



# Full wwPDB EM Validation Report ⓘ

Jul 7, 2024 – 01:03 AM JST

PDB ID : 8ZJ2  
EMDB ID : EMD-60136  
Title : Cryo-EM structure of the RhoG/DOCK5/ELMO1/Rac1 complex  
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 : 2024-05-14  
Resolution : 4.66 Å (reported)  
Based on initial models : 7DPA, 6IE1, 7Y4A

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.dev92  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.37.1

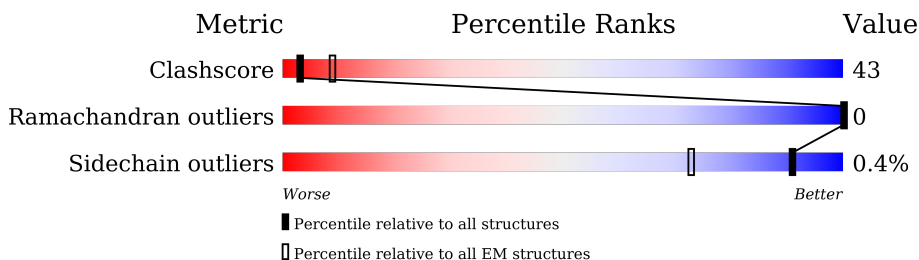
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.66 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	B	1648	
1	F	1648	
2	C	184	
2	G	184	
3	A	733	
3	E	733	
4	D	203	

## 2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 38587 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 Deducator of cytokinesis protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	B	1642	Total	C	N	O	S	0	0
			13436	8618	2264	2484	70		
1	F	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
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
F	-5	GLY	-	expression tag	UNP Q9H7D0
F	-4	GLY	-	expression tag	UNP Q9H7D0
F	-3	SER	-	expression tag	UNP Q9H7D0
F	-2	GLY	-	expression tag	UNP Q9H7D0
F	-1	GLY	-	expression tag	UNP Q9H7D0
F	0	SER	-	expression tag	UNP Q9H7D0
F	1285	ARG	LYS	variant	UNP Q9H7D0

- Molecule 2 is a protein called Ras-related C3 botulinum toxin substrate 1.

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

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
G	-6	GLY	-	expression tag	UNP P63000
G	-5	SER	-	expression tag	UNP P63000
G	-4	SER	-	expression tag	UNP P63000
G	-3	GLY	-	expression tag	UNP P63000
G	-2	SER	-	expression tag	UNP P63000
G	-1	SER	-	expression tag	UNP P63000
G	0	GLY	-	expression tag	UNP P63000
G	15	ALA	GLY	engineered mutation	UNP P63000

- Molecule 3 is a protein called Engulfment and cell motility protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	E	199	1617	1023	279	305	10	0	0
3	A	727	5879	3721	1009	1108	41	0	0

There are 12 discrepancies between the modelled and reference sequences:

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

- Molecule 4 is a protein called Rho-related GTP-binding protein RhoG.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	181	1416	897	248	263	8	0	0

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	-6	GLY	-	expression tag	UNP P84095
D	-5	SER	-	expression tag	UNP P84095
D	-4	SER	-	expression tag	UNP P84095
D	-3	GLY	-	expression tag	UNP P84095
D	-2	SER	-	expression tag	UNP P84095
D	-1	SER	-	expression tag	UNP P84095
D	0	GLY	-	expression tag	UNP P84095
D	61	LEU	GLN	engineered mutation	UNP P84095
D	185	SER	-	expression tag	UNP P84095
D	186	GLY	-	expression tag	UNP P84095
D	187	PRO	-	expression tag	UNP P84095
D	188	SER	-	expression tag	UNP P84095
D	189	SER	-	expression tag	UNP P84095
D	190	GLY	-	expression tag	UNP P84095
D	191	GLU	-	expression tag	UNP P84095
D	192	ASN	-	expression tag	UNP P84095
D	193	LEU	-	expression tag	UNP P84095
D	194	TYR	-	expression tag	UNP P84095
D	195	PHE	-	expression tag	UNP P84095
D	196	GLN	-	expression tag	UNP P84095

- Molecule 5 is MAGNESIUM ION (three-letter code: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
5	D	1	1	1	0

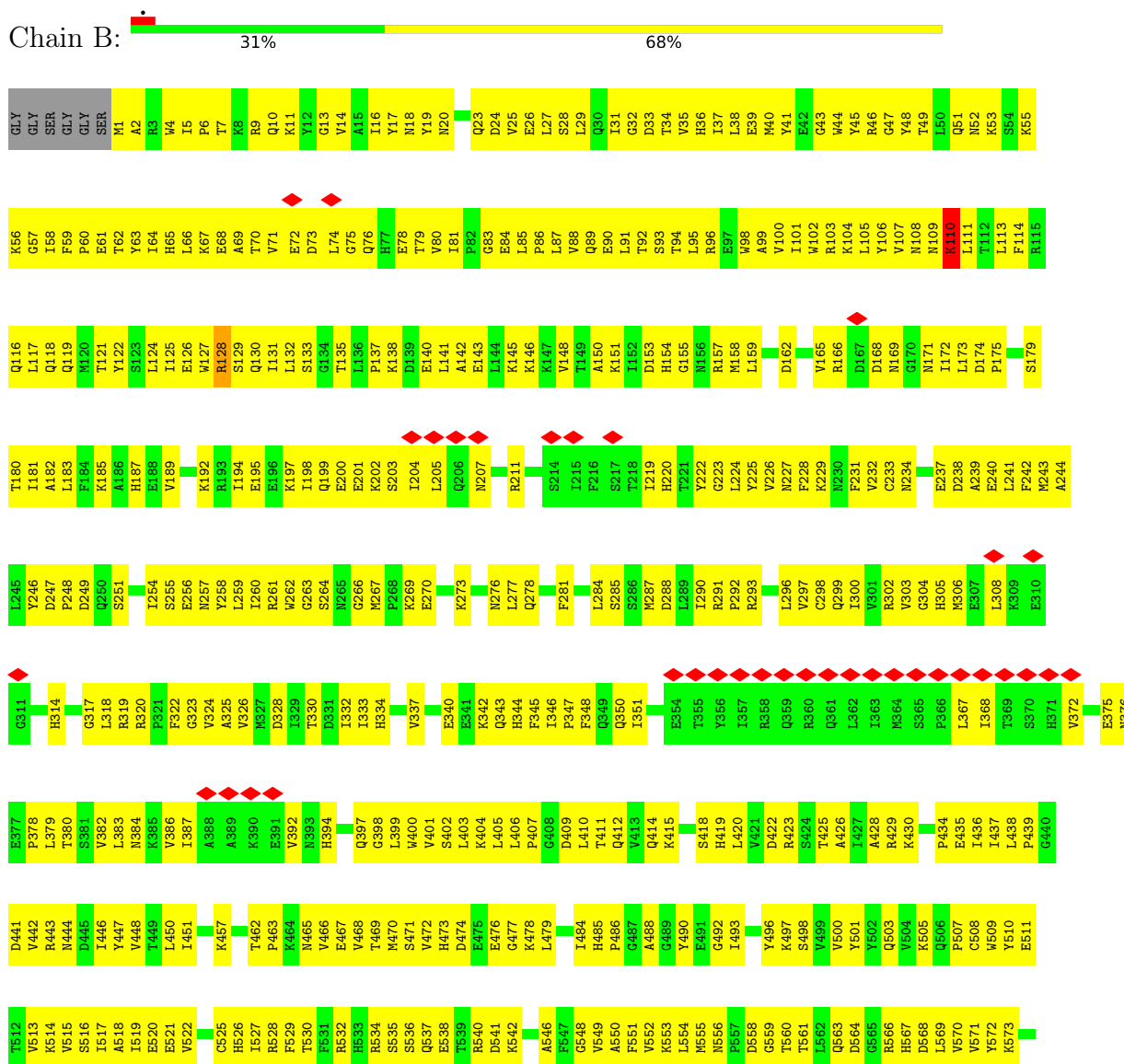
- Molecule 6 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>14</sub>P<sub>3</sub>) (labeled as "Ligand of Interest" by depositor).



### 3 Residue-property plots [i](#)

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

- Molecule 1: Deducator of cytokinesis protein 5

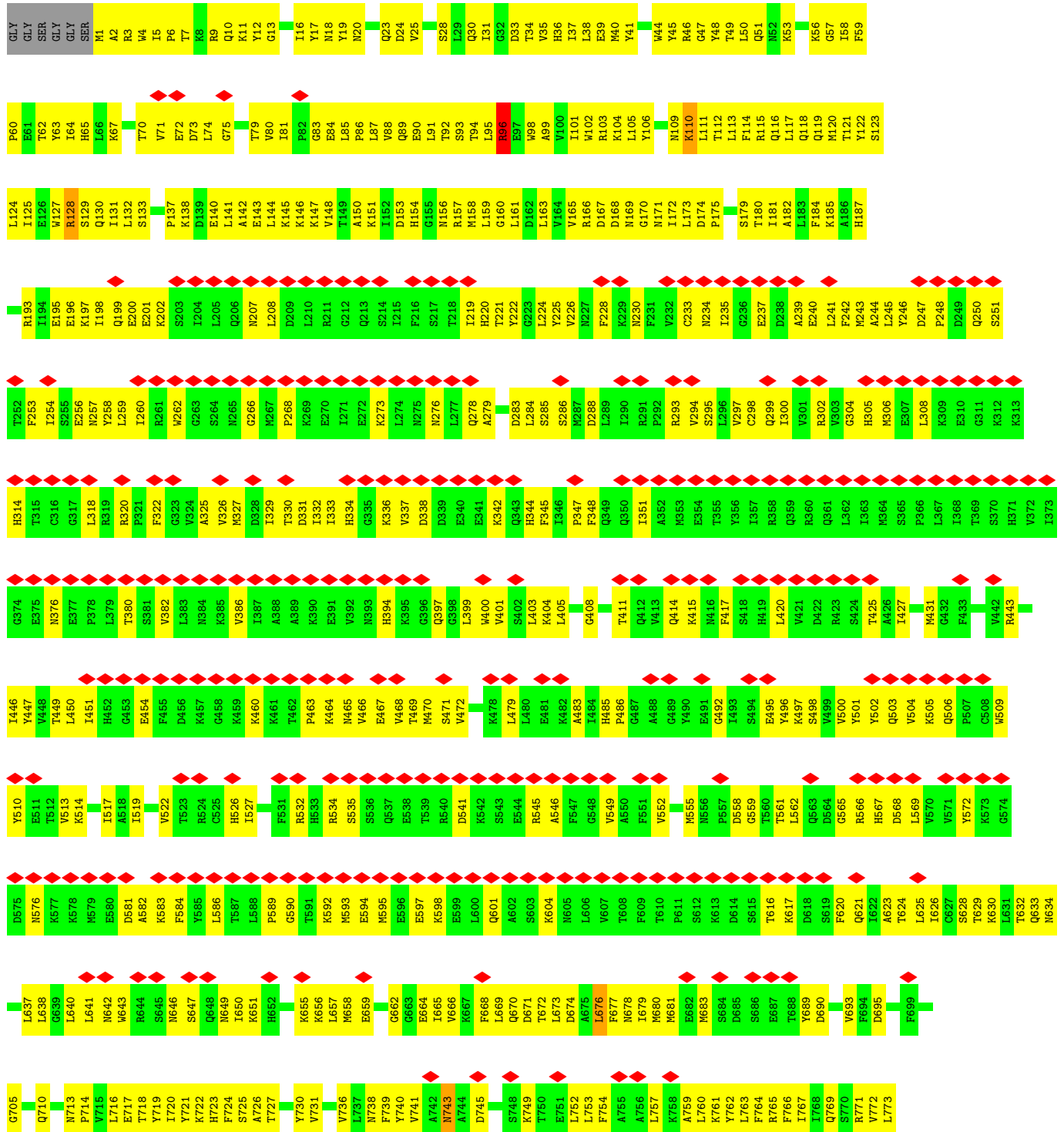


N1517	D1443	S1374	I1304	V1170	I1102	D1034	S903	V838	Y774	Q710	V642	K678
A1518	Q1449	F1375	I1305	L1171	F1103	Q1035	Q904	L839	L775	H711	W643	M579
E1520	L1450	R1376	Y1306	E1173	S1104	A1036	L905	F840	F712	F712	M646	E580
T1521	L1451	E1377	Y1307	K1172	M1105	S1037	L906	C841	F777	N713	N649	D581
M1522	M1452	N1378	K1310	L1175	G1107	F1038	S907	F842	G779	V715	M649	A582
L1523	L1453	K1379	K1311	L1176	P1108	E1039	N908	F843	G779	V715	M649	K583
E1524	F1454	I1380	G1311	L1177	P1108	L1040	I909	L844	Q780	L716	K651	F584
L1525	R1455	L1382	E1315	E1178	L1110	Q1041	L910	Q845	S781	E717	K651	Y585
N1526	V1459	R1383	K1316	H1179	E1111	M1043	L913	S846	K782	T718	H652	L586
R1528	R1460	Y1384	I1317	C1180	V1112	M1044	D914	Q851	D783	Y719	M653	T587
I1529	Q1461	G1385	K1319	R1181	T1115	M1045	R915	L852	G784	I720	M653	L588
S1530	F1462	E1387	L1320	H1183	P1116	F1047	K916	R854	D785	Y721	M655	P589
N1531	R1463	Y1388	S1321	K1184	E1117	H1048	V918	Q855	N788	F724	M658	K592
C1532	Y1464	E1389	L1250	Y1185	E1118	D984	N789	K856	M789	S725	M659	M593
V1533	S1465	R1390	E1323	L1186	E1119	F985	A920	L857	A726	K732	V660	E594
Q1534	R1466	R1391	L1324	L1187	E1120	M1050	T921	R858	T727	L733	V662	M595
Q1535	P1467	E1392	M1266	S1187	L1120	V1051	R922	C859	L728	A729	G662	E596
H1536	F1468	D1393	T1327	S1189	R1121	T1055	V923	M860	Q793	A729	V666	K597
D1539	R1469	F1394	E1288	G1190	T1124	H1056	H924	T861	L794	Y730	V666	K597
R1540	K1470	S1395	E1289	E1191	I1125	E1057	R930	L868	L794	F739	V666	E599
S1543	D1474	L1399	Y1328	E1192	P1126	S1058	E930	L868	F739	Y740	L673	K604
V1544	M1477	Q1401	S1330	F1193	I1127	E1063	R931	L868	M802	V741	L673	M605
H1546	E1478	F1402	K1331	F1193	I1127	M1064	R932	L868	D803	A742	F677	L606
L1547	T1481	M1404	G1337	S1199	Q1133	S1065	L933	R870	M803	N743	F677	L606
M1548	V1483	A1405	G1339	L1200	Q1133	S1065	L933	R870	R804	N743	F677	L606
L1549	L1484	K1406	N1340	L1201	F1136	K1068	R934	Q871	R804	N743	F677	L606
L1550	E1485	M1408	M1340	L1202	M1137	R1069	R935	S872	A744	A744	L679	V607
L1551	T1487	T1409	L1342	E1202	M1137	R1069	I936	S873	D745	D745	M680	T608
V1555	T1488	F1410	K1344	M1203	M1143	I1072	M937	C874	S747	S747	E682	F609
S1556	T1489	T1411	L1205	L1204	F1144	V1073	R938	E876	S748	S748	E682	T610
P1557	TL490	P1413	D1206	D1206	H1145	M1009	V940	V877	K749	K749	M683	D614
M1560	TL491	E1416	R1208	R1208	M1146	M1010	I941	L878	T750	T750	S686	S615
G1561	T1494	E1416	L1282	T1209	E1148	M1079	G942	L879	E751	E751	E687	T616
G1562	F1495	K1419	L1283	I1210	M1149	R1080	M943	P880	L752	L752	E688	T616
F1563	P1496	Q1424	Q1284	I1211	E1150	K1081	N944	L881	L753	L753	Y689	D618
S1564	Q1424	Y1425	M1356	M1212	L1151	E1082	R945	L882	F754	F754	L692	S619
N1565	Y1425	Y1425	M1357	Q1213	L1152	I1083	Q946	T863	L757	L757	V693	F620
Y1566	K1500	M1426	I1357	S1216	T1153	R1086	H949	Q885	K758	K758	F694	Q621
E1567	W1501	Q1427	P1358	K1217	K1154	I1087	I950	L886	A759	A759	D695	A623
K1568	F1502	C1428	Q1359	E1218	L1155	R1088	F953	S887	L820	L760	D695	I622
A1569	K1505	F1429	E1361	M1219	Q1157	D1089	V954	Q889	K828	K761	L697	G626
F1570	Q1506	K1432	Q1293	R1220	E1158	M1090	M957	Q889	V827	Y762	V699	S628
F1571	I1507	P1433	Q1294	M1221	E1159	W1091	M957	L890	I700	L763	F699	T629
E1573	S1508	V1434	E1295	T1224	E1160	M1022	I988	D891	I701	F764	I701	K630
Y1575	E1510	M1436	Y1288	K1217	L1155	E1026	I988	L886	R765	R765	S702	K630
E1576	E1511	L1437	Y1289	E1218	D1156	I1027	A959	L886	F766	F766	S702	L631
Q1577	P1514	F1438	Q1299	R1220	E1158	L1028	N893	S894	I767	I767	L703	T632
H1578	L1515	K1442	K1300	F1230	E1166	H1097	M895	K896	I768	I768	G705	Q633
H1579	E1516	K1442	L1300	Y1231	E1167	K1098	K896	E900	Q769	Q769	D706	M634
			Y1301	Y1231	Q1187	I1099	E900	E900	V834	S770	I707	L637
			E1303	E1233	Q1168	K1232	L1168	L1168	F1031	F1031	I707	L638
					E1303	E1303	M1033	M1033	S837	L773	F709	G639
												L641





● Molecule 1: Deducator of cytokinesis protein 5

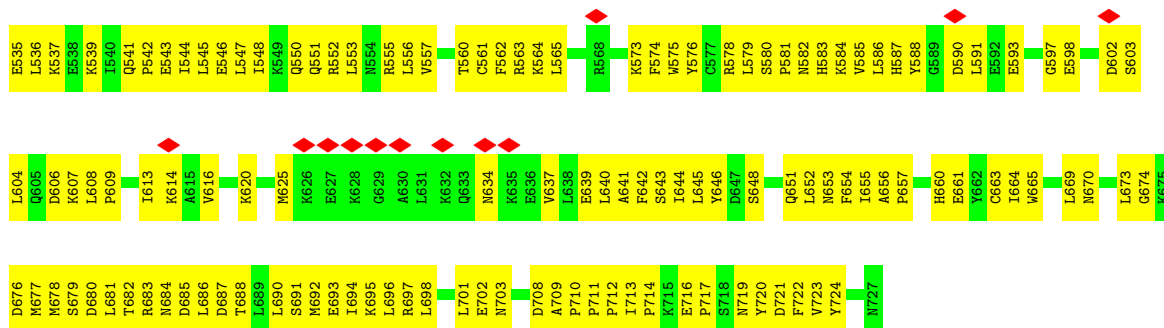


L1599	V1533	R1390	S1321	I1241	L1175	L1110	H968	Q904	S837	Y774
L1600	Q1534	R1391	K1322	R1242	L1176	E1111	Y969	L905	V838	L775
E1602	S1466	E1392	L1324	Y1243	E1178	L1113	S970	L839	L830	L776
I1604	A1537	S1395	L1324	L1244	T1114	T1113	H971	S907	F777	F777
R1605	A1538	E1326	E1326	Y1245	T1115	L1114	Y972	N908	C841	G779
I1606	D1539	T1327	R1248	R1248	K1182	L1041	I909	I909	K842	K782
H1607	R1540	L1328	D1249	D1249	H1183	L1042	S974	L910	F843	D783
G1608	S1541	E1329	L1250	L1250	K1184	L1043	T975	E911	Q845	K784
E1609	Q1401	R1252	R1251	R1251	Y1185	L1044	F976	L913	Q845	D785
K1610	Q1401	R1252	R1252	R1252	Y1186	L1045	R979	L914	S846	D785
L1611	N1404	V1332	S1187	S1187	L1186	F1047	R979	R915	E786	E786
T1612	A1405	E1259	S1188	S1188	K1121	H1043	I982	R916	F787	F787
E1613	E1406	E1259	S1188	S1188	L1064	L1064	I982	D917	Q851	F788
L1614	M1482	Y1262	E1191	E1191	T1065	L1065	F985	L852	L852	F788
K1615	L1338	Y1262	V1192	V1192	H1056	T1065	I986	V918	L852	F788
K1616	L1484	Q1272	F1193	F1193	E1057	H1057	L986	S790	S790	F788
P1617	E1485	W1273	A1194	A1194	S1058	T921	T921	T921	I791	I791
L1618	R1486	L1341	L1195	L1195	L1069	V823	T989	V823	K856	K856
H1619	E1416	L1342	L1196	L1196	Q1060	H824	I991	H824	N858	Q793
E1620	D1417	K1343	K1276	K1276	L1061	I925	I992	I925	C859	L794
E1620	I1418	K1344	P1277	P1277	L1061	Q826	I992	I925	C859	L794
R1621	Y1489	K1345	C1278	C1278	T1063	L927	F993	M860	M860	F795
L1622	T1491	S1420	V1279	V1279	F1064	I928	L996	I928	K862	A797
S1623	S1421	S1421	P1280	P1280	S1065	M929	I997	E830	F798	F798
F1626	F1495	E1346	H1251	H1251	Q1066	E830	Y1002	E830	M800	M799
E1628	I1498	Y1349	L1282	L1282	A1067	E865	Y1002	E865	M800	M800
L1629	L1499	K1352	L1283	L1283	K1068	R931	Y1002	R931	L801	L801
K1630	L1502	I1353	Q1284	Q1284	R1069	D1005	D1005	D1005	R804	R804
E1631	F1503	K1354	Q1286	Q1286	R1069	W1006	W1006	W1006	P805	P805
K1632	E1504	Q1359	Y1288	Y1288	I1072	V1007	V1007	I836	L806	L806
E1633	K1505	S1360	Y1289	Y1289	I1073	Y1008	Y1008	Q871	Q871	Q871
E1634	Q1506	P1361	V1289	V1289	G1077	M1009	M1009	S872	E907	E907
K1635	I1507	Y1362	Y1291	Y1291	T1012	M1010	M1010	S872	E908	E908
H1636	S1508	P1439	T1292	T1292	M1079	T1012	T1012	R938	A809	A809
Y1637	T1509	S1440	Q1293	Q1293	Q1013	V940	V940	C874	V810	V810
L1638	E1510	S1440	Q1294	Q1294	R1080	I941	I941	C874	K811	K811
F1639	E1511	Y1441	E1295	E1295	K1081	G842	G842	E876	I812	I812
L1642	I1512	K1444	L1296	L1296	E1082	M943	M943	V877	K813	K813
	S1513	D1443	K1297	K1297	I1083	N944	N944	L878	G814	G814
	P1514	P1445	K1297	K1297	I1083	R945	R945	L879	L817	L817
	L1515	V1446	E1298	E1298	R1086	L1018	L1018	P880	K818	K818
	E1516	Y1447	Y1301	Y1301	I1087	R1019	R1019	P880	Y819	Y819
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	I1519	F1372	E1303	E1303	M1090	M1022	M1022	T883	P821	P821
	M1522	L1376	I1304	I1304	Y1091	Y1092	Y1092	Q885	S822	S822
	E1523	R1377	L1305	L1305	Y1092	F1024	F1024	Q885	S822	S822
	L1524	M1378	S1306	S1306	H1097	E1025	E1025	F953	I823	I823
	T1525	K1379	Y1307	Y1307	K1098	E1026	E1026	V954	I824	I824
	M1526	I1380	K1310	K1310	I1099	V1027	V1027	A955	N825	N825
	E1527	F1381	G1311	G1311	I1099	L1028	L1028	C956	N826	N826
	L1528	R1384	L1316	L1316	F1101	T1029	T1029	M957	V827	V827
	I1529	K1385	K1316	K1316	F1101	L1030	L1030	M957	K828	K828
	S1530	K1386	A1317	A1317	I1102	F1031	F1031	A959	L829	L829
	M1531	E1387	I1318	I1318	M1105	F1032	F1032	L960	V830	V830
	C1532	Y1388	K1319	K1319	P1108	M1033	M1033	Q862	F831	F831
		E1389	L1320	L1320	I1109	Q1034	Q1034	M964	D832	D832
						Q1035	Q1035	M964	P833	P833
						M1105	M1105	K896	F834	F834
						P1108	P1108	P897	S835	S835
						I1109	I1109	D898	E836	E836
									S903	S903

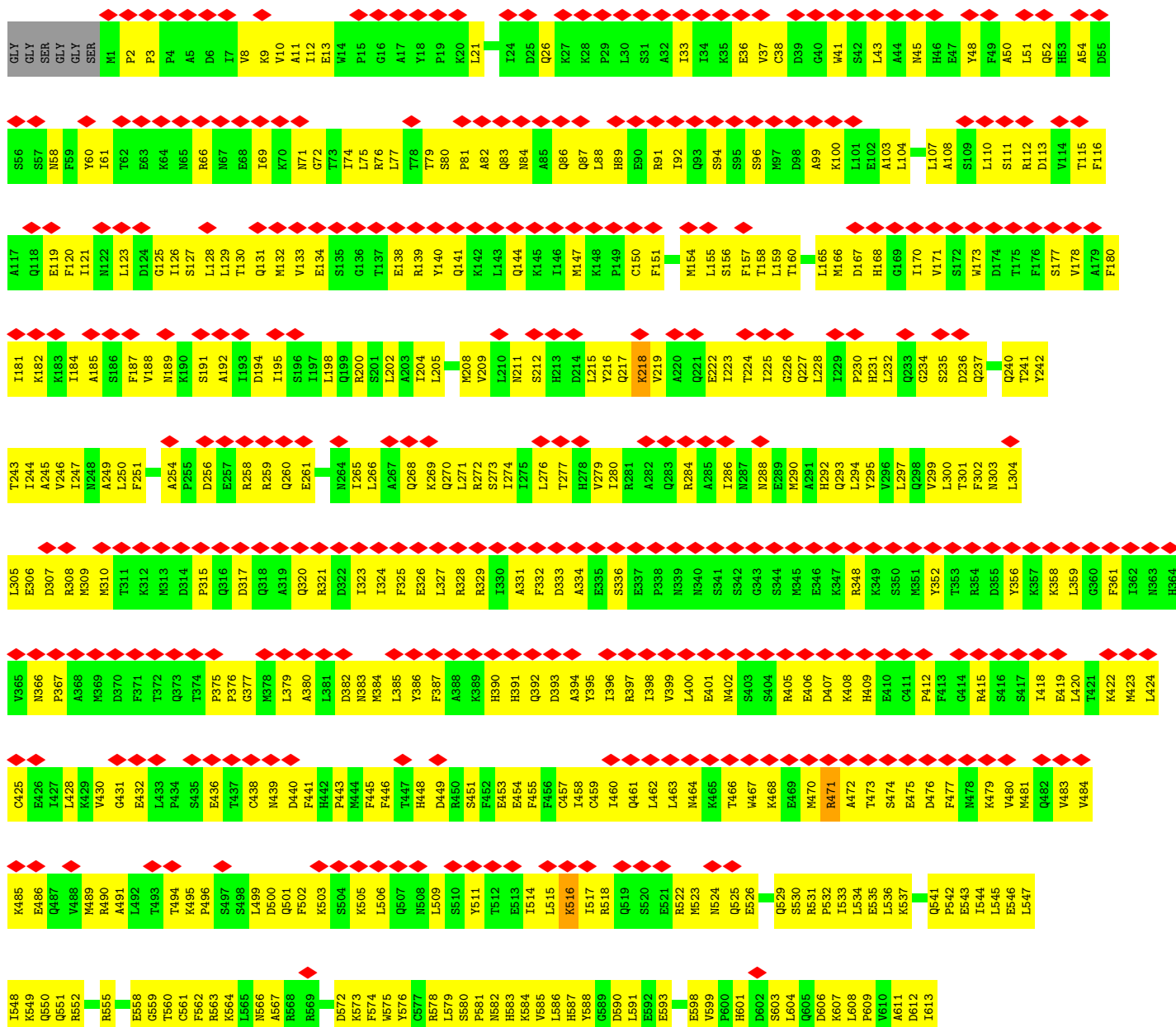
● Molecule 2: Ras-related C3 botulinum toxin substrate 1

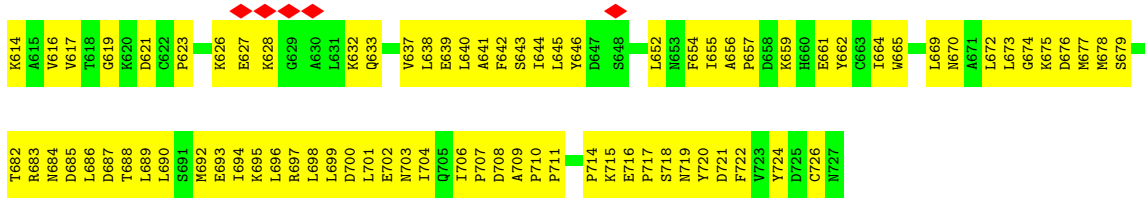




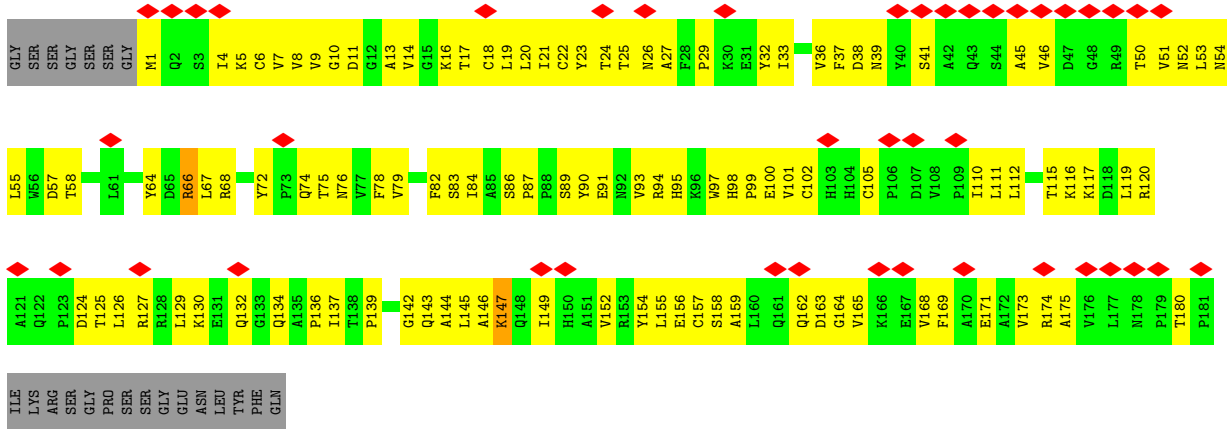


● Molecule 3: Engulfment and cell motility protein 1





• Molecule 4: Rho-related GTP-binding protein RhoG



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	169096	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	0.062	Depositor
Minimum map value	-0.021	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](#)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	B	0.41	0/13722	0.58	1/18514 (0.0%)
1	F	0.34	0/13722	0.55	2/18514 (0.0%)
2	C	0.36	0/1415	0.55	0/1924
2	G	0.34	0/1415	0.54	0/1924
3	A	0.30	0/5992	0.55	0/8086
3	E	0.30	0/1650	0.56	0/2230
4	D	0.30	0/1449	0.51	0/1977
All	All	0.36	0/39365	0.56	3/53169 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	676	LEU	CA-CB-CG	6.09	129.30	115.30
1	B	992	MET	CA-CB-CG	-5.47	104.00	113.30
1	F	96	ARG	CB-CG-CD	5.10	124.86	111.60

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	110	LYS	Peptide

## 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	B	13436	0	13516	1324	0
1	F	13436	0	13516	1068	0
2	C	1385	0	1407	117	0
2	G	1385	0	1407	139	0
3	A	5879	0	5902	479	0
3	E	1617	0	1625	159	0
4	D	1416	0	1413	123	0
5	D	1	0	0	0	0
6	D	32	0	12	4	0
All	All	38587	0	38798	3295	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 43.

