



# Full wwPDB EM Validation Report ⓘ

Jan 1, 2025 – 07:45 PM EST

PDB ID : 8ZJL  
EMDB ID : EMD-60149  
Title : Structure of DOCK5/ELMO1/Rac1 core (RhoG/DOCK5/ELMO1/Rac1 dataset, class 4)  
Authors : Kukimoto-Niino, M.; Katsura, K.; Ishizuka-Katsura, Y.; Mishima-Tsumagari, C.; Yonemochi, M.; Inoue, M.; Nakagawa, R.; Kaushik, R.; Zhang, K.Y.J.; Shirouzu, M.  
Deposited on : 2024-05-15  
Resolution : 4.31 Å (reported)  
Based on initial model : 7DPA

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) : 2.40

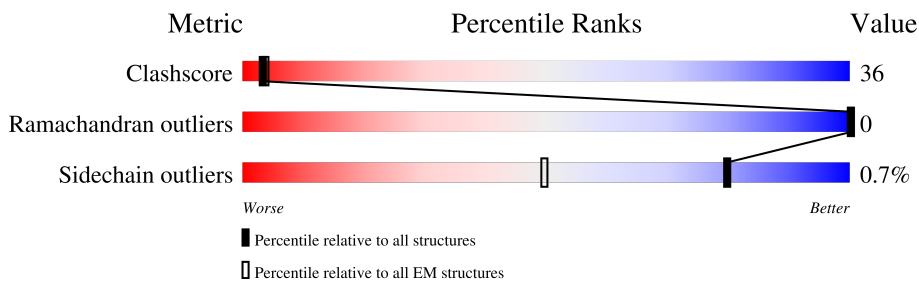
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.31 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	733	 11% 16% 73%
1	D	733	 11% 15% 73%
2	B	1648	 7% 39% 60%
2	E	1648	 7% 38% 61%
3	C	184	 40% 56%
3	F	184	 38% 58%

## 2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 32858 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 Engulfment and cell motility protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	198	Total	C	N	O	S	0	0
			1608	1018	277	303	10		
1	D	198	Total	C	N	O	S	0	0
			1608	1018	277	303	10		

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-5	GLY	-	expression tag	UNP Q92556
A	-4	GLY	-	expression tag	UNP Q92556
A	-3	SER	-	expression tag	UNP Q92556
A	-2	GLY	-	expression tag	UNP Q92556
A	-1	GLY	-	expression tag	UNP Q92556
A	0	SER	-	expression tag	UNP Q92556
D	-5	GLY	-	expression tag	UNP Q92556
D	-4	GLY	-	expression tag	UNP Q92556
D	-3	SER	-	expression tag	UNP Q92556
D	-2	GLY	-	expression tag	UNP Q92556
D	-1	GLY	-	expression tag	UNP Q92556
D	0	SER	-	expression tag	UNP Q92556

- Molecule 2 is a protein called Deducator of cytokinesis protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	1642	Total	C	N	O	S	0	0
			13436	8618	2264	2484	70		
2	E	1642	Total	C	N	O	S	0	0
			13436	8618	2264	2484	70		

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	-5	GLY	-	expression tag	UNP Q9H7D0

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-4	GLY	-	expression tag	UNP Q9H7D0
B	-3	SER	-	expression tag	UNP Q9H7D0
B	-2	GLY	-	expression tag	UNP Q9H7D0
B	-1	GLY	-	expression tag	UNP Q9H7D0
B	0	SER	-	expression tag	UNP Q9H7D0
B	1285	ARG	LYS	variant	UNP Q9H7D0
E	-5	GLY	-	expression tag	UNP Q9H7D0
E	-4	GLY	-	expression tag	UNP Q9H7D0
E	-3	SER	-	expression tag	UNP Q9H7D0
E	-2	GLY	-	expression tag	UNP Q9H7D0
E	-1	GLY	-	expression tag	UNP Q9H7D0
E	0	SER	-	expression tag	UNP Q9H7D0
E	1285	ARG	LYS	variant	UNP Q9H7D0

- Molecule 3 is a protein called Ras-related C3 botulinum toxin substrate 1.

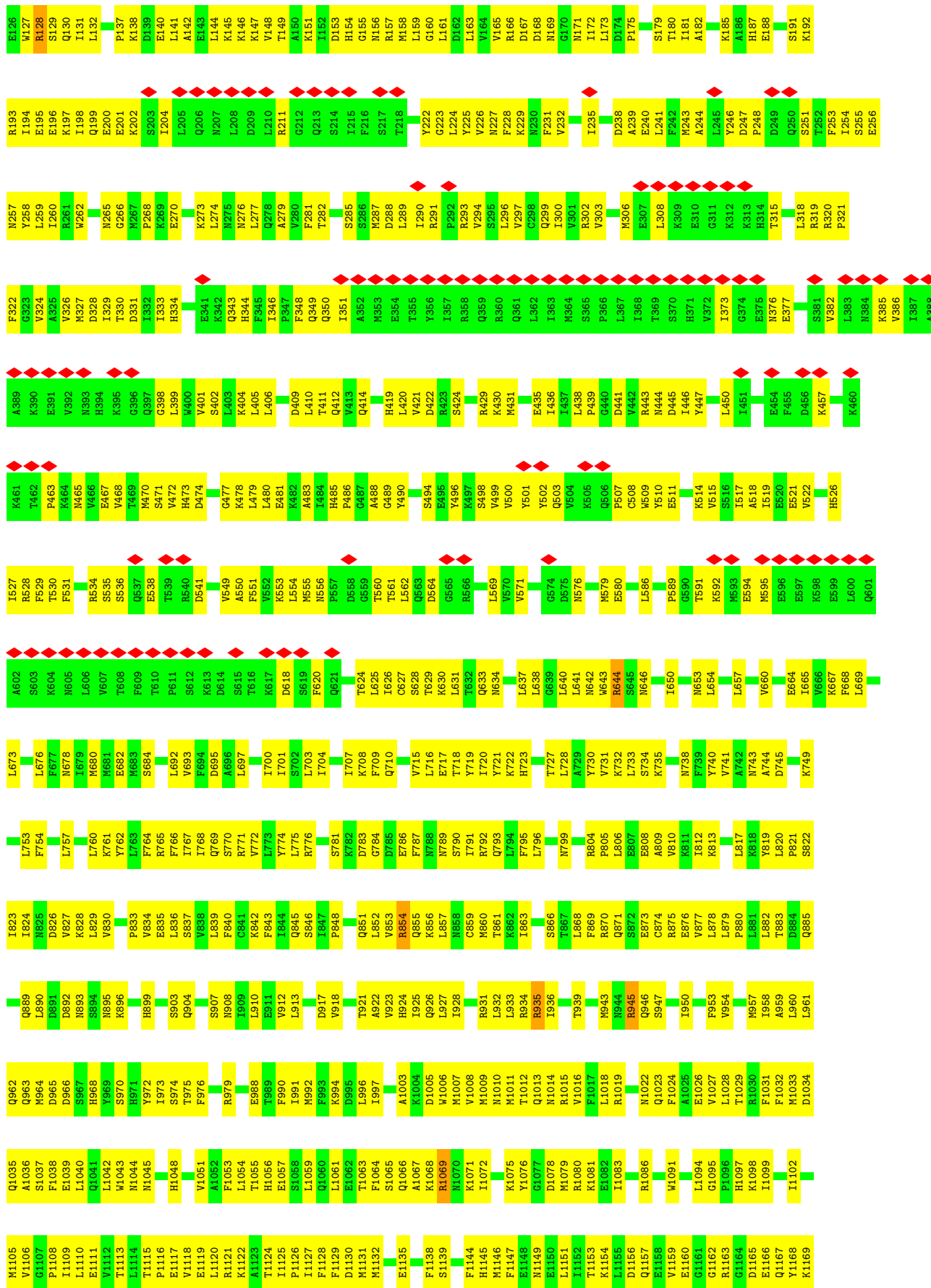
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	177	1385	890	228	259	8	0	0
3	F	177	1385	890	228	259	8	0	0

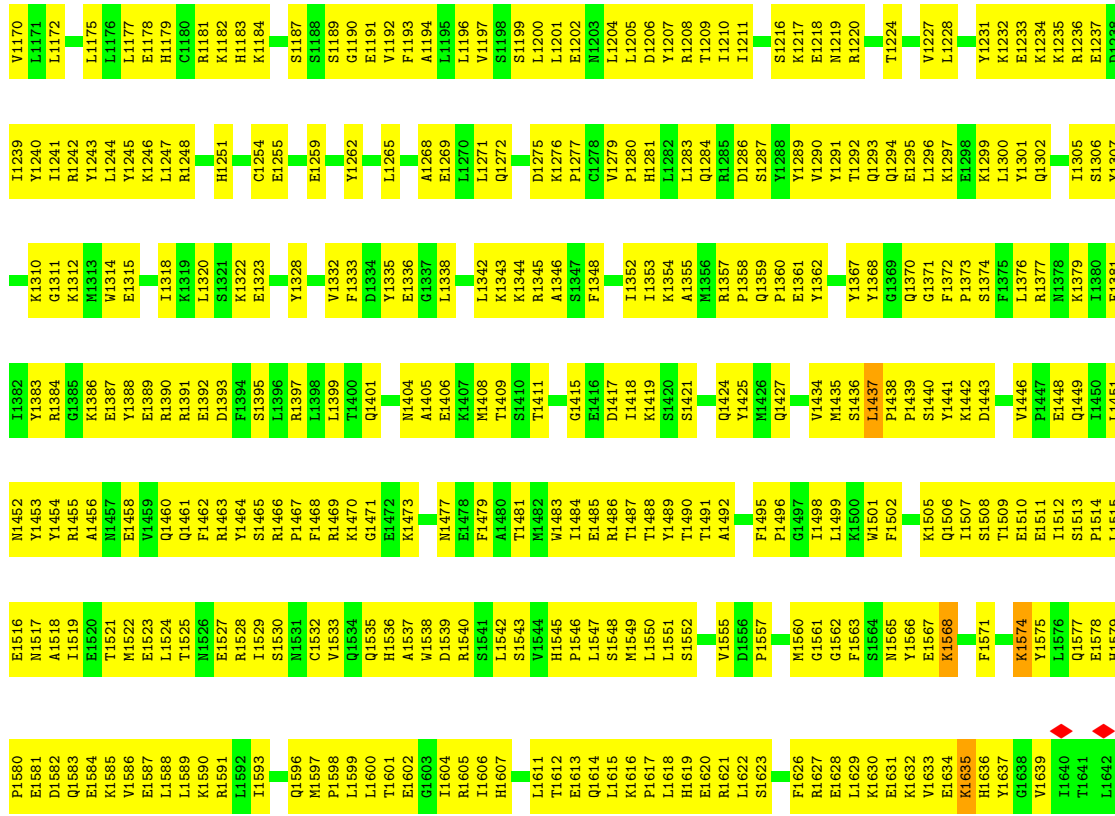
There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	-6	GLY	-	expression tag	UNP P63000
C	-5	SER	-	expression tag	UNP P63000
C	-4	SER	-	expression tag	UNP P63000
C	-3	GLY	-	expression tag	UNP P63000
C	-2	SER	-	expression tag	UNP P63000
C	-1	SER	-	expression tag	UNP P63000
C	0	GLY	-	expression tag	UNP P63000
C	15	ALA	GLY	engineered mutation	UNP P63000
F	-6	GLY	-	expression tag	UNP P63000
F	-5	SER	-	expression tag	UNP P63000
F	-4	SER	-	expression tag	UNP P63000
F	-3	GLY	-	expression tag	UNP P63000
F	-2	SER	-	expression tag	UNP P63000
F	-1	SER	-	expression tag	UNP P63000
F	0	GLY	-	expression tag	UNP P63000
F	15	ALA	GLY	engineered mutation	UNP P63000

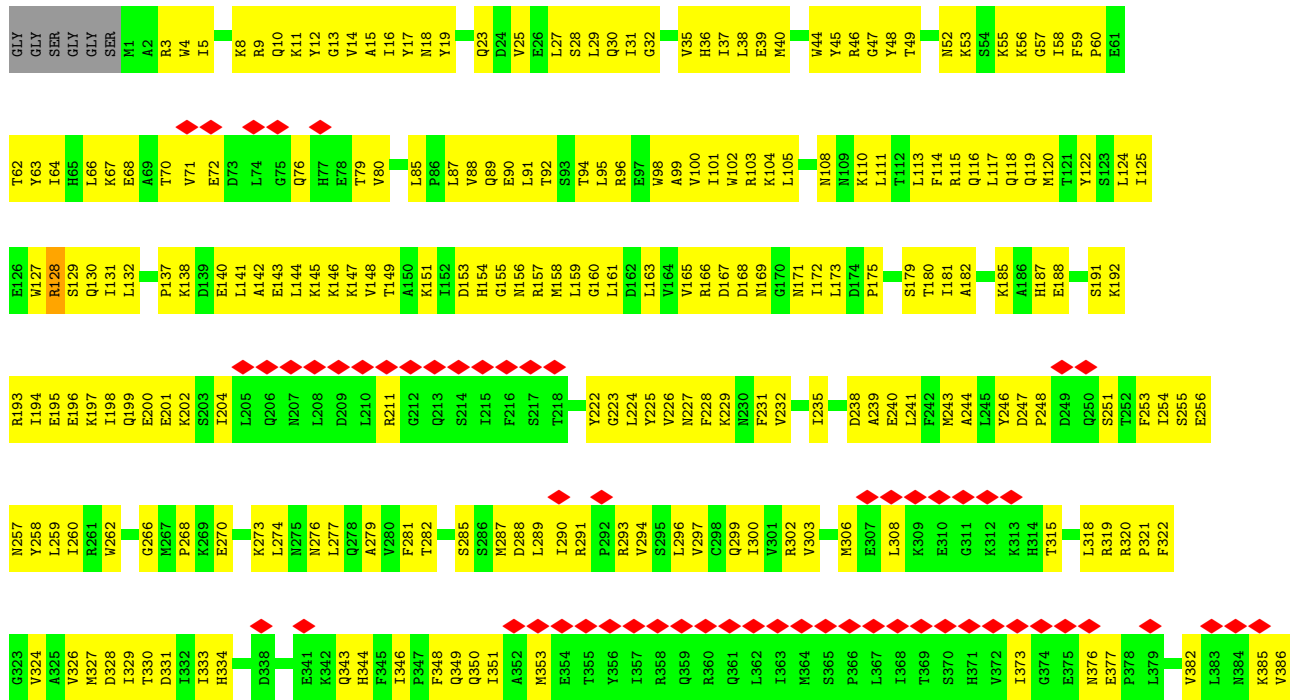








• Molecule 2: Dedicator of cytokinesis protein 5

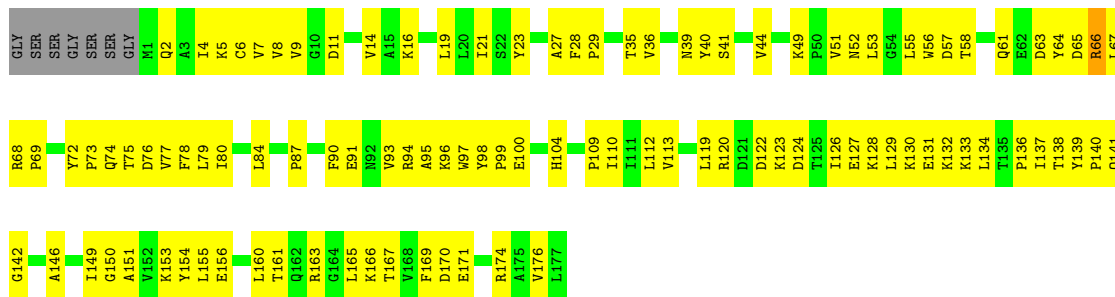
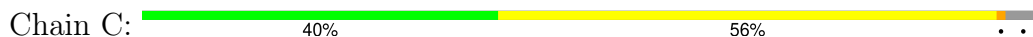




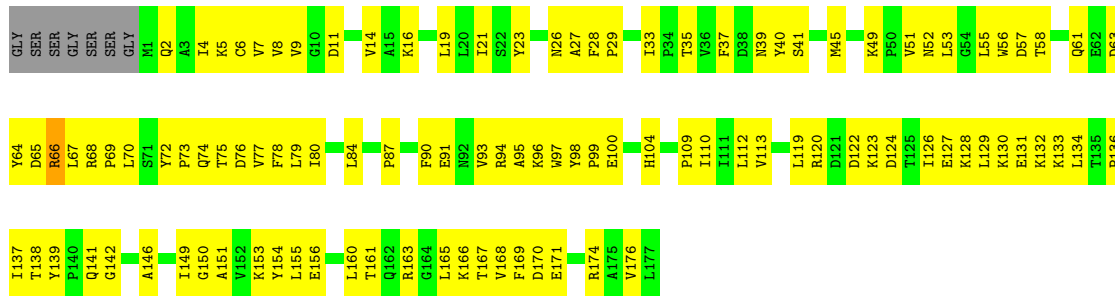
I387	A388	A389	K390	E391	V392	N393	H394	K395	G396	G397	G398	L399	H400	V401	S402	L403	K404	L405	L406	D409	L410	T411	Q412	V413	Q414	H419	L420	V421	D422	R423	S424	T425	R429	K430	P439	G440	D441	V442	R443	M444	D445	I446	Y447	L450	I451	E454	F455	D456										
K457	K460	K461	T462	P463	K464	E467	V468	T469	M470	S471	V472	H473	D474	G477	K478	L480	L481	E482	A483	I484	H485	H486	G487	A488	G489	Y490	S494	E495	Y496	K497	S498	V499	V500	Y501	Y502	Q503	V504	K505	Q506	C508	V509	Y510	E511	K514	V515	S516	I517	A518	I519	E520	E521	E522						
H526	I527	F528	R529	F530	F531	R534	Q537	E538	T539	R540	D541	V549	A550	F551	V552	K553	L554	M555	M556	D558	G559	T560	T561	L562	Q563	D564	G565	R566	L569	V570	V571	G574	D575	N576	M579	E580	L586	P589	G590	T591	K592	M593	E594	M595	E596	E597	K598	E599	L600	Q601								
A602	S603	K604	N605	L606	V607	T608	F609	T610	P611	S612	K613	D614	S615	T616	K617	D618	S619	F620	T624	L625	I626	G627	S628	L716	T629	K630	L631	T632	Q633	N634	L637	L638	G639	L640	L641	L642	W643	R644	N645	N646	I650	N653	L654	L657	V660	E664	I665	V666	K667	F668	L669	L673						
L676	F677	M678	I679	M681	E682	M683	S684	L692	V693	L697	I700	I701	S702	L703	I704	I707	K708	F709	Q710	H711	V715	S628	L716	E717	K630	L631	T632	Y719	I720	K722	H723	F724	S725	A726	T727	L728	A729	Y730	V731	K732	L733	S734	K735	N738	F739	Y740	N743	A744	D745	S746	S747	S748						
K749	L754	L755	L757	L760	K761	Y762	L763	F764	K765	F766	I767	I768	Q769	R770	R771	V772	L773	Y774	L775	R776	S781	D783	G784	D785	E786	F787	N788	N789	S790	I791	R792	Q793	L794	F795	L796	S866	T867	L868	F869	R870	L871	R872	C874	V875	R876	R877	I878	K879	L881	K818	Y819	L820	T882	D884				
S822	I823	I824	N825	R826	V827	K828	L829	V830	P833	V834	E835	L836	S837	V838	F839	C841	R842	F843	I844	Q845	S846	P848	Q851	L852	V853	R854	Q855	K856	N857	C859	M860	T861	R862	S866	S866	I936	L936	T939	M943	N944	R945	Q946	S947	I950	V877	L878	R879	V954	L881	M957	I958	A959						
Q885	Q889	L890	D891	D892	N893	S894	R895	S896	H899	E900	S903	Q904	S907	N908	I909	L910	E911	V912	L913	D917	V918	Q921	A922	V923	H924	I925	Q926	I927	I928	R931	L932	L933	R934	R935	I936	T939	M943	N944	R945	Q946	S947	I950	V877	L878	R879	V954	L881	M957	I958	A959								
L960	L961	Q962	Q963	N964	D965	D966	S967	H968	V969	S970	H971	Y972	L973	S974	F976	R979	E988	T989	F990	I991	N992	F993	K994	D995	L996	I997	A1003	K1004	D1005	M1006	M1007	V1008	M1009	N1010	M1011	T1012	Q1013	N1014	R1015	V1016	F1017	L1018	R1019	M1022	Q1023	F1024	A1025	E1026	V1027	L1028	T1029	F1030	R1031	F1032				
M1033	D1034	Q1035	A1036	S1037	F1038	E1039	L1040	M1043	M1044	M1045	H1048	V1051	A1052	F1053	L1054	T1055	H1056	E1057	L1059	Q1060	L1061	E1062	T1063	F1064	S1065	Q1066	A1067	K1068	R1069	K1071	I1072	K1075	Y1076	G1077	D1078	M1079	K1080	K1081	E1082	D1089	M1090	W1091	L1094	V1095	F1096	H1097	K1098	I1099										
I1102	M1105	V1106	G1107	F1108	L1109	L1110	E1111	V1112	L1114	T1115	P1116	E1117	V1118	E1119	L1120	R1121	K1122	A1123	T1124	I1125	P1126	L1127	F1128	F1129	D1130	M1131	M1132	E1135	F1138	S1139	F1144	H1145	M1146	F1147	E1148	N1149	E1150	L1151	I1152	T1153	K1154	L1155	D1156	Q1157	V1159	E1160	G1161	G1162	R1163	E1164	D1165	E1166						
Q1167	Y1168	K1169	V1170	L1171	L1172	L1175	L1176	L1177	E1178	H1179	C1180	R1181	K1182	H1183	K1184	Y1185	S1187	S1188	S1189	G1190	E1191	V1192	F1193	A1194	L1195	L1196	V1197	S1198	L1199	L1200	E1201	E1202	N1203	L1204	L1205	D1206	R1207	L1208	T1209	I1210	I1211	S1216	K1217	E1218	M1219	R1220	T1224	V1227	L1228	Y1231	K1232	L1233	K1234					
K1235	R1236	I1237	D1238	I1239	Y1240	I1241	R1242	L1243	L1244	E1245	K1246	L1247	R1248	H1251	C1254	E1255	E1259	Y1262	T1263	L1264	L1265	A1268	E1269	L1270	L1271	Q1272	D1275	K1276	P1277	G1278	V1279	P1280	H1281	L1282	L1283	A1284	E1285	D1286	V1290	Y1291	T1292	Q1293	Q1294	E1295	L1296	K1297	L1298	E1298	L1299	G1300	L1300	Q1302						
I1305	S1306	Y1307	K1310	G1311	K1312	M1313	M1314	E1315	K1316	Y1318	K1319	L1320	S1321	K1322	E1323	L1324	T1327	Y1328	V1332	F1333	D1334	Y1335	E1336	G1337	L1338	F1339	L1400	Q1401	M1404	A1405	E1406	K1407	M1408	G1415	E1416	D1417	I1418	K1419	S1420	S1421	Q1424	K1425	M1426	Q1427	V1434	M1435	S1436	L1437	P1438	F1439	S1440	Y1441	K1442	D1443	V1446	P1447	E1448	Q1449



• Molecule 3: Ras-related C3 botulinum toxin substrate 1



• Molecule 3: Ras-related C3 botulinum toxin substrate 1



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	123816	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 ( $e^-/\text{\AA}^2$ )	50	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.058	Depositor
Minimum map value	-0.017	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	452.2, 452.2, 452.2	wwPDB
Map dimensions	340, 340, 340	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.33, 1.33, 1.33	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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	0.29	0/1641	0.52	1/2218 (0.0%)
1	D	0.29	0/1641	0.52	1/2218 (0.0%)
2	B	0.34	0/13722	0.51	1/18514 (0.0%)
2	E	0.33	0/13722	0.51	1/18514 (0.0%)
3	C	0.33	0/1415	0.49	0/1924
3	F	0.33	0/1415	0.49	0/1924
All	All	0.33	0/33556	0.51	4/45312 (0.0%)

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	536	LEU	CB-CG-CD2	-5.42	101.79	111.00
1	A	536	LEU	CB-CG-CD2	-5.40	101.81	111.00
2	E	1437	LEU	CA-CB-CG	5.25	127.36	115.30
2	B	1437	LEU	CA-CB-CG	5.24	127.35	115.30

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts i

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1608	0	1617	127	0
1	D	1608	0	1617	123	0
2	B	13436	0	13516	987	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	E	13436	0	13516	1003	0
3	C	1385	0	1407	106	0
3	F	1385	0	1407	111	0
All	All	32858	0	33080	2381	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 36.

