)	5 (1%)	19	54
14	T	13/15 (87%)	9 (69%)	3 (23%)	1 (8%)	1	12
15	X	480/599 (80%)	447 (93%)	33 (7%)	0	100	100
15	Y	492/599 (82%)	453 (92%)	37 (8%)	2 (0%)	30	65
17	Q	1/445 (0%)	1 (100%)	0	0	100	100
All	All	8006/10813 (74%)	7031 (88%)	950 (12%)	25 (0%)	38	70

All (25) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	I	452	LEU
12	N	434	THR
12	N	531	PHE
15	Y	215	LYS
1	A	1840	MET
8	I	120	VAL
8	I	451	PHE

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Mol	Chain	Res	Type
13	O	358	TYR
13	O	398	LEU
1	A	1155	SER
6	H	147	PHE
8	I	489	PRO
9	J	195	ASN
12	N	704	VAL
13	O	656	ALA
1	A	276	SER
14	T	9	ALA
7	W	14	ASP
6	F	530	ASN
13	O	125	GLU
13	O	397	LYS
6	H	492	PRO
12	N	485	VAL
15	Y	216	GLY
6	H	146	PRO

### 5.3.2 Protein sidechains ⓘ

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	1243/1720 (72%)	1234 (99%)	9 (1%)	81	86
2	B	65/75 (87%)	65 (100%)	0	100	100
3	C	452/520 (87%)	449 (99%)	3 (1%)	81	86
3	P	422/520 (81%)	419 (99%)	3 (1%)	81	86
4	D	46/115 (40%)	46 (100%)	0	100	100
5	E	47/89 (53%)	47 (100%)	0	100	100
6	F	371/727 (51%)	371 (100%)	0	100	100
6	H	408/727 (56%)	405 (99%)	3 (1%)	81	86
7	G	25/77 (32%)	25 (100%)	0	100	100
7	W	23/77 (30%)	23 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	I	614/730 (84%)	611 (100%)	3 (0%)	86	90
9	J	425/548 (78%)	421 (99%)	4 (1%)	75	83
9	K	423/548 (77%)	418 (99%)	5 (1%)	67	78
10	L	155/170 (91%)	154 (99%)	1 (1%)	84	88
11	M	52/67 (78%)	51 (98%)	1 (2%)	52	70
12	N	549/724 (76%)	545 (99%)	4 (1%)	81	86
13	O	573/650 (88%)	566 (99%)	7 (1%)	67	78
14	T	1/2 (50%)	1 (100%)	0	100	100
15	X	406/513 (79%)	406 (100%)	0	100	100
15	Y	417/513 (81%)	414 (99%)	3 (1%)	81	86
16	S	2/401 (0%)	2 (100%)	0	100	100
17	Q	2/402 (0%)	2 (100%)	0	100	100
All	All	6721/9915 (68%)	6675 (99%)	46 (1%)	80	86

All (46) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	17	LEU
1	A	89	TYR
1	A	445	LEU
1	A	894	GLN
1	A	1039	ARG
1	A	1176	LEU
1	A	1546	THR
1	A	1591	HIS
1	A	1680	LEU
3	C	44	ARG
3	C	104	HIS
3	C	409	TYR
6	H	22	ARG
6	H	141	SER
6	H	561	ASP
8	I	320	LEU
8	I	341	TYR
8	I	418	PHE
9	J	39	ASP
9	J	162	TYR
9	J	163	CYS

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Mol	Chain	Res	Type
9	J	453	HIS
9	K	34	ARG
9	K	63	ARG
9	K	145	ASN
9	K	246	ASP
9	K	358	PHE
10	L	45	LEU
11	M	16	ASP
12	N	272	ARG
12	N	386	LEU
12	N	392	ASN
12	N	660	THR
13	O	75	LEU
13	O	106	LYS
13	O	420	ILE
13	O	434	ARG
13	O	506	LEU
13	O	683	LYS
13	O	712	ASP
3	P	341	TYR
3	P	418	CYS
3	P	423	ARG
15	Y	301	ASP
15	Y	401	ARG
15	Y	551	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (149) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	30	HIS
1	A	125	GLN
1	A	179	ASN
1	A	411	HIS
1	A	473	ASN
1	A	623	GLN
1	A	636	GLN
1	A	827	GLN
1	A	965	GLN
1	A	981	GLN
1	A	1115	ASN
1	A	1138	HIS
1	A	1170	ASN