All (3295) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1028:LEU:O	1:F:1032:PHE:HB2	1.63	0.98
1:F:1217:LYS:HA	1:F:1220:ARG:HE	1.31	0.94
3:A:302:PHE:HB3	3:A:431:GLY:H	1.31	0.94
1:B:1462:PHE:HB2	1:B:1489:TYR:HB2	1.46	0.94
1:F:740:TYR:HA	1:F:749:LYS:HD3	1.47	0.94
3:A:209:VAL:HG11	3:A:249:ALA:HB1	1.51	0.92
1:B:37:ILE:HA	1:B:47:GLY:HA3	1.53	0.90
1:B:1209:THR:O	1:B:1213:GLN:HB3	1.70	0.89
1:B:789:ASN:HB3	1:B:793:GLN:HE22	1.37	0.88
1:F:37:ILE:HA	1:F:47:GLY:HA3	1.55	0.88
1:F:153:ASP:OD1	1:F:197:LYS:NZ	2.07	0.88
1:B:655:LYS:HB2	1:B:656:LYS:HZ2	1.37	0.87
1:F:25:VAL:HG21	1:F:56:LYS:HG3	1.58	0.86
1:B:1166:GLU:HA	1:B:1169:LYS:HE3	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:617:VAL:HB	3:A:621:ASP:HB3	1.57	0.86
1:B:1391:ARG:HD2	1:B:1429:PHE:HA	1.56	0.85
2:G:171:GLU:HA	2:G:174:ARG:HG2	1.58	0.85
1:F:157:ARG:NH2	1:F:201:GLU:OE1	2.08	0.85
1:B:285:SER:H	1:B:288:ASP:HB2	1.42	0.84
1:F:35:VAL:HG12	1:F:49:THR:HG22	1.60	0.84
1:F:1284:GLN:HE21	1:F:1286:ASP:HB2	1.40	0.84
1:B:19:TYR:HH	1:B:44:TRP:HH2	1.21	0.84
1:B:945:ARG:HH21	1:B:946:GLN:HG2	1.39	0.84
1:F:668:PHE:HB3	1:F:671:ASP:HB2	1.58	0.84
1:B:927:LEU:HB3	1:B:931:ARG:HH12	1.42	0.83
1:F:1057:GLU:HA	1:F:1061:LEU:HD13	1.60	0.83
1:F:806:LEU:HD12	1:F:813:LYS:HD3	1.60	0.83
1:B:1439:PRO:HA	1:B:1442:LYS:HZ2	1.44	0.83
1:F:1633:VAL:HA	1:F:1637:TYR:HB2	1.59	0.83
1:F:1291:TYR:HB3	1:F:1296:LEU:HD21	1.59	0.83
1:B:1353:ILE:O	1:B:1449:GLN:NE2	2.12	0.82
3:A:306:GLU:HA	3:A:309:MET:HG2	1.59	0.82
1:B:537:GLN:HB2	1:B:540:ARG:HB3	1.60	0.82
1:F:1587:GLU:HA	1:F:1590:LYS:HD2	1.62	0.82
1:B:323:GLY:HA2	1:B:351:ILE:HG13	1.61	0.82
1:B:330:THR:HA	1:B:333:ILE:HG12	1.62	0.81
1:B:1184:LYS:HG3	1:B:1185:TYR:H	1.45	0.81
1:B:904:GLN:O	1:B:908:ASN:ND2	2.13	0.81
1:F:1233:GLU:O	1:F:1235:LYS:NZ	2.14	0.81
3:E:670:ASN:ND2	3:E:676:ASP:O	2.13	0.81
2:C:116:LYS:HB3	2:C:119:LEU:HB2	1.62	0.81
1:F:132:LEU:HD22	3:E:703:ASN:HB2	1.61	0.81
1:B:1284:GLN:HG2	1:B:1286:ASP:H	1.45	0.81
1:F:297:VAL:HG12	1:F:299:GLN:HE21	1.42	0.81
1:F:1245:TYR:HD2	1:F:1248:ARG:HH21	1.29	0.81
2:G:90:PHE:HE2	2:G:137:ILE:HB	1.46	0.80
1:B:1057:GLU:O	1:B:1080:ARG:NH1	2.14	0.80
1:B:666:VAL:HA	1:B:669:LEU:HD23	1.64	0.80
3:A:670:ASN:ND2	3:A:676:ASP:O	2.13	0.80
1:B:1028:LEU:O	1:B:1032:PHE:HB2	1.80	0.80
1:B:851:GLN:O	1:B:856:LYS:NZ	2.14	0.80
1:B:1315:GLU:OE2	1:B:1357:ARG:NH2	2.13	0.80
3:A:79:THR:HG21	3:A:87:GLN:HE22	1.47	0.80
1:B:769:GLN:OE1	1:B:776:ARG:NH2	2.15	0.80
1:F:879:LEU:HG	1:F:931:ARG:HH22	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1301:TYR:HE2	1:F:1320:LEU:HD12	1.47	0.80
1:F:1056:HIS:ND1	1:F:1057:GLU:OE2	2.14	0.79
2:C:153:LYS:NZ	2:C:154:TYR:O	2.16	0.79
1:F:910:LEU:HA	1:F:913:LEU:HD12	1.63	0.79
2:G:45:MET:HB3	2:G:50:PRO:HA	1.64	0.79
1:F:45:TYR:HD2	1:F:64:ILE:HG13	1.48	0.79
3:E:537:LYS:HB2	3:E:694:ILE:HG21	1.65	0.79
3:A:241:THR:O	3:A:293:GLN:NE2	2.17	0.78
3:A:448:HIS:HB3	3:A:451:SER:HB3	1.65	0.78
1:B:19:TYR:H	1:B:28:SER:HA	1.47	0.78
1:B:1543:SER:OG	1:B:1545:HIS:ND1	2.17	0.78
2:C:39:ASN:H	2:C:57:ASP:HB3	1.47	0.78
1:B:95:LEU:HA	1:B:98:TRP:CD1	2.18	0.78
1:B:485:HIS:HA	1:B:492:GLY:HA2	1.66	0.78
1:B:560:THR:HG22	1:B:638:LEU:HG	1.66	0.78
1:B:1057:GLU:HA	1:B:1061:LEU:HD13	1.65	0.78
1:B:1245:TYR:HD2	1:B:1248:ARG:HH21	1.31	0.78
1:F:166:ARG:NH1	1:F:167:ASP:OD1	2.16	0.78
1:F:1217:LYS:HG2	1:F:1220:ARG:HH21	1.46	0.78
1:B:1360:PRO:HA	1:B:1387:GLU:HA	1.64	0.77
1:B:46:ARG:NH2	3:A:726:CYS:SG	2.57	0.77
1:B:940:VAL:HA	1:B:943:MET:HB3	1.65	0.77
1:F:1088:ARG:HG3	1:F:1127:ILE:HD11	1.64	0.77
1:B:476:GLU:HG3	1:B:583:LYS:HD2	1.67	0.77
1:B:1159:VAL:O	1:B:1208:ARG:NH1	2.18	0.77
1:B:1276:LYS:NZ	1:B:1277:PRO:O	2.14	0.77
1:B:1579:HIS:HB3	1:B:1582:ASP:HB2	1.66	0.77
1:F:986:LEU:HG	1:F:1028:LEU:HD21	1.67	0.77
1:F:1057:GLU:O	1:F:1080:ARG:NH1	2.17	0.77
1:F:1360:PRO:HA	1:F:1387:GLU:HA	1.64	0.77
1:F:904:GLN:OE1	1:F:908:ASN:ND2	2.17	0.77
1:F:1221:MET:HE1	1:F:1250:LEU:HB3	1.65	0.77
3:A:331:ALA:HB1	3:A:399:VAL:HG21	1.67	0.77
1:B:1612:THR:HG22	1:B:1615:LEU:HD13	1.66	0.77
1:B:741:VAL:HG23	1:B:801:LEU:HD11	1.66	0.77
1:B:566:ARG:HE	1:B:621:GLN:HG3	1.48	0.76
4:D:93:VAL:HA	4:D:97:TRP:HB2	1.67	0.76
1:B:225:TYR:N	1:B:404:LYS:O	2.19	0.76
1:B:934:ARG:NH1	1:B:934:ARG:O	2.17	0.76
1:B:484:ILE:HG21	1:B:496:TYR:HB2	1.67	0.76
1:F:632:THR:HG23	1:F:664:GLU:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:883:THR:HG21	1:F:931:ARG:HG3	1.67	0.76
1:B:740:TYR:HA	1:B:749:LYS:HD3	1.67	0.76
1:B:1563:PHE:HA	1:B:1566:TYR:HD2	1.51	0.76
1:B:1167:GLN:OE1	1:B:1167:GLN:N	2.18	0.76
1:B:1183:HIS:CE1	1:B:1186:LEU:HB3	2.21	0.76
1:B:1010:ASN:OD1	1:B:1013:GLN:NE2	2.18	0.75
1:B:37:ILE:HD13	1:B:45:TYR:HB3	1.67	0.75
1:B:1597:MET:HG3	1:B:1633:VAL:HG21	1.67	0.75
2:G:90:PHE:HB3	2:G:94:ARG:HH22	1.51	0.75
1:B:1408:MET:HB2	1:B:1427:GLN:HB3	1.67	0.75
2:G:98:TYR:HE1	2:G:149:ILE:HD13	1.51	0.75
1:B:1545:HIS:O	1:B:1548:SER:OG	2.03	0.75
3:A:677:MET:O	3:A:683:ARG:NH2	2.16	0.75
1:B:434:PRO:O	1:B:708:LYS:NZ	2.17	0.75
1:B:36:HIS:N	1:B:48:TYR:O	2.19	0.75
1:B:181:ILE:HG22	1:B:185:LYS:HZ1	1.52	0.75
1:B:1010:ASN:O	1:B:1013:GLN:NE2	2.18	0.75
1:B:1620:GLU:OE2	1:B:1621:ARG:NH1	2.20	0.75
3:A:561:CYS:HB3	3:A:574:PHE:HB3	1.68	0.75
1:B:864:VAL:HG21	1:B:909:ILE:HG22	1.68	0.75
2:G:7:VAL:HA	2:G:56:TRP:HB2	1.69	0.74
1:F:165:VAL:HG23	1:F:175:PRO:HD3	1.68	0.74
1:B:1117:GLU:OE1	1:B:1119:GLU:N	2.20	0.74
1:F:1159:VAL:O	1:F:1208:ARG:NH1	2.20	0.74
1:F:1390:ARG:NH2	2:G:23:TYR:O	2.20	0.74
1:B:467:GLU:HB2	1:B:500:VAL:HG22	1.68	0.74
1:B:1561:GLY:O	1:B:1565:ASN:ND2	2.18	0.74
1:F:1219:ASN:OD1	1:F:1401:GLN:NE2	2.21	0.74
1:F:1248:ARG:NH1	1:F:1249:ASP:OD1	2.19	0.74
1:B:930:GLU:O	1:B:935:ARG:NH2	2.21	0.74
3:A:582:ASN:HB3	3:A:584:LYS:HG2	1.69	0.74
1:F:150:ALA:O	1:F:197:LYS:NZ	2.20	0.74
1:F:1525:THR:HA	1:F:1528:ARG:HH11	1.52	0.74
4:D:78:PHE:HE2	4:D:105:CYS:HB2	1.53	0.74
1:B:1315:GLU:OE1	1:B:1315:GLU:N	2.16	0.74
1:B:1463:ARG:HD3	1:B:1486:ARG:HD2	1.68	0.74
1:B:79:THR:HG22	1:B:85:LEU:HB2	1.69	0.74
1:F:145:LYS:HD2	1:F:169:ASN:H	1.53	0.74
3:E:530:SER:HB2	3:E:533:ILE:HD13	1.70	0.74
1:B:154:HIS:HB2	1:B:197:LYS:HZ3	1.53	0.74
1:B:1111:GLU:O	1:B:1163:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:95:LEU:HD23	1:F:98:TRP:HD1	1.52	0.74
4:D:120:ARG:NH1	4:D:137:ILE:O	2.21	0.74
3:A:694:ILE:HA	3:A:697:ARG:HG2	1.69	0.73
1:B:875:ARG:NH1	1:B:920:ALA:O	2.20	0.73
4:D:51:VAL:HG11	4:D:173:VAL:HG11	1.70	0.73
1:B:1368:TYR:O	1:B:1425:TYR:N	2.17	0.73
1:F:5:ILE:H	1:F:40:MET:H	1.37	0.73
3:E:531:ARG:NH2	3:E:708:ASP:OD2	2.21	0.73
3:A:584:LYS:O	3:A:607:LYS:NZ	2.22	0.73
1:F:96:ARG:HH22	1:F:1067:ALA:HB2	1.54	0.73
1:F:1362:TYR:HE2	1:F:1459:VAL:HG21	1.53	0.73
1:B:95:LEU:HA	1:B:98:TRP:HD1	1.53	0.73
1:B:228:PHE:HE2	1:B:399:LEU:HB2	1.54	0.73
1:B:1275:ASP:O	1:B:1292:THR:OG1	2.07	0.73
1:F:705:GLY:O	1:F:710:GLN:NE2	2.19	0.73
1:F:961:LEU:HA	1:F:964:MET:HB3	1.69	0.73
1:B:79:THR:HG21	1:B:83:GLY:H	1.53	0.72
1:B:1063:THR:HA	1:B:1069:ARG:HH11	1.53	0.72
1:B:1633:VAL:HA	1:B:1637:TYR:HB2	1.70	0.72
1:F:33:ASP:HA	1:F:51:GLN:HE22	1.54	0.72
1:F:1156:ASP:OD2	1:F:1242:ARG:NH2	2.22	0.72
3:A:86:GLN:O	3:A:89:HIS:ND1	2.22	0.72
1:F:1185:TYR:O	1:F:1188:SER:OG	2.07	0.72
1:F:102:TRP:HB2	1:F:114:PHE:HE1	1.53	0.72
1:F:1063:THR:HA	1:F:1069:ARG:HH11	1.54	0.72
1:F:72:GLU:HA	1:F:89:GLN:HE22	1.54	0.72
1:B:86:PRO:HA	1:B:89:GLN:HE21	1.53	0.72
1:B:140:GLU:N	1:B:140:GLU:OE1	2.21	0.72
1:B:474:ASP:O	1:B:526:HIS:ND1	2.23	0.72
1:B:498:SER:HB2	1:B:509:TRP:HE1	1.54	0.72
1:B:900:GLU:O	1:B:903:SER:OG	2.08	0.72
1:B:944:ASN:O	1:B:946:GLN:NE2	2.22	0.72
1:B:979:ARG:NH2	1:B:1031:PHE:O	2.23	0.72
1:B:1367:TYR:HH	1:B:1383:TYR:HH	1.36	0.72
1:F:60:PRO:HB3	3:E:714:PRO:HD2	1.72	0.72
1:F:1248:ARG:HH11	1:F:1252:ARG:HH12	1.37	0.72
1:B:110:LYS:HZ2	1:B:113:LEU:HB2	1.55	0.72
2:G:9:VAL:HG22	2:G:78:PHE:HZ	1.54	0.72
1:F:871:GLN:HB2	1:F:918:VAL:HG12	1.72	0.72
1:F:1359:GLN:NE2	1:F:1360:PRO:O	2.23	0.72
2:G:90:PHE:HB3	2:G:94:ARG:NH2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:134:GLU:OE1	3:A:177:SER:OG	2.08	0.72
3:A:328:ARG:HE	3:A:329:ARG:HH21	1.37	0.72
1:F:59:PHE:HD2	1:F:64:ILE:HG12	1.54	0.72
1:B:154:HIS:HA	1:B:157:ARG:HE	1.55	0.72
1:B:446:ILE:HB	1:B:515:VAL:HB	1.71	0.72
1:B:1372:PHE:O	1:B:1377:ARG:NH2	2.23	0.72
3:A:619:GLY:HA3	3:A:638:LEU:HD12	1.71	0.72
2:G:100:GLU:O	2:G:104:HIS:ND1	2.23	0.71
1:B:890:LEU:HD22	1:B:935:ARG:HG3	1.72	0.71
2:C:130:LYS:HE3	2:C:136:PRO:HD3	1.72	0.71
1:F:242:PHE:HB3	1:F:257:ASN:HB3	1.72	0.71
1:B:150:ALA:O	1:B:197:LYS:NZ	2.24	0.71
1:F:761:LYS:HG3	1:F:765:ARG:HH21	1.55	0.71
1:F:1166:GLU:HA	1:F:1169:LYS:HE3	1.72	0.71
1:F:1277:PRO:HG3	1:F:1292:THR:HA	1.71	0.71
1:B:1200:LEU:HD23	1:B:1230:PHE:HE2	1.55	0.71
1:F:239:ALA:HB3	1:F:262:TRP:HB3	1.72	0.71
1:F:532:ARG:HA	1:F:546:ALA:HA	1.71	0.71
1:F:1545:HIS:HD2	2:G:5:LYS:HE3	1.54	0.71
1:B:555:MET:HA	1:B:561:THR:HA	1.73	0.71
3:A:216:TYR:HE1	3:A:250:LEU:HA	1.54	0.71
3:A:235:SER:O	3:A:284:ARG:NH1	2.23	0.71
1:B:972:TYR:HA	1:B:975:THR:HB	1.70	0.71
1:F:940:VAL:HA	1:F:943:MET:HE2	1.73	0.71
1:F:1623:SER:HB3	1:F:1627:ARG:HH22	1.55	0.71
4:D:19:LEU:HD21	4:D:168:VAL:HG11	1.72	0.71
3:A:509:LEU:HA	3:A:514:ILE:HD11	1.71	0.71
1:B:1155:LEU:HD21	1:B:1201:LEU:HD21	1.73	0.71
1:F:472:VAL:HB	1:F:483:ALA:HB1	1.72	0.71
1:F:1081:LYS:HD2	1:F:1120:LEU:HD23	1.71	0.71
2:G:7:VAL:HG23	2:G:75:THR:HG21	1.73	0.71
1:B:237:GLU:OE2	1:B:305:HIS:N	2.23	0.71
1:B:871:GLN:HG2	1:B:875:ARG:HD3	1.73	0.71
1:B:563:GLN:O	1:B:567:HIS:NE2	2.23	0.70
1:B:730:TYR:HB3	1:B:770:SER:HB3	1.71	0.70
1:F:495:GLU:O	1:F:497:LYS:NZ	2.23	0.70
1:B:843:PHE:O	1:B:846:SER:OG	2.09	0.70
1:B:1622:LEU:O	1:B:1626:PHE:HB2	1.91	0.70
2:C:9:VAL:HG22	2:C:78:PHE:HZ	1.53	0.70
3:A:564:LYS:HG3	3:A:575:TRP:NE1	2.06	0.70
1:B:638:LEU:HD13	1:B:641:LEU:HD12	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1370:GLN:OE1	1:B:1377:ARG:NH1	2.25	0.70
1:F:237:GLU:OE2	1:F:305:HIS:N	2.24	0.70
3:A:529:GLN:HG3	3:A:534:LEU:HD11	1.74	0.70
1:B:2:ALA:H	3:A:717:PRO:HG2	1.55	0.70
1:B:138:LYS:HA	1:B:141:LEU:HD13	1.73	0.70
1:B:1525:THR:HA	1:B:1528:ARG:HH11	1.56	0.70
4:D:4:ILE:HD12	4:D:173:VAL:HG13	1.74	0.70
1:B:1307:TYR:HD1	1:B:1310:LYS:HZ1	1.37	0.70
1:F:904:GLN:O	1:F:908:ASN:ND2	2.25	0.70
3:E:561:CYS:HB3	3:E:574:PHE:HA	1.74	0.70
1:B:961:LEU:O	1:B:1019:ARG:NH1	2.25	0.70
1:F:1275:ASP:O	1:F:1292:THR:OG1	2.08	0.70
2:G:153:LYS:NZ	2:G:154:TYR:O	2.25	0.70
1:B:318:LEU:HD22	1:B:320:ARG:HH22	1.56	0.70
1:B:792:ARG:NE	1:B:835:GLU:OE1	2.19	0.70
1:B:871:GLN:HB2	1:B:918:VAL:HG12	1.74	0.70
1:F:745:ASP:HB3	1:F:804:ARG:HH22	1.56	0.70
1:F:870:ARG:NH1	1:F:872:SER:OG	2.24	0.70
1:B:1062:GLU:HB3	1:B:1069:ARG:HA	1.74	0.69
1:B:789:ASN:OD1	1:B:792:ARG:NH1	2.25	0.69
2:C:45:MET:HA	2:C:50:PRO:HA	1.74	0.69
1:F:1536:HIS:HA	1:F:1542:LEU:HD13	1.73	0.69
1:B:1152:ILE:HD12	1:B:1200:LEU:HD11	1.73	0.69
3:A:398:ILE:O	3:A:402:ASN:ND2	2.26	0.69
1:B:1356:MET:N	1:B:1356:MET:SD	2.65	0.69
1:F:1349:TYR:HA	1:F:1352:ILE:HD12	1.75	0.69
1:B:1007:MET:N	1:B:1007:MET:SD	2.61	0.69
1:B:1486:ARG:NH2	1:B:1510:GLU:OE1	2.26	0.69
1:F:1114:LEU:HD22	1:F:1163:ARG:HB3	1.75	0.69
1:B:496:TYR:OH	1:B:511:GLU:OE2	2.10	0.69
1:B:1342:LEU:HD11	1:F:1346:ALA:HB2	1.75	0.69
1:B:795:PHE:CE2	1:B:843:PHE:HB2	2.28	0.69
1:F:581:ASP:HB3	1:F:584:PHE:HB3	1.74	0.69
1:F:1335:TYR:HA	1:F:1338:LEU:HD23	1.73	0.69
1:B:1360:PRO:HG2	1:B:1362:TYR:HE1	1.58	0.69
1:F:70:THR:HG22	1:F:71:VAL:H	1.57	0.69
1:F:93:SER:O	1:F:96:ARG:HD3	1.92	0.69
1:F:852:LEU:HB2	1:F:856:LYS:HE2	1.75	0.69
1:F:1469:ARG:HA	1:F:1481:THR:HB	1.73	0.69
3:A:51:LEU:O	3:A:61:ILE:N	2.22	0.69
1:B:187:HIS:HD1	1:B:1006:TRP:HD1	1.38	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:646:ASN:OD1	1:B:649:ASN:ND2	2.26	0.69
1:B:802:MET:SD	1:B:846:SER:OG	2.50	0.69
1:F:35:VAL:HA	1:F:49:THR:HA	1.75	0.69
1:F:1532:CYS:O	1:F:1535:GLN:NE2	2.24	0.69
3:A:81:PRO:HB3	3:A:116:PHE:HA	1.75	0.69
1:B:1056:HIS:ND1	1:B:1057:GLU:OE2	2.26	0.69
1:B:1231:TYR:HE2	1:B:1243:TYR:HE2	1.41	0.69
1:F:454:GLU:HA	1:F:506:GLN:HG2	1.74	0.69
1:F:1218:GLU:N	1:F:1218:GLU:OE1	2.25	0.69
1:B:913:LEU:HD23	1:B:925:ILE:HG22	1.73	0.68
1:F:110:LYS:HZ3	1:F:113:LEU:HB2	1.58	0.68
1:F:1121:ARG:HH11	1:F:1171:LEU:HD12	1.57	0.68
1:F:1438:PRO:HB2	1:F:1441:TYR:HB2	1.74	0.68
1:B:72:GLU:OE1	1:B:74:LEU:N	2.26	0.68
1:F:95:LEU:HA	1:F:98:TRP:CD1	2.29	0.68
3:A:138:GLU:OE2	3:A:139:ARG:NH1	2.26	0.68
4:D:32:TYR:HA	6:D:202:GTP:H5''	1.75	0.68
1:B:730:TYR:HB2	1:B:767:ILE:HG23	1.76	0.68
1:B:879:LEU:HB2	1:B:924:HIS:HE1	1.58	0.68
1:B:1584:GLU:HG3	1:B:1585:LYS:HD2	1.76	0.68
1:F:79:THR:HG22	1:F:85:LEU:HB2	1.75	0.68
1:F:376:ASN:ND2	1:F:502:TYR:O	2.24	0.68
1:F:678:ASN:HA	1:F:681:MET:HG2	1.76	0.68
1:F:789:ASN:OD1	1:F:792:ARG:NH1	2.26	0.68
1:F:824:ILE:HB	1:F:836:LEU:HD21	1.75	0.68
1:B:1238:ASP:HA	1:B:1241:ILE:HD12	1.75	0.68
3:A:315:PRO:O	3:A:320:GLN:NE2	2.25	0.68
4:D:11:ASP:OD1	4:D:97:TRP:NE1	2.17	0.68
1:F:1328:TYR:HA	1:F:1332:VAL:HG12	1.75	0.68
1:F:1365:VAL:O	1:F:1381:PHE:N	2.18	0.68
3:A:547:LEU:O	3:A:550:GLN:NE2	2.27	0.68
1:B:106:TYR:O	3:A:555:ARG:NH2	2.27	0.68
1:B:70:THR:HG22	1:B:71:VAL:H	1.59	0.68
1:F:565:GLY:N	1:F:624:THR:O	2.25	0.68
1:F:979:ARG:NH2	1:F:1031:PHE:O	2.27	0.68
3:A:58:ASN:OD1	3:A:76:ARG:NH2	2.27	0.68
1:B:344:HIS:N	1:B:401:VAL:O	2.27	0.68
1:B:669:LEU:O	1:B:672:THR:OG1	2.11	0.68
1:F:1097:HIS:HA	1:F:1100:LYS:HE2	1.75	0.68
2:G:4:ILE:H	2:G:53:LEU:HA	1.59	0.68
2:G:11:ASP:O	2:G:16:LYS:NZ	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:266:LEU:HA	3:A:271:LEU:HD13	1.76	0.68
1:B:876:GLU:N	1:B:876:GLU:OE1	2.27	0.68
3:E:608:LEU:HD11	3:E:613:ILE:HD11	1.76	0.68
3:A:526:GLU:O	3:A:530:SER:N	2.23	0.68
1:B:25:VAL:HG21	1:B:56:LYS:HG3	1.75	0.67
1:B:1111:GLU:N	1:B:1111:GLU:OE1	2.25	0.67
1:F:247:ASP:HB3	1:F:250:GLN:HB2	1.76	0.67
3:A:113:ASP:HB3	3:A:116:PHE:HB3	1.75	0.67
3:A:530:SER:HB2	3:A:533:ILE:HD13	1.76	0.67
1:B:719:TYR:CD1	1:B:723:HIS:HB2	2.30	0.67
1:F:241:LEU:HB2	1:F:260:ILE:HB	1.75	0.67
1:F:332:ILE:HD13	1:F:403:LEU:HD13	1.76	0.67
1:F:1062:GLU:HB3	1:F:1069:ARG:HA	1.76	0.67
1:B:34:THR:OG1	3:A:700:ASP:OD2	2.12	0.67
1:B:1218:GLU:OE1	1:B:1218:GLU:N	2.27	0.67
1:B:1390:ARG:NH2	2:C:23:TYR:O	2.28	0.67
1:F:4:TRP:O	3:E:724:TYR:N	2.28	0.67
3:E:557:VAL:O	3:E:578:ARG:NH1	2.28	0.67
3:A:87:GLN:O	3:A:91:ARG:HG2	1.94	0.67
1:B:85:LEU:HA	1:B:88:VAL:HG12	1.75	0.67
1:B:91:LEU:O	1:B:95:LEU:HG	1.94	0.67
1:B:129:SER:HA	1:B:132:LEU:HD12	1.76	0.67
1:B:1065:SER:OG	1:B:1068:LYS:N	2.28	0.67
1:B:1374:SER:O	1:B:1379:LYS:NZ	2.27	0.67
3:A:108:ALA:O	3:A:112:ARG:NH1	2.27	0.67
1:B:73:ASP:HA	1:B:78:GLU:HB2	1.77	0.67
2:C:170:ASP:HB3	2:C:174:ARG:HH21	1.60	0.67
1:F:306:MET:H	1:F:314:HIS:HB3	1.59	0.67
1:F:519:ILE:HG21	1:F:630:LYS:HB3	1.77	0.67
3:E:551:GLN:HG2	3:E:552:ARG:HH21	1.60	0.67
3:E:692:MET:O	3:E:696:LEU:N	2.28	0.67
1:B:302:ARG:HG3	1:B:320:ARG:HB2	1.77	0.67
1:B:1180:CYS:O	1:B:1187:SER:OG	2.10	0.67
1:F:789:ASN:HA	1:F:792:ARG:HD2	1.75	0.67
1:F:1366:GLY:HA2	1:F:1380:ILE:HA	1.76	0.67
1:F:1631:GLU:OE1	1:F:1635:LYS:NZ	2.28	0.67
4:D:39:ASN:ND2	4:D:54:ASN:OD1	2.20	0.67
4:D:124:ASP:OD1	4:D:127:ARG:NH1	2.27	0.67
1:B:1532:CYS:O	1:B:1535:GLN:NE2	2.26	0.67
3:A:665:TRP:O	3:A:669:LEU:HG	1.94	0.67
1:B:965:ASP:OD1	1:B:966:ASP:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1117:GLU:OE2	1:B:1121:ARG:N	2.25	0.67
1:F:1148:GLU:O	1:F:1152:ILE:HG12	1.94	0.67
1:B:31:ILE:HG21	3:A:698:LEU:HA	1.77	0.67
1:B:114:PHE:O	1:B:117:LEU:HB3	1.95	0.67
1:F:1490:THR:OG1	1:F:1506:GLN:HB3	1.95	0.67
3:A:83:GLN:OE1	3:A:86:GLN:NE2	2.28	0.67
1:B:590:GLY:N	1:B:594:GLU:OE2	2.28	0.66
1:B:1196:LEU:O	1:B:1199:SER:OG	2.13	0.66
1:F:1506:GLN:NE2	1:F:1508:SER:OG	2.22	0.66
3:A:13:GLU:O	3:A:77:LEU:N	2.27	0.66
1:B:844:ILE:HB	1:B:881:LEU:HD11	1.76	0.66
1:B:1259:GLU:OE1	1:B:1259:GLU:N	2.29	0.66
1:F:857:LEU:HA	1:F:860:MET:SD	2.35	0.66
1:F:930:GLU:O	1:F:935:ARG:NH2	2.28	0.66
3:A:352:TYR:O	3:A:356:TYR:HB2	1.95	0.66
1:B:1051:VAL:HG21	1:B:1108:PRO:HB3	1.77	0.66
1:F:102:TRP:HB2	1:F:114:PHE:CE1	2.31	0.66
1:F:1362:TYR:HD2	1:F:1462:PHE:HE2	1.43	0.66
2:G:116:LYS:HB3	2:G:119:LEU:HB2	1.77	0.66
3:A:132:MET:HG3	3:A:133:VAL:HG13	1.76	0.66
3:A:579:LEU:HD11	3:A:583:HIS:HA	1.76	0.66
1:B:44:TRP:CD1	3:A:716:GLU:HG3	2.31	0.66
1:F:1451:LEU:HB3	1:F:1455:ARG:HH22	1.61	0.66
1:F:465:ASN:ND2	1:F:534:ARG:O	2.28	0.66
1:F:772:VAL:HA	1:F:775:LEU:HG	1.78	0.66
1:F:1418:ILE:HA	1:F:1421:SER:HB3	1.77	0.66
1:F:1484:ILE:HB	1:F:1512:ILE:HB	1.78	0.66
3:A:333:ASP:HA	3:A:336:SER:HB2	1.76	0.66
4:D:10:GLY:O	4:D:16:LYS:NZ	2.25	0.66
1:F:1167:GLN:OE1	1:F:1167:GLN:N	2.25	0.66
3:A:640:LEU:HB3	3:A:656:ALA:H	1.61	0.66
4:D:13:ALA:HA	6:D:202:GTP:H5'	1.76	0.66
1:B:860:MET:HA	1:B:863:ILE:HD13	1.78	0.66
2:C:11:ASP:OD1	2:C:16:LYS:NZ	2.29	0.66
3:A:308:ARG:NE	3:A:382:ASP:OD2	2.28	0.66
3:A:614:LYS:HB2	3:A:645:LEU:HB2	1.78	0.66
1:B:372:VAL:O	1:B:376:ASN:ND2	2.29	0.66
1:B:923:VAL:O	1:B:927:LEU:HG	1.96	0.66
1:B:1015:ARG:HA	1:B:1018:LEU:HD12	1.77	0.66
1:F:1128:PHE:HA	1:F:1131:MET:SD	2.36	0.66
1:F:1590:LYS:HB3	1:F:1639:VAL:HG12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:692:MET:HA	3:E:695:LYS:HE3	1.77	0.66
1:B:771:ARG:HH12	1:B:784:GLY:HA2	1.60	0.66
1:F:1607:HIS:NE2	1:F:1619:HIS:HB2	2.11	0.66
2:G:64:TYR:HB2	2:G:68:ARG:HH21	1.59	0.66
3:A:377:GLY:H	3:A:418:ILE:HD11	1.61	0.66
3:A:441:PHE:O	3:A:495:LYS:NZ	2.23	0.66
1:B:259:LEU:N	1:B:488:ALA:O	2.24	0.65
1:B:939:THR:O	1:B:943:MET:N	2.21	0.65
1:B:970:SER:O	1:B:974:SER:OG	2.14	0.65
1:B:1470:LYS:H	1:B:1481:THR:HB	1.60	0.65
1:F:1391:ARG:HH22	2:G:29:PRO:HD3	1.59	0.65
3:A:245:ALA:HB2	3:A:293:GLN:HE22	1.60	0.65
1:B:154:HIS:O	1:B:157:ARG:HG2	1.96	0.65
1:B:1231:TYR:O	1:B:1235:LYS:N	2.30	0.65
1:B:1469:ARG:HD2	1:B:1481:THR:OG1	1.95	0.65
1:F:115:ARG:O	1:F:119:GLN:NE2	2.29	0.65
1:F:1149:ASN:HA	1:F:1236:ARG:HH22	1.59	0.65
1:F:1307:TYR:O	1:F:1311:GLY:N	2.26	0.65
3:E:547:LEU:O	3:E:550:GLN:NE2	2.28	0.65
1:B:1169:LYS:HA	1:B:1172:LEU:HD12	1.77	0.65
1:F:485:HIS:HA	1:F:492:GLY:HA3	1.79	0.65
1:F:1568:LYS:O	1:F:1572:THR:OG1	2.13	0.65
3:A:141:GLN:HA	3:A:144:GLN:HG3	1.78	0.65
2:G:80:ILE:HD11	2:G:97:TRP:HB3	1.79	0.65
2:G:149:ILE:HG23	2:G:151:ALA:H	1.60	0.65
3:E:580:SER:O	3:E:583:HIS:ND1	2.30	0.65
4:D:11:ASP:O	4:D:16:LYS:NZ	2.28	0.65
1:B:330:THR:O	1:B:334:HIS:ND1	2.29	0.65
1:B:844:ILE:HG21	1:B:881:LEU:HD21	1.79	0.65
1:B:1024:PHE:HA	1:B:1027:VAL:HG12	1.78	0.65
1:B:1120:LEU:O	1:B:1124:THR:OG1	2.09	0.65
1:F:297:VAL:HG13	1:F:326:VAL:HG22	1.79	0.65
2:G:7:VAL:HB	2:G:78:PHE:HD2	1.60	0.65
3:A:708:ASP:OD1	3:A:709:ALA:N	2.29	0.65
1:B:1416:GLU:HA	1:B:1419:LYS:HG2	1.77	0.65
1:F:463:PRO:HD2	1:F:503:GLN:HB3	1.79	0.65
1:B:517:ILE:HD12	1:B:522:VAL:HG23	1.77	0.65
3:E:603:SER:N	3:E:606:ASP:OD1	2.29	0.65
3:A:256:ASP:HA	3:A:259:ARG:HD3	1.79	0.65
3:A:358:LYS:HA	3:A:406:GLU:HA	1.78	0.65
1:B:446:ILE:HG12	1:B:626:ILE:HG23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:789:ASN:HB3	1:B:793:GLN:NE2	2.10	0.65
1:F:555:MET:HA	1:F:561:THR:HA	1.79	0.65
1:F:1568:LYS:O	1:F:1574:LYS:NZ	2.30	0.65
3:E:588:TYR:N	3:E:603:SER:OG	2.29	0.65
3:E:591:LEU:HD21	3:E:604:LEU:H	1.62	0.65
1:B:44:TRP:CZ2	1:B:60:PRO:HG3	2.32	0.65
1:B:414:GLN:O	1:B:423:ARG:NH2	2.30	0.65
1:B:1525:THR:HA	1:B:1528:ARG:HD3	1.79	0.65
1:F:98:TRP:HA	1:F:101:ILE:HG22	1.78	0.65
1:F:99:ALA:HA	1:F:102:TRP:CD1	2.32	0.65
1:F:590:GLY:N	1:F:594:GLU:OE2	2.27	0.65
3:A:608:LEU:HD11	3:A:613:ILE:HD11	1.79	0.65
1:B:31:ILE:HG22	3:A:701:LEU:HD23	1.79	0.65
1:F:1534:GLN:HB3	1:F:1538:TRP:CH2	2.31	0.65
2:G:100:GLU:HB2	2:G:104:HIS:HE1	1.62	0.65
1:B:1209:THR:O	1:B:1213:GLN:CB	2.44	0.64
1:B:1391:ARG:NH1	1:B:1428:CYS:O	2.30	0.64
1:F:166:ARG:HD3	1:F:173:LEU:HB2	1.79	0.64
2:G:49:LYS:NZ	2:G:50:PRO:O	2.30	0.64
1:B:74:LEU:HD22	1:B:83:GLY:HA2	1.79	0.64
2:C:5:LYS:HE2	2:C:56:TRP:HZ2	1.62	0.64
1:F:25:VAL:HG23	1:F:57:GLY:HA2	1.78	0.64
1:F:757:LEU:HA	1:F:760:LEU:HG	1.79	0.64
4:D:78:PHE:HB2	4:D:110:ILE:HG12	1.78	0.64
1:B:1275:ASP:OD2	1:B:1292:THR:OG1	2.15	0.64
1:B:1335:TYR:HA	1:B:1338:LEU:HD23	1.77	0.64
1:B:1549:MET:O	2:C:39:ASN:ND2	2.30	0.64
1:F:1225:VAL:HG21	1:F:1499:LEU:HD21	1.79	0.64
1:F:1452:ASN:OD1	1:F:1453:TYR:N	2.30	0.64
3:A:216:TYR:CE1	3:A:250:LEU:HA	2.32	0.64
3:A:566:ASN:OD1	3:A:633:GLN:NE2	2.31	0.64
3:A:616:VAL:HB	3:A:644:ILE:HG12	1.79	0.64
1:B:1183:HIS:HE1	1:B:1186:LEU:HB3	1.62	0.64
1:F:1536:HIS:CG	1:F:1542:LEU:HD22	2.32	0.64
3:E:564:LYS:HE3	3:E:590:ASP:HA	1.78	0.64
3:A:564:LYS:HB2	3:A:567:ALA:HB2	1.79	0.64
1:F:181:ILE:HA	1:F:184:PHE:HB3	1.80	0.64
1:F:1117:GLU:OE1	1:F:1119:GLU:N	2.30	0.64
3:E:719:ASN:ND2	3:E:721:ASP:OD2	2.31	0.64
1:B:789:ASN:HA	1:B:792:ARG:HD2	1.79	0.64
1:F:187:HIS:HD1	1:F:1006:TRP:HD1	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:979:ARG:O	1:F:982:ILE:HG22	1.98	0.64
1:B:566:ARG:NH2	1:B:568:ASP:OD1	2.30	0.64
2:C:77:VAL:HG12	2:C:109:PRO:HG2	1.78	0.64
1:F:1129:PHE:HZ	1:F:1183:HIS:HB3	1.63	0.64
1:F:1618:LEU:HD22	1:F:1621:ARG:HH21	1.62	0.64
2:G:23:TYR:HB2	2:G:165:LEU:HD21	1.80	0.64
3:A:486:GLU:O	3:A:490:ARG:HG2	1.98	0.64
1:B:1166:GLU:O	1:B:1169:LYS:HG2	1.97	0.64
2:C:98:TYR:HE1	2:C:149:ILE:HD13	1.61	0.64
2:C:116:LYS:HD3	2:C:119:LEU:HD12	1.80	0.64
1:F:1241:ILE:HA	1:F:1244:LEU:HD12	1.80	0.64
1:F:1370:GLN:OE1	1:F:1377:ARG:NH1	2.31	0.64
3:A:38:CYS:HB3	3:A:43:LEU:HB2	1.78	0.64
1:B:225:TYR:OH	1:B:227:ASN:ND2	2.27	0.64
1:B:811:LYS:HD2	1:B:812:ILE:HG13	1.80	0.64
2:C:52:ASN:OD1	2:C:53:LEU:N	2.31	0.64
3:A:266:LEU:HG	3:A:271:LEU:HB2	1.78	0.64
3:A:401:GLU:O	3:A:405:ARG:NE	2.30	0.64
3:A:685:ASP:OD1	3:A:686:LEU:N	2.31	0.64
1:F:110:LYS:HD3	1:F:113:LEU:HD12	1.80	0.64
1:F:1438:PRO:HB3	1:F:1454:TYR:CE2	2.33	0.64
3:A:501:GLN:OE1	3:A:505:LYS:NZ	2.30	0.64
1:B:166:ARG:NH2	1:B:169:ASN:OD1	2.31	0.63
1:B:1555:VAL:HG21	1:B:1622:LEU:HD22	1.80	0.63
1:F:1211:ILE:HD13	1:F:1220:ARG:HG2	1.79	0.63
2:G:5:LYS:NZ	2:G:73:PRO:O	2.30	0.63
2:G:129:LEU:HB3	2:G:134:LEU:O	1.98	0.63
1:B:132:LEU:O	3:A:703:ASN:ND2	2.30	0.63
2:C:124:ASP:O	2:C:127:GLU:HG2	1.98	0.63
1:F:233:CYS:SG	1:F:234:ASN:N	2.71	0.63
1:B:11:LYS:HB2	1:B:70:THR:HA	1.80	0.63
1:B:19:TYR:HB2	1:B:59:PHE:HE1	1.63	0.63
1:B:468:VAL:N	1:B:498:SER:OG	2.31	0.63
1:B:853:VAL:O	1:B:857:LEU:HG	1.99	0.63
1:B:1627:ARG:HA	1:B:1630:LYS:HB2	1.80	0.63
1:F:187:HIS:ND1	1:F:1006:TRP:HD1	1.96	0.63
1:F:879:LEU:CG	1:F:931:ARG:HH22	2.11	0.63
1:F:1284:GLN:HG2	1:F:1286:ASP:H	1.63	0.63
3:A:26:GLN:OE1	3:A:66:ARG:NH1	2.30	0.63
1:F:102:TRP:HA	1:F:105:LEU:HG	1.81	0.63
3:A:21:LEU:HD13	4:D:37:PHE:CZ	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1028:LEU:HD12	1:B:1043:TRP:CZ2	2.34	0.63
1:B:1165:ASP:O	1:B:1168:TYR:HB3	1.99	0.63
1:F:1506:GLN:NE2	1:F:1507:ILE:O	2.31	0.63
1:B:153:ASP:HB2	1:B:194:ILE:HD11	1.79	0.63
1:B:1274:SER:HB2	1:B:1293:GLN:HE21	1.64	0.63
1:F:93:SER:HB2	1:F:96:ARG:NH1	2.14	0.63
1:F:226:VAL:HB	1:F:279:ALA:HB3	1.80	0.63
1:F:1061:LEU:HA	1:F:1064:PHE:CZ	2.34	0.63
1:F:1301:TYR:CE2	1:F:1320:LEU:HD12	2.31	0.63
2:G:174:ARG:HA	2:G:177:LEU:HB2	1.80	0.63
3:A:562:PHE:N	3:A:575:TRP:O	2.32	0.63
1:B:72:GLU:OE1	1:B:75:GLY:N	2.28	0.63
1:B:707:ILE:O	1:B:711:HIS:NE2	2.32	0.63
4:D:29:PRO:HB3	4:D:33:ILE:HD11	1.79	0.63
1:B:855:GLN:OE1	1:B:855:GLN:N	2.32	0.63
1:B:1181:ARG:NH1	1:B:1191:GLU:OE2	2.32	0.63
1:B:1628:GLU:O	1:B:1632:LYS:HG2	1.98	0.63
1:F:761:LYS:HE3	1:F:765:ARG:NE	2.14	0.63
1:F:1002:TYR:HB3	1:F:1006:TRP:HE3	1.64	0.63
3:E:578:ARG:NH2	3:E:598:GLU:OE1	2.32	0.63
3:A:205:LEU:HB3	3:A:223:ILE:HD11	1.79	0.63
1:B:73:ASP:O	1:B:79:THR:N	2.32	0.62
1:B:945:ARG:HE	1:B:946:GLN:H	1.47	0.62
1:F:95:LEU:HA	1:F:98:TRP:HD1	1.63	0.62
1:F:761:LYS:HE3	1:F:765:ARG:HE	1.63	0.62
1:F:930:GLU:HG2	1:F:972:TYR:HB3	1.80	0.62
3:E:529:GLN:HG3	3:E:534:LEU:HD11	1.80	0.62
3:A:13:GLU:N	3:A:75:LEU:O	2.25	0.62
3:A:268:GLN:HG3	3:A:269:LYS:HD2	1.80	0.62
1:B:1233:GLU:O	1:B:1235:LYS:NZ	2.31	0.62
1:B:1533:VAL:HG23	1:B:1606:ILE:HG13	1.81	0.62
2:C:65:ASP:HA	2:C:68:ARG:HE	1.63	0.62
1:F:460:LYS:HD2	1:F:464:LYS:HG2	1.82	0.62
1:B:11:LYS:HG3	1:B:70:THR:HG23	1.80	0.62
1:B:263:GLY:HA2	1:B:269:LYS:HG3	1.82	0.62
1:B:493:ILE:HD11	1:B:496:TYR:HD1	1.63	0.62
1:B:519:ILE:HG21	1:B:630:LYS:HB3	1.81	0.62
1:B:909:ILE:HG13	1:B:910:LEU:N	2.15	0.62
1:B:1060:GLN:OE1	1:B:1060:GLN:N	2.32	0.62
2:C:93:VAL:HA	2:C:97:TRP:HB2	1.81	0.62
1:F:1606:ILE:HG23	1:F:1610:LYS:HZ1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:409:HIS:HA	3:A:473:THR:HA	1.81	0.62
1:B:16:ILE:HG21	3:A:707:PRO:HG2	1.81	0.62
1:B:92:THR:HA	1:B:95:LEU:HD12	1.80	0.62
1:B:719:TYR:HD1	1:B:723:HIS:HB2	1.63	0.62
1:F:166:ARG:HH21	1:F:169:ASN:HD21	1.48	0.62
1:F:855:GLN:OE1	1:F:855:GLN:N	2.29	0.62
3:E:685:ASP:OD1	3:E:686:LEU:N	2.33	0.62
1:B:330:THR:HG22	1:B:334:HIS:CE1	2.35	0.62
1:B:579:MET:HA	1:B:585:TYR:HB3	1.81	0.62
1:B:631:LEU:O	1:B:667:LYS:NZ	2.22	0.62
2:C:59:ALA:O	2:C:68:ARG:NH2	2.32	0.62
1:F:1091:TRP:CZ2	1:F:1098:LYS:HG2	2.35	0.62
3:A:466:THR:O	3:A:470:MET:N	2.33	0.62
4:D:17:THR:HG21	4:D:33:ILE:HG21	1.80	0.62
1:F:5:ILE:HB	1:F:40:MET:HB3	1.82	0.62
1:F:306:MET:SD	1:F:320:ARG:NH2	2.73	0.62
1:F:929:MET:SD	1:F:968:HIS:HB3	2.40	0.62
1:F:1367:TYR:N	1:F:1379:LYS:O	2.33	0.62
1:B:651:LYS:HB3	1:B:689:TYR:CE1	2.34	0.62
2:C:14:VAL:HG13	2:C:116:LYS:NZ	2.15	0.62
2:C:111:ILE:HG12	2:C:153:LYS:HB3	1.82	0.62
3:A:211:ASN:HB2	3:A:215:LEU:HD12	1.82	0.62
3:A:548:ILE:O	3:A:552:ARG:HG2	2.00	0.62
1:B:463:PRO:HD2	1:B:503:GLN:HB3	1.82	0.62
1:B:1216:SER:OG	1:B:1401:GLN:NE2	2.33	0.62
1:F:1149:ASN:OD1	1:F:1236:ARG:NH2	2.33	0.62
1:F:1543:SER:OG	1:F:1545:HIS:ND1	2.25	0.62
1:B:759:ALA:O	1:B:763:LEU:HG	2.00	0.62
1:B:816:ALA:O	1:B:820:LEU:HG	2.00	0.62
1:B:1536:HIS:CD2	1:B:1542:LEU:HD13	2.34	0.62
1:F:876:GLU:OE1	1:F:876:GLU:N	2.30	0.62
1:F:913:LEU:HD22	1:F:925:ILE:HG22	1.80	0.62
1:F:972:TYR:HA	1:F:975:THR:HB	1.82	0.62
2:G:17:THR:O	2:G:21:ILE:HG22	2.00	0.62
3:A:524:ASN:OD1	3:A:525:GLN:NE2	2.32	0.62
1:B:1305:ILE:HD11	1:B:1320:LEU:HB2	1.82	0.61
1:F:1196:LEU:O	1:F:1200:LEU:HG	2.00	0.61
3:A:225:ILE:HG21	3:A:265:ILE:HG21	1.80	0.61
3:A:320:GLN:HA	3:A:323:ILE:HG22	1.81	0.61
3:A:485:LYS:HG2	3:A:489:MET:HE2	1.82	0.61
1:B:1146:MET:HA	1:B:1149:ASN:HD22	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1032:PHE:HA	1:F:1036:ALA:HB3	1.81	0.61
1:F:1115:THR:O	1:F:1121:ARG:NH2	2.33	0.61
3:E:607:LYS:HG3	3:E:609:PRO:HD3	1.82	0.61
1:B:1133:GLN:OE1	1:B:1137:ASN:ND2	2.31	0.61
1:F:166:ARG:HB2	1:F:174:ASP:H	1.65	0.61
1:F:1381:PHE:HA	1:F:1503:GLU:HA	1.82	0.61
1:B:101:ILE:HG21	1:B:159:LEU:HD13	1.82	0.61
1:B:486:PRO:HA	1:B:513:VAL:HG12	1.81	0.61
1:B:527:ILE:N	1:B:552:VAL:O	2.30	0.61
1:B:1573:GLU:O	1:B:1577:GLN:NE2	2.33	0.61
1:B:1607:HIS:O	1:B:1611:LEU:N	2.33	0.61
2:G:69:PRO:HA	2:G:72:TYR:CD2	2.35	0.61
2:G:164:GLY:O	2:G:168:VAL:N	2.30	0.61
3:A:256:ASP:HA	3:A:259:ARG:HB2	1.82	0.61
3:A:564:LYS:HE3	3:A:590:ASP:HA	1.81	0.61
1:B:1467:PRO:HG3	2:C:33:ILE:HD13	1.83	0.61
1:B:1495:PHE:HE1	1:B:1502:PHE:HD2	1.47	0.61
1:F:773:LEU:HA	1:F:776:ARG:HG2	1.82	0.61
1:F:1487:THR:HA	1:F:1509:THR:HA	1.81	0.61
1:B:1367:TYR:O	1:B:1378:ASN:N	2.31	0.61
2:C:129:LEU:HB3	2:C:134:LEU:O	2.00	0.61
1:F:30:GLN:HB2	3:E:697:ARG:HH21	1.65	0.61
3:A:270:GLN:HG2	3:A:273:SER:HB3	1.81	0.61
3:A:644:ILE:H	3:A:652:LEU:HB2	1.64	0.61
4:D:171:GLU:HA	4:D:174:ARG:HG2	1.82	0.61
1:B:98:TRP:O	1:B:101:ILE:HG22	1.99	0.61
1:F:1131:MET:O	1:F:1135:GLU:HG3	2.00	0.61
1:B:882:LEU:HA	1:B:885:GLN:HE21	1.65	0.61
1:B:1590:LYS:HB3	1:B:1639:VAL:HG12	1.81	0.61
1:F:817:LEU:HD22	1:F:856:LYS:HD3	1.82	0.61
3:A:129:LEU:O	3:A:133:VAL:HG22	2.01	0.61
1:B:102:TRP:HA	1:B:105:LEU:HG	1.82	0.61
1:B:501:TYR:CG	1:B:507:PRO:HB3	2.35	0.61
1:B:1156:ASP:OD1	1:B:1243:TYR:OH	2.18	0.61
1:B:1277:PRO:HG3	1:B:1292:THR:HA	1.83	0.61
2:C:84:LEU:HD11	2:C:156:GLU:HG2	1.82	0.61
1:F:1390:ARG:HH11	2:G:44:VAL:HG21	1.66	0.61
1:F:1466:ARG:NH1	2:G:31:GLU:OE1	2.34	0.61
2:G:146:ALA:O	2:G:150:GLY:N	2.33	0.61
3:E:670:ASN:O	3:E:674:GLY:N	2.34	0.61
4:D:159:ALA:N	6:D:202:GTP:O6	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1196:LEU:O	1:F:1199:SER:OG	2.15	0.61
3:A:719:ASN:ND2	3:A:721:ASP:OD2	2.34	0.61
1:B:241:LEU:HB2	1:B:260:ILE:HB	1.83	0.60
1:B:569:LEU:O	1:B:620:PHE:N	2.33	0.60
1:F:739:PHE:O	1:F:749:LYS:NZ	2.33	0.60
1:F:1626:PHE:HD2	1:F:1627:ARG:HD3	1.66	0.60
3:A:237:GLN:O	3:A:241:THR:HG23	2.01	0.60
1:F:147:LYS:O	1:F:151:LYS:HG2	2.02	0.60
1:F:330:THR:HA	1:F:333:ILE:HG12	1.81	0.60
1:F:638:LEU:O	1:F:642:ASN:ND2	2.33	0.60
1:F:1536:HIS:O	1:F:1540:ARG:NH2	2.33	0.60
3:A:544:ILE:O	3:A:548:ILE:HG12	2.00	0.60
1:B:23:GLN:HG2	1:B:58:ILE:HB	1.83	0.60
1:B:246:TYR:CZ	1:B:383:LEU:HD21	2.35	0.60
1:B:247:ASP:HB2	1:B:254:ILE:HD11	1.82	0.60
1:B:1216:SER:OG	1:B:1219:ASN:OD1	2.18	0.60
1:B:1478:GLU:N	1:B:1478:GLU:OE2	2.32	0.60
1:B:1630:LYS:O	1:B:1634:GLU:HG2	2.01	0.60
1:F:44:TRP:CZ2	1:F:60:PRO:HG3	2.37	0.60
1:F:761:LYS:NZ	1:F:825:ASN:HD21	1.98	0.60
1:F:769:GLN:OE1	1:F:776:ARG:NH2	2.34	0.60
1:F:1164:GLY:HA3	1:F:1168:TYR:HD1	1.64	0.60
3:A:451:SER:HA	3:A:454:GLU:HG3	1.83	0.60
1:B:471:SER:HB2	1:B:479:LEU:HD13	1.83	0.60
1:B:528:ARG:HA	1:B:551:PHE:HA	1.83	0.60
1:B:1391:ARG:NH2	2:C:28:PHE:HA	2.16	0.60
1:F:1111:GLU:O	1:F:1163:ARG:NH2	2.35	0.60
1:B:751:GLU:OE1	1:B:751:GLU:N	2.21	0.60
1:B:806:LEU:HD12	1:B:813:LYS:HD3	1.84	0.60
1:B:1557:PRO:HB2	1:B:1561:GLY:HA2	1.84	0.60