All (2381) 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)
2:E:1217:LYS:HA	2:E:1220:ARG:HE	1.30	0.96
2:B:1217:LYS:HA	2:B:1220:ARG:HE	1.30	0.95
2:B:46:ARG:HB3	2:B:58:ILE:HG13	1.54	0.89
2:E:4:TRP:HB3	2:E:39:GLU:HB3	1.55	0.88
3:F:9:VAL:HG22	3:F:78:PHE:HZ	1.39	0.88
3:C:9:VAL:HG22	3:C:78:PHE:HZ	1.38	0.87
2:E:157:ARG:HH12	2:E:197:LYS:HD3	1.39	0.87
2:E:46:ARG:HB3	2:E:58:ILE:HG13	1.54	0.87
2:B:157:ARG:HH12	2:B:197:LYS:HD3	1.39	0.87
2:E:23:GLN:HG2	2:E:58:ILE:HB	1.58	0.86
2:B:4:TRP:HB3	2:B:39:GLU:HB3	1.55	0.86
2:E:1390:ARG:NH2	3:F:23:TYR:O	2.09	0.86
2:B:890:LEU:HD22	2:B:935:ARG:HG3	1.58	0.86
1:D:551:GLN:HA	1:D:554:ASN:HD22	1.41	0.86
2:E:890:LEU:HD22	2:E:935:ARG:HG3	1.57	0.85
1:D:535:GLU:O	1:D:539:LYS:HB3	1.76	0.85
1:A:535:GLU:O	1:A:539:LYS:HB3	1.76	0.85
2:B:1080:ARG:HA	2:B:1083:ILE:HD12	1.58	0.85
2:B:23:GLN:HG2	2:B:58:ILE:HB	1.58	0.85
1:A:551:GLN:HA	1:A:554:ASN:HD22	1.41	0.85
2:E:1438:PRO:HB2	2:E:1441:TYR:HB2	1.56	0.85
2:B:1438:PRO:HB2	2:B:1441:TYR:HB2	1.56	0.84
2:E:1391:ARG:HH22	3:F:29:PRO:HD3	1.40	0.84
2:E:1080:ARG:HA	2:E:1083:ILE:HD12	1.58	0.84
2:E:10:GLN:HG3	2:E:37:ILE:HB	1.58	0.83
2:B:197:LYS:HA	2:B:200:GLU:HG2	1.59	0.83
1:A:670:ASN:ND2	1:A:676:ASP:O	2.12	0.83
2:B:10:GLN:HG3	2:B:37:ILE:HB	1.58	0.83
1:A:724:TYR:HB3	2:B:4:TRP:HB2	1.57	0.83
2:E:197:LYS:HA	2:E:200:GLU:HG2	1.59	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:670:ASN:ND2	1:D:676:ASP:O	2.12	0.82
2:E:809:ALA:HB1	2:E:812:ILE:HB	1.61	0.82
2:E:1028:LEU:O	2:E:1032:PHE:HB2	1.80	0.82
2:E:1393:ASP:OD1	3:F:166:LYS:NZ	2.13	0.82
2:B:95:LEU:HA	2:B:98:TRP:HD1	1.46	0.80
2:B:809:ALA:HB1	2:B:812:ILE:HB	1.61	0.80
2:E:904:GLN:O	2:E:908:ASN:ND2	2.14	0.80
2:B:904:GLN:O	2:B:908:ASN:ND2	2.14	0.80
2:B:1028:LEU:O	2:B:1032:PHE:HB2	1.80	0.80
2:B:1536:HIS:O	2:B:1540:ARG:NH2	2.15	0.80
2:E:1536:HIS:O	2:E:1540:ARG:NH2	2.15	0.80
2:B:241:LEU:HB2	2:B:260:ILE:HB	1.64	0.79
2:E:1144:PHE:HB2	2:E:1147:PHE:HB3	1.63	0.79
2:B:1144:PHE:HB2	2:B:1147:PHE:HB3	1.63	0.79
2:E:95:LEU:HA	2:E:98:TRP:HD1	1.46	0.79
2:E:879:LEU:HD12	2:E:882:LEU:HB2	1.65	0.79
2:E:1156:ASP:OD2	2:E:1242:ARG:NH2	2.16	0.79
2:B:1156:ASP:OD2	2:B:1242:ARG:NH2	2.16	0.79
2:B:879:LEU:HD12	2:B:882:LEU:HB2	1.65	0.79
2:E:883:THR:HG21	2:E:931:ARG:HB3	1.65	0.78
2:B:837:SER:HB3	2:B:878:LEU:HD21	1.66	0.78
2:E:939:THR:O	2:E:943:MET:N	2.17	0.78
1:A:532:PRO:HG3	1:A:708:ASP:HA	1.66	0.78
2:B:18:ASN:HB3	2:B:28:SER:HB2	1.66	0.78
2:B:104:LYS:O	2:B:108:ASN:ND2	2.16	0.78
2:E:837:SER:HB3	2:E:878:LEU:HD21	1.66	0.78
2:B:1277:PRO:HG3	2:B:1292:THR:HA	1.66	0.78
2:B:939:THR:O	2:B:943:MET:N	2.17	0.77
1:D:701:LEU:HD11	2:E:16:ILE:HA	1.65	0.77
3:F:87:PRO:HA	3:F:90:PHE:HD2	1.49	0.77
1:A:563:ARG:HB3	1:A:573:LYS:HE3	1.66	0.77
3:C:87:PRO:HA	3:C:90:PHE:HD2	1.49	0.77
2:E:241:LEU:HB2	2:E:260:ILE:HB	1.64	0.77
2:E:1277:PRO:HG3	2:E:1292:THR:HA	1.66	0.77
3:F:49:LYS:HZ2	3:F:51:VAL:HG12	1.50	0.77
3:C:39:ASN:H	3:C:57:ASP:HB3	1.50	0.77
2:E:18:ASN:HB3	2:E:28:SER:HB2	1.66	0.77
2:B:25:VAL:HG11	2:B:56:LYS:HE2	1.65	0.77
2:E:104:LYS:O	2:E:108:ASN:ND2	2.16	0.77
1:D:532:PRO:HG3	1:D:708:ASP:HA	1.66	0.77
2:E:25:VAL:HG11	2:E:56:LYS:HE2	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:883:THR:HG21	2:B:931:ARG:HB3	1.65	0.76
1:D:563:ARG:HB3	1:D:573:LYS:HE3	1.66	0.76
2:E:1328:TYR:HA	2:E:1332:VAL:HG12	1.68	0.76
2:B:924:HIS:HA	2:B:927:LEU:HD12	1.68	0.76
3:F:39:ASN:H	3:F:57:ASP:HB3	1.50	0.76
2:B:1233:GLU:O	2:B:1235:LYS:NZ	2.19	0.76
2:B:166:ARG:NH1	2:B:167:ASP:OD1	2.19	0.75
2:E:1233:GLU:O	2:E:1235:LYS:NZ	2.19	0.75
3:F:100:GLU:O	3:F:104:HIS:ND1	2.18	0.75
2:E:1032:PHE:HB3	2:E:1043:TRP:HH2	1.51	0.75
2:E:1276:LYS:NZ	2:E:1277:PRO:O	2.19	0.75
2:B:883:THR:OG1	2:B:931:ARG:NH1	2.20	0.75
2:B:1032:PHE:HB3	2:B:1043:TRP:HH2	1.51	0.75
2:E:883:THR:OG1	2:E:931:ARG:NH1	2.20	0.75
2:E:166:ARG:NH1	2:E:167:ASP:OD1	2.19	0.75
3:F:61:GLN:O	3:F:68:ARG:NH2	2.20	0.75
3:C:100:GLU:O	3:C:104:HIS:ND1	2.18	0.74
2:E:924:HIS:HA	2:E:927:LEU:HD12	1.68	0.74
2:B:1328:TYR:HA	2:B:1332:VAL:HG12	1.68	0.74
2:B:1276:LYS:NZ	2:B:1277:PRO:O	2.19	0.74
3:C:61:GLN:O	3:C:68:ARG:NH2	2.20	0.74
2:E:9:ARG:HB3	2:E:68:GLU:HG3	1.69	0.74
2:E:749:LYS:HG2	2:E:753:LEU:HD23	1.70	0.74
2:B:1574:LYS:O	2:B:1577:GLN:NE2	2.21	0.74
2:B:9:ARG:HB3	2:B:68:GLU:HG3	1.69	0.74
3:C:49:LYS:HZ2	3:C:51:VAL:HG12	1.52	0.74
2:E:934:ARG:NH2	2:E:988:GLU:OE1	2.21	0.74
2:E:1466:ARG:NH1	2:E:1467:PRO:O	2.20	0.74
2:B:80:VAL:HG22	2:B:85:LEU:HD11	1.70	0.74
2:B:1466:ARG:NH1	2:B:1467:PRO:O	2.20	0.74
2:B:1632:LYS:O	2:B:1637:TYR:N	2.18	0.73
2:E:95:LEU:HA	2:E:98:TRP:CD1	2.23	0.73
1:A:723:VAL:HB	2:B:3:ARG:H	1.53	0.73
2:B:749:LYS:HG2	2:B:753:LEU:HD23	1.70	0.73
2:E:772:VAL:HA	2:E:775:LEU:HD12	1.71	0.73
2:B:467:GLU:HB2	2:B:500:VAL:HG22	1.71	0.73
2:B:730:TYR:HB3	2:B:770:SER:HB3	1.71	0.73
2:B:1602:GLU:HG3	2:B:1605:ARG:HH12	1.54	0.73
2:B:1111:GLU:N	2:B:1111:GLU:OE1	2.22	0.72
2:E:842:LYS:O	2:E:845:GLN:NE2	2.22	0.72
2:B:934:ARG:NH2	2:B:988:GLU:OE1	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:377:GLU:OE1	2:B:385:LYS:NZ	2.23	0.72
2:E:945:ARG:HH11	2:E:946:GLN:H	1.36	0.72
2:E:1056:HIS:ND1	2:E:1057:GLU:OE2	2.22	0.72
2:E:1469:ARG:HB3	2:E:1473:LYS:HD2	1.71	0.72
2:E:1574:LYS:O	2:E:1577:GLN:NE2	2.21	0.72
2:E:1602:GLU:HG3	2:E:1605:ARG:HH12	1.54	0.72
2:B:95:LEU:HA	2:B:98:TRP:CD1	2.23	0.72
2:B:1307:TYR:O	2:B:1311:GLY:N	2.22	0.72
2:E:1307:TYR:O	2:E:1311:GLY:N	2.22	0.72
1:A:555:ARG:NH1	2:B:109:ASN:OD1	2.23	0.72
2:B:1469:ARG:HB3	2:B:1473:LYS:HD2	1.71	0.72
2:E:239:ALA:HB3	2:E:262:TRP:HB3	1.71	0.72
2:E:1463:ARG:HA	2:E:1488:THR:HA	1.71	0.72
2:E:1465:SER:HA	2:E:1486:ARG:HE	1.55	0.72
2:B:239:ALA:HB3	2:B:262:TRP:HB3	1.71	0.72
2:E:904:GLN:OE1	2:E:908:ASN:ND2	2.22	0.72
2:E:1121:ARG:HG2	2:E:1125:ILE:HD11	1.71	0.72
2:B:1056:HIS:ND1	2:B:1057:GLU:OE2	2.23	0.72
2:B:1216:SER:OG	2:B:1401:GLN:NE2	2.23	0.72
2:E:12:TYR:HB2	2:E:67:LYS:HB2	1.70	0.72
2:E:377:GLU:OE1	2:E:385:LYS:NZ	2.23	0.72
2:E:80:VAL:HG22	2:E:85:LEU:HD11	1.70	0.71
2:B:842:LYS:O	2:B:845:GLN:NE2	2.22	0.71
1:D:536:LEU:HD21	2:E:18:ASN:H	1.53	0.71
2:B:12:TYR:HB2	2:B:67:LYS:HB2	1.71	0.71
2:E:730:TYR:HB3	2:E:770:SER:HB3	1.71	0.71
3:F:84:LEU:HD11	3:F:156:GLU:HB2	1.71	0.71
1:A:584:LYS:O	1:A:607:LYS:NZ	2.21	0.71
2:E:1111:GLU:N	2:E:1111:GLU:OE1	2.22	0.71
2:E:1623:SER:HB3	2:E:1627:ARG:HH22	1.55	0.71
2:E:1632:LYS:O	2:E:1637:TYR:N	2.18	0.71
2:B:945:ARG:HH11	2:B:946:GLN:H	1.36	0.71
2:B:1463:ARG:HA	2:B:1488:THR:HA	1.71	0.71
2:B:1623:SER:HB3	2:B:1627:ARG:HH22	1.55	0.71
2:E:1115:THR:O	2:E:1121:ARG:NH2	2.21	0.71
2:E:1216:SER:OG	2:E:1401:GLN:NE2	2.23	0.71
2:B:1465:SER:HA	2:B:1486:ARG:HE	1.55	0.71
2:B:1613:GLU:OE2	2:B:1614:GLN:NE2	2.23	0.71
2:B:772:VAL:HA	2:B:775:LEU:HD12	1.71	0.71
2:E:467:GLU:HB2	2:E:500:VAL:HG22	1.71	0.71
2:B:1165:ASP:OD2	2:B:1168:TYR:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1633:VAL:HA	2:E:1637:TYR:HB2	1.73	0.71
1:A:551:GLN:OE1	1:A:552:ARG:NH2	2.24	0.70
2:B:1121:ARG:HG2	2:B:1125:ILE:HD11	1.71	0.70
2:B:806:LEU:HG	2:B:810:VAL:HG22	1.73	0.70
1:D:551:GLN:OE1	1:D:552:ARG:NH2	2.24	0.70
2:E:561:THR:HG21	2:E:631:LEU:HB3	1.72	0.70
3:C:87:PRO:HD2	3:C:134:LEU:HD13	1.74	0.70
3:C:84:LEU:HD11	3:C:156:GLU:HB2	1.71	0.70
1:D:584:LYS:O	1:D:607:LYS:NZ	2.21	0.70
2:E:817:LEU:HB3	2:E:859:CYS:HB2	1.74	0.70
2:E:1613:GLU:OE2	2:E:1614:GLN:NE2	2.23	0.70
2:E:1318:ILE:HD11	2:E:1348:PHE:HB2	1.73	0.70
2:B:373:ILE:HG23	2:B:376:ASN:HB2	1.74	0.70
2:B:1231:TYR:O	2:B:1235:LYS:N	2.25	0.70
2:E:373:ILE:HG23	2:E:376:ASN:HB2	1.74	0.70
2:E:860:MET:SD	2:E:885:GLN:NE2	2.65	0.70
2:B:1314:TRP:HB2	2:B:1352:ILE:HD11	1.73	0.70
2:E:1284:GLN:HE21	2:E:1286:ASP:HB2	1.57	0.70
2:E:1391:ARG:NH2	3:F:27:ALA:O	2.25	0.70
2:B:817:LEU:HB3	2:B:859:CYS:HB2	1.74	0.70
2:B:1314:TRP:HZ3	2:B:1357:ARG:HD3	1.57	0.70
2:B:1318:ILE:HD11	2:B:1348:PHE:HB2	1.73	0.70
2:B:1575:TYR:O	2:B:1579:HIS:N	2.21	0.70
2:E:1314:TRP:HB2	2:E:1352:ILE:HD11	1.73	0.70
2:B:589:PRO:HB3	2:B:594:GLU:HB3	1.74	0.69
2:B:828:LYS:HE2	2:B:833:PRO:HG3	1.73	0.69
2:B:1284:GLN:HE21	2:B:1286:ASP:HB2	1.57	0.69
2:E:165:VAL:HG23	2:E:175:PRO:HD3	1.74	0.69
2:B:165:VAL:HG23	2:B:175:PRO:HD3	1.74	0.69
2:B:463:PRO:O	2:B:503:GLN:NE2	2.25	0.69
2:B:893:ASN:O	2:B:896:LYS:NZ	2.25	0.69
2:B:1633:VAL:HA	2:B:1637:TYR:HB2	1.73	0.69
3:F:87:PRO:HD2	3:F:134:LEU:HD13	1.74	0.69
2:B:860:MET:SD	2:B:885:GLN:NE2	2.65	0.69
2:B:1359:GLN:HE22	2:B:1456:ALA:HA	1.58	0.69
2:E:1044:ASN:OD1	2:E:1048:HIS:NE2	2.25	0.69
2:B:1552:SER:HB3	3:C:39:ASN:HD22	1.57	0.69
2:E:828:LYS:HE2	2:E:833:PRO:HG3	1.73	0.69
2:E:1359:GLN:HE22	2:E:1456:ALA:HA	1.58	0.69
2:B:1044:ASN:OD1	2:B:1048:HIS:NE2	2.25	0.69
2:E:893:ASN:O	2:E:896:LYS:NZ	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1067:ALA:O	2:E:1071:LYS:N	2.16	0.69
2:B:1408:MET:HB2	2:B:1427:GLN:HB3	1.75	0.69
3:C:120:ARG:HH12	3:C:139:TYR:HB2	1.57	0.69
2:E:806:LEU:HG	2:E:810:VAL:HG22	1.73	0.69
2:B:561:THR:HG21	2:B:631:LEU:HB3	1.72	0.69
2:B:1067:ALA:O	2:B:1071:LYS:N	2.16	0.69
2:E:1336:GLU:N	2:E:1336:GLU:OE1	2.23	0.69
3:F:93:VAL:HA	3:F:97:TRP:HB2	1.75	0.69
2:B:730:TYR:HB2	2:B:767:ILE:HG23	1.75	0.69
3:C:9:VAL:HG22	3:C:78:PHE:CZ	2.27	0.69
2:B:226:VAL:HB	2:B:279:ALA:HB3	1.74	0.68
2:B:1543:SER:OG	2:B:1545:HIS:ND1	2.21	0.68
1:D:714:PRO:HG2	2:E:44:TRP:CE2	2.28	0.68
2:E:589:PRO:HB3	2:E:594:GLU:HB3	1.74	0.68
2:E:771:ARG:NH2	2:E:781:SER:OG	2.26	0.68
2:B:641:LEU:O	2:B:644:ARG:NH1	2.26	0.68
2:B:1011:MET:HA	2:B:1014:ASN:HD22	1.58	0.68
2:E:226:VAL:HB	2:E:279:ALA:HB3	1.73	0.68
2:E:979:ARG:NH1	2:E:1031:PHE:O	2.26	0.68
1:A:544:ILE:HD11	1:A:689:LEU:HB2	1.75	0.68
3:C:93:VAL:HA	3:C:97:TRP:HB2	1.75	0.68
2:E:1011:MET:HA	2:E:1014:ASN:HD22	1.58	0.68
3:F:120:ARG:HH12	3:F:139:TYR:HB2	1.57	0.68
2:E:730:TYR:HB2	2:E:767:ILE:HG23	1.75	0.68
2:B:244:ALA:HB2	2:B:257:ASN:HA	1.76	0.68
2:B:1305:ILE:HD11	2:B:1320:LEU:HB2	1.76	0.68
1:D:544:ILE:HD11	1:D:689:LEU:HB2	1.75	0.68
2:E:463:PRO:O	2:E:503:GLN:NE2	2.25	0.68
2:E:129:SER:HA	2:E:132:LEU:HD12	1.74	0.68
2:E:244:ALA:HB2	2:E:257:ASN:HA	1.76	0.68
2:E:485:HIS:HB2	2:E:514:LYS:HB3	1.76	0.68
1:A:692:MET:HA	1:A:695:LYS:HE2	1.74	0.68
2:B:771:ARG:NH2	2:B:781:SER:OG	2.26	0.68
2:B:1018:LEU:HD21	2:B:1083:ILE:HG12	1.76	0.68
2:E:1177:LEU:O	2:E:1181:ARG:NH1	2.27	0.68
2:B:1392:GLU:HB2	3:C:166:LYS:NZ	2.08	0.68
2:B:904:GLN:OE1	2:B:908:ASN:ND2	2.22	0.68
2:E:349:GLN:NE2	2:E:350:GLN:O	2.27	0.68
2:E:641:LEU:O	2:E:644:ARG:NH1	2.26	0.68
1:A:573:LYS:N	1:A:593:GLU:OE2	2.27	0.68
2:B:834:VAL:HB	2:B:873:GLU:HG2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1159:VAL:O	2:E:1208:ARG:NH1	2.27	0.68
2:E:1305:ILE:HD11	2:E:1320:LEU:HB2	1.76	0.68
2:E:1314:TRP:HZ3	2:E:1357:ARG:HD3	1.57	0.68
2:E:1408:MET:HB2	2:E:1427:GLN:HB3	1.75	0.68
3:F:9:VAL:HG22	3:F:78:PHE:CZ	2.27	0.68
2:B:979:ARG:NH1	2:B:1031:PHE:O	2.26	0.67
1:D:692:MET:HA	1:D:695:LYS:HE2	1.74	0.67
2:E:25:VAL:HG23	2:E:57:GLY:HA2	1.77	0.67
2:B:1032:PHE:HB3	2:B:1043:TRP:CH2	2.29	0.67
2:B:1284:GLN:HG2	2:B:1286:ASP:H	1.59	0.67
1:D:573:LYS:N	1:D:593:GLU:OE2	2.27	0.67
2:E:1231:TYR:O	2:E:1235:LYS:N	2.25	0.67
2:E:1473:LYS:HD3	2:E:1481:THR:HG21	1.77	0.67
2:B:485:HIS:HB2	2:B:514:LYS:HB3	1.76	0.67
2:B:1159:VAL:O	2:B:1208:ARG:NH1	2.27	0.67
2:B:1336:GLU:OE1	2:B:1336:GLU:N	2.23	0.67
2:B:1579:HIS:HB3	2:B:1582:ASP:HB2	1.76	0.67
2:E:819:TYR:O	2:E:822:SER:OG	2.10	0.67
2:E:1575:TYR:HA	2:E:1578:GLU:HB3	1.77	0.67
2:B:349:GLN:NE2	2:B:350:GLN:O	2.27	0.67
1:A:722:PHE:HA	2:B:2:ALA:HA	1.74	0.67
1:A:723:VAL:HG23	2:B:2:ALA:HB1	1.77	0.67
2:B:72:GLU:O	2:B:76:GLN:NE2	2.27	0.67
2:B:129:SER:HA	2:B:132:LEU:HD12	1.75	0.67
2:B:1024:PHE:HA	2:B:1027:VAL:HG22	1.76	0.67
2:B:1487:THR:HA	2:B:1509:THR:HA	1.77	0.67
2:E:1018:LEU:HD21	2:E:1083:ILE:HG12	1.76	0.67
2:B:1177:LEU:O	2:B:1181:ARG:NH1	2.27	0.67
2:B:1529:ILE:HD13	2:B:1550:LEU:HD23	1.75	0.67
3:C:77:VAL:HG12	3:C:109:PRO:HG2	1.77	0.67
2:B:1607:HIS:HE1	2:B:1615:LEU:HD22	1.60	0.67
1:D:587:HIS:HA	1:D:606:ASP:HA	1.77	0.67
2:E:1486:ARG:HB3	2:E:1510:GLU:HB2	1.77	0.67
2:B:965:ASP:OD1	2:B:966:ASP:N	2.28	0.67
1:D:561:CYS:SG	1:D:594:SER:OG	2.52	0.67
2:E:1284:GLN:HG2	2:E:1286:ASP:H	1.59	0.67
2:E:1575:TYR:O	2:E:1579:HIS:N	2.21	0.67
1:A:561:CYS:SG	1:A:594:SER:OG	2.52	0.67
2:B:1473:LYS:HD3	2:B:1481:THR:HG21	1.77	0.67
2:E:965:ASP:OD1	2:E:966:ASP:N	2.28	0.67
2:B:181:ILE:HG22	2:B:185:LYS:HZ1	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:670:ASN:OD1	1:D:675:LYS:HB2	1.95	0.66
2:E:72:GLU:O	2:E:76:GLN:NE2	2.27	0.66
1:A:587:HIS:HA	1:A:606:ASP:HA	1.77	0.66
2:E:1024:PHE:HA	2:E:1027:VAL:HG22	1.76	0.66
1:A:670:ASN:OD1	1:A:675:LYS:HB2	1.95	0.66
1:A:696:LEU:HB2	2:B:96:ARG:HH12	1.60	0.66
2:B:25:VAL:HG23	2:B:57:GLY:HA2	1.77	0.66
2:E:792:ARG:NE	2:E:835:GLU:OE1	2.26	0.66
2:E:1487:THR:HA	2:E:1509:THR:HA	1.77	0.66
2:E:1579:HIS:HB3	2:E:1582:ASP:HB2	1.76	0.66
2:B:1283:LEU:HD11	2:B:1291:TYR:HB2	1.77	0.66
1:D:724:TYR:HB3	2:E:4:TRP:HB2	1.78	0.66
2:E:1032:PHE:HB3	2:E:1043:TRP:CH2	2.29	0.66
2:E:1607:HIS:HE1	2:E:1615:LEU:HD22	1.60	0.66
3:F:77:VAL:HG12	3:F:109:PRO:HG2	1.77	0.66
2:B:319:ARG:NH2	2:B:511:GLU:OE2	2.28	0.66
2:B:1343:LYS:HE2	2:E:1343:LYS:HE2	1.77	0.66
2:E:892:ASP:OD1	2:E:895:ASN:ND2	2.29	0.66
2:E:1484:ILE:HB	2:E:1512:ILE:HB	1.78	0.66
2:B:85:LEU:O	2:B:88:VAL:HG22	1.96	0.66
2:B:853:VAL:HA	2:B:856:LYS:HZ2	1.59	0.66
2:E:166:ARG:O	2:E:171:ASN:HA	1.96	0.66
2:E:754:PHE:HA	2:E:757:LEU:HD12	1.78	0.66
2:E:1283:LEU:HD11	2:E:1291:TYR:HB2	1.77	0.66
2:B:1117:GLU:OE1	2:B:1119:GLU:N	2.29	0.66
2:B:1272:GLN:OE1	2:B:1293:GLN:NE2	2.29	0.66
2:E:191:SER:HA	2:E:194:ILE:HD12	1.77	0.66
2:B:59:PHE:HD2	2:B:64:ILE:HG12	1.61	0.66
2:B:640:LEU:HG	2:B:653:ASN:HB3	1.78	0.66
2:B:1484:ILE:HB	2:B:1512:ILE:HB	1.78	0.66
3:C:65:ASP:HA	3:C:68:ARG:HG2	1.78	0.66
3:C:153:LYS:NZ	3:C:154:TYR:O	2.29	0.66
2:B:1575:TYR:HA	2:B:1578:GLU:HB3	1.77	0.65
2:E:1272:GLN:OE1	2:E:1293:GLN:NE2	2.29	0.65
2:E:1529:ILE:HD13	2:E:1550:LEU:HD23	1.75	0.65
2:B:191:SER:HA	2:B:194:ILE:HD12	1.77	0.65
2:B:754:PHE:HA	2:B:757:LEU:HD12	1.78	0.65
2:E:181:ILE:HG22	2:E:185:LYS:HZ1	1.61	0.65
2:E:834:VAL:HB	2:E:873:GLU:HG2	1.77	0.65
2:E:1623:SER:HB3	2:E:1627:ARG:NH2	2.11	0.65
3:C:8:VAL:O	3:C:58:THR:OG1	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:85:LEU:O	2:E:88:VAL:HG22	1.96	0.65
2:E:839:LEU:HA	2:E:842:LYS:HE3	1.78	0.65
2:E:59:PHE:HD2	2:E:64:ILE:HG12	1.61	0.65
2:B:1115:THR:O	2:B:1121:ARG:NH2	2.21	0.65
2:B:166:ARG:O	2:B:171:ASN:HA	1.96	0.65
2:B:1537:ALA:O	2:B:1540:ARG:NH1	2.30	0.65
2:E:1392:GLU:HA	2:E:1395:SER:HB3	1.79	0.65
3:F:8:VAL:O	3:F:58:THR:OG1	2.13	0.65
2:B:195:GLU:HA	2:B:198:ILE:HG12	1.79	0.65
2:B:1587:GLU:HA	2:B:1590:LYS:HD2	1.79	0.65
2:B:757:LEU:HA	2:B:760:LEU:HG	1.79	0.65
2:E:1165:ASP:OD2	2:E:1168:TYR:N	2.24	0.65
2:B:473:HIS:ND1	2:B:477:GLY:O	2.29	0.65
2:B:1216:SER:OG	2:B:1219:ASN:OD1	2.15	0.65
2:E:1216:SER:OG	2:E:1219:ASN:OD1	2.14	0.65
2:B:843:PHE:O	2:B:846:SER:OG	2.15	0.64
2:B:892:ASP:OD1	2:B:895:ASN:ND2	2.29	0.64
2:B:1623:SER:HB3	2:B:1627:ARG:NH2	2.11	0.64
2:E:228:PHE:HA	2:E:401:VAL:HG12	1.79	0.64
2:E:1117:GLU:OE1	2:E:1119:GLU:N	2.29	0.64
2:B:64:ILE:HG22	2:B:66:LEU:HD22	1.79	0.64
2:B:1358:PRO:HB2	2:B:1387:GLU:HB2	1.79	0.64
2:E:319:ARG:NH2	2:E:511:GLU:OE2	2.28	0.64
2:B:153:ASP:HA	2:B:156:ASN:HD22	1.61	0.64
2:B:792:ARG:NE	2:B:835:GLU:OE1	2.26	0.64
2:E:64:ILE:HG22	2:E:66:LEU:HD22	1.79	0.64
2:E:860:MET:HA	2:E:863:ILE:HD12	1.80	0.64
2:E:153:ASP:HA	2:E:156:ASN:HD22	1.61	0.64
3:F:153:LYS:NZ	3:F:154:TYR:O	2.29	0.64
2:B:302:ARG:HD3	2:B:322:PHE:HD1	1.63	0.64
2:B:474:ASP:OD1	2:B:478:LYS:N	2.31	0.64
2:B:508:CYS:HB3	2:B:510:TYR:HE2	1.63	0.64
2:B:855:GLN:OE1	2:B:855:GLN:N	2.30	0.64
2:B:1486:ARG:HB3	2:B:1510:GLU:HB2	1.77	0.64
2:E:640:LEU:HG	2:E:653:ASN:HB3	1.78	0.64
1:A:551:GLN:HG2	2:B:107:VAL:HA	1.80	0.64
2:B:860:MET:HA	2:B:863:ILE:HD12	1.80	0.64
2:E:843:PHE:O	2:E:846:SER:OG	2.15	0.64
2:E:925:ILE:HA	2:E:928:ILE:HD12	1.80	0.64
2:E:1091:TRP:HA	2:E:1094:LEU:HD23	1.79	0.64
2:E:1358:PRO:HB2	2:E:1387:GLU:HB2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:65:ASP:HA	3:F:68:ARG:HG2	1.78	0.64
2:E:302:ARG:HD3	2:E:322:PHE:HD1	1.63	0.64
2:E:964:MET:O	2:E:1019:ARG:NH2	2.28	0.64
3:F:2:GLN:O	3:F:52:ASN:N	2.31	0.64
2:B:1392:GLU:HA	2:B:1395:SER:HB3	1.78	0.64
3:C:2:GLN:O	3:C:52:ASN:N	2.31	0.64
2:E:853:VAL:HA	2:E:856:LYS:HZ2	1.63	0.64
2:E:1537:ALA:O	2:E:1540:ARG:NH1	2.30	0.64
2:E:1545:HIS:O	2:E:1548:SER:OG	2.16	0.64
2:E:1615:LEU:O	2:E:1619:HIS:N	2.26	0.64
2:E:757:LEU:HA	2:E:760:LEU:HG	1.79	0.64
2:E:1335:TYR:HA	2:E:1338:LEU:HD23	1.80	0.64
2:E:1368:TYR:O	2:E:1425:TYR:N	2.25	0.64
1:D:563:ARG:HB2	1:D:655:ILE:HB	1.80	0.64
2:E:870:ARG:HH12	2:E:874:CYS:N	1.96	0.64
2:B:870:ARG:HH12	2:B:874:CYS:N	1.96	0.63
2:B:925:ILE:HA	2:B:928:ILE:HD12	1.80	0.63
2:B:1091:TRP:HA	2:B:1094:LEU:HD23	1.79	0.63
2:B:1495:PHE:HE1	2:B:1502:PHE:HD2	1.45	0.63
2:E:474:ASP:OD1	2:E:478:LYS:N	2.31	0.63
2:B:839:LEU:HA	2:B:842:LYS:HE3	1.78	0.63
2:E:508:CYS:HB3	2:E:510:TYR:HE2	1.63	0.63
2:E:855:GLN:OE1	2:E:855:GLN:N	2.30	0.63
2:E:1488:THR:N	2:E:1508:SER:O	2.29	0.63
2:E:195:GLU:HA	2:E:198:ILE:HG12	1.79	0.63
2:B:181:ILE:HG21	2:B:907:SER:HB2	1.81	0.63
2:B:254:ILE:HD12	2:B:294:VAL:HG13	1.81	0.63
2:E:256:GLU:HG2	2:E:429:ARG:H	1.63	0.63
2:E:1612:THR:H	2:E:1615:LEU:HB2	1.64	0.63
2:E:1587:GLU:HA	2:E:1590:LYS:HD2	1.79	0.63
2:E:1618:LEU:O	2:E:1622:LEU:HG	1.99	0.63
2:B:1043:TRP:H	2:B:1043:TRP:HE3	1.45	0.63
2:B:1506:GLN:NE2	2:B:1507:ILE:O	2.32	0.63
3:C:129:LEU:O	3:C:134:LEU:N	2.31	0.63
1:D:530:SER:HA	1:D:533:ILE:HD12	1.81	0.63
2:E:36:HIS:O	2:E:48:TYR:N	2.32	0.63
2:B:962:GLN:O	2:B:1019:ARG:NH1	2.32	0.63
2:B:1545:HIS:O	2:B:1548:SER:OG	2.16	0.63
2:E:1495:PHE:HE1	2:E:1502:PHE:HD2	1.45	0.63
2:B:964:MET:O	2:B:1019:ARG:NH2	2.28	0.63
2:B:1335:TYR:HA	2:B:1338:LEU:HD23	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:473:HIS:ND1	2:E:477:GLY:O	2.29	0.63
2:E:962:GLN:O	2:E:1019:ARG:NH1	2.32	0.63
2:B:1390:ARG:HH11	3:C:44:VAL:HG21	1.63	0.62
2:E:180:THR:OG1	2:E:962:GLN:OE1	2.12	0.62
2:B:111:LEU:HA	2:B:114:PHE:HB3	1.80	0.62
2:B:481:GLU:HA	2:B:494:SER:HA	1.81	0.62
3:C:5:LYS:N	3:C:76:ASP:OD2	2.33	0.62
2:E:481:GLU:HA	2:E:494:SER:HA	1.81	0.62
2:B:228:PHE:HA	2:B:401:VAL:HG12	1.79	0.62
2:E:1135:GLU:O	2:E:1139:SER:N	2.32	0.62
1:A:530:SER:HA	1:A:533:ILE:HD12	1.80	0.62
2:B:36:HIS:O	2:B:48:TYR:N	2.32	0.62
2:E:1543:SER:OG	2:E:1545:HIS:ND1	2.21	0.62
2:B:1399:LEU:HD22	2:B:1405:ALA:HB1	1.82	0.62
2:B:1612:THR:H	2:B:1615:LEU:HB2	1.64	0.62
2:E:111:LEU:HA	2:E:114:PHE:HB3	1.80	0.62
2:E:445:ASP:HB2	2:E:627:CYS:HB2	1.82	0.62
2:E:1628:GLU:O	2:E:1632:LYS:HG2	2.00	0.62
3:F:129:LEU:O	3:F:134:LEU:N	2.31	0.62
2:B:446:ILE:HB	2:B:515:VAL:HB	1.81	0.62
2:B:1135:GLU:O	2:B:1139:SER:N	2.32	0.62
2:B:1618:LEU:O	2:B:1622:LEU:HG	1.99	0.62
2:E:254:ILE:HD12	2:E:294:VAL:HG13	1.81	0.62
2:E:530:THR:HA	2:E:549:VAL:HG22	1.82	0.62
2:E:1506:GLN:NE2	2:E:1507:ILE:O	2.32	0.62
1:A:550:GLN:OE1	1:A:554:ASN:ND2	2.24	0.62
2:B:819:TYR:O	2:B:822:SER:OG	2.10	0.62
2:B:1391:ARG:NH2	3:C:27:ALA:O	2.33	0.62
2:B:1488:THR:N	2:B:1508:SER:O	2.29	0.62
2:E:163:LEU:HD23	2:E:1005:ASP:HB3	1.82	0.62
2:E:1043:TRP:H	2:E:1043:TRP:HE3	1.45	0.62
2:E:1399:LEU:HD22	2:E:1405:ALA:HB1	1.82	0.62
3:F:5:LYS:N	3:F:76:ASP:OD2	2.33	0.62
2:B:1628:GLU:O	2:B:1632:LYS:HG2	2.00	0.62
1:A:727:ASN:H	2:B:46:ARG:HH22	1.47	0.62
1:D:544:ILE:O	1:D:548:ILE:HG12	2.00	0.62
2:E:273:LYS:NZ	2:E:489:GLY:O	2.32	0.62
2:E:1418:ILE:HG21	2:E:1425:TYR:HB2	1.82	0.62
2:B:62:THR:HG23	2:B:63:TYR:HD1	1.65	0.62
2:B:163:LEU:HD23	2:B:1005:ASP:HB3	1.82	0.61
2:B:256:GLU:HG2	2:B:429:ARG:H	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:62:THR:HG23	2:E:63:TYR:HD1	1.65	0.61
2:E:240:GLU:HB3	2:E:259:LEU:HD11	1.82	0.61
2:B:285:SER:OG	2:B:288:ASP:OD2	2.15	0.61
2:B:1460:GLN:NE2	2:B:1491:THR:O	2.24	0.61
2:E:248:PRO:HD2	2:E:293:ARG:HG3	1.82	0.61
2:E:1315:GLU:OE1	2:E:1315:GLU:N	2.28	0.61
2:B:591:THR:N	2:B:594:GLU:OE2	2.33	0.61
1:D:661:GLU:HA	1:D:664:ILE:HB	1.83	0.61
2:B:157:ARG:NH1	2:B:197:LYS:HD3	2.13	0.61
2:B:1315:GLU:OE1	2:B:1315:GLU:N	2.28	0.61
2:E:1117:GLU:OE2	2:E:1121:ARG:N	2.27	0.61
2:B:928:ILE:HG23	2:B:932:LEU:HD12	1.81	0.61
2:B:1615:LEU:O	2:B:1619:HIS:N	2.26	0.61
2:E:638:LEU:HD13	2:E:641:LEU:HD12	1.82	0.61
2:E:950:ILE:HA	2:E:953:PHE:HD2	1.66	0.61
1:A:549:LYS:HE2	1:A:671:ALA:HA	1.83	0.61
1:A:563:ARG:HB2	1:A:655:ILE:HB	1.80	0.61
1:A:589:GLY:HA3	1:A:604:LEU:HB2	1.82	0.61
2:B:1404:ASN:OD1	2:B:1424:GLN:HB2	2.00	0.61
2:E:446:ILE:HB	2:E:515:VAL:HB	1.81	0.61
2:E:1177:LEU:HD22	2:E:1181:ARG:HH22	1.66	0.61
2:E:1552:SER:HB3	3:F:39:ASN:HD22	1.66	0.61
2:B:1418:ILE:HG21	2:B:1425:TYR:HB2	1.82	0.61
2:E:144:LEU:HD13	2:E:147:LYS:HD2	1.83	0.61
2:E:166:ARG:NH2	2:E:168:ASP:HB2	2.16	0.61
2:E:166:ARG:HH21	2:E:169:ASN:HD21	1.48	0.61
2:E:181:ILE:HG21	2:E:907:SER:HB2	1.81	0.61
2:E:1251:HIS:O	2:E:1255:GLU:N	2.34	0.61
2:E:1404:ASN:OD1	2:E:1424:GLN:HB2	2.00	0.61
2:E:1491:THR:HA	2:E:1505:LYS:H	1.65	0.61
2:B:530:THR:HA	2:B:549:VAL:HG22	1.82	0.61
1:A:697:ARG:HB3	2:B:31:ILE:HB	1.81	0.61
2:B:1251:HIS:O	2:B:1255:GLU:N	2.34	0.61
2:B:1368:TYR:O	2:B:1425:TYR:N	2.25	0.61
1:D:549:LYS:HE2	1:D:671:ALA:HA	1.83	0.61
2:B:441:ASP:O	2:B:629:THR:OG1	2.19	0.60
3:C:5:LYS:NZ	3:C:73:PRO:O	2.33	0.60
1:D:578:ARG:NH2	1:D:601:HIS:O	2.34	0.60
1:D:589:GLY:HA3	1:D:604:LEU:HB2	1.82	0.60
1:A:544:ILE:O	1:A:548:ILE:HG12	2.00	0.60
2:B:154:HIS:HA	2:B:157:ARG:HG2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:248:PRO:HD2	2:B:293:ARG:HG3	1.82	0.60
2:B:640:LEU:HD12	2:B:657:LEU:HD13	1.83	0.60
2:B:1051:VAL:O	2:B:1055:THR:OG1	2.18	0.60
2:E:1460:GLN:NE2	2:E:1491:THR:O	2.24	0.60
2:B:144:LEU:HD13	2:B:147:LYS:HD2	1.83	0.60
2:B:1259:GLU:HG3	2:B:1498:ILE:HA	1.83	0.60
2:B:1362:TYR:CE1	2:B:1384:ARG:HG3	2.36	0.60
2:B:1491:THR:HA	2:B:1505:LYS:H	1.65	0.60
2:E:640:LEU:HD12	2:E:657:LEU:HD13	1.83	0.60
2:B:638:LEU:HD13	2:B:641:LEU:HD12	1.82	0.60
2:B:965:ASP:HB3	2:B:968:HIS:CG	2.37	0.60
3:C:23:TYR:HB2	3:C:165:LEU:HD21	1.82	0.60
2:E:154:HIS:HA	2:E:157:ARG:HG2	1.83	0.60
2:E:1111:GLU:O	2:E:1163:ARG:NH1	2.34	0.60
2:E:1259:GLU:HG3	2:E:1498:ILE:HA	1.83	0.60
2:B:240:GLU:HB3	2:B:259:LEU:HD11	1.82	0.60
2:B:445:ASP:HB2	2:B:627:CYS:HB2	1.82	0.60
2:E:730:TYR:OH	2:E:771:ARG:NH1	2.35	0.60
1:A:727:ASN:N	2:B:46:ARG:HH22	1.98	0.60
2:B:166:ARG:HH21	2:B:169:ASN:HD21	1.48	0.60
2:B:1312:LYS:HD2	2:B:1314:TRP:CH2	2.37	0.60
2:B:1607:HIS:NE2	2:B:1619:HIS:HB2	2.17	0.60
2:E:928:ILE:HG23	2:E:932:LEU:HD12	1.81	0.60
2:E:1312:LYS:HD2	2:E:1314:TRP:CH2	2.37	0.60
2:E:1362:TYR:CE1	2:E:1384:ARG:HG3	2.36	0.60
2:E:910:LEU:HA	2:E:913:LEU:HD12	1.84	0.60
3:F:7:VAL:HA	3:F:56:TRP:HB2	1.83	0.60
1:A:536:LEU:HD11	2:B:17:TYR:HB2	1.83	0.60
2:B:943:MET:HG3	2:B:950:ILE:HD13	1.84	0.60
2:B:1470:LYS:HB3	2:B:1483:TRP:CD1	2.37	0.60
2:E:257:ASN:O	2:E:488:ALA:N	2.33	0.60
2:E:1470:LYS:HB3	2:E:1483:TRP:CD1	2.37	0.60
2:E:1607:HIS:NE2	2:E:1619:HIS:HB2	2.17	0.60
1:A:575:TRP:HZ3	1:A:588:TYR:HB2	1.67	0.60
1:A:661:GLU:HA	1:A:664:ILE:HB	1.83	0.60
2:B:166:ARG:NH2	2:B:168:ASP:HB2	2.16	0.60
2:B:1525:THR:O	2:B:1529:ILE:HG12	2.01	0.60
3:C:8:VAL:HG22	3:C:79:LEU:HB2	1.82	0.60
2:E:518:ALA:HB3	2:E:521:GLU:HB2	1.84	0.60
2:E:1525:THR:O	2:E:1529:ILE:HG12	2.01	0.60
1:A:578:ARG:NH2	1:A:601:HIS:O	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:273:LYS:NZ	2:B:489:GLY:O	2.32	0.59
2:B:852:LEU:HB3	2:B:855:GLN:HB2	1.84	0.59
2:B:857:LEU:O	2:B:861:THR:OG1	2.15	0.59
2:E:441:ASP:O	2:E:629:THR:OG1	2.19	0.59
2:E:889:GLN:O	2:E:895:ASN:ND2	2.35	0.59
2:B:889:GLN:O	2:B:895:ASN:ND2	2.35	0.59
2:B:1471:GLY:O	2:B:1473:LYS:NZ	2.25	0.59
2:E:973:ILE:HA	2:E:976:PHE:CE1	2.37	0.59
2:E:1217:LYS:HB3	2:E:1220:ARG:HH21	1.67	0.59
3:F:8:VAL:HG22	3:F:79:LEU:HB2	1.82	0.59
3:F:23:TYR:HB2	3:F:165:LEU:HD21	1.83	0.59
2:B:950:ILE:HA	2:B:953:PHE:HD2	1.66	0.59
2:B:1177:LEU:HD22	2:B:1181:ARG:HH22	1.66	0.59
2:E:879:LEU:HA	2:E:882:LEU:HD12	1.83	0.59
2:B:910:LEU:HA	2:B:913:LEU:HD12	1.84	0.59
2:E:852:LEU:HB3	2:E:855:GLN:HB2	1.84	0.59
1:D:550:GLN:OE1	1:D:554:ASN:ND2	2.24	0.59
1:D:575:TRP:HZ3	1:D:588:TYR:HB2	1.67	0.59
2:E:102:TRP:HA	2:E:105:LEU:HD12	1.84	0.59
2:B:115:ARG:HA	2:B:118:GLN:HG3	1.85	0.59
3:C:7:VAL:HA	3:C:56:TRP:HB2	1.83	0.59
2:E:115:ARG:HA	2:E:118:GLN:HG3	1.85	0.59
2:E:1362:TYR:HE1	2:E:1384:ARG:HG3	1.68	0.59
2:B:122:TYR:HA	2:B:125:ILE:HG12	1.85	0.59
2:B:757:LEU:HD23	2:B:760:LEU:HD11	1.84	0.59
2:E:13:GLY:HA3	2:E:35:VAL:HG22	1.85	0.59
2:E:932:LEU:N	2:E:935:ARG:HH21	2.01	0.59
2:B:13:GLY:HA3	2:B:35:VAL:HG22	1.85	0.59
2:B:180:THR:OG1	2:B:962:GLN:OE1	2.12	0.59
2:B:1217:LYS:HB3	2:B:1220:ARG:HH21	1.67	0.59
2:E:879:LEU:HD23	2:E:931:ARG:HH22	1.68	0.59
2:E:965:ASP:HB3	2:E:968:HIS:CG	2.37	0.59
2:E:1532:CYS:O	2:E:1535:GLN:NE2	2.35	0.59
2:B:730:TYR:OH	2:B:771:ARG:NH1	2.35	0.59
2:E:122:TYR:HA	2:E:125:ILE:HG12	1.85	0.59
2:E:534:ARG:NE	2:E:541:ASP:OD1	2.23	0.59
2:E:757:LEU:HD23	2:E:760:LEU:HD11	1.84	0.59
2:E:943:MET:HG3	2:E:950:ILE:HD13	1.84	0.59
2:B:740:TYR:HA	2:B:749:LYS:HD3	1.84	0.59
2:B:879:LEU:HA	2:B:882:LEU:HD12	1.83	0.59
2:B:1057:GLU:HA	2:B:1061:LEU:HD23	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:131:ILE:HD11	2:E:144:LEU:HG	1.85	0.59
2:E:923:VAL:HA	2:E:926:GLN:OE1	2.03	0.59
2:E:1057:GLU:HA	2:E:1061:LEU:HD23	1.84	0.59
3:C:129:LEU:HA	3:C:132:LYS:HG2	1.85	0.58
2:E:157:ARG:NH1	2:E:197:LYS:HD3	2.13	0.58
2:E:569:LEU:HD12	2:E:620:PHE:HD2	1.68	0.58
2:B:155:GLY:HA2	2:B:158:MET:SD	2.42	0.58
2:B:1117:GLU:OE2	2:B:1121:ARG:N	2.27	0.58
2:B:1370:GLN:OE1	2:B:1377:ARG:HD3	2.03	0.58
2:B:1390:ARG:NH2	3:C:23:TYR:O	2.36	0.58
2:E:1471:GLY:O	2:E:1473:LYS:NZ	2.25	0.58
2:B:138:LYS:HA	2:B:141:LEU:HD13	1.85	0.58
3:C:87:PRO:HA	3:C:90:PHE:CD2	2.37	0.58
2:E:155:GLY:HA2	2:E:158:MET:SD	2.42	0.58
3:F:5:LYS:NZ	3:F:73:PRO:O	2.33	0.58
3:F:138:THR:H	3:F:141:GLN:NE2	2.02	0.58
1:A:659:LYS:NZ	1:A:680:ASP:OD2	2.36	0.58
2:B:879:LEU:HD23	2:B:931:ARG:HH22	1.68	0.58
1:D:548:ILE:O	1:D:552:ARG:HG2	2.03	0.58
2:E:15:ALA:HA	2:E:59:PHE:CE2	2.38	0.58
2:E:789:ASN:OD1	2:E:792:ARG:NH1	2.36	0.58
2:E:1251:HIS:NE2	2:E:1259:GLU:HG2	2.19	0.58
1:A:536:LEU:HD21	2:B:17:TYR:HB2	1.84	0.58
2:B:973:ILE:HA	2:B:976:PHE:CE1	2.37	0.58
2:B:1524:LEU:HA	2:B:1527:GLU:HG3	1.86	0.58
2:B:1627:ARG:HA	2:B:1630:LYS:HB2	1.85	0.58
2:E:1290:VAL:HG23	2:E:1291:TYR:H	1.68	0.58
2:E:1360:PRO:HA	2:E:1387:GLU:HA	1.86	0.58
2:E:1627:ARG:HA	2:E:1630:LYS:HB2	1.85	0.58
2:B:37:ILE:HA	2:B:47:GLY:HA3	1.85	0.58
2:B:1241:ILE:HA	2:B:1244:LEU:HD12	1.85	0.58
2:B:1464:TYR:N	2:B:1487:THR:O	2.33	0.58
