



Full wwPDB EM Validation Report ⓘ

Nov 15, 2022 – 03:02 AM JST

PDB ID : 6JV2
EMDB ID : EMD-9889
Title : Structure of RyR2 (P/L-Ca²⁺/Ca²⁺-CaM dataset)
Authors : Gong, D.S.; Chi, X.M.; Zhou, G.W.; Huang, G.X.Y.; Lei, J.L.; Yan, N.
Deposited on : 2019-04-15
Resolution : 4.40 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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

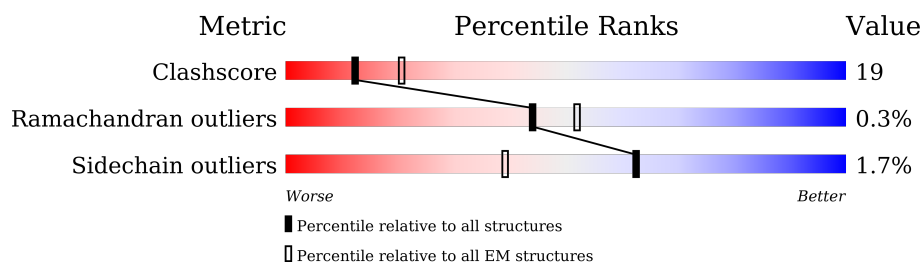
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.40 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	<div> <div>7%</div> <div>42%</div> <div>27%</div> <div>•</div> <div>29%</div> </div>
1	C	4968	<div> <div>7%</div> <div>42%</div> <div>28%</div> <div>•</div> <div>29%</div> </div>
1	E	4968	<div> <div>7%</div> <div>42%</div> <div>27%</div> <div>•</div> <div>29%</div> </div>
1	G	4968	<div> <div>7%</div> <div>42%</div> <div>28%</div> <div>•</div> <div>29%</div> </div>
2	B	149	<div> <div>55%</div> <div>58%</div> <div>30%</div> <div>11%</div> </div>
2	D	149	<div> <div>55%</div> <div>59%</div> <div>30%</div> <div>11%</div> </div>
2	F	149	<div> <div>55%</div> <div>61%</div> <div>28%</div> <div>11%</div> </div>
2	H	149	<div> <div>55%</div> <div>59%</div> <div>30%</div> <div>11%</div> </div>

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 111080 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	3509	Total	C	N	O	S	0	0
			26722	17028	4575	4961	158		
1	C	3509	Total	C	N	O	S	0	0
			26722	17028	4575	4961	158		
1	E	3509	Total	C	N	O	S	0	0
			26722	17028	4575	4961	158		
1	G	3509	Total	C	N	O	S	0	0
			26722	17028	4575	4961	158		

- Molecule 2 is a protein called Calmodulin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	132	Total	C	N	O	S	0	0
			1042	643	169	221	9		
2	D	132	Total	C	N	O	S	0	0
			1042	643	169	221	9		
2	F	132	Total	C	N	O	S	0	0
			1042	643	169	221	9		
2	H	132	Total	C	N	O	S	0	0
			1042	643	169	221	9		

- Molecule 3 is ZINC ION (three-letter code: 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 (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		AltConf
4	A	1	Total 1	Ca 1	0
4	B	4	Total 4	Ca 4	0
4	C	1	Total 1	Ca 1	0
4	D	4	Total 4	Ca 4	0
4	E	1	Total 1	Ca 1	0
4	F	4	Total 4	Ca 4	0
4	G	1	Total 1	Ca 1	0
4	H	4	Total 4	Ca 4	0





L4022	K4023	L4024	K4025	D4026	L4027	D3943	L4028	L4029	S4030	P4031	K4034	E4035	P4038	D4039	K4040	K4041	L4044	S4045	K4046	R4047	F4048	F4049	H4050	K4051	E4054	H4058	F4059	T4060	K4061	S4062	F4063	T4064	L4068	A4071	E4072	T4073	D4074	E4077	T4078	L4079	D4080	F4081	E4082	E4083	K4086	R4087	F4088	H4089	E4090	P4091	A4092			
L3844	Q3945	H3851	N3852	K3942	D3943	L3944	V3945	S4030	N3857	L3949	Q3956	L3959	Q3960	Q3961	D3962	Q3965	S4045	F3966	F3967	L3968	D4048	L3969	K3970	L3972	M3973	D3974	L3975	Q3976	K3977	D3978	L3889	D3900	E3901	V3980	V3981	M3982	L3983	L3984	S3985	M3986	N3990	N3993	G3994	T3995	L3996	G3997	L3998	E4082	E4083	N4009	N4010	L4015	F4018	
S3714	F3715	K3718	K3724	Q3729	R3735	Q3743	L3762	F3766	Q3775	L3873	Y3781	E3784	K3785	V3882	S3885	W3891	L3892	L3893	K3896	L3797	S3800	L3883	E3884	E3885	L3886	L3887	L3888	Y3692	D3694	A3697	K3698	S3699	C3700	HIS	M3820	V3821	THR	GLU	GLU	ASP	T3922	E3923	F3924	L3925	Q3926	C3929	N3932							
K3647	P3648	GLY	VAL	PRO	GLU	GLU	ASP	GLY	THR	LYS	K3585	K3586	D3663	P3664	L3665	H3666	Q3667	L3670	S3673	R3674	T3675	T3678	E3679	K3682	L3683	E3684	E3685	L3686	L3687	L3688	Y3692	D3694	A3697	K3698	S3699	C3700	HIS	M3820	V3821	THR	GLU	GLU	ASP	T3922	E3923	F3924	L3925	Q3926	C3929	N3932				
ARG	TYR	SER	VAL	GLU	HIS	PRO	GLN	GLY	SER	LYS	K3585	A3586	V3587	W3588	H3589	K3590	L3591	L3592	S3593	K3594	Q3595	R3596	K3597	R3605	P3608	L3609	Y3610	N3611	P3613	R3614	H3615	R3616	L3622	Q3623	G3624	Y3625	E3626	K3627	T3630	O3631	L3632	E3633	O3634	H3635	Y3636	F3637	E3638	D3639	L3640	L3645	A3646			
SER	ASN	ILE	HIS	LEU	GLN	GLY	LYS	LEU	THR	ALA	ILE	ARG	TRP	GLN	VAL	LYS	TYR	LYS	ASP	LEU	PRO	ASN	GLY	ASP	THR	SER	PRO	GLY	ILE	GLN	VAL	GLU	ARG	ALA	ASN	PHE	LYS	VAL	LEU	LYS	MET	TYR	ASN	ARG	ALA	VAL	GLY	ARG						
LYS	MET	LYS	ARG	LYS	LEU	GLY	ASP	ARG	TYR	SER	THR	LEU	ILE	VAL	LYS	LEU	ARG	LEU	PRO	ILE	GLY	ASN	GLY	VAL	CYS	PRO	ASN	GLY	ILE	GLN	ALA	LEU	ALA	ASN	THR	ASP	ARG	THR	LYS	SER	VAL	LEU	LYS	MET	TYR	ASN	ARG	ALA	VAL	GLY	ARG			
LEU	GLY	LYS	MET	THR	LEU	GLY	ASN	VAL	ASN	GLY	ILE	SER	TYR	ASN	GLY	ILE	VAL	VAL	TRP	ILE	TRP	ASN	ASN	GLY	MET	CYS	GLN	PHE	LEU	VAL	THR	VAL	PHE	THR	ASN	ASN	GLU	ARG	ASN	GLY	ASN	PRO	CYS	THR	LYS	MET	GLY	LEU	PRO	GLY	ASN	SER		
ASN	HIS	ARG	LEU	Y2982	F2983	ALA	L2984	A2987	C2992	H2996	K3000	E3001	V3005	THR	ALA	ALA	SER	LEU	F3009	L3012	V3016	T3028	SER	ILE	VAL	ASN	CYS	L3034	H3035	I3036	L3037	G3038	Q3039	T3040	L3041	D3042	K3055	SER	ALA	LEU	ARG	ALA	VAL	L3069	E3074	N3075	Q3078	G3079	T3082					
ILE	GLY	LYS	ARG	PHE	TYR	SER	PHE	LEU	GLN	ILE	ILE	TYR	VAL	ASP	GLY	HIS	GLN	TYR	ILE	LEU	PHE	GLY	GLY	SER	ARG	ASN	LYS	GLY	GLY	HIS	PHE	PRO	GLN	GLY	ILE	LYS	LYS	PHE	PHE	LYS	VAL	LEU	PRO	ILE	GLN	TYR	PHE	LYS						

K4093	K4094	K4095	L4102	N4105	L4106	S4107	E4108	H4109	M4110	P4111	H4112	D4113	T4114	R4115	L4116	Q4117	T4118	E4121	L4122	A4123	E4124	L4127	N4128	F4129	F4130	F4133	R4136	L4137	E4138	L4139	N4140	K4144	R4145	R4148	N4149	Y4150	S4156	T4159	K4163	P4164	K4167	E4168	S4169	Q4172	G4181						
G4182	E4183	K4184	E4185	K4186	M4187	F4190	I4207	SER	GLU	SER	ASP	LEU	LEU	ASN	GLU	ARG	SER	ALA	ASN	LYS	GLU	SER	L4127	GLY	GLU	LYS	PRO	GLU	GLN	GLY	PRO	ARG	MET	LEU	GLY	PHE	SER	ALA	VAL	THR	VAL	ARG	TYR	GLY	ASN	VAL	LEU	THR	GLY	MET	
ARG	MET	LEU	GLU	SER	GLY	LYS	SER	LYS	LEU	GLN	MET	LYS	VAL	LEU	ASN	MET	THR	VAL	PRO	ASP	PRO	THR	GLN	ARG	GLY	PHE	THR	GLY	ASP	GLY	TRP	GLY	GLN	GLY	VAL	ARG	PHE	THR	VAL	ARG	GLY	ILE	ARG	GLY	ASN	VAL	LEU	THR	GLY	MET	
SER	LEU	VAL	GLU	GLY	ALA	LYS	ASP	LYS	ILE	VAL	GLN	VAL	LEU	ASN	GLY	ASP	PRO	THR	ASN	ALA	GLY	LEU	ARG	GLY	THR	ASP	GLY	GLY	GLY	GLY	VAL	VAL	THR	LEU	GLY	GLN	PHE	THR	PRO	GLU	VAL	GLY	THR	GLY	ASN	VAL	LEU	THR	GLY	MET	
I4486	Q4489	L4493	F4500	Y4501	R4504	V4510																																													
K4511	F4512	A4513	T4514	N4515	F4516	L4519	F4520	Y4521	K4522	VAL	SER	THR	SER	SER	VAL	GLY	ASP	GLY	LYS	GLY	ARG	SER	SER	GLY	ASN	ALA	I4627	R4628	G4629	Q4630	W4631	D4632	V4635	T4638	P4642	N4643	M4644	Y4645	W4646	D4647	F4649	V4650	K4653	V4654	M4655	D4656	K4657	Y4658	G4663		
R4664	D4665	R4666	I4667	L4670	L4671	G4672	MET	LYS	ASP	ALA	LEU	ASP	PHE	SER	ASP	ALA	ARG	GLY	LYS	LYS	ASP	SER	SER	LEU	S4696	T4702	D4703	G4629	Q4707	N4708	W4709	K4710	V4713	T4716	D4717	N4718	S4719	F4720	L4721	Y4722	L4723	S4730	R4823	A4824	E4833	D4838	E4839				
R4755	S4759	T4762	H4763	N4764	T4771	V4777	V4778	V4779	Y4780	L4781	Y4782	T4783	V4784	W4785	A4786	F4787	N4788	F4789	F4790	Y4794	N4795	K4796	S4797	E4798	D4799	G4800	D4801	T4802	P4803	D4804	M4805	K4806	C4807	D4808	M4810	L4811	T4812	C4813	Y4814	M4815	F4816	H4817	V4820	G4821	V4822	R4823	A4824	E4833	D4838	E4839	
Y4840	E4841	T4842	Y4843	R4844	T4845	T4846	F4847	D4848	F4852	F4853	F4854	W4855	T4856	V4857	L4858	L4859	L4860	A4861	L4862	T4863	Q4864	T4867	T4868	D4869	A4870	F4871	D4876	D4884	T4887	K4888	F4889	L4891	C4892	Q4893	D4897	F4898	F4899	D4900	T4901	H4904	Q4905	F4906	E4907	T4908	H4909	T4910	L4911	Q4912	E4913	H4914	N4915
L4916	A4917	N4918	L4926	R4927	N4928	K4929	T4935	C4936	Q4937	E4938	W4942	C4949	W4950	R4960	K4961	Q4962	Y4963	E4964	ASP	GLN	LEU	ASN																													
MET	ALA	ASP	GLY	GLY	GLY	GLY	GLU	ASP	GLU	ILE	Q12	F13	R15	E19	L22	Q23	T27	I28	H29	K30	E31	Q32	A38	A39	E40	C41	G42	C43	N44	R45	L46	C47	F48	L49	T52	S53	N54	S55	K56	N57	V58	P59	F67	Q71	S72	L73	L78	Q79	S80	Q150	
M84	THR	VAL	GLU	LYS	SER	GLU	GLY	GLN	VAL	ASP	VAL	GLY	LYS	TRP	LYS	PHE	MET	MET	LYS	THR	ALA	GLN	GLY	G109	H110	R111	T112	L113	L114	Y115	G116	H117	A118	L119	L120	L121	R122	H123	S126	S53	M128	C131	S136	R137	SER	THR	ASP	K142	F145	L149	Q150

● Molecule 1: RyR2

Chain C:

7%

42%

28%

29%

MET	ALA	ASP	GLY	GLY	GLY	GLU	ASP	GLU	ILE	Q12	F13	R15	E19	L22	Q23	T27	I28	H29	K30	E31	Q32	A38	A39	E40	C41	G42	C43	N44	R45	L46	C47	F48	L49	T52	S53	N54	S55	K56	N57	V58	P59	F67	Q71	S72	L73	L78	Q79	S80	Q150		
M84	THR	VAL	GLU	LYS	SER	GLU	GLY	GLN	VAL	ASP	VAL	GLY	LYS	TRP	LYS	PHE	MET	MET	LYS	THR	ALA	GLN	GLY	G109	H110	R111	T112	L113	L114	Y115	G116	H117	A118	L119	L120	L121	R122	H123	S126	S53	M128	C131	S136	R137	SER	THR	ASP	K142	F145	L149	Q150

• Molecule 1: RyR2

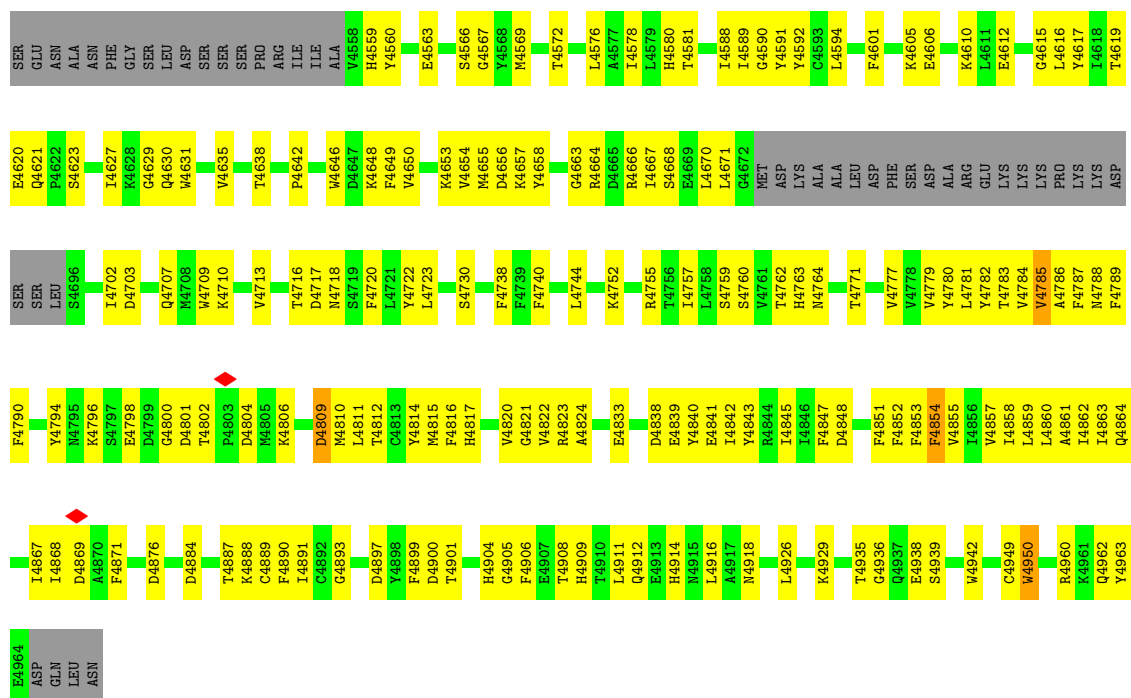




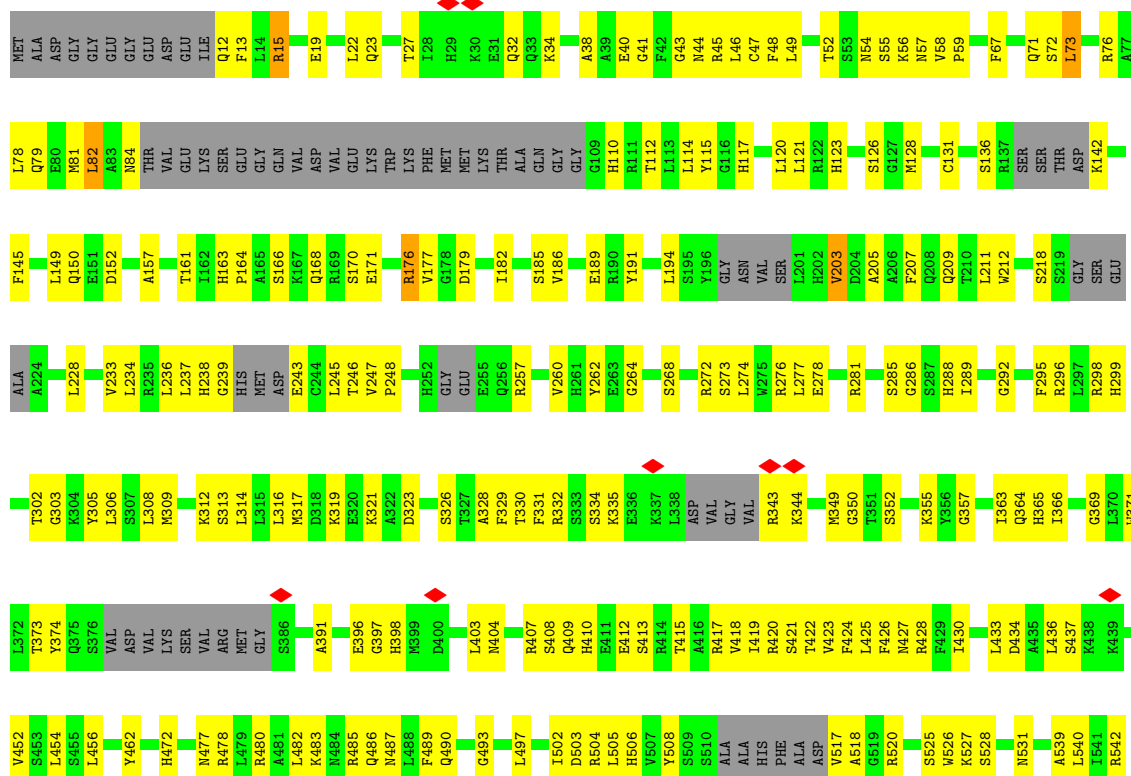
D2301	L2219	Q2126	LYS	LEU	LEU	S1803	M723	S1638	L1570	ARG	S1429	E1309	Q1233
F2302	S2220	S2129	VAL	GLY	GLY	R1807	E1724	L1644	F1571	N1501	V1430	C1310	E1234
L2303	Y2221	G2133	GLU	PRO	PRO	D1808	F1725	T1645	K1572	N1502	I1431	ALA	G1235
R2304	L2222	ARG	SER	ALA	ALA	T1813	I1726	Q1647	H1575	G1504	F1433	VAL	Y1236
V2307	V2228	V2133	ASP	GLU	GLU	M1729	M1729	Q1647	K1576	T1507	P1434	PHE	P1238
F2308	GLY	MET	SER	GLU	GLU	T1730	T1730	L1651	V1579	G1508	GLY	SER	F1239
C2309	LEU	GLY	SER	GLU	GLU	E1731	E1731	K1652	P1580	C1509	ALA	THR	A1240
N2310	ALA	LYS	SER	SER	SER	T1733	T1733	H1654	R1585	V1510	GLN	ALA	V1241
V2314	PRO	PRO	SER	GLY	GLY	K1734	K1734	H1655	R1587	V1511	ALA	ALA	R1245
E2315	T2058	K2141	T2058	GLN	GLY	L1821	L1821	H1656	L1588	ASP	N1440	GLY	T1248
E2316	L2059	R2145	L2059	GLY	GLY	H1822	H1822	H1657	H1586	ALA	V1441	ILE	H1249
N2317	ARG	R2145	ARG	ARG	ARG	K1823	K1823	T1657	F1589	ALA	W1442	PRO	W1250
A2318	GLY	C2148	PRO	PRO	PRO	Y1826	Y1826	L1658	F1590	ALA	V1443	GLY	L1251
N2319	SER	S2064	GLU	GLU	GLU	T1827	T1827	R1659	L1591	SER	W1445	ALA	S1252
R2323	S2064	N2152	LEU	LEU	LEU	I1830	I1830	S1662	S1592	F1520	I1446	GLN	K1253
T2326	V2068	N2161	ASN	ASN	ASN	H1833	H1833	L1667	H1593	T1521	T1447	LEU	R1254
R2327	R2069	L2162	PHE	PHE	PHE	F1834	F1834	G1668	V1594	A1522	S1448	PHE	L1255
R2328	A2071	R2163	LYS	LYS	LYS	H1835	H1835	H1669	L1596	N1523	D1449	LEU	P1256
P2329	Q2072	R2164	ASP	ASP	ASP	N1836	N1836	H1670	S1597	G1524	F1450	PRO	Q1257
E2330	Q2072	A2165	ASP	ASP	ASP	Q1906	Q1906	R1671	R1598	K1525	H1451	LYS	ARG
CYS	V2075	L2166	LYS	LYS	LYS	M1907	M1907	V1672	R1599	D1526	Q1452	ASN	Q1260
PHE	I2076	E2174	SER	SER	SER	L1839	L1839	A1673	P1600	S1528	Y1453	THR	V1261
GLY	P2079	V2175	E1986	E1986	E1986	K1840	K1840	C1677	N1601	T1529	L1459	LEU	E1269
PRO	E2080	N2179	P1990	P1990	P1990	H1841	H1841	G1677	F1603	Y1530	ASP	GLU	ASP
ALA	L2081	N2178	E1991	E1991	E1991	M1761	M1761	V1680	L1604	Y1531	ARG	TYR	R1272
LEU	R2083	V2179	L2083	L2083	L2083	Q1762	Q1762	D1681	K1605	Q1532	VAL	ASP	I1273
ARG	V2082	L2180	R2083	R2083	R2083	F1763	F1763	E1682	P1606	P1536	THR	ALA	D1274
GLY	F2086	G2181	GLY	GLY	GLY	S1764	S1764	P1682	D1607	THR	ARG	ASP	GLY
ASN	L2087	GLY	GLY	GLY	GLY	P1765	P1765	F1683	R1610	K1538	V1465	SER	THR
GLY	L2088	GLY	GLY	GLY	GLY	P1766	P1766	L1685	I1611	L1539	L1469	ASP	ILE
GLY	L2089	GLY	GLY	GLY	GLY	Y1766	Y1766	L1686	S1612	F1540	G1470	PHE	ASP
GLY	R2091	GLY	GLY	GLY	GLY	I1771	I1771	Y1687	E1613	P1541	LEU	GLU	SER
GLY	Q2092	GLY	GLY	GLY	GLY	C1776	C1776	A1688	R1614	A1542	G1474	VAL	SER
GLY	G2098	GLY	GLY	GLY	GLY	Y1776	Y1776	I1689	W1617	T1548	K1475	LEU	PRO
GLY	R2101	GLY	GLY	GLY	GLY	Q1777	Q1777	G1696	L1618	S1549	V1476	ALA	CYS
GLY	A2102	GLY	GLY	GLY	GLY	Y1778	Y1778	R1699	V1619	LEU	H1477	HIS	LYS
GLY	L2103	GLY	GLY	GLY	GLY	S1779	S1779	A1700	Q1620	Q1554	E1478	ALA	V1286
GLY	T2106	GLY	GLY	GLY	GLY	P1780	P1780	D1704	C1621	F1554	K1482	GLY	Q1287
GLY	Y2107	GLY	GLY	GLY	GLY	E1781	E1781	Y1707	L1622	F1556	N1483	HIS	K1288
GLY	V2114	GLY	GLY	GLY	GLY	K1788	K1788	L1711	L1625	LEU	CYS	VAL	S1289
GLY	T2117	GLY	GLY	GLY	GLY	A1789	A1789	Y1714	Q1626	GLY	Y1486	PRO	F1290
GLY	I2118	GLY	GLY	GLY	GLY	K1790	K1790	L1711	F1627	ARG	M1487	ASP	T1297
GLY	N2119	GLY	GLY	GLY	GLY	M1794	M1794	Y1715	M1628	ILE	A1490	ARG	D1298
GLY	L2120	GLY	GLY	GLY	GLY	L1795	L1795	T1716	L1630	ASN	GLY	VAL	I1299
GLY	N2211	GLY	GLY	GLY	GLY	T1796	T1796	H1631	H1630	VAL	GLU	ASP	M1300
GLY	Q2212	GLY	GLY	GLY	GLY	E1797	E1797	R1718	I1632	MET	GLN	LYS	F1301
GLY	S2123	GLY	GLY	GLY	GLY	A1798	A1798	L1719	P1633	PRO	THR	LYS	Y1302
GLY	L2124	GLY	GLY	GLY	GLY	Q1800	Q1800	M1720	E1634	LEU	SER	GLU	L1304
GLY	G2125	GLY	GLY	GLY	GLY	E1801	E1801	N1722	E1635	SER	PRO	ALA	S1305
GLY		GLY	GLY	GLY	GLY	G1802	G1802		N1636	A1568	GLY	THR	M1306
GLY		GLY	GLY	GLY	GLY				R1637	G1569	GLY	LYS	P1307
GLY		GLY	GLY	GLY	GLY							PRO	I1308