1:F:302:ARG:HG2	1:F:322:PHE:HB2	1.82	0.60
1:F:831:PHE:HE2	1:F:835:GLU:HB3	1.65	0.60
1:F:1512:ILE:HG23	1:F:1516:GLU:HB2	1.84	0.60
3:A:280:ILE:HG21	3:A:443:PRO:HB3	1.84	0.60
1:B:761:LYS:HG3	1:B:765:ARG:HE	1.65	0.60
1:B:1468:PHE:HB3	1:B:1483:TRP:O	2.02	0.60
1:F:662:GLY:HA2	1:F:665:ILE:HD12	1.83	0.60
1:F:938:ARG:HA	1:F:941:ILE:HD12	1.83	0.60
1:F:1436:SER:HB3	1:F:1454:TYR:HB3	1.82	0.60
2:G:87:PRO:HG2	2:G:135:THR:H	1.67	0.60
3:A:387:PHE:CE1	3:A:457:CYS:HB3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1463:ARG:HA	1:B:1487:THR:O	2.02	0.60
1:F:95:LEU:HD23	1:F:98:TRP:CD1	2.34	0.60
1:F:140:GLU:OE1	1:F:140:GLU:N	2.35	0.60
1:F:166:ARG:HB3	1:F:171:ASN:HA	1.84	0.60
3:A:160:THR:HG22	3:A:200:ARG:HD2	1.84	0.60
3:A:692:MET:O	3:A:696:LEU:HG	2.00	0.60
1:B:498:SER:HB2	1:B:509:TRP:NE1	2.17	0.60
1:B:536:SER:OG	1:B:537:GLN:OE1	2.16	0.60
1:B:772:VAL:HA	1:B:775:LEU:HD12	1.83	0.60
1:B:1601:THR:HB	1:B:1605:ARG:HH21	1.66	0.60
2:C:69:PRO:HA	2:C:72:TYR:CG	2.37	0.60
1:F:127:TRP:HD1	1:F:130:GLN:NE2	1.99	0.60
1:F:449:THR:HB	1:F:623:ALA:HB3	1.81	0.60
1:F:594:GLU:HA	1:F:597:GLU:HG2	1.84	0.60
3:A:133:VAL:HB	3:A:155:LEU:HD13	1.84	0.60
3:A:327:LEU:HD21	3:A:385:LEU:HD23	1.84	0.60
3:A:587:HIS:ND1	3:A:606:ASP:OD1	2.34	0.60
1:F:93:SER:HB2	1:F:96:ARG:HH11	1.66	0.60
1:F:1545:HIS:CD2	2:G:5:LYS:HE3	2.36	0.60
3:E:692:MET:O	3:E:696:LEU:HG	2.00	0.60
3:A:288:ASN:HB2	3:A:439:ASN:HD21	1.66	0.60
3:A:309:MET:HB3	3:A:375:PRO:HB3	1.83	0.60
1:B:485:HIS:HB2	1:B:514:LYS:HB3	1.84	0.60
1:B:900:GLU:O	1:B:904:GLN:NE2	2.34	0.60
1:F:741:VAL:HA	1:F:753:LEU:HD11	1.83	0.60
1:B:256:GLU:HG3	1:B:488:ALA:HB2	1.84	0.59
1:B:757:LEU:HD12	1:B:816:ALA:HA	1.83	0.59
1:B:761:LYS:HD3	1:B:822:SER:HB2	1.84	0.59
1:B:993:PHE:O	1:B:997:ILE:HG12	2.01	0.59
1:F:764:PHE:CD1	1:F:826:ASP:HB2	2.36	0.59
1:F:1059:LEU:HD11	1:F:1117:GLU:HA	1.83	0.59
1:F:1164:GLY:HA3	1:F:1168:TYR:CD1	2.36	0.59
3:A:185:ALA:HA	3:A:188:VAL:HG12	1.84	0.59
3:A:555:ARG:O	3:A:559:GLY:N	2.32	0.59
1:B:5:ILE:H	1:B:40:MET:H	1.50	0.59
1:B:128:ARG:NH2	3:A:699:LEU:O	2.32	0.59
1:B:965:ASP:HB3	1:B:968:HIS:CD2	2.36	0.59
1:B:994:LYS:HB2	1:B:1049:LEU:HD21	1.84	0.59
1:B:1439:PRO:HA	1:B:1442:LYS:NZ	2.15	0.59
1:F:44:TRP:CE3	1:F:58:ILE:HG22	2.37	0.59
1:F:1111:GLU:OE1	1:F:1111:GLU:N	2.28	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:93:VAL:HG13	2:G:94:ARG:HD3	1.84	0.59
1:B:19:TYR:OH	1:B:44:TRP:HH2	1.84	0.59
1:B:422:ASP:OD1	1:B:425:THR:OG1	2.15	0.59
1:B:659:GLU:N	1:B:659:GLU:OE2	2.35	0.59
1:B:1470:LYS:N	1:B:1481:THR:HB	2.17	0.59
1:F:62:THR:HG21	3:E:712:PRO:HG2	1.85	0.59
1:F:226:VAL:N	1:F:279:ALA:O	2.34	0.59
1:F:380:THR:HG22	1:F:510:TYR:CZ	2.37	0.59
1:F:1588:LEU:O	1:F:1592:LEU:HG	2.03	0.59
1:B:1611:LEU:HD12	1:B:1615:LEU:HB3	1.83	0.59
1:F:638:LEU:HD13	1:F:641:LEU:HD12	1.83	0.59
3:A:54:ALA:HB3	3:A:74:ILE:HB	1.85	0.59
4:D:45:ALA:HA	4:D:50:THR:HA	1.82	0.59
1:B:525:CYS:HB2	1:B:554:LEU:HD12	1.84	0.59
1:B:929:MET:HG3	1:B:933:LEU:HD11	1.84	0.59
1:F:37:ILE:HD13	1:F:45:TYR:HB3	1.83	0.59
1:F:106:TYR:O	3:E:555:ARG:NH2	2.35	0.59
1:F:486:PRO:HA	1:F:513:VAL:HG12	1.84	0.59
3:E:575:TRP:HZ3	3:E:588:TYR:HB2	1.65	0.59
1:B:832:ASP:OD2	1:B:835:GLU:N	2.34	0.59
1:B:1015:ARG:HD3	1:B:1076:TYR:HD1	1.68	0.59
1:F:1098:LYS:O	1:F:1102:ILE:N	2.33	0.59
1:F:1516:GLU:HA	1:F:1519:ILE:HD12	1.85	0.59
3:A:644:ILE:HB	3:A:652:LEU:HD12	1.85	0.59
1:B:187:HIS:ND1	1:B:1006:TRP:HD1	2.01	0.59
1:B:1264:LEU:HD21	1:B:1300:LEU:HD22	1.85	0.59
1:F:44:TRP:HZ2	3:E:713:ILE:HG23	1.68	0.59
3:A:408:LYS:HG3	3:A:474:SER:H	1.68	0.59
4:D:37:PHE:HA	4:D:57:ASP:O	2.03	0.59
1:B:237:GLU:HB2	1:B:308:LEU:HD21	1.85	0.59
1:B:706:ASP:HB3	1:B:709:PHE:HD2	1.67	0.59
1:B:941:ILE:O	1:B:944:ASN:HB2	2.03	0.59
1:F:1197:VAL:O	1:F:1201:LEU:HG	2.03	0.59
3:A:591:LEU:HD21	3:A:604:LEU:H	1.67	0.59
1:B:73:ASP:HB2	1:B:86:PRO:HD3	1.85	0.59
1:B:450:LEU:HD23	1:B:622:ILE:HG12	1.84	0.59
1:B:1043:TRP:HA	1:B:1046:TYR:HB3	1.85	0.59
1:B:1470:LYS:HB3	1:B:1483:TRP:CD1	2.38	0.59
3:A:121:ILE:HG23	3:A:171:VAL:HB	1.85	0.59
3:A:419:GLU:HA	3:A:422:LYS:HG2	1.85	0.59
1:B:102:TRP:HB2	1:B:114:PHE:CE1	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:287:MET:HA	1:B:290:ILE:HG12	1.84	0.59
1:B:1284:GLN:HE22	1:B:1291:TYR:HE2	1.51	0.59
2:C:129:LEU:HA	2:C:132:LYS:HG2	1.85	0.59
1:F:826:ASP:HA	1:F:829:LEU:HD13	1.85	0.59
1:F:1344:LYS:O	1:F:1347:SER:OG	2.18	0.59
2:G:82:PHE:O	2:G:115:THR:OG1	2.14	0.59
4:D:66:ARG:NH1	4:D:67:LEU:HB2	2.18	0.59
4:D:117:LYS:HB3	4:D:156:GLU:HB3	1.85	0.59
1:B:119:GLN:HE21	1:B:122:TYR:HE2	1.50	0.58
1:B:569:LEU:HD12	1:B:620:PHE:HD2	1.68	0.58
1:B:934:ARG:NH1	1:B:938:ARG:HB2	2.18	0.58
1:F:1:MET:HG2	3:E:716:GLU:HB3	1.84	0.58
1:F:863:ILE:O	1:F:867:THR:OG1	2.20	0.58
1:B:7:THR:HG22	1:B:9:ARG:H	1.68	0.58
1:B:79:THR:HA	1:B:85:LEU:HD22	1.85	0.58
1:B:654:LEU:HA	1:B:657:LEU:HG	1.84	0.58
1:B:1357:ARG:HH21	1:B:1453:TYR:HB2	1.67	0.58
1:F:1177:LEU:O	1:F:1181:ARG:HD3	2.03	0.58
2:G:102:ARG:HD3	2:G:149:ILE:HD11	1.85	0.58
1:B:65:HIS:ND1	1:B:65:HIS:O	2.37	0.58
1:B:926:GLN:O	1:B:930:GLU:HG3	2.04	0.58
1:B:966:ASP:HA	1:B:969:TYR:CD1	2.38	0.58
2:C:87:PRO:HA	2:C:90:PHE:CD2	2.38	0.58
1:F:127:TRP:O	1:F:131:ILE:HG12	2.04	0.58
1:F:138:LYS:HA	1:F:141:LEU:HD13	1.84	0.58
1:F:1289:TYR:HD2	1:F:1290:VAL:HG22	1.68	0.58
2:G:68:ARG:HG2	2:G:69:PRO:HD3	1.84	0.58
3:A:698:LEU:O	3:A:702:GLU:HG2	2.03	0.58
1:B:556:ASN:N	1:B:560:THR:O	2.35	0.58
1:B:713:ASN:HA	1:B:716:LEU:HD12	1.84	0.58
1:B:871:GLN:NE2	1:B:875:ARG:HH11	2.00	0.58
1:B:958:ILE:HG13	1:B:959:ALA:N	2.18	0.58
1:B:1094:LEU:HB3	1:B:1098:LYS:HE3	1.83	0.58
1:B:1467:PRO:HG2	2:C:31:GLU:O	2.03	0.58
1:F:86:PRO:HA	1:F:89:GLN:HE21	1.69	0.58
1:F:1102:ILE:HD11	1:F:1134:CYS:HB2	1.85	0.58
3:A:144:GLN:HA	3:A:147:MET:HB3	1.85	0.58
1:B:654:LEU:HD13	1:B:692:LEU:HB2	1.84	0.58
1:B:772:VAL:HG23	1:B:776:ARG:HH22	1.67	0.58
1:B:1452:ASN:OD1	1:B:1453:TYR:N	2.35	0.58
1:F:1010:ASN:OD1	1:F:1013:GLN:NE2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:GLN:NE2	1:B:38:LEU:O	2.33	0.58
1:B:553:LYS:HD2	1:B:586:LEU:HD22	1.86	0.58
1:B:652:HIS:O	1:B:656:LYS:HG2	2.03	0.58
1:B:1219:ASN:OD1	1:B:1401:GLN:NE2	2.35	0.58
1:B:1407:LYS:HG3	1:B:1426:MET:SD	2.44	0.58
3:A:261:GLU:O	3:A:265:ILE:HG12	2.02	0.58
1:B:4:TRP:O	3:A:724:TYR:N	2.34	0.58
1:B:976:PHE:HB2	1:B:982:ILE:HD12	1.86	0.58
1:B:1344:LYS:O	1:B:1347:SER:OG	2.14	0.58
2:C:9:VAL:HG22	2:C:78:PHE:CZ	2.37	0.58
1:F:101:ILE:O	1:F:105:LEU:HG	2.03	0.58
1:F:1530:SER:O	1:F:1534:GLN:HG2	2.04	0.58
1:B:965:ASP:HA	1:B:1019:ARG:NH2	2.18	0.58
1:B:1207:TYR:O	1:B:1211:ILE:HG12	2.04	0.58
2:C:128:LYS:HA	2:C:131:GLU:HG2	1.85	0.58
2:C:138:THR:H	2:C:141:GLN:NE2	2.02	0.58
2:G:117:LEU:HD22	2:G:156:GLU:HG2	1.85	0.58
3:A:9:LYS:N	3:A:71:ASN:OD1	2.37	0.58
3:A:260:GLN:HG3	3:A:304:LEU:HD12	1.85	0.58
3:A:489:MET:HB3	3:A:490:ARG:HH21	1.68	0.58
3:A:588:TYR:N	3:A:603:SER:OG	2.36	0.58
1:B:62:THR:HG22	3:A:714:PRO:HD3	1.86	0.58
1:F:34:THR:HB	1:F:50:LEU:HB2	1.86	0.58
1:F:302:ARG:H	1:F:322:PHE:HB2	1.69	0.58
1:F:789:ASN:HB3	1:F:793:GLN:HE22	1.69	0.58
1:F:1565:ASN:O	1:F:1568:LYS:HG3	2.04	0.58
2:G:128:LYS:HA	2:G:131:GLU:HG2	1.85	0.58
1:B:18:ASN:HD21	3:A:536:LEU:HA	1.69	0.57
1:B:41:TYR:HD2	1:B:44:TRP:HB2	1.68	0.57
1:B:80:VAL:HG22	1:B:85:LEU:HD11	1.84	0.57
1:B:743:ASN:HB2	1:B:749:LYS:HD2	1.85	0.57
1:B:1217:LYS:HG3	1:B:1220:ARG:HH21	1.68	0.57
1:F:156:ASN:O	1:F:160:GLY:N	2.37	0.57
2:G:7:VAL:HG22	2:G:56:TRP:CG	2.39	0.57
3:A:445:PHE:HA	3:A:451:SER:OG	2.04	0.57
1:B:332:ILE:HG12	1:B:337:VAL:HB	1.86	0.57
1:B:1238:ASP:OD1	1:B:1239:ILE:N	2.37	0.57
2:C:146:ALA:O	2:C:150:GLY:N	2.37	0.57
1:F:376:ASN:HD22	1:F:504:VAL:HG22	1.69	0.57
1:F:845:GLN:HE22	1:F:881:LEU:HD12	1.68	0.57
1:F:1372:PHE:HB2	1:F:1377:ARG:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1391:ARG:NH2	2:G:27:ALA:O	2.38	0.57
1:F:1466:ARG:O	1:F:1484:ILE:HA	2.05	0.57
1:B:46:ARG:HA	1:B:57:GLY:O	2.05	0.57
1:B:224:LEU:HA	1:B:405:LEU:HA	1.86	0.57
1:B:257:ASN:O	1:B:488:ALA:N	2.35	0.57
1:B:538:GLU:OE1	1:B:542:LYS:NZ	2.33	0.57
1:B:1631:GLU:HA	1:B:1634:GLU:HG2	1.87	0.57
1:F:411:THR:O	1:F:415:LYS:HB2	2.05	0.57
1:F:1206:ASP:HA	1:F:1209:THR:HG22	1.85	0.57
3:A:9:LYS:HD3	4:D:38:ASP:OD1	2.05	0.57
3:A:302:PHE:CE1	3:A:430:VAL:HG22	2.39	0.57
3:A:474:SER:HA	3:A:477:PHE:HB2	1.85	0.57
1:B:228:PHE:CD1	1:B:277:LEU:HD13	2.39	0.57
1:B:320:ARG:CZ	1:B:500:VAL:HB	2.34	0.57
1:B:400:TRP:HZ2	4:D:127:ARG:HB2	1.68	0.57
1:B:744:ALA:HA	1:B:753:LEU:HD11	1.87	0.57
1:F:60:PRO:HG2	1:F:63:TYR:CD2	2.39	0.57
1:F:1461:GLN:OE1	1:F:1490:THR:HG22	2.04	0.57
3:A:379:LEU:O	3:A:383:ASN:ND2	2.37	0.57
3:A:623:PRO:O	3:A:627:GLU:N	2.36	0.57
3:A:687:ASP:OD1	3:A:688:THR:N	2.37	0.57
1:B:934:ARG:HH12	1:B:938:ARG:HB2	1.69	0.57
1:B:1568:LYS:O	1:B:1572:THR:OG1	2.21	0.57
1:F:1623:SER:HB3	1:F:1627:ARG:NH2	2.18	0.57
1:F:1628:GLU:O	1:F:1632:LYS:HG2	2.04	0.57
4:D:8:VAL:HG21	4:D:20:LEU:HD21	1.87	0.57
1:B:106:TYR:HE2	3:A:550:GLN:HE22	1.52	0.57
1:B:1040:LEU:HA	1:B:1043:TRP:CZ3	2.40	0.57
1:B:1217:LYS:H	1:B:1217:LYS:HD3	1.70	0.57
1:B:1276:LYS:HZ3	1:B:1277:PRO:HD2	1.69	0.57
1:B:1582:ASP:HA	1:B:1584:GLU:HG2	1.87	0.57
2:C:41:SER:HA	2:C:54:GLY:HA2	1.86	0.57
1:F:417:PHE:HB3	1:F:420:LEU:HD12	1.85	0.57
1:F:859:CYS:O	1:F:863:ILE:HD12	2.05	0.57
1:F:1221:MET:HE2	1:F:1250:LEU:HD13	1.87	0.57
1:B:879:LEU:HD21	1:B:931:ARG:HH22	1.69	0.57
1:B:1588:LEU:O	1:B:1592:LEU:HG	2.04	0.57
2:C:93:VAL:HG13	2:C:94:ARG:HD2	1.87	0.57
1:F:7:THR:HG22	1:F:9:ARG:H	1.70	0.57
1:F:1082:GLU:O	1:F:1086:ARG:HG2	2.04	0.57
1:B:181:ILE:HG22	1:B:185:LYS:NZ	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:701:ILE:HA	1:B:704:ILE:HD12	1.86	0.57
1:B:994:LYS:N	1:B:1049:LEU:HD11	2.20	0.57
1:B:1079:MET:N	1:B:1079:MET:SD	2.78	0.57
1:B:1412:THR:HG21	1:B:1466:ARG:HD3	1.86	0.57
1:F:1:MET:H3	3:E:717:PRO:HD2	1.70	0.57
1:F:1362:TYR:CE1	1:F:1384:ARG:HG3	2.40	0.57
2:G:137:ILE:HG23	2:G:141:GLN:HE21	1.69	0.57
3:A:358:LYS:HG2	3:A:406:GLU:HG3	1.86	0.57
1:B:581:ASP:HB3	1:B:584:PHE:HB3	1.85	0.57
1:B:1062:GLU:O	1:B:1069:ARG:HD3	2.05	0.57
1:B:1102:ILE:O	1:B:1106:VAL:HG23	2.05	0.57
1:F:18:ASN:HD22	1:F:28:SER:HB3	1.70	0.57
1:F:806:LEU:HD22	1:F:851:GLN:HB3	1.86	0.57
3:E:578:ARG:HB3	3:E:587:HIS:HB2	1.87	0.57
1:B:1328:TYR:HB3	1:B:1338:LEU:HD22	1.87	0.57
1:F:113:LEU:O	1:F:116:GLN:HG2	2.05	0.57
1:F:220:HIS:ND1	1:F:286:SER:HB3	2.20	0.57
1:F:1392:GLU:HA	1:F:1395:SER:HB3	1.86	0.57
4:D:6:CYS:HB3	4:D:55:LEU:HD23	1.87	0.57
1:B:203:SER:O	1:B:207:ASN:N	2.29	0.56
1:B:570:VAL:HG11	1:B:615:SER:OG	2.04	0.56
1:B:707:ILE:HA	1:B:710:GLN:CD	2.25	0.56
1:F:59:PHE:CD2	1:F:64:ILE:HG12	2.38	0.56
1:F:1174:LYS:O	1:F:1178:GLU:HG2	2.04	0.56
1:F:1563:PHE:O	1:F:1567:GLU:HG2	2.05	0.56
3:A:613:ILE:HD13	3:A:646:TYR:HB3	1.86	0.56
1:B:224:LEU:HD23	1:B:281:PHE:HD2	1.70	0.56
1:B:340:GLU:HG3	1:B:404:LYS:HE2	1.87	0.56
1:B:797:ALA:O	1:B:801:LEU:HG	2.06	0.56
1:F:62:THR:HG22	3:E:714:PRO:HD3	1.86	0.56
1:F:713:ASN:O	1:F:762:TYR:OH	2.22	0.56
1:F:1181:ARG:NH1	1:F:1191:GLU:OE2	2.38	0.56
1:F:1322:LYS:HA	1:F:1345:ARG:HH22	1.69	0.56
3:E:576:TYR:HB2	3:E:598:GLU:HG2	1.86	0.56
1:B:187:HIS:HB3	1:B:1006:TRP:CD1	2.40	0.56
1:B:457:LYS:HG2	1:B:463:PRO:HG3	1.87	0.56
1:B:795:PHE:HE2	1:B:843:PHE:HB2	1.68	0.56
1:B:859:CYS:O	1:B:863:ILE:HD12	2.04	0.56
1:B:883:THR:HG21	1:B:931:ARG:HE	1.70	0.56
1:B:969:TYR:O	1:B:974:SER:N	2.38	0.56
1:B:984:ASP:O	1:B:987:MET:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1363:PHE:CE1	1:B:1391:ARG:HA	2.40	0.56
1:B:1506:GLN:NE2	1:B:1507:ILE:O	2.38	0.56
1:B:1618:LEU:O	1:B:1622:LEU:HG	2.05	0.56
1:F:4:TRP:HD1	3:E:722:PHE:HA	1.70	0.56
1:F:1522:MET:O	1:F:1526:ASN:ND2	2.38	0.56
2:G:9:VAL:HG22	2:G:78:PHE:CZ	2.38	0.56
3:E:661:GLU:HA	3:E:664:ILE:HD12	1.87	0.56
3:A:295:TYR:OH	3:A:432:GLU:OE2	2.13	0.56
3:A:320:GLN:O	3:A:324:ILE:HG12	2.05	0.56
3:A:376:PRO:HG2	3:A:380:ALA:HB2	1.87	0.56
3:A:467:TRP:O	3:A:471:ARG:N	2.38	0.56
1:B:99:ALA:HB1	1:B:103:ARG:HH12	1.70	0.56
1:B:1007:MET:HA	1:B:1010:ASN:HB3	1.88	0.56
1:F:46:ARG:HA	1:F:57:GLY:O	2.05	0.56
1:F:247:ASP:HB2	1:F:254:ILE:HD11	1.87	0.56
1:F:1217:LYS:HG2	1:F:1220:ARG:NH2	2.19	0.56
1:F:1483:TRP:NE1	1:F:1514:PRO:HD3	2.20	0.56
3:A:126:ILE:HD13	3:A:171:VAL:HG11	1.86	0.56
3:A:642:PHE:HE2	3:A:652:LEU:HB3	1.69	0.56
3:A:642:PHE:CZ	3:A:654:PHE:HB2	2.40	0.56
1:B:64:ILE:HG22	1:B:66:LEU:N	2.21	0.56
1:B:255:SER:HA	1:B:430:LYS:HA	1.85	0.56
1:B:632:THR:HG21	1:B:637:LEU:HD23	1.86	0.56
1:B:854:ARG:NE	1:B:900:GLU:OE2	2.36	0.56
1:B:1174:LYS:O	1:B:1178:GLU:HG2	2.06	0.56
2:C:47:ASP:OD2	2:C:174:ARG:NH1	2.37	0.56
1:F:74:LEU:HD13	1:F:83:GLY:H	1.69	0.56
1:F:1486:ARG:O	1:F:1510:GLU:N	2.39	0.56
4:D:94:ARG:HG2	4:D:145:LEU:HD13	1.88	0.56
1:F:887:SER:HA	1:F:890:LEU:HB2	1.88	0.56
1:F:1062:GLU:O	1:F:1069:ARG:HD3	2.05	0.56
1:F:1617:PRO:HG3	2:G:70:LEU:HD22	1.86	0.56
3:E:637:VAL:O	3:E:641:ALA:N	2.36	0.56
3:A:224:THR:H	3:A:227:GLN:HE21	1.54	0.56
3:A:637:VAL:HG12	3:A:640:LEU:HD12	1.87	0.56
4:D:19:LEU:HD12	4:D:165:VAL:HG13	1.88	0.56
1:B:73:ASP:O	1:B:79:THR:HG23	2.06	0.56
1:B:281:PHE:HA	1:B:428:ALA:O	2.05	0.56
1:B:578:LYS:HG2	1:B:584:PHE:HE2	1.70	0.56
1:F:16:ILE:HD13	3:E:711:PRO:HG2	1.87	0.56
1:F:99:ALA:HA	1:F:102:TRP:NE1	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:589:PRO:HG3	1:F:598:LYS:HD2	1.88	0.56
1:F:1391:ARG:HD2	1:F:1429:PHE:HA	1.87	0.56
1:F:1404:ASN:OD1	1:F:1424:GLN:HB2	2.06	0.56
1:F:1585:LYS:HA	1:F:1588:LEU:HD12	1.88	0.56
2:G:93:VAL:HA	2:G:97:TRP:CD1	2.40	0.56
3:E:541:GLN:HG3	3:E:545:LEU:HD23	1.87	0.56
1:B:166:ARG:HH2	1:B:168:ASP:HB2	1.71	0.56
1:B:243:MET:HB3	1:B:296:LEU:HD11	1.86	0.56
1:B:572:TYR:OH	1:B:595:MET:SD	2.54	0.56
2:C:83:SER:HA	2:C:115:THR:HB	1.86	0.56
1:F:1583:GLN:O	1:F:1586:VAL:HG12	2.06	0.56
2:G:93:VAL:HA	2:G:97:TRP:HD1	1.71	0.56
3:E:665:TRP:O	3:E:669:LEU:HG	2.05	0.56
1:B:59:PHE:CZ	1:B:63:TYR:HB3	2.40	0.56
1:B:472:VAL:HG13	1:B:527:ILE:HG13	1.86	0.56
1:B:1115:THR:O	1:B:1121:ARG:NH2	2.39	0.56
1:F:153:ASP:HA	1:F:156:ASN:ND2	2.20	0.56
1:F:166:ARG:HE	1:F:173:LEU:HD12	1.71	0.56
1:F:891:ASP:HB2	1:F:938:ARG:HH12	1.70	0.56
1:F:923:VAL:O	1:F:927:LEU:HG	2.06	0.56
1:F:964:MET:O	1:F:1019:ARG:NH1	2.39	0.56
1:F:1301:TYR:O	1:F:1305:ILE:HG12	2.05	0.56
1:F:1448:GLU:OE2	1:F:1448:GLU:N	2.29	0.56
3:E:708:ASP:OD1	3:E:709:ALA:N	2.38	0.56
1:B:1102:ILE:HG12	1:B:1131:MET:HB2	1.87	0.56
1:B:1316:LYS:HE3	1:B:1319:LYS:HD3	1.88	0.56
1:F:950:ILE:HA	1:F:953:PHE:HD1	1.71	0.56
1:F:970:SER:O	1:F:974:SER:OG	2.23	0.56
3:E:620:LYS:HA	3:E:625:MET:HB3	1.88	0.56
3:A:52:GLN:HE21	3:A:76:ARG:HE	1.53	0.56
3:A:586:LEU:HB2	3:A:608:LEU:HB3	1.87	0.56
1:B:241:LEU:HB3	1:B:243:MET:HE1	1.88	0.55
1:B:710:GLN:O	1:B:713:ASN:ND2	2.38	0.55
1:B:964:MET:O	1:B:1019:ARG:NH2	2.39	0.55
1:F:73:ASP:HB2	1:F:86:PRO:HD3	1.88	0.55
1:F:844:ILE:HG21	1:F:881:LEU:HD21	1.88	0.55
3:E:639:GLU:OE1	3:E:639:GLU:N	2.38	0.55
3:A:244:ILE:HA	3:A:247:ILE:HD12	1.88	0.55
1:B:166:ARG:O	1:B:171:ASN:HA	2.06	0.55
1:B:651:LYS:HB3	1:B:689:TYR:HE1	1.70	0.55
1:B:1460:GLN:HB2	1:B:1494:THR:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1607:HIS:NE2	1:B:1619:HIS:HB2	2.21	0.55
1:F:105:LEU:HD13	1:F:110:LYS:NZ	2.21	0.55
1:F:792:ARG:NE	1:F:835:GLU:OE1	2.36	0.55
1:F:879:LEU:HG	1:F:931:ARG:NH2	2.20	0.55
1:F:992:MET:O	1:F:996:LEU:HD23	2.06	0.55
2:G:169:PHE:HA	2:G:172:ALA:HB3	1.87	0.55
3:A:623:PRO:HA	3:A:626:LYS:HB2	1.89	0.55
1:B:81:ILE:HD13	1:B:141:LEU:HD21	1.88	0.55
1:B:443:ARG:NH2	1:B:447:TYR:OH	2.39	0.55
1:B:569:LEU:HD11	1:B:622:ILE:HD12	1.87	0.55
1:B:1195:LEU:O	1:B:1198:SER:OG	2.19	0.55
1:B:1536:HIS:CE1	1:B:1610:LYS:HG2	2.42	0.55
1:F:1279:VAL:HG23	1:F:1282:LEU:HG	1.89	0.55
1:F:1378:ASN:ND2	1:F:1419:LYS:O	2.39	0.55
1:F:1612:THR:O	1:F:1616:LYS:N	2.39	0.55
3:A:26:GLN:HE22	3:A:69:ILE:HD12	1.71	0.55
1:F:875:ARG:HG2	1:F:924:HIS:CE1	2.41	0.55
1:F:958:ILE:HB	1:F:1016:VAL:HG21	1.89	0.55
1:F:1125:ILE:HD12	1:F:1172:LEU:HD23	1.88	0.55
1:F:1557:PRO:HB2	1:F:1560:MET:O	2.06	0.55
3:A:121:ILE:HD13	3:A:170:ILE:HB	1.89	0.55
3:A:533:ILE:HA	3:A:536:LEU:HD13	1.87	0.55
1:B:165:VAL:O	1:B:171:ASN:HA	2.06	0.55
1:B:247:ASP:O	1:B:251:SER:N	2.39	0.55
1:B:965:ASP:HB3	1:B:968:HIS:HD2	1.70	0.55
1:F:273:LYS:HA	1:F:276:ASN:HB3	1.89	0.55
1:F:1545:HIS:O	1:F:1548:SER:OG	2.21	0.55
2:G:96:LYS:HD2	2:G:100:GLU:HG2	1.88	0.55
4:D:116:LYS:N	4:D:157:CYS:O	2.38	0.55
1:B:1198:SER:O	1:B:1201:LEU:N	2.40	0.55
1:B:1514:PRO:HA	1:B:1517:ASN:HD22	1.71	0.55
1:F:1469:ARG:NH1	1:F:1481:THR:OG1	2.40	0.55
3:E:565:LEU:HD21	3:E:653:ASN:HB3	1.87	0.55
3:E:670:ASN:HB2	3:E:678:MET:HE1	1.89	0.55
3:A:361:PHE:HE1	3:A:415:ARG:HB2	1.72	0.55
4:D:22:CYS:O	4:D:162:GLN:NE2	2.40	0.55
1:B:122:TYR:HA	1:B:125:ILE:HG12	1.88	0.55
1:B:529:PHE:HB2	1:B:550:ALA:HB3	1.89	0.55
1:B:964:MET:SD	1:B:968:HIS:HB2	2.47	0.55
2:C:129:LEU:O	2:C:133:LYS:N	2.40	0.55
1:F:572:TYR:OH	1:F:589:PRO:O	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:634:ASN:OD1	1:F:637:LEU:N	2.28	0.55
1:F:1390:ARG:NH1	2:G:44:VAL:HG21	2.21	0.55
2:G:90:PHE:CE2	2:G:137:ILE:HB	2.36	0.55
3:A:88:LEU:HD13	3:A:107:LEU:HD13	1.89	0.55
3:A:334:ALA:HB3	3:A:400:LEU:HD11	1.88	0.55
4:D:9:VAL:N	4:D:79:VAL:O	2.39	0.55
1:B:60:PRO:HG2	1:B:63:TYR:CD2	2.42	0.55
2:C:61:GLN:HB3	2:C:64:TYR:HD1	1.71	0.55
1:F:6:PRO:HD3	3:E:724:TYR:HB2	1.89	0.55
1:F:241:LEU:HG	1:F:300:ILE:HG13	1.88	0.55
3:E:573:LYS:NZ	3:E:593:GLU:OE1	2.29	0.55
3:A:217:GLN:OE1	3:A:258:ARG:NH2	2.34	0.55
3:A:276:LEU:HD12	3:A:280:ILE:HB	1.88	0.55
1:B:224:LEU:HD12	1:B:404:LYS:O	2.06	0.55
1:B:232:VAL:N	1:B:398:GLY:O	2.32	0.55
1:B:1546:PRO:HA	1:B:1549:MET:HG2	1.87	0.55
1:F:1117:GLU:OE2	1:F:1120:LEU:N	2.40	0.55
1:F:1384:ARG:HD2	1:F:1495:PHE:HB3	1.89	0.55
1:B:526:HIS:CE1	1:B:585:TYR:HH	2.21	0.55
1:B:1065:SER:H	1:B:1068:LYS:HB3	1.72	0.55
1:F:569:LEU:HB2	1:F:620:PHE:HB3	1.88	0.55
1:F:1412:THR:HB	1:F:1413:PRO:HD3	1.89	0.55
1:F:1470:LYS:HD3	1:F:1483:TRP:CE2	2.42	0.55
2:G:94:ARG:HD2	2:G:145:MET:HG2	1.88	0.55
3:E:585:VAL:HG23	3:E:607:LYS:HA	1.88	0.55
3:E:586:LEU:HB2	3:E:608:LEU:HB3	1.87	0.55
1:B:133:SER:HB3	1:B:135:THR:HG23	1.88	0.54
1:B:229:LYS:HE3	1:B:343:GLN:HG2	1.88	0.54
1:B:319:ARG:NH1	1:B:497:LYS:O	2.41	0.54
1:B:646:ASN:ND2	1:B:653:ASN:HD21	2.05	0.54
1:B:1353:ILE:HG21	1:F:1335:TYR:HB2	1.89	0.54
1:F:932:LEU:N	1:F:935:ARG:HH21	2.05	0.54
1:F:1158:GLU:OE1	1:F:1158:GLU:N	2.40	0.54
1:F:1630:LYS:O	1:F:1634:GLU:HG2	2.07	0.54
3:A:405:ARG:HB2	3:A:407:ASP:OD1	2.07	0.54
3:A:692:MET:O	3:A:696:LEU:N	2.38	0.54
1:B:231:PHE:CE2	1:B:233:CYS:HB3	2.42	0.54
1:B:840:PHE:O	1:B:844:ILE:HG12	2.06	0.54
1:B:936:ILE:O	1:B:940:VAL:HG12	2.07	0.54
1:F:720:ILE:HG12	1:F:766:PHE:CE1	2.42	0.54
1:F:1384:ARG:NH2	1:F:1457:ASN:OD1	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:687:ASP:OD1	3:E:688:THR:N	2.40	0.54
3:A:564:LYS:HA	3:A:654:PHE:HD1	1.73	0.54
1:B:688:THR:O	1:B:692:LEU:HG	2.06	0.54
1:B:1465:SER:HA	1:B:1486:ARG:HG2	1.89	0.54
1:F:1162:GLY:HA2	1:F:1208:ARG:CZ	2.38	0.54
2:G:39:ASN:H	2:G:57:ASP:HB3	1.72	0.54
3:E:640:LEU:O	3:E:656:ALA:N	2.36	0.54
4:D:98:HIS:CE1	4:D:149:ILE:HB	2.43	0.54
1:B:18:ASN:ND2	1:B:28:SER:HB3	2.22	0.54
1:B:342:LYS:O	1:B:402:SER:HA	2.07	0.54
1:B:859:CYS:HA	1:B:862:LYS:HE2	1.90	0.54
1:B:972:TYR:O	1:B:975:THR:N	2.40	0.54
1:B:972:TYR:C	1:B:975:THR:H	2.11	0.54
1:B:1148:GLU:O	1:B:1152:ILE:HG12	2.07	0.54
1:B:1280:PRO:HA	1:B:1283:LEU:HD23	1.89	0.54
1:B:1611:LEU:HD11	1:B:1616:LYS:HA	1.88	0.54
2:C:69:PRO:HA	2:C:72:TYR:CD2	2.42	0.54
2:C:139:TYR:HD1	2:C:156:GLU:OE1	1.89	0.54
1:F:1117:GLU:OE2	1:F:1120:LEU:HG	2.08	0.54
1:F:1483:TRP:CE2	1:F:1514:PRO:HD3	2.42	0.54
1:B:199:GLN:HA	1:B:202:LYS:HZ3	1.72	0.54
1:B:669:LEU:HD12	1:B:670:GLN:N	2.23	0.54
2:C:98:TYR:CE1	2:C:149:ILE:HD13	2.41	0.54
1:F:19:TYR:CG	1:F:20:ASN:N	2.76	0.54
1:F:80:VAL:HG22	1:F:85:LEU:HD21	1.88	0.54
1:F:85:LEU:O	1:F:88:VAL:HG12	2.08	0.54
1:F:738:ASN:HA	1:F:741:VAL:HG12	1.89	0.54
1:F:1440:SER:H	1:F:1442:LYS:NZ	2.06	0.54
1:F:1485:GLU:HG3	1:F:1511:GLU:OE1	2.08	0.54
2:G:96:LYS:O	2:G:100:GLU:HG3	2.07	0.54
2:G:164:GLY:O	2:G:168:VAL:HG23	2.08	0.54
3:E:578:ARG:HG2	3:E:587:HIS:HD2	1.72	0.54
3:A:669:LEU:HA	3:A:672:LEU:HD12	1.89	0.54
3:A:715:LYS:NZ	3:A:716:GLU:O	2.37	0.54
1:B:6:PRO:HG3	3:A:724:TYR:CD1	2.42	0.54
1:B:979:ARG:O	1:B:982:ILE:HG22	2.07	0.54
1:B:1088:ARG:HG2	1:B:1092:TYR:CE2	2.43	0.54
1:F:4:TRP:CZ3	1:F:46:ARG:HG2	2.43	0.54
1:F:181:ILE:O	1:F:185:LYS:NZ	2.41	0.54
1:F:1339:GLY:O	1:F:1343:LYS:HG3	2.08	0.54
3:A:272:ARG:NH1	3:A:273:SER:HB2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:309:MET:HE3	3:A:376:PRO:HB3	1.89	0.54
1:B:4:TRP:CE3	1:B:46:ARG:HG2	2.43	0.54
1:B:882:LEU:HA	1:B:885:GLN:NE2	2.22	0.54
1:B:1008:VAL:O	1:B:1012:THR:HG23	2.08	0.54
1:B:1602:GLU:HA	1:B:1605:ARG:NE	2.23	0.54
1:F:318:LEU:HD22	1:F:320:ARG:HH22	1.72	0.54
1:F:1184:LYS:H	1:F:1184:LYS:HD2	1.73	0.54
3:E:544:ILE:HG21	3:E:690:LEU:HD22	1.89	0.54
3:A:380:ALA:O	3:A:384:MET:HG2	2.07	0.54
3:A:511:TYR:HE1	3:A:518:ARG:HH21	1.55	0.54
3:A:678:MET:N	3:A:678:MET:SD	2.81	0.54
1:B:561:THR:HG21	1:B:631:LEU:HD22	1.90	0.54
2:C:21:ILE:HD11	2:C:35:THR:HG23	1.89	0.54
1:F:41:TYR:CZ	3:E:717:PRO:HD3	2.41	0.54
1:F:1478:GLU:O	1:F:1482:MET:HG2	2.08	0.54
2:G:82:PHE:HD1	2:G:112:LEU:HD11	1.73	0.54
3:E:579:LEU:HD13	3:E:586:LEU:HD22	1.90	0.54
3:A:619:GLY:N	3:A:641:ALA:O	2.39	0.54
4:D:21:ILE:O	4:D:26:ASN:N	2.41	0.54
1:B:1086:ARG:O	1:B:1090:MET:HG2	2.08	0.54
1:B:1482:MET:HA	1:B:1482:MET:HE3	1.89	0.54
1:B:1485:GLU:OE1	1:B:1485:GLU:N	2.40	0.54
1:F:128:ARG:NH1	1:F:128:ARG:O	2.34	0.54
1:F:843:PHE:O	1:F:846:SER:OG	2.17	0.54
1:F:857:LEU:HB3	1:F:905:LEU:HD21	1.90	0.54
1:F:1028:LEU:O	1:F:1032:PHE:CB	2.48	0.54
1:F:1178:GLU:O	1:F:1182:LYS:HD2	2.08	0.54
1:F:1391:ARG:NE	2:G:26:ASN:O	2.39	0.54
3:A:133:VAL:HG21	3:A:158:THR:HG21	1.90	0.54
1:B:1069:ARG:O	1:B:1073:VAL:HG23	2.07	0.54
1:B:1633:VAL:HG12	1:B:1637:TYR:HD2	1.71	0.54
2:C:123:LYS:HA	2:C:126:ILE:HG12	1.88	0.54
1:F:167:ASP:OD1	1:F:168:ASP:N	2.36	0.54
1:F:198:ILE:O	1:F:201:GLU:HG2	2.07	0.54
1:F:719:TYR:HD1	1:F:723:HIS:HB2	1.72	0.54
1:F:896:LYS:HG2	1:F:897:PRO:HD3	1.90	0.54
3:A:251:PHE:HB3	3:A:300:LEU:HD22	1.89	0.54
3:A:552:ARG:HD3	3:A:664:ILE:HG23	1.90	0.54
1:B:154:HIS:O	1:B:158:MET:HG2	2.08	0.53
1:B:962:GLN:O	1:B:1019:ARG:NH1	2.40	0.53
1:B:1363:PHE:HE1	1:B:1391:ARG:HA	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:198:ILE:HG13	1:F:202:LYS:NZ	2.23	0.53
1:F:1043:TRP:HA	1:F:1046:TYR:HB3	1.90	0.53
3:A:331:ALA:HB2	3:A:395:TYR:CE2	2.44	0.53
4:D:79:VAL:HG22	4:D:111:LEU:HD23	1.90	0.53
1:B:630:LYS:HG3	1:B:668:PHE:HZ	1.73	0.53
1:F:141:LEU:O	1:F:145:LYS:HG3	2.07	0.53
3:A:294:LEU:HA	3:A:297:LEU:HD12	1.89	0.53
4:D:5:LYS:HG2	4:D:75:THR:HA	1.91	0.53
4:D:46:VAL:HG11	4:D:174:ARG:HB3	1.90	0.53
1:B:228:PHE:CE2	1:B:399:LEU:HB2	2.40	0.53
1:B:1125:ILE:HD13	1:B:1175:LEU:HB2	1.88	0.53
1:F:31:ILE:HB	3:E:697:ARG:HB3	1.91	0.53
1:F:450:LEU:HB3	1:F:509:TRP:CE3	2.42	0.53
1:F:1109:ILE:O	1:F:1112:VAL:HG22	2.08	0.53
3:A:424:LEU:O	3:A:428:LEU:HB2	2.08	0.53
4:D:82:PHE:CE1	4:D:90:TYR:HD2	2.26	0.53
4:D:152:VAL:HG21	4:D:175:ALA:HB2	1.90	0.53
1:B:821:PRO:O	1:B:824:ILE:HG12	2.08	0.53
1:B:1221:MET:HG3	1:B:1250:LEU:HD13	1.90	0.53
2:C:90:PHE:HE2	2:C:137:ILE:HB	1.73	0.53
1:F:219:ILE:HD12	1:F:408:GLY:HA2	1.90	0.53
1:F:245:LEU:O	1:F:254:ILE:N	2.33	0.53
1:F:666:VAL:HA	1:F:669:LEU:HB3	1.91	0.53
1:F:785:ASP:OD1	1:F:786:GLU:N	2.41	0.53
2:G:98:TYR:CE1	2:G:149:ILE:HD13	2.39	0.53
3:E:616:VAL:HA	3:E:644:ILE:HA	1.91	0.53
3:E:670:ASN:HA	3:E:673:LEU:HD12	1.90	0.53
3:A:51:LEU:HA	3:A:77:LEU:HA	1.89	0.53
3:A:408:LYS:HG2	3:A:475:GLU:OE1	2.09	0.53
1:B:1082:GLU:OE1	1:B:1082:GLU:N	2.27	0.53
1:F:643:TRP:HZ2	1:F:678:ASN:HB3	1.73	0.53
1:F:1240:TYR:O	1:F:1244:LEU:HG	2.09	0.53
3:A:52:GLN:HG2	3:A:76:ARG:O	2.09	0.53
3:A:323:ILE:O	3:A:326:GLU:HG3	2.08	0.53
1:B:1328:TYR:HA	1:B:1332:VAL:HG22	1.91	0.53
2:C:162:GLN:HA	2:C:165:LEU:HD13	1.89	0.53
1:F:4:TRP:CE3	1:F:46:ARG:HG2	2.43	0.53
1:F:1601:THR:O	1:F:1605:ARG:HG2	2.08	0.53
2:G:83:SER:HA	2:G:115:THR:HB	1.90	0.53
3:A:181:ILE:HD11	3:A:219:VAL:HA	1.90	0.53
1:B:118:GLN:HB3	1:B:122:TYR:CZ	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:486:PRO:HD3	1:B:492:GLY:HA2	1.91	0.53
1:B:727:THR:O	1:B:774:TYR:HB2	2.08	0.53
1:F:300:ILE:O	1:F:322:PHE:HB3	2.08	0.53
1:F:467:GLU:OE1	1:F:534:ARG:HD3	2.08	0.53
1:F:921:THR:OG1	1:F:924:HIS:HB3	2.09	0.53
1:F:1024:PHE:HA	1:F:1027:VAL:HG12	1.90	0.53
1:F:1063:THR:HA	1:F:1069:ARG:CD	2.39	0.53
1:F:1066:GLN:HA	1:F:1069:ARG:NH2	2.23	0.53
1:F:1089:ASP:HA	1:F:1092:TYR:CD2	2.43	0.53
3:A:129:LEU:HA	3:A:132:MET:HG2	1.90	0.53
3:A:457:CYS:O	3:A:460:ILE:HG22	2.08	0.53
3:A:563:ARG:HG2	3:A:573:LYS:O	2.08	0.53
1:B:46:ARG:HB3	1:B:58:ILE:HG12	1.90	0.53
1:B:154:HIS:HA	1:B:157:ARG:NE	2.21	0.53
1:B:979:ARG:O	1:B:983:ILE:HG13	2.09	0.53
1:B:1143:ASN:HB2	1:B:1145:HIS:CD2	2.43	0.53
1:B:1443:ASP:OD1	1:B:1443:ASP:N	2.40	0.53
1:F:730:TYR:CZ	1:F:731:VAL:HG23	2.44	0.53
1:F:914:ASP:HB2	1:F:963:GLN:CD	2.29	0.53
1:F:936:ILE:HD12	1:F:939:THR:HB	1.91	0.53
1:F:1618:LEU:HD22	1:F:1621:ARG:NH2	2.23	0.53
2:G:93:VAL:HG23	2:G:97:TRP:HB2	1.89	0.53
1:B:470:MET:SD	1:B:496:TYR:HB3	2.49	0.53
1:B:529:PHE:N	1:B:550:ALA:O	2.24	0.53
1:B:725:SER:HA	1:B:773:LEU:HD11	1.91	0.53
1:B:852:LEU:HB3	1:B:855:GLN:HB2	1.90	0.53
1:B:1386:LYS:HB3	1:B:1389:GLU:HB2	1.90	0.53
1:F:154:HIS:O	1:F:158:MET:HG2	2.08	0.53
1:F:221:THR:O	1:F:408:GLY:N	2.42	0.53
1:F:828:LYS:NZ	1:F:867:THR:HA	2.24	0.53
1:F:1529:ILE:HD13	1:F:1550:LEU:HD23	1.91	0.53
2:G:11:ASP:OD1	2:G:11:ASP:N	2.41	0.53
3:A:45:ASN:HB3	3:A:48:TYR:CD2	2.44	0.53
3:A:202:LEU:HD23	3:A:205:LEU:HD12	1.91	0.53
1:B:142:ALA:HA	1:B:145:LYS:HE2	1.91	0.53
1:B:306:MET:HB2	1:B:314:HIS:CE1	2.43	0.53
1:B:589:PRO:HG3	1:B:598:LYS:HD2	1.90	0.53
1:B:1231:TYR:HE2	1:B:1243:TYR:CE2	2.23	0.53
1:B:1599:LEU:HA	1:B:1602:GLU:OE1	2.09	0.53
2:C:82:PHE:HD1	2:C:112:LEU:HD11	1.73	0.53
1:F:166:ARG:O	1:F:171:ASN:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:674:ASP:O	1:F:678:ASN:ND2	2.43	0.53
3:E:548:ILE:O	3:E:552:ARG:HG2	2.09	0.53
3:A:111:SER:O	3:A:168:HIS:NE2	2.41	0.53
3:A:178:VAL:O	3:A:182:LYS:HG2	2.09	0.53
3:A:224:THR:HB	3:A:227:GLN:HG2	1.91	0.53
3:A:276:LEU:HA	3:A:280:ILE:HD12	1.91	0.53
3:A:309:MET:SD	3:A:379:LEU:HD13	2.48	0.53
3:A:646:TYR:CE1	3:A:652:LEU:HG	2.44	0.53
1:B:204:ILE:HA	1:B:207:ASN:O	2.09	0.52
1:B:936:ILE:HD12	1:B:939:THR:HB	1.91	0.52
1:B:1307:TYR:O	1:B:1311:GLY:N	2.42	0.52
1:F:297:VAL:O	1:F:299:GLN:NE2	2.42	0.52
1:F:414:GLN:NE2	1:F:427:ILE:HD11	2.24	0.52
1:F:1362:TYR:OH	1:F:1384:ARG:NE	2.36	0.52
3:A:306:GLU:O	3:A:310:MET:HE2	2.09	0.52
3:A:457:CYS:SG	3:A:458:ILE:N	2.82	0.52
3:A:590:ASP:O	3:A:604:LEU:HD22	2.09	0.52
4:D:145:LEU:O	4:D:149:ILE:HG12	2.09	0.52
1:B:2:ALA:N	3:A:717:PRO:HG2	2.23	0.52
1:B:43:GLY:O	1:B:61:GLU:N	2.37	0.52
1:B:1516:GLU:O	1:B:1519:ILE:N	2.41	0.52
1:F:18:ASN:HD21	3:E:536:LEU:HA	1.73	0.52
1:F:19:TYR:CG	1:F:59:PHE:HE1	2.27	0.52
1:F:72:GLU:HA	1:F:89:GLN:NE2	2.21	0.52
1:F:1245:TYR:HD2	1:F:1248:ARG:NH2	2.02	0.52
2:G:28:PHE:HB3	2:G:31:GLU:HG3	1.92	0.52
2:G:84:LEU:HD13	2:G:120:ARG:HH11	1.74	0.52
3:A:423:MET:SD	3:A:424:LEU:N	2.82	0.52
1:B:19:TYR:CG	1:B:20:ASN:N	2.76	0.52
1:B:697:LEU:HA	1:B:700:ILE:HD12	1.90	0.52
1:F:73:ASP:O	1:F:79:THR:N	2.39	0.52
1:F:225:TYR:HE1	1:F:278:GLN:HB3	1.73	0.52
1:F:1306:SER:O	1:F:1310:LYS:HG2	2.09	0.52
3:A:541:GLN:HG3	3:A:545:LEU:HD23	1.91	0.52
4:D:86:SER:O	4:D:89:SER:OG	2.13	0.52
1:B:246:TYR:OH	1:B:383:LEU:HD21	2.09	0.52
1:B:566:ARG:HA	1:B:623:ALA:HA	1.90	0.52
1:B:704:ILE:HG21	1:B:716:LEU:HD11	1.92	0.52
1:B:1086:ARG:NH2	1:B:1089:ASP:OD2	2.35	0.52
1:B:1524:LEU:HA	1:B:1527:GLU:CD	2.29	0.52
2:C:82:PHE:CZ	2:C:114:GLY:HA2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:871:GLN:HG2	1:F:875:ARG:HB2	1.90	0.52
1:F:1220:ARG:O	1:F:1224:THR:HG22	2.08	0.52
1:F:1440:SER:H	1:F:1442:LYS:HZ2	1.57	0.52
2:G:87:PRO:HA	2:G:90:PHE:CD2	2.44	0.52
3:E:537:LYS:HE3	3:E:690:LEU:HD23	1.92	0.52
3:A:408:LYS:O	3:A:474:SER:N	2.43	0.52
1:B:261:ARG:HB2	1:B:270:GLU:HG3	1.91	0.52
1:B:380:THR:HG22	1:B:510:TYR:CZ	2.44	0.52
1:B:570:VAL:HB	1:B:572:TYR:CE2	2.44	0.52
1:B:958:ILE:HG13	1:B:959:ALA:H	1.72	0.52
1:B:1518:ALA:HB1	1:B:1566:TYR:HE1	1.73	0.52
1:B:1535:GLN:OE1	1:B:1542:LEU:HD11	2.09	0.52
2:C:5:LYS:N	2:C:76:ASP:OD2	2.42	0.52
2:C:23:TYR:HB2	2:C:165:LEU:HD21	1.90	0.52
1:F:957:MET:HA	1:F:960:LEU:HD12	1.91	0.52
1:F:1469:ARG:HD2	1:F:1481:THR:HB	1.90	0.52
1:F:1470:LYS:HB3	1:F:1483:TRP:CD1	2.45	0.52
3:A:464:ASN:O	3:A:468:LYS:HG2	2.09	0.52
3:A:511:TYR:HE1	3:A:518:ARG:NH2	2.07	0.52
1:B:249:ASP:OD2	1:B:293:ARG:N	2.43	0.52
1:B:330:THR:HG23	1:B:333:ILE:HD11	1.91	0.52
1:B:457:LYS:HA	1:B:463:PRO:HA	1.90	0.52
1:B:643:TRP:HA	1:B:646:ASN:HB3	1.90	0.52
1:B:925:ILE:HA	1:B:928:ILE:HD12	1.91	0.52
1:B:1514:PRO:HA	1:B:1517:ASN:HB2	1.90	0.52
1:F:1032:PHE:HB3	1:F:1043:TRP:HH2	1.75	0.52
1:F:1135:GLU:O	1:F:1139:SER:OG	2.25	0.52
1:F:1483:TRP:HE3	1:F:1511:GLU:HG3	1.74	0.52
2:G:129:LEU:O	2:G:134:LEU:N	2.37	0.52
3:A:259:ARG:HB3	3:A:304:LEU:HD11	1.91	0.52
3:A:609:PRO:HD2	3:A:612:ASP:OD1	2.09	0.52
1:B:273:LYS:O	1:B:277:LEU:HG	2.09	0.52
1:B:1178:GLU:O	1:B:1182:LYS:HD2	2.10	0.52
1:B:1368:TYR:O	1:B:1372:PHE:HE2	1.93	0.52
1:F:79:THR:HA	1:F:85:LEU:HD22	1.91	0.52
1:F:81:ILE:HG21	1:F:141:LEU:HD21	1.91	0.52