1:D:696:LEU:HD12	1:D:697:ARG:HE	1.68	0.58
3:F:129:LEU:HA	3:F:132:LYS:HG2	1.85	0.58
1:A:548:ILE:O	1:A:552:ARG:HG2	2.03	0.58
2:B:518:ALA:HB3	2:B:521:GLU:HB2	1.84	0.58
2:B:903:SER:HB3	2:B:953:PHE:CE1	2.39	0.58
2:B:1183:HIS:HB3	2:B:1187:SER:OG	2.03	0.58
2:B:1251:HIS:NE2	2:B:1259:GLU:HG2	2.19	0.58
2:E:37:ILE:HA	2:E:47:GLY:HA3	1.85	0.58
2:B:569:LEU:HD12	2:B:620:PHE:HD2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:883:THR:CG2	2:B:931:ARG:HB3	2.33	0.58
2:B:923:VAL:HA	2:B:926:GLN:OE1	2.03	0.58
1:D:550:GLN:O	1:D:554:ASN:ND2	2.37	0.58
2:E:740:TYR:HA	2:E:749:LYS:HD3	1.84	0.58
2:E:1022:ASN:HB3	2:E:1086:ARG:HH12	1.68	0.58
2:E:1183:HIS:HB3	2:E:1187:SER:OG	2.03	0.58
2:E:1585:LYS:HG3	2:E:1588:LEU:HD12	1.86	0.58
2:B:131:ILE:HD11	2:B:144:LEU:HG	1.85	0.58
2:B:789:ASN:OD1	2:B:792:ARG:NH1	2.36	0.58
2:B:791:ILE:HG22	2:B:795:PHE:CE2	2.39	0.58
1:D:659:LYS:NZ	1:D:680:ASP:OD2	2.36	0.58
2:E:732:LYS:HA	2:E:735:LYS:HD3	1.86	0.58
2:E:793:GLN:HA	2:E:796:LEU:HG	1.85	0.58
2:E:903:SER:HB3	2:E:953:PHE:CE1	2.39	0.58
2:E:1232:LYS:HB2	2:E:1240:TYR:CE2	2.39	0.58
2:B:257:ASN:O	2:B:488:ALA:N	2.33	0.58
2:B:960:LEU:O	2:B:964:MET:HG2	2.04	0.58
2:B:1022:ASN:HB3	2:B:1086:ARG:HH12	1.68	0.58
2:B:1532:CYS:O	2:B:1535:GLN:NE2	2.35	0.58
2:E:142:ALA:O	2:E:146:LYS:HG2	2.04	0.58
2:E:716:LEU:O	2:E:720:ILE:HG13	2.04	0.58
2:B:853:VAL:O	2:B:857:LEU:HG	2.04	0.57
2:B:945:ARG:HH11	2:B:946:GLN:N	2.02	0.57
3:C:138:THR:H	3:C:141:GLN:NE2	2.02	0.57
2:E:853:VAL:O	2:E:857:LEU:HG	2.04	0.57
2:E:1241:ILE:HA	2:E:1244:LEU:HD12	1.85	0.57
2:E:1524:LEU:HA	2:E:1527:GLU:HG3	1.86	0.57
1:A:696:LEU:HD12	1:A:697:ARG:HE	1.68	0.57
2:B:102:TRP:HA	2:B:105:LEU:HD12	1.84	0.57
2:B:1034:ASP:OD1	2:B:1097:HIS:NE2	2.37	0.57
2:B:1111:GLU:O	2:B:1163:ARG:NH1	2.34	0.57
2:E:883:THR:CG2	2:E:931:ARG:HB3	2.33	0.57
2:E:961:LEU:O	2:E:1019:ARG:NH1	2.37	0.57
2:E:1051:VAL:O	2:E:1055:THR:OG1	2.18	0.57
1:A:550:GLN:O	1:A:554:ASN:ND2	2.37	0.57
2:B:15:ALA:HA	2:B:59:PHE:CE2	2.38	0.57
2:B:409:ASP:H	2:B:412:GLN:NE2	2.03	0.57
2:B:793:GLN:HA	2:B:796:LEU:HG	1.85	0.57
2:B:1232:LYS:HB2	2:B:1240:TYR:CE2	2.39	0.57
1:D:585:VAL:HG12	1:D:607:LYS:HD2	1.85	0.57
2:E:791:ILE:HG22	2:E:795:PHE:CE2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:945:ARG:HH11	2:E:946:GLN:N	2.02	0.57
2:B:932:LEU:N	2:B:935:ARG:HH21	2.01	0.57
2:B:1196:LEU:O	2:B:1199:SER:OG	2.23	0.57
2:E:138:LYS:HA	2:E:141:LEU:HD13	1.85	0.57
2:E:569:LEU:HB2	2:E:620:PHE:HB3	1.86	0.57
2:E:1006:TRP:HB3	2:E:1009:MET:HE2	1.86	0.57
2:B:534:ARG:NE	2:B:541:ASP:OD1	2.23	0.57
2:B:1032:PHE:HA	2:B:1036:ALA:HB3	1.86	0.57
2:E:38:LEU:H	2:E:47:GLY:HA3	1.70	0.57
2:E:876:GLU:OE1	2:E:876:GLU:N	2.38	0.57
2:E:1127:ILE:O	2:E:1131:MET:HE2	2.05	0.57
1:A:652:LEU:HB3	1:A:654:PHE:CE2	2.40	0.57
2:B:1135:GLU:OE1	2:B:1139:SER:OG	2.22	0.57
2:B:1361:GLU:OE2	2:B:1388:TYR:HA	2.04	0.57
2:E:1370:GLN:OE1	2:E:1377:ARG:HD3	2.03	0.57
2:B:87:LEU:HD23	2:B:91:LEU:HD23	1.87	0.57
2:B:287:MET:HG3	2:B:435:GLU:OE2	2.05	0.57
2:B:560:THR:HG22	2:B:638:LEU:HG	1.87	0.57
2:B:569:LEU:HB2	2:B:620:PHE:HB3	1.86	0.57
2:B:732:LYS:HA	2:B:735:LYS:HD3	1.86	0.57
2:B:961:LEU:O	2:B:1019:ARG:NH1	2.37	0.57
2:B:1063:THR:HA	2:B:1069:ARG:CD	2.35	0.57
2:B:1290:VAL:HG23	2:B:1291:TYR:H	1.68	0.57
2:E:1555:VAL:HG21	2:E:1622:LEU:HA	1.86	0.57
2:B:45:TYR:O	2:B:59:PHE:N	2.31	0.57
2:B:1555:VAL:HG21	2:B:1622:LEU:HA	1.86	0.57
2:E:285:SER:HB2	2:E:435:GLU:OE1	2.04	0.57
1:A:643:SER:HA	1:A:652:LEU:O	2.04	0.57
2:B:38:LEU:H	2:B:47:GLY:HA3	1.70	0.57
2:B:142:ALA:O	2:B:146:LYS:HG2	2.04	0.57
2:B:876:GLU:N	2:B:876:GLU:OE1	2.38	0.57
2:B:879:LEU:O	2:B:882:LEU:N	2.38	0.57
2:B:1019:ARG:O	2:B:1023:GLN:NE2	2.34	0.57
2:B:1466:ARG:O	2:B:1484:ILE:HA	2.05	0.57
1:D:643:SER:HA	1:D:652:LEU:O	2.04	0.57
2:E:467:GLU:OE2	2:E:534:ARG:NH1	2.38	0.57
2:E:1466:ARG:O	2:E:1484:ILE:HA	2.05	0.57
2:B:853:VAL:HG23	2:B:854:ARG:HD3	1.87	0.57
1:D:711:PRO:HD2	2:E:17:TYR:HE1	1.70	0.57
2:E:556:ASN:N	2:E:560:THR:O	2.36	0.57
2:E:1361:GLU:OE2	2:E:1388:TYR:HA	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1557:PRO:HB2	2:E:1562:GLY:H	1.70	0.57
2:B:285:SER:HB2	2:B:435:GLU:OE1	2.04	0.56
2:B:730:TYR:HA	2:B:733:LEU:HD12	1.87	0.56
2:B:917:ASP:N	2:B:917:ASP:OD1	2.38	0.56
2:E:787:PHE:O	2:E:791:ILE:HG12	2.05	0.56
2:E:879:LEU:O	2:E:882:LEU:N	2.38	0.56
2:E:1034:ASP:OD1	2:E:1097:HIS:NE2	2.37	0.56
2:B:59:PHE:CE2	2:B:63:TYR:HB3	2.41	0.56
2:B:1585:LYS:HG3	2:B:1588:LEU:HD12	1.86	0.56
2:E:87:LEU:HD23	2:E:91:LEU:HD23	1.87	0.56
2:E:288:ASP:OD1	2:E:291:ARG:NH2	2.32	0.56
1:A:585:VAL:HG12	1:A:607:LYS:HD2	1.85	0.56
1:A:670:ASN:O	1:A:674:GLY:N	2.37	0.56
2:B:467:GLU:OE2	2:B:534:ARG:NH1	2.38	0.56
2:B:716:LEU:O	2:B:720:ILE:HG13	2.04	0.56
2:B:1360:PRO:HA	2:B:1387:GLU:HA	1.86	0.56
2:B:1362:TYR:HE1	2:B:1384:ARG:HG3	1.68	0.56
2:B:1516:GLU:O	2:B:1519:ILE:N	2.39	0.56
2:B:1536:HIS:CD2	2:B:1542:LEU:HB3	2.41	0.56
1:D:652:LEU:HB3	1:D:654:PHE:CE2	2.40	0.56
2:E:14:VAL:HG21	2:E:67:LYS:HD2	1.87	0.56
2:E:591:THR:N	2:E:594:GLU:OE2	2.33	0.56
2:E:730:TYR:HA	2:E:733:LEU:HD12	1.87	0.56
2:E:871:GLN:HB3	2:E:875:ARG:HB2	1.88	0.56
2:E:1063:THR:HA	2:E:1069:ARG:CD	2.35	0.56
2:E:1280:PRO:HA	2:E:1283:LEU:HD23	1.87	0.56
2:E:1536:HIS:CD2	2:E:1542:LEU:HB3	2.41	0.56
2:B:79:THR:HA	2:B:85:LEU:HD22	1.87	0.56
2:B:875:ARG:HE	2:B:924:HIS:CD2	2.23	0.56
2:B:1280:PRO:HA	2:B:1283:LEU:HD23	1.87	0.56
2:B:1466:ARG:H	2:B:1484:ILE:HG23	1.71	0.56
1:D:670:ASN:O	1:D:674:GLY:N	2.37	0.56
1:D:701:LEU:HD23	2:E:31:ILE:O	2.05	0.56
2:E:560:THR:HG22	2:E:638:LEU:HG	1.87	0.56
2:E:875:ARG:HE	2:E:924:HIS:CD2	2.23	0.56
2:E:1392:GLU:OE1	2:E:1392:GLU:N	2.38	0.56
2:E:1395:SER:O	2:E:1399:LEU:HG	2.05	0.56
2:E:1632:LYS:HA	2:E:1636:HIS:HB3	1.88	0.56
1:A:643:SER:OG	1:A:653:ASN:ND2	2.38	0.56
2:E:79:THR:HA	2:E:85:LEU:HD22	1.87	0.56
2:E:287:MET:HG3	2:E:435:GLU:OE2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:904:GLN:O	2:E:907:SER:OG	2.21	0.56
3:F:87:PRO:HA	3:F:90:PHE:CD2	2.37	0.56
3:F:141:GLN:OE1	3:F:141:GLN:N	2.31	0.56
2:B:787:PHE:O	2:B:791:ILE:HG12	2.05	0.56
2:B:1168:TYR:O	2:B:1172:LEU:HD23	2.06	0.56
2:B:1232:LYS:HB2	2:B:1240:TYR:HE2	1.71	0.56
2:E:59:PHE:CE2	2:E:63:TYR:HB3	2.40	0.56
2:B:1443:ASP:OD1	2:B:1443:ASP:N	2.38	0.56
2:E:809:ALA:HB3	2:E:813:LYS:NZ	2.21	0.56
1:A:536:LEU:CD2	2:B:31:ILE:HD11	2.36	0.56
1:A:637:VAL:HG12	1:A:640:LEU:HD12	1.88	0.56
2:B:871:GLN:HB3	2:B:875:ARG:HB2	1.88	0.56
2:E:45:TYR:O	2:E:59:PHE:N	2.32	0.56
2:E:204:ILE:HG13	2:E:211:ARG:HB3	1.87	0.56
2:E:772:VAL:HG13	2:E:776:ARG:HH21	1.71	0.56
2:E:853:VAL:HG23	2:E:854:ARG:HD3	1.87	0.56
2:E:1630:LYS:O	2:E:1634:GLU:HG2	2.06	0.56
3:F:87:PRO:HG2	3:F:134:LEU:HD22	1.87	0.56
2:B:297:VAL:HG22	2:B:326:VAL:HG22	1.88	0.56
2:B:1189:SER:O	2:B:1192:VAL:HG22	2.06	0.56
2:B:1557:PRO:HB2	2:B:1562:GLY:H	1.70	0.56
2:E:917:ASP:N	2:E:917:ASP:OD1	2.38	0.56
2:E:960:LEU:O	2:E:964:MET:HG2	2.04	0.56
2:E:1135:GLU:OE1	2:E:1139:SER:OG	2.22	0.56
2:E:1516:GLU:O	2:E:1519:ILE:N	2.39	0.56
2:B:970:SER:O	2:B:974:SER:OG	2.23	0.56
2:B:1448:GLU:OE1	2:B:1452:ASN:ND2	2.39	0.56
2:E:258:TYR:CE1	2:E:489:GLY:HA3	2.41	0.56
2:E:319:ARG:HB2	2:E:499:VAL:HA	1.88	0.56
1:A:722:PHE:CE1	2:B:1:MET:HB2	2.42	0.55
2:B:1536:HIS:CG	2:B:1542:LEU:HD22	2.41	0.55
2:E:1466:ARG:H	2:E:1484:ILE:HG23	1.71	0.55
2:B:1127:ILE:O	2:B:1131:MET:HE2	2.07	0.55
2:B:1417:ASP:O	2:B:1421:SER:N	2.40	0.55
1:D:693:GLU:OE1	2:E:103:ARG:NH2	2.34	0.55
2:E:409:ASP:H	2:E:412:GLN:NE2	2.03	0.55
2:E:738:ASN:HD21	2:E:793:GLN:HG3	1.71	0.55
2:E:1032:PHE:HA	2:E:1036:ALA:HB3	1.86	0.55
2:E:1602:GLU:O	2:E:1606:ILE:HG12	2.07	0.55
2:B:204:ILE:HG13	2:B:211:ARG:HB3	1.87	0.55
2:B:450:LEU:O	2:B:510:TYR:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1153:THR:HG22	2:B:1157:GLN:HE22	1.71	0.55
3:C:87:PRO:HG2	3:C:134:LEU:HD22	1.87	0.55
2:E:411:THR:OG1	2:E:412:GLN:OE1	2.24	0.55
2:E:1007:MET:SD	2:E:1011:MET:HE1	2.47	0.55
2:E:1168:TYR:O	2:E:1172:LEU:HD23	2.05	0.55
2:E:1189:SER:O	2:E:1192:VAL:HG22	2.06	0.55
2:B:258:TYR:CE1	2:B:489:GLY:HA3	2.41	0.55
2:B:730:TYR:CE1	2:B:771:ARG:HD3	2.42	0.55
2:B:1395:SER:O	2:B:1399:LEU:HG	2.05	0.55
2:B:1440:SER:H	2:B:1442:LYS:HZ1	1.54	0.55
2:B:1632:LYS:HA	2:B:1636:HIS:HB3	1.88	0.55
2:E:1167:GLN:CD	2:E:1167:GLN:H	2.10	0.55
2:E:1536:HIS:CG	2:E:1542:LEU:HD22	2.41	0.55
2:B:246:TYR:HA	2:B:253:PHE:HA	1.88	0.55
2:E:116:GLN:O	2:E:120:MET:HE3	2.07	0.55
3:C:98:TYR:CE1	3:C:149:ILE:HB	2.42	0.55
2:E:46:ARG:HA	2:E:57:GLY:O	2.07	0.55
2:E:297:VAL:HG22	2:E:326:VAL:HG22	1.88	0.55
2:E:1196:LEU:O	2:E:1199:SER:OG	2.22	0.55
2:B:225:TYR:N	2:B:404:LYS:O	2.38	0.55
2:B:231:PHE:HB3	2:B:262:TRP:NE1	2.22	0.55
2:B:411:THR:OG1	2:B:412:GLN:OE1	2.24	0.55
2:B:411:THR:HG1	2:B:412:GLN:H	1.55	0.55
2:B:879:LEU:HG	2:B:931:ARG:HH12	1.72	0.55
3:C:91:GLU:O	3:C:95:ALA:HB3	2.07	0.55
1:D:637:VAL:HG12	1:D:640:LEU:HD12	1.88	0.55
2:E:1232:LYS:HB2	2:E:1240:TYR:HE2	1.71	0.55
2:B:319:ARG:HB2	2:B:499:VAL:HA	1.88	0.55
2:B:1167:GLN:CD	2:B:1167:GLN:H	2.10	0.55
2:B:1533:VAL:O	2:B:1537:ALA:HB2	2.07	0.55
2:E:1448:GLU:OE1	2:E:1452:ASN:ND2	2.39	0.55
2:E:1545:HIS:HD2	3:F:5:LYS:HE3	1.72	0.55
2:B:144:LEU:HA	2:B:147:LYS:HG2	1.88	0.55
2:B:1373:PRO:HD2	2:B:1376:LEU:HD12	1.89	0.55
2:E:166:ARG:HG2	2:E:173:LEU:H	1.71	0.55
2:E:1533:VAL:O	2:E:1537:ALA:HB2	2.07	0.55
3:F:98:TYR:CE1	3:F:149:ILE:HB	2.42	0.55
2:B:37:ILE:HG21	2:B:45:TYR:HB3	1.89	0.55
2:B:46:ARG:HA	2:B:57:GLY:O	2.07	0.55
2:B:772:VAL:HG13	2:B:776:ARG:HH21	1.71	0.55
2:B:1149:ASN:HA	2:B:1236:ARG:HH12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:730:TYR:CE1	2:E:771:ARG:HD3	2.42	0.55
2:E:744:ALA:HA	2:E:753:LEU:HD22	1.89	0.55
2:E:922:ALA:HA	2:E:925:ILE:HD12	1.89	0.55
2:E:1370:GLN:N	2:E:1421:SER:O	2.39	0.55
2:E:1389:GLU:OE2	2:E:1397:ARG:NH2	2.40	0.55
2:E:1549:MET:HA	3:F:39:ASN:ND2	2.21	0.55
2:B:738:ASN:HD21	2:B:793:GLN:HG3	1.71	0.54
2:B:1630:LYS:O	2:B:1634:GLU:HG2	2.06	0.54
2:E:144:LEU:HA	2:E:147:LYS:HG2	1.88	0.54
2:E:1019:ARG:O	2:E:1023:GLN:NE2	2.34	0.54
2:B:14:VAL:HG21	2:B:67:LYS:HD2	1.88	0.54
2:B:809:ALA:HB3	2:B:813:LYS:NZ	2.21	0.54
2:B:1121:ARG:O	2:B:1125:ILE:HD12	2.07	0.54
2:B:1605:ARG:HH21	2:B:1606:ILE:HD11	1.72	0.54
2:E:91:LEU:HD11	2:E:128:ARG:HG3	1.89	0.54
2:E:970:SER:O	2:E:974:SER:OG	2.23	0.54
2:E:1149:ASN:HA	2:E:1236:ARG:HH12	1.72	0.54
2:E:1153:THR:HG22	2:E:1157:GLN:HE22	1.71	0.54
2:E:1373:PRO:HD2	2:E:1376:LEU:HD12	1.89	0.54
2:E:1440:SER:H	2:E:1442:LYS:NZ	2.06	0.54
2:B:1370:GLN:N	2:B:1421:SER:O	2.39	0.54
1:D:541:GLN:O	1:D:544:ILE:HG22	2.07	0.54
1:D:551:GLN:O	1:D:555:ARG:HG2	2.08	0.54
1:D:695:LYS:O	1:D:698:LEU:HG	2.07	0.54
2:E:231:PHE:HB3	2:E:262:TRP:NE1	2.22	0.54
2:E:299:GLN:HA	2:E:324:VAL:HG22	1.89	0.54
2:E:344:HIS:N	2:E:401:VAL:O	2.40	0.54
2:E:879:LEU:HG	2:E:931:ARG:HH12	1.72	0.54
2:E:979:ARG:HH11	2:E:1036:ALA:HB2	1.72	0.54
2:E:1439:PRO:HA	2:E:1442:LYS:HZ3	1.71	0.54
3:F:91:GLU:O	3:F:95:ALA:HB3	2.07	0.54
2:B:1166:GLU:CD	2:B:1166:GLU:H	2.10	0.54
2:E:19:TYR:O	2:E:28:SER:HA	2.08	0.54
2:E:225:TYR:N	2:E:404:LYS:O	2.37	0.54
2:E:246:TYR:HA	2:E:253:PHE:HA	1.88	0.54
2:E:1443:ASP:OD1	2:E:1443:ASP:N	2.38	0.54
1:A:541:GLN:O	1:A:544:ILE:HG22	2.07	0.54
2:B:19:TYR:O	2:B:28:SER:HA	2.08	0.54
2:B:91:LEU:HD11	2:B:128:ARG:HG3	1.89	0.54
2:B:116:GLN:O	2:B:120:MET:HE3	2.07	0.54
2:B:166:ARG:HG2	2:B:173:LEU:H	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:979:ARG:HH11	2:B:1036:ALA:HB2	1.72	0.54
2:B:1439:PRO:HA	2:B:1442:LYS:HZ3	1.72	0.54
2:E:1515:LEU:HD11	2:E:1575:TYR:HE2	1.72	0.54
1:A:722:PHE:HE1	2:B:1:MET:HB2	1.72	0.54
2:B:1012:THR:HG22	2:B:1015:ARG:HH21	1.72	0.54
2:B:1038:PHE:O	2:B:1039:GLU:HG2	2.08	0.54
2:E:8:LYS:HA	2:E:10:GLN:HE22	1.73	0.54
2:E:1109:ILE:HG23	2:E:1128:PHE:HE1	1.73	0.54
2:E:1121:ARG:O	2:E:1125:ILE:HD12	2.07	0.54
3:F:167:THR:O	3:F:170:ASP:N	2.41	0.54
2:B:874:CYS:O	2:B:878:LEU:N	2.29	0.54
2:B:926:GLN:HE21	2:B:968:HIS:CE1	2.26	0.54
2:B:1314:TRP:HB3	2:B:1348:PHE:HB3	1.90	0.54
2:B:1389:GLU:OE2	2:B:1397:ARG:NH2	2.40	0.54
2:B:1483:TRP:NE1	2:B:1514:PRO:HD3	2.23	0.54
2:E:1015:ARG:HD3	2:E:1076:TYR:HD1	1.72	0.54
2:E:1166:GLU:CD	2:E:1166:GLU:H	2.10	0.54
2:E:1167:GLN:OE1	2:E:1167:GLN:N	2.39	0.54
2:E:1552:SER:O	2:E:1555:VAL:HG12	2.08	0.54
3:C:141:GLN:OE1	3:C:141:GLN:N	2.31	0.54
2:E:37:ILE:HG21	2:E:45:TYR:HB3	1.89	0.54
2:E:926:GLN:HE21	2:E:968:HIS:CE1	2.26	0.54
2:E:1417:ASP:O	2:E:1421:SER:N	2.40	0.54
2:B:299:GLN:HA	2:B:324:VAL:HG22	1.89	0.54
2:B:1059:LEU:CD2	2:B:1080:ARG:HH22	2.21	0.54
2:B:1109:ILE:HG23	2:B:1128:PHE:HE1	1.73	0.54
2:B:1292:THR:HG23	2:B:1295:GLU:HB2	1.89	0.54
2:B:1470:LYS:HD3	2:B:1483:TRP:CD2	2.43	0.54
2:B:1015:ARG:HD3	2:B:1076:TYR:HD1	1.73	0.54
2:B:1602:GLU:O	2:B:1606:ILE:HG12	2.07	0.54
2:E:1127:ILE:HA	2:E:1130:ASP:OD2	2.08	0.54
2:E:1292:THR:HG23	2:E:1295:GLU:HB2	1.89	0.54
2:B:744:ALA:HA	2:B:753:LEU:HD22	1.89	0.53
2:B:1483:TRP:HA	2:B:1512:ILE:O	2.09	0.53
2:B:1515:LEU:HD11	2:B:1575:TYR:HE2	1.72	0.53
2:E:231:PHE:CZ	2:E:300:ILE:HG12	2.43	0.53
2:E:1012:THR:HG22	2:E:1015:ARG:HH21	1.72	0.53
2:E:1038:PHE:O	2:E:1039:GLU:HG2	2.08	0.53
2:E:1059:LEU:CD2	2:E:1080:ARG:HH22	2.21	0.53
1:A:688:THR:O	1:A:691:SER:OG	2.16	0.53
2:B:70:THR:HG23	2:B:72:GLU:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:156:ASN:HA	2:B:161:LEU:HD12	1.91	0.53
3:C:167:THR:O	3:C:170:ASP:N	2.41	0.53
2:E:1240:TYR:O	2:E:1244:LEU:HG	2.09	0.53
2:E:1483:TRP:HA	2:E:1512:ILE:O	2.09	0.53
2:B:192:LYS:O	2:B:195:GLU:HG3	2.08	0.53
2:B:922:ALA:HA	2:B:925:ILE:HD12	1.90	0.53
2:B:1563:PHE:O	2:B:1567:GLU:HG2	2.08	0.53
2:E:436:ILE:HG22	2:E:438:LEU:HD22	1.90	0.53
2:E:1434:VAL:HB	2:E:1461:GLN:HB2	1.90	0.53
2:E:1483:TRP:NE1	2:E:1514:PRO:HD3	2.23	0.53
1:A:551:GLN:O	1:A:555:ARG:HG2	2.08	0.53
1:A:723:VAL:HB	2:B:3:ARG:N	2.22	0.53
2:E:330:THR:O	2:E:334:HIS:N	2.38	0.53
2:E:331:ASP:HA	2:E:334:HIS:HB2	1.91	0.53
2:E:857:LEU:O	2:E:861:THR:OG1	2.15	0.53
1:A:712:PRO:O	2:B:62:THR:HG21	2.07	0.53
2:B:222:TYR:CG	2:B:289:LEU:HD11	2.43	0.53
2:B:287:MET:HA	2:B:290:ILE:HG12	1.90	0.53
2:B:643:TRP:HB2	2:B:650:ILE:HD11	1.90	0.53
2:B:1127:ILE:HA	2:B:1130:ASP:OD2	2.08	0.53
1:D:607:LYS:NZ	1:D:608:LEU:O	2.42	0.53
2:E:222:TYR:CG	2:E:289:LEU:HD11	2.43	0.53
2:E:870:ARG:HH22	2:E:874:CYS:HB3	1.73	0.53
2:B:1240:TYR:O	2:B:1244:LEU:HG	2.09	0.53
2:B:1392:GLU:OE1	2:B:1392:GLU:N	2.38	0.53
2:B:1611:LEU:HD12	2:B:1615:LEU:HB3	1.90	0.53
2:E:4:TRP:CZ3	2:E:46:ARG:HG2	2.44	0.53
2:E:46:ARG:CZ	2:E:56:LYS:HD3	2.39	0.53
2:E:70:THR:HG23	2:E:72:GLU:H	1.73	0.53
2:B:1440:SER:H	2:B:1442:LYS:NZ	2.06	0.53
3:C:6:CYS:C	3:C:56:TRP:HD1	2.12	0.53
1:D:667:ASP:OD1	1:D:678:MET:N	2.41	0.53
2:E:486:PRO:HB3	2:E:496:TYR:HE1	1.74	0.53
1:A:696:LEU:HB2	2:B:96:ARG:NH1	2.24	0.53
2:B:231:PHE:CZ	2:B:300:ILE:HG12	2.43	0.53
2:B:344:HIS:N	2:B:401:VAL:O	2.40	0.53
2:B:821:PRO:HA	2:B:824:ILE:HG23	1.90	0.53
3:C:69:PRO:HA	3:C:72:TYR:CG	2.44	0.53
2:E:1265:LEU:O	2:E:1269:GLU:N	2.40	0.53
2:E:1469:ARG:HD2	2:E:1473:LYS:HG3	1.90	0.53
2:E:1490:THR:OG1	2:E:1506:GLN:HB3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1563:PHE:O	2:E:1567:GLU:HG2	2.08	0.53
3:F:6:CYS:C	3:F:56:TRP:HD1	2.12	0.53
1:A:570:ARG:O	1:A:570:ARG:HD3	2.09	0.53
1:A:695:LYS:HD2	2:B:125:ILE:HD12	1.90	0.53
2:B:192:LYS:HG3	2:B:196:GLU:OE2	2.09	0.53
2:B:486:PRO:HB3	2:B:496:TYR:HE1	1.74	0.53
2:B:1415:GLY:O	2:B:1419:LYS:N	2.42	0.53
2:B:1513:SER:N	2:B:1516:GLU:OE1	2.26	0.53
2:E:192:LYS:HG3	2:E:196:GLU:OE2	2.09	0.53
2:E:1206:ASP:O	2:E:1210:ILE:HG12	2.09	0.53
2:E:1605:ARG:HH21	2:E:1606:ILE:HD11	1.72	0.53
3:F:149:ILE:HG23	3:F:151:ALA:H	1.74	0.53
2:B:46:ARG:CZ	2:B:56:LYS:HD3	2.39	0.53
2:B:768:ILE:HG12	2:B:830:VAL:HG21	1.91	0.53
2:B:1224:THR:HA	2:B:1227:VAL:HG12	1.91	0.53
2:B:1469:ARG:HD2	2:B:1473:LYS:HG3	1.90	0.53
3:C:5:LYS:HB3	3:C:75:THR:HG23	1.90	0.53
3:C:94:ARG:HH22	3:C:142:GLY:HA2	1.74	0.53
1:D:570:ARG:O	1:D:570:ARG:HD3	2.09	0.53
2:E:181:ILE:HG22	2:E:185:LYS:NZ	2.24	0.53
2:E:821:PRO:HA	2:E:824:ILE:HG23	1.90	0.53
2:E:1165:ASP:O	2:E:1168:TYR:HB3	2.09	0.53
2:E:1275:ASP:O	2:E:1292:THR:OG1	2.17	0.53
2:E:1314:TRP:HB3	2:E:1348:PHE:HB3	1.90	0.53
2:E:1470:LYS:HD3	2:E:1483:TRP:CD2	2.43	0.53
1:A:695:LYS:O	1:A:698:LEU:HG	2.07	0.52
2:B:175:PRO:O	2:B:1075:LYS:NZ	2.40	0.52
2:B:1200:LEU:O	2:B:1204:LEU:HG	2.08	0.52
2:B:1552:SER:O	2:B:1555:VAL:HG12	2.08	0.52
1:D:643:SER:OG	1:D:653:ASN:ND2	2.38	0.52
1:D:708:ASP:OD1	1:D:708:ASP:N	2.41	0.52
3:F:69:PRO:HA	3:F:72:TYR:CG	2.44	0.52
1:A:693:GLU:O	1:A:697:ARG:HG2	2.09	0.52
2:B:870:ARG:HH22	2:B:874:CYS:HB3	1.73	0.52
2:B:1434:VAL:HB	2:B:1461:GLN:HB2	1.90	0.52
2:E:127:TRP:HD1	2:E:130:GLN:NE2	2.08	0.52
1:A:605:GLN:HG2	1:A:605:GLN:O	2.09	0.52
2:B:1391:ARG:HH22	3:C:29:PRO:HD3	1.75	0.52
2:B:1490:THR:OG1	2:B:1506:GLN:HB3	2.08	0.52
1:D:669:LEU:HA	1:D:672:LEU:HD12	1.91	0.52
2:E:156:ASN:HA	2:E:161:LEU:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:179:SER:OG	2:E:182:ALA:HB3	2.10	0.52
2:E:287:MET:HA	2:E:290:ILE:HG12	1.90	0.52
2:E:450:LEU:O	2:E:510:TYR:N	2.38	0.52
2:E:1224:THR:HA	2:E:1227:VAL:HG12	1.91	0.52
1:A:708:ASP:N	1:A:708:ASP:OD1	2.41	0.52
2:B:4:TRP:CZ3	2:B:46:ARG:HG2	2.44	0.52
2:B:19:TYR:HB2	2:B:59:PHE:HE1	1.74	0.52
2:B:874:CYS:SG	2:B:875:ARG:N	2.83	0.52
2:E:199:GLN:HA	2:E:202:LYS:HE3	1.91	0.52
2:E:255:SER:HA	2:E:430:LYS:HA	1.92	0.52
2:E:258:TYR:HE1	2:E:489:GLY:HA3	1.75	0.52
2:E:643:TRP:HB2	2:E:650:ILE:HD11	1.90	0.52
2:E:1166:GLU:O	2:E:1169:LYS:HG2	2.10	0.52
2:E:1200:LEU:O	2:E:1204:LEU:HG	2.08	0.52
2:E:1464:TYR:N	2:E:1487:THR:O	2.33	0.52
2:B:1166:GLU:O	2:B:1169:LYS:HG2	2.10	0.52
2:E:718:THR:O	2:E:722:LYS:HB2	2.09	0.52
2:E:1611:LEU:HD12	2:E:1615:LEU:HB3	1.90	0.52
3:F:94:ARG:HH22	3:F:142:GLY:HA2	1.74	0.52
1:A:667:ASP:OD1	1:A:678:MET:N	2.41	0.52
2:B:8:LYS:HA	2:B:10:GLN:HE22	1.73	0.52
2:B:327:MET:HB2	2:B:346:ILE:HG23	1.92	0.52
2:B:436:ILE:HG22	2:B:438:LEU:HD22	1.90	0.52
2:B:718:THR:O	2:B:722:LYS:HB2	2.09	0.52
3:C:113:VAL:HA	3:C:155:LEU:O	2.09	0.52
3:C:149:ILE:HG23	3:C:151:ALA:H	1.74	0.52
2:E:192:LYS:O	2:E:195:GLU:HG3	2.08	0.52
2:E:1040:LEU:HA	2:E:1043:TRP:CZ3	2.45	0.52
1:A:531:ARG:HB2	1:A:532:PRO:HD3	1.92	0.52
2:B:1613:GLU:HA	2:B:1616:LYS:HE2	1.91	0.52
1:D:693:GLU:O	1:D:697:ARG:HG2	2.09	0.52
2:E:444:ASN:ND2	2:E:517:ILE:O	2.43	0.52
2:E:768:ILE:HG12	2:E:830:VAL:HG21	1.91	0.52
2:E:1597:MET:HG3	2:E:1633:VAL:HG21	1.91	0.52
3:F:146:ALA:O	3:F:150:GLY:N	2.43	0.52
2:B:5:ILE:O	2:B:40:MET:HG2	2.09	0.52
2:B:199:GLN:HA	2:B:202:LYS:HE3	1.91	0.52
2:B:444:ASN:ND2	2:B:517:ILE:O	2.43	0.52
2:B:1633:VAL:O	2:B:1639:VAL:HG22	2.09	0.52
2:B:866:SER:C	2:B:868:LEU:H	2.13	0.52
2:B:1206:ASP:O	2:B:1210:ILE:HG12	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1272:GLN:H	2:B:1293:GLN:NE2	2.08	0.52
2:B:1446:VAL:HG12	2:E:1333:PHE:CZ	2.45	0.52
1:D:531:ARG:HB2	1:D:532:PRO:HD3	1.92	0.52
1:D:688:THR:O	1:D:691:SER:OG	2.16	0.52
2:E:1066:GLN:HA	2:E:1069:ARG:NH1	2.25	0.52
2:E:1533:VAL:HG13	2:E:1606:ILE:HG13	1.92	0.52
3:F:113:VAL:HA	3:F:155:LEU:O	2.09	0.52
2:B:268:PRO:HD2	2:B:274:LEU:HD13	1.91	0.52
3:C:146:ALA:O	3:C:150:GLY:N	2.43	0.52
2:E:1072:ILE:O	2:E:1076:TYR:N	2.37	0.52
2:B:331:ASP:HA	2:B:334:HIS:HB2	1.91	0.51
2:E:3:ARG:O	2:E:3:ARG:HD2	2.10	0.51
2:E:1633:VAL:O	2:E:1639:VAL:HG22	2.09	0.51
3:F:5:LYS:HB3	3:F:75:THR:HG23	1.90	0.51
2:B:1165:ASP:O	2:B:1168:TYR:HB3	2.09	0.51
2:E:5:ILE:O	2:E:40:MET:HG2	2.09	0.51
1:A:580:SER:HB2	1:A:585:VAL:HG22	1.92	0.51
1:A:590:ASP:H	1:A:604:LEU:HD22	1.76	0.51
2:B:11:LYS:HE2	2:B:71:VAL:HG13	1.92	0.51
2:B:308:LEU:HG	2:B:320:ARG:HH12	1.76	0.51
2:B:1040:LEU:HA	2:B:1043:TRP:CZ3	2.45	0.51
1:D:605:GLN:HG2	1:D:605:GLN:O	2.10	0.51
2:E:19:TYR:HB2	2:E:59:PHE:HE1	1.75	0.51
2:E:113:LEU:O	2:E:116:GLN:HG2	2.10	0.51
2:E:1145:HIS:O	2:E:1149:ASN:ND2	2.44	0.51
2:E:1242:ARG:O	2:E:1246:LYS:HG2	2.10	0.51
2:E:1279:VAL:HB	2:E:1281:HIS:ND1	2.26	0.51
2:E:1617:PRO:HB2	3:F:70:LEU:HD13	1.92	0.51
2:B:1117:GLU:CD	2:B:1120:LEU:HG	2.31	0.51
1:D:712:PRO:O	2:E:62:THR:HG21	2.11	0.51
2:E:11:LYS:HE2	2:E:71:VAL:HG13	1.92	0.51
2:E:1468:PHE:HB3	2:E:1483:TRP:O	2.10	0.51
3:F:45:MET:SD	3:F:45:MET:N	2.82	0.51
2:B:258:TYR:HE1	2:B:489:GLY:HA3	1.75	0.51
2:B:1479:PHE:CZ	3:C:36:VAL:HG12	2.46	0.51
2:B:1533:VAL:HG13	2:B:1606:ILE:HG13	1.92	0.51
2:E:282:THR:HG21	2:E:410:LEU:HB2	1.92	0.51
2:E:564:ASP:OD1	2:E:633:GLN:NE2	2.43	0.51
2:E:1098:LYS:O	2:E:1102:ILE:HG13	2.11	0.51
2:E:1117:GLU:CD	2:E:1120:LEU:HG	2.31	0.51
2:E:1613:GLU:HA	2:E:1616:LYS:HE2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:80:ILE:HD11	3:F:97:TRP:HB3	1.93	0.51
3:F:137:ILE:HG23	3:F:141:GLN:HG3	1.93	0.51
1:A:663:CYS:HB3	1:A:679:SER:HA	1.91	0.51
2:B:232:VAL:HB	2:B:398:GLY:H	1.75	0.51
2:B:282:THR:HG21	2:B:410:LEU:HB2	1.92	0.51
2:B:1066:GLN:HA	2:B:1069:ARG:NH1	2.25	0.51
2:B:1242:ARG:O	2:B:1246:LYS:HG2	2.10	0.51
2:B:1409:THR:HA	3:C:28:PHE:HZ	1.76	0.51
2:B:1468:PHE:HB3	2:B:1483:TRP:O	2.10	0.51
1:D:536:LEU:HD21	2:E:18:ASN:N	2.24	0.51
1:D:723:VAL:HB	2:E:3:ARG:H	1.75	0.51
2:E:12:TYR:O	2:E:14:VAL:HG23	2.11	0.51
2:E:268:PRO:HD2	2:E:274:LEU:HD13	1.91	0.51
2:E:1561:GLY:O	2:E:1565:ASN:ND2	2.32	0.51
1:A:669:LEU:HA	1:A:672:LEU:HD12	1.91	0.51
2:B:904:GLN:O	2:B:907:SER:OG	2.21	0.51
2:B:1243:TYR:HD2	2:B:1246:LYS:HG3	1.76	0.51
2:B:1279:VAL:HB	2:B:1281:HIS:ND1	2.26	0.51
1:D:590:ASP:H	1:D:604:LEU:HD22	1.76	0.51
1:D:663:CYS:HB3	1:D:679:SER:HA	1.91	0.51
2:E:874:CYS:SG	2:E:875:ARG:N	2.82	0.51
2:E:1272:GLN:H	2:E:1293:GLN:NE2	2.08	0.51
2:E:1371:GLY:C	2:E:1424:GLN:HE21	2.14	0.51
2:E:1417:ASP:N	2:E:1417:ASP:OD1	2.44	0.51
2:E:1545:HIS:CD2	3:F:5:LYS:HE3	2.45	0.51
1:A:563:ARG:HA	1:A:573:LYS:O	2.11	0.51
2:B:719:TYR:CD1	2:B:723:HIS:HB2	2.46	0.51
2:B:1207:TYR:O	2:B:1211:ILE:HG12	2.11	0.51
2:E:36:HIS:HB3	2:E:48:TYR:HB2	1.93	0.51
2:E:166:ARG:HH22	2:E:168:ASP:HB2	1.75	0.51
2:E:721:TYR:HA	2:E:769:GLN:NE2	2.26	0.51
2:E:1470:LYS:HD3	2:E:1483:TRP:CG	2.46	0.51
2:B:3:ARG:HD2	2:B:3:ARG:O	2.10	0.51
2:B:113:LEU:O	2:B:116:GLN:HG2	2.10	0.51
2:B:127:TRP:HD1	2:B:130:GLN:NE2	2.08	0.51
2:B:179:SER:OG	2:B:182:ALA:HB3	2.10	0.51
2:B:471:SER:HB2	2:B:479:LEU:HD13	1.92	0.51
2:B:1307:TYR:HD1	2:B:1310:LYS:HZ1	1.58	0.51
2:B:1418:ILE:HA	2:B:1421:SER:HB3	1.93	0.51
2:B:1597:MET:HG3	2:B:1633:VAL:HG21	1.91	0.51
2:E:308:LEU:HG	2:E:320:ARG:HH12	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:327:MET:HB2	2:E:346:ILE:HG23	1.92	0.51
2:B:957:MET:O	2:B:961:LEU:HG	2.11	0.51
2:B:1098:LYS:O	2:B:1102:ILE:HG13	2.11	0.51
2:B:1145:HIS:O	2:B:1149:ASN:ND2	2.43	0.51
2:B:1268:ALA:HA	2:B:1271:LEU:HD13	1.93	0.51
2:B:1468:PHE:CE2	2:B:1470:LYS:HB2	2.45	0.51
2:E:44:TRP:CE3	2:E:58:ILE:HG22	2.46	0.51
2:E:642:ASN:HA	2:E:644:ARG:NH1	2.26	0.51
2:E:826:ASP:OD1	2:E:827:VAL:N	2.44	0.51
2:E:921:THR:O	2:E:925:ILE:N	2.37	0.51
2:E:1063:THR:HA	2:E:1069:ARG:HD3	1.93	0.51
2:B:46:ARG:NH2	2:B:56:LYS:HD3	2.25	0.50
2:B:255:SER:HA	2:B:430:LYS:HA	1.92	0.50
2:B:642:ASN:HA	2:B:644:ARG:NH1	2.26	0.50
2:B:875:ARG:HE	2:B:924:HIS:CG	2.29	0.50
2:E:46:ARG:NH2	2:E:56:LYS:HD3	2.26	0.50
2:E:719:TYR:CD1	2:E:723:HIS:HB2	2.46	0.50
2:B:181:ILE:HG22	2:B:185:LYS:NZ	2.24	0.50
2:B:1079:MET:N	2:B:1079:MET:SD	2.84	0.50
2:B:1417:ASP:N	2:B:1417:ASP:OD1	2.44	0.50
2:B:1470:LYS:HD3	2:B:1483:TRP:CG	2.46	0.50
2:E:718:THR:O	2:E:722:LYS:HE2	2.12	0.50
2:E:1418:ILE:HA	2:E:1421:SER:HB3	1.93	0.50
2:E:1468:PHE:CE2	2:E:1470:LYS:HB2	2.45	0.50
3:F:11:ASP:N	3:F:11:ASP:OD1	2.43	0.50
1:A:566:ASN:HD22	1:A:568:ARG:NH1	2.10	0.50
2:B:36:HIS:HB3	2:B:48:TYR:HB2	1.93	0.50
2:B:328:ASP:OD1	2:B:328:ASP:N	2.44	0.50
2:B:1320:LEU:HA	2:B:1323:GLU:OE2	2.10	0.50
2:B:1346:ALA:HB1	2:E:1339:GLY:HA2	1.93	0.50
2:B:1631:GLU:O	2:B:1635:LYS:HG3	2.11	0.50
3:C:11:ASP:N	3:C:11:ASP:OD1	2.43	0.50
1:D:578:ARG:HB3	1:D:587:HIS:HB2	1.94	0.50
2:E:87:LEU:HA	2:E:90:GLU:OE2	2.12	0.50
2:E:302:ARG:HG3	2:E:320:ARG:HB2	1.93	0.50
2:E:728:LEU:HA	2:E:730:TYR:CE2	2.47	0.50
2:E:1106:VAL:O	2:E:1109:ILE:HG22	2.12	0.50
2:E:1320:LEU:HA	2:E:1323:GLU:OE2	2.10	0.50
2:E:1415:GLY:O	2:E:1419:LYS:N	2.42	0.50
2:E:1452:ASN:OD1	2:E:1453:TYR:N	2.44	0.50
2:E:1577:GLN:HA	2:E:1580:PRO:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1631:GLU:O	2:E:1635:LYS:HG3	2.12	0.50
2:B:44:TRP:CE3	2:B:58:ILE:HG22	2.46	0.50
2:B:718:THR:O	2:B:722:LYS:HE2	2.12	0.50
2:B:1010:ASN:O	2:B:1014:ASN:ND2	2.45	0.50
2:B:1452:ASN:OD1	2:B:1453:TYR:N	2.44	0.50
2:B:1530:SER:HB2	2:B:1599:LEU:HD21	1.94	0.50
2:E:232:VAL:HB	2:E:398:GLY:H	1.75	0.50
2:E:972:TYR:HA	2:E:975:THR:OG1	2.12	0.50
2:E:1063:THR:O	2:E:1069:ARG:NH1	2.45	0.50
2:B:36:HIS:N	2:B:48:TYR:O	2.45	0.50
2:B:87:LEU:HA	2:B:90:GLU:OE2	2.11	0.50
2:B:330:THR:O	2:B:334:HIS:N	2.38	0.50
2:B:435:GLU:O	2:B:708:LYS:HD3	2.12	0.50
2:B:826:ASP:OD1	2:B:827:VAL:N	2.44	0.50
2:B:965:ASP:HB3	2:B:968:HIS:CD2	2.46	0.50
2:B:979:ARG:HH22	2:B:1035:GLN:HE22	1.58	0.50
2:B:1371:GLY:C	2:B:1424:GLN:HE21	2.14	0.50
2:E:1207:TYR:O	2:E:1211:ILE:HG12	2.11	0.50
1:A:531:ARG:HH21	1:A:534:LEU:HD12	1.77	0.50
2:B:945:ARG:HD3	2:B:947:SER:H	1.77	0.50
2:B:1007:MET:SD	2:B:1011:MET:HE1	2.51	0.50
2:B:1063:THR:HA	2:B:1069:ARG:HD3	1.93	0.50
2:B:1063:THR:O	2:B:1069:ARG:NH1	2.45	0.50
2:B:1106:VAL:O	2:B:1109:ILE:HG22	2.12	0.50
2:B:1265:LEU:O	2:B:1269:GLU:N	2.40	0.50
3:C:80:ILE:HD11	3:C:97:TRP:HB3	1.93	0.50
1:D:563:ARG:HA	1:D:573:LYS:O	2.11	0.50
1:D:580:SER:HB2	1:D:585:VAL:HG22	1.92	0.50
2:E:1066:GLN:HA	2:E:1069:ARG:CZ	2.42	0.50
2:E:1463:ARG:HB2	2:E:1486:ARG:HD2	1.94	0.50
2:B:166:ARG:HH22	2:B:168:ASP:HB2	1.75	0.50
2:B:1167:GLN:OE1	2:B:1167:GLN:N	2.39	0.50
2:B:1551:LEU:O	2:B:1555:VAL:HB	2.12	0.50
3:C:69:PRO:HA	3:C:72:TYR:CD2	2.47	0.50
1:D:693:GLU:O	1:D:696:LEU:HG	2.11	0.50
2:E:435:GLU:O	2:E:708:LYS:HD3	2.12	0.50
2:E:957:MET:O	2:E:961:LEU:HG	2.11	0.50
2:E:965:ASP:HB3	2:E:968:HIS:CD2	2.46	0.50
2:E:979:ARG:HH22	2:E:1035:GLN:HE22	1.58	0.50
2:E:1307:TYR:HD1	2:E:1310:LYS:HZ3	1.58	0.50
2:E:1490:THR:O	2:E:1505:LYS:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1599:LEU:HA	2:E:1602:GLU:OE1	2.12	0.50
3:F:14:VAL:HB	3:F:16:LYS:HZ2	1.76	0.50
1:A:607:LYS:NZ	1:A:608:LEU:O	2.42	0.50
2:B:258:TYR:HA	2:B:488:ALA:HB3	1.94	0.50
2:B:728:LEU:HA	2:B:730:TYR:CE2	2.47	0.50
2:B:997:ILE:HG21	2:B:1053:PHE:HA	1.94	0.50
2:B:1066:GLN:HA	2:B:1069:ARG:CZ	2.42	0.50
2:B:1072:ILE:O	2:B:1076:TYR:N	2.37	0.50
2:B:1578:GLU:HG3	2:B:1579:HIS:ND1	2.27	0.50
2:E:414:GLN:HG2	2:E:421:VAL:HG12	1.94	0.50
2:E:471:SER:HB2	2:E:479:LEU:HD13	1.92	0.50
2:E:473:HIS:HB2	2:E:526:HIS:CE1	2.47	0.50
2:E:1105:MET:HA	2:E:1108:PRO:HG2	1.94	0.50
2:E:1268:ALA:HA	2:E:1271:LEU:HD13	1.93	0.50
1:A:578:ARG:HB3	1:A:587:HIS:HB2	1.94	0.50
2:B:556:ASN:N	2:B:560:THR:O	2.36	0.50
