



Full wwPDB EM Validation Report ⓘ

Mar 25, 2026 – 08:32 PM UTC

PDB ID : 6JHN / pdb_00006jhn
EMDB ID : EMD-9826
Title : Structure of RyR2 (F/C/Ca2+ dataset)
Authors : Chi, X.M.; Gong, D.S.; Ren, K.; Zhou, G.W.; Huang, G.X.Y.; Lei, J.L.; Zhou, Q.; Yan, N.
Deposited on : 2019-02-18
Resolution : 4.50 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

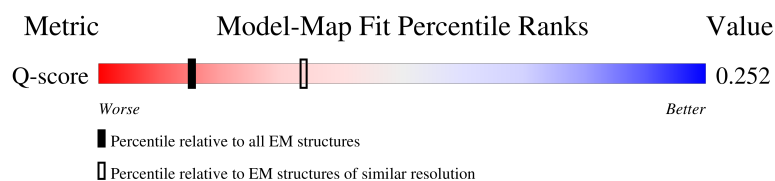
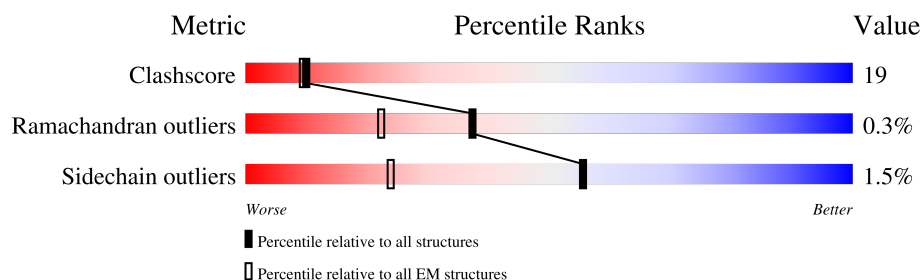
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.50 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.



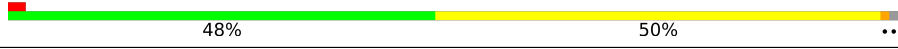
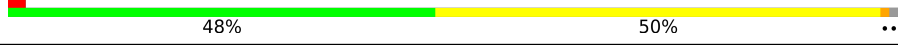
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	2937 (4.00 - 5.00)

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

Mol	Chain	Length	Quality of chain
1	A	4968	8% 42% 27% • 30%
1	C	4968	8% 42% 27% • 30%
1	E	4968	8% 42% 27% • 30%
1	G	4968	8% 42% 27% • 30%

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Mol	Chain	Length	Quality of chain
2	B	108	 46%52%..
2	D	108	 48%50%..
2	F	108	 48%50%..
2	H	108	 48%50%..

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
5	CFF	A	6002	-	X	-	-
5	CFF	C	6002	-	X	-	-
5	CFF	E	6002	-	X	-	-
5	CFF	G	6002	-	X	-	-

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 109488 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 RyR2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3476	Total	C	N	O	S	0	0
			26537	16896	4538	4946	157		
1	C	3476	Total	C	N	O	S	0	0
			26537	16896	4538	4946	157		
1	E	3476	Total	C	N	O	S	0	0
			26537	16896	4538	4946	157		
1	G	3476	Total	C	N	O	S	0	0
			26537	16896	4538	4946	157		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	107	Total	C	N	O	S	0	0
			819	516	144	155	4		
2	D	107	Total	C	N	O	S	0	0
			819	516	144	155	4		
2	F	107	Total	C	N	O	S	0	0
			819	516	144	155	4		
2	H	107	Total	C	N	O	S	0	0
			819	516	144	155	4		

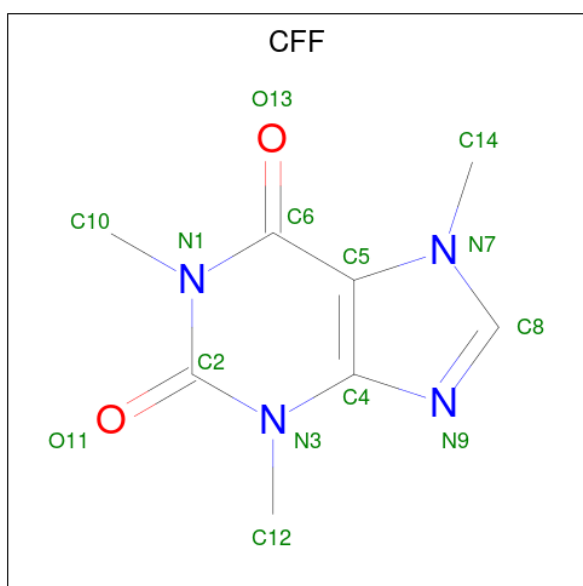
- Molecule 3 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total	Zn	0
			1	1	
3	C	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	
3	G	1	Total	Zn	0
			1	1	

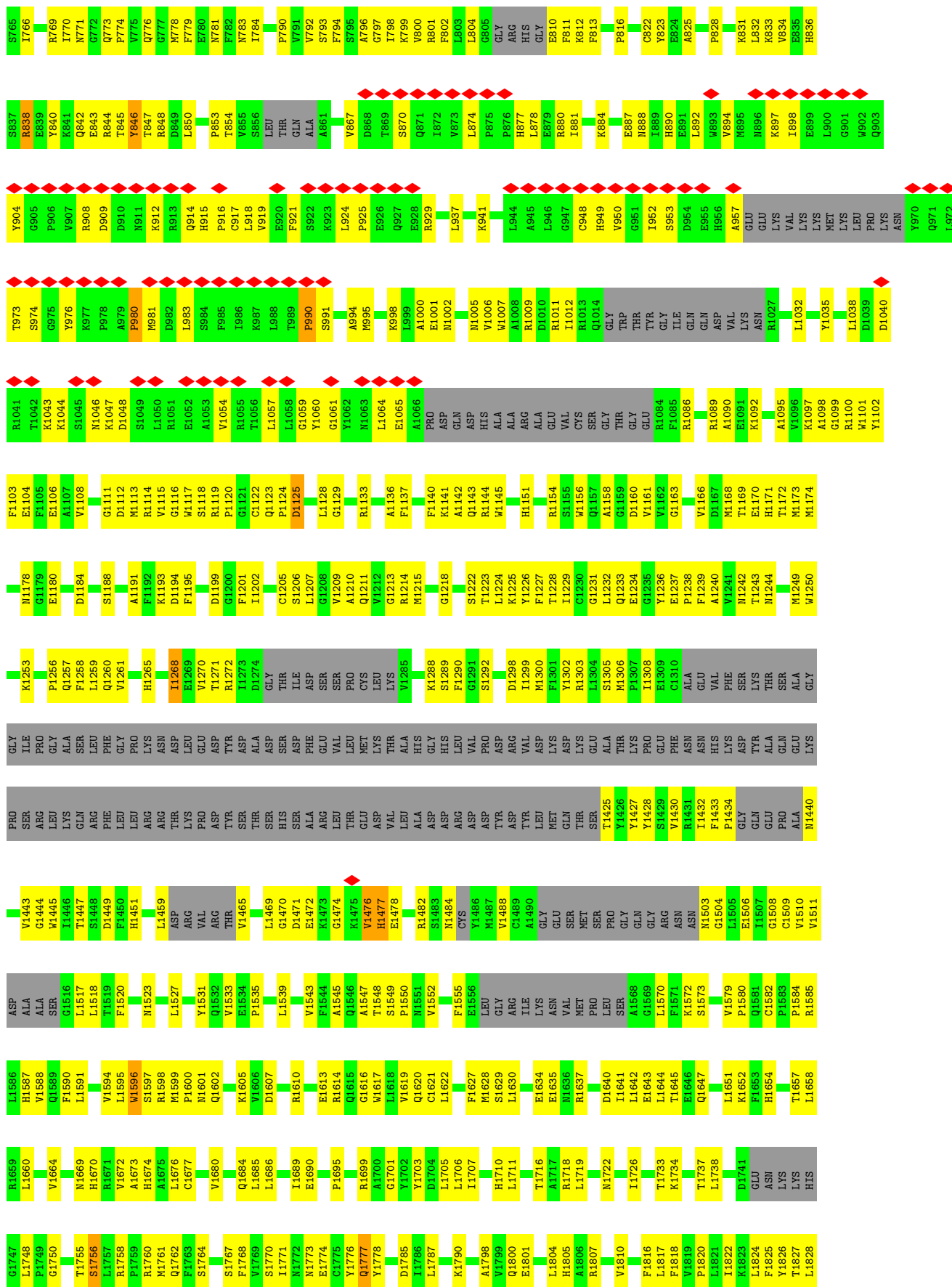
- Molecule 4 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		AltConf
4	A	1	Total	Ca	0
			1	1	
4	C	1	Total	Ca	0
			1	1	
4	E	1	Total	Ca	0
			1	1	
4	G	1	Total	Ca	0
			1	1	

- Molecule 5 is CAFFEINE (CCD ID: CFF) (formula: $C_8H_{10}N_4O_2$).



Mol	Chain	Residues	Atoms				AltConf
5	A	1	Total	C	N	O	0
			14	8	4	2	
5	C	1	Total	C	N	O	0
			14	8	4	2	
5	E	1	Total	C	N	O	0
			14	8	4	2	
5	G	1	Total	C	N	O	0
			14	8	4	2	







Y4059	Q4141	ALA	VAL	ASP	HIS	ASP	GLY	GLY	Q4629	L4721	T4802	L4920	GLU	Y4059
E4063	S4142	ASN	ARG	PRO	ASN	LYS	LYS	LYS	Q4630	Y4722	P4803	L4924	LYS	E4063
T4064	A4143	LYS	ASP	THR	ASN	GLY	GLU	GLU	Q4631	L4723	D4804	M4924	GLY	T4064
E4065	K4144	GLN	NET	ASP	GLN	GLN	PRO	THR	D4632	Y4726	H4805	E4931	GLY	E4065
F4066	A4145	ALA	VAL	ASP	ALA	LYS	THR	ARG	R4633	M4729	D4808	H4934	GLY	F4066
L4067	I4146	SER	THR	VAL	GLY	LEU	ARG	SER	T4638	M4732	D4809	G4936	GLY	L4067
L4068	E4147	GLU	ALA	ARG	SER	LEU	SER	SER	V4650	L4732	D4809	G4936	GLY	L4068
E4077	V4149	LYS	PHE	GLY	ASP	ARG	SER	SER	K4651	L4732	D4809	G4936	GLY	E4077
T4078	Y4150	LYS	THR	GLY	MET	HIS	GLU	GLU	R4652	L4732	D4809	G4936	GLY	T4078
L4079	E4155	PRO	TYR	ASP	SER	THR	ASN	ASN	R4653	M4736	I4832	H4934	GLY	L4079
D4080	S4156	GLU	TRP	GLU	SER	ARG	ALA	ALA	R4654	F4737	G4837	H4934	GLY	D4080
Y4081	S4157	GLN	SER	GLY	PRO	ARG	ALA	ALA	V4655	F4738	E4841	G4936	GLY	Y4081
E4082	R4158	GLY	VAL	GLU	ALA	GLY	PHE	GLY	D4656	F4739	E4841	G4936	GLY	E4082
E4083	T4159	PRO	PHE	PRO	PRO	ILE	SER	SER	A4740	F4740	E4841	G4936	GLY	E4083
F4084	Q4160	ARG	NET	VAL	PRO	PRO	LEU	ASP	R4664	A4742	R4844	G4936	GLY	F4084
V4085	W4161	MET	THR	VAL	GLU	PRO	LEU	ASP	R4667	A4743	R4844	G4936	GLY	V4085
K4086	Q4162	GLY	LEU	GLU	VAL	GLU	ASP	SER	I4687	D4746	L4859	G4936	GLY	K4086
R4087	E4163	PHE	LEU	GLY	VAL	VAL	SER	SER	I4687	D4746	L4859	G4936	GLY	R4087
F4088	K4164	PHE	HIS	THR	GLN	PRO	SER	SER	I4687	D4746	L4859	G4936	GLY	F4088
H4089	K4167	SER	PHE	GLU	GLN	GLU	SER	SER	I4687	D4746	L4859	G4936	GLY	H4089
K4093	K4170	VAL	ALA	PRO	PHE	THR	ILE	ILE	I4687	D4746	L4859	G4936	GLY	K4093
G4096	R4171	THR	VAL	GLU	THR	THR	THR	THR	I4687	D4746	L4859	G4936	GLY	G4096
V4099	F4175	ARG	SER	ASP	GLN	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	V4099
L4102	V4178	ALA	GLY	THR	ALA	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	L4102
L4103	N4179	LEU	PHE	ASP	GLY	ILE	ILE	ILE	I4687	D4746	L4859	G4936	GLY	L4103
H4109	E4183	ALA	ARG	LYS	GLU	GLU	GLU	GLU	I4687	D4746	L4859	G4936	GLY	H4109
N4110	K4184	LEU	ILE	GLU	GLU	GLU	GLU	GLU	I4687	D4746	L4859	G4936	GLY	N4110
T4114	R4185	ARG	ILE	THR	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	T4114
R4115	W4187	ASN	GLY	GLY	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	R4115
L4116	K4187	VAL	LEU	GLY	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	L4116
Q4117	E4188	LEU	LEU	ASP	GLU	GLU	GLU	GLU	I4687	D4746	L4859	G4936	GLY	Q4117
T4118	L4189	THR	LEU	GLY	ASN	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	T4118
F4119	N4192	MET	GLY	LEU	SER	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	F4119
L4120	F4193	ARG	SER	ASP	SER	ILE	ILE	ILE	I4687	D4746	L4859	G4936	GLY	L4120
E4121	T4197	MET	VAL	ASP	PRO	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	E4121
L4122	I4198	LEU	GLY	PHE	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	L4122
E4124	M4201	LEU	GLY	GLY	LYS	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	E4124
S4125	Q4202	ALA	ALA	LEU	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	S4125
V4126	L4203	LYS	LYS	LEU	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	V4126
L4127	L4203	LEU	LYS	LEU	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	L4127
M4128	L4203	LYS	ILE	LYS	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	M4128
Y4129	L4203	LYS	LYS	ARG	ASP	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	Y4129
F4130	L4203	GLN	VAL	GLY	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	F4130
Q4131	L4203	GLY	ALA	GLY	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	Q4131
P4132	L4203	GLY	GLY	GLY	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	P4132
F4133	L4203	ASP	LEU	GLN	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	F4133
L4134	L4203	LEU	VAL	THR	GLY	GLY	GLY	GLY	I4687	D4746	L4859	G4936	GLY	L4134
E4138	L4203	ASN	ALA	LYS	LYS	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	E4138
I4139	L4203	LYS	ASN	LEU	LYS	LYS	LYS	LYS	I4687	D4746	L4859	G4936	GLY	I4139
M4140	L4203	ARG	MET	ILE	ALA	VAL	VAL	VAL	I4687	D4746	L4859	G4936	GLY	M4140

• Molecule 1: RyR2



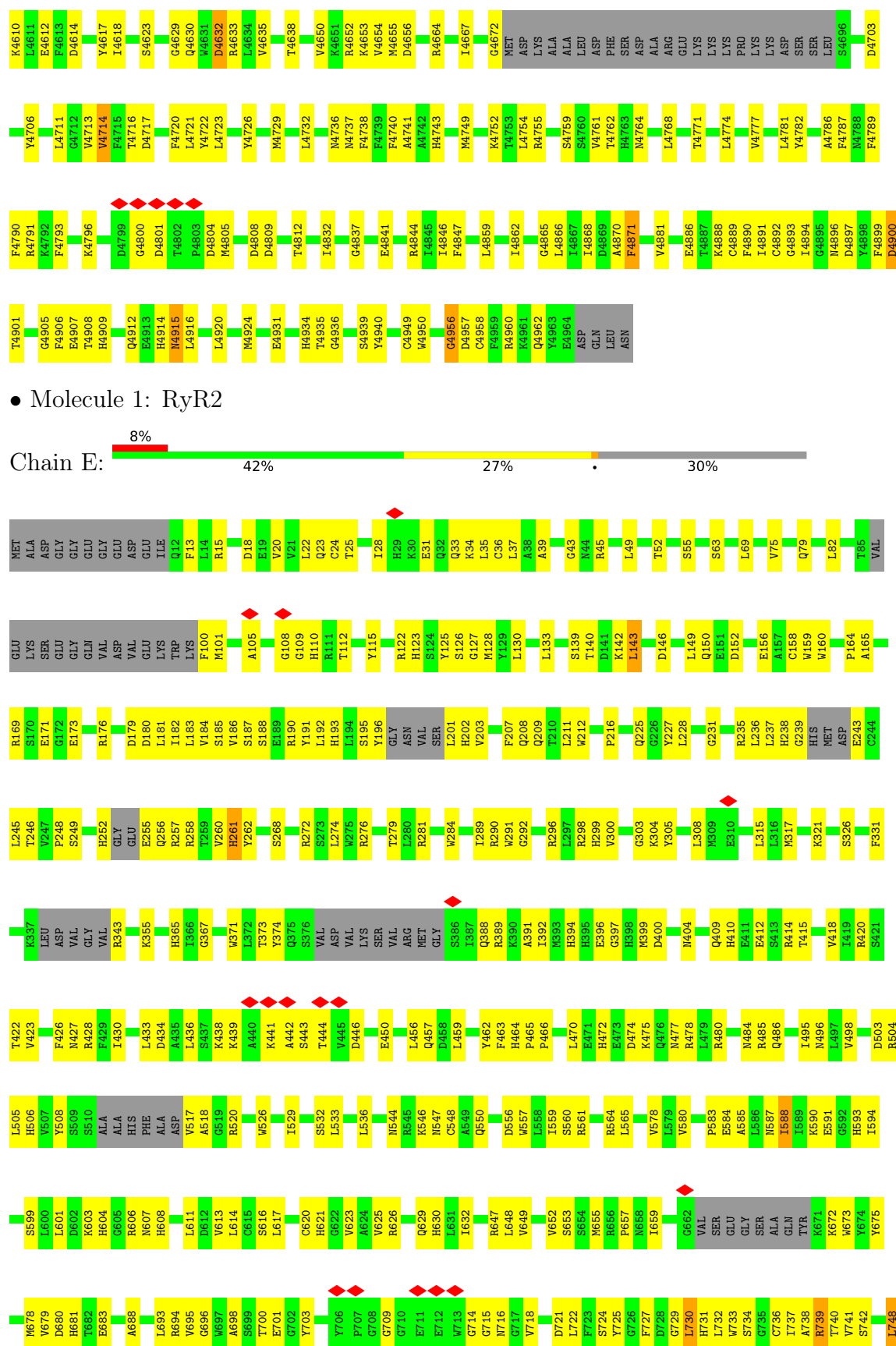
MET	GLU	Y115	L133	D146	L149	E156	L157	C158	W159	Q160	P164	A165	R169	S170
ALA	SER	R122	H123	S124	Y125	S126	G127	M128	Y129	L130	L133	S139	T140	D141
GLY	GLY	K130	E131	K132	Q133	K134	L135	C136	L137	G143	R144	R145	L149	K142
GLU	GLY	T25	T28	H29	K30	E31	K32	Q33	K34	L35	C36	L37	G43	L143
GLY	GLY	D18	E19	V20	V21	L22	C24	T25	T28	H29	K30	E31	K32	Q33
GLY	GLY	T4812	I4832	G4837	E4841	R4844	L4859	I4862	G4865	L4866	I4867	L4868	R4869	A4870
ASP	GLY	Q4956	D4957	C4958	R4959	K4960	Q4961	Y4962	Y4963	E4964	ASP	GLN	LEU	ASN
GLY	GLY	F100	M101	A105	G108	G109	H110	R111	T112	Y115	L133	S139	T140	D141
VAL	VAL	L149	Q150	E156	L157	C158	W159	Q160	P164	A165	R169	S170		

V166	A1095	LYS	W893	E824	D752	M678	I594	R504	I419	F331	V947	E171
D167	V1096	ASN	W894	A825	D753	V679	S599	L505	R420	F337	P248	G172
T168	K1097	LYS	H895	P828	V754	D880	S599	H506	S421	K337	S249	E173
E170	A1098	LYS	H896	P828	D755	H681	S599	H507	T422	K337	H252	R176
R171	G1099	LEU	H897	P828	V756	T682	D602	S509	V423	LEU	GLY	D179
H172	R1100	PRO	T698	K831	L759	E883	K603	S510	F426	ASP	GLU	D180
M173	W1101	LYS	E899	L832	D760	A888	H604	ALA	M427	VAL	E255	L180
F1103	F1102	ASN	E899	K833	D760	L693	G805	ALA	R428	GLY	Q256	L181
F1175	D1038	LYS	E899	V834	L761	R694	G805	ALA	F429	VAL	R257	L182
L1176	D1039	LYS	E899	H836	L761	R694	G805	ALA	PHE	VAL	R258	L183
L1177	D1040	LYS	E899	H836	L761	R694	G805	ALA	I430	VAL	T259	V184
L1178	R1041	LYS	E899	R837	P765	V695	G805	ALA	L433	ASP	V260	S185
G1179	R1042	LYS	E899	R838	P766	G696	G805	ALA	D434	ASP	H261	V186
V1108	K1043	LYS	E899	E839	I766	G696	G805	ALA	A435	ASP	S187	S188
G1111	K1044	LYS	E899	E840	R769	A898	L611	V517	L436	ASP	S187	S188
D1112	S1045	LYS	E899	K941	R769	A898	L611	A518	S437	ASP	A266	E189
M1113	M1046	LYS	E899	Q842	R770	S699	L614	G519	R520	ASP	V267	R190
V1115	D1047	LYS	E899	Q843	I770	S699	L614	G519	L436	ASP	S268	Y191
W1117	D1048	LYS	E899	R844	N771	T701	L617	R520	K438	ASP	V269	L192
S1118	S1049	LYS	E899	T845	P774	G702	C620	V526	K439	ASP	R272	H193
R1119	P880	LYS	E899	T846	V775	Y706	H621	K527	A440	ASP	S273	L194
C1122	P881	LYS	E899	T847	Q776	F707	G622	S532	K441	ASP	R274	S195
Q1123	P882	LYS	E899	R848	Q777	G708	G622	L533	A442	ASP	W275	Y196
F1192	P883	LYS	E899	D849	Q778	G709	G622	L533	S443	ASP	R276	GLY
D1193	P884	LYS	E899	L850	Q779	G710	G622	L533	T444	ASP	R276	ASN
F1195	P885	LYS	E899	P853	Q780	G711	G622	L533	D446	ASP	R276	VAL
D1199	P886	LYS	E899	T854	Q781	G712	G622	L533	L456	ASP	R281	VAL
F1201	P887	LYS	E899	V855	Q782	G713	G622	L533	Q457	ASP	W284	L201
I1202	P888	LYS	E899	V856	Q783	G714	G622	L533	L459	ASP	S285	H202
C1205	P889	LYS	E899	V857	Q784	G715	G622	L533	Y462	ASP	I289	F207
G1208	P890	LYS	E899	V858	Q785	G716	G622	L533	F463	ASP	Q290	Q208
V1209	P891	LYS	E899	V859	Q786	G717	G622	L533	H464	ASP	C292	Q209
A1210	P892	LYS	E899	V860	Q787	G718	G622	L533	P466	ASP	R296	T210
F1211	P893	LYS	E899	V861	Q788	G719	G622	L533	L470	ASP	L297	L211
G1212	P894	LYS	E899	V862	Q789	G720	G622	L533	E471	ASP	R298	W212
R1213	P895	LYS	E899	V863	Q790	G721	G622	L533	H472	ASP	H299	P216
G1214	P896	LYS	E899	V864	Q791	G722	G622	L533	H473	ASP	V300	Q225
M1215	P897	LYS	E899	V865	Q792	G723	G622	L533	D474	ASP	G303	Q226
G1218	P898	LYS	E899	V866	Q793	G724	G622	L533	K475	ASP	K304	Y227
S1222	P899	LYS	E899	V867	Q794	G725	G622	L533	Q476	ASP	Y305	L228
T1223	P900	LYS	E899	V868	Q795	G726	G622	L533	N477	ASP	G231	G231
L1224	P901	LYS	E899	V869	Q796	G727	G622	L533	R478	ASP	L308	R235
K1225	P902	LYS	E899	V870	Q797	G728	G622	L533	R479	ASP	M309	L236
Y1226	P903	LYS	E899	V871	Q798	G729	G622	L533	R480	ASP	E310	L237
F1227	P904	LYS	E899	V872	Q799	G730	G622	L533	N484	ASP	S313	H238
T1228	P905	LYS	E899	V873	Q800	G731	G622	L533	R485	ASP	G239	L314
I1229	P906	LYS	E899	V874	Q801	G732	G622	L533	Q486	ASP	L315	HIS
G1230	P907	LYS	E899	V875	Q802	G733	G622	L533	I495	ASP	L316	ASP
C1231	P908	LYS	E899	V876	Q803	G734	G622	L533	K672	ASP	M317	ASP
D1232	P909	LYS	E899	V877	Q804	G735	G622	L533	K673	ASP	K321	E243
Q1233	P910	LYS	E899	V878	Q805	G736	G622	L533	Y674	ASP	S326	C244
E1234	P911	LYS	E899	V879	Q806	G737	G622	L533	Y675	ASP		L245
G1235	P912	LYS	E899	V880	Q807	G738	G622	L533		ASP		T246









L1719	E1635	ASN	GLY	Y1427	M1306	L1232	D1160	R1089	ASP	LYS	E891	C822	
N1722	H1636	VAL	GLN	Y1428	P1307	Q1233	V1161	A1090	VAL	VAL	L892	Y823	
I1726	R1637	MET	GLY	S1429	I1308	E1234	G1162	E1091	LYS	LYS	W893	D753	
T1733	I1641	LEU	ASN	V1430	E1309	G1235	C1164	K1027	LYS	MET	M895	V754	
K1734	L1642	SER	ASN	R1431	ALA	Y1236	M1165	L1032	LYS	LYS	I755	S756	
L1737	E1643	G1568	ASN	I1432	GLU	P1237	V1166	L1032	LEU	LEU	N896	L769	
L1738	L1644	G1569	HIS	F1433	VAL	P1238	D1167	L1032	PRO	PRO	K831	L760	
L1739	L1645	G1570	LYS	P1434	PHE	F1239	M1168	Y1035	LYS	LYS	L832	L761	
L1741	E1646	GLY	GLN	G1571	SER	V1241	T1169	L1038	ASN	ASN	E899	V764	
L1742	Q1647	LYS	ALA	T1507	THR	N1242	H1171	D1039	Y970	Y970	Q971	P764	
L1743	Q1647	GLN	GLN	P1508	SER	T1243	H1172	D1040	Q971	Q971	G901	S765	
L1744	L1651	PRO	GLU	C1509	ALA	T1244	M1173	R1041	L972	L972	W902	S765	
L1745	K1652	ALA	ALA	M1249	ALA	M1244	M1174	R1042	T973	T973	Q903	I766	
L1746	L1658	ASP	GLY	W1260	GLY	W1260	F1175	T1042	S974	S974	Y904	R769	
L1747	L1659	PRO	GLY	W1261	GLY	W1261	F1176	K1043	G975	G975	E839	R770	
L1748	L1660	ARG	ILE	K1253	ILE	K1253	T1177	K1044	Y976	Y976	Y840	I771	
L1749	G1747	LEU	GLY	H1265	GLY	H1265	N1178	S1045	P906	P906	Q842	P774	
L1750	Y1664	LYS	ALA	P1256	ALA	P1256	G1179	N1046	Q977	Q977	Q843	V775	
L1751	M1669	GLN	GLN	Q1257	SER	Q1257	E1180	K1047	P978	P978	R844	Q776	
L1752	H1670	ARG	ARG	Q1260	LEU	Q1260	D1184	D1048	D909	D909	Y846	G777	
L1753	R1671	PHE	PHE	V1261	LEU	V1261	D1184	S1049	P980	P980	T847	M778	
L1754	F1672	LEU	GLY	H1451	PRO	H1451	S1188	L1050	M981	M981	R848	F779	
L1755	F1673	ARG	ARG	H1459	LYS	H1459	A1191	R1051	D982	D982	D849	E780	
L1756	A1674	ASP	ASN	ASP	ASN	ASP	A1192	E1052	L983	L983	L850	N781	
L1757	Q1684	THR	THR	ASP	THR	ASP	K1193	E1053	S984	S984	P853	P774	
L1758	L1685	LYS	LYS	ARG	LYS	ARG	R1119	A1054	P985	P985	T854	V775	
L1759	L1686	PRO	PRO	VAL	PRO	VAL	P1120	R1055	P986	P986	P855	Q782	
L1760	C1677	ASP	ASP	ARG	ASP	ARG	F1195	R1056	K987	K987	S856	I784	
L1761	S1597	THR	THR	THR	THR	THR	D1199	L1057	L988	L988	LEU	P790	
L1762	Y1680	THR	THR	THR	THR	THR	G1200	L1058	P989	P989	THR	V791	
L1763	Y1680	THR	THR	THR	THR	THR	I1202	Y1060	T990	T990	GLN	V792	
L1764	Q1684	THR	THR	THR	THR	THR	L1206	G1061	S991	S991	ALA	S795	
L1765	L1685	THR	THR	THR	THR	THR	L1207	Y1062	S922	S922	A796	A796	
L1766	L1686	THR	THR	THR	THR	THR	G1208	N1063	A994	A994	G797	G797	
L1767	L1687	THR	THR	THR	THR	THR	V1209	L1064	M995	M995	I798	I798	
L1768	L1688	THR	THR	THR	THR	THR	A1210	L1065	K998	K998	T869	K799	
L1769	L1689	THR	THR	THR	THR	THR	Q1211	A1066	L999	L999	V800	V800	
L1770	E1690	THR	THR	THR	THR	THR	V1212	PRO	A1000	A1000	Q871	R801	
L1771	M1691	THR	THR	THR	THR	THR	G1213	ASP	E1001	E1001	L803	F802	
L1772	K1692	THR	THR	THR	THR	THR	M1215	ASP	E928	E928	L804	L804	
L1773	P1695	THR	THR	THR	THR	THR	G1218	ASP	ASP	ASP	G805	G805	
L1774	R1699	THR	THR	THR	THR	THR	S1222	ALA	N1005	N1005	L874	L874	
L1775	A1700	THR	THR	THR	THR	THR	T1223	ALA	V1006	V1006	P875	ARG	
L1776	G1701	THR	THR	THR	THR	THR	K1224	ARG	A1007	A1007	P876	HIS	
L1777	L1702	THR	THR	THR	THR	THR	L1225	ALA	A1008	A1008	H877	GLY	
L1778	Y1703	THR	THR	THR	THR	THR	K1226	GLU	R1009	R1009	L878	GLY	
L1779	L1704	THR	THR	THR	THR	THR	Y1227	VAL	D1010	D1010	E879	F811	
L1780	L1705	THR	THR	THR	THR	THR	F1228	CYS	R1011	R1011	R880	K812	
L1781	L1706	THR	THR	THR	THR	THR	T1228	GLY	I1012	I1012	I881	F813	
L1782	L1707	THR	THR	THR	THR	THR	Y1229	GLY	Q1013	Q1013	G947	P816	
L1783	L1708	THR	THR	THR	THR	THR	C1230	GLY	Q1014	Q1014	C948	GLY	
L1784	L1709	THR	THR	THR	THR	THR	G1231	GLY	TRP	TRP	H949	A820	
L1785	L1710	THR	THR	THR	THR	THR	H1151	GLU	THR	THR	V950	A820	
L1786	L1711	THR	THR	THR	THR	THR	R1154	VAL	TYR	TYR	G951	I889	
L1787	L1712	THR	THR	THR	THR	THR	Y1155	CYS	TYR	TYR	I889	I889	
L1788	L1713	THR	THR	THR	THR	THR	W1156	GLY	ILE	ILE	Y952	Y952	
L1789	L1714	THR	THR	THR	THR	THR	Q1157	GLY	GLN	GLN	D954	D954	
L1790	L1715	THR	THR	THR	THR	THR	L1158	GLY	GLY	GLY	E955	E955	
L1791	L1716	THR	THR	THR	THR	THR	G1159	GLY	GLY	GLY	H956	H956	
L1792	L1717	THR	THR	THR	THR	THR	R1084	GLY	GLY	GLY	A957	A957	
L1793	L1718	THR	THR	THR	THR	THR	F1085	GLY	GLY	GLY	GLY	GLY	
L1794	L1719	THR	THR	THR	THR	THR	R1086	GLY	GLY	GLY	GLY	GLY	

E2860	ALA	H2820	ALA	L2300	N2211	T2117	V2037	ARG	GLU	R1807
L2861	LEU	G2821	LEU	D2301	Q2212	L2117	T2038	SER	GLU	F1816
E2862	TYR	P2821	TYR	F2302	K2213	L2124	Y2039	PRO	SER	L1817
S2863	ASN	Y2822	GLY	L2303	H2218	T2127	L2040	GLN	LYS	F1818
K2864	ARG	K2823	ALA	A2306	L2219	R2128	LYS	GLY	GLY	F1819
G2865	THR	G2824	LYS	V2307	S2220	S2129	LYS	GLN	LYS	P1820
G2866	ARG	V2744	VAL	F2308	Y2221	L2130	GLN	ILE	ARG	L1821
G2867	ILE	E2746	ASP	A2309	L2222	G2136	ALA	ALA	PRO	L1822
N2868	GLN	T2747	ASN	S2313	E2223	G2136	GLU	LEU	LYS	L1823
H2869	THR	Y2748	VAL	E2314	E2224	G2136	GLU	LEU	GLY	F1825
P2870	GLN	S2749	GLY	E2315	N2225	E2139	VAL	ASN	GLY	Y1826
P2871	VAL	D2750	PRO	E2316	S2226	E2140	GLU	PHE	THR	T1827
L2872	VAL	S2751	ASP	N2317	S2227	L2141	ASP	LYS	LYS	L1828
L2873	SER	S2752	GLY	A2318	R2236	K2142	SER	ASP	ASP	L1829
L2874	VAL	K2753	ALA	N2319	A2244	D2149	LYS	LYS	PRO	P1902
Y2875	ALA	K2558	GLY	V2320	A2245	N2153	LYS	SER	LYS	L1905
D2876	ALA	S2576	F2461	V2321	A2246	K2154	SER	GLY	GLY	Q1906
T2877	ALA	C2576	C2462	T2322	S2247	Y2157	T2058	PRO	L1910	
L2878	ALA	C2577	P2463	R2327	V2248	K2159	L2059	PRO	L1911	
L2879	ALA	K2582	H2465	E2330	N2251	P2160	Q2060	PRO	Q1912	
A2880	ALA	L2589	K2466	PHE	L2254	G2163	Q2061	GLY	Y1913	
K2881	ALA	L2593	R2475	GLY	A2255	N2163	L2062	GLY	L1914	
E2882	ALA	L2593	V2477	PRO	L2256	K2167	L2063	GLY	C1915	
K2883	ALA	L2593	GLY	GLY	L2257	N2168	E2065	VAL	R1994	
A2884	ALA	L2593	GLY	GLY	L2258	H2169	M2067	PHE	Q1996	
K2885	ALA	L2593	GLY	GLY	D2262	E2170	V2068	LYS	R1920	
D2886	ALA	L2593	GLY	GLY	L2263	N2173	R2069	ALA	I1926	
R2887	ALA	L2593	GLY	GLY	E2264	G2191	W2070	ALA	D1931	
E2888	ALA	L2593	GLY	GLY	R2268	G2191	A2071	GLY	A2071	
K2889	ALA	L2593	GLY	GLY	G2274	G2191	G2009	PRO	V1934	
A2890	ALA	L2593	GLY	GLY	L2418	GLY	T2010	GLY	Q1938	
D2891	ALA	L2593	GLY	GLY	R2419	GLY	D2013	SER	Q1941	
D2892	ALA	L2593	GLY	GLY	T2420	GLY	ASP	THR	V1948	
I2893	ALA	L2593	GLY	GLY	R2421	GLY	GLY	LEU	MET	
L2894	ALA	L2593	GLY	GLY	S2422	GLY	F2086	GLN	LYS	
K2895	ALA	L2593	GLY	GLY	L2423	GLY	H2090	ALA	ALA	
F2896	ALA	L2593	GLY	GLY	L2424	GLY	R2091	LEU	GLY	
L2897	ALA	L2593	GLY	GLY	R2425	GLY	D2094	ASN	PRO	
Q2898	ALA	L2593	GLY	GLY	S2426	GLY	A2102	ALA	SER	
I2899	ALA	L2593	GLY	GLY	LEU	GLY	K2105	ALA	GLY	
N2900	ALA	L2593	GLY	GLY	LEU	GLY	T2109	THR	THR	
G2901	ALA	L2593	GLY	GLY	ALA	GLY	N2110	ALA	ARG	
Y2902	ALA	L2593	GLY	GLY	T2511	GLY	S2113	LYS	GLY	
V2904	ALA	L2593	GLY	GLY	M2513	GLY	V2114	PRO	GLY	
S2905	ALA	L2593	GLY	GLY	A2516	GLY	E2115	ALA	ALA	
R2906	ALA	L2593	GLY	GLY	R2519	GLY	D2116	GLU	GLU	
PHE	ALA	L2593	GLY	GLY	Y2520	GLY		PHE		
LYS	ALA	L2593	GLY	GLY	Y2521	GLY				
ASP	ALA	L2593	GLY	GLY	Y2522	GLY				
LEU	ALA	L2593	GLY	GLY	Y2523	GLY				
LEU	ALA	L2593	GLY	GLY	Y2524	GLY				
LEU	ALA	L2593	GLY	GLY	Y2525	GLY				
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LEU	ALA	L2593	GLY	GLY	Y2639	GLY				
LEU	ALA									



R169	S170	E171	G172	E173	R176	D179	GLY	D180	L181	L182	L183	V184	S185	V186	S187	S188	E189	R190	Y191	L192	H193	L194	S195	Y196	GLY	ASN	VAL	SER	L201	H202	V203	F207	Q208	Q209	T210	L211	W212	P216	Q225	G226	Y227	L228	L229	G230	G231	R235	L236	L237	H238	G239	HIS	MET	ASP	E243	
C244	L245	T246	V247	P248	S249	H252	GLY	GLU	E255	Q256	L257	R258	T259	V260	H261	Y262	A266	V267	S268	V269	R272	R276	R281	W284	S287	H288	L289	R290	W291	G292	R296	L297	R298	H299	V300	G303	K304	Y305	L308	M309	E310	L315	L316	M317	D318	H410	K319	E320	K321						
S326	F331	R332	K337	LEU	ASP	VAL	GLY	VAL	R343	K355	F362	H365	I366	G367	W371	T372	T373	Y374	Q375	S376	VAL	ASP	VAL	LVS	SER	VAL	ARG	MET	GLY	S386	I387	Q388	R389	K390	A391	I392	M393	H394	H395	E396	G397	H398	M399	D400	N404	Q409	H410	R485	E411	E412	S413				
R414	T415	V418	R420	S421	T422	V423	F424	L425	F426	N427	R428	F429	I430	L433	D434	A435	G436	S437	K438	K439	A440	K441	A442	T444	V445	D446	L456	Q457	D458	L459	Y462	F463	H464	P465	P466	L470	E471	H472	E473	D474	K475	Q476	N477	R478	R480	N484	R485	Q486	I495						
M496	L497	V498	D503	R504	L505	H506	V507	Y508	S509	S510	ALA	ALA	HIS	PHE	ASP	V517	A518	G519	R520	W526	K527	S532	L533	S443	L536	N544	R545	K546	N547	C548	A549	Q550	D556	W557	L558	I559	S560	R561	R564	L565	E566	V578	L579	V580	P583	E584	A585	L586	N587	I588					
I589	K590	E591	G592	H593	I594	S599	L600	L601	D602	K603	H604	G605	R606	N607	H608	L611	D612	V613	L614	C615	S616	L617	C620	H621	G622	V623	A624	V625	R626	Q629	H630	R647	L648	V649	V652	S653	S654	M655	R656	P657	N658	I659	F660	L661	G662	VAL	SER	GLU	GLY	SER	ALA	GLN	TYR		
K671	K672	W673	Y674	Y675	R678	V679	H681	T682	E683	A688	L693	R694	V695	G696	H697	D698	V706	G707	F707	G708	G709	G710	E711	E712	W713	G714	G715	N716	G717	W718	D721	L722	F723	S724	W725	G726	F727	D728	G729	L730	H731	L732	W733	S734	G735	C736	I737	A738	R739						
T740	V741	S742	L748	D752	W753	D754	S755	L759	D760	L761	S765	S766	I766	R769	I770	N771	P774	W775	Q776	W778	F779	E780	R781	F782	I784	P790	W791	V792	S793	F794	S795	A796	G797	I798	K799	R800	R801	F802	L803	L804	G805	ARG	HIS	GLY	E810	F811	K812	F813							
P816	A820	C821	Y823	E824	A825	P828	K831	L832	K833	V834	E835	H836	S837	R838	E839	Y840	Q842	E843	R844	T845	Y846	R847	R848	D849	L850	P853	T854	S855	LEU	THR	GLN	ALA	A861	V867	D868	T869	S870	Q871	I872	V873	L874	P875	P876	H877	L878	E879	R880	I881	K884						
E887	N888	I889	H890	E891	L892	W893	W894	H895	H896	K897	T898	E899	L900	G901	W902	Q903	Y904	G905	P906	E907	R908	D909	D910	N911	K912	R913	Q914	H915	P916	C917	L918	V919	E920	F921	S922	K923	L924	P925	E926	Q927	E928	R929	L937	K941	L944	A945	L946	G947	C948	H949	V950	G951	I952	S953	D954
E955	H956	A957	GLU	GLY	LYS	VAL	LYS	MET	LEU	PRO	LYS	ASN	Y970	Q971	L972	T973	S974	G975	Y976	K977	P978	A979	P980	M981	D982	L983	S984	F985	I986	K987	L988	T989	P990	S991	M995	K998	L999	A1000	E1001	N1002	N1005	V1006	W1007	A1008	R1009	D1010	R1011	I1012	R1013	Q1014	GLY	THR	THR	TYR	
GLY	ILE	GLN	ASP	VAL	LYS	ASN	R1027	L1032	Y1035	D1038	L1039	D1040	R1041	T1042	K1043	L1044	S1045	M1046	K1047	D1048	S1049	L1050	R1051	E1052	A1053	V1054	R1055	I1056	L1057	L1058	G1059	Y1060	G1061	Y1062	N1063	L1064	E1065	A1066	PRO	ASP	GLN	ASP	HIS	ALA	ALA	ARG	ALA	GLU	VAL	CYS	SER	GLY	GLY	GLU	
R1084	F1085	R1086	I1087	F1088	R1089	A1090	E1091	K1092	A1095	L1096	K1097	A1098	G1099	T1100	W1101	Y1102	F1103	E1104	F1105	E1106	A1107	V1108	G1111	D1112	M1113	R1114	V1115	G1116	W1117	L1118	R1119	P1120	G1121	C1122	Q1123	P1124	D1125	L1128	G1129	E1132	R1133	A1136	F1137	F1140	K1141	Q1143	W1144	W1145	H1146	H1151					
R1154	S1155	W1156	D1160	F1161	V1162	G1163	V1166	L1167	T1168	E1170	L1171	T1172	M1173	M1174	F1175	T1176	L1177	N1178	G1179	E1180	D1184	S1188	A1191	F1192	K1193	D1194	F1195	D1199	G1200	F1201	I1202	C1205	S1206	L1207	G1208	V1209	A1210	Q1211	V1212	G1213	R1214	M1215	G1218	S1222	T1223	L1224	K1225	Y1226	F1227						

VAL	SER	T1228	F1301	LYS	MET	SER	ILE	S1629	H1710	A1798	SER	MET	S2022	R2091	K2192	VAL
GLY	ASN	I1229	Y1302	ASP	GLN	MET	LYS	L1630	L1711	V1799	ARG	SER	D2023	D2094	N2193	SER
THR	PRO	C1230	R1303	LYS	THR	PRO	ASN	E1634	T1716	Q1800	GLU	ALA	L2024	L2094	G1912	GLY
ASP	ALA	L1231	L1304	ALA	SER	GLY	VAL	E1635	A1717	E1801	PRO	THR	T2025	A2102	N2196	THR
ILE	THR	Q1232	S1305	THR	T1426	GLN	PRO	N1636	R1718	L1804	GLY	ALA	L2026	K2105	L2201	PRO
ASP	LYS	E1234	M1306	PRO	Y1427	GLY	LEU	R1637	L1719	H1805	ALA	ARG	R2029	K2105	C2202	ASP
ASN	PRO	G1235	P1307	GLU	Y1428	ARG	SER	D1640	M1722	A1806	GLU	THR	S2032	I2109	R2206	ASP
GLY	ASN	E1237	I1308	PHE	E1430	ASN	ASN	I1641	I1726	F1816	GLU	LYS	L2033	N2110	L2207	THR
ALA	ASN	P1238	C1310	ASN	V1431	ASN	GLN	L1642	T1726	L1817	SER	THR	V2034	S2208	S2208	GLY
GLU	GLU	F1239	GLU	ASN	I1433	GLY	VAL	E1643	T1733	F1818	LYS	GLY	E2035	S2113	N2211	GLY
THR	THR	A1240	VAL	HIS	F1432	G1504	ASN	L1644	K1734	L1819	GLY	ARG	K2036	D2116	G2212	THR
LYS	LYS	P1434	PHE	LYS	P1434	E1506	THR	T1645	K1734	V1819	GLY	ARG	V2037	L2124	K2213	GLY
ASP	ASP	GLY	SER	ASP	GLY	I1507	GLU	E1646	T1737	P1820	LYS	SER	T2038	L2124	L2219	THR
THR	THR	N1242	LYS	THR	GLU	G1508	THR	Q1647	L1738	L1821	ARG	PRO	Y2039	L2124	L2219	THR
THR	THR	N1244	THR	GLN	GLU	C1509	GLU	Q1647	L1738	L1822	PRO	PRO	L2040	I2127	L2221	THR
ALA	ALA	M1249	ALA	GLN	PRO	V1510	PRO	L1651	D1741	K1823	LYS	GLN	LYS	I2127	L2221	THR
GLY	GLY	W1250	GLY	LYS	ALA	V1511	ASP	L1652	GLU	F1825	GLU	GLN	LYS	R2128	L2222	THR
ILE	ILE	K1253	ILE	PRO	V1443	ALA	ALA	F1653	ASN	F1825	G1893	ILE	LYS	S2129	L2222	THR
GLY	PRO	P1256	GLY	ARG	G1444	SER	SER	H1654	LYS	T1827	L1894	GLN	ALA	L2130	L2223	THR
GLY	GLY	Q1257	GLY	LEU	T1447	G1516	G1517	T1657	LYS	L1828	M1897	MET	LYS	M2135	E2224	THR
GLY	GLY	Q1257	GLY	LEU	S1443	L1517	L1518	L1658	HIS	L1829	P1902	LEU	LYS	G2136	S2225	THR
SER	SER	F1258	SER	GLN	F1449	T1519	T1519	L1659	L1748	L1830	LYS	ASN	VAL	E2139	S2227	THR
LEU	PHE	L1259	PHE	ARG	F1450	F1520	Q1589	L1660	P1749	L1831	L1905	PHE	GLU	L2142	R2236	THR
GLY	LEU	V1261	LEU	LEU	H1451	F1590	F1590	V1664	G1750	H1835	Q1906	GLY	SER	D2149	A2244	THR
LYS	PRO	H1265	LYS	ARG	L1459	A1522	L1591	N1669	L1753	L1843	L1909	ASP	ASP	N2153	A2245	THR
ASN	ASN	I1268	ASP	ARG	ASP	G1524	V1594	H1670	T1755	Q1844	L1910	SER	LYS	K2154	A2246	THR
ASP	THR	E1269	LEU	THR	VAL	K1525	L1595	R1671	S1756	L1845	L1911	SER	LYS	N2154	S2247	THR
LEU	LEU	V1270	LEU	LYS	ARG	E1526	W1596	A1673	L1757	L1846	L1912	GLY	GLY	Y2157	V2248	THR
TYR	TYR	T1271	ASP	ASP	THR	L1527	M1597	H1674	R1758	E1847	Y1913	CYS	SER	Q2158	N2251	THR
ASP	ASP	R1272	ASP	THR	V1465	A1531	M1599	A1675	P1759	S1849	C1915	PRO	THR	H2159	N2251	THR
ASP	ASP	I1273	ASP	SER	L1469	Q1532	P1800	L1676	R1760	VAL	D1916	PRO	GLY	P2180	L2254	THR
ALA	ALA	D1274	ALA	THR	L1469	Q1532	N1601	C1677	M1761	PHE	R1920	GLY	ILE	M2163	A2255	THR
THR	THR	GLY	ASP	THR	G1470	V1533	Q1502	V1680	Q1762	LYS	R1920	GLY	THR	L2166	L2255	THR
ILE	THR	THR	SER	SER	D1471	E1534	M1601	Q1684	S1764	GLU	I1926	ILE	ALA	G2167	L2256	THR
ASP	PHE	ASP	ALA	ALA	E1472	P1535	K1605	L1685	S1767	ALA	D1931	GLY	THR	N2168	L2257	THR
SER	GLU	SER	GLU	ARG	K1473	L1539	D1607	L1686	F1768	GLY	V1934	PRO	ALA	H2169	L2258	THR
SER	VAL	SER	VAL	LEU	K1474	L1547	R1614	L1686	V1769	GLU	A1935	GLU	THR	E2170	E2262	THR
PRO	LEU	PRO	LEU	THR	V1476	Q1546	E1613	P1695	S1770	GLU	K1936	GLU	GLY	M2173	L2263	THR
CYS	LYS	CYS	LYS	GLU	H1477	R1547	R1614	P1695	I1771	GLU	L1937	GLU	GLY	Y2267	E2264	THR
LEU	THR	LEU	THR	VAL	E1478	A1547	E1613	P1695	M1773	ASP	Q1938	THR	THR	M2173	L2265	THR
LYS	VAL	LYS	THR	VAL	Q1482	T1548	Q1515	R1699	E1774	THR	D1939	THR	GLY	G2181	Y2269	THR
V1285	ALA	V1285	ALA	LEU	S1483	T1548	G1616	A1700	Q1777	LEU	M1940	GLY	V2075	GLY	L2270	THR
K1288	GLY	K1288	GLY	ALA	N1484	S1549	G1616	G1701	I1778	GLU	Q1941	GLU	L2076	GLY	G2274	THR
S1289	ASP	S1289	ASP	ASP	CYS	P1550	W1617	Y1702	Y1778	GLU	R1942	GLU	E2080	SER	L2274	THR
F1290	ARG	F1290	ARG	ARG	Y1486	M1551	L1618	Y1703	D1785	PRO	M1948	GLY	F2086	GLY	GLN	THR
S1291	VAL	S1291	VAL	ASP	M1487	M1552	V1619	L1705	L1786	CYS	V1948	GLY	F2086	GLY	CYS	THR
S1292	ASP	S1292	ASP	ASP	V1488	F1555	L1621	L1706	L1787	ALA	MET	GLN	V2087	ILE	L2286	THR
ASP	THR	ASP	THR	THR	C1489	F1556	C1621	L1706	L1787	ALA	GLN	ALA	L2088	GLY	L2288	THR
ARG	ASP	ARG	ASP	ASP	A1490	E1556	L1822	L1706	L1795	GLY	ALA	ALA	L2089	GLY	F2190	THR
VAL	VAL	VAL	VAL	VAL	GLY	GLY	F1627	D1708	L1795	GLU	ASN	ASN	H2090	GLY	P2191	THR
ASP	ASP	ASP	ASP	ASP	GLU	ARG	M1628	I1709		ASP						







4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77339	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)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.051	Depositor
Minimum map value	-0.012	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	436.4, 436.4, 436.4	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.091, 1.091, 1.091	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.50	0/27032	0.71	12/36559 (0.0%)
1	C	0.50	0/27032	0.71	12/36559 (0.0%)
1	E	0.50	0/27032	0.71	12/36559 (0.0%)
1	G	0.50	0/27032	0.71	12/36559 (0.0%)
2	B	0.47	0/835	0.64	1/1123 (0.1%)
2	D	0.47	0/835	0.64	1/1123 (0.1%)
2	F	0.47	0/835	0.64	1/1123 (0.1%)
2	H	0.47	0/835	0.64	1/1123 (0.1%)
All	All	0.50	0/111468	0.71	52/150728 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	33
1	C	0	33
1	E	0	33
1	G	0	33
All	All	0	132

There are no bond length outliers.

All (52) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2039	TYR	N-CA-C	9.27	123.96	112.47
1	E	2039	TYR	N-CA-C	9.26	123.95	112.47
1	G	2039	TYR	N-CA-C	9.23	123.92	112.47
1	C	2039	TYR	N-CA-C	9.21	123.90	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	139	SER	CA-C-N	7.37	134.96	121.70
1	C	139	SER	C-N-CA	7.37	134.96	121.70
1	A	139	SER	CA-C-N	7.35	134.93	121.70
1	A	139	SER	C-N-CA	7.35	134.93	121.70
1	E	139	SER	CA-C-N	7.34	134.91	121.70
1	E	139	SER	C-N-CA	7.34	134.91	121.70
1	G	139	SER	CA-C-N	7.34	134.91	121.70
1	G	139	SER	C-N-CA	7.34	134.91	121.70
2	D	89	GLY	N-CA-C	-6.03	106.71	114.85
2	F	89	GLY	N-CA-C	-6.00	106.75	114.85
2	H	89	GLY	N-CA-C	-6.00	106.76	114.85
2	B	89	GLY	N-CA-C	-5.98	106.78	114.85
1	E	140	THR	CA-C-N	5.59	131.76	121.70
1	E	140	THR	C-N-CA	5.59	131.76	121.70
1	G	140	THR	CA-C-N	5.57	131.73	121.70
1	G	140	THR	C-N-CA	5.57	131.73	121.70
1	C	140	THR	CA-C-N	5.57	131.73	121.70
1	C	140	THR	C-N-CA	5.57	131.73	121.70
1	A	140	THR	CA-C-N	5.55	131.70	121.70
1	A	140	THR	C-N-CA	5.55	131.70	121.70
1	A	2039	TYR	CA-C-N	5.46	131.53	121.70
1	A	2039	TYR	C-N-CA	5.46	131.53	121.70
1	G	2039	TYR	CA-C-N	5.43	131.47	121.70
1	G	2039	TYR	C-N-CA	5.43	131.47	121.70
1	E	2039	TYR	CA-C-N	5.42	131.46	121.70
1	E	2039	TYR	C-N-CA	5.42	131.46	121.70
1	C	2039	TYR	CA-C-N	5.42	131.46	121.70
1	C	2039	TYR	C-N-CA	5.42	131.46	121.70
1	A	4596	VAL	N-CA-C	-5.20	97.66	108.88
1	C	4596	VAL	N-CA-C	-5.19	97.67	108.88
1	E	4596	VAL	N-CA-C	-5.19	97.67	108.88
1	E	1997	LEU	CA-C-N	5.18	131.02	121.70
1	E	1997	LEU	C-N-CA	5.18	131.02	121.70
1	G	4596	VAL	N-CA-C	-5.17	97.70	108.88
1	E	2038	THR	CA-C-N	5.15	130.65	122.61
1	E	2038	THR	C-N-CA	5.15	130.65	122.61
1	A	1997	LEU	CA-C-N	5.15	130.97	121.70
1	A	1997	LEU	C-N-CA	5.15	130.97	121.70
1	C	2038	THR	CA-C-N	5.15	130.64	122.61
1	C	2038	THR	C-N-CA	5.15	130.64	122.61
1	G	2038	THR	CA-C-N	5.15	130.64	122.61
1	G	2038	THR	C-N-CA	5.15	130.64	122.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1997	LEU	CA-C-N	5.14	130.95	121.70
1	C	1997	LEU	C-N-CA	5.14	130.95	121.70
1	A	2038	THR	CA-C-N	5.13	130.61	122.61
1	A	2038	THR	C-N-CA	5.13	130.61	122.61
1	G	1997	LEU	CA-C-N	5.13	130.93	121.70
1	G	1997	LEU	C-N-CA	5.13	130.93	121.70

There are no chirality outliers.