3:E:556:LEU:HD21	3:E:665:TRP:CD1	2.45	0.52
3:A:612:ASP:HB2	3:A:646:TYR:HB2	1.90	0.52
1:B:106:TYR:HA	1:B:111:LEU:HD11	1.91	0.52
1:B:306:MET:HG2	1:B:320:ARG:HH21	1.75	0.52
1:B:772:VAL:HG23	1:B:776:ARG:NH2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:909:ILE:HG13	1:B:910:LEU:H	1.73	0.52
1:F:714:PRO:HA	1:F:717:GLU:HG2	1.92	0.52
1:F:1054:LEU:HB2	1:F:1083:ILE:HG21	1.92	0.52
1:F:1229:ASN:HA	1:F:1232:LYS:HE2	1.91	0.52
1:F:1248:ARG:NH1	1:F:1252:ARG:HH12	2.06	0.52
3:E:698:LEU:O	3:E:702:GLU:HG2	2.10	0.52
3:A:309:MET:CE	3:A:376:PRO:HB3	2.39	0.52
4:D:14:VAL:O	4:D:116:LYS:NZ	2.33	0.52
1:B:41:TYR:CE1	3:A:717:PRO:HD3	2.45	0.52
1:B:437:ILE:HG13	1:B:708:LYS:HE3	1.92	0.52
1:B:706:ASP:OD1	1:B:708:LYS:N	2.31	0.52
1:B:1089:ASP:HA	1:B:1092:TYR:CD2	2.45	0.52
1:B:1154:LYS:HA	1:B:1157:GLN:OE1	2.10	0.52
1:B:1391:ARG:HH11	1:B:1429:PHE:HA	1.75	0.52
1:F:187:HIS:HB3	1:F:1006:TRP:CD1	2.44	0.52
1:F:1065:SER:OG	1:F:1068:LYS:N	2.43	0.52
3:E:678:MET:HA	3:E:683:ARG:HH12	1.75	0.52
3:A:425:CYS:HA	3:A:430:VAL:HB	1.91	0.52
3:A:670:ASN:HA	3:A:673:LEU:HB2	1.91	0.52
1:B:60:PRO:HB3	3:A:714:PRO:HD2	1.92	0.52
1:B:1136:PHE:HZ	1:B:1185:TYR:CE2	2.28	0.52
1:B:1274:SER:HB2	1:B:1293:GLN:NE2	2.25	0.52
1:B:1623:SER:HB3	1:B:1627:ARG:NH2	2.25	0.52
1:F:48:TYR:HB3	1:F:53:LYS:HA	1.92	0.52
1:F:59:PHE:CZ	1:F:63:TYR:HB3	2.45	0.52
1:F:221:THR:HG23	1:F:283:ASP:HA	1.92	0.52
1:F:583:LYS:HG3	1:F:586:LEU:HD12	1.90	0.52
1:F:724:PHE:CZ	1:F:726:ALA:HB3	2.44	0.52
1:F:945:ARG:NH1	1:F:946:GLN:HB2	2.24	0.52
1:F:1573:GLU:O	1:F:1577:GLN:NE2	2.43	0.52
1:F:1607:HIS:NE2	1:F:1615:LEU:HB3	2.24	0.52
2:G:5:LYS:HG2	2:G:56:TRP:HE1	1.75	0.52
3:A:198:LEU:HD11	3:A:231:HIS:CD2	2.44	0.52
3:A:387:PHE:O	3:A:392:GLN:N	2.43	0.52
1:B:110:LYS:HD3	1:B:113:LEU:HD12	1.91	0.51
1:B:297:VAL:HG22	1:B:326:VAL:HG22	1.91	0.51
1:B:411:THR:O	1:B:415:LYS:HD3	2.11	0.51
1:B:469:THR:HB	1:B:530:THR:OG1	2.10	0.51
1:B:970:SER:HA	1:B:974:SER:HB3	1.93	0.51
1:B:1165:ASP:HB2	1:B:1168:TYR:HB2	1.92	0.51
1:B:1390:ARG:HB2	2:C:166:LYS:HZ2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:677:PHE:HE2	1:F:766:PHE:CE1	2.28	0.51
1:F:879:LEU:HD13	1:F:924:HIS:CE1	2.45	0.51
1:F:1026:GLU:O	1:F:1029:THR:OG1	2.22	0.51
1:F:1291:TYR:HB3	1:F:1296:LEU:CD2	2.35	0.51
1:F:1405:ALA:H	3:E:584:LYS:HZ1	1.55	0.51
3:E:532:PRO:HA	3:E:535:GLU:CD	2.31	0.51
3:E:578:ARG:O	3:E:587:HIS:N	2.23	0.51
3:E:588:TYR:OH	3:E:607:LYS:O	2.20	0.51
3:A:299:VAL:O	3:A:303:ASN:ND2	2.43	0.51
4:D:158:SER:HB3	4:D:163:ASP:HB3	1.92	0.51
1:B:520:GLU:OE1	1:B:520:GLU:N	2.32	0.51
1:B:716:LEU:O	1:B:720:ILE:HG13	2.10	0.51
1:B:1370:GLN:O	1:B:1377:ARG:NH2	2.43	0.51
2:C:90:PHE:O	2:C:94:ARG:HD3	2.11	0.51
1:F:17:TYR:CZ	3:E:710:PRO:HB3	2.45	0.51
2:G:124:ASP:O	2:G:127:GLU:HG2	2.09	0.51
2:G:137:ILE:HG23	2:G:141:GLN:NE2	2.24	0.51
3:A:491:ALA:O	3:A:496:PRO:HD3	2.09	0.51
1:B:4:TRP:CZ3	1:B:46:ARG:HG2	2.44	0.51
1:B:166:ARG:HE	1:B:173:LEU:HD12	1.76	0.51
1:B:232:VAL:O	1:B:397:GLN:HA	2.09	0.51
1:B:383:LEU:HD22	1:B:510:TYR:CE2	2.46	0.51
1:B:556:ASN:ND2	1:B:560:THR:OG1	2.25	0.51
1:B:1372:PHE:CZ	1:B:1424:GLN:HB3	2.45	0.51
1:F:34:THR:O	1:F:50:LEU:N	2.31	0.51
1:F:764:PHE:CD1	1:F:823:ILE:HB	2.44	0.51
1:F:1360:PRO:HG2	1:F:1362:TYR:CE1	2.45	0.51
3:A:52:GLN:HA	3:A:61:ILE:HG12	1.91	0.51
1:B:1:MET:N	3:A:716:GLU:HB3	2.25	0.51
1:B:4:TRP:CD1	3:A:722:PHE:HD1	2.29	0.51
1:B:1586:VAL:HA	1:B:1589:LEU:HD12	1.91	0.51
3:A:51:LEU:HD22	3:A:75:LEU:HB3	1.91	0.51
3:A:224:THR:HG22	3:A:226:GLY:H	1.75	0.51
3:A:386:TYR:CD1	3:A:453:GLU:HB3	2.45	0.51
4:D:1:MET:HG3	4:D:52:ASN:HB2	1.91	0.51
1:B:694:PHE:O	1:B:697:LEU:HG	2.11	0.51
1:B:720:ILE:HG12	1:B:766:PHE:CE1	2.46	0.51
1:B:1539:ASP:OD1	1:B:1542:LEU:HB2	2.11	0.51
1:B:1557:PRO:HB2	1:B:1562:GLY:H	1.75	0.51
1:F:36:HIS:N	1:F:48:TYR:O	2.41	0.51
3:A:348:ARG:NH1	3:A:352:TYR:OH	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:491:ALA:O	3:A:494:THR:OG1	2.24	0.51
3:A:496:PRO:HG2	3:A:502:PHE:HD1	1.76	0.51
3:A:532:PRO:HA	3:A:535:GLU:CD	2.31	0.51
3:A:644:ILE:HD11	3:A:669:LEU:HD13	1.92	0.51
3:A:670:ASN:O	3:A:674:GLY:N	2.43	0.51
1:B:105:LEU:HD13	1:B:110:LYS:NZ	2.24	0.51
1:B:127:TRP:O	1:B:131:ILE:HG12	2.09	0.51
1:B:438:LEU:N	1:B:441:ASP:OD2	2.44	0.51
1:B:794:LEU:HG	1:B:798:PHE:CZ	2.45	0.51
1:B:1220:ARG:O	1:B:1224:THR:HG22	2.11	0.51
2:C:8:VAL:HG22	2:C:79:LEU:HB2	1.93	0.51
2:C:65:ASP:HA	2:C:68:ARG:NE	2.26	0.51
1:F:817:LEU:HD11	1:F:855:GLN:HB3	1.93	0.51
1:F:1062:GLU:O	1:F:1069:ARG:N	2.44	0.51
1:F:1336:GLU:O	1:F:1340:ASN:ND2	2.44	0.51
1:F:1361:GLU:OE2	1:F:1388:TYR:HA	2.11	0.51
1:F:1593:ILE:O	1:F:1596:GLN:HB3	2.11	0.51
3:A:582:ASN:HB2	3:A:585:VAL:HG12	1.91	0.51
4:D:154:TYR:OH	4:D:156:GLU:OE2	2.18	0.51
1:B:87:LEU:O	1:B:90:GLU:HG3	2.11	0.51
1:B:744:ALA:HB3	1:B:804:ARG:NH1	2.25	0.51
1:B:1436:SER:OG	1:B:1437:LEU:N	2.44	0.51
1:B:1478:GLU:HG3	2:C:34:PRO:HB2	1.93	0.51
1:F:333:ILE:O	1:F:405:LEU:HD22	2.11	0.51
1:F:337:VAL:HG11	1:F:344:HIS:CE1	2.46	0.51
1:F:864:VAL:HG11	1:F:909:ILE:HG22	1.93	0.51
1:F:889:GLN:OE1	1:F:895:ASN:HB3	2.11	0.51
1:F:1110:LEU:O	1:F:1114:LEU:N	2.43	0.51
1:F:1340:ASN:HA	1:F:1343:LYS:HE2	1.92	0.51
1:F:1567:GLU:HA	1:F:1571:PHE:CD1	2.45	0.51
1:F:1613:GLU:OE2	1:F:1614:GLN:NE2	2.43	0.51
4:D:90:TYR:CE1	4:D:94:ARG:HD2	2.46	0.51
1:B:972:TYR:CE2	1:B:976:PHE:HA	2.45	0.51
1:B:1200:LEU:HD23	1:B:1230:PHE:CE2	2.42	0.51
1:B:1495:PHE:CE1	1:B:1502:PHE:HD2	2.28	0.51
1:F:914:ASP:OD1	1:F:916:LYS:NZ	2.38	0.51
1:F:1372:PHE:O	1:F:1377:ARG:NH2	2.44	0.51
3:E:543:GLU:O	3:E:546:GLU:HG2	2.11	0.51
3:E:680:ASP:OD1	3:E:681:LEU:HD12	2.11	0.51
3:A:72:GLY:HA3	4:D:64:TYR:HE2	1.76	0.51
3:A:546:GLU:HA	3:A:549:LYS:HE3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:69:ALA:HB2	1:B:76:GLN:HB2	1.93	0.51
1:B:299:GLN:HG3	1:B:324:VAL:HG22	1.92	0.51
1:B:927:LEU:CB	1:B:931:ARG:HH12	2.17	0.51
1:B:1148:GLU:HA	1:B:1151:LEU:HB3	1.93	0.51
1:B:1306:SER:O	1:B:1310:LYS:HG2	2.11	0.51
1:B:1474:ASP:OD2	1:B:1477:ASN:ND2	2.37	0.51
1:F:44:TRP:HE3	1:F:58:ILE:HG22	1.76	0.51
1:F:98:TRP:HZ3	1:F:159:LEU:HD13	1.75	0.51
1:F:129:SER:O	1:F:132:LEU:HB2	2.11	0.51
1:F:1489:TYR:HE1	1:F:1507:ILE:HG13	1.74	0.51
3:E:579:LEU:HG	3:E:583:HIS:HD1	1.76	0.51
3:A:8:VAL:HG22	3:A:10:VAL:HG13	1.93	0.51
3:A:198:LEU:HD21	3:A:231:HIS:HD2	1.75	0.51
1:B:45:TYR:CE2	1:B:66:LEU:HD12	2.46	0.51
1:B:111:LEU:O	1:B:114:PHE:HB3	2.11	0.51
1:B:127:TRP:O	1:B:130:GLN:HG2	2.11	0.51
1:B:240:GLU:O	1:B:300:ILE:HA	2.11	0.51
1:B:985:PHE:O	1:B:989:THR:HG23	2.11	0.51
1:B:1322:LYS:HD3	1:B:1345:ARG:NH1	2.26	0.51
2:C:7:VAL:HG22	2:C:56:TRP:CD1	2.46	0.51
1:F:195:GLU:O	1:F:199:GLN:HG2	2.11	0.51
1:F:616:THR:OG1	1:F:617:LYS:N	2.44	0.51
1:F:787:PHE:O	1:F:791:ILE:HG12	2.11	0.51
1:F:872:SER:HA	1:F:875:ARG:HH12	1.76	0.51
1:F:1306:SER:HB3	1:F:1310:LYS:NZ	2.25	0.51
1:F:1579:HIS:HB3	1:F:1582:ASP:HB2	1.93	0.51
3:E:563:ARG:HG3	3:E:657:PRO:HG3	1.92	0.51
3:A:462:LEU:HD22	3:A:506:LEU:HB3	1.93	0.51
3:A:533:ILE:HD11	3:A:706:ILE:HD13	1.93	0.51
1:B:729:ALA:O	1:B:733:LEU:HG	2.11	0.50
1:B:1546:PRO:O	1:B:1549:MET:HB2	2.11	0.50
2:C:130:LYS:HE2	2:C:130:LYS:HA	1.93	0.50
1:F:101:ILE:HD12	1:F:104:LYS:HG3	1.93	0.50
1:F:120:MET:O	1:F:123:SER:OG	2.24	0.50
1:F:569:LEU:HD12	1:F:620:PHE:CD2	2.47	0.50
1:F:809:ALA:O	1:F:813:LYS:HG3	2.11	0.50
1:F:941:ILE:O	1:F:944:ASN:HB2	2.10	0.50
3:E:613:ILE:HD12	3:E:644:ILE:HG22	1.93	0.50
3:E:637:VAL:HA	3:E:640:LEU:HD12	1.92	0.50
3:A:548:ILE:O	3:A:551:GLN:HB3	2.11	0.50
1:B:166:ARG:HG2	1:B:173:LEU:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:628:SER:OG	1:B:629:THR:N	2.43	0.50
1:B:652:HIS:HA	1:B:655:LYS:HD2	1.92	0.50
1:B:761:LYS:HG3	1:B:765:ARG:NE	2.26	0.50
1:B:1167:GLN:O	1:B:1171:LEU:HG	2.11	0.50
1:B:1366:GLY:HA3	1:B:1380:ILE:HD13	1.94	0.50
1:F:89:GLN:O	1:F:92:THR:OG1	2.27	0.50
1:F:878:LEU:O	1:F:882:LEU:HG	2.10	0.50
1:F:950:ILE:HA	1:F:953:PHE:CD1	2.46	0.50
1:F:1008:VAL:O	1:F:1012:THR:HG23	2.10	0.50
1:F:1216:SER:OG	1:F:1401:GLN:NE2	2.31	0.50
1:F:1605:ARG:O	1:F:1609:GLU:HG3	2.11	0.50
2:G:87:PRO:HD2	2:G:134:LEU:HD22	1.92	0.50
2:G:116:LYS:O	2:G:120:ARG:N	2.45	0.50
3:A:200:ARG:NH2	3:A:242:TYR:OH	2.44	0.50
3:A:271:LEU:HA	3:A:274:ILE:HG22	1.92	0.50
4:D:90:TYR:O	4:D:94:ARG:HG3	2.11	0.50
4:D:91:GLU:O	4:D:95:HIS:ND1	2.44	0.50
1:B:37:ILE:HG23	1:B:46:ARG:C	2.31	0.50
1:B:879:LEU:HD13	1:B:924:HIS:CE1	2.47	0.50
1:B:1593:ILE:O	1:B:1596:GLN:HB3	2.12	0.50
1:F:31:ILE:HG23	3:E:701:LEU:HD23	1.94	0.50
1:B:88:VAL:O	1:B:92:THR:HG23	2.11	0.50
1:B:122:TYR:O	1:B:126:GLU:HG3	2.12	0.50
1:B:304:GLY:CA	1:B:317:GLY:H	2.25	0.50
1:B:346:ILE:N	1:B:399:LEU:O	2.42	0.50
1:B:877:VAL:O	1:B:880:PRO:HD2	2.11	0.50
1:B:1079:MET:HA	1:B:1082:GLU:OE2	2.11	0.50
1:B:1336:GLU:OE2	1:B:1340:ASN:ND2	2.34	0.50
2:C:96:LYS:HD2	2:C:100:GLU:HG2	1.93	0.50
2:C:96:LYS:C	2:C:99:PRO:HD2	2.32	0.50
2:C:114:GLY:HA3	2:C:156:GLU:HG3	1.94	0.50
1:F:329:ILE:HB	1:F:332:ILE:HB	1.93	0.50
1:F:677:PHE:HD2	1:F:719:TYR:HH	1.60	0.50
1:F:847:ILE:HD13	1:F:856:LYS:HD2	1.94	0.50
1:F:1183:HIS:CG	1:F:1184:LYS:H	2.28	0.50
3:E:645:LEU:HA	3:E:651:GLN:HG3	1.93	0.50
3:A:386:TYR:O	3:A:390:HIS:N	2.40	0.50
3:A:537:LYS:HB2	3:A:694:ILE:HG21	1.93	0.50
3:A:561:CYS:HB3	3:A:574:PHE:CB	2.37	0.50
3:A:564:LYS:CE	3:A:590:ASP:HA	2.41	0.50
3:A:642:PHE:CE2	3:A:652:LEU:HB3	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:239:ALA:HB3	1:B:262:TRP:CD1	2.47	0.50
1:B:288:ASP:HA	1:B:291:ARG:HD2	1.92	0.50
1:B:477:GLY:H	1:B:526:HIS:HE1	1.59	0.50
1:B:786:GLU:HA	1:B:789:ASN:ND2	2.27	0.50
1:B:1019:ARG:O	1:B:1023:GLN:NE2	2.41	0.50
1:B:1449:GLN:HA	1:B:1452:ASN:ND2	2.27	0.50
1:B:1545:HIS:HD2	2:C:5:LYS:HE3	1.76	0.50
1:B:1567:GLU:HA	1:B:1571:PHE:HB2	1.94	0.50
2:C:139:TYR:O	2:C:142:GLY:N	2.45	0.50
1:F:127:TRP:CH2	1:F:151:LYS:HE3	2.47	0.50
1:F:853:VAL:O	1:F:857:LEU:HG	2.10	0.50
1:F:1468:PHE:CE2	1:F:1470:LYS:HB2	2.46	0.50
2:G:39:ASN:HA	2:G:57:ASP:H	1.77	0.50
2:G:78:PHE:CE1	2:G:101:VAL:HG11	2.46	0.50
3:E:541:GLN:N	3:E:542:PRO:HD3	2.26	0.50
3:A:38:CYS:O	3:A:43:LEU:N	2.31	0.50
3:A:274:ILE:HA	3:A:277:THR:HG22	1.93	0.50
3:A:276:LEU:HB2	3:A:446:PHE:HB3	1.92	0.50
3:A:551:GLN:O	3:A:555:ARG:HD3	2.11	0.50
3:A:562:PHE:HB3	3:A:575:TRP:CZ2	2.47	0.50
4:D:72:TYR:HE2	4:D:100:GLU:HG2	1.75	0.50
1:B:102:TRP:HA	1:B:105:LEU:CG	2.42	0.50
1:B:204:ILE:HG12	1:B:211:ARG:HD3	1.92	0.50
2:C:158:SER:O	2:C:162:GLN:N	2.43	0.50
1:F:84:GLU:OE1	1:F:141:LEU:HD23	2.11	0.50
1:F:717:GLU:HA	1:F:720:ILE:HD12	1.93	0.50
1:F:1063:THR:HA	1:F:1069:ARG:HD3	1.93	0.50
1:F:1365:VAL:N	1:F:1381:PHE:O	2.34	0.50
1:F:1545:HIS:CD2	2:G:5:LYS:HG3	2.47	0.50
2:G:65:ASP:HA	2:G:68:ARG:HG2	1.92	0.50
2:G:129:LEU:HA	2:G:132:LYS:HG2	1.94	0.50
3:E:609:PRO:O	3:E:613:ILE:HG12	2.11	0.50
3:A:230:PRO:O	3:A:234:GLY:N	2.42	0.50
1:B:568:ASP:OD2	1:B:569:LEU:N	2.43	0.50
1:B:568:ASP:HB3	1:B:592:LYS:HG3	1.94	0.50
1:B:1125:ILE:HD12	1:B:1172:LEU:HA	1.94	0.50
1:F:1532:CYS:SG	1:F:1533:VAL:N	2.85	0.50
1:F:1593:ILE:O	1:F:1597:MET:HG2	2.12	0.50
3:A:120:PHE:CZ	3:A:125:GLY:HA3	2.47	0.50
1:B:923:VAL:O	1:B:926:GLN:HB3	2.12	0.50
1:F:973:ILE:HA	1:F:976:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1632:LYS:HD3	1:F:1636:HIS:CD2	2.47	0.50
1:F:1633:VAL:O	1:F:1639:VAL:N	2.39	0.50
2:G:69:PRO:O	2:G:73:PRO:HD3	2.12	0.50
3:E:586:LEU:HD23	3:E:608:LEU:HB3	1.94	0.50
3:E:685:ASP:HA	3:E:688:THR:HG22	1.94	0.50
3:A:104:LEU:HD22	3:A:132:MET:HE2	1.94	0.50
4:D:36:VAL:O	4:D:37:PHE:HB3	2.11	0.50
1:B:16:ILE:HG23	3:A:706:ILE:HG13	1.93	0.50
1:B:41:TYR:CZ	3:A:717:PRO:HD3	2.47	0.50
1:B:119:GLN:HA	1:B:122:TYR:CD2	2.47	0.50
1:B:596:GLU:O	1:B:600:LEU:HG	2.12	0.50
1:B:720:ILE:HA	1:B:724:PHE:HB2	1.94	0.50
1:B:1094:LEU:HD22	1:B:1098:LYS:HG3	1.94	0.50
2:C:110:ILE:O	2:C:152:VAL:HG12	2.12	0.50
1:F:13:GLY:HA3	1:F:35:VAL:HG23	1.93	0.50
1:F:446:ILE:HG23	1:F:626:ILE:HG12	1.94	0.50
1:F:794:LEU:HG	1:F:798:PHE:CZ	2.47	0.50
1:F:1328:TYR:HB3	1:F:1338:LEU:CD2	2.42	0.50
3:A:51:LEU:HD13	3:A:75:LEU:HD13	1.92	0.50
3:A:89:HIS:HB3	3:A:123:LEU:HD21	1.94	0.50
3:A:321:ARG:HH12	3:A:366:ASN:ND2	2.10	0.50
3:A:560:THR:O	3:A:576:TYR:HA	2.12	0.50
3:A:619:GLY:HA2	3:A:641:ALA:HB3	1.92	0.50
1:B:306:MET:HA	1:B:320:ARG:HG3	1.94	0.49
1:B:713:ASN:O	1:B:717:GLU:HG2	2.12	0.49
1:B:789:ASN:O	1:B:792:ARG:N	2.45	0.49
1:B:883:THR:HG21	1:B:931:ARG:NE	2.26	0.49
1:F:30:GLN:OE1	3:E:697:ARG:NH2	2.45	0.49
1:F:45:TYR:CD2	1:F:64:ILE:HG13	2.38	0.49
1:F:809:ALA:HB1	1:F:812:ILE:HB	1.94	0.49
1:F:1392:GLU:HB2	2:G:166:LYS:HE2	1.94	0.49
1:F:1441:TYR:HE2	1:F:1450:ILE:HG21	1.75	0.49
1:B:409:ASP:CG	1:B:411:THR:HG1	2.15	0.49
1:B:1117:GLU:CD	1:B:1120:LEU:HG	2.32	0.49
1:B:1258:THR:HG21	1:B:1496:PRO:HB2	1.94	0.49
1:B:1329:GLU:HB3	1:B:1338:LEU:HD11	1.93	0.49
2:C:14:VAL:HG21	2:C:83:SER:HB2	1.94	0.49
2:C:171:GLU:HA	2:C:174:ARG:HG2	1.94	0.49
1:F:908:ASN:O	1:F:911:GLU:HG3	2.12	0.49
1:F:928:ILE:HG23	1:F:932:LEU:HD12	1.94	0.49
1:F:1489:TYR:CE1	1:F:1507:ILE:HG13	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1599:LEU:HA	1:F:1602:GLU:OE1	2.12	0.49
3:A:147:MET:HE2	3:A:151:PHE:HB2	1.95	0.49
3:A:515:LEU:HD12	3:A:516:LYS:N	2.27	0.49
3:A:641:ALA:O	3:A:662:TYR:OH	2.23	0.49
3:A:720:TYR:HB3	3:A:722:PHE:CZ	2.48	0.49
1:B:233:CYS:SG	1:B:234:ASN:N	2.86	0.49
1:B:997:ILE:HG13	1:B:998:GLY:H	1.76	0.49
1:B:1055:THR:HG22	1:B:1055:THR:O	2.12	0.49
1:B:1466:ARG:H	1:B:1484:ILE:HG23	1.77	0.49
1:B:1470:LYS:HD3	1:B:1483:TRP:CD2	2.47	0.49
1:F:562:LEU:HD11	1:F:567:HIS:CG	2.47	0.49
3:E:580:SER:HB2	3:E:587:HIS:NE2	2.28	0.49
1:B:166:ARG:HH12	1:B:168:ASP:HB2	1.77	0.49
1:B:534:ARG:NH2	1:B:541:ASP:OD2	2.46	0.49
1:B:879:LEU:HD22	1:B:924:HIS:CE1	2.47	0.49
1:B:1151:LEU:O	1:B:1155:LEU:HB2	2.13	0.49
2:C:163:ARG:C	2:C:165:LEU:H	2.15	0.49
1:F:94:THR:HG22	1:F:98:TRP:CE2	2.47	0.49
1:F:1184:LYS:HD2	1:F:1184:LYS:N	2.27	0.49
1:F:1236:ARG:HG3	1:F:1239:ILE:HG12	1.94	0.49
1:F:1368:TYR:HA	1:F:1378:ASN:HA	1.94	0.49
1:F:1416:GLU:HA	1:F:1419:LYS:HG2	1.93	0.49
1:F:1438:PRO:HB3	1:F:1454:TYR:CD2	2.46	0.49
1:F:1611:LEU:HD21	1:F:1616:LYS:HE2	1.94	0.49
3:A:222:GLU:O	3:A:227:GLN:NE2	2.45	0.49
3:A:541:GLN:N	3:A:542:PRO:HD3	2.26	0.49
1:B:44:TRP:HE3	1:B:58:ILE:HG22	1.77	0.49
1:B:197:LYS:O	1:B:200:GLU:HG2	2.12	0.49
1:B:273:LYS:O	1:B:276:ASN:N	2.45	0.49
1:B:436:ILE:HG23	1:B:711:HIS:NE2	2.28	0.49
1:B:551:PHE:CZ	1:B:585:TYR:HB2	2.47	0.49
1:B:817:LEU:HD11	1:B:855:GLN:HB3	1.94	0.49
1:B:1015:ARG:HD3	1:B:1076:TYR:CD1	2.45	0.49
1:B:1153:THR:O	1:B:1156:ASP:HB3	2.12	0.49
1:F:103:ARG:HA	1:F:106:TYR:HE1	1.77	0.49
1:F:110:LYS:O	1:F:112:THR:N	2.45	0.49
1:F:242:PHE:CD2	1:F:259:LEU:HD13	2.48	0.49
1:F:297:VAL:HG22	1:F:326:VAL:HG13	1.94	0.49
1:F:470:MET:HB2	1:F:527:ILE:CG2	2.42	0.49
1:F:993:PHE:O	1:F:997:ILE:HG12	2.12	0.49
1:F:1176:LEU:HD12	1:F:1177:LEU:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1387:GLU:HG2	1:F:1388:TYR:CD2	2.47	0.49
3:E:550:GLN:HA	3:E:553:LEU:HD12	1.94	0.49
3:A:607:LYS:HG3	3:A:609:PRO:HD3	1.95	0.49
1:B:44:TRP:NE1	3:A:714:PRO:O	2.44	0.49
1:B:517:ILE:HB	1:B:522:VAL:HB	1.93	0.49
1:B:1193:PHE:O	1:B:1196:LEU:HB2	2.12	0.49
1:B:1206:ASP:O	1:B:1209:THR:HG22	2.11	0.49
1:B:1584:GLU:O	1:B:1588:LEU:HG	2.13	0.49
1:B:1630:LYS:O	1:B:1633:VAL:HG22	2.12	0.49
1:F:471:SER:HB2	1:F:479:LEU:HD13	1.94	0.49
1:F:721:TYR:HB2	1:F:722:LYS:NZ	2.27	0.49
1:F:854:ARG:H	1:F:854:ARG:HD2	1.76	0.49
3:A:384:MET:SD	3:A:395:TYR:HE1	2.36	0.49
1:B:249:ASP:OD2	1:B:292:PRO:HB2	2.13	0.49
1:B:776:ARG:HG3	1:B:777:PHE:HD2	1.78	0.49
1:B:840:PHE:O	1:B:843:PHE:HB3	2.13	0.49
1:B:1125:ILE:N	1:B:1126:PRO:HD2	2.28	0.49
2:C:96:LYS:O	2:C:100:GLU:HG3	2.13	0.49
1:F:256:GLU:HB3	1:F:447:TYR:CE1	2.48	0.49
1:F:632:THR:HG21	1:F:637:LEU:HD23	1.95	0.49
2:G:39:ASN:OD1	2:G:56:TRP:HA	2.13	0.49
3:E:591:LEU:HD21	3:E:603:SER:HB2	1.94	0.49
3:A:244:ILE:HG21	3:A:293:GLN:HB3	1.95	0.49
3:A:387:PHE:HA	3:A:391:HIS:H	1.77	0.49
4:D:142:GLY:HA3	4:D:154:TYR:CE2	2.48	0.49
1:B:228:PHE:HB2	1:B:401:VAL:HG12	1.95	0.49
1:B:319:ARG:HD2	1:B:497:LYS:HB2	1.95	0.49
1:B:439:PRO:HG3	1:B:712:PHE:CD2	2.47	0.49
1:B:864:VAL:HG23	1:B:868:LEU:HD22	1.94	0.49
1:B:1035:GLN:HG2	1:B:1036:ALA:N	2.27	0.49
1:B:1036:ALA:C	1:B:1038:PHE:H	2.16	0.49
1:B:1136:PHE:CG	1:B:1186:LEU:HD22	2.48	0.49
1:B:1483:TRP:CE3	1:B:1511:GLU:HG3	2.48	0.49
1:B:1488:THR:N	1:B:1508:SER:O	2.32	0.49
1:F:4:TRP:HB3	1:F:39:GLU:HB3	1.95	0.49
1:F:81:ILE:HD13	1:F:141:LEU:HD21	1.95	0.49
1:F:1044:ASN:O	1:F:1048:HIS:ND1	2.45	0.49
1:F:1098:LYS:O	1:F:1102:ILE:HG13	2.12	0.49
1:F:1183:HIS:CG	1:F:1184:LYS:N	2.81	0.49
2:G:102:ARG:NH1	2:G:106:PRO:O	2.42	0.49
3:A:11:ALA:HB3	3:A:74:ILE:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:361:PHE:CE1	3:A:415:ARG:HB2	2.47	0.49
3:A:500:ASP:OD2	3:A:501:GLN:N	2.46	0.49
4:D:19:LEU:HG	4:D:169:PHE:CE2	2.48	0.49
4:D:46:VAL:CG1	4:D:174:ARG:HB3	2.42	0.49
1:B:246:TYR:CE2	1:B:387:ILE:HD11	2.48	0.49
1:B:347:PRO:HB2	1:B:392:VAL:HB	1.94	0.49
1:B:444:ASN:HA	1:B:628:SER:HA	1.94	0.49
1:B:518:ALA:HB3	1:B:521:GLU:HB2	1.95	0.49
1:B:1013:GLN:HA	1:B:1016:VAL:HG22	1.94	0.49
1:B:1300:LEU:O	1:B:1304:ILE:HG13	2.12	0.49
1:F:124:LEU:HD21	1:F:151:LYS:HB2	1.93	0.49
1:F:320:ARG:CZ	1:F:500:VAL:HB	2.43	0.49
1:F:1412:THR:OG1	1:F:1466:ARG:NE	2.46	0.49
1:F:1462:PHE:HB2	1:F:1489:TYR:HB2	1.94	0.49
1:F:1466:ARG:HG2	1:F:1485:GLU:HB2	1.95	0.49
1:F:1586:VAL:HA	1:F:1589:LEU:HD12	1.95	0.49
1:F:1617:PRO:HB2	1:F:1621:ARG:HH22	1.78	0.49
3:E:620:LYS:HD3	3:E:625:MET:HB3	1.93	0.49
1:B:11:LYS:HZ1	1:B:36:HIS:HB3	1.78	0.49
1:B:584:PHE:O	1:B:587:THR:OG1	2.21	0.49
1:B:745:ASP:OD1	1:B:804:ARG:NH1	2.45	0.49
1:B:942:GLY:C	1:B:944:ASN:H	2.14	0.49
1:B:1183:HIS:CG	1:B:1184:LYS:N	2.81	0.49
1:F:44:TRP:CH2	1:F:60:PRO:HG3	2.48	0.49
1:F:94:THR:HG22	1:F:98:TRP:NE1	2.28	0.49
1:F:1017:PHE:O	1:F:1021:ILE:HG12	2.13	0.49
1:F:1193:PHE:O	1:F:1197:VAL:HG23	2.13	0.49
1:F:1232:LYS:HB2	1:F:1240:TYR:CE2	2.48	0.49
1:F:1464:TYR:O	1:F:1486:ARG:HA	2.11	0.49
2:G:14:VAL:HB	2:G:16:LYS:HZ3	1.76	0.49
3:A:188:VAL:HG23	3:A:231:HIS:CE1	2.47	0.49
3:A:532:PRO:HG2	3:A:708:ASP:HB2	1.94	0.49
4:D:90:TYR:HE2	4:D:142:GLY:HA2	1.77	0.49
1:B:121:THR:HA	1:B:124:LEU:HD12	1.94	0.48
1:B:166:ARG:HD3	1:B:174:ASP:OD1	2.13	0.48
1:B:700:ILE:O	1:B:703:LEU:HB3	2.13	0.48
1:B:1381:PHE:HD2	1:B:1501:TRP:HD1	1.61	0.48
1:B:1563:PHE:O	1:B:1567:GLU:HG2	2.12	0.48
1:F:72:GLU:OE1	1:F:74:LEU:N	2.46	0.48
1:F:526:HIS:HB2	1:F:552:VAL:O	2.13	0.48
1:F:1019:ARG:O	1:F:1023:GLN:NE2	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:5:LYS:HE2	2:G:56:TRP:HZ2	1.78	0.48
3:E:614:LYS:HB2	3:E:645:LEU:HB2	1.95	0.48
3:A:509:LEU:HD23	3:A:514:ILE:HD11	1.94	0.48
4:D:126:LEU:O	4:D:130:LYS:HG2	2.13	0.48
1:B:228:PHE:O	1:B:277:LEU:HB2	2.13	0.48
1:B:909:ILE:O	1:B:913:LEU:HD13	2.14	0.48
1:B:1206:ASP:HA	1:B:1209:THR:HG22	1.95	0.48
2:C:39:ASN:HA	2:C:57:ASP:H	1.78	0.48
1:F:505:LYS:HD2	1:F:506:GLN:HG3	1.95	0.48
1:F:743:ASN:HB3	1:F:749:LYS:HD2	1.95	0.48
4:D:87:PRO:HD2	4:D:129:LEU:HD21	1.95	0.48
1:B:227:ASN:HB3	1:B:402:SER:OG	2.14	0.48
1:B:239:ALA:HB3	1:B:262:TRP:HB3	1.94	0.48
1:B:304:GLY:HA2	1:B:317:GLY:H	1.77	0.48
1:B:637:LEU:O	1:B:641:LEU:HG	2.13	0.48
1:B:1125:ILE:HD12	1:B:1172:LEU:HD23	1.94	0.48
1:B:1602:GLU:O	1:B:1606:ILE:HG12	2.14	0.48
1:F:224:LEU:HD23	1:F:245:LEU:HD21	1.95	0.48
1:F:1019:ARG:O	1:F:1023:GLN:HG2	2.13	0.48
1:F:1192:VAL:O	1:F:1196:LEU:HG	2.14	0.48
1:F:1206:ASP:O	1:F:1210:ILE:HG12	2.13	0.48
1:F:1488:THR:OG1	1:F:1508:SER:HB2	2.13	0.48
3:E:576:TYR:HB2	3:E:598:GLU:HA	1.96	0.48
3:E:660:HIS:CG	3:E:661:GLU:N	2.81	0.48
3:A:155:LEU:O	3:A:159:LEU:HG	2.14	0.48
3:A:303:ASN:HA	3:A:431:GLY:HA2	1.95	0.48
4:D:38:ASP:HB2	4:D:57:ASP:HB3	1.95	0.48
1:B:910:LEU:HA	1:B:913:LEU:HD22	1.94	0.48
1:B:1362:TYR:HD2	1:B:1462:PHE:CE2	2.31	0.48
2:C:89:SER:O	2:C:93:VAL:HG12	2.13	0.48
1:F:240:GLU:OE1	1:F:259:LEU:HD11	2.13	0.48
1:F:741:VAL:HG11	1:F:794:LEU:HD12	1.96	0.48
1:F:1395:SER:O	1:F:1399:LEU:HG	2.11	0.48
1:F:1435:MET:SD	1:F:1455:ARG:NE	2.87	0.48
3:A:202:LEU:HA	3:A:205:LEU:HD12	1.94	0.48
3:A:307:ASP:OD1	3:A:308:ARG:N	2.47	0.48
3:A:514:ILE:HG22	3:A:517:ILE:HD12	1.94	0.48
4:D:66:ARG:HH11	4:D:67:LEU:HB2	1.77	0.48
1:B:35:VAL:HA	1:B:49:THR:HA	1.96	0.48
1:B:239:ALA:HB3	1:B:262:TRP:HD1	1.77	0.48
1:B:570:VAL:HB	1:B:572:TYR:CZ	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:654:LEU:HD23	1:B:657:LEU:HD12	1.94	0.48
1:F:45:TYR:O	1:F:59:PHE:N	2.41	0.48
1:F:256:GLU:HB3	1:F:447:TYR:HE1	1.78	0.48
1:F:1519:ILE:O	1:F:1523:GLU:HG3	2.13	0.48
2:G:111:ILE:HG23	2:G:153:LYS:O	2.13	0.48
3:A:33:ILE:O	3:A:36:GLU:HG3	2.12	0.48
3:A:191:SER:OG	3:A:192:ALA:N	2.46	0.48
3:A:194:ASP:OD1	3:A:195:ILE:N	2.46	0.48
3:A:356:TYR:CE2	3:A:367:PRO:HB3	2.49	0.48
1:B:29:LEU:HD12	1:B:59:PHE:CE1	2.49	0.48
1:B:450:LEU:O	1:B:510:TYR:N	2.46	0.48
1:B:815:ALA:O	1:B:819:TYR:HD2	1.97	0.48
1:B:1284:GLN:NE2	1:B:1291:TYR:HE2	2.10	0.48
1:B:1399:LEU:HD11	1:B:1407:LYS:HD2	1.96	0.48
1:F:771:ARG:NH2	1:F:784:GLY:HA2	2.28	0.48
1:F:1055:THR:O	1:F:1055:THR:HG22	2.14	0.48
2:G:78:PHE:CD1	2:G:101:VAL:HG11	2.48	0.48
3:A:415:ARG:O	3:A:418:ILE:HG22	2.12	0.48
4:D:11:ASP:HB2	4:D:14:VAL:HG11	1.95	0.48
1:B:157:ARG:HB3	1:B:194:ILE:HD12	1.96	0.48
1:B:241:LEU:HD13	1:B:262:TRP:HB2	1.96	0.48
1:B:1013:GLN:O	1:B:1017:PHE:HD2	1.97	0.48
1:B:1117:GLU:OE2	1:B:1120:LEU:HG	2.13	0.48
1:B:1176:LEU:HD12	1:B:1177:LEU:N	2.29	0.48
1:B:1522:MET:HE1	1:B:1593:ILE:HA	1.95	0.48
1:F:24:ASP:N	1:F:24:ASP:OD1	2.46	0.48
1:F:31:ILE:HB	3:E:697:ARG:CB	2.44	0.48
1:F:235:ILE:HD12	1:F:262:TRP:CD1	2.48	0.48
1:F:1089:ASP:HA	1:F:1092:TYR:HD2	1.79	0.48
1:F:1390:ARG:HD3	2:G:44:VAL:HG11	1.96	0.48
1:F:1607:HIS:CD2	1:F:1619:HIS:HB2	2.48	0.48
2:G:29:PRO:HB3	2:G:160:LEU:O	2.13	0.48
3:A:150:CYS:O	3:A:154:MET:HG3	2.14	0.48
1:B:243:MET:HB2	1:B:258:TYR:HB3	1.95	0.48
1:B:555:MET:SD	1:B:559:GLY:HA2	2.54	0.48
1:B:556:ASN:HB2	1:B:558:ASP:OD1	2.14	0.48
1:B:931:ARG:HG3	1:B:932:LEU:HD12	1.94	0.48
1:B:1056:HIS:HD1	1:B:1057:GLU:CD	2.16	0.48
1:B:1091:TRP:CD1	1:B:1127:ILE:HD12	2.49	0.48
1:B:1238:ASP:HB3	1:B:1281:HIS:HB3	1.95	0.48
2:C:118:ASP:OD1	2:C:119:LEU:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1576:LEU:HD22	1:F:1583:GLN:HB2	1.95	0.48
1:F:1632:LYS:HA	1:F:1636:HIS:CD2	2.48	0.48
2:G:100:GLU:HB2	2:G:104:HIS:CE1	2.46	0.48
3:A:60:TYR:CE1	3:A:110:LEU:HD11	2.49	0.48
1:B:29:LEU:HD22	1:B:33:ASP:HB3	1.95	0.48
1:B:96:ARG:NH1	3:A:696:LEU:O	2.40	0.48
1:B:224:LEU:HD23	1:B:281:PHE:CD2	2.49	0.48
1:B:593:MET:HA	1:B:596:GLU:OE2	2.14	0.48
1:B:827:VAL:HG11	1:B:836:LEU:HD13	1.96	0.48
1:F:468:VAL:O	1:F:498:SER:HB3	2.14	0.48
1:F:1177:LEU:HD22	1:F:1181:ARG:HH22	1.79	0.48
1:F:1290:VAL:HG23	1:F:1291:TYR:H	1.78	0.48
2:G:64:TYR:HB2	2:G:68:ARG:NH2	2.27	0.48
3:A:204:ILE:HG22	3:A:208:MET:CE	2.43	0.48
3:A:215:LEU:HA	3:A:218:LYS:HG3	1.96	0.48
3:A:526:GLU:HB2	3:A:531:ARG:H	1.78	0.48
3:A:575:TRP:HB3	3:A:591:LEU:O	2.14	0.48
1:B:10:GLN:OE1	1:B:10:GLN:N	2.47	0.48
1:B:414:GLN:O	1:B:418:SER:HB3	2.14	0.48
1:B:463:PRO:O	1:B:503:GLN:HA	2.14	0.48
1:B:601:GLN:HA	1:B:604:LYS:HG2	1.96	0.48
1:B:871:GLN:HB2	1:B:918:VAL:CG1	2.42	0.48
2:C:153:LYS:HG2	2:C:171:GLU:HG2	1.95	0.48
1:F:714:PRO:O	1:F:718:THR:OG1	2.22	0.48
1:F:954:VAL:HA	1:F:957:MET:HE2	1.96	0.48
1:F:979:ARG:HD3	1:F:1039:GLU:OE2	2.14	0.48
1:F:1231:TYR:O	1:F:1235:LYS:N	2.46	0.48
1:F:1328:TYR:HB3	1:F:1338:LEU:HD21	1.95	0.48
1:F:1370:GLN:OE1	1:F:1377:ARG:HD3	2.14	0.48
1:F:1627:ARG:HA	1:F:1630:LYS:HB2	1.94	0.48
1:F:1632:LYS:O	1:F:1637:TYR:N	2.37	0.48
2:G:7:VAL:O	2:G:79:LEU:N	2.41	0.48
3:E:580:SER:OG	3:E:582:ASN:OD1	2.25	0.48
3:A:477:PHE:O	3:A:481:MET:HB2	2.14	0.48
4:D:78:PHE:CD2	4:D:101:VAL:HB	2.49	0.48
1:B:239:ALA:HB1	1:B:300:ILE:HG23	1.96	0.47
1:B:342:LYS:HG2	1:B:344:HIS:NE2	2.29	0.47
1:B:345:PHE:HB2	1:B:400:TRP:CZ3	2.48	0.47
1:B:572:TYR:HB2	1:B:579:MET:HE1	1.96	0.47
1:B:934:ARG:HH12	1:B:938:ARG:N	2.12	0.47
1:B:1211:ILE:O	1:B:1212:MET:HE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1224:THR:O	1:B:1227:VAL:HG12	2.14	0.47
2:C:164:GLY:O	2:C:168:VAL:N	2.29	0.47
1:F:72:GLU:CD	1:F:75:GLY:H	2.17	0.47
1:F:1248:ARG:HH11	1:F:1252:ARG:NH1	2.08	0.47
1:F:1262:TYR:HB3	1:F:1498:ILE:HG22	1.96	0.47
3:A:216:TYR:OH	3:A:250:LEU:O	2.27	0.47
3:A:306:GLU:HA	3:A:309:MET:CG	2.37	0.47
3:A:467:TRP:CG	3:A:472:ALA:HB3	2.49	0.47
3:A:509:LEU:HD23	3:A:514:ILE:CD1	2.44	0.47
4:D:111:LEU:HD13	4:D:171:GLU:OE1	2.14	0.47
1:B:1:MET:HB3	3:A:720:TYR:CD1	2.49	0.47
1:B:1042:LEU:O	1:B:1045:ASN:HB3	2.12	0.47
1:B:1545:HIS:HD2	2:C:5:LYS:NZ	2.11	0.47
1:B:1625:CYS:HA	1:B:1628:GLU:HB3	1.96	0.47
1:B:1632:LYS:HD3	1:B:1636:HIS:ND1	2.29	0.47
1:F:172:ILE:C	1:F:175:PRO:HD2	2.34	0.47
1:F:241:LEU:HD13	1:F:262:TRP:HB2	1.96	0.47
1:F:673:LEU:HD11	1:F:716:LEU:HD22	1.96	0.47
1:F:858:ASN:O	1:F:861:THR:HB	2.14	0.47
1:F:879:LEU:HD11	1:F:928:ILE:HG12	1.96	0.47
2:G:138:THR:H	2:G:141:GLN:NE2	2.11	0.47
2:G:141:GLN:N	2:G:141:GLN:OE1	2.44	0.47
3:A:325:PHE:O	3:A:328:ARG:HG2	2.14	0.47
4:D:23:TYR:HB2	4:D:165:VAL:HG12	1.95	0.47
1:B:5:ILE:H	1:B:40:MET:N	2.12	0.47
1:B:113:LEU:O	1:B:116:GLN:HG2	2.15	0.47
1:B:223:GLY:HA2	1:B:281:PHE:O	2.14	0.47
1:B:305:HIS:HB3	1:B:314:HIS:HB2	1.95	0.47
1:B:400:TRP:HH2	4:D:127:ARG:HD2	1.78	0.47
1:B:471:SER:N	1:B:528:ARG:O	2.42	0.47
1:B:1128:PHE:HA	1:B:1131:MET:SD	2.53	0.47
1:B:1154:LYS:O	1:B:1157:GLN:N	2.47	0.47
1:B:1484:ILE:HG22	1:B:1486:ARG:HG3	1.96	0.47
1:B:1617:PRO:O	1:B:1620:GLU:HG3	2.13	0.47
1:F:248:PRO:HG2	1:F:293:ARG:NE	2.28	0.47
1:F:852:LEU:O	1:F:856:LYS:HG2	2.15	0.47
1:F:1626:PHE:O	1:F:1629:LEU:HG	2.14	0.47
3:A:52:GLN:NE2	3:A:76:ARG:HH21	2.12	0.47
3:A:356:TYR:CD1	3:A:359:LEU:HD12	2.49	0.47
3:A:505:LYS:O	3:A:509:LEU:HG	2.14	0.47
4:D:142:GLY:HA3	4:D:154:TYR:CZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:11:LYS:NZ	1:B:36:HIS:HB3	2.28	0.47
1:B:300:ILE:O	1:B:322:PHE:HB3	2.14	0.47
1:B:330:THR:HG22	1:B:334:HIS:HE1	1.78	0.47
1:B:926:GLN:O	1:B:929:MET:HB3	2.14	0.47
1:B:1231:TYR:CE2	1:B:1243:TYR:HE2	2.26	0.47
1:F:749:LYS:HG3	1:F:752:LEU:HB2	1.95	0.47
1:F:796:LEU:HA	1:F:799:ASN:HD22	1.80	0.47
1:F:814:GLY:O	1:F:817:LEU:HG	2.14	0.47
1:F:887:SER:O	1:F:890:LEU:HB3	2.15	0.47
1:F:1273:TRP:CD2	1:F:1297:LYS:HD3	2.50	0.47
1:F:1407:LYS:HG3	1:F:1426:MET:SD	2.55	0.47
1:F:1438:PRO:HB2	1:F:1441:TYR:CB	2.44	0.47
2:G:163:ARG:C	2:G:165:LEU:H	2.17	0.47
3:A:11:ALA:HA	3:A:21:LEU:HD11	1.95	0.47
3:A:167:ASP:OD1	3:A:168:HIS:N	2.48	0.47
3:A:412:PRO:HB2	3:A:415:ARG:HB3	1.96	0.47
1:B:5:ILE:HB	1:B:40:MET:HB3	1.96	0.47
1:B:13:GLY:O	1:B:35:VAL:N	2.35	0.47
1:B:137:PRO:HB2	1:B:140:GLU:OE1	2.14	0.47
1:B:263:GLY:N	1:B:267:MET:O	2.30	0.47
1:B:467:GLU:OE1	1:B:534:ARG:NH1	2.48	0.47
1:B:591:THR:O	1:B:595:MET:HG3	2.14	0.47
1:B:669:LEU:O	1:B:673:LEU:HG	2.14	0.47
1:B:954:VAL:O	1:B:958:ILE:HG12	2.14	0.47
1:B:1327:THR:HA	1:B:1331:LYS:NZ	2.30	0.47
1:B:1372:PHE:HB3	1:B:1376:LEU:HB2	1.95	0.47
1:B:1597:MET:O	1:B:1601:THR:OG1	2.19	0.47
1:B:1617:PRO:HA	1:B:1620:GLU:HG3	1.95	0.47
1:F:875:ARG:HG2	1:F:924:HIS:NE2	2.29	0.47
1:F:1145:HIS:O	1:F:1148:GLU:HG3	2.15	0.47
1:F:1380:ILE:HB	1:F:1504:VAL:HG12	1.96	0.47
2:G:118:ASP:OD1	2:G:118:ASP:N	2.48	0.47
3:E:576:TYR:CB	3:E:598:GLU:HA	2.44	0.47
3:A:265:ILE:HA	3:A:268:GLN:HG2	1.96	0.47
3:A:529:GLN:CG	3:A:534:LEU:HD11	2.43	0.47
4:D:78:PHE:CE2	4:D:105:CYS:HB2	2.41	0.47
1:B:225:TYR:OH	1:B:278:GLN:NE2	2.41	0.47
1:B:226:VAL:O	1:B:278:GLN:HG2	2.14	0.47
1:B:593:MET:HA	1:B:596:GLU:CD	2.34	0.47
1:B:800:MET:O	1:B:804:ARG:HG3	2.14	0.47
1:B:1033:MET:H	1:B:1035:GLN:NE2	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1410:SER:O	1:B:1413:PRO:HD2	2.15	0.47
2:C:17:THR:OG1	2:C:18:CYS:N	2.46	0.47
1:F:549:VAL:N	1:F:572:TYR:O	2.44	0.47
1:F:1028:LEU:HD12	1:F:1043:TRP:CH2	2.49	0.47
1:F:1303:GLU:O	1:F:1306:SER:HB2	2.15	0.47
1:F:1360:PRO:HG2	1:F:1362:TYR:HE1	1.80	0.47
3:E:531:ARG:HD3	3:E:532:PRO:HD3	1.95	0.47
3:E:690:LEU:O	3:E:694:ILE:HG12	2.15	0.47
3:A:26:GLN:NE2	3:A:66:ARG:O	2.48	0.47
3:A:127:SER:O	3:A:130:THR:HB	2.13	0.47
3:A:588:TYR:HE1	3:A:608:LEU:HB2	1.79	0.47
3:A:599:VAL:HG23	3:A:601:HIS:HD2	1.78	0.47
3:A:617:VAL:HG23	3:A:643:SER:HB2	1.96	0.47
3:A:673:LEU:HB3	3:A:675:LYS:NZ	2.30	0.47
1:B:48:TYR:HA	1:B:55:LYS:O	2.15	0.47
1:B:179:SER:OG	1:B:182:ALA:HB3	2.14	0.47
1:B:258:TYR:HA	1:B:488:ALA:HB3	1.97	0.47
1:B:394:HIS:HD1	1:B:394:HIS:H	1.61	0.47
1:B:442:VAL:HA	1:B:629:THR:OG1	2.14	0.47
1:B:806:LEU:HG	1:B:810:VAL:HB	1.96	0.47
1:B:932:LEU:N	1:B:935:ARG:HH21	2.12	0.47
1:B:1009:MET:O	1:B:1012:THR:OG1	2.25	0.47
1:B:1117:GLU:OE2	1:B:1120:LEU:N	2.48	0.47
1:B:1144:PHE:O	1:B:1147:PHE:HB3	2.14	0.47
1:B:1156:ASP:OD2	1:B:1242:ARG:NH2	2.39	0.47
1:F:220:HIS:CE1	1:F:286:SER:HB3	2.50	0.47
1:F:228:PHE:HE2	1:F:399:LEU:HB2	1.79	0.47
1:F:293:ARG:HH21	1:F:295:SER:HB3	1.80	0.47
1:F:351:ILE:HG12	1:F:382:VAL:HG11	1.95	0.47
1:F:810:VAL:HG23	1:F:852:LEU:HD11	1.96	0.47
1:F:882:LEU:HA	1:F:885:GLN:NE2	2.30	0.47
1:F:1174:LYS:HE2	1:F:1174:LYS:HB3	1.62	0.47
1:F:1529:ILE:O	1:F:1533:VAL:HG23	2.15	0.47
1:F:1536:HIS:CD2	1:F:1542:LEU:HB3	2.50	0.47
3:A:104:LEU:HD21	3:A:158:THR:N	2.30	0.47
3:A:189:ASN:HA	3:A:227:GLN:OE1	2.14	0.47
3:A:588:TYR:CE1	3:A:608:LEU:HB2	2.50	0.47
4:D:18:CYS:HA	4:D:29:PRO:HG2	1.97	0.47
1:B:32:GLY:HA2	3:A:700:ASP:HB2	1.96	0.47
1:B:44:TRP:CE3	1:B:58:ILE:HG22	2.50	0.47
1:B:696:ALA:O	1:B:700:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:783:ASP:O	1:B:786:GLU:HG3	2.13	0.47