2:B:676:LEU:HD22	2:B:693:VAL:HG13	1.93	0.50
2:B:1577:GLN:HA	2:B:1580:PRO:HG3	1.93	0.50
3:C:40:TYR:O	3:C:55:LEU:N	2.43	0.50
3:C:161:THR:HB	3:C:163:ARG:HG3	1.94	0.50
1:D:531:ARG:HH21	1:D:534:LEU:HD12	1.77	0.50
2:E:866:SER:C	2:E:868:LEU:H	2.14	0.50
1:A:680:ASP:OD1	1:A:680:ASP:N	2.44	0.49
2:B:473:HIS:HB2	2:B:526:HIS:CE1	2.47	0.49
2:B:646:ASN:O	2:B:650:ILE:HG13	2.12	0.49
2:B:721:TYR:HA	2:B:769:GLN:NE2	2.26	0.49
2:B:972:TYR:HA	2:B:975:THR:OG1	2.12	0.49
2:E:36:HIS:N	2:E:48:TYR:O	2.45	0.49
2:E:730:TYR:CZ	2:E:771:ARG:HD3	2.47	0.49
2:E:1010:ASN:O	2:E:1014:ASN:ND2	2.45	0.49
2:E:1243:TYR:HD2	2:E:1246:LYS:HG3	1.76	0.49
2:E:1530:SER:HB2	2:E:1599:LEU:HD21	1.93	0.49
2:E:1536:HIS:ND1	2:E:1547:LEU:HD11	2.27	0.49
2:E:1551:LEU:O	2:E:1555:VAL:HB	2.12	0.49
2:B:181:ILE:O	2:B:185:LYS:NZ	2.44	0.49
2:B:564:ASP:OD1	2:B:633:GLN:NE2	2.43	0.49
2:B:820:LEU:O	2:B:823:ILE:HG12	2.12	0.49
2:B:1006:TRP:HB3	2:B:1009:MET:HE2	1.93	0.49
2:B:1262:TYR:OH	2:B:1496:PRO:HG2	2.12	0.49
1:D:566:ASN:HD22	1:D:568:ARG:NH1	2.10	0.49
2:E:422:ASP:OD1	2:E:422:ASP:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:754:PHE:CD1	2:E:812:ILE:HG13	2.47	0.49
2:E:1059:LEU:HD21	2:E:1080:ARG:HH22	1.78	0.49
2:E:1079:MET:N	2:E:1079:MET:SD	2.84	0.49
2:E:1390:ARG:NE	3:F:26:ASN:OD1	2.44	0.49
2:B:238:ASP:O	2:B:303:VAL:N	2.37	0.49
3:C:137:ILE:HG23	3:C:141:GLN:HG3	1.93	0.49
2:E:509:TRP:HB3	2:E:511:GLU:HG3	1.94	0.49
2:E:761:LYS:HA	2:E:823:ILE:HG22	1.94	0.49
2:E:1262:TYR:OH	2:E:1496:PRO:HG2	2.12	0.49
2:E:1328:TYR:O	2:E:1333:PHE:N	2.33	0.49
1:A:693:GLU:O	1:A:696:LEU:HG	2.11	0.49
2:B:12:TYR:O	2:B:14:VAL:HG23	2.11	0.49
2:B:145:LYS:O	2:B:149:THR:OG1	2.23	0.49
2:B:1105:MET:HA	2:B:1108:PRO:HG2	1.94	0.49
2:E:163:LEU:HD11	2:E:194:ILE:HD11	1.95	0.49
2:E:630:LYS:HG2	2:E:668:PHE:CZ	2.48	0.49
2:E:875:ARG:HE	2:E:924:HIS:CG	2.29	0.49
2:E:1448:GLU:HA	2:E:1451:LEU:HD12	1.95	0.49
2:E:1466:ARG:HG2	2:E:1485:GLU:HB2	1.94	0.49
3:F:63:ASP:OD1	3:F:63:ASP:N	2.45	0.49
1:A:644:ILE:HB	1:A:652:LEU:HB2	1.94	0.49
2:B:49:THR:OG1	2:B:52:ASN:OD1	2.25	0.49
2:B:302:ARG:HG3	2:B:320:ARG:HB2	1.93	0.49
2:B:761:LYS:HA	2:B:823:ILE:HG22	1.94	0.49
2:B:1386:LYS:HG3	2:B:1387:GLU:H	1.77	0.49
3:C:96:LYS:NZ	3:C:100:GLU:HG2	2.27	0.49
2:E:447:TYR:HB2	2:E:625:LEU:HB3	1.95	0.49
2:E:764:PHE:CD2	2:E:823:ILE:HG21	2.48	0.49
2:E:874:CYS:O	2:E:878:LEU:N	2.29	0.49
2:E:957:MET:O	2:E:960:LEU:HB3	2.13	0.49
2:E:1451:LEU:O	2:E:1455:ARG:HG3	2.13	0.49
3:F:64:TYR:HB2	3:F:68:ARG:NH2	2.28	0.49
2:B:38:LEU:HD21	2:B:48:TYR:CD2	2.48	0.49
2:B:553:LYS:HE3	2:B:555:MET:HG2	1.94	0.49
2:B:630:LYS:HG2	2:B:668:PHE:CZ	2.48	0.49
2:B:1166:GLU:O	2:B:1170:VAL:HG23	2.13	0.49
2:B:1463:ARG:HB2	2:B:1486:ARG:HD2	1.94	0.49
2:B:1536:HIS:ND1	2:B:1547:LEU:HD11	2.27	0.49
2:E:1113:THR:O	2:E:1121:ARG:HG3	2.12	0.49
2:E:1386:LYS:HG3	2:E:1387:GLU:H	1.77	0.49
2:E:1513:SER:N	2:E:1516:GLU:OE1	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:69:PRO:HA	3:F:72:TYR:CD2	2.47	0.49
2:B:730:TYR:CZ	2:B:771:ARG:HD3	2.47	0.49
2:B:761:LYS:HE2	2:B:765:ARG:NE	2.28	0.49
2:B:1466:ARG:HG2	2:B:1485:GLU:HB2	1.94	0.49
3:C:64:TYR:HB2	3:C:68:ARG:NH2	2.28	0.49
3:C:90:PHE:CD2	3:C:137:ILE:HD12	2.47	0.49
1:D:578:ARG:NH1	1:D:600:PRO:HA	2.28	0.49
2:E:519:ILE:HG22	2:E:630:LYS:HE3	1.95	0.49
2:E:646:ASN:O	2:E:650:ILE:HG13	2.12	0.49
2:E:1328:TYR:HA	2:E:1332:VAL:CG1	2.41	0.49
3:F:96:LYS:NZ	3:F:100:GLU:HG2	2.27	0.49
2:B:791:ILE:HG22	2:B:795:PHE:HE2	1.76	0.49
2:E:11:LYS:HD2	2:E:36:HIS:ND1	2.28	0.49
2:E:676:LEU:HD22	2:E:693:VAL:HG13	1.93	0.49
2:B:11:LYS:HD2	2:B:36:HIS:ND1	2.28	0.49
2:B:1296:LEU:O	2:B:1300:LEU:HG	2.13	0.49
2:B:1448:GLU:HA	2:B:1451:LEU:HD12	1.94	0.49
2:E:38:LEU:HD21	2:E:48:TYR:CD2	2.48	0.49
2:E:229:LYS:HE3	2:E:343:GLN:HG2	1.95	0.49
2:B:229:LYS:HE3	2:B:343:GLN:HG2	1.95	0.49
2:B:351:ILE:HG12	2:B:382:VAL:HG21	1.95	0.49
2:B:414:GLN:HG2	2:B:421:VAL:HG12	1.94	0.49
2:B:447:TYR:HB2	2:B:625:LEU:HB3	1.95	0.49
2:B:589:PRO:HB2	2:B:595:MET:CE	2.43	0.49
2:B:1458:GLU:N	2:B:1495:PHE:O	2.46	0.49
2:B:1599:LEU:HA	2:B:1602:GLU:OE1	2.12	0.49
1:D:680:ASP:N	1:D:680:ASP:OD1	2.45	0.49
2:E:228:PHE:HZ	2:E:231:PHE:HB2	1.78	0.49
2:E:820:LEU:O	2:E:823:ILE:HG12	2.12	0.49
2:E:1034:ASP:HA	2:E:1037:SER:HA	1.95	0.49
2:E:1063:THR:HA	2:E:1069:ARG:HD2	1.95	0.49
2:E:1166:GLU:O	2:E:1170:VAL:HG23	2.13	0.49
2:E:1458:GLU:N	2:E:1495:PHE:O	2.46	0.49
2:E:1578:GLU:HG3	2:E:1579:HIS:ND1	2.27	0.49
2:B:1113:THR:O	2:B:1121:ARG:HG3	2.12	0.48
1:D:644:ILE:HB	1:D:652:LEU:HB2	1.95	0.48
1:A:576:TYR:CD1	1:A:591:LEU:HG	2.48	0.48
2:B:727:THR:O	2:B:774:TYR:HB2	2.13	0.48
2:B:754:PHE:CD1	2:B:812:ILE:HG13	2.47	0.48
2:B:869:PHE:HA	2:B:918:VAL:HG23	1.95	0.48
2:B:892:ASP:OD1	2:B:892:ASP:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:992:MET:O	2:B:996:LEU:HD23	2.13	0.48
2:B:1121:ARG:O	2:B:1124:THR:N	2.43	0.48
2:B:1342:LEU:HD12	2:E:1342:LEU:HD12	1.96	0.48
3:C:63:ASP:N	3:C:63:ASP:OD1	2.45	0.48
2:E:328:ASP:N	2:E:328:ASP:OD1	2.44	0.48
2:E:997:ILE:HG21	2:E:1053:PHE:HA	1.94	0.48
2:B:562:LEU:HD23	2:B:624:THR:HG21	1.95	0.48
2:E:258:TYR:HA	2:E:488:ALA:HB3	1.94	0.48
2:E:731:VAL:O	2:E:734:SER:OG	2.27	0.48
2:E:1368:TYR:H	2:E:1372:PHE:HE2	1.61	0.48
2:B:764:PHE:CD2	2:B:823:ILE:HG21	2.48	0.48
2:B:957:MET:O	2:B:960:LEU:HB3	2.13	0.48
2:E:94:THR:HG22	2:E:98:TRP:CE2	2.49	0.48
2:E:1296:LEU:O	2:E:1300:LEU:HG	2.13	0.48
3:F:90:PHE:CD2	3:F:137:ILE:HD12	2.47	0.48
1:A:679:SER:HB2	1:A:682:THR:OG1	2.13	0.48
2:B:153:ASP:HA	2:B:156:ASN:ND2	2.28	0.48
2:B:163:LEU:HD11	2:B:194:ILE:HD11	1.95	0.48
2:B:227:ASN:HB3	2:B:402:SER:OG	2.13	0.48
2:B:851:GLN:O	2:B:856:LYS:NZ	2.47	0.48
2:B:1059:LEU:HD12	2:B:1116:PRO:HB2	1.95	0.48
1:D:576:TYR:CD1	1:D:591:LEU:HG	2.48	0.48
2:E:569:LEU:HD23	2:E:591:THR:HG22	1.95	0.48
1:A:561:CYS:HA	1:A:576:TYR:HA	1.95	0.48
2:B:302:ARG:HD3	2:B:322:PHE:CD1	2.47	0.48
2:B:1175:LEU:HB3	2:B:1179:HIS:CE1	2.49	0.48
2:B:1583:GLN:O	2:B:1586:VAL:HG12	2.14	0.48
2:E:101:ILE:O	2:E:105:LEU:HG	2.14	0.48
2:E:172:ILE:HD12	2:E:175:PRO:HG2	1.96	0.48
2:E:553:LYS:HE3	2:E:555:MET:HG2	1.94	0.48
2:E:1059:LEU:HD12	2:E:1116:PRO:HB2	1.96	0.48
1:A:578:ARG:NH1	1:A:600:PRO:HA	2.28	0.48
2:B:94:THR:HG22	2:B:98:TRP:CE2	2.49	0.48
2:B:172:ILE:HD12	2:B:175:PRO:HG2	1.96	0.48
2:B:569:LEU:HD23	2:B:591:THR:HG22	1.95	0.48
2:B:973:ILE:HA	2:B:976:PHE:CZ	2.48	0.48
2:B:1059:LEU:HD21	2:B:1080:ARG:HH22	1.78	0.48
2:B:1287:SER:HG	2:B:1289:TYR:HE1	1.62	0.48
2:B:1374:SER:HA	2:B:1377:ARG:HH11	1.79	0.48
3:C:171:GLU:HA	3:C:174:ARG:HE	1.79	0.48
2:E:592:LYS:HA	2:E:595:MET:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:992:MET:O	2:E:996:LEU:HD23	2.13	0.48
2:E:1245:TYR:HD2	2:E:1248:ARG:HH21	1.62	0.48
1:A:714:PRO:HD3	2:B:62:THR:CG2	2.44	0.48
2:B:228:PHE:HZ	2:B:231:PHE:HB2	1.78	0.48
2:B:288:ASP:OD1	2:B:291:ARG:NH2	2.32	0.48
2:B:637:LEU:HD12	2:B:665:ILE:HD13	1.96	0.48
2:B:731:VAL:O	2:B:734:SER:OG	2.27	0.48
2:B:856:LYS:O	2:B:860:MET:HE2	2.14	0.48
2:B:1451:LEU:O	2:B:1455:ARG:HG3	2.13	0.48
1:D:561:CYS:HA	1:D:576:TYR:HA	1.95	0.48
1:D:679:SER:HB2	1:D:682:THR:OG1	2.13	0.48
2:E:294:VAL:N	2:E:330:THR:OG1	2.24	0.48
2:E:637:LEU:HD12	2:E:665:ILE:HD13	1.96	0.48
2:E:870:ARG:HH12	2:E:874:CYS:H	1.60	0.48
2:E:932:LEU:CA	2:E:935:ARG:HE	2.27	0.48
3:F:119:LEU:HA	3:F:122:ASP:HB2	1.96	0.48
2:B:196:GLU:O	2:B:199:GLN:HG3	2.14	0.48
2:B:1034:ASP:HA	2:B:1037:SER:HA	1.95	0.48
3:C:119:LEU:HA	3:C:122:ASP:HB2	1.96	0.48
1:D:700:ASP:HB3	2:E:31:ILE:O	2.14	0.48
2:E:589:PRO:HB2	2:E:595:MET:CE	2.43	0.48
2:E:1233:GLU:HG3	2:E:1234:LYS:HE3	1.96	0.48
3:F:165:LEU:O	3:F:169:PHE:HD1	1.97	0.48
2:B:197:LYS:HA	2:B:200:GLU:CG	2.39	0.48
2:B:1586:VAL:HG23	2:B:1589:LEU:HD12	1.96	0.48
3:C:39:ASN:OD1	3:C:56:TRP:HA	2.14	0.48
2:E:700:ILE:O	2:E:703:LEU:HG	2.14	0.48
2:E:727:THR:O	2:E:774:TYR:HB2	2.13	0.48
2:E:761:LYS:HE2	2:E:765:ARG:NE	2.28	0.48
2:B:592:LYS:HA	2:B:595:MET:HG2	1.96	0.47
2:B:630:LYS:HG2	2:B:668:PHE:HZ	1.79	0.47
2:B:700:ILE:O	2:B:703:LEU:HG	2.14	0.47
2:B:1129:PHE:HA	2:B:1132:MET:HG3	1.96	0.47
2:E:704:ILE:HA	2:E:709:PHE:HB2	1.96	0.47
2:E:869:PHE:HA	2:E:918:VAL:HG23	1.95	0.47
2:E:973:ILE:HA	2:E:976:PHE:CZ	2.48	0.47
2:E:1095:GLY:H	2:E:1098:LYS:HE3	1.79	0.47
2:E:1175:LEU:HB3	2:E:1179:HIS:CE1	2.49	0.47
3:F:39:ASN:OD1	3:F:56:TRP:HA	2.14	0.47
3:F:161:THR:HB	3:F:163:ARG:HG3	1.94	0.47
2:B:821:PRO:O	2:B:824:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1233:GLU:HG3	2:B:1234:LYS:HE3	1.96	0.47
2:B:1490:THR:O	2:B:1505:LYS:N	2.45	0.47
2:B:1584:GLU:O	2:B:1588:LEU:HG	2.14	0.47
3:C:11:ASP:O	3:C:16:LYS:NZ	2.37	0.47
2:E:181:ILE:O	2:E:185:LYS:NZ	2.44	0.47
2:E:227:ASN:HB3	2:E:402:SER:OG	2.13	0.47
2:E:232:VAL:O	2:E:398:GLY:N	2.46	0.47
2:E:945:ARG:HD3	2:E:947:SER:H	1.77	0.47
2:E:1584:GLU:O	2:E:1588:LEU:HG	2.14	0.47
2:B:932:LEU:HA	2:B:935:ARG:HE	1.79	0.47
2:B:1243:TYR:HA	2:B:1246:LYS:CG	2.45	0.47
2:E:571:VAL:HB	2:E:618:ASP:HB3	1.96	0.47
2:E:1583:GLN:O	2:E:1586:VAL:HG12	2.14	0.47
1:A:537:LYS:HG3	1:A:694:ILE:HG13	1.95	0.47
2:B:154:HIS:NE2	2:B:201:GLU:OE2	2.42	0.47
2:B:302:ARG:NH2	2:B:321:PRO:O	2.48	0.47
2:B:721:TYR:HB2	2:B:722:LYS:NZ	2.29	0.47
2:B:921:THR:O	2:B:925:ILE:N	2.37	0.47
3:C:165:LEU:O	3:C:169:PHE:HD1	1.97	0.47
2:E:114:PHE:O	2:E:118:GLN:HG3	2.15	0.47
2:E:142:ALA:HA	2:E:145:LYS:HD2	1.96	0.47
2:E:351:ILE:HG12	2:E:382:VAL:HG21	1.95	0.47
2:E:721:TYR:HB2	2:E:722:LYS:NZ	2.29	0.47
2:E:1440:SER:H	2:E:1442:LYS:HZ1	1.62	0.47
3:F:5:LYS:HD2	3:F:75:THR:HA	1.96	0.47
1:A:536:LEU:HD21	2:B:17:TYR:HA	1.96	0.47
2:B:882:LEU:HA	2:B:885:GLN:HE21	1.80	0.47
2:B:1063:THR:HA	2:B:1069:ARG:HD2	1.95	0.47
2:B:1095:GLY:H	2:B:1098:LYS:HE3	1.79	0.47
2:B:1588:LEU:O	2:B:1591:ARG:HG2	2.15	0.47
2:E:302:ARG:NH2	2:E:321:PRO:O	2.48	0.47
2:E:562:LEU:HD23	2:E:624:THR:HG21	1.95	0.47
2:E:791:ILE:HG22	2:E:795:PHE:HE2	1.76	0.47
2:E:851:GLN:O	2:E:856:LYS:NZ	2.47	0.47
2:B:5:ILE:H	2:B:40:MET:H	1.63	0.47
2:B:508:CYS:HB3	2:B:510:TYR:CE2	2.48	0.47
2:B:509:TRP:HB3	2:B:511:GLU:HG3	1.94	0.47
2:B:704:ILE:HA	2:B:709:PHE:HB2	1.96	0.47
2:B:1314:TRP:O	2:B:1318:ILE:HG12	2.15	0.47
2:B:1578:GLU:HG3	2:B:1579:HIS:HD1	1.80	0.47
1:D:700:ASP:HB2	2:E:32:GLY:HA2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:197:LYS:HA	2:E:200:GLU:CG	2.39	0.47
2:E:1129:PHE:HA	2:E:1132:MET:HG3	1.96	0.47
3:F:171:GLU:HA	3:F:174:ARG:HE	1.79	0.47
1:A:603:SER:N	1:A:606:ASP:OD1	2.47	0.47
2:B:127:TRP:O	2:B:131:ILE:HG12	2.15	0.47
2:B:273:LYS:O	2:B:277:LEU:HG	2.15	0.47
2:B:519:ILE:HG22	2:B:630:LYS:HE3	1.95	0.47
2:B:576:ASN:ND2	2:B:579:MET:SD	2.88	0.47
2:B:809:ALA:HB3	2:B:813:LYS:HZ2	1.78	0.47
2:B:932:LEU:CA	2:B:935:ARG:HE	2.27	0.47
2:B:1043:TRP:N	2:B:1043:TRP:CE3	2.83	0.47
2:B:1477:ASN:HB3	2:B:1568:LYS:HZ1	1.79	0.47
3:C:129:LEU:O	3:C:133:LYS:N	2.48	0.47
1:D:537:LYS:HG3	1:D:694:ILE:HG13	1.95	0.47
1:D:697:ARG:NH1	2:E:30:GLN:OE1	2.48	0.47
2:E:175:PRO:O	2:E:1075:LYS:NZ	2.40	0.47
2:E:197:LYS:HG2	2:E:200:GLU:OE2	2.15	0.47
2:E:630:LYS:HG2	2:E:668:PHE:HZ	1.79	0.47
2:E:882:LEU:HA	2:E:885:GLN:NE2	2.29	0.47
2:E:892:ASP:OD1	2:E:892:ASP:N	2.45	0.47
2:E:1463:ARG:HH11	2:E:1486:ARG:HG2	1.80	0.47
2:E:1628:GLU:HG2	2:E:1629:LEU:HD22	1.97	0.47
2:B:142:ALA:HA	2:B:145:LYS:HD2	1.96	0.47
2:B:882:LEU:HA	2:B:885:GLN:NE2	2.29	0.47
2:B:1245:TYR:HD2	2:B:1248:ARG:HH21	1.62	0.47
2:B:1275:ASP:O	2:B:1292:THR:OG1	2.17	0.47
2:B:1462:PHE:O	2:B:1489:TYR:N	2.48	0.47
2:E:49:THR:OG1	2:E:52:ASN:OD1	2.25	0.47
2:E:1596:GLN:O	2:E:1600:LEU:HG	2.15	0.47
2:B:101:ILE:O	2:B:105:LEU:HG	2.14	0.47
2:B:697:LEU:O	2:B:701:ILE:HG12	2.15	0.47
2:B:1218:GLU:OE1	2:B:1218:GLU:N	2.37	0.47
2:B:1561:GLY:C	2:B:1565:ASN:HD22	2.16	0.47
2:B:1596:GLN:O	2:B:1600:LEU:HG	2.15	0.47
3:C:5:LYS:HD2	3:C:75:THR:HA	1.96	0.47
3:C:7:VAL:HG23	3:C:75:THR:HG21	1.97	0.47
2:E:382:VAL:O	2:E:386:VAL:HG23	2.15	0.47
2:E:1314:TRP:O	2:E:1318:ILE:HG12	2.15	0.47
2:E:1586:VAL:HG23	2:E:1589:LEU:HD12	1.96	0.47
3:F:153:LYS:HD2	3:F:153:LYS:HA	1.73	0.47
1:A:552:ARG:NH2	2:B:106:TYR:OH	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:15:ALA:HA	2:B:59:PHE:HE2	1.80	0.47
2:B:1119:GLU:O	2:B:1122:LYS:HB2	2.14	0.47
1:D:633:GLN:OE1	1:D:637:VAL:HG21	2.16	0.47
2:E:60:PRO:HD2	2:E:63:TYR:HB2	1.97	0.47
2:E:92:THR:HA	2:E:95:LEU:HD12	1.97	0.47
2:E:127:TRP:O	2:E:131:ILE:HG12	2.14	0.47
2:E:196:GLU:O	2:E:199:GLN:HG3	2.14	0.47
2:E:720:ILE:HG12	2:E:766:PHE:CZ	2.50	0.47
1:A:564:LYS:HG3	1:A:575:TRP:CD1	2.50	0.46
1:A:670:ASN:HA	1:A:673:LEU:HB2	1.97	0.46
2:B:463:PRO:HD2	2:B:503:GLN:HB3	1.97	0.46
2:B:550:ALA:HB1	2:B:569:LEU:HB3	1.97	0.46
2:B:1368:TYR:H	2:B:1372:PHE:HE2	1.61	0.46
1:D:603:SER:N	1:D:606:ASP:OD1	2.47	0.46
2:E:5:ILE:H	2:E:40:MET:H	1.63	0.46
2:E:259:LEU:HD22	2:E:486:PRO:HB2	1.97	0.46
2:E:318:LEU:HD22	2:E:500:VAL:HG21	1.97	0.46
2:E:1299:LYS:HA	2:E:1302:GLN:OE1	2.15	0.46
2:E:1387:GLU:HG2	2:E:1388:TYR:N	2.30	0.46
3:F:5:LYS:NZ	3:F:74:GLN:HG2	2.31	0.46
3:F:95:ALA:O	3:F:99:PRO:HG2	2.16	0.46
2:B:720:ILE:HG12	2:B:766:PHE:CZ	2.50	0.46
2:B:879:LEU:O	2:B:880:PRO:C	2.54	0.46
2:B:1328:TYR:HA	2:B:1332:VAL:CG1	2.41	0.46
2:B:1473:LYS:CD	2:B:1481:THR:HG21	2.44	0.46
3:C:93:VAL:HG13	3:C:94:ARG:HD2	1.98	0.46
2:E:932:LEU:HA	2:E:935:ARG:HE	1.79	0.46
2:E:1243:TYR:HA	2:E:1246:LYS:CG	2.45	0.46
2:B:94:THR:HG22	2:B:98:TRP:NE1	2.31	0.46
2:B:129:SER:O	2:B:132:LEU:HB2	2.15	0.46
2:B:147:LYS:O	2:B:151:LYS:HG2	2.15	0.46
2:B:156:ASN:HB3	2:B:161:LEU:HB2	1.98	0.46
2:B:306:MET:HA	2:B:320:ARG:HD3	1.98	0.46
1:D:564:LYS:HG3	1:D:575:TRP:CD1	2.50	0.46
1:D:599:VAL:HG23	1:D:601:HIS:CD2	2.50	0.46
2:E:273:LYS:O	2:E:277:LEU:HG	2.15	0.46
2:E:761:LYS:O	2:E:765:ARG:HG3	2.15	0.46
2:E:933:LEU:H	2:E:935:ARG:NH2	2.14	0.46
2:E:1374:SER:HA	2:E:1377:ARG:HH11	1.79	0.46
3:F:80:ILE:HG23	3:F:112:LEU:HD12	1.97	0.46
2:B:60:PRO:HD2	2:B:63:TYR:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:232:VAL:O	2:B:398:GLY:N	2.46	0.46
2:B:827:VAL:HG23	2:B:836:LEU:HD11	1.97	0.46
2:B:908:ASN:O	2:B:912:VAL:HG23	2.16	0.46
3:C:95:ALA:O	3:C:99:PRO:HG2	2.16	0.46
2:E:116:GLN:HA	2:E:119:GLN:HG3	1.97	0.46
2:E:813:LYS:O	2:E:817:LEU:HG	2.15	0.46
2:E:882:LEU:HA	2:E:885:GLN:HE21	1.80	0.46
2:E:1177:LEU:O	2:E:1181:ARG:HG2	2.16	0.46
1:A:547:LEU:HD11	2:B:103:ARG:HG3	1.98	0.46
1:A:599:VAL:HG23	1:A:601:HIS:CD2	2.50	0.46
1:A:701:LEU:HD11	2:B:16:ILE:HA	1.96	0.46
2:B:382:VAL:O	2:B:386:VAL:HG23	2.15	0.46
2:B:443:ARG:HG3	2:B:628:SER:HA	1.98	0.46
2:B:792:ARG:HA	2:B:795:PHE:HD2	1.80	0.46
2:B:813:LYS:O	2:B:817:LEU:HG	2.16	0.46
2:B:870:ARG:NH1	2:B:873:GLU:H	2.14	0.46
1:D:698:LEU:HA	2:E:31:ILE:CG2	2.46	0.46
2:E:821:PRO:O	2:E:824:ILE:HG12	2.14	0.46
2:E:1146:MET:N	2:E:1146:MET:SD	2.89	0.46
2:E:1353:ILE:O	2:E:1449:GLN:NE2	2.40	0.46
2:E:1391:ARG:NH2	3:F:29:PRO:HD3	2.19	0.46
2:E:1600:LEU:O	2:E:1604:ILE:HG12	2.16	0.46
1:A:575:TRP:HB2	1:A:589:GLY:O	2.15	0.46
1:A:685:ASP:HA	1:A:688:THR:HG22	1.98	0.46
1:A:701:LEU:HA	1:A:704:ILE:HD12	1.98	0.46
2:B:14:VAL:O	2:B:64:ILE:HA	2.16	0.46
1:D:575:TRP:HB2	1:D:589:GLY:O	2.15	0.46
2:E:697:LEU:O	2:E:701:ILE:HG12	2.15	0.46
2:E:1043:TRP:CE3	2:E:1043:TRP:N	2.83	0.46
2:E:1352:ILE:O	2:E:1449:GLN:HG2	2.16	0.46
2:E:1521:THR:O	2:E:1524:LEU:HG	2.16	0.46
2:E:1588:LEU:O	2:E:1591:ARG:HG2	2.15	0.46
2:E:1614:GLN:HG2	3:F:73:PRO:HB2	1.97	0.46
2:E:1630:LYS:HE3	2:E:1630:LYS:HB3	1.71	0.46
3:F:129:LEU:O	3:F:133:LYS:N	2.48	0.46
2:B:154:HIS:HD2	2:B:157:ARG:HH11	1.64	0.46
2:B:927:LEU:CB	2:B:931:ARG:HH21	2.29	0.46
2:B:1035:GLN:OE1	2:B:1036:ALA:N	2.49	0.46
2:B:1239:ILE:HB	2:B:1242:ARG:HH21	1.80	0.46
2:B:1299:LYS:HA	2:B:1302:GLN:OE1	2.15	0.46
2:B:1352:ILE:O	2:B:1449:GLN:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1612:THR:HG22	2:B:1615:LEU:HG	1.97	0.46
3:C:64:TYR:HD2	3:C:67:LEU:HD12	1.81	0.46
1:D:701:LEU:HA	1:D:704:ILE:HD12	1.98	0.46
2:E:147:LYS:O	2:E:151:LYS:HG2	2.15	0.46
2:E:270:GLU:HB2	2:E:273:LYS:HB2	1.98	0.46
2:E:306:MET:HA	2:E:320:ARG:HD3	1.98	0.46
2:E:856:LYS:O	2:E:860:MET:HE2	2.15	0.46
2:E:927:LEU:CB	2:E:931:ARG:HH21	2.29	0.46
2:E:1011:MET:HB2	2:E:1011:MET:HE2	1.70	0.46
2:E:1035:GLN:OE1	2:E:1036:ALA:N	2.49	0.46
2:E:1473:LYS:CD	2:E:1481:THR:HG21	2.44	0.46
3:F:156:GLU:N	3:F:156:GLU:OE2	2.49	0.46
2:B:571:VAL:HB	2:B:618:ASP:HB3	1.96	0.46
2:B:1370:GLN:O	2:B:1377:ARG:NE	2.47	0.46
3:C:5:LYS:NZ	3:C:74:GLN:HG2	2.31	0.46
1:D:670:ASN:HA	1:D:673:LEU:HB2	1.97	0.46
2:E:157:ARG:NH2	2:E:194:ILE:HA	2.31	0.46
2:E:1197:VAL:O	2:E:1201:LEU:HD23	2.16	0.46
2:E:1578:GLU:HG3	2:E:1579:HIS:HD1	1.80	0.46
1:A:576:TYR:HB2	1:A:598:GLU:HA	1.98	0.46
2:B:166:ARG:NH1	2:B:168:ASP:H	2.14	0.46
3:C:80:ILE:HG23	3:C:112:LEU:HD12	1.97	0.46
3:C:87:PRO:O	3:C:91:GLU:HG2	2.16	0.46
1:D:685:ASP:HA	1:D:688:THR:HG22	1.98	0.46
2:E:14:VAL:O	2:E:64:ILE:HA	2.15	0.46
2:E:792:ARG:HA	2:E:795:PHE:HD2	1.80	0.46
2:E:933:LEU:H	2:E:935:ARG:HH21	1.64	0.46
2:E:990:PHE:HB3	2:E:1045:ASN:OD1	2.16	0.46
2:E:1028:LEU:HA	2:E:1032:PHE:HD1	1.81	0.46
2:E:1119:GLU:O	2:E:1122:LYS:HB2	2.14	0.46
2:B:114:PHE:O	2:B:118:GLN:HG3	2.15	0.46
2:B:116:GLN:HA	2:B:119:GLN:HG3	1.97	0.46
2:B:156:ASN:O	2:B:160:GLY:N	2.49	0.46
2:B:157:ARG:NH2	2:B:194:ILE:HA	2.31	0.46
2:B:764:PHE:HD2	2:B:823:ILE:HG21	1.80	0.46
2:B:1231:TYR:CZ	2:B:1239:ILE:HD12	2.51	0.46
2:B:1276:LYS:HD2	2:B:1276:LYS:HA	1.80	0.46
2:B:1392:GLU:HB2	3:C:166:LYS:HZ1	1.78	0.46
2:B:1466:ARG:HH11	2:B:1467:PRO:HD2	1.81	0.46
1:D:624:HIS:CE1	1:D:641:ALA:HB1	2.51	0.46
1:D:714:PRO:HG2	2:E:44:TRP:CZ2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:15:ALA:HA	2:E:59:PHE:HE2	1.80	0.46
2:E:129:SER:O	2:E:132:LEU:HB2	2.15	0.46
2:E:156:ASN:O	2:E:160:GLY:N	2.49	0.46
2:E:550:ALA:HB1	2:E:569:LEU:HB3	1.97	0.46
2:E:764:PHE:HD2	2:E:823:ILE:HG21	1.79	0.46
2:E:827:VAL:HG23	2:E:836:LEU:HD11	1.98	0.46
2:E:1239:ILE:HB	2:E:1242:ARG:HH21	1.80	0.46
3:F:129:LEU:HA	3:F:132:LYS:HE3	1.97	0.46
1:A:624:HIS:CE1	1:A:641:ALA:HB1	2.51	0.45
1:A:679:SER:HB3	1:A:681:LEU:HG	1.98	0.45
1:A:705:GLN:NE2	1:A:706:ILE:O	2.48	0.45
2:B:259:LEU:HD22	2:B:486:PRO:HB2	1.97	0.45
2:B:678:ASN:O	2:B:682:GLU:HG2	2.16	0.45
2:B:1437:LEU:HD12	2:B:1437:LEU:O	2.17	0.45
2:B:1463:ARG:HH11	2:B:1486:ARG:HG2	1.80	0.45
2:B:1600:LEU:O	2:B:1604:ILE:HG12	2.16	0.45
3:C:156:GLU:N	3:C:156:GLU:OE2	2.49	0.45
2:E:443:ARG:HG3	2:E:628:SER:HA	1.98	0.45
2:E:555:MET:HA	2:E:561:THR:HA	1.98	0.45
2:E:678:ASN:O	2:E:682:GLU:HG2	2.16	0.45
2:E:1013:GLN:HA	2:E:1016:VAL:HG22	1.98	0.45
2:E:1453:TYR:OH	2:E:1458:GLU:OE1	2.25	0.45
2:E:1466:ARG:HH11	2:E:1467:PRO:HD2	1.80	0.45
3:F:93:VAL:HG13	3:F:94:ARG:HD2	1.98	0.45
2:B:19:TYR:HB3	2:B:27:LEU:O	2.16	0.45
2:B:318:LEU:HD22	2:B:500:VAL:HG21	1.97	0.45
2:B:761:LYS:O	2:B:765:ARG:HG3	2.15	0.45
2:B:932:LEU:O	2:B:935:ARG:HB2	2.17	0.45
2:B:1461:GLN:OE1	2:B:1490:THR:HG22	2.16	0.45
2:B:1463:ARG:HD3	2:B:1486:ARG:HH11	1.81	0.45
2:B:1561:GLY:O	2:B:1565:ASN:ND2	2.32	0.45
2:B:1628:GLU:HG2	2:B:1629:LEU:HD22	1.97	0.45
3:C:14:VAL:HB	3:C:16:LYS:HZ2	1.80	0.45
2:E:19:TYR:HB3	2:E:27:LEU:O	2.16	0.45
2:E:156:ASN:HB3	2:E:161:LEU:HB2	1.98	0.45
2:E:166:ARG:HD2	2:E:166:ARG:HA	1.74	0.45
2:E:1117:GLU:OE2	2:E:1120:LEU:HG	2.16	0.45
2:E:1372:PHE:HA	2:E:1424:GLN:NE2	2.31	0.45
3:F:6:CYS:SG	3:F:79:LEU:HD23	2.57	0.45
2:B:294:VAL:N	2:B:330:THR:OG1	2.24	0.45
2:B:346:ILE:HB	2:B:399:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:745:ASP:H	2:B:804:ARG:NH1	2.15	0.45
2:B:954:VAL:O	2:B:958:ILE:HG12	2.16	0.45
2:B:990:PHE:HB3	2:B:1045:ASN:OD1	2.16	0.45
2:B:1177:LEU:O	2:B:1181:ARG:HG2	2.16	0.45
3:C:21:ILE:HD11	3:C:35:THR:HG23	1.99	0.45
1:D:658:ASP:CG	1:D:660:HIS:HD1	2.20	0.45
2:E:166:ARG:HB3	2:E:171:ASN:HA	1.98	0.45
2:E:346:ILE:HB	2:E:399:LEU:HD21	1.99	0.45
2:E:908:ASN:O	2:E:912:VAL:HG23	2.16	0.45
2:E:927:LEU:HB2	2:E:931:ARG:HH21	1.81	0.45
2:E:1462:PHE:O	2:E:1489:TYR:N	2.48	0.45
2:E:1463:ARG:HD3	2:E:1486:ARG:HH11	1.81	0.45
2:E:1612:THR:HG22	2:E:1615:LEU:HG	1.97	0.45
3:F:7:VAL:HG23	3:F:75:THR:HG21	1.97	0.45
3:F:87:PRO:O	3:F:91:GLU:HG2	2.16	0.45
2:B:270:GLU:HB2	2:B:273:LYS:HB2	1.98	0.45
2:B:922:ALA:O	2:B:925:ILE:HB	2.17	0.45
2:B:933:LEU:H	2:B:935:ARG:HH21	1.64	0.45
2:B:1521:THR:O	2:B:1524:LEU:HG	2.16	0.45
1:D:576:TYR:HB2	1:D:598:GLU:HA	1.98	0.45
2:E:463:PRO:HD2	2:E:503:GLN:HB3	1.97	0.45
2:E:508:CYS:HB3	2:E:510:TYR:CE2	2.48	0.45
2:E:576:ASN:ND2	2:E:579:MET:SD	2.88	0.45
2:E:717:GLU:OE1	2:E:765:ARG:NH1	2.49	0.45
2:E:745:ASP:H	2:E:804:ARG:NH1	2.14	0.45
2:E:870:ARG:NH1	2:E:873:GLU:H	2.14	0.45
2:E:1237:GLU:O	2:E:1240:TYR:HB3	2.16	0.45
2:E:1461:GLN:OE1	2:E:1490:THR:HG22	2.16	0.45
3:F:64:TYR:HD2	3:F:67:LEU:HD12	1.81	0.45
1:A:633:GLN:OE1	1:A:637:VAL:HG21	2.15	0.45
1:A:687:ASP:OD1	1:A:688:THR:N	2.50	0.45
2:B:222:TYR:CD2	2:B:289:LEU:HD11	2.52	0.45
2:B:293:ARG:CZ	2:B:328:ASP:HB3	2.47	0.45
2:B:707:ILE:HA	2:B:710:GLN:CD	2.37	0.45
2:B:1306:SER:O	2:B:1310:LYS:HG2	2.17	0.45
2:B:1372:PHE:HA	2:B:1424:GLN:NE2	2.31	0.45
2:B:1630:LYS:HE3	2:B:1630:LYS:HB3	1.71	0.45
3:C:49:LYS:NZ	3:C:51:VAL:HG12	2.29	0.45
3:C:63:ASP:C	3:C:66:ARG:HH11	2.20	0.45
3:C:129:LEU:HA	3:C:132:LYS:HE3	1.97	0.45
1:D:711:PRO:HB2	2:E:63:TYR:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:198:ILE:HA	2:E:201:GLU:OE1	2.17	0.45
2:E:439:PRO:HB3	2:E:715:VAL:HG21	1.98	0.45
1:A:658:ASP:CG	1:A:660:HIS:HD1	2.20	0.45
2:B:805:PRO:O	2:B:808:GLU:HG2	2.17	0.45
2:B:921:THR:OG1	2:B:924:HIS:HB3	2.17	0.45
2:B:927:LEU:HB2	2:B:931:ARG:HH21	1.81	0.45
2:B:1117:GLU:OE2	2:B:1120:LEU:HG	2.17	0.45
2:B:1197:VAL:O	2:B:1201:LEU:HD23	2.16	0.45
2:B:1387:GLU:HG2	2:B:1388:TYR:N	2.30	0.45
1:D:532:PRO:O	1:D:536:LEU:HD13	2.17	0.45
2:E:166:ARG:NH1	2:E:168:ASP:H	2.14	0.45
2:E:167:ASP:OD1	2:E:167:ASP:N	2.50	0.45
2:E:589:PRO:HB2	2:E:595:MET:HE1	1.99	0.45
2:E:805:PRO:O	2:E:808:GLU:HG2	2.17	0.45
2:E:1205:LEU:HA	2:E:1208:ARG:HD3	1.99	0.45
2:E:1306:SER:O	2:E:1310:LYS:HG2	2.17	0.45
2:E:1437:LEU:HD12	2:E:1437:LEU:O	2.17	0.45
2:E:1588:LEU:HA	2:E:1591:ARG:CD	2.47	0.45
1:A:536:LEU:HD21	2:B:17:TYR:CA	2.46	0.45
1:A:564:LYS:H	1:A:573:LYS:HD2	1.82	0.45
2:B:933:LEU:H	2:B:935:ARG:NH2	2.14	0.45
2:B:1013:GLN:HA	2:B:1016:VAL:HG22	1.99	0.45
2:E:222:TYR:CD2	2:E:289:LEU:HD11	2.52	0.45
2:E:900:GLU:O	2:E:903:SER:OG	2.31	0.45
2:E:1435:MET:CE	2:E:1455:ARG:HG2	2.47	0.45
2:E:1607:HIS:CE1	2:E:1615:LEU:HD22	2.46	0.45
2:B:92:THR:HA	2:B:95:LEU:HD12	1.97	0.45
2:B:197:LYS:HG2	2:B:200:GLU:OE2	2.15	0.45
2:B:717:GLU:OE1	2:B:765:ARG:NH1	2.49	0.45
2:B:1011:MET:HA	2:B:1014:ASN:ND2	2.30	0.45
2:B:1028:LEU:HA	2:B:1032:PHE:HD1	1.81	0.45
2:B:1146:MET:N	2:B:1146:MET:SD	2.89	0.45
2:B:1206:ASP:HA	2:B:1209:THR:HG22	1.99	0.45
2:B:1237:GLU:O	2:B:1240:TYR:HB3	2.16	0.45
1:D:687:ASP:OD1	1:D:688:THR:N	2.50	0.45
2:E:94:THR:HG22	2:E:98:TRP:NE1	2.31	0.45
2:E:153:ASP:HA	2:E:156:ASN:ND2	2.28	0.45
2:E:771:ARG:HH21	2:E:784:GLY:HA2	1.82	0.45
3:F:128:LYS:O	3:F:131:GLU:HG2	2.17	0.45
2:B:39:GLU:HB2	2:B:46:ARG:HG3	1.99	0.45
2:B:166:ARG:HB3	2:B:171:ASN:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:438:LEU:N	2:B:441:ASP:OD2	2.50	0.45
2:B:501:TYR:CD2	2:B:507:PRO:HB3	2.52	0.45
2:B:1322:LYS:HG2	2:B:1345:ARG:NH1	2.32	0.45
2:B:1517:ASN:O	2:B:1521:THR:HG23	2.17	0.45
2:B:1598:PRO:O	2:B:1601:THR:HB	2.17	0.45
3:C:96:LYS:C	3:C:99:PRO:HD2	2.37	0.45
1:D:617:VAL:CG2	1:D:643:SER:HB2	2.47	0.45
1:D:705:GLN:NE2	1:D:706:ILE:O	2.48	0.45
2:E:501:TYR:CD2	2:E:507:PRO:HB3	2.52	0.45
2:E:879:LEU:HD23	2:E:924:HIS:CE1	2.52	0.45
2:E:932:LEU:O	2:E:935:ARG:HB2	2.16	0.45
2:E:1405:ALA:O	2:E:1407:LYS:NZ	2.37	0.45
3:F:21:ILE:HD11	3:F:35:THR:HG23	1.99	0.45
1:A:696:LEU:HA	1:A:699:LEU:HD23	1.99	0.45
3:C:4:ILE:HD12	3:C:176:VAL:HG11	1.99	0.45
1:D:586:LEU:O	1:D:588:TYR:HD1	2.00	0.45
1:D:670:ASN:HB3	1:D:677:MET:HE2	1.98	0.45
1:D:698:LEU:HA	2:E:31:ILE:HG21	1.99	0.45
2:E:315:THR:OG1	2:E:538:GLU:HG3	2.17	0.45
2:E:876:GLU:HG2	2:E:877:VAL:HG13	1.98	0.45
2:E:922:ALA:O	2:E:925:ILE:HB	2.17	0.45
2:E:954:VAL:O	2:E:958:ILE:HG12	2.16	0.45
2:E:1066:GLN:OE1	2:E:1069:ARG:NH2	2.43	0.45
2:E:1178:GLU:HG2	2:E:1182:LYS:NZ	2.32	0.45
2:E:1344:LYS:HA	2:E:1344:LYS:HD2	1.77	0.45
3:F:170:ASP:HB3	3:F:174:ARG:NH2	2.32	0.45
2:B:786:GLU:HA	2:B:789:ASN:HD22	1.82	0.44
2:B:870:ARG:HH12	2:B:874:CYS:H	1.60	0.44
2:B:879:LEU:HD23	2:B:924:HIS:CE1	2.52	0.44
2:B:1178:GLU:HG2	2:B:1182:LYS:NZ	2.32	0.44
2:B:1189:SER:HB3	2:B:1193:PHE:CZ	2.52	0.44
2:B:1435:MET:CE	2:B:1455:ARG:HG2	2.47	0.44
2:B:1585:LYS:O	2:B:1588:LEU:HB2	2.17	0.44
2:B:1593:ILE:O	2:B:1597:MET:HG2	2.18	0.44
3:C:170:ASP:HB3	3:C:174:ARG:NH2	2.32	0.44
2:E:19:TYR:CG	2:E:59:PHE:HE1	2.35	0.44
2:E:1121:ARG:O	2:E:1124:THR:N	2.42	0.44
2:E:1189:SER:HB3	2:E:1193:PHE:CZ	2.52	0.44
2:E:1505:LYS:HD3	2:E:1505:LYS:HA	1.80	0.44
2:E:1581:GLU:OE1	2:E:1581:GLU:N	2.49	0.44
2:B:1018:LEU:HD23	2:B:1018:LEU:HA	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1393:ASP:OD1	3:C:166:LYS:NZ	2.46	0.44
2:B:1449:GLN:HA	2:B:1452:ASN:ND2	2.32	0.44
2:B:1588:LEU:HA	2:B:1591:ARG:CD	2.47	0.44
1:D:679:SER:HB3	1:D:681:LEU:HG	1.99	0.44
2:E:145:LYS:O	2:E:149:THR:OG1	2.23	0.44
2:E:786:GLU:HA	2:E:789:ASN:HD22	1.82	0.44
2:E:1033:MET:O	2:E:1036:ALA:N	2.51	0.44
2:E:1186:LEU:HD12	2:E:1186:LEU:HA	1.82	0.44
2:E:1231:TYR:CZ	2:E:1239:ILE:HD12	2.51	0.44
2:E:1477:ASN:HB3	2:E:1568:LYS:HZ1	1.82	0.44
3:F:96:LYS:C	3:F:99:PRO:HD2	2.37	0.44
2:B:19:TYR:CG	2:B:59:PHE:HE1	2.35	0.44
2:B:37:ILE:HD13	2:B:45:TYR:HB3	2.00	0.44
2:B:771:ARG:HH21	2:B:784:GLY:HA2	1.82	0.44
2:B:848:PRO:HD2	2:B:851:GLN:OE1	2.18	0.44
2:B:1066:GLN:OE1	2:B:1069:ARG:NH2	2.43	0.44
2:B:1205:LEU:HA	2:B:1208:ARG:HD3	1.99	0.44
2:B:1518:ALA:HB1	2:B:1566:TYR:CE1	2.53	0.44
3:C:6:CYS:SG	3:C:79:LEU:HD23	2.57	0.44
3:C:91:GLU:O	3:C:95:ALA:CB	2.66	0.44
3:C:128:LYS:O	3:C:131:GLU:HG2	2.17	0.44
3:C:153:LYS:HD2	3:C:153:LYS:HA	1.73	0.44
1:D:578:ARG:HH22	1:D:601:HIS:H	1.66	0.44
2:E:238:ASP:O	2:E:303:VAL:N	2.37	0.44
2:E:293:ARG:CZ	2:E:328:ASP:HB3	2.47	0.44
2:E:438:LEU:N	2:E:441:ASP:OD2	2.50	0.44
2:E:879:LEU:O	2:E:880:PRO:C	2.54	0.44
2:E:988:GLU:O	2:E:992:MET:HG3	2.17	0.44
2:E:1322:LYS:HG2	2:E:1345:ARG:NH1	2.32	0.44
2:E:1593:ILE:O	2:E:1597:MET:HG2	2.17	0.44
1:A:586:LEU:O	1:A:588:TYR:HD1	2.00	0.44
2:B:1353:ILE:O	2:B:1449:GLN:NE2	2.40	0.44
2:B:1367:TYR:N	2:B:1379:LYS:O	2.48	0.44
2:B:1557:PRO:HB2	2:B:1560:MET:O	2.18	0.44
2:E:193:ARG:HA	2:E:196:GLU:CD	2.38	0.44
2:E:1102:ILE:O	2:E:1106:VAL:HG23	2.17	0.44
2:E:1517:ASN:O	2:E:1521:THR:HG23	2.17	0.44
3:F:40:TYR:O	3:F:55:LEU:N	2.43	0.44
3:F:63:ASP:C	3:F:66:ARG:HH11	2.20	0.44
2:B:198:ILE:HA	2:B:201:GLU:OE1	2.17	0.44
2:B:555:MET:HA	2:B:561:THR:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:60:PRO:O	2:E:64:ILE:N	2.42	0.44
2:E:809:ALA:HB3	2:E:813:LYS:HZ3	1.82	0.44