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Mol	Chain	Res	Type
1	A	1184	HIS
1	A	1248	ASN
1	A	1379	ASN
1	A	1489	HIS
1	A	1813	GLN
1	A	1892	HIS
1	A	1899	HIS
2	B	9	ASN
2	B	53	HIS
3	C	202	HIS
3	C	274	HIS
3	C	292	GLN
3	C	305	ASN
3	C	361	ASN
3	C	427	GLN
3	C	534	GLN
3	C	552	GLN
4	D	32	GLN
4	D	35	GLN
4	D	37	HIS
4	D	38	GLN
5	E	72	HIS
6	F	90	GLN
6	F	486	ASN
6	F	494	HIS
6	F	504	GLN
6	F	599	ASN
6	F	702	ASN
6	F	716	ASN
6	H	123	HIS
6	H	517	GLN
6	H	545	HIS
6	H	626	ASN
6	H	634	HIS
6	H	648	GLN
6	H	657	HIS
6	H	680	HIS
6	H	716	ASN
6	H	759	ASN
8	I	47	HIS
8	I	130	ASN
8	I	263	GLN

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Mol	Chain	Res	Type
8	I	318	GLN
8	I	362	HIS
8	I	503	ASN
8	I	506	HIS
8	I	523	HIS
9	J	86	HIS
9	J	198	GLN
9	J	264	HIS
9	J	437	ASN
9	J	449	ASN
9	J	468	HIS
9	J	494	ASN
9	J	503	HIS
9	K	54	HIS
9	K	213	ASN
9	K	241	HIS
9	K	244	ASN
9	K	264	HIS
9	K	271	HIS
9	K	279	ASN
9	K	316	ASN
9	K	350	HIS
9	K	352	GLN
9	K	449	ASN
9	K	468	HIS
9	K	478	ASN
10	L	101	ASN
10	L	104	ASN
10	L	146	GLN
10	L	155	GLN
11	M	34	ASN
11	M	53	GLN
12	N	154	HIS
12	N	170	GLN
12	N	239	GLN
12	N	392	ASN
12	N	529	HIS
12	N	541	ASN
12	N	571	ASN
12	N	671	GLN
12	N	673	GLN
12	N	702	GLN

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Mol	Chain	Res	Type
13	O	138	HIS
13	O	218	GLN
13	O	225	ASN
13	O	306	ASN
13	O	319	GLN
13	O	325	GLN
13	O	363	HIS
13	O	370	HIS
13	O	443	GLN
13	O	460	GLN
13	O	462	ASN
13	O	515	GLN
13	O	552	GLN
13	O	671	GLN
13	O	680	GLN
13	O	693	ASN
13	O	717	GLN
3	P	35	GLN
3	P	71	GLN
3	P	82	GLN
3	P	110	ASN
3	P	148	ASN
3	P	236	HIS
3	P	299	ASN
3	P	322	ASN
3	P	347	HIS
3	P	355	GLN
3	P	361	ASN
3	P	427	GLN
3	P	479	GLN
3	P	495	GLN
15	X	65	ASN
15	X	66	ASN
15	X	78	GLN
15	X	151	GLN
15	X	177	ASN
15	X	289	ASN
15	X	298	GLN
15	X	338	HIS
15	X	369	ASN
15	X	471	GLN
15	X	512	HIS

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Mol	Chain	Res	Type
15	X	531	GLN
15	Y	184	GLN
15	Y	298	GLN
15	Y	338	HIS
15	Y	385	ASN
15	Y	421	ASN
15	Y	501	ASN
15	Y	512	HIS
15	Y	523	ASN
15	Y	531	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 3 ligands modelled in this entry, 3 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

### 5.7 Other polymers [i](#)

There are no such residues in this entry.



## 5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.



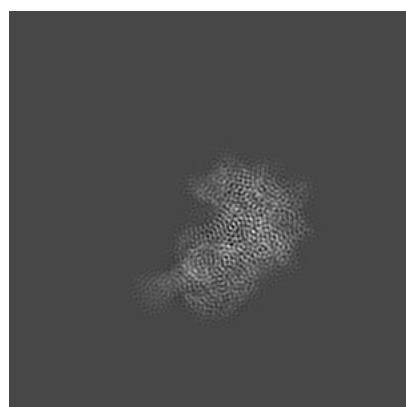
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10518. These allow visual inspection of the internal detail of the map and identification of artifacts.

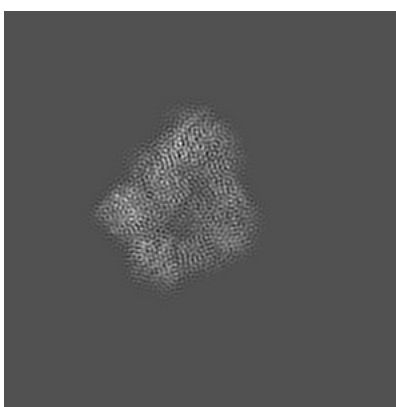
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