• Molecule 1: RyR2





LYS	P2656	SER	K2558	GLU	G2386	R2304	H2218	G2125	GLN	LYS	GLY	D1808	M1722	L1644	F1571
Y2656	G2559	ASP	G2559	ASP	H2387	V2307	L2219	Q2126	ALA	THR	PRO	M1723	T1645	T1645	K1572
L2667	G2560	THR	G2560	THR	H2388	F2308	S2220	S2129	GLY	GLU	ALA	E1724	E1646	E1646	H1575
P2668	L2562	ILE	L2562	ILE	H2389	C2309	L2222	V2133	VAL	PHE	GLU	I1726	Q1647	Q1647	K1576
S2671	T2563	HIS	T2563	HIS	F2392	N2310	V2298	G2141	SER	ARG	SER	M1729	L1651	L1651	V1579
A2672	Q2566	MET	Q2566	MET	F2392	M2319	V2298	R2145	GLU	ASN	LYS	T1730	K1652	K1652	P1580
P2678	S2576	GLU	S2576	GLU	H2399	R2323	L2258	R2145	THR	MET	GLU	D1741	L1653	L1653	Q1589
P2679	I1576	ARG	I1576	ARG	H2399	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	F1590
ASP	CYS	GLY	CYS	GLY	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	L1591
TYR	GLN	GLU	GLN	GLU	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	S1592
MET	LEU	GLU	LEU	GLU	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	H1593
VAL	ASN	GLU	ASN	GLU	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	V1594
SER	THR	GLU	SER	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	L1596
MET	THR	GLU	MET	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	S1597
GLU	ALA	GLU	GLU	ALA	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	R1598
LYS	ALA	GLU	LYS	ALA	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	M1599
GLN	ALA	GLU	GLN	ALA	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	P1600
SER	ALA	GLU	SER	ALA	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	N1601
ASP	THR	GLU	ASP	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	Q1602
GLY	THR	GLU	GLY	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	L1604
GLY	THR	GLU	GLY	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	V1605
GLY	THR	GLU	GLY	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	V1606
GLY	THR	GLU	GLY	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	D1607
GLY	THR	GLU	GLY	THR	F2392	R2323	L2258	R2145	LEU	LEU	GLU	G1757	L1659	L1659	R1610
F2702	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1611
F2703	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1612
P2704	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1613
Q2705	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1614
P2706	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1615
V2707	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1616
D2708	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1617
T2709	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1618
S2710	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1619
N2711	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1620
I2712	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1621
T2713	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1622
I2714	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1623
P2715	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1624
P2716	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1625
K2717	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1626
L2718	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1627
E2719	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1628
Y2720	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1629
F2721	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1630
I2722	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1631
N2723	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1632
K2724	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1633
Y2725	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1634
A2726	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1635
E2727	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1636
H2728	G2627	THR	G2627	THR	H2407	C2343	L2270	G2181	GLY	D1931	S1930	V1769	L1684	L1684	S1637

E3633	HIS	ASP	SER	ASN	LEU	LEU	ARG	ASN	S3137	F3061	LEU	ASP	LYS	S2729
E3634	LEU	THR	LYS	ARG	VAL	GLU	ALA	VAL	L3138	L3069	PRO	ASP	ASP	H2730
H3635	GLN	GLU	ALA	ALA	GLU	LEU	GLU	GLU	Y3139	L3069	LEU	LEU	LEU	H2731
F3636	LYS	ASP	ALA	LYS	ASP	GLU	MET	CYS	VAL	M3073	ILE	ASP	LEU	K2732
E3637	SER	VAL	SER	LEU	CYS	LYS	CYS	VAL	A3140	K3074	GLN	ASP	ASP	K2733
E3638	THR	ARG	ASP	LYS	PRO	LYS	THR	THR	G3142	E3074	TYR	THR	THR	S2734
D3639	CYS	ASP	GLN	GLU	ALA	LYS	ALA	ALA	N3075	N3075	PHE	PRO	PRO	K2735
K3640	MET	ILE	GLU	PRO	LEU	ILE	LEU	LEU	G3143	N3075	LYS	SER	SER	E2795
L3645	ARG	ILE	ARG	ASN	PRO	LYS	ASN	PRO	S3144	Q3078	ASN	ILE	ILE	G2796
A3646	ARG	ARG	LYS	PRO	SER	LYS	SER	SER	G3079	G3079	HIS	GLU	GLU	D2797
K3647	ARG	SER	LYS	GLU	LEU	LEU	GLU	LEU	T3082	T3082	ARG	LYS	LYS	K2797
P3648	TYR	ASN	MET	ALA	GLU	ILE	HIS	THR	HIS	T3082	LEU	ARG	ARG	L2798
GLY	TYR	ILE	LYS	GLU	LYS	TYR	ASN	THR	THR	THR	Y2982	PHE	PHE	A2739
ALA	SER	HIS	ARG	ASP	VAL	VAL	ASN	GLU	ARG	F2983	Y2982	ALA	ALA	H2740
VAL	LEU	LEU	LYS	SER	SER	SER	THR	ASN	ASN	L2984	L2984	TYR	TYR	G2741
PRO	VAL	GLN	GLY	PHE	GLU	GLU	LEU	GLN	GLN	A2987	A2987	PHE	ASN	G2742
PRO	GLU	GLY	ASP	ARG	GLU	GLU	GLY	ILE	PRO	C2992	C2992	LEU	LEU	G2743
GLU	HIS	LYS	ARG	MET	ASP	ASP	GLY	LYS	LYS	C2992	C2992	GLN	THR	G2744
GLU	GLN	GLU	SER	ALA	VAL	VAL	ILE	ILE	R3153	R3153	GLN	ARG	ARG	G2745
GLY	ARG	ASP	MET	GLU	LEU	LEU	LEU	VAL	S3154	S3154	VAL	LEU	ILE	G2746
THR	SER	PRO	GLN	VAL	SER	GLU	LYS	THR	A3155	A3155	GLN	LEU	ILE	E2746
LYS	LYS	ALA	THR	PHE	GLU	GLU	ILE	ILE	L3156	L3156	K3000	ARG	SER	G2747
K3585	K3585	ILE	SER	ILE	SER	GLY	ILE	ILE	G3157	G3157	E3001	TYR	GLN	G2748
R3661	R3661	TRP	LEU	TRP	ASN	ASN	ASN	ASN	E3158	E3158	ASP	SER	THR	S2749
V3662	V3662	GLY	THR	GLY	ILE	GLY	ILE	TYR	TYR	TYR	V3005	GLU	GLN	D2750
D3663	D3663	MET	ALA	SER	VAL	VAL	LEU	THR	A3162	A3162	THR	VAL	VAL	S2751
P3664	P3664	GLN	VAL	LYS	LEU	GLU	GLY	THR	F3163	F3163	SER	SER	VAL	S2752
L3665	L3665	ALA	ALA	SER	GLY	GLU	GLY	THR	A3164	A3164	LEU	LEU	ASP	K2753
H3666	H3666	THR	LEU	HIS	MET	ALA	ASP	MET	G3165	G3165	F3009	TYR	ASP	G2754
Q3667	Q3667	LYS	ARG	PHE	PRO	GLU	GLU	PRO	A3166	A3166	ILE	GLY	ALA	V2754
L3670	L3670	ASP	LEU	GLY	GLY	LEU	GLY	HIS	PHE	L3102	L3012	LEU	ILE	V2754
L3671	L3671	LEU	LEU	ARG	VAL	LEU	ALA	MET	PRO	L3102	L3012	GLU	GLU	Q2755
F3672	F3672	PRO	PRO	GLU	TRP	ILE	TRP	MET	VAL	L3103	V3016	PHE	PHE	G2756
S3673	S3673	ASN	ILE	GLY	LEU	LEU	LYS	VAL	L3106	L3106	I3020	GLY	GLY	L2757
K3594	K3594	ARG	GLY	GLN	ASP	ASP	ARG	VAL	L3106	L3106	I3020	GLY	GLY	G2758
R3596	R3596	THR	ASN	ASN	GLU	GLU	ARG	VAL	F3110	F3110	T3028	SER	SER	K2759
K3597	K3597	GLU	ILE	PHE	LEU	LEU	LEU	LEU	H3175	H3175	T3028	ARG	ARG	P2760
R3605	R3605	ASP	ILE	VAL	THR	THR	VAL	PRO	L3176	L3176	ILE	SER	SER	G2761
P3608	P3608	SER	ALA	VAL	VAL	VAL	VAL	VAL	D3177	D3177	ASN	LYS	LYS	K2762
L3609	L3609	PRO	GLY	GLN	GLU	GLU	GLN	SER	K3178	K3178	CYS	GLY	GLY	G2763
F3687	F3687	LYS	ASP	ILE	ASN	ASN	ILE	TYR	H3180	H3180	GLU	HIS	HIS	L2764
Y3692	Y3692	THR	GLU	GLN	ASN	ASN	ILE	MET	F3118	F3118	L3034	PHE	PHE	S2765
A3693	A3693	VAL	LEU	MET	SER	MET	ASN	SER	GLY	GLY	H3035	PRO	PRO	E2766
D3694	D3694	GLU	ILE	SER	ARG	ARG	LYS	ARG	ASP	ASP	L3037	TYR	TYR	K2767
K3697	K3697	VAL	ALA	PHE	VAL	VAL	VAL	TRP	ILE	ILE	E3039	GLU	GLN	E2768
A3698	A3698	LEU	LEU	LEU	PRO	PRO	LYS	GLU	L3124	L3124	T3040	GLU	GLU	K2769
S3699	S3699	ASP	LYS	ILE	THR	LEU	ILE	HIS	ASN	ASN	D3042	ILE	ILE	E2770
C7000	C7000	ILE	ASN	ASP	PRO	ILE	LEU	GLY	E3125	E3125	K3055	PHE	PHE	G2771
HIS	HIS	ALA	ARG	THR	GLU	GLU	LEU	GLY	D3126	D3126	GLY	ALA	ALA	K2772
ASP	ASP	VAL	PHE	LYS	VAL	VAL	THR	ASN	V3127	V3127	SER	LYS	LYS	E2773
GLU	GLU	VAL	SER	SER	VAL	VAL	THR	ASN	Q3128	Q3128	ALA	VAL	VAL	G2774
GLU	GLU	PHE	LEU	LYS	ASP	ASP	HIS	PRO	V3129	V3129	ARG	ARG	ARG	P2775
ASP	ASP	THR	LYS	MET	TYR	TYR	PHE	GLY	Y3132	Y3132	F2896	VAL	VAL	L2776
									R3133	R3133	L2897	VAL	VAL	K2777
									I3134	I3134	Q2898	VAL	VAL	E2778
									L3135	L3135	T2899	VAL	VAL	S2779
									T3136	T3136	N2900	VAL	VAL	M2844
											G2901	VAL	VAL	K2781
											Y2902	VAL	VAL	E2846
											A2903	VAL	VAL	G2847
											Y2904	VAL	VAL	N2848
											S2905	VAL	VAL	A2785
											R2906	VAL	VAL	G2786
											G2907	VAL	VAL	G2787
											PHE	VAL	VAL	K2788

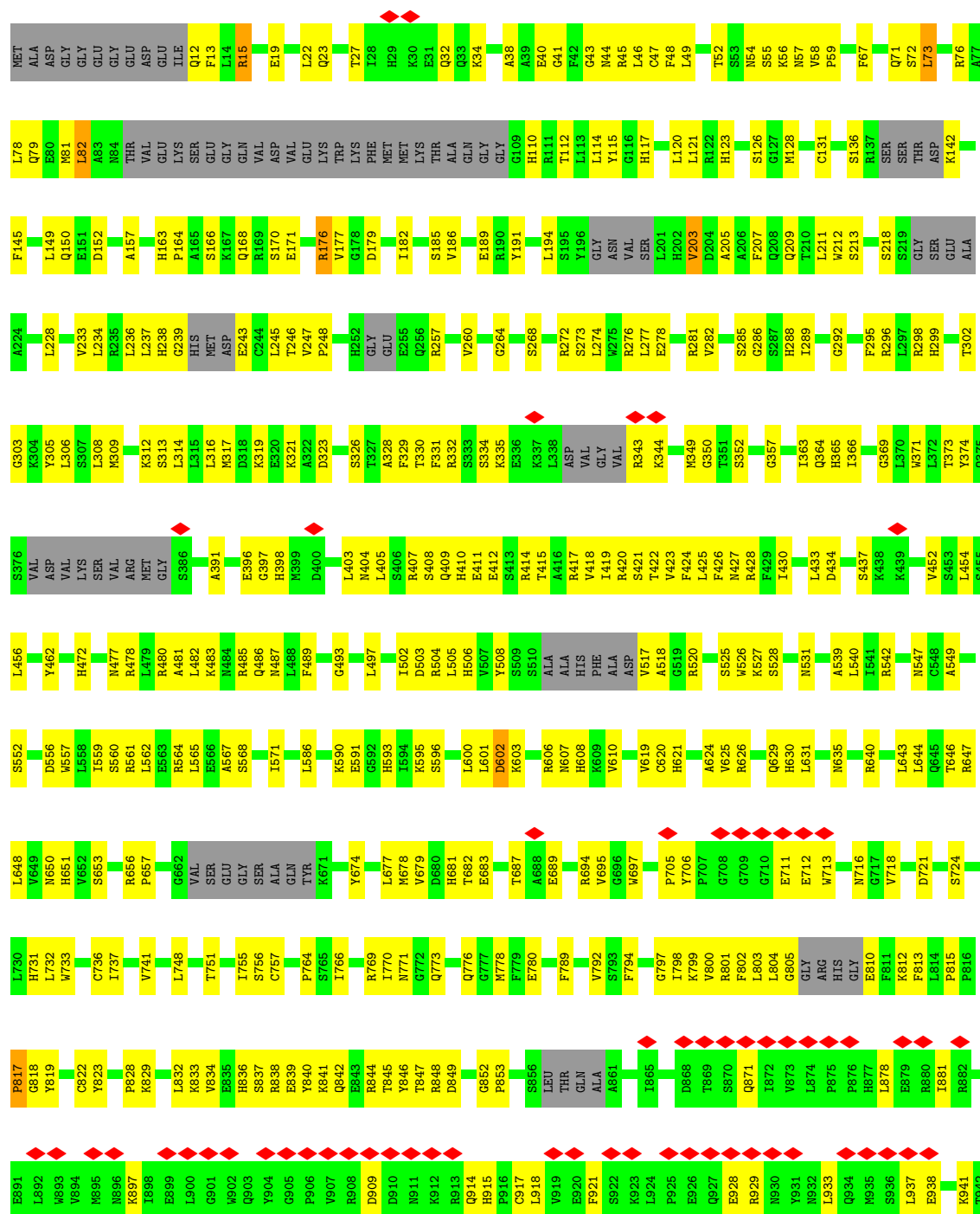




• Molecule 1: RyR2



Chain G:





L3034	H3035	I3036	L3037	G3038	G3039	T3040	L3041	D3042	K3055	SER	ALA	LEU	ARG	ALA	F3061	A3065	L3069	N3073	E3074	N3075	Q3078	G3079	T3082	HIS	THR	ARG	ASN	GLN	PRO	K3000	E3001	V3005	THR	SER	LEU	F3009	L3012	G3013	V3014	L3015	V3016	R3017	H3018	R3019	I3020	T3028	SER	ILE	VAL	E3111	H3112	I3113	G3114						
L2897	Q2898	I2899	N2900	G2901	Y2902	A2903	V2904	S2905	R2906	G2907	PHE	LYS	ASP	GLN	TYR	PHE	LYS	ASP	THR	PRO	HIS	ARG	ILE	G2982	F2983	L2984	A2987	C2992	H2996	K3000	E3001	V3005	THR	SER	LEU	F3009	L3012	G3013	V3014	L3015	V3016	R3017	H3018	R3019	I3020	T3028	SER	ARG	ILE	VAL	E3111	H3112	I3113	G3114					
D2837	L2838	H2839	A2840	M2841	A2842	E2843	M2844	M2845	A2846	E2847	M2848	H2849	H2850	N2851	L2852	M2853	A2854	K2855	K2856	K2857	K2858	L2859	E2860	L2861	E2862	S2863	K2864	G2865	G2866	G2867	N2868	H2869	P2870	L2871	L2872	V2873	P2874	G2875	D2876	L2877	L2878	T2879	K2880	K2881	E2882	K2883	A2884	K2885	D2886	K2887	E2888	K2889	A2890	Q2891	D2892	I2893	L2894	K2895	F2896
K2717	L2718	E2719	V2720	F2721	L2722	N2723	K2724	Y2725	A2726	E2727	H2728	S2729	H2730	D2731	K2732	W2733	S2734	N2735	D2736	K2737	L2738	A2739	N2740	G2741	W2742	L2743	Y2744	G2745	E2746	L2747	Y2748	S2749	D2750	L2751	S2752	K2753	V2754	Q2755	P2756	L2757	N2758	K2759	P2760	Y2761	K2762	L2763	L2764	S2765	E2766	K2767	E2768	K2769	E2770	I2771	Y2772	R2773	W2774	P2775	I2776
L2645	F2646	W2647	G2648	I2649	F2650	D2651	A2652	L2653	SER	GLN	LYS	LYS	L2656	L2667	P2668	S2671	A2672	P2678	P2679	ASP	TYR	MET	GLU	SER	ASN	TYR	VAL	SER	MET	GLU	HIS	ALA	LYS	GLN	SER	MET	ASP	SER	GLU	N2701	F2702	N2703	P2704	Q2705	P2706	V2707	D2708	T2709	S2710	N2711	L2712	L2713	L2714	P2715	E2716				
L2545	L2546	D2547	L2550	H2551	L2552	T2553	TYR	ARG	SER	GLY	SER	K2558	G2559	L2562	T2563	Q2566	S2576	CYS	GLY	GLN	LEU	F2582	L2583	V2587	H2601	GLU	HIS	ALA	K2605	K2609	T2612	E2616	G2627	TRP	GLY	ASN	PHE	GLY	ALA	E2638	L2639	H2640	L2641	S2642	R2643	K2644													
L2455	L2456	D2457	L2458	L2459	L2460	L2461	L2462	L2463	L2464	R2475	Y2476	Y2477	L2485	L2489	L2503	ASP	THR	ALA	ALA	LEU	SER	ALA	T2511	L2515	A2516	L2517	N2518	R2519	Y2520	L2521	L2529	THR	ARG	CYS	ALA	PRO	L2535	MET	PRO	THR	ILE	SER	LYS	ASP	ILE	GLY	ASN												
P2293	V2294	D2301	L2302	L2303	R2304	V2307	MET	ASP	THR	ALA	ILE	GLY	MET	G2386	A2387	A2388	I2389	F2392	L2399	L2400	G2401	R2402	P2405	E2406	W2407	H2408	L2409	A2413	A2417	T2418	R2419	R2420	R2421	S2422	L2423	L2424	P2425	S2426	P2429	G2430	D2431	D2432	L2433	V2434	G2435	V2436	Q2442	MET	PRO	THR	ILE	SER	LYS	ASP	ILE	GLY	ASN		
Q2212	H2217	L2219	S2220	Y2221	L2222	V2228	GLY	LEU	ALA	SER	PRO	ALA	MET	ARG	GLY	SER	T2239	P2240	L2241	S2247	D2250	L2256	A2257	L2258	R2259	E2264	K2265	V2266	V2267	R2268	T2269	A2271	L2275	GLN	SER	CYS	GLN	MET	LEU	VAL	SER	LYS	PRO	THR	ASP	ILE	GLY	ASN											
L2124	Q2125	Q2126	S2129	V2133	ARG	MET	GLY	LYS	E2138	K2141	R2145	G2148	N2152	N2161	L2162	M2163	R2164	A2165	G2167	M2168	E2174	V2175	N2178	V2179	L2180	G2181	GLY	GLU	L2088	L2089	SER	LYS	GLU	ILE	PHE	P2191	A2195	M2196	G2197	R2198	R2199	F2204	I2207	N2211															
L2092	Q2092	R2091	H2090	L2088	V2087	F2086	R2083	V2082	L2081	E2080	P2079	V2075	L2076	M2068	Q2069	Q2061	S2064	N2058	R2059	L2059	L2058	G2058	R2101	A2102	L2103	T2106	Y2107	T2107	V2114	T2117	I2118	N2119	L2120																										