2:E:871:GLN:CB	2:E:875:ARG:HB2	2.47	0.44
2:E:926:GLN:HE21	2:E:968:HIS:CG	2.36	0.44
2:E:1598:PRO:O	2:E:1601:THR:HB	2.17	0.44
2:B:48:TYR:HA	2:B:55:LYS:O	2.18	0.44
2:B:193:ARG:HA	2:B:196:GLU:CD	2.38	0.44
2:B:300:ILE:HD13	2:B:348:PHE:CD1	2.53	0.44
2:B:422:ASP:N	2:B:422:ASP:OD1	2.44	0.44
1:D:564:LYS:H	1:D:573:LYS:HD2	1.82	0.44
2:E:1169:LYS:HE3	2:E:1202:GLU:HB3	2.00	0.44
2:E:1277:PRO:CG	2:E:1292:THR:HA	2.44	0.44
2:E:1467:PRO:HG3	3:F:33:ILE:HD11	2.00	0.44
1:A:617:VAL:CG2	1:A:643:SER:HB2	2.47	0.44
1:A:652:LEU:HD22	1:A:654:PHE:CZ	2.53	0.44
2:B:262:TRP:CZ2	2:B:266:GLY:HA2	2.53	0.44
2:B:1118:VAL:O	2:B:1122:LYS:HG2	2.17	0.44
2:B:1354:LYS:NZ	2:B:1355:ALA:HB2	2.33	0.44
2:B:1535:GLN:OE1	2:B:1542:LEU:HD11	2.17	0.44
2:E:707:ILE:HA	2:E:710:GLN:CD	2.37	0.44
2:E:1593:ILE:HA	2:E:1596:GLN:HB3	2.00	0.44
3:F:4:ILE:HD12	3:F:176:VAL:HG11	1.99	0.44
2:B:167:ASP:OD1	2:B:167:ASP:N	2.50	0.44
2:B:235:ILE:HB	2:B:262:TRP:HZ3	1.82	0.44
2:B:936:ILE:HD12	2:B:939:THR:HB	1.99	0.44
2:B:1078:ASP:OD1	2:B:1081:LYS:N	2.50	0.44
2:B:1102:ILE:O	2:B:1106:VAL:HG23	2.17	0.44
2:B:1532:CYS:HA	2:B:1535:GLN:HG3	2.00	0.44
3:C:137:ILE:HG23	3:C:141:GLN:CG	2.48	0.44
2:E:154:HIS:HD2	2:E:157:ARG:HH11	1.64	0.44
2:E:235:ILE:HB	2:E:262:TRP:HZ3	1.82	0.44
2:E:262:TRP:CZ2	2:E:266:GLY:HA2	2.53	0.44
2:E:457:LYS:HG2	2:E:463:PRO:HA	2.00	0.44
2:E:1535:GLN:OE1	2:E:1542:LEU:HD11	2.17	0.44
1:A:657:PRO:HB2	1:A:661:GLU:OE2	2.18	0.44
2:B:259:LEU:HD23	2:B:490:TYR:CG	2.53	0.44
2:B:411:THR:HG1	2:B:412:GLN:N	2.15	0.44
2:B:1061:LEU:HA	2:B:1064:PHE:CZ	2.53	0.44
2:B:1567:GLU:HA	2:B:1571:PHE:CD1	2.53	0.44
2:B:1617:PRO:O	2:B:1620:GLU:HG3	2.18	0.44
3:C:126:ILE:HG22	3:C:136:PRO:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:187:HIS:CE1	2:E:1006:TRP:HA	2.53	0.44
2:E:302:ARG:HD3	2:E:322:PHE:CD1	2.47	0.44
2:E:972:TYR:O	2:E:975:THR:N	2.50	0.44
2:E:1018:LEU:HD23	2:E:1018:LEU:HA	1.79	0.44
2:E:1099:ILE:HD13	2:E:1138:PHE:HB2	2.00	0.44
2:E:1449:GLN:HA	2:E:1452:ASN:ND2	2.32	0.44
1:A:624:HIS:HA	1:A:627:GLU:HG2	2.00	0.43
2:B:48:TYR:HB3	2:B:53:LYS:HA	2.00	0.43
2:B:187:HIS:CE1	2:B:1006:TRP:HA	2.53	0.43
2:B:876:GLU:HG2	2:B:877:VAL:HG13	1.98	0.43
2:B:1237:GLU:H	2:B:1237:GLU:HG2	1.61	0.43
2:B:1386:LYS:HD3	2:B:1386:LYS:HA	1.85	0.43
3:C:129:LEU:HB3	3:C:134:LEU:O	2.19	0.43
2:E:98:TRP:HZ3	2:E:159:LEU:HD12	1.83	0.43
2:E:300:ILE:HD13	2:E:348:PHE:CD1	2.53	0.43
2:E:468:VAL:HB	2:E:498:SER:HB3	1.99	0.43
2:E:921:THR:OG1	2:E:924:HIS:HB3	2.17	0.43
2:E:970:SER:HA	2:E:974:SER:HB3	2.00	0.43
2:E:994:LYS:NZ	2:E:1048:HIS:HB3	2.33	0.43
2:E:1061:LEU:HA	2:E:1064:PHE:CZ	2.53	0.43
2:E:1206:ASP:HA	2:E:1209:THR:HG22	1.99	0.43
2:E:1557:PRO:HB2	2:E:1560:MET:O	2.18	0.43
2:E:1617:PRO:O	2:E:1620:GLU:HG3	2.18	0.43
3:F:5:LYS:HE2	3:F:56:TRP:CZ2	2.53	0.43
3:F:137:ILE:HG23	3:F:141:GLN:CG	2.48	0.43
1:A:670:ASN:HB3	1:A:677:MET:HE2	2.00	0.43
2:B:439:PRO:HB3	2:B:715:VAL:HG21	1.98	0.43
2:B:926:GLN:HE21	2:B:968:HIS:CG	2.36	0.43
2:B:1156:ASP:O	2:B:1160:GLU:HG3	2.18	0.43
2:B:1169:LYS:HE3	2:B:1202:GLU:HB3	2.00	0.43
2:B:1446:VAL:HG23	2:B:1451:LEU:HD21	2.00	0.43
3:C:130:LYS:HE2	3:C:130:LYS:HA	2.00	0.43
2:E:39:GLU:HB2	2:E:46:ARG:HG3	1.98	0.43
2:E:48:TYR:HB3	2:E:53:LYS:HA	2.00	0.43
2:E:113:LEU:HA	2:E:116:GLN:CD	2.39	0.43
2:E:745:ASP:H	2:E:804:ARG:HH12	1.65	0.43
2:E:848:PRO:HD2	2:E:851:GLN:OE1	2.18	0.43
2:E:871:GLN:HA	2:E:874:CYS:SG	2.59	0.43
2:E:877:VAL:C	2:E:880:PRO:HD2	2.39	0.43
2:E:1121:ARG:HG2	2:E:1125:ILE:CD1	2.45	0.43
2:E:1367:TYR:N	2:E:1379:LYS:O	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1518:ALA:HB1	2:E:1566:TYR:CE1	2.53	0.43
2:E:1584:GLU:HG2	2:E:1585:LYS:HZ3	1.83	0.43
1:A:532:PRO:O	1:A:536:LEU:HD13	2.17	0.43
2:B:98:TRP:HZ3	2:B:159:LEU:HD12	1.83	0.43
2:B:315:THR:OG1	2:B:538:GLU:HG3	2.17	0.43
2:B:994:LYS:NZ	2:B:1048:HIS:HB3	2.33	0.43
2:B:1318:ILE:HD12	2:B:1345:ARG:HG3	2.01	0.43
2:B:1557:PRO:HB2	2:B:1561:GLY:HA2	2.00	0.43
2:B:1593:ILE:HA	2:B:1596:GLN:HB3	2.00	0.43
1:D:536:LEU:CD2	2:E:18:ASN:H	2.26	0.43
1:D:564:LYS:HE3	1:D:590:ASP:OD1	2.18	0.43
2:E:256:GLU:HA	2:E:431:MET:CE	2.49	0.43
2:E:526:HIS:CD2	2:E:586:LEU:HD21	2.53	0.43
2:E:1354:LYS:NZ	2:E:1355:ALA:HB2	2.33	0.43
2:E:1435:MET:HG3	2:E:1436:SER:O	2.18	0.43
3:F:171:GLU:HA	3:F:174:ARG:HG2	2.00	0.43
1:A:564:LYS:HE3	1:A:590:ASP:OD1	2.18	0.43
2:B:60:PRO:O	2:B:64:ILE:N	2.42	0.43
2:B:457:LYS:HG2	2:B:463:PRO:HA	2.00	0.43
2:B:468:VAL:HB	2:B:498:SER:HB3	1.99	0.43
2:B:871:GLN:HA	2:B:874:CYS:SG	2.59	0.43
2:B:871:GLN:CB	2:B:875:ARG:HB2	2.48	0.43
2:B:988:GLU:O	2:B:992:MET:HG3	2.18	0.43
1:D:696:LEU:HA	1:D:699:LEU:HD23	1.99	0.43
2:E:37:ILE:HD13	2:E:45:TYR:HB3	2.00	0.43
2:E:95:LEU:HD21	2:E:124:LEU:HD23	2.00	0.43
2:E:1003:ALA:C	2:E:1005:ASP:H	2.21	0.43
2:E:1446:VAL:HG23	2:E:1451:LEU:HD21	2.00	0.43
2:B:224:LEU:HD23	2:B:281:PHE:CD2	2.53	0.43
2:B:472:VAL:O	2:B:480:LEU:N	2.32	0.43
2:B:1003:ALA:C	2:B:1005:ASP:H	2.21	0.43
2:B:1033:MET:O	2:B:1036:ALA:N	2.51	0.43
3:C:160:LEU:HD12	3:C:160:LEU:HA	1.81	0.43
2:E:89:GLN:O	2:E:92:THR:OG1	2.31	0.43
2:E:502:TYR:CD2	2:E:503:GLN:HG2	2.54	0.43
2:E:1118:VAL:O	2:E:1122:LYS:HG2	2.17	0.43
2:E:1156:ASP:O	2:E:1160:GLU:HG3	2.18	0.43
2:E:1386:LYS:HD3	2:E:1386:LYS:HA	1.85	0.43
2:E:1525:THR:HA	2:E:1528:ARG:NH1	2.34	0.43
3:F:91:GLU:O	3:F:95:ALA:CB	2.65	0.43
3:F:120:ARG:NH2	3:F:139:TYR:H	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:113:LEU:HA	2:B:116:GLN:CD	2.39	0.43
2:B:526:HIS:CD2	2:B:586:LEU:HD21	2.53	0.43
2:B:879:LEU:CD2	2:B:931:ARG:HH22	2.30	0.43
2:B:1275:ASP:OD2	2:B:1275:ASP:N	2.52	0.43
2:B:1545:HIS:N	2:B:1546:PRO:HD2	2.34	0.43
1:D:657:PRO:HB2	1:D:661:GLU:OE2	2.18	0.43
2:E:29:LEU:HD12	2:E:59:PHE:CE1	2.54	0.43
2:E:429:ARG:NH2	2:E:445:ASP:OD2	2.39	0.43
2:E:528:ARG:NH1	2:E:580:GLU:HG2	2.34	0.43
2:E:746:ASP:OD2	2:E:748:SER:OG	2.34	0.43
2:E:927:LEU:HB3	2:E:931:ARG:HE	1.83	0.43
2:E:1194:ALA:HA	2:E:1197:VAL:HB	2.01	0.43
2:E:1328:TYR:HB3	2:E:1338:LEU:CD2	2.48	0.43
2:E:1381:PHE:HB3	2:E:1383:TYR:HE2	1.84	0.43
2:B:95:LEU:HD21	2:B:124:LEU:HD23	2.00	0.43
2:B:589:PRO:CB	2:B:594:GLU:HB3	2.44	0.43
2:B:1381:PHE:HB3	2:B:1383:TYR:CE2	2.54	0.43
2:E:144:LEU:HA	2:E:147:LYS:HZ2	1.83	0.43
2:E:936:ILE:HD12	2:E:939:THR:HB	1.99	0.43
2:E:1240:TYR:CE1	2:E:1244:LEU:HD11	2.54	0.43
2:E:1275:ASP:OD2	2:E:1275:ASP:N	2.51	0.43
2:E:1438:PRO:HA	2:E:1454:TYR:CE2	2.53	0.43
2:E:1567:GLU:HA	2:E:1571:PHE:CD1	2.53	0.43
2:E:1585:LYS:O	2:E:1588:LEU:HB2	2.17	0.43
3:F:126:ILE:HG22	3:F:136:PRO:HB3	2.00	0.43
3:F:171:GLU:HA	3:F:174:ARG:NE	2.34	0.43
2:B:708:LYS:HB3	2:B:709:PHE:CD2	2.54	0.43
2:B:877:VAL:C	2:B:880:PRO:HD2	2.39	0.43
2:B:970:SER:HA	2:B:974:SER:HB3	2.00	0.43
2:B:1099:ILE:HD13	2:B:1138:PHE:HB2	2.00	0.43
2:B:1251:HIS:CD2	2:B:1259:GLU:HG2	2.54	0.43
2:B:1277:PRO:HG3	2:B:1292:THR:CA	2.43	0.43
2:B:1381:PHE:HB3	2:B:1383:TYR:HE2	1.84	0.43
2:B:1411:THR:HB	3:C:28:PHE:CE1	2.54	0.43
2:B:1538:TRP:CE3	2:B:1539:ASP:HB2	2.54	0.43
2:B:1618:LEU:HD22	2:B:1621:ARG:NH2	2.34	0.43
3:C:5:LYS:HE2	3:C:56:TRP:CZ2	2.53	0.43
3:C:98:TYR:HB3	3:C:99:PRO:HD3	2.01	0.43
3:C:124:ASP:HA	3:C:127:GLU:HG2	2.00	0.43
3:C:171:GLU:HA	3:C:174:ARG:NE	2.34	0.43
3:C:171:GLU:HA	3:C:174:ARG:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:652:LEU:HD22	1:D:654:PHE:CZ	2.53	0.43
2:E:48:TYR:HA	2:E:55:LYS:O	2.18	0.43
2:E:259:LEU:HD23	2:E:490:TYR:CG	2.53	0.43
2:E:783:ASP:HB3	2:E:786:GLU:HB2	2.01	0.43
2:E:853:VAL:HA	2:E:856:LYS:HG2	2.01	0.43
2:E:1557:PRO:HB2	2:E:1561:GLY:HA2	2.00	0.43
3:F:96:LYS:HZ2	3:F:100:GLU:HG2	1.83	0.43
3:F:130:LYS:HE2	3:F:130:LYS:HA	2.00	0.43
2:B:62:THR:HG23	2:B:63:TYR:CD1	2.50	0.43
2:B:202:LYS:H	2:B:202:LYS:HG2	1.56	0.43
2:B:228:PHE:HB3	2:B:277:LEU:HB3	2.00	0.43
2:B:465:ASN:OD1	2:B:503:GLN:N	2.29	0.43
2:B:1524:LEU:HA	2:B:1527:GLU:CG	2.49	0.43
2:B:1582:ASP:HA	2:B:1585:LYS:HZ3	1.83	0.43
1:D:530:SER:O	1:D:530:SER:OG	2.37	0.43
1:D:699:LEU:O	1:D:702:GLU:HG2	2.19	0.43
2:E:10:GLN:NE2	2:E:37:ILE:O	2.52	0.43
2:E:154:HIS:NE2	2:E:201:GLU:OE2	2.42	0.43
2:E:1218:GLU:OE1	2:E:1218:GLU:N	2.37	0.43
2:E:1264:LEU:HD12	2:E:1264:LEU:HA	1.78	0.43
2:E:1532:CYS:SG	2:E:1550:LEU:HD22	2.59	0.43
2:E:1545:HIS:N	2:E:1546:PRO:HD2	2.34	0.43
3:F:132:LYS:HD2	3:F:134:LEU:HD12	2.00	0.43
1:A:586:LEU:HB2	1:A:608:LEU:HB3	2.01	0.43
1:A:591:LEU:HD11	1:A:601:HIS:CE1	2.54	0.43
2:B:1519:ILE:O	2:B:1523:GLU:HG3	2.19	0.43
2:B:1525:THR:HA	2:B:1528:ARG:NH1	2.34	0.43
3:C:80:ILE:HG23	3:C:112:LEU:HA	2.01	0.43
3:C:132:LYS:HD2	3:C:134:LEU:HD12	2.00	0.43
2:E:762:TYR:CD1	2:E:765:ARG:HD2	2.54	0.43
2:E:1522:MET:SD	2:E:1523:GLU:N	2.92	0.43
2:E:1598:PRO:O	2:E:1602:GLU:OE1	2.37	0.43
1:A:578:ARG:HH22	1:A:601:HIS:H	1.66	0.42
2:B:256:GLU:HA	2:B:431:MET:CE	2.49	0.42
2:B:526:HIS:CE1	2:B:586:LEU:HD21	2.54	0.42
2:B:1022:ASN:HB2	2:B:1023:GLN:NE2	2.34	0.42
2:B:1290:VAL:HG23	2:B:1291:TYR:N	2.34	0.42
2:B:1435:MET:HG3	2:B:1436:SER:O	2.18	0.42
2:B:1438:PRO:HA	2:B:1454:TYR:CE2	2.53	0.42
2:B:1532:CYS:SG	2:B:1550:LEU:HD22	2.59	0.42
2:B:1581:GLU:OE1	2:B:1581:GLU:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:624:HIS:HA	1:D:627:GLU:HG2	2.00	0.42
2:E:154:HIS:HA	2:E:157:ARG:NH1	2.34	0.42
2:E:224:LEU:HD23	2:E:281:PHE:CD2	2.53	0.42
2:E:727:THR:O	2:E:730:TYR:HE2	2.02	0.42
2:E:1125:ILE:HD12	2:E:1125:ILE:H	1.84	0.42
2:E:1277:PRO:HG3	2:E:1292:THR:CA	2.43	0.42
2:E:1318:ILE:HD12	2:E:1345:ARG:HG3	2.00	0.42
2:E:1370:GLN:O	2:E:1377:ARG:NE	2.47	0.42
2:B:695:ASP:OD1	2:B:740:TYR:OH	2.29	0.42
2:B:1008:VAL:HA	2:B:1011:MET:HE1	2.00	0.42
2:B:1344:LYS:HA	2:B:1344:LYS:HD2	1.77	0.42
2:E:144:LEU:O	2:E:148:VAL:HG22	2.19	0.42
2:E:680:MET:O	2:E:684:SER:HB3	2.19	0.42
3:F:16:LYS:O	3:F:19:LEU:HB2	2.20	0.42
3:F:124:ASP:O	3:F:127:GLU:HG2	2.20	0.42
1:A:699:LEU:O	1:A:702:GLU:HG2	2.19	0.42
2:B:166:ARG:HA	2:B:166:ARG:HD2	1.74	0.42
2:B:528:ARG:NH1	2:B:580:GLU:HG2	2.34	0.42
2:B:789:ASN:HA	2:B:792:ARG:HD2	2.01	0.42
2:B:927:LEU:HB3	2:B:931:ARG:HE	1.83	0.42
2:B:1177:LEU:HD22	2:B:1191:GLU:HG2	2.02	0.42
2:B:1354:LYS:HB3	2:B:1354:LYS:HE3	1.83	0.42
2:B:1546:PRO:O	2:B:1549:MET:HB2	2.19	0.42
1:D:567:ALA:HB3	1:D:573:LYS:HD3	2.01	0.42
2:E:11:LYS:HG3	2:E:70:THR:OG1	2.19	0.42
2:E:302:ARG:HH12	2:E:353:MET:HE1	1.84	0.42
2:E:1546:PRO:O	2:E:1549:MET:HB2	2.19	0.42
3:F:124:ASP:HA	3:F:127:GLU:HG2	2.00	0.42
1:A:543:GLU:HG2	1:A:544:ILE:N	2.35	0.42
2:B:44:TRP:CZ3	2:B:60:PRO:HG3	2.55	0.42
2:B:98:TRP:O	2:B:102:TRP:HB2	2.19	0.42
2:B:144:LEU:HA	2:B:147:LYS:HZ2	1.83	0.42
2:B:1522:MET:SD	2:B:1523:GLU:N	2.92	0.42
2:B:1598:PRO:O	2:B:1602:GLU:OE1	2.37	0.42
1:D:586:LEU:HB2	1:D:608:LEU:HB3	2.01	0.42
1:D:591:LEU:HD11	1:D:601:HIS:CE1	2.54	0.42
1:D:658:ASP:OD1	1:D:661:GLU:HG2	2.18	0.42
2:E:102:TRP:CH2	2:E:118:GLN:HA	2.55	0.42
2:E:169:ASN:OD1	2:E:173:LEU:HD13	2.18	0.42
2:E:228:PHE:HB3	2:E:277:LEU:HB3	2.00	0.42
2:E:526:HIS:CE1	2:E:586:LEU:HD21	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:708:LYS:HB3	2:E:709:PHE:CD2	2.54	0.42
2:E:1022:ASN:HB2	2:E:1023:GLN:NE2	2.34	0.42
2:E:1029:THR:HA	2:E:1033:MET:HG2	2.01	0.42
1:A:658:ASP:OD1	1:A:661:GLU:HG2	2.18	0.42
2:B:98:TRP:HA	2:B:101:ILE:HG22	2.02	0.42
2:B:137:PRO:HB2	2:B:140:GLU:OE1	2.19	0.42
2:B:502:TYR:CD2	2:B:503:GLN:HG2	2.54	0.42
2:B:853:VAL:HA	2:B:856:LYS:HG2	2.01	0.42
2:B:899:HIS:HB3	2:B:953:PHE:HZ	1.84	0.42
2:B:1121:ARG:HG2	2:B:1125:ILE:CD1	2.45	0.42
2:B:1149:ASN:HA	2:B:1236:ARG:NH1	2.34	0.42
2:B:1194:ALA:HA	2:B:1197:VAL:HB	2.01	0.42
2:B:1228:LEU:HD11	2:B:1247:LEU:HD12	2.01	0.42
2:E:98:TRP:O	2:E:102:TRP:HB2	2.19	0.42
2:E:98:TRP:HA	2:E:101:ILE:HG22	2.02	0.42
2:E:1065:SER:OG	2:E:1068:LYS:N	2.53	0.42
2:E:1381:PHE:CD2	2:E:1501:TRP:HD1	2.38	0.42
2:E:1532:CYS:HA	2:E:1535:GLN:HG3	2.00	0.42
2:E:1579:HIS:HD2	2:E:1582:ASP:OD2	2.02	0.42
1:A:567:ALA:HB3	1:A:573:LYS:HD3	2.01	0.42
2:B:10:GLN:NE2	2:B:37:ILE:O	2.52	0.42
2:B:762:TYR:CD1	2:B:765:ARG:HD2	2.54	0.42
2:B:1362:TYR:HD2	2:B:1462:PHE:HE2	1.68	0.42
2:B:1381:PHE:CD2	2:B:1501:TRP:HD1	2.38	0.42
2:B:1492:ALA:HB2	2:B:1505:LYS:HE3	2.01	0.42
1:D:543:GLU:HG2	1:D:544:ILE:N	2.35	0.42
2:E:285:SER:OG	2:E:288:ASP:OD2	2.15	0.42
2:E:654:LEU:HB3	2:E:692:LEU:HB3	2.01	0.42
2:E:879:LEU:CD2	2:E:931:ARG:HH22	2.30	0.42
2:E:1362:TYR:CD2	2:E:1462:PHE:HE2	2.37	0.42
2:E:1524:LEU:HA	2:E:1527:GLU:CG	2.49	0.42
2:B:169:ASN:OD1	2:B:173:LEU:HD13	2.18	0.42
2:B:226:VAL:O	2:B:279:ALA:N	2.49	0.42
2:B:296:LEU:HB2	2:B:329:ILE:HD13	2.02	0.42
2:B:680:MET:O	2:B:684:SER:HB3	2.19	0.42
2:B:721:TYR:HB2	2:B:722:LYS:HZ3	1.84	0.42
2:B:743:ASN:HB3	2:B:749:LYS:HD2	2.02	0.42
2:B:809:ALA:HA	2:B:812:ILE:HD13	2.02	0.42
2:B:1054:LEU:HD13	2:B:1083:ILE:HB	2.02	0.42
2:B:1328:TYR:HB3	2:B:1338:LEU:CD2	2.48	0.42
2:B:1483:TRP:CE2	2:B:1514:PRO:HD3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1516:GLU:O	2:B:1519:ILE:HB	2.20	0.42
2:E:70:THR:H	2:E:76:GLN:NE2	2.18	0.42
2:E:1011:MET:HA	2:E:1014:ASN:ND2	2.30	0.42
2:E:1381:PHE:HB3	2:E:1383:TYR:CE2	2.54	0.42
2:E:1618:LEU:HD22	2:E:1621:ARG:NH2	2.34	0.42
3:F:160:LEU:HD12	3:F:160:LEU:HA	1.81	0.42
2:B:223:GLY:O	2:B:406:LEU:N	2.47	0.42
2:B:228:PHE:HE2	2:B:399:LEU:HD12	1.85	0.42
2:B:654:LEU:HB3	2:B:692:LEU:HB3	2.02	0.42
2:B:950:ILE:HA	2:B:953:PHE:CD2	2.51	0.42
2:B:979:ARG:NH1	2:B:1036:ALA:HB2	2.34	0.42
2:B:1008:VAL:O	2:B:1012:THR:HG23	2.20	0.42
2:B:1125:ILE:N	2:B:1126:PRO:HD2	2.35	0.42
2:B:1181:ARG:NH1	2:B:1191:GLU:OE2	2.53	0.42
2:B:1240:TYR:CE1	2:B:1244:LEU:HD11	2.54	0.42
2:B:1299:LYS:HB3	2:B:1299:LYS:HE2	1.76	0.42
2:B:1348:PHE:O	2:B:1352:ILE:HG12	2.20	0.42
2:B:1362:TYR:CD2	2:B:1462:PHE:HE2	2.37	0.42
2:B:1607:HIS:CE1	2:B:1615:LEU:HD22	2.46	0.42
3:C:61:GLN:HB2	3:C:64:TYR:CD1	2.55	0.42
3:C:124:ASP:O	3:C:127:GLU:HG2	2.20	0.42
1:D:564:LYS:HE3	1:D:590:ASP:CG	2.40	0.42
1:D:644:ILE:HB	1:D:652:LEU:HD12	2.02	0.42
2:E:899:HIS:HB3	2:E:953:PHE:HZ	1.85	0.42
2:E:1251:HIS:CD2	2:E:1259:GLU:HG2	2.54	0.42
2:E:1538:TRP:CE3	2:E:1539:ASP:HB2	2.54	0.42
3:F:129:LEU:HB3	3:F:134:LEU:O	2.19	0.42
2:B:144:LEU:O	2:B:148:VAL:HG22	2.19	0.42
2:B:529:PHE:HD2	2:B:551:PHE:HA	1.84	0.42
2:B:1343:LYS:HB2	2:B:1343:LYS:HE3	1.86	0.42
2:E:44:TRP:CZ3	2:E:60:PRO:HG3	2.55	0.42
2:E:137:PRO:HB2	2:E:140:GLU:OE1	2.19	0.42
2:E:556:ASN:HD21	2:E:563:GLN:HG2	1.85	0.42
2:E:866:SER:O	2:E:867:THR:OG1	2.33	0.42
2:E:1054:LEU:HD13	2:E:1083:ILE:HB	2.02	0.42
2:E:1149:ASN:HA	2:E:1236:ARG:NH1	2.34	0.42
2:E:1181:ARG:NH1	2:E:1191:GLU:OE2	2.53	0.42
2:E:1217:LYS:HD3	2:E:1254:CYS:SG	2.60	0.42
2:E:1516:GLU:O	2:E:1519:ILE:HB	2.20	0.42
2:E:1519:ILE:O	2:E:1523:GLU:HG3	2.18	0.42
3:F:49:LYS:NZ	3:F:51:VAL:HG12	2.29	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:80:ILE:HG23	3:F:112:LEU:HA	2.01	0.42
2:B:88:VAL:O	2:B:91:LEU:HG	2.20	0.42
2:B:117:LEU:O	2:B:121:THR:OG1	2.32	0.42
2:B:243:MET:SD	2:B:258:TYR:HB3	2.60	0.42
2:B:531:PHE:CE2	2:B:571:VAL:HG22	2.55	0.42
2:B:824:ILE:HG22	2:B:840:PHE:CZ	2.55	0.42
2:B:875:ARG:HG2	2:B:924:HIS:CE1	2.55	0.42
2:B:972:TYR:O	2:B:975:THR:N	2.50	0.42
2:B:1078:ASP:O	2:B:1081:LYS:HB3	2.19	0.42
2:B:1110:LEU:HD21	2:B:1151:LEU:HD12	2.02	0.42
2:B:1125:ILE:HD12	2:B:1125:ILE:H	1.84	0.42
2:B:1217:LYS:HD3	2:B:1254:CYS:SG	2.60	0.42
3:C:120:ARG:NH2	3:C:139:TYR:H	2.16	0.42
2:E:959:ALA:O	2:E:963:GLN:HG3	2.19	0.42
2:E:1078:ASP:O	2:E:1081:LYS:HB3	2.20	0.42
2:E:1348:PHE:O	2:E:1352:ILE:HG12	2.20	0.42
2:E:1406:GLU:HG3	2:E:1425:TYR:CE1	2.55	0.42
2:E:1483:TRP:HB3	2:E:1511:GLU:OE2	2.20	0.42
1:A:536:LEU:HD21	2:B:17:TYR:CB	2.49	0.41
2:B:102:TRP:CH2	2:B:118:GLN:HA	2.55	0.41
2:B:595:MET:HE2	2:B:595:MET:N	2.35	0.41
2:B:1277:PRO:CG	2:B:1292:THR:HA	2.43	0.41
2:B:1563:PHE:HA	2:B:1566:TYR:HD2	1.85	0.41
3:C:41:SER:OG	3:C:53:LEU:O	2.30	0.41
2:E:529:PHE:HD2	2:E:551:PHE:HA	1.84	0.41
2:E:809:ALA:HA	2:E:812:ILE:HD13	2.02	0.41
2:E:1283:LEU:HD13	2:E:1283:LEU:HA	1.87	0.41
2:E:1386:LYS:HB3	2:E:1389:GLU:HG3	2.02	0.41
2:E:1483:TRP:CE2	2:E:1514:PRO:HD3	2.55	0.41
3:F:78:PHE:HD1	3:F:110:ILE:HD13	1.85	0.41
3:F:98:TYR:HB3	3:F:99:PRO:HD3	2.01	0.41
1:A:540:ILE:HG22	1:A:543:GLU:OE2	2.20	0.41
2:B:29:LEU:HD12	2:B:59:PHE:CE1	2.54	0.41
2:B:154:HIS:HA	2:B:157:ARG:NH1	2.34	0.41
2:B:783:ASP:HB3	2:B:786:GLU:HB2	2.01	0.41
2:B:1065:SER:OG	2:B:1068:LYS:N	2.53	0.41
3:C:16:LYS:O	3:C:19:LEU:HB2	2.19	0.41
1:D:644:ILE:H	1:D:652:LEU:HB2	1.85	0.41
2:E:110:LYS:HB3	2:E:113:LEU:HD11	2.02	0.41
2:E:228:PHE:HE2	2:E:399:LEU:HD12	1.85	0.41
2:E:637:LEU:HD13	2:E:664:GLU:HG3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:743:ASN:HB3	2:E:749:LYS:HD2	2.02	0.41
2:E:761:LYS:HE2	2:E:765:ARG:HE	1.85	0.41
2:E:768:ILE:HG23	2:E:830:VAL:HG11	2.02	0.41
2:E:826:ASP:HA	2:E:829:LEU:HB2	2.01	0.41
2:E:1125:ILE:N	2:E:1126:PRO:HD2	2.35	0.41
2:E:1297:LYS:HG2	2:E:1301:TYR:HE1	1.85	0.41
2:E:1602:GLU:HA	2:E:1605:ARG:NH1	2.35	0.41
2:B:265:ASN:OD1	2:B:265:ASN:N	2.51	0.41
2:B:669:LEU:O	2:B:673:LEU:HG	2.21	0.41
2:B:745:ASP:H	2:B:804:ARG:HH12	1.66	0.41
2:B:959:ALA:O	2:B:963:GLN:HG3	2.19	0.41
2:B:1219:ASN:OD1	2:B:1401:GLN:NE2	2.53	0.41
2:E:472:VAL:HG22	2:E:527:ILE:HG12	2.02	0.41
2:E:531:PHE:CE2	2:E:571:VAL:HG22	2.55	0.41
2:E:789:ASN:HA	2:E:792:ARG:HD2	2.01	0.41
2:E:1011:MET:N	2:E:1011:MET:SD	2.94	0.41
2:E:1029:THR:O	2:E:1033:MET:HG2	2.20	0.41
2:E:1301:TYR:O	2:E:1305:ILE:HG12	2.21	0.41
2:E:1492:ALA:HB2	2:E:1505:LYS:HE3	2.01	0.41
2:E:1610:LYS:HA	2:E:1610:LYS:HD3	1.93	0.41
2:E:1611:LEU:HD12	2:E:1615:LEU:CB	2.50	0.41
1:A:564:LYS:HE3	1:A:590:ASP:CG	2.40	0.41
2:B:11:LYS:HG3	2:B:70:THR:OG1	2.19	0.41
2:B:472:VAL:HG22	2:B:527:ILE:HG12	2.02	0.41
2:B:790:SER:HA	2:B:793:GLN:HG2	2.02	0.41
2:B:826:ASP:HA	2:B:829:LEU:HB2	2.01	0.41
2:B:1154:LYS:HA	2:B:1157:GLN:OE1	2.20	0.41
2:B:1183:HIS:HB3	2:B:1187:SER:HG	1.85	0.41
2:B:1259:GLU:OE2	2:B:1499:LEU:HA	2.20	0.41
2:B:1579:HIS:HD2	2:B:1582:ASP:OD2	2.02	0.41
2:B:1588:LEU:HD23	2:B:1591:ARG:HD3	2.03	0.41
2:B:1611:LEU:HD12	2:B:1615:LEU:CB	2.50	0.41
3:C:78:PHE:HD1	3:C:110:ILE:HD13	1.85	0.41
1:D:540:ILE:HG22	1:D:543:GLU:OE2	2.20	0.41
2:E:99:ALA:O	2:E:103:ARG:HD3	2.20	0.41
2:E:179:SER:HG	2:E:182:ALA:HB3	1.85	0.41
2:E:419:HIS:CD2	2:E:420:LEU:HG	2.56	0.41
2:E:824:ILE:HG22	2:E:840:PHE:CZ	2.55	0.41
2:E:875:ARG:HG2	2:E:924:HIS:CE1	2.55	0.41
2:E:1110:LEU:HD21	2:E:1151:LEU:HD12	2.02	0.41
2:E:1200:LEU:HD11	2:E:1204:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:576:TYR:HB2	1:A:598:GLU:HG2	2.02	0.41
2:B:70:THR:H	2:B:76:GLN:NE2	2.18	0.41
2:B:247:ASP:O	2:B:251:SER:N	2.54	0.41
2:B:1102:ILE:O	2:B:1105:MET:HG3	2.20	0.41
2:B:1483:TRP:HB3	2:B:1511:GLU:OE2	2.20	0.41
2:E:127:TRP:HA	2:E:130:GLN:HG2	2.02	0.41
2:E:483:ALA:HB1	2:E:517:ILE:HG12	2.02	0.41
2:E:700:ILE:O	2:E:704:ILE:HG13	2.20	0.41
2:E:1177:LEU:HD22	2:E:1191:GLU:HG2	2.02	0.41
2:E:1299:LYS:HB3	2:E:1299:LYS:HE2	1.76	0.41
2:E:1556:ASP:O	2:E:1558:ALA:N	2.54	0.41
3:F:2:GLN:HE22	3:F:4:ILE:HD11	1.85	0.41
2:B:99:ALA:O	2:B:103:ARG:HD3	2.21	0.41
2:B:185:LYS:HA	2:B:188:GLU:HB3	2.03	0.41
2:B:195:GLU:HA	2:B:198:ILE:CG1	2.49	0.41
2:B:727:THR:O	2:B:730:TYR:HE2	2.02	0.41
2:B:922:ALA:O	2:B:926:GLN:NE2	2.54	0.41
2:B:1022:ASN:O	2:B:1026:GLU:OE1	2.39	0.41
2:B:1066:GLN:HA	2:B:1069:ARG:NH2	2.36	0.41
2:B:1183:HIS:CG	2:B:1184:LYS:H	2.39	0.41
2:B:1275:ASP:HA	2:B:1294:GLN:HG2	2.02	0.41
2:E:243:MET:SD	2:E:258:TYR:HB3	2.60	0.41
2:E:589:PRO:CB	2:E:594:GLU:HB3	2.44	0.41
2:E:669:LEU:O	2:E:673:LEU:HG	2.21	0.41
2:E:743:ASN:O	2:E:749:LYS:HD2	2.21	0.41
2:E:968:HIS:CD2	2:E:968:HIS:N	2.87	0.41
2:E:1022:ASN:O	2:E:1026:GLU:OE1	2.39	0.41
2:E:1078:ASP:OD1	2:E:1081:LYS:N	2.50	0.41
2:E:1275:ASP:HA	2:E:1294:GLN:HG2	2.02	0.41
1:A:644:ILE:H	1:A:652:LEU:HB2	1.85	0.41
2:B:700:ILE:O	2:B:704:ILE:HG13	2.20	0.41
2:B:839:LEU:O	2:B:842:LYS:HG2	2.21	0.41
2:B:1029:THR:O	2:B:1033:MET:HG2	2.20	0.41
2:B:1078:ASP:OD1	2:B:1081:LYS:HB2	2.21	0.41
2:B:1162:GLY:HA2	2:B:1208:ARG:CZ	2.51	0.41
2:E:296:LEU:HB2	2:E:329:ILE:HD13	2.01	0.41
2:E:790:SER:HA	2:E:793:GLN:HG2	2.02	0.41
2:E:988:GLU:O	2:E:991:ILE:HG22	2.20	0.41
2:E:1008:VAL:O	2:E:1012:THR:HG23	2.20	0.41
2:E:1102:ILE:O	2:E:1105:MET:HG3	2.20	0.41
2:E:1154:LYS:HA	2:E:1157:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1228:LEU:HD11	2:E:1247:LEU:HD12	2.01	0.41
2:E:1243:TYR:HA	2:E:1246:LYS:HG2	2.02	0.41
2:E:1290:VAL:HG23	2:E:1291:TYR:N	2.34	0.41
2:E:1633:VAL:O	2:E:1639:VAL:N	2.52	0.41
3:F:61:GLN:HB2	3:F:64:TYR:CD1	2.55	0.41
1:A:552:ARG:NH1	1:A:664:ILE:HG12	2.36	0.41
2:B:127:TRP:HA	2:B:130:GLN:HG2	2.02	0.41
2:B:743:ASN:O	2:B:749:LYS:HD2	2.21	0.41
2:B:768:ILE:HG23	2:B:830:VAL:HG11	2.02	0.41
2:B:1406:GLU:HG3	2:B:1425:TYR:CE1	2.55	0.41
1:D:543:GLU:H	1:D:543:GLU:CD	2.23	0.41
1:D:576:TYR:HB2	1:D:598:GLU:HG2	2.02	0.41
1:D:591:LEU:HD13	1:D:591:LEU:HA	1.91	0.41
2:E:9:ARG:N	2:E:10:GLN:OE1	2.54	0.41
2:E:204:ILE:CG1	2:E:211:ARG:HB3	2.51	0.41
2:E:247:ASP:O	2:E:251:SER:N	2.54	0.41
2:E:333:ILE:O	2:E:405:LEU:HD22	2.21	0.41
2:E:499:VAL:O	2:E:509:TRP:NE1	2.41	0.41
2:E:595:MET:N	2:E:595:MET:HE2	2.35	0.41
2:E:1276:LYS:HD2	2:E:1276:LYS:HA	1.80	0.41
2:E:1495:PHE:CE1	2:E:1502:PHE:HD2	2.32	0.41
2:E:1561:GLY:C	2:E:1565:ASN:HD22	2.16	0.41
2:E:1563:PHE:HA	2:E:1566:TYR:HD2	1.85	0.41
1:A:644:ILE:HB	1:A:652:LEU:HD12	2.02	0.41
2:B:333:ILE:O	2:B:405:LEU:HD22	2.21	0.41
2:B:419:HIS:CD2	2:B:420:LEU:HG	2.56	0.41
2:B:796:LEU:HA	2:B:799:ASN:ND2	2.35	0.41
2:B:988:GLU:O	2:B:991:ILE:HG22	2.20	0.41
2:B:1353:ILE:HD12	2:B:1353:ILE:HA	1.93	0.41
2:B:1567:GLU:HA	2:B:1571:PHE:HB2	2.03	0.41
3:C:2:GLN:HE22	3:C:4:ILE:HD11	1.86	0.41
1:D:696:LEU:HB2	2:E:96:ARG:HH12	1.86	0.41
2:E:88:VAL:O	2:E:91:LEU:HG	2.20	0.41
2:E:143:GLU:HA	2:E:146:LYS:HE2	2.03	0.41
2:E:185:LYS:HA	2:E:188:GLU:HB3	2.03	0.41
2:E:422:ASP:OD1	2:E:425:THR:OG1	2.26	0.41
2:E:569:LEU:HA	2:E:591:THR:HA	2.03	0.41
2:E:678:ASN:HA	2:E:681:MET:HG2	2.03	0.41
2:E:724:PHE:CZ	2:E:726:ALA:HB3	2.56	0.41
2:E:796:LEU:HA	2:E:799:ASN:ND2	2.35	0.41
2:E:1059:LEU:O	2:E:1063:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1588:LEU:HD23	2:E:1591:ARG:HD3	2.03	0.41
3:F:41:SER:OG	3:F:53:LEU:O	2.30	0.41
1:A:543:GLU:H	1:A:543:GLU:CD	2.23	0.41
1:A:666:THR:O	1:A:669:LEU:HG	2.20	0.41
2:B:276:ASN:HD21	2:B:424:SER:HB2	1.86	0.41
2:B:564:ASP:OD1	2:B:626:ILE:HB	2.21	0.41
2:B:589:PRO:HB2	2:B:595:MET:HE1	2.03	0.41
2:B:634:ASN:HD21	2:B:660:VAL:HG22	1.86	0.41
2:B:637:LEU:HD13	2:B:664:GLU:HG3	2.02	0.41
2:B:1328:TYR:O	2:B:1333:PHE:N	2.33	0.41
1:D:536:LEU:HG	2:E:18:ASN:HB2	2.03	0.41
1:D:628:LYS:HD3	1:D:632:LYS:HE3	2.03	0.41
2:E:450:LEU:HD11	2:E:470:MET:HE1	2.03	0.41
2:E:634:ASN:HD21	2:E:660:VAL:HG22	1.86	0.41
2:E:1416:GLU:HA	2:E:1419:LYS:HB2	2.03	0.41
3:F:79:LEU:HD13	3:F:79:LEU:HA	1.90	0.41
2:B:96:ARG:O	2:B:100:VAL:HG23	2.22	0.40
2:B:522:VAL:HG23	2:B:554:LEU:HD13	2.04	0.40
2:B:1011:MET:N	2:B:1011:MET:SD	2.94	0.40
2:B:1029:THR:HA	2:B:1033:MET:HG2	2.01	0.40
2:B:1484:ILE:HG21	2:B:1486:ARG:HH21	1.86	0.40
1:D:552:ARG:NH1	1:D:664:ILE:HG12	2.36	0.40
2:E:223:GLY:O	2:E:406:LEU:N	2.47	0.40
2:E:922:ALA:O	2:E:926:GLN:NE2	2.54	0.40
2:E:979:ARG:NH1	2:E:1036:ALA:HB2	2.34	0.40
2:E:1183:HIS:CG	2:E:1184:LYS:H	2.39	0.40
2:E:1457:ASN:O	2:E:1459:VAL:HG13	2.21	0.40
2:E:1484:ILE:HG21	2:E:1486:ARG:HH21	1.86	0.40
2:B:110:LYS:HB3	2:B:113:LEU:HD11	2.02	0.40
2:B:116:GLN:HG3	2:B:120:MET:HE1	2.03	0.40
2:B:870:ARG:HD2	2:B:871:GLN:N	2.36	0.40
2:B:1451:LEU:H	2:B:1451:LEU:HG	1.66	0.40
3:C:134:LEU:HD23	3:C:134:LEU:HA	1.86	0.40
1:D:580:SER:HB2	1:D:585:VAL:CG2	2.52	0.40
2:E:839:LEU:O	2:E:842:LYS:HG2	2.21	0.40
2:E:1516:GLU:HA	2:E:1519:ILE:HD12	2.02	0.40
2:E:1567:GLU:HA	2:E:1571:PHE:HB2	2.03	0.40
2:E:1601:THR:OG1	2:E:1626:PHE:HZ	2.04	0.40
2:E:1605:ARG:O	2:E:1609:GLU:HG3	2.21	0.40
1:A:627:GLU:O	1:A:632:LYS:HD3	2.22	0.40
1:A:695:LYS:HE2	1:A:695:LYS:HB3	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4:TRP:CE3	2:B:46:ARG:HG2	2.57	0.40
2:B:204:ILE:CG1	2:B:211:ARG:HB3	2.51	0.40
2:B:535:SER:OG	2:B:536:SER:N	2.54	0.40
2:B:664:GLU:HA	2:B:667:LYS:HE3	2.02	0.40
2:B:738:ASN:HA	2:B:741:VAL:HG12	2.03	0.40
2:B:968:HIS:CD2	2:B:968:HIS:N	2.87	0.40
2:B:1601:THR:OG1	2:B:1626:PHE:HZ	2.04	0.40
2:B:1602:GLU:HA	2:B:1605:ARG:NH1	2.35	0.40
2:B:1613:GLU:HA	2:B:1616:LYS:HZ1	1.86	0.40
2:E:116:GLN:HG3	2:E:120:MET:HE1	2.03	0.40
2:E:154:HIS:CD2	2:E:157:ARG:HH11	2.40	0.40
2:E:276:ASN:HD21	2:E:424:SER:HB2	1.86	0.40
2:E:463:PRO:HB2	2:E:503:GLN:C	2.41	0.40
2:E:1066:GLN:HA	2:E:1069:ARG:NH2	2.36	0.40
2:E:1078:ASP:OD1	2:E:1081:LYS:HB2	2.21	0.40
2:E:1259:GLU:OE2	2:E:1499:LEU:HA	2.20	0.40
1:A:585:VAL:HA	1:A:607:LYS:HZ2	1.87	0.40
2:B:113:LEU:O	2:B:117:LEU:HG	2.21	0.40
2:B:154:HIS:CD2	2:B:157:ARG:HH11	2.40	0.40
2:B:463:PRO:HB2	2:B:503:GLN:C	2.41	0.40
2:B:483:ALA:HB1	2:B:517:ILE:HG12	2.02	0.40
2:B:1042:LEU:HD12	2:B:1042:LEU:HA	1.88	0.40
2:B:1190:GLY:HA2	2:B:1193:PHE:CD2	2.56	0.40
2:B:1297:LYS:HG2	2:B:1301:TYR:HE1	1.85	0.40
2:B:1479:PHE:HZ	2:B:1560:MET:HG3	1.86	0.40
2:B:1516:GLU:HA	2:B:1519:ILE:HD12	2.02	0.40
3:C:138:THR:OG1	3:C:140:PRO:HD2	2.22	0.40
2:E:62:THR:HG23	2:E:63:TYR:CD1	2.50	0.40
2:E:273:LYS:O	2:E:277:LEU:N	2.55	0.40
2:E:436:ILE:HG23	2:E:711:HIS:ND1	2.36	0.40
2:E:664:GLU:HA	2:E:667:LYS:HE3	2.02	0.40
2:E:1028:LEU:HA	2:E:1032:PHE:CD1	2.57	0.40
2:E:1162:GLY:HA2	2:E:1208:ARG:CZ	2.51	0.40
2:E:1190:GLY:HA2	2:E:1193:PHE:CD2	2.56	0.40
2:E:1219:ASN:OD1	2:E:1401:GLN:NE2	2.53	0.40
2:E:1324:LEU:O	2:E:1327:THR:OG1	2.35	0.40
2:E:1379:LYS:O	2:E:1380:ILE:HD13	2.22	0.40
2:E:1391:ARG:CZ	3:F:28:PHE:HA	2.52	0.40
2:B:450:LEU:HD11	2:B:470:MET:HE1	2.03	0.40
2:B:761:LYS:HE2	2:B:765:ARG:HE	1.85	0.40
1:D:532:PRO:HA	1:D:535:GLU:OE1	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:640:LEU:O	1:D:655:ILE:HA	2.22	0.40
2:E:96:ARG:O	2:E:100:VAL:HG23	2.21	0.40
2:E:113:LEU:O	2:E:117:LEU:HG	2.21	0.40
2:E:166:ARG:HB3	2:E:171:ASN:C	2.42	0.40
2:E:460:LYS:HZ1	2:E:464:LYS:HE2	1.86	0.40
2:E:853:VAL:HA	2:E:856:LYS:NZ	2.33	0.40
2:E:860:MET:HA	2:E:863:ILE:HB	2.04	0.40
2:E:870:ARG:HD2	2:E:871:GLN:N	2.36	0.40
2:E:1086:ARG:HA	2:E:1089:ASP:OD2	2.21	0.40
2:E:1372:PHE:HB2	2:E:1377:ARG:HA	2.04	0.40
2:E:1451:LEU:H	2:E:1451:LEU:HG	1.66	0.40
2:E:1536:HIS:HA	2:E:1542:LEU:HD13	2.04	0.40
2:E:1554:ILE:HA	3:F:37:PHE:CD1	2.56	0.40
3:F:167:THR:O	3:F:168:VAL:C	2.60	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	196/733 (27%)	174 (89%)	22 (11%)	0	100	100
1	D	196/733 (27%)	174 (89%)	22 (11%)	0	100	100
2	B	1640/1648 (100%)	1493 (91%)	147 (9%)	0	100	100
2	E	1640/1648 (100%)	1493 (91%)	147 (9%)	0	100	100
3	C	175/184 (95%)	164 (94%)	11 (6%)	0	100	100
3	F	175/184 (95%)	164 (94%)	11 (6%)	0	100	100
All	All	4022/5130 (78%)	3662 (91%)	360 (9%)	0	100	100