All (132) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	105	ALA	Peptide
1	A	142	LYS	Peptide
1	A	1476	VAL	Peptide
1	A	1579	VAL	Peptide
1	A	1596	TRP	Peptide
1	A	1635	GLU	Peptide
1	A	1710	HIS	Peptide
1	A	1756	SER	Peptide
1	A	1777	GLN	Peptide
1	A	1835	HIS	Peptide
1	A	1847	GLU	Peptide
1	A	2248	VAL	Peptide
1	A	2314	VAL	Peptide
1	A	2462	CYS	Peptide
1	A	2874	PRO	Peptide
1	A	3634	GLU	Peptide
1	A	3940	ARG	Peptide
1	A	3987	LEU	Peptide
1	A	4031	ASP	Peptide
1	A	4110	MET	Peptide
1	A	4131	GLN	Peptide
1	A	4164	PRO	Peptide
1	A	4596	VAL	Peptide
1	A	4761	VAL	Peptide
1	A	4915	ASN	Peptide
1	A	4956	GLY	Peptide
1	A	588	ILE	Peptide
1	A	729	GLY	Peptide
1	A	739	ARG	Peptide
1	A	748	LEU	Peptide
1	A	816	PRO	Peptide

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Mol	Chain	Res	Type	Group
1	A	838	ARG	Peptide
1	A	846	TYR	Peptide
1	C	105	ALA	Peptide
1	C	142	LYS	Peptide
1	C	1476	VAL	Peptide
1	C	1579	VAL	Peptide
1	C	1596	TRP	Peptide
1	C	1635	GLU	Peptide
1	C	1710	HIS	Peptide
1	C	1756	SER	Peptide
1	C	1777	GLN	Peptide
1	C	1835	HIS	Peptide
1	C	1847	GLU	Peptide
1	C	2248	VAL	Peptide
1	C	2314	VAL	Peptide
1	C	2462	CYS	Peptide
1	C	2874	PRO	Peptide
1	C	3634	GLU	Peptide
1	C	3940	ARG	Peptide
1	C	3987	LEU	Peptide
1	C	4031	ASP	Peptide
1	C	4110	MET	Peptide
1	C	4131	GLN	Peptide
1	C	4164	PRO	Peptide
1	C	4596	VAL	Peptide
1	C	4761	VAL	Peptide
1	C	4915	ASN	Peptide
1	C	4956	GLY	Peptide
1	C	588	ILE	Peptide
1	C	729	GLY	Peptide
1	C	739	ARG	Peptide
1	C	748	LEU	Peptide
1	C	816	PRO	Peptide
1	C	838	ARG	Peptide
1	C	846	TYR	Peptide
1	E	105	ALA	Peptide
1	E	142	LYS	Peptide
1	E	1476	VAL	Peptide
1	E	1579	VAL	Peptide
1	E	1596	TRP	Peptide
1	E	1635	GLU	Peptide
1	E	1710	HIS	Peptide

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Mol	Chain	Res	Type	Group
1	E	1756	SER	Peptide
1	E	1777	GLN	Peptide
1	E	1835	HIS	Peptide
1	E	1847	GLU	Peptide
1	E	2248	VAL	Peptide
1	E	2314	VAL	Peptide
1	E	2462	CYS	Peptide
1	E	2874	PRO	Peptide
1	E	3634	GLU	Peptide
1	E	3940	ARG	Peptide
1	E	3987	LEU	Peptide
1	E	4031	ASP	Peptide
1	E	4110	MET	Peptide
1	E	4131	GLN	Peptide
1	E	4164	PRO	Peptide
1	E	4596	VAL	Peptide
1	E	4761	VAL	Peptide
1	E	4915	ASN	Peptide
1	E	4956	GLY	Peptide
1	E	588	ILE	Peptide
1	E	729	GLY	Peptide
1	E	739	ARG	Peptide
1	E	748	LEU	Peptide
1	E	816	PRO	Peptide
1	E	838	ARG	Peptide
1	E	846	TYR	Peptide
1	G	105	ALA	Peptide
1	G	142	LYS	Peptide
1	G	1476	VAL	Peptide
1	G	1579	VAL	Peptide
1	G	1596	TRP	Peptide
1	G	1635	GLU	Peptide
1	G	1710	HIS	Peptide
1	G	1756	SER	Peptide
1	G	1777	GLN	Peptide
1	G	1835	HIS	Peptide
1	G	1847	GLU	Peptide
1	G	2248	VAL	Peptide
1	G	2314	VAL	Peptide
1	G	2462	CYS	Peptide
1	G	2874	PRO	Peptide
1	G	3634	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	G	3940	ARG	Peptide
1	G	3987	LEU	Peptide
1	G	4031	ASP	Peptide
1	G	4110	MET	Peptide
1	G	4131	GLN	Peptide
1	G	4164	PRO	Peptide
1	G	4596	VAL	Peptide
1	G	4761	VAL	Peptide
1	G	4915	ASN	Peptide
1	G	4956	GLY	Peptide
1	G	588	ILE	Peptide
1	G	729	GLY	Peptide
1	G	739	ARG	Peptide
1	G	748	LEU	Peptide
1	G	816	PRO	Peptide
1	G	838	ARG	Peptide
1	G	846	TYR	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26537	0	25033	1033	0
1	C	26537	0	25033	1044	0
1	E	26537	0	25033	1045	0
1	G	26537	0	25033	1042	0
2	B	819	0	824	44	0
2	D	819	0	824	43	0
2	F	819	0	824	44	0
2	H	819	0	824	43	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
4	A	1	0	0	0	0
4	C	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	A	14	0	10	0	0
5	C	14	0	10	0	0
5	E	14	0	10	0	0
5	G	14	0	10	0	0
All	All	109488	0	103468	4127	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 19.