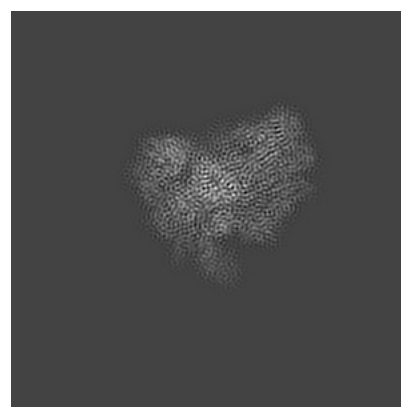
#### 6.1.1 Primary map



X



Y

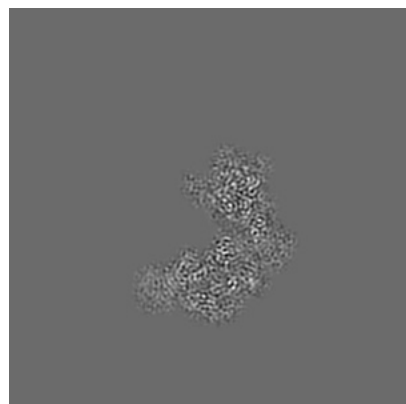


Z

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

### 6.2 Central slices [i](#)

#### 6.2.1 Primary map



X Index: 169



Y Index: 169



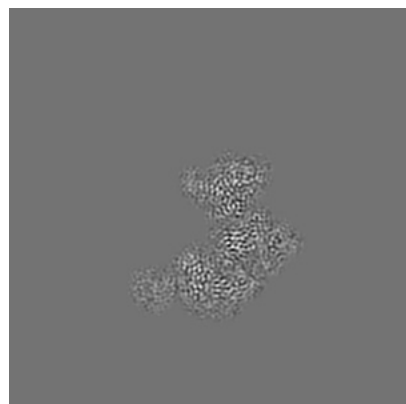
Z Index: 169



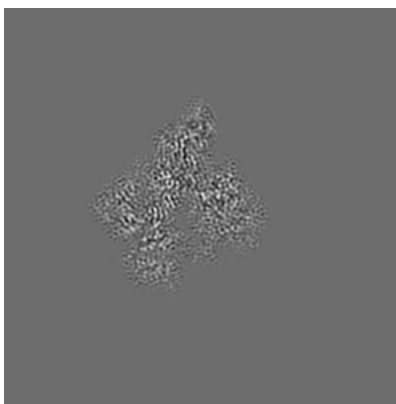
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

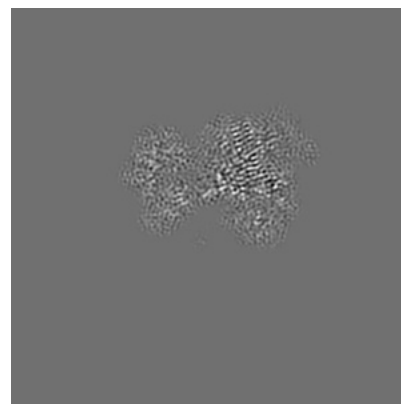
### 6.3.1 Primary map



X Index: 177



Y Index: 185

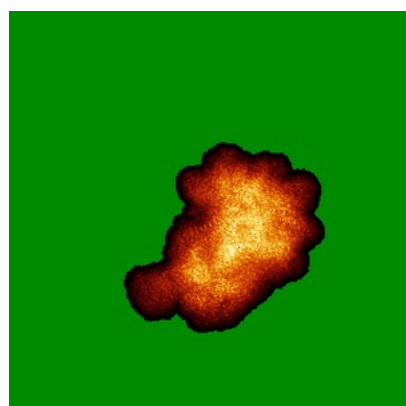


Z Index: 139

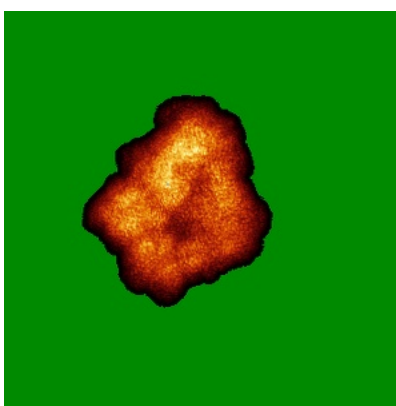
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [i](#)