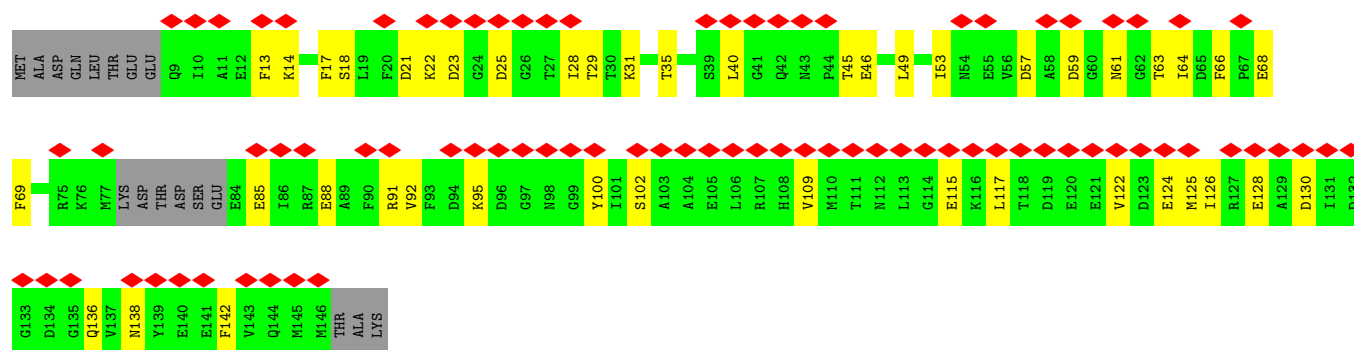
K4144	A4071	I3899	S3800	K3682	Y3610	ALA	GLN	LEU	PHE	LEU	S3183	F3118
R4145	E4072	D3900	C3801	L3683	N3611	PRO	ASN	CYS	SER	CYS	ILE	GLY
R4148	T4073	E3901	S3802	E3684	L3612	GLY	ILE	TRP	ASP	TRP	TYR	GLU
V4149	D4074	Q3902	A3808	E3685	P3613	ASP	GLN	MET	ILE	ASN	THR	ASP
Y4150	E4077	Q3903	F3809	F3687	R3614	GLU	ASN	ARG	ILE	THR	LYS	LEU
S4156	T4078	R3905	R3811	Y3692	R3616	VAL	MET	TRP	ASN	SER	SER	ILE
T4159	L4079	K3909	Q3812	A3693	L3620	ALA	PHE	TRP	ALA	TRP	E3125	L3124
E4162	E4082	I3911	A3815	D3694	G3624	LEU	LEU	GLN	THR	ARG	E3126	D3126
K4163	K4086	V3917	L3818	A3697	Y3625	LYS	ASP	LEU	LYS	ALA	E3127	Q3128
F4164	R4087	F3913	C3819	K3698	E3626	ASN	ILE	PRO	GLY	ALA	V3129	
K4167	F4088	N3919	G3820	S3699	K3627	PHE	THR	ASN	LEU	ALA		
E4168	H4089	T3920	V3821	HIS	I3630	VAL	LYS	VAL	LEU	ASN	T3132	
P4091	E4090	L3921	THR	GLU	E3631	LEU	LYS	VAL	SER	PRO	R3133	
A4092	P4091	T3922	GLU	GLU	T3632	PHE	MET	THR	THR	GLY	T3134	
K4093	A4092	E3923	ASP	ASP	E3633	HIS	SER	ASN	LEU	ARG	T3135	
D4094	D4093	Y3924	G3825	E3634	E3636	THR	LYS	ALA	PRO	ALA	T3136	
I4095	L4094	I3925	G3825	H3635	H3636	GLU	VAL	TRP	MET	ASP	S3137	
		Q3926	V3830	GLY	F3637	GLU	VAL	CYS	GLY	VAL	L3138	
		C3929	D3834	GLU	Y3638	VAL	SER	THR	LEU	CYS	T3139	
		N3932	L3840	GLU	E3639	ASP	GLN	LYS	ALA	PRO	A3140	
		S3935	F3841	VAL	K3640	ILE	GLU	LYS	ASN	ALA	L3141	
		L3936	L3844	L3715	L3645	ILE	ARG	ASN	LYS	ILE	G3142	
		L3941	Q3845	F3715	K3647	ARG	LYS	GLU	ALA	SER	T3143	
		G3942	H3851	K3718	GLY	TYR	ASN	MET	ALA	LEU	S3144	
		D3943	N3852	GLY	ALA	ILE	LYS	GLU	GLU	VAL	L3138	
		A3944	S3853	Q3729	VAL	LEU	GLN	SER	VAL	LEU	T3138	
		V3945	S3854	R3735	PRO	PRO	GLY	GLU	THR	GLU	TYR	
		L3949	F3855	Q3743	GLU	GLU	LYS	ARG	ASP	GLY	V3149	
		L3959	N3856	Q3760	ASP	ASP	GLU	THR	LEU	ASN	R3150	
		Q3965	L3859	L3766	GLY	GLY	THR	ALA	GLU	ILE	R3151	
		L3968	N3865	L3767	LYS	THR	LYS	ILE	VAL	SER	Q3152	
		E3971	N3870	Q3775	R3661	ARG	ILE	TRP	ARG	GLY	R3153	
		M3972	L3871	Y3781	V3662	GLN	VAL	SER	ASP	ASN	R3154	
		N3973	L3872	Y3781	P3664	MET	ALA	LYS	LEU	GLY	A3155	
		L3974	L3873	E3784	L3665	ALA	ALA	SER	SER	GLY	L3156	
		L3975	S3874	K3785	H3666	LEU	LEU	HIS	ALA	ASP	G3165	
		Q3976	T3875	K3786	Q3667	TYR	LYS	ASN	GLU	TRP	A3166	
		K3977	V3882	D3787	L3670	LYS	ARG	PHE	GLU	ALA	PRO	
		D3978	S3885	G3788	S3673	LEU	LEU	ARG	LEU	GLY	F3163	
		M3979	N3885	G3789	R3674	PRO	PRO	GLU	LEU	ALA	A3164	
		V3980	K3891	F3790	T3675	ASN	ILE	LEU	TRP	MET	G3165	
		M3981	Y3892	S3793	T3675	ARG	GLY	GLN	LYS	GLU	A3166	
		L3983	Y3893	L3797	E3679	THR	LEU	ASN	ASP	VAL	PRO	
		L3984	S3895	L3797	T3679	GLU	ASP	PHE	GLU	VAL	VAL	
		M3986	K3896			THR	CYS	VAL	THR	ILE	A3170	
											T3174	
											H3175	
											L3176	
											D3177	
											K3178	
											H3179	
											K3180	
											T3181	
											V3182	

- Molecule 2: Calmodulin-1

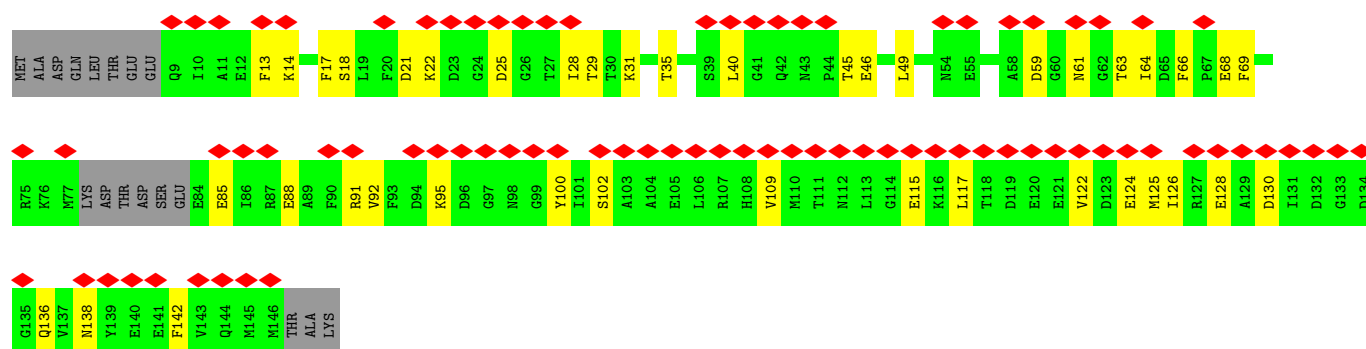


G133	D134	G135	Q136	V137	M138	Y139	E140	E141	F142	V143	Q144	M145	M146	THR	ALA	LYS	MET	ALA	ASP	GLN	LEU	THR	GLU	Q9	I10	A11	E12	F13	K14	F17	S18	L19	F20	D21	K22	D23	G24	D25	G26	T27	I28	T29	T30	K31	L32	L33	G34	T35	S39	L40	G41	Q42	M43	P44	T45	E46	L49	M54	E55	A58	D59	G60	N61	G62	T63	I64	D65	I66	F66	P67	E68																																																										
																																																																								F69	R75	K76	M77	LVS	ASP	THR	ASP	GLU	E84	E85	I86	R87	E88	A89	F90	R91	Y92	F93	D94	K95	D96	G97	N98	G99	Y100	I101	S102	A103	A104	E105	L106	R107	H108	V109	M110	T111	M112	L113	G114	E115	K116	L117	T118	D119	E120	E121	V122	D123	E124	M125	I126	R127	E128	A129	D130	I131	P132

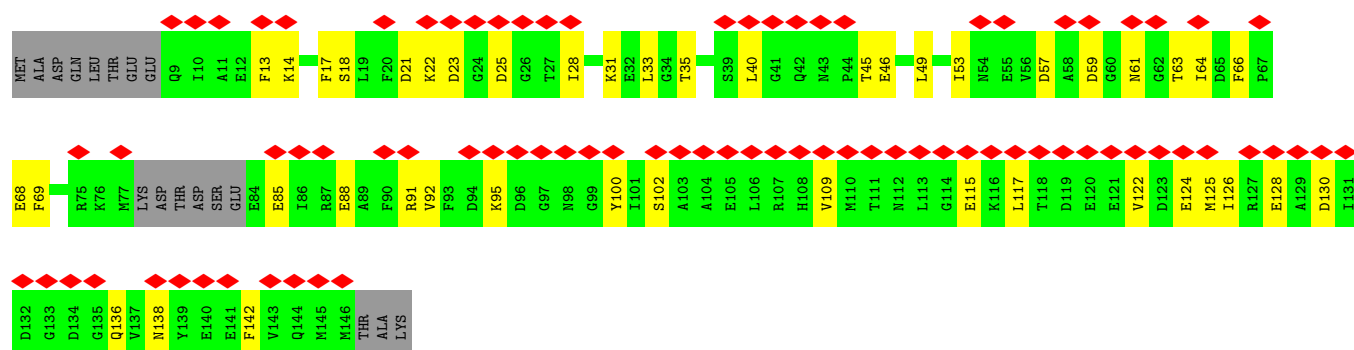
- Molecule 2: Calmodulin-1



• Molecule 2: Calmodulin-1



• Molecule 2: Calmodulin-1



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	22876	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	0.058	Depositor
Minimum map value	-0.016	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, 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	0.56	2/27223 (0.0%)	0.69	7/36827 (0.0%)
1	C	0.56	2/27223 (0.0%)	0.69	8/36827 (0.0%)
1	E	0.56	2/27223 (0.0%)	0.69	8/36827 (0.0%)
1	G	0.56	2/27223 (0.0%)	0.69	7/36827 (0.0%)
2	B	0.33	0/1053	0.52	0/1411
2	D	0.33	0/1053	0.52	0/1411
2	F	0.33	0/1053	0.52	0/1411
2	H	0.33	0/1053	0.52	0/1411
All	All	0.56	8/113104 (0.0%)	0.69	30/152952 (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

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4950	TRP	CB-CG	-5.59	1.40	1.50
1	C	4950	TRP	CB-CG	-5.59	1.40	1.50
1	E	4950	TRP	CB-CG	-5.59	1.40	1.50
1	G	4950	TRP	CB-CG	-5.59	1.40	1.50
1	A	4942	TRP	CB-CG	-5.18	1.41	1.50
1	E	4942	TRP	CB-CG	-5.18	1.41	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4942	TRP	CB-CG	-5.15	1.41	1.50
1	C	4942	TRP	CB-CG	-5.15	1.41	1.50

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4519	LEU	CB-CA-C	-9.78	91.61	110.20
1	A	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	C	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	E	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	G	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	G	2517	LEU	CA-CB-CG	6.14	129.42	115.30
1	A	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	C	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	E	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	A	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	C	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	E	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	G	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	A	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	C	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	G	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	E	1038	LEU	CA-CB-CG	5.83	128.72	115.30
1	A	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	C	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	E	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	G	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	E	4015	LEU	CA-CB-CG	-5.63	102.35	115.30
1	A	4015	LEU	CA-CB-CG	-5.62	102.38	115.30
1	C	4015	LEU	CA-CB-CG	-5.62	102.38	115.30
1	G	4015	LEU	CA-CB-CG	-5.60	102.42	115.30
1	E	4122	LEU	CA-CB-CG	5.33	127.56	115.30
1	G	4122	LEU	CA-CB-CG	5.32	127.53	115.30
1	A	4122	LEU	CA-CB-CG	5.31	127.52	115.30
1	C	4122	LEU	CA-CB-CG	5.30	127.49	115.30
1	E	3984	LEU	CA-CB-CG	-5.01	103.78	115.30

There are no chirality outliers.

All (132) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1127	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	A	1427	TYR	Peptide
1	A	1476	VAL	Peptide
1	A	1570	LEU	Peptide
1	A	1579	VAL	Peptide
1	A	1635	GLU	Peptide
1	A	1775	CYS	Peptide
1	A	1808	ASP	Peptide
1	A	1835	HIS	Peptide
1	A	1847	GLU	Peptide
1	A	2072	GLN	Peptide
1	A	2075	VAL	Peptide
1	A	2294	VAL	Peptide
1	A	3610	TYR	Peptide
1	A	3612	LEU	Peptide
1	A	3630	ILE	Peptide
1	A	3634	GLU	Peptide
1	A	3800	SER	Peptide
1	A	3802	SER	Peptide
1	A	4038	PRO	Peptide
1	A	4059	TYR	Peptide
1	A	4071	ALA	Peptide
1	A	4077	GLU	Peptide
1	A	4091	PRO	Peptide
1	A	4854	PHE	Peptide
1	A	729	GLY	Peptide
1	A	817	PRO	Peptide
1	A	818	GLY	Peptide
1	A	819	TYR	Peptide
1	A	829	LYS	Peptide
1	A	838	ARG	Peptide
1	A	852	GLY	Peptide
1	A	871	GLN	Peptide
1	C	1127	GLU	Peptide
1	C	1427	TYR	Peptide
1	C	1476	VAL	Peptide
1	C	1570	LEU	Peptide
1	C	1579	VAL	Peptide
1	C	1635	GLU	Peptide
1	C	1775	CYS	Peptide
1	C	1808	ASP	Peptide
1	C	1835	HIS	Peptide
1	C	1847	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	C	2072	GLN	Peptide
1	C	2075	VAL	Peptide
1	C	2294	VAL	Peptide
1	C	3610	TYR	Peptide
1	C	3612	LEU	Peptide
1	C	3630	ILE	Peptide
1	C	3634	GLU	Peptide
1	C	3800	SER	Peptide
1	C	3802	SER	Peptide
1	C	4038	PRO	Peptide
1	C	4059	TYR	Peptide
1	C	4071	ALA	Peptide
1	C	4077	GLU	Peptide
1	C	4091	PRO	Peptide
1	C	4854	PHE	Peptide
1	C	729	GLY	Peptide
1	C	817	PRO	Peptide
1	C	818	GLY	Peptide
1	C	819	TYR	Peptide
1	C	829	LYS	Peptide
1	C	838	ARG	Peptide
1	C	852	GLY	Peptide
1	C	871	GLN	Peptide
1	E	1127	GLU	Peptide
1	E	1427	TYR	Peptide
1	E	1476	VAL	Peptide
1	E	1570	LEU	Peptide
1	E	1579	VAL	Peptide
1	E	1635	GLU	Peptide
1	E	1775	CYS	Peptide
1	E	1808	ASP	Peptide
1	E	1835	HIS	Peptide
1	E	1847	GLU	Peptide
1	E	2072	GLN	Peptide
1	E	2075	VAL	Peptide
1	E	2294	VAL	Peptide
1	E	3610	TYR	Peptide
1	E	3612	LEU	Peptide
1	E	3630	ILE	Peptide
1	E	3634	GLU	Peptide
1	E	3800	SER	Peptide
1	E	3802	SER	Peptide