All (4127) 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:C:4522:LYS:O	1:C:4560:TYR:HB3	1.25	1.36
1:G:4522:LYS:O	1:G:4560:TYR:HB3	1.30	1.30
1:C:4808:ASP:CB	1:E:4523:VAL:HG11	1.65	1.25
1:G:4522:LYS:CB	1:G:4560:TYR:HD2	1.50	1.22
1:E:4522:LYS:CB	1:E:4560:TYR:HD2	1.56	1.19
1:E:207:PHE:CB	1:G:2326:ILE:HG12	1.81	1.11
1:C:207:PHE:CB	1:E:2326:ILE:HG12	1.80	1.11
1:A:207:PHE:CB	1:C:2326:ILE:HG12	1.81	1.11
1:A:2326:ILE:HG12	1:G:207:PHE:CB	1.81	1.10
1:A:4808:ASP:HB3	1:C:4523:VAL:HG11	1.35	1.05
1:G:4522:LYS:CB	1:G:4560:TYR:CD2	2.39	1.05
1:C:4808:ASP:HB3	1:E:4523:VAL:HG11	1.13	1.05
1:C:4866:LEU:N	1:E:4871:PHE:HE2	1.55	1.03
1:E:4866:LEU:N	1:G:4871:PHE:HE2	1.56	1.03
1:A:4808:ASP:O	1:C:4523:VAL:HG12	1.59	1.01
1:A:4871:PHE:HE2	1:G:4866:LEU:N	1.57	1.01
1:E:4789:PHE:HZ	1:G:4738:PHE:HZ	1.05	1.01
1:A:4866:LEU:N	1:C:4871:PHE:HE2	1.57	1.00
1:A:4789:PHE:HZ	1:C:4738:PHE:HZ	1.03	1.00
1:C:4789:PHE:CZ	1:E:4738:PHE:HZ	1.79	1.00
1:C:4789:PHE:HZ	1:E:4738:PHE:HZ	1.03	1.00
1:A:3940:ARG:NH2	1:G:173:GLU:CB	2.25	1.00
1:E:173:GLU:CB	1:G:3940:ARG:NH2	2.25	0.99
1:A:4789:PHE:CZ	1:C:4738:PHE:HZ	1.79	0.99
1:E:4522:LYS:CB	1:E:4560:TYR:CD2	2.46	0.98
1:E:4789:PHE:CZ	1:G:4738:PHE:HZ	1.80	0.98
1:A:173:GLU:CB	1:C:3940:ARG:NH2	2.27	0.97
1:C:173:GLU:CB	1:E:3940:ARG:NH2	2.26	0.97
1:A:2326:ILE:HG23	1:G:207:PHE:CB	1.95	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4808:ASP:HB3	1:E:4523:VAL:CG1	1.94	0.97
1:A:4738:PHE:HZ	1:G:4789:PHE:HZ	1.05	0.96
1:A:4738:PHE:HZ	1:G:4789:PHE:CZ	1.82	0.96
1:C:207:PHE:CB	1:E:2326:ILE:CG1	2.43	0.96
1:E:207:PHE:CB	1:G:2326:ILE:HG23	1.95	0.95
1:C:207:PHE:CB	1:E:2326:ILE:HG23	1.95	0.95
1:E:173:GLU:HA	1:G:3940:ARG:NH2	1.82	0.95
1:A:207:PHE:CB	1:C:2326:ILE:CG1	2.45	0.95
1:A:207:PHE:CB	1:C:2326:ILE:HG23	1.97	0.95
1:E:207:PHE:CB	1:G:2326:ILE:CG1	2.44	0.95
1:A:3940:ARG:NH2	1:G:173:GLU:HA	1.82	0.94
1:A:3940:ARG:HH21	1:G:173:GLU:CB	1.80	0.94
1:C:173:GLU:HA	1:E:3940:ARG:NH2	1.82	0.94
1:A:2326:ILE:CG1	1:G:207:PHE:CB	2.44	0.94
1:A:4523:VAL:HG13	1:G:4808:ASP:O	1.67	0.94
1:E:173:GLU:CB	1:G:3940:ARG:HH21	1.81	0.93
1:A:173:GLU:HA	1:C:3940:ARG:NH2	1.84	0.93
1:C:173:GLU:CB	1:E:3940:ARG:HH21	1.82	0.93
1:A:4808:ASP:HB3	1:C:4523:VAL:CG1	1.99	0.92
1:A:173:GLU:CB	1:C:3940:ARG:HH21	1.83	0.92
1:A:4809:ASP:OD1	1:C:4522:LYS:HA	1.70	0.91
1:A:4789:PHE:HZ	1:C:4738:PHE:CZ	1.89	0.91
1:C:4789:PHE:HZ	1:E:4738:PHE:CZ	1.89	0.90
1:A:3951:VAL:O	1:A:3955:MET:HB2	1.72	0.90
1:C:4865:GLY:C	1:E:4871:PHE:CE2	2.50	0.90
1:G:3951:VAL:O	1:G:3955:MET:HB2	1.72	0.90
1:E:4865:GLY:C	1:G:4871:PHE:CE2	2.51	0.89
1:C:3951:VAL:O	1:C:3955:MET:HB2	1.72	0.89
1:A:4865:GLY:C	1:C:4871:PHE:CE2	2.51	0.88
1:E:3951:VAL:O	1:E:3955:MET:HB2	1.72	0.88
1:E:2854:ALA:O	1:E:2858:LYS:HB2	1.74	0.88
1:E:4789:PHE:HZ	1:G:4738:PHE:CZ	1.91	0.88
1:A:4738:PHE:CZ	1:G:4789:PHE:HZ	1.91	0.88
1:A:2854:ALA:O	1:A:2858:LYS:HB2	1.74	0.87
1:C:2854:ALA:O	1:C:2858:LYS:HB2	1.74	0.87
1:G:2854:ALA:O	1:G:2858:LYS:HB2	1.74	0.87
1:A:4522:LYS:HA	1:G:4809:ASP:OD1	1.74	0.86
1:A:4871:PHE:CE2	1:G:4865:GLY:C	2.52	0.86
1:C:4808:ASP:HB2	1:E:4523:VAL:HG11	1.54	0.86
1:E:173:GLU:CA	1:G:3940:ARG:NH2	2.38	0.86
1:A:4865:GLY:C	1:C:4871:PHE:HE2	1.84	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4865:GLY:C	1:E:4871:PHE:HE2	1.82	0.86
1:A:4523:VAL:CG2	1:G:4808:ASP:HB3	2.05	0.86
1:C:4866:LEU:N	1:E:4871:PHE:CE2	2.44	0.86
1:C:173:GLU:CA	1:E:3940:ARG:NH2	2.39	0.86
1:A:3940:ARG:NH2	1:G:173:GLU:CA	2.38	0.85
1:A:4871:PHE:HE2	1:G:4865:GLY:C	1.85	0.85
1:E:4865:GLY:C	1:G:4871:PHE:HE2	1.83	0.85
1:C:4789:PHE:CZ	1:E:4738:PHE:CZ	2.64	0.85
1:E:4866:LEU:N	1:G:4871:PHE:CE2	2.45	0.85
1:A:2326:ILE:CG2	1:G:207:PHE:CB	2.55	0.84
1:C:207:PHE:CB	1:E:2326:ILE:CG2	2.55	0.84
1:A:4866:LEU:N	1:C:4871:PHE:CE2	2.45	0.84
1:C:4808:ASP:CB	1:E:4523:VAL:CG1	2.52	0.84
1:G:4522:LYS:O	1:G:4560:TYR:CB	2.22	0.84
1:A:4871:PHE:CE2	1:G:4866:LEU:N	2.46	0.83
1:E:4789:PHE:CZ	1:G:4738:PHE:CZ	2.66	0.83
1:A:173:GLU:CA	1:C:3940:ARG:NH2	2.40	0.83
1:E:207:PHE:CB	1:G:2326:ILE:CG2	2.55	0.83
1:A:4738:PHE:CZ	1:G:4789:PHE:CZ	2.67	0.83
1:A:4789:PHE:CZ	1:C:4738:PHE:CZ	2.64	0.83
1:A:207:PHE:CB	1:C:2326:ILE:CG2	2.57	0.82
1:E:4865:GLY:CA	1:G:4868:ILE:HG12	2.10	0.81
1:C:4523:VAL:HG23	1:C:4558:VAL:O	1.79	0.81
1:A:4868:ILE:HG12	1:G:4865:GLY:CA	2.10	0.81
1:C:4865:GLY:CA	1:E:4868:ILE:HG12	2.10	0.80
1:A:3940:ARG:HH21	1:G:173:GLU:HB2	1.47	0.80
1:A:4868:ILE:HG12	1:G:4865:GLY:HA3	1.62	0.80
1:C:4865:GLY:HA3	1:E:4868:ILE:HG12	1.63	0.79
1:A:4865:GLY:CA	1:C:4868:ILE:HG12	2.11	0.79
1:A:4865:GLY:HA3	1:C:4868:ILE:HG12	1.63	0.79
1:E:4865:GLY:HA3	1:G:4868:ILE:HG12	1.62	0.79
1:A:3903:GLY:O	1:A:3907:PHE:HB2	1.84	0.78
1:C:173:GLU:HB2	1:E:3940:ARG:HH21	1.48	0.78
1:A:4523:VAL:HA	1:A:4558:VAL:O	1.83	0.78
1:C:847:THR:H	1:C:1214:ARG:HH21	1.32	0.78
1:E:173:GLU:HB2	1:G:3940:ARG:HH21	1.47	0.78
1:A:847:THR:H	1:A:1214:ARG:HH21	1.32	0.78
1:C:3903:GLY:O	1:C:3907:PHE:HB2	1.84	0.77
1:E:847:THR:H	1:E:1214:ARG:HH21	1.32	0.77
1:A:3940:ARG:NH2	1:G:173:GLU:HB3	1.99	0.76
1:G:3903:GLY:O	1:G:3907:PHE:HB2	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3903:GLY:O	1:E:3907:PHE:HB2	1.84	0.76
1:A:173:GLU:HB2	1:C:3940:ARG:HH21	1.49	0.76
1:A:173:GLU:HB3	1:C:3940:ARG:NH2	2.01	0.76
1:G:847:THR:H	1:G:1214:ARG:HH21	1.32	0.76
1:E:173:GLU:HB3	1:G:3940:ARG:NH2	2.00	0.75
1:C:173:GLU:HB3	1:E:3940:ARG:NH2	2.01	0.74
1:A:43:GLY:H	1:A:45:ARG:HH22	1.36	0.74
1:A:4082:GLU:HA	1:A:4086:LYS:HD3	1.70	0.74
1:E:4082:GLU:HA	1:E:4086:LYS:HD3	1.70	0.73
1:G:1044:LYS:O	1:G:1048:ASP:HB2	1.88	0.73
1:E:1044:LYS:O	1:E:1048:ASP:HB2	1.88	0.73
1:G:4082:GLU:HA	1:G:4086:LYS:HD3	1.70	0.73
1:A:1044:LYS:O	1:A:1048:ASP:HB2	1.88	0.73
1:C:4082:GLU:HA	1:C:4086:LYS:HD3	1.70	0.73
1:A:28:ILE:H	1:A:31:GLU:HB2	1.54	0.73
1:G:43:GLY:H	1:G:45:ARG:HH22	1.36	0.73
1:C:1044:LYS:O	1:C:1048:ASP:HB2	1.88	0.73
1:E:4891:ILE:HD13	1:E:4914:HIS:HB3	1.71	0.72
1:A:4891:ILE:HD13	1:A:4914:HIS:HB3	1.71	0.72
1:C:28:ILE:H	1:C:31:GLU:HB2	1.54	0.72
1:E:43:GLY:H	1:E:45:ARG:HH22	1.36	0.72
1:C:4891:ILE:HD13	1:C:4914:HIS:HB3	1.71	0.72
1:A:2431:GLY:N	1:A:2477:TYR:HH	1.87	0.72
1:G:28:ILE:H	1:G:31:GLU:HB2	1.54	0.72
1:C:43:GLY:H	1:C:45:ARG:HH22	1.36	0.71
1:C:2431:GLY:N	1:C:2477:TYR:HH	1.87	0.71
1:E:1253:LYS:HG3	1:E:1601:ASN:HD21	1.55	0.71
1:G:4891:ILE:HD13	1:G:4914:HIS:HB3	1.71	0.71
1:C:1253:LYS:HG3	1:C:1601:ASN:HD21	1.55	0.71
1:G:1253:LYS:HG3	1:G:1601:ASN:HD21	1.55	0.71
1:A:1253:LYS:HG3	1:A:1601:ASN:HD21	1.55	0.71
1:A:4523:VAL:HG22	1:G:4808:ASP:HB3	1.70	0.71
1:G:1941:GLN:HE22	1:G:3611:ASN:H	1.39	0.71
1:A:2353:LYS:HG3	1:A:2354:ILE:HG13	1.73	0.71
1:C:1915:CYS:SG	1:C:2091:ARG:NH1	2.64	0.71
1:A:4630:GLN:HG2	1:A:4633:ARG:HH21	1.56	0.71
1:E:1941:GLN:HE22	1:E:3611:ASN:H	1.39	0.71
2:F:87:HIS:H	2:F:91:ILE:HB	1.55	0.71
1:A:620:CYS:SG	1:A:621:HIS:N	2.64	0.70
1:A:1915:CYS:SG	1:A:2091:ARG:NH1	2.64	0.70
2:B:87:HIS:H	2:B:91:ILE:HB	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2353:LYS:HG3	1:C:2354:ILE:HG13	1.73	0.70
1:C:620:CYS:SG	1:C:621:HIS:N	2.64	0.70
1:G:620:CYS:SG	1:G:621:HIS:N	2.64	0.70
1:G:2431:GLY:N	1:G:2477:TYR:HH	1.88	0.70
2:H:87:HIS:H	2:H:91:ILE:HB	1.55	0.70
1:E:28:ILE:H	1:E:31:GLU:HB2	1.54	0.70
1:C:173:GLU:CA	1:E:3940:ARG:HH21	2.04	0.70
1:E:620:CYS:SG	1:E:621:HIS:N	2.64	0.70
1:C:1444:GLY:HA3	1:C:1488:VAL:HA	1.73	0.70
1:G:1114:ARG:HB2	1:G:1206:SER:HB3	1.74	0.70
1:G:1444:GLY:HA3	1:G:1488:VAL:HA	1.73	0.70
1:G:4630:GLN:HG2	1:G:4633:ARG:HH21	1.56	0.70
1:A:2251:ASN:HB2	1:A:2254:LEU:HB2	1.74	0.70
1:E:4522:LYS:O	1:E:4560:TYR:HB3	1.91	0.70
1:G:2353:LYS:HG3	1:G:2354:ILE:HG13	1.73	0.70
1:A:1114:ARG:HB2	1:A:1206:SER:HB3	1.74	0.70
1:C:1941:GLN:HE22	1:C:3611:ASN:H	1.39	0.70
2:D:87:HIS:H	2:D:91:ILE:HB	1.55	0.70
1:E:2353:LYS:HG3	1:E:2354:ILE:HG13	1.73	0.70
1:G:1915:CYS:SG	1:G:2091:ARG:NH1	2.64	0.70
1:E:2431:GLY:N	1:E:2477:TYR:HH	1.90	0.69
1:E:4630:GLN:HG2	1:E:4633:ARG:HH21	1.56	0.69
1:A:1941:GLN:HE22	1:A:3611:ASN:H	1.39	0.69
1:C:1114:ARG:HB2	1:C:1206:SER:HB3	1.74	0.69
1:G:2251:ASN:HB2	1:G:2254:LEU:HB2	1.73	0.69
1:A:4523:VAL:HG21	1:G:4808:ASP:HB3	1.74	0.69
1:C:4630:GLN:HG2	1:C:4633:ARG:HH21	1.56	0.69
1:A:4752:LYS:HG3	1:A:4755:ARG:HD3	1.74	0.69
1:C:2251:ASN:HB2	1:C:2254:LEU:HB2	1.73	0.69
1:E:1915:CYS:SG	1:E:2091:ARG:NH1	2.64	0.69
1:A:1444:GLY:HA3	1:A:1488:VAL:HA	1.73	0.69
1:A:4737:ASN:HA	1:A:4740:PHE:HB3	1.75	0.69
1:C:207:PHE:CB	1:E:2326:ILE:CD1	2.71	0.69
1:C:4752:LYS:HG3	1:C:4755:ARG:HD3	1.74	0.69
1:E:1444:GLY:HA3	1:E:1488:VAL:HA	1.73	0.69
1:G:4752:LYS:HG3	1:G:4755:ARG:HD3	1.74	0.69
1:E:173:GLU:HA	1:G:3940:ARG:HH21	1.58	0.69
1:E:1114:ARG:HB2	1:E:1206:SER:HB3	1.74	0.69
1:E:2139:GLU:HA	1:E:2142:LEU:HD12	1.75	0.69
1:C:2139:GLU:HA	1:C:2142:LEU:HD12	1.75	0.68
1:E:2251:ASN:HB2	1:E:2254:LEU:HB2	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:207:PHE:CB	1:G:2326:ILE:CD1	2.71	0.68
1:E:173:GLU:CA	1:G:3940:ARG:HH21	2.02	0.68
1:A:2326:ILE:CD1	1:G:207:PHE:CB	2.71	0.68
1:C:4737:ASN:HA	1:C:4740:PHE:HB3	1.75	0.68
1:E:843:GLU:HB3	1:E:848:ARG:HH21	1.59	0.68
1:G:4737:ASN:HA	1:G:4740:PHE:HB3	1.75	0.68
1:A:3940:ARG:HH21	1:G:173:GLU:HA	1.58	0.68
1:E:4155:GLU:HB2	1:E:4158:ARG:HH11	1.59	0.68
1:G:2308:PHE:HA	1:G:2313:SER:HA	1.75	0.68
1:A:2139:GLU:HA	1:A:2142:LEU:HD12	1.75	0.67
1:C:4155:GLU:HB2	1:C:4158:ARG:HH11	1.59	0.67
1:E:4889:CYS:SG	1:E:4890:PHE:N	2.67	0.67
1:G:1253:LYS:HB2	1:G:1599:MET:H	1.59	0.67
1:G:4155:GLU:HB2	1:G:4158:ARG:HH11	1.59	0.67
1:G:4889:CYS:SG	1:G:4890:PHE:N	2.67	0.67
1:A:4610:LYS:O	1:A:4614:ASP:HB2	1.95	0.67
1:A:4889:CYS:SG	1:A:4890:PHE:N	2.67	0.67
1:C:843:GLU:HB3	1:C:848:ARG:HH21	1.59	0.67
1:C:4889:CYS:SG	1:C:4890:PHE:N	2.67	0.67
1:C:4957:ASP:OD1	1:C:4957:ASP:N	2.28	0.67
1:G:843:GLU:HB3	1:G:848:ARG:HH21	1.59	0.67
1:A:173:GLU:HA	1:C:3940:ARG:HH21	1.59	0.67
1:A:207:PHE:CB	1:C:2326:ILE:CD1	2.72	0.67
1:A:4155:GLU:HB2	1:A:4158:ARG:HH11	1.59	0.67
1:E:4737:ASN:HA	1:E:4740:PHE:HB3	1.75	0.67
1:A:2308:PHE:HA	1:A:2313:SER:HA	1.76	0.67
1:A:1253:LYS:HB2	1:A:1599:MET:H	1.59	0.67
1:A:2102:ALA:HA	1:A:2105:LYS:HE2	1.77	0.67
1:E:2308:PHE:HA	1:E:2313:SER:HA	1.76	0.67
1:G:2139:GLU:HA	1:G:2142:LEU:HD12	1.75	0.67
1:G:4610:LYS:O	1:G:4614:ASP:HB2	1.95	0.67
1:E:4752:LYS:HG3	1:E:4755:ARG:HD3	1.74	0.67
1:A:843:GLU:HB3	1:A:848:ARG:HH21	1.59	0.67
1:A:2835:SER:H	1:A:2838:LEU:HB2	1.60	0.67
1:E:1253:LYS:HB2	1:E:1599:MET:H	1.59	0.66
1:G:2102:ALA:HA	1:G:2105:LYS:HE2	1.77	0.66
1:E:2835:SER:H	1:E:2838:LEU:HB2	1.60	0.66
1:A:1482:ARG:NH1	1:A:1533:VAL:O	2.29	0.66
1:A:3647:LYS:NZ	1:A:3648:PRO:O	2.29	0.66
1:C:778:MET:N	1:C:778:MET:SD	2.69	0.66
1:G:2835:SER:H	1:G:2838:LEU:HB2	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2308:PHE:HA	1:C:2313:SER:HA	1.75	0.66
1:C:4610:LYS:O	1:C:4614:ASP:HB2	1.95	0.66
1:E:897:LYS:HD3	1:E:918:LEU:HD21	1.77	0.66
1:A:778:MET:N	1:A:778:MET:SD	2.69	0.66
1:A:3940:ARG:HH21	1:G:173:GLU:CA	2.02	0.66
1:C:2102:ALA:HA	1:C:2105:LYS:HE2	1.77	0.66
1:E:4957:ASP:OD1	1:E:4957:ASP:N	2.28	0.66
1:C:173:GLU:HA	1:E:3940:ARG:HH21	1.59	0.66
1:C:1253:LYS:HB2	1:C:1599:MET:H	1.59	0.66
1:C:1482:ARG:NH1	1:C:1533:VAL:O	2.29	0.66
1:E:2102:ALA:HA	1:E:2105:LYS:HE2	1.77	0.66
1:C:897:LYS:HD3	1:C:918:LEU:HD21	1.77	0.65
1:E:4610:LYS:O	1:E:4614:ASP:HB2	1.95	0.65
1:C:3647:LYS:NZ	1:C:3648:PRO:O	2.29	0.65
1:E:472:HIS:HA	1:E:475:LYS:HD3	1.78	0.65
1:G:897:LYS:HD3	1:G:918:LEU:HD21	1.77	0.65
1:A:1686:LEU:HA	1:A:1689:ILE:HD12	1.78	0.65
1:C:727:PHE:H	1:C:730:LEU:HD13	1.62	0.65
1:G:373:THR:HG21	1:G:397:GLY:HA3	1.79	0.65
1:A:4957:ASP:N	1:A:4957:ASP:OD1	2.28	0.65
1:C:1686:LEU:HA	1:C:1689:ILE:HD12	1.78	0.65
1:E:1686:LEU:HA	1:E:1689:ILE:HD12	1.78	0.65
1:G:3647:LYS:NZ	1:G:3648:PRO:O	2.29	0.65
1:G:4957:ASP:N	1:G:4957:ASP:OD1	2.28	0.65
1:G:867:VAL:HG22	1:G:1002:ASN:HB2	1.79	0.65
1:G:1482:ARG:NH1	1:G:1533:VAL:O	2.29	0.65
1:C:373:THR:HG21	1:C:397:GLY:HA3	1.79	0.65
1:E:373:THR:HG21	1:E:397:GLY:HA3	1.79	0.65
1:G:778:MET:SD	1:G:778:MET:N	2.69	0.65
1:E:3788:VAL:HG21	1:E:3867:THR:HG23	1.79	0.65
2:D:77:THR:HG22	2:D:79:ASP:H	1.62	0.65
1:E:778:MET:N	1:E:778:MET:SD	2.69	0.65
1:G:4759:SER:HA	1:G:4762:THR:HG22	1.79	0.65
1:A:727:PHE:H	1:A:730:LEU:HD13	1.62	0.65
1:C:4865:GLY:C	1:E:4871:PHE:CD2	2.74	0.65
1:E:727:PHE:H	1:E:730:LEU:HD13	1.62	0.65
1:E:909:ASP:HB2	1:E:914:GLN:HB2	1.79	0.65
1:E:3647:LYS:NZ	1:E:3648:PRO:O	2.29	0.65
1:E:4759:SER:HA	1:E:4762:THR:HG22	1.79	0.65
1:A:867:VAL:HG22	1:A:1002:ASN:HB2	1.79	0.64
1:A:897:LYS:HD3	1:A:918:LEU:HD21	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2835:SER:H	1:C:2838:LEU:HB2	1.60	0.64
1:E:184:VAL:HG22	1:E:191:TYR:CD1	2.32	0.64
2:F:77:THR:HG22	2:F:79:ASP:H	1.62	0.64
1:A:373:THR:HG21	1:A:397:GLY:HA3	1.79	0.64
2:B:77:THR:HG22	2:B:79:ASP:H	1.62	0.64
1:C:184:VAL:HG22	1:C:191:TYR:CD1	2.33	0.64
1:E:1482:ARG:NH1	1:E:1533:VAL:O	2.29	0.64
1:E:4183:GLU:O	1:E:4186:LYS:NZ	2.30	0.64
1:A:4865:GLY:C	1:C:4871:PHE:CD2	2.75	0.64
1:G:1095:ALA:O	1:G:1097:LYS:NZ	2.30	0.64
1:C:4808:ASP:HB2	1:E:4523:VAL:CG1	2.25	0.64
1:A:655:MET:HG2	1:A:836:HIS:HA	1.79	0.64
1:E:4865:GLY:C	1:G:4871:PHE:CD2	2.75	0.64
1:G:184:VAL:HG22	1:G:191:TYR:CD1	2.32	0.64
1:G:472:HIS:HA	1:G:475:LYS:HD3	1.78	0.64
1:A:472:HIS:HA	1:A:475:LYS:HD3	1.78	0.64
1:C:472:HIS:HA	1:C:475:LYS:HD3	1.78	0.64
1:E:679:VAL:HA	1:E:800:VAL:HG12	1.80	0.64
1:A:184:VAL:HG22	1:A:191:TYR:CD1	2.33	0.64
1:A:1095:ALA:O	1:A:1097:LYS:NZ	2.30	0.64
1:A:4085:VAL:HG13	1:A:4086:LYS:HD2	1.80	0.64
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.80	0.64
1:E:1095:ALA:O	1:E:1097:LYS:NZ	2.30	0.64
1:G:1686:LEU:HA	1:G:1689:ILE:HD12	1.78	0.64
1:C:434:ASP:O	1:C:438:LYS:NZ	2.31	0.64
1:C:4085:VAL:HG13	1:C:4086:LYS:HD2	1.80	0.64
1:E:655:MET:HG2	1:E:836:HIS:HA	1.79	0.64
1:E:1154:ARG:NH2	1:E:1180:GLU:OE2	2.31	0.64
1:G:909:ASP:HB2	1:G:914:GLN:HB2	1.79	0.64
1:C:1095:ALA:O	1:C:1097:LYS:NZ	2.30	0.64
1:C:3788:VAL:HG21	1:C:3867:THR:HG23	1.79	0.64
1:C:4949:CYS:SG	1:C:4950:TRP:N	2.71	0.64
1:E:2262:ASP:N	1:E:2262:ASP:OD1	2.31	0.64
1:G:3788:VAL:HG21	1:G:3867:THR:HG23	1.79	0.64
1:C:503:ASP:HA	1:C:561:ARG:HH22	1.63	0.63
1:C:867:VAL:HG22	1:C:1002:ASN:HB2	1.79	0.63
1:C:4809:ASP:OD1	1:E:4522:LYS:HA	1.96	0.63
1:E:477:ASN:OD1	1:E:480:ARG:NH2	2.31	0.63
1:G:434:ASP:O	1:G:438:LYS:NZ	2.31	0.63
1:G:477:ASN:OD1	1:G:480:ARG:NH2	2.31	0.63
1:G:3715:PHE:HA	1:G:3718:LYS:HD2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:298:ARG:HA	1:A:305:TYR:HA	1.81	0.63
1:A:434:ASP:O	1:A:438:LYS:NZ	2.31	0.63
1:E:867:VAL:HG22	1:E:1002:ASN:HB2	1.79	0.63
1:E:4085:VAL:HG13	1:E:4086:LYS:HD2	1.80	0.63
1:G:548:CYS:HB2	1:G:578:VAL:HG23	1.80	0.63
1:G:842:GLN:HG3	1:G:844:ARG:HH21	1.64	0.63
1:G:4085:VAL:HG13	1:G:4086:LYS:HD2	1.80	0.63
2:H:77:THR:HG22	2:H:79:ASP:H	1.62	0.63
1:A:1154:ARG:NH2	1:A:1180:GLU:OE2	2.31	0.63
1:C:4183:GLU:O	1:C:4186:LYS:NZ	2.30	0.63
1:C:4759:SER:HA	1:C:4762:THR:HG22	1.79	0.63
1:C:4865:GLY:O	1:E:4871:PHE:CD2	2.52	0.63
1:E:4865:GLY:HA2	1:G:4868:ILE:HG12	1.80	0.63
1:G:503:ASP:HA	1:G:561:ARG:HH22	1.63	0.63
1:G:880:ARG:HG3	1:G:884:LYS:HE3	1.80	0.63
1:A:477:ASN:OD1	1:A:480:ARG:NH2	2.31	0.63
1:A:4759:SER:HA	1:A:4762:THR:HG22	1.79	0.63
1:A:4871:PHE:CD2	1:G:4865:GLY:C	2.76	0.63
1:E:880:ARG:HG3	1:E:884:LYS:HE3	1.80	0.63
1:G:655:MET:HG2	1:G:836:HIS:HA	1.79	0.63
1:C:477:ASN:OD1	1:C:480:ARG:NH2	2.32	0.63
1:C:1430:VAL:HG12	1:C:1506:GLU:H	1.64	0.63
1:E:695:VAL:HG23	1:E:792:VAL:HG12	1.80	0.63
1:C:548:CYS:HB2	1:C:578:VAL:HG23	1.80	0.63
1:C:2262:ASP:N	1:C:2262:ASP:OD1	2.31	0.63
1:G:679:VAL:HA	1:G:800:VAL:HG12	1.80	0.63
1:G:727:PHE:H	1:G:730:LEU:HD13	1.62	0.63
1:G:4949:CYS:SG	1:G:4950:TRP:N	2.71	0.63
1:A:718:VAL:HA	1:A:736:CYS:H	1.64	0.63
1:A:909:ASP:HB2	1:A:914:GLN:HB2	1.79	0.63
1:C:1761:MET:SD	1:C:1761:MET:N	2.68	0.63
1:E:434:ASP:O	1:E:438:LYS:NZ	2.31	0.63
1:E:842:GLN:HG3	1:E:844:ARG:HH21	1.64	0.63
1:G:1114:ARG:HB3	1:G:1128:LEU:HD22	1.81	0.63
1:G:1154:ARG:NH2	1:G:1180:GLU:OE2	2.31	0.63
1:A:4183:GLU:O	1:A:4186:LYS:NZ	2.30	0.63
1:A:4808:ASP:O	1:C:4523:VAL:CG1	2.41	0.63
1:C:655:MET:HG2	1:C:836:HIS:HA	1.79	0.63
1:G:298:ARG:HA	1:G:305:TYR:HA	1.80	0.63
1:A:1430:VAL:HG12	1:A:1506:GLU:H	1.64	0.63
1:A:3715:PHE:HA	1:A:3718:LYS:HD2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4949:CYS:SG	1:A:4950:TRP:N	2.71	0.63
1:C:695:VAL:HG23	1:C:792:VAL:HG12	1.81	0.63
1:C:1154:ARG:NH2	1:C:1180:GLU:OE2	2.31	0.63
1:A:173:GLU:CA	1:C:3940:ARG:HH21	2.04	0.62
1:A:503:ASP:HA	1:A:561:ARG:HH22	1.63	0.62
1:E:4865:GLY:O	1:G:4871:PHE:CD2	2.52	0.62
1:G:4183:GLU:O	1:G:4186:LYS:NZ	2.30	0.62
1:C:718:VAL:HA	1:C:736:CYS:H	1.64	0.62
1:C:3715:PHE:HA	1:C:3718:LYS:HD2	1.81	0.62
1:E:503:ASP:HA	1:E:561:ARG:HH22	1.63	0.62
1:G:718:VAL:HA	1:G:736:CYS:H	1.64	0.62
1:G:1000:ALA:HB1	1:G:1046:ASN:HB3	1.81	0.62
1:A:3788:VAL:HG21	1:A:3867:THR:HG23	1.79	0.62
1:C:909:ASP:HB2	1:C:914:GLN:HB2	1.79	0.62
1:E:548:CYS:HB2	1:E:578:VAL:HG23	1.80	0.62
1:E:1125:ASP:HA	1:E:1598:ARG:HB2	1.81	0.62
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.80	0.62
1:C:1125:ASP:HA	1:C:1598:ARG:HB2	1.81	0.62
1:E:248:PRO:O	1:E:257:ARG:NH2	2.33	0.62
1:E:298:ARG:HA	1:E:305:TYR:HA	1.80	0.62
1:E:725:TYR:HA	1:E:732:LEU:HA	1.82	0.62
1:E:1228:THR:O	1:E:1233:GLN:NE2	2.32	0.62
1:E:1938:GLN:NE2	1:E:3611:ASN:O	2.33	0.62
1:G:248:PRO:O	1:G:257:ARG:NH2	2.33	0.62
1:A:1000:ALA:HB1	1:A:1046:ASN:HB3	1.81	0.62
1:E:1114:ARG:HB3	1:E:1128:LEU:HD22	1.81	0.62
1:C:725:TYR:HA	1:C:732:LEU:HA	1.82	0.62
1:E:3715:PHE:HA	1:E:3718:LYS:HD2	1.81	0.62
1:C:842:GLN:HG3	1:C:844:ARG:HH21	1.64	0.62
1:E:1430:VAL:HG12	1:E:1506:GLU:H	1.64	0.62
1:G:695:VAL:HG23	1:G:792:VAL:HG12	1.80	0.62
1:G:725:TYR:HA	1:G:732:LEU:HA	1.82	0.62
1:A:248:PRO:O	1:A:257:ARG:NH2	2.33	0.62
1:A:374:TYR:HA	1:A:391:ALA:HA	1.82	0.62
1:A:725:TYR:HA	1:A:732:LEU:HA	1.82	0.62
1:A:842:GLN:HG3	1:A:844:ARG:HH21	1.64	0.62
1:A:2326:ILE:HD13	1:G:207:PHE:CB	2.29	0.62
1:C:374:TYR:HA	1:C:391:ALA:HA	1.82	0.62
1:E:3683:LEU:HD22	1:E:3748:SER:HB2	1.82	0.62
1:E:4949:CYS:SG	1:E:4950:TRP:N	2.71	0.62
1:G:281:ARG:NH2	1:G:284:TRP:O	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1228:THR:O	1:G:1233:GLN:NE2	2.32	0.62
1:G:1938:GLN:NE2	1:G:3611:ASN:O	2.33	0.62
1:A:1125:ASP:HA	1:A:1598:ARG:HB2	1.81	0.62
1:A:1143:GLN:HA	1:A:1151:HIS:HA	1.82	0.62
1:C:1228:THR:O	1:C:1233:GLN:NE2	2.32	0.62
1:C:4523:VAL:HG13	1:C:4523:VAL:O	2.00	0.62
1:C:4865:GLY:HA2	1:E:4868:ILE:HG12	1.80	0.62
1:G:1125:ASP:HA	1:G:1598:ARG:HB2	1.81	0.62
1:G:1430:VAL:HG12	1:G:1506:GLU:H	1.64	0.62
1:G:3683:LEU:HD22	1:G:3748:SER:HB2	1.82	0.62
1:A:548:CYS:HB2	1:A:578:VAL:HG23	1.80	0.62
1:C:680:ASP:HB2	1:C:799:LYS:HG3	1.82	0.62
1:C:1302:TYR:HB2	1:C:1543:VAL:HB	1.82	0.62
1:C:1573:SER:HB3	1:C:1582:CYS:HA	1.82	0.62
1:C:4901:THR:OG1	1:C:4960:ARG:NH2	2.33	0.62
1:E:718:VAL:HA	1:E:736:CYS:H	1.64	0.62
1:A:281:ARG:NH2	1:A:284:TRP:O	2.33	0.61
1:A:585:ALA:HA	1:A:588:ILE:HD12	1.81	0.61
1:A:880:ARG:HG3	1:A:884:LYS:HE3	1.80	0.61
1:A:1089:ARG:NH1	1:A:1122:CYS:SG	2.73	0.61
1:A:1114:ARG:HB3	1:A:1128:LEU:HD22	1.81	0.61
1:A:1938:GLN:NE2	1:A:3611:ASN:O	2.33	0.61
1:C:248:PRO:O	1:C:257:ARG:NH2	2.33	0.61
1:C:880:ARG:HG3	1:C:884:LYS:HE3	1.80	0.61
1:E:281:ARG:NH2	1:E:284:TRP:O	2.33	0.61
1:E:1089:ARG:NH1	1:E:1122:CYS:SG	2.73	0.61
1:A:695:VAL:HG23	1:A:792:VAL:HG12	1.81	0.61
1:C:838:ARG:NH2	1:C:854:THR:OG1	2.33	0.61
1:G:585:ALA:HA	1:G:588:ILE:HD12	1.81	0.61
1:G:1143:GLN:HA	1:G:1151:HIS:HA	1.82	0.61
1:G:2221:TYR:O	1:G:2225:ASN:ND2	2.33	0.61
1:A:1228:THR:O	1:A:1233:GLN:NE2	2.32	0.61
1:A:3683:LEU:HD22	1:A:3748:SER:HB2	1.82	0.61
1:A:4865:GLY:O	1:C:4871:PHE:CD2	2.53	0.61
1:A:4868:ILE:HG12	1:G:4865:GLY:HA2	1.80	0.61
1:C:207:PHE:CB	1:E:2326:ILE:HD13	2.30	0.61
1:C:281:ARG:NH2	1:C:284:TRP:O	2.33	0.61
1:C:1089:ARG:NH1	1:C:1122:CYS:SG	2.73	0.61
1:C:1938:GLN:NE2	1:C:3611:ASN:O	2.33	0.61
1:E:838:ARG:NH2	1:E:854:THR:OG1	2.33	0.61
2:B:25:HIS:HB2	2:B:104:LEU:HD11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1114:ARG:HB3	1:C:1128:LEU:HD22	1.81	0.61
1:C:1471:ASP:H	1:C:1474:GLY:H	1.48	0.61
1:E:207:PHE:CB	1:G:2326:ILE:HD13	2.30	0.61
1:E:4901:THR:OG1	1:E:4960:ARG:NH2	2.33	0.61
1:A:2262:ASP:OD1	1:A:2262:ASP:N	2.31	0.61
1:A:4871:PHE:CD2	1:G:4865:GLY:O	2.54	0.61
1:G:2262:ASP:OD1	1:G:2262:ASP:N	2.31	0.61
2:H:25:HIS:HB2	2:H:104:LEU:HD11	1.82	0.61
1:A:4901:THR:OG1	1:A:4960:ARG:NH2	2.33	0.61
1:G:680:ASP:HB2	1:G:799:LYS:HG3	1.82	0.61
1:G:2707:VAL:HG11	1:G:2786:TRP:HE1	1.66	0.61
1:A:838:ARG:NH2	1:A:854:THR:OG1	2.34	0.61
1:A:1471:ASP:H	1:A:1474:GLY:H	1.48	0.61
1:C:298:ARG:HA	1:C:305:TYR:HA	1.80	0.61
1:C:585:ALA:HA	1:C:588:ILE:HD12	1.81	0.61
1:C:1143:GLN:HA	1:C:1151:HIS:HA	1.82	0.61
1:E:518:ALA:O	1:E:520:ARG:NH1	2.33	0.61
1:E:1573:SER:HB3	1:E:1582:CYS:HA	1.82	0.61
1:G:838:ARG:NH2	1:G:854:THR:OG1	2.34	0.61
1:A:193:HIS:HD2	1:A:208:GLN:HB2	1.66	0.61
1:A:518:ALA:O	1:A:520:ARG:NH1	2.33	0.61
1:A:1912:GLN:OE1	1:A:2091:ARG:NH1	2.34	0.61
1:E:374:TYR:HA	1:E:391:ALA:HA	1.82	0.61
1:E:1912:GLN:OE1	1:E:2091:ARG:NH1	2.34	0.61
1:G:374:TYR:HA	1:G:391:ALA:HA	1.82	0.61
1:A:1302:TYR:HB2	1:A:1543:VAL:HB	1.82	0.61
1:A:2707:VAL:HG11	1:A:2786:TRP:HE1	1.66	0.61
1:C:4005:VAL:HB	1:C:4115:ARG:HH21	1.66	0.61
1:E:680:ASP:HB2	1:E:799:LYS:HG3	1.82	0.61
1:E:2317:ASN:OD1	1:E:2317:ASN:N	2.34	0.61
1:E:2707:VAL:HG11	1:E:2786:TRP:HE1	1.66	0.61
1:G:1089:ARG:NH1	1:G:1122:CYS:SG	2.73	0.61
1:G:1302:TYR:HB2	1:G:1543:VAL:HB	1.82	0.61
1:A:680:ASP:HB2	1:A:799:LYS:HG3	1.82	0.61
1:A:2221:TYR:O	1:A:2225:ASN:ND2	2.33	0.61
1:E:1143:GLN:HA	1:E:1151:HIS:HA	1.82	0.61
1:E:1471:ASP:H	1:E:1474:GLY:H	1.48	0.61
1:G:518:ALA:O	1:G:520:ARG:NH1	2.33	0.61
1:G:846:TYR:HH	1:G:1222:SER:HG	1.49	0.61
1:G:3771:ASN:ND2	1:G:3773:THR:OG1	2.30	0.61
1:A:647:ARG:NE	1:A:648:LEU:O	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1573:SER:HB3	1:A:1582:CYS:HA	1.82	0.60
1:A:2208:SER:HG	1:A:2211:ASN:H	1.49	0.60
1:C:193:HIS:HD2	1:C:208:GLN:HB2	1.66	0.60
1:E:1503:ASN:O	1:E:1523:ASN:ND2	2.34	0.60
1:E:2005:MET:O	1:E:2009:GLY:N	2.33	0.60
1:E:4005:VAL:HB	1:E:4115:ARG:HH21	1.66	0.60
1:A:3771:ASN:ND2	1:A:3773:THR:OG1	2.30	0.60
1:G:1503:ASN:O	1:G:1523:ASN:ND2	2.34	0.60
1:G:1573:SER:HB3	1:G:1582:CYS:HA	1.82	0.60
1:G:1912:GLN:OE1	1:G:2091:ARG:NH1	2.34	0.60
2:H:27:THR:HA	2:H:38:SER:HA	1.83	0.60
1:A:207:PHE:CB	1:C:2326:ILE:HD13	2.31	0.60
1:C:173:GLU:HA	1:E:3940:ARG:HH22	1.64	0.60
1:C:371:TRP:N	1:C:394:HIS:O	2.33	0.60
1:C:1000:ALA:HB1	1:C:1046:ASN:HB3	1.81	0.60
1:C:2707:VAL:HG11	1:C:2786:TRP:HE1	1.66	0.60
1:E:585:ALA:HA	1:E:588:ILE:HD12	1.81	0.60
1:G:4005:VAL:HB	1:G:4115:ARG:HH21	1.66	0.60
2:H:8:SER:H	2:H:71:ARG:HB3	1.67	0.60
1:A:1218:GLY:HA3	1:A:1240:ALA:H	1.67	0.60
1:A:4495:TYR:HA	1:A:4498:ARG:HD2	1.84	0.60
1:C:518:ALA:O	1:C:520:ARG:NH1	2.33	0.60
1:C:3683:LEU:HD22	1:C:3748:SER:HB2	1.82	0.60
2:D:25:HIS:HB2	2:D:104:LEU:HD11	1.82	0.60
1:E:2315:GLU:OE2	1:E:3814:LYS:NZ	2.35	0.60
1:G:3856:GLN:NE2	1:G:3923:GLU:O	2.35	0.60
2:H:7:ILE:H	2:H:72:ALA:HA	1.67	0.60
1:A:1303:ARG:NH2	1:A:1447:THR:O	2.35	0.60
1:A:4749:MET:SD	1:A:4755:ARG:NH1	2.75	0.60
1:C:35:LEU:HD22	1:C:49:LEU:HB3	1.84	0.60
2:D:8:SER:H	2:D:71:ARG:HB3	1.67	0.60
1:E:1000:ALA:HB1	1:E:1046:ASN:HB3	1.81	0.60
1:E:1303:ARG:NH2	1:E:1447:THR:O	2.35	0.60
1:E:2221:TYR:O	1:E:2225:ASN:ND2	2.33	0.60
1:E:4495:TYR:HA	1:E:4498:ARG:HD2	1.84	0.60
1:E:4900:ASP:OD1	1:E:4905:GLY:N	2.31	0.60
1:G:4749:MET:SD	1:G:4755:ARG:NH1	2.75	0.60
1:A:1156:TRP:HE3	1:A:1160:ASP:HB2	1.67	0.60
1:A:2315:GLU:OE2	1:A:3814:LYS:NZ	2.35	0.60
1:A:4202:GLN:HG3	1:A:4203:LEU:HD22	1.84	0.60
1:A:4865:GLY:HA2	1:C:4868:ILE:HG12	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1912:GLN:OE1	1:C:2091:ARG:NH1	2.34	0.60
1:C:2208:SER:HG	1:C:2211:ASN:H	1.49	0.60
1:C:4202:GLN:HG3	1:C:4203:LEU:HD22	1.84	0.60
1:C:4495:TYR:HA	1:C:4498:ARG:HD2	1.84	0.60
2:F:27:THR:HA	2:F:38:SER:HA	1.83	0.60
1:A:1503:ASN:O	1:A:1523:ASN:ND2	2.34	0.60
1:A:3856:GLN:NE2	1:A:3923:GLU:O	2.35	0.60
1:A:4617:TYR:OH	1:A:4629:GLY:O	2.20	0.60
1:C:2317:ASN:OD1	1:C:2317:ASN:N	2.34	0.60
1:E:546:LYS:O	1:E:550:GLN:NE2	2.34	0.60
1:E:1218:GLY:HA3	1:E:1240:ALA:H	1.67	0.60
1:E:4749:MET:SD	1:E:4755:ARG:NH1	2.75	0.60
2:F:7:ILE:H	2:F:72:ALA:HA	1.66	0.60
1:C:546:LYS:O	1:C:550:GLN:NE2	2.34	0.60
1:C:1272:ARG:HH12	1:C:1590:PHE:HB2	1.66	0.60
1:C:3856:GLN:NE2	1:C:3923:GLU:O	2.35	0.60
1:C:4617:TYR:OH	1:C:4629:GLY:O	2.20	0.60
1:E:173:GLU:HA	1:G:3940:ARG:HH22	1.64	0.60
1:E:3791:PHE:HA	1:E:3794:LEU:HD12	1.84	0.60
2:F:25:HIS:HB2	2:F:104:LEU:HD11	1.82	0.60
1:G:4901:THR:OG1	1:G:4960:ARG:NH2	2.33	0.60
1:A:35:LEU:HD22	1:A:49:LEU:HB3	1.84	0.60
2:B:8:SER:H	2:B:71:ARG:HB3	1.67	0.60
1:E:1302:TYR:HB2	1:E:1543:VAL:HB	1.82	0.60
1:G:2317:ASN:N	1:G:2317:ASN:OD1	2.34	0.60
1:A:3845:GLN:HE21	1:A:3923:GLU:HG3	1.66	0.60
1:A:4005:VAL:HB	1:A:4115:ARG:HH21	1.66	0.60
1:A:4868:ILE:CD1	1:G:4865:GLY:HA2	2.32	0.60
1:C:1218:GLY:HA3	1:C:1240:ALA:H	1.67	0.60
1:C:1827:THR:HA	1:C:1830:ILE:HD12	1.84	0.60
1:C:3771:ASN:ND2	1:C:3773:THR:OG1	2.30	0.60
1:C:3791:PHE:HA	1:C:3794:LEU:HD12	1.84	0.60
1:E:4202:GLN:HG3	1:E:4203:LEU:HD22	1.84	0.60
1:G:1548:THR:OG1	1:G:1549:SER:N	2.34	0.60
1:G:4202:GLN:HG3	1:G:4203:LEU:HD22	1.84	0.60
1:G:4495:TYR:HA	1:G:4498:ARG:HD2	1.84	0.60
1:A:3808:ALA:HA	1:A:3811:ARG:HD3	1.84	0.59
1:A:4844:ARG:NH1	1:A:4844:ARG:O	2.35	0.59
1:C:2418:ILE:HG22	1:C:2421:ARG:HB2	1.84	0.59
1:C:4749:MET:SD	1:C:4755:ARG:NH1	2.75	0.59
1:E:228:LEU:HB3	1:E:289:ILE:HB	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2846:ALA:O	1:E:2883:LYS:NZ	2.35	0.59
1:E:3845:GLN:HE21	1:E:3923:GLU:HG3	1.66	0.59
1:G:1156:TRP:HE3	1:G:1160:ASP:HB2	1.67	0.59
1:G:1471:ASP:H	1:G:1474:GLY:H	1.48	0.59
1:G:2315:GLU:OE2	1:G:3814:LYS:NZ	2.35	0.59
1:G:3808:ALA:HA	1:G:3811:ARG:HD3	1.84	0.59
1:A:546:LYS:O	1:A:550:GLN:NE2	2.34	0.59
1:A:1272:ARG:HH12	1:A:1590:PHE:HB2	1.66	0.59
1:C:1303:ARG:NH2	1:C:1447:THR:O	2.35	0.59
1:C:1845:LEU:O	1:C:1893:GLY:N	2.35	0.59
1:C:2846:ALA:O	1:C:2883:LYS:NZ	2.36	0.59
1:E:35:LEU:HD22	1:E:49:LEU:HB3	1.84	0.59
1:E:2208:SER:HG	1:E:2211:ASN:H	1.50	0.59
1:G:193:HIS:HD2	1:G:208:GLN:HB2	1.66	0.59
1:G:1272:ARG:HH12	1:G:1590:PHE:HB2	1.66	0.59
1:C:1123:GLN:OE1	1:C:1133:ARG:NH1	2.35	0.59
1:C:4844:ARG:NH1	1:C:4844:ARG:O	2.35	0.59
1:E:731:HIS:ND1	1:E:739:ARG:O	2.35	0.59
1:E:1123:GLN:OE1	1:E:1133:ARG:NH1	2.35	0.59
1:E:4865:GLY:HA2	1:G:4868:ILE:CD1	2.32	0.59
1:G:731:HIS:ND1	1:G:739:ARG:O	2.35	0.59
1:A:20:VAL:HG12	1:A:216:PRO:HA	1.85	0.59
1:A:848:ARG:NH2	1:A:1607:ASP:OD2	2.36	0.59
1:A:4139:ILE:O	1:A:4147:GLU:N	2.34	0.59
2:B:7:ILE:H	2:B:72:ALA:HA	1.67	0.59
1:C:647:ARG:NE	1:C:648:LEU:O	2.31	0.59
1:C:3784:GLU:OE1	1:C:3785:LYS:NZ	2.36	0.59
1:C:3853:SER:O	1:C:3857:ASN:ND2	2.35	0.59
2:D:27:THR:HA	2:D:38:SER:HA	1.83	0.59
1:E:1272:ARG:HH12	1:E:1590:PHE:HB2	1.66	0.59
1:E:1845:LEU:O	1:E:1893:GLY:N	2.35	0.59
1:G:3791:PHE:HA	1:G:3794:LEU:HD12	1.84	0.59
1:G:3845:GLN:HE21	1:G:3923:GLU:HG3	1.66	0.59
1:C:228:LEU:HB3	1:C:289:ILE:HB	1.84	0.59
1:C:1503:ASN:O	1:C:1523:ASN:ND2	2.34	0.59
1:E:2418:ILE:HG22	1:E:2421:ARG:HB2	1.84	0.59
1:E:4844:ARG:NH1	1:E:4844:ARG:O	2.35	0.59
1:G:4617:TYR:OH	1:G:4629:GLY:O	2.20	0.59
1:A:1827:THR:HA	1:A:1830:ILE:HD12	1.84	0.59
1:C:20:VAL:HG12	1:C:216:PRO:HA	1.85	0.59
1:E:193:HIS:HD2	1:E:208:GLN:HB2	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1303:ARG:NH2	1:G:1447:THR:O	2.35	0.59
1:G:1845:LEU:O	1:G:1893:GLY:N	2.35	0.59
1:A:799:LYS:HB3	1:A:1620:GLN:HB2	1.85	0.59
1:A:1099:GLY:H	1:A:1169:THR:HG23	1.67	0.59
1:A:1101:TRP:HA	1:A:1237:GLU:HB2	1.85	0.59
1:A:1845:LEU:O	1:A:1893:GLY:N	2.35	0.59
1:A:3791:PHE:HA	1:A:3794:LEU:HD12	1.84	0.59
1:C:1168:MET:HE1	1:C:1201:PHE:HB2	1.84	0.59
1:C:2005:MET:O	1:C:2009:GLY:N	2.33	0.59
1:C:2315:GLU:OE2	1:C:3814:LYS:NZ	2.35	0.59
1:E:1099:GLY:H	1:E:1169:THR:HG23	1.67	0.59
1:E:3853:SER:O	1:E:3857:ASN:ND2	2.35	0.59
1:G:1099:GLY:H	1:G:1169:THR:HG23	1.67	0.59
1:G:2846:ALA:O	1:G:2883:LYS:NZ	2.36	0.59
1:G:3632:THR:O	1:G:3635:HIS:NE2	2.35	0.59
1:A:2317:ASN:N	1:A:2317:ASN:OD1	2.34	0.59
1:A:2846:ALA:O	1:A:2883:LYS:NZ	2.35	0.59
1:C:1737:THR:OG1	1:C:1738:LEU:N	2.36	0.59
1:C:3808:ALA:HA	1:C:3811:ARG:HD3	1.84	0.59
1:C:4139:ILE:O	1:C:4147:GLU:N	2.34	0.59
1:E:848:ARG:NH2	1:E:1607:ASP:OD2	2.36	0.59
1:E:1827:THR:HA	1:E:1830:ILE:HD12	1.84	0.59
1:G:848:ARG:NH2	1:G:1607:ASP:OD2	2.36	0.59
1:A:731:HIS:ND1	1:A:739:ARG:O	2.35	0.59
1:C:3632:THR:O	1:C:3635:HIS:NE2	2.35	0.59
1:C:4900:ASP:OD1	1:C:4905:GLY:N	2.31	0.59
1:E:3856:GLN:NE2	1:E:3923:GLU:O	2.35	0.59
2:F:8:SER:H	2:F:71:ARG:HB3	1.67	0.59
1:G:546:LYS:O	1:G:550:GLN:NE2	2.34	0.59
1:G:799:LYS:HB3	1:G:1620:GLN:HB2	1.85	0.59
1:A:3940:ARG:HH22	1:G:173:GLU:HA	1.65	0.59
2:B:27:THR:HA	2:B:38:SER:HA	1.83	0.59
1:C:731:HIS:ND1	1:C:739:ARG:O	2.35	0.59
1:C:848:ARG:NH2	1:C:1607:ASP:OD2	2.36	0.59
1:C:3845:GLN:HE21	1:C:3923:GLU:HG3	1.66	0.59
1:C:4889:CYS:HB3	1:C:4893:GLY:H	1.68	0.59
1:E:20:VAL:HG12	1:E:216:PRO:HA	1.85	0.59
1:G:556:ASP:N	1:G:556:ASP:OD1	2.36	0.59
1:G:1218:GLY:HA3	1:G:1240:ALA:H	1.66	0.59
1:G:3853:SER:O	1:G:3857:ASN:ND2	2.35	0.59
1:C:1449:ASP:OD1	1:C:1449:ASP:N	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4009:ASN:N	1:C:4009:ASN:OD1	2.36	0.58
1:E:371:TRP:N	1:E:394:HIS:O	2.33	0.58
1:G:35:LEU:HD22	1:G:49:LEU:HB3	1.84	0.58
1:G:245:LEU:HA	1:G:262:TYR:HA	1.85	0.58
1:A:1168:MET:HE1	1:A:1201:PHE:HB2	1.84	0.58
1:A:3853:SER:O	1:A:3857:ASN:ND2	2.35	0.58
1:C:1699:ARG:NH1	1:C:1816:PHE:O	2.36	0.58
1:C:3834:ASP:OD1	1:C:3834:ASP:N	2.36	0.58
1:E:245:LEU:HA	1:E:262:TYR:HA	1.85	0.58
1:E:1737:THR:OG1	1:E:1738:LEU:N	2.36	0.58
1:E:3808:ALA:HA	1:E:3811:ARG:HD3	1.84	0.58
1:G:4844:ARG:NH1	1:G:4844:ARG:O	2.35	0.58
1:C:2737:LYS:NZ	1:C:2758:MET:SD	2.76	0.58
1:C:4865:GLY:HA2	1:E:4868:ILE:CD1	2.33	0.58
2:D:7:ILE:H	2:D:72:ALA:HA	1.67	0.58
1:E:4617:TYR:OH	1:E:4629:GLY:O	2.20	0.58
1:G:20:VAL:HG12	1:G:216:PRO:HA	1.85	0.58
1:G:228:LEU:HB3	1:G:289:ILE:HB	1.84	0.58
1:G:734:SER:O	1:G:739:ARG:NH1	2.37	0.58
1:G:1827:THR:HA	1:G:1830:ILE:HD12	1.84	0.58
1:G:3834:ASP:N	1:G:3834:ASP:OD1	2.36	0.58
1:A:2418:ILE:HG22	1:A:2421:ARG:HB2	1.84	0.58
1:A:3784:GLU:OE1	1:A:3785:LYS:NZ	2.35	0.58
1:A:4171:ARG:HH12	1:A:4175:PHE:HD1	1.51	0.58
1:A:4800:GLY:HA2	1:A:4804:ASP:HB3	1.86	0.58
1:C:1099:GLY:H	1:C:1169:THR:HG23	1.67	0.58
1:C:1101:TRP:HA	1:C:1237:GLU:HB2	1.85	0.58
1:C:1156:TRP:HE3	1:C:1160:ASP:HB2	1.67	0.58
1:C:3743:GLN:NE2	1:C:3781:TYR:OH	2.37	0.58
1:E:556:ASP:OD1	1:E:556:ASP:N	2.36	0.58
1:G:1123:GLN:OE1	1:G:1133:ARG:NH1	2.35	0.58
1:G:1761:MET:SD	1:G:1761:MET:N	2.68	0.58
1:G:2737:LYS:NZ	1:G:2758:MET:SD	2.76	0.58
1:A:3940:ARG:HH22	1:G:173:GLU:CA	2.16	0.58
1:A:4011:VAL:HG12	1:A:4015:LEU:HD23	1.85	0.58
1:C:2745:GLY:H	1:C:2754:VAL:HG13	1.68	0.58
1:C:2832:VAL:HG11	1:C:2898:GLN:HB3	1.86	0.58
1:C:4011:VAL:HG12	1:C:4015:LEU:HD23	1.85	0.58
1:C:4886:GLU:O	1:C:4896:ASN:ND2	2.37	0.58
1:E:1156:TRP:HE3	1:E:1160:ASP:HB2	1.67	0.58
1:E:2832:VAL:HG11	1:E:2898:GLN:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3743:GLN:NE2	1:E:3781:TYR:OH	2.37	0.58
1:E:3784:GLU:OE1	1:E:3785:LYS:NZ	2.36	0.58
1:E:4800:GLY:HA2	1:E:4804:ASP:HB3	1.86	0.58
1:G:2208:SER:HG	1:G:2211:ASN:H	1.49	0.58
1:G:4009:ASN:OD1	1:G:4009:ASN:N	2.36	0.58
1:A:734:SER:O	1:A:739:ARG:NH1	2.37	0.58
1:C:4800:GLY:HA2	1:C:4804:ASP:HB3	1.86	0.58
1:E:1137:PHE:HA	1:E:1144:ARG:HA	1.85	0.58
1:E:1168:MET:HE1	1:E:1201:PHE:HB2	1.84	0.58
1:E:4889:CYS:HB3	1:E:4893:GLY:H	1.68	0.58
1:G:2745:GLY:H	1:G:2754:VAL:HG13	1.68	0.58
1:A:1305:SER:HB3	1:A:1591:LEU:HB2	1.85	0.58
1:A:3834:ASP:N	1:A:3834:ASP:OD1	2.36	0.58
1:A:4142:SER:O	1:A:4144:LYS:NZ	2.35	0.58
1:A:4597:PRO:O	1:A:4601:PHE:N	2.32	0.58
1:A:4865:GLY:HA2	1:C:4868:ILE:CD1	2.34	0.58
1:C:4623:SER:O	1:C:4630:GLN:NE2	2.37	0.58
1:E:23:GLN:NE2	1:E:52:THR:OG1	2.36	0.58
1:E:799:LYS:HB3	1:E:1620:GLN:HB2	1.85	0.58
1:E:1699:ARG:NH1	1:E:1816:PHE:O	2.36	0.58
1:G:1699:ARG:NH1	1:G:1816:PHE:O	2.36	0.58
1:G:3784:GLU:OE1	1:G:3785:LYS:NZ	2.36	0.58
1:G:4889:CYS:HB3	1:G:4893:GLY:H	1.68	0.58
1:A:1902:PRO:HA	1:A:1905:LEU:HB3	1.86	0.58
1:A:2737:LYS:NZ	1:A:2758:MET:SD	2.76	0.58
1:C:245:LEU:HA	1:C:262:TYR:HA	1.85	0.58
1:C:1548:THR:OG1	1:C:1549:SER:N	2.34	0.58
1:C:2258:LEU:O	1:C:3811:ARG:NH2	2.37	0.58
1:C:2306:ALA:O	1:C:2317:ASN:ND2	2.37	0.58
1:C:3803:VAL:O	1:C:3832:GLN:NE2	2.36	0.58
1:E:1040:ASP:HA	1:E:1043:LYS:HB2	1.85	0.58
1:E:2737:LYS:NZ	1:E:2758:MET:SD	2.76	0.58
1:E:4623:SER:O	1:E:4630:GLN:NE2	2.37	0.58
1:E:4804:ASP:N	1:E:4804:ASP:OD1	2.37	0.58
1:G:371:TRP:N	1:G:394:HIS:O	2.33	0.58
1:G:2306:ALA:O	1:G:2317:ASN:ND2	2.36	0.58
1:G:2418:ILE:HG22	1:G:2421:ARG:HB2	1.84	0.58
1:G:3803:VAL:O	1:G:3832:GLN:NE2	2.36	0.58
1:A:22:LEU:HD22	1:A:212:TRP:HB3	1.86	0.58
1:A:1272:ARG:NH2	1:A:1590:PHE:O	2.37	0.58
1:A:2306:ALA:O	1:A:2317:ASN:ND2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1434:PRO:O	1:E:1440:ASN:ND2	2.36	0.58
1:G:4171:ARG:HH12	1:G:4175:PHE:HD1	1.51	0.58
1:G:4623:SER:O	1:G:4630:GLN:NE2	2.37	0.58
1:G:4800:GLY:HA2	1:G:4804:ASP:HB3	1.86	0.58
1:A:228:LEU:HB3	1:A:289:ILE:HB	1.84	0.58
1:A:1123:GLN:OE1	1:A:1133:ARG:NH1	2.35	0.58
1:C:1137:PHE:HA	1:C:1144:ARG:HA	1.85	0.58
1:C:1272:ARG:NH2	1:C:1590:PHE:O	2.37	0.58
1:E:1101:TRP:HA	1:E:1237:GLU:HB2	1.85	0.58
1:E:2745:GLY:H	1:E:2754:VAL:HG13	1.68	0.58
1:G:1272:ARG:NH2	1:G:1590:PHE:O	2.37	0.58
1:A:23:GLN:NE2	1:A:52:THR:OG1	2.36	0.57
1:A:173:GLU:HA	1:C:3940:ARG:HH22	1.66	0.57
1:A:1719:LEU:HD23	1:A:1722:ASN:HD21	1.69	0.57
1:A:2745:GLY:H	1:A:2754:VAL:HG13	1.68	0.57
1:A:3743:GLN:NE2	1:A:3781:TYR:OH	2.37	0.57
1:A:4047:ARG:HA	1:A:4050:HIS:HB3	1.86	0.57
1:C:4047:ARG:HA	1:C:4050:HIS:HB3	1.86	0.57
1:E:1449:ASP:OD1	1:E:1449:ASP:N	2.33	0.57
1:E:3803:VAL:O	1:E:3832:GLN:NE2	2.36	0.57
1:E:3841:PHE:HA	1:E:3844:LEU:HD12	1.86	0.57
1:G:1168:MET:HE1	1:G:1201:PHE:HB2	1.84	0.57
1:A:143:LEU:O	1:A:190:ARG:NH1	2.37	0.57
1:A:1548:THR:OG1	1:A:1549:SER:N	2.34	0.57
1:C:799:LYS:HB3	1:C:1620:GLN:HB2	1.85	0.57
1:C:2060:GLN:HA	1:C:2063:ILE:HD12	1.86	0.57
1:E:1902:PRO:HA	1:E:1905:LEU:HB3	1.86	0.57
1:G:647:ARG:NE	1:G:648:LEU:O	2.31	0.57
1:A:173:GLU:CA	1:C:3940:ARG:HH22	2.18	0.57
1:A:1699:ARG:NH1	1:A:1816:PHE:O	2.36	0.57
1:A:2832:VAL:HG11	1:A:2898:GLN:HB3	1.86	0.57
1:A:4623:SER:O	1:A:4630:GLN:NE2	2.37	0.57
1:A:4886:GLU:O	1:A:4896:ASN:ND2	2.37	0.57
1:C:23:GLN:NE2	1:C:52:THR:OG1	2.37	0.57
1:C:833:LYS:HA	1:C:1614:ARG:HH12	1.69	0.57
1:C:3854:ASP:N	1:C:3854:ASP:OD1	2.35	0.57
1:C:4142:SER:O	1:C:4144:LYS:NZ	2.35	0.57
1:E:22:LEU:HD22	1:E:212:TRP:HB3	1.86	0.57
1:E:4521:TYR:CE2	1:E:4559:HIS:HB3	2.39	0.57
1:G:1305:SER:HB3	1:G:1591:LEU:HB2	1.85	0.57
1:G:1510:VAL:HG12	1:G:1511:VAL:HG23	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1703:TYR:HD2	1:G:1820:PRO:HB2	1.69	0.57
1:G:2832:VAL:HG11	1:G:2898:GLN:HB3	1.86	0.57
1:G:4886:GLU:O	1:G:4896:ASN:ND2	2.37	0.57
1:A:608:HIS:HA	1:A:611:LEU:HD13	1.86	0.57
1:C:1305:SER:HB3	1:C:1591:LEU:HB2	1.85	0.57
1:C:1902:PRO:HA	1:C:1905:LEU:HB3	1.85	0.57
1:C:2221:TYR:O	1:C:2225:ASN:ND2	2.33	0.57
1:E:187:SER:O	1:G:2419:ARG:HD2	2.05	0.57
1:E:1719:LEU:HD23	1:E:1722:ASN:HD21	1.69	0.57
1:G:23:GLN:NE2	1:G:52:THR:OG1	2.37	0.57
1:G:833:LYS:HA	1:G:1614:ARG:HH12	1.69	0.57
1:G:1719:LEU:HD23	1:G:1722:ASN:HD21	1.69	0.57
1:A:2419:ARG:HD2	1:G:187:SER:O	2.04	0.57
1:A:2729:SER:O	1:A:2733:TRP:HB2	2.05	0.57
1:C:1040:ASP:HA	1:C:1043:LYS:HB2	1.86	0.57
1:C:1510:VAL:HG12	1:C:1511:VAL:HG23	1.87	0.57
2:F:75:THR:HG23	2:F:98:ILE:HG12	1.86	0.57
1:G:143:LEU:O	1:G:190:ARG:NH1	2.37	0.57
1:A:245:LEU:HA	1:A:262:TYR:HA	1.85	0.57
1:C:173:GLU:CA	1:E:3940:ARG:HH22	2.16	0.57
1:C:1719:LEU:HD23	1:C:1722:ASN:HD21	1.69	0.57
1:C:4171:ARG:HH12	1:C:4175:PHE:HD1	1.51	0.57
1:E:1272:ARG:NH2	1:E:1590:PHE:O	2.37	0.57
1:E:2258:LEU:O	1:E:3811:ARG:NH2	2.37	0.57
1:E:2734:SER:O	1:E:2738:LEU:HB2	2.05	0.57
1:E:4047:ARG:HA	1:E:4050:HIS:HB3	1.86	0.57
1:E:4116:LEU:O	1:E:4120:LEU:N	2.38	0.57
1:G:22:LEU:HD22	1:G:212:TRP:HB3	1.86	0.57
1:G:1101:TRP:HA	1:G:1237:GLU:HB2	1.85	0.57
1:G:1171:HIS:O	1:G:1194:ASP:N	2.38	0.57
1:G:2258:LEU:O	1:G:3811:ARG:NH2	2.37	0.57
1:G:4116:LEU:O	1:G:4120:LEU:N	2.37	0.57
1:A:185:SER:OG	1:A:186:VAL:N	2.37	0.57
1:A:833:LYS:HA	1:A:1614:ARG:HH12	1.69	0.57
1:A:2258:LEU:O	1:A:3811:ARG:NH2	2.37	0.57
1:C:734:SER:O	1:C:739:ARG:NH1	2.37	0.57
1:E:1305:SER:HB3	1:E:1591:LEU:HB2	1.85	0.57
1:E:4011:VAL:HG12	1:E:4015:LEU:HD23	1.85	0.57
1:E:4865:GLY:O	1:G:4871:PHE:HD2	1.88	0.57
1:G:1434:PRO:O	1:G:1440:ASN:ND2	2.36	0.57
1:G:1570:LEU:O	1:G:1573:SER:OG	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1902:PRO:HA	1:G:1905:LEU:HB3	1.86	0.57
1:G:4047:ARG:HA	1:G:4050:HIS:HB3	1.86	0.57
1:A:1001:GLU:O	1:A:1005:ASN:HB2	2.05	0.57
1:A:1040:ASP:HA	1:A:1043:LYS:HB2	1.86	0.57
1:A:1510:VAL:HG12	1:A:1511:VAL:HG23	1.87	0.57
1:A:4889:CYS:HB3	1:A:4893:GLY:H	1.68	0.57
1:C:626:ARG:HH21	1:C:630:HIS:HE1	1.53	0.57
1:E:2744:TYR:HB3	1:E:2759:LYS:HD3	1.86	0.57
1:E:4886:GLU:O	1:E:4896:ASN:ND2	2.37	0.57
1:G:608:HIS:HA	1:G:611:LEU:HD13	1.86	0.57
1:G:1040:ASP:HA	1:G:1043:LYS:HB2	1.86	0.57
1:G:2729:SER:O	1:G:2733:TRP:HB2	2.05	0.57
1:G:3743:GLN:NE2	1:G:3781:TYR:OH	2.37	0.57
1:A:1171:HIS:O	1:A:1194:ASP:N	2.38	0.57
1:A:2060:GLN:HA	1:A:2063:ILE:HD12	1.86	0.57
1:A:3841:PHE:HA	1:A:3844:LEU:HD12	1.86	0.57
1:A:4859:LEU:HD23	1:A:4862:ILE:HD12	1.86	0.57
1:C:187:SER:O	1:E:2419:ARG:HD2	2.05	0.57
1:C:2729:SER:O	1:C:2733:TRP:HB2	2.05	0.57
1:E:2006:THR:O	1:E:2010:ILE:N	2.38	0.57
1:E:2306:ALA:O	1:E:2317:ASN:ND2	2.36	0.57
1:E:3880:LEU:HD23	1:E:3944:ALA:HB2	1.87	0.57
1:E:4912:GLN:O	1:E:4915:ASN:ND2	2.38	0.57
1:A:1137:PHE:HA	1:A:1144:ARG:HA	1.85	0.57
2:B:42:ARG:HG3	2:B:44:LYS:HB3	1.87	0.57
1:C:22:LEU:HD22	1:C:212:TRP:HB3	1.86	0.57
1:E:1510:VAL:HG12	1:E:1511:VAL:HG23	1.87	0.57
1:E:4142:SER:O	1:E:4144:LYS:NZ	2.35	0.57
1:G:1001:GLU:O	1:G:1005:ASN:HB2	2.05	0.57
1:G:1137:PHE:HA	1:G:1144:ARG:HA	1.85	0.57
1:G:2734:SER:O	1:G:2738:LEU:HB2	2.05	0.57
1:G:4019:ASP:OD2	1:G:4125:SER:OG	2.23	0.57
1:G:4859:LEU:HD23	1:G:4862:ILE:HD12	1.86	0.57
1:A:2435:GLY:HA2	1:A:2438:SER:HB3	1.87	0.56
1:A:3803:VAL:O	1:A:3832:GLN:NE2	2.36	0.56
1:A:4019:ASP:OD2	1:A:4125:SER:OG	2.23	0.56
1:E:185:SER:OG	1:E:186:VAL:N	2.37	0.56
1:E:734:SER:O	1:E:739:ARG:NH1	2.37	0.56
1:G:185:SER:OG	1:G:186:VAL:N	2.37	0.56
1:G:2435:GLY:HA2	1:G:2438:SER:HB3	1.87	0.56
1:G:3880:LEU:HD23	1:G:3944:ALA:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4011:VAL:HG12	1:G:4015:LEU:HD23	1.85	0.56
1:A:614:LEU:HA	1:A:617:LEU:HD12	1.87	0.56
1:A:626:ARG:HH21	1:A:630:HIS:HE1	1.53	0.56
1:A:1737:THR:OG1	1:A:1738:LEU:N	2.36	0.56
1:A:2744:TYR:HB3	1:A:2759:LYS:HD3	1.86	0.56
2:B:75:THR:HG23	2:B:98:ILE:HG12	1.86	0.56
1:C:1703:TYR:HD2	1:C:1820:PRO:HB2	1.69	0.56
1:C:2435:GLY:HA2	1:C:2438:SER:HB3	1.87	0.56
1:C:2845:MET:HE1	1:C:2848:ASN:HD22	1.70	0.56
1:C:3987:LEU:O	1:C:3990:ASN:ND2	2.38	0.56
1:C:4865:GLY:O	1:E:4871:PHE:HD2	1.87	0.56
1:E:4159:THR:HA	1:E:4162:GLU:HG2	1.87	0.56
2:F:56:ILE:HD12	2:F:80:VAL:HG13	1.87	0.56
1:G:614:LEU:HA	1:G:617:LEU:HD12	1.87	0.56
1:G:4572:THR:HA	1:G:4575:ILE:HD12	1.86	0.56
1:G:4912:GLN:O	1:G:4915:ASN:ND2	2.38	0.56
1:A:556:ASP:N	1:A:556:ASP:OD1	2.36	0.56
1:A:850:LEU:HD13	1:A:1207:LEU:HD21	1.87	0.56
1:A:4116:LEU:O	1:A:4120:LEU:N	2.38	0.56
1:A:4804:ASP:OD1	1:A:4804:ASP:N	2.37	0.56
1:A:4912:GLN:O	1:A:4915:ASN:ND2	2.38	0.56
1:C:556:ASP:OD1	1:C:556:ASP:N	2.36	0.56
1:C:608:HIS:HA	1:C:611:LEU:HD13	1.86	0.56
1:C:870:SER:HA	1:C:941:LYS:HD3	1.88	0.56
1:C:1434:PRO:O	1:C:1440:ASN:ND2	2.36	0.56
1:C:2072:GLN:NE2	1:C:3647:LYS:O	2.39	0.56
1:C:2734:SER:O	1:C:2738:LEU:HB2	2.05	0.56
1:C:3841:PHE:HA	1:C:3844:LEU:HD12	1.86	0.56
1:C:4116:LEU:O	1:C:4120:LEU:N	2.38	0.56
1:C:4859:LEU:HD23	1:C:4862:ILE:HD12	1.86	0.56
1:E:647:ARG:NE	1:E:648:LEU:O	2.31	0.56
1:E:833:LYS:HA	1:E:1614:ARG:HH12	1.69	0.56
1:E:850:LEU:HD13	1:E:1207:LEU:HD21	1.87	0.56
1:E:2072:GLN:NE2	1:E:3647:LYS:O	2.39	0.56
1:E:3771:ASN:ND2	1:E:3773:THR:OG1	2.30	0.56
1:E:4572:THR:HA	1:E:4575:ILE:HD12	1.87	0.56
1:E:4790:PHE:HB3	1:E:4793:PHE:HB2	1.87	0.56
1:G:533:LEU:HD23	1:G:536:LEU:HD21	1.87	0.56
1:G:652:VAL:HG11	1:G:715:GLY:H	1.71	0.56
1:G:657:PRO:HA	1:G:834:VAL:HA	1.87	0.56
1:G:2005:MET:O	1:G:2009:GLY:N	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2744:TYR:HB3	1:G:2759:LYS:HD3	1.86	0.56
1:G:4597:PRO:O	1:G:4601:PHE:N	2.32	0.56
1:A:870:SER:HA	1:A:941:LYS:HD3	1.88	0.56
1:A:2734:SER:O	1:A:2738:LEU:HB2	2.05	0.56
1:C:4159:THR:HA	1:C:4162:GLU:HG2	1.87	0.56
1:E:614:LEU:HA	1:E:617:LEU:HD12	1.87	0.56
1:E:890:HIS:NE2	1:E:919:VAL:O	2.34	0.56
1:E:1171:HIS:O	1:E:1194:ASP:N	2.38	0.56
1:E:4859:LEU:HD23	1:E:4862:ILE:HD12	1.86	0.56
1:G:2060:GLN:HA	1:G:2063:ILE:HD12	1.86	0.56
1:G:2702:PHE:HB3	1:G:2872:LEU:HG	1.88	0.56
1:A:2086:PHE:O	1:A:3692:TYR:OH	2.24	0.56
1:A:4936:GLY:O	1:A:4940:TYR:CB	2.53	0.56
1:C:2163:MET:N	1:C:2163:MET:SD	2.79	0.56
1:C:2744:TYR:HB3	1:C:2759:LYS:HD3	1.86	0.56
1:C:4655:MET:O	1:C:4664:ARG:NH2	2.39	0.56
1:E:1292:SER:H	1:E:1550:PRO:HB3	1.71	0.56
1:E:2060:GLN:HA	1:E:2063:ILE:HD12	1.86	0.56
1:E:2163:MET:N	1:E:2163:MET:SD	2.79	0.56
1:E:2702:PHE:HB3	1:E:2872:LEU:HG	1.88	0.56
1:E:3987:LEU:O	1:E:3990:ASN:ND2	2.38	0.56
1:E:4655:MET:O	1:E:4664:ARG:NH2	2.39	0.56
1:G:1199:ASP:OD1	1:G:1199:ASP:N	2.38	0.56
1:G:1292:SER:H	1:G:1550:PRO:HB3	1.71	0.56
1:G:3841:PHE:HA	1:G:3844:LEU:HD12	1.86	0.56
1:G:4142:SER:O	1:G:4144:LYS:NZ	2.35	0.56
1:A:533:LEU:HD23	1:A:536:LEU:HD21	1.87	0.56
1:A:1703:TYR:HD2	1:A:1820:PRO:HB2	1.69	0.56
1:C:1001:GLU:O	1:C:1005:ASN:HB2	2.05	0.56
1:C:1171:HIS:O	1:C:1194:ASP:N	2.38	0.56
1:C:1292:SER:H	1:C:1550:PRO:HB3	1.71	0.56
1:C:4572:THR:HA	1:C:4575:ILE:HD12	1.87	0.56
1:C:4936:GLY:O	1:C:4940:TYR:CB	2.53	0.56
1:E:657:PRO:HA	1:E:834:VAL:HA	1.87	0.56
1:E:2729:SER:O	1:E:2733:TRP:HB2	2.05	0.56
1:E:3632:THR:O	1:E:3635:HIS:NE2	2.35	0.56
1:E:4041:LYS:NZ	1:E:4080:ASP:OD2	2.38	0.56
1:E:4171:ARG:HH12	1:E:4175:PHE:HD1	1.51	0.56
1:G:1737:THR:OG1	1:G:1738:LEU:N	2.36	0.56
1:G:4655:MET:O	1:G:4664:ARG:NH2	2.39	0.56
1:A:409:GLN:N	1:A:412:GLU:OE2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:496:ASN:OD1	1:A:496:ASN:N	2.39	0.56
1:A:4572:THR:HA	1:A:4575:ILE:HD12	1.87	0.56
1:C:2154:LYS:O	1:C:2158:GLN:NE2	2.39	0.56
1:E:608:HIS:HA	1:E:611:LEU:HD13	1.86	0.56
1:E:870:SER:HA	1:E:941:LYS:HD3	1.88	0.56
1:E:1173:MET:O	1:E:1191:ALA:N	2.39	0.56
1:E:1425:THR:N	1:E:1511:VAL:O	2.39	0.56
1:E:1548:THR:OG1	1:E:1549:SER:N	2.34	0.56
1:E:1703:TYR:HD2	1:E:1820:PRO:HB2	1.69	0.56
1:E:2086:PHE:O	1:E:3692:TYR:OH	2.24	0.56
1:G:870:SER:HA	1:G:941:LYS:HD3	1.88	0.56
1:G:3854:ASP:OD1	1:G:3854:ASP:N	2.35	0.56
1:A:1425:THR:N	1:A:1511:VAL:O	2.39	0.56
1:C:614:LEU:HA	1:C:617:LEU:HD12	1.87	0.56
1:C:652:VAL:HG11	1:C:715:GLY:H	1.71	0.56
1:C:2075:VAL:HG11	1:C:3662:VAL:H	1.71	0.56
1:C:3918:PHE:HA	1:C:3921:LEU:HD12	1.88	0.56
1:E:173:GLU:CA	1:G:3940:ARG:HH22	2.15	0.56
1:E:1102:TYR:HB2	1:E:1236:TYR:HB3	1.88	0.56
1:E:2435:GLY:HA2	1:E:2438:SER:HB3	1.87	0.56
1:E:4139:ILE:O	1:E:4147:GLU:N	2.34	0.56
1:G:850:LEU:HD13	1:G:1207:LEU:HD21	1.87	0.56
1:G:2072:GLN:NE2	1:G:3647:LYS:O	2.39	0.56
1:G:2163:MET:N	1:G:2163:MET:SD	2.79	0.56
1:G:4790:PHE:HB3	1:G:4793:PHE:HB2	1.87	0.56
2:H:42:ARG:HG3	2:H:44:LYS:HB3	1.87	0.56
1:A:371:TRP:N	1:A:394:HIS:O	2.33	0.56
1:A:2072:GLN:NE2	1:A:3647:LYS:O	2.39	0.56
1:A:2702:PHE:HB3	1:A:2872:LEU:HG	1.88	0.56
1:A:4655:MET:O	1:A:4664:ARG:NH2	2.39	0.56
1:C:1102:TYR:HB2	1:C:1236:TYR:HB3	1.88	0.56
1:C:2006:THR:O	1:C:2010:ILE:N	2.38	0.56
2:D:75:THR:HG23	2:D:98:ILE:HG12	1.86	0.56
1:E:1199:ASP:OD1	1:E:1199:ASP:N	2.38	0.56
1:E:2845:MET:HE1	1:E:2848:ASN:HD22	1.69	0.56
2:F:42:ARG:HG3	2:F:44:LYS:HB3	1.87	0.56
1:G:1173:MET:O	1:G:1191:ALA:N	2.39	0.56
1:G:1801:GLU:HA	1:G:1804:LEU:HB2	1.87	0.56
2:H:56:ILE:HD12	2:H:80:VAL:HG13	1.87	0.56
1:A:652:VAL:HG11	1:A:715:GLY:H	1.71	0.56
1:A:1510:VAL:HG13	1:A:1517:LEU:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1748:LEU:HG	1:A:1750:GLY:H	1.71	0.56
1:C:877:HIS:HB3	1:C:952:ILE:HG13	1.88	0.56
1:C:4790:PHE:HB3	1:C:4793:PHE:HB2	1.87	0.56
1:E:533:LEU:HD23	1:E:536:LEU:HD21	1.87	0.56
1:E:1001:GLU:O	1:E:1005:ASN:HB2	2.05	0.56
1:E:1570:LEU:O	1:E:1573:SER:OG	2.22	0.56
1:E:3918:PHE:HA	1:E:3921:LEU:HD12	1.88	0.56
2:H:75:THR:HG23	2:H:98:ILE:HG12	1.86	0.56
1:A:847:THR:HB	1:A:1214:ARG:HE	1.72	0.55
1:A:1102:TYR:HB2	1:A:1236:TYR:HB3	1.88	0.55
1:A:1292:SER:H	1:A:1550:PRO:HB3	1.71	0.55
1:A:2421:ARG:NH2	1:A:2476:VAL:O	2.39	0.55
1:A:3846:LEU:HA	1:A:3849:GLU:HG3	1.87	0.55
1:A:3854:ASP:N	1:A:3854:ASP:OD1	2.35	0.55
1:A:3987:LEU:O	1:A:3990:ASN:ND2	2.38	0.55
1:C:143:LEU:O	1:C:190:ARG:NH1	2.37	0.55
1:C:1801:GLU:HA	1:C:1804:LEU:HB2	1.87	0.55
1:C:4019:ASP:OD2	1:C:4125:SER:OG	2.23	0.55
1:C:4764:ASN:HD22	1:C:4870:ALA:HB2	1.71	0.55
1:E:3834:ASP:OD1	1:E:3834:ASP:N	2.36	0.55
1:E:3846:LEU:HA	1:E:3849:GLU:HG3	1.87	0.55
1:E:3854:ASP:OD1	1:E:3854:ASP:N	2.35	0.55
1:G:688:ALA:HB1	2:H:40:ARG:HB3	1.88	0.55
1:G:2154:LYS:O	1:G:2158:GLN:NE2	2.39	0.55
1:G:2845:MET:HE1	1:G:2848:ASN:HD22	1.70	0.55
1:A:877:HIS:HB3	1:A:952:ILE:HG13	1.88	0.55
1:A:2163:MET:SD	1:A:2163:MET:N	2.79	0.55
1:A:2845:MET:HE1	1:A:2848:ASN:HD22	1.69	0.55
2:B:56:ILE:HD12	2:B:80:VAL:HG13	1.87	0.55
1:C:688:ALA:HB1	2:D:40:ARG:HB3	1.88	0.55
1:C:3643:GLU:OE2	1:C:3731:ARG:NH1	2.40	0.55
1:C:4804:ASP:OD1	1:C:4804:ASP:N	2.37	0.55
1:C:4912:GLN:O	1:C:4915:ASN:ND2	2.38	0.55
1:E:832:LEU:O	1:E:1614:ARG:NH1	2.40	0.55
1:E:2154:LYS:O	1:E:2158:GLN:NE2	2.39	0.55
1:E:3643:GLU:OE2	1:E:3731:ARG:NH1	2.40	0.55
1:E:4030:SER:HA	1:E:4034:LYS:H	1.71	0.55
1:G:1102:TYR:HB2	1:G:1236:TYR:HB3	1.88	0.55
1:G:3643:GLU:OE2	1:G:3731:ARG:NH1	2.40	0.55
1:G:3846:LEU:HA	1:G:3849:GLU:HG3	1.87	0.55
1:A:649:VAL:O	1:A:1627:PHE:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1510:VAL:HG13	1:C:1517:LEU:H	1.72	0.55
1:C:2086:PHE:O	1:C:3692:TYR:OH	2.24	0.55
1:C:3846:LEU:HA	1:C:3849:GLU:HG3	1.87	0.55
1:E:652:VAL:HG11	1:E:715:GLY:H	1.71	0.55
1:E:1101:TRP:N	1:E:1166:VAL:O	2.40	0.55
1:E:1748:LEU:HG	1:E:1750:GLY:H	1.71	0.55
1:E:4764:ASN:HD22	1:E:4870:ALA:HB2	1.71	0.55
1:G:626:ARG:HH21	1:G:630:HIS:HE1	1.53	0.55
1:G:1425:THR:N	1:G:1511:VAL:O	2.39	0.55
1:G:1510:VAL:HG13	1:G:1517:LEU:H	1.71	0.55
1:G:4030:SER:OG	1:G:4031:ASP:N	2.40	0.55
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.40	0.55
1:A:1801:GLU:HA	1:A:1804:LEU:HB2	1.87	0.55
1:A:2075:VAL:HG11	1:A:3662:VAL:H	1.71	0.55
1:A:4009:ASN:OD1	1:A:4009:ASN:N	2.36	0.55
1:A:4650:VAL:HA	1:A:4653:LYS:HE2	1.88	0.55
1:A:4764:ASN:HD22	1:A:4870:ALA:HB2	1.71	0.55
1:A:4790:PHE:HB3	1:A:4793:PHE:HB2	1.87	0.55
1:A:4837:GLY:N	1:A:4841:GLU:OE1	2.34	0.55
1:C:185:SER:OG	1:C:186:VAL:N	2.37	0.55
1:C:649:VAL:O	1:C:1627:PHE:N	2.39	0.55
1:C:1101:TRP:N	1:C:1166:VAL:O	2.40	0.55
1:E:143:LEU:O	1:E:190:ARG:NH1	2.37	0.55
1:E:1801:GLU:HA	1:E:1804:LEU:HB2	1.87	0.55
1:E:4019:ASP:OD2	1:E:4125:SER:OG	2.23	0.55
1:E:4809:ASP:OD1	1:G:4522:LYS:HA	2.07	0.55
1:E:4936:GLY:O	1:E:4940:TYR:CB	2.53	0.55
1:G:847:THR:HB	1:G:1214:ARG:HE	1.72	0.55
1:G:1116:GLY:HA3	1:G:1136:ALA:HA	1.88	0.55
1:G:1629:SER:OG	1:G:1630:LEU:N	2.40	0.55
1:A:3633:GLU:OE2	1:A:3635:HIS:N	2.40	0.55
1:A:3918:PHE:HA	1:A:3921:LEU:HD12	1.88	0.55
1:A:4159:THR:HA	1:A:4162:GLU:HG2	1.87	0.55
1:C:591:GLU:HA	1:C:594:ILE:HD12	1.88	0.55
1:C:1173:MET:O	1:C:1191:ALA:N	2.39	0.55
1:C:4030:SER:HA	1:C:4034:LYS:H	1.71	0.55
2:D:56:ILE:HD12	2:D:80:VAL:HG13	1.87	0.55
1:E:1670:HIS:ND1	1:E:1778:TYR:O	2.33	0.55
1:G:1144:ARG:NH1	1:G:1191:ALA:O	2.40	0.55
1:G:3987:LEU:O	1:G:3990:ASN:ND2	2.38	0.55
1:A:688:ALA:HB1	2:B:40:ARG:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2154:LYS:O	1:A:2158:GLN:NE2	2.39	0.55
1:C:580:VAL:O	1:C:621:HIS:NE2	2.40	0.55
1:C:657:PRO:HA	1:C:834:VAL:HA	1.87	0.55
1:C:832:LEU:O	1:C:1614:ARG:NH1	2.40	0.55
1:C:850:LEU:HD13	1:C:1207:LEU:HD21	1.87	0.55
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.40	0.55
1:C:1425:THR:N	1:C:1511:VAL:O	2.39	0.55
1:C:2702:PHE:HB3	1:C:2872:LEU:HG	1.88	0.55
1:C:3880:LEU:HD23	1:C:3944:ALA:HB2	1.87	0.55
1:E:13:PHE:O	1:E:15:ARG:NH1	2.40	0.55
1:E:649:VAL:O	1:E:1627:PHE:N	2.39	0.55
1:E:1761:MET:SD	1:E:1761:MET:N	2.68	0.55
1:E:4009:ASN:N	1:E:4009:ASN:OD1	2.36	0.55
1:G:797:GLY:HA2	1:G:1622:LEU:HA	1.89	0.55
1:G:2421:ARG:NH2	1:G:2476:VAL:O	2.39	0.55
1:G:4576:LEU:HD22	1:G:4579:LEU:HD22	1.88	0.55
1:A:657:PRO:HA	1:A:834:VAL:HA	1.87	0.55
1:A:1570:LEU:O	1:A:1573:SER:OG	2.22	0.55
1:A:2783:MET:HG2	1:A:2845:MET:HG3	1.89	0.55
1:A:3643:GLU:OE2	1:A:3731:ARG:NH1	2.40	0.55
1:A:3880:LEU:HD23	1:A:3944:ALA:HB2	1.87	0.55
1:C:847:THR:HB	1:C:1214:ARG:HE	1.72	0.55
1:C:3633:GLU:OE2	1:C:3635:HIS:N	2.39	0.55
2:D:30:LEU:HD12	2:D:34:LYS:HD3	1.89	0.55
2:D:42:ARG:HG3	2:D:44:LYS:HB3	1.87	0.55
1:E:169:ARG:HH12	1:E:176:ARG:HB2	1.72	0.55
1:E:496:ASN:N	1:E:496:ASN:OD1	2.39	0.55
1:E:4576:LEU:HD22	1:E:4579:LEU:HD22	1.88	0.55
2:F:20:GLN:HB3	2:F:106:LEU:HB3	1.88	0.55
1:G:3918:PHE:HA	1:G:3921:LEU:HD12	1.88	0.55
1:G:4936:GLY:O	1:G:4940:TYR:CB	2.53	0.55
1:A:848:ARG:NH2	1:A:1605:LYS:O	2.40	0.55
1:A:4576:LEU:HD22	1:A:4579:LEU:HD22	1.88	0.55
1:C:533:LEU:HD23	1:C:536:LEU:HD21	1.87	0.55
1:C:1116:GLY:HA3	1:C:1136:ALA:HA	1.88	0.55
1:C:1748:LEU:HG	1:C:1750:GLY:H	1.71	0.55
1:E:182:ILE:HD12	1:E:209:GLN:HB2	1.89	0.55
1:E:626:ARG:HH21	1:E:630:HIS:HE1	1.53	0.55
1:E:847:THR:HB	1:E:1214:ARG:HE	1.72	0.55
1:E:4030:SER:OG	1:E:4031:ASP:N	2.40	0.55
1:G:418:VAL:O	1:G:422:THR:OG1	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:591:GLU:HA	1:G:594:ILE:HD12	1.88	0.55
1:G:1760:ARG:HB2	1:G:1762:GLN:HE21	1.72	0.55
1:G:4159:THR:HA	1:G:4162:GLU:HG2	1.87	0.55
1:G:4804:ASP:N	1:G:4804:ASP:OD1	2.37	0.55
2:H:20:GLN:HB3	2:H:106:LEU:HB3	1.88	0.55
1:A:1760:ARG:HB2	1:A:1762:GLN:HE21	1.72	0.55
1:A:3632:THR:O	1:A:3635:HIS:NE2	2.35	0.55
1:A:4130:PHE:HA	1:A:4133:PHE:HD2	1.72	0.55
1:C:182:ILE:HD12	1:C:209:GLN:HB2	1.89	0.55
1:C:496:ASN:OD1	1:C:496:ASN:N	2.39	0.55
1:E:409:GLN:N	1:E:412:GLU:OE2	2.37	0.55
2:H:17:LYS:NZ	2:H:18:LYS:O	2.39	0.55
1:A:13:PHE:O	1:A:15:ARG:NH1	2.40	0.55
1:A:182:ILE:HD12	1:A:209:GLN:HB2	1.89	0.55
1:A:187:SER:O	1:C:2419:ARG:HD2	2.06	0.55
1:A:4523:VAL:HG22	1:G:4808:ASP:CB	2.37	0.55
1:A:4871:PHE:HD2	1:G:4865:GLY:O	1.89	0.55
1:C:195:SER:HB3	1:C:202:HIS:HB2	1.89	0.55
1:C:4650:VAL:HA	1:C:4653:LYS:HE2	1.88	0.55
1:E:195:SER:HB3	1:E:202:HIS:HB2	1.89	0.55
1:E:688:ALA:HB1	2:F:40:ARG:HB3	1.89	0.55
1:E:877:HIS:HB3	1:E:952:ILE:HG13	1.88	0.55
1:E:1116:GLY:HA3	1:E:1136:ALA:HA	1.88	0.55
1:E:1510:VAL:HG13	1:E:1517:LEU:H	1.72	0.55
1:E:1629:SER:OG	1:E:1630:LEU:N	2.40	0.55
1:E:4130:PHE:HA	1:E:4133:PHE:HD2	1.72	0.55
1:E:4717:ASP:HB3	1:E:4720:PHE:HB3	1.89	0.55
1:G:409:GLN:N	1:G:412:GLU:OE2	2.37	0.55
1:G:2244:ALA:O	1:G:2247:SER:OG	2.25	0.55
1:G:3784:GLU:HB2	1:G:3785:LYS:HZ2	1.72	0.55
1:A:832:LEU:O	1:A:1614:ARG:NH1	2.40	0.54
1:A:1116:GLY:HA3	1:A:1136:ALA:HA	1.88	0.54
1:A:1260:GLN:HG2	1:A:1591:LEU:HD13	1.89	0.54
1:A:1470:GLY:HA2	1:A:1474:GLY:HA2	1.89	0.54
1:A:2170:GLU:HA	1:A:2173:MET:HE3	1.89	0.54
1:C:1734:LYS:HG3	1:C:1931:ASP:HB3	1.89	0.54
1:C:1760:ARG:HB2	1:C:1762:GLN:HE21	1.72	0.54
1:E:848:ARG:NH2	1:E:1605:LYS:O	2.40	0.54
1:E:2075:VAL:HG11	1:E:3662:VAL:H	1.71	0.54
1:E:2421:ARG:NH2	1:E:2476:VAL:O	2.39	0.54
2:F:17:LYS:NZ	2:F:18:LYS:O	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:30:LEU:HD12	2:F:34:LYS:HD3	1.89	0.54
1:G:1231:GLY:N	1:G:1234:GLU:OE1	2.40	0.54
1:G:1748:LEU:HG	1:G:1750:GLY:H	1.71	0.54
1:G:4764:ASN:HD22	1:G:4870:ALA:HB2	1.71	0.54
2:H:30:LEU:HD12	2:H:34:LYS:HD3	1.89	0.54
1:A:1161:VAL:HB	1:A:1226:TYR:HE2	1.73	0.54
1:C:848:ARG:NH2	1:C:1605:LYS:O	2.40	0.54
1:E:580:VAL:O	1:E:621:HIS:NE2	2.40	0.54
1:E:1144:ARG:NH1	1:E:1191:ALA:O	2.40	0.54
1:E:2313:SER:OG	1:E:2475:ARG:NH2	2.41	0.54
1:E:4768:LEU:O	1:E:4771:THR:OG1	2.21	0.54
1:G:169:ARG:HH12	1:G:176:ARG:HB2	1.72	0.54
1:G:649:VAL:O	1:G:1627:PHE:N	2.39	0.54
1:G:2006:THR:O	1:G:2010:ILE:N	2.38	0.54
1:G:2075:VAL:HG11	1:G:3662:VAL:H	1.71	0.54
1:G:3802:SER:O	1:G:3832:GLN:NE2	2.41	0.54
1:G:4717:ASP:HB3	1:G:4720:PHE:HB3	1.89	0.54
1:C:846:TYR:HH	1:C:1222:SER:HG	1.55	0.54
1:C:1629:SER:OG	1:C:1630:LEU:N	2.40	0.54
1:C:2170:GLU:HA	1:C:2173:MET:HE3	1.89	0.54
1:C:2421:ARG:NH2	1:C:2476:VAL:O	2.39	0.54
2:D:17:LYS:NZ	2:D:18:LYS:O	2.39	0.54
1:E:1260:GLN:HG2	1:E:1591:LEU:HD13	1.89	0.54
1:E:2730:HIS:NE2	1:E:2759:LYS:O	2.34	0.54
1:G:13:PHE:O	1:G:15:ARG:NH1	2.40	0.54
1:G:182:ILE:HD12	1:G:209:GLN:HB2	1.89	0.54
1:G:580:VAL:O	1:G:621:HIS:NE2	2.40	0.54
1:G:752:ASP:OD1	1:G:752:ASP:N	2.40	0.54
1:G:832:LEU:O	1:G:1614:ARG:NH1	2.40	0.54
1:G:1089:ARG:HH21	1:G:1600:PRO:HB3	1.73	0.54
1:G:1101:TRP:N	1:G:1166:VAL:O	2.40	0.54
1:G:4126:VAL:HA	1:G:4129:TYR:HB3	1.89	0.54
1:G:4837:GLY:N	1:G:4841:GLU:OE1	2.34	0.54
1:A:557:TRP:O	1:A:560:SER:OG	2.24	0.54
1:A:580:VAL:O	1:A:621:HIS:NE2	2.40	0.54
1:A:1774:GLU:OE2	2:B:87:HIS:NE2	2.41	0.54
1:A:2006:THR:O	1:A:2010:ILE:N	2.38	0.54
1:A:4030:SER:HA	1:A:4034:LYS:H	1.72	0.54
2:B:30:LEU:HD12	2:B:34:LYS:HD3	1.89	0.54
1:G:2086:PHE:O	1:G:3692:TYR:OH	2.24	0.54
1:G:2313:SER:OG	1:G:2475:ARG:NH2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4130:PHE:HA	1:G:4133:PHE:HD2	1.72	0.54
1:A:4030:SER:OG	1:A:4031:ASP:N	2.40	0.54
1:C:4597:PRO:O	1:C:4601:PHE:N	2.32	0.54
1:E:591:GLU:HA	1:E:594:ILE:HD12	1.88	0.54
1:E:4650:VAL:HA	1:E:4653:LYS:HE2	1.88	0.54
1:G:848:ARG:NH2	1:G:1605:LYS:O	2.40	0.54
1:G:877:HIS:HB3	1:G:952:ILE:HG13	1.88	0.54
1:A:1089:ARG:HH21	1:A:1600:PRO:HB3	1.73	0.54
1:A:3882:VAL:O	1:A:3885:SER:OG	2.25	0.54
1:C:3802:SER:O	1:C:3832:GLN:NE2	2.40	0.54
1:E:1726:ILE:HD11	1:E:2109:ILE:HB	1.89	0.54
1:G:195:SER:HB3	1:G:202:HIS:HB2	1.89	0.54
1:A:1101:TRP:N	1:A:1166:VAL:O	2.40	0.54
1:A:1629:SER:OG	1:A:1630:LEU:N	2.40	0.54
1:C:13:PHE:O	1:C:15:ARG:NH1	2.40	0.54
1:C:418:VAL:O	1:C:422:THR:OG1	2.22	0.54
1:C:4523:VAL:HG23	1:C:4558:VAL:N	2.22	0.54
1:C:4717:ASP:HB3	1:C:4720:PHE:HB3	1.89	0.54
1:C:4832:ILE:HG21	1:C:4844:ARG:HH21	1.73	0.54
1:E:1825:PHE:HA	1:E:1828:LEU:HD12	1.90	0.54
1:E:4832:ILE:HG21	1:E:4844:ARG:HH21	1.73	0.54
1:G:1161:VAL:HB	1:G:1226:TYR:HE2	1.73	0.54
1:G:4030:SER:HA	1:G:4034:LYS:H	1.71	0.54
1:G:4650:VAL:HA	1:G:4653:LYS:HE2	1.88	0.54
1:A:797:GLY:HA2	1:A:1622:LEU:HA	1.89	0.54
1:A:1231:GLY:N	1:A:1234:GLU:OE1	2.40	0.54
1:A:1798:ALA:HB1	1:A:1818:PHE:HE1	1.73	0.54
1:A:2202:CYS:O	1:A:2206:ARG:NH1	2.41	0.54
1:A:2846:ALA:HB3	1:A:2887:ARG:HH21	1.73	0.54
1:A:3892:TYR:O	1:A:3896:LYS:NZ	2.41	0.54
1:C:169:ARG:HH12	1:C:176:ARG:HB2	1.72	0.54
1:C:1260:GLN:HG2	1:C:1591:LEU:HD13	1.89	0.54
1:C:1470:GLY:HA2	1:C:1474:GLY:HA2	1.89	0.54
1:C:1825:PHE:HA	1:C:1828:LEU:HD12	1.90	0.54
1:C:2202:CYS:O	1:C:2206:ARG:NH1	2.41	0.54
1:C:4130:PHE:HA	1:C:4133:PHE:HD2	1.72	0.54
1:E:1572:LYS:HD2	1:E:1585:ARG:H	1.73	0.54
1:E:1774:GLU:OE2	2:F:87:HIS:NE2	2.41	0.54
1:E:2170:GLU:HA	1:E:2173:MET:HE3	1.89	0.54
1:G:1798:ALA:HB1	1:G:1818:PHE:HE1	1.72	0.54
1:A:195:SER:HB3	1:A:202:HIS:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1434:PRO:O	1:A:1440:ASN:ND2	2.36	0.54
1:A:1726:ILE:HD11	1:A:2109:ILE:HB	1.89	0.54
1:A:1734:LYS:HG3	1:A:1931:ASP:HB3	1.89	0.54
1:A:4193:PHE:O	1:A:4197:THR:OG1	2.23	0.54
1:C:409:GLN:N	1:C:412:GLU:OE2	2.37	0.54
1:C:1726:ILE:HD11	1:C:2109:ILE:HB	1.89	0.54
1:C:4522:LYS:O	1:C:4560:TYR:CB	2.22	0.54
1:E:1161:VAL:HB	1:E:1226:TYR:HE2	1.73	0.54
1:E:1443:VAL:HG12	1:E:1543:VAL:HA	1.90	0.54
1:E:1470:GLY:HA2	1:E:1474:GLY:HA2	1.89	0.54
1:G:321:LYS:O	1:G:326:SER:OG	2.24	0.54
1:G:4063:GLU:HA	1:G:4066:PHE:HB3	1.90	0.54
1:G:4139:ILE:O	1:G:4147:GLU:N	2.34	0.54
1:A:1038:LEU:O	1:A:1043:LYS:NZ	2.37	0.54
1:A:3784:GLU:HB2	1:A:3785:LYS:HZ2	1.73	0.54
1:A:4865:GLY:O	1:C:4871:PHE:HD2	1.89	0.54
1:C:776:GLN:HG2	1:C:1472:GLU:H	1.73	0.54
1:C:3892:TYR:O	1:C:3896:LYS:NZ	2.41	0.54
1:C:4063:GLU:HA	1:C:4066:PHE:HB3	1.90	0.54
1:E:1734:LYS:HG3	1:E:1931:ASP:HB3	1.89	0.54
1:E:1760:ARG:HB2	1:E:1762:GLN:HE21	1.72	0.54
1:E:3802:SER:O	1:E:3832:GLN:NE2	2.41	0.54
1:G:776:GLN:HG2	1:G:1472:GLU:H	1.73	0.54
1:G:4002:ASP:O	1:G:4006:GLU:HB2	2.08	0.54
1:A:196:TYR:O	1:A:201:LEU:N	2.41	0.53
1:A:1677:CYS:HA	1:A:1680:VAL:HG22	1.90	0.53
1:A:1825:PHE:HA	1:A:1828:LEU:HD12	1.90	0.53
2:B:20:GLN:HB3	2:B:106:LEU:HB3	1.89	0.53
1:C:2846:ALA:HB3	1:C:2887:ARG:HH21	1.73	0.53
1:C:4576:LEU:HD22	1:C:4579:LEU:HD22	1.88	0.53
2:D:20:GLN:HB3	2:D:106:LEU:HB3	1.88	0.53
1:E:442:ALA:H	1:E:444:THR:HA	1.73	0.53
1:E:681:HIS:ND1	1:E:683:GLU:OE2	2.32	0.53
1:G:2170:GLU:HA	1:G:2173:MET:HE3	1.89	0.53
1:A:1142:ALA:O	1:A:1151:HIS:ND1	2.42	0.53
1:A:1173:MET:O	1:A:1191:ALA:N	2.39	0.53
1:A:1520:PHE:HB3	1:A:1527:LEU:HB2	1.90	0.53
1:A:3802:SER:O	1:A:3832:GLN:NE2	2.40	0.53
1:C:1774:GLU:OE2	2:D:87:HIS:NE2	2.41	0.53
1:C:2783:MET:HG2	1:C:2845:MET:HG3	1.89	0.53
1:C:4193:PHE:O	1:C:4197:THR:OG1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:196:TYR:O	1:E:201:LEU:N	2.42	0.53
1:E:797:GLY:HA2	1:E:1622:LEU:HA	1.89	0.53
1:E:1089:ARG:HH21	1:E:1600:PRO:HB3	1.73	0.53
1:E:3892:TYR:O	1:E:3896:LYS:NZ	2.41	0.53
1:E:4002:ASP:O	1:E:4006:GLU:HB2	2.08	0.53
1:E:4866:LEU:CA	1:G:4871:PHE:CE2	2.91	0.53
1:G:196:TYR:O	1:G:201:LEU:N	2.41	0.53
1:G:756:SER:HB2	1:G:769:ARG:HB2	1.90	0.53
1:G:1443:VAL:HG12	1:G:1543:VAL:HA	1.90	0.53
1:G:2783:MET:HG2	1:G:2845:MET:HG3	1.89	0.53
1:A:255:GLU:O	1:A:258:ARG:NH1	2.42	0.53
1:A:591:GLU:HA	1:A:594:ILE:HD12	1.88	0.53
1:A:4063:GLU:HA	1:A:4066:PHE:HB3	1.90	0.53
1:C:255:GLU:O	1:C:258:ARG:NH1	2.42	0.53
1:C:797:GLY:HA2	1:C:1622:LEU:HA	1.89	0.53
1:C:1142:ALA:O	1:C:1151:HIS:ND1	2.42	0.53
1:C:1161:VAL:HB	1:C:1226:TYR:HE2	1.73	0.53
1:C:1798:ALA:HB1	1:C:1818:PHE:HE1	1.73	0.53
1:C:4114:THR:O	1:C:4118:THR:N	2.34	0.53
1:C:4732:LEU:O	1:C:4736:ASN:N	2.39	0.53
1:E:741:VAL:HB	1:E:1469:LEU:HD22	1.90	0.53
1:G:75:VAL:O	1:G:79:GLN:NE2	2.41	0.53
1:G:1734:LYS:HG3	1:G:1931:ASP:HB3	1.89	0.53
1:A:1613:GLU:O	1:A:1614:ARG:NE	2.42	0.53
1:A:2005:MET:O	1:A:2009:GLY:N	2.33	0.53
1:A:4143:ALA:O	1:A:4145:ARG:NH1	2.41	0.53
1:C:1089:ARG:HH21	1:C:1600:PRO:HB3	1.73	0.53
1:C:1166:VAL:HA	1:C:1173:MET:HG3	1.90	0.53
1:C:1520:PHE:HB3	1:C:1527:LEU:HB2	1.90	0.53
1:E:1798:ALA:HB1	1:E:1818:PHE:HE1	1.73	0.53
1:E:4126:VAL:HA	1:E:4129:TYR:HB3	1.89	0.53
1:G:1260:GLN:HG2	1:G:1591:LEU:HD13	1.89	0.53
1:G:1572:LYS:HD2	1:G:1585:ARG:H	1.73	0.53
1:G:1677:CYS:HA	1:G:1680:VAL:HG22	1.90	0.53
1:G:2846:ALA:HB3	1:G:2887:ARG:HH21	1.73	0.53
1:C:4522:LYS:CB	1:C:4560:TYR:HD2	2.21	0.53
1:C:4866:LEU:CA	1:E:4871:PHE:CE2	2.91	0.53
1:E:195:SER:OG	1:E:196:TYR:N	2.42	0.53
1:E:802:PHE:HB2	1:E:1617:TRP:HB2	1.91	0.53
1:G:681:HIS:ND1	1:G:683:GLU:OE2	2.32	0.53
1:G:1160:ASP:OD1	1:G:1178:ASN:ND2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1785:ASP:N	1:G:1785:ASP:OD1	2.40	0.53
1:G:3633:GLU:OE2	1:G:3635:HIS:N	2.39	0.53
1:A:1770:SER:OG	1:A:1771:ILE:N	2.42	0.53
1:A:4126:VAL:HA	1:A:4129:TYR:HB3	1.89	0.53
1:A:4717:ASP:HB3	1:A:4720:PHE:HB3	1.89	0.53
1:C:802:PHE:HB2	1:C:1617:TRP:HB2	1.91	0.53
1:C:1801:GLU:O	1:C:1805:HIS:N	2.42	0.53
1:C:4002:ASP:O	1:C:4006:GLU:HB2	2.08	0.53
1:C:4143:ALA:O	1:C:4145:ARG:NH1	2.41	0.53
1:E:2837:ASP:HB3	1:E:2905:SER:HA	1.91	0.53
1:E:4063:GLU:HA	1:E:4066:PHE:HB3	1.90	0.53
1:G:255:GLU:O	1:G:258:ARG:NH1	2.42	0.53
1:G:1428:TYR:O	1:G:1508:GLY:N	2.38	0.53
1:G:1669:ASN:HB3	1:G:1672:VAL:HB	1.91	0.53
1:G:2837:ASP:HB3	1:G:2905:SER:HA	1.91	0.53
1:A:776:GLN:HG2	1:A:1472:GLU:H	1.73	0.53
1:A:1160:ASP:OD1	1:A:1178:ASN:ND2	2.42	0.53
1:A:1166:VAL:HA	1:A:1173:MET:HG3	1.91	0.53
1:A:2192:LYS:O	1:A:2196:ASN:ND2	2.42	0.53
1:A:4729:MET:HE3	1:A:4743:HIS:HD2	1.74	0.53
1:A:4871:PHE:CE2	1:G:4866:LEU:CA	2.92	0.53
1:C:143:LEU:CB	1:E:2426:SER:HB3	2.38	0.53
1:C:196:TYR:O	1:C:201:LEU:N	2.41	0.53
1:C:442:ALA:H	1:C:444:THR:HA	1.73	0.53
1:C:1038:LEU:O	1:C:1043:LYS:NZ	2.37	0.53
1:C:1160:ASP:OD1	1:C:1178:ASN:ND2	2.42	0.53
1:C:1572:LYS:HD2	1:C:1585:ARG:H	1.73	0.53
1:C:2244:ALA:O	1:C:2247:SER:OG	2.25	0.53
1:E:255:GLU:O	1:E:258:ARG:NH1	2.41	0.53
1:E:766:ILE:HB	1:E:779:PHE:HB2	1.91	0.53
1:E:1801:GLU:O	1:E:1805:HIS:N	2.42	0.53
1:G:237:LEU:N	1:G:404:ASN:O	2.42	0.53
1:G:3917:VAL:O	1:G:3920:THR:OG1	2.25	0.53
1:A:1129:GLY:HA2	1:A:1145:TRP:HB3	1.90	0.53
1:A:1469:LEU:N	1:A:1477:HIS:O	2.32	0.53
1:A:1846:ILE:HG23	1:A:1894:LEU:HB3	1.90	0.53
1:A:4832:ILE:HG21	1:A:4844:ARG:HH21	1.73	0.53
1:C:195:SER:OG	1:C:196:TYR:N	2.42	0.53
1:C:231:GLY:O	1:C:276:ARG:NH1	2.42	0.53
1:C:741:VAL:HB	1:C:1469:LEU:HD22	1.90	0.53
1:E:1129:GLY:HA2	1:E:1145:TRP:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1160:ASP:OD1	1:E:1178:ASN:ND2	2.42	0.53
1:E:3638:GLU:OE1	1:E:3638:GLU:N	2.42	0.53
1:E:4160:GLN:HG3	1:E:4201:MET:HB3	1.91	0.53
1:G:557:TRP:O	1:G:560:SER:OG	2.24	0.53
1:G:1726:ILE:HD11	1:G:2109:ILE:HB	1.89	0.53
1:G:2202:CYS:O	1:G:2206:ARG:NH1	2.41	0.53
1:G:3892:TYR:O	1:G:3896:LYS:NZ	2.41	0.53
1:A:231:GLY:O	1:A:276:ARG:NH1	2.42	0.53
1:A:766:ILE:HB	1:A:779:PHE:HB2	1.91	0.53
1:A:1298:ASP:OD1	1:A:1298:ASP:N	2.42	0.53
1:A:4002:ASP:O	1:A:4006:GLU:HB2	2.08	0.53
1:A:4791:ARG:HG2	1:A:4808:ASP:OD1	2.09	0.53
1:C:881:ILE:HA	1:C:884:LYS:HD2	1.91	0.53
1:C:1443:VAL:HG12	1:C:1543:VAL:HA	1.90	0.53
1:C:2549:LEU:O	1:C:2553:VAL:N	2.42	0.53
1:C:4030:SER:OG	1:C:4031:ASP:N	2.40	0.53
1:E:292:GLY:HA2	1:E:331:PHE:H	1.74	0.53
1:E:2783:MET:HG2	1:E:2845:MET:HG3	1.89	0.53
1:E:4124:GLU:O	1:E:4128:ASN:ND2	2.42	0.53
1:G:442:ALA:H	1:G:444:THR:HA	1.73	0.53
1:G:1166:VAL:HA	1:G:1173:MET:HG3	1.91	0.53
1:G:2192:LYS:O	1:G:2196:ASN:ND2	2.42	0.53
1:A:752:ASP:N	1:A:752:ASP:OD1	2.40	0.53
1:A:1443:VAL:HG12	1:A:1543:VAL:HA	1.90	0.53
1:A:1785:ASP:OD1	1:A:1785:ASP:N	2.40	0.53
2:B:11:ASP:OD1	2:B:67:SER:OG	2.25	0.53
1:C:4126:VAL:HA	1:C:4129:TYR:HB3	1.89	0.53
1:C:4891:ILE:HD11	1:C:4916:LEU:HD13	1.91	0.53
1:E:75:VAL:O	1:E:79:GLN:NE2	2.41	0.53
1:E:191:TYR:HE2	1:G:2327:ARG:NH2	2.07	0.53
1:E:1166:VAL:HA	1:E:1173:MET:HG3	1.91	0.53
1:E:1428:TYR:O	1:E:1508:GLY:N	2.38	0.53
1:E:1613:GLU:O	1:E:1614:ARG:NE	2.42	0.53
1:E:1669:ASN:HB3	1:E:1672:VAL:HB	1.91	0.53
1:E:1677:CYS:HA	1:E:1680:VAL:HG22	1.90	0.53
1:E:2202:CYS:O	1:E:2206:ARG:NH1	2.41	0.53
1:E:3957:MET:O	1:E:3960:SER:OG	2.27	0.53
1:E:4143:ALA:O	1:E:4145:ARG:NH1	2.41	0.53
1:G:100:PHE:HB3	1:G:101:MET:HE2	1.91	0.53
1:G:195:SER:OG	1:G:196:TYR:N	2.42	0.53