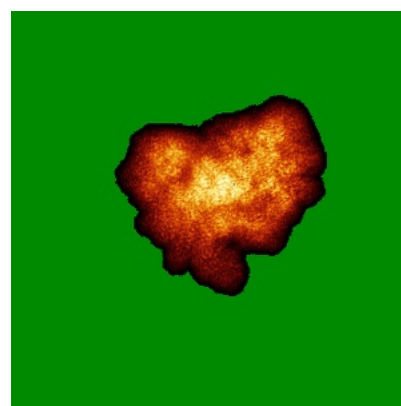
### 6.4.1 Primary map



X



Y



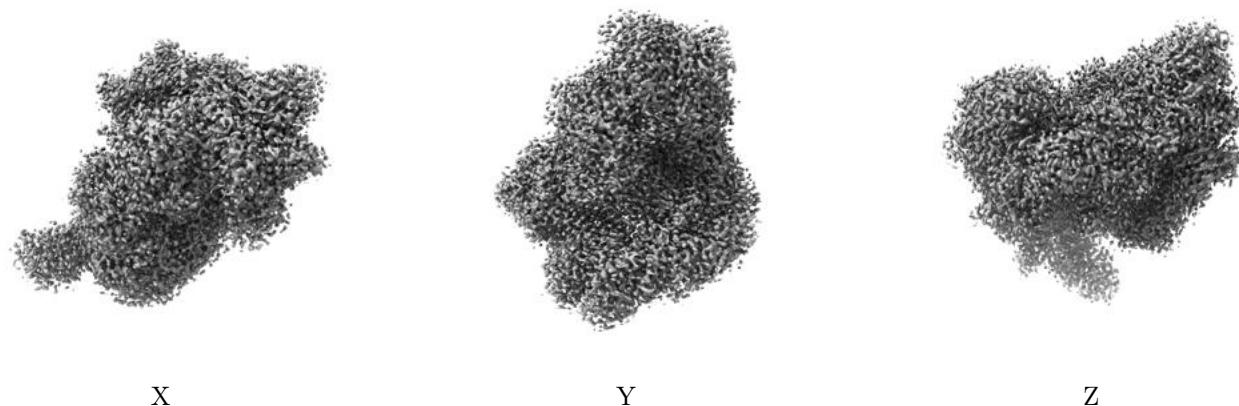
Z

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



The images above show the 3D surface view of the map at the recommended contour level 0.023. 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](#)

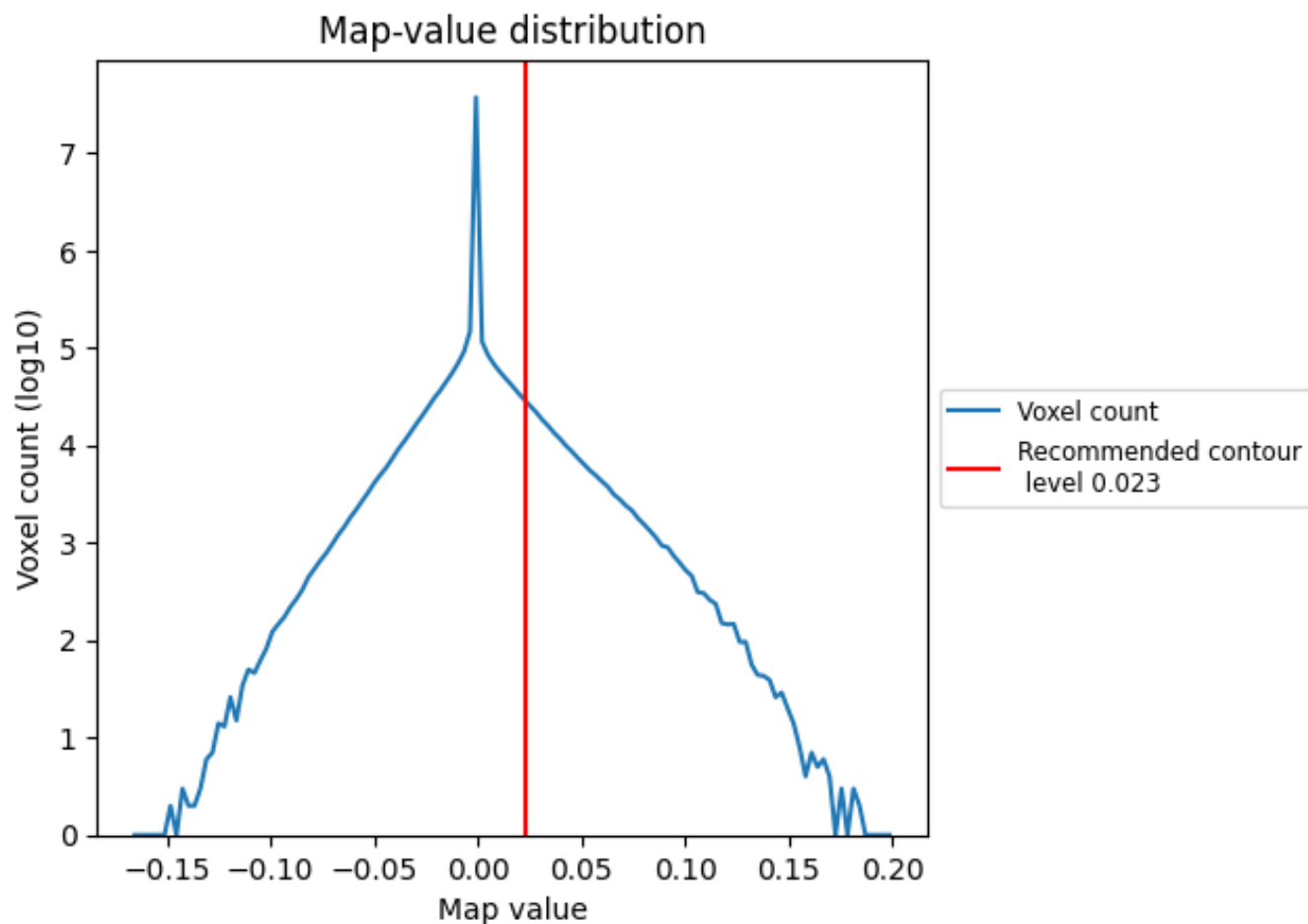
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