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Mol	Chain	Res	Type	Group
1	E	4038	PRO	Peptide
1	E	4059	TYR	Peptide
1	E	4071	ALA	Peptide
1	E	4077	GLU	Peptide
1	E	4091	PRO	Peptide
1	E	4854	PHE	Peptide
1	E	729	GLY	Peptide
1	E	817	PRO	Peptide
1	E	818	GLY	Peptide
1	E	819	TYR	Peptide
1	E	829	LYS	Peptide
1	E	838	ARG	Peptide
1	E	852	GLY	Peptide
1	E	871	GLN	Peptide
1	G	1127	GLU	Peptide
1	G	1427	TYR	Peptide
1	G	1476	VAL	Peptide
1	G	1570	LEU	Peptide
1	G	1579	VAL	Peptide
1	G	1635	GLU	Peptide
1	G	1775	CYS	Peptide
1	G	1808	ASP	Peptide
1	G	1835	HIS	Peptide
1	G	1847	GLU	Peptide
1	G	2072	GLN	Peptide
1	G	2075	VAL	Peptide
1	G	2294	VAL	Peptide
1	G	3610	TYR	Peptide
1	G	3612	LEU	Peptide
1	G	3630	ILE	Peptide
1	G	3634	GLU	Peptide
1	G	3800	SER	Peptide
1	G	3802	SER	Peptide
1	G	4038	PRO	Peptide
1	G	4059	TYR	Peptide
1	G	4071	ALA	Peptide
1	G	4077	GLU	Peptide
1	G	4091	PRO	Peptide
1	G	4854	PHE	Peptide
1	G	729	GLY	Peptide
1	G	817	PRO	Peptide
1	G	818	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	G	819	TYR	Peptide
1	G	829	LYS	Peptide
1	G	838	ARG	Peptide
1	G	852	GLY	Peptide
1	G	871	GLN	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	26722	0	25168	1034	0
1	C	26722	0	25168	1062	0
1	E	26722	0	25168	1051	0
1	G	26722	0	25168	1057	0
2	B	1042	0	979	31	0
2	D	1042	0	979	31	0
2	F	1042	0	979	31	0
2	H	1042	0	979	33	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	B	4	0	0	0	0
4	C	1	0	0	0	0
4	D	4	0	0	0	0
4	E	1	0	0	0	0
4	F	4	0	0	0	0
4	G	1	0	0	0	0
4	H	4	0	0	0	0
All	All	111080	0	104588	4092	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 (4092) 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:E:4811:LEU:CD2	1:G:4519:LEU:HD13	1.75	1.15
1:A:4860:LEU:HD13	1:C:4863:ILE:HD12	1.29	1.11
1:A:4863:ILE:HD12	1:G:4860:LEU:HD13	1.29	1.11
1:E:4860:LEU:HD13	1:G:4863:ILE:HD12	1.29	1.10
1:C:4860:LEU:HD13	1:E:4863:ILE:HD12	1.29	1.09
1:E:4811:LEU:CD1	1:G:4519:LEU:HD22	1.84	1.07
1:A:4863:ILE:HD12	1:G:4860:LEU:CD1	1.85	1.07
1:C:4860:LEU:CD1	1:E:4863:ILE:HD12	1.85	1.07
1:A:4860:LEU:CD1	1:C:4863:ILE:HD12	1.85	1.06
1:E:4860:LEU:CD1	1:G:4863:ILE:HD12	1.84	1.06
1:E:4860:LEU:HD13	1:G:4863:ILE:CD1	1.91	1.00
1:E:4811:LEU:HD21	1:G:4519:LEU:HD13	1.36	0.99
1:A:4860:LEU:HD13	1:C:4863:ILE:CD1	1.91	0.99
1:A:4863:ILE:CD1	1:G:4860:LEU:HD13	1.91	0.99
1:C:4860:LEU:HD13	1:E:4863:ILE:CD1	1.92	0.98
1:A:4515:ASN:HB3	1:G:4780:TYR:OH	1.63	0.98
1:E:4811:LEU:O	1:E:4815:MET:SD	2.21	0.98
1:C:4780:TYR:OH	1:E:4515:ASN:HB3	1.63	0.97
1:E:4780:TYR:OH	1:G:4515:ASN:HB3	1.62	0.97
1:A:4861:ALA:HB2	1:C:4867:ILE:HG12	1.47	0.97
1:E:4861:ALA:HB2	1:G:4867:ILE:HG12	1.47	0.96
1:A:4861:ALA:N	1:C:4867:ILE:HD13	1.80	0.96
1:A:4867:ILE:HG12	1:G:4861:ALA:HB2	1.47	0.96
1:A:4780:TYR:OH	1:C:4515:ASN:HB3	1.63	0.96
1:C:4861:ALA:HB2	1:E:4867:ILE:HG12	1.47	0.95
1:A:4867:ILE:HD13	1:G:4861:ALA:N	1.81	0.94
1:C:4861:ALA:N	1:E:4867:ILE:HD13	1.81	0.94
1:E:4861:ALA:N	1:G:4867:ILE:HD13	1.80	0.94
1:E:4861:ALA:HA	1:G:4867:ILE:CG2	2.01	0.91
1:A:4861:ALA:HA	1:C:4867:ILE:CG2	2.01	0.91
1:A:4860:LEU:CD1	1:C:4863:ILE:CD1	2.49	0.90
1:A:4811:LEU:O	1:A:4815:MET:SD	2.29	0.90
1:A:4867:ILE:CG2	1:G:4861:ALA:HA	2.01	0.90
1:E:4811:LEU:HD13	1:G:4519:LEU:HD22	1.54	0.89
1:E:4811:LEU:HD11	1:G:4519:LEU:HD22	1.52	0.89
1:E:4860:LEU:CD1	1:G:4863:ILE:CD1	2.49	0.89
1:E:4788:ASN:ND2	1:G:4738:PHE:HB3	1.88	0.89
1:C:4861:ALA:HA	1:E:4867:ILE:CG2	2.01	0.89
1:A:4863:ILE:CD1	1:G:4860:LEU:CD1	2.49	0.88
1:A:4788:ASN:ND2	1:C:4738:PHE:HB3	1.89	0.87
1:C:4788:ASN:ND2	1:E:4738:PHE:HB3	1.89	0.86
1:A:4738:PHE:HB3	1:G:4788:ASN:ND2	1.89	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4811:LEU:HD22	1:G:4519:LEU:HD13	1.56	0.86
1:C:4860:LEU:CD1	1:E:4863:ILE:CD1	2.49	0.86
1:C:4788:ASN:HD21	1:E:4738:PHE:HB3	1.42	0.84
1:E:4788:ASN:HD21	1:G:4738:PHE:HB3	1.42	0.83
1:C:4852:PHE:CE2	1:E:4823:ARG:HA	2.13	0.83
1:A:4738:PHE:HB3	1:G:4788:ASN:HD21	1.42	0.83
1:A:4852:PHE:CE2	1:C:4823:ARG:HA	2.13	0.83
1:A:4823:ARG:HA	1:G:4852:PHE:CE2	2.13	0.83
1:A:4788:ASN:HD21	1:C:4738:PHE:HB3	1.43	0.82
1:G:1310:CYS:HG	1:G:1516:GLY:N	1.77	0.82
1:C:1310:CYS:HG	1:C:1516:GLY:N	1.78	0.82
1:E:1310:CYS:HG	1:E:1516:GLY:N	1.77	0.82
1:E:4852:PHE:CE2	1:G:4823:ARG:HA	2.14	0.82
1:G:4811:LEU:O	1:G:4815:MET:SD	2.39	0.81
1:A:1310:CYS:HG	1:A:1516:GLY:N	1.77	0.80
1:C:844:ARG:H	1:C:848:ARG:HG2	1.48	0.79
1:A:844:ARG:H	1:A:848:ARG:HG2	1.48	0.78
1:C:810:GLU:N	1:C:823:TYR:HH	1.81	0.78
1:A:4861:ALA:HA	1:C:4867:ILE:HG23	1.65	0.78
1:E:2198:CYS:HG	1:E:2239:THR:N	1.82	0.78
1:A:810:GLU:N	1:A:823:TYR:HH	1.82	0.78
1:E:844:ARG:H	1:E:848:ARG:HG2	1.48	0.78
1:A:4811:LEU:CD2	1:C:4519:LEU:HD13	2.14	0.78
1:A:4867:ILE:HG23	1:G:4861:ALA:HA	1.65	0.78
1:E:4861:ALA:HA	1:G:4867:ILE:HG23	1.65	0.77
1:E:82:LEU:HD12	1:E:82:LEU:O	1.83	0.77
1:A:2198:CYS:HG	1:A:2239:THR:N	1.82	0.77
1:G:844:ARG:H	1:G:848:ARG:HG2	1.48	0.77
1:C:2198:CYS:HG	1:C:2239:THR:N	1.82	0.77
1:G:810:GLU:N	1:G:823:TYR:HH	1.83	0.77
1:C:4861:ALA:HA	1:E:4867:ILE:HG23	1.65	0.76
1:G:2198:CYS:HG	1:G:2239:THR:N	1.83	0.76
1:E:810:GLU:N	1:E:823:TYR:HH	1.83	0.76
1:A:4811:LEU:CD1	1:C:4519:LEU:HD22	2.16	0.74
1:C:4811:LEU:O	1:C:4815:MET:SD	2.45	0.74
1:E:4860:LEU:C	1:G:4867:ILE:HD13	2.07	0.74
1:C:4811:LEU:HD13	1:E:4519:LEU:HB3	1.68	0.74
1:A:4811:LEU:HD21	1:C:4519:LEU:HD13	1.69	0.74
1:A:4519:LEU:HB3	1:G:4811:LEU:HD13	1.68	0.74
1:A:4811:LEU:HD13	1:C:4519:LEU:HB3	1.69	0.73
1:C:4860:LEU:C	1:E:4867:ILE:HD13	2.08	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3993:ASN:HD22	1:G:4110:MET:HG3	1.53	0.73
1:A:4867:ILE:HD13	1:G:4860:LEU:C	2.07	0.73
1:C:776:GLN:HB3	1:C:1470:GLY:HA3	1.70	0.73
1:A:4860:LEU:C	1:C:4867:ILE:HD13	2.07	0.73
1:C:4118:THR:O	1:C:4122:LEU:HB2	1.89	0.73
1:E:776:GLN:HB3	1:E:1470:GLY:HA3	1.70	0.73
1:A:776:GLN:HB3	1:A:1470:GLY:HA3	1.70	0.73
1:E:3993:ASN:HD22	1:E:4110:MET:HG3	1.53	0.73
1:G:4118:THR:O	1:G:4122:LEU:HB2	1.89	0.73
1:A:2897:LEU:HB3	1:A:2902:TYR:HB2	1.71	0.73
1:A:4118:THR:O	1:A:4122:LEU:HB2	1.89	0.73
1:C:3993:ASN:HD22	1:C:4110:MET:HG3	1.53	0.72
1:A:3993:ASN:HD22	1:A:4110:MET:HG3	1.53	0.72
1:C:2897:LEU:HB3	1:C:2902:TYR:HB2	1.71	0.72
1:G:776:GLN:HB3	1:G:1470:GLY:HA3	1.71	0.72
1:A:4810:MET:HA	1:C:4521:TYR:O	1.90	0.72
1:G:2897:LEU:HB3	1:G:2902:TYR:HB2	1.71	0.71
1:E:4118:THR:O	1:E:4122:LEU:HB2	1.89	0.71
1:A:4861:ALA:HA	1:C:4867:ILE:HG21	1.70	0.71
1:A:4867:ILE:HG21	1:G:4861:ALA:HA	1.71	0.71
1:C:1602:GLN:HG3	1:C:1604:LEU:H	1.56	0.71
1:E:4810:MET:HA	1:G:4521:TYR:O	1.89	0.71
1:E:4861:ALA:HA	1:G:4867:ILE:HG21	1.71	0.71
1:A:1602:GLN:HG3	1:A:1604:LEU:H	1.56	0.71
1:A:4867:ILE:HG12	1:G:4861:ALA:CB	2.21	0.71
1:G:1602:GLN:HG3	1:G:1604:LEU:H	1.56	0.71
1:E:2481:VAL:HG13	1:E:2482:GLN:HG3	1.73	0.70
1:G:1040:ASP:HA	1:G:1043:LYS:HD2	1.73	0.70
1:G:4010:ASN:OD1	1:G:4010:ASN:N	2.24	0.70
1:A:3943:ASP:N	1:A:3943:ASP:OD1	2.23	0.70
1:C:2481:VAL:HG13	1:C:2482:GLN:HG3	1.73	0.70
1:E:4010:ASN:OD1	1:E:4010:ASN:N	2.24	0.70
1:G:3911:ILE:HG21	1:G:3971:GLU:HB3	1.74	0.70
1:A:374:TYR:HA	1:A:391:ALA:HA	1.74	0.70
1:E:1602:GLN:HG3	1:E:1604:LEU:H	1.56	0.70
1:E:3943:ASP:OD1	1:E:3943:ASP:N	2.23	0.70
1:E:2897:LEU:HB3	1:E:2902:TYR:HB2	1.71	0.70
1:C:4861:ALA:HA	1:E:4867:ILE:HG21	1.71	0.70
1:E:3911:ILE:HG21	1:E:3971:GLU:HB3	1.74	0.70
1:G:601:LEU:HD11	1:G:607:ASN:H	1.57	0.70
1:A:4759:SER:HA	1:A:4762:THR:HG22	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:601:LEU:HD11	1:C:607:ASN:H	1.57	0.69
1:A:1040:ASP:HA	1:A:1043:LYS:HD2	1.73	0.69
1:C:4852:PHE:HE2	1:E:4822:VAL:O	1.75	0.69
1:G:2481:VAL:HG13	1:G:2482:GLN:HG3	1.73	0.69
1:A:601:LEU:HD11	1:A:607:ASN:H	1.57	0.69
1:C:4759:SER:HA	1:C:4762:THR:HG22	1.73	0.69
1:E:4852:PHE:HE2	1:G:4822:VAL:O	1.76	0.69
1:A:1089:ARG:HH21	1:A:1600:PRO:HG3	1.58	0.69
1:A:4010:ASN:N	1:A:4010:ASN:OD1	2.24	0.69
1:A:4822:VAL:O	1:G:4852:PHE:HE2	1.75	0.69
1:A:4852:PHE:CE2	1:C:4822:VAL:O	2.45	0.69
1:C:3943:ASP:N	1:C:3943:ASP:OD1	2.23	0.69
1:E:1040:ASP:HA	1:E:1043:LYS:HD2	1.73	0.69
1:G:1089:ARG:HH21	1:G:1600:PRO:HG3	1.58	0.69
1:G:4515:ASN:HD22	1:G:4744:LEU:HD23	1.58	0.69
1:C:3911:ILE:HG21	1:C:3971:GLU:HB3	1.74	0.69
1:E:601:LEU:HD11	1:E:607:ASN:H	1.57	0.69
1:A:4822:VAL:O	1:G:4852:PHE:CE2	2.46	0.69
1:A:4852:PHE:HE2	1:C:4822:VAL:O	1.75	0.69
1:C:4852:PHE:CE2	1:E:4822:VAL:O	2.46	0.69
1:E:374:TYR:HA	1:E:391:ALA:HA	1.74	0.69
1:E:4515:ASN:HD22	1:E:4744:LEU:HD23	1.58	0.69
1:E:4860:LEU:HD12	1:G:4863:ILE:HD12	1.76	0.69
1:C:1089:ARG:HH21	1:C:1600:PRO:HG3	1.58	0.68
1:C:4861:ALA:CB	1:E:4867:ILE:HG12	2.21	0.68
1:E:4852:PHE:CE2	1:G:4822:VAL:O	2.46	0.68
1:C:374:TYR:HA	1:C:391:ALA:HA	1.74	0.68
1:E:274:LEU:H	1:E:299:HIS:HE1	1.40	0.68
1:A:2481:VAL:HG13	1:A:2482:GLN:HG3	1.73	0.68
1:A:4521:TYR:O	1:G:4810:MET:HA	1.93	0.68
1:A:274:LEU:H	1:A:299:HIS:HE1	1.40	0.68
1:C:1040:ASP:HA	1:C:1043:LYS:HD2	1.73	0.68
1:G:374:TYR:HA	1:G:391:ALA:HA	1.74	0.68
1:C:4010:ASN:N	1:C:4010:ASN:OD1	2.24	0.68
1:E:1089:ARG:HH21	1:E:1600:PRO:HG3	1.58	0.68
1:G:4759:SER:HA	1:G:4762:THR:HG22	1.74	0.68
1:E:4759:SER:HA	1:E:4762:THR:HG22	1.73	0.68
1:A:4515:ASN:HD22	1:A:4744:LEU:HD23	1.58	0.68
1:A:4861:ALA:CB	1:C:4867:ILE:HG12	2.21	0.68
1:C:4515:ASN:HD22	1:C:4744:LEU:HD23	1.58	0.68
1:G:3943:ASP:OD1	1:G:3943:ASP:N	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1614:ARG:HH11	1:A:1617:TRP:HE1	1.42	0.67
1:E:3694:ASP:OD1	1:E:3694:ASP:N	2.23	0.67
1:E:4861:ALA:CB	1:G:4867:ILE:HG12	2.21	0.67
1:A:2425:ARG:HH21	1:A:2476:VAL:HG12	1.59	0.67
1:E:1614:ARG:HH11	1:E:1617:TRP:HE1	1.42	0.67
1:G:274:LEU:H	1:G:299:HIS:HE1	1.40	0.67
1:C:1614:ARG:HH11	1:C:1617:TRP:HE1	1.42	0.67
1:A:3911:ILE:HG21	1:A:3971:GLU:HB3	1.74	0.67
1:A:4863:ILE:HD12	1:G:4860:LEU:HD12	1.76	0.67
1:C:2515:LEU:HB3	1:C:2519:ARG:HH11	1.60	0.67
1:G:1614:ARG:HH11	1:G:1617:TRP:HE1	1.42	0.67
1:A:1176:THR:HA	1:A:1181:ILE:HA	1.76	0.67
1:C:1306:MET:SD	1:C:1575:HIS:NE2	2.67	0.67
1:C:4810:MET:HA	1:E:4521:TYR:O	1.93	0.67
1:C:4852:PHE:CZ	1:E:4823:ARG:HA	2.30	0.67
1:E:1184:ASP:HB2	1:E:1188:SER:H	1.60	0.67
1:G:23:GLN:NE2	1:G:52:THR:OG1	2.28	0.67
1:A:2163:MET:HA	1:A:2166:LEU:HD12	1.77	0.67
1:C:274:LEU:H	1:C:299:HIS:HE1	1.40	0.67
1:E:23:GLN:NE2	1:E:52:THR:OG1	2.28	0.67
1:C:4889:CYS:SG	1:C:4890:PHE:N	2.68	0.67
1:A:329:PHE:HB3	1:A:363:ILE:HD11	1.77	0.67
1:E:1176:THR:HA	1:E:1181:ILE:HA	1.76	0.67
1:C:23:GLN:NE2	1:C:52:THR:OG1	2.28	0.67
1:E:2163:MET:HA	1:E:2166:LEU:HD12	1.77	0.67
1:E:4852:PHE:CZ	1:G:4823:ARG:HA	2.30	0.67
1:A:4889:CYS:SG	1:A:4890:PHE:N	2.68	0.66
1:E:233:VAL:HG22	1:E:276:ARG:HG2	1.77	0.66
1:E:2515:LEU:HB3	1:E:2519:ARG:HH11	1.60	0.66
1:E:4811:LEU:HD13	1:G:4519:LEU:HB3	1.76	0.66
1:E:4811:LEU:HD13	1:G:4519:LEU:CD2	2.23	0.66
1:A:4852:PHE:CZ	1:C:4823:ARG:HA	2.29	0.66
1:C:303:GLY:H	1:C:420:ARG:HH11	1.43	0.66
1:C:2163:MET:HA	1:C:2166:LEU:HD12	1.77	0.66
1:C:2425:ARG:HH21	1:C:2476:VAL:HG12	1.59	0.66
1:G:1176:THR:HA	1:G:1181:ILE:HA	1.76	0.66
1:G:2425:ARG:HH21	1:G:2476:VAL:HG12	1.59	0.66
1:A:4806:LYS:NZ	1:A:4833:GLU:OE2	2.29	0.66
1:C:1184:ASP:HB2	1:C:1188:SER:H	1.60	0.66
1:G:2515:LEU:HB3	1:G:2519:ARG:HH11	1.60	0.66
1:C:233:VAL:HG22	1:C:276:ARG:HG2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1272:ARG:NH2	1:E:1590:PHE:O	2.29	0.66
1:E:4889:CYS:SG	1:E:4890:PHE:N	2.68	0.66
1:A:233:VAL:HG22	1:A:276:ARG:HG2	1.77	0.66
1:C:3694:ASP:OD1	1:C:3694:ASP:N	2.23	0.66
1:E:4811:LEU:HD22	1:G:4519:LEU:CD1	2.25	0.66
1:G:303:GLY:H	1:G:420:ARG:HH11	1.43	0.66
1:G:329:PHE:HB3	1:G:363:ILE:HD11	1.77	0.66
1:G:2163:MET:HA	1:G:2166:LEU:HD12	1.77	0.66
1:A:2515:LEU:HB3	1:A:2519:ARG:HH11	1.60	0.66
1:A:4823:ARG:HA	1:G:4852:PHE:CZ	2.30	0.66
1:C:4860:LEU:HD12	1:E:4863:ILE:HD12	1.76	0.66
1:E:2425:ARG:HH21	1:E:2476:VAL:HG12	1.59	0.66
1:A:23:GLN:NE2	1:A:52:THR:OG1	2.28	0.66
1:A:1184:ASP:HB2	1:A:1188:SER:H	1.60	0.66
1:A:4780:TYR:CD1	1:C:4519:LEU:HD21	2.31	0.66
1:G:3929:CYS:SG	1:G:3932:ASN:ND2	2.69	0.66
1:E:1306:MET:SD	1:E:1575:HIS:NE2	2.67	0.66
1:A:1137:PHE:HA	1:A:1144:ARG:HA	1.79	0.65
1:A:1272:ARG:NH2	1:A:1590:PHE:O	2.29	0.65
1:A:2265:LYS:HD2	1:A:2268:ARG:HD2	1.79	0.65
1:C:2839:HIS:HD2	1:C:2842:ALA:HB3	1.61	0.65
1:C:3929:CYS:SG	1:C:3932:ASN:ND2	2.69	0.65
1:E:2265:LYS:HD2	1:E:2268:ARG:HD2	1.79	0.65
1:G:364:GLN:HE21	1:G:369:GLY:HA2	1.62	0.65
1:G:842:GLN:HG3	1:G:844:ARG:HH21	1.62	0.65
1:A:608:HIS:HB2	1:A:1656:HIS:HD2	1.61	0.65
1:A:3815:ALA:O	1:A:3819:GLY:N	2.30	0.65
1:E:608:HIS:HB2	1:E:1656:HIS:HD2	1.61	0.65
1:E:4806:LYS:NZ	1:E:4833:GLU:OE2	2.29	0.65