1:G:1774:GLU:OE2	2:H:87:HIS:NE2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1825:PHE:HA	1:G:1828:LEU:HD12	1.90	0.53
1:G:4143:ALA:O	1:G:4145:ARG:NH1	2.41	0.53
1:A:741:VAL:HB	1:A:1469:LEU:HD22	1.90	0.52
1:A:4041:LYS:NZ	1:A:4080:ASP:OD2	2.38	0.52
1:A:4900:ASP:OD1	1:A:4905:GLY:N	2.31	0.52
1:C:292:GLY:HA2	1:C:331:PHE:H	1.74	0.52
1:C:3638:GLU:N	1:C:3638:GLU:OE1	2.42	0.52
1:C:3957:MET:O	1:C:3960:SER:OG	2.27	0.52
1:C:4729:MET:HE3	1:C:4743:HIS:HD2	1.74	0.52
1:C:4791:ARG:HG2	1:C:4808:ASP:OD1	2.09	0.52
1:E:1520:PHE:HB3	1:E:1527:LEU:HB2	1.90	0.52
1:E:1776:TYR:HH	1:E:1778:TYR:HH	1.58	0.52
1:E:4899:PHE:HD1	1:E:4960:ARG:HD3	1.74	0.52
1:G:611:LEU:HA	1:G:614:LEU:HD12	1.92	0.52
1:G:766:ILE:HB	1:G:779:PHE:HB2	1.91	0.52
1:G:1142:ALA:O	1:G:1151:HIS:ND1	2.42	0.52
1:G:1473:LYS:O	1:G:1475:LYS:NZ	2.37	0.52
1:G:3638:GLU:OE1	1:G:3638:GLU:N	2.42	0.52
1:A:881:ILE:HA	1:A:884:LYS:HD2	1.91	0.52
2:B:26:TYR:H	2:B:39:SER:HG	1.56	0.52
1:C:1129:GLY:HA2	1:C:1145:TRP:HB3	1.90	0.52
1:C:1210:ALA:N	1:C:1211:GLN:OE1	2.43	0.52
1:C:1677:CYS:HA	1:C:1680:VAL:HG22	1.90	0.52
1:E:237:LEU:N	1:E:404:ASN:O	2.42	0.52
1:E:2090:HIS:O	1:E:2094:ASP:N	2.42	0.52
1:E:3902:GLN:O	1:E:3906:ASN:ND2	2.43	0.52
1:E:4114:THR:O	1:E:4118:THR:N	2.34	0.52
1:E:4837:GLY:N	1:E:4841:GLU:OE1	2.34	0.52
1:G:1012:ILE:HA	1:G:1032:LEU:HD22	1.91	0.52
1:G:1100:ARG:HH22	1:G:1170:GLU:HB2	1.75	0.52
1:G:1770:SER:OG	1:G:1771:ILE:N	2.42	0.52
1:G:1801:GLU:O	1:G:1805:HIS:N	2.42	0.52
1:A:802:PHE:HB2	1:A:1617:TRP:HB2	1.91	0.52
1:A:2425:ARG:NH2	1:A:2476:VAL:O	2.43	0.52
1:A:2426:SER:HB3	1:G:143:LEU:CB	2.40	0.52
1:A:4768:LEU:O	1:A:4771:THR:OG1	2.21	0.52
2:B:17:LYS:NZ	2:B:18:LYS:O	2.39	0.52
1:C:1846:ILE:HG23	1:C:1894:LEU:HB3	1.90	0.52
1:C:3783:LYS:O	1:C:3786:LYS:NZ	2.43	0.52
1:E:143:LEU:CB	1:G:2426:SER:HB3	2.39	0.52
1:E:231:GLY:O	1:E:276:ARG:NH1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:756:SER:HB2	1:E:769:ARG:HB2	1.90	0.52
1:E:1210:ALA:N	1:E:1211:GLN:OE1	2.43	0.52
1:E:4791:ARG:HG2	1:E:4808:ASP:OD1	2.09	0.52
1:G:231:GLY:O	1:G:276:ARG:NH1	2.42	0.52
1:G:1129:GLY:HA2	1:G:1145:TRP:HB3	1.90	0.52
1:G:4124:GLU:O	1:G:4128:ASN:ND2	2.42	0.52
1:G:4160:GLN:HG3	1:G:4201:MET:HB3	1.91	0.52
1:A:169:ARG:HH12	1:A:176:ARG:HB2	1.72	0.52
1:A:611:LEU:HA	1:A:614:LEU:HD12	1.92	0.52
1:A:1100:ARG:HH22	1:A:1170:GLU:HB2	1.75	0.52
1:A:3902:GLN:O	1:A:3906:ASN:ND2	2.42	0.52
1:A:4125:SER:HA	1:A:4128:ASN:HD22	1.74	0.52
1:A:4523:VAL:CG2	1:G:4808:ASP:CB	2.85	0.52
1:C:100:PHE:HB3	1:C:101:MET:HE2	1.91	0.52
1:C:700:THR:OG1	1:C:701:GLU:N	2.43	0.52
1:C:890:HIS:NE2	1:C:919:VAL:O	2.34	0.52
1:C:4768:LEU:O	1:C:4771:THR:OG1	2.21	0.52
1:E:1770:SER:OG	1:E:1771:ILE:N	2.42	0.52
1:E:2846:ALA:HB3	1:E:2887:ARG:HH21	1.73	0.52
1:E:4089:HIS:O	1:E:4093:LYS:N	2.43	0.52
1:G:802:PHE:HB2	1:G:1617:TRP:HB2	1.91	0.52
1:G:1846:ILE:HG23	1:G:1894:LEU:HB3	1.90	0.52
1:G:3902:GLN:O	1:G:3906:ASN:ND2	2.43	0.52
1:G:4891:ILE:HD11	1:G:4916:LEU:HD13	1.91	0.52
1:A:75:VAL:O	1:A:79:GLN:NE2	2.41	0.52
1:A:143:LEU:CB	1:C:2426:SER:HB3	2.40	0.52
1:A:195:SER:OG	1:A:196:TYR:N	2.42	0.52
1:A:1012:ILE:HA	1:A:1032:LEU:HD22	1.91	0.52
1:A:1428:TYR:O	1:A:1508:GLY:N	2.38	0.52
1:A:2090:HIS:O	1:A:2094:ASP:N	2.42	0.52
1:A:2837:ASP:HB3	1:A:2905:SER:HA	1.91	0.52
1:C:611:LEU:HA	1:C:614:LEU:HD12	1.92	0.52
1:C:4899:PHE:HD1	1:C:4960:ARG:HD3	1.74	0.52
1:E:557:TRP:O	1:E:560:SER:OG	2.25	0.52
1:E:1142:ALA:O	1:E:1151:HIS:ND1	2.42	0.52
1:E:2318:ALA:HA	1:E:2321:VAL:HG12	1.92	0.52
1:E:2876:ASP:OD1	1:E:2876:ASP:N	2.36	0.52
1:G:1432:ILE:HB	1:G:1504:GLY:H	1.75	0.52
1:G:1613:GLU:O	1:G:1614:ARG:NE	2.42	0.52
1:G:4025:LYS:HB2	1:G:4086:LYS:HG3	1.92	0.52
1:G:4046:LYS:N	1:G:4077:GLU:O	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4791:ARG:HG2	1:G:4808:ASP:OD1	2.09	0.52
1:G:4832:ILE:HG21	1:G:4844:ARG:HH21	1.73	0.52
1:A:150:GLN:NE2	1:A:158:CYS:SG	2.83	0.52
1:A:2222:LEU:O	1:A:2226:SER:N	2.43	0.52
1:C:766:ILE:HB	1:C:779:PHE:HB2	1.91	0.52
1:C:2090:HIS:O	1:C:2094:ASP:N	2.42	0.52
1:C:2192:LYS:O	1:C:2196:ASN:ND2	2.42	0.52
1:C:2318:ALA:HA	1:C:2321:VAL:HG12	1.91	0.52
1:C:2725:TYR:O	1:C:2729:SER:OG	2.27	0.52
1:C:3615:HIS:O	1:C:3619:ASN:ND2	2.43	0.52
1:C:3902:GLN:O	1:C:3906:ASN:ND2	2.43	0.52
1:C:4005:VAL:HA	1:C:4008:SER:HB3	1.92	0.52
1:C:4899:PHE:HB2	1:C:4906:PHE:HD1	1.75	0.52
1:E:611:LEU:HA	1:E:614:LEU:HD12	1.92	0.52
1:E:620:CYS:N	1:E:623:VAL:O	2.40	0.52
1:E:881:ILE:HA	1:E:884:LYS:HD2	1.91	0.52
1:E:1223:THR:HA	1:E:1225:LYS:HE3	1.91	0.52
1:E:1432:ILE:HB	1:E:1504:GLY:H	1.75	0.52
1:E:2192:LYS:O	1:E:2196:ASN:ND2	2.42	0.52
1:E:4005:VAL:HA	1:E:4008:SER:HB3	1.92	0.52
1:E:4046:LYS:N	1:E:4077:GLU:O	2.43	0.52
1:E:4175:PHE:O	1:E:4179:ASN:HB2	2.10	0.52
1:E:4891:ILE:HD11	1:E:4916:LEU:HD13	1.91	0.52
1:E:4899:PHE:HB2	1:E:4906:PHE:HD1	1.75	0.52
1:G:890:HIS:NE2	1:G:919:VAL:O	2.34	0.52
1:G:1470:GLY:HA2	1:G:1474:GLY:HA2	1.89	0.52
1:G:1520:PHE:HB3	1:G:1527:LEU:HB2	1.90	0.52
1:G:1674:HIS:CE1	1:G:1764:SER:HB2	2.45	0.52
1:A:681:HIS:ND1	1:A:683:GLU:OE2	2.32	0.52
1:A:700:THR:OG1	1:A:701:GLU:N	2.43	0.52
1:A:890:HIS:NE2	1:A:919:VAL:O	2.34	0.52
1:A:1432:ILE:HB	1:A:1504:GLY:H	1.75	0.52
1:A:2327:ARG:NH2	1:G:191:TYR:HE2	2.08	0.52
1:A:2516:ALA:HA	1:A:2519:ARG:HE	1.75	0.52
1:C:150:GLN:NE2	1:C:158:CYS:SG	2.83	0.52
1:C:191:TYR:HE2	1:E:2327:ARG:NH2	2.07	0.52
1:C:756:SER:HB2	1:C:769:ARG:HB2	1.90	0.52
1:C:1770:SER:OG	1:C:1771:ILE:N	2.42	0.52
1:C:3739:GLU:HG2	1:C:3778:MET:HE1	1.92	0.52
1:C:4124:GLU:O	1:C:4128:ASN:ND2	2.42	0.52
1:E:700:THR:OG1	1:E:701:GLU:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:776:GLN:HG2	1:E:1472:GLU:H	1.73	0.52
1:E:1100:ARG:HH22	1:E:1170:GLU:HB2	1.75	0.52
1:E:1231:GLY:N	1:E:1234:GLU:OE1	2.40	0.52
1:E:2425:ARG:NH2	1:E:2476:VAL:O	2.43	0.52
1:E:4125:SER:HA	1:E:4128:ASN:HD22	1.74	0.52
1:G:4005:VAL:HA	1:G:4008:SER:HB3	1.92	0.52
1:G:4732:LEU:O	1:G:4736:ASN:N	2.39	0.52
1:A:527:LYS:NZ	1:A:566:GLU:O	2.42	0.52
1:A:1801:GLU:O	1:A:1805:HIS:N	2.42	0.52
1:A:3957:MET:O	1:A:3960:SER:OG	2.27	0.52
1:C:1231:GLY:N	1:C:1234:GLU:OE1	2.40	0.52
1:C:1613:GLU:O	1:C:1614:ARG:NE	2.42	0.52
1:C:2516:ALA:HA	1:C:2519:ARG:HE	1.75	0.52
1:C:4125:SER:HA	1:C:4128:ASN:HD22	1.74	0.52
1:G:2222:LEU:O	1:G:2226:SER:N	2.43	0.52
1:G:2516:ALA:HA	1:G:2519:ARG:HE	1.75	0.52
2:H:26:TYR:H	2:H:39:SER:HG	1.57	0.52
1:A:3615:HIS:O	1:A:3619:ASN:ND2	2.43	0.52
1:A:3638:GLU:OE1	1:A:3638:GLU:N	2.42	0.52
1:A:4703:ASP:OD1	1:A:4703:ASP:N	2.43	0.52
1:A:4868:ILE:CG1	1:G:4865:GLY:HA2	2.40	0.52
1:C:752:ASP:N	1:C:752:ASP:OD1	2.40	0.52
1:C:2425:ARG:NH2	1:C:2476:VAL:O	2.43	0.52
1:C:4160:GLN:HG3	1:C:4201:MET:HB3	1.91	0.52
1:G:741:VAL:HB	1:G:1469:LEU:HD22	1.90	0.52
1:G:1223:THR:HA	1:G:1225:LYS:HE3	1.91	0.52
1:G:2219:LEU:O	1:G:2222:LEU:N	2.43	0.52
1:G:3615:HIS:O	1:G:3619:ASN:ND2	2.43	0.52
1:A:292:GLY:HA2	1:A:331:PHE:H	1.74	0.52
1:A:442:ALA:H	1:A:444:THR:HA	1.73	0.52
1:A:1572:LYS:HD2	1:A:1585:ARG:H	1.73	0.52
1:A:3739:GLU:HG2	1:A:3778:MET:HE1	1.92	0.52
1:A:3771:ASN:HD22	1:A:3774:VAL:HG23	1.75	0.52
1:A:4164:PRO:HG3	1:A:4167:LYS:HD2	1.92	0.52
1:C:75:VAL:O	1:C:79:GLN:NE2	2.41	0.52
1:C:237:LEU:N	1:C:404:ASN:O	2.42	0.52
1:C:2837:ASP:HB3	1:C:2905:SER:HA	1.91	0.52
1:C:4046:LYS:N	1:C:4077:GLU:O	2.43	0.52
1:C:4175:PHE:O	1:C:4179:ASN:HB2	2.10	0.52
1:C:4596:VAL:O	1:C:4598:LEU:N	2.43	0.52
1:E:100:PHE:HB3	1:E:101:MET:HE2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:150:GLN:NE2	1:E:158:CYS:SG	2.83	0.52
1:E:1844:GLN:OE1	1:E:1849:SER:N	2.42	0.52
1:E:3739:GLU:HG2	1:E:3778:MET:HE1	1.92	0.52
1:E:3783:LYS:O	1:E:3786:LYS:NZ	2.43	0.52
1:E:4025:LYS:HB2	1:E:4086:LYS:HG3	1.92	0.52
1:E:4865:GLY:HA2	1:G:4868:ILE:CG1	2.40	0.52
1:G:2318:ALA:HA	1:G:2321:VAL:HG12	1.92	0.52
1:A:1674:HIS:CE1	1:A:1764:SER:HB2	2.45	0.51
1:A:4899:PHE:HB2	1:A:4906:PHE:HD1	1.75	0.51
1:A:4899:PHE:HD1	1:A:4960:ARG:HD3	1.74	0.51
1:C:187:SER:HA	1:E:2419:ARG:HD2	1.92	0.51
1:C:2730:HIS:NE2	1:C:2759:LYS:O	2.34	0.51
1:C:3917:VAL:O	1:C:3920:THR:OG1	2.25	0.51
1:C:4576:LEU:HA	1:C:4579:LEU:HB3	1.93	0.51
1:E:1012:ILE:HA	1:E:1032:LEU:HD22	1.91	0.51
1:E:1846:ILE:HG23	1:E:1894:LEU:HB3	1.90	0.51
1:E:2222:LEU:O	1:E:2226:SER:N	2.43	0.51
1:E:3917:VAL:O	1:E:3920:THR:OG1	2.25	0.51
1:G:1459:LEU:HD22	1:G:1465:VAL:HG23	1.92	0.51
1:G:4125:SER:HA	1:G:4128:ASN:HD22	1.74	0.51
1:A:2219:LEU:O	1:A:2222:LEU:N	2.43	0.51
1:A:3783:LYS:O	1:A:3786:LYS:NZ	2.43	0.51
1:A:4046:LYS:N	1:A:4077:GLU:O	2.43	0.51
1:C:1100:ARG:HH22	1:C:1170:GLU:HB2	1.75	0.51
1:C:1199:ASP:N	1:C:1199:ASP:OD1	2.38	0.51
1:C:4837:GLY:N	1:C:4841:GLU:OE1	2.34	0.51
1:E:1459:LEU:HD22	1:E:1465:VAL:HG23	1.92	0.51
1:E:1674:HIS:CE1	1:E:1764:SER:HB2	2.45	0.51
1:E:3784:GLU:HB2	1:E:3785:LYS:HZ2	1.75	0.51
1:G:1644:LEU:HG	1:G:1651:LEU:HD12	1.92	0.51
1:G:2738:LEU:HD11	1:G:2743:ILE:HD11	1.92	0.51
1:G:4175:PHE:O	1:G:4179:ASN:HB2	2.10	0.51
1:G:4729:MET:HE3	1:G:4743:HIS:HD2	1.74	0.51
1:A:100:PHE:HB3	1:A:101:MET:HE2	1.91	0.51
1:A:756:SER:HB2	1:A:769:ARG:HB2	1.90	0.51
1:A:1459:LEU:HD22	1:A:1465:VAL:HG23	1.92	0.51
1:A:1669:ASN:HB3	1:A:1672:VAL:HB	1.91	0.51
1:A:3917:VAL:O	1:A:3920:THR:OG1	2.25	0.51
1:A:4005:VAL:HA	1:A:4008:SER:HB3	1.92	0.51
1:A:4025:LYS:HB2	1:A:4086:LYS:HG3	1.92	0.51
1:A:4124:GLU:O	1:A:4128:ASN:ND2	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4160:GLN:HG3	1:A:4201:MET:HB3	1.91	0.51
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.93	0.51
1:C:681:HIS:HB2	1:C:799:LYS:H	1.76	0.51
1:C:1459:LEU:HD22	1:C:1465:VAL:HG23	1.92	0.51
1:C:1669:ASN:HB3	1:C:1672:VAL:HB	1.91	0.51
1:E:115:TYR:HB3	1:E:164:PRO:HD3	1.92	0.51
1:E:2219:LEU:O	1:E:2222:LEU:N	2.43	0.51
1:G:2090:HIS:O	1:G:2094:ASP:N	2.42	0.51
1:G:3958:LYS:O	1:G:3965:GLN:NE2	2.40	0.51
1:G:4899:PHE:HD1	1:G:4960:ARG:HD3	1.74	0.51
1:G:4900:ASP:OD1	1:G:4905:GLY:N	2.31	0.51
1:A:1223:THR:HA	1:A:1225:LYS:HE3	1.91	0.51
1:A:4576:LEU:HA	1:A:4579:LEU:HB3	1.93	0.51
1:A:4866:LEU:CA	1:C:4871:PHE:CE2	2.93	0.51
1:A:4891:ILE:HD11	1:A:4916:LEU:HD13	1.91	0.51
1:C:4164:PRO:HG3	1:C:4167:LYS:HD2	1.92	0.51
1:E:3615:HIS:O	1:E:3619:ASN:ND2	2.43	0.51
1:G:150:GLN:NE2	1:G:158:CYS:SG	2.83	0.51
1:G:700:THR:OG1	1:G:701:GLU:N	2.43	0.51
1:A:2318:ALA:HA	1:A:2321:VAL:HG12	1.91	0.51
1:A:4732:LEU:HB2	1:A:4740:PHE:HB2	1.93	0.51
1:C:3763:GLY:HA2	1:C:3766:ILE:HD12	1.92	0.51
1:C:4732:LEU:HB2	1:C:4740:PHE:HB2	1.93	0.51
1:E:681:HIS:HB2	1:E:799:LYS:H	1.76	0.51
1:E:4652:ARG:NH2	1:E:4672:GLY:O	2.42	0.51
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.93	0.51
1:G:881:ILE:HA	1:G:884:LYS:HD2	1.91	0.51
1:G:1210:ALA:N	1:G:1211:GLN:OE1	2.43	0.51
1:G:3771:ASN:HD22	1:G:3774:VAL:HG23	1.75	0.51
1:A:2244:ALA:O	1:A:2247:SER:OG	2.25	0.51
1:C:165:ALA:HB3	1:C:211:LEU:HD21	1.93	0.51
1:C:1223:THR:HA	1:C:1225:LYS:HE3	1.91	0.51
1:C:2222:LEU:O	1:C:2226:SER:N	2.43	0.51
1:E:1043:LYS:HB3	1:E:1047:LYS:HD2	1.93	0.51
1:E:4576:LEU:HA	1:E:4579:LEU:HB3	1.93	0.51
1:E:4732:LEU:HB2	1:E:4740:PHE:HB2	1.93	0.51
1:G:165:ALA:HB3	1:G:211:LEU:HD21	1.93	0.51
1:G:3739:GLU:HG2	1:G:3778:MET:HE1	1.92	0.51
1:G:3763:GLY:HA2	1:G:3766:ILE:HD12	1.92	0.51
1:G:3957:MET:O	1:G:3960:SER:OG	2.27	0.51
1:A:396:GLU:HB3	1:A:399:MET:HE1	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1210:ALA:N	1:A:1211:GLN:OE1	2.43	0.51
1:A:4652:ARG:NH2	1:A:4672:GLY:O	2.42	0.51
1:C:556:ASP:HA	1:C:559:ILE:HD12	1.93	0.51
1:C:1043:LYS:HB3	1:C:1047:LYS:HD2	1.93	0.51
1:C:3771:ASN:HD22	1:C:3774:VAL:HG23	1.75	0.51
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.93	0.51
1:E:752:ASP:OD1	1:E:752:ASP:N	2.40	0.51
1:E:1225:LYS:O	1:E:1228:THR:OG1	2.29	0.51
1:E:1300:MET:N	1:E:1545:ALA:O	2.43	0.51
1:E:1800:GLN:O	1:E:1804:LEU:N	2.36	0.51
1:G:2549:LEU:O	1:G:2553:VAL:N	2.42	0.51
1:G:4089:HIS:O	1:G:4093:LYS:N	2.43	0.51
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.93	0.51
1:A:191:TYR:HE2	1:C:2327:ARG:NH2	2.09	0.51
1:A:556:ASP:HA	1:A:559:ILE:HD12	1.93	0.51
1:A:1225:LYS:O	1:A:1228:THR:OG1	2.29	0.51
1:A:2313:SER:OG	1:A:2475:ARG:NH2	2.41	0.51
1:A:4732:LEU:O	1:A:4736:ASN:N	2.39	0.51
1:C:620:CYS:N	1:C:623:VAL:O	2.40	0.51
1:C:2313:SER:OG	1:C:2475:ARG:NH2	2.41	0.51
1:E:1433:PHE:H	1:E:1552:VAL:HG23	1.76	0.51
1:E:2738:LEU:HD11	1:E:2743:ILE:HD11	1.93	0.51
1:G:681:HIS:HB2	1:G:799:LYS:H	1.76	0.51
1:G:3783:LYS:O	1:G:3786:LYS:NZ	2.43	0.51
1:G:4899:PHE:HB2	1:G:4906:PHE:HD1	1.75	0.51
1:A:1449:ASP:N	1:A:1449:ASP:OD1	2.33	0.51
1:A:1644:LEU:HG	1:A:1651:LEU:HD12	1.93	0.51
1:A:3763:GLY:HA2	1:A:3766:ILE:HD12	1.92	0.51
1:A:4596:VAL:O	1:A:4598:LEU:N	2.43	0.51
1:C:1225:LYS:O	1:C:1228:THR:OG1	2.29	0.51
1:C:1674:HIS:CE1	1:C:1764:SER:HB2	2.45	0.51
1:E:165:ALA:HB3	1:E:211:LEU:HD21	1.93	0.51
1:E:418:VAL:O	1:E:422:THR:OG1	2.22	0.51
1:G:2425:ARG:NH2	1:G:2476:VAL:O	2.43	0.51
1:G:4576:LEU:HA	1:G:4579:LEU:HB3	1.92	0.51
1:G:4732:LEU:HB2	1:G:4740:PHE:HB2	1.93	0.51
1:A:235:ARG:NH2	1:A:268:SER:O	2.44	0.51
1:A:846:TYR:HH	1:A:1222:SER:HG	1.51	0.51
1:A:2034:VAL:HA	1:A:2037:VAL:HG22	1.93	0.51
1:A:4808:ASP:CB	1:C:4523:VAL:CG1	2.81	0.51
1:C:1012:ILE:HA	1:C:1032:LEU:HD22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:188:SER:HB2	1:E:190:ARG:HH21	1.77	0.51
1:E:305:TYR:N	1:E:317:MET:O	2.44	0.51
1:E:2516:ALA:HA	1:E:2519:ARG:HE	1.75	0.51
1:E:4597:PRO:O	1:E:4601:PHE:N	2.32	0.51
1:G:188:SER:HB2	1:G:190:ARG:HH21	1.76	0.51
1:G:496:ASN:N	1:G:496:ASN:OD1	2.39	0.51
1:G:4193:PHE:O	1:G:4197:THR:OG1	2.23	0.51
1:A:156:GLU:HG2	1:A:187:SER:HB3	1.93	0.50
1:A:2035:GLU:OE2	1:A:3625:TYR:OH	2.28	0.50
1:A:4175:PHE:O	1:A:4179:ASN:HB2	2.10	0.50
1:C:1432:ILE:HB	1:C:1504:GLY:H	1.75	0.50
1:C:4025:LYS:HB2	1:C:4086:LYS:HG3	1.92	0.50
1:C:4703:ASP:OD1	1:C:4703:ASP:N	2.43	0.50
1:E:321:LYS:O	1:E:326:SER:OG	2.24	0.50
1:E:556:ASP:HA	1:E:559:ILE:HD12	1.93	0.50
1:E:4164:PRO:HG3	1:E:4167:LYS:HD2	1.92	0.50
1:E:4729:MET:HE3	1:E:4743:HIS:HD2	1.74	0.50
1:G:156:GLU:HG2	1:G:187:SER:HB3	1.93	0.50
1:G:396:GLU:HB3	1:G:399:MET:HE1	1.93	0.50
1:G:1086:ARG:HB2	1:G:1207:LEU:HB2	1.93	0.50
1:G:4768:LEU:O	1:G:4771:THR:OG1	2.21	0.50
1:A:1043:LYS:HB3	1:A:1047:LYS:HD2	1.93	0.50
1:C:188:SER:HB2	1:C:190:ARG:HH21	1.77	0.50
1:C:1670:HIS:ND1	1:C:1778:TYR:O	2.33	0.50
1:C:2718:LEU:HD23	1:C:2781:LYS:HZ2	1.76	0.50
1:E:187:SER:HA	1:G:2419:ARG:HD2	1.93	0.50
1:E:764:PRO:HB3	1:E:784:ILE:HD11	1.94	0.50
1:E:1086:ARG:HB2	1:E:1207:LEU:HB2	1.93	0.50
1:E:3763:GLY:HA2	1:E:3766:ILE:HD12	1.92	0.50
1:E:3771:ASN:HD22	1:E:3774:VAL:HG23	1.75	0.50
2:F:31:GLN:HE21	2:F:96:THR:HB	1.76	0.50
1:G:165:ALA:HB2	1:G:182:ILE:HG12	1.93	0.50
1:G:292:GLY:HA2	1:G:331:PHE:H	1.74	0.50
1:G:527:LYS:NZ	1:G:566:GLU:O	2.42	0.50
1:A:237:LEU:N	1:A:404:ASN:O	2.42	0.50
1:A:1224:LEU:HB3	1:A:1227:PHE:HB3	1.94	0.50
1:A:1256:PRO:O	1:A:1451:HIS:ND1	2.45	0.50
1:A:1433:PHE:H	1:A:1552:VAL:HG23	1.76	0.50
1:A:2549:LEU:O	1:A:2553:VAL:N	2.42	0.50
1:A:2738:LEU:HD11	1:A:2743:ILE:HD11	1.93	0.50
1:A:4185:GLU:O	1:A:4189:LEU:N	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:165:ALA:HB2	1:C:182:ILE:HG12	1.93	0.50
1:C:427:ASN:HA	1:C:430:ILE:HD12	1.93	0.50
1:C:2219:LEU:O	1:C:2222:LEU:N	2.43	0.50
1:C:2838:LEU:HG	1:C:2904:VAL:HB	1.94	0.50
1:C:3806:LEU:O	1:C:3810:GLU:N	2.42	0.50
1:E:156:GLU:HG2	1:E:187:SER:HB3	1.93	0.50
1:E:4656:ASP:HA	1:E:4664:ARG:HH22	1.77	0.50
1:G:115:TYR:HB3	1:G:164:PRO:HD3	1.92	0.50
1:G:235:ARG:NH2	1:G:268:SER:O	2.44	0.50
1:G:1225:LYS:O	1:G:1228:THR:OG1	2.29	0.50
1:G:1256:PRO:O	1:G:1451:HIS:ND1	2.45	0.50
1:G:2116:ASP:OD2	1:G:2154:LYS:N	2.44	0.50
1:A:165:ALA:HB3	1:A:211:LEU:HD21	1.93	0.50
1:A:188:SER:HB2	1:A:190:ARG:HH21	1.77	0.50
1:C:557:TRP:O	1:C:560:SER:OG	2.24	0.50
1:C:4148:ARG:NH2	1:C:4150:TYR:OH	2.45	0.50
1:C:4894:ILE:HD11	1:C:4956:GLY:HA2	1.94	0.50
1:E:225:GLN:NE2	1:E:3863:THR:O	2.45	0.50
1:E:427:ASN:HA	1:E:430:ILE:HD12	1.93	0.50
1:E:544:ASN:HB2	1:E:547:ASN:HD22	1.76	0.50
1:E:1102:TYR:N	1:E:1237:GLU:O	2.42	0.50
1:E:2838:LEU:HG	1:E:2904:VAL:HB	1.93	0.50
1:E:4148:ARG:NH2	1:E:4150:TYR:OH	2.45	0.50
1:G:544:ASN:HB2	1:G:547:ASN:HD22	1.76	0.50
1:G:1043:LYS:HB3	1:G:1047:LYS:HD2	1.93	0.50
1:A:681:HIS:HB2	1:A:799:LYS:H	1.76	0.50
1:A:915:HIS:HB3	1:A:918:LEU:HG	1.94	0.50
1:A:1199:ASP:N	1:A:1199:ASP:OD1	2.38	0.50
1:A:4894:ILE:HD11	1:A:4956:GLY:HA2	1.94	0.50
1:C:156:GLU:HG2	1:C:187:SER:HB3	1.94	0.50
1:C:396:GLU:HB3	1:C:399:MET:HE1	1.93	0.50
1:C:1776:TYR:OH	1:C:1778:TYR:OH	2.29	0.50
1:C:3879:LEU:HD22	1:C:3921:LEU:HD11	1.94	0.50
1:E:15:ARG:HA	1:E:112:THR:HA	1.94	0.50
1:E:2116:ASP:OD2	1:E:2154:LYS:N	2.44	0.50
1:E:3992:VAL:O	1:E:3993:ASN:ND2	2.45	0.50
1:E:4007:SER:O	1:E:4007:SER:OG	2.29	0.50
1:G:1300:MET:N	1:G:1545:ALA:O	2.43	0.50
2:H:31:GLN:HE21	2:H:96:THR:HB	1.76	0.50
1:A:49:LEU:HD12	1:A:201:LEU:HB3	1.94	0.50
1:C:847:THR:HB	1:C:1214:ARG:HG3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4656:ASP:HA	1:C:4664:ARG:HH22	1.77	0.50
1:E:415:THR:HG21	1:E:485:ARG:HG2	1.94	0.50
1:E:559:ILE:HD13	1:E:593:HIS:HB3	1.94	0.50
1:E:2549:LEU:O	1:E:2553:VAL:N	2.42	0.50
1:G:556:ASP:HA	1:G:559:ILE:HD12	1.93	0.50
1:G:764:PRO:HB3	1:G:784:ILE:HD11	1.94	0.50
1:G:1433:PHE:H	1:G:1552:VAL:HG23	1.76	0.50
1:G:2725:TYR:O	1:G:2729:SER:OG	2.27	0.50
1:G:3992:VAL:O	1:G:3993:ASN:ND2	2.45	0.50
1:A:165:ALA:HB2	1:A:182:ILE:HG12	1.93	0.50
1:A:847:THR:HB	1:A:1214:ARG:HG3	1.94	0.50
1:A:1670:HIS:ND1	1:A:1778:TYR:O	2.33	0.50
1:C:225:GLN:NE2	1:C:3863:THR:O	2.45	0.50
1:C:423:VAL:HA	1:C:426:PHE:HB2	1.93	0.50
1:C:1256:PRO:O	1:C:1451:HIS:ND1	2.45	0.50
1:C:2034:VAL:HA	1:C:2037:VAL:HG22	1.93	0.50
1:C:4089:HIS:O	1:C:4093:LYS:N	2.43	0.50
2:D:38:SER:O	2:D:42:ARG:NH1	2.45	0.50
1:E:235:ARG:NH2	1:E:268:SER:O	2.44	0.50
1:G:31:GLU:HB3	1:G:33:GLN:HB2	1.94	0.50
1:G:915:HIS:HB3	1:G:918:LEU:HG	1.94	0.50
1:A:31:GLU:HB3	1:A:33:GLN:HB2	1.94	0.50
1:A:544:ASN:HB2	1:A:547:ASN:HD22	1.76	0.50
1:A:559:ILE:HD13	1:A:593:HIS:HB3	1.94	0.50
1:C:544:ASN:HB2	1:C:547:ASN:HD22	1.76	0.50
1:C:4808:ASP:O	1:E:4523:VAL:HB	2.11	0.50
1:C:4865:GLY:HA2	1:E:4868:ILE:CG1	2.41	0.50
1:E:133:LEU:N	1:E:146:ASP:O	2.44	0.50
1:E:1644:LEU:HG	1:E:1651:LEU:HD12	1.92	0.50
1:E:2463:PRO:HG3	1:E:2516:ALA:HB2	1.94	0.50
1:E:3879:LEU:HD22	1:E:3921:LEU:HD11	1.94	0.50
1:E:4193:PHE:O	1:E:4197:THR:OG1	2.23	0.50
2:F:11:ASP:OD1	2:F:67:SER:OG	2.25	0.50
1:G:423:VAL:HA	1:G:426:PHE:HB2	1.93	0.50
1:G:4148:ARG:NH2	1:G:4150:TYR:OH	2.45	0.50
1:G:4164:PRO:HG3	1:G:4167:LYS:HD2	1.92	0.50
1:A:15:ARG:HA	1:A:112:THR:HA	1.94	0.50
1:A:115:TYR:HB3	1:A:164:PRO:HD3	1.92	0.50
1:A:249:SER:O	1:A:252:HIS:NE2	2.45	0.50
1:A:423:VAL:HA	1:A:426:PHE:HB2	1.93	0.50
1:A:2419:ARG:HD2	1:G:187:SER:HA	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:38:SER:O	2:B:42:ARG:NH1	2.45	0.50
1:C:115:TYR:HB3	1:C:164:PRO:HD3	1.92	0.50
1:C:235:ARG:NH2	1:C:268:SER:O	2.44	0.50
1:C:1086:ARG:HB2	1:C:1207:LEU:HB2	1.93	0.50
1:E:165:ALA:HB2	1:E:182:ILE:HG12	1.93	0.50
1:E:396:GLU:HB3	1:E:399:MET:HE1	1.93	0.50
1:E:423:VAL:HA	1:E:426:PHE:HB2	1.93	0.50
1:E:847:THR:HB	1:E:1214:ARG:HG3	1.94	0.50
1:G:225:GLN:NE2	1:G:3863:THR:O	2.45	0.50
1:G:1224:LEU:HB3	1:G:1227:PHE:HB3	1.94	0.50
1:G:2463:PRO:HG3	1:G:2516:ALA:HB2	1.94	0.50
1:G:4652:ARG:NH2	1:G:4672:GLY:O	2.42	0.50
2:H:38:SER:O	2:H:42:ARG:NH1	2.45	0.50
1:C:15:ARG:HA	1:C:112:THR:HA	1.94	0.49
1:C:1644:LEU:HG	1:C:1651:LEU:HD12	1.93	0.49
1:C:2463:PRO:HG3	1:C:2516:ALA:HB2	1.94	0.49
1:C:4007:SER:O	1:C:4007:SER:OG	2.29	0.49
1:C:4787:PHE:O	1:C:4791:ARG:NH1	2.45	0.49
1:E:4866:LEU:HA	1:G:4871:PHE:CE2	2.47	0.49
1:G:559:ILE:HD13	1:G:593:HIS:HB3	1.94	0.49
1:G:847:THR:HB	1:G:1214:ARG:HG3	1.94	0.49
1:G:4114:THR:O	1:G:4118:THR:N	2.34	0.49
1:A:187:SER:HA	1:C:2419:ARG:HD2	1.94	0.49
1:A:1761:MET:SD	1:A:1761:MET:N	2.68	0.49
1:A:4089:HIS:O	1:A:4093:LYS:N	2.43	0.49
1:A:4656:ASP:HA	1:A:4664:ARG:HH22	1.76	0.49
1:C:764:PRO:HB3	1:C:784:ILE:HD11	1.94	0.49
1:C:878:LEU:HD22	1:C:881:ILE:HG21	1.95	0.49
1:C:1224:LEU:HB3	1:C:1227:PHE:HB3	1.93	0.49
1:C:1785:ASP:OD1	1:C:1785:ASP:N	2.40	0.49
1:E:3633:GLU:OE2	1:E:3635:HIS:N	2.39	0.49
1:E:3806:LEU:O	1:E:3810:GLU:N	2.42	0.49
1:E:4787:PHE:O	1:E:4791:ARG:NH1	2.45	0.49
1:G:1844:GLN:OE1	1:G:1849:SER:N	2.42	0.49
1:G:3806:LEU:O	1:G:3810:GLU:N	2.42	0.49
1:A:305:TYR:N	1:A:317:MET:O	2.44	0.49
1:A:1086:ARG:HB2	1:A:1207:LEU:HB2	1.93	0.49
1:A:3628:SER:OG	1:A:3629:TRP:N	2.46	0.49
1:A:4865:GLY:HA2	1:C:4868:ILE:CG1	2.42	0.49
1:C:133:LEU:N	1:C:146:ASP:O	2.44	0.49
1:C:249:SER:O	1:C:252:HIS:NE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:559:ILE:HD13	1:C:593:HIS:HB3	1.94	0.49
1:C:1124:PRO:HG3	1:C:1600:PRO:HD3	1.95	0.49
1:C:1428:TYR:O	1:C:1508:GLY:N	2.38	0.49
1:C:1570:LEU:O	1:C:1573:SER:OG	2.22	0.49
1:C:2738:LEU:HD11	1:C:2743:ILE:HD11	1.92	0.49
1:C:2841:MET:O	1:C:2845:MET:HB2	2.13	0.49
1:C:4497:ALA:HB2	1:C:4593:CYS:HB2	1.95	0.49
1:C:4652:ARG:NH2	1:C:4672:GLY:O	2.42	0.49
1:E:4732:LEU:O	1:E:4736:ASN:N	2.39	0.49
1:G:620:CYS:N	1:G:623:VAL:O	2.40	0.49
1:G:1670:HIS:ND1	1:G:1778:TYR:O	2.33	0.49
1:A:673:TRP:N	1:A:759:LEU:O	2.46	0.49
1:A:801:ARG:NH2	1:A:810:GLU:OE1	2.46	0.49
1:A:1628:MET:HG3	1:A:1641:ILE:HG13	1.95	0.49
1:A:2463:PRO:HG3	1:A:2516:ALA:HB2	1.94	0.49
1:C:3882:VAL:O	1:C:3885:SER:OG	2.25	0.49
1:C:3924:TYR:O	1:C:3932:ASN:ND2	2.45	0.49
1:C:3992:VAL:O	1:C:3993:ASN:ND2	2.45	0.49
1:E:878:LEU:HD22	1:E:881:ILE:HG21	1.95	0.49
1:E:2388:ALA:O	1:E:2392:PHE:HB3	2.13	0.49
1:E:3924:TYR:O	1:E:3932:ASN:ND2	2.45	0.49
1:E:4894:ILE:HD11	1:E:4956:GLY:HA2	1.94	0.49
1:G:227:TYR:OH	1:G:355:LYS:NZ	2.46	0.49
1:G:236:LEU:HB2	1:G:245:LEU:HD22	1.94	0.49
1:G:410:HIS:HB2	1:G:414:ARG:HH21	1.77	0.49
1:G:1184:ASP:N	1:G:1188:SER:O	2.42	0.49
1:G:3924:TYR:O	1:G:3932:ASN:ND2	2.45	0.49
1:C:227:TYR:OH	1:C:355:LYS:NZ	2.46	0.49
1:C:850:LEU:HB2	1:C:1213:GLY:H	1.77	0.49
1:C:915:HIS:HB3	1:C:918:LEU:HG	1.94	0.49
1:C:2116:ASP:OD2	1:C:2154:LYS:N	2.44	0.49
2:D:31:GLN:HE21	2:D:96:THR:HB	1.76	0.49
2:D:85:THR:OG1	2:D:86:GLY:N	2.46	0.49
1:E:1256:PRO:O	1:E:1451:HIS:ND1	2.45	0.49
1:E:4592:TYR:HA	1:E:4596:VAL:HG21	1.95	0.49
1:G:2730:HIS:NE2	1:G:2759:LYS:O	2.34	0.49
1:A:4871:PHE:CE2	1:G:4866:LEU:HA	2.47	0.49
1:C:1102:TYR:N	1:C:1237:GLU:O	2.42	0.49
1:C:1243:THR:OG1	1:C:1244:ASN:N	2.46	0.49
1:C:1433:PHE:H	1:C:1552:VAL:HG23	1.76	0.49
1:C:2223:LEU:HA	1:C:2226:SER:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:850:LEU:HB2	1:E:1213:GLY:H	1.78	0.49
1:E:2029:ARG:O	1:E:2032:SER:OG	2.30	0.49
1:E:4703:ASP:N	1:E:4703:ASP:OD1	2.43	0.49
2:F:38:SER:O	2:F:42:ARG:NH1	2.45	0.49
1:G:1102:TYR:N	1:G:1237:GLU:O	2.42	0.49
1:G:1916:ASP:HA	1:G:2091:ARG:HH22	1.77	0.49
1:G:2061:GLN:OE1	1:G:2061:GLN:N	2.42	0.49
1:G:2388:ALA:O	1:G:2392:PHE:HB3	2.13	0.49
1:G:3628:SER:OG	1:G:3629:TRP:N	2.46	0.49
2:H:11:ASP:OD1	2:H:67:SER:OG	2.25	0.49
1:A:850:LEU:HB2	1:A:1213:GLY:H	1.78	0.49
1:A:878:LEU:HD22	1:A:881:ILE:HG21	1.94	0.49
1:A:1124:PRO:HG3	1:A:1600:PRO:HD3	1.95	0.49
1:A:2838:LEU:HG	1:A:2904:VAL:HB	1.94	0.49
1:A:4148:ARG:NH2	1:A:4150:TYR:OH	2.45	0.49
2:B:31:GLN:HE21	2:B:96:THR:HB	1.76	0.49
1:C:49:LEU:HD12	1:C:201:LEU:HB3	1.94	0.49
1:C:1800:GLN:O	1:C:1804:LEU:N	2.36	0.49
1:C:4866:LEU:HA	1:E:4871:PHE:CE2	2.47	0.49
1:E:298:ARG:HE	1:E:303:GLY:HA2	1.77	0.49
1:E:410:HIS:HB2	1:E:414:ARG:HH21	1.77	0.49
1:E:1054:VAL:HA	1:E:1057:LEU:HD12	1.94	0.49
1:E:1785:ASP:N	1:E:1785:ASP:OD1	2.40	0.49
1:E:4809:ASP:O	1:E:4812:THR:OG1	2.29	0.49
1:G:249:SER:O	1:G:252:HIS:NE2	2.45	0.49
1:G:1054:VAL:HA	1:G:1057:LEU:HD12	1.94	0.49
1:G:2034:VAL:HA	1:G:2037:VAL:HG22	1.93	0.49
1:G:2838:LEU:HG	1:G:2904:VAL:HB	1.93	0.49
1:A:1510:VAL:HA	1:A:1517:LEU:HB2	1.95	0.49
1:A:2116:ASP:OD2	1:A:2154:LYS:N	2.44	0.49
1:A:4497:ALA:HB2	1:A:4593:CYS:HB2	1.95	0.49
1:C:298:ARG:HE	1:C:303:GLY:HA2	1.78	0.49
1:C:410:HIS:HB2	1:C:414:ARG:HH21	1.77	0.49
1:E:673:TRP:N	1:E:759:LEU:O	2.46	0.49
1:E:1224:LEU:HB3	1:E:1227:PHE:HB3	1.94	0.49
1:E:1510:VAL:HA	1:E:1517:LEU:HB2	1.95	0.49
1:E:2034:VAL:HA	1:E:2037:VAL:HG22	1.93	0.49
2:F:7:ILE:N	2:F:71:ARG:O	2.46	0.49
1:G:305:TYR:N	1:G:317:MET:O	2.44	0.49
1:G:606:ARG:NH2	1:G:1634:GLU:OE2	2.46	0.49
2:H:38:SER:OG	2:H:41:ASP:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:133:LEU:N	1:A:146:ASP:O	2.44	0.49
1:A:236:LEU:HB2	1:A:245:LEU:HD22	1.94	0.49
1:A:415:THR:HG21	1:A:485:ARG:HG2	1.94	0.49
1:A:693:LEU:HA	1:A:794:PHE:HA	1.95	0.49
1:A:764:PRO:HB3	1:A:784:ILE:HD11	1.94	0.49
1:A:2223:LEU:HA	1:A:2226:SER:HB2	1.94	0.49
1:A:2841:MET:O	1:A:2845:MET:HB2	2.13	0.49
1:E:1469:LEU:N	1:E:1477:HIS:O	2.32	0.49
1:E:3643:GLU:HA	1:E:3646:ALA:HB3	1.95	0.49
1:E:3880:LEU:HD13	1:E:3940:ARG:HH11	1.78	0.49
1:G:427:ASN:HA	1:G:430:ILE:HD12	1.93	0.49
1:G:657:PRO:HB3	1:G:834:VAL:HG22	1.95	0.49
1:G:673:TRP:N	1:G:759:LEU:O	2.46	0.49
1:G:3804:LEU:HB3	1:G:3885:SER:HB2	1.95	0.49
1:G:4494:ASN:O	1:G:4498:ARG:HB3	2.13	0.49
1:G:4656:ASP:HA	1:G:4664:ARG:HH22	1.76	0.49
1:A:225:GLN:NE2	1:A:3863:THR:O	2.45	0.49
1:A:3804:LEU:HB3	1:A:3885:SER:HB2	1.95	0.49
1:A:3879:LEU:HD22	1:A:3921:LEU:HD11	1.94	0.49
1:A:3924:TYR:O	1:A:3932:ASN:ND2	2.45	0.49
1:A:3992:VAL:O	1:A:3993:ASN:ND2	2.45	0.49
1:C:31:GLU:HB3	1:C:33:GLN:HB2	1.94	0.49
1:C:236:LEU:HB2	1:C:245:LEU:HD22	1.94	0.49
1:C:415:THR:HG21	1:C:485:ARG:HG2	1.94	0.49
1:C:693:LEU:HA	1:C:794:PHE:HA	1.95	0.49
1:C:1690:GLU:HG2	1:C:1790:LYS:HZ1	1.78	0.49
1:C:2388:ALA:O	1:C:2392:PHE:HB3	2.13	0.49
1:C:3626:GLU:HA	1:C:3630:ILE:HG13	1.95	0.49
1:E:182:ILE:CG2	1:E:191:TYR:HD1	2.26	0.49
1:E:693:LEU:HA	1:E:794:PHE:HA	1.95	0.49
1:E:1227:PHE:HE2	1:E:1238:PRO:HG3	1.78	0.49
1:G:182:ILE:CG2	1:G:191:TYR:HD1	2.26	0.49
1:G:693:LEU:HA	1:G:794:PHE:HA	1.95	0.49
1:G:850:LEU:HB2	1:G:1213:GLY:H	1.78	0.49
1:G:1124:PRO:HG3	1:G:1600:PRO:HD3	1.95	0.49
1:G:1628:MET:HG3	1:G:1641:ILE:HG13	1.95	0.49
1:A:182:ILE:CG2	1:A:191:TYR:HD1	2.26	0.48
1:A:427:ASN:HA	1:A:430:ILE:HD12	1.93	0.48
1:A:1054:VAL:HA	1:A:1057:LEU:HD12	1.94	0.48
1:A:2061:GLN:OE1	1:A:2061:GLN:N	2.42	0.48
1:C:3628:SER:OG	1:C:3629:TRP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3958:LYS:O	1:C:3965:GLN:NE2	2.40	0.48
2:D:26:TYR:H	2:D:39:SER:HG	1.57	0.48
1:E:1916:ASP:HA	1:E:2091:ARG:HH22	1.78	0.48
1:E:2841:MET:O	1:E:2845:MET:HB2	2.13	0.48
1:A:227:TYR:OH	1:A:355:LYS:NZ	2.46	0.48
1:A:1916:ASP:HA	1:A:2091:ARG:HH22	1.77	0.48
1:C:506:HIS:HB3	1:C:564:ARG:HH22	1.79	0.48
1:C:801:ARG:NH2	1:C:810:GLU:OE1	2.46	0.48
1:C:3851:HIS:CE1	1:C:3926:GLN:HG3	2.48	0.48
1:C:4494:ASN:O	1:C:4498:ARG:HB3	2.13	0.48
1:E:236:LEU:HB2	1:E:245:LEU:HD22	1.94	0.48
1:E:1628:MET:HG3	1:E:1641:ILE:HG13	1.95	0.48
2:F:85:THR:OG1	2:F:86:GLY:N	2.46	0.48
1:G:15:ARG:HA	1:G:112:THR:HA	1.94	0.48
1:G:415:THR:HG21	1:G:485:ARG:HG2	1.94	0.48
1:G:3879:LEU:HD22	1:G:3921:LEU:HD11	1.94	0.48
1:G:4065:GLU:HA	1:G:4068:LEU:HB2	1.95	0.48
2:H:85:THR:OG1	2:H:86:GLY:N	2.46	0.48
1:A:508:TYR:HB3	1:A:517:VAL:HG22	1.94	0.48
1:A:1690:GLU:HG2	1:A:1790:LYS:HZ1	1.78	0.48
1:A:1844:GLN:OE1	1:A:1849:SER:N	2.42	0.48
1:A:2390:MET:HG3	1:A:2465:HIS:NE2	2.29	0.48
1:C:606:ARG:NH2	1:C:1634:GLU:OE2	2.46	0.48
1:C:764:PRO:HB2	1:C:781:ASN:H	1.79	0.48
1:C:1469:LEU:N	1:C:1477:HIS:O	2.32	0.48
1:E:49:LEU:HD12	1:E:201:LEU:HB3	1.94	0.48
1:E:653:SER:OG	1:E:794:PHE:O	2.28	0.48
1:E:2244:ALA:O	1:E:2247:SER:OG	2.25	0.48
1:E:4596:VAL:O	1:E:4598:LEU:N	2.43	0.48
1:G:878:LEU:HD22	1:G:881:ILE:HG21	1.95	0.48
1:G:1227:PHE:HE2	1:G:1238:PRO:HG3	1.78	0.48
1:G:3643:GLU:HA	1:G:3646:ALA:HB3	1.95	0.48
1:G:3908:SER:HA	1:G:3911:ILE:HD12	1.96	0.48
1:G:4894:ILE:HD11	1:G:4956:GLY:HA2	1.94	0.48
2:H:7:ILE:N	2:H:71:ARG:O	2.46	0.48
1:A:620:CYS:N	1:A:623:VAL:O	2.40	0.48
1:A:764:PRO:HB2	1:A:781:ASN:H	1.78	0.48
1:A:4787:PHE:O	1:A:4791:ARG:NH1	2.45	0.48
1:C:182:ILE:CG2	1:C:191:TYR:HD1	2.27	0.48
1:C:315:LEU:HD23	1:C:321:LYS:HE2	1.96	0.48
1:C:442:ALA:H	1:C:443:SER:HA	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:733:TRP:CE2	1:C:738:ALA:HB2	2.49	0.48
1:C:1300:MET:N	1:C:1545:ALA:O	2.43	0.48
1:E:31:GLU:HB3	1:E:33:GLN:HB2	1.94	0.48
1:E:227:TYR:OH	1:E:355:LYS:NZ	2.46	0.48
1:E:693:LEU:HD12	1:E:798:ILE:HD13	1.95	0.48
1:E:1476:VAL:O	1:E:1478:GLU:N	2.46	0.48
1:E:3628:SER:OG	1:E:3629:TRP:N	2.46	0.48
1:E:3877:ASP:HA	1:E:3880:LEU:HD12	1.95	0.48
1:E:3893:TYR:OH	1:E:3900:ASP:OD1	2.31	0.48
1:E:4053:MET:HE2	1:E:4059:TYR:HB2	1.95	0.48
1:G:315:LEU:HD23	1:G:321:LYS:HE2	1.96	0.48
1:G:4592:TYR:HA	1:G:4596:VAL:HG21	1.95	0.48
1:A:313:SER:HG	1:A:314:LEU:HD12	1.79	0.48
1:A:606:ARG:NH2	1:A:1634:GLU:OE2	2.46	0.48
1:A:657:PRO:HB3	1:A:834:VAL:HG22	1.95	0.48
1:A:1476:VAL:O	1:A:1478:GLU:N	2.46	0.48
1:A:3880:LEU:HD13	1:A:3940:ARG:HH11	1.78	0.48
1:C:756:SER:O	1:C:769:ARG:N	2.40	0.48
1:C:3893:TYR:OH	1:C:3900:ASP:OD1	2.31	0.48
1:E:506:HIS:HB3	1:E:564:ARG:HH22	1.79	0.48
1:E:508:TYR:HB3	1:E:517:VAL:HG22	1.94	0.48
1:E:915:HIS:HB3	1:E:918:LEU:HG	1.94	0.48
1:E:1124:PRO:HG3	1:E:1600:PRO:HD3	1.95	0.48
1:E:2110:ASN:OD1	1:E:2113:SER:OG	2.30	0.48
1:E:2157:TYR:HA	1:E:2160:PRO:HG3	1.95	0.48
1:E:3626:GLU:HA	1:E:3630:ILE:HG13	1.95	0.48
1:E:3631:GLU:OE1	1:E:3631:GLU:N	2.45	0.48
1:G:1432:ILE:HD12	1:G:1504:GLY:HA3	1.96	0.48
1:G:2390:MET:HG3	1:G:2465:HIS:NE2	2.29	0.48
1:G:2658:TYR:O	1:G:2662:LEU:N	2.46	0.48
1:G:2841:MET:O	1:G:2845:MET:HB2	2.13	0.48
1:G:3626:GLU:HA	1:G:3630:ILE:HG13	1.95	0.48
1:A:410:HIS:HB2	1:A:414:ARG:HH21	1.77	0.48
1:A:465:PRO:O	1:A:478:ARG:NH2	2.47	0.48
1:A:1511:VAL:H	1:A:1517:LEU:HB2	1.79	0.48
1:A:3746:SER:HB3	1:A:3790:PHE:HB2	1.96	0.48
1:C:1628:MET:HG3	1:C:1641:ILE:HG13	1.95	0.48
1:C:3643:GLU:HA	1:C:3646:ALA:HB3	1.95	0.48
1:C:3916:GLN:HA	1:C:3919:ASN:HD22	1.79	0.48
1:C:4103:LEU:HD11	1:C:4127:LEU:HD11	1.96	0.48
2:F:38:SER:OG	2:F:41:ASP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1108:VAL:HG23	1:G:1213:GLY:HA2	1.96	0.48
1:G:2224:GLU:O	1:G:2227:SER:OG	2.31	0.48
1:A:373:THR:HG23	1:A:392:ILE:HG13	1.96	0.48
1:A:506:HIS:HB3	1:A:564:ARG:HH22	1.79	0.48
1:A:1776:TYR:OH	1:A:1778:TYR:OH	2.29	0.48
1:A:4866:LEU:HA	1:C:4871:PHE:CE2	2.49	0.48
2:B:4:ILE:HD13	2:B:74:LEU:HG	1.96	0.48
1:C:673:TRP:N	1:C:759:LEU:O	2.46	0.48
1:C:1209:VAL:N	1:C:1211:GLN:OE1	2.47	0.48
1:E:249:SER:O	1:E:252:HIS:NE2	2.45	0.48
1:E:801:ARG:NH2	1:E:810:GLU:OE1	2.46	0.48
1:E:3729:GLN:O	1:E:3733:HIS:ND1	2.36	0.48
1:E:3851:HIS:CE1	1:E:3926:GLN:HG3	2.48	0.48
1:E:3908:SER:HA	1:E:3911:ILE:HD12	1.96	0.48
1:E:4497:ALA:HB2	1:E:4593:CYS:HB2	1.95	0.48
1:G:693:LEU:HD12	1:G:798:ILE:HD13	1.95	0.48
1:G:696:GLY:HA3	1:G:724:SER:HA	1.96	0.48
1:G:1510:VAL:HA	1:G:1517:LEU:HB2	1.95	0.48
1:G:3746:SER:HB3	1:G:3790:PHE:HB2	1.96	0.48
2:H:47:LYS:HE3	2:H:47:LYS:HB2	1.63	0.48
1:A:315:LEU:HD23	1:A:321:LYS:HE2	1.96	0.48
1:A:733:TRP:CE2	1:A:738:ALA:HB2	2.49	0.48
1:A:1184:ASP:HB2	1:A:1188:SER:HB3	1.96	0.48
1:A:1227:PHE:HE2	1:A:1238:PRO:HG3	1.78	0.48
1:A:1243:THR:OG1	1:A:1244:ASN:N	2.46	0.48
1:A:2388:ALA:O	1:A:2392:PHE:HB3	2.13	0.48
1:A:2730:HIS:NE2	1:A:2759:LYS:O	2.35	0.48
1:A:3908:SER:HA	1:A:3911:ILE:HD12	1.96	0.48
1:A:3916:GLN:HA	1:A:3919:ASN:HD22	1.79	0.48
1:C:79:GLN:HA	1:C:82:LEU:HD13	1.95	0.48
1:C:1669:ASN:O	1:C:1672:VAL:N	2.47	0.48
1:C:2224:GLU:O	1:C:2227:SER:OG	2.32	0.48
2:D:7:ILE:N	2:D:71:ARG:O	2.46	0.48
1:E:315:LEU:HD23	1:E:321:LYS:HE2	1.96	0.48
1:E:696:GLY:HA3	1:E:724:SER:HA	1.96	0.48
1:E:4494:ASN:O	1:E:4498:ARG:HB3	2.13	0.48
1:G:1449:ASP:OD1	1:G:1449:ASP:N	2.33	0.48
1:G:3851:HIS:CE1	1:G:3926:GLN:HG3	2.48	0.48
1:G:3915:LYS:HB2	1:G:3975:LEU:HD21	1.96	0.48
1:A:655:MET:HE2	1:A:834:VAL:HG12	1.96	0.48
1:A:2418:ILE:HA	1:A:2420:ILE:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2658:TYR:O	1:A:2662:LEU:N	2.46	0.48
1:A:3851:HIS:CE1	1:A:3926:GLN:HG3	2.48	0.48
1:A:3877:ASP:HA	1:A:3880:LEU:HD12	1.95	0.48
1:A:4114:THR:O	1:A:4118:THR:N	2.34	0.48
1:A:4494:ASN:O	1:A:4498:ARG:HB3	2.13	0.48
1:C:305:TYR:N	1:C:317:MET:O	2.44	0.48
1:C:655:MET:HE2	1:C:834:VAL:HG12	1.96	0.48
1:C:3804:LEU:HB3	1:C:3885:SER:HB2	1.95	0.48
1:C:3877:ASP:HA	1:C:3880:LEU:HD12	1.95	0.48
1:C:4592:TYR:HA	1:C:4596:VAL:HG21	1.95	0.48
1:E:1432:ILE:HD12	1:E:1504:GLY:HA3	1.95	0.48
1:E:2418:ILE:HA	1:E:2420:ILE:HG12	1.96	0.48
1:E:3746:SER:HB3	1:E:3790:PHE:HB2	1.96	0.48
1:E:3804:LEU:HB3	1:E:3885:SER:HB2	1.95	0.48
1:E:3915:LYS:HB2	1:E:3975:LEU:HD21	1.96	0.48
1:G:465:PRO:O	1:G:478:ARG:NH2	2.47	0.48
1:G:898:ILE:HD13	1:G:974:SER:H	1.79	0.48
1:G:1669:ASN:O	1:G:1672:VAL:N	2.47	0.48
1:G:3880:LEU:HD13	1:G:3940:ARG:HH11	1.78	0.48
1:G:4497:ALA:HB2	1:G:4593:CYS:HB2	1.95	0.48
1:A:298:ARG:HE	1:A:303:GLY:HA2	1.77	0.48
1:A:693:LEU:HD12	1:A:798:ILE:HD13	1.95	0.48
1:A:3626:GLU:HA	1:A:3630:ILE:HG13	1.95	0.48
1:A:3893:TYR:OH	1:A:3900:ASP:OD1	2.31	0.48
1:A:4138:GLU:HG3	1:A:4148:ARG:HG2	1.96	0.48
1:A:4592:TYR:HA	1:A:4596:VAL:HG21	1.95	0.48
1:C:373:THR:HG23	1:C:392:ILE:HG13	1.96	0.48
1:C:1118:SER:O	1:C:1202:ILE:N	2.45	0.48
1:C:3880:LEU:HD13	1:C:3940:ARG:HH11	1.78	0.48
1:E:606:ARG:NH2	1:E:1634:GLU:OE2	2.46	0.48
1:E:892:LEU:HD21	1:E:980:PRO:HG3	1.96	0.48
1:E:1669:ASN:O	1:E:1672:VAL:N	2.47	0.48
1:E:2223:LEU:HA	1:E:2226:SER:HB2	1.94	0.48
1:E:2425:ARG:O	1:E:2431:GLY:N	2.47	0.48
1:E:2725:TYR:O	1:E:2729:SER:OG	2.27	0.48
1:E:2790:ILE:HD12	1:E:2904:VAL:HG22	1.96	0.48
1:G:373:THR:HG23	1:G:392:ILE:HG13	1.96	0.48
1:G:506:HIS:HB3	1:G:564:ARG:HH22	1.79	0.48
1:G:508:TYR:HB3	1:G:517:VAL:HG22	1.94	0.48
1:G:801:ARG:NH2	1:G:810:GLU:OE1	2.46	0.48
1:G:1184:ASP:HB2	1:G:1188:SER:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2425:ARG:O	1:G:2431:GLY:N	2.47	0.48
1:G:4703:ASP:N	1:G:4703:ASP:OD1	2.43	0.48
1:A:1209:VAL:N	1:A:1211:GLN:OE1	2.47	0.47
1:A:1256:PRO:HG3	1:A:1598:ARG:HH22	1.79	0.47
1:A:1669:ASN:O	1:A:1672:VAL:N	2.47	0.47
1:A:2076:ILE:H	1:A:3667:GLN:HE22	1.62	0.47
1:A:4053:MET:HE2	1:A:4059:TYR:HB2	1.95	0.47
1:A:4103:LEU:HD11	1:A:4127:LEU:HD11	1.96	0.47
1:C:693:LEU:HD12	1:C:798:ILE:HD13	1.95	0.47
1:C:1054:VAL:HA	1:C:1057:LEU:HD12	1.94	0.47
1:C:1162:VAL:O	1:C:1176:THR:OG1	2.27	0.47
1:C:1473:LYS:O	1:C:1475:LYS:NZ	2.37	0.47
1:C:1511:VAL:H	1:C:1517:LEU:HB2	1.79	0.47
1:C:2076:ILE:H	1:C:3667:GLN:HE22	1.62	0.47
1:C:2425:ARG:O	1:C:2431:GLY:N	2.47	0.47
1:C:3953:ALA:HB1	1:C:4013:MET:HE2	1.96	0.47
1:C:3995:THR:HA	1:C:3998:LYS:HD2	1.96	0.47
1:C:4065:GLU:HA	1:C:4068:LEU:HB2	1.95	0.47
2:D:4:ILE:HD13	2:D:74:LEU:HG	1.96	0.47
1:E:657:PRO:HB3	1:E:834:VAL:HG22	1.95	0.47
1:E:1184:ASP:HB2	1:E:1188:SER:HB3	1.96	0.47
1:E:1473:LYS:O	1:E:1475:LYS:NZ	2.37	0.47
1:E:2718:LEU:HD23	1:E:2781:LYS:HZ2	1.79	0.47
1:G:1824:LEU:O	1:G:1827:THR:OG1	2.28	0.47
1:G:4787:PHE:O	1:G:4791:ARG:NH1	2.45	0.47
1:A:79:GLN:HA	1:A:82:LEU:HD13	1.95	0.47
1:A:2718:LEU:HD23	1:A:2781:LYS:HZ2	1.78	0.47
1:A:3953:ALA:HB1	1:A:4013:MET:HE2	1.96	0.47
1:A:4065:GLU:HA	1:A:4068:LEU:HB2	1.95	0.47
1:A:4897:ASP:OD1	1:A:4897:ASP:N	2.47	0.47
1:C:313:SER:HG	1:C:314:LEU:HD12	1.80	0.47
1:C:892:LEU:HD21	1:C:980:PRO:HG3	1.96	0.47
1:C:1184:ASP:HB2	1:C:1188:SER:HB3	1.96	0.47
1:C:1733:THR:HG22	1:C:1755:THR:HG21	1.97	0.47
1:C:2389:ILE:HA	1:C:2392:PHE:HB3	1.96	0.47
1:C:2390:MET:HG3	1:C:2465:HIS:NE2	2.29	0.47
1:C:2790:ILE:HD12	1:C:2904:VAL:HG22	1.96	0.47
1:C:3746:SER:HB3	1:C:3790:PHE:HB2	1.96	0.47
1:C:3908:SER:HA	1:C:3911:ILE:HD12	1.96	0.47
1:C:4053:MET:HE2	1:C:4059:TYR:HB2	1.95	0.47
1:C:4632:ASP:OD1	1:C:4632:ASP:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:442:ALA:H	1:E:443:SER:HA	1.78	0.47
1:E:1111:GLY:HA3	1:E:1211:GLN:HE21	1.79	0.47
1:E:1209:VAL:N	1:E:1211:GLN:OE1	2.47	0.47
1:E:3931:GLY:HA2	1:E:3934:GLN:HG2	1.96	0.47
1:G:79:GLN:HA	1:G:82:LEU:HD13	1.96	0.47
1:G:133:LEU:N	1:G:146:ASP:O	2.44	0.47
1:G:298:ARG:HE	1:G:303:GLY:HA2	1.77	0.47
1:G:442:ALA:H	1:G:443:SER:HA	1.79	0.47
1:G:892:LEU:HD21	1:G:980:PRO:HG3	1.96	0.47
1:G:3877:ASP:HA	1:G:3880:LEU:HD12	1.95	0.47
1:G:3893:TYR:OH	1:G:3900:ASP:OD1	2.31	0.47
1:G:3931:GLY:HA2	1:G:3934:GLN:HG2	1.97	0.47
1:A:1102:TYR:N	1:A:1237:GLU:O	2.42	0.47
1:A:1108:VAL:HG23	1:A:1213:GLY:HA2	1.96	0.47
1:A:1733:THR:HG22	1:A:1755:THR:HG21	1.96	0.47
1:A:2790:ILE:HD12	1:A:2904:VAL:HG22	1.96	0.47
1:A:3643:GLU:HA	1:A:3646:ALA:HB3	1.95	0.47
1:A:3958:LYS:O	1:A:3965:GLN:NE2	2.40	0.47
1:A:4936:GLY:O	1:A:4940:TYR:HB2	2.14	0.47
2:B:21:THR:HA	2:B:49:ARG:HA	1.96	0.47
1:C:508:TYR:HB3	1:C:517:VAL:HG22	1.94	0.47
1:C:673:TRP:HD1	1:C:761:LEU:HB2	1.79	0.47
1:C:1227:PHE:HE2	1:C:1238:PRO:HG3	1.78	0.47
1:C:1432:ILE:HD12	1:C:1504:GLY:HA3	1.96	0.47
1:C:1767:SER:OG	1:C:1768:PHE:N	2.48	0.47
1:C:1916:ASP:HA	1:C:2091:ARG:HH22	1.77	0.47
1:C:2658:TYR:O	1:C:2662:LEU:N	2.46	0.47
1:C:3915:LYS:HB2	1:C:3975:LEU:HD21	1.96	0.47
2:D:87:HIS:HB3	2:D:90:VAL:HB	1.97	0.47
1:E:733:TRP:CE2	1:E:738:ALA:HB2	2.49	0.47
1:E:1660:LEU:HD23	1:E:1660:LEU:HA	1.77	0.47
1:E:1767:SER:OG	1:E:1768:PHE:N	2.48	0.47
1:E:4521:TYR:HE2	1:E:4559:HIS:HB3	1.79	0.47
1:E:4936:GLY:O	1:E:4940:TYR:HB2	2.14	0.47
1:G:49:LEU:HD12	1:G:201:LEU:HB3	1.94	0.47
1:A:2303:LEU:HA	1:A:2306:ALA:HB3	1.96	0.47
1:A:3931:GLY:HA2	1:A:3934:GLN:HG2	1.96	0.47
1:C:238:HIS:HB3	1:C:243:GLU:HB3	1.96	0.47
1:C:1510:VAL:HA	1:C:1517:LEU:HB2	1.95	0.47
1:C:4936:GLY:O	1:C:4940:TYR:HB2	2.14	0.47
1:E:655:MET:HE2	1:E:834:VAL:HG12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:898:ILE:HD13	1:E:974:SER:H	1.79	0.47
1:E:1243:THR:OG1	1:E:1244:ASN:N	2.46	0.47
1:E:4103:LEU:HD11	1:E:4127:LEU:HD11	1.96	0.47
1:G:673:TRP:HD1	1:G:761:LEU:HB2	1.79	0.47
1:G:1256:PRO:HG3	1:G:1598:ARG:HH22	1.79	0.47
1:G:2258:LEU:H	1:G:2258:LEU:HG	1.45	0.47
1:G:4138:GLU:HG3	1:G:4148:ARG:HG2	1.96	0.47
1:A:672:LYS:HA	1:A:761:LEU:H	1.80	0.47
1:A:698:ALA:HB2	1:A:722:LEU:HD23	1.97	0.47
1:A:2157:TYR:HA	1:A:2160:PRO:HG3	1.95	0.47
1:A:3915:LYS:HB2	1:A:3975:LEU:HD21	1.96	0.47
1:C:653:SER:OG	1:C:794:PHE:O	2.28	0.47
1:C:887:GLU:HG3	1:C:921:PHE:HB3	1.97	0.47
1:C:1476:VAL:O	1:C:1478:GLU:N	2.46	0.47
1:C:1738:LEU:HD22	1:C:2037:VAL:HB	1.97	0.47
1:C:2061:GLN:OE1	1:C:2061:GLN:N	2.42	0.47
1:E:2224:GLU:O	1:E:2227:SER:OG	2.32	0.47
1:E:2258:LEU:H	1:E:2258:LEU:HG	1.46	0.47
2:F:87:HIS:HB3	2:F:90:VAL:HB	1.97	0.47
1:G:733:TRP:CE2	1:G:738:ALA:HB2	2.49	0.47
1:G:812:LYS:HD3	1:G:813:PHE:HB3	1.96	0.47
1:G:2223:LEU:HA	1:G:2226:SER:HB2	1.95	0.47
1:A:2425:ARG:O	1:A:2431:GLY:N	2.47	0.47
2:B:7:ILE:N	2:B:71:ARG:O	2.46	0.47
1:C:1111:GLY:HA3	1:C:1211:GLN:HE21	1.79	0.47
1:C:1844:GLN:OE1	1:C:1849:SER:N	2.42	0.47
1:C:2035:GLU:OE2	1:C:3625:TYR:OH	2.28	0.47
1:C:2418:ILE:HA	1:C:2420:ILE:HG12	1.96	0.47
1:C:4198:ILE:HD11	1:C:4924:MET:HG2	1.97	0.47
1:C:4920:LEU:HG	1:C:4924:MET:HE3	1.97	0.47
2:D:21:THR:HA	2:D:49:ARG:HA	1.96	0.47
1:E:672:LYS:HA	1:E:761:LEU:H	1.80	0.47
1:E:698:ALA:HB2	1:E:722:LEU:HD23	1.97	0.47
1:E:2390:MET:HG3	1:E:2465:HIS:NE2	2.29	0.47
1:E:3958:LYS:O	1:E:3965:GLN:NE2	2.40	0.47
1:E:3970:LYS:HA	1:E:3973:MET:HE2	1.97	0.47
1:E:4920:LEU:HG	1:E:4924:MET:HE3	1.97	0.47
2:F:26:TYR:H	2:F:39:SER:HG	1.58	0.47
1:G:887:GLU:HG3	1:G:921:PHE:HB3	1.97	0.47
1:G:1654:HIS:O	1:G:1657:THR:OG1	2.21	0.47
1:G:1733:THR:HG22	1:G:1755:THR:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2157:TYR:HA	1:G:2160:PRO:HG3	1.95	0.47
1:G:4053:MET:HE2	1:G:4059:TYR:HB2	1.95	0.47
2:H:21:THR:HA	2:H:49:ARG:HA	1.96	0.47
2:H:87:HIS:HB3	2:H:90:VAL:HB	1.97	0.47
1:A:63:SER:HB2	1:A:125:TYR:HD1	1.80	0.47
1:A:442:ALA:H	1:A:443:SER:HA	1.79	0.47
1:A:696:GLY:HA3	1:A:724:SER:HA	1.96	0.47
1:A:892:LEU:HD21	1:A:980:PRO:HG3	1.96	0.47
1:A:1098:ALA:O	1:A:1101:TRP:NE1	2.44	0.47
1:A:1300:MET:N	1:A:1545:ALA:O	2.43	0.47
1:A:1738:LEU:HD22	1:A:2037:VAL:HB	1.97	0.47
1:A:2068:VAL:HA	1:A:2071:ALA:HB3	1.97	0.47
1:A:2389:ILE:HA	1:A:2392:PHE:HB3	1.96	0.47
1:A:3970:LYS:HA	1:A:3973:MET:HE2	1.97	0.47
1:A:4178:VAL:HG11	1:A:4881:VAL:HG13	1.97	0.47
2:B:87:HIS:HB3	2:B:90:VAL:HB	1.97	0.47
1:C:125:TYR:HE2	1:C:414:ARG:HA	1.80	0.47
1:C:143:LEU:CB	1:E:2426:SER:CB	2.92	0.47
1:C:657:PRO:HB3	1:C:834:VAL:HG22	1.95	0.47
1:C:696:GLY:HA3	1:C:724:SER:HA	1.96	0.47
1:C:698:ALA:HB2	1:C:722:LEU:HD23	1.97	0.47
1:C:796:ALA:HB3	1:C:798:ILE:HG13	1.96	0.47
1:C:812:LYS:HD3	1:C:813:PHE:HB3	1.96	0.47
1:C:1256:PRO:HG3	1:C:1598:ARG:HH22	1.79	0.47
1:C:2303:LEU:HA	1:C:2306:ALA:HB3	1.96	0.47
1:C:3931:GLY:HA2	1:C:3934:GLN:HG2	1.96	0.47
1:C:4897:ASP:N	1:C:4897:ASP:OD1	2.47	0.47
1:E:125:TYR:HE2	1:E:414:ARG:HA	1.80	0.47
1:E:238:HIS:HB3	1:E:243:GLU:HB3	1.96	0.47
1:E:428:ARG:HB3	1:E:446:ASP:HB3	1.97	0.47
1:E:465:PRO:O	1:E:478:ARG:NH2	2.47	0.47
1:E:764:PRO:HB2	1:E:781:ASN:H	1.78	0.47
1:E:1108:VAL:HG23	1:E:1213:GLY:HA2	1.96	0.47
1:E:1118:SER:O	1:E:1202:ILE:N	2.45	0.47
1:E:1738:LEU:HD22	1:E:2037:VAL:HB	1.97	0.47
1:E:2035:GLU:OE2	1:E:3625:TYR:OH	2.28	0.47
1:E:3916:GLN:HA	1:E:3919:ASN:HD22	1.79	0.47
1:E:3943:ASP:OD1	1:E:3943:ASP:N	2.47	0.47
1:E:4632:ASP:OD1	1:E:4632:ASP:N	2.47	0.47
2:F:4:ILE:HD13	2:F:74:LEU:HG	1.96	0.47
2:F:21:THR:HA	2:F:49:ARG:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:108:GLY:HA3	1:G:109:GLY:HA3	1.56	0.47
1:G:428:ARG:HB3	1:G:446:ASP:HB3	1.97	0.47
1:G:698:ALA:HB2	1:G:722:LEU:HD23	1.97	0.47
1:G:796:ALA:HB3	1:G:798:ILE:HG13	1.96	0.47
1:G:1209:VAL:N	1:G:1211:GLN:OE1	2.47	0.47
1:G:1243:THR:OG1	1:G:1244:ASN:N	2.46	0.47
1:G:1476:VAL:O	1:G:1478:GLU:N	2.46	0.47
1:G:1511:VAL:H	1:G:1517:LEU:HB2	1.79	0.47
1:G:1738:LEU:HD22	1:G:2037:VAL:HB	1.97	0.47
1:G:1767:SER:OG	1:G:1768:PHE:N	2.48	0.47
1:G:3916:GLN:HA	1:G:3919:ASN:HD22	1.79	0.47
1:G:3970:LYS:HA	1:G:3973:MET:HE2	1.97	0.47
1:G:4920:LEU:HG	1:G:4924:MET:HE3	1.97	0.47
1:A:125:TYR:HE2	1:A:414:ARG:HA	1.80	0.47
1:A:456:LEU:HD23	1:A:457:GLN:HG3	1.97	0.47
1:A:898:ILE:HD13	1:A:974:SER:H	1.79	0.47
1:A:1432:ILE:HD12	1:A:1504:GLY:HA3	1.96	0.47
1:A:2224:GLU:O	1:A:2227:SER:OG	2.32	0.47
1:A:3977:LYS:HB3	1:A:3977:LYS:HE2	1.65	0.47
1:A:3995:THR:HA	1:A:3998:LYS:HD2	1.96	0.47
1:C:1172:THR:HG22	1:C:1193:LYS:HA	1.97	0.47
1:E:143:LEU:CB	1:G:2426:SER:CB	2.93	0.47
1:E:193:HIS:CD2	1:E:208:GLN:HB2	2.49	0.47
1:E:373:THR:HG23	1:E:392:ILE:HG13	1.96	0.47
1:E:1634:GLU:H	1:E:1634:GLU:HG3	1.50	0.47
1:E:4065:GLU:HA	1:E:4068:LEU:HB2	1.95	0.47
1:G:924:LEU:HB2	1:G:929:ARG:HB2	1.97	0.47
1:G:1111:GLY:HA3	1:G:1211:GLN:HE21	1.79	0.47
1:G:1756:SER:HB3	1:G:1920:ARG:HH21	1.80	0.47
1:G:2350:GLU:OE2	1:G:2353:LYS:NZ	2.48	0.47
1:G:4103:LEU:HD11	1:G:4127:LEU:HD11	1.96	0.47
1:G:4178:VAL:HG11	1:G:4881:VAL:HG13	1.97	0.47
2:H:4:ILE:HD13	2:H:74:LEU:HG	1.96	0.47
1:A:845:THR:OG1	1:A:846:TYR:N	2.48	0.47
1:A:1899:LEU:O	1:A:1904:LYS:NZ	2.42	0.47
2:B:85:THR:OG1	2:B:86:GLY:N	2.46	0.47
1:C:428:ARG:HB3	1:C:446:ASP:HB3	1.97	0.47
1:C:465:PRO:O	1:C:478:ARG:NH2	2.47	0.47
1:C:2157:TYR:HA	1:C:2160:PRO:HG3	1.95	0.47
1:C:3783:LYS:HA	1:C:3783:LYS:HD2	1.66	0.47
1:C:4178:VAL:HG11	1:C:4881:VAL:HG13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1184:ASP:N	1:E:1188:SER:O	2.42	0.47
1:E:1260:GLN:HB3	1:E:1591:LEU:HB3	1.97	0.47
1:E:1756:SER:HB3	1:E:1920:ARG:HH21	1.80	0.47
1:E:2061:GLN:O	1:E:2064:SER:OG	2.26	0.47
1:E:4185:GLU:O	1:E:4189:LEU:N	2.39	0.47
1:G:672:LYS:HA	1:G:761:LEU:H	1.80	0.47
1:G:764:PRO:HB2	1:G:781:ASN:H	1.79	0.47
1:G:1104:GLU:HA	1:G:1163:GLY:HA2	1.97	0.47
1:G:1645:THR:HG22	1:G:1695:PRO:HG3	1.97	0.47
1:G:1800:GLN:O	1:G:1804:LEU:N	2.36	0.47
1:G:2418:ILE:HA	1:G:2420:ILE:HG12	1.96	0.47
1:G:4117:GLN:HA	1:G:4120:LEU:HB2	1.97	0.47
1:G:4936:GLY:O	1:G:4940:TYR:HB2	2.14	0.47
1:A:115:TYR:HE1	1:A:181:LEU:HD11	1.80	0.47
1:A:590:LYS:H	1:A:593:HIS:CD2	2.33	0.47
1:A:1104:GLU:HA	1:A:1163:GLY:HA2	1.97	0.47
1:A:2061:GLN:O	1:A:2064:SER:OG	2.26	0.47
1:A:2783:MET:HE2	1:A:2783:MET:HB3	1.70	0.47
1:A:4117:GLN:HA	1:A:4120:LEU:HB2	1.97	0.47
1:A:4198:ILE:HD11	1:A:4924:MET:HG2	1.97	0.47
1:A:4494:ASN:O	1:A:4498:ARG:CB	2.63	0.47
1:A:4632:ASP:N	1:A:4632:ASP:OD1	2.47	0.47
1:C:672:LYS:HA	1:C:761:LEU:H	1.80	0.47
1:C:981:MET:HE2	1:C:1060:TYR:HA	1.97	0.47
1:C:1006:VAL:HG13	1:C:1009:ARG:HH21	1.80	0.47
1:C:3802:SER:O	1:C:3802:SER:OG	2.33	0.47
1:C:4117:GLN:HA	1:C:4120:LEU:HB2	1.97	0.47
1:C:4138:GLU:HG3	1:C:4148:ARG:HG2	1.96	0.47
1:E:79:GLN:HA	1:E:82:LEU:HD13	1.96	0.47
1:E:812:LYS:HD3	1:E:813:PHE:HB3	1.96	0.47
1:E:915:HIS:CE1	1:E:917:CYS:HB2	2.50	0.47
1:E:1256:PRO:HG3	1:E:1598:ARG:HH22	1.79	0.47
1:E:1270:VAL:HG23	1:E:1288:LYS:HB3	1.97	0.47
1:E:1602:GLN:HE22	1:E:1642:LEU:HB3	1.80	0.47
1:E:1733:THR:HG22	1:E:1755:THR:HG21	1.97	0.47
1:E:2076:ILE:H	1:E:3667:GLN:HE22	1.62	0.47
1:E:4117:GLN:HA	1:E:4120:LEU:HB2	1.97	0.47
1:E:4178:VAL:HG11	1:E:4881:VAL:HG13	1.97	0.47
1:G:115:TYR:HE1	1:G:181:LEU:HD11	1.80	0.47
1:G:655:MET:HE2	1:G:834:VAL:HG12	1.96	0.47
1:G:915:HIS:CE1	1:G:917:CYS:HB2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1118:SER:O	1:G:1202:ILE:N	2.45	0.47
1:A:169:ARG:HH22	1:A:176:ARG:HB2	1.80	0.46
1:A:238:HIS:HB3	1:A:243:GLU:HB3	1.97	0.46
1:A:653:SER:OG	1:A:794:PHE:O	2.28	0.46
1:A:1268:ILE:HD13	1:A:1268:ILE:HA	1.83	0.46
1:A:2734:SER:HA	1:A:2758:MET:HE1	1.97	0.46
1:A:3806:LEU:O	1:A:3810:GLU:N	2.42	0.46
1:C:681:HIS:ND1	1:C:683:GLU:OE2	2.32	0.46
1:C:831:LYS:H	1:C:833:LYS:HE2	1.80	0.46
1:C:1108:VAL:HG23	1:C:1213:GLY:HA2	1.96	0.46
1:C:1756:SER:O	1:C:1920:ARG:NH2	2.48	0.46
1:C:3957:MET:N	1:C:3957:MET:SD	2.88	0.46
1:C:4041:LYS:NZ	1:C:4080:ASP:OD2	2.38	0.46
1:C:4711:LEU:HA	1:C:4714:VAL:HB	1.97	0.46
1:E:236:LEU:HD12	1:E:245:LEU:HD13	1.97	0.46
1:E:1756:SER:O	1:E:1920:ARG:NH2	2.48	0.46
1:E:3953:ALA:HB1	1:E:4013:MET:HE2	1.96	0.46
1:G:125:TYR:HE2	1:G:414:ARG:HA	1.80	0.46
1:G:238:HIS:HB3	1:G:243:GLU:HB3	1.96	0.46
1:G:2076:ILE:H	1:G:3667:GLN:HE22	1.62	0.46
1:G:2790:ILE:HD12	1:G:2904:VAL:HG22	1.96	0.46
1:G:4907:GLU:OE1	1:G:4907:GLU:N	2.43	0.46
1:A:428:ARG:HB3	1:A:446:ASP:HB3	1.97	0.46
1:A:561:ARG:HD3	1:A:561:ARG:HA	1.77	0.46
1:A:1092:LYS:NZ	1:A:1120:PRO:O	2.40	0.46
1:A:1645:THR:HG22	1:A:1695:PRO:HG3	1.97	0.46
2:B:47:LYS:HB2	2:B:47:LYS:HE3	1.63	0.46
1:C:1104:GLU:HA	1:C:1163:GLY:HA2	1.97	0.46
1:C:1645:THR:HG22	1:C:1695:PRO:HG3	1.97	0.46
1:C:2769:LYS:O	1:C:2773:ARG:N	2.44	0.46
1:C:2841:MET:HE2	1:C:2841:MET:HB3	1.79	0.46
1:C:3970:LYS:HA	1:C:3973:MET:HE2	1.97	0.46
1:E:908:ARG:HA	1:E:916:PRO:HD3	1.98	0.46
1:E:1006:VAL:HG13	1:E:1009:ARG:HH21	1.80	0.46
1:E:1172:THR:HG22	1:E:1193:LYS:HA	1.97	0.46
1:E:2062:LEU:HA	1:E:2065:GLU:HB2	1.97	0.46
1:E:4494:ASN:O	1:E:4498:ARG:CB	2.63	0.46
1:G:1602:GLN:HE22	1:G:1642:LEU:HB3	1.80	0.46
1:G:1756:SER:O	1:G:1920:ARG:NH2	2.48	0.46
1:G:2068:VAL:HA	1:G:2071:ALA:HB3	1.97	0.46
1:G:3953:ALA:HB1	1:G:4013:MET:HE2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:652:VAL:HG21	1:A:714:GLY:HA3	1.98	0.46
1:A:1006:VAL:HG13	1:A:1009:ARG:HH21	1.80	0.46
1:A:1767:SER:OG	1:A:1768:PHE:N	2.48	0.46
1:A:4737:ASN:OD1	1:A:4741:ALA:N	2.48	0.46
1:C:908:ARG:HA	1:C:916:PRO:HD3	1.98	0.46
1:C:1260:GLN:HB3	1:C:1591:LEU:HB3	1.97	0.46
1:C:4905:GLY:O	1:C:4909:HIS:N	2.42	0.46
1:E:169:ARG:HH22	1:E:176:ARG:HB2	1.80	0.46
1:E:456:LEU:HD23	1:E:457:GLN:HG3	1.97	0.46
1:E:924:LEU:HB2	1:E:929:ARG:HB2	1.97	0.46
1:E:1089:ARG:HH22	1:E:1124:PRO:HD3	1.80	0.46
1:E:1092:LYS:NZ	1:E:1120:PRO:O	2.40	0.46
1:E:1645:THR:HG22	1:E:1695:PRO:HG3	1.97	0.46
1:E:1824:LEU:O	1:E:1827:THR:OG1	2.28	0.46
1:E:2303:LEU:HA	1:E:2306:ALA:HB3	1.96	0.46
1:G:374:TYR:OH	1:G:400:ASP:OD2	2.27	0.46
1:G:466:PRO:HB3	1:G:478:ARG:HG2	1.97	0.46
1:G:613:VAL:O	1:G:616:SER:OG	2.28	0.46
1:A:115:TYR:HB2	1:A:171:GLU:HA	1.98	0.46
1:A:924:LEU:HB2	1:A:929:ARG:HB2	1.97	0.46
1:A:981:MET:HE2	1:A:1060:TYR:HA	1.97	0.46
1:A:1111:GLY:HA3	1:A:1211:GLN:HE21	1.80	0.46
1:A:1136:ALA:HB3	1:A:1145:TRP:HB2	1.98	0.46
1:A:1756:SER:O	1:A:1920:ARG:NH2	2.48	0.46
1:A:3802:SER:O	1:A:3802:SER:OG	2.33	0.46
1:A:4920:LEU:HG	1:A:4924:MET:HE3	1.97	0.46
1:C:169:ARG:HH22	1:C:176:ARG:HB2	1.80	0.46
1:C:845:THR:OG1	1:C:846:TYR:N	2.48	0.46
1:C:915:HIS:CE1	1:C:917:CYS:HB2	2.51	0.46
1:C:1184:ASP:N	1:C:1188:SER:O	2.42	0.46
1:C:1298:ASP:OD1	1:C:1298:ASP:N	2.42	0.46
1:C:2062:LEU:HA	1:C:2065:GLU:HB2	1.97	0.46
1:C:4737:ASN:OD1	1:C:4741:ALA:N	2.48	0.46
1:E:123:HIS:CD2	1:E:126:SER:H	2.34	0.46
1:E:1843:LEU:O	1:E:1846:ILE:N	2.49	0.46
1:E:2728:HIS:HB3	1:E:2829:MET:HE1	1.97	0.46
1:G:948:CYS:HB3	1:G:1064:LEU:HB3	1.97	0.46
1:G:1260:GLN:HB3	1:G:1591:LEU:HB3	1.97	0.46
1:G:1427:TYR:HA	1:G:1509:CYS:HA	1.98	0.46
1:G:1843:LEU:O	1:G:1846:ILE:N	2.49	0.46
1:G:4041:LYS:O	1:G:4041:LYS:NZ	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4198:ILE:HD11	1:G:4924:MET:HG2	1.97	0.46
1:G:4596:VAL:O	1:G:4598:LEU:N	2.43	0.46
1:G:4897:ASP:OD1	1:G:4897:ASP:N	2.47	0.46
1:A:796:ALA:HB3	1:A:798:ILE:HG13	1.96	0.46
1:A:3845:GLN:HB2	1:A:3920:THR:HG22	1.98	0.46
1:A:4865:GLY:CA	1:C:4868:ILE:CG1	2.91	0.46
1:C:236:LEU:HD12	1:C:245:LEU:HD13	1.97	0.46
1:C:466:PRO:HB3	1:C:478:ARG:HG2	1.97	0.46
1:C:804:LEU:HD22	1:C:822:CYS:HB3	1.98	0.46
1:C:2734:SER:HA	1:C:2758:MET:HE1	1.97	0.46
1:E:299:HIS:N	1:E:304:LYS:O	2.47	0.46
1:E:796:ALA:HB3	1:E:798:ILE:HG13	1.96	0.46
1:E:1098:ALA:O	1:E:1101:TRP:NE1	2.44	0.46
1:E:1511:VAL:H	1:E:1517:LEU:HB2	1.79	0.46
1:E:2658:TYR:O	1:E:2662:LEU:N	2.46	0.46
1:G:115:TYR:HB2	1:G:171:GLU:HA	1.98	0.46
1:G:299:HIS:N	1:G:304:LYS:O	2.47	0.46
1:G:734:SER:OG	1:G:739:ARG:NH1	2.45	0.46
1:G:2715:PRO:HB2	1:G:2717:LYS:HG2	1.97	0.46
1:G:3783:LYS:HA	1:G:3783:LYS:HD2	1.66	0.46
1:G:3959:LEU:HB3	1:G:3969:LEU:HB2	1.98	0.46
1:A:55:SER:HB3	1:A:296:ARG:HH12	1.81	0.46
1:A:673:TRP:HD1	1:A:761:LEU:HB2	1.79	0.46
1:A:1089:ARG:HH22	1:A:1124:PRO:HD3	1.80	0.46
1:A:1172:THR:HG22	1:A:1193:LYS:HA	1.97	0.46
1:A:1257:GLN:O	1:A:1596:TRP:N	2.49	0.46
1:C:55:SER:HB3	1:C:296:ARG:HH12	1.81	0.46
1:C:108:GLY:HA3	1:C:109:GLY:HA3	1.55	0.46
1:C:123:HIS:CD2	1:C:126:SER:H	2.34	0.46
1:C:1089:ARG:HH22	1:C:1124:PRO:HD3	1.80	0.46
1:E:15:ARG:HG2	1:E:110:HIS:HB3	1.98	0.46
1:E:1257:GLN:O	1:E:1596:TRP:N	2.49	0.46
1:E:2389:ILE:HA	1:E:2392:PHE:HB3	1.96	0.46
1:E:3802:SER:O	1:E:3802:SER:OG	2.33	0.46
1:E:4083:GLU:HA	1:E:4087:ARG:HD2	1.98	0.46
1:E:4711:LEU:HA	1:E:4714:VAL:HB	1.97	0.46
1:G:63:SER:HB2	1:G:125:TYR:HD1	1.80	0.46
1:G:245:LEU:HA	1:G:262:TYR:HD1	1.80	0.46
1:G:1257:GLN:HE22	1:G:1637:ARG:HH11	1.64	0.46
1:G:1270:VAL:HG23	1:G:1288:LYS:HB3	1.97	0.46
1:G:2029:ARG:O	1:G:2032:SER:OG	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2728:HIS:HB3	1:G:2829:MET:HE1	1.97	0.46
1:G:3979:MET:HE2	1:G:3979:MET:HB3	1.86	0.46
1:G:3995:THR:HA	1:G:3998:LYS:HD2	1.96	0.46
1:G:4185:GLU:O	1:G:4189:LEU:N	2.39	0.46
1:A:466:PRO:HB3	1:A:478:ARG:HG2	1.97	0.46
1:A:887:GLU:HG3	1:A:921:PHE:HB3	1.97	0.46
1:A:4711:LEU:HA	1:A:4714:VAL:HB	1.97	0.46
1:C:15:ARG:HG2	1:C:110:HIS:HB3	1.98	0.46
1:C:63:SER:HB2	1:C:125:TYR:HD1	1.80	0.46
1:C:527:LYS:NZ	1:C:566:GLU:O	2.42	0.46
1:C:776:GLN:NE2	1:C:1472:GLU:OE2	2.49	0.46
1:E:1644:LEU:HD12	1:E:1647:GLN:HB2	1.98	0.46
1:G:290:ARG:HB3	1:G:343:ARG:CZ	2.46	0.46
1:G:438:LYS:HB2	1:G:439:LYS:HZ2	1.81	0.46
1:G:804:LEU:HD22	1:G:822:CYS:HB3	1.98	0.46
1:G:4906:PHE:HA	1:G:4909:HIS:HB3	1.98	0.46
1:A:18:ASP:HB2	1:A:69:LEU:HD12	1.98	0.46
1:A:123:HIS:CD2	1:A:126:SER:H	2.34	0.46
1:A:239:GLY:O	1:A:243:GLU:N	2.49	0.46
1:A:734:SER:OG	1:A:739:ARG:NH1	2.45	0.46
1:A:915:HIS:CE1	1:A:917:CYS:HB2	2.50	0.46
1:A:1260:GLN:HB3	1:A:1591:LEU:HB3	1.97	0.46
1:A:1634:GLU:H	1:A:1634:GLU:HG3	1.50	0.46
1:A:1843:LEU:O	1:A:1846:ILE:N	2.49	0.46
1:A:2127:ILE:HD12	1:A:2127:ILE:HA	1.84	0.46
1:A:2715:PRO:HB2	1:A:2717:LYS:HG2	1.97	0.46
1:A:3943:ASP:N	1:A:3943:ASP:OD1	2.47	0.46
1:C:239:GLY:O	1:C:243:GLU:N	2.49	0.46
1:C:1136:ALA:HB3	1:C:1145:TRP:HB2	1.98	0.46
1:C:3979:MET:HE2	1:C:3979:MET:HB3	1.86	0.46
1:C:4494:ASN:O	1:C:4498:ARG:CB	2.63	0.46
1:E:887:GLU:HG3	1:E:921:PHE:HB3	1.97	0.46
1:E:2715:PRO:HB2	1:E:2717:LYS:HG2	1.97	0.46
1:E:2734:SER:HA	1:E:2758:MET:HE1	1.97	0.46
1:E:3896:LYS:HE2	1:E:3896:LYS:HB2	1.73	0.46
1:E:3995:THR:HA	1:E:3998:LYS:HD2	1.96	0.46
1:E:4897:ASP:N	1:E:4897:ASP:OD1	2.47	0.46
1:E:4936:GLY:O	1:E:4940:TYR:HB3	2.16	0.46
1:G:123:HIS:CD2	1:G:126:SER:H	2.34	0.46
1:G:169:ARG:HH22	1:G:176:ARG:HB2	1.80	0.46
1:G:590:LYS:H	1:G:593:HIS:CD2	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:652:VAL:HG21	1:G:714:GLY:HA3	1.98	0.46
1:G:908:ARG:HA	1:G:916:PRO:HD3	1.98	0.46
1:G:1658:LEU:HD23	1:G:1701:GLY:HA3	1.98	0.46
2:H:79:ASP:OD1	2:H:79:ASP:N	2.49	0.46
1:A:418:VAL:O	1:A:422:THR:OG1	2.22	0.46
1:A:1242:ASN:OD1	1:A:1242:ASN:N	2.43	0.46
1:A:1658:LEU:HD23	1:A:1701:GLY:HA3	1.97	0.46
1:A:1756:SER:HB3	1:A:1920:ARG:HH21	1.80	0.46
1:A:2426:SER:CB	1:G:143:LEU:CB	2.94	0.46
1:C:193:HIS:CD2	1:C:208:GLN:HB2	2.48	0.46
1:C:321:LYS:O	1:C:326:SER:OG	2.24	0.46
1:C:924:LEU:HB2	1:C:929:ARG:HB2	1.97	0.46
1:C:948:CYS:HB3	1:C:1064:LEU:HB3	1.97	0.46
1:C:1602:GLN:HE22	1:C:1642:LEU:HB3	1.80	0.46
1:C:2135:MET:HA	1:C:2136:GLY:HA3	1.77	0.46
1:C:4083:GLU:HA	1:C:4087:ARG:HD2	1.98	0.46
1:E:804:LEU:HD22	1:E:822:CYS:HB3	1.98	0.46
1:E:1652:LYS:HE3	1:E:1652:LYS:HB3	1.71	0.46
1:G:239:GLY:O	1:G:243:GLU:N	2.49	0.46
1:G:776:GLN:NE2	1:G:1472:GLU:OE2	2.49	0.46
1:G:1136:ALA:HB3	1:G:1145:TRP:HB2	1.98	0.46
1:G:1172:THR:HG22	1:G:1193:LYS:HA	1.97	0.46
1:G:3943:ASP:OD1	1:G:3943:ASP:N	2.47	0.46
1:G:4494:ASN:O	1:G:4498:ARG:CB	2.63	0.46
1:G:4711:LEU:HA	1:G:4714:VAL:HB	1.97	0.46
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.98	0.46
1:A:776:GLN:NE2	1:A:1472:GLU:OE2	2.49	0.46
1:A:804:LEU:HD22	1:A:822:CYS:HB3	1.98	0.46
1:A:2062:LEU:HA	1:A:2065:GLU:HB2	1.97	0.46
1:C:115:TYR:HB2	1:C:171:GLU:HA	1.98	0.46
1:C:441:LYS:HA	1:C:442:ALA:HA	1.69	0.46
1:C:1242:ASN:O	1:C:1807:ARG:N	2.49	0.46
1:C:1256:PRO:HD2	1:C:1451:HIS:HB3	1.98	0.46
1:C:1268:ILE:HD13	1:C:1268:ILE:HA	1.83	0.46
1:C:1843:LEU:O	1:C:1846:ILE:N	2.49	0.46
1:C:2068:VAL:HA	1:C:2071:ALA:HB3	1.97	0.46
1:E:108:GLY:HA3	1:E:109:GLY:HA3	1.56	0.46
1:E:115:TYR:HE1	1:E:181:LEU:HD11	1.80	0.46
1:E:245:LEU:HA	1:E:262:TYR:HD1	1.80	0.46
1:E:290:ARG:HB3	1:E:343:ARG:CZ	2.46	0.46
1:E:2218:HIS:O	1:E:2222:LEU:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4138:GLU:HG3	1:E:4148:ARG:HG2	1.96	0.46
1:E:4906:PHE:HA	1:E:4909:HIS:HB3	1.98	0.46
1:G:842:GLN:HG2	1:G:848:ARG:HA	1.98	0.46
1:G:845:THR:OG1	1:G:846:TYR:N	2.48	0.46
1:G:2035:GLU:OE2	1:G:3625:TYR:OH	2.28	0.46
1:G:2734:SER:HA	1:G:2758:MET:HE1	1.97	0.46
1:G:2861:LEU:HD12	1:G:2862:GLU:HG3	1.98	0.46
1:G:4737:ASN:OD1	1:G:4741:ALA:N	2.48	0.46
1:A:245:LEU:HA	1:A:262:TYR:HD1	1.80	0.45
1:A:290:ARG:HB3	1:A:343:ARG:CZ	2.46	0.45
1:A:1427:TYR:HA	1:A:1509:CYS:HA	1.98	0.45
1:A:4936:GLY:O	1:A:4940:TYR:HB3	2.16	0.45
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.98	0.45
1:C:115:TYR:HE1	1:C:181:LEU:HD11	1.81	0.45
1:C:561:ARG:HA	1:C:561:ARG:HD3	1.77	0.45
1:C:953:SER:OG	1:C:1061:GLY:O	2.32	0.45
1:C:1270:VAL:HG23	1:C:1288:LYS:HB3	1.97	0.45
1:C:1304:LEU:HD23	1:C:1304:LEU:HA	1.79	0.45
1:C:1756:SER:HB3	1:C:1920:ARG:HH21	1.80	0.45
1:C:3730:ALA:HA	1:C:3733:HIS:CE1	2.52	0.45
1:C:3943:ASP:N	1:C:3943:ASP:OD1	2.47	0.45
1:C:3977:LYS:HB3	1:C:3977:LYS:HE2	1.65	0.45
1:C:4041:LYS:NZ	1:C:4041:LYS:O	2.46	0.45
1:C:4936:GLY:O	1:C:4940:TYR:HB3	2.16	0.45
1:E:55:SER:HB3	1:E:296:ARG:HH12	1.81	0.45
1:E:63:SER:HB2	1:E:125:TYR:HD1	1.80	0.45
1:E:842:GLN:HG2	1:E:848:ARG:HA	1.98	0.45
1:E:1256:PRO:HD2	1:E:1451:HIS:HB3	1.98	0.45
1:E:1257:GLN:HE22	1:E:1637:ARG:HH11	1.64	0.45
1:E:2068:VAL:HA	1:E:2071:ALA:HB3	1.97	0.45
1:E:4737:ASN:OD1	1:E:4741:ALA:N	2.48	0.45
1:E:4808:ASP:O	1:G:4523:VAL:CG2	2.64	0.45
1:G:3905:ARG:O	1:G:3908:SER:OG	2.34	0.45
1:A:15:ARG:HG2	1:A:110:HIS:HB3	1.98	0.45
1:A:321:LYS:O	1:A:326:SER:OG	2.24	0.45
1:A:842:GLN:HG2	1:A:848:ARG:HA	1.98	0.45
1:A:908:ARG:HA	1:A:916:PRO:HD3	1.98	0.45
1:A:2463:PRO:HA	1:A:2520:TYR:HE2	1.81	0.45
1:A:2861:LEU:HD12	1:A:2862:GLU:HG3	1.98	0.45
1:A:3783:LYS:HD2	1:A:3783:LYS:HA	1.66	0.45
1:A:3957:MET:N	1:A:3957:MET:SD	2.88	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4906:PHE:HA	1:A:4909:HIS:HB3	1.98	0.45
1:C:590:LYS:H	1:C:593:HIS:CD2	2.33	0.45
1:C:898:ILE:HD13	1:C:974:SER:H	1.79	0.45
2:D:38:SER:OG	2:D:41:ASP:N	2.46	0.45
1:E:1658:LEU:HD23	1:E:1701:GLY:HA3	1.97	0.45
1:E:1776:TYR:OH	1:E:1778:TYR:OH	2.29	0.45
1:E:3730:ALA:HA	1:E:3733:HIS:CE1	2.52	0.45
1:E:4905:GLY:O	1:E:4908:THR:OG1	2.33	0.45
1:G:193:HIS:CD2	1:G:208:GLN:HB2	2.49	0.45
1:G:1469:LEU:N	1:G:1477:HIS:O	2.32	0.45
1:G:1689:ILE:HA	1:G:1703:TYR:HE1	1.82	0.45
1:G:2389:ILE:HA	1:G:2392:PHE:HB3	1.96	0.45
1:G:2730:HIS:CG	1:G:2764:LEU:HD11	2.51	0.45
1:G:3957:MET:SD	1:G:3957:MET:N	2.88	0.45
1:A:874:LEU:HD13	1:A:937:LEU:HD22	1.99	0.45
1:A:948:CYS:HB3	1:A:1064:LEU:HB3	1.97	0.45
1:A:1270:VAL:HG23	1:A:1288:LYS:HB3	1.97	0.45
1:A:1660:LEU:HD23	1:A:1660:LEU:HA	1.77	0.45
1:A:1705:LEU:HD23	1:A:1705:LEU:HA	1.78	0.45
1:A:1824:LEU:O	1:A:1827:THR:OG1	2.28	0.45
1:A:3912:GLN:HA	1:A:3915:LYS:HE3	1.98	0.45
1:C:648:LEU:HD23	1:C:1684:GLN:HB2	1.99	0.45
1:C:652:VAL:HG21	1:C:714:GLY:HA3	1.98	0.45
1:C:1098:ALA:O	1:C:1101:TRP:NE1	2.44	0.45
1:C:1427:TYR:HA	1:C:1509:CYS:HA	1.98	0.45
1:C:2218:HIS:O	1:C:2222:LEU:HB2	2.16	0.45
1:C:2387:ASN:O	1:C:2391:THR:OG1	2.32	0.45
1:C:3959:LEU:HB3	1:C:3969:LEU:HB2	1.98	0.45
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.98	0.45
1:E:466:PRO:HB3	1:E:478:ARG:HG2	1.97	0.45
1:E:811:PHE:HE2	1:E:823:TYR:HB2	1.82	0.45
1:E:981:MET:HE2	1:E:1060:TYR:HA	1.97	0.45
1:E:1676:LEU:HD23	1:E:1676:LEU:HA	1.78	0.45
1:E:2080:GLU:H	1:E:2080:GLU:CD	2.25	0.45
1:E:2861:LEU:HD12	1:E:2862:GLU:HG3	1.99	0.45
1:E:3912:GLN:HA	1:E:3915:LYS:HE3	1.98	0.45
1:G:1089:ARG:HH22	1:G:1124:PRO:HD3	1.80	0.45
1:G:2732:LYS:HA	1:G:2732:LYS:HD2	1.70	0.45
1:G:3845:GLN:HB2	1:G:3920:THR:HG22	1.98	0.45
1:A:769:ARG:HG2	1:A:774:PRO:HA	1.99	0.45
1:A:812:LYS:HD3	1:A:813:PHE:HB3	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1602:GLN:HE22	1:A:1642:LEU:HB3	1.80	0.45
1:A:1776:TYR:HH	1:A:1778:TYR:HH	1.60	0.45
1:A:3798:MET:HE2	1:A:3798:MET:HB3	1.60	0.45
1:C:456:LEU:HD23	1:C:457:GLN:HG3	1.97	0.45
1:C:769:ARG:HG2	1:C:774:PRO:HA	1.99	0.45
1:C:4809:ASP:O	1:C:4812:THR:OG1	2.29	0.45
1:E:1162:VAL:O	1:E:1176:THR:OG1	2.27	0.45
1:E:1242:ASN:O	1:E:1807:ARG:N	2.49	0.45
1:E:3845:GLN:HB2	1:E:3920:THR:HG22	1.98	0.45
1:E:4490:GLN:HA	1:E:4493:LEU:HB2	1.99	0.45
1:G:439:LYS:HG3	1:G:441:LYS:H	1.81	0.45
1:G:459:LEU:O	1:G:463:PHE:N	2.50	0.45
1:G:1242:ASN:O	1:G:1807:ARG:N	2.49	0.45
1:G:2062:LEU:HA	1:G:2065:GLU:HB2	1.97	0.45
1:G:2080:GLU:H	1:G:2080:GLU:CD	2.25	0.45
1:G:2303:LEU:HA	1:G:2306:ALA:HB3	1.96	0.45
1:G:4022:LEU:O	1:G:4025:LYS:HG3	2.17	0.45
1:A:143:LEU:CB	1:C:2426:SER:CB	2.94	0.45
1:A:590:LYS:HB3	1:A:591:GLU:H	1.68	0.45
1:A:648:LEU:HD23	1:A:1684:GLN:HB2	1.99	0.45
1:A:1257:GLN:HE22	1:A:1637:ARG:HH11	1.64	0.45
1:A:2206:ARG:HH22	1:A:2246:ALA:HB1	1.82	0.45
1:A:2236:ARG:HA	1:A:2298:ARG:HH22	1.82	0.45
1:A:4490:GLN:HA	1:A:4493:LEU:HB2	1.99	0.45
1:C:2715:PRO:HB2	1:C:2717:LYS:HG2	1.97	0.45
1:C:2730:HIS:CG	1:C:2764:LEU:HD11	2.51	0.45
1:C:4490:GLN:HA	1:C:4493:LEU:HB2	1.99	0.45
1:E:590:LYS:H	1:E:593:HIS:CD2	2.33	0.45
1:E:756:SER:O	1:E:769:ARG:N	2.40	0.45
1:E:776:GLN:NE2	1:E:1472:GLU:OE2	2.49	0.45
1:E:874:LEU:HD13	1:E:937:LEU:HD22	1.99	0.45
1:E:1298:ASP:OD1	1:E:1298:ASP:N	2.42	0.45
1:E:1304:LEU:HD23	1:E:1304:LEU:HA	1.79	0.45
1:E:1427:TYR:HA	1:E:1509:CYS:HA	1.98	0.45
1:E:3868:THR:OG1	1:E:3869:VAL:N	2.50	0.45
1:E:4198:ILE:HD11	1:E:4924:MET:HG2	1.97	0.45
1:E:4726:TYR:HE1	1:E:4743:HIS:HB3	1.82	0.45
1:G:4045:SER:HA	1:G:4078:THR:HA	1.99	0.45
1:A:456:LEU:HD21	1:A:532:SER:HB2	1.99	0.45
1:A:1118:SER:O	1:A:1202:ILE:N	2.45	0.45
1:A:2350:GLU:OE2	1:A:2353:LYS:NZ	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2730:HIS:CG	1:A:2764:LEU:HD11	2.51	0.45
1:A:3896:LYS:HE2	1:A:3896:LYS:HB2	1.73	0.45
1:A:4083:GLU:HA	1:A:4087:ARG:HD2	1.98	0.45
1:C:18:ASP:HB2	1:C:69:LEU:HD12	1.98	0.45
1:C:245:LEU:HA	1:C:262:TYR:HD1	1.80	0.45
1:C:811:PHE:HE2	1:C:823:TYR:HB2	1.82	0.45
1:C:1259:LEU:O	1:C:1594:VAL:N	2.41	0.45
1:C:2236:ARG:HA	1:C:2298:ARG:HH22	1.81	0.45
1:C:2728:HIS:HB3	1:C:2829:MET:HE1	1.97	0.45
1:C:2783:MET:HE2	1:C:2783:MET:HB3	1.70	0.45
1:C:4935:THR:O	1:C:4939:SER:OG	2.35	0.45
2:D:47:LYS:HB2	2:D:47:LYS:HE3	1.63	0.45
1:E:439:LYS:HG3	1:E:441:LYS:H	1.82	0.45
1:E:459:LEU:O	1:E:463:PHE:N	2.50	0.45
1:E:1104:GLU:HA	1:E:1163:GLY:HA2	1.97	0.45
1:G:15:ARG:HG2	1:G:110:HIS:HB3	1.98	0.45
1:G:456:LEU:HD23	1:G:457:GLN:HG3	1.97	0.45
1:G:2218:HIS:O	1:G:2222:LEU:HB2	2.16	0.45
1:G:2463:PRO:HA	1:G:2520:TYR:HE2	1.81	0.45
1:G:4510:VAL:HG11	1:G:4580:HIS:HB2	1.99	0.45
1:G:4905:GLY:O	1:G:4908:THR:OG1	2.33	0.45
1:A:590:LYS:HB2	1:A:590:LYS:HE2	1.71	0.45
1:A:1184:ASP:N	1:A:1188:SER:O	2.42	0.45
1:A:1256:PRO:HD2	1:A:1451:HIS:HB3	1.98	0.45
1:A:1644:LEU:HD12	1:A:1647:GLN:HB2	1.98	0.45
1:A:2728:HIS:HB3	1:A:2829:MET:HE1	1.97	0.45
1:A:3730:ALA:HA	1:A:3733:HIS:CE1	2.52	0.45
1:C:1634:GLU:H	1:C:1634:GLU:HG3	1.50	0.45
1:C:2463:PRO:HA	1:C:2520:TYR:HE2	1.81	0.45
1:C:3868:THR:OG1	1:C:3869:VAL:N	2.50	0.45
1:C:4801:ASP:OD1	1:C:4801:ASP:N	2.50	0.45
1:E:160:TRP:HB3	1:E:183:LEU:HD11	1.99	0.45
1:E:648:LEU:HD23	1:E:1684:GLN:HB2	1.99	0.45
1:E:673:TRP:HD1	1:E:761:LEU:HB2	1.80	0.45
1:E:831:LYS:H	1:E:833:LYS:HE2	1.81	0.45
1:E:1136:ALA:HB3	1:E:1145:TRP:HB2	1.98	0.45
1:E:3957:MET:N	1:E:3957:MET:SD	2.88	0.45
1:E:3959:LEU:HB3	1:E:3969:LEU:HB2	1.98	0.45
1:E:4510:VAL:HG11	1:E:4580:HIS:HB2	1.99	0.45
2:F:30:LEU:HB2	2:F:34:LYS:H	1.81	0.45
1:G:831:LYS:H	1:G:833:LYS:HE2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:981:MET:HE2	1:G:1060:TYR:HA	1.97	0.45
1:G:3730:ALA:HA	1:G:3733:HIS:CE1	2.52	0.45
1:A:424:PHE:O	1:A:428:ARG:NE	2.35	0.45
1:A:459:LEU:O	1:A:463:PHE:N	2.50	0.45
1:A:949:HIS:CG	1:A:1065:GLU:H	2.35	0.45
1:A:1630:LEU:HD22	1:A:1641:ILE:HD13	1.99	0.45
1:A:3905:ARG:O	1:A:3908:SER:OG	2.34	0.45
1:A:3940:ARG:NH2	1:G:173:GLU:HB2	2.15	0.45
1:A:4618:ILE:HD12	1:A:4667:ILE:HD12	1.99	0.45
1:A:4713:VAL:O	1:A:4716:THR:OG1	2.35	0.45
2:B:79:ASP:OD1	2:B:79:ASP:N	2.48	0.45
1:C:1119:ARG:HB2	1:C:1133:ARG:HD3	1.99	0.45
1:C:2206:ARG:HH22	1:C:2246:ALA:HB1	1.82	0.45
1:C:4618:ILE:HD12	1:C:4667:ILE:HD12	1.99	0.45
1:C:4726:TYR:HE1	1:C:4743:HIS:HB3	1.82	0.45
1:E:18:ASP:HB2	1:E:69:LEU:HD12	1.98	0.45
1:E:115:TYR:HB2	1:E:171:GLU:HA	1.98	0.45
1:E:239:GLY:O	1:E:243:GLU:N	2.49	0.45
1:E:794:PHE:HZ	1:E:1621:CYS:HB2	1.82	0.45
1:E:948:CYS:HB3	1:E:1064:LEU:HB3	1.97	0.45
1:E:1119:ARG:HB2	1:E:1133:ARG:HD3	1.99	0.45
1:E:1826:TYR:CZ	1:E:1830:ILE:HD11	2.52	0.45
1:E:2206:ARG:HH22	1:E:2246:ALA:HB1	1.82	0.45
1:E:2730:HIS:CG	1:E:2764:LEU:HD11	2.51	0.45
1:E:3893:TYR:CZ	1:E:3899:ILE:HG23	2.52	0.45
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.98	0.45