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

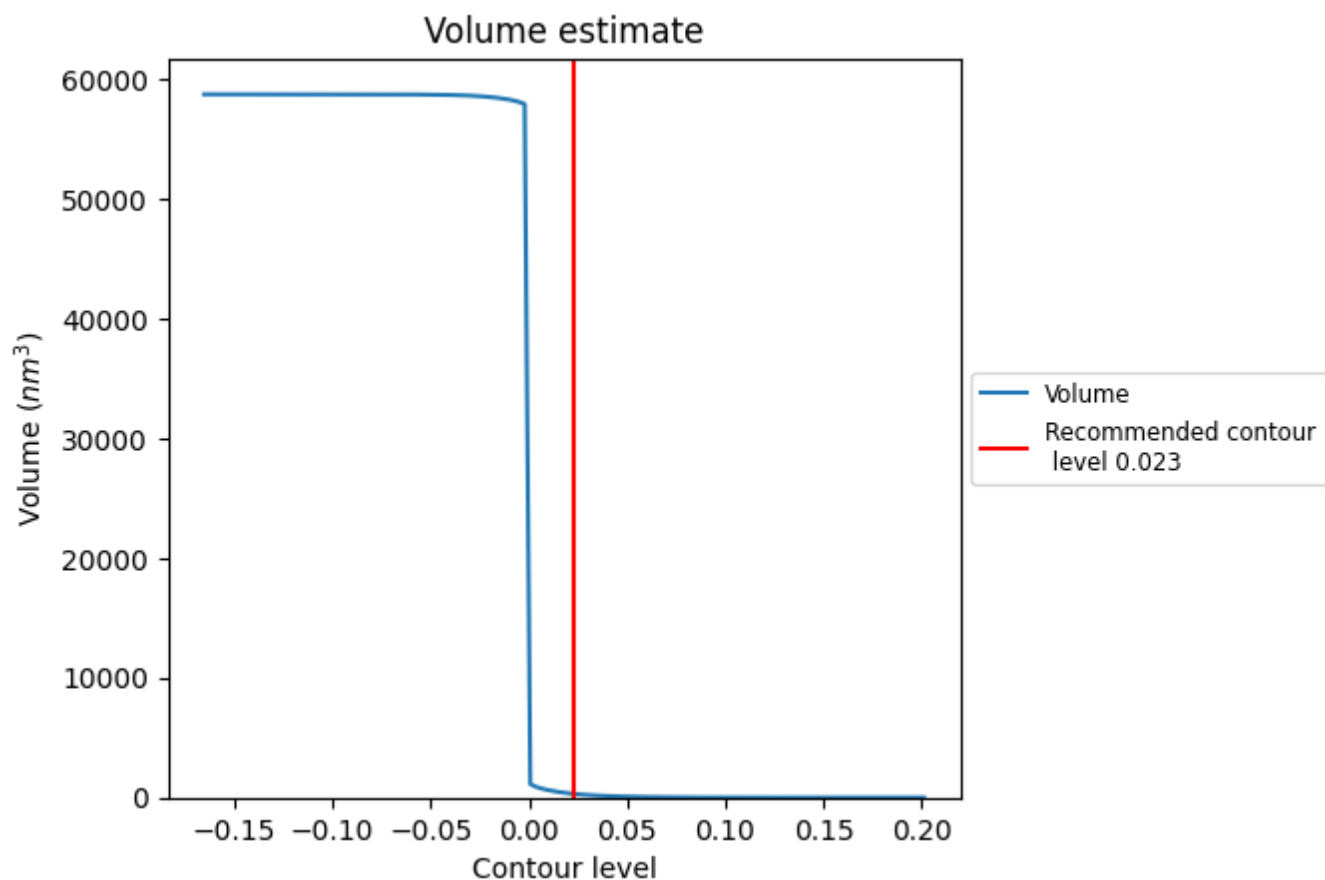
### 7.1 Map-value distribution [i](#)



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 [i](#)