1:A:303:GLY:H	1:A:420:ARG:HH11	1.43	0.65
1:C:1176:THR:HA	1:C:1181:ILE:HA	1.76	0.65
1:G:2265:LYS:HD2	1:G:2268:ARG:HD2	1.79	0.65
1:G:4889:CYS:SG	1:G:4890:PHE:N	2.68	0.65
1:C:1272:ARG:NH2	1:C:1590:PHE:O	2.29	0.65
1:E:329:PHE:HB3	1:E:363:ILE:HD11	1.77	0.65
1:G:1272:ARG:NH2	1:G:1590:PHE:O	2.29	0.65
1:A:1905:LEU:HD12	1:A:2081:LEU:HB2	1.78	0.65
1:C:329:PHE:HB3	1:C:363:ILE:HD11	1.77	0.65
1:A:3929:CYS:SG	1:A:3932:ASN:ND2	2.69	0.65
1:C:608:HIS:HB2	1:C:1656:HIS:HD2	1.61	0.65
1:C:2265:LYS:HD2	1:C:2268:ARG:HD2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4780:TYR:CD1	1:E:4519:LEU:HD21	2.32	0.65
1:C:4806:LYS:NZ	1:C:4833:GLU:OE2	2.29	0.65
1:G:1137:PHE:HA	1:G:1144:ARG:HA	1.79	0.65
1:E:2839:HIS:HD2	1:E:2842:ALA:HB3	1.61	0.65
1:G:1184:ASP:HB2	1:G:1188:SER:H	1.60	0.65
1:G:4806:LYS:NZ	1:G:4833:GLU:OE2	2.29	0.65
1:E:427:ASN:HA	1:E:430:ILE:HB	1.79	0.65
1:A:364:GLN:HE21	1:A:369:GLY:HA2	1.62	0.65
1:A:4519:LEU:HD22	1:G:4811:LEU:CD1	2.27	0.65
1:C:4623:SER:O	1:C:4630:GLN:NE2	2.30	0.65
1:E:4780:TYR:CD1	1:G:4519:LEU:HD21	2.32	0.65
1:A:2839:HIS:HD2	1:A:2842:ALA:HB3	1.61	0.65
1:A:4519:LEU:HD21	1:G:4780:TYR:CD1	2.31	0.65
1:C:1137:PHE:HA	1:C:1144:ARG:HA	1.79	0.65
1:E:303:GLY:H	1:E:420:ARG:HH11	1.43	0.65
1:E:842:GLN:HG3	1:E:844:ARG:HH21	1.62	0.64
1:E:1905:LEU:HD12	1:E:2081:LEU:HB2	1.78	0.64
1:E:3929:CYS:SG	1:E:3932:ASN:ND2	2.69	0.64
1:G:1669:ASN:HB3	1:G:1672:VAL:HB	1.80	0.64
1:A:842:GLN:HG3	1:A:844:ARG:HH21	1.62	0.64
1:A:1725:PHE:HB2	1:A:2106:THR:HG22	1.78	0.64
1:C:4908:THR:O	1:C:4912:GLN:N	2.31	0.64
1:E:1725:PHE:HB2	1:E:2106:THR:HG22	1.78	0.64
1:G:233:VAL:HG22	1:G:276:ARG:HG2	1.77	0.64
1:A:1758:ARG:O	1:A:1760:ARG:NH2	2.31	0.64
1:C:364:GLN:HE21	1:C:369:GLY:HA2	1.62	0.64
1:C:1775:CYS:SG	1:C:1776:TYR:N	2.71	0.64
1:E:364:GLN:HE21	1:E:369:GLY:HA2	1.62	0.64
1:E:657:PRO:HA	1:E:834:VAL:HA	1.80	0.64
1:E:2098:GLY:HA2	1:E:2101:ARG:HE	1.62	0.64
1:E:3815:ALA:O	1:E:3819:GLY:N	2.30	0.64
1:G:1725:PHE:HB2	1:G:2106:THR:HG22	1.78	0.64
1:C:1725:PHE:HB2	1:C:2106:THR:HG22	1.78	0.64
1:C:2098:GLY:HA2	1:C:2101:ARG:HE	1.62	0.64
1:G:1758:ARG:O	1:G:1760:ARG:NH2	2.31	0.64
1:A:2098:GLY:HA2	1:A:2101:ARG:HE	1.62	0.64
1:A:2423:ILE:HD11	1:G:189:GLU:OE1	1.98	0.64
1:A:4519:LEU:HD13	1:G:4811:LEU:CD2	2.27	0.64
1:G:608:HIS:HB2	1:G:1656:HIS:HD2	1.61	0.64
1:G:3815:ALA:O	1:G:3819:GLY:N	2.30	0.64
1:A:419:ILE:HG12	1:A:489:PHE:HE1	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:427:ASN:HA	1:A:430:ILE:HB	1.79	0.64
1:C:842:GLN:HG3	1:C:844:ARG:HH21	1.62	0.64
1:C:1143:GLN:HA	1:C:1151:HIS:HA	1.80	0.64
1:C:4072:GLU:HB2	1:C:4079:LEU:HA	1.80	0.64
1:G:657:PRO:HA	1:G:834:VAL:HA	1.80	0.64
1:G:1905:LEU:HD12	1:G:2081:LEU:HB2	1.78	0.64
1:G:2839:HIS:HD2	1:G:2842:ALA:HB3	1.61	0.64
1:G:3899:ILE:O	1:G:3904:GLN:NE2	2.31	0.64
1:A:1775:CYS:SG	1:A:1776:TYR:N	2.71	0.64
1:A:3899:ILE:O	1:A:3904:GLN:NE2	2.31	0.64
1:C:427:ASN:HA	1:C:430:ILE:HB	1.79	0.64
1:E:246:THR:OG1	1:E:272:ARG:NH1	2.31	0.64
1:G:2098:GLY:HA2	1:G:2101:ARG:HE	1.62	0.64
1:G:4623:SER:O	1:G:4630:GLN:NE2	2.30	0.64
1:A:728:ASP:HB2	1:A:748:LEU:HG	1.80	0.64
1:A:4623:SER:O	1:A:4630:GLN:NE2	2.30	0.64
1:C:189:GLU:OE1	1:E:2423:ILE:HD11	1.98	0.64
1:G:556:ASP:N	1:G:556:ASP:OD1	2.31	0.64
1:G:728:ASP:HB2	1:G:748:LEU:HG	1.80	0.64
1:G:1143:GLN:HA	1:G:1151:HIS:HA	1.80	0.64
1:A:4949:CYS:SG	1:A:4950:TRP:N	2.71	0.64
1:E:4949:CYS:SG	1:E:4950:TRP:N	2.71	0.64
1:G:4164:PRO:HA	1:G:4167:LYS:HB3	1.80	0.64
1:A:657:PRO:HA	1:A:834:VAL:HA	1.80	0.64
1:A:4072:GLU:HB2	1:A:4079:LEU:HA	1.80	0.64
1:C:1757:LEU:HD12	1:C:2118:ILE:HD11	1.80	0.64
1:C:3899:ILE:O	1:C:3904:GLN:NE2	2.31	0.64
1:E:419:ILE:HG12	1:E:489:PHE:HE1	1.62	0.64
1:G:419:ILE:HG12	1:G:489:PHE:HE1	1.62	0.64
1:A:694:ARG:HB3	1:A:724:SER:HB2	1.80	0.63
1:A:4860:LEU:HD12	1:C:4863:ILE:HD12	1.76	0.63
1:C:1905:LEU:HD12	1:C:2081:LEU:HB2	1.78	0.63
1:E:1137:PHE:HA	1:E:1144:ARG:HA	1.79	0.63
1:E:3899:ILE:O	1:E:3904:GLN:NE2	2.31	0.63
1:E:4891:ILE:HD13	1:E:4914:HIS:HB3	1.81	0.63
1:A:2421:ARG:HH12	1:A:2476:VAL:HA	1.64	0.63
1:C:2421:ARG:HH12	1:C:2476:VAL:HA	1.64	0.63
1:E:556:ASP:OD1	1:E:556:ASP:N	2.31	0.63
1:E:1143:GLN:HA	1:E:1151:HIS:HA	1.80	0.63
1:E:4623:SER:O	1:E:4630:GLN:NE2	2.30	0.63
1:G:246:THR:OG1	1:G:272:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:657:PRO:HA	1:C:834:VAL:HA	1.80	0.63
1:C:2855:LYS:HA	1:C:2858:LYS:HB2	1.81	0.63
1:E:1669:ASN:HB3	1:E:1672:VAL:HB	1.80	0.63
1:E:1758:ARG:O	1:E:1760:ARG:NH2	2.31	0.63
1:E:2855:LYS:HA	1:E:2858:LYS:HB2	1.81	0.63
1:G:2855:LYS:HA	1:G:2858:LYS:HB2	1.81	0.63
1:G:4891:ILE:HD13	1:G:4914:HIS:HB3	1.81	0.63
1:A:1306:MET:SD	1:A:1575:HIS:NE2	2.67	0.63
1:A:2326:ILE:HD12	1:G:207:PHE:HE1	1.64	0.63
1:G:1757:LEU:HD12	1:G:2118:ILE:HD11	1.80	0.63
1:A:246:THR:OG1	1:A:272:ARG:NH1	2.31	0.63
1:A:2855:LYS:HA	1:A:2858:LYS:HB2	1.81	0.63
1:C:4949:CYS:SG	1:C:4950:TRP:N	2.71	0.63
1:E:1775:CYS:SG	1:E:1776:TYR:N	2.71	0.63
1:E:3784:GLU:HG3	1:E:3785:LYS:HG3	1.81	0.63
1:G:2207:ILE:HG12	1:G:2211:ASN:HD22	1.64	0.63
1:A:3784:GLU:HG3	1:A:3785:LYS:HG3	1.81	0.63
1:A:4891:ILE:HD13	1:A:4914:HIS:HB3	1.81	0.63
1:C:694:ARG:HB3	1:C:724:SER:HB2	1.80	0.63
1:C:4164:PRO:HA	1:C:4167:LYS:HB3	1.80	0.63
1:E:3639:ASP:N	1:E:3639:ASP:OD1	2.30	0.63
1:E:4164:PRO:HA	1:E:4167:LYS:HB3	1.80	0.63
1:G:343:ARG:HH11	1:G:344:LYS:H	1.47	0.63
1:G:1775:CYS:SG	1:G:1776:TYR:N	2.71	0.63
1:A:1143:GLN:HA	1:A:1151:HIS:HA	1.80	0.63
1:A:2207:ILE:HG12	1:A:2211:ASN:HD22	1.64	0.63
1:C:246:THR:OG1	1:C:272:ARG:NH1	2.31	0.63
1:C:1669:ASN:HB3	1:C:1672:VAL:HB	1.80	0.63
1:C:1758:ARG:O	1:C:1760:ARG:NH2	2.31	0.63
1:C:3815:ALA:O	1:C:3819:GLY:N	2.30	0.63
1:G:2421:ARG:HH12	1:G:2476:VAL:HA	1.64	0.63
1:A:4136:ARG:H	1:A:4918:ASN:HD21	1.47	0.63
1:A:4811:LEU:HD11	1:C:4519:LEU:HD22	1.81	0.63
1:C:3784:GLU:HG3	1:C:3785:LYS:HG3	1.81	0.63
1:E:4908:THR:O	1:E:4912:GLN:N	2.31	0.63
1:G:4072:GLU:HB2	1:G:4079:LEU:HA	1.80	0.63
1:A:1669:ASN:HB3	1:A:1672:VAL:HB	1.80	0.63
1:A:3639:ASP:OD1	1:A:3639:ASP:N	2.30	0.63
1:C:4136:ARG:H	1:C:4918:ASN:HD21	1.47	0.63
1:C:4897:ASP:N	1:C:4897:ASP:OD1	2.31	0.63
1:E:4082:GLU:O	1:E:4086:LYS:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:407:ARG:NE	1:G:408:SER:O	2.30	0.63
1:A:556:ASP:N	1:A:556:ASP:OD1	2.31	0.62
1:A:1757:LEU:HD12	1:A:2118:ILE:HD11	1.80	0.62
1:C:2207:ILE:HG12	1:C:2211:ASN:HD22	1.64	0.62
1:E:4072:GLU:HB2	1:E:4079:LEU:HA	1.80	0.62
1:G:3784:GLU:HG3	1:G:3785:LYS:HG3	1.81	0.62
1:A:4897:ASP:OD1	1:A:4897:ASP:N	2.31	0.62
1:C:728:ASP:HB2	1:C:748:LEU:HG	1.80	0.62
1:E:503:ASP:HA	1:E:561:ARG:HH22	1.64	0.62
1:E:728:ASP:HB2	1:E:748:LEU:HG	1.80	0.62
1:E:1757:LEU:HD12	1:E:2118:ILE:HD11	1.80	0.62
1:G:4949:CYS:SG	1:G:4950:TRP:N	2.71	0.62
1:A:4082:GLU:O	1:A:4086:LYS:N	2.31	0.62
1:A:4519:LEU:HD13	1:G:4811:LEU:HD21	1.81	0.62
1:C:419:ILE:HG12	1:C:489:PHE:HE1	1.62	0.62
1:A:343:ARG:HH11	1:A:344:LYS:H	1.47	0.62
1:A:4164:PRO:HA	1:A:4167:LYS:HB3	1.80	0.62
1:C:207:PHE:HE1	1:E:2326:ILE:HD12	1.64	0.62
1:E:189:GLU:OE1	1:G:2423:ILE:HD11	1.99	0.62
1:E:694:ARG:HB3	1:E:724:SER:HB2	1.80	0.62
1:E:2207:ILE:HG12	1:E:2211:ASN:HD22	1.64	0.62
1:G:4136:ARG:H	1:G:4918:ASN:HD21	1.47	0.62
1:A:1655:TYR:OH	1:A:1659:ARG:NH2	2.33	0.62
1:A:4908:THR:O	1:A:4912:GLN:N	2.31	0.62
1:C:343:ARG:HH11	1:C:344:LYS:H	1.47	0.62
1:C:4891:ILE:HD13	1:C:4914:HIS:HB3	1.81	0.62
1:G:427:ASN:HA	1:G:430:ILE:HB	1.79	0.62
1:G:2860:GLU:HG2	1:G:2861:LEU:HD13	1.82	0.62
1:A:207:PHE:HE1	1:C:2326:ILE:HD12	1.64	0.62
1:C:2860:GLU:HG2	1:C:2861:LEU:HD13	1.82	0.62
1:A:3729:GLN:NE2	1:A:3766:ILE:O	2.33	0.62
1:C:302:THR:HG21	1:C:316:LEU:HD21	1.82	0.62
1:C:423:VAL:HA	1:C:426:PHE:HB2	1.82	0.62
1:C:4798:GLU:H	1:C:4802:THR:HG21	1.65	0.62
1:E:2860:GLU:HG2	1:E:2861:LEU:HD13	1.82	0.62
1:E:4136:ARG:H	1:E:4918:ASN:HD21	1.47	0.62
1:E:4798:GLU:H	1:E:4802:THR:HG21	1.65	0.62
1:A:4798:GLU:H	1:A:4802:THR:HG21	1.65	0.62
1:A:328:ALA:O	1:A:365:HIS:ND1	2.33	0.62
1:A:2860:GLU:HG2	1:A:2861:LEU:HD13	1.82	0.62
1:E:207:PHE:HE1	1:G:2326:ILE:HD12	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1655:TYR:OH	1:E:1659:ARG:NH2	2.33	0.62
1:E:2421:ARG:HH12	1:E:2476:VAL:HA	1.64	0.62
1:G:694:ARG:HB3	1:G:724:SER:HB2	1.80	0.62
1:G:4889:CYS:HB3	1:G:4893:GLY:H	1.65	0.62
1:E:343:ARG:HH11	1:E:344:LYS:H	1.47	0.61
1:G:4908:THR:O	1:G:4912:GLN:N	2.31	0.61
1:C:3981:VAL:HA	1:C:3984:LEU:HD12	1.82	0.61
1:A:1941:GLN:O	1:A:1945:TYR:N	2.33	0.61
1:G:1905:LEU:HB2	1:G:2081:LEU:HD12	1.82	0.61
1:G:4897:ASP:OD1	1:G:4897:ASP:N	2.31	0.61
1:A:602:ASP:O	1:A:1576:LYS:NZ	2.33	0.61
1:A:1250:TRP:HB3	1:A:1600:PRO:HB2	1.83	0.61
1:C:247:VAL:O	1:C:272:ARG:NH1	2.34	0.61
1:C:328:ALA:O	1:C:365:HIS:ND1	2.33	0.61
1:C:1052:GLU:HA	1:C:1055:ARG:HB2	1.82	0.61
1:C:1655:TYR:OH	1:C:1659:ARG:NH2	2.33	0.61
1:G:3639:ASP:N	1:G:3639:ASP:OD1	2.30	0.61
1:A:302:THR:HG21	1:A:316:LEU:HD21	1.82	0.61
1:A:1052:GLU:HA	1:A:1055:ARG:HB2	1.82	0.61
1:G:4859:LEU:HA	1:G:4862:ILE:HD12	1.83	0.61
1:A:1670:HIS:ND1	1:A:1778:TYR:O	2.34	0.61
1:C:556:ASP:OD1	1:C:556:ASP:N	2.31	0.61
1:C:3639:ASP:OD1	1:C:3639:ASP:N	2.30	0.61
1:E:4159:THR:O	1:E:4163:LYS:NZ	2.34	0.61
1:E:4859:LEU:HA	1:E:4862:ILE:HD12	1.83	0.61
1:G:1655:TYR:OH	1:G:1659:ARG:NH2	2.33	0.61
1:G:1729:MET:SD	1:G:3615:HIS:ND1	2.69	0.61
1:G:3729:GLN:NE2	1:G:3766:ILE:O	2.33	0.61
1:A:189:GLU:OE1	1:C:2423:ILE:HD11	2.00	0.61
1:A:848:ARG:NH1	1:A:1607:ASP:OD2	2.34	0.61
1:A:1228:THR:O	1:A:1233:GLN:NE2	2.34	0.61
1:C:2301:ASP:OD1	1:C:2304:ARG:NH2	2.34	0.61
1:E:3981:VAL:HA	1:E:3984:LEU:HD12	1.83	0.61
1:E:4897:ASP:N	1:E:4897:ASP:OD1	2.31	0.61
1:G:503:ASP:HA	1:G:561:ARG:HH22	1.64	0.61
1:G:1250:TRP:HB3	1:G:1600:PRO:HB2	1.83	0.61
1:G:1306:MET:SD	1:G:1575:HIS:NE2	2.67	0.61
1:G:2301:ASP:OD1	1:G:2304:ARG:NH2	2.34	0.61
1:A:247:VAL:O	1:A:272:ARG:NH1	2.34	0.61
1:A:503:ASP:HA	1:A:561:ARG:HH22	1.64	0.61
1:A:1905:LEU:HB2	1:A:2081:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2301:ASP:OD1	1:A:2304:ARG:NH2	2.34	0.61
1:C:55:SER:O	1:C:296:ARG:NH1	2.34	0.61
1:E:423:VAL:HA	1:E:426:PHE:HB2	1.82	0.61
1:E:3729:GLN:NE2	1:E:3766:ILE:O	2.33	0.61
1:G:247:VAL:O	1:G:272:ARG:NH1	2.34	0.61
1:G:423:VAL:HA	1:G:426:PHE:HB2	1.82	0.61
1:G:1052:GLU:HA	1:G:1055:ARG:HB2	1.82	0.61
1:G:1670:HIS:ND1	1:G:1778:TYR:O	2.34	0.61
1:G:2071:ALA:HB1	1:G:3664:PRO:HB3	1.83	0.61
1:A:3981:VAL:HA	1:A:3984:LEU:HD12	1.83	0.61
1:C:1670:HIS:ND1	1:C:1778:TYR:O	2.34	0.61
1:E:1905:LEU:HB2	1:E:2081:LEU:HD12	1.82	0.61
1:G:1119:ARG:HH12	1:G:1198:GLY:HA3	1.66	0.61
1:A:2071:ALA:HB1	1:A:3664:PRO:HB3	1.83	0.60
1:C:503:ASP:HA	1:C:561:ARG:HH22	1.64	0.60
1:C:1905:LEU:HB2	1:C:2081:LEU:HD12	1.82	0.60
1:C:1941:GLN:O	1:C:1945:TYR:N	2.33	0.60
1:C:3729:GLN:NE2	1:C:3766:ILE:O	2.33	0.60
1:E:1228:THR:O	1:E:1233:GLN:NE2	2.34	0.60
1:E:1670:HIS:ND1	1:E:1778:TYR:O	2.34	0.60
1:G:2258:LEU:O	1:G:2259:ARG:NH1	2.34	0.60
2:H:117:LEU:HD13	2:H:122:VAL:HG21	1.83	0.60
1:A:2258:LEU:O	1:A:2259:ARG:NH1	2.34	0.60
1:C:1256:PRO:HG3	1:C:1453:TYR:HB2	1.83	0.60
1:C:2071:ALA:HB1	1:C:3664:PRO:HB3	1.83	0.60
1:C:2258:LEU:O	1:C:2259:ARG:NH1	2.34	0.60
1:C:4780:TYR:HD1	1:E:4519:LEU:HD21	1.67	0.60
2:D:117:LEU:HD13	2:D:122:VAL:HG21	1.83	0.60
1:E:302:THR:HG21	1:E:316:LEU:HD21	1.82	0.60
1:A:1256:PRO:HG3	1:A:1453:TYR:HB2	1.83	0.60
1:A:4136:ARG:O	1:A:4918:ASN:ND2	2.35	0.60
1:C:248:PRO:O	1:C:257:ARG:NH2	2.35	0.60
1:C:1119:ARG:HH12	1:C:1198:GLY:HA3	1.66	0.60
1:C:1228:THR:O	1:C:1233:GLN:NE2	2.34	0.60
1:E:677:LEU:HB3	1:E:755:ILE:HD12	1.84	0.60
1:E:1052:GLU:HA	1:E:1055:ARG:HB2	1.82	0.60
1:E:2071:ALA:HB1	1:E:3664:PRO:HB3	1.83	0.60
1:E:2258:LEU:O	1:E:2259:ARG:NH1	2.34	0.60
1:E:2301:ASP:OD1	1:E:2304:ARG:NH2	2.34	0.60
1:G:848:ARG:NH1	1:G:1607:ASP:OD2	2.34	0.60
1:G:4703:ASP:O	1:G:4707:GLN:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:55:SER:O	1:A:296:ARG:NH1	2.34	0.60
1:A:1628:MET:HB2	1:A:1687:TYR:HE2	1.66	0.60
1:A:4811:LEU:HB2	1:C:4519:LEU:O	2.01	0.60
1:A:4859:LEU:HA	1:A:4862:ILE:HD12	1.83	0.60
1:A:4889:CYS:HB3	1:A:4893:GLY:H	1.65	0.60
1:C:602:ASP:O	1:C:1576:LYS:NZ	2.33	0.60
1:C:2162:LEU:O	1:C:2166:LEU:N	2.34	0.60
1:E:55:SER:O	1:E:296:ARG:NH1	2.34	0.60
1:E:247:VAL:O	1:E:272:ARG:NH1	2.34	0.60
1:E:1119:ARG:HH12	1:E:1198:GLY:HA3	1.66	0.60
1:E:4889:CYS:HB3	1:E:4893:GLY:H	1.65	0.60
2:F:117:LEU:HD13	2:F:122:VAL:HG21	1.83	0.60
1:G:677:LEU:HB3	1:G:755:ILE:HD12	1.84	0.60
1:G:1228:THR:O	1:G:1233:GLN:NE2	2.34	0.60
1:C:848:ARG:NH1	1:C:1607:ASP:OD2	2.34	0.60
1:C:1223:THR:O	1:C:1225:LYS:NZ	2.35	0.60
1:E:43:GLY:H	1:E:45:ARG:HH22	1.49	0.60