1:G:55:SER:HB3	1:G:296:ARG:HH12	1.81	0.45
1:G:653:SER:OG	1:G:794:PHE:O	2.28	0.45
1:G:1006:VAL:HG13	1:G:1009:ARG:HH21	1.80	0.45
1:G:1256:PRO:HD2	1:G:1451:HIS:HB3	1.98	0.45
1:G:1644:LEU:HD12	1:G:1647:GLN:HB2	1.98	0.45
1:G:1911:LEU:HA	1:G:1914:LEU:HD12	1.99	0.45
2:H:56:ILE:HG13	2:H:59:PHE:H	1.82	0.45
2:H:67:SER:OG	2:H:68:LEU:N	2.44	0.45
1:A:160:TRP:HB3	1:A:183:LEU:HD11	1.99	0.45
1:A:236:LEU:HD12	1:A:245:LEU:HD13	1.97	0.45
1:A:1689:ILE:HA	1:A:1703:TYR:HE1	1.82	0.45
1:A:2218:HIS:O	1:A:2222:LEU:HB2	2.16	0.45
1:A:2835:SER:O	1:A:2839:HIS:N	2.42	0.45
1:A:4096:GLY:HA2	1:A:4099:VAL:HG22	1.99	0.45
1:C:439:LYS:HG3	1:C:441:LYS:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:459:LEU:O	1:C:463:PHE:N	2.50	0.45
1:C:949:HIS:CG	1:C:1065:GLU:H	2.35	0.45
1:C:1658:LEU:HD23	1:C:1701:GLY:HA3	1.98	0.45
1:C:1824:LEU:O	1:C:1827:THR:OG1	2.28	0.45
1:C:2388:ALA:O	1:C:2392:PHE:CB	2.65	0.45
1:C:2861:LEU:HD12	1:C:2862:GLU:HG3	1.99	0.45
1:E:1576:LYS:HA	1:E:1576:LYS:HD2	1.76	0.45
1:E:1807:ARG:HA	1:E:1807:ARG:HD2	1.81	0.45
1:E:2236:ARG:HA	1:E:2298:ARG:HH22	1.82	0.45
1:E:4618:ILE:HD12	1:E:4667:ILE:HD12	1.99	0.45
1:G:1630:LEU:HD22	1:G:1641:ILE:HD13	1.99	0.45
1:G:1826:TYR:CZ	1:G:1830:ILE:HD11	2.52	0.45
1:G:3647:LYS:HA	1:G:3647:LYS:HD2	1.88	0.45
1:G:4575:ILE:HG22	1:G:4576:LEU:HD23	1.98	0.45
1:G:4801:ASP:N	1:G:4801:ASP:OD1	2.50	0.45
1:A:439:LYS:HG3	1:A:441:LYS:H	1.81	0.45
1:A:794:PHE:HZ	1:A:1621:CYS:HB2	1.81	0.45
1:A:831:LYS:H	1:A:833:LYS:HE2	1.81	0.45
1:A:853:PRO:HD2	1:A:1209:VAL:HA	1.99	0.45
1:A:3631:GLU:OE1	1:A:3631:GLU:N	2.45	0.45
1:A:4522:LYS:CB	1:A:4560:TYR:HD2	2.29	0.45
1:A:4575:ILE:HG22	1:A:4576:LEU:HD23	1.98	0.45
1:C:443:SER:HA	1:C:444:THR:HA	1.69	0.45
1:C:1119:ARG:HB2	1:C:1133:ARG:HB2	1.99	0.45
1:C:2495:PRO:O	1:C:2499:ALA:CB	2.65	0.45
1:C:3845:GLN:HB2	1:C:3920:THR:HG22	1.98	0.45
1:C:3893:TYR:CZ	1:C:3899:ILE:HG23	2.52	0.45
1:C:3896:LYS:HE2	1:C:3896:LYS:HB2	1.73	0.45
1:E:652:VAL:HG21	1:E:714:GLY:HA3	1.98	0.45
1:E:1926:ILE:HD12	1:E:1926:ILE:HA	1.80	0.45
1:E:4022:LEU:O	1:E:4025:LYS:HG3	2.17	0.45
1:E:4575:ILE:HG22	1:E:4576:LEU:HD23	1.98	0.45
1:E:4722:TYR:HD2	1:E:4723:LEU:HD12	1.82	0.45
1:G:201:LEU:HD23	1:G:201:LEU:HA	1.83	0.45
1:G:441:LYS:HA	1:G:442:ALA:HA	1.69	0.45
1:G:456:LEU:HD21	1:G:532:SER:HB2	1.99	0.45
1:G:544:ASN:HD22	1:G:547:ASN:ND2	2.15	0.45
1:G:1243:THR:HB	1:G:1807:ARG:HB3	1.99	0.45
1:G:1308:ILE:HD12	1:G:1308:ILE:HA	1.85	0.45
1:G:2236:ARG:HA	1:G:2298:ARG:HH22	1.82	0.45
1:G:4490:GLN:HA	1:G:4493:LEU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4931:GLU:HA	1:G:4934:HIS:CG	2.53	0.45
1:A:108:GLY:HA3	1:A:109:GLY:HA3	1.55	0.44
1:A:1243:THR:HB	1:A:1807:ARG:HB3	1.99	0.44
1:A:2110:ASN:OD1	1:A:2113:SER:OG	2.30	0.44
1:A:3893:TYR:CZ	1:A:3899:ILE:HG23	2.52	0.44
2:B:30:LEU:HB2	2:B:34:LYS:H	1.81	0.44
1:C:456:LEU:HD21	1:C:532:SER:HB2	1.99	0.44
1:C:544:ASN:HD22	1:C:547:ASN:ND2	2.15	0.44
1:C:794:PHE:HZ	1:C:1621:CYS:HB2	1.81	0.44
1:C:4906:PHE:HA	1:C:4909:HIS:HB3	1.98	0.44
1:E:470:LEU:HG	1:E:474:ASP:HB2	1.99	0.44
1:E:1689:ILE:HA	1:E:1703:TYR:HE1	1.82	0.44
1:E:4045:SER:HA	1:E:4078:THR:HA	1.99	0.44
1:E:4958:CYS:O	1:E:4962:GLN:N	2.51	0.44
1:G:236:LEU:HD12	1:G:245:LEU:HD13	1.97	0.44
1:G:648:LEU:HD23	1:G:1684:GLN:HB2	1.99	0.44
1:G:1265:HIS:CG	1:G:1268:ILE:HB	2.52	0.44
1:G:1298:ASP:OD1	1:G:1298:ASP:N	2.42	0.44
1:G:4936:GLY:O	1:G:4940:TYR:HB3	2.16	0.44
1:A:1290:PHE:HE2	1:A:1555:PHE:HZ	1.66	0.44
1:A:2300:LEU:HA	1:A:2303:LEU:HD12	1.99	0.44
1:A:3868:THR:OG1	1:A:3869:VAL:N	2.50	0.44
2:B:56:ILE:HG13	2:B:59:PHE:H	1.82	0.44
1:C:160:TRP:HB3	1:C:183:LEU:HD11	1.99	0.44
1:C:1250:TRP:CD1	1:C:1602:GLN:HA	2.53	0.44
1:C:1630:LEU:HD22	1:C:1641:ILE:HD13	1.99	0.44
1:C:1644:LEU:HD12	1:C:1647:GLN:HB2	1.98	0.44
1:E:2388:ALA:O	1:E:2392:PHE:CB	2.65	0.44
1:E:2463:PRO:HA	1:E:2520:TYR:HE2	1.81	0.44
1:E:2841:MET:HE2	1:E:2841:MET:HB3	1.79	0.44
1:G:18:ASP:HB2	1:G:69:LEU:HD12	1.98	0.44
1:G:811:PHE:HE2	1:G:823:TYR:HB2	1.82	0.44
1:G:1112:ASP:H	1:G:1211:GLN:HE21	1.65	0.44
1:G:2149:ASP:O	1:G:2153:ASN:ND2	2.50	0.44
1:G:2703:ASN:OD1	1:G:2703:ASN:N	2.51	0.44
2:H:30:LEU:HB2	2:H:34:LYS:H	1.81	0.44
1:A:193:HIS:CD2	1:A:208:GLN:HB2	2.49	0.44
1:A:811:PHE:HE2	1:A:823:TYR:HB2	1.82	0.44
1:A:2769:LYS:O	1:A:2773:ARG:N	2.44	0.44
1:A:3767:LEU:HA	1:A:3767:LEU:HD23	1.74	0.44
1:A:4958:CYS:O	1:A:4962:GLN:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:842:GLN:HG2	1:C:848:ARG:HA	1.98	0.44
1:C:1257:GLN:O	1:C:1596:TRP:N	2.49	0.44
1:C:1641:ILE:HD13	1:C:1641:ILE:HA	1.89	0.44
1:C:2080:GLU:CD	1:C:2080:GLU:H	2.25	0.44
1:C:3986:MET:HE2	1:C:3986:MET:HB2	1.89	0.44
1:C:4958:CYS:O	1:C:4962:GLN:N	2.51	0.44
1:E:2149:ASP:O	1:E:2153:ASN:ND2	2.50	0.44
1:E:4612:GLU:HA	1:E:4654:VAL:HG11	2.00	0.44
1:G:243:GLU:OE2	1:G:389:ARG:NH2	2.51	0.44
1:G:981:MET:HG3	1:G:1060:TYR:CG	2.53	0.44
1:G:1290:PHE:HE2	1:G:1555:PHE:HZ	1.66	0.44
1:G:1685:LEU:HD12	1:G:1685:LEU:HA	1.83	0.44
1:G:3802:SER:O	1:G:3802:SER:OG	2.33	0.44
1:G:3867:THR:OG1	1:G:3868:THR:N	2.50	0.44
1:G:4618:ILE:HD12	1:G:4667:ILE:HD12	1.99	0.44
1:A:756:SER:O	1:A:769:ARG:N	2.40	0.44
1:A:1112:ASP:H	1:A:1211:GLN:HE21	1.65	0.44
1:A:1250:TRP:CD1	1:A:1602:GLN:HA	2.53	0.44
1:A:1685:LEU:HD12	1:A:1685:LEU:HA	1.83	0.44
1:A:2149:ASP:O	1:A:2153:ASN:ND2	2.50	0.44
1:A:3923:GLU:HA	1:A:3926:GLN:HB2	2.00	0.44
1:A:4022:LEU:O	1:A:4025:LYS:HG3	2.17	0.44
1:C:243:GLU:OE2	1:C:389:ARG:NH2	2.51	0.44
1:C:853:PRO:HD2	1:C:1209:VAL:HA	1.99	0.44
1:C:1257:GLN:HE22	1:C:1637:ARG:HH11	1.64	0.44
1:C:1669:ASN:O	1:C:1673:ALA:N	2.35	0.44
1:C:2071:ALA:HB1	1:C:3664:PRO:HB3	2.00	0.44
1:C:2110:ASN:OD1	1:C:2113:SER:OG	2.30	0.44
1:C:3912:GLN:HA	1:C:3915:LYS:HE3	1.98	0.44
1:C:4045:SER:HA	1:C:4078:THR:HA	1.99	0.44
2:D:30:LEU:HB2	2:D:34:LYS:H	1.81	0.44
1:E:722:LEU:HD23	1:E:722:LEU:HA	1.69	0.44
1:E:888:ASN:HD21	1:E:957:ALA:HB3	1.83	0.44
1:E:1106:GLU:N	1:E:1214:ARG:O	2.51	0.44
1:E:3867:THR:OG1	1:E:3868:THR:N	2.50	0.44
1:E:3977:LYS:HB3	1:E:3977:LYS:HE2	1.65	0.44
1:E:4801:ASP:N	1:E:4801:ASP:OD1	2.50	0.44
1:G:160:TRP:HB3	1:G:183:LEU:HD11	1.99	0.44
1:G:561:ARG:HA	1:G:561:ARG:HD3	1.77	0.44
1:G:769:ARG:HG2	1:G:774:PRO:HA	1.99	0.44
1:G:1132:GLU:O	1:G:1146:HIS:NE2	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4041:LYS:NZ	1:G:4080:ASP:OD2	2.38	0.44
1:G:4083:GLU:HA	1:G:4087:ARG:HD2	1.98	0.44
1:A:1119:ARG:HB2	1:A:1133:ARG:HB2	1.99	0.44
1:A:1716:THR:HA	1:A:1719:LEU:HD12	2.00	0.44
1:A:1826:TYR:CZ	1:A:1830:ILE:HD11	2.52	0.44
1:A:2193:MET:HA	1:A:2196:ASN:HD22	1.83	0.44
1:A:2436:VAL:O	1:A:2466:LYS:NZ	2.50	0.44
1:A:2703:ASN:OD1	1:A:2703:ASN:N	2.51	0.44
1:C:281:ARG:O	1:C:285:SER:OG	2.30	0.44
1:C:290:ARG:HB3	1:C:343:ARG:CZ	2.46	0.44
1:C:470:LEU:HG	1:C:474:ASP:HB2	1.99	0.44
1:C:1265:HIS:CG	1:C:1268:ILE:HB	2.52	0.44
1:C:1707:ILE:H	1:C:1707:ILE:HG13	1.60	0.44
1:C:2193:MET:HA	1:C:2196:ASN:HD22	1.83	0.44
1:C:3752:THR:HG22	1:C:3797:LEU:HD23	2.00	0.44
1:C:3867:THR:OG1	1:C:3868:THR:N	2.50	0.44
1:C:4846:ILE:HD12	1:C:4846:ILE:HA	1.90	0.44
1:E:456:LEU:HD21	1:E:532:SER:HB2	1.99	0.44
1:E:544:ASN:HD22	1:E:547:ASN:ND2	2.15	0.44
1:E:769:ARG:HG2	1:E:774:PRO:HA	1.99	0.44
1:E:1265:HIS:CG	1:E:1268:ILE:HB	2.52	0.44
1:E:4786:ALA:HB1	1:E:4790:PHE:HB2	2.00	0.44
1:G:261:HIS:CG	1:G:388:GLN:HG2	2.53	0.44
1:G:1119:ARG:HB2	1:G:1133:ARG:HB2	1.99	0.44
1:G:4018:PHE:O	1:G:4022:LEU:HB2	2.18	0.44
1:A:470:LEU:HG	1:A:474:ASP:HB2	1.99	0.44
1:A:1106:GLU:N	1:A:1214:ARG:O	2.51	0.44
1:A:1800:GLN:O	1:A:1804:LEU:N	2.36	0.44
1:A:4615:GLY:O	1:A:4619:THR:OG1	2.35	0.44
1:A:4638:THR:HB	1:A:4706:TYR:HB2	2.00	0.44
1:A:4907:GLU:OE1	1:A:4907:GLU:N	2.43	0.44
1:C:1290:PHE:HE2	1:C:1555:PHE:HZ	1.66	0.44
1:C:1465:VAL:HG21	1:C:1484:ASN:HA	2.00	0.44
1:C:1689:ILE:HA	1:C:1703:TYR:HE1	1.82	0.44
1:C:4167:LYS:HA	1:C:4170:LYS:HE3	2.00	0.44
1:C:4575:ILE:HG22	1:C:4576:LEU:HD23	1.98	0.44
1:C:4612:GLU:HA	1:C:4654:VAL:HG11	2.00	0.44
1:C:4786:ALA:HB1	1:C:4790:PHE:HB2	2.00	0.44
1:E:1119:ARG:HB2	1:E:1133:ARG:HB2	1.99	0.44
1:E:1630:LEU:HD22	1:E:1641:ILE:HD13	1.99	0.44
1:E:1934:VAL:HG12	1:E:3614:ARG:HH11	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2495:PRO:O	1:E:2499:ALA:CB	2.65	0.44
1:G:716:ASN:HA	1:G:722:LEU:HD13	2.00	0.44
1:G:1098:ALA:O	1:G:1101:TRP:NE1	2.44	0.44
1:G:1250:TRP:CD1	1:G:1602:GLN:HA	2.53	0.44
1:G:1257:GLN:O	1:G:1596:TRP:N	2.49	0.44
1:G:3868:THR:OG1	1:G:3869:VAL:N	2.50	0.44
1:G:3893:TYR:CZ	1:G:3899:ILE:HG23	2.52	0.44
1:G:3912:GLN:HA	1:G:3915:LYS:HE3	1.98	0.44
1:G:4007:SER:O	1:G:4007:SER:OG	2.29	0.44
1:G:4722:TYR:HD2	1:G:4723:LEU:HD12	1.82	0.44
1:G:4958:CYS:O	1:G:4962:GLN:N	2.51	0.44
1:A:438:LYS:HB2	1:A:439:LYS:HZ2	1.82	0.44
1:A:1911:LEU:HA	1:A:1914:LEU:HD12	1.99	0.44
1:A:3047:MET:O	1:A:3051:LEU:CB	2.66	0.44
1:A:3959:LEU:HB3	1:A:3969:LEU:HB2	1.98	0.44
1:A:4521:TYR:CE2	1:A:4559:HIS:HB3	2.52	0.44
1:C:261:HIS:CG	1:C:388:GLN:HG2	2.53	0.44
1:C:274:LEU:HD23	1:C:274:LEU:HA	1.80	0.44
1:C:742:SER:O	1:C:776:GLN:NE2	2.51	0.44
1:C:983:LEU:HA	1:C:1059:GLY:HA3	2.00	0.44
1:C:1826:TYR:CZ	1:C:1830:ILE:HD11	2.52	0.44
1:E:243:GLU:OE2	1:E:389:ARG:NH2	2.51	0.44
1:E:508:TYR:CG	1:E:517:VAL:HA	2.53	0.44
1:E:949:HIS:CG	1:E:1065:GLU:H	2.35	0.44
1:E:1268:ILE:HD13	1:E:1268:ILE:HA	1.83	0.44
1:E:1465:VAL:HG21	1:E:1484:ASN:HA	2.00	0.44
1:E:1911:LEU:HA	1:E:1914:LEU:HD12	1.99	0.44
1:E:3752:THR:HG22	1:E:3797:LEU:HD23	2.00	0.44
1:E:4018:PHE:O	1:E:4022:LEU:HB2	2.18	0.44
1:E:4131:GLN:HE22	1:E:4134:LEU:HD11	1.82	0.44
1:G:508:TYR:CG	1:G:517:VAL:HA	2.53	0.44
1:G:853:PRO:HD2	1:G:1209:VAL:HA	1.99	0.44
1:G:874:LEU:HD13	1:G:937:LEU:HD22	1.99	0.44
1:G:2300:LEU:HA	1:G:2303:LEU:HD12	2.00	0.44
1:G:2394:ALA:HB2	1:G:2465:HIS:HD2	1.83	0.44
1:G:4726:TYR:HE1	1:G:4743:HIS:HB3	1.82	0.44
1:G:4935:THR:O	1:G:4939:SER:OG	2.35	0.44
1:A:243:GLU:OE2	1:A:389:ARG:NH2	2.51	0.44
1:A:261:HIS:CG	1:A:388:GLN:HG2	2.53	0.44
1:A:544:ASN:HD22	1:A:547:ASN:ND2	2.15	0.44
1:A:1242:ASN:O	1:A:1807:ARG:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2388:ALA:O	1:A:2392:PHE:CB	2.65	0.44
1:A:3867:THR:OG1	1:A:3868:THR:N	2.50	0.44
1:A:4045:SER:HA	1:A:4078:THR:HA	1.99	0.44
1:A:4510:VAL:HG11	1:A:4580:HIS:HB2	1.99	0.44
1:A:4726:TYR:HE1	1:A:4743:HIS:HB3	1.82	0.44
1:A:4905:GLY:O	1:A:4908:THR:OG1	2.33	0.44
1:C:981:MET:HG3	1:C:1060:TYR:CG	2.53	0.44
1:C:2316:GLU:HA	1:C:2319:ASN:HB3	2.00	0.44
1:C:2703:ASN:OD1	1:C:2703:ASN:N	2.51	0.44
1:C:4022:LEU:O	1:C:4025:LYS:HG3	2.17	0.44
1:E:716:ASN:HA	1:E:722:LEU:HD13	2.00	0.44
1:E:734:SER:OG	1:E:739:ARG:NH1	2.45	0.44
1:E:953:SER:OG	1:E:1061:GLY:O	2.32	0.44
1:E:983:LEU:HA	1:E:1059:GLY:HA3	2.00	0.44
1:E:1141:LYS:HE2	1:E:1141:LYS:HB2	1.85	0.44
1:E:1243:THR:HB	1:E:1807:ARG:HB3	1.99	0.44
1:E:1250:TRP:CD1	1:E:1602:GLN:HA	2.53	0.44
1:E:2061:GLN:OE1	1:E:2061:GLN:N	2.42	0.44
1:E:2316:GLU:HA	1:E:2319:ASN:HB3	2.00	0.44
1:E:2436:VAL:O	1:E:2466:LYS:NZ	2.50	0.44
1:G:470:LEU:HG	1:G:474:ASP:HB2	1.99	0.44
1:G:748:LEU:HD11	2:H:8:SER:HB2	2.00	0.44
1:G:888:ASN:HD21	1:G:957:ALA:HB3	1.83	0.44
1:G:1106:GLU:N	1:G:1214:ARG:O	2.51	0.44
1:G:1795:LEU:HD23	1:G:1795:LEU:HA	1.83	0.44
1:G:2193:MET:HA	1:G:2196:ASN:HD22	1.83	0.44
1:G:3767:LEU:HD23	1:G:3767:LEU:HA	1.74	0.44
1:G:4131:GLN:HE22	1:G:4134:LEU:HD11	1.82	0.44
1:A:703:TYR:HB3	1:A:721:ASP:HB2	2.00	0.44
1:A:1265:HIS:CG	1:A:1268:ILE:HB	2.53	0.44
1:A:3851:HIS:CE1	1:A:3926:GLN:HE21	2.36	0.44
1:A:4931:GLU:HA	1:A:4934:HIS:CG	2.53	0.44
1:C:508:TYR:CG	1:C:517:VAL:HA	2.53	0.44
1:C:1645:THR:OG1	1:C:1646:GLU:OE1	2.35	0.44
1:C:2835:SER:O	1:C:2839:HIS:N	2.42	0.44
1:C:4638:THR:HB	1:C:4706:TYR:HB2	2.00	0.44
1:C:4931:GLU:HA	1:C:4934:HIS:CG	2.53	0.44
1:E:252:HIS:CE1	1:E:255:GLU:HG2	2.53	0.44
1:E:1290:PHE:HE2	1:E:1555:PHE:HZ	1.66	0.44
1:E:2387:ASN:O	1:E:2391:THR:OG1	2.32	0.44
1:E:3760:LEU:HD23	1:E:3760:LEU:HA	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4900:ASP:CG	1:E:4906:PHE:H	2.26	0.44
1:G:24:CYS:O	1:G:35:LEU:N	2.50	0.44
1:G:480:ARG:O	1:G:484:ASN:ND2	2.51	0.44
1:G:590:LYS:HE2	1:G:590:LYS:HB2	1.71	0.44
1:G:949:HIS:CG	1:G:1065:GLU:H	2.35	0.44
1:G:1934:VAL:HG12	1:G:3614:ARG:HH11	1.83	0.44
1:G:2168:MET:H	1:G:2168:MET:HG3	1.45	0.44
1:G:2201:LEU:HD23	1:G:2201:LEU:HA	1.81	0.44
1:G:4632:ASP:N	1:G:4632:ASP:OD1	2.47	0.44
1:G:4638:THR:HB	1:G:4706:TYR:HB2	2.00	0.44
1:A:180:ASP:HB3	1:A:211:LEU:HD22	2.00	0.43
1:A:459:LEU:HA	1:A:462:TYR:HB3	2.00	0.43
1:A:983:LEU:HA	1:A:1059:GLY:HA3	2.00	0.43
1:A:1298:ASP:HB2	1:A:1299:ILE:HD12	2.00	0.43
1:A:1610:ARG:HD3	1:A:1619:VAL:HG23	2.00	0.43
1:A:1652:LYS:HB3	1:A:1652:LYS:HE3	1.71	0.43
1:A:1926:ILE:HD12	1:A:1926:ILE:HA	1.80	0.43
1:A:4018:PHE:O	1:A:4022:LEU:HB2	2.18	0.43
1:A:4774:LEU:HA	1:A:4777:VAL:HG22	2.00	0.43
1:A:4868:ILE:CG1	1:G:4865:GLY:CA	2.89	0.43
1:C:252:HIS:HB3	1:C:256:GLN:H	1.83	0.43
1:C:748:LEU:HD11	2:D:8:SER:HB2	2.00	0.43
1:C:2394:ALA:HB2	1:C:2465:HIS:HD2	1.83	0.43
1:C:3047:MET:O	1:C:3051:LEU:CB	2.66	0.43
1:E:180:ASP:HB3	1:E:211:LEU:HD22	2.00	0.43
1:E:207:PHE:CB	1:G:2326:ILE:CB	2.96	0.43
1:E:261:HIS:CG	1:E:388:GLN:HG2	2.53	0.43
1:E:742:SER:O	1:E:776:GLN:NE2	2.51	0.43
1:E:1112:ASP:H	1:E:1211:GLN:HE21	1.65	0.43
1:E:2201:LEU:HA	1:E:2201:LEU:HD23	1.82	0.43
2:F:2:VAL:HG11	2:F:76:CYS:HA	2.00	0.43
1:G:252:HIS:CE1	1:G:255:GLU:HG2	2.53	0.43
1:G:470:LEU:HD12	1:G:470:LEU:HA	1.87	0.43
1:G:703:TYR:HB3	1:G:721:ASP:HB2	2.00	0.43
1:G:4167:LYS:HA	1:G:4170:LYS:HE3	2.00	0.43
1:A:252:HIS:CE1	1:A:255:GLU:HG2	2.53	0.43
1:A:678:MET:HG3	1:A:754:VAL:HG22	2.00	0.43
1:A:1465:VAL:HG21	1:A:1484:ASN:HA	2.00	0.43
1:A:1716:THR:HA	1:A:1719:LEU:HB2	2.00	0.43
1:A:1934:VAL:HG12	1:A:3614:ARG:HH11	1.83	0.43
1:A:2071:ALA:HB1	1:A:3664:PRO:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2256:LEU:HD12	1:A:3815:ALA:HB2	2.00	0.43
1:A:2394:ALA:HB2	1:A:2465:HIS:HD2	1.83	0.43
1:A:4722:TYR:HD2	1:A:4723:LEU:HD12	1.82	0.43
2:B:38:SER:OG	2:B:41:ASP:N	2.46	0.43
1:C:1106:GLU:N	1:C:1214:ARG:O	2.51	0.43
1:C:1243:THR:HB	1:C:1807:ARG:HB3	1.99	0.43
1:C:1934:VAL:HG12	1:C:3614:ARG:HH11	1.83	0.43
1:C:2149:ASP:O	1:C:2153:ASN:ND2	2.50	0.43
1:C:4510:VAL:HG11	1:C:4580:HIS:HB2	1.99	0.43
1:C:4901:THR:HG1	1:C:4960:ARG:HH22	1.66	0.43
2:D:2:VAL:HG11	2:D:76:CYS:HA	2.00	0.43
1:E:480:ARG:O	1:E:484:ASN:ND2	2.51	0.43
1:E:802:PHE:N	1:E:1616:GLY:O	2.51	0.43
1:E:981:MET:HG3	1:E:1060:TYR:CG	2.53	0.43
1:E:4167:LYS:HA	1:E:4170:LYS:HE3	2.00	0.43
1:E:4905:GLY:O	1:E:4909:HIS:N	2.42	0.43
2:F:56:ILE:HG13	2:F:59:PHE:H	1.82	0.43
1:G:678:MET:HG3	1:G:754:VAL:HG22	2.01	0.43
1:G:991:SER:O	1:G:995:MET:N	2.48	0.43
1:G:2206:ARG:HH22	1:G:2246:ALA:HB1	1.82	0.43
1:G:2495:PRO:O	1:G:2499:ALA:CB	2.65	0.43
1:G:3760:LEU:HD23	1:G:3760:LEU:HA	1.80	0.43
1:G:3923:GLU:HA	1:G:3926:GLN:HB2	2.00	0.43
1:G:3958:LYS:HB3	1:G:3958:LYS:HE3	1.78	0.43
1:G:4096:GLY:HA2	1:G:4099:VAL:HG22	1.99	0.43
1:G:4612:GLU:HA	1:G:4654:VAL:HG11	2.00	0.43
1:G:4774:LEU:HA	1:G:4777:VAL:HG22	2.00	0.43
1:A:716:ASN:HA	1:A:722:LEU:HD13	2.00	0.43
1:A:981:MET:HG3	1:A:1060:TYR:CG	2.53	0.43
1:A:2495:PRO:O	1:A:2499:ALA:CB	2.65	0.43
1:A:4131:GLN:HE22	1:A:4134:LEU:HD11	1.83	0.43
1:A:4786:ALA:HB1	1:A:4790:PHE:HB2	2.00	0.43
1:C:716:ASN:HA	1:C:722:LEU:HD13	2.00	0.43
1:C:1703:TYR:CD2	1:C:1820:PRO:HB2	2.52	0.43
1:C:1716:THR:HA	1:C:1719:LEU:HB2	2.01	0.43
1:C:1795:LEU:HD23	1:C:1795:LEU:HA	1.83	0.43
1:C:2127:ILE:HD12	1:C:2127:ILE:HA	1.84	0.43
1:C:2300:LEU:HA	1:C:2303:LEU:HD12	1.99	0.43
1:E:252:HIS:HB3	1:E:256:GLN:H	1.83	0.43
1:E:991:SER:O	1:E:995:MET:N	2.48	0.43
1:E:1132:GLU:O	1:E:1146:HIS:NE2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1716:THR:HA	1:E:1719:LEU:HD12	1.99	0.43
1:E:1997:LEU:HD11	1:E:3611:ASN:HD21	1.83	0.43
1:E:2071:ALA:HB1	1:E:3664:PRO:HB3	2.00	0.43
1:E:3047:MET:O	1:E:3051:LEU:CB	2.66	0.43
1:E:3798:MET:HE2	1:E:3798:MET:HB3	1.60	0.43
1:E:3882:VAL:O	1:E:3885:SER:OG	2.25	0.43
1:E:4096:GLY:HA2	1:E:4099:VAL:HG22	1.99	0.43
1:E:4796:LYS:N	1:E:4805:MET:O	2.51	0.43
1:E:4808:ASP:O	1:G:4523:VAL:HG23	2.18	0.43
1:E:4907:GLU:OE1	1:E:4907:GLU:N	2.43	0.43
1:G:1092:LYS:NZ	1:G:1120:PRO:O	2.40	0.43
1:G:1119:ARG:HB2	1:G:1133:ARG:HD3	1.99	0.43
1:G:1716:THR:HA	1:G:1719:LEU:HD12	2.00	0.43
1:G:1909:LEU:H	1:G:1909:LEU:HG	1.52	0.43
1:G:2135:MET:HA	1:G:2136:GLY:HA3	1.77	0.43
1:G:3047:MET:O	1:G:3051:LEU:CB	2.66	0.43
1:G:4905:GLY:O	1:G:4909:HIS:N	2.42	0.43
1:A:355:LYS:H	1:A:355:LYS:HG3	1.69	0.43
1:A:737:ILE:HG22	1:A:739:ARG:HG3	2.00	0.43
1:A:1090:ALA:HA	1:A:1249:MET:HG3	2.00	0.43
1:A:1570:LEU:HD12	1:A:1584:PRO:HD3	2.00	0.43
1:A:4139:ILE:HG13	1:A:4147:GLU:HB2	2.00	0.43
1:A:4506:LEU:HD13	1:A:4506:LEU:HA	1.87	0.43
1:C:180:ASP:HB3	1:C:211:LEU:HD22	2.00	0.43
1:C:300:VAL:HG13	1:C:420:ARG:HH21	1.84	0.43
1:C:459:LEU:HA	1:C:462:TYR:HB3	2.00	0.43
1:C:888:ASN:HD21	1:C:957:ALA:HB3	1.83	0.43
1:C:1570:LEU:HD12	1:C:1584:PRO:HD3	2.01	0.43
1:C:3905:ARG:O	1:C:3908:SER:OG	2.34	0.43
1:C:3923:GLU:HA	1:C:3926:GLN:HB2	2.00	0.43
1:C:4900:ASP:CG	1:C:4906:PHE:H	2.26	0.43
1:E:24:CYS:O	1:E:35:LEU:N	2.50	0.43
1:E:438:LYS:HB2	1:E:439:LYS:HZ2	1.83	0.43
1:E:737:ILE:HG22	1:E:739:ARG:HG3	2.00	0.43
1:E:845:THR:OG1	1:E:846:TYR:N	2.48	0.43
1:E:1174:MET:HA	1:E:1191:ALA:H	1.84	0.43
1:E:2072:GLN:HE22	1:E:3647:LYS:HG3	1.84	0.43
1:E:2193:MET:HA	1:E:2196:ASN:HD22	1.83	0.43
1:G:737:ILE:HG22	1:G:739:ARG:HG3	2.00	0.43
1:G:742:SER:O	1:G:776:GLN:NE2	2.51	0.43
1:G:756:SER:O	1:G:769:ARG:N	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:794:PHE:HZ	1:G:1621:CYS:HB2	1.82	0.43
1:G:983:LEU:HA	1:G:1059:GLY:HA3	2.00	0.43
1:G:1652:LYS:HE3	1:G:1652:LYS:HB3	1.71	0.43
1:G:1770:SER:HG	2:H:54:GLU:CD	2.24	0.43
1:G:2256:LEU:HD12	1:G:3815:ALA:HB2	2.00	0.43
1:G:3851:HIS:CE1	1:G:3926:GLN:HE21	2.36	0.43
1:A:991:SER:O	1:A:995:MET:N	2.48	0.43
1:A:1119:ARG:HB2	1:A:1133:ARG:HD3	1.99	0.43
1:A:2029:ARG:O	1:A:2032:SER:OG	2.30	0.43
1:A:2072:GLN:HE22	1:A:3647:LYS:HG3	1.84	0.43
1:A:4809:ASP:CG	1:C:4522:LYS:HA	2.40	0.43
2:B:2:VAL:HG11	2:B:76:CYS:HA	2.00	0.43
1:C:207:PHE:CB	1:E:2326:ILE:CB	2.96	0.43
1:C:874:LEU:HD13	1:C:937:LEU:HD22	1.99	0.43
1:C:1112:ASP:H	1:C:1211:GLN:HE21	1.65	0.43
1:C:1174:MET:HA	1:C:1191:ALA:H	1.84	0.43
1:C:1692:LYS:HE2	1:C:1692:LYS:HB2	1.84	0.43
1:C:1911:LEU:HA	1:C:1914:LEU:HD12	1.99	0.43
1:C:2876:ASP:OD1	1:C:2876:ASP:N	2.36	0.43
1:E:442:ALA:N	1:E:443:SER:HA	2.34	0.43
1:E:495:ILE:HG13	1:E:496:ASN:H	1.84	0.43
1:E:1709:ILE:HD13	1:E:1709:ILE:HA	1.86	0.43
1:E:2394:ALA:HB2	1:E:2465:HIS:HD2	1.83	0.43
1:E:4774:LEU:HA	1:E:4777:VAL:HG22	2.00	0.43
1:E:4931:GLU:HA	1:E:4934:HIS:CG	2.53	0.43
1:G:182:ILE:HG21	1:G:191:TYR:CD1	2.54	0.43
1:G:192:LEU:HD22	1:G:212:TRP:HE1	1.84	0.43
1:G:626:ARG:CZ	1:G:1669:ASN:HA	2.49	0.43
1:G:1298:ASP:HB2	1:G:1299:ILE:HD12	2.00	0.43
1:G:2388:ALA:O	1:G:2392:PHE:CB	2.66	0.43
1:G:4796:LYS:N	1:G:4805:MET:O	2.51	0.43
1:A:156:GLU:HA	1:A:159:TRP:HD1	1.83	0.43
1:A:1676:LEU:HD23	1:A:1676:LEU:HA	1.78	0.43
1:A:1707:ILE:H	1:A:1707:ILE:HG13	1.60	0.43
1:A:4041:LYS:NZ	1:A:4041:LYS:O	2.46	0.43
1:A:4612:GLU:HA	1:A:4654:VAL:HG11	2.00	0.43
1:A:4900:ASP:CG	1:A:4906:PHE:H	2.26	0.43
1:C:2350:GLU:OE2	1:C:2353:LYS:NZ	2.48	0.43
1:C:3851:HIS:CE1	1:C:3926:GLN:HE21	2.36	0.43
1:E:703:TYR:HB3	1:E:721:ASP:HB2	2.00	0.43
1:E:1716:THR:HA	1:E:1719:LEU:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3851:HIS:CE1	1:E:3926:GLN:HE21	2.36	0.43
1:E:4638:THR:HB	1:E:4706:TYR:HB2	2.00	0.43
1:G:846:TYR:OH	1:G:1222:SER:OG	2.25	0.43
1:G:1292:SER:HB2	1:G:1547:ALA:HB1	2.01	0.43
1:G:1634:GLU:H	1:G:1634:GLU:HG3	1.50	0.43
1:G:1773:ASN:OD1	1:G:1777:GLN:NE2	2.32	0.43
1:G:1997:LEU:HD11	1:G:3611:ASN:HD21	1.83	0.43
1:G:2061:GLN:O	1:G:2064:SER:OG	2.26	0.43
1:G:2213:LYS:HG2	1:G:2254:LEU:HD11	2.01	0.43
1:G:2783:MET:HB3	1:G:2783:MET:HE2	1.70	0.43
1:G:3752:THR:HG22	1:G:3797:LEU:HD23	2.00	0.43
2:H:2:VAL:HG11	2:H:76:CYS:HA	2.00	0.43
1:A:797:GLY:O	1:A:1620:GLN:NE2	2.52	0.43
1:A:1640:ASP:OD2	1:A:1643:GLU:N	2.37	0.43
1:A:4156:SER:O	1:A:4159:THR:OG1	2.35	0.43
1:A:4809:ASP:O	1:A:4812:THR:OG1	2.29	0.43
1:C:802:PHE:N	1:C:1616:GLY:O	2.51	0.43
1:C:995:MET:HA	1:C:998:LYS:HD2	2.01	0.43
1:C:1610:ARG:HD3	1:C:1619:VAL:HG23	2.00	0.43
1:C:1997:LEU:HD11	1:C:3611:ASN:HD21	1.83	0.43
1:C:3871:ILE:O	1:C:3874:SER:OG	2.24	0.43
1:C:4018:PHE:O	1:C:4022:LEU:HB2	2.18	0.43
1:C:4188:GLU:O	1:C:4192:ASN:ND2	2.52	0.43
2:D:56:ILE:HG13	2:D:59:PHE:H	1.82	0.43
1:E:561:ARG:HD3	1:E:561:ARG:HA	1.77	0.43
1:E:590:LYS:HB3	1:E:591:GLU:H	1.68	0.43
1:E:1298:ASP:HB2	1:E:1299:ILE:HD12	2.00	0.43
1:E:3692:TYR:HA	1:E:3695:ILE:HD12	2.00	0.43
1:E:3726:LEU:HD12	1:E:3726:LEU:HA	1.84	0.43
1:E:4139:ILE:HG13	1:E:4147:GLU:HB2	2.00	0.43
1:G:182:ILE:CG2	1:G:191:TYR:CD1	3.02	0.43
1:G:897:LYS:HE3	1:G:897:LYS:HB3	1.86	0.43
1:G:1669:ASN:O	1:G:1673:ALA:N	2.35	0.43
1:G:2166:LEU:HD23	1:G:2166:LEU:HA	1.88	0.43
1:A:182:ILE:HG21	1:A:191:TYR:CD1	2.54	0.43
1:A:1292:SER:HB2	1:A:1547:ALA:HB1	2.01	0.43
1:A:4002:ASP:O	1:A:4006:GLU:CB	2.67	0.43
1:A:4163:LYS:HE2	1:A:4163:LYS:HB2	1.91	0.43
1:A:4188:GLU:O	1:A:4192:ASN:ND2	2.52	0.43
1:C:156:GLU:HA	1:C:159:TRP:HD1	1.83	0.43
1:C:709:GLY:N	1:C:840:TYR:OH	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:904:TYR:HD1	1:C:918:LEU:H	1.66	0.43
1:C:1716:THR:HA	1:C:1719:LEU:HD12	1.99	0.43
1:E:1822:ILE:HG22	1:E:1906:GLN:HE21	1.84	0.43
1:E:2835:SER:O	1:E:2839:HIS:N	2.42	0.43
1:E:4188:GLU:O	1:E:4192:ASN:ND2	2.52	0.43
1:E:4492:LEU:HD12	1:E:4492:LEU:HA	1.92	0.43
2:F:17:LYS:HE3	2:F:17:LYS:HB3	1.82	0.43
1:G:180:ASP:HB3	1:G:211:LEU:HD22	2.00	0.43
1:G:237:LEU:HB2	1:G:404:ASN:HB3	2.00	0.43
1:G:495:ILE:HG13	1:G:496:ASN:H	1.84	0.43
1:G:709:GLY:N	1:G:840:TYR:OH	2.52	0.43
1:G:1465:VAL:HG21	1:G:1484:ASN:HA	2.00	0.43
1:G:2071:ALA:HB1	1:G:3664:PRO:HB3	2.00	0.43
1:G:4786:ALA:HB1	1:G:4790:PHE:HB2	2.00	0.43
1:A:211:LEU:HD23	1:A:211:LEU:HA	1.82	0.43
1:A:252:HIS:HB3	1:A:256:GLN:H	1.82	0.43
1:A:508:TYR:CG	1:A:517:VAL:HA	2.53	0.43
1:A:973:THR:OG1	1:A:976:TYR:O	2.36	0.43
1:A:1669:ASN:O	1:A:1673:ALA:N	2.35	0.43
1:A:4189:LEU:HA	1:A:4192:ASN:HD22	1.84	0.43
1:C:257:ARG:HH22	1:C:272:ARG:HD3	1.84	0.43
1:C:291:TRP:HB2	1:C:343:ARG:HH21	1.83	0.43
1:C:590:LYS:HE2	1:C:590:LYS:HB2	1.71	0.43
1:C:3729:GLN:O	1:C:3733:HIS:ND1	2.36	0.43
1:C:3958:LYS:HB3	1:C:3958:LYS:HE3	1.78	0.43
1:E:182:ILE:CG2	1:E:191:TYR:CD1	3.02	0.43
1:E:748:LEU:HD11	2:F:8:SER:HB2	2.00	0.43
1:E:1165:MET:O	1:E:1174:MET:N	2.42	0.43
1:E:2722:ILE:HG21	1:E:2777:LYS:HE2	2.01	0.43
1:E:4189:LEU:HA	1:E:4192:ASN:HD22	1.84	0.43
2:F:79:ASP:OD1	2:F:79:ASP:N	2.48	0.43
1:G:486:GLN:NE2	1:G:544:ASN:H	2.17	0.43
1:G:973:THR:OG1	1:G:976:TYR:O	2.36	0.43
1:G:1716:THR:HA	1:G:1719:LEU:HB2	2.01	0.43
1:G:2072:GLN:HE22	1:G:3647:LYS:HG3	1.84	0.43
1:G:3692:TYR:HA	1:G:3695:ILE:HD12	2.00	0.43
1:G:3882:VAL:O	1:G:3885:SER:OG	2.25	0.43
1:A:192:LEU:HD22	1:A:212:TRP:HE1	1.84	0.43
1:A:441:LYS:HA	1:A:442:ALA:HA	1.69	0.43
1:A:2316:GLU:HA	1:A:2319:ASN:HB3	2.00	0.43
1:A:4503:MET:HE3	1:A:4503:MET:HB3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4801:ASP:N	1:A:4801:ASP:OD1	2.50	0.43
1:C:703:TYR:HB3	1:C:721:ASP:HB2	2.00	0.43
1:C:797:GLY:O	1:C:1620:GLN:NE2	2.52	0.43
1:C:1271:THR:H	1:C:1289:SER:H	1.67	0.43
1:C:2029:ARG:O	1:C:2032:SER:OG	2.30	0.43
1:C:4096:GLY:HA2	1:C:4099:VAL:HG22	1.99	0.43
1:C:4139:ILE:HG13	1:C:4147:GLU:HB2	2.00	0.43
1:C:4722:TYR:HD2	1:C:4723:LEU:HD12	1.82	0.43
1:C:4774:LEU:HA	1:C:4777:VAL:HG22	2.00	0.43
1:E:182:ILE:HG21	1:E:191:TYR:CD1	2.54	0.43
1:E:192:LEU:HD22	1:E:212:TRP:HE1	1.84	0.43
1:E:237:LEU:HB2	1:E:404:ASN:HB3	2.00	0.43
1:E:355:LYS:H	1:E:355:LYS:HG3	1.69	0.43
1:E:626:ARG:CZ	1:E:1669:ASN:HA	2.49	0.43
1:E:912:LYS:O	1:E:914:GLN:NE2	2.52	0.43
1:E:1996:GLN:HA	1:E:1997:LEU:HD23	2.01	0.43
1:E:2300:LEU:HA	1:E:2303:LEU:HD12	2.00	0.43
1:E:4002:ASP:O	1:E:4006:GLU:CB	2.67	0.43
1:E:4749:MET:O	1:E:4752:LYS:NZ	2.37	0.43
2:F:47:LYS:HB2	2:F:47:LYS:HE3	1.63	0.43
1:G:459:LEU:HA	1:G:462:TYR:HB3	2.00	0.43
1:G:776:GLN:HB3	1:G:1470:GLY:H	1.84	0.43
1:G:1117:TRP:HE3	1:G:1201:PHE:HB3	1.84	0.43
1:G:1174:MET:HA	1:G:1191:ALA:H	1.84	0.43
1:G:1707:ILE:H	1:G:1707:ILE:HG13	1.60	0.43
1:G:2722:ILE:HG21	1:G:2777:LYS:HE2	2.01	0.43
1:G:4188:GLU:O	1:G:4192:ASN:ND2	2.52	0.43
1:A:442:ALA:N	1:A:443:SER:HA	2.34	0.42
1:A:709:GLY:N	1:A:840:TYR:OH	2.52	0.42
1:A:748:LEU:HD11	2:B:8:SER:HB2	2.00	0.42
1:A:802:PHE:N	1:A:1616:GLY:O	2.51	0.42
1:A:912:LYS:O	1:A:914:GLN:NE2	2.52	0.42
1:A:995:MET:HA	1:A:998:LYS:HD2	2.01	0.42
1:A:1770:SER:HG	2:B:54:GLU:CD	2.24	0.42
1:A:1822:ILE:HG22	1:A:1906:GLN:HE21	1.84	0.42
1:A:2779:SER:HB2	1:A:2849:TYR:CZ	2.54	0.42
1:A:3986:MET:HE2	1:A:3986:MET:HB2	1.89	0.42
1:A:4167:LYS:HA	1:A:4170:LYS:HE3	2.00	0.42
1:C:252:HIS:CE1	1:C:255:GLU:HG2	2.53	0.42
1:C:486:GLN:NE2	1:C:544:ASN:H	2.17	0.42
1:C:495:ILE:HG13	1:C:496:ASN:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:626:ARG:CZ	1:C:1669:ASN:HA	2.49	0.42
1:C:2065:GLU:O	1:C:2069:ARG:NH1	2.52	0.42
1:C:3692:TYR:HA	1:C:3695:ILE:HD12	2.00	0.42
1:C:4131:GLN:HE22	1:C:4134:LEU:HD11	1.83	0.42
1:C:4486:ILE:HG23	1:C:4489:GLN:H	1.84	0.42
1:E:1610:ARG:HD3	1:E:1619:VAL:HG23	2.00	0.42
1:E:1705:LEU:HD23	1:E:1705:LEU:HA	1.78	0.42
1:E:1897:MET:HE2	1:E:1897:MET:HB3	1.84	0.42
1:E:3923:GLU:HA	1:E:3926:GLN:HB2	1.99	0.42
1:G:169:ARG:NH2	1:G:179:ASP:OD1	2.52	0.42
1:G:661:LEU:HD23	1:G:661:LEU:HA	1.89	0.42
1:G:1660:LEU:HA	1:G:1660:LEU:HD23	1.77	0.42
1:G:4900:ASP:CG	1:G:4906:PHE:H	2.26	0.42
1:A:1271:THR:H	1:A:1289:SER:H	1.67	0.42
1:A:2080:GLU:CD	1:A:2080:GLU:H	2.25	0.42
1:A:2830:SER:HB3	1:A:2895:LYS:HE3	2.01	0.42
1:A:3752:THR:HG22	1:A:3797:LEU:HD23	2.00	0.42
1:A:3902:GLN:OE1	1:A:3905:ARG:NH2	2.52	0.42
1:C:480:ARG:O	1:C:484:ASN:ND2	2.51	0.42
1:C:912:LYS:O	1:C:914:GLN:NE2	2.52	0.42
1:C:1298:ASP:HB2	1:C:1299:ILE:HD12	2.00	0.42
1:C:4189:LEU:HA	1:C:4192:ASN:HD22	1.84	0.42
1:C:4905:GLY:O	1:C:4908:THR:OG1	2.33	0.42
1:E:291:TRP:HB2	1:E:343:ARG:HH21	1.83	0.42
1:E:2431:GLY:N	1:E:2477:TYR:OH	2.51	0.42
1:E:3699:SER:HB2	1:E:3731:ARG:HH21	1.84	0.42
1:E:4027:LEU:HD22	1:E:4056:HIS:CE1	2.54	0.42
1:G:230:GLY:N	1:G:287:SER:O	2.39	0.42
1:G:291:TRP:HB2	1:G:343:ARG:HH21	1.83	0.42
1:G:722:LEU:HD23	1:G:722:LEU:HA	1.70	0.42
1:G:912:LYS:O	1:G:914:GLN:NE2	2.52	0.42
1:G:4189:LEU:HA	1:G:4192:ASN:HD22	1.84	0.42
1:A:480:ARG:O	1:A:484:ASN:ND2	2.51	0.42
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.89	0.42
1:A:626:ARG:CZ	1:A:1669:ASN:HA	2.49	0.42
1:A:776:GLN:HB3	1:A:1470:GLY:H	1.84	0.42
1:A:1103:PHE:HE2	1:A:1215:MET:HG2	1.85	0.42
1:A:2065:GLU:O	1:A:2069:ARG:NH1	2.52	0.42
1:A:2118:ILE:HD13	1:A:2118:ILE:HA	1.87	0.42
1:A:3692:TYR:HA	1:A:3695:ILE:HD12	2.00	0.42
1:C:737:ILE:HG22	1:C:739:ARG:HG3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1117:TRP:HH2	1:C:1239:PHE:HZ	1.67	0.42
1:C:1676:LEU:HA	1:C:1676:LEU:HD23	1.78	0.42
1:C:1936:LYS:O	1:C:1940:ASN:ND2	2.39	0.42
1:C:2118:ILE:HD13	1:C:2118:ILE:HA	1.87	0.42
1:C:3631:GLU:OE1	1:C:3631:GLU:N	2.45	0.42
1:C:3760:LEU:HA	1:C:3760:LEU:HD23	1.80	0.42
1:C:4027:LEU:HD22	1:C:4056:HIS:CE1	2.54	0.42
1:E:169:ARG:NH2	1:E:179:ASP:OD1	2.52	0.42
1:E:257:ARG:HH22	1:E:272:ARG:HD3	1.84	0.42
1:E:300:VAL:HG13	1:E:420:ARG:HH21	1.84	0.42
1:E:374:TYR:OH	1:E:400:ASP:OD2	2.27	0.42
1:E:853:PRO:HD2	1:E:1209:VAL:HA	1.99	0.42
1:E:1090:ALA:HA	1:E:1249:MET:HG3	2.01	0.42
1:E:1117:TRP:HE3	1:E:1201:PHE:HB3	1.84	0.42
1:E:1641:ILE:HD13	1:E:1641:ILE:HA	1.90	0.42
1:E:2124:LEU:O	1:E:2128:ARG:HG2	2.20	0.42
1:E:2769:LYS:O	1:E:2773:ARG:N	2.44	0.42
1:E:4713:VAL:O	1:E:4716:THR:OG1	2.35	0.42
1:G:156:GLU:HA	1:G:159:TRP:HD1	1.83	0.42
1:G:1522:ALA:N	1:G:1525:LYS:O	2.38	0.42
1:G:1822:ILE:HG22	1:G:1906:GLN:HE21	1.84	0.42
1:G:2830:SER:HB3	1:G:2895:LYS:HE3	2.01	0.42
1:G:4002:ASP:O	1:G:4006:GLU:CB	2.67	0.42
1:A:300:VAL:HG13	1:A:420:ARG:HH21	1.84	0.42
1:A:352:SER:O	1:A:352:SER:OG	2.33	0.42
1:A:1302:TYR:N	1:A:1543:VAL:O	2.52	0.42
1:A:2124:LEU:O	1:A:2128:ARG:HG2	2.20	0.42
1:A:2722:ILE:HG21	1:A:2777:LYS:HE2	2.01	0.42
1:A:3871:ILE:O	1:A:3874:SER:OG	2.24	0.42
1:C:1140:PHE:HD2	1:C:1141:LYS:HZ2	1.68	0.42
1:C:2722:ILE:HG21	1:C:2777:LYS:HE2	2.01	0.42
1:C:4713:VAL:O	1:C:4716:THR:OG1	2.35	0.42
2:D:42:ARG:HD3	2:D:44:LYS:HD3	2.01	0.42
1:E:156:GLU:HA	1:E:159:TRP:HD1	1.84	0.42
1:E:459:LEU:HA	1:E:462:TYR:HB3	2.00	0.42
1:E:629:GLN:HB3	1:E:1664:VAL:HG23	2.01	0.42
1:E:678:MET:HG3	1:E:754:VAL:HG22	2.01	0.42
1:E:783:ASN:HD21	1:E:1459:LEU:HB2	1.84	0.42
1:E:894:VAL:HA	1:E:918:LEU:HD22	2.02	0.42
1:E:1755:THR:H	1:E:1755:THR:HG23	1.57	0.42
1:E:1770:SER:HG	2:F:54:GLU:CD	2.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2783:MET:HB3	1:E:2783:MET:HE2	1.70	0.42
1:E:3986:MET:HE2	1:E:3986:MET:HB2	1.89	0.42
2:F:62:GLY:HA2	2:F:65:GLN:HB3	2.02	0.42
1:G:332:ARG:O	1:G:362:PHE:N	2.42	0.42
1:G:731:HIS:CG	1:G:740:THR:HA	2.54	0.42
1:G:904:TYR:HD1	1:G:918:LEU:H	1.66	0.42
1:G:995:MET:HA	1:G:998:LYS:HD2	2.01	0.42
1:G:1090:ALA:HA	1:G:1249:MET:HG3	2.01	0.42
1:G:1610:ARG:HD3	1:G:1619:VAL:HG23	2.00	0.42
1:G:1996:GLN:HA	1:G:1997:LEU:HD23	2.01	0.42
1:G:2316:GLU:HA	1:G:2319:ASN:HB3	2.00	0.42
1:G:3902:GLN:OE1	1:G:3905:ARG:NH2	2.52	0.42
1:A:832:LEU:HD22	1:A:1617:TRP:CG	2.54	0.42
1:A:888:ASN:HD21	1:A:957:ALA:HB3	1.83	0.42
1:A:3699:SER:HB2	1:A:3731:ARG:HH21	1.84	0.42
1:A:4935:THR:O	1:A:4939:SER:OG	2.35	0.42
2:B:87:HIS:HA	2:B:88:PRO:HD3	1.87	0.42
1:C:442:ALA:N	1:C:443:SER:HA	2.34	0.42
1:C:470:LEU:HD23	1:C:475:LYS:HG3	2.02	0.42
1:C:544:ASN:HB2	1:C:547:ASN:HB2	2.01	0.42
1:C:718:VAL:HG12	1:C:736:CYS:HA	2.01	0.42
1:C:894:VAL:HA	1:C:918:LEU:HD22	2.02	0.42
1:C:1660:LEU:HD23	1:C:1660:LEU:HA	1.77	0.42
1:C:1822:ILE:HG22	1:C:1906:GLN:HE21	1.84	0.42
1:C:3671:LEU:O	1:C:3675:THR:OG1	2.29	0.42
1:C:3798:MET:HB3	1:C:3798:MET:HE2	1.60	0.42
1:E:776:GLN:HB3	1:E:1470:GLY:H	1.84	0.42
1:E:832:LEU:HD22	1:E:1617:TRP:CG	2.54	0.42
1:E:1117:TRP:HH2	1:E:1239:PHE:HZ	1.67	0.42
1:E:1703:TYR:CD2	1:E:1820:PRO:HB2	2.52	0.42
1:E:2256:LEU:HD12	1:E:3815:ALA:HB2	2.00	0.42
1:E:2779:SER:HB2	1:E:2849:TYR:CZ	2.54	0.42
1:E:2894:LEU:HA	1:E:2897:LEU:HD12	2.02	0.42
1:E:3958:LYS:HE3	1:E:3958:LYS:HB3	1.78	0.42
2:F:42:ARG:HD3	2:F:44:LYS:HD3	2.01	0.42
1:G:211:LEU:HD23	1:G:211:LEU:HA	1.82	0.42
1:G:252:HIS:HB3	1:G:256:GLN:H	1.83	0.42
1:G:718:VAL:HG12	1:G:736:CYS:HA	2.01	0.42
1:G:783:ASN:HD21	1:G:1459:LEU:HB2	1.85	0.42
1:G:1103:PHE:HE2	1:G:1215:MET:HG2	1.85	0.42
1:G:1162:VAL:O	1:G:1176:THR:OG1	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3798:MET:HB3	1:G:3798:MET:HE2	1.60	0.42
1:A:169:ARG:NH2	1:A:179:ASP:OD1	2.52	0.42
1:A:237:LEU:HB2	1:A:404:ASN:HB3	2.00	0.42
1:A:486:GLN:NE2	1:A:544:ASN:H	2.17	0.42
1:A:694:ARG:O	1:A:793:SER:N	2.41	0.42
1:A:742:SER:O	1:A:776:GLN:NE2	2.51	0.42
1:A:1518:LEU:HD23	1:A:1531:TYR:HB2	2.02	0.42
1:A:2213:LYS:HG2	1:A:2254:LEU:HD11	2.01	0.42
1:C:678:MET:HG3	1:C:754:VAL:HG22	2.01	0.42
1:C:731:HIS:CG	1:C:740:THR:HA	2.54	0.42
1:C:1597:SER:O	1:C:1598:ARG:NH1	2.53	0.42
1:C:2264:GLU:O	1:C:2268:ARG:HG2	2.20	0.42
1:C:4721:LEU:HD23	1:C:4721:LEU:HA	1.91	0.42
1:E:604:HIS:HA	1:E:1588:VAL:HB	2.02	0.42
1:E:1223:THR:O	1:E:1223:THR:OG1	2.36	0.42
1:E:1271:THR:H	1:E:1289:SER:H	1.67	0.42
1:E:2350:GLU:OE2	1:E:2353:LYS:NZ	2.48	0.42
1:E:3876:VAL:O	1:E:3879:LEU:HG	2.20	0.42
1:E:4504:ARG:HA	1:E:4504:ARG:HD2	1.82	0.42
1:E:4846:ILE:HD12	1:E:4846:ILE:HA	1.90	0.42
2:F:4:ILE:HG12	2:F:75:THR:H	1.85	0.42
1:G:470:LEU:HD23	1:G:475:LYS:HG3	2.02	0.42
1:G:1007:TRP:O	1:G:1011:ARG:N	2.53	0.42
1:G:1676:LEU:HD23	1:G:1676:LEU:HA	1.78	0.42
1:G:3767:LEU:HD21	1:G:3774:VAL:HB	2.02	0.42
2:H:16:PRO:HD3	2:H:67:SER:HA	2.02	0.42
1:A:207:PHE:CB	1:C:2326:ILE:CB	2.98	0.42
1:A:544:ASN:HB2	1:A:547:ASN:HB2	2.01	0.42
1:A:904:TYR:HD1	1:A:918:LEU:H	1.66	0.42
1:A:1007:TRP:O	1:A:1011:ARG:N	2.53	0.42
1:A:1117:TRP:HE3	1:A:1201:PHE:HB3	1.84	0.42
1:A:1997:LEU:HD11	1:A:3611:ASN:HD21	1.83	0.42
1:A:2264:GLU:O	1:A:2268:ARG:HG2	2.20	0.42
1:A:3786:LYS:HA	1:A:3786:LYS:HD3	1.96	0.42
1:A:4796:LYS:N	1:A:4805:MET:O	2.51	0.42
1:C:169:ARG:NH2	1:C:179:ASP:OD1	2.52	0.42
1:C:1103:PHE:HE2	1:C:1215:MET:HG2	1.85	0.42
1:C:2849:TYR:HB3	1:C:2886:ASP:HB3	2.02	0.42
1:C:3767:LEU:HD21	1:C:3774:VAL:HB	2.02	0.42
1:C:3876:VAL:O	1:C:3879:LEU:HG	2.20	0.42
1:E:49:LEU:HD23	1:E:49:LEU:HA	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:709:GLY:N	1:E:840:TYR:OH	2.52	0.42
1:E:904:TYR:HD1	1:E:918:LEU:H	1.66	0.42
1:E:1518:LEU:HD23	1:E:1531:TYR:HB2	2.02	0.42
1:E:3905:ARG:O	1:E:3908:SER:OG	2.34	0.42
1:E:3954:HIS:O	1:E:3958:LYS:NZ	2.45	0.42
1:E:4865:GLY:HA2	1:G:4868:ILE:HD13	2.02	0.42
1:G:850:LEU:HB2	1:G:1213:GLY:N	2.34	0.42
1:G:3896:LYS:HB2	1:G:3896:LYS:HE2	1.73	0.42
1:G:4027:LEU:HD22	1:G:4056:HIS:CE1	2.54	0.42
1:G:4713:VAL:O	1:G:4716:THR:OG1	2.35	0.42
1:A:182:ILE:CG2	1:A:191:TYR:CD1	3.02	0.42
1:A:1306:MET:HE1	1:A:1587:HIS:HD2	1.85	0.42
1:A:1308:ILE:HD12	1:A:1308:ILE:HA	1.85	0.42
1:A:2258:LEU:H	1:A:2258:LEU:HG	1.45	0.42
1:A:4486:ILE:HG23	1:A:4489:GLN:H	1.84	0.42
1:C:192:LEU:HD22	1:C:212:TRP:HE1	1.84	0.42
1:C:237:LEU:HB2	1:C:404:ASN:HB3	2.00	0.42
1:C:590:LYS:HB3	1:C:591:GLU:H	1.68	0.42
1:C:832:LEU:HD22	1:C:1617:TRP:CG	2.54	0.42
1:C:1654:HIS:O	1:C:1657:THR:OG1	2.21	0.42
1:C:1705:LEU:HD23	1:C:1705:LEU:HA	1.78	0.42
1:C:2124:LEU:O	1:C:2128:ARG:HG2	2.19	0.42
1:C:2213:LYS:HG2	1:C:2254:LEU:HD11	2.01	0.42
1:C:2256:LEU:HD12	1:C:3815:ALA:HB2	2.00	0.42
1:C:3742:LEU:HD12	1:C:3742:LEU:HA	1.82	0.42
1:C:3790:PHE:O	1:C:3793:SER:OG	2.29	0.42
2:D:62:GLY:HA2	2:D:65:GLN:HB3	2.02	0.42
1:E:470:LEU:HD23	1:E:475:LYS:HG3	2.02	0.42
1:E:846:TYR:OH	1:E:1222:SER:OG	2.25	0.42
1:E:850:LEU:HB2	1:E:1213:GLY:N	2.34	0.42
1:E:1261:VAL:HG23	1:E:1596:TRP:HH2	1.84	0.42
1:E:1711:LEU:HD22	1:E:1831:MET:HE1	2.02	0.42
1:E:2830:SER:HB3	1:E:2895:LYS:HE3	2.01	0.42
1:E:4203:LEU:HD13	1:E:4203:LEU:HA	1.93	0.42
1:E:4754:LEU:H	1:E:4754:LEU:HG	1.67	0.42
1:G:257:ARG:HH22	1:G:272:ARG:HD3	1.84	0.42
1:G:300:VAL:HG13	1:G:420:ARG:HH21	1.84	0.42
1:G:544:ASN:HB2	1:G:547:ASN:HB2	2.01	0.42
1:G:629:GLN:HB3	1:G:1664:VAL:HG23	2.01	0.42
1:G:1308:ILE:HG22	1:G:1539:LEU:HB3	2.02	0.42
1:G:1843:LEU:HD23	1:G:1843:LEU:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2779:SER:HB2	1:G:2849:TYR:CZ	2.54	0.42
1:G:3958:LYS:H	1:G:3958:LYS:HG2	1.57	0.42
1:G:4139:ILE:HG13	1:G:4147:GLU:HB2	2.00	0.42
1:A:470:LEU:HD23	1:A:475:LYS:HG3	2.02	0.42
1:A:1097:LYS:HZ2	1:A:1097:LYS:HG3	1.68	0.42
1:A:1996:GLN:HA	1:A:1997:LEU:HD23	2.01	0.42
1:A:2703:ASN:HB2	1:A:2705:GLN:HE21	1.85	0.42
1:A:2894:LEU:HA	1:A:2897:LEU:HD12	2.02	0.42
1:C:308:LEU:HD23	1:C:365:HIS:CD2	2.55	0.42
1:C:742:SER:OG	1:C:1472:GLU:OE2	2.38	0.42
1:C:1711:LEU:HD22	1:C:1831:MET:HE1	2.02	0.42
1:C:1770:SER:HG	2:D:54:GLU:CD	2.24	0.42
1:C:2072:GLN:HE22	1:C:3647:LYS:HG3	1.84	0.42
1:C:2779:SER:HB2	1:C:2849:TYR:CZ	2.54	0.42
1:C:3699:SER:HB2	1:C:3731:ARG:HH21	1.84	0.42
1:C:3902:GLN:OE1	1:C:3905:ARG:NH2	2.52	0.42
1:C:4503:MET:HE3	1:C:4503:MET:HB3	1.84	0.42
1:C:4635:VAL:O	1:C:4638:THR:OG1	2.30	0.42
1:C:4865:GLY:CA	1:E:4868:ILE:CG1	2.90	0.42
2:D:67:SER:N	2:D:70:GLN:OE1	2.53	0.42
2:D:87:HIS:HA	2:D:88:PRO:HD3	1.87	0.42
1:E:731:HIS:CG	1:E:740:THR:HA	2.54	0.42
1:E:1539:LEU:HD12	1:E:1539:LEU:HA	1.93	0.42
1:E:1757:LEU:HD13	1:E:1757:LEU:HA	1.83	0.42
1:E:2114:VAL:O	1:E:2117:THR:OG1	2.25	0.42
1:E:2732:LYS:HD2	1:E:2732:LYS:HA	1.70	0.42
1:G:797:GLY:O	1:G:1620:GLN:NE2	2.52	0.42
1:G:1117:TRP:HH2	1:G:1239:PHE:HZ	1.67	0.42
1:G:1167:ASP:OD2	1:G:1172:THR:OG1	2.36	0.42
1:G:1261:VAL:HG23	1:G:1596:TRP:HH2	1.84	0.42
1:G:1271:THR:H	1:G:1289:SER:H	1.67	0.42
1:G:2436:VAL:O	1:G:2466:LYS:NZ	2.50	0.42
1:G:2703:ASN:HB2	1:G:2705:GLN:HE21	1.85	0.42
1:G:3726:LEU:HD12	1:G:3726:LEU:HA	1.84	0.42
1:A:257:ARG:HH22	1:A:272:ARG:HD3	1.84	0.42
1:A:731:HIS:CG	1:A:740:THR:HA	2.54	0.42
1:A:1223:THR:O	1:A:1223:THR:OG1	2.36	0.42
1:A:1703:TYR:CD2	1:A:1820:PRO:HB2	2.52	0.42
1:A:1711:LEU:HD22	1:A:1831:MET:HE1	2.02	0.42
1:A:2326:ILE:CB	1:G:207:PHE:CB	2.97	0.42
1:A:2849:TYR:HB3	1:A:2886:ASP:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4027:LEU:HD22	1:A:4056:HIS:CE1	2.54	0.42
1:A:4598:LEU:HA	1:A:4601:PHE:HB3	2.02	0.42
2:B:67:SER:N	2:B:70:GLN:OE1	2.53	0.42
1:C:182:ILE:CG2	1:C:191:TYR:CD1	3.02	0.42
1:C:182:ILE:HG21	1:C:191:TYR:CD1	2.54	0.42
1:C:604:HIS:HA	1:C:1588:VAL:HB	2.02	0.42
1:C:991:SER:O	1:C:995:MET:N	2.48	0.42
1:C:1306:MET:HE1	1:C:1587:HIS:HD2	1.85	0.42
1:C:1685:LEU:HA	1:C:1685:LEU:HD12	1.83	0.42
1:C:4504:ARG:HD2	1:C:4504:ARG:HA	1.82	0.42
1:E:274:LEU:HD23	1:E:274:LEU:HA	1.80	0.42
1:E:995:MET:HA	1:E:998:LYS:HD2	2.01	0.42
1:E:1103:PHE:HE2	1:E:1215:MET:HG2	1.84	0.42
1:E:1570:LEU:HD12	1:E:1584:PRO:HD3	2.01	0.42
1:E:2130:LEU:HA	1:E:2130:LEU:HD23	1.84	0.42
1:E:2849:TYR:HB3	1:E:2886:ASP:HB3	2.02	0.42
1:E:3953:ALA:HA	1:E:4014:ILE:HG23	2.02	0.42
1:E:4506:LEU:HD13	1:E:4506:LEU:HA	1.87	0.42
1:G:37:LEU:HD13	1:G:203:VAL:HG21	2.01	0.42
1:G:442:ALA:N	1:G:443:SER:HA	2.34	0.42
1:G:604:HIS:HA	1:G:1588:VAL:HB	2.02	0.42
1:G:1428:TYR:HB3	1:G:1508:GLY:HA3	2.02	0.42
1:G:1570:LEU:HD12	1:G:1584:PRO:HD3	2.01	0.42
1:G:2124:LEU:O	1:G:2128:ARG:HG2	2.19	0.42
1:G:2264:GLU:O	1:G:2268:ARG:HG2	2.20	0.42
1:G:3876:VAL:O	1:G:3879:LEU:HG	2.20	0.42
1:G:3993:ASN:ND2	1:G:4110:MET:HA	2.35	0.42
1:G:4486:ILE:HG23	1:G:4489:GLN:H	1.84	0.42
1:G:4598:LEU:HA	1:G:4601:PHE:HB3	2.02	0.42
2:H:39:SER:HA	2:H:42:ARG:HH11	1.85	0.42
2:H:42:ARG:HD3	2:H:44:LYS:HD3	2.01	0.42
1:A:37:LEU:HD13	1:A:203:VAL:HG21	2.01	0.41
1:A:629:GLN:HB3	1:A:1664:VAL:HG23	2.01	0.41
1:A:1259:LEU:O	1:A:1594:VAL:N	2.41	0.41
1:A:1261:VAL:HG23	1:A:1596:TRP:HH2	1.84	0.41
1:A:2714:ILE:HD13	1:A:2784:LEU:HD12	2.02	0.41
1:A:3767:LEU:HD21	1:A:3774:VAL:HB	2.02	0.41
1:A:3876:VAL:O	1:A:3879:LEU:HG	2.20	0.41
1:A:3993:ASN:ND2	1:A:4110:MET:HA	2.35	0.41
1:A:4118:THR:HA	1:A:4121:GLU:HG3	2.02	0.41
1:A:4746:ASP:OD2	1:A:4746:ASP:N	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:776:GLN:HB3	1:C:1470:GLY:H	1.84	0.41
1:C:1090:ALA:HA	1:C:1249:MET:HG3	2.01	0.41
1:C:2300:LEU:HB3	1:C:2399:LEU:HG	2.01	0.41
1:C:3993:ASN:ND2	1:C:4110:MET:HA	2.35	0.41
1:C:4185:GLU:O	1:C:4189:LEU:N	2.39	0.41
1:C:4907:GLU:OE1	1:C:4907:GLU:N	2.43	0.41
1:E:797:GLY:O	1:E:1620:GLN:NE2	2.52	0.41
1:E:1007:TRP:O	1:E:1011:ARG:N	2.53	0.41
1:E:1310:CYS:SG	1:E:1537:THR:OG1	2.77	0.41
1:E:1826:TYR:HD1	1:E:1910:LEU:HD13	1.85	0.41
1:E:2463:PRO:HB3	1:E:2519:ARG:NH1	2.35	0.41
1:E:3767:LEU:HD21	1:E:3774:VAL:HB	2.02	0.41
1:G:832:LEU:HD22	1:G:1617:TRP:CG	2.54	0.41
1:G:1038:LEU:O	1:G:1043:LYS:NZ	2.37	0.41
1:G:1897:MET:HE2	1:G:1897:MET:HB3	1.84	0.41
1:G:3631:GLU:OE1	1:G:3631:GLU:N	2.45	0.41
1:G:3953:ALA:HA	1:G:4014:ILE:HG23	2.02	0.41
1:G:4566:SER:O	1:G:4566:SER:OG	2.38	0.41
1:A:718:VAL:HG12	1:A:736:CYS:HA	2.01	0.41
1:A:783:ASN:HD21	1:A:1459:LEU:HB2	1.85	0.41
1:A:850:LEU:HB2	1:A:1213:GLY:N	2.34	0.41
1:A:2528:LEU:HD23	1:A:2528:LEU:HA	1.93	0.41
1:A:4189:LEU:HA	1:A:4189:LEU:HD23	1.84	0.41
1:C:37:LEU:HD13	1:C:203:VAL:HG21	2.01	0.41
1:C:211:LEU:HA	1:C:211:LEU:HD23	1.82	0.41
1:C:722:LEU:HD23	1:C:722:LEU:HA	1.69	0.41
1:C:783:ASN:HD21	1:C:1459:LEU:HB2	1.85	0.41
1:C:1132:GLU:O	1:C:1146:HIS:NE2	2.49	0.41
1:C:1308:ILE:HD12	1:C:1308:ILE:HA	1.85	0.41
1:C:2714:ILE:HD13	1:C:2784:LEU:HD12	2.02	0.41
1:C:2830:SER:HB3	1:C:2895:LYS:HE3	2.02	0.41
1:C:4796:LYS:N	1:C:4805:MET:O	2.51	0.41
2:D:11:ASP:OD1	2:D:67:SER:OG	2.25	0.41
1:E:37:LEU:HD13	1:E:203:VAL:HG21	2.01	0.41
1:E:1308:ILE:HG22	1:E:1539:LEU:HB3	2.02	0.41
1:E:3637:PHE:N	1:E:3638:GLU:OE1	2.53	0.41
1:E:3990:ASN:HB2	1:E:4109:HIS:CE1	2.55	0.41
1:E:3993:ASN:ND2	1:E:4110:MET:HA	2.35	0.41
1:E:4566:SER:O	1:E:4566:SER:OG	2.38	0.41
1:E:4598:LEU:HA	1:E:4601:PHE:HB3	2.02	0.41
2:F:16:PRO:HD3	2:F:67:SER:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1302:TYR:N	1:G:1543:VAL:O	2.52	0.41
1:G:1645:THR:OG1	1:G:1646:GLU:OE1	2.35	0.41
1:G:1711:LEU:HD22	1:G:1831:MET:HE1	2.02	0.41
1:G:1718:ARG:NH2	1:G:1758:ARG:O	2.54	0.41
1:G:1926:ILE:HD12	1:G:1926:ILE:HA	1.80	0.41
1:G:2849:TYR:HB3	1:G:2886:ASP:HB3	2.02	0.41
1:G:3699:SER:HB2	1:G:3731:ARG:HH21	1.84	0.41
1:G:3802:SER:OG	1:G:3833:ASP:O	2.39	0.41
1:G:3886:ILE:HD12	1:G:3907:PHE:HE1	1.85	0.41
1:G:4506:LEU:HD13	1:G:4506:LEU:HA	1.86	0.41
1:A:23:GLN:HG3	1:A:36:CYS:HB3	2.02	0.41
1:A:248:PRO:HG2	1:A:257:ARG:HA	2.02	0.41
1:A:1174:MET:HA	1:A:1191:ALA:H	1.84	0.41
2:B:62:GLY:HA2	2:B:65:GLN:HB3	2.02	0.41
1:C:24:CYS:O	1:C:35:LEU:N	2.50	0.41
1:C:850:LEU:HB2	1:C:1213:GLY:N	2.34	0.41
1:C:1012:ILE:HG23	1:C:1032:LEU:HB3	2.02	0.41
1:C:1518:LEU:HD23	1:C:1531:TYR:HB2	2.02	0.41
1:C:1718:ARG:NH2	1:C:1758:ARG:O	2.54	0.41
1:C:1996:GLN:HA	1:C:1997:LEU:HD23	2.01	0.41
1:C:3990:ASN:HB2	1:C:4109:HIS:CE1	2.56	0.41
1:C:4002:ASP:O	1:C:4006:GLU:CB	2.67	0.41
2:D:4:ILE:HG12	2:D:75:THR:H	1.85	0.41
1:E:1292:SER:HB2	1:E:1547:ALA:HB1	2.01	0.41
1:E:1690:GLU:HG2	1:E:1790:LYS:HZ1	1.85	0.41
1:E:1692:LYS:HE2	1:E:1692:LYS:HB2	1.84	0.41
1:E:2065:GLU:O	1:E:2069:ARG:NH1	2.52	0.41
1:E:2127:ILE:HD12	1:E:2127:ILE:HA	1.85	0.41
1:E:2168:MET:SD	1:E:2169:HIS:N	2.94	0.41
1:E:3831:LEU:HA	1:E:3832:GLN:HA	1.67	0.41
1:E:4118:THR:HA	1:E:4121:GLU:HG3	2.02	0.41
2:F:73:LYS:HE2	2:F:73:LYS:HB3	1.92	0.41
1:G:583:PRO:O	1:G:587:ASN:ND2	2.53	0.41
1:G:770:ILE:HD13	1:G:770:ILE:HA	1.90	0.41
1:G:1597:SER:O	1:G:1598:ARG:NH1	2.53	0.41
1:G:2300:LEU:HB3	1:G:2399:LEU:HG	2.02	0.41
1:G:3637:PHE:N	1:G:3638:GLU:OE1	2.53	0.41
2:H:4:ILE:HG12	2:H:75:THR:H	1.85	0.41
1:A:128:MET:HB2	1:A:149:LEU:HD22	2.02	0.41
1:A:291:TRP:HB2	1:A:343:ARG:HH21	1.83	0.41
1:A:498:VAL:HG21	1:A:536:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:742:SER:OG	1:A:1472:GLU:OE2	2.38	0.41
1:A:990:PRO:O	1:A:994:ALA:N	2.44	0.41
1:A:1141:LYS:HE2	1:A:1141:LYS:HB2	1.85	0.41
1:A:1226:TYR:HD1	1:A:1229:ILE:HD12	1.86	0.41
1:A:1597:SER:O	1:A:1598:ARG:NH1	2.53	0.41
1:A:1773:ASN:OD1	1:A:1777:GLN:NE2	2.32	0.41
1:A:2058:THR:O	1:A:2062:LEU:N	2.43	0.41
1:A:2431:GLY:N	1:A:2477:TYR:OH	2.51	0.41
1:A:3637:PHE:N	1:A:3638:GLU:OE1	2.53	0.41
1:C:355:LYS:H	1:C:355:LYS:HG3	1.69	0.41
1:C:894:VAL:HG22	1:C:918:LEU:HA	2.03	0.41
1:C:900:LEU:HD23	1:C:900:LEU:HA	1.90	0.41
1:C:1115:VAL:HA	1:C:1205:CYS:HA	2.03	0.41
1:C:2436:VAL:O	1:C:2466:LYS:NZ	2.50	0.41
1:C:2463:PRO:HB3	1:C:2519:ARG:NH1	2.35	0.41
1:C:2623:CYS:HA	1:C:2677:LEU:HA	2.03	0.41
1:C:2703:ASN:HB2	1:C:2705:GLN:HE21	1.85	0.41
1:C:3886:ILE:HD12	1:C:3907:PHE:HE1	1.85	0.41
1:C:4598:LEU:HA	1:C:4601:PHE:HB3	2.02	0.41
2:D:23:VAL:HG12	2:D:104:LEU:HD12	2.03	0.41
1:E:498:VAL:HG21	1:E:536:LEU:HD11	2.02	0.41
1:E:718:VAL:HG12	1:E:736:CYS:HA	2.01	0.41
1:E:1718:ARG:NH2	1:E:1758:ARG:O	2.54	0.41
1:E:2883:LYS:HA	1:E:2883:LYS:HD2	1.85	0.41
1:E:4037:ASP:OD1	1:E:4037:ASP:N	2.53	0.41
1:E:4486:ILE:HG23	1:E:4489:GLN:H	1.84	0.41
1:G:601:LEU:HD11	1:G:607:ASN:H	1.85	0.41
1:G:742:SER:OG	1:G:1472:GLU:OE2	2.38	0.41
1:G:1140:PHE:HD2	1:G:1141:LYS:HZ2	1.69	0.41
1:G:1226:TYR:HD1	1:G:1229:ILE:HD12	1.86	0.41
1:G:1518:LEU:HD23	1:G:1531:TYR:HB2	2.02	0.41
1:G:2065:GLU:O	1:G:2069:ARG:NH1	2.52	0.41
1:G:2835:SER:O	1:G:2839:HIS:N	2.42	0.41
1:A:130:LEU:HA	1:A:149:LEU:HD23	2.03	0.41
1:A:434:ASP:O	1:A:437:SER:OG	2.30	0.41
1:A:495:ILE:HG13	1:A:496:ASN:H	1.84	0.41
1:A:601:LEU:HD11	1:A:607:ASN:H	1.85	0.41
1:A:2135:MET:HA	1:A:2136:GLY:HA3	1.77	0.41
1:A:3726:LEU:HD12	1:A:3726:LEU:HA	1.84	0.41
1:A:3953:ALA:HA	1:A:4014:ILE:HG23	2.02	0.41
1:A:4115:ARG:HA	1:A:4118:THR:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4140:MET:HE2	1:A:4140:MET:HB3	1.80	0.41
1:A:4511:ALA:HA	1:A:4514:ILE:HD12	2.02	0.41
2:B:44:LYS:HA	2:B:45:PRO:HD3	1.90	0.41
1:C:126:SER:HB2	1:C:128:MET:HE2	2.03	0.41
1:C:1007:TRP:O	1:C:1011:ARG:N	2.53	0.41
1:C:1117:TRP:HE3	1:C:1201:PHE:HB3	1.84	0.41
1:C:1226:TYR:HD1	1:C:1229:ILE:HD12	1.86	0.41
1:C:1261:VAL:HG23	1:C:1596:TRP:HH2	1.84	0.41
1:C:2077:GLU:OE1	1:C:2077:GLU:N	2.54	0.41
1:C:2894:LEU:HA	1:C:2897:LEU:HD12	2.02	0.41
1:C:3916:GLN:O	1:C:3920:THR:HG23	2.21	0.41
1:C:4892:CYS:SG	1:C:4893:GLY:N	2.94	0.41
2:D:16:PRO:HD3	2:D:67:SER:HA	2.02	0.41
1:E:190:ARG:HH12	1:G:2423:ILE:HG13	1.86	0.41
1:E:583:PRO:O	1:E:587:ASN:ND2	2.53	0.41
1:E:742:SER:OG	1:E:1472:GLU:OE2	2.38	0.41
1:E:1012:ILE:HG23	1:E:1032:LEU:HB3	2.02	0.41
1:E:1171:HIS:ND1	1:E:1195:PHE:O	2.53	0.41
1:E:2213:LYS:HG2	1:E:2254:LEU:HD11	2.01	0.41
1:E:2264:GLU:O	1:E:2268:ARG:HG2	2.20	0.41
1:E:2623:CYS:HA	1:E:2677:LEU:HA	2.03	0.41
1:E:3690:MET:H	1:E:3690:MET:HG2	1.44	0.41
1:E:3805:ASP:OD2	1:E:3808:ALA:N	2.37	0.41
1:E:3902:GLN:OE1	1:E:3905:ARG:NH2	2.52	0.41
1:E:3916:GLN:O	1:E:3920:THR:HG23	2.21	0.41
1:G:23:GLN:HG3	1:G:36:CYS:HB3	2.02	0.41
1:G:599:SER:O	1:G:603:LYS:HG2	2.21	0.41
1:G:673:TRP:HA	1:G:820:ALA:HB3	2.03	0.41
1:G:1115:VAL:HA	1:G:1205:CYS:HA	2.03	0.41
1:G:1292:SER:O	1:G:1292:SER:OG	2.36	0.41
1:G:1640:ASP:OD2	1:G:1643:GLU:N	2.37	0.41
1:G:2723:ASN:OD1	1:G:2761:TYR:OH	2.31	0.41
1:G:3990:ASN:HB2	1:G:4109:HIS:CE1	2.55	0.41
1:G:4115:ARG:HA	1:G:4118:THR:HG22	2.03	0.41
2:H:23:VAL:HG12	2:H:104:LEU:HD12	2.03	0.41
1:A:1117:TRP:HH2	1:A:1239:PHE:HZ	1.68	0.41
1:A:1718:ARG:NH2	1:A:1758:ARG:O	2.54	0.41
1:A:1843:LEU:HD23	1:A:1843:LEU:HA	1.84	0.41
1:A:2300:LEU:HB3	1:A:2399:LEU:HG	2.02	0.41
1:A:2896:PHE:HA	1:A:2899:ILE:HB	2.03	0.41
1:A:3886:ILE:HD12	1:A:3907:PHE:HE1	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4124:GLU:HA	1:A:4127:LEU:HD23	2.03	0.41
2:B:16:PRO:HD3	2:B:67:SER:HA	2.02	0.41
2:B:42:ARG:HD3	2:B:44:LYS:HD3	2.01	0.41
1:C:659:ILE:HG21	1:C:825:ALA:HB1	2.03	0.41
1:C:1171:HIS:ND1	1:C:1195:PHE:O	2.53	0.41
1:C:1234:GLU:OE1	1:C:1234:GLU:N	2.54	0.41
1:C:1292:SER:HB2	1:C:1547:ALA:HB1	2.01	0.41
1:C:1826:TYR:HD1	1:C:1910:LEU:HD13	1.85	0.41
1:C:2201:LEU:HD23	1:C:2201:LEU:HA	1.82	0.41
1:C:3958:LYS:H	1:C:3958:LYS:HG2	1.57	0.41
1:C:4124:GLU:HA	1:C:4127:LEU:HD23	2.03	0.41
1:E:486:GLN:NE2	1:E:544:ASN:H	2.17	0.41
1:E:894:VAL:HG22	1:E:918:LEU:HA	2.03	0.41
1:E:1226:TYR:HD1	1:E:1229:ILE:HD12	1.86	0.41
1:E:2140:GLU:H	1:E:2140:GLU:HG2	1.60	0.41
1:E:2703:ASN:OD1	1:E:2703:ASN:N	2.51	0.41
1:E:3886:ILE:HD12	1:E:3907:PHE:HE1	1.85	0.41
1:E:4206:GLN:OE1	1:E:4206:GLN:N	2.50	0.41
1:E:4892:CYS:SG	1:E:4893:GLY:N	2.94	0.41
1:E:4935:THR:O	1:E:4939:SER:OG	2.35	0.41
1:G:130:LEU:HA	1:G:149:LEU:HD23	2.03	0.41
1:G:331:PHE:HD1	1:G:331:PHE:HA	1.75	0.41
1:G:730:LEU:HG	1:G:770:ILE:HG13	2.03	0.41
1:G:2168:MET:SD	1:G:2169:HIS:N	2.94	0.41
1:G:2264:GLU:HA	1:G:2267:VAL:HG12	2.02	0.41
1:G:2463:PRO:HB3	1:G:2519:ARG:NH1	2.35	0.41
1:A:675:TYR:CZ	1:A:790:PRO:HB3	2.56	0.41
1:A:1140:PHE:HD2	1:A:1141:LYS:HZ2	1.69	0.41
1:A:1171:HIS:ND1	1:A:1195:PHE:O	2.54	0.41
1:A:1826:TYR:HD1	1:A:1910:LEU:HD13	1.85	0.41
1:A:2861:LEU:HD13	1:A:2868:ASN:HA	2.03	0.41
1:A:3990:ASN:HB2	1:A:4109:HIS:CE1	2.55	0.41
1:A:4920:LEU:O	1:A:4924:MET:HG3	2.21	0.41
1:C:583:PRO:O	1:C:587:ASN:ND2	2.53	0.41
1:C:629:GLN:HB3	1:C:1664:VAL:HG23	2.01	0.41
1:C:1001:GLU:HA	1:C:1035:TYR:CG	2.56	0.41
1:C:1445:TRP:HE3	1:C:1539:LEU:HG	1.86	0.41
1:C:1629:SER:OG	1:C:1639:VAL:O	2.28	0.41
1:C:1903:VAL:H	1:C:1903:VAL:HG23	1.65	0.41
1:C:2264:GLU:HA	1:C:2267:VAL:HG12	2.02	0.41
1:C:2861:LEU:HD13	1:C:2868:ASN:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2896:PHE:HA	1:C:2899:ILE:HB	2.03	0.41
1:C:4115:ARG:HA	1:C:4118:THR:HG22	2.03	0.41
1:C:4118:THR:HA	1:C:4121:GLU:HG3	2.02	0.41
2:D:39:SER:HA	2:D:42:ARG:HH11	1.85	0.41
1:E:23:GLN:HG3	1:E:36:CYS:HB3	2.02	0.41
1:E:290:ARG:HH21	1:E:343:ARG:HD2	1.86	0.41
1:E:308:LEU:HD23	1:E:365:HIS:CD2	2.55	0.41
1:E:529:ILE:O	1:E:532:SER:OG	2.37	0.41
1:E:1038:LEU:O	1:E:1043:LYS:NZ	2.37	0.41
1:E:1228:THR:HA	1:E:1232:LEU:HD12	2.03	0.41
1:E:1234:GLU:OE1	1:E:1234:GLU:N	2.54	0.41
1:E:2300:LEU:HB3	1:E:2399:LEU:HG	2.01	0.41
1:E:2513:MET:H	1:E:2513:MET:HG2	1.60	0.41
1:E:2894:LEU:HD22	1:E:2904:VAL:HG11	2.03	0.41
1:E:4746:ASP:OD2	1:E:4746:ASP:N	2.51	0.41
2:F:15:PHE:HA	2:F:67:SER:HA	2.01	0.41
2:F:39:SER:HA	2:F:42:ARG:HH11	1.85	0.41
1:G:319:LYS:H	1:G:319:LYS:HG3	1.59	0.41
1:G:1171:HIS:ND1	1:G:1195:PHE:O	2.53	0.41
1:G:1304:LEU:HD23	1:G:1304:LEU:HA	1.79	0.41
1:G:2267:VAL:HG23	1:G:2270:LEU:HD12	2.03	0.41
1:G:2623:CYS:HA	1:G:2677:LEU:HA	2.03	0.41
1:G:2714:ILE:HD13	1:G:2784:LEU:HD12	2.02	0.41
1:G:3916:GLN:O	1:G:3920:THR:HG23	2.21	0.41
1:G:4892:CYS:SG	1:G:4893:GLY:N	2.94	0.41
2:H:67:SER:N	2:H:70:GLN:OE1	2.53	0.41
1:A:126:SER:HB2	1:A:128:MET:HE2	2.02	0.41
1:A:732:LEU:H	1:A:732:LEU:HG	1.62	0.41
1:A:1113:MET:HE2	1:A:1113:MET:HB2	1.91	0.41
1:A:1234:GLU:OE1	1:A:1234:GLU:N	2.54	0.41
1:A:1308:ILE:HG22	1:A:1539:LEU:HB3	2.02	0.41
1:A:1428:TYR:HB3	1:A:1508:GLY:HA3	2.02	0.41
1:A:2330:GLU:O	1:A:2393:TYR:OH	2.34	0.41
1:A:2423:ILE:HG13	1:G:190:ARG:HH12	1.86	0.41
1:A:3748:SER:OG	1:A:3751:GLU:O	2.39	0.41
2:B:15:PHE:HA	2:B:67:SER:HA	2.02	0.41
1:C:694:ARG:HG2	1:C:716:ASN:HB3	2.03	0.41
1:C:1757:LEU:HD13	1:C:1757:LEU:HA	1.83	0.41
1:C:3726:LEU:HD12	1:C:3726:LEU:HA	1.84	0.41
1:C:3959:LEU:HD23	1:C:3959:LEU:HA	1.95	0.41
1:E:673:TRP:HA	1:E:820:ALA:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:730:LEU:HG	1:E:770:ILE:HG13	2.03	0.41
1:E:850:LEU:HD22	1:E:1207:LEU:HD11	2.03	0.41
1:E:1445:TRP:HE3	1:E:1539:LEU:HG	1.86	0.41
1:E:3724:LYS:HD3	1:E:3724:LYS:HA	1.96	0.41
1:E:3942:TRP:CD1	1:E:3942:TRP:H	2.39	0.41
1:G:248:PRO:HG2	1:G:257:ARG:HA	2.02	0.41
1:G:732:LEU:H	1:G:732:LEU:HG	1.62	0.41
1:G:802:PHE:N	1:G:1616:GLY:O	2.51	0.41
1:G:1228:THR:HA	1:G:1232:LEU:HD12	2.03	0.41
1:G:1259:LEU:O	1:G:1594:VAL:N	2.41	0.41
1:G:3936:LEU:HD13	1:G:3936:LEU:HA	1.89	0.41
1:G:4124:GLU:HA	1:G:4127:LEU:HD23	2.03	0.41
1:G:4511:ALA:HA	1:G:4514:ILE:HD12	2.02	0.41
1:A:308:LEU:HD23	1:A:365:HIS:CD2	2.55	0.41
1:A:599:SER:O	1:A:603:LYS:HG2	2.21	0.41
1:A:659:ILE:HG21	1:A:825:ALA:HB1	2.03	0.41
1:A:694:ARG:HG2	1:A:716:ASN:HB3	2.03	0.41
1:A:722:LEU:HD23	1:A:722:LEU:HA	1.69	0.41
1:A:773:GLN:HA	1:A:774:PRO:HD3	1.95	0.41
1:A:2264:GLU:HA	1:A:2267:VAL:HG12	2.02	0.41
1:A:2267:VAL:HG23	1:A:2270:LEU:HD12	2.03	0.41
1:A:2794:ARG:H	1:A:2794:ARG:HG3	1.72	0.41
1:A:3742:LEU:HD12	1:A:3742:LEU:HA	1.82	0.41
1:A:3993:ASN:HD22	1:A:3993:ASN:HA	1.68	0.41
1:A:4721:LEU:HD23	1:A:4721:LEU:HA	1.91	0.41
1:C:246:THR:HG23	1:C:261:HIS:HD2	1.86	0.41
1:C:248:PRO:HG2	1:C:257:ARG:HA	2.02	0.41
1:C:374:TYR:OH	1:C:400:ASP:OD2	2.27	0.41
1:C:498:VAL:HG21	1:C:536:LEU:HD11	2.02	0.41
1:C:675:TYR:CZ	1:C:790:PRO:HB3	2.56	0.41
1:C:729:GLY:N	1:C:747:HIS:O	2.48	0.41
1:C:990:PRO:O	1:C:994:ALA:N	2.44	0.41
1:C:1228:THR:HA	1:C:1232:LEU:HD12	2.03	0.41
1:C:1445:TRP:N	1:C:1487:MET:O	2.47	0.41
1:C:1810:VAL:HB	1:C:1817:LEU:HD13	2.02	0.41
1:C:2168:MET:SD	1:C:2169:HIS:N	2.94	0.41
1:C:2723:ASN:OD1	1:C:2761:TYR:OH	2.31	0.41
1:C:3953:ALA:HA	1:C:4014:ILE:HG23	2.02	0.41
1:C:4523:VAL:CG2	1:C:4558:VAL:O	2.59	0.41
1:C:4865:GLY:HA2	1:E:4868:ILE:HD13	2.03	0.41
2:D:15:PHE:HA	2:D:67:SER:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:79:ASP:OD1	2:D:79:ASP:N	2.48	0.41
1:E:122:ARG:NE	1:E:127:GLY:O	2.54	0.41
1:E:279:THR:O	1:E:296:ARG:NH2	2.36	0.41
1:E:544:ASN:HB2	1:E:547:ASN:HB2	2.01	0.41
1:E:565:LEU:HD21	1:E:603:LYS:HB3	2.03	0.41
1:E:599:SER:O	1:E:603:LYS:HG2	2.21	0.41
1:E:613:VAL:O	1:E:616:SER:OG	2.28	0.41
1:E:1001:GLU:HA	1:E:1035:TYR:CG	2.56	0.41
1:E:1306:MET:HE1	1:E:1587:HIS:HD2	1.85	0.41
1:E:1597:SER:O	1:E:1598:ARG:NH1	2.53	0.41
1:E:3671:LEU:O	1:E:3675:THR:OG1	2.29	0.41
1:E:3729:GLN:NE2	1:E:3766:ILE:O	2.45	0.41
1:E:3748:SER:OG	1:E:3751:GLU:O	2.39	0.41
1:E:3783:LYS:HA	1:E:3783:LYS:HD2	1.66	0.41
1:E:3915:LYS:HE3	1:E:3915:LYS:HB3	1.87	0.41
1:E:4115:ARG:HA	1:E:4118:THR:HG22	2.03	0.41
1:E:4124:GLU:HA	1:E:4127:LEU:HD23	2.03	0.41
2:F:23:VAL:HG12	2:F:104:LEU:HD12	2.03	0.41
2:F:67:SER:N	2:F:70:GLN:OE1	2.53	0.41
1:G:128:MET:HB2	1:G:149:LEU:HD22	2.02	0.41
1:G:565:LEU:HD21	1:G:603:LYS:HB3	2.03	0.41
1:G:675:TYR:CZ	1:G:790:PRO:HB3	2.56	0.41
1:G:694:ARG:HG2	1:G:716:ASN:HB3	2.03	0.41
1:G:894:VAL:HG22	1:G:918:LEU:HA	2.03	0.41
1:G:1001:GLU:HA	1:G:1035:TYR:CG	2.56	0.41
1:G:1753:LEU:HB3	1:G:1754:SER:H	1.73	0.41
1:G:2067:MET:HA	1:G:2070:TRP:CE3	2.56	0.41
1:G:2088:LEU:HD23	1:G:2088:LEU:HA	1.95	0.41
1:G:2495:PRO:O	1:G:2499:ALA:HB2	2.21	0.41
1:G:2841:MET:HE2	1:G:2841:MET:HB3	1.79	0.41
1:G:2883:LYS:HD2	1:G:2883:LYS:HA	1.85	0.41
1:G:3627:LYS:HA	1:G:3627:LYS:HD2	1.86	0.41
1:G:3677:LEU:HD23	1:G:3677:LEU:HA	1.81	0.41
1:G:4118:THR:HA	1:G:4121:GLU:HG3	2.02	0.41
2:H:15:PHE:HA	2:H:67:SER:HA	2.01	0.41
1:A:25:THR:HG22	1:A:34:LYS:HG2	2.03	0.41
1:A:365:HIS:CE1	1:A:367:GLY:H	2.39	0.41
1:A:894:VAL:HG22	1:A:918:LEU:HA	2.03	0.41
1:A:1156:TRP:CH2	1:A:1158:ALA:HA	2.56	0.41
1:A:1228:THR:HA	1:A:1232:LEU:HD12	2.03	0.41
1:A:1810:VAL:HB	1:A:1817:LEU:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2024:LEU:HD13	1:A:2026:ILE:HD13	2.03	0.41
1:A:2463:PRO:HB3	1:A:2519:ARG:NH1	2.35	0.41
2:B:4:ILE:HG12	2:B:75:THR:H	1.85	0.41
1:C:23:GLN:HG3	1:C:36:CYS:HB3	2.02	0.41
1:C:25:THR:HG22	1:C:34:LYS:HG2	2.03	0.41
1:C:122:ARG:NE	1:C:127:GLY:O	2.54	0.41
1:C:299:HIS:N	1:C:304:LYS:O	2.47	0.41
1:C:403:LEU:HD23	1:C:403:LEU:HA	1.92	0.41
1:C:601:LEU:HD11	1:C:607:ASN:H	1.85	0.41
1:C:614:LEU:HB2	1:C:1660:LEU:HD11	2.03	0.41
1:C:632:ILE:HD13	1:C:632:ILE:HA	1.91	0.41
1:C:1302:TYR:N	1:C:1543:VAL:O	2.52	0.41
1:C:1790:LYS:HD2	1:C:1790:LYS:HA	1.92	0.41
1:C:3637:PHE:N	1:C:3638:GLU:OE1	2.53	0.41
1:E:191:TYR:CE2	1:G:2327:ARG:NH2	2.89	0.41
1:E:450:GLU:H	1:E:450:GLU:CD	2.29	0.41
1:E:1156:TRP:CH2	1:E:1158:ALA:HA	2.56	0.41
1:E:1302:TYR:N	1:E:1543:VAL:O	2.52	0.41
1:E:1522:ALA:N	1:E:1525:LYS:O	2.38	0.41
1:E:1538:LYS:HZ2	1:E:1538:LYS:HG3	1.62	0.41
1:E:2067:MET:HA	1:E:2070:TRP:CE3	2.56	0.41
2:F:16:PRO:HG3	2:F:103:LEU:HD22	2.04	0.41
1:G:246:THR:HG23	1:G:261:HIS:HD2	1.86	0.41
1:G:308:LEU:HD23	1:G:365:HIS:CD2	2.55	0.41
1:G:424:PHE:O	1:G:428:ARG:NE	2.35	0.41
1:G:894:VAL:HA	1:G:918:LEU:HD22	2.02	0.41
1:G:1306:MET:HE1	1:G:1587:HIS:HD2	1.85	0.41
1:G:1576:LYS:HD2	1:G:1576:LYS:HA	1.77	0.41
1:G:1705:LEU:HD23	1:G:1705:LEU:HA	1.78	0.41
1:A:61:ASP:OD1	1:A:63:SER:N	2.54	0.40
1:A:299:HIS:N	1:A:304:LYS:O	2.47	0.40
1:A:604:HIS:HA	1:A:1588:VAL:HB	2.02	0.40
1:A:614:LEU:HB2	1:A:1660:LEU:HD11	2.03	0.40
1:A:894:VAL:HA	1:A:918:LEU:HD22	2.02	0.40
1:A:3942:TRP:CD1	1:A:3942:TRP:H	2.39	0.40
1:A:3954:HIS:O	1:A:3958:LYS:NZ	2.45	0.40
1:A:4631:TRP:CZ2	1:A:4712:GLY:HA3	2.56	0.40
1:A:4871:PHE:HD1	1:A:4871:PHE:HA	1.76	0.40
2:B:39:SER:HA	2:B:42:ARG:HH11	1.85	0.40
2:B:74:LEU:O	2:B:99:PHE:N	2.39	0.40
1:C:130:LEU:HA	1:C:149:LEU:HD23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:565:LEU:HD21	1:C:603:LYS:HB3	2.03	0.40
1:C:734:SER:OG	1:C:739:ARG:NH1	2.45	0.40
1:C:973:THR:OG1	1:C:976:TYR:O	2.36	0.40
1:C:1156:TRP:CH2	1:C:1158:ALA:HA	2.56	0.40
1:C:1308:ILE:HG22	1:C:1539:LEU:HB3	2.02	0.40
1:C:1428:TYR:HB3	1:C:1508:GLY:HA3	2.02	0.40
1:C:1707:ILE:HA	1:C:1711:LEU:HD12	2.03	0.40
1:C:2067:MET:HA	1:C:2070:TRP:CE3	2.56	0.40
1:C:2543:ALA:HA	1:C:2873:VAL:HG21	2.03	0.40
1:C:2840:ALA:HB3	1:C:2906:ARG:HD3	2.04	0.40
2:D:17:LYS:HE3	2:D:17:LYS:HB3	1.82	0.40
1:E:25:THR:HG22	1:E:34:LYS:HG2	2.03	0.40
1:E:126:SER:HB2	1:E:128:MET:HE2	2.03	0.40
1:E:128:MET:HB2	1:E:149:LEU:HD22	2.02	0.40
1:E:505:LEU:HD22	1:E:526:TRP:CD1	2.56	0.40
1:E:659:ILE:HG21	1:E:825:ALA:HB1	2.03	0.40
1:E:675:TYR:CZ	1:E:790:PRO:HB3	2.56	0.40
1:E:694:ARG:HG2	1:E:716:ASN:HB3	2.03	0.40
1:E:1428:TYR:HB3	1:E:1508:GLY:HA3	2.02	0.40
1:E:2166:LEU:HA	1:E:2166:LEU:HD23	1.88	0.40
1:G:122:ARG:NE	1:G:127:GLY:O	2.54	0.40
1:G:694:ARG:O	1:G:793:SER:N	2.41	0.40
1:G:1097:LYS:HZ2	1:G:1097:LYS:HG3	1.72	0.40
1:G:2769:LYS:O	1:G:2773:ARG:N	2.44	0.40
1:G:2894:LEU:HD22	1:G:2904:VAL:HG11	2.03	0.40
1:G:4503:MET:HB3	1:G:4503:MET:HE3	1.84	0.40
1:G:4631:TRP:CZ2	1:G:4712:GLY:HA3	2.56	0.40
1:G:4636:ILE:H	1:G:4636:ILE:HG13	1.72	0.40
2:H:62:GLY:HA2	2:H:65:GLN:HB3	2.02	0.40
1:A:583:PRO:O	1:A:587:ASN:ND2	2.54	0.40
1:A:953:SER:OG	1:A:1061:GLY:O	2.32	0.40
1:A:1258:PHE:HA	1:A:1595:LEU:HA	2.04	0.40
1:A:1654:HIS:O	1:A:1657:THR:OG1	2.21	0.40
1:A:1897:MET:HE2	1:A:1897:MET:HB3	1.84	0.40
1:A:4892:CYS:SG	1:A:4893:GLY:N	2.94	0.40
1:A:4905:GLY:O	1:A:4909:HIS:N	2.42	0.40
1:C:365:HIS:CE1	1:C:367:GLY:H	2.39	0.40
1:C:599:SER:O	1:C:603:LYS:HG2	2.21	0.40
1:C:1942:ARG:HD3	1:C:1942:ARG:HA	1.91	0.40
1:C:2794:ARG:H	1:C:2794:ARG:HG3	1.72	0.40
1:C:3677:LEU:HD23	1:C:3677:LEU:HA	1.81	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3784:GLU:HB2	1:C:3785:LYS:HZ1	1.86	0.40
1:C:4082:GLU:HG3	1:C:4086:LYS:HB2	2.04	0.40
1:C:4120:LEU:HD23	1:C:4120:LEU:HA	1.97	0.40
1:C:4198:ILE:HD13	1:C:4198:ILE:HA	1.87	0.40
1:C:4920:LEU:O	1:C:4924:MET:HG3	2.21	0.40
1:E:130:LEU:HA	1:E:149:LEU:HD23	2.03	0.40
1:E:601:LEU:HD11	1:E:607:ASN:H	1.85	0.40
1:E:2714:ILE:HD13	1:E:2784:LEU:HD12	2.02	0.40
1:E:3958:LYS:H	1:E:3958:LYS:HG2	1.57	0.40
1:E:4511:ALA:HA	1:E:4514:ILE:HD12	2.02	0.40
1:E:4615:GLY:O	1:E:4619:THR:OG1	2.35	0.40
1:G:39:ALA:HB1	1:G:149:LEU:HD11	2.03	0.40
1:G:266:ALA:HB1	1:G:269:VAL:HB	2.04	0.40
1:G:290:ARG:HH21	1:G:343:ARG:HD2	1.86	0.40
1:G:365:HIS:CE1	1:G:367:GLY:H	2.39	0.40
1:G:464:HIS:HD2	1:G:478:ARG:HH22	1.70	0.40
1:G:1826:TYR:HD1	1:G:1910:LEU:HD13	1.85	0.40
1:G:1936:LYS:O	1:G:1940:ASN:ND2	2.39	0.40
1:G:1942:ARG:HA	1:G:1942:ARG:HD3	1.91	0.40
1:G:2896:PHE:HA	1:G:2899:ILE:HB	2.03	0.40
1:G:4635:VAL:O	1:G:4638:THR:OG1	2.30	0.40
1:G:4736:ASN:ND2	1:G:4738:PHE:HB2	2.37	0.40
1:A:850:LEU:HD22	1:A:1207:LEU:HD11	2.03	0.40
1:A:1233:GLN:H	1:A:1233:GLN:HG3	1.73	0.40
1:A:1445:TRP:HE3	1:A:1539:LEU:HG	1.86	0.40
1:A:2521:LEU:HD23	1:A:2521:LEU:HA	1.96	0.40
1:A:2894:LEU:HD22	1:A:2904:VAL:HG11	2.03	0.40
2:B:23:VAL:HG12	2:B:104:LEU:HD12	2.03	0.40
1:C:190:ARG:HH12	1:E:2423:ILE:HG13	1.85	0.40
1:C:2026:ILE:HG13	1:C:2029:ARG:HH22	1.87	0.40
1:C:3785:LYS:H	1:C:3785:LYS:HG2	1.71	0.40
1:C:4844:ARG:NH1	1:C:4847:PHE:HB3	2.37	0.40
1:E:39:ALA:HB1	1:E:149:LEU:HD11	2.03	0.40
1:E:464:HIS:HD2	1:E:478:ARG:HH22	1.70	0.40
1:E:614:LEU:HB2	1:E:1660:LEU:HD11	2.03	0.40
1:E:990:PRO:O	1:E:994:ALA:N	2.44	0.40
1:E:1157:GLN:NE2	1:E:1158:ALA:H	2.20	0.40
1:E:2024:LEU:HD13	1:E:2026:ILE:HD13	2.03	0.40
1:G:14:LEU:HB2	1:G:113:LEU:HB2	2.04	0.40
1:G:73:LEU:HD23	1:G:73:LEU:HA	1.97	0.40
1:G:659:ILE:HG21	1:G:825:ALA:HB1	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:850:LEU:HD22	1:G:1207:LEU:HD11	2.03	0.40
1:G:1709:ILE:HD13	1:G:1709:ILE:HA	1.87	0.40
1:G:2026:ILE:HG13	1:G:2029:ARG:HH22	1.87	0.40
1:G:2431:GLY:N	1:G:2477:TYR:OH	2.51	0.40
1:G:3696:MET:O	1:G:3699:SER:OG	2.27	0.40
1:G:3740:MET:HE2	1:G:3740:MET:HB2	1.92	0.40
1:G:4746:ASP:OD2	1:G:4746:ASP:N	2.51	0.40
1:A:290:ARG:HH21	1:A:343:ARG:HD2	1.86	0.40
1:A:730:LEU:HG	1:A:770:ILE:HG13	2.02	0.40
1:A:1001:GLU:HA	1:A:1035:TYR:CG	2.56	0.40
1:A:2026:ILE:HG13	1:A:2029:ARG:HH22	1.87	0.40
1:A:2166:LEU:HD23	1:A:2166:LEU:HA	1.88	0.40
1:A:2167:GLY:HA2	1:A:2169:HIS:CE1	2.57	0.40
1:A:2168:MET:SD	1:A:2169:HIS:N	2.94	0.40
1:A:2345:LEU:HD12	1:A:2348:MET:HG3	2.04	0.40
1:A:2876:ASP:N	1:A:2876:ASP:OD1	2.36	0.40
1:A:3729:GLN:O	1:A:3733:HIS:ND1	2.36	0.40
1:A:3936:LEU:HD13	1:A:3936:LEU:HA	1.89	0.40
1:C:61:ASP:OD1	1:C:63:SER:OG	2.38	0.40
1:C:128:MET:HB2	1:C:149:LEU:HD22	2.02	0.40
1:C:266:ALA:HB1	1:C:269:VAL:HB	2.04	0.40
1:C:1258:PHE:HA	1:C:1595:LEU:HA	2.04	0.40
1:C:2011:GLU:O	1:C:3629:TRP:NE1	2.55	0.40
1:C:2024:LEU:HD13	1:C:2026:ILE:HD13	2.03	0.40
1:C:2140:GLU:H	1:C:2140:GLU:HG2	1.61	0.40
1:C:3731:ARG:HH11	1:C:3731:ARG:HD3	1.77	0.40
1:E:433:LEU:HD13	1:E:504:ARG:HB3	2.04	0.40
1:E:897:LYS:HB3	1:E:897:LYS:HE3	1.86	0.40
1:E:1843:LEU:HD23	1:E:1843:LEU:HA	1.84	0.40
1:E:2135:MET:HA	1:E:2136:GLY:HA3	1.77	0.40
1:E:2495:PRO:O	1:E:2499:ALA:HB2	2.21	0.40
1:E:2543:ALA:HA	1:E:2873:VAL:HG21	2.03	0.40
1:E:2703:ASN:HB2	1:E:2705:GLN:HE21	1.85	0.40
1:E:2840:ALA:HB3	1:E:2906:ARG:HD3	2.03	0.40
1:E:4729:MET:HB3	1:E:4743:HIS:CD2	2.57	0.40
1:G:262:TYR:CE2	1:G:374:TYR:HB3	2.56	0.40
1:G:433:LEU:HD13	1:G:504:ARG:HB3	2.04	0.40
1:G:498:VAL:HG21	1:G:536:LEU:HD11	2.02	0.40
1:G:505:LEU:HD22	1:G:526:TRP:CD1	2.56	0.40
1:G:626:ARG:HE	1:G:626:ARG:HB3	1.70	0.40
1:G:716:ASN:HD22	1:G:793:SER:HB3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1703:TYR:CD2	1:G:1820:PRO:HB2	2.52	0.40
1:G:2024:LEU:HD13	1:G:2026:ILE:HD13	2.03	0.40
1:G:2110:ASN:OD1	1:G:2113:SER:OG	2.30	0.40
1:G:2523:THR:HA	1:G:2526:LEU:HD12	2.04	0.40
1:G:3992:VAL:HG13	1:G:3993:ASN:H	1.87	0.40
2:H:16:PRO:HG3	2:H:103:LEU:HD22	2.03	0.40
1:A:466:PRO:HA	1:A:478:ARG:NH1	2.37	0.40
1:A:1012:ILE:HG23	1:A:1032:LEU:HB3	2.02	0.40
1:A:1115:VAL:HA	1:A:1205:CYS:HA	2.03	0.40
1:A:1904:LYS:HA	1:A:1907:MET:HB3	2.04	0.40
1:A:2011:GLU:O	1:A:3629:TRP:NE1	2.55	0.40
1:A:2623:CYS:HA	1:A:2677:LEU:HA	2.03	0.40
1:A:3805:ASP:OD2	1:A:3808:ALA:N	2.37	0.40
1:A:3831:LEU:HA	1:A:3832:GLN:HA	1.67	0.40
1:A:4611:LEU:HD23	1:A:4611:LEU:HA	1.93	0.40
1:C:433:LEU:HD13	1:C:504:ARG:HB3	2.04	0.40
1:C:505:LEU:HD22	1:C:526:TRP:CD1	2.57	0.40
1:C:730:LEU:HG	1:C:770:ILE:HG13	2.03	0.40
1:C:2523:THR:HA	1:C:2526:LEU:HD12	2.04	0.40
1:C:3738:ALA:HB3	1:C:3778:MET:HE3	2.04	0.40
1:C:3992:VAL:HG13	1:C:3993:ASN:H	1.87	0.40
1:C:4511:ALA:HA	1:C:4514:ILE:HD12	2.02	0.40
1:E:150:GLN:NE2	1:E:152:ASP:O	2.55	0.40
1:E:246:THR:HG23	1:E:261:HIS:HD2	1.86	0.40
1:E:262:TYR:CE2	1:E:374:TYR:HB3	2.56	0.40
1:E:365:HIS:CE1	1:E:367:GLY:H	2.39	0.40
1:E:632:ILE:HD13	1:E:632:ILE:HA	1.91	0.40
1:E:3773:THR:C	1:E:3777:LYS:HZ2	2.30	0.40
1:E:3992:VAL:HG13	1:E:3993:ASN:H	1.87	0.40
1:E:4736:ASN:ND2	1:E:4738:PHE:HB2	2.37	0.40
1:E:4844:ARG:NH1	1:E:4847:PHE:HB3	2.37	0.40
1:E:4920:LEU:O	1:E:4924:MET:HG3	2.21	0.40
1:G:1087:ILE:HA	1:G:1206:SER:HA	2.04	0.40
1:G:1113:MET:HE2	1:G:1113:MET:HB2	1.92	0.40
1:G:1231:GLY:H	1:G:1234:GLU:CD	2.30	0.40
1:G:2127:ILE:HD12	1:G:2127:ILE:HA	1.84	0.40
1:G:2130:LEU:HD23	1:G:2130:LEU:HA	1.84	0.40
1:G:2794:ARG:H	1:G:2794:ARG:HG3	1.72	0.40
1:G:4729:MET:HB3	1:G:4743:HIS:CD2	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3356/4968 (68%)	2877 (86%)	469 (14%)	10 (0%)	36	71
1	C	3356/4968 (68%)	2877 (86%)	469 (14%)	10 (0%)	36	71
1	E	3356/4968 (68%)	2876 (86%)	470 (14%)	10 (0%)	36	71
1	G	3356/4968 (68%)	2879 (86%)	467 (14%)	10 (0%)	36	71
2	B	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	D	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	F	105/108 (97%)	93 (89%)	12 (11%)	0	100	100
2	H	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
All	All	13844/20304 (68%)	11884 (86%)	1920 (14%)	40 (0%)	37	71