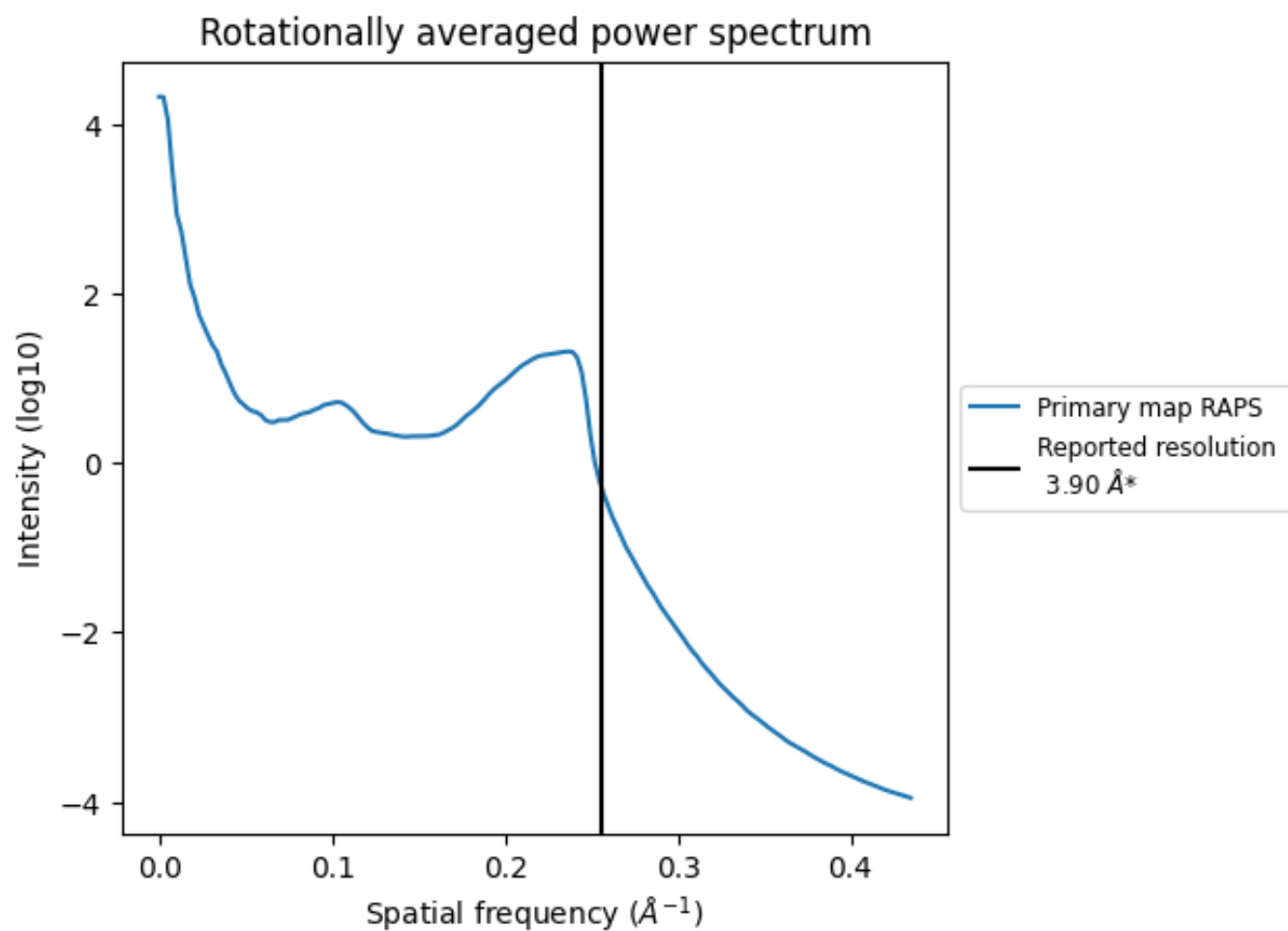


The volume at the recommended contour level is 308 nm<sup>3</sup>; this corresponds to an approximate mass of 278 kDa.