1:G:302:THR:HG21	1:G:316:LEU:HD21	1.82	0.60
1:G:4159:THR:O	1:G:4163:LYS:NZ	2.34	0.60
1:G:4804:ASP:N	1:G:4804:ASP:OD1	2.34	0.60
2:B:88:GLU:HA	2:B:91:ARG:HB2	1.84	0.60
1:C:1250:TRP:HB3	1:C:1600:PRO:HB2	1.83	0.60
1:C:1729:MET:SD	1:C:3615:HIS:ND1	2.69	0.60
2:D:88:GLU:HA	2:D:91:ARG:HB2	1.84	0.60
1:E:298:ARG:HA	1:E:305:TYR:HA	1.84	0.60
1:G:477:ASN:OD1	1:G:477:ASN:N	2.34	0.60
1:G:1128:LEU:HD13	1:G:1206:SER:HB2	1.84	0.60
1:G:2162:LEU:O	1:G:2166:LEU:N	2.34	0.60
1:A:248:PRO:O	1:A:257:ARG:NH2	2.35	0.60
1:A:407:ARG:NE	1:A:408:SER:O	2.30	0.60
1:A:423:VAL:HA	1:A:426:PHE:HB2	1.82	0.60
1:C:305:TYR:N	1:C:317:MET:O	2.34	0.60
1:E:848:ARG:NH1	1:E:1607:ASP:OD2	2.34	0.60
1:E:4136:ARG:O	1:E:4918:ASN:ND2	2.35	0.60
2:F:102:SER:HA	2:F:136:GLN:HG2	1.84	0.60
1:A:797:GLY:HA2	1:A:1622:LEU:HA	1.83	0.60
1:A:4703:ASP:O	1:A:4707:GLN:NE2	2.35	0.60
1:C:43:GLY:H	1:C:45:ARG:HH22	1.49	0.60
1:C:1628:MET:HB2	1:C:1687:TYR:HE2	1.66	0.60
1:C:4159:THR:O	1:C:4163:LYS:NZ	2.34	0.60
1:C:4703:ASP:O	1:C:4707:GLN:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4811:LEU:CD1	1:E:4519:LEU:HD22	2.32	0.60
1:C:4859:LEU:HA	1:C:4862:ILE:HD12	1.83	0.60
1:E:2204:PHE:O	1:E:2211:ASN:ND2	2.35	0.60
2:F:88:GLU:HA	2:F:91:ARG:HB2	1.84	0.60
1:G:4798:GLU:H	1:G:4802:THR:HG21	1.65	0.60
1:A:1128:LEU:HD13	1:A:1206:SER:HB2	1.84	0.60
1:A:3834:ASP:N	1:A:3834:ASP:OD1	2.34	0.60
1:C:797:GLY:HA2	1:C:1622:LEU:HA	1.83	0.60
1:C:4889:CYS:HB3	1:C:4893:GLY:H	1.65	0.60
1:E:797:GLY:HA2	1:E:1622:LEU:HA	1.83	0.60
1:E:1128:LEU:HD13	1:E:1206:SER:HB2	1.84	0.60
1:E:1256:PRO:HG3	1:E:1453:TYR:HB2	1.83	0.60
1:G:1256:PRO:HG3	1:G:1453:TYR:HB2	1.83	0.60
1:G:4136:ARG:O	1:G:4918:ASN:ND2	2.35	0.60
1:A:54:ASN:OD1	1:A:56:LYS:NZ	2.34	0.60
1:A:3694:ASP:OD1	1:A:3694:ASP:N	2.23	0.60
1:A:4519:LEU:HD21	1:G:4780:TYR:HD1	1.66	0.60
1:C:4136:ARG:O	1:C:4918:ASN:ND2	2.35	0.60
1:E:54:ASN:OD1	1:E:56:LYS:NZ	2.34	0.60
1:E:248:PRO:O	1:E:257:ARG:NH2	2.35	0.60
1:E:1177:LEU:N	1:E:1180:GLU:O	2.35	0.60
1:E:2464:ASP:OD1	1:E:2464:ASP:N	2.34	0.60
1:G:55:SER:O	1:G:296:ARG:NH1	2.34	0.60
1:G:3981:VAL:HA	1:G:3984:LEU:HD12	1.82	0.60
1:A:1177:LEU:N	1:A:1180:GLU:O	2.35	0.59
1:A:1572:LYS:HE2	1:A:1585:ARG:HB2	1.84	0.59
1:C:44:ASN:ND2	1:C:46:LEU:O	2.35	0.59
2:D:17:PHE:O	2:D:21:ASP:N	2.35	0.59
1:E:1250:TRP:HB3	1:E:1600:PRO:HB2	1.83	0.59
1:A:1119:ARG:HH12	1:A:1198:GLY:HA3	1.66	0.59
1:A:1223:THR:O	1:A:1225:LYS:NZ	2.35	0.59
1:A:2088:LEU:O	1:A:2092:GLN:N	2.35	0.59
1:A:2204:PHE:O	1:A:2211:ASN:ND2	2.35	0.59
1:A:2389:ILE:HA	1:A:2392:PHE:HB3	1.84	0.59
1:A:2558:LYS:O	1:A:2562:LEU:N	2.34	0.59
1:A:2855:LYS:HG2	1:A:2858:LYS:HD3	1.84	0.59
1:A:3924:TYR:O	1:A:3932:ASN:ND2	2.35	0.59
1:A:3994:GLY:O	1:A:3998:LYS:N	2.35	0.59
1:A:4780:TYR:HD1	1:C:4519:LEU:HD21	1.66	0.59
1:C:677:LEU:HB3	1:C:755:ILE:HD12	1.84	0.59
1:E:4811:LEU:CD2	1:G:4519:LEU:CD1	2.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:54:ASN:OD1	1:G:56:LYS:NZ	2.34	0.59
1:G:248:PRO:O	1:G:257:ARG:NH2	2.35	0.59
1:G:1628:MET:HB2	1:G:1687:TYR:HE2	1.66	0.59
1:G:3924:TYR:O	1:G:3932:ASN:ND2	2.35	0.59
1:C:1128:LEU:HD13	1:C:1206:SER:HB2	1.84	0.59
1:C:2204:PHE:O	1:C:2211:ASN:ND2	2.35	0.59
1:C:3924:TYR:O	1:C:3932:ASN:ND2	2.35	0.59
1:C:3994:GLY:O	1:C:3998:LYS:N	2.35	0.59
1:E:1720:MET:O	1:E:1723:ASN:ND2	2.36	0.59
1:E:2217:ASP:OD1	1:E:2217:ASP:N	2.35	0.59
1:E:2389:ILE:HA	1:E:2392:PHE:HB3	1.84	0.59
1:G:3841:PHE:HA	1:G:3844:LEU:HD12	1.84	0.59
1:G:4082:GLU:O	1:G:4086:LYS:N	2.31	0.59
2:H:88:GLU:HA	2:H:91:ARG:HB2	1.84	0.59
1:A:2162:LEU:O	1:A:2166:LEU:N	2.34	0.59
2:B:117:LEU:HD13	2:B:122:VAL:HG21	1.83	0.59
1:C:13:PHE:HA	1:C:176:ARG:HA	1.84	0.59
1:C:1720:MET:O	1:C:1723:ASN:ND2	2.36	0.59
1:C:2558:LYS:O	1:C:2562:LEU:N	2.34	0.59
1:E:239:GLY:O	1:E:243:GLU:N	2.36	0.59
1:E:305:TYR:N	1:E:317:MET:O	2.34	0.59
1:E:4780:TYR:HD1	1:G:4519:LEU:HD21	1.67	0.59
1:G:13:PHE:HA	1:G:176:ARG:HA	1.84	0.59
1:G:1572:LYS:HE2	1:G:1585:ARG:HB2	1.84	0.59
1:A:677:LEU:HB3	1:A:755:ILE:HD12	1.84	0.59
1:A:1442:TRP:HB2	1:A:1544:PHE:HB2	1.85	0.59
1:A:4159:THR:O	1:A:4163:LYS:NZ	2.34	0.59
1:C:298:ARG:HA	1:C:305:TYR:HA	1.84	0.59
1:C:1442:TRP:HB2	1:C:1544:PHE:HB2	1.85	0.59
1:C:1572:LYS:HE2	1:C:1585:ARG:HB2	1.84	0.59
1:C:2217:ASP:N	1:C:2217:ASP:OD1	2.35	0.59
1:C:2855:LYS:HG2	1:C:2858:LYS:HD3	1.84	0.59
1:E:44:ASN:ND2	1:E:46:LEU:O	2.35	0.59
1:E:1572:LYS:HE2	1:E:1585:ARG:HB2	1.84	0.59
1:E:1628:MET:HB2	1:E:1687:TYR:HE2	1.66	0.59
1:E:4612:GLU:O	1:E:4657:LYS:NZ	2.35	0.59
1:E:4703:ASP:O	1:E:4707:GLN:NE2	2.35	0.59
2:F:61:ASN:ND2	2:F:63:THR:OG1	2.36	0.59
1:G:328:ALA:O	1:G:365:HIS:ND1	2.33	0.59
1:G:1941:GLN:O	1:G:1945:TYR:N	2.33	0.59
1:G:4771:THR:HB	1:G:4862:ILE:HG12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:102:SER:HA	2:H:136:GLN:HG2	1.84	0.59
1:A:3892:TYR:O	1:A:3896:LYS:NZ	2.36	0.59
1:A:3926:GLN:HE21	1:A:4936:GLY:H	1.51	0.59
2:B:102:SER:HA	2:B:136:GLN:HG2	1.84	0.59
1:C:2088:LEU:O	1:C:2092:GLN:N	2.35	0.59
2:D:61:ASN:ND2	2:D:63:THR:OG1	2.36	0.59
1:A:2161:ASN:O	1:A:2165:ALA:N	2.33	0.59
1:A:4612:GLU:O	1:A:4657:LYS:NZ	2.35	0.59
1:C:3841:PHE:HA	1:C:3844:LEU:HD12	1.84	0.59
1:C:4771:THR:HB	1:C:4862:ILE:HG12	1.84	0.59
1:E:328:ALA:O	1:E:365:HIS:ND1	2.33	0.59
1:E:2855:LYS:HG2	1:E:2858:LYS:HD3	1.84	0.59
1:G:3892:TYR:O	1:G:3896:LYS:NZ	2.36	0.59
1:G:3926:GLN:HE21	1:G:4936:GLY:H	1.51	0.59
1:A:3800:SER:OG	1:A:3801:CYS:N	2.36	0.59
2:B:61:ASN:ND2	2:B:63:THR:OG1	2.36	0.59
1:C:2389:ILE:HA	1:C:2392:PHE:HB3	1.84	0.59
2:D:102:SER:HA	2:D:136:GLN:HG2	1.84	0.59
1:E:1155:SER:O	1:E:1157:GLN:NE2	2.35	0.59
1:E:1223:THR:O	1:E:1225:LYS:NZ	2.35	0.59
1:E:1941:GLN:O	1:E:1945:TYR:N	2.33	0.59
1:G:409:GLN:N	1:G:412:GLU:OE1	2.36	0.59
1:G:1177:LEU:N	1:G:1180:GLU:O	2.35	0.59
1:A:13:PHE:HA	1:A:176:ARG:HA	1.84	0.59
1:A:44:ASN:ND2	1:A:46:LEU:O	2.35	0.59
1:C:1177:LEU:N	1:C:1180:GLU:O	2.35	0.59
1:C:3800:SER:OG	1:C:3801:CYS:N	2.36	0.59
1:G:797:GLY:HA2	1:G:1622:LEU:HA	1.83	0.59
1:G:2389:ILE:HA	1:G:2392:PHE:HB3	1.84	0.59
1:G:2853:TRP:HA	1:G:2856:LYS:HB2	1.85	0.59
1:A:239:GLY:O	1:A:243:GLU:N	2.36	0.59
1:A:3743:GLN:NE2	1:A:3781:TYR:OH	2.36	0.59
1:A:4861:ALA:N	1:C:4867:ILE:CD1	2.61	0.59
1:C:3834:ASP:OD1	1:C:3834:ASP:N	2.34	0.59
1:C:4612:GLU:O	1:C:4657:LYS:NZ	2.35	0.59
1:E:13:PHE:HA	1:E:176:ARG:HA	1.84	0.59
1:E:778:MET:N	1:E:778:MET:SD	2.76	0.59
1:E:3994:GLY:O	1:E:3998:LYS:N	2.35	0.59
2:H:100:TYR:HA	2:H:138:ASN:HA	1.85	0.59
1:A:2217:ASP:OD1	1:A:2217:ASP:N	2.35	0.58
2:B:17:PHE:O	2:B:21:ASP:N	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:239:GLY:O	1:C:243:GLU:N	2.36	0.58
1:C:2737:LYS:NZ	1:C:2758:MET:SD	2.76	0.58
1:E:67:PHE:HB3	1:E:121:LEU:HD11	1.85	0.58
1:E:3924:TYR:O	1:E:3932:ASN:ND2	2.35	0.58
1:E:4649:PHE:O	1:E:4653:LYS:N	2.36	0.58
1:G:298:ARG:HA	1:G:305:TYR:HA	1.84	0.58
1:G:305:TYR:N	1:G:317:MET:O	2.34	0.58
1:G:844:ARG:NH1	1:G:849:ASP:OD2	2.36	0.58
1:G:2204:PHE:O	1:G:2211:ASN:ND2	2.35	0.58
1:A:2422:SER:O	1:A:2426:SER:N	2.36	0.58
1:A:4771:THR:HB	1:A:4862:ILE:HG12	1.84	0.58
1:C:1272:ARG:HH11	1:C:1586:LEU:HB3	1.69	0.58
1:C:1446:ILE:N	1:C:1540:PHE:O	2.37	0.58
1:C:3743:GLN:NE2	1:C:3781:TYR:OH	2.36	0.58
1:C:4082:GLU:O	1:C:4086:LYS:N	2.31	0.58
1:E:1729:MET:SD	1:E:3615:HIS:ND1	2.69	0.58
1:E:3841:PHE:HA	1:E:3844:LEU:HD12	1.84	0.58
1:E:4804:ASP:N	1:E:4804:ASP:OD1	2.34	0.58
1:G:3743:GLN:NE2	1:G:3781:TYR:OH	2.36	0.58
1:A:298:ARG:HA	1:A:305:TYR:HA	1.84	0.58
1:A:4867:ILE:CD1	1:G:4861:ALA:N	2.61	0.58
2:B:100:TYR:HA	2:B:138:ASN:HA	1.85	0.58
1:C:3892:TYR:O	1:C:3896:LYS:NZ	2.36	0.58
1:C:4811:LEU:CD2	1:E:4519:LEU:HD13	2.33	0.58
2:D:100:TYR:HA	2:D:138:ASN:HA	1.85	0.58
1:E:844:ARG:NH1	1:E:849:ASP:OD2	2.36	0.58
1:E:1442:TRP:HB2	1:E:1544:PHE:HB2	1.85	0.58
1:G:239:GLY:O	1:G:243:GLU:N	2.36	0.58
1:G:1001:GLU:O	1:G:1005:ASN:ND2	2.37	0.58
1:G:2161:ASN:O	1:G:2165:ALA:N	2.33	0.58
1:G:2855:LYS:HG2	1:G:2858:LYS:HD3	1.84	0.58
1:G:3665:LEU:HD22	1:G:3735:ARG:HH11	1.69	0.58
1:G:3834:ASP:N	1:G:3834:ASP:OD1	2.34	0.58
1:A:43:GLY:H	1:A:45:ARG:HH22	1.49	0.58
1:A:2737:LYS:NZ	1:A:2758:MET:SD	2.76	0.58
1:A:3853:SER:O	1:A:3857:ASN:ND2	2.37	0.58
1:A:4841:GLU:O	1:A:4845:ILE:N	2.35	0.58
1:C:2068:VAL:HA	1:C:2071:ALA:HB3	1.85	0.58
1:C:2853:TRP:HA	1:C:2856:LYS:HB2	1.85	0.58
1:G:44:ASN:ND2	1:G:46:LEU:O	2.35	0.58
2:H:61:ASN:ND2	2:H:63:THR:OG1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:778:MET:N	1:C:778:MET:SD	2.76	0.58
1:C:4800:GLY:HA2	1:C:4804:ASP:HB3	1.85	0.58
1:E:1001:GLU:O	1:E:1005:ASN:ND2	2.37	0.58
1:E:3853:SER:O	1:E:3857:ASN:ND2	2.37	0.58
1:A:409:GLN:N	1:A:412:GLU:OE1	2.36	0.58
1:A:778:MET:N	1:A:778:MET:SD	2.76	0.58
1:A:1256:PRO:HD2	1:A:1451:HIS:HB3	1.85	0.58
1:C:2464:ASP:OD1	1:C:2464:ASP:N	2.34	0.58
1:E:1272:ARG:HH11	1:E:1586:LEU:HB3	1.69	0.58
1:G:67:PHE:HB3	1:G:121:LEU:HD11	1.85	0.58
1:G:1442:TRP:HB2	1:G:1544:PHE:HB2	1.85	0.58
1:G:2217:ASP:OD1	1:G:2217:ASP:N	2.35	0.58
1:G:2558:LYS:O	1:G:2562:LEU:N	2.34	0.58
1:G:4612:GLU:O	1:G:4657:LYS:NZ	2.35	0.58
1:G:4841:GLU:O	1:G:4845:ILE:N	2.35	0.58
2:H:17:PHE:O	2:H:21:ASP:N	2.35	0.58
1:A:1425:THR:N	1:A:1510:VAL:O	2.37	0.58
1:A:1720:MET:O	1:A:1723:ASN:ND2	2.36	0.58
1:A:3665:LEU:HD22	1:A:3735:ARG:HH11	1.69	0.58
1:C:335:LYS:NZ	1:C:396:GLU:O	2.37	0.58
1:C:2722:ILE:HA	1:C:2725:TYR:HB3	1.85	0.58
1:C:3926:GLN:HE21	1:C:4936:GLY:H	1.51	0.58
1:C:4884:ASP:N	1:C:4884:ASP:OD2	2.35	0.58
1:E:2088:LEU:O	1:E:2092:GLN:N	2.35	0.58
1:E:3594:LYS:NZ	2:F:115:GLU:OE1	2.37	0.58
1:E:4771:THR:HB	1:E:4862:ILE:HG12	1.84	0.58
2:F:100:TYR:HA	2:F:138:ASN:HA	1.85	0.58
1:G:43:GLY:H	1:G:45:ARG:HH22	1.49	0.58
1:G:335:LYS:NZ	1:G:396:GLU:O	2.37	0.58
1:G:2722:ILE:HA	1:G:2725:TYR:HB3	1.85	0.58
1:G:3853:SER:O	1:G:3857:ASN:ND2	2.37	0.58
1:A:299:HIS:O	1:A:420:ARG:NH1	2.37	0.58
1:A:844:ARG:NH1	1:A:849:ASP:OD2	2.36	0.58
1:C:1425:THR:N	1:C:1510:VAL:O	2.37	0.58
1:C:2461:PHE:N	1:C:2464:ASP:OD1	2.37	0.58
1:C:3665:LEU:HD22	1:C:3735:ARG:HH11	1.69	0.58
1:C:4861:ALA:N	1:E:4867:ILE:CD1	2.62	0.58
1:E:1256:PRO:HD2	1:E:1451:HIS:HB3	1.85	0.58
1:E:2068:VAL:HA	1:E:2071:ALA:HB3	1.85	0.58
1:E:2162:LEU:O	1:E:2166:LEU:N	2.34	0.58
1:E:3638:GLU:HB2	1:E:3698:LYS:HD2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:518:ALA:O	1:G:520:ARG:NH1	2.37	0.58
1:G:3638:GLU:HB2	1:G:3698:LYS:HD2	1.86	0.58
1:G:4512:PHE:O	1:G:4516:PHE:N	2.37	0.58
1:A:67:PHE:HB3	1:A:121:LEU:HD11	1.85	0.58
1:A:897:LYS:HB3	1:A:918:LEU:HD21	1.86	0.58
1:A:1696:GLY:HA2	1:A:1699:ARG:HB3	1.86	0.58
1:A:3975:LEU:O	1:A:3979:MET:HB2	2.04	0.58
1:C:897:LYS:HB3	1:C:918:LEU:HD21	1.86	0.58
1:C:1696:GLY:HA2	1:C:1699:ARG:HB3	1.86	0.58
1:C:2086:PHE:HA	1:C:2089:LEU:HD12	1.86	0.58
1:C:4008:SER:OG	1:C:4009:ASN:OD1	2.22	0.58
1:E:4752:LYS:HA	1:E:4755:ARG:HG3	1.86	0.58
1:E:4841:GLU:O	1:E:4845:ILE:N	2.35	0.58
1:G:2737:LYS:NZ	1:G:2758:MET:SD	2.76	0.58
1:G:4649:PHE:O	1:G:4653:LYS:N	2.36	0.58
1:A:2086:PHE:HA	1:A:2089:LEU:HD12	1.86	0.58
1:A:4512:PHE:O	1:A:4516:PHE:N	2.37	0.58
1:C:844:ARG:NH1	1:C:849:ASP:OD2	2.36	0.58
1:C:3853:SER:O	1:C:3857:ASN:ND2	2.37	0.58
1:C:4811:LEU:HD21	1:E:4519:LEU:HD13	1.86	0.58
1:E:477:ASN:N	1:E:477:ASN:OD1	2.34	0.58
1:E:2161:ASN:O	1:E:2165:ALA:N	2.33	0.58
1:G:778:MET:SD	1:G:778:MET:N	2.76	0.58
1:G:1425:THR:N	1:G:1510:VAL:O	2.37	0.58
1:G:1720:MET:O	1:G:1723:ASN:ND2	2.36	0.58
1:G:3975:LEU:O	1:G:3979:MET:HB2	2.04	0.58
1:A:2068:VAL:HA	1:A:2071:ALA:HB3	1.85	0.57
1:E:1482:ARG:HB3	1:E:1531:TYR:HD1	1.69	0.57
1:E:1696:GLY:HA2	1:E:1699:ARG:HB3	1.86	0.57
1:E:3926:GLN:HE21	1:E:4936:GLY:H	1.51	0.57
1:E:4512:PHE:O	1:E:4516:PHE:N	2.37	0.57
1:G:1696:GLY:HA2	1:G:1699:ARG:HB3	1.86	0.57
1:G:4752:LYS:HA	1:G:4755:ARG:HG3	1.86	0.57
1:G:4800:GLY:HA2	1:G:4804:ASP:HB3	1.85	0.57
1:A:1272:ARG:HH11	1:A:1586:LEU:HB3	1.69	0.57
1:A:2461:PHE:N	1:A:2464:ASP:OD1	2.37	0.57
1:A:4169:SER:O	1:A:4172:GLN:NE2	2.37	0.57
1:A:4811:LEU:HD13	1:C:4519:LEU:HD22	1.84	0.57
1:C:299:HIS:O	1:C:420:ARG:NH1	2.37	0.57
1:C:836:HIS:HB2	1:C:839:GLU:HB2	1.86	0.57
1:C:1482:ARG:HB3	1:C:1531:TYR:HD1	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3975:LEU:O	1:C:3979:MET:HB2	2.04	0.57
1:E:518:ALA:O	1:E:520:ARG:NH1	2.37	0.57
1:E:3800:SER:OG	1:E:3801:CYS:N	2.36	0.57
1:E:3892:TYR:O	1:E:3896:LYS:NZ	2.36	0.57
1:E:4008:SER:OG	1:E:4009:ASN:OD1	2.22	0.57
2:F:17:PHE:O	2:F:21:ASP:N	2.35	0.57
1:G:836:HIS:HB2	1:G:839:GLU:HB2	1.86	0.57
1:G:1446:ILE:N	1:G:1540:PHE:O	2.37	0.57
1:G:1797:GLU:O	1:G:1801:GLU:N	2.35	0.57
1:G:3675:THR:O	1:G:3678:THR:OG1	2.22	0.57
1:A:1241:VAL:HB	1:A:1807:ARG:HH22	1.69	0.57