All (40) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1477	HIS
1	C	1477	HIS
1	E	1477	HIS
1	G	1477	HIS
1	A	730	LEU
1	C	730	LEU
1	E	730	LEU
1	G	730	LEU
1	A	143	LEU
1	A	1580	PRO
1	A	4597	PRO
1	C	143	LEU
1	C	1580	PRO
1	C	4597	PRO
1	E	143	LEU
1	E	1580	PRO
1	E	4597	PRO

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Mol	Chain	Res	Type
1	G	143	LEU
1	G	1580	PRO
1	G	4597	PRO
1	A	4888	LYS
1	C	4888	LYS
1	E	4888	LYS
1	G	4888	LYS
1	A	4596	VAL
1	C	4596	VAL
1	E	4596	VAL
1	G	4596	VAL
1	A	828	PRO
1	A	980	PRO
1	C	828	PRO
1	C	980	PRO
1	E	828	PRO
1	E	980	PRO
1	G	828	PRO
1	G	980	PRO
1	A	1535	PRO
1	C	1535	PRO
1	E	1535	PRO
1	G	1535	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2673/4355 (61%)	2632 (98%)	41 (2%)	57	70
1	C	2672/4355 (61%)	2632 (98%)	40 (2%)	57	70
1	E	2672/4355 (61%)	2633 (98%)	39 (2%)	57	70
1	G	2671/4355 (61%)	2632 (98%)	39 (2%)	57	70
2	B	88/89 (99%)	86 (98%)	2 (2%)	44	63
2	D	88/89 (99%)	86 (98%)	2 (2%)	44	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	F	88/89 (99%)	86 (98%)	2 (2%)	44	63
2	H	88/89 (99%)	86 (98%)	2 (2%)	44	63
All	All	11040/17776 (62%)	10873 (98%)	167 (2%)	55	70