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	183/664 (28%)	181 (99%)	2 (1%)	70	80
1	D	183/664 (28%)	181 (99%)	2 (1%)	70	80
2	B	1495/1497 (100%)	1486 (99%)	9 (1%)	84	88
2	E	1495/1497 (100%)	1486 (99%)	9 (1%)	84	88
3	C	153/157 (98%)	151 (99%)	2 (1%)	65	77
3	F	153/157 (98%)	151 (99%)	2 (1%)	65	77
All	All	3662/4636 (79%)	3636 (99%)	26 (1%)	80	87

All (26) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	569	ARG
1	A	570	ARG
2	B	128	ARG
2	B	644	ARG
2	B	854	ARG
2	B	935	ARG
2	B	945	ARG
2	B	1069	ARG
2	B	1568	LYS
2	B	1574	LYS
2	B	1635	LYS
3	C	66	ARG
3	C	123	LYS
1	D	569	ARG
1	D	570	ARG
2	E	128	ARG
2	E	644	ARG
2	E	854	ARG
2	E	935	ARG
2	E	945	ARG
2	E	1069	ARG
2	E	1568	LYS

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Mol	Chain	Res	Type
2	E	1574	LYS
2	E	1635	LYS
3	F	66	ARG
3	F	123	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (33) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	554	ASN
2	B	65	HIS
2	B	118	GLN
2	B	130	GLN
2	B	444	ASN
2	B	526	HIS
2	B	885	GLN
2	B	926	GLN
2	B	968	HIS
2	B	1014	ASN
2	B	1293	GLN
2	B	1359	GLN
2	B	1401	GLN
2	B	1424	GLN
2	B	1526	ASN
3	C	2	GLN
1	D	554	ASN
2	E	65	HIS
2	E	118	GLN
2	E	130	GLN
2	E	444	ASN
2	E	526	HIS
2	E	885	GLN
2	E	926	GLN
2	E	968	HIS
2	E	1014	ASN
2	E	1203	ASN
2	E	1293	GLN
2	E	1359	GLN
2	E	1401	GLN
2	E	1424	GLN
2	E	1526	ASN
3	F	2	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](#)