1:B:1470:LYS:HD3	1:B:1483:TRP:CG	2.50	0.47
2:C:29:PRO:HG3	2:C:162:GLN:CD	2.35	0.47
1:F:30:GLN:HB3	3:E:697:ARG:HE	1.80	0.47
1:F:915:ARG:HE	1:F:916:LYS:H	1.63	0.47
1:F:943:MET:HG3	1:F:950:ILE:HD12	1.96	0.47
1:F:1279:VAL:HB	1:F:1281:HIS:ND1	2.30	0.47
2:G:63:ASP:OD1	2:G:63:ASP:N	2.47	0.47
2:G:113:VAL:HA	2:G:155:LEU:O	2.15	0.47
2:G:157:CYS:HB2	2:G:163:ARG:O	2.15	0.47
3:A:334:ALA:HB3	3:A:400:LEU:HD21	1.96	0.47
3:A:428:LEU:HD21	3:A:455:PHE:CZ	2.50	0.47
3:A:537:LYS:HB2	3:A:694:ILE:HD13	1.95	0.47
1:B:94:THR:HG22	1:B:98:TRP:CE2	2.50	0.47
1:B:717:GLU:O	1:B:721:TYR:HD2	1.97	0.47
1:B:1027:VAL:HG13	1:B:1028:LEU:HD22	1.96	0.47
1:B:1186:LEU:HD12	1:B:1189:SER:HB2	1.96	0.47
1:B:1394:PHE:HD2	1:B:1428:CYS:HG	1.63	0.47
1:B:1483:TRP:NE1	1:B:1514:PRO:HD3	2.29	0.47
1:B:1623:SER:HB3	1:B:1627:ARG:NH1	2.30	0.47
1:F:754:PHE:CD1	1:F:811:LYS:HD3	2.50	0.47
1:F:969:TYR:CG	1:F:1023:GLN:HG3	2.50	0.47
1:F:1166:GLU:HA	1:F:1169:LYS:CE	2.44	0.47
1:F:1209:THR:O	1:F:1213:GLN:HB3	2.14	0.47
1:F:1230:PHE:O	1:F:1234:LYS:HG2	2.15	0.47
1:F:1248:ARG:NH1	1:F:1252:ARG:HH22	2.13	0.47
1:F:1276:LYS:HD2	1:F:1277:PRO:HD2	1.97	0.47
2:G:151:ALA:O	2:G:153:LYS:N	2.48	0.47
3:A:202:LEU:HB3	3:A:242:TYR:HB3	1.97	0.47
3:A:576:TYR:HB2	3:A:598:GLU:CG	2.44	0.47
3:A:695:LYS:O	3:A:698:LEU:HG	2.14	0.47
1:B:226:VAL:HG22	1:B:403:LEU:HD22	1.97	0.47
1:B:406:LEU:HD11	1:B:420:LEU:HD12	1.97	0.47
1:B:741:VAL:HG21	1:B:798:PHE:CD1	2.49	0.47
1:B:1232:LYS:HB2	1:B:1240:TYR:CE2	2.49	0.47
2:C:43:ASN:HA	2:C:52:ASN:HA	1.96	0.47
1:F:329:ILE:O	1:F:333:ILE:N	2.39	0.47
1:F:658:MET:N	1:F:658:MET:SD	2.88	0.47
1:F:883:THR:OG1	1:F:931:ARG:NH2	2.48	0.47
1:F:926:GLN:HE21	1:F:930:GLU:CD	2.14	0.47
1:F:1033:MET:HB2	1:F:1035:GLN:HG3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:42:ALA:O	2:G:53:LEU:HG	2.15	0.47
3:E:642:PHE:CZ	3:E:654:PHE:HB2	2.50	0.47
3:E:695:LYS:HG2	3:E:698:LEU:HD21	1.96	0.47
3:A:448:HIS:HB2	3:A:499:LEU:HD21	1.96	0.47
4:D:126:LEU:HD23	4:D:136:PRO:HG2	1.96	0.47
1:B:4:TRP:CE2	1:B:46:ARG:HD3	2.50	0.46
1:B:10:GLN:NE2	1:B:40:MET:HB2	2.30	0.46
1:B:141:LEU:O	1:B:145:LYS:HG3	2.15	0.46
1:B:222:TYR:HB2	1:B:284:LEU:HB2	1.97	0.46
1:B:306:MET:HG3	1:B:318:LEU:HD13	1.97	0.46
1:B:318:LEU:HB3	1:B:320:ARG:NH1	2.30	0.46
1:B:860:MET:HG3	1:B:905:LEU:HD11	1.97	0.46
1:B:1117:GLU:OE1	1:B:1118:VAL:N	2.48	0.46
1:B:1367:TYR:HB2	1:B:1376:LEU:O	2.15	0.46
1:B:1391:ARG:NH2	2:C:29:PRO:HD3	2.29	0.46
1:B:1408:MET:N	1:B:1426:MET:O	2.37	0.46
2:C:137:ILE:HG23	2:C:141:GLN:CG	2.45	0.46
1:F:866:SER:C	1:F:868:LEU:H	2.19	0.46
1:F:945:ARG:HH11	1:F:946:GLN:H	1.63	0.46
1:F:1114:LEU:HD23	1:F:1168:TYR:CE1	2.50	0.46
1:F:1329:GLU:HB3	1:F:1338:LEU:HD11	1.97	0.46
1:F:1451:LEU:HB3	1:F:1455:ARG:NH2	2.27	0.46
3:A:157:PHE:O	3:A:160:THR:OG1	2.28	0.46
3:A:295:TYR:CZ	3:A:438:CYS:HB2	2.49	0.46
3:A:692:MET:O	3:A:695:LYS:HB3	2.15	0.46
1:B:457:LYS:HD3	1:B:505:LYS:HD2	1.98	0.46
1:B:466:VAL:O	1:B:500:VAL:HA	2.14	0.46
1:B:1404:ASN:HB2	1:B:1406:GLU:OE2	2.14	0.46
1:F:106:TYR:HA	1:F:111:LEU:HD11	1.96	0.46
1:F:163:LEU:HD13	1:F:1005:ASP:O	2.14	0.46
1:F:193:ARG:HA	1:F:196:GLU:CD	2.36	0.46
1:F:332:ILE:CG2	1:F:403:LEU:HB3	2.45	0.46
1:F:842:LYS:O	1:F:846:SER:N	2.46	0.46
1:F:866:SER:OG	1:F:867:THR:HG23	2.15	0.46
1:F:915:ARG:HE	1:F:916:LYS:N	2.13	0.46
1:F:1206:ASP:O	1:F:1209:THR:HG22	2.15	0.46
1:F:1506:GLN:HE22	1:F:1508:SER:HG	1.54	0.46
3:E:562:PHE:HB2	3:E:575:TRP:CZ2	2.49	0.46
3:E:613:ILE:HA	3:E:645:LEU:O	2.15	0.46
3:A:555:ARG:HA	3:A:558:GLU:HG3	1.97	0.46
4:D:14:VAL:HA	4:D:83:SER:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:101:ILE:O	1:B:105:LEU:HG	2.15	0.46
1:B:109:ASN:HA	1:B:111:LEU:HG	1.97	0.46
1:B:143:GLU:HA	1:B:146:LYS:HE2	1.98	0.46
1:B:246:TYR:HE2	1:B:387:ILE:HD11	1.81	0.46
1:B:410:LEU:O	1:B:414:GLN:HB2	2.16	0.46
1:B:478:LYS:HB3	1:B:478:LYS:HE3	1.77	0.46
1:F:228:PHE:HA	1:F:401:VAL:HG12	1.97	0.46
1:F:716:LEU:O	1:F:720:ILE:HG13	2.16	0.46
1:F:821:PRO:O	1:F:824:ILE:HG12	2.16	0.46
1:F:1362:TYR:HD2	1:F:1462:PHE:CE2	2.29	0.46
1:F:1575:TYR:O	1:F:1579:HIS:N	2.32	0.46
2:G:8:VAL:HA	2:G:79:LEU:O	2.16	0.46
2:G:114:GLY:N	2:G:155:LEU:O	2.37	0.46
3:E:695:LYS:O	3:E:698:LEU:HG	2.16	0.46
3:A:423:MET:HG2	3:A:481:MET:HE2	1.96	0.46
4:D:129:LEU:HD12	4:D:136:PRO:HG3	1.96	0.46
1:B:634:ASN:O	1:B:638:LEU:HD23	2.15	0.46
1:B:795:PHE:CZ	1:B:843:PHE:HB2	2.50	0.46
1:B:853:VAL:HA	1:B:856:LYS:HG2	1.97	0.46
1:B:1256:ASN:OD1	1:B:1500:LYS:HE2	2.15	0.46
1:B:1318:ILE:O	1:B:1322:LYS:HG2	2.15	0.46
1:B:1433:PRO:HA	1:B:1462:PHE:CD2	2.50	0.46
1:F:320:ARG:NH1	1:F:500:VAL:HB	2.31	0.46
1:F:485:HIS:O	1:F:514:LYS:N	2.47	0.46
1:F:713:ASN:HA	1:F:716:LEU:HD12	1.97	0.46
1:F:1114:LEU:HA	1:F:1168:TYR:CZ	2.51	0.46
1:F:1519:ILE:HG13	1:F:1589:LEU:HD21	1.97	0.46
1:F:1545:HIS:N	1:F:1546:PRO:HD2	2.31	0.46
3:E:693:GLU:OE2	3:E:697:ARG:HD3	2.14	0.46
3:A:225:ILE:HG21	3:A:265:ILE:CG2	2.46	0.46
3:A:479:LYS:O	3:A:483:VAL:HG23	2.16	0.46
3:A:613:ILE:HA	3:A:645:LEU:O	2.16	0.46
4:D:119:LEU:HB3	4:D:125:THR:OG1	2.16	0.46
1:B:182:ALA:HA	1:B:185:LYS:HG2	1.97	0.46
1:B:256:GLU:OE1	1:B:429:ARG:N	2.30	0.46
1:B:469:THR:HG23	1:B:497:LYS:HD3	1.97	0.46
1:B:823:ILE:O	1:B:827:VAL:HG23	2.16	0.46
1:B:933:LEU:HD21	1:B:960:LEU:HD22	1.98	0.46
1:B:1299:LYS:HA	1:B:1302:GLN:OE1	2.16	0.46
1:B:1466:ARG:O	1:B:1484:ILE:HA	2.16	0.46
1:B:1632:LYS:O	1:B:1637:TYR:N	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:87:LEU:O	1:F:90:GLU:HG3	2.16	0.46
1:F:88:VAL:CG2	1:F:128:ARG:HG2	2.46	0.46
1:F:230:ASN:ND2	1:F:268:PRO:HD3	2.31	0.46
1:F:601:GLN:HA	1:F:604:LYS:HG2	1.97	0.46
1:F:833:PRO:HD2	1:F:873:GLU:OE2	2.15	0.46
1:F:1495:PHE:HZ	1:F:1502:PHE:HB2	1.81	0.46
1:F:1607:HIS:HE2	1:F:1619:HIS:HB2	1.79	0.46
3:A:79:THR:OG1	3:A:84:ASN:OD1	2.33	0.46
3:A:679:SER:O	3:A:682:THR:HB	2.16	0.46
4:D:84:ILE:HG12	4:D:137:ILE:HB	1.98	0.46
1:B:1189:SER:O	1:B:1192:VAL:HG22	2.15	0.46
1:B:1268:ALA:HA	1:B:1271:LEU:HD13	1.98	0.46
2:C:129:LEU:O	2:C:134:LEU:N	2.48	0.46
1:F:5:ILE:H	1:F:40:MET:N	2.06	0.46
1:F:181:ILE:HD11	1:F:955:ALA:O	2.16	0.46
1:F:306:MET:H	1:F:314:HIS:CB	2.27	0.46
1:F:669:LEU:HD12	1:F:670:GLN:N	2.30	0.46
1:F:1132:MET:O	1:F:1135:GLU:HB2	2.16	0.46
1:F:1602:GLU:HA	1:F:1605:ARG:HG2	1.98	0.46
4:D:115:THR:HG22	4:D:157:CYS:SG	2.56	0.46
1:B:448:VAL:HB	1:B:513:VAL:HG23	1.97	0.46
1:B:1003:ALA:H	1:B:1006:TRP:HZ3	1.58	0.46
1:B:1034:ASP:HA	1:B:1037:SER:HA	1.96	0.46
1:B:1175:LEU:HB3	1:B:1179:HIS:CE1	2.51	0.46
1:B:1256:ASN:O	1:B:1259:GLU:N	2.48	0.46
1:B:1363:PHE:O	1:B:1382:ILE:HD12	2.15	0.46
1:B:1451:LEU:HG	1:B:1455:ARG:HH12	1.81	0.46
1:B:1491:THR:HA	1:B:1505:LYS:H	1.80	0.46
1:F:329:ILE:HA	1:F:332:ILE:HD12	1.98	0.46
1:F:646:ASN:ND2	1:F:649:ASN:HB2	2.31	0.46
1:F:668:PHE:O	1:F:672:THR:N	2.38	0.46
1:F:800:MET:O	1:F:804:ARG:N	2.47	0.46
3:E:694:ILE:HA	3:E:697:ARG:HG2	1.97	0.46
1:B:65:HIS:HE1	1:B:67:LYS:HD2	1.81	0.46
1:B:306:MET:O	1:B:320:ARG:HG3	2.15	0.46
1:B:378:PRO:HB3	1:B:508:CYS:SG	2.55	0.46
1:B:527:ILE:HB	1:B:552:VAL:HG12	1.96	0.46
1:B:928:ILE:O	1:B:932:LEU:HB2	2.15	0.46
1:F:197:LYS:HA	1:F:200:GLU:HG2	1.96	0.46
1:F:651:LYS:HD2	1:F:655:LYS:HE3	1.96	0.46
1:F:956:CYS:O	1:F:960:LEU:HG	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1201:LEU:O	1:F:1205:LEU:HD23	2.16	0.46
2:G:35:THR:OG1	2:G:40:TYR:OH	2.34	0.46
3:E:551:GLN:O	3:E:555:ARG:HD3	2.16	0.46
3:E:720:TYR:HB3	3:E:722:PHE:CE1	2.50	0.46
3:A:359:LEU:O	3:A:412:PRO:HB3	2.16	0.46
3:A:458:ILE:HD11	3:A:503:LYS:HA	1.98	0.46
1:B:19:TYR:HB3	1:B:27:LEU:O	2.15	0.46
1:B:107:VAL:HA	3:A:555:ARG:HH12	1.81	0.46
1:B:222:TYR:HD1	1:B:407:PRO:HA	1.80	0.46
1:B:1035:GLN:HG2	1:B:1036:ALA:H	1.81	0.46
1:B:1623:SER:HB3	1:B:1627:ARG:CZ	2.46	0.46
1:F:96:ARG:O	1:F:99:ALA:HB3	2.16	0.46
1:F:246:TYR:HB3	1:F:297:VAL:HG21	1.98	0.46
1:F:1068:LYS:O	1:F:1072:ILE:HG12	2.15	0.46
1:F:1557:PRO:HG2	1:F:1561:GLY:HA2	1.97	0.46
2:G:47:ASP:O	2:G:49:LYS:N	2.43	0.46
3:A:37:VAL:HG12	3:A:77:LEU:HD22	1.97	0.46
1:B:13:GLY:O	1:B:34:THR:HA	2.16	0.46
1:B:242:PHE:O	1:B:298:CYS:HA	2.15	0.46
1:B:325:ALA:HB2	1:B:348:PHE:HD1	1.80	0.46
1:B:640:LEU:HD11	1:B:657:LEU:HD21	1.98	0.46
1:B:940:VAL:HG13	1:B:992:MET:CE	2.46	0.46
1:B:1156:ASP:O	1:B:1160:GLU:HG3	2.16	0.46
1:B:1165:ASP:HB3	1:B:1167:GLN:CD	2.36	0.46
1:B:1358:PRO:HB2	1:B:1387:GLU:HB2	1.98	0.46
1:B:1545:HIS:HD2	2:C:5:LYS:CE	2.27	0.46
1:F:860:MET:O	1:F:864:VAL:HG12	2.16	0.46
1:F:1617:PRO:O	1:F:1620:GLU:HG3	2.16	0.46
3:E:634:ASN:O	3:E:637:VAL:HG22	2.16	0.46
3:A:545:LEU:HD12	3:A:546:GLU:N	2.31	0.46
3:A:576:TYR:HB2	3:A:598:GLU:HG2	1.97	0.46
4:D:78:PHE:CE2	4:D:101:VAL:HB	2.51	0.46
1:B:89:GLN:O	1:B:92:THR:OG1	2.22	0.45
1:B:128:ARG:NH1	1:B:132:LEU:HD21	2.31	0.45
1:B:651:LYS:HB2	1:B:655:LYS:HE3	1.97	0.45
1:B:757:LEU:HD13	1:B:760:LEU:HD11	1.98	0.45
1:B:1105:MET:O	1:B:1108:PRO:HD2	2.15	0.45
1:B:1193:PHE:HA	1:B:1196:LEU:HD12	1.97	0.45
1:B:1386:LYS:HD3	1:B:1386:LYS:HA	1.79	0.45
1:B:1575:TYR:O	1:B:1579:HIS:N	2.27	0.45
1:F:31:ILE:HG21	3:E:698:LEU:HA	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:764:PHE:CE1	1:F:826:ASP:HB2	2.51	0.45
1:F:879:LEU:HD21	1:F:931:ARG:HH12	1.82	0.45
1:F:1283:LEU:HB3	1:F:1288:TYR:CD1	2.51	0.45
1:F:1535:GLN:OE1	1:F:1542:LEU:HD11	2.16	0.45
3:A:240:GLN:HA	3:A:243:THR:HG22	1.97	0.45
3:A:328:ARG:NE	3:A:329:ARG:HH21	2.11	0.45
3:A:526:GLU:CB	3:A:531:ARG:H	2.29	0.45
4:D:98:HIS:HA	4:D:101:VAL:HG22	1.99	0.45
1:B:25:VAL:HG23	1:B:57:GLY:HA2	1.97	0.45
1:B:901:ALA:HA	1:B:904:GLN:NE2	2.32	0.45
1:B:914:ASP:HB2	1:B:963:GLN:NE2	2.31	0.45
1:B:1068:LYS:O	1:B:1072:ILE:HG12	2.15	0.45
1:B:1610:LYS:HD2	1:B:1610:LYS:N	2.31	0.45
2:C:80:ILE:HD11	2:C:97:TRP:HB3	1.97	0.45
2:C:87:PRO:O	2:C:90:PHE:HB2	2.16	0.45
1:F:1218:GLU:O	1:F:1221:MET:HB2	2.16	0.45
1:F:1478:GLU:OE2	1:F:1478:GLU:N	2.41	0.45
1:F:1504:VAL:HG22	1:F:1506:GLN:H	1.81	0.45
3:A:82:ALA:HB2	3:A:119:GLU:HG2	1.98	0.45
3:A:223:ILE:HD13	3:A:246:VAL:CG1	2.46	0.45
3:A:523:MET:O	3:A:526:GLU:HG2	2.16	0.45
3:A:591:LEU:HD21	3:A:603:SER:HB2	1.97	0.45
3:A:613:ILE:HD12	3:A:644:ILE:HG22	1.97	0.45
1:B:382:VAL:O	1:B:386:VAL:HG23	2.17	0.45
1:B:532:ARG:NH1	1:B:541:ASP:O	2.46	0.45
1:B:934:ARG:HH12	1:B:938:ARG:H	1.64	0.45
1:B:934:ARG:HB3	1:B:935:ARG:NH1	2.31	0.45
1:B:1292:THR:O	1:B:1295:GLU:N	2.48	0.45
1:B:1390:ARG:HB2	2:C:166:LYS:NZ	2.31	0.45
1:B:1518:ALA:HB1	1:B:1566:TYR:CE1	2.50	0.45
2:C:97:TRP:O	2:C:101:VAL:HG22	2.16	0.45
1:F:3:ARG:HA	3:E:723:VAL:HG23	1.98	0.45
1:F:198:ILE:HG13	1:F:202:LYS:HZ3	1.81	0.45
1:F:258:TYR:CE2	1:F:279:ALA:HB2	2.52	0.45
1:F:717:GLU:O	1:F:721:TYR:HD2	1.99	0.45
1:F:932:LEU:O	1:F:936:ILE:HG22	2.17	0.45
1:F:1220:ARG:HA	1:F:1223:CYS:SG	2.56	0.45
1:F:1238:ASP:HA	1:F:1241:ILE:HD12	1.98	0.45
1:F:1277:PRO:HA	1:F:1293:GLN:HG3	1.98	0.45
1:F:1444:LYS:O	1:F:1446:VAL:N	2.44	0.45
2:G:40:TYR:C	2:G:55:LEU:HB2	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:11:ALA:HB3	3:A:74:ILE:HA	1.97	0.45
3:A:72:GLY:HA2	4:D:36:VAL:HG11	1.98	0.45
3:A:96:SER:OG	3:A:99:ALA:HB3	2.16	0.45
3:A:104:LEU:HD11	3:A:158:THR:HA	1.97	0.45
3:A:113:ASP:OD1	3:A:115:THR:OG1	2.32	0.45
3:A:140:TYR:HD1	3:A:144:GLN:HB3	1.81	0.45
3:A:299:VAL:HA	3:A:302:PHE:HB2	1.98	0.45
3:A:420:LEU:HD22	3:A:459:CYS:SG	2.57	0.45
3:A:685:ASP:O	3:A:689:LEU:HG	2.15	0.45
4:D:72:TYR:CZ	4:D:101:VAL:HG12	2.50	0.45
1:B:127:TRP:CE3	1:B:148:VAL:HG12	2.52	0.45
1:B:883:THR:HA	1:B:886:LEU:HG	1.97	0.45
1:B:891:ASP:OD1	1:B:938:ARG:NH2	2.46	0.45
1:B:892:ASP:H	1:B:895:ASN:CG	2.19	0.45
1:B:1262:TYR:HE2	1:B:1496:PRO:O	1.98	0.45
1:B:1324:LEU:HB3	1:B:1341:LEU:HD21	1.99	0.45
1:F:11:LYS:NZ	1:F:38:LEU:HD22	2.32	0.45
1:F:40:MET:HE1	1:F:45:TYR:HE1	1.81	0.45
1:F:757:LEU:HD12	1:F:819:TYR:HB2	1.98	0.45
1:F:795:PHE:HA	1:F:798:PHE:CD2	2.52	0.45
1:F:940:VAL:HG13	1:F:992:MET:HE2	1.98	0.45
1:F:969:TYR:CD1	1:F:1023:GLN:HG3	2.51	0.45
1:F:1013:GLN:HA	1:F:1016:VAL:HG22	1.97	0.45
1:F:1127:ILE:HG22	1:F:1131:MET:HE3	1.97	0.45
1:F:1628:GLU:O	1:F:1631:GLU:HG3	2.17	0.45
3:E:561:CYS:SG	3:E:597:GLY:HA2	2.56	0.45
3:A:166:MET:HB3	3:A:173:TRP:CZ3	2.50	0.45
3:A:180:PHE:HE1	3:A:204:ILE:HD13	1.82	0.45
3:A:472:ALA:HB1	3:A:480:VAL:HG11	1.98	0.45
3:A:580:SER:HB3	3:A:585:VAL:HG13	1.99	0.45
4:D:4:ILE:HG23	4:D:76:ASN:HB2	1.98	0.45
1:B:35:VAL:O	1:B:37:ILE:HG13	2.16	0.45
1:B:285:SER:H	1:B:288:ASP:CB	2.23	0.45
1:B:384:ASN:HA	1:B:387:ILE:HD12	1.98	0.45
1:B:871:GLN:CG	1:B:875:ARG:HD3	2.43	0.45
1:B:1115:THR:HA	1:B:1163:ARG:HH21	1.81	0.45
1:B:1516:GLU:HA	1:B:1519:ILE:HD12	1.98	0.45
1:B:1557:PRO:HB2	1:B:1560:MET:O	2.17	0.45
1:B:1557:PRO:HD3	1:B:1563:PHE:HE2	1.82	0.45
2:C:82:PHE:CD1	2:C:112:LEU:HD11	2.51	0.45
1:F:166:ARG:HH21	1:F:169:ASN:ND2	2.11	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:179:SER:OG	1:F:182:ALA:HB3	2.17	0.45
1:F:338:ASP:OD1	1:F:338:ASP:N	2.45	0.45
1:F:451:ILE:HD12	1:F:621:GLN:HG2	1.99	0.45
1:F:501:TYR:CE2	1:F:509:TRP:HD1	2.34	0.45
1:F:1015:ARG:HG3	1:F:1079:MET:HE2	1.98	0.45
1:F:1145:HIS:HA	1:F:1148:GLU:HG3	1.98	0.45
1:F:1596:GLN:O	1:F:1600:LEU:HG	2.17	0.45
1:B:237:GLU:C	1:B:264:SER:HA	2.37	0.45
1:B:263:GLY:HA3	1:B:267:MET:SD	2.56	0.45
1:B:649:ASN:O	1:B:653:ASN:N	2.28	0.45
1:B:1519:ILE:HG23	1:B:1592:LEU:HD11	1.99	0.45
1:F:91:LEU:O	1:F:95:LEU:HG	2.16	0.45
1:F:285:SER:N	1:F:288:ASP:OD2	2.30	0.45
1:F:331:ASP:HB2	1:F:336:LYS:HB2	1.98	0.45
1:F:345:PHE:HZ	1:F:394:HIS:CD2	2.35	0.45
1:F:718:THR:O	1:F:722:LYS:HB2	2.17	0.45
1:F:743:ASN:O	1:F:749:LYS:HD2	2.16	0.45
1:F:871:GLN:NE2	1:F:875:ARG:HD3	2.31	0.45
1:F:1237:GLU:O	1:F:1240:TYR:HB3	2.17	0.45
1:F:1249:ASP:HA	1:F:1252:ARG:NH2	2.32	0.45
1:F:1292:THR:HG23	1:F:1295:GLU:H	1.82	0.45
2:G:5:LYS:HD2	2:G:74:GLN:O	2.15	0.45
3:E:531:ARG:O	3:E:535:GLU:HG3	2.17	0.45
3:E:581:PRO:HA	3:E:583:HIS:CE1	2.52	0.45
3:E:688:THR:O	3:E:691:SER:OG	2.27	0.45
3:A:86:GLN:HA	3:A:89:HIS:ND1	2.32	0.45
3:A:141:GLN:HA	3:A:144:GLN:CG	2.46	0.45
3:A:419:GLU:OE1	3:A:481:MET:HG2	2.16	0.45
1:B:1082:GLU:O	1:B:1086:ARG:HG2	2.16	0.45
1:B:1190:GLY:HA2	1:B:1193:PHE:CD2	2.51	0.45
2:C:3:ALA:HA	2:C:52:ASN:O	2.17	0.45
2:C:61:GLN:HB3	2:C:64:TYR:CD1	2.51	0.45
1:F:333:ILE:HG13	1:F:334:HIS:N	2.32	0.45
1:F:797:ALA:O	1:F:801:LEU:HG	2.17	0.45
1:F:1361:GLU:C	1:F:1362:TYR:HD1	2.20	0.45
3:E:564:LYS:HG3	3:E:575:TRP:CE2	2.51	0.45
3:A:41:TRP:HD1	3:A:43:LEU:HD21	1.82	0.45
3:A:166:MET:HE2	3:A:171:VAL:HG13	1.97	0.45
3:A:328:ARG:O	3:A:332:PHE:HB2	2.17	0.45
3:A:514:ILE:HA	3:A:517:ILE:HD12	1.99	0.45
3:A:659:LYS:O	3:A:662:TYR:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:18:CYS:HA	4:D:29:PRO:HD2	1.98	0.45
4:D:27:ALA:O	4:D:29:PRO:HD3	2.17	0.45
4:D:37:PHE:HB2	4:D:58:THR:HA	1.97	0.45
1:B:99:ALA:HA	1:B:102:TRP:NE1	2.32	0.45
1:B:662:GLY:HA2	1:B:703:LEU:HD21	1.99	0.45
1:B:666:VAL:HB	1:B:712:PHE:CE2	2.52	0.45
1:B:700:ILE:O	1:B:704:ILE:HG13	2.17	0.45
1:B:730:TYR:CD1	1:B:771:ARG:HB2	2.52	0.45
1:B:893:ASN:O	1:B:896:LYS:NZ	2.50	0.45
1:B:901:ALA:HA	1:B:904:GLN:HE21	1.82	0.45
1:B:914:ASP:HB2	1:B:963:GLN:CD	2.37	0.45
1:B:1033:MET:HB2	1:B:1035:GLN:OE1	2.17	0.45
1:B:1080:ARG:HA	1:B:1083:ILE:HD12	1.99	0.45
1:B:1354:LYS:HD2	1:B:1355:ALA:N	2.32	0.45
1:B:1462:PHE:O	1:B:1489:TYR:N	2.48	0.45
1:B:1628:GLU:O	1:B:1631:GLU:HG3	2.17	0.45
1:F:247:ASP:O	1:F:251:SER:N	2.49	0.45
1:F:344:HIS:CG	1:F:403:LEU:HD12	2.52	0.45
1:F:710:GLN:HA	1:F:713:ASN:HD22	1.82	0.45
1:F:1119:GLU:O	1:F:1122:LYS:N	2.50	0.45
2:G:45:MET:HA	2:G:51:VAL:HG22	1.98	0.45
3:A:94:SER:O	3:A:100:LYS:HD2	2.16	0.45
3:A:259:ARG:HB3	3:A:304:LEU:HD21	1.98	0.45
3:A:530:SER:O	3:A:534:LEU:N	2.49	0.45
3:A:612:ASP:O	3:A:646:TYR:HA	2.16	0.45
1:B:529:PHE:O	1:B:549:VAL:HG13	2.17	0.45
1:B:534:ARG:NE	1:B:541:ASP:OD1	2.40	0.45
1:B:740:TYR:C	1:B:753:LEU:HD21	2.37	0.45
1:B:1036:ALA:O	1:B:1038:PHE:N	2.49	0.45
1:B:1091:TRP:CD1	1:B:1127:ILE:HG23	2.52	0.45
1:B:1169:LYS:HZ2	1:B:1202:GLU:HA	1.81	0.45
1:B:1280:PRO:HB3	1:B:1288:TYR:OH	2.17	0.45
1:B:1391:ARG:HB3	1:B:1392:GLU:OE1	2.17	0.45
1:B:1404:ASN:OD1	1:B:1424:GLN:HB2	2.16	0.45
2:C:46:VAL:HG13	2:C:47:ASP:N	2.32	0.45
1:F:6:PRO:HG3	3:E:724:TYR:CD1	2.52	0.45
1:F:1183:HIS:HB3	1:F:1187:SER:OG	2.17	0.45
1:F:1208:ARG:HB3	1:F:1212:MET:HE1	1.98	0.45
1:F:1485:GLU:N	1:F:1485:GLU:OE1	2.50	0.45
3:E:579:LEU:HD11	3:E:583:HIS:HA	1.99	0.45
3:A:166:MET:SD	3:A:173:TRP:HA	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:16:LYS:NZ	6:D:202:GTP:O3B	2.50	0.45
1:B:932:LEU:HA	1:B:935:ARG:HE	1.81	0.45
1:B:1146:MET:HG2	1:B:1147:PHE:N	2.31	0.45
1:B:1231:TYR:CE2	1:B:1239:ILE:HD12	2.52	0.45
2:C:7:VAL:HB	2:C:78:PHE:CD2	2.52	0.45
2:C:93:VAL:HG13	2:C:94:ARG:N	2.32	0.45
1:F:262:TRP:HE1	1:F:266:GLY:HA2	1.82	0.45
1:F:325:ALA:HB2	1:F:348:PHE:HD1	1.82	0.45
1:F:566:ARG:HE	1:F:621:GLN:HE21	1.63	0.45
1:F:593:MET:HG3	1:F:594:GLU:N	2.32	0.45
1:F:656:LYS:HD2	1:F:659:GLU:HG3	1.99	0.45
1:F:668:PHE:O	1:F:672:THR:HG23	2.17	0.45
1:F:879:LEU:HD22	1:F:924:HIS:NE2	2.32	0.45
1:F:1483:TRP:CE3	1:F:1511:GLU:HG3	2.52	0.45
1:F:1604:ILE:CD1	1:F:1622:LEU:HB3	2.47	0.45
2:G:69:PRO:HB3	2:G:104:HIS:CD2	2.52	0.45
3:E:602:ASP:N	3:E:602:ASP:OD1	2.49	0.45
3:A:216:TYR:OH	3:A:254:ALA:HB2	2.17	0.45
3:A:476:ASP:O	3:A:480:VAL:HG12	2.17	0.45
3:A:608:LEU:HD12	3:A:608:LEU:HA	1.71	0.45
3:A:657:PRO:HB2	3:A:661:GLU:OE2	2.17	0.45
1:B:39:GLU:OE1	1:B:46:ARG:NE	2.50	0.44
1:B:166:ARG:HB3	1:B:171:ASN:C	2.38	0.44
1:B:231:PHE:CZ	1:B:233:CYS:HB3	2.52	0.44
1:B:501:TYR:OH	1:B:508:CYS:O	2.18	0.44
1:B:795:PHE:HZ	1:B:840:PHE:HA	1.82	0.44
1:B:921:THR:OG1	1:B:924:HIS:HB3	2.17	0.44
1:B:1300:LEU:HA	1:B:1303:GLU:OE1	2.16	0.44
1:F:80:VAL:HG11	1:F:133:SER:HA	1.98	0.44
1:F:105:LEU:HD13	1:F:110:LYS:HZ1	1.83	0.44
1:F:634:ASN:O	1:F:638:LEU:HD23	2.17	0.44
1:F:745:ASP:N	1:F:745:ASP:OD1	2.50	0.44
1:F:882:LEU:O	1:F:885:GLN:HG2	2.18	0.44
1:F:906:LEU:HG	1:F:910:LEU:HD23	1.99	0.44
1:F:1125:ILE:N	1:F:1126:PRO:HD2	2.32	0.44
1:F:1195:LEU:O	1:F:1198:SER:OG	2.33	0.44
2:G:42:ALA:HB3	2:G:53:LEU:HD11	1.97	0.44
3:A:89:HIS:HB3	3:A:123:LEU:HD11	2.00	0.44
3:A:180:PHE:O	3:A:184:ILE:HG12	2.16	0.44
1:B:31:ILE:HD12	3:A:697:ARG:HB2	1.99	0.44
1:B:44:TRP:CH2	1:B:60:PRO:HG3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:219:ILE:O	1:B:222:TYR:OH	2.15	0.44
1:B:227:ASN:ND2	1:B:278:GLN:HE21	2.15	0.44
1:B:322:PHE:O	1:B:350:GLN:HA	2.18	0.44
1:B:563:GLN:OE1	1:B:633:GLN:HB3	2.18	0.44
1:B:630:LYS:HG3	1:B:668:PHE:CZ	2.51	0.44
1:B:738:ASN:HA	1:B:741:VAL:HG12	1.98	0.44
1:B:932:LEU:CA	1:B:935:ARG:HE	2.30	0.44
1:B:1217:LYS:HD3	1:B:1217:LYS:N	2.32	0.44
1:B:1545:HIS:CD2	2:C:5:LYS:HE3	2.52	0.44
1:F:118:GLN:HB3	1:F:122:TYR:CZ	2.51	0.44
1:F:628:SER:OG	1:F:629:THR:N	2.49	0.44
1:F:843:PHE:O	1:F:847:ILE:HG13	2.17	0.44
1:F:1177:LEU:HD22	1:F:1181:ARG:NH2	2.31	0.44
1:F:1284:GLN:OE1	1:F:1284:GLN:N	2.42	0.44
2:G:77:VAL:HG12	2:G:109:PRO:HG2	1.98	0.44
3:E:678:MET:N	3:E:678:MET:SD	2.90	0.44
3:A:613:ILE:HD12	3:A:644:ILE:CG2	2.46	0.44
1:B:19:TYR:CB	1:B:59:PHE:HE1	2.29	0.44
1:B:29:LEU:HD12	1:B:59:PHE:CZ	2.53	0.44
1:B:59:PHE:HD2	1:B:64:ILE:HD13	1.82	0.44
1:B:95:LEU:HD23	1:B:98:TRP:CD1	2.52	0.44
1:B:706:ASP:OD1	1:B:707:ILE:N	2.51	0.44
1:B:771:ARG:HH22	1:B:784:GLY:CA	2.29	0.44
1:B:982:ILE:O	1:B:986:LEU:HD23	2.17	0.44
1:B:1015:ARG:O	1:B:1018:LEU:HB2	2.18	0.44
1:B:1125:ILE:HG21	1:B:1175:LEU:HG	1.99	0.44
1:B:1197:VAL:O	1:B:1200:LEU:HB2	2.16	0.44
1:B:1392:GLU:HA	1:B:1395:SER:HB3	1.99	0.44
1:B:1601:THR:CB	1:B:1605:ARG:HH21	2.28	0.44
2:C:83:SER:HB3	2:C:86:SER:HB3	2.00	0.44
2:C:100:GLU:O	2:C:104:HIS:ND1	2.40	0.44
1:F:31:ILE:HG13	3:E:536:LEU:HD22	1.99	0.44
1:F:109:ASN:OD1	3:E:555:ARG:NE	2.51	0.44
1:F:985:PHE:CD2	1:F:986:LEU:HD22	2.53	0.44
1:F:1609:GLU:HB2	1:F:1610:LYS:NZ	2.33	0.44
3:A:80:SER:O	3:A:84:ASN:ND2	2.50	0.44
4:D:7:VAL:H	4:D:75:THR:HG23	1.81	0.44
4:D:41:SER:HA	4:D:53:LEU:O	2.17	0.44
4:D:83:SER:HB3	4:D:86:SER:HB3	1.99	0.44
4:D:139:PRO:O	4:D:143:GLN:HB2	2.17	0.44
1:B:24:ASP:OD1	1:B:24:ASP:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:45:TYR:CD2	1:B:64:ILE:HG13	2.52	0.44
1:B:52:ASN:HB3	1:B:55:LYS:HE2	1.98	0.44
1:B:300:ILE:HB	1:B:322:PHE:HD2	1.82	0.44
1:B:470:MET:HA	1:B:529:PHE:HA	1.98	0.44
1:B:651:LYS:O	1:B:655:LYS:HG3	2.17	0.44
1:B:1129:PHE:CD1	1:B:1179:HIS:HB2	2.52	0.44
1:B:1560:MET:O	1:B:1560:MET:HG3	2.17	0.44
1:F:106:TYR:HB2	3:E:551:GLN:NE2	2.32	0.44
1:F:304:GLY:O	1:F:318:LEU:HB2	2.18	0.44
1:F:647:SER:HA	1:F:650:ILE:HD12	1.98	0.44
1:F:753:LEU:HD23	1:F:753:LEU:HA	1.74	0.44
1:F:835:GLU:HA	1:F:838:VAL:HG22	1.99	0.44
1:F:937:ASN:ND2	1:F:989:THR:HG22	2.32	0.44
1:F:1166:GLU:O	1:F:1169:LYS:HG2	2.18	0.44
3:E:663:CYS:HB3	3:E:679:SER:OG	2.16	0.44
3:A:33:ILE:HG13	3:A:66:ARG:HH12	1.82	0.44
1:B:247:ASP:OD1	1:B:249:ASP:HB2	2.16	0.44
1:B:754:PHE:HB2	1:B:812:ILE:HG12	1.98	0.44
1:B:893:ASN:N	1:B:895:ASN:OD1	2.47	0.44
1:F:242:PHE:CE2	1:F:259:LEU:HD13	2.52	0.44
1:F:470:MET:HB2	1:F:527:ILE:HG21	2.00	0.44
1:F:527:ILE:HB	1:F:552:VAL:HG12	2.00	0.44
1:F:727:THR:HG1	1:F:778:TYR:HE2	1.63	0.44
1:F:910:LEU:O	1:F:913:LEU:HB2	2.18	0.44
1:F:985:PHE:O	1:F:989:THR:HG23	2.18	0.44
1:F:1322:LYS:HG2	1:F:1345:ARG:HH12	1.81	0.44
2:G:117:LEU:HD13	2:G:156:GLU:HG3	1.98	0.44
3:E:563:ARG:O	3:E:655:ILE:N	2.47	0.44
3:E:652:LEU:HD23	3:E:652:LEU:HA	1.78	0.44
3:E:679:SER:HB2	3:E:682:THR:OG1	2.18	0.44
3:A:470:MET:C	3:A:471:ARG:HD3	2.38	0.44
3:A:485:LYS:O	3:A:489:MET:HG3	2.17	0.44
1:B:9:ARG:HH21	1:B:69:ALA:C	2.21	0.44
1:B:114:PHE:O	1:B:118:GLN:OE1	2.34	0.44
1:B:564:ASP:CG	1:B:633:GLN:HE22	2.21	0.44
1:B:775:LEU:CD2	1:B:781:SER:HB2	2.48	0.44
1:B:800:MET:O	1:B:804:ARG:N	2.48	0.44
1:B:1384:ARG:HB2	1:B:1495:PHE:CD2	2.53	0.44
2:C:145:MET:O	2:C:148:GLU:HB3	2.18	0.44
1:F:327:MET:CE	1:F:347:PRO:HD2	2.47	0.44
1:F:821:PRO:HG3	1:F:863:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:110:ILE:HG23	2:G:151:ALA:HA	1.98	0.44
3:E:657:PRO:HD2	3:E:665:TRP:HH2	1.82	0.44
3:A:107:LEU:HD11	3:A:165:LEU:HD11	1.98	0.44
4:D:14:VAL:HB	4:D:83:SER:N	2.33	0.44
1:B:220:HIS:HA	1:B:222:TYR:CZ	2.53	0.44
1:B:450:LEU:HB2	1:B:511:GLU:HB2	1.99	0.44
1:B:1136:PHE:CD1	1:B:1186:LEU:HD22	2.53	0.44
1:B:1232:LYS:HB2	1:B:1232:LYS:HE3	1.89	0.44
1:B:1387:GLU:HG2	1:B:1388:TYR:N	2.33	0.44
1:B:1435:MET:SD	1:B:1455:ARG:HA	2.58	0.44
1:B:1568:LYS:HD2	1:B:1569:ALA:N	2.33	0.44
1:F:795:PHE:CZ	1:F:843:PHE:HB2	2.53	0.44
1:F:891:ASP:HB2	1:F:938:ARG:NH1	2.31	0.44
1:F:903:SER:HB3	1:F:953:PHE:CE2	2.53	0.44
1:F:1283:LEU:HB3	1:F:1288:TYR:HD1	1.83	0.44
1:F:1359:GLN:HG2	1:F:1456:ALA:HB2	2.00	0.44
1:F:1368:TYR:HD2	1:F:1419:LYS:HE3	1.83	0.44
3:A:156:SER:O	3:A:160:THR:HG23	2.18	0.44
3:A:178:VAL:O	3:A:181:ILE:HG22	2.18	0.44
3:A:295:TYR:HB2	3:A:440:ASP:O	2.18	0.44
3:A:359:LEU:HD22	3:A:412:PRO:HA	2.00	0.44
4:D:37:PHE:CB	4:D:58:THR:HA	2.48	0.44
1:B:37:ILE:HD13	1:B:45:TYR:CB	2.44	0.44
1:B:98:TRP:CZ3	1:B:159:LEU:HD12	2.53	0.44
1:B:180:THR:O	1:B:183:LEU:HB2	2.18	0.44
1:B:450:LEU:N	1:B:511:GLU:O	2.47	0.44
1:B:714:PRO:O	1:B:718:THR:OG1	2.27	0.44
1:B:787:PHE:O	1:B:791:ILE:HG12	2.17	0.44
1:B:869:PHE:HA	1:B:918:VAL:HG13	2.00	0.44
1:B:887:SER:O	1:B:890:LEU:HB3	2.18	0.44
1:B:940:VAL:HG13	1:B:992:MET:SD	2.57	0.44
1:B:950:ILE:O	1:B:954:VAL:HG23	2.18	0.44
1:B:1296:LEU:HD12	1:B:1296:LEU:HA	1.65	0.44
2:C:169:PHE:O	2:C:173:ILE:HG22	2.17	0.44
1:F:114:PHE:O	1:F:117:LEU:HB3	2.18	0.44
1:F:329:ILE:HG22	1:F:332:ILE:HD12	2.00	0.44
1:F:1405:ALA:H	3:E:584:LYS:NZ	2.14	0.44
1:F:1436:SER:OG	1:F:1437:LEU:N	2.49	0.44
1:F:1455:ARG:CZ	1:F:1455:ARG:HB2	2.47	0.44
3:E:535:GLU:O	3:E:539:LYS:HB2	2.18	0.44
3:A:386:TYR:HE1	3:A:391:HIS:HD2	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:542:PRO:HA	3:A:545:LEU:HG	1.99	0.44
1:B:526:HIS:HA	1:B:553:LYS:HA	1.99	0.44
1:B:985:PHE:CD2	1:B:986:LEU:HD22	2.53	0.44
1:B:1145:HIS:O	1:B:1149:ASN:ND2	2.51	0.44
1:B:1198:SER:OG	1:B:1199:SER:N	2.51	0.44
1:F:2:ALA:HB3	3:E:717:PRO:HB2	2.00	0.44
1:F:558:ASP:OD1	1:F:559:GLY:N	2.51	0.44
1:F:642:ASN:OD1	1:F:646:ASN:HB2	2.17	0.44
1:F:730:TYR:HB2	1:F:767:ILE:HG23	2.00	0.44
1:F:1028:LEU:HD11	1:F:1042:LEU:HD23	2.00	0.44
1:F:1102:ILE:O	1:F:1105:MET:HG3	2.18	0.44
1:F:1321:SER:OG	1:F:1341:LEU:HD11	2.17	0.44
1:F:1328:TYR:CD2	1:F:1338:LEU:HD22	2.52	0.44
1:F:1578:GLU:HG3	1:F:1579:HIS:ND1	2.33	0.44
3:A:212:SER:HB2	3:A:215:LEU:HG	2.00	0.44
3:A:397:ARG:HH22	3:A:461:GLN:CD	2.21	0.44
4:D:110:ILE:O	4:D:152:VAL:HG22	2.17	0.44
1:B:18:ASN:HD22	1:B:28:SER:HB3	1.82	0.43
1:B:98:TRP:CH2	1:B:155:GLY:HA3	2.53	0.43
1:B:166:ARG:HA	1:B:166:ARG:HD2	1.89	0.43
1:B:232:VAL:HG21	1:B:400:TRP:HE1	1.83	0.43
1:B:679:ILE:O	1:B:683:MET:N	2.44	0.43
1:B:1063:THR:CA	1:B:1069:ARG:HH11	2.27	0.43
1:B:1097:HIS:HA	1:B:1100:LYS:NZ	2.33	0.43
1:F:65:HIS:ND1	1:F:65:HIS:O	2.51	0.43
1:F:1207:TYR:CD2	1:F:1208:ARG:HG3	2.53	0.43
1:F:1323:GLU:O	1:F:1327:THR:HG23	2.18	0.43
1:F:1386:LYS:HG3	1:F:1387:GLU:OE1	2.18	0.43
1:F:1419:LYS:HD2	1:F:1419:LYS:HA	1.74	0.43
2:G:68:ARG:NH1	2:G:96:LYS:HZ1	2.16	0.43
3:A:12:ILE:HA	3:A:75:LEU:HB2	1.99	0.43
3:A:130:THR:HG23	3:A:134:GLU:OE2	2.18	0.43
1:B:110:LYS:CD	1:B:113:LEU:HB2	2.48	0.43
1:B:238:ASP:O	1:B:303:VAL:N	2.51	0.43
1:B:966:ASP:HA	1:B:969:TYR:HD1	1.79	0.43
1:B:1064:PHE:HD1	1:B:1068:LYS:HZ2	1.66	0.43
1:B:1183:HIS:ND1	1:B:1184:LYS:O	2.52	0.43
1:B:1546:PRO:HA	1:B:1549:MET:CG	2.48	0.43
1:F:517:ILE:HB	1:F:522:VAL:HB	2.01	0.43
1:F:741:VAL:HG21	1:F:798:PHE:CD1	2.53	0.43
1:F:761:LYS:HZ3	1:F:825:ASN:HD21	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1207:TYR:CZ	1:F:1211:ILE:HG13	2.54	0.43
3:E:578:ARG:HG2	3:E:587:HIS:CD2	2.53	0.43
1:B:109:ASN:OD1	3:A:555:ARG:NH2	2.42	0.43
1:B:306:MET:H	1:B:314:HIS:CG	2.36	0.43
1:B:400:TRP:CZ2	4:D:127:ARG:HB2	2.50	0.43
1:B:473:HIS:HB3	1:B:478:LYS:N	2.33	0.43
1:B:819:TYR:O	1:B:822:SER:OG	2.18	0.43
1:B:953:PHE:O	1:B:957:MET:HE2	2.18	0.43
1:B:1102:ILE:HG23	1:B:1131:MET:HG3	2.01	0.43
1:B:1185:TYR:CD1	1:B:1185:TYR:N	2.86	0.43
1:B:1557:PRO:HG3	1:B:1563:PHE:CD2	2.53	0.43
1:F:243:MET:O	1:F:258:TYR:N	2.38	0.43
1:F:795:PHE:CD2	1:F:839:LEU:HD22	2.53	0.43
1:F:975:THR:HG22	1:F:975:THR:O	2.18	0.43
1:F:1038:PHE:O	1:F:1039:GLU:HG2	2.18	0.43
3:A:586:LEU:HD23	3:A:608:LEU:O	2.18	0.43
4:D:10:GLY:N	4:D:16:LYS:HD3	2.34	0.43
1:B:101:ILE:HD12	1:B:104:LYS:HE3	2.00	0.43
1:B:166:ARG:O	1:B:166:ARG:HG3	2.18	0.43
1:B:248:PRO:HB3	1:B:387:ILE:HD13	2.00	0.43
1:B:472:VAL:HA	1:B:527:ILE:HA	2.01	0.43
1:B:566:ARG:HE	1:B:621:GLN:CG	2.26	0.43
1:B:1264:LEU:HD22	1:B:1304:ILE:CG1	2.48	0.43
1:B:1328:TYR:HB3	1:B:1338:LEU:CD2	2.48	0.43
1:B:1382:ILE:HD12	1:B:1382:ILE:HA	1.85	0.43
1:B:1432:LYS:HB2	1:B:1463:ARG:HG2	2.00	0.43
1:B:1632:LYS:HA	1:B:1636:HIS:HB2	2.00	0.43
2:C:160:LEU:HD12	2:C:160:LEU:HA	1.78	0.43
1:F:876:GLU:O	1:F:880:PRO:HD3	2.17	0.43
1:F:1159:VAL:HB	1:F:1204:LEU:HD22	2.00	0.43
1:F:1173:GLU:O	1:F:1176:LEU:HG	2.18	0.43
1:F:1230:PHE:O	1:F:1233:GLU:HB3	2.18	0.43
1:F:1326:GLU:HA	1:F:1329:GLU:HG2	2.01	0.43
1:F:1556:ASP:O	1:F:1558:ALA:N	2.51	0.43
1:F:1560:MET:HE1	2:G:36:VAL:HG12	1.99	0.43
3:A:300:LEU:HA	3:A:303:ASN:ND2	2.32	0.43
3:A:502:PHE:CZ	3:A:506:LEU:HD11	2.54	0.43
3:A:578:ARG:NH2	3:A:598:GLU:OE1	2.52	0.43
1:B:101:ILE:O	1:B:104:LYS:HG2	2.19	0.43
1:B:598:LYS:HA	1:B:601:GLN:HG3	2.01	0.43
1:B:904:GLN:O	1:B:907:SER:OG	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:932:LEU:O	1:B:935:ARG:HB2	2.18	0.43
1:B:1086:ARG:HG2	1:B:1086:ARG:HH11	1.82	0.43
1:B:1237:GLU:O	1:B:1240:TYR:HB3	2.19	0.43
1:B:1395:SER:O	1:B:1399:LEU:HG	2.19	0.43
1:B:1466:ARG:N	1:B:1484:ILE:HG23	2.33	0.43
1:F:142:ALA:O	1:F:146:LYS:HG3	2.19	0.43
1:F:154:HIS:O	1:F:157:ARG:HG2	2.18	0.43
1:F:783:ASP:O	1:F:786:GLU:HG3	2.19	0.43
1:F:926:GLN:O	1:F:929:MET:HG2	2.19	0.43
1:F:1325:ALA:O	1:F:1328:TYR:HB2	2.18	0.43
1:F:1371:GLY:C	1:F:1424:GLN:HE21	2.21	0.43
3:A:394:ALA:HA	3:A:397:ARG:NE	2.34	0.43
3:A:531:ARG:HD2	3:A:534:LEU:HD12	2.00	0.43
4:D:146:ALA:HB2	4:D:154:TYR:HB2	2.01	0.43
1:B:195:GLU:HA	1:B:198:ILE:HG22	2.01	0.43
1:B:248:PRO:C	1:B:251:SER:H	2.22	0.43
1:B:285:SER:HB2	1:B:435:GLU:CD	2.39	0.43
1:B:927:LEU:HB3	1:B:931:ARG:NH1	2.21	0.43
1:B:1516:GLU:O	1:B:1519:ILE:HB	2.17	0.43
1:B:1602:GLU:HA	1:B:1605:ARG:HG2	2.00	0.43
1:F:242:PHE:HB2	1:F:299:GLN:OE1	2.18	0.43
1:F:582:ALA:C	1:F:583:LYS:HD3	2.39	0.43
1:F:725:SER:HA	1:F:773:LEU:HD11	2.00	0.43
1:F:990:PHE:HD2	1:F:1042:LEU:HD11	1.84	0.43
1:F:1054:LEU:HD22	1:F:1083:ILE:HG22	1.99	0.43
1:F:1396:LEU:O	1:F:1399:LEU:N	2.52	0.43
1:F:1469:ARG:HD2	1:F:1481:THR:CB	2.48	0.43
3:E:677:MET:O	3:E:683:ARG:NH1	2.52	0.43
4:D:5:LYS:HB3	4:D:74:GLN:O	2.19	0.43
1:B:48:TYR:HB3	1:B:53:LYS:HD2	2.00	0.43
1:B:305:HIS:HB3	1:B:314:HIS:ND1	2.34	0.43
1:B:468:VAL:HG21	1:B:620:PHE:CE1	2.54	0.43
1:B:552:VAL:HG23	1:B:591:THR:HG21	2.01	0.43
1:B:740:TYR:HB3	1:B:753:LEU:CD2	2.49	0.43
1:B:801:LEU:O	1:B:804:ARG:HB2	2.18	0.43
1:B:1121:ARG:O	1:B:1125:ILE:HG22	2.18	0.43
1:B:1236:ARG:HD3	1:B:1236:ARG:HA	1.90	0.43
1:B:1488:THR:OG1	1:B:1508:SER:N	2.52	0.43
1:F:226:VAL:HG22	1:F:403:LEU:HD23	2.00	0.43
1:F:589:PRO:HB2	1:F:595:MET:HG2	2.01	0.43
1:F:908:ASN:O	1:F:912:VAL:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1010:ASN:O	1:F:1013:GLN:NE2	2.52	0.43
1:F:1135:GLU:OE2	1:F:1147:PHE:CG	2.72	0.43
1:F:1354:LYS:HE2	1:F:1354:LYS:HB2	1.84	0.43
1:F:1391:ARG:NH2	2:G:162:GLN:OE1	2.52	0.43
2:G:45:MET:CB	2:G:50:PRO:HA	2.42	0.43