All (167) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	260	VAL
1	A	261	HIS
1	A	436	LEU
1	A	584	GLU
1	A	625	VAL
1	A	771	ASN
1	A	925	PRO
1	A	950	VAL
1	A	990	PRO
1	A	1125	ASP
1	A	1268	ILE
1	A	1706	LEU
1	A	1787	LEU
1	A	2258	LEU
1	A	2263	LEU
1	A	2301	ASP
1	A	3671	LEU
1	A	3784	GLU
1	A	3905	ARG
1	A	3972	LEU
1	A	3990	ASN
1	A	3991	VAL
1	A	3992	VAL
1	A	4028	THR
1	A	4043	VAL
1	A	4044	ILE
1	A	4045	SER
1	A	4079	LEU
1	A	4102	LEU
1	A	4109	HIS
1	A	4122	LEU
1	A	4521	TYR
1	A	4523	VAL
1	A	4558	VAL

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Mol	Chain	Res	Type
1	A	4632	ASP
1	A	4714	VAL
1	A	4754	LEU
1	A	4781	LEU
1	A	4782	TYR
1	A	4871	PHE
1	A	4900	ASP
2	B	32	ASN
2	B	79	ASP
1	C	260	VAL
1	C	261	HIS
1	C	436	LEU
1	C	584	GLU
1	C	625	VAL
1	C	771	ASN
1	C	925	PRO
1	C	950	VAL
1	C	990	PRO
1	C	1125	ASP
1	C	1268	ILE
1	C	1706	LEU
1	C	1787	LEU
1	C	2258	LEU
1	C	2263	LEU
1	C	2301	ASP
1	C	3671	LEU
1	C	3784	GLU
1	C	3905	ARG
1	C	3972	LEU
1	C	3990	ASN
1	C	3991	VAL
1	C	3992	VAL
1	C	4028	THR
1	C	4043	VAL
1	C	4044	ILE
1	C	4045	SER
1	C	4079	LEU
1	C	4102	LEU
1	C	4109	HIS
1	C	4122	LEU
1	C	4521	TYR
1	C	4558	VAL