1:C:1726:ILE:HG13	1:C:1757:LEU:HD23	1.87	0.57
1:C:3594:LYS:NZ	2:D:115:GLU:OE1	2.37	0.57
1:G:1173:MET:O	1:G:1191:ALA:N	2.37	0.57
1:G:1223:THR:O	1:G:1225:LYS:NZ	2.35	0.57
1:G:2068:VAL:HA	1:G:2071:ALA:HB3	1.85	0.57
1:A:802:PHE:HB3	1:A:804:LEU:HG	1.87	0.57
1:A:3594:LYS:NZ	2:B:115:GLU:OE1	2.37	0.57
1:A:4800:GLY:HA2	1:A:4804:ASP:HB3	1.85	0.57
1:E:836:HIS:HB2	1:E:839:GLU:HB2	1.86	0.57
1:E:2853:TRP:HA	1:E:2856:LYS:HB2	1.85	0.57
1:E:3975:LEU:O	1:E:3979:MET:HB2	2.04	0.57
1:E:4884:ASP:OD2	1:E:4884:ASP:N	2.35	0.57
1:G:1043:LYS:O	1:G:1047:LYS:N	2.36	0.57
1:G:1256:PRO:HD2	1:G:1451:HIS:HB3	1.85	0.57
1:A:836:HIS:HB2	1:A:839:GLU:HB2	1.86	0.57
1:A:2838:LEU:HD23	1:A:2894:LEU:HB3	1.86	0.57
1:A:3841:PHE:HA	1:A:3844:LEU:HD12	1.84	0.57
1:A:4649:PHE:O	1:A:4653:LYS:N	2.36	0.57
1:C:1001:GLU:O	1:C:1005:ASN:ND2	2.37	0.57
1:C:4752:LYS:HA	1:C:4755:ARG:HG3	1.86	0.57
1:E:19:GLU:OE2	1:E:67:PHE:N	2.38	0.57
1:E:335:LYS:NZ	1:E:396:GLU:O	2.37	0.57
1:E:2461:PHE:N	1:E:2464:ASP:OD1	2.37	0.57
1:E:2896:PHE:O	1:E:2900:ASN:ND2	2.34	0.57
1:E:3743:GLN:NE2	1:E:3781:TYR:OH	2.36	0.57
1:E:3834:ASP:OD1	1:E:3834:ASP:N	2.34	0.57
1:G:2461:PHE:N	1:G:2464:ASP:OD1	2.37	0.57
1:G:3594:LYS:NZ	2:H:115:GLU:OE1	2.37	0.57
1:A:518:ALA:O	1:A:520:ARG:NH1	2.37	0.57
1:A:2722:ILE:HA	1:A:2725:TYR:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4008:SER:OG	1:A:4009:ASN:OD1	2.22	0.57
1:C:1003:ALA:O	1:C:1007:TRP:N	2.36	0.57
1:E:1926:ILE:O	1:E:1930:SER:OG	2.23	0.57
1:E:4785:VAL:O	1:E:4789:PHE:N	2.37	0.57
1:G:601:LEU:O	1:G:1589:GLN:NE2	2.38	0.57
1:G:1051:ARG:O	1:G:1055:ARG:N	2.38	0.57
1:G:1926:ILE:O	1:G:1930:SER:OG	2.23	0.57
1:G:3854:ASP:OD2	1:G:3854:ASP:N	2.38	0.57
1:G:4062:SER:OG	1:G:4063:GLU:OE2	2.22	0.57
1:A:335:LYS:NZ	1:A:396:GLU:O	2.37	0.57
1:A:799:LYS:HB3	1:A:1620:GLN:HB2	1.87	0.57
1:A:2853:TRP:HA	1:A:2856:LYS:HB2	1.85	0.57
1:C:54:ASN:OD1	1:C:56:LYS:NZ	2.35	0.57
1:E:57:ASN:HA	1:E:323:ASP:HA	1.87	0.57
1:E:1241:VAL:HB	1:E:1807:ARG:HH22	1.69	0.57
1:A:601:LEU:O	1:A:1589:GLN:NE2	2.38	0.57
1:A:1001:GLU:O	1:A:1005:ASN:ND2	2.37	0.57
1:A:1155:SER:O	1:A:1157:GLN:NE2	2.35	0.57
1:A:3638:GLU:HB2	1:A:3698:LYS:HD2	1.86	0.57
1:A:4062:SER:OG	1:A:4063:GLU:OE2	2.22	0.57
1:C:67:PHE:HB3	1:C:121:LEU:HD11	1.85	0.57
1:C:802:PHE:HB3	1:C:804:LEU:HG	1.87	0.57
1:C:1241:VAL:HB	1:C:1807:ARG:HH22	1.69	0.57
1:E:299:HIS:O	1:E:420:ARG:NH1	2.37	0.57
1:E:601:LEU:O	1:E:1589:GLN:NE2	2.38	0.57
1:E:799:LYS:HB3	1:E:1620:GLN:HB2	1.87	0.57
1:E:1173:MET:O	1:E:1191:ALA:N	2.37	0.57
1:E:4800:GLY:HA2	1:E:4804:ASP:HB3	1.85	0.57
1:G:82:LEU:HD12	1:G:82:LEU:O	2.05	0.57
1:G:1125:ASP:OD1	1:G:1597:SER:OG	2.23	0.57
1:A:1696:GLY:O	1:A:1700:ALA:N	2.36	0.57
1:A:2464:ASP:OD1	1:A:2464:ASP:N	2.34	0.57
1:A:2896:PHE:O	1:A:2900:ASN:ND2	2.34	0.57
1:A:4867:ILE:CG1	1:G:4861:ALA:HB2	2.31	0.57
1:C:565:LEU:HD11	1:C:603:LYS:HG2	1.87	0.57
1:E:1726:ILE:HG13	1:E:1757:LEU:HD23	1.87	0.57
1:E:2422:SER:O	1:E:2426:SER:N	2.36	0.57
1:E:4654:VAL:HA	1:E:4657:LYS:HB3	1.87	0.57
1:G:799:LYS:HB3	1:G:1620:GLN:HB2	1.87	0.57
1:G:2088:LEU:O	1:G:2092:GLN:N	2.35	0.57
1:A:2433:LEU:HA	1:A:2436:VAL:HB	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:518:ALA:O	1:C:520:ARG:NH1	2.37	0.57
1:C:799:LYS:HB3	1:C:1620:GLN:HB2	1.87	0.57
1:C:1167:ASP:OD1	1:C:1236:TYR:OH	2.23	0.57
1:C:4169:SER:O	1:C:4172:GLN:NE2	2.37	0.57
1:C:4654:VAL:HA	1:C:4657:LYS:HB3	1.87	0.57
1:E:815:PRO:HB2	1:E:817:PRO:HD3	1.87	0.57
1:E:1597:SER:OG	1:E:1598:ARG:N	2.38	0.57
1:A:1726:ILE:HG13	1:A:1757:LEU:HD23	1.87	0.56
1:C:407:ARG:NE	1:C:408:SER:O	2.30	0.56
1:C:477:ASN:N	1:C:477:ASN:OD1	2.34	0.56
1:C:1256:PRO:HD2	1:C:1451:HIS:HB3	1.85	0.56
1:C:4062:SER:OG	1:C:4063:GLU:OE2	2.22	0.56
1:C:4649:PHE:O	1:C:4653:LYS:N	2.36	0.56
1:E:1051:ARG:O	1:E:1055:ARG:N	2.38	0.56
1:E:2722:ILE:HA	1:E:2725:TYR:HB3	1.85	0.56
1:E:2737:LYS:NZ	1:E:2758:MET:SD	2.76	0.56
1:E:4124:GLU:HA	1:E:4127:LEU:HD13	1.87	0.56
1:G:1272:ARG:HH11	1:G:1586:LEU:HB3	1.69	0.56
1:A:1051:ARG:O	1:A:1055:ARG:N	2.38	0.56
1:A:1446:ILE:N	1:A:1540:PHE:O	2.37	0.56
1:A:1651:LEU:O	1:A:1655:TYR:N	2.38	0.56
1:A:4868:ILE:HD11	1:G:4864:GLN:HB3	1.87	0.56
1:C:409:GLN:N	1:C:412:GLU:OE1	2.36	0.56
1:C:815:PRO:HB2	1:C:817:PRO:HD3	1.87	0.56
1:C:2838:LEU:HD23	1:C:2894:LEU:HB3	1.86	0.56
1:C:3638:GLU:HB2	1:C:3698:LYS:HD2	1.86	0.56
1:C:4655:MET:O	1:C:4664:ARG:NH1	2.38	0.56
1:E:1307:PRO:HB2	1:E:1538:LYS:HB3	1.88	0.56
1:E:3665:LEU:HD22	1:E:3735:ARG:HH11	1.69	0.56
1:E:4062:SER:OG	1:E:4063:GLU:OE2	2.22	0.56
1:E:4861:ALA:HB2	1:G:4867:ILE:CG1	2.31	0.56
1:G:57:ASN:HA	1:G:323:ASP:HA	1.87	0.56
1:G:299:HIS:O	1:G:420:ARG:NH1	2.37	0.56
1:A:1007:TRP:O	1:A:1011:ARG:N	2.35	0.56
1:A:3675:THR:O	1:A:3678:THR:OG1	2.22	0.56
1:A:3809:PHE:O	1:A:3812:GLN:NE2	2.33	0.56
1:A:4124:GLU:HA	1:A:4127:LEU:HD13	1.87	0.56
1:A:4785:VAL:O	1:A:4789:PHE:N	2.37	0.56
1:C:166:SER:OG	1:C:168:GLN:OE1	2.24	0.56
1:C:1307:PRO:HB2	1:C:1538:LYS:HB3	1.88	0.56
1:C:3959:LEU:HD22	1:C:3965:GLN:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4124:GLU:HA	1:C:4127:LEU:HD13	1.87	0.56
1:C:4841:GLU:O	1:C:4845:ILE:N	2.35	0.56
1:E:802:PHE:HB3	1:E:804:LEU:HG	1.87	0.56
1:E:1425:THR:N	1:E:1510:VAL:O	2.37	0.56
1:E:3959:LEU:HD22	1:E:3965:GLN:HB3	1.87	0.56
1:G:40:GLU:H	1:G:44:ASN:HD22	1.53	0.56
1:G:295:PHE:HB2	1:G:329:PHE:HB2	1.88	0.56
1:G:815:PRO:HB2	1:G:817:PRO:HD3	1.87	0.56
1:G:1003:ALA:O	1:G:1007:TRP:N	2.36	0.56
1:G:2433:LEU:HA	1:G:2436:VAL:HB	1.87	0.56
1:G:4169:SER:O	1:G:4172:GLN:NE2	2.37	0.56
1:G:4655:MET:O	1:G:4664:ARG:NH1	2.38	0.56
1:G:4884:ASP:OD2	1:G:4884:ASP:N	2.35	0.56
1:A:19:GLU:OE2	1:A:67:PHE:N	2.38	0.56
1:A:756:SER:HB2	1:A:769:ARG:HB2	1.87	0.56
1:A:1003:ALA:O	1:A:1007:TRP:N	2.36	0.56
1:A:1482:ARG:HB3	1:A:1531:TYR:HD1	1.69	0.56
1:A:4655:MET:O	1:A:4664:ARG:NH1	2.38	0.56
1:A:4752:LYS:HA	1:A:4755:ARG:HG3	1.86	0.56
1:C:1900:PRO:O	1:C:1904:LYS:NZ	2.39	0.56
1:E:1167:ASP:OD1	1:E:1236:TYR:OH	2.23	0.56
1:E:2838:LEU:HD23	1:E:2894:LEU:HB3	1.86	0.56
1:E:3675:THR:O	1:E:3678:THR:OG1	2.22	0.56
1:E:4169:SER:O	1:E:4172:GLN:NE2	2.37	0.56
1:G:897:LYS:HB3	1:G:918:LEU:HD21	1.86	0.56
1:G:1482:ARG:HB3	1:G:1531:TYR:HD1	1.69	0.56
1:G:2086:PHE:HA	1:G:2089:LEU:HD12	1.86	0.56
1:G:3994:GLY:O	1:G:3998:LYS:N	2.35	0.56
1:G:4008:SER:OG	1:G:4009:ASN:OD1	2.22	0.56
1:G:4124:GLU:HA	1:G:4127:LEU:HD13	1.87	0.56
1:A:706:TYR:OH	1:A:1086:ARG:NH1	2.39	0.56
1:A:1035:TYR:O	1:A:1043:LYS:NZ	2.36	0.56
1:A:1307:PRO:HB2	1:A:1538:LYS:HB3	1.88	0.56
1:A:3808:ALA:HA	1:A:3811:ARG:HD3	1.88	0.56
1:C:601:LEU:O	1:C:1589:GLN:NE2	2.38	0.56
1:C:4601:PHE:O	1:C:4605:LYS:N	2.37	0.56
1:E:897:LYS:HB3	1:E:918:LEU:HD21	1.86	0.56
1:E:1797:GLU:O	1:E:1801:GLU:N	2.35	0.56
1:G:166:SER:OG	1:G:168:GLN:OE1	2.24	0.56
1:G:2876:ASP:OD1	1:G:2876:ASP:N	2.33	0.56
1:A:1173:MET:O	1:A:1191:ALA:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1611:ILE:O	1:A:1620:GLN:N	2.33	0.56
1:A:4884:ASP:OD2	1:A:4884:ASP:N	2.35	0.56
1:C:295:PHE:HB2	1:C:329:PHE:HB2	1.88	0.56
1:C:648:LEU:HD13	1:C:1626:GLN:HG2	1.88	0.56
1:C:706:TYR:OH	1:C:1086:ARG:NH1	2.39	0.56
1:C:4512:PHE:O	1:C:4516:PHE:N	2.37	0.56
1:C:4804:ASP:OD1	1:C:4804:ASP:N	2.34	0.56
1:C:4853:PHE:O	1:C:4857:VAL:N	2.30	0.56
1:E:565:LEU:HD11	1:E:603:LYS:HG2	1.87	0.56
1:E:1446:ILE:N	1:E:1540:PHE:O	2.36	0.56
1:E:2086:PHE:HA	1:E:2089:LEU:HD12	1.86	0.56
1:E:4581:THR:HG22	1:E:4730:SER:HB3	1.88	0.56
1:E:4864:GLN:HB3	1:G:4868:ILE:HD11	1.87	0.56
1:A:648:LEU:HD13	1:A:1626:GLN:HG2	1.88	0.56
1:A:1125:ASP:OD1	1:A:1597:SER:OG	2.23	0.56
1:A:3638:GLU:OE1	1:A:3638:GLU:N	2.38	0.56
1:A:3959:LEU:HD22	1:A:3965:GLN:HB3	1.87	0.56
1:A:4601:PHE:O	1:A:4605:LYS:N	2.37	0.56
1:C:4864:GLN:HB3	1:E:4868:ILE:HD11	1.87	0.56
1:E:2421:ARG:NH2	1:E:2476:VAL:O	2.38	0.56
1:E:4601:PHE:O	1:E:4605:LYS:N	2.37	0.56
1:G:1155:SER:O	1:G:1157:GLN:NE2	2.35	0.56
1:G:1167:ASP:OD1	1:G:1236:TYR:OH	2.23	0.56
1:G:1241:VAL:HB	1:G:1807:ARG:HH22	1.69	0.56
1:G:2642:SER:O	1:G:2646:PHE:N	2.39	0.56
1:G:2838:LEU:HD23	1:G:2894:LEU:HB3	1.86	0.56
1:G:3808:ALA:HA	1:G:3811:ARG:HD3	1.88	0.56
1:G:3959:LEU:HD22	1:G:3965:GLN:HB3	1.87	0.56
1:A:1900:PRO:O	1:A:1904:LYS:NZ	2.39	0.56
1:C:19:GLU:OE2	1:C:67:PHE:N	2.38	0.56
1:C:3638:GLU:N	1:C:3638:GLU:OE1	2.38	0.56
1:E:409:GLN:N	1:E:412:GLU:OE1	2.36	0.56
1:E:1428:TYR:HD2	1:E:1508:GLY:H	1.53	0.56
1:G:565:LEU:HD11	1:G:603:LYS:HG2	1.87	0.56
1:G:1726:ILE:HG13	1:G:1757:LEU:HD23	1.87	0.56
1:A:815:PRO:HB2	1:A:817:PRO:HD3	1.87	0.56
1:A:2642:SER:O	1:A:2646:PHE:N	2.39	0.56
1:C:40:GLU:H	1:C:44:ASN:HD22	1.53	0.56
1:C:57:ASN:HA	1:C:323:ASP:HA	1.87	0.56
1:C:1051:ARG:O	1:C:1055:ARG:N	2.38	0.56
1:C:1788:LYS:HZ1	1:C:1834:PHE:H	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2422:SER:O	1:C:2426:SER:N	2.36	0.56
1:E:2433:LEU:HA	1:E:2436:VAL:HB	1.87	0.56
1:E:3990:ASN:HB3	1:E:4109:HIS:CE1	2.41	0.56
1:E:4935:THR:H	1:E:4938:GLU:HB2	1.71	0.56
1:G:19:GLU:OE2	1:G:67:PHE:N	2.38	0.56
1:G:1900:PRO:O	1:G:1904:LYS:NZ	2.39	0.56
1:A:57:ASN:HA	1:A:323:ASP:HA	1.87	0.56
1:A:477:ASN:OD1	1:A:477:ASN:N	2.34	0.56
1:A:1597:SER:OG	1:A:1598:ARG:N	2.38	0.56
1:C:1597:SER:OG	1:C:1598:ARG:N	2.38	0.56
1:C:1926:ILE:O	1:C:1930:SER:OG	2.23	0.56
1:C:2421:ARG:NH2	1:C:2476:VAL:O	2.38	0.56
1:C:2896:PHE:O	1:C:2900:ASN:ND2	2.34	0.56
1:C:3675:THR:O	1:C:3678:THR:OG1	2.22	0.56
1:C:4581:THR:HG22	1:C:4730:SER:HB3	1.88	0.56
1:E:295:PHE:HB2	1:E:329:PHE:HB2	1.87	0.56
1:E:407:ARG:NE	1:E:408:SER:O	2.30	0.56
1:G:480:ARG:NH2	1:G:3679:GLU:OE2	2.39	0.56
1:G:1307:PRO:HB2	1:G:1538:LYS:HB3	1.88	0.56
1:A:1926:ILE:O	1:A:1930:SER:OG	2.23	0.55
1:A:4864:GLN:HB3	1:C:4868:ILE:HD11	1.88	0.55
1:C:1173:MET:O	1:C:1191:ALA:N	2.37	0.55
1:E:756:SER:HB2	1:E:769:ARG:HB2	1.87	0.55
1:E:1043:LYS:O	1:E:1047:LYS:N	2.36	0.55
1:E:1900:PRO:O	1:E:1904:LYS:NZ	2.39	0.55
1:E:4655:MET:O	1:E:4664:ARG:NH1	2.38	0.55
1:E:4713:VAL:O	1:E:4716:THR:OG1	2.24	0.55
1:G:756:SER:HB2	1:G:769:ARG:HB2	1.87	0.55
1:G:802:PHE:HB3	1:G:804:LEU:HG	1.87	0.55
1:G:4654:VAL:HA	1:G:4657:LYS:HB3	1.87	0.55
1:A:565:LEU:HD11	1:A:603:LYS:HG2	1.87	0.55
1:A:619:VAL:HG23	1:A:624:ALA:HB2	1.89	0.55
1:A:1613:GLU:HB3	1:A:1618:LEU:H	1.72	0.55
1:A:1654:HIS:O	1:A:1657:THR:OG1	2.22	0.55
1:A:4867:ILE:CG2	1:G:4864:GLN:HB2	2.36	0.55
1:C:2161:ASN:O	1:C:2165:ALA:N	2.33	0.55
1:G:1718:ARG:NH2	1:G:1758:ARG:O	2.32	0.55
1:G:2464:ASP:OD1	1:G:2464:ASP:N	2.34	0.55
1:A:257:ARG:HH22	1:A:272:ARG:HD3	1.72	0.55
1:A:1167:ASP:OD1	1:A:1236:TYR:OH	2.23	0.55
1:A:1428:TYR:HD2	1:A:1508:GLY:H	1.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3596:ARG:NH2	2:B:85:GLU:OE1	2.40	0.55
1:A:3990:ASN:HB3	1:A:4109:HIS:CE1	2.41	0.55
1:A:4654:VAL:HA	1:A:4657:LYS:HB3	1.87	0.55
1:A:4935:THR:H	1:A:4938:GLU:HB2	1.71	0.55
1:C:756:SER:HB2	1:C:769:ARG:HB2	1.87	0.55
1:C:3854:ASP:OD2	1:C:3854:ASP:N	2.38	0.55
1:C:3990:ASN:HB3	1:C:4109:HIS:CE1	2.41	0.55
1:E:257:ARG:HH22	1:E:272:ARG:HD3	1.72	0.55
1:E:648:LEU:HD13	1:E:1626:GLN:HG2	1.88	0.55
1:E:982:ASP:OD1	1:E:984:SER:OG	2.24	0.55
1:E:1125:ASP:OD1	1:E:1597:SER:OG	2.23	0.55
1:E:1932:ASP:O	1:E:1936:LYS:N	2.37	0.55
1:E:4861:ALA:N	1:G:4867:ILE:CD1	2.61	0.55
1:G:3800:SER:OG	1:G:3801:CYS:N	2.36	0.55
1:G:4782:TYR:OH	1:G:4847:PHE:O	2.24	0.55
1:A:305:TYR:N	1:A:317:MET:O	2.34	0.55
1:A:4738:PHE:CD1	1:G:4788:ASN:ND2	2.75	0.55
1:C:606:ARG:HH12	1:C:644:LEU:HD21	1.71	0.55
1:C:1428:TYR:HD2	1:C:1508:GLY:H	1.53	0.55
1:C:2433:LEU:HA	1:C:2436:VAL:HB	1.87	0.55
1:C:4864:GLN:O	1:C:4868:ILE:N	2.40	0.55
1:E:626:ARG:O	1:E:630:HIS:N	2.34	0.55
1:G:317:MET:HG3	1:G:321:LYS:HD3	1.89	0.55
1:G:706:TYR:OH	1:G:1086:ARG:NH1	2.39	0.55
1:G:3596:ARG:NH2	2:H:85:GLU:OE1	2.40	0.55
1:G:3638:GLU:OE1	1:G:3638:GLU:N	2.38	0.55
1:G:3990:ASN:HB3	1:G:4109:HIS:CE1	2.41	0.55
1:A:40:GLU:H	1:A:44:ASN:HD22	1.53	0.55
1:A:317:MET:HG3	1:A:321:LYS:HD3	1.89	0.55
1:A:1248:THR:OG1	1:A:1602:GLN:NE2	2.40	0.55
1:C:54:ASN:HA	1:C:56:LYS:HZ1	1.72	0.55
1:C:257:ARG:HH22	1:C:272:ARG:HD3	1.72	0.55
1:C:480:ARG:NH2	1:C:3679:GLU:OE2	2.39	0.55
1:C:1144:ARG:NH1	1:C:1150:GLU:OE1	2.40	0.55
1:C:4864:GLN:HB2	1:E:4867:ILE:CG2	2.37	0.55
1:C:4889:CYS:SG	1:C:4891:ILE:N	2.79	0.55
1:C:4935:THR:H	1:C:4938:GLU:HB2	1.71	0.55
1:E:40:GLU:H	1:E:44:ASN:HD22	1.53	0.55
1:E:4864:GLN:O	1:E:4868:ILE:N	2.40	0.55
1:G:648:LEU:HD13	1:G:1626:GLN:HG2	1.88	0.55
1:G:1696:GLY:O	1:G:1700:ALA:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1904:LYS:HA	1:G:1907:MET:HB3	1.88	0.55
1:A:2315:GLU:HA	1:A:2318:ALA:HB3	1.89	0.55
1:A:2841:MET:HE1	1:A:2904:VAL:HG13	1.89	0.55