3:E:681:LEU:HA	3:E:684:ASN:OD1	2.19	0.43
3:A:126:ILE:HG23	3:A:129:LEU:HD12	2.01	0.43
3:A:304:LEU:HD13	3:A:304:LEU:HA	1.89	0.43
4:D:21:ILE:HG23	4:D:25:THR:OG1	2.18	0.43
1:B:19:TYR:N	1:B:28:SER:HA	2.24	0.43
1:B:60:PRO:O	1:B:64:ILE:HG12	2.19	0.43
1:B:84:GLU:O	1:B:87:LEU:HB3	2.18	0.43
1:B:287:MET:HE3	1:B:435:GLU:HG2	2.01	0.43
1:B:293:ARG:HG2	1:B:328:ASP:CG	2.39	0.43
1:B:719:TYR:O	1:B:724:PHE:N	2.48	0.43
1:B:783:ASP:HB2	1:B:786:GLU:HG3	2.01	0.43
1:B:992:MET:O	1:B:996:LEU:HD23	2.19	0.43
1:B:1166:GLU:O	1:B:1170:VAL:HG23	2.18	0.43
1:B:1179:HIS:HA	1:B:1182:LYS:HD3	2.00	0.43
1:B:1295:GLU:OE2	1:B:1299:LYS:HD3	2.19	0.43
1:F:1:MET:HB2	3:E:717:PRO:O	2.19	0.43
1:F:297:VAL:HG22	1:F:326:VAL:HG22	2.01	0.43
1:F:679:ILE:HG23	1:F:683:MET:SD	2.59	0.43
1:F:683:MET:HG3	1:F:689:TYR:CD2	2.54	0.43
1:F:871:GLN:HB2	1:F:918:VAL:CG1	2.47	0.43
1:F:1124:THR:O	1:F:1127:ILE:HB	2.18	0.43
1:F:1276:LYS:O	1:F:1278:CYS:N	2.52	0.43
3:E:646:TYR:C	3:E:648:SER:H	2.21	0.43
3:A:50:ALA:HB3	3:A:80:SER:HA	2.01	0.43
3:A:232:LEU:HA	3:A:240:GLN:HG2	1.99	0.43
3:A:272:ARG:HG2	3:A:446:PHE:CD1	2.54	0.43
3:A:297:LEU:HB2	3:A:446:PHE:HZ	1.82	0.43
4:D:11:ASP:O	4:D:14:VAL:HG22	2.18	0.43
4:D:139:PRO:HA	4:D:154:TYR:HE2	1.84	0.43
1:B:306:MET:HG2	1:B:320:ARG:NH2	2.33	0.43
1:B:419:HIS:CD2	1:B:420:LEU:HG	2.54	0.43
1:B:450:LEU:HD12	1:B:511:GLU:HB2	1.99	0.43
1:B:485:HIS:CE1	1:B:516:SER:HB2	2.53	0.43
1:B:537:GLN:O	1:B:541:ASP:N	2.47	0.43
1:B:616:THR:OG1	1:B:617:LYS:N	2.49	0.43
1:B:730:TYR:HA	1:B:733:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:841:CYS:HA	1:B:881:LEU:CD1	2.49	0.43
1:B:1521:THR:O	1:B:1524:LEU:HG	2.19	0.43
1:F:44:TRP:CD1	3:E:716:GLU:HG3	2.53	0.43
1:F:342:LYS:HG2	1:F:344:HIS:CE1	2.53	0.43
1:F:351:ILE:H	1:F:351:ILE:HG13	1.63	0.43
1:F:472:VAL:HG11	1:F:517:ILE:HD11	2.01	0.43
1:F:472:VAL:HG22	1:F:527:ILE:HG13	2.01	0.43
1:F:1618:LEU:O	1:F:1622:LEU:HG	2.19	0.43
3:E:533:ILE:HD12	3:E:533:ILE:H	1.84	0.43
4:D:95:HIS:O	4:D:99:PRO:HG2	2.19	0.43
1:B:10:GLN:HG3	1:B:37:ILE:HG22	1.99	0.43
1:B:100:VAL:HA	1:B:103:ARG:HB2	2.01	0.43
1:B:182:ALA:HA	1:B:185:LYS:HZ3	1.84	0.43
1:B:192:LYS:HE2	1:B:192:LYS:HA	2.01	0.43
1:B:240:GLU:OE1	1:B:261:ARG:HD2	2.19	0.43
1:B:834:VAL:HG22	1:B:873:GLU:O	2.17	0.43
1:B:1175:LEU:HB3	1:B:1179:HIS:HE1	1.84	0.43
1:B:1191:GLU:O	1:B:1195:LEU:HG	2.19	0.43
1:B:1269:GLU:OE1	1:B:1270:LEU:HD22	2.18	0.43
1:B:1315:GLU:HG2	1:B:1453:TYR:CE2	2.53	0.43
1:B:1517:ASN:O	1:B:1521:THR:HG23	2.19	0.43
1:F:156:ASN:HB3	1:F:161:LEU:HB2	2.01	0.43
1:F:382:VAL:O	1:F:386:VAL:HG23	2.19	0.43
1:F:1014:ASN:O	1:F:1018:LEU:HG	2.19	0.43
1:F:1026:GLU:O	1:F:1030:ARG:HG2	2.18	0.43
1:F:1039:GLU:O	1:F:1040:LEU:HD23	2.19	0.43
1:F:1185:TYR:CG	1:F:1186:LEU:N	2.86	0.43
1:F:1217:LYS:O	1:F:1220:ARG:HB2	2.18	0.43
1:F:1221:MET:CE	1:F:1250:LEU:HD13	2.48	0.43
1:F:1444:LYS:N	1:F:1444:LYS:HD2	2.34	0.43
1:F:1470:LYS:HD3	1:F:1483:TRP:CD2	2.54	0.43
1:F:1617:PRO:HB2	1:F:1621:ARG:NH2	2.34	0.43
3:E:565:LEU:HD23	3:E:565:LEU:HA	1.77	0.43
3:E:613:ILE:HD13	3:E:646:TYR:HB3	2.00	0.43
3:A:2:PRO:HA	3:A:3:PRO:HD3	1.88	0.43
3:A:279:VAL:HG11	3:A:290:MET:SD	2.58	0.43
3:A:693:GLU:OE2	3:A:697:ARG:HD3	2.19	0.43
1:B:17:TYR:CE1	3:A:711:PRO:HD2	2.54	0.42
1:B:70:THR:HG22	1:B:71:VAL:N	2.30	0.42
1:B:73:ASP:O	1:B:78:GLU:N	2.52	0.42
1:B:86:PRO:HA	1:B:89:GLN:HG2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:108:ASN:HD21	1:B:110:LYS:HG2	1.84	0.42
1:B:114:PHE:CZ	1:B:118:GLN:NE2	2.87	0.42
1:B:129:SER:O	1:B:132:LEU:HB2	2.19	0.42
1:B:379:LEU:HD23	1:B:379:LEU:HA	1.92	0.42
1:B:814:GLY:O	1:B:817:LEU:HG	2.19	0.42
1:B:905:LEU:O	1:B:909:ILE:HG12	2.18	0.42
1:B:1029:THR:HA	1:B:1033:MET:SD	2.59	0.42
1:B:1086:ARG:NE	1:B:1086:ARG:HA	2.34	0.42
1:B:1205:LEU:HD13	1:B:1205:LEU:HA	1.91	0.42
1:B:1532:CYS:SG	1:B:1550:LEU:HD12	2.59	0.42
1:B:1593:ILE:O	1:B:1597:MET:HG2	2.19	0.42
2:C:14:VAL:HG13	2:C:116:LYS:HZ3	1.84	0.42
2:C:24:THR:HG22	2:C:42:ALA:HB2	2.01	0.42
1:F:132:LEU:HD21	3:E:702:GLU:HB3	2.01	0.42
1:F:241:LEU:O	1:F:260:ILE:N	2.50	0.42
1:F:431:MET:HB3	1:F:625:LEU:HD23	2.00	0.42
1:F:446:ILE:HG12	1:F:626:ILE:HG12	2.00	0.42
1:F:775:LEU:O	1:F:779:GLY:N	2.52	0.42
1:F:840:PHE:HA	1:F:843:PHE:HB3	2.00	0.42
1:F:1114:LEU:HD23	1:F:1168:TYR:HE1	1.83	0.42
1:F:1117:GLU:CD	1:F:1120:LEU:HG	2.39	0.42
1:F:1469:ARG:NH1	1:F:1473:LYS:HG3	2.34	0.42
2:G:64:TYR:HA	2:G:66:ARG:NH1	2.34	0.42
2:G:82:PHE:CE1	2:G:154:TYR:HE1	2.37	0.42
3:E:587:HIS:HD1	3:E:606:ASP:CG	2.22	0.42
3:A:317:ASP:HB3	3:A:320:GLN:HG3	2.00	0.42
4:D:129:LEU:HB3	4:D:134:GLN:O	2.19	0.42
1:B:1:MET:H1	3:A:716:GLU:HB3	1.84	0.42
1:B:24:ASP:OD1	1:B:25:VAL:HG22	2.20	0.42
1:B:85:LEU:O	1:B:89:GLN:HG2	2.19	0.42
1:B:293:ARG:HA	1:B:330:THR:OG1	2.19	0.42
1:B:933:LEU:HD21	1:B:960:LEU:CD2	2.49	0.42
1:B:987:MET:O	1:B:991:ILE:HG23	2.20	0.42
1:B:1011:MET:O	1:B:1014:ASN:HB2	2.19	0.42
1:B:1193:PHE:N	1:B:1193:PHE:CD1	2.85	0.42
1:B:1196:LEU:O	1:B:1200:LEU:HG	2.18	0.42
1:B:1231:TYR:CE2	1:B:1243:TYR:CE2	3.04	0.42
1:B:1599:LEU:HA	1:B:1599:LEU:HD12	1.91	0.42
2:C:138:THR:OG1	2:C:140:PRO:HD2	2.19	0.42
1:F:41:TYR:HD2	1:F:44:TRP:HB2	1.84	0.42
1:F:934:ARG:NH1	1:F:934:ARG:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1133:GLN:O	1:F:1136:PHE:HB3	2.19	0.42
1:F:1375:PHE:O	1:F:1379:LYS:HG3	2.19	0.42
1:F:1540:ARG:HA	1:F:1540:ARG:CZ	2.49	0.42
1:F:1540:ARG:O	1:F:1542:LEU:N	2.52	0.42
2:G:169:PHE:O	2:G:173:ILE:HG12	2.19	0.42
3:E:575:TRP:HB2	3:E:591:LEU:HB2	2.01	0.42
3:E:607:LYS:HZ1	3:E:609:PRO:N	2.17	0.42
3:A:69:ILE:HG12	3:A:75:LEU:HD21	2.02	0.42
3:A:129:LEU:O	3:A:132:MET:HG2	2.20	0.42
3:A:260:GLN:NE2	3:A:307:ASP:OD2	2.52	0.42
3:A:522:ARG:HG3	3:A:531:ARG:NH1	2.34	0.42
3:A:609:PRO:HB2	3:A:611:ALA:H	1.83	0.42
3:A:646:TYR:HE1	3:A:652:LEU:HG	1.82	0.42
4:D:152:VAL:HB	4:D:180:THR:HG21	2.02	0.42
1:B:228:PHE:CE2	1:B:399:LEU:HD12	2.54	0.42
1:B:351:ILE:HD12	1:B:375:GLU:OE1	2.19	0.42
1:B:568:ASP:CG	1:B:592:LYS:HG3	2.39	0.42
1:B:866:SER:C	1:B:868:LEU:H	2.22	0.42
1:B:890:LEU:CD2	1:B:935:ARG:HG3	2.46	0.42
1:B:1022:ASN:O	1:B:1025:ALA:N	2.53	0.42
1:B:1024:PHE:O	1:B:1028:LEU:HD23	2.18	0.42
1:B:1198:SER:O	1:B:1199:SER:C	2.58	0.42
1:B:1328:TYR:HA	1:B:1332:VAL:CG2	2.50	0.42
1:F:1:MET:N	3:E:717:PRO:HD2	2.33	0.42
1:F:12:TYR:HB2	1:F:67:LYS:HB2	2.01	0.42
1:F:137:PRO:HB2	1:F:140:GLU:OE1	2.20	0.42
1:F:170:GLY:C	1:F:172:ILE:H	2.21	0.42
1:F:598:LYS:HA	1:F:601:GLN:HG3	2.01	0.42
1:F:874:CYS:HA	1:F:877:VAL:HG12	2.00	0.42
1:F:1298:GLU:HG2	1:F:1302:GLN:OE1	2.19	0.42
2:G:119:LEU:HA	2:G:122:ASP:HB2	2.00	0.42
3:A:88:LEU:O	3:A:92:ILE:HB	2.20	0.42
3:A:246:VAL:O	3:A:250:LEU:HG	2.19	0.42
3:A:552:ARG:HB3	3:A:664:ILE:HG23	2.01	0.42
1:B:51:GLN:H	1:B:51:GLN:CD	2.21	0.42
1:B:88:VAL:O	1:B:91:LEU:HB3	2.20	0.42
1:B:128:ARG:O	1:B:132:LEU:HG	2.19	0.42
1:B:330:THR:CA	1:B:333:ILE:HG12	2.42	0.42
1:B:367:LEU:O	1:B:368:ILE:HG13	2.19	0.42
1:B:462:THR:HB	1:B:503:GLN:HG2	2.01	0.42
1:B:614:ASP:OD1	1:B:615:SER:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:768:ILE:O	1:B:772:VAL:HG22	2.20	0.42
1:B:809:ALA:O	1:B:813:LYS:HG3	2.20	0.42
1:B:910:LEU:HA	1:B:913:LEU:HB2	2.00	0.42
1:B:1279:VAL:HB	1:B:1281:HIS:ND1	2.34	0.42
1:B:1279:VAL:HA	1:B:1280:PRO:HD3	1.89	0.42
1:B:1372:PHE:CE2	1:B:1424:GLN:HB3	2.55	0.42
1:B:1466:ARG:HB2	1:B:1485:GLU:H	1.84	0.42
1:F:318:LEU:HD22	1:F:320:ARG:NH2	2.34	0.42
1:F:710:GLN:HA	1:F:713:ASN:ND2	2.35	0.42
1:F:761:LYS:HZ1	1:F:825:ASN:HD21	1.67	0.42
1:F:879:LEU:HD22	1:F:924:HIS:CE1	2.54	0.42
1:F:1013:GLN:O	1:F:1016:VAL:HG22	2.19	0.42
1:F:1073:VAL:O	1:F:1077:GLY:N	2.48	0.42
3:E:643:SER:OG	3:E:653:ASN:HA	2.20	0.42
4:D:19:LEU:HD13	4:D:157:CYS:SG	2.59	0.42
1:B:380:THR:HA	1:B:510:TYR:CE2	2.54	0.42
1:B:532:ARG:HA	1:B:546:ALA:HA	2.00	0.42
1:B:585:TYR:HA	1:B:588:LEU:HB2	2.00	0.42
1:B:694:PHE:O	1:B:698:VAL:HG23	2.20	0.42
1:B:818:LYS:HA	1:B:862:LYS:HE3	2.02	0.42
1:B:1289:TYR:CE2	1:B:1291:TYR:CE1	3.07	0.42
1:B:1467:PRO:HG3	2:C:33:ILE:CD1	2.48	0.42
1:B:1499:LEU:HD23	1:B:1499:LEU:HA	1.80	0.42
1:B:1514:PRO:CA	1:B:1517:ASN:HD22	2.31	0.42
1:B:1529:ILE:O	1:B:1533:VAL:HG12	2.19	0.42
1:B:1583:GLN:HA	1:B:1586:VAL:HG12	2.01	0.42
1:F:105:LEU:HD22	1:F:110:LYS:CE	2.49	0.42
1:F:809:ALA:O	1:F:812:ILE:N	2.52	0.42
1:F:880:PRO:HA	1:F:931:ARG:HH21	1.85	0.42
1:F:1473:LYS:HD3	1:F:1481:THR:HG21	2.02	0.42
1:F:1514:PRO:O	1:F:1517:ASN:HB3	2.19	0.42
4:D:120:ARG:HH12	4:D:156:GLU:CD	2.23	0.42
1:B:323:GLY:HA3	1:B:350:GLN:HA	2.00	0.42
1:B:411:THR:OG1	1:B:412:GLN:N	2.52	0.42
1:B:527:ILE:HD13	1:B:552:VAL:HG13	2.02	0.42
1:B:566:ARG:NE	1:B:621:GLN:HG3	2.27	0.42
1:B:569:LEU:HB2	1:B:620:PHE:HB3	2.02	0.42
1:B:721:TYR:C	1:B:722:LYS:HD2	2.39	0.42
1:B:743:ASN:HB2	1:B:749:LYS:CD	2.50	0.42
1:B:1044:ASN:O	1:B:1048:HIS:ND1	2.53	0.42
1:B:1211:ILE:HG22	1:B:1212:MET:CE	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1216:SER:O	1:B:1220:ARG:HG3	2.19	0.42
1:B:1327:THR:HA	1:B:1331:LYS:HZ1	1.84	0.42
2:C:80:ILE:O	2:C:112:LEU:HD12	2.19	0.42
2:C:114:GLY:O	2:C:115:THR:OG1	2.29	0.42
1:F:676:LEU:HG	1:F:693:VAL:HG13	2.01	0.42
1:F:678:ASN:HA	1:F:681:MET:CG	2.47	0.42
1:F:890:LEU:HD11	1:F:935:ARG:C	2.40	0.42
1:F:1014:ASN:HB2	1:F:1079:MET:HE1	2.00	0.42
1:F:1066:GLN:HA	1:F:1069:ARG:HH22	1.84	0.42
1:F:1148:GLU:HA	1:F:1151:LEU:HB3	2.01	0.42
1:F:1362:TYR:N	1:F:1362:TYR:CD1	2.87	0.42
3:A:52:GLN:O	3:A:76:ARG:N	2.37	0.42
3:A:317:ASP:O	3:A:321:ARG:HB2	2.19	0.42
3:A:356:TYR:CE1	3:A:359:LEU:HD12	2.54	0.42
3:A:526:GLU:O	3:A:529:GLN:N	2.49	0.42
3:A:547:LEU:CA	3:A:550:GLN:HE21	2.33	0.42
4:D:9:VAL:HB	4:D:97:TRP:CZ3	2.54	0.42
4:D:22:CYS:HB3	4:D:162:GLN:NE2	2.35	0.42
1:B:104:LYS:O	1:B:107:VAL:HG22	2.20	0.42
1:B:162:ASP:HB2	1:B:1007:MET:SD	2.59	0.42
1:B:626:ILE:HD12	1:B:633:GLN:NE2	2.35	0.42
1:B:771:ARG:O	1:B:775:LEU:HG	2.20	0.42
1:B:784:GLY:O	1:B:787:PHE:HB3	2.20	0.42
1:B:809:ALA:O	1:B:812:ILE:N	2.53	0.42
1:B:1059:LEU:HD23	1:B:1080:ARG:HH22	1.84	0.42
1:B:1169:LYS:HE2	1:B:1169:LYS:HB3	1.83	0.42
2:C:46:VAL:HG13	2:C:47:ASP:H	1.84	0.42
2:C:116:LYS:O	2:C:120:ARG:N	2.44	0.42
2:C:122:ASP:O	2:C:126:ILE:HG23	2.20	0.42
1:F:934:ARG:HB3	1:F:935:ARG:NH1	2.34	0.42
1:F:953:PHE:O	1:F:956:CYS:HB2	2.20	0.42
1:F:1114:LEU:HB3	1:F:1163:ARG:HG2	2.02	0.42
1:F:1297:LYS:HG2	1:F:1301:TYR:HE1	1.83	0.42
1:F:1386:LYS:HD3	1:F:1386:LYS:HA	1.75	0.42
3:A:306:GLU:HG3	3:A:310:MET:CE	2.49	0.42
3:A:670:ASN:HA	3:A:673:LEU:HD12	2.01	0.42
4:D:20:LEU:O	4:D:24:THR:N	2.45	0.42
4:D:143:GLN:OE1	4:D:154:TYR:HB3	2.20	0.42
1:B:473:HIS:HA	1:B:478:LYS:O	2.19	0.42
1:B:883:THR:HG21	1:B:931:ARG:CD	2.50	0.42
1:B:1033:MET:O	1:B:1036:ALA:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1335:TYR:O	1:B:1338:LEU:HB2	2.20	0.42
1:B:1585:LYS:HA	1:B:1588:LEU:HD12	2.00	0.42
1:F:31:ILE:CG2	3:E:701:LEU:HD23	2.48	0.42
1:F:244:ALA:HB2	1:F:257:ASN:HA	2.02	0.42
1:F:332:ILE:HG23	1:F:403:LEU:HB3	2.00	0.42
1:F:945:ARG:HH12	1:F:946:GLN:HB2	1.84	0.42
1:F:1372:PHE:N	1:F:1424:GLN:HG2	2.35	0.42
2:G:27:ALA:O	2:G:162:GLN:NE2	2.52	0.42
3:A:292:HIS:ND1	3:A:436:GLU:HG3	2.35	0.42
3:A:394:ALA:O	3:A:398:ILE:HG12	2.19	0.42
1:B:55:LYS:HG2	1:B:56:LYS:N	2.35	0.42
1:B:102:TRP:HB2	1:B:114:PHE:HE1	1.82	0.42
1:B:291:ARG:HA	1:B:292:PRO:HD3	1.91	0.42
1:B:473:HIS:O	1:B:525:CYS:HB3	2.20	0.42
1:B:566:ARG:NH2	1:B:621:GLN:HE21	2.18	0.42
1:B:787:PHE:O	1:B:790:SER:HB3	2.20	0.42
1:B:806:LEU:HD22	1:B:851:GLN:CD	2.40	0.42
1:B:820:LEU:O	1:B:823:ILE:HG12	2.20	0.42
1:B:824:ILE:O	1:B:828:LYS:HG2	2.20	0.42
2:C:114:GLY:HA3	2:C:156:GLU:CG	2.50	0.42
1:F:127:TRP:HA	1:F:130:GLN:HG2	2.02	0.42
1:F:465:ASN:CB	1:F:534:ARG:H	2.32	0.42
1:F:651:LYS:HE2	1:F:689:TYR:CE1	2.54	0.42
1:F:680:MET:HE3	1:F:690:ASP:HA	2.02	0.42
1:F:862:LYS:O	1:F:865:GLU:HB3	2.19	0.42
1:F:1060:GLN:HA	1:F:1063:THR:OG1	2.19	0.42
1:F:1217:LYS:CG	1:F:1220:ARG:HH21	2.26	0.42
1:F:1316:LYS:HE3	1:F:1319:LYS:HD3	2.02	0.42
1:F:1560:MET:SD	1:F:1565:ASN:ND2	2.93	0.42
1:F:1607:HIS:HE2	1:F:1615:LEU:HB3	1.84	0.42
2:G:80:ILE:HG23	2:G:112:LEU:HA	2.01	0.42
2:G:122:ASP:O	2:G:126:ILE:HG23	2.19	0.42
3:A:393:ASP:OD1	3:A:393:ASP:N	2.52	0.42
3:A:531:ARG:HA	3:A:534:LEU:HD12	2.01	0.42
3:A:552:ARG:HH21	3:A:555:ARG:NE	2.18	0.42
3:A:644:ILE:HD12	3:A:652:LEU:HD12	2.01	0.42
1:B:41:TYR:OH	3:A:715:LYS:O	2.14	0.42
1:B:99:ALA:HB1	1:B:103:ARG:NH1	2.33	0.42
1:B:237:GLU:HG2	1:B:303:VAL:O	2.20	0.42
1:B:474:ASP:O	1:B:526:HIS:CE1	2.73	0.42
1:B:591:THR:OG1	1:B:593:MET:SD	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1094:LEU:HD23	1:B:1094:LEU:O	2.20	0.42
1:B:1217:LYS:HE2	1:B:1217:LYS:HB2	1.87	0.42
1:F:105:LEU:HD22	1:F:110:LYS:HE2	2.00	0.42
1:F:121:THR:HA	1:F:124:LEU:HD12	2.01	0.42
1:F:197:LYS:HG2	1:F:200:GLU:OE2	2.20	0.42
1:F:683:MET:HG2	1:F:683:MET:O	2.20	0.42
1:F:1120:LEU:O	1:F:1124:THR:OG1	2.35	0.42
1:F:1525:THR:HA	1:F:1528:ARG:NH1	2.27	0.42
2:G:68:ARG:NH1	2:G:97:TRP:HZ3	2.18	0.42
3:E:544:ILE:HA	3:E:547:LEU:HG	2.02	0.42
3:E:579:LEU:HD12	3:E:585:VAL:O	2.20	0.42
3:A:302:PHE:HB3	3:A:431:GLY:N	2.15	0.42
3:A:303:ASN:HA	3:A:306:GLU:HB2	2.01	0.42
3:A:673:LEU:HB3	3:A:675:LYS:HE2	2.01	0.42
4:D:98:HIS:CE1	4:D:102:CYS:SG	3.13	0.42
1:B:59:PHE:HD2	1:B:64:ILE:CD1	2.33	0.41
1:B:262:TRP:HE1	1:B:266:GLY:HA2	1.85	0.41
1:B:469:THR:HA	1:B:496:TYR:O	2.19	0.41
1:B:535:SER:OG	1:B:536:SER:N	2.53	0.41
1:B:571:VAL:H	1:B:619:SER:HA	1.84	0.41
1:B:817:LEU:HD12	1:B:818:LYS:N	2.35	0.41
1:B:868:LEU:HD12	1:B:868:LEU:HA	1.89	0.41
1:B:1109:ILE:HA	1:B:1112:VAL:HG12	2.02	0.41
1:B:1125:ILE:HG23	1:B:1126:PRO:HD3	2.02	0.41
1:B:1284:GLN:OE1	1:B:1284:GLN:N	2.43	0.41
1:B:1371:GLY:C	1:B:1424:GLN:HE21	2.24	0.41
1:B:1524:LEU:HA	1:B:1527:GLU:OE2	2.19	0.41
1:F:23:GLN:HG2	1:F:58:ILE:HB	2.01	0.41
1:F:105:LEU:HB3	1:F:110:LYS:HE3	2.02	0.41
1:F:224:LEU:HD12	1:F:404:LYS:O	2.20	0.41
1:F:469:THR:HA	1:F:496:TYR:O	2.20	0.41
1:F:736:VAL:HA	1:F:739:PHE:HB3	2.01	0.41
1:F:749:LYS:HA	1:F:752:LEU:HB2	2.02	0.41
1:F:853:VAL:HA	1:F:856:LYS:HG2	2.02	0.41
1:F:1134:CYS:HA	1:F:1137:ASN:OD1	2.20	0.41
1:F:1136:PHE:CD1	1:F:1186:LEU:HD22	2.55	0.41
1:F:1491:THR:HA	1:F:1505:LYS:H	1.84	0.41
2:G:68:ARG:HH11	2:G:96:LYS:HZ1	1.67	0.41
2:G:113:VAL:HG12	2:G:155:LEU:HB2	2.01	0.41
2:G:129:LEU:O	2:G:133:LYS:N	2.53	0.41
3:E:560:THR:HG21	3:E:661:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:620:LYS:HA	3:E:620:LYS:HD3	1.82	0.41
3:A:639:GLU:H	3:A:639:GLU:CD	2.21	0.41
3:A:702:GLU:C	3:A:704:ILE:H	2.22	0.41
4:D:58:THR:HB	4:D:68:ARG:HG3	2.02	0.41
4:D:97:TRP:O	4:D:101:VAL:HG13	2.20	0.41
4:D:98:HIS:CD2	4:D:149:ILE:HB	2.54	0.41
1:B:278:GLN:O	1:B:426:ALA:HB3	2.20	0.41
1:B:683:MET:HE3	1:B:686:SER:N	2.34	0.41
1:B:718:THR:O	1:B:722:LYS:HB2	2.18	0.41
1:B:924:HIS:CD2	1:B:928:ILE:HD11	2.55	0.41
1:B:929:MET:SD	1:B:968:HIS:HB3	2.60	0.41
1:B:1060:GLN:O	1:B:1063:THR:HB	2.20	0.41
1:B:1086:ARG:O	1:B:1089:ASP:OD1	2.37	0.41
1:B:1125:ILE:CD1	1:B:1172:LEU:HA	2.50	0.41
1:B:1344:LYS:HA	1:B:1344:LYS:HD2	1.79	0.41
1:B:1452:ASN:O	1:B:1455:ARG:HB3	2.20	0.41
1:B:1536:HIS:HD2	1:B:1539:ASP:O	2.03	0.41
1:B:1562:GLY:HA3	2:C:36:VAL:HB	2.02	0.41
1:B:1600:LEU:CB	1:B:1626:PHE:HE1	2.34	0.41
1:F:4:TRP:CZ3	1:F:41:TYR:HB3	2.54	0.41
1:F:470:MET:O	1:F:495:GLU:HG3	2.20	0.41
1:F:720:ILE:HG12	1:F:766:PHE:CZ	2.55	0.41
1:F:954:VAL:HA	1:F:957:MET:CE	2.50	0.41
2:G:171:GLU:HG3	2:G:174:ARG:HD2	2.03	0.41
3:E:531:ARG:HG2	3:E:532:PRO:HD3	2.02	0.41
4:D:68:ARG:HG2	4:D:72:TYR:CE1	2.56	0.41
1:B:125:ILE:HG13	1:B:126:GLU:N	2.34	0.41
1:B:159:LEU:HD23	1:B:159:LEU:HA	1.79	0.41
1:B:297:VAL:HG12	1:B:299:GLN:NE2	2.34	0.41
1:B:473:HIS:HB2	1:B:526:HIS:CE1	2.55	0.41
1:B:724:PHE:CD2	1:B:769:GLN:HG3	2.55	0.41
1:B:838:VAL:HA	1:B:841:CYS:SG	2.60	0.41
1:B:1143:ASN:OD1	1:B:1145:HIS:N	2.54	0.41
1:B:1362:TYR:CD2	1:B:1462:PHE:CE2	3.07	0.41
1:B:1462:PHE:HB2	1:B:1489:TYR:CB	2.34	0.41
1:F:875:ARG:HE	1:F:924:HIS:CD2	2.38	0.41
1:F:1032:PHE:CB	1:F:1043:TRP:HH2	2.33	0.41
1:F:1033:MET:H	1:F:1035:GLN:HE21	1.68	0.41
1:F:1105:MET:O	1:F:1108:PRO:HD2	2.20	0.41
1:F:1318:ILE:HG12	1:F:1345:ARG:HG3	2.02	0.41
1:F:1322:LYS:HG2	1:F:1345:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:591:LEU:HD13	3:A:591:LEU:HA	1.81	0.41
4:D:164:GLY:O	4:D:168:VAL:HG23	2.20	0.41
1:B:10:GLN:HG2	1:B:37:ILE:O	2.20	0.41
1:B:45:TYR:OH	1:B:61:GLU:HG3	2.20	0.41
1:B:192:LYS:HE2	1:B:195:GLU:OE1	2.21	0.41
1:B:451:ILE:HB	1:B:621:GLN:OE1	2.20	0.41
1:B:465:ASN:OD1	1:B:503:GLN:N	2.53	0.41
1:B:677:PHE:HB3	1:B:681:MET:HE1	2.02	0.41
1:B:741:VAL:HG21	1:B:798:PHE:HD1	1.84	0.41
1:B:879:LEU:HB3	1:B:880:PRO:HD3	2.03	0.41
1:B:1038:PHE:O	1:B:1039:GLU:HG2	2.20	0.41
1:B:1401:GLN:HB3	1:B:1402:PHE:HD2	1.86	0.41
1:B:1633:VAL:O	1:B:1639:VAL:HG22	2.20	0.41
1:F:4:TRP:HZ3	1:F:45:TYR:HA	1.86	0.41
1:F:11:LYS:HZ1	1:F:36:HIS:C	2.23	0.41
1:F:896:LYS:CG	1:F:897:PRO:HD3	2.48	0.41
1:F:937:ASN:O	1:F:940:VAL:HG12	2.20	0.41
1:F:1012:THR:HG22	1:F:1015:ARG:HH21	1.85	0.41
1:F:1272:GLN:OE1	1:F:1272:GLN:N	2.53	0.41
1:F:1602:GLU:HA	1:F:1605:ARG:CG	2.50	0.41
2:G:90:PHE:CD2	2:G:137:ILE:HD12	2.55	0.41
2:G:135:THR:O	2:G:137:ILE:N	2.52	0.41
3:A:236:ASP:HA	3:A:284:ARG:HH12	1.85	0.41
1:B:14:VAL:HG13	3:A:700:ASP:OD2	2.20	0.41
1:B:79:THR:HB	1:B:81:ILE:O	2.20	0.41
1:B:322:PHE:O	1:B:322:PHE:CG	2.73	0.41
1:B:933:LEU:HD23	1:B:933:LEU:HA	1.84	0.41
1:B:1206:ASP:O	1:B:1210:ILE:HG12	2.20	0.41
1:B:1516:GLU:O	1:B:1517:ASN:C	2.58	0.41
1:B:1607:HIS:HE2	1:B:1619:HIS:HB2	1.86	0.41
1:F:113:LEU:HA	1:F:116:GLN:CD	2.40	0.41
1:F:248:PRO:HD2	1:F:294:VAL:HA	2.00	0.41
1:F:466:VAL:O	1:F:500:VAL:HA	2.21	0.41
1:F:505:LYS:HE3	1:F:505:LYS:HB3	1.89	0.41
1:F:1111:GLU:HA	1:F:1114:LEU:HD12	2.02	0.41
1:F:1297:LYS:HG2	1:F:1301:TYR:CE1	2.55	0.41
2:G:130:LYS:HE2	2:G:130:LYS:HA	2.01	0.41
2:G:130:LYS:HE3	2:G:136:PRO:HD3	2.03	0.41
3:E:616:VAL:HB	3:E:644:ILE:HG12	2.02	0.41
3:E:660:HIS:O	3:E:664:ILE:HG13	2.20	0.41
3:A:128:LEU:HA	3:A:131:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:305:LEU:HB3	3:A:379:LEU:HD11	2.03	0.41
3:A:307:ASP:OD1	3:A:308:ARG:HG3	2.21	0.41
3:A:572:ASP:HA	3:A:593:GLU:OE2	2.21	0.41
3:A:581:PRO:HA	3:A:583:HIS:CE1	2.55	0.41
4:D:16:LYS:HE3	4:D:58:THR:O	2.20	0.41
4:D:23:TYR:OH	4:D:53:LEU:HD12	2.20	0.41
1:B:534:ARG:HH21	1:B:541:ASP:CG	2.24	0.41
1:B:548:GLY:HA2	1:B:573:LYS:HG2	2.01	0.41
1:B:594:GLU:HA	1:B:597:GLU:HG3	2.02	0.41
1:B:652:HIS:O	1:B:656:LYS:NZ	2.53	0.41
1:B:914:ASP:O	1:B:916:LYS:HD2	2.21	0.41
1:B:1540:ARG:O	1:B:1542:LEU:N	2.53	0.41
1:B:1629:LEU:HA	1:B:1632:LYS:CG	2.51	0.41
2:C:78:PHE:HB3	2:C:110:ILE:HD13	2.03	0.41
1:F:102:TRP:HA	1:F:105:LEU:CG	2.49	0.41
1:F:197:LYS:HA	1:F:200:GLU:CD	2.40	0.41
1:F:246:TYR:HB3	1:F:297:VAL:CG2	2.50	0.41
1:F:839:LEU:HA	1:F:842:LYS:HZ1	1.86	0.41
1:F:1127:ILE:HG22	1:F:1131:MET:CE	2.51	0.41
2:G:100:GLU:HA	2:G:103:HIS:ND1	2.35	0.41
3:E:545:LEU:HD12	3:E:546:GLU:N	2.35	0.41
3:A:38:CYS:HB3	3:A:43:LEU:O	2.20	0.41
3:A:652:LEU:HD23	3:A:652:LEU:HA	1.79	0.41
4:D:22:CYS:SG	4:D:159:ALA:HB1	2.61	0.41
4:D:87:PRO:O	4:D:90:TYR:HB3	2.21	0.41
1:B:85:LEU:CA	1:B:88:VAL:HG12	2.47	0.41
1:B:113:LEU:HA	1:B:116:GLN:CD	2.41	0.41
1:B:165:VAL:CG2	1:B:175:PRO:HD3	2.50	0.41
1:B:243:MET:N	1:B:243:MET:SD	2.94	0.41
1:B:729:ALA:O	1:B:732:LYS:N	2.53	0.41
1:B:775:LEU:O	1:B:779:GLY:N	2.54	0.41
1:B:785:ASP:OD1	1:B:785:ASP:N	2.53	0.41
1:B:957:MET:O	1:B:960:LEU:HB3	2.21	0.41
1:B:1483:TRP:CZ3	1:B:1511:GLU:HG3	2.56	0.41
1:F:79:THR:HB	1:F:81:ILE:O	2.20	0.41
1:F:220:HIS:O	1:F:285:SER:HA	2.21	0.41
1:F:1579:HIS:CD2	1:F:1582:ASP:HB2	2.55	0.41
3:A:26:GLN:HE22	3:A:66:ARG:HB2	1.86	0.41
3:A:300:LEU:HA	3:A:303:ASN:HD21	1.85	0.41
3:A:483:VAL:HG13	3:A:511:TYR:OH	2.21	0.41
4:D:124:ASP:HA	4:D:127:ARG:HE	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:25:VAL:CG2	1:B:57:GLY:HA2	2.51	0.41
1:B:90:GLU:O	1:B:93:SER:OG	2.33	0.41
1:B:150:ALA:HA	1:B:153:ASP:OD2	2.20	0.41
1:B:240:GLU:HB3	1:B:242:PHE:CE1	2.55	0.41
1:B:578:LYS:HA	1:B:584:PHE:CE2	2.55	0.41
1:B:670:GLN:OE1	1:B:719:TYR:HB2	2.20	0.41
1:B:1154:LYS:O	1:B:1158:GLU:OE1	2.39	0.41
1:B:1300:LEU:HA	1:B:1300:LEU:HD23	1.78	0.41
1:B:1392:GLU:OE1	1:B:1392:GLU:N	2.54	0.41
1:B:1613:GLU:CD	1:B:1614:GLN:HG3	2.40	0.41
1:F:122:TYR:HA	1:F:125:ILE:HG12	2.02	0.41
1:F:222:TYR:HB2	1:F:284:LEU:HB2	2.02	0.41
1:F:308:LEU:HD23	1:F:308:LEU:HA	1.88	0.41
1:F:545:ARG:NH1	1:F:576:ASN:OD1	2.54	0.41
1:F:695:ASP:OD1	1:F:752:LEU:HD22	2.21	0.41
1:F:824:ILE:O	1:F:827:VAL:HB	2.21	0.41
1:F:914:ASP:O	1:F:916:LYS:HD3	2.20	0.41
1:F:982:ILE:O	1:F:986:LEU:HD23	2.20	0.41
1:F:1060:GLN:OE1	1:F:1060:GLN:N	2.44	0.41
1:F:1444:LYS:HA	1:F:1445:PRO:HD3	1.96	0.41
1:F:1451:LEU:HA	1:F:1451:LEU:HD13	1.81	0.41
2:G:162:GLN:HA	2:G:165:LEU:HD13	2.02	0.41
3:E:644:ILE:HB	3:E:652:LEU:HB2	2.02	0.41
3:A:301:THR:O	3:A:305:LEU:HG	2.21	0.41
3:A:396:ILE:O	3:A:400:LEU:HD23	2.20	0.41
1:B:1:MET:CE	3:A:718:SER:HA	2.51	0.41
1:B:17:TYR:CZ	3:A:710:PRO:HA	2.56	0.41
1:B:41:TYR:CD2	1:B:44:TRP:HB2	2.52	0.41
1:B:151:LYS:HA	1:B:151:LYS:HD3	1.87	0.41
1:B:409:ASP:OD1	1:B:411:THR:OG1	2.37	0.41
1:B:423:ARG:HA	1:B:423:ARG:HD3	1.97	0.41
1:B:446:ILE:HG23	1:B:626:ILE:HG12	2.03	0.41
1:B:772:VAL:O	1:B:776:ARG:HG2	2.21	0.41
1:B:883:THR:CB	1:B:931:ARG:HE	2.34	0.41
1:B:886:LEU:O	1:B:889:GLN:HB3	2.20	0.41
1:B:940:VAL:C	1:B:992:MET:HE3	2.41	0.41
1:B:965:ASP:H	1:B:968:HIS:CD2	2.39	0.41
1:B:1038:PHE:C	1:B:1039:GLU:HG2	2.40	0.41
1:B:1170:VAL:O	1:B:1174:LYS:HG3	2.21	0.41
1:B:1362:TYR:HE2	1:B:1459:VAL:HG21	1.85	0.41
1:B:1551:LEU:HD23	1:B:1551:LEU:HA	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:93:VAL:HG13	2:C:94:ARG:H	1.86	0.41
1:F:1:MET:HB3	3:E:720:TYR:CE1	2.56	0.41
1:F:246:TYR:HA	1:F:253:PHE:HA	2.03	0.41
1:F:278:GLN:HB2	1:F:425:THR:HG23	2.03	0.41
1:F:568:ASP:HB3	1:F:592:LYS:HB2	2.02	0.41
1:F:721:TYR:C	1:F:722:LYS:HD3	2.41	0.41
1:F:824:ILE:HG13	1:F:867:THR:HG21	2.02	0.41
1:F:921:THR:HG1	1:F:924:HIS:HB3	1.86	0.41
1:F:948:PRO:C	1:F:950:ILE:H	2.24	0.41
1:F:1038:PHE:HB2	1:F:1039:GLU:OE1	2.20	0.41
1:F:1417:ASP:N	1:F:1417:ASP:OD1	2.53	0.41
1:F:1581:GLU:HG2	1:F:1582:ASP:OD1	2.21	0.41
1:F:1598:PRO:O	1:F:1602:GLU:OE1	2.39	0.41
2:G:49:LYS:HZ2	2:G:51:VAL:HG12	1.86	0.41
2:G:66:ARG:HG2	2:G:67:LEU:HD23	2.02	0.41
2:G:78:PHE:O	2:G:110:ILE:HD12	2.21	0.41
2:G:82:PHE:HE1	2:G:154:TYR:HE1	1.69	0.41
3:E:643:SER:HA	3:E:652:LEU:O	2.20	0.41
3:A:91:ARG:HG3	3:A:103:ALA:HB1	2.03	0.41
3:A:276:LEU:HD22	3:A:446:PHE:O	2.21	0.41
3:A:422:LYS:HB2	3:A:422:LYS:HE3	1.82	0.41
3:A:463:LEU:HG	3:A:484:VAL:HG21	2.03	0.41
3:A:617:VAL:O	3:A:643:SER:N	2.54	0.41
4:D:21:ILE:HG22	4:D:27:ALA:O	2.20	0.41
4:D:111:LEU:HD12	4:D:112:LEU:N	2.35	0.41
1:B:85:LEU:O	1:B:88:VAL:HG12	2.21	0.41
1:B:172:ILE:HA	1:B:175:PRO:CG	2.51	0.41
1:B:225:TYR:CZ	1:B:420:LEU:HD22	2.56	0.41
1:B:795:PHE:O	1:B:798:PHE:HB2	2.21	0.41
1:B:809:ALA:O	1:B:810:VAL:C	2.59	0.41
1:B:1059:LEU:HG	1:B:1116:PRO:HB2	2.02	0.41
1:B:1582:ASP:HB3	1:B:1585:LYS:HD3	2.03	0.41
1:B:1596:GLN:HG2	1:B:1600:LEU:HG	2.03	0.41
1:F:19:TYR:N	1:F:28:SER:HA	2.36	0.41
1:F:113:LEU:HA	1:F:116:GLN:OE1	2.21	0.41
1:F:144:LEU:O	1:F:148:VAL:HG22	2.21	0.41
1:F:207:ASN:C	1:F:208:LEU:HD12	2.42	0.41
1:F:246:TYR:HB2	1:F:253:PHE:CD1	2.56	0.41
1:F:300:ILE:HG22	1:F:322:PHE:HD2	1.86	0.41
1:F:345:PHE:CD2	1:F:347:PRO:HD3	2.56	0.41
1:F:443:ARG:O	1:F:629:THR:OG1	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1138:PHE:O	1:F:1141:ASN:N	2.44	0.41
1:F:1146:MET:HA	1:F:1149:ASN:HD22	1.86	0.41
1:F:1251:HIS:CD2	1:F:1259:GLU:HB3	2.56	0.41
1:F:1273:TRP:CE3	1:F:1297:LYS:HD3	2.56	0.41
3:A:272:ARG:HH21	3:A:449:ASP:CG	2.25	0.41
3:A:616:VAL:HA	3:A:644:ILE:HA	2.03	0.41
1:B:110:LYS:HD3	1:B:113:LEU:HB2	2.02	0.40
1:B:800:MET:CE	1:B:804:ARG:HE	2.33	0.40
1:B:949:HIS:HD1	1:B:949:HIS:H	1.69	0.40
1:B:1563:PHE:HA	1:B:1566:TYR:CD2	2.42	0.40
2:C:8:VAL:HG22	2:C:79:LEU:HD12	2.04	0.40
2:C:139:TYR:OH	2:C:143:LEU:HD12	2.21	0.40
1:F:10:GLN:OE1	1:F:10:GLN:N	2.54	0.40
1:F:743:ASN:O	1:F:743:ASN:ND2	2.54	0.40
1:F:828:LYS:HZ3	1:F:867:THR:HA	1.86	0.40
1:F:929:MET:HE3	1:F:933:LEU:HD11	2.02	0.40
1:F:1032:PHE:HE2	1:F:1039:GLU:HG3	1.86	0.40
1:F:1250:LEU:HA	1:F:1250:LEU:HD23	1.79	0.40
3:E:695:LYS:HE3	3:E:695:LYS:HB3	1.92	0.40
3:A:11:ALA:HA	3:A:21:LEU:CD1	2.51	0.40
3:A:159:LEU:HD22	3:A:204:ILE:HD12	2.03	0.40
3:A:543:GLU:O	3:A:546:GLU:HG2	2.21	0.40
3:A:547:LEU:HA	3:A:550:GLN:HG3	2.04	0.40
1:B:105:LEU:HD13	1:B:110:LYS:HZ1	1.86	0.40
1:B:185:LYS:O	1:B:189:VAL:HG23	2.20	0.40
1:B:201:GLU:O	1:B:205:LEU:HB2	2.21	0.40
1:B:657:LEU:HA	1:B:660:VAL:HG23	2.04	0.40
1:B:746:ASP:OD2	1:B:748:SER:OG	2.39	0.40
1:B:910:LEU:O	1:B:913:LEU:HB2	2.21	0.40
1:B:1101:PHE:O	1:B:1104:SER:OG	2.36	0.40
1:B:1204:LEU:O	1:B:1207:TYR:HB3	2.21	0.40
1:B:1316:LYS:CE	1:B:1319:LYS:HD3	2.50	0.40
2:C:7:VAL:HB	2:C:78:PHE:HD2	1.85	0.40
2:C:65:ASP:O	2:C:69:PRO:HD3	2.21	0.40
1:F:81:ILE:HG21	1:F:141:LEU:CD2	2.51	0.40
1:F:535:SER:HB3	1:F:541:ASP:HA	2.03	0.40
1:F:642:ASN:O	1:F:646:ASN:N	2.54	0.40
1:F:817:LEU:HD13	1:F:855:GLN:O	2.21	0.40
1:F:839:LEU:HA	1:F:842:LYS:HE2	2.03	0.40
1:F:959:ALA:O	1:F:963:GLN:HG3	2.21	0.40
1:F:1066:GLN:HA	1:F:1069:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1176:LEU:HD13	1:F:1194:ALA:HB1	2.03	0.40
1:F:1231:TYR:CE2	1:F:1239:ILE:HD12	2.55	0.40
1:F:1344:LYS:HD2	1:F:1344:LYS:HA	1.75	0.40
2:G:140:PRO:O	2:G:143:LEU:HB3	2.22	0.40
3:A:184:ILE:HA	3:A:187:PHE:CD2	2.56	0.40
3:A:628:LYS:HA	3:A:632:LYS:HD3	2.04	0.40
3:A:684:ASN:HA	3:A:687:ASP:OD2	2.21	0.40
4:D:144:ALA:O	4:D:147:LYS:HG3	2.21	0.40
1:B:26:GLU:OE2	1:B:59:PHE:HB2	2.20	0.40
1:B:342:LYS:HG2	1:B:344:HIS:CE1	2.57	0.40
1:B:786:GLU:O	1:B:789:ASN:HB2	2.21	0.40
1:B:1116:PRO:HA	1:B:1121:ARG:NH2	2.36	0.40
1:B:1197:VAL:O	1:B:1201:LEU:HG	2.21	0.40
1:B:1279:VAL:HB	1:B:1281:HIS:CE1	2.56	0.40
1:B:1516:GLU:HG3	1:B:1520:GLU:OE1	2.21	0.40
1:B:1524:LEU:HD12	1:B:1525:THR:N	2.36	0.40
1:B:1531:ASN:O	1:B:1535:GLN:HG3	2.22	0.40
1:B:1557:PRO:CB	1:B:1562:GLY:H	2.33	0.40
1:F:298:CYS:N	1:F:325:ALA:O	2.53	0.40
1:F:626:ILE:HD12	1:F:633:GLN:NE2	2.36	0.40
1:F:640:LEU:HD11	1:F:657:LEU:HD21	2.03	0.40
1:F:759:ALA:O	1:F:763:LEU:HG	2.20	0.40
1:F:854:ARG:HG3	1:F:898:ASP:OD1	2.20	0.40
1:F:943:MET:O	1:F:950:ILE:HD12	2.22	0.40
1:F:1458:GLU:N	1:F:1458:GLU:OE2	2.54	0.40
1:F:1495:PHE:N	1:F:1495:PHE:CD1	2.89	0.40
3:E:535:GLU:HB3	3:E:539:LYS:NZ	2.36	0.40
3:A:228:LEU:HD23	3:A:247:ILE:HG13	2.04	0.40
3:A:397:ARG:HH12	3:A:461:GLN:HG3	1.86	0.40
3:A:405:ARG:NH1	3:A:468:LYS:HZ3	2.20	0.40
4:D:124:ASP:HA	4:D:127:ARG:NE	2.35	0.40
4:D:129:LEU:HA	4:D:132:GLN:HE21	1.86	0.40
1:B:1:MET:HE2	3:A:718:SER:HA	2.04	0.40
1:B:9:ARG:NE	1:B:68:GLU:O	2.52	0.40
1:B:400:TRP:CH2	4:D:127:ARG:HD2	2.57	0.40
1:B:474:ASP:HA	1:B:525:CYS:SG	2.61	0.40
1:B:828:LYS:HA	1:B:828:LYS:HD2	1.97	0.40
1:B:861:THR:HA	1:B:864:VAL:HG12	2.04	0.40
1:B:1342:LEU:CD1	1:F:1346:ALA:HB2	2.49	0.40
1:B:1406:GLU:HG3	1:B:1425:TYR:CE1	2.56	0.40
1:B:1564:SER:HA	1:B:1567:GLU:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1611:LEU:HD12	1:B:1615:LEU:CB	2.50	0.40
2:C:2:GLN:HE22	2:C:4:ILE:HG12	1.87	0.40
2:C:35:THR:OG1	2:C:40:TYR:OH	2.38	0.40
2:C:124:ASP:O	2:C:128:LYS:HD3	2.21	0.40
1:F:10:GLN:HG2	1:F:37:ILE:HB	2.03	0.40
1:F:41:TYR:HD2	1:F:44:TRP:N	2.20	0.40
1:F:180:THR:HG22	1:F:181:ILE:HD13	2.02	0.40
1:F:228:PHE:CD2	1:F:399:LEU:HD12	2.56	0.40
1:F:568:ASP:OD2	1:F:569:LEU:N	2.53	0.40
1:F:857:LEU:O	1:F:861:THR:OG1	2.26	0.40
1:F:1424:GLN:H	1:F:1424:GLN:HG3	1.70	0.40
1:F:1436:SER:HB2	1:F:1454:TYR:O	2.21	0.40
1:F:1468:PHE:O	1:F:1469:ARG:HD3	2.22	0.40
2:G:94:ARG:HA	2:G:98:TYR:HB3	2.03	0.40
3:A:286:ILE:HG21	3:A:441:PHE:CE2	2.56	0.40
3:A:299:VAL:HA	3:A:302:PHE:HD2	1.87	0.40
3:A:302:PHE:CG	3:A:430:VAL:HA	2.56	0.40
3:A:690:LEU:HA	3:A:690:LEU:HD12	1.78	0.40
1:B:18:ASN:OD1	3:A:536:LEU:HD12	2.21	0.40
1:B:244:ALA:HB2	1:B:257:ASN:HA	2.04	0.40
1:B:259:LEU:HD23	1:B:490:TYR:HB3	2.04	0.40
1:B:841:CYS:O	1:B:844:ILE:N	2.55	0.40
1:B:941:ILE:N	1:B:992:MET:HE3	2.37	0.40
1:B:1177:LEU:HD22	1:B:1181:ARG:HH12	1.87	0.40
1:B:1211:ILE:HG22	1:B:1212:MET:HE3	2.04	0.40
1:B:1490:THR:OG1	1:B:1506:GLN:HB3	2.22	0.40
1:B:1516:GLU:O	1:B:1520:GLU:OE1	2.39	0.40
1:B:1562:GLY:O	1:B:1565:ASN:HB2	2.22	0.40
1:F:143:GLU:O	1:F:147:LYS:HD3	2.21	0.40
1:F:195:GLU:HA	1:F:198:ILE:HG22	2.03	0.40
1:F:233:CYS:HB2	1:F:397:GLN:HA	2.04	0.40
1:F:345:PHE:HD1	1:F:400:TRP:CE2	2.40	0.40
1:F:637:LEU:O	1:F:641:LEU:HG	2.22	0.40
1:F:753:LEU:O	1:F:757:LEU:HD23	2.22	0.40
1:F:771:ARG:O	1:F:774:TYR:HB3	2.21	0.40
1:F:1125:ILE:CD1	1:F:1172:LEU:HA	2.51	0.40
1:F:1200:LEU:HD23	1:F:1230:PHE:HE2	1.86	0.40
1:F:1372:PHE:CZ	1:F:1424:GLN:HB3	2.56	0.40
2:G:16:LYS:O	2:G:19:LEU:HB3	2.21	0.40
3:E:560:THR:HG22	3:E:562:PHE:HE1	1.86	0.40
3:A:637:VAL:HB	3:A:655:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:155:LEU:CD1	4:D:168:VAL:HA	2.51	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	1640/1648 (100%)	1416 (86%)	224 (14%)	0	100	100
1	F	1640/1648 (100%)	1466 (89%)	174 (11%)	0	100	100
2	C	175/184 (95%)	156 (89%)	19 (11%)	0	100	100
2	G	175/184 (95%)	157 (90%)	18 (10%)	0	100	100
3	A	725/733 (99%)	657 (91%)	68 (9%)	0	100	100
3	E	197/733 (27%)	162 (82%)	35 (18%)	0	100	100
4	D	179/203 (88%)	161 (90%)	18 (10%)	0	100	100
All	All	4731/5333 (89%)	4175 (88%)	556 (12%)	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	B	1495/1497 (100%)	1490 (100%)	5 (0%)	92	95