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 ⓘ



\*Reported resolution corresponds to spatial frequency of 0.256 Å<sup>-1</sup>



## 8 Fourier-Shell correlation

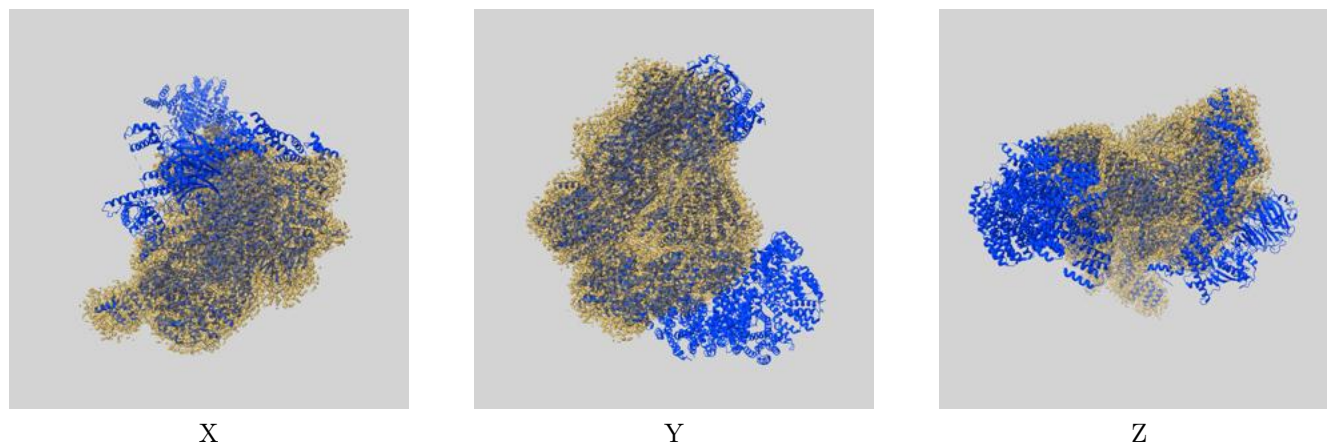
This section was not generated. No FSC curve or half-maps provided.



## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-10518 and PDB model 6TM5. Per-residue inclusion information can be found in section [3](#) on page [8](#).

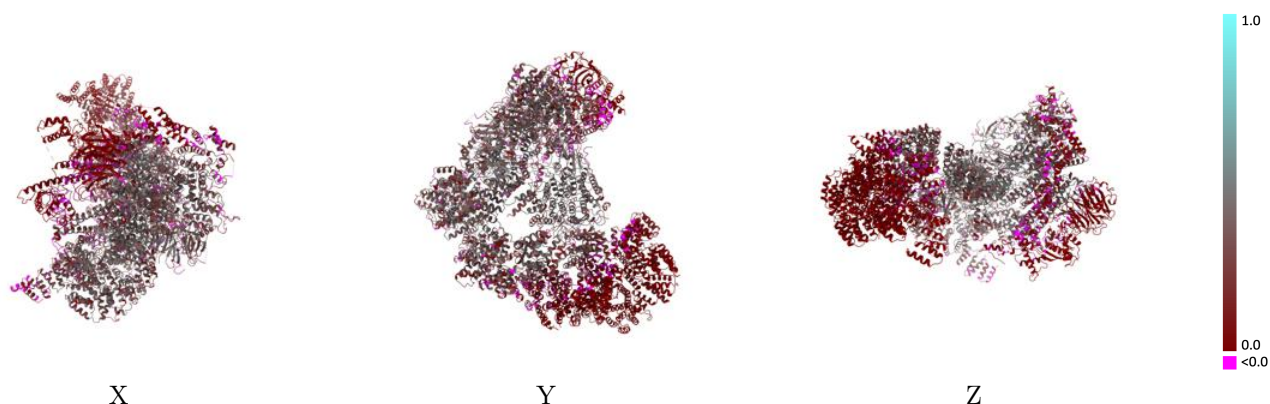
### 9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.023 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.

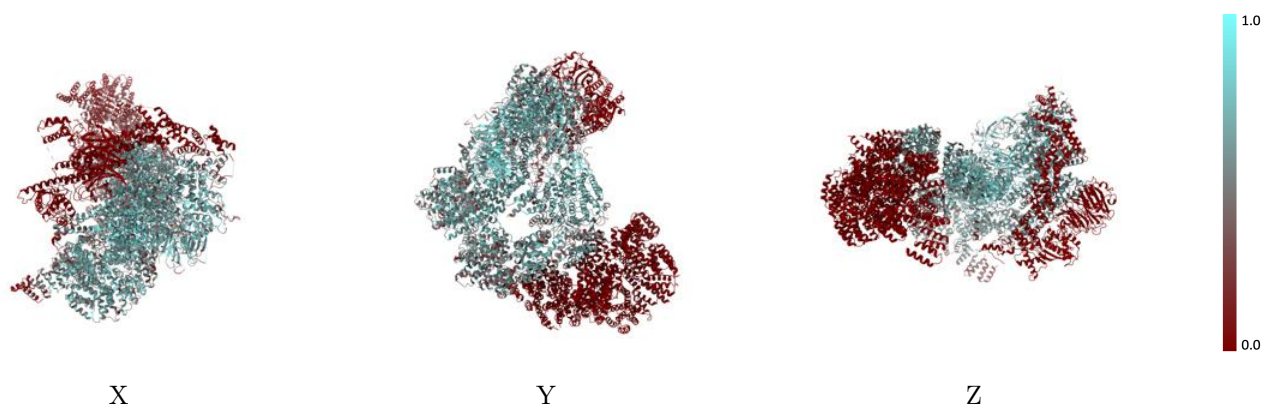


## 9.2 Q-score mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to 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.