There are no ligands in this entry.

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

There are no such residues in this entry.

### 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

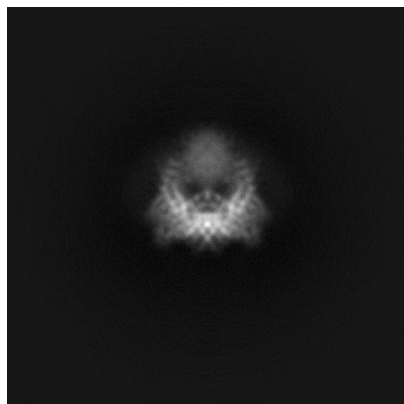
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-60149. These allow visual inspection of the internal detail of the map and identification of artifacts.

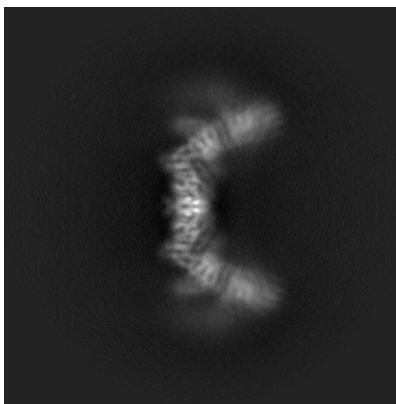
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

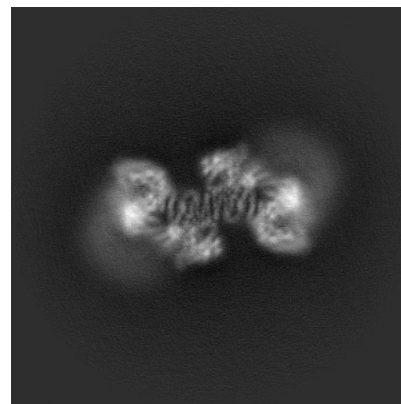
#### 6.1.1 Primary map



X

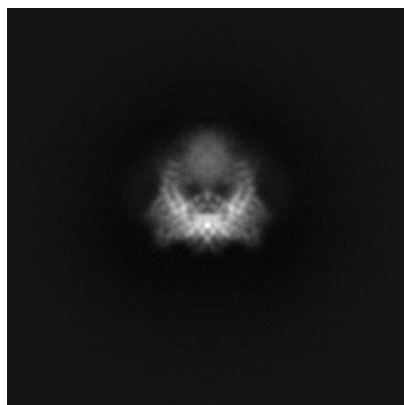


Y

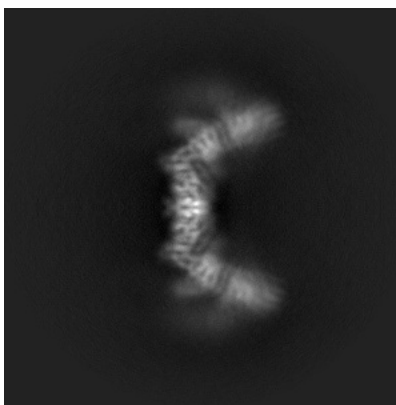


Z

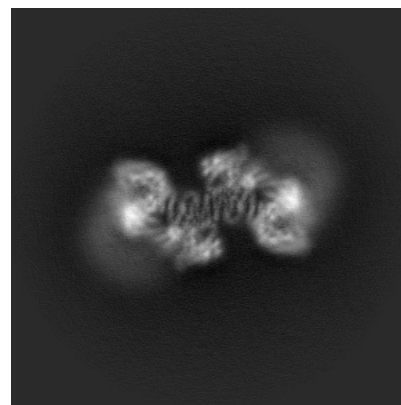
#### 6.1.2 Raw map



X



Y

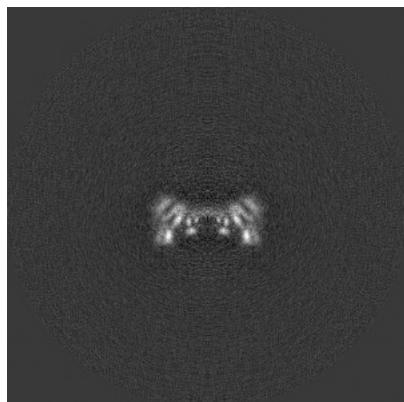


Z

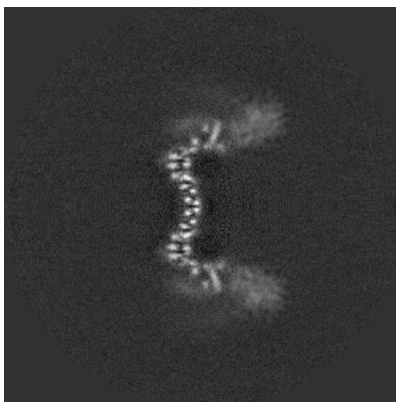
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

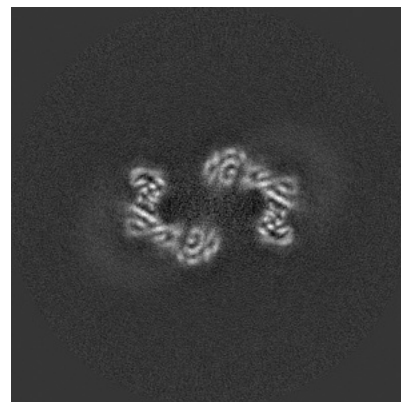
### 6.2.1 Primary map



X Index: 170

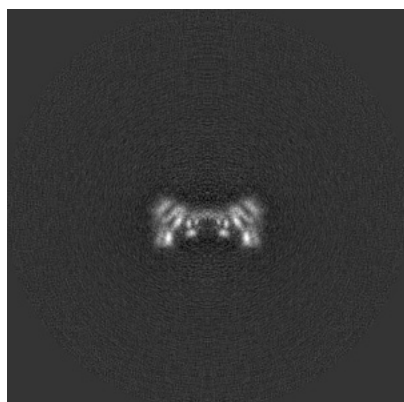


Y Index: 170

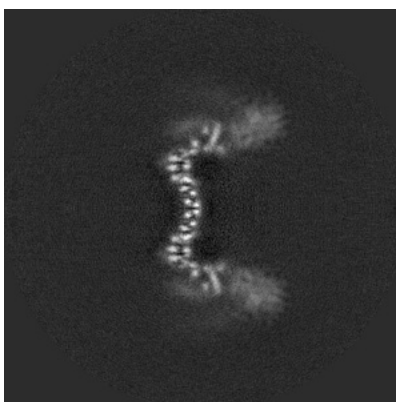


Z Index: 170

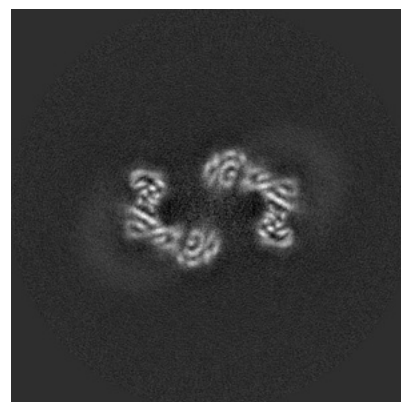
### 6.2.2 Raw map



X Index: 170



Y Index: 170

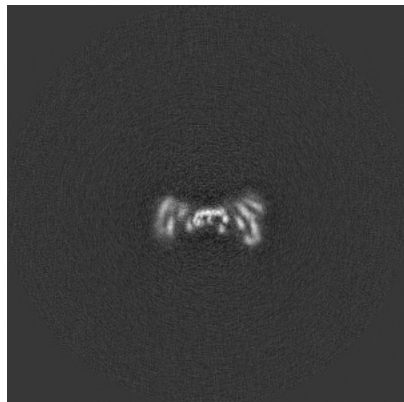


Z Index: 170

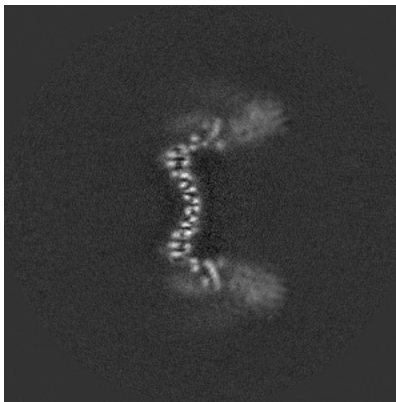
The images above show central slices of the map in three orthogonal directions.