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Mol	Chain	Res	Type
1	C	4632	ASP
1	C	4714	VAL
1	C	4754	LEU
1	C	4781	LEU
1	C	4782	TYR
1	C	4871	PHE
1	C	4900	ASP
2	D	32	ASN
2	D	79	ASP
1	E	260	VAL
1	E	261	HIS
1	E	436	LEU
1	E	584	GLU
1	E	625	VAL
1	E	771	ASN
1	E	925	PRO
1	E	950	VAL
1	E	990	PRO
1	E	1125	ASP
1	E	1268	ILE
1	E	1706	LEU
1	E	1787	LEU
1	E	2258	LEU
1	E	2301	ASP
1	E	3671	LEU
1	E	3784	GLU
1	E	3905	ARG
1	E	3972	LEU
1	E	3990	ASN
1	E	3991	VAL
1	E	3992	VAL
1	E	4028	THR
1	E	4043	VAL
1	E	4044	ILE
1	E	4045	SER
1	E	4079	LEU
1	E	4102	LEU
1	E	4109	HIS
1	E	4122	LEU
1	E	4521	TYR
1	E	4558	VAL
1	E	4632	ASP

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Mol	Chain	Res	Type
1	E	4714	VAL
1	E	4754	LEU
1	E	4781	LEU
1	E	4782	TYR
1	E	4871	PHE
1	E	4900	ASP
2	F	32	ASN
2	F	79	ASP
1	G	260	VAL
1	G	261	HIS
1	G	436	LEU
1	G	584	GLU
1	G	625	VAL
1	G	771	ASN
1	G	925	PRO
1	G	950	VAL
1	G	990	PRO
1	G	1125	ASP
1	G	1268	ILE
1	G	1706	LEU
1	G	1787	LEU
1	G	2258	LEU
1	G	2301	ASP
1	G	3671	LEU
1	G	3784	GLU
1	G	3905	ARG
1	G	3972	LEU
1	G	3990	ASN
1	G	3991	VAL
1	G	3992	VAL
1	G	4028	THR
1	G	4043	VAL
1	G	4044	ILE
1	G	4045	SER
1	G	4079	LEU
1	G	4102	LEU
1	G	4109	HIS
1	G	4122	LEU
1	G	4521	TYR
1	G	4558	VAL
1	G	4632	ASP
1	G	4714	VAL

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Mol	Chain	Res	Type
1	G	4754	LEU
1	G	4781	LEU
1	G	4782	TYR
1	G	4871	PHE
1	G	4900	ASP
2	H	32	ASN
2	H	79	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (217) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	32	GLN
1	A	106	GLN
1	A	123	HIS
1	A	150	GLN
1	A	225	GLN
1	A	394	HIS
1	A	427	ASN
1	A	484	ASN
1	A	487	ASN
1	A	547	ASN
1	A	587	ASN
1	A	593	HIS
1	A	630	HIS
1	A	635	ASN
1	A	651	HIS
1	A	776	GLN
1	A	914	GLN
1	A	915	HIS
1	A	971	GLN
1	A	1157	GLN
1	A	1265	HIS
1	A	1601	ASN
1	A	1602	GLN
1	A	1626	GLN
1	A	1631	HIS
1	A	1636	ASN
1	A	1654	HIS
1	A	1722	ASN
1	A	1762	GLN
1	A	1772	ASN
1	A	1946	ASN

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Mol	Chain	Res	Type
1	A	2072	GLN
1	A	2211	ASN
1	A	2310	ASN
1	A	2740	ASN
1	A	2820	HIS
1	A	2848	ASN
1	A	3611	ASN
1	A	3667	GLN
1	A	3799	GLN
1	A	3845	GLN
1	A	3906	ASN
1	A	3919	ASN
1	A	3926	GLN
1	A	3965	GLN
1	A	3993	ASN
1	A	4098	ASN
1	A	4128	ASN
1	A	4192	ASN
1	A	4764	ASN
1	A	4880	GLN
1	A	4918	ASN
2	B	31	GLN
2	B	32	ASN
1	C	32	GLN
1	C	106	GLN
1	C	110	HIS
1	C	123	HIS
1	C	150	GLN
1	C	225	GLN
1	C	394	HIS
1	C	427	ASN
1	C	484	ASN
1	C	487	ASN
1	C	547	ASN
1	C	587	ASN
1	C	593	HIS
1	C	630	HIS
1	C	635	ASN
1	C	651	HIS
1	C	776	GLN
1	C	914	GLN
1	C	915	HIS

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Mol	Chain	Res	Type
1	C	971	GLN
1	C	1157	GLN
1	C	1265	HIS
1	C	1601	ASN
1	C	1602	GLN
1	C	1626	GLN
1	C	1631	HIS
1	C	1636	ASN
1	C	1654	HIS
1	C	1722	ASN
1	C	1762	GLN
1	C	1772	ASN
1	C	2072	GLN
1	C	2153	ASN
1	C	2211	ASN
1	C	2310	ASN
1	C	2740	ASN
1	C	2848	ASN
1	C	3611	ASN
1	C	3667	GLN
1	C	3799	GLN
1	C	3845	GLN
1	C	3906	ASN
1	C	3919	ASN
1	C	3926	GLN
1	C	3965	GLN
1	C	3993	ASN
1	C	4098	ASN
1	C	4128	ASN
1	C	4165	GLN
1	C	4192	ASN
1	C	4764	ASN
1	C	4880	GLN
1	C	4918	ASN
2	D	31	GLN
2	D	32	ASN
2	D	70	GLN
1	E	32	GLN
1	E	106	GLN
1	E	123	HIS
1	E	150	GLN
1	E	225	GLN

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Mol	Chain	Res	Type
1	E	394	HIS
1	E	427	ASN
1	E	484	ASN
1	E	487	ASN
1	E	547	ASN
1	E	587	ASN
1	E	593	HIS
1	E	630	HIS
1	E	635	ASN
1	E	651	HIS
1	E	776	GLN
1	E	914	GLN
1	E	915	HIS
1	E	971	GLN
1	E	1157	GLN
1	E	1265	HIS
1	E	1601	ASN
1	E	1602	GLN
1	E	1626	GLN
1	E	1631	HIS
1	E	1636	ASN
1	E	1722	ASN
1	E	1762	GLN
1	E	1772	ASN
1	E	2072	GLN
1	E	2153	ASN
1	E	2211	ASN
1	E	2310	ASN
1	E	2740	ASN
1	E	2848	ASN
1	E	3611	ASN
1	E	3667	GLN
1	E	3771	ASN
1	E	3799	GLN
1	E	3845	GLN
1	E	3906	ASN
1	E	3919	ASN
1	E	3926	GLN
1	E	3993	ASN
1	E	4098	ASN
1	E	4128	ASN
1	E	4192	ASN

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Mol	Chain	Res	Type
1	E	4764	ASN
1	E	4880	GLN
1	E	4918	ASN
2	F	31	GLN
2	F	32	ASN
1	G	32	GLN
1	G	106	GLN
1	G	110	HIS
1	G	123	HIS
1	G	150	GLN
1	G	225	GLN
1	G	394	HIS
1	G	427	ASN
1	G	484	ASN
1	G	487	ASN
1	G	547	ASN
1	G	587	ASN
1	G	593	HIS
1	G	630	HIS
1	G	635	ASN
1	G	651	HIS
1	G	776	GLN
1	G	914	GLN
1	G	915	HIS
1	G	971	GLN
1	G	1157	GLN
1	G	1265	HIS
1	G	1601	ASN
1	G	1602	GLN
1	G	1626	GLN
1	G	1631	HIS
1	G	1636	ASN
1	G	1722	ASN
1	G	1762	GLN
1	G	1772	ASN
1	G	2072	GLN
1	G	2153	ASN
1	G	2211	ASN
1	G	2252	ASN
1	G	2310	ASN
1	G	2740	ASN
1	G	2848	ASN

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Mol	Chain	Res	Type
1	G	3611	ASN
1	G	3667	GLN
1	G	3799	GLN
1	G	3845	GLN
1	G	3906	ASN
1	G	3919	ASN
1	G	3926	GLN
1	G	3993	ASN
1	G	4061	GLN
1	G	4098	ASN
1	G	4128	ASN
1	G	4192	ASN
1	G	4764	ASN
1	G	4767	GLN
1	G	4880	GLN
1	G	4918	ASN
2	H	31	GLN
2	H	32	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 12 ligands modelled in this entry, 8 are monoatomic - leaving 4 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	$\# Z > 2$
5	CFF	A	6002	-	15,15,15	2.25	8 (53%)	23,23,23	2.83	9 (39%)
5	CFF	E	6002	-	15,15,15	2.25	8 (53%)	23,23,23	2.82	9 (39%)
5	CFF	C	6002	-	15,15,15	2.25	8 (53%)	23,23,23	2.83	9 (39%)
5	CFF	G	6002	-	15,15,15	2.25	8 (53%)	23,23,23	2.83	9 (39%)

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
5	CFF	A	6002	-	-	-	0/2/2/2
5	CFF	E	6002	-	-	-	0/2/2/2
5	CFF	C	6002	-	-	-	0/2/2/2
5	CFF	G	6002	-	-	-	0/2/2/2

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	G	6002	CFF	C6-N1	-4.37	1.31	1.40
5	A	6002	CFF	C6-N1	-4.37	1.31	1.40
5	E	6002	CFF	C6-N1	-4.37	1.31	1.40
5	C	6002	CFF	C6-N1	-4.34	1.31	1.40
5	G	6002	CFF	C4-N3	-3.29	1.32	1.38
5	A	6002	CFF	C4-N3	-3.29	1.32	1.38
5	C	6002	CFF	C4-N3	-3.29	1.32	1.38
5	E	6002	CFF	C4-N3	-3.29	1.32	1.38
5	A	6002	CFF	C5-N7	-2.71	1.33	1.38
5	C	6002	CFF	C5-N7	-2.71	1.33	1.38
5	E	6002	CFF	C5-N7	-2.67	1.33	1.38
5	G	6002	CFF	C5-N7	-2.67	1.33	1.38
5	A	6002	CFF	C2-N3	-2.51	1.34	1.39
5	G	6002	CFF	C2-N3	-2.51	1.34	1.39
5	C	6002	CFF	C2-N3	-2.50	1.34	1.39
5	E	6002	CFF	C2-N3	-2.50	1.34	1.39
5	A	6002	CFF	C2-N1	-2.49	1.34	1.39
5	C	6002	CFF	C2-N1	-2.49	1.34	1.39
5	G	6002	CFF	C2-N1	-2.49	1.34	1.39
5	E	6002	CFF	O13-C6	-2.48	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	6002	CFF	C2-N1	-2.47	1.34	1.39
5	A	6002	CFF	O13-C6	-2.46	1.18	1.23
5	C	6002	CFF	O13-C6	-2.46	1.18	1.23
5	G	6002	CFF	O13-C6	-2.46	1.18	1.23
5	C	6002	CFF	O11-C2	-2.45	1.18	1.22
5	E	6002	CFF	O11-C2	-2.41	1.18	1.22
5	G	6002	CFF	O11-C2	-2.41	1.18	1.22
5	A	6002	CFF	O11-C2	-2.38	1.18	1.22
5	E	6002	CFF	C5-C6	-2.26	1.37	1.43
5	A	6002	CFF	C5-C6	-2.25	1.37	1.43
5	C	6002	CFF	C5-C6	-2.25	1.37	1.43
5	G	6002	CFF	C5-C6	-2.25	1.37	1.43

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	6002	CFF	C14-N7-C8	-7.86	111.57	126.28
5	C	6002	CFF	C14-N7-C8	-7.86	111.57	126.28
5	E	6002	CFF	C14-N7-C8	-7.86	111.57	126.28
5	G	6002	CFF	C14-N7-C8	-7.86	111.57	126.28
5	E	6002	CFF	C14-N7-C5	5.33	140.45	127.77
5	G	6002	CFF	C14-N7-C5	5.33	140.45	127.77
5	A	6002	CFF	C14-N7-C5	5.32	140.44	127.77
5	C	6002	CFF	C14-N7-C5	5.32	140.44	127.77
5	G	6002	CFF	C5-C6-N1	4.48	120.27	112.06
5	A	6002	CFF	C5-C6-N1	4.48	120.26	112.06
5	C	6002	CFF	C5-C6-N1	4.47	120.26	112.06
5	E	6002	CFF	C5-C6-N1	4.46	120.23	112.06
5	A	6002	CFF	C6-N1-C2	-3.54	119.91	125.66
5	G	6002	CFF	C6-N1-C2	-3.54	119.91	125.66
5	C	6002	CFF	C6-N1-C2	-3.54	119.91	125.66
5	E	6002	CFF	C6-N1-C2	-3.53	119.93	125.66
5	C	6002	CFF	N3-C4-N9	2.98	130.95	126.27
5	G	6002	CFF	N3-C4-N9	2.98	130.95	126.27
5	A	6002	CFF	N3-C4-N9	2.96	130.93	126.27
5	E	6002	CFF	N3-C4-N9	2.96	130.93	126.27
5	A	6002	CFF	C6-C5-C4	-2.92	119.24	122.92
5	C	6002	CFF	C6-C5-C4	-2.92	119.24	122.92
5	G	6002	CFF	C6-C5-C4	-2.92	119.24	122.92
5	E	6002	CFF	C6-C5-C4	-2.88	119.30	122.92
5	A	6002	CFF	N7-C8-N9	-2.82	108.36	113.48
5	E	6002	CFF	N7-C8-N9	-2.82	108.36	113.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	G	6002	CFF	N7-C8-N9	-2.82	108.36	113.48
5	C	6002	CFF	N7-C8-N9	-2.82	108.37	113.48
5	A	6002	CFF	O13-C6-C5	-2.81	120.63	126.38
5	C	6002	CFF	O13-C6-C5	-2.81	120.63	126.38
5	G	6002	CFF	O13-C6-C5	-2.81	120.63	126.38
5	E	6002	CFF	O13-C6-C5	-2.78	120.68	126.38
5	A	6002	CFF	N3-C2-N1	2.21	119.90	117.14
5	G	6002	CFF	N3-C2-N1	2.21	119.90	117.14
5	C	6002	CFF	N3-C2-N1	2.19	119.87	117.14
5	E	6002	CFF	N3-C2-N1	2.17	119.85	117.14

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

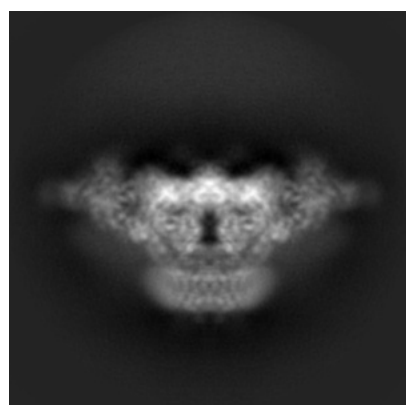
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9826. These allow visual inspection of the internal detail of the map and identification of artifacts.

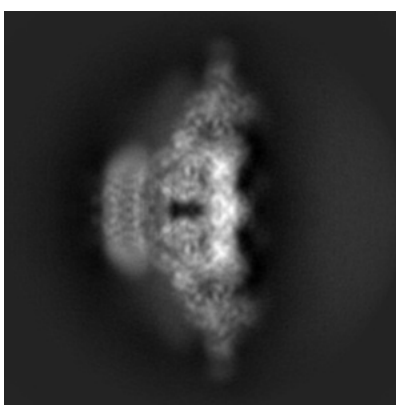
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

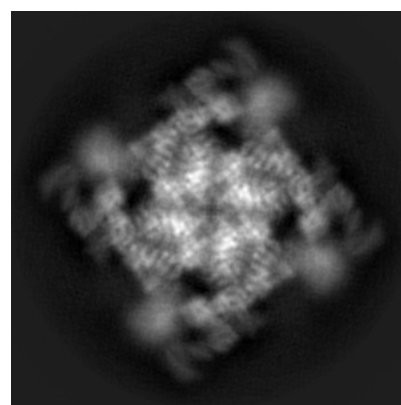
6.1.1 Primary map



X



Y

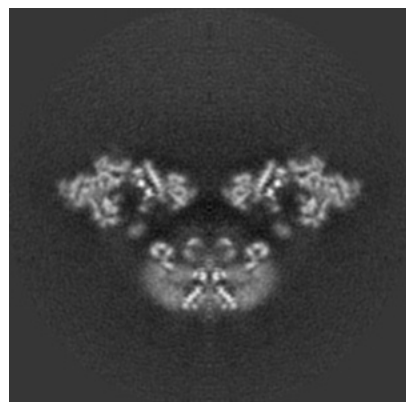


Z

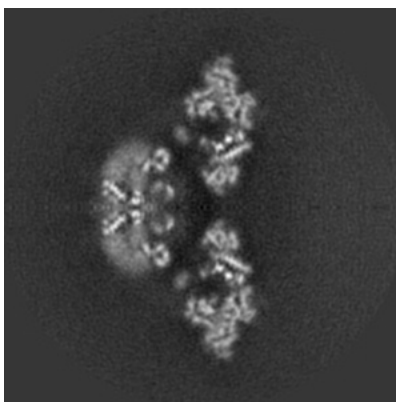
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

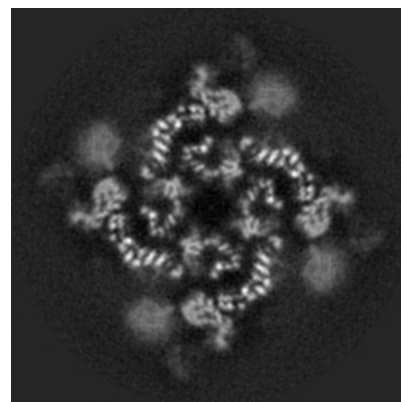
6.2.1 Primary map



X Index: 200



Y Index: 200

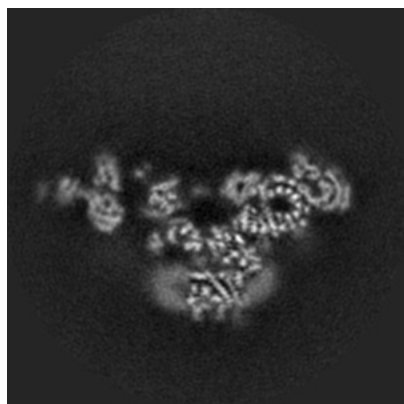


Z Index: 200

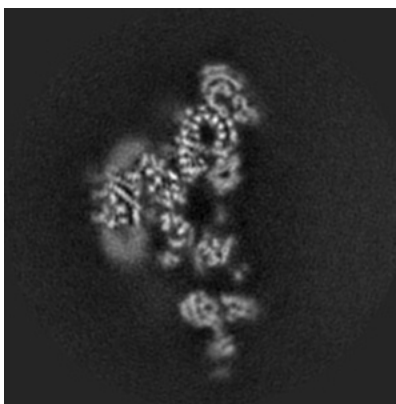
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

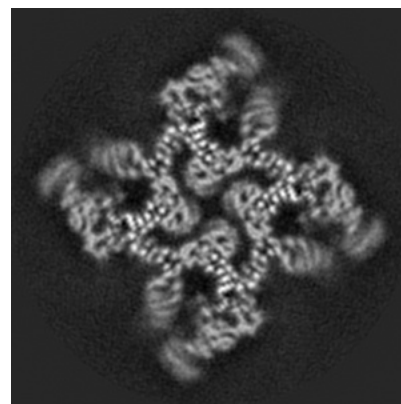
6.3.1 Primary map



X Index: 187



Y Index: 213

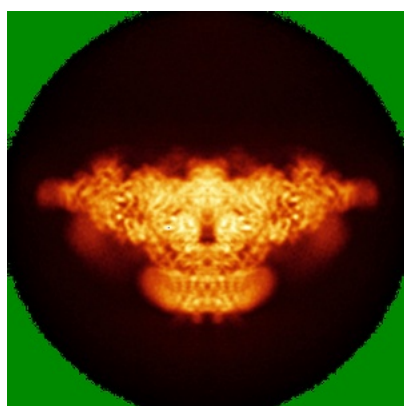


Z Index: 217

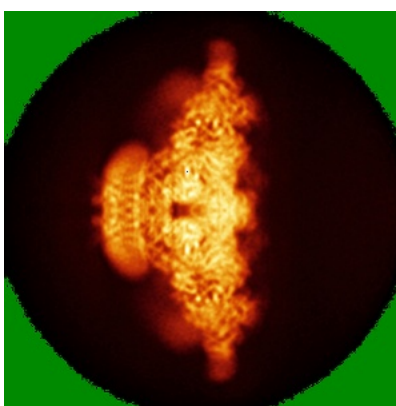
The images above show the largest variance slices of the map in three orthogonal directions.

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

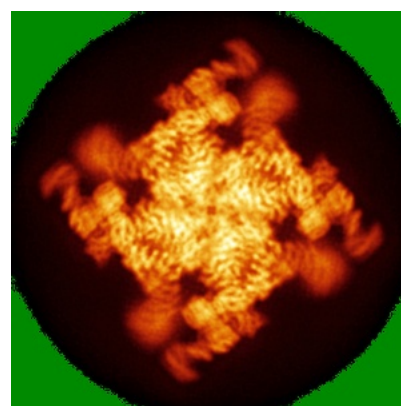
6.4.1 Primary map



X



Y

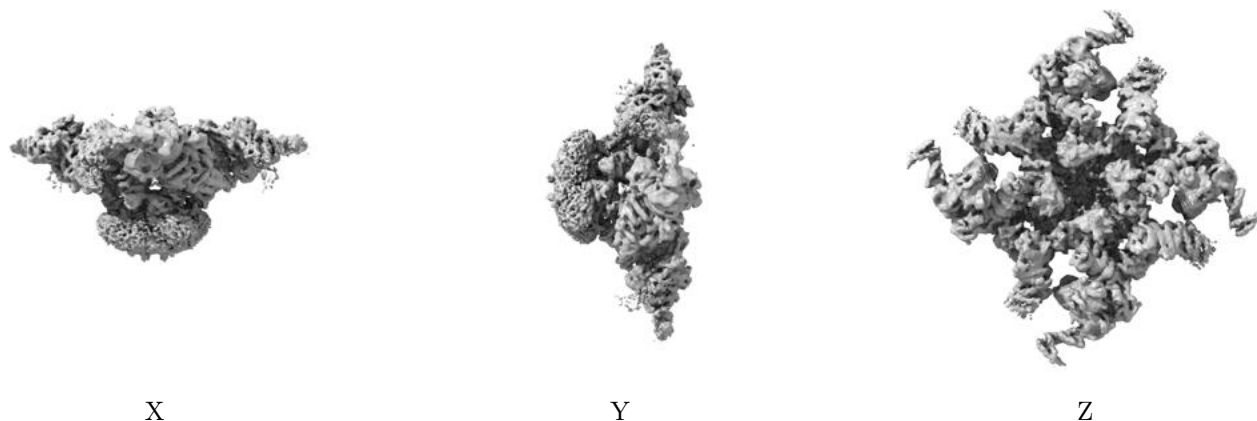


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

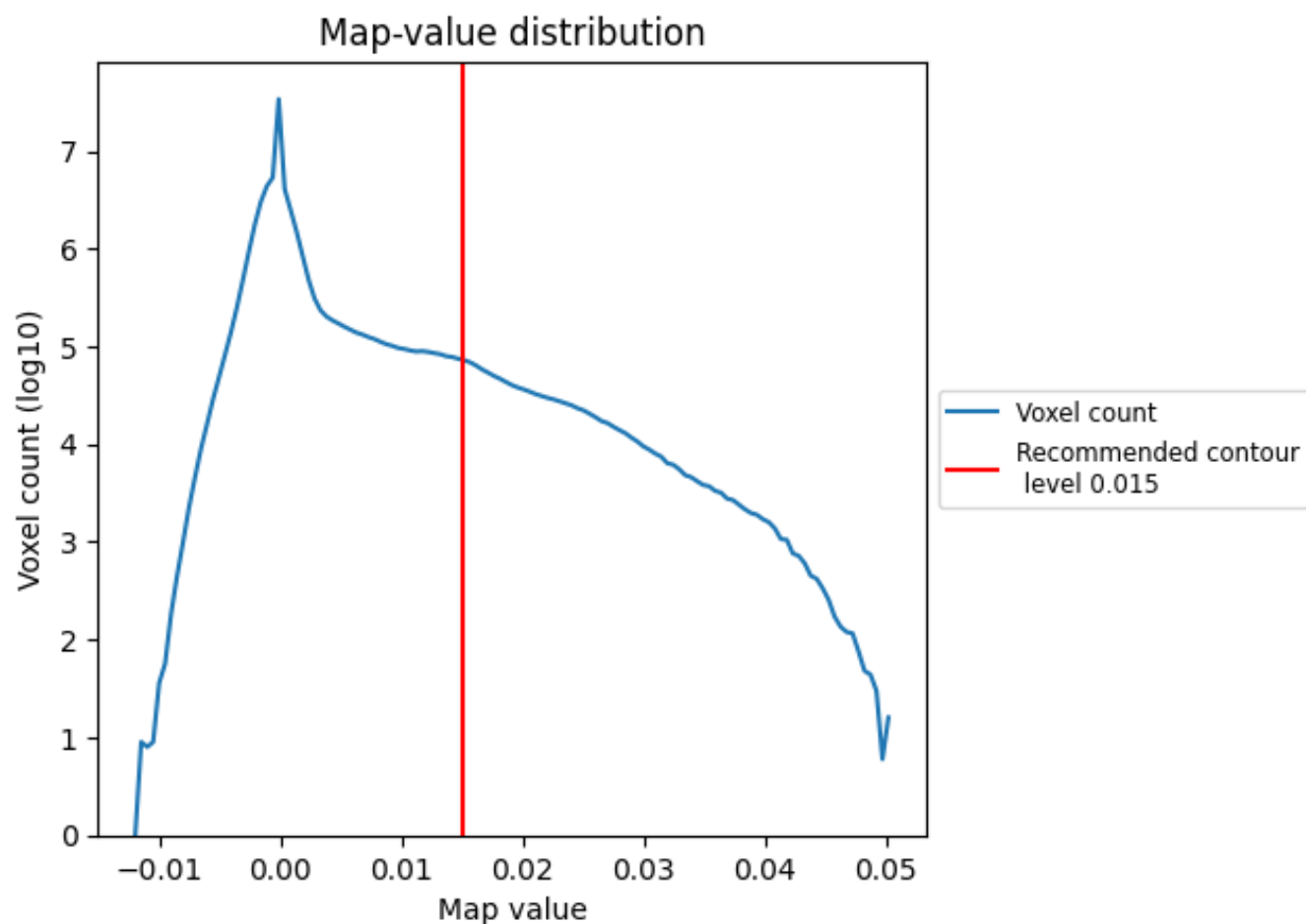
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

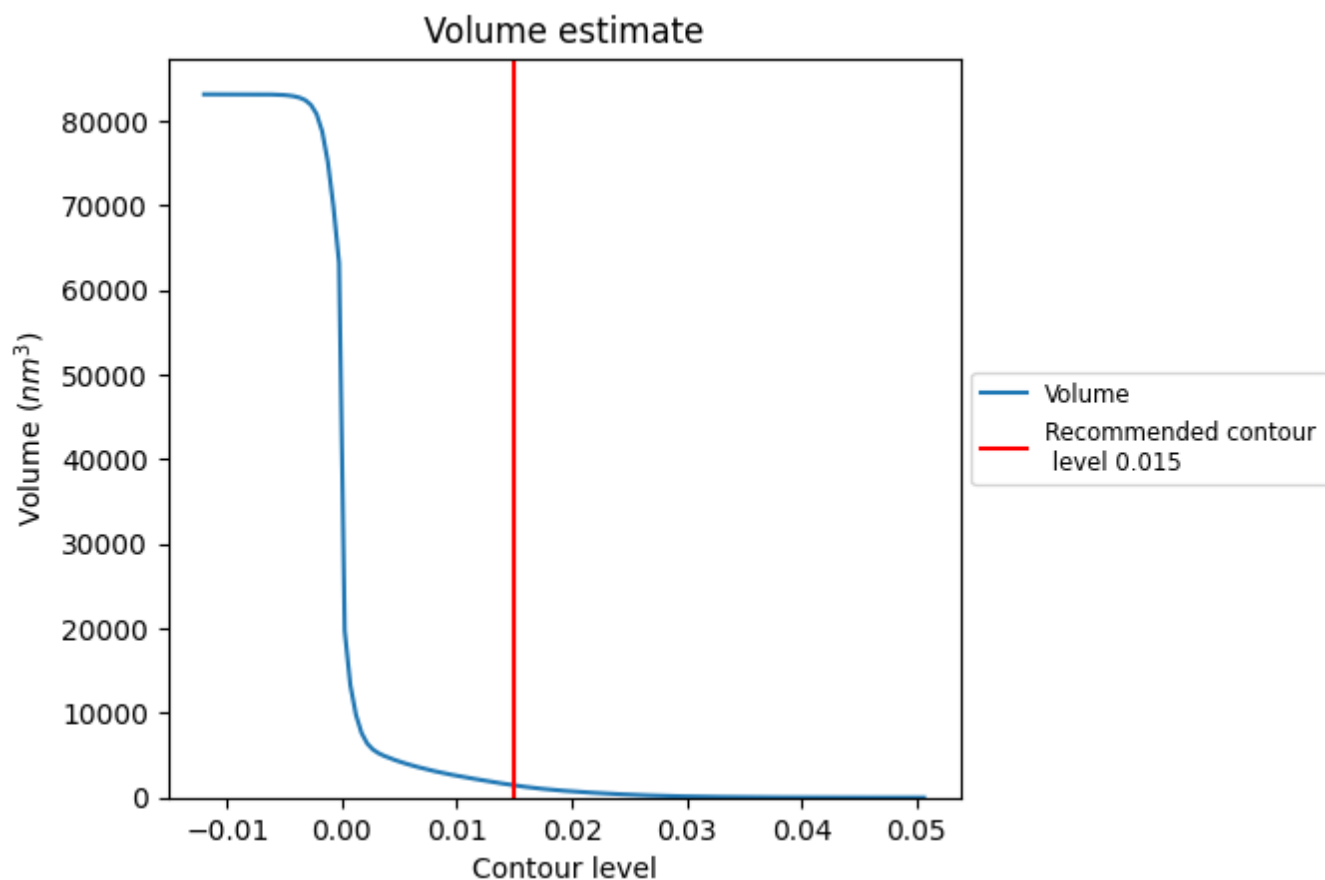
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

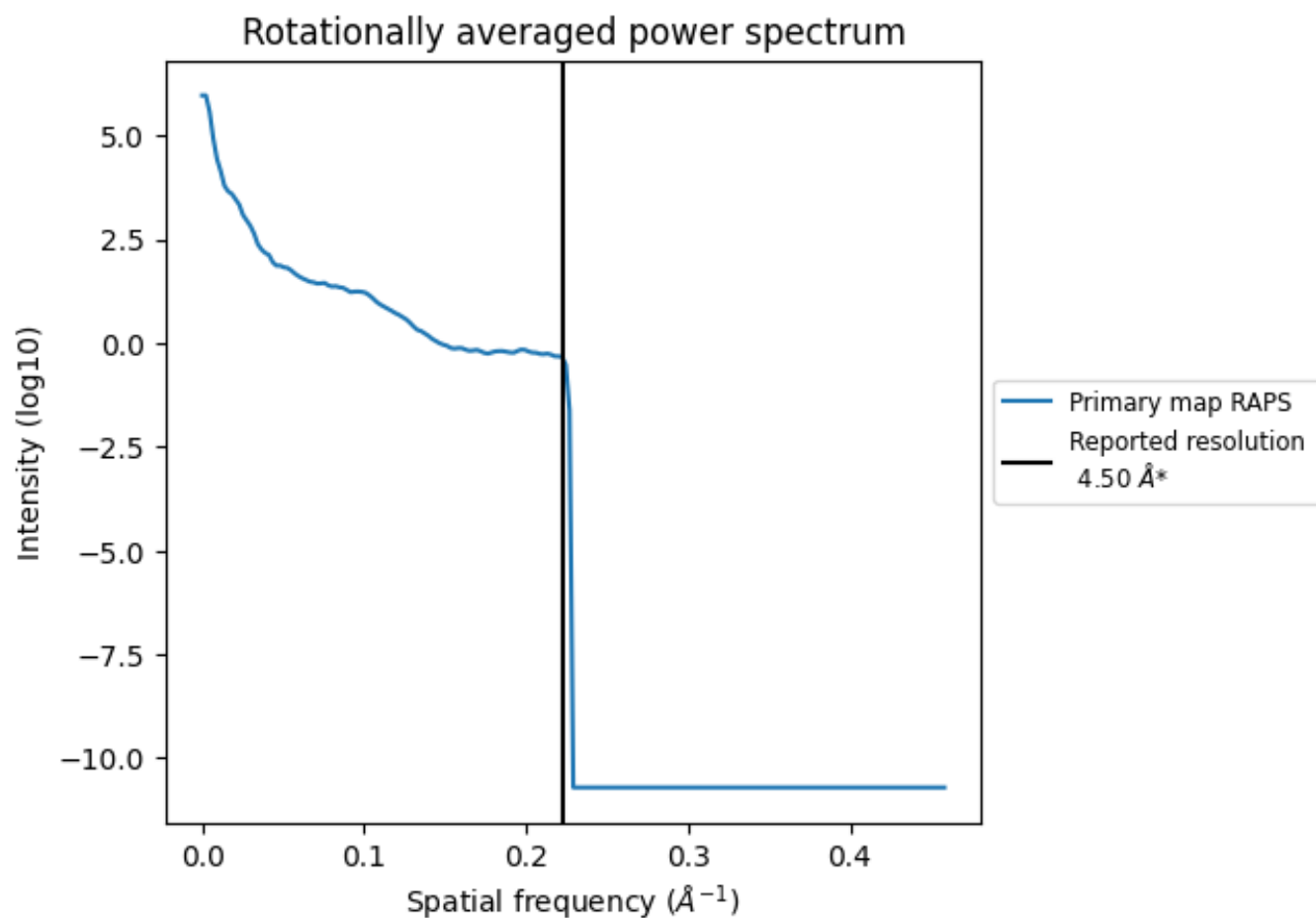
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1448 nm³; this corresponds to an approximate mass of 1308 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

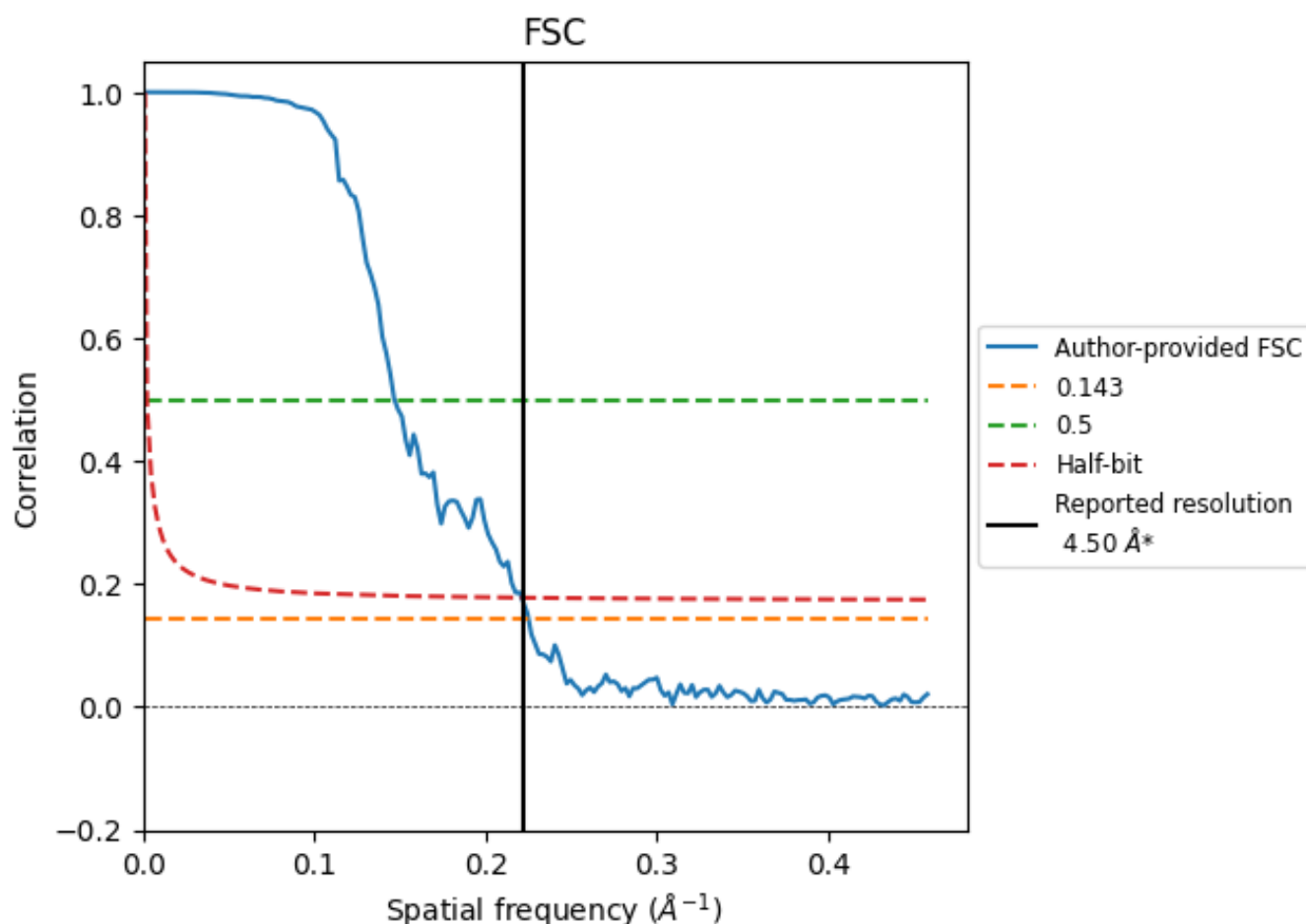


*Reported resolution corresponds to spatial frequency of 0.222 Å⁻¹

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 0.222 Å⁻¹

8.2 Resolution estimates [i](#)

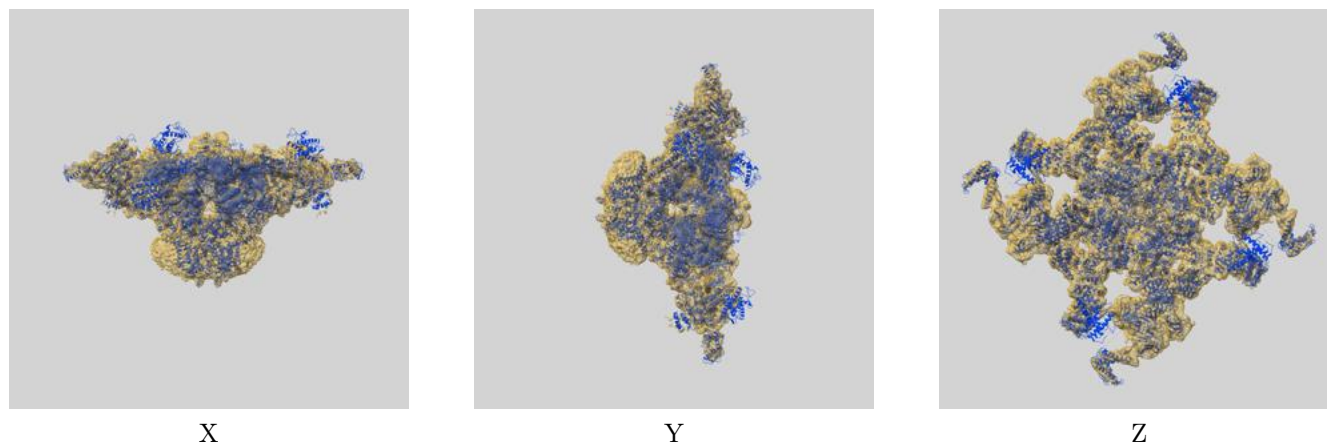
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.50	-	-
Author-provided FSC curve	4.44	6.81	4.52
Unmasked-calculated*	-	-	-

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

9 Map-model fit [i](#)

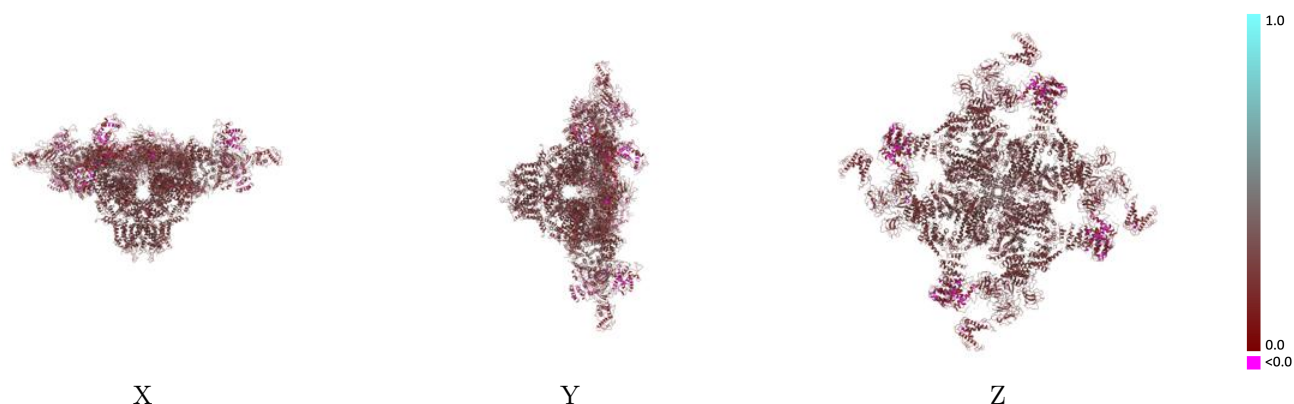
This section contains information regarding the fit between EMDB map EMD-9826 and PDB model 6JHN. Per-residue inclusion information can be found in section [3](#) on page [6](#).

9.1 Map-model overlay [i](#)



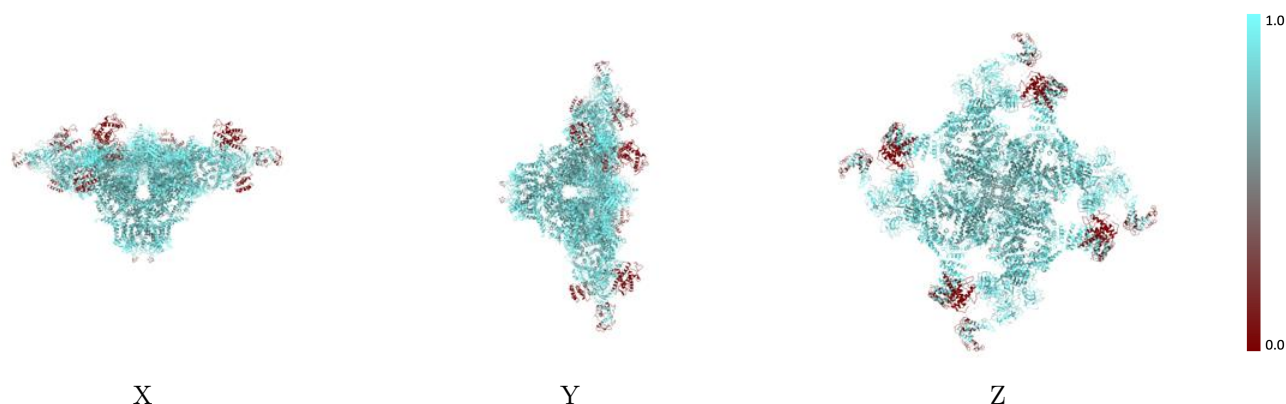
The images above show the 3D surface view of the map at the recommended contour level 0.015 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



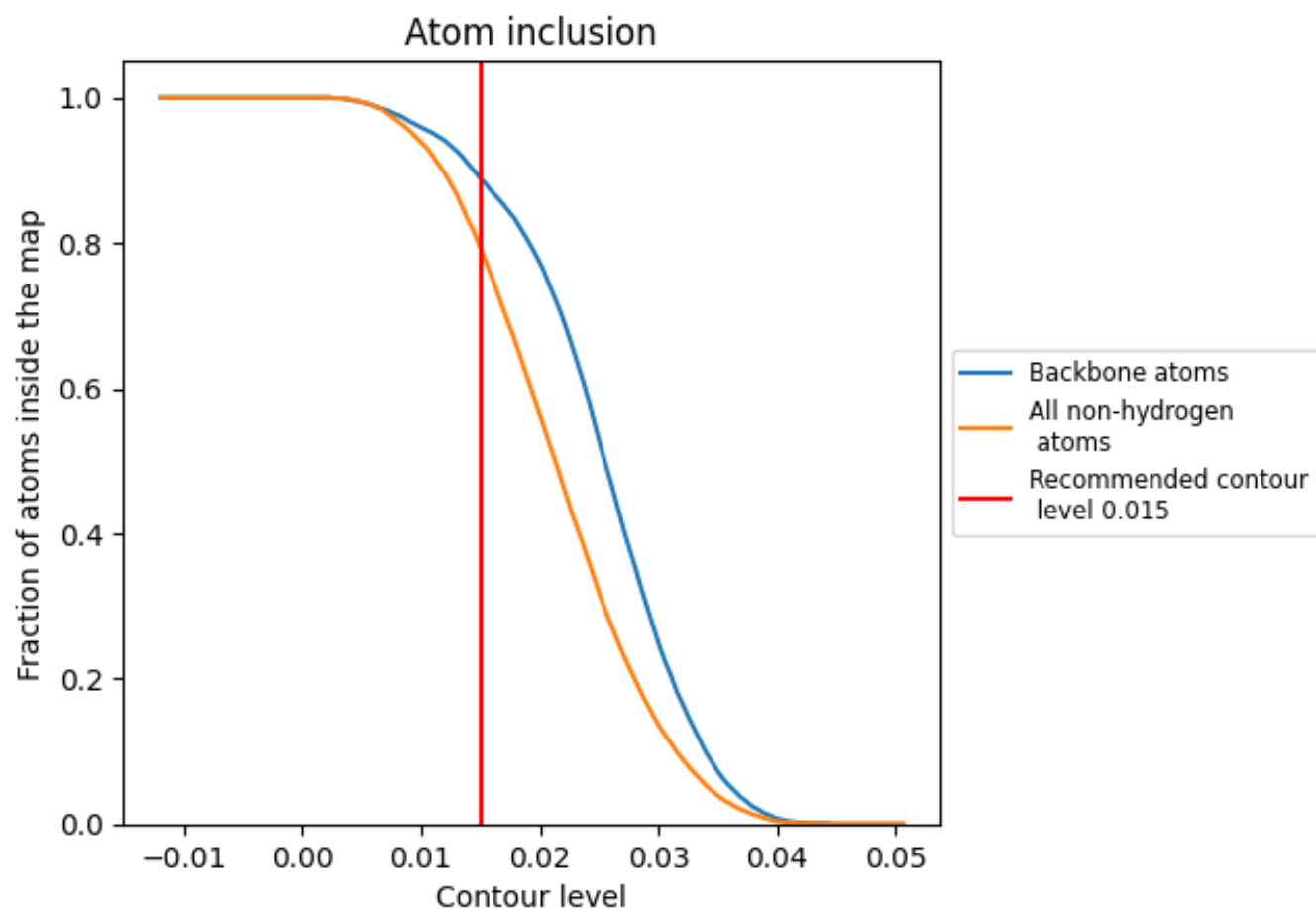
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.015).

9.4 Atom inclusion [i](#)



At the recommended contour level, 89% of all backbone atoms, 79% 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 (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7930	0.2520
A	0.7920	0.2520
B	0.8320	0.2670
C	0.7920	0.2520
D	0.8320	0.2660
E	0.7920	0.2520
F	0.8320	0.2680
G	0.7920	0.2520
H	0.8320	0.2670

1.0

0.0

<0.0