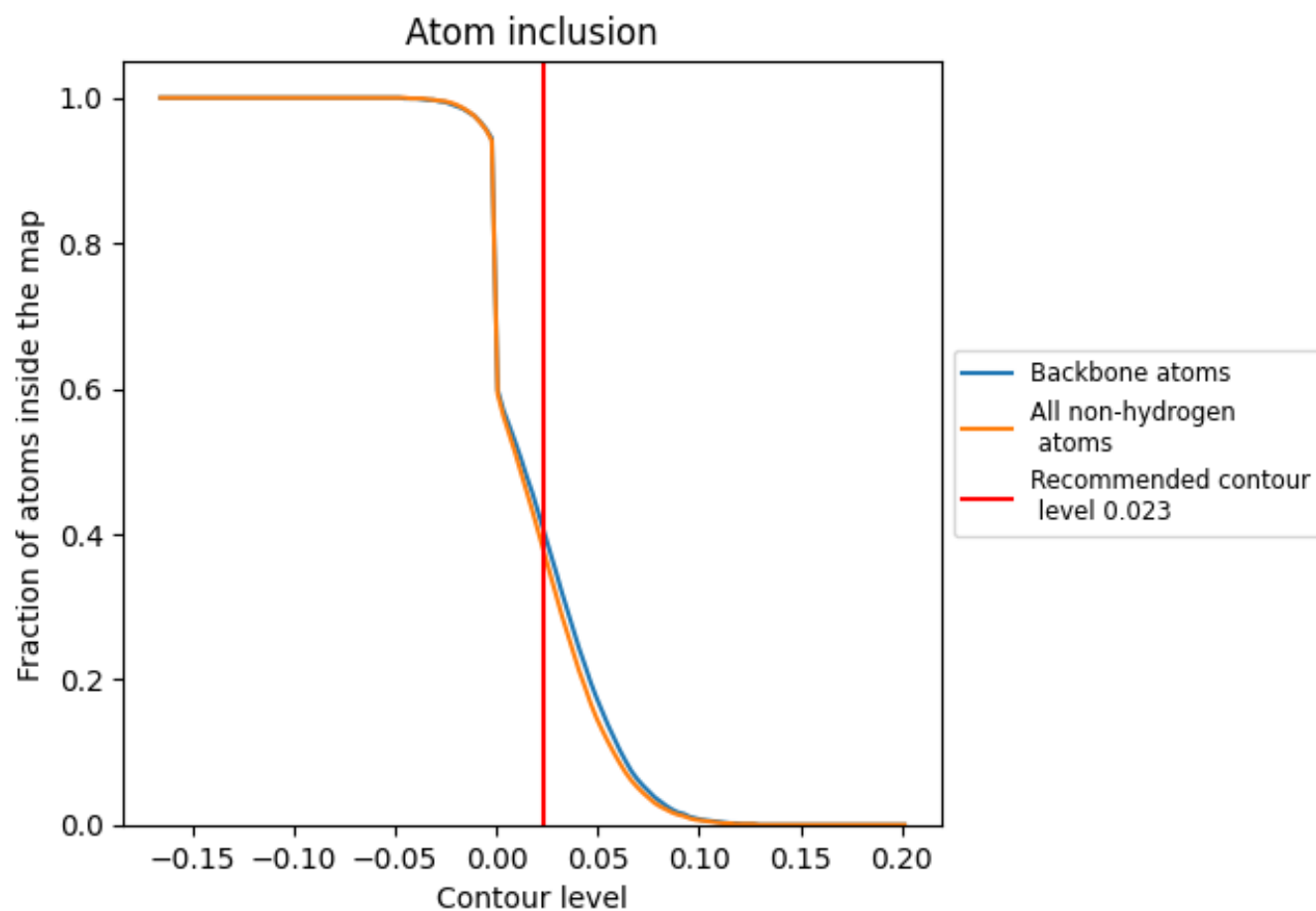
## 9.3 Atom inclusion mapped to coordinate model [i](#)



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 (0.023).



## 9.4 Atom inclusion [i](#)

















































At the recommended contour level, 41% of all backbone atoms, 38% 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 (0.023) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.3810	 0.2120
A	 0.6490	 0.3470
B	 0.0020	 0.0290
C	 0.6470	 0.3530
D	 0.6390	 0.3260
E	 0.0380	 0.0930
F	 0.0100	 0.0280
G	 0.4100	 0.2260
H	 0.0280	 0.0560
I	 0.2790	 0.1660
J	 0.5620	 0.2910
K	 0.5760	 0.3100
L	 0.3980	 0.2180
M	 0.5460	 0.3010
N	 0.0270	 0.0550
O	 0.6720	 0.3600
P	 0.5690	 0.2900
Q	 0.5710	 0.4260
S	 0.0000	 0.0000
T	 0.5440	 0.2430
W	 0.5480	 0.3010
X	 0.0000	 0.0010
Y	 0.0000	 0.0000