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	F	1495/1497 (100%)	1489 (100%)	6 (0%)	91	94
2	C	153/157 (98%)	153 (100%)	0	100	100
2	G	153/157 (98%)	151 (99%)	2 (1%)	69	82
3	A	662/664 (100%)	659 (100%)	3 (0%)	88	93
3	E	184/664 (28%)	183 (100%)	1 (0%)	88	93
4	D	157/174 (90%)	155 (99%)	2 (1%)	69	82
All	All	4299/4810 (89%)	4280 (100%)	19 (0%)	91	94

All (19) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	110	LYS
1	B	128	ARG
1	B	935	ARG
1	B	1356	MET
1	B	1568	LYS
1	F	96	ARG
1	F	110	LYS
1	F	128	ARG
1	F	743	ASN
1	F	935	ARG
1	F	1568	LYS
2	G	66	ARG
2	G	123	LYS
3	E	531	ARG
3	A	218	LYS
3	A	471	ARG
3	A	516	LYS
4	D	66	ARG
4	D	147	LYS

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

Mol	Chain	Res	Type
1	B	89	GLN
1	B	199	GLN
1	B	278	GLN
1	B	419	HIS
1	B	652	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	653	ASN
1	B	871	GLN
1	B	885	GLN
1	B	904	GLN
1	B	908	ASN
1	B	924	HIS
1	B	968	HIS
1	B	1013	GLN
1	B	1149	ASN
1	B	1293	GLN
1	B	1401	GLN
1	B	1517	ASN
1	B	1536	HIS
2	C	39	ASN
1	F	51	GLN
1	F	89	GLN
1	F	119	GLN
1	F	130	GLN
1	F	299	GLN
1	F	376	ASN
1	F	646	ASN
1	F	649	ASN
1	F	743	ASN
1	F	793	GLN
1	F	799	ASN
1	F	825	ASN
1	F	1013	GLN
1	F	1035	GLN
1	F	1041	GLN
1	F	1506	GLN
1	F	1526	ASN
1	F	1614	GLN
3	A	52	GLN
3	A	86	GLN
3	A	87	GLN
3	A	231	HIS
3	A	248	ASN
3	A	287	ASN
3	A	293	GLN
3	A	391	HIS
3	A	402	ASN
3	A	439	ASN

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Mol	Chain	Res	Type
3	A	550	GLN
3	A	633	GLN
3	A	703	ASN
4	D	98	HIS
4	D	140	GLN
4	D	162	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 monosaccharides in this entry.