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

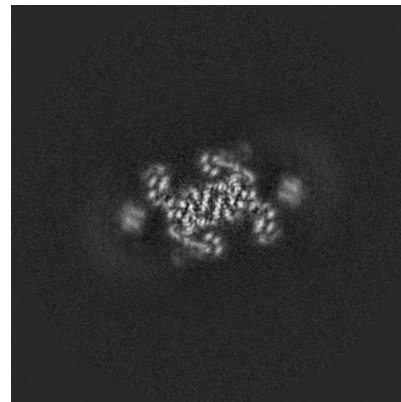
### 6.3.1 Primary map



X Index: 173

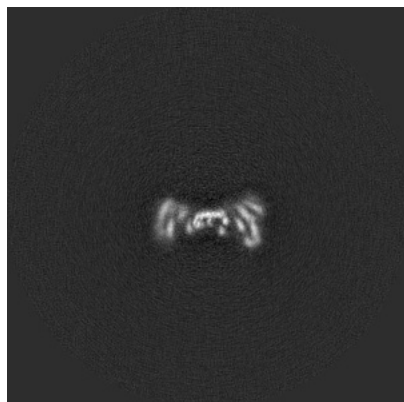


Y Index: 169

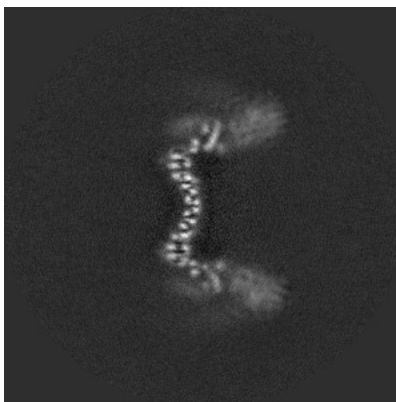


Z Index: 155

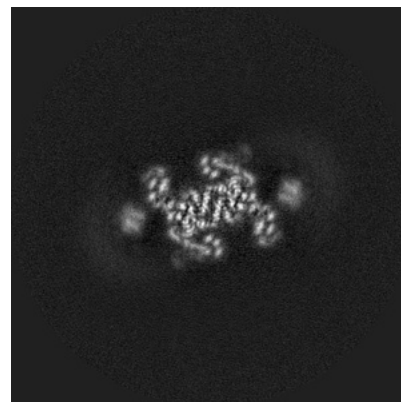
### 6.3.2 Raw map



X Index: 173



Y Index: 171

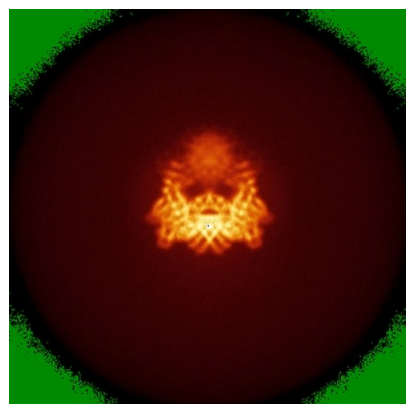


Z Index: 155

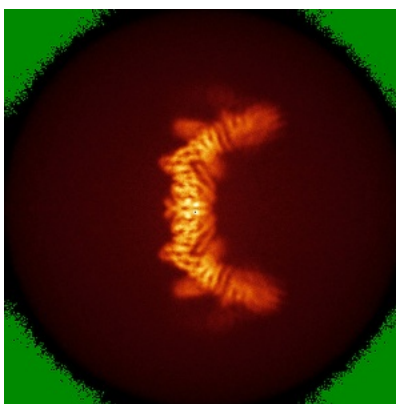
The images above show the largest variance slices of the map in three orthogonal directions.

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

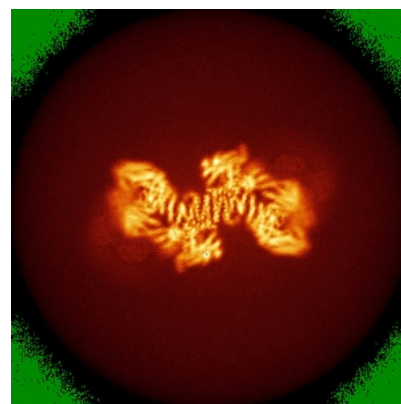
### 6.4.1 Primary map



X



Y

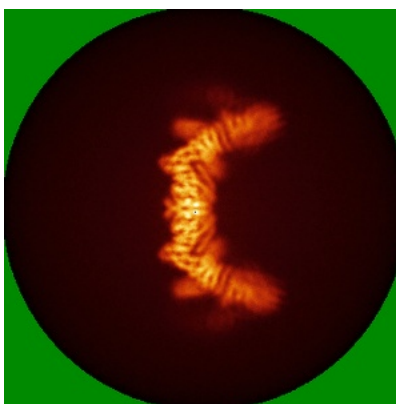


Z

### 6.4.2 Raw map



X



Y



Z

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

## 6.5 Orthogonal surface views [i](#)

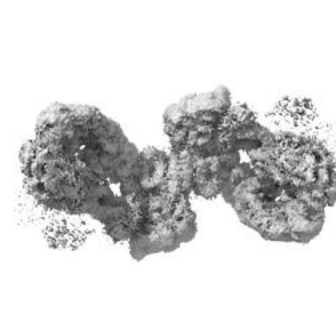
### 6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

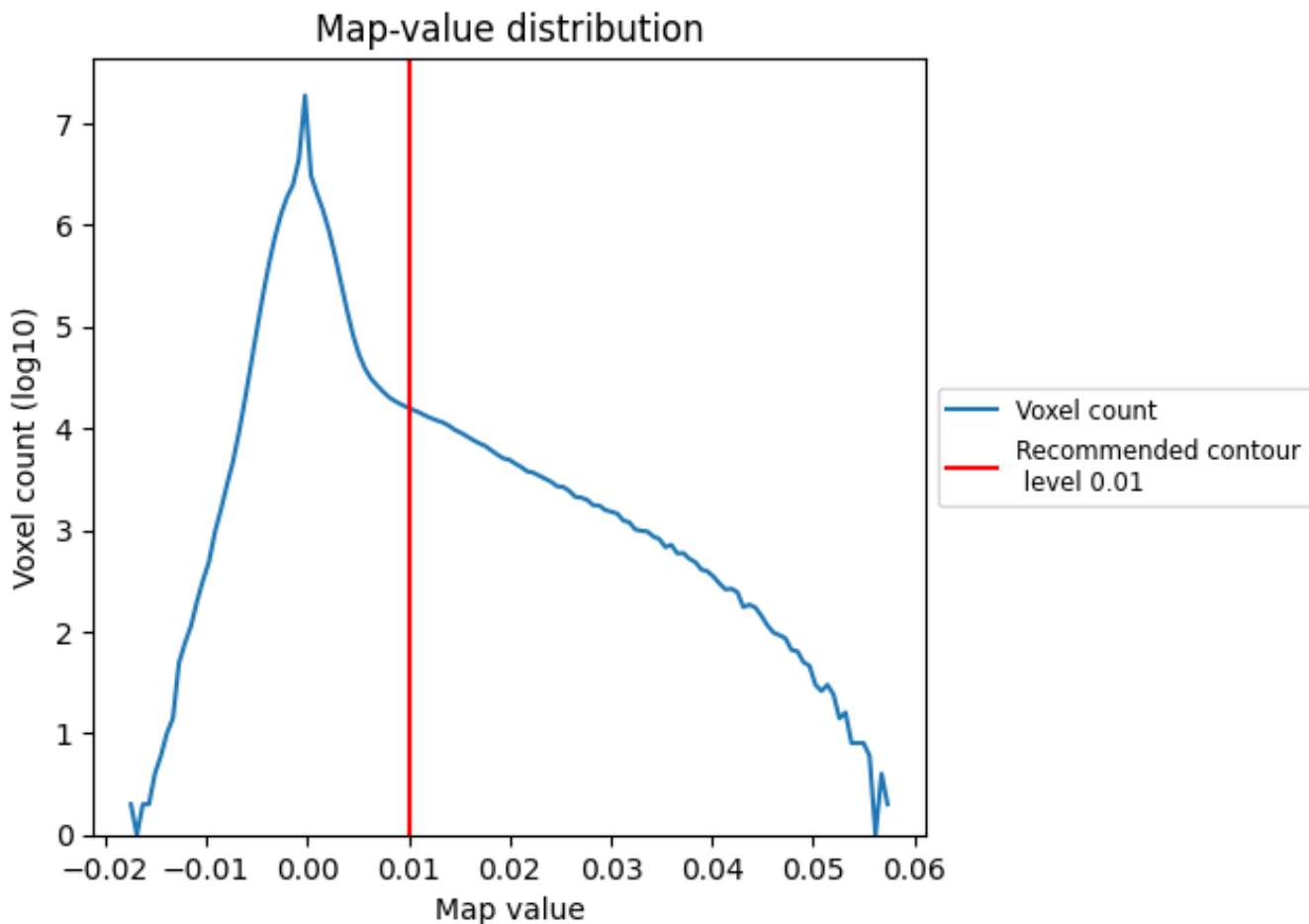
## 6.6 Mask visualisation [i](#)

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.

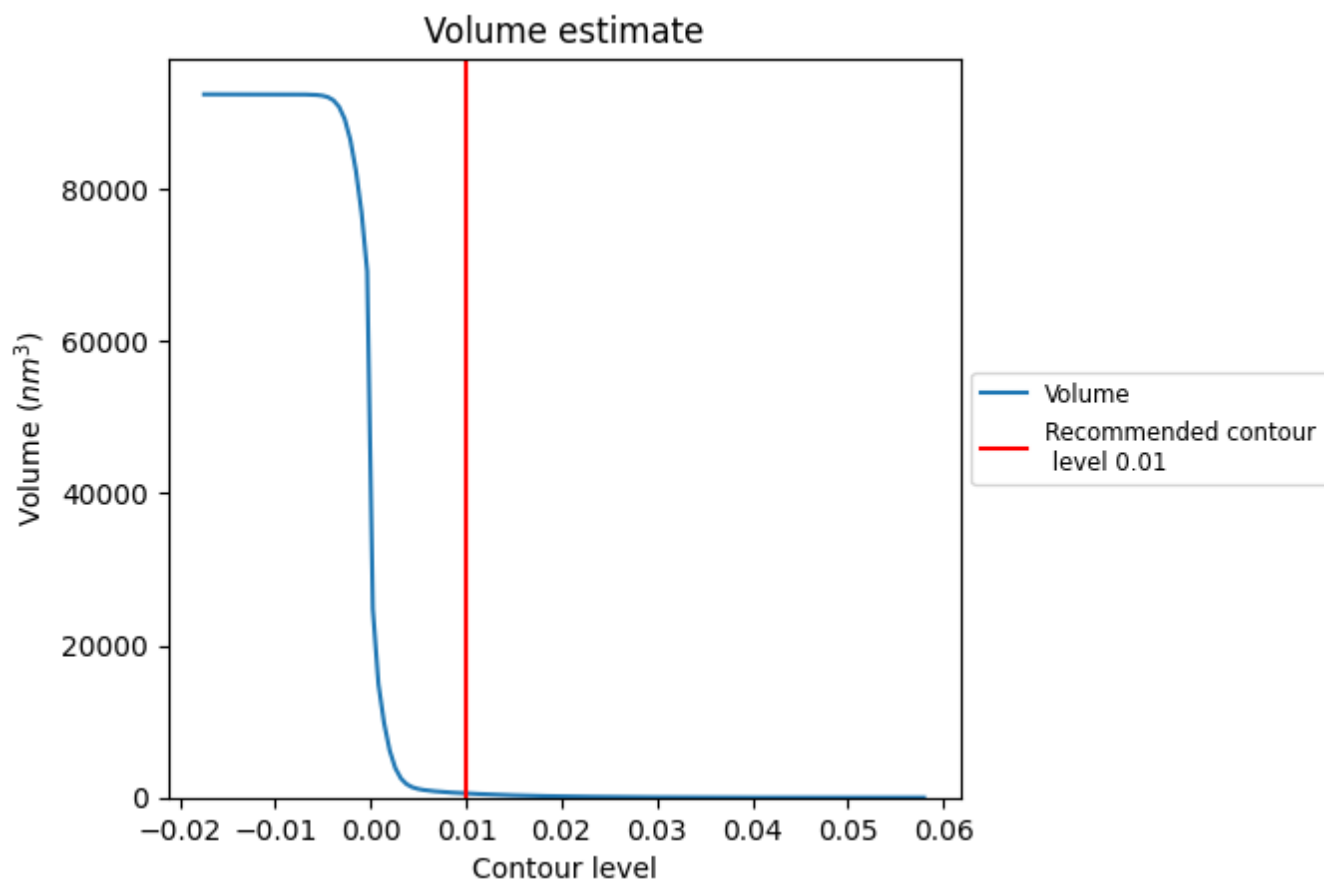
### 7.1 Map-value distribution [i](#)



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.



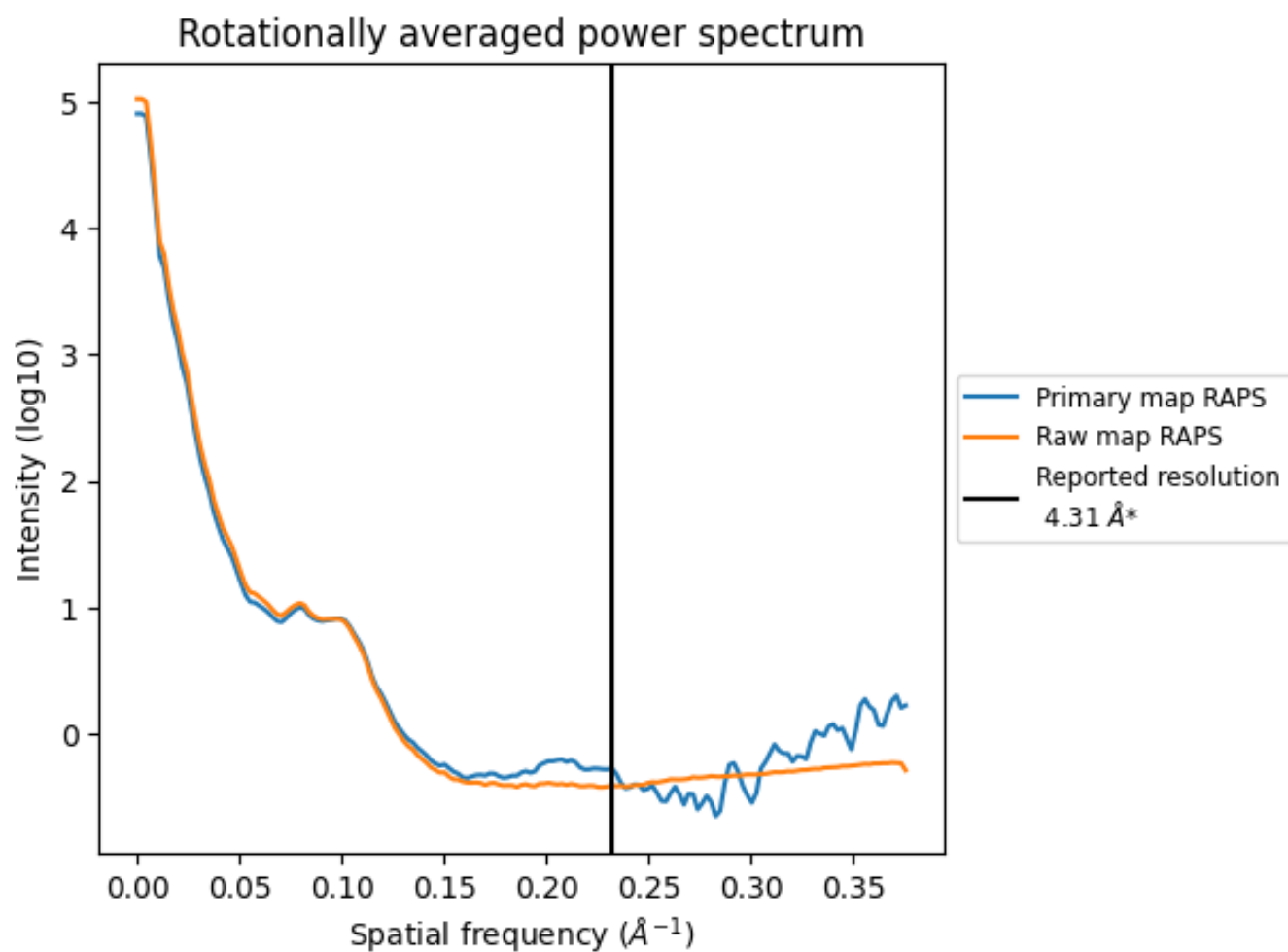
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 550  $\text{nm}^3$ ; this corresponds to an approximate mass of 497 kDa.

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

### 7.3 Rotationally averaged power spectrum i

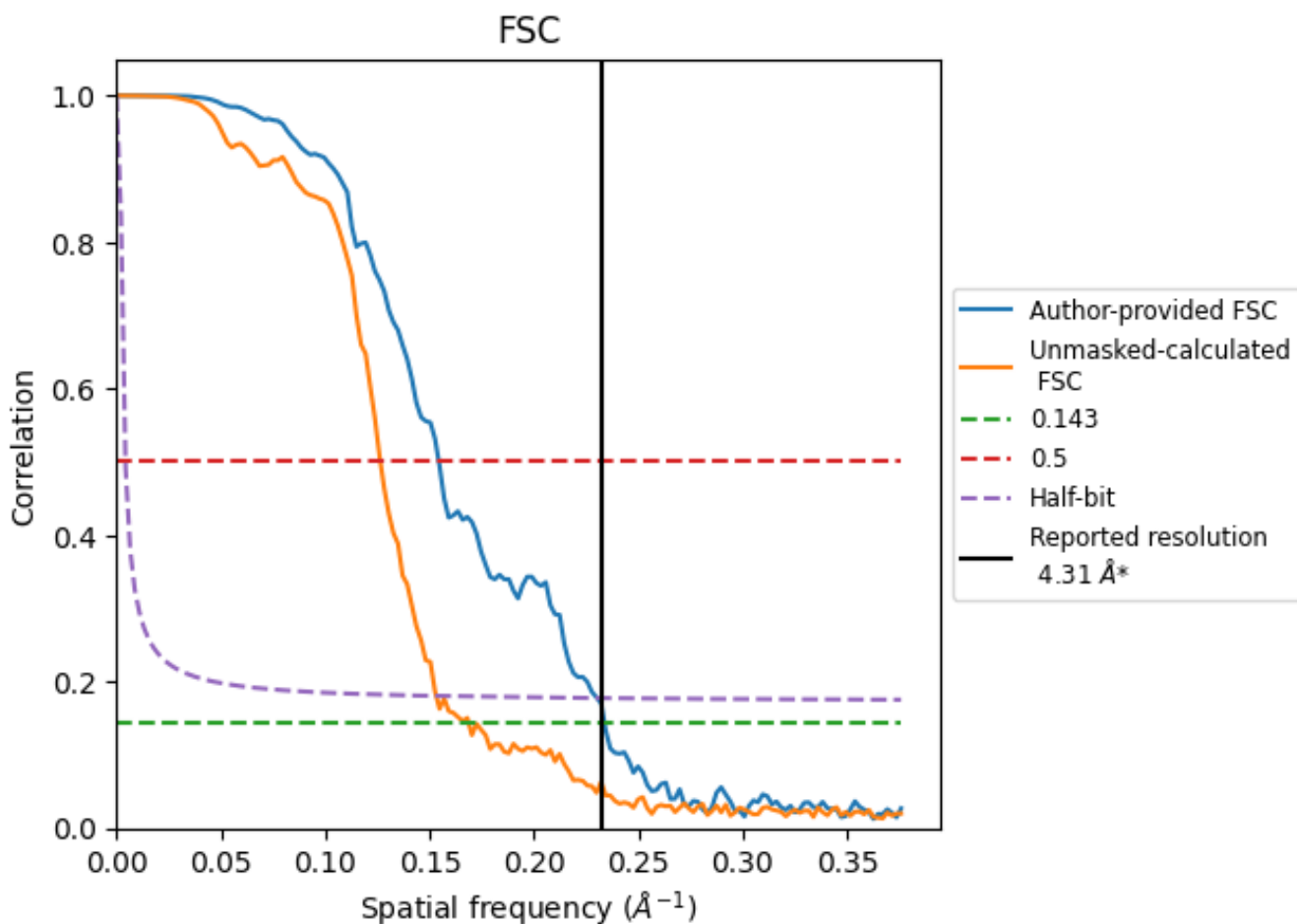


\*Reported resolution corresponds to spatial frequency of 0.232 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.232 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

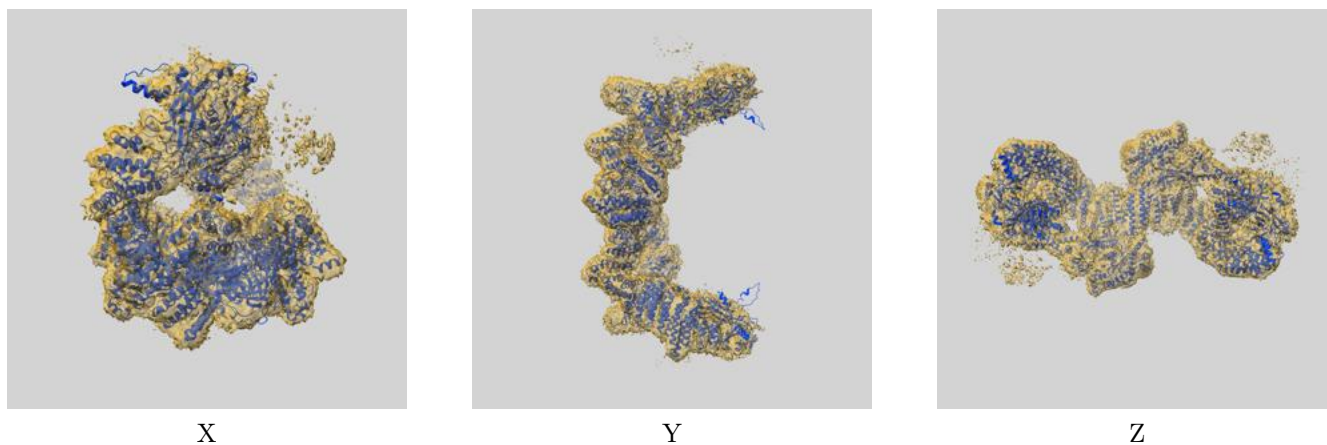
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.31	-	-
Author-provided FSC curve	4.28	6.47	4.34
Unmasked-calculated*	5.93	7.91	6.53

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 5.93 differs from the reported value 4.31 by more than 10 %

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

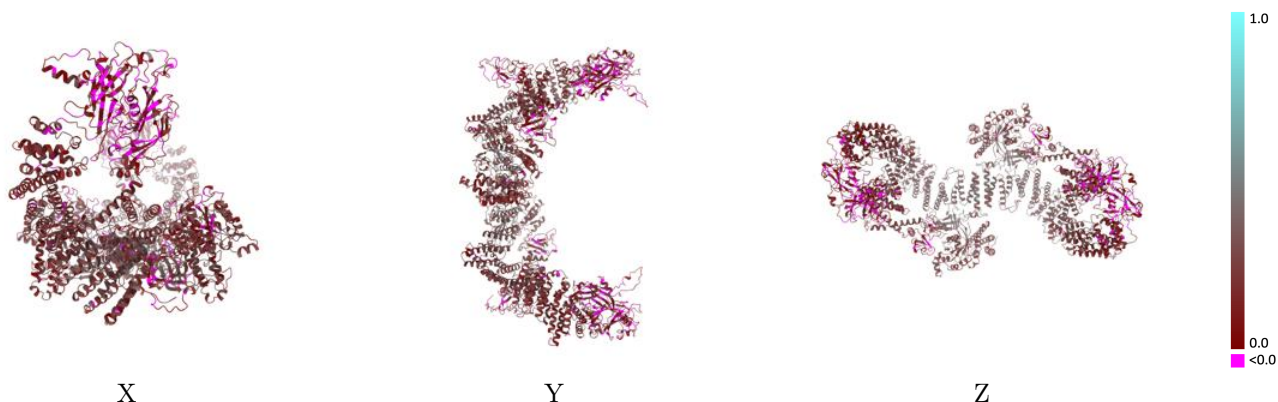
This section contains information regarding the fit between EMDB map EMD-60149 and PDB model 8ZJL. Per-residue inclusion information can be found in section 3 on page 5.

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



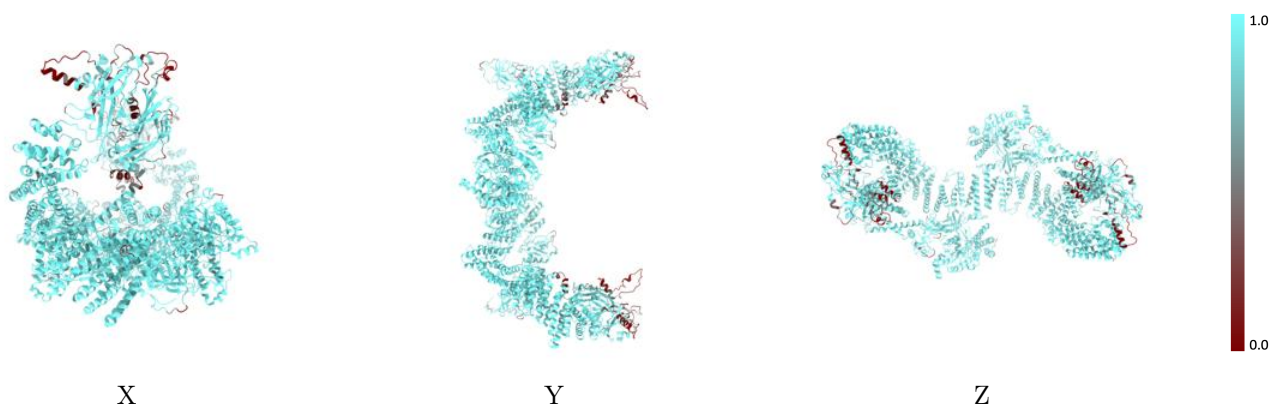
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



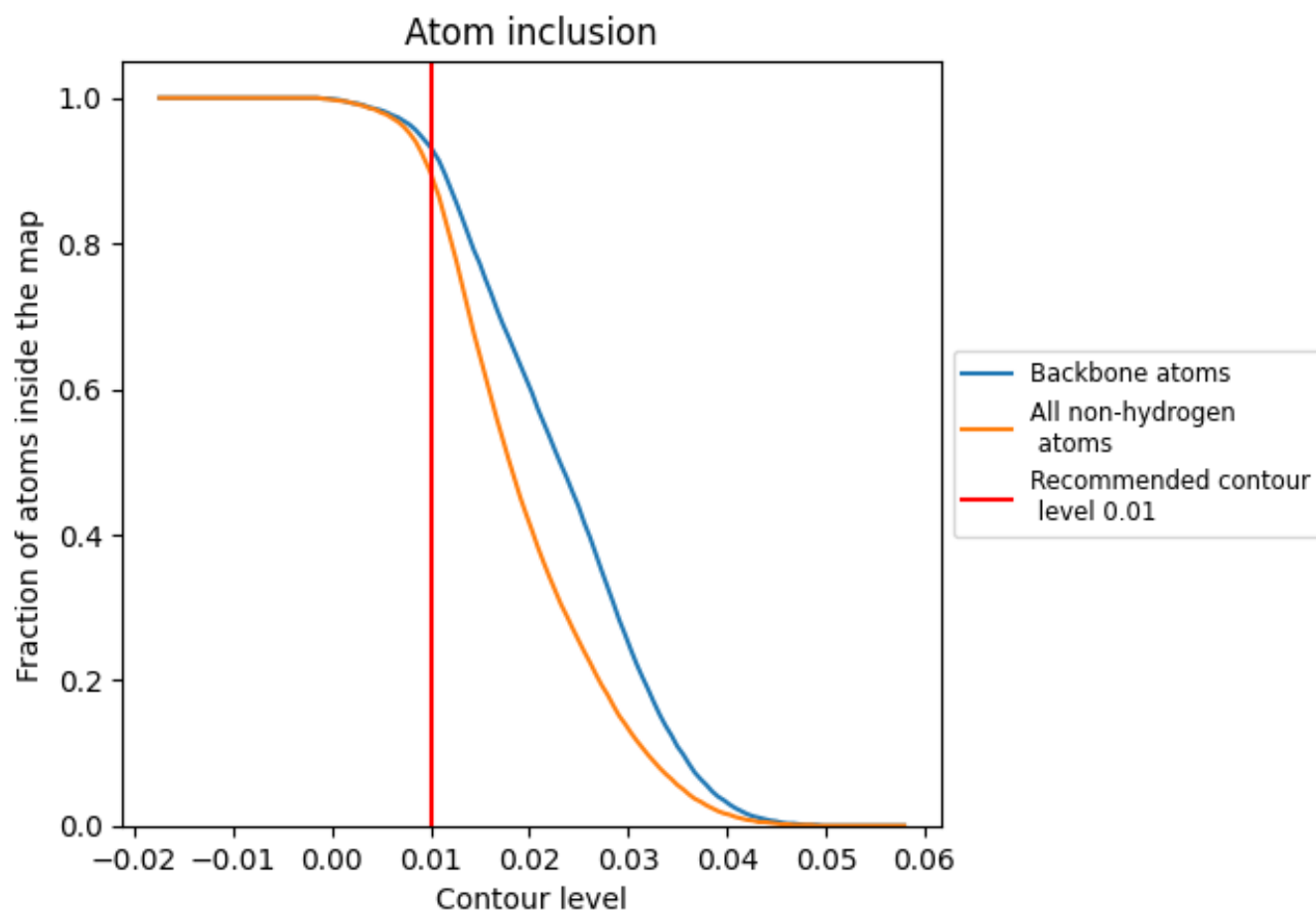
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.01).















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 90% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8970	 0.2110
A	 0.9040	 0.1550
B	 0.8860	 0.2130
C	 0.9740	 0.2670
D	 0.9080	 0.1620
E	 0.8890	 0.2090
F	 0.9750	 0.2690