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

Of 2 ligands modelled in this entry, 1 is monoatomic - leaving 1 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
6	GTP	D	202	5,4	26,34,34	1.11	2 (7%)	32,54,54	1.70	7 (21%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
6	GTP	D	202	5,4	-	2/18/38/38	0/3/3/3

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	202	GTP	C5-C6	-3.95	1.39	1.47
6	D	202	GTP	C2-N3	2.15	1.38	1.33

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	202	GTP	PA-O3A-PB	-5.03	115.55	132.83
6	D	202	GTP	PB-O3B-PG	-3.40	121.15	132.83
6	D	202	GTP	C5-C6-N1	3.20	119.61	113.95
6	D	202	GTP	C3'-C2'-C1'	2.95	105.42	100.98
6	D	202	GTP	C8-N7-C5	2.88	108.48	102.99
6	D	202	GTP	C2-N1-C6	-2.88	119.80	125.10
6	D	202	GTP	O6-C6-C5	-2.22	120.03	124.37

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	D	202	GTP	PB-O3B-PG-O3G
6	D	202	GTP	PB-O3B-PG-O1G

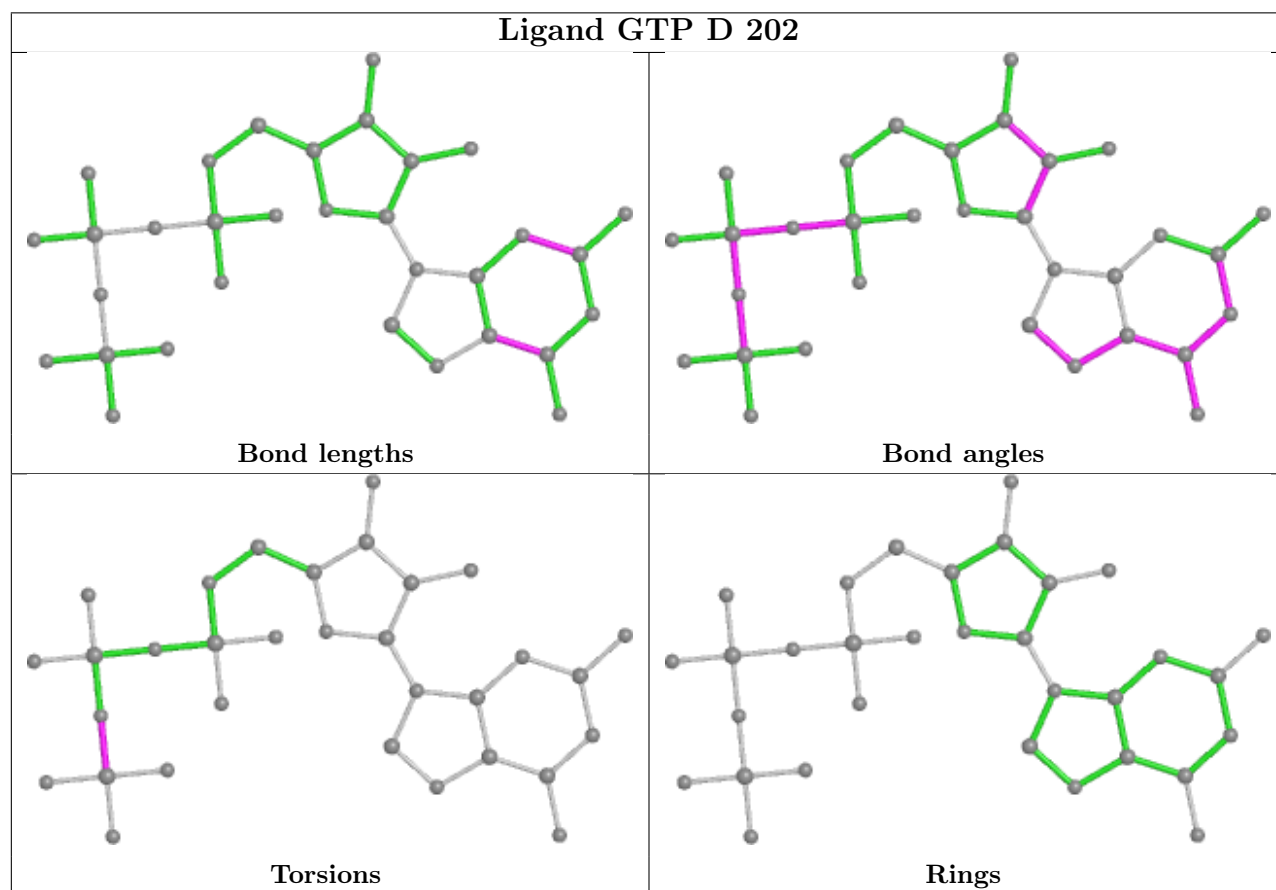
There are no ring outliers.

1 monomer is involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	D	202	GTP	4	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier.

The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



## 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.

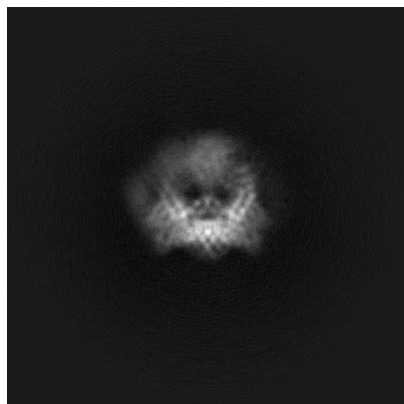
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-60136. These allow visual inspection of the internal detail of the map and identification of artifacts.

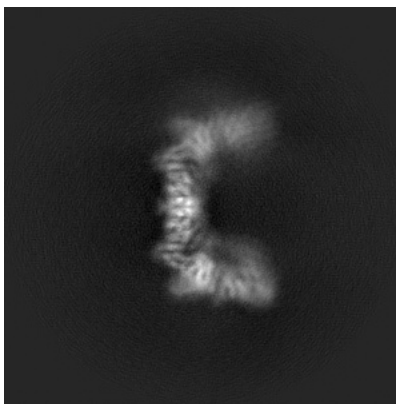
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

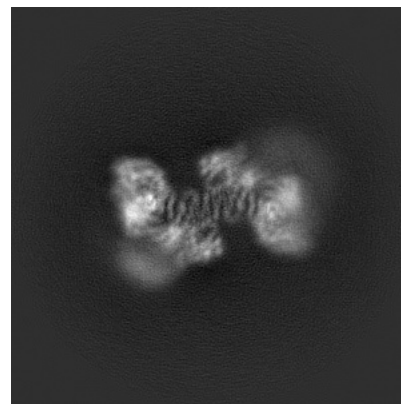
#### 6.1.1 Primary map



X

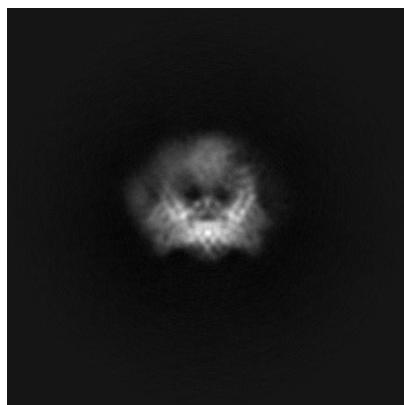


Y

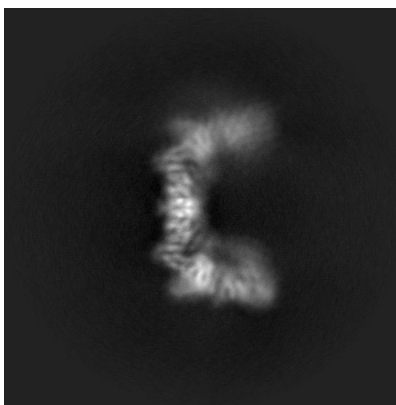


Z

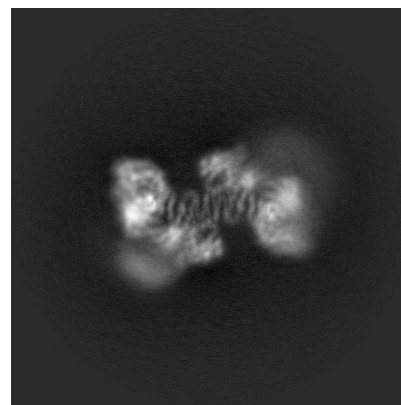
#### 6.1.2 Raw map



X



Y

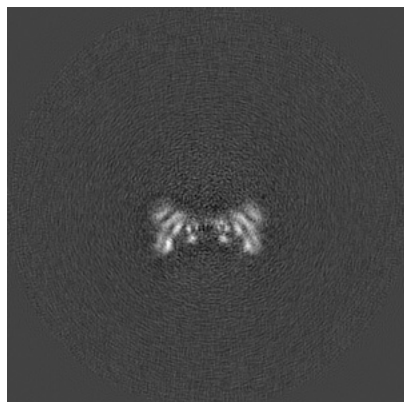


Z

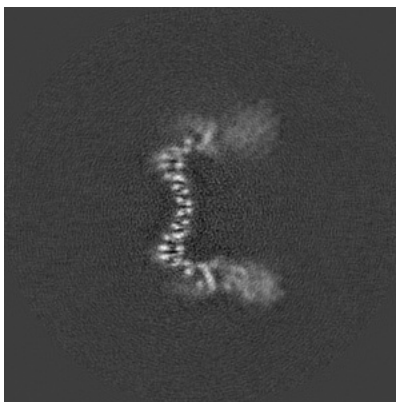
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

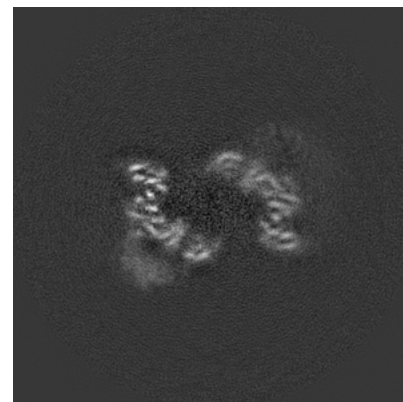
### 6.2.1 Primary map



X Index: 170

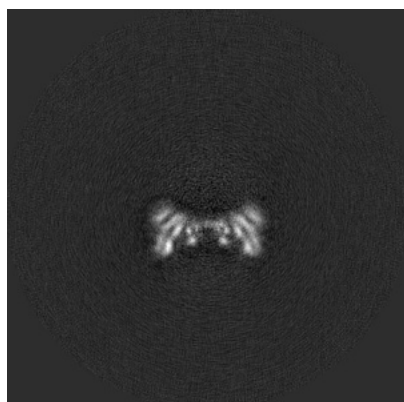


Y Index: 170

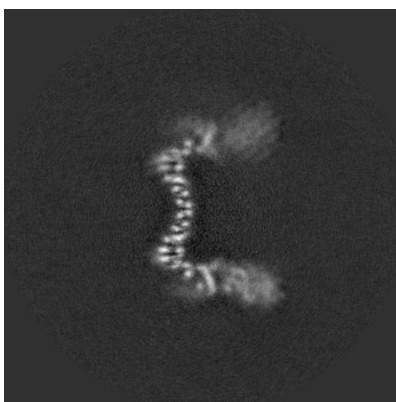


Z Index: 170

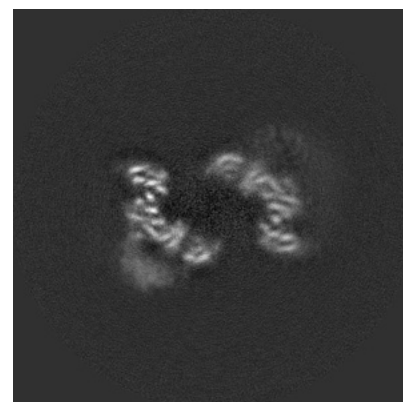
### 6.2.2 Raw map



X Index: 170



Y Index: 170



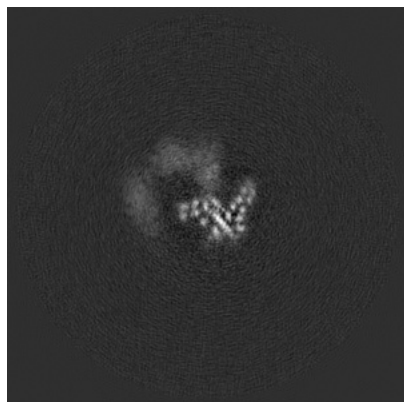
Z Index: 170

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

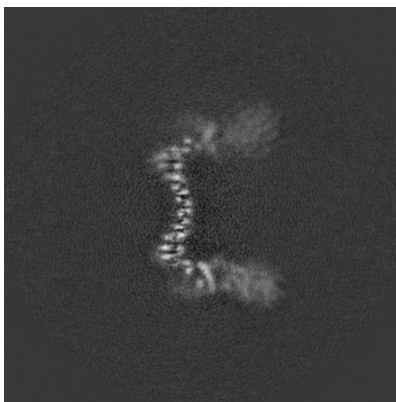


## 6.3 Largest variance slices [i](#)

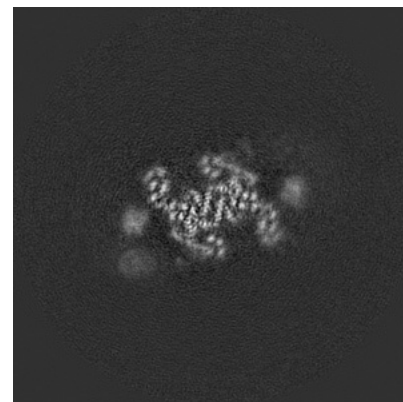
### 6.3.1 Primary map



X Index: 118

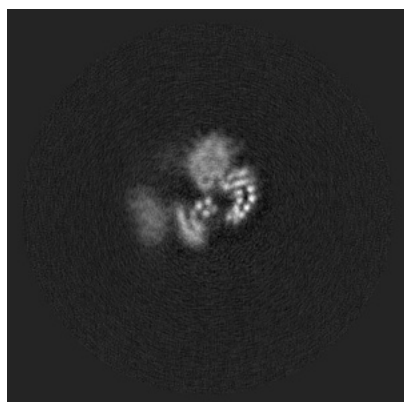


Y Index: 169

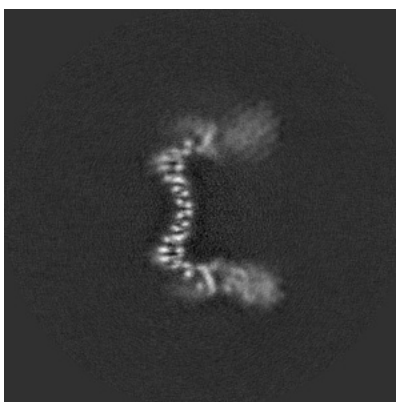


Z Index: 149

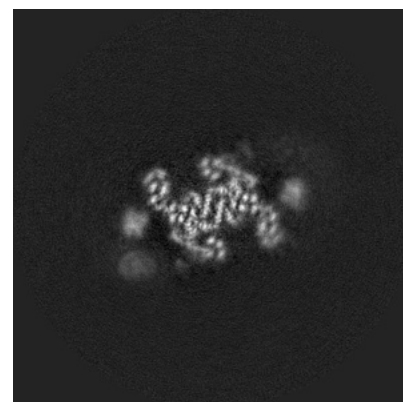
### 6.3.2 Raw map



X Index: 104



Y Index: 170

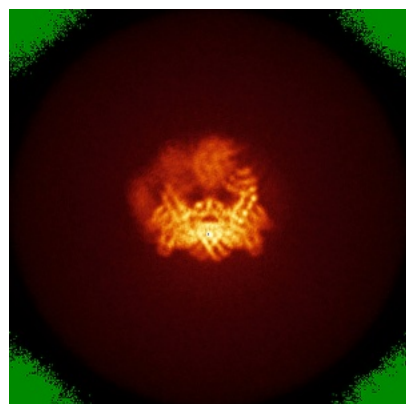


Z Index: 149

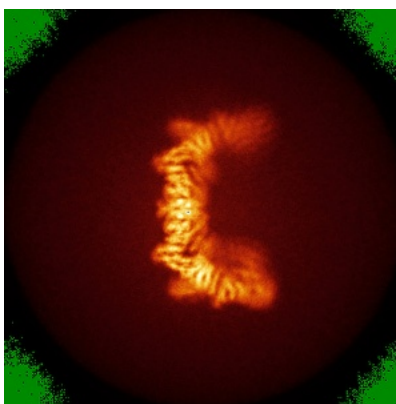
The images above show the largest variance slices of the map in three orthogonal directions.

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

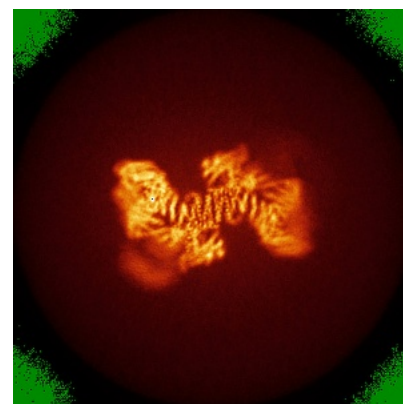
### 6.4.1 Primary map



X



Y



Z

### 6.4.2 Raw map



X



Y

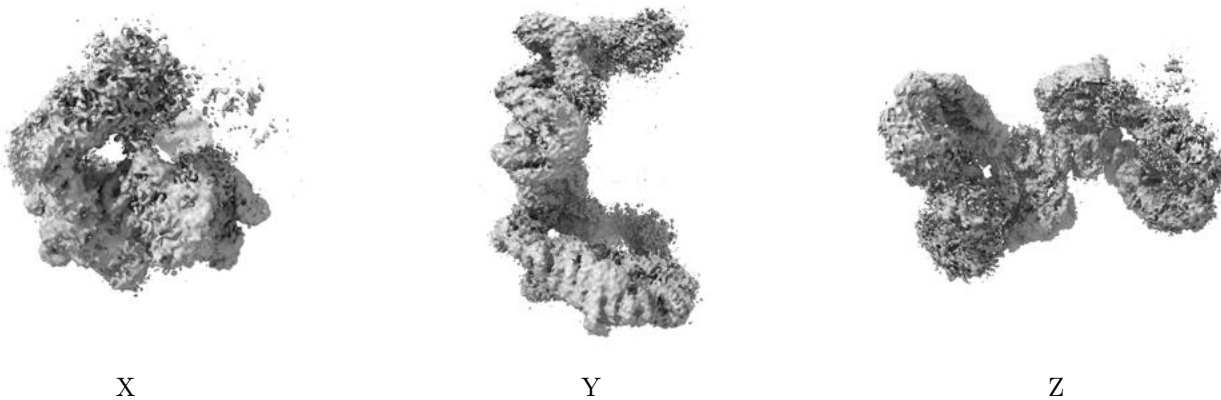


Z

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.

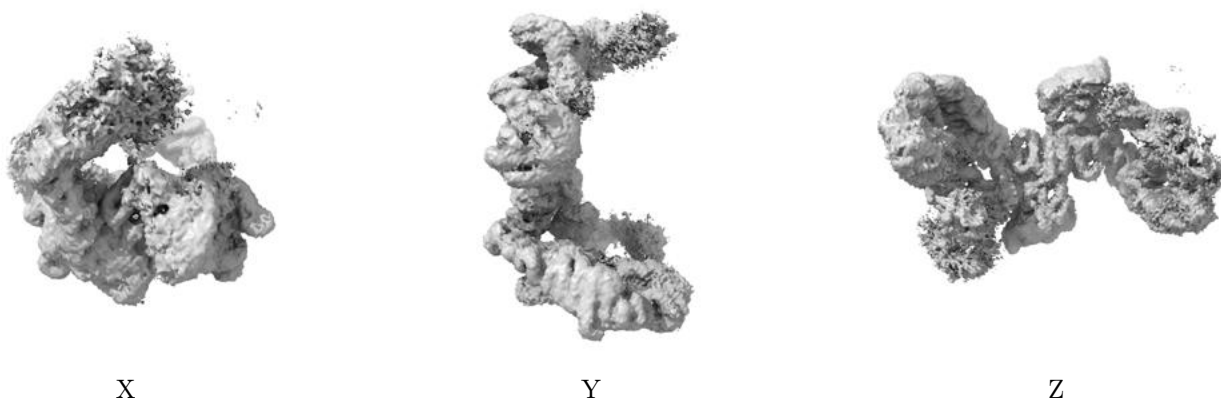
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



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



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.

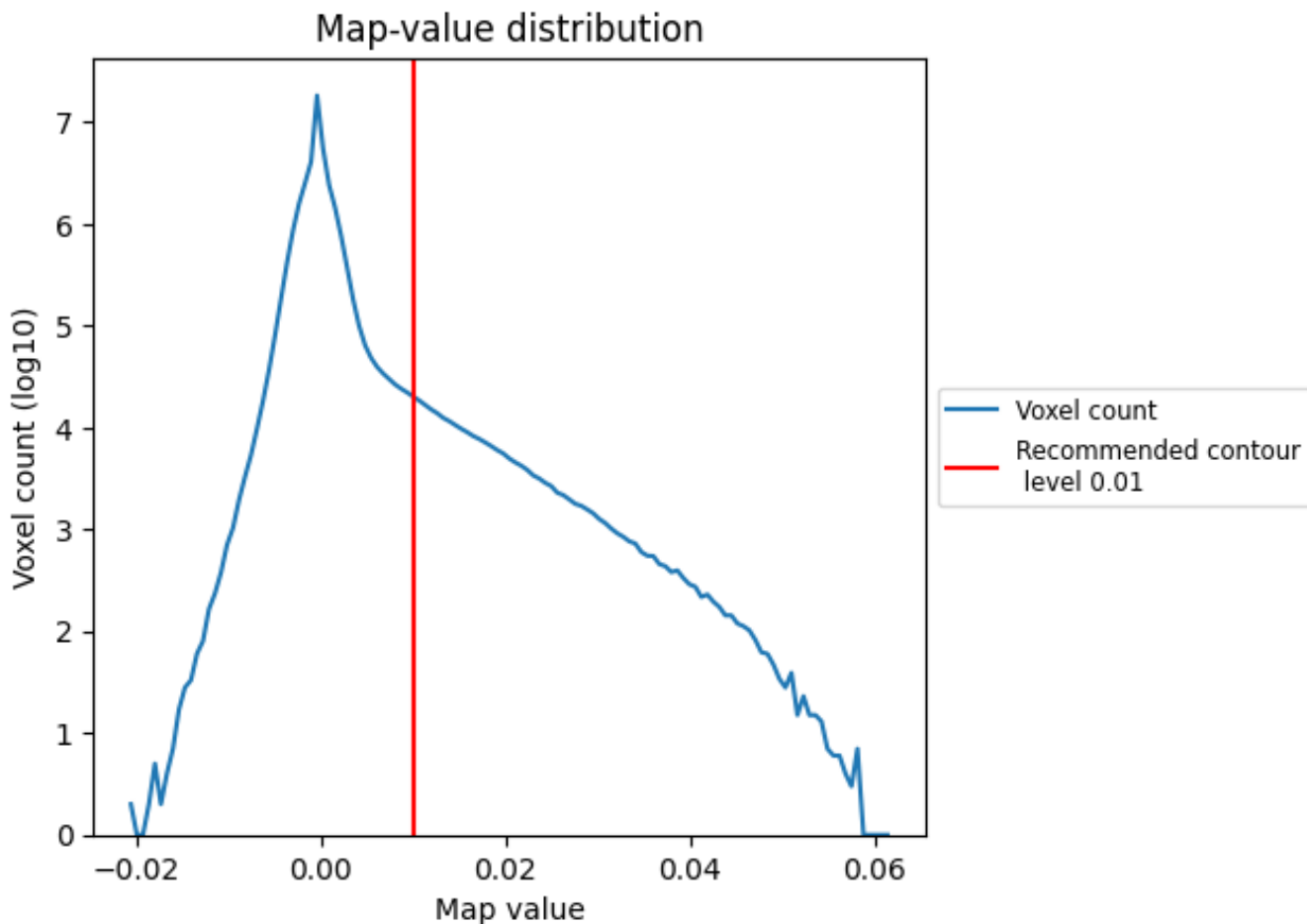
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

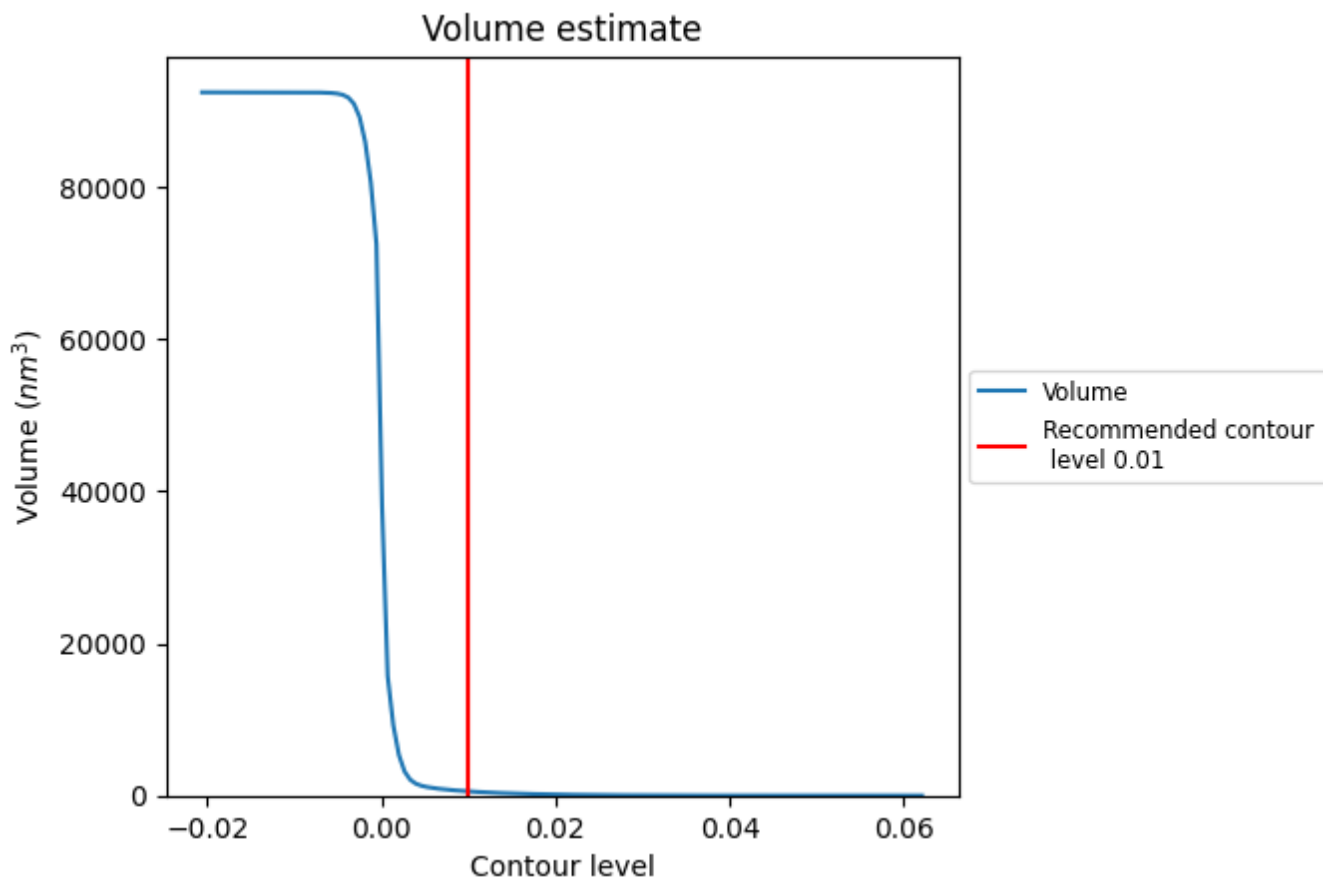
This section contains the results of statistical analysis of the map.

### 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.

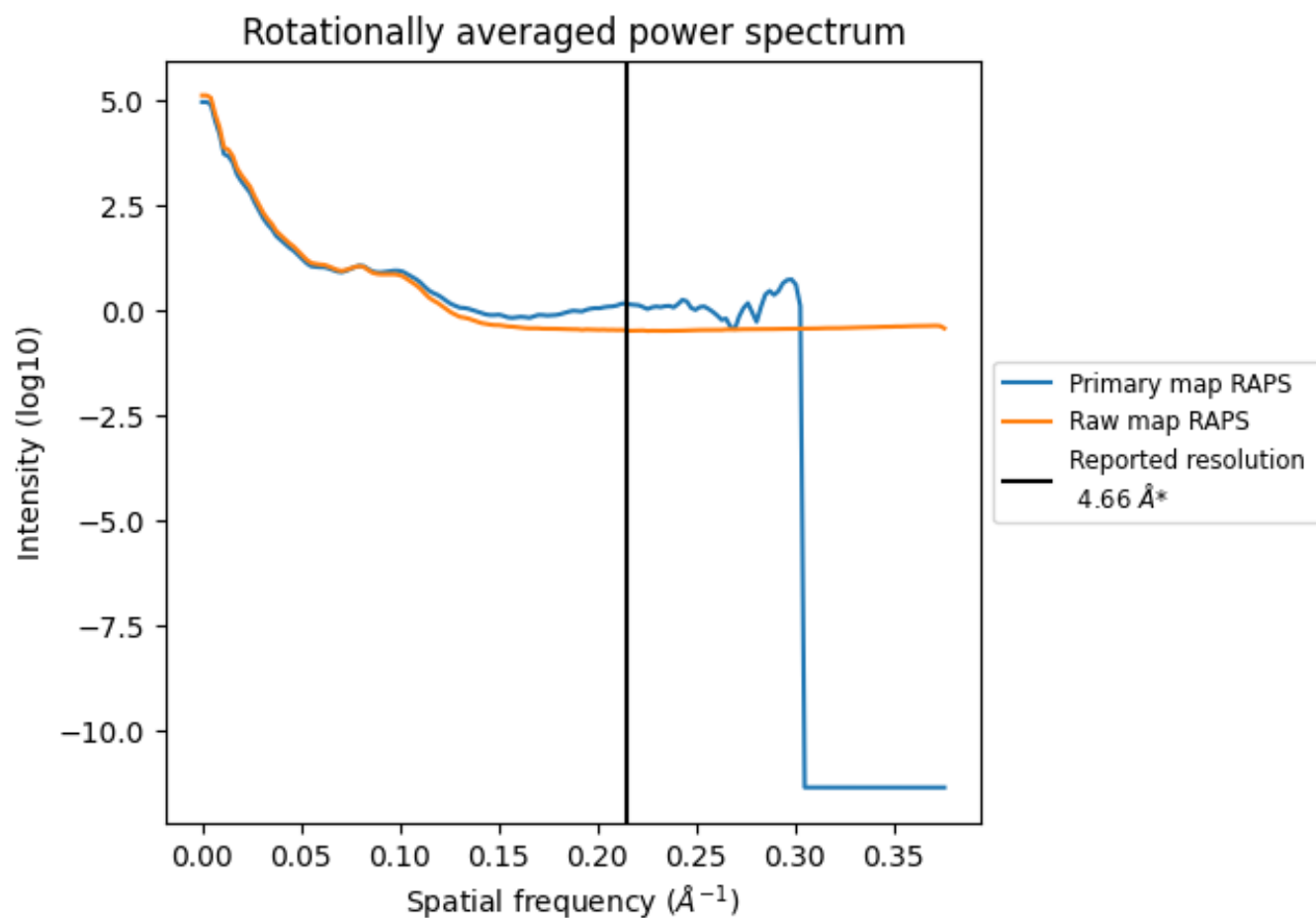
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 551 nm<sup>3</sup>; this corresponds to an approximate mass of 498 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](#)

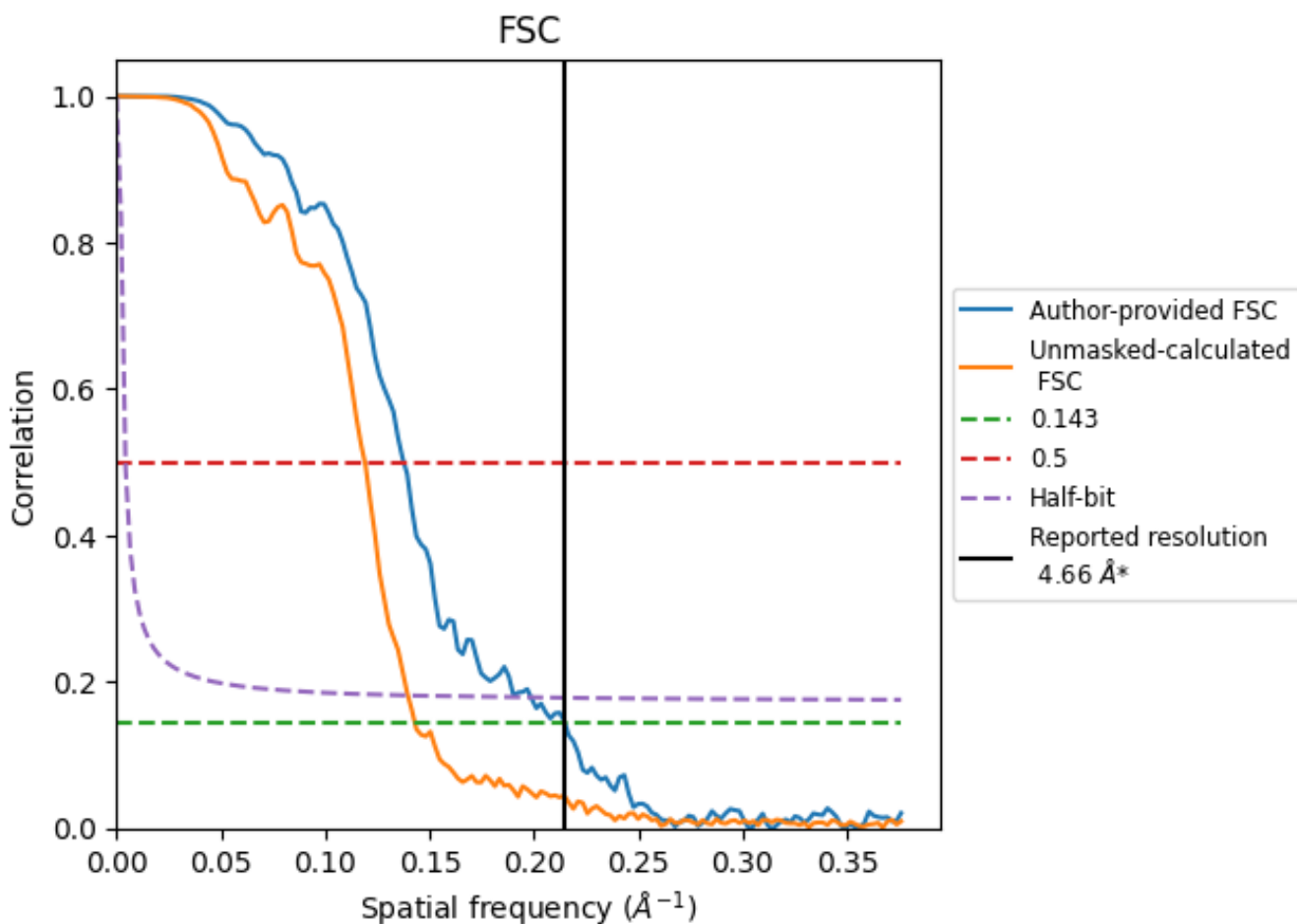


\*Reported resolution corresponds to spatial frequency of 0.215 Å<sup>-1</sup>

## 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 0.215 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	4.66	-	-
Author-provided FSC curve	4.65	7.27	5.03
Unmasked-calculated*	6.99	8.40	7.16

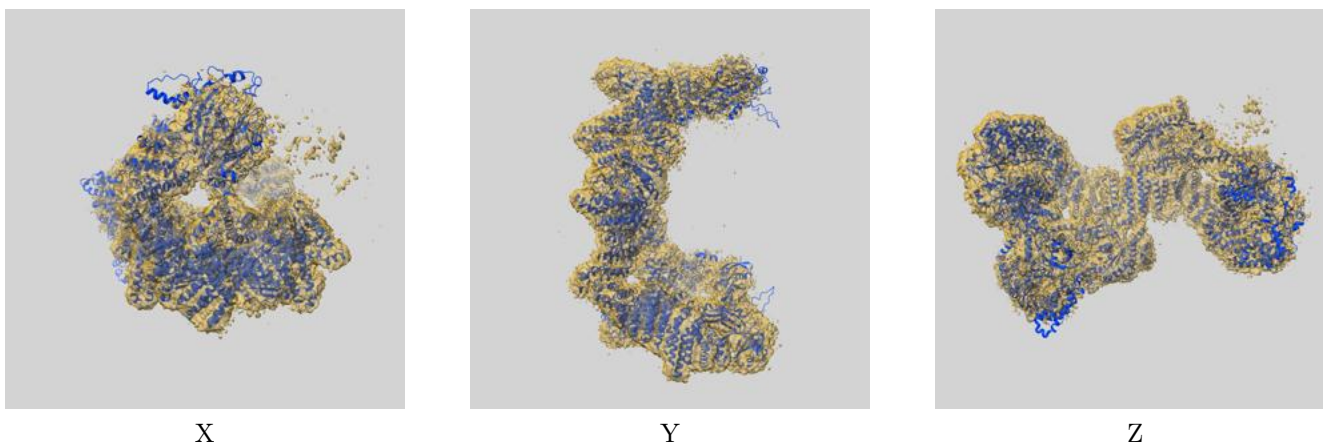
\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.99 differs from the reported value 4.66 by more than 10 %



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

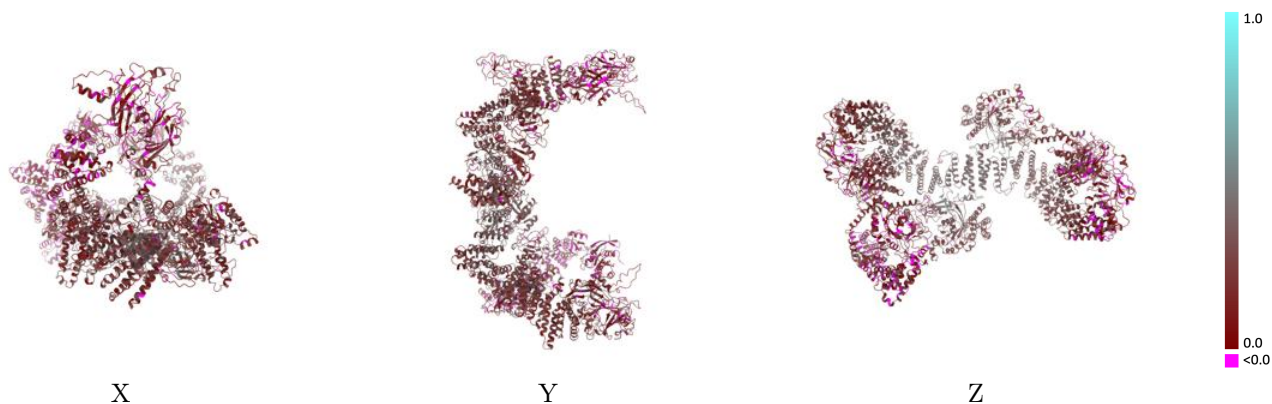
This section contains information regarding the fit between EMDB map EMD-60136 and PDB model 8ZJ2. Per-residue inclusion information can be found in section 3 on page 7.

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



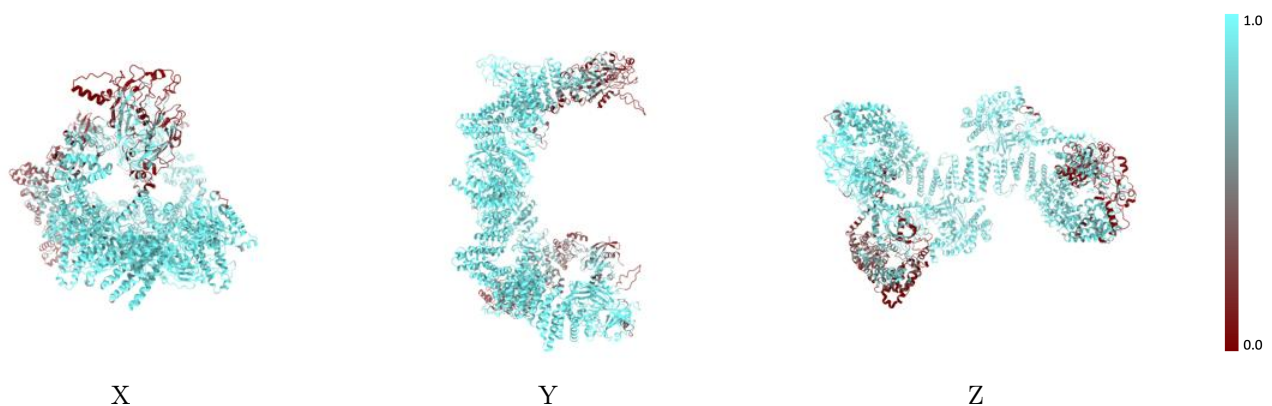
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



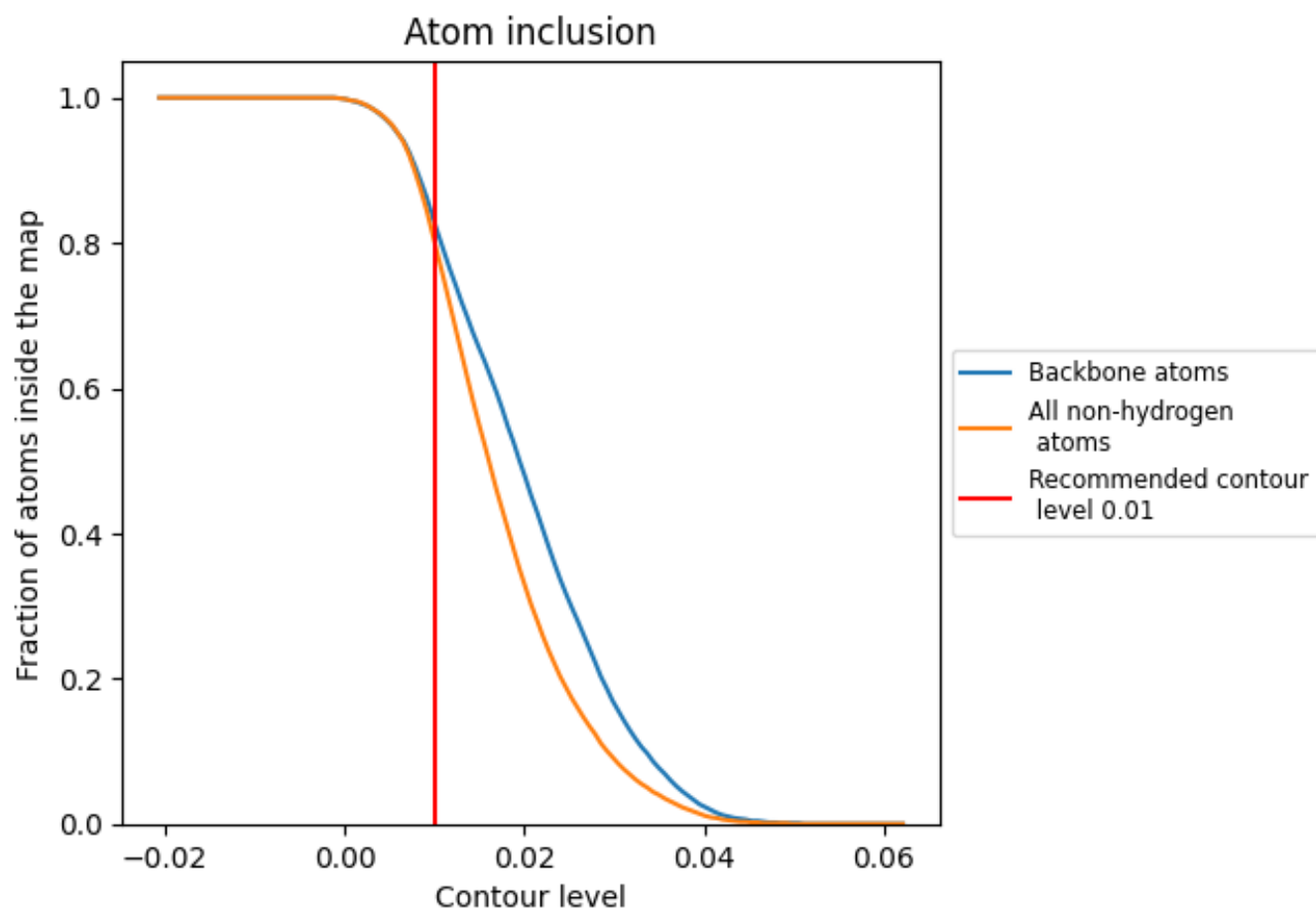
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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, 83% of all backbone atoms, 80% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

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

Chain	Atom inclusion	Q-score
All	 0.8010	 0.2310
A	 0.4950	 0.1540
B	 0.9400	 0.2700
C	 0.9660	 0.3030
D	 0.6550	 0.1510
E	 0.8810	 0.2070
F	 0.7700	 0.2260
G	 0.9550	 0.2650