1:C:1696:GLY:O	1:C:1700:ALA:N	2.36	0.55
1:E:166:SER:OG	1:E:168:GLN:OE1	2.24	0.55
1:E:334:SER:OG	1:E:335:LYS:N	2.40	0.55
1:E:480:ARG:NH2	1:E:3679:GLU:OE2	2.39	0.55
1:G:626:ARG:O	1:G:630:HIS:N	2.34	0.55
1:G:4581:THR:HG22	1:G:4730:SER:HB3	1.88	0.55
1:A:1718:ARG:NH2	1:A:1758:ARG:O	2.32	0.55
1:A:2847:GLU:O	1:A:2851:ASN:ND2	2.40	0.55
1:C:1797:GLU:O	1:C:1801:GLU:N	2.35	0.55
1:C:3596:ARG:NH2	2:D:85:GLU:OE1	2.40	0.55
1:E:1651:LEU:O	1:E:1655:TYR:N	2.38	0.55
1:G:257:ARG:HH22	1:G:272:ARG:HD3	1.72	0.55
1:G:602:ASP:O	1:G:1576:LYS:NZ	2.33	0.55
1:G:619:VAL:HG23	1:G:624:ALA:HB2	1.89	0.55
1:G:1252:SER:HB3	1:G:1598:ARG:HB3	1.89	0.55
1:G:2315:GLU:HA	1:G:2318:ALA:HB3	1.89	0.55
1:A:295:PHE:HB2	1:A:329:PHE:HB2	1.88	0.55
1:A:625:VAL:O	1:A:629:GLN:NE2	2.40	0.55
1:A:4864:GLN:HB2	1:C:4867:ILE:CG2	2.37	0.55
1:C:620:CYS:SG	1:C:621:HIS:N	2.80	0.55
1:C:2841:MET:HE1	1:C:2904:VAL:HG13	1.89	0.55
1:E:626:ARG:NH1	1:E:1667:LEU:O	2.40	0.55
1:E:1919:VAL:O	1:E:1923:ILE:N	2.39	0.55
1:E:2847:GLU:O	1:E:2851:ASN:ND2	2.40	0.55
1:E:3596:ARG:NH2	2:F:85:GLU:OE1	2.40	0.55
2:F:25:ASP:N	2:F:25:ASP:OD1	2.39	0.55
1:G:1172:THR:HG22	1:G:1193:LYS:HA	1.89	0.55
1:G:1597:SER:OG	1:G:1598:ARG:N	2.38	0.55
1:G:2114:VAL:O	1:G:2117:THR:OG1	2.25	0.55
1:G:3775:GLN:OE1	1:G:3852:ASN:ND2	2.40	0.55
1:G:4785:VAL:O	1:G:4789:PHE:N	2.37	0.55
1:A:115:TYR:HB3	1:A:164:PRO:HD3	1.89	0.55
1:A:166:SER:OG	1:A:168:GLN:OE1	2.24	0.55
1:A:480:ARG:NH2	1:A:3679:GLU:OE2	2.39	0.55
1:A:1788:LYS:HZ1	1:A:1834:PHE:H	1.54	0.55
1:A:2275:LEU:H	1:A:2293:PRO:HD3	1.72	0.55
1:C:619:VAL:HG23	1:C:624:ALA:HB2	1.89	0.55
1:C:1043:LYS:O	1:C:1047:LYS:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2275:LEU:H	1:C:2293:PRO:HD3	1.72	0.55
1:C:3808:ALA:HA	1:C:3811:ARG:HD3	1.88	0.55
1:C:3995:THR:OG1	1:C:3996:ILE:N	2.40	0.55
1:C:4801:ASP:OD1	1:C:4801:ASP:N	2.40	0.55
1:E:4801:ASP:N	1:E:4801:ASP:OD1	2.40	0.55
1:G:982:ASP:OD1	1:G:984:SER:OG	2.24	0.55
1:G:1686:LEU:HA	1:G:1689:ILE:HD12	1.89	0.55
1:G:2841:MET:HE1	1:G:2904:VAL:HG13	1.89	0.55
1:G:3995:THR:OG1	1:G:3996:ILE:N	2.40	0.55
1:A:1144:ARG:NH1	1:A:1150:GLU:OE1	2.40	0.55
1:A:1932:ASP:O	1:A:1936:LYS:N	2.37	0.55
1:A:4801:ASP:N	1:A:4801:ASP:OD1	2.40	0.55
1:C:4785:VAL:O	1:C:4789:PHE:N	2.37	0.55
1:E:646:THR:HA	1:E:1630:LEU:HA	1.89	0.55
1:G:3694:ASP:OD1	1:G:3694:ASP:N	2.23	0.55
2:H:126:ILE:O	2:H:130:ASP:N	2.40	0.55
1:A:1904:LYS:HA	1:A:1907:MET:HB3	1.88	0.54
1:A:4591:TYR:OH	1:A:4717:ASP:OD2	2.25	0.54
1:C:2837:ASP:HB3	1:C:2905:SER:HA	1.89	0.54
1:E:4864:GLN:HB2	1:G:4867:ILE:CG2	2.37	0.54
1:A:334:SER:OG	1:A:335:LYS:N	2.40	0.54
1:A:620:CYS:SG	1:A:621:HIS:N	2.80	0.54
1:A:626:ARG:NH1	1:A:1667:LEU:O	2.40	0.54
1:A:982:ASP:OD1	1:A:984:SER:OG	2.24	0.54
1:A:1686:LEU:HA	1:A:1689:ILE:HD12	1.89	0.54
1:A:3775:GLN:OE1	1:A:3852:ASN:ND2	2.40	0.54
1:C:288:HIS:N	1:C:349:MET:O	2.38	0.54
1:C:334:SER:OG	1:C:335:LYS:N	2.40	0.54
1:C:1125:ASP:OD1	1:C:1597:SER:OG	2.23	0.54
1:C:1172:THR:HG22	1:C:1193:LYS:HA	1.89	0.54
1:C:1613:GLU:HB3	1:C:1618:LEU:H	1.72	0.54
1:E:309:MET:O	1:E:313:SER:N	2.40	0.54
1:E:619:VAL:HG23	1:E:624:ALA:HB2	1.88	0.54
1:E:625:VAL:O	1:E:629:GLN:NE2	2.40	0.54
1:E:681:HIS:HB3	1:E:798:ILE:HA	1.90	0.54
1:E:706:TYR:OH	1:E:1086:ARG:NH1	2.39	0.54
1:E:2275:LEU:H	1:E:2293:PRO:HD3	1.72	0.54
1:E:3639:ASP:H	1:E:3698:LYS:HZ2	1.54	0.54
1:G:606:ARG:HH12	1:G:644:LEU:HD21	1.71	0.54
1:A:651:HIS:N	1:A:1625:LEU:O	2.37	0.54
1:A:1123:GLN:HB3	1:A:1125:ASP:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:681:HIS:HB3	1:C:798:ILE:HA	1.90	0.54
1:E:1100:ARG:NH1	1:E:1167:ASP:OD1	2.40	0.54
1:E:1172:THR:HG22	1:E:1193:LYS:HA	1.89	0.54
1:E:1904:LYS:HA	1:E:1907:MET:HB3	1.88	0.54
1:E:2841:MET:HE1	1:E:2904:VAL:HG13	1.89	0.54
1:G:1035:TYR:O	1:G:1043:LYS:NZ	2.36	0.54
1:G:2422:SER:O	1:G:2426:SER:N	2.36	0.54
1:C:1919:VAL:O	1:C:1923:ILE:N	2.39	0.54
1:C:2847:GLU:O	1:C:2851:ASN:ND2	2.40	0.54
1:C:3632:THR:O	1:C:3635:HIS:NE2	2.40	0.54
2:D:25:ASP:N	2:D:25:ASP:OD1	2.39	0.54
1:E:606:ARG:HH12	1:E:644:LEU:HD21	1.71	0.54
1:E:2558:LYS:O	1:E:2562:LEU:N	2.34	0.54
1:E:3808:ALA:HA	1:E:3811:ARG:HD3	1.88	0.54
2:B:126:ILE:O	2:B:130:ASP:N	2.40	0.54
1:C:309:MET:O	1:C:313:SER:N	2.40	0.54
1:C:625:VAL:O	1:C:629:GLN:NE2	2.40	0.54
1:C:1131:ASP:N	1:C:1131:ASP:OD1	2.41	0.54
1:C:1904:LYS:HA	1:C:1907:MET:HB3	1.88	0.54
1:C:2642:SER:O	1:C:2646:PHE:N	2.39	0.54
1:E:1686:LEU:HA	1:E:1689:ILE:HD12	1.89	0.54
1:E:2315:GLU:HA	1:E:2318:ALA:HB3	1.89	0.54
1:E:3632:THR:O	1:E:3635:HIS:NE2	2.40	0.54
1:E:4889:CYS:SG	1:E:4891:ILE:N	2.79	0.54
1:G:185:SER:OG	1:G:186:VAL:N	2.40	0.54
1:G:309:MET:O	1:G:313:SER:N	2.40	0.54
1:G:334:SER:OG	1:G:335:LYS:N	2.40	0.54
1:A:3639:ASP:OD1	1:A:3698:LYS:NZ	2.41	0.54
1:A:4581:THR:HG22	1:A:4730:SER:HB3	1.88	0.54
1:A:4713:VAL:O	1:A:4716:THR:OG1	2.24	0.54
1:E:620:CYS:SG	1:E:621:HIS:N	2.80	0.54
1:E:1611:ILE:O	1:E:1620:GLN:N	2.33	0.54
1:E:1718:ARG:NH2	1:E:1758:ARG:O	2.32	0.54
1:E:1764:SER:OG	1:E:1779:SER:O	2.21	0.54
1:E:3638:GLU:OE1	1:E:3638:GLU:N	2.38	0.54
1:E:4811:LEU:HD22	1:G:4519:LEU:HB3	1.88	0.54
1:E:4926:LEU:HA	1:E:4929:LYS:HB3	1.90	0.54
1:G:115:TYR:HB3	1:G:164:PRO:HD3	1.89	0.54
1:G:260:VAL:HG21	1:G:314:LEU:HB3	1.89	0.54
1:G:288:HIS:N	1:G:349:MET:O	2.38	0.54
1:G:1131:ASP:OD1	1:G:1131:ASP:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1428:TYR:HD2	1:G:1508:GLY:H	1.53	0.54
1:G:2847:GLU:O	1:G:2851:ASN:ND2	2.40	0.54
1:G:2896:PHE:O	1:G:2900:ASN:ND2	2.34	0.54
1:G:4935:THR:H	1:G:4938:GLU:HB2	1.71	0.54
1:A:260:VAL:HG21	1:A:314:LEU:HB3	1.89	0.54
1:A:681:HIS:HB3	1:A:798:ILE:HA	1.90	0.54
1:A:1144:ARG:N	1:A:1150:GLU:O	2.41	0.54
1:A:1254:ARG:O	1:A:1598:ARG:NH2	2.41	0.54
1:A:1677:CYS:HA	1:A:1680:VAL:HG12	1.90	0.54
1:A:4782:TYR:OH	1:A:4847:PHE:O	2.24	0.54
1:A:4887:THR:OG1	1:A:4888:LYS:NZ	2.40	0.54
1:C:330:THR:OG1	1:C:364:GLN:OE1	2.25	0.54
1:C:3986:MET:HG3	1:C:3996:ILE:HD11	1.90	0.54
1:E:1183:LEU:HA	1:E:1189:GLU:HA	1.89	0.54
1:E:1252:SER:HB3	1:E:1598:ARG:HB3	1.89	0.54
1:E:2837:ASP:HB3	1:E:2905:SER:HA	1.89	0.54
1:E:3106:LEU:O	1:E:3110:PHE:N	2.40	0.54
1:G:625:VAL:O	1:G:629:GLN:NE2	2.40	0.54
1:G:1100:ARG:NH1	1:G:1167:ASP:OD1	2.40	0.54
1:G:1254:ARG:O	1:G:1598:ARG:NH2	2.41	0.54
1:G:1613:GLU:HB3	1:G:1618:LEU:H	1.71	0.54
2:H:25:ASP:OD1	2:H:25:ASP:N	2.39	0.54
1:A:1101:TRP:N	1:A:1166:VAL:O	2.38	0.54
1:A:1252:SER:HB3	1:A:1598:ARG:HB3	1.89	0.54
1:C:1183:LEU:HA	1:C:1189:GLU:HA	1.89	0.54
1:C:1248:THR:OG1	1:C:1602:GLN:NE2	2.40	0.54
1:C:4591:TYR:OH	1:C:4717:ASP:OD2	2.25	0.54
2:D:126:ILE:O	2:D:130:ASP:N	2.40	0.54
1:E:1720:MET:N	1:E:1720:MET:SD	2.81	0.54
1:E:3986:MET:HG3	1:E:3996:ILE:HD11	1.90	0.54
1:G:1183:LEU:HA	1:G:1189:GLU:HA	1.89	0.54
1:G:1248:THR:OG1	1:G:1602:GLN:NE2	2.40	0.54
1:G:1611:ILE:O	1:G:1620:GLN:N	2.33	0.54
1:G:3632:THR:O	1:G:3635:HIS:NE2	2.40	0.54
1:A:309:MET:O	1:A:313:SER:N	2.40	0.54
1:A:606:ARG:HH12	1:A:644:LEU:HD21	1.71	0.54
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.41	0.54
1:A:1183:LEU:HA	1:A:1189:GLU:HA	1.89	0.54
1:A:2725:TYR:O	1:A:2729:SER:N	2.41	0.54
1:A:4738:PHE:CB	1:G:4788:ASN:HD21	2.16	0.54
1:A:4864:GLN:O	1:A:4868:ILE:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:260:VAL:HG21	1:C:314:LEU:HB3	1.89	0.54
1:C:317:MET:HG3	1:C:321:LYS:HD3	1.89	0.54
1:C:982:ASP:OD1	1:C:984:SER:OG	2.24	0.54
1:C:2543:ALA:HA	1:C:2873:VAL:HG11	1.90	0.54
1:C:4926:LEU:HA	1:C:4929:LYS:HB3	1.90	0.54
1:E:115:TYR:HB3	1:E:164:PRO:HD3	1.89	0.54
1:E:185:SER:OG	1:E:186:VAL:N	2.40	0.54
1:E:317:MET:HG3	1:E:321:LYS:HD3	1.89	0.54
1:G:646:THR:HA	1:G:1630:LEU:HA	1.89	0.54
1:G:681:HIS:HB3	1:G:798:ILE:HA	1.90	0.54
1:G:1788:LYS:HZ1	1:G:1834:PHE:H	1.54	0.54
1:G:2421:ARG:NH2	1:G:2476:VAL:O	2.38	0.54
1:G:3936:LEU:HD21	1:G:3941:LEU:HD13	1.90	0.54
1:G:4591:TYR:OH	1:G:4717:ASP:OD2	2.25	0.54
1:A:1004:HIS:O	1:A:1008:ALA:N	2.40	0.54
1:A:1100:ARG:NH1	1:A:1167:ASP:OD1	2.40	0.54
1:A:3639:ASP:H	1:A:3698:LYS:HZ2	1.56	0.54
1:C:115:TYR:HB3	1:C:164:PRO:HD3	1.89	0.54
1:E:260:VAL:HG21	1:E:314:LEU:HB3	1.89	0.54
1:E:694:ARG:NH1	1:E:716:ASN:O	2.40	0.54
1:E:1144:ARG:NH1	1:E:1150:GLU:OE1	2.40	0.54
1:E:3854:ASP:OD2	1:E:3854:ASP:N	2.38	0.54
1:E:3902:GLN:OE1	1:E:3905:ARG:NH2	2.41	0.54
1:G:1123:GLN:HB3	1:G:1125:ASP:HB3	1.90	0.54
1:G:1260:GLN:HA	1:G:1593:HIS:HA	1.90	0.54
1:G:1530:TYR:O	1:G:1532:GLN:N	2.41	0.54
1:G:3106:LEU:O	1:G:3110:PHE:N	2.40	0.54
1:G:3639:ASP:OD1	1:G:3698:LYS:NZ	2.41	0.54
1:G:4853:PHE:O	1:G:4857:VAL:N	2.30	0.54
1:A:646:THR:HA	1:A:1630:LEU:HA	1.89	0.53
1:A:1919:VAL:O	1:A:1923:ILE:N	2.39	0.53
1:A:4804:ASP:OD1	1:A:4804:ASP:N	2.34	0.53
1:C:1100:ARG:NH1	1:C:1167:ASP:OD1	2.40	0.53
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.41	0.53
1:C:1720:MET:SD	1:C:1720:MET:N	2.81	0.53
1:C:3775:GLN:OE1	1:C:3852:ASN:ND2	2.40	0.53
1:E:559:ILE:HD13	1:E:593:HIS:HB3	1.91	0.53
1:E:1248:THR:OG1	1:E:1602:GLN:NE2	2.40	0.53
1:E:3995:THR:OG1	1:E:3996:ILE:N	2.40	0.53
1:G:996:VAL:HA	1:G:999:LEU:HB2	1.90	0.53
1:A:41:GLY:H	1:A:44:ASN:HB3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1172:THR:HG22	1:A:1193:LYS:HA	1.89	0.53
1:A:1699:ARG:HH22	1:A:1821:LEU:HD21	1.73	0.53
1:A:1729:MET:SD	1:A:3615:HIS:ND1	2.69	0.53
1:C:646:THR:HA	1:C:1630:LEU:HA	1.89	0.53
1:E:1696:GLY:O	1:E:1700:ALA:N	2.36	0.53
1:E:1788:LYS:HZ1	1:E:1834:PHE:H	1.54	0.53
1:G:626:ARG:NH1	1:G:1667:LEU:O	2.40	0.53
1:G:1114:ARG:NH1	1:G:1128:LEU:O	2.41	0.53
1:A:1146:HIS:HB2	1:A:1192:PHE:HE1	1.73	0.53
1:C:996:VAL:HA	1:C:999:LEU:HB2	1.90	0.53
1:C:1088:PHE:N	1:C:1205:CYS:O	2.38	0.53
1:C:1444:GLY:N	1:C:1542:ALA:O	2.40	0.53
1:C:1677:CYS:HA	1:C:1680:VAL:HG12	1.90	0.53
1:C:4782:TYR:OH	1:C:4847:PHE:O	2.24	0.53
1:E:1035:TYR:O	1:E:1043:LYS:NZ	2.36	0.53
1:G:1677:CYS:HA	1:G:1680:VAL:HG12	1.90	0.53
1:A:185:SER:OG	1:A:186:VAL:N	2.40	0.53
1:A:1797:GLU:O	1:A:1801:GLU:N	2.35	0.53
1:A:3854:ASP:N	1:A:3854:ASP:OD2	2.38	0.53
1:A:4566:SER:OG	1:A:4567:GLY:N	2.42	0.53
1:C:559:ILE:HD13	1:C:593:HIS:HB3	1.91	0.53
1:C:1651:LEU:O	1:C:1655:TYR:N	2.38	0.53
1:C:3902:GLN:OE1	1:C:3905:ARG:NH2	2.41	0.53
1:E:418:VAL:O	1:E:422:THR:N	2.41	0.53
1:E:1114:ARG:NH1	1:E:1128:LEU:O	2.41	0.53
1:E:3775:GLN:OE1	1:E:3852:ASN:ND2	2.40	0.53
1:E:4591:TYR:OH	1:E:4717:ASP:OD2	2.25	0.53
1:G:1720:MET:N	1:G:1720:MET:SD	2.81	0.53
1:G:2174:GLU:O	1:G:2178:ASN:N	2.38	0.53
1:G:4713:VAL:O	1:G:4716:THR:OG1	2.24	0.53
1:G:4887:THR:OG1	1:G:4888:LYS:NZ	2.40	0.53
1:A:2421:ARG:NH2	1:A:2476:VAL:O	2.38	0.53
1:A:3936:LEU:HD21	1:A:3941:LEU:HD13	1.90	0.53
1:C:41:GLY:H	1:C:44:ASN:HB3	1.74	0.53
1:C:1136:ALA:HB3	1:C:1145:TRP:HB2	1.91	0.53
1:C:1146:HIS:HB2	1:C:1192:PHE:HE1	1.73	0.53
1:C:1252:SER:HB3	1:C:1598:ARG:HB3	1.89	0.53
1:C:1260:GLN:HA	1:C:1593:HIS:HA	1.90	0.53
1:C:1680:VAL:O	1:C:1684:GLN:NE2	2.42	0.53
1:C:1699:ARG:HH22	1:C:1821:LEU:HD21	1.73	0.53
1:E:1254:ARG:O	1:E:1598:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1444:GLY:N	1:E:1542:ALA:O	2.40	0.53
1:E:1613:GLU:HB3	1:E:1618:LEU:H	1.72	0.53
1:G:1136:ALA:HB3	1:G:1145:TRP:HB2	1.91	0.53
1:G:1651:LEU:O	1:G:1655:TYR:N	2.38	0.53
1:G:2275:LEU:H	1:G:2293:PRO:HD3	1.72	0.53
1:G:3986:MET:HG3	1:G:3996:ILE:HD11	1.90	0.53
1:A:15:ARG:HG2	1:A:110:HIS:HB3	1.91	0.53
1:A:4926:LEU:HA	1:A:4929:LYS:HB3	1.90	0.53
1:C:626:ARG:NH1	1:C:1667:LEU:O	2.40	0.53
1:C:1254:ARG:O	1:C:1598:ARG:NH2	2.41	0.53
1:C:1654:HIS:O	1:C:1657:THR:OG1	2.22	0.53
1:C:1827:THR:HA	1:C:1830:ILE:HD12	1.91	0.53
1:C:2984:LEU:HA	1:C:2987:ALA:HB3	1.91	0.53
1:E:1123:GLN:HB3	1:E:1125:ASP:HB3	1.90	0.53
1:E:1530:TYR:O	1:E:1532:GLN:N	2.41	0.53
1:E:2543:ALA:HA	1:E:2873:VAL:HG11	1.90	0.53
1:E:2725:TYR:HE2	1:E:2776:ILE:HG21	1.74	0.53
1:E:3936:LEU:HD21	1:E:3941:LEU:HD13	1.90	0.53
2:F:126:ILE:O	2:F:130:ASP:N	2.40	0.53
1:G:2076:ILE:H	1:G:3667:GLN:HE22	1.57	0.53
1:G:2725:TYR:HE2	1:G:2776:ILE:HG21	1.73	0.53
1:A:1131:ASP:N	1:A:1131:ASP:OD1	2.41	0.53
1:A:1944:ARG:HA	1:A:1947:GLU:HG2	1.91	0.53
1:A:2174:GLU:O	1:A:2178:ASN:N	2.38	0.53
1:A:2837:ASP:HB3	1:A:2905:SER:HA	1.89	0.53
1:A:3986:MET:HG3	1:A:3996:ILE:HD11	1.90	0.53
1:C:3639:ASP:OD1	1:C:3698:LYS:NZ	2.41	0.53
1:C:3936:LEU:HD21	1:C:3941:LEU:HD13	1.90	0.53
1:E:115:TYR:OH	1:E:179:ASP:OD2	2.27	0.53
1:E:651:HIS:N	1:E:1625:LEU:O	2.37	0.53
1:E:996:VAL:HA	1:E:999:LEU:HB2	1.90	0.53
1:E:3639:ASP:OD1	1:E:3698:LYS:NZ	2.41	0.53
1:G:15:ARG:HG2	1:G:110:HIS:HB3	1.91	0.53
1:G:41:GLY:H	1:G:44:ASN:HB3	1.74	0.53
1:G:115:TYR:OH	1:G:179:ASP:OD2	2.27	0.53
1:G:1101:TRP:N	1:G:1166:VAL:O	2.38	0.53
1:A:559:ILE:HD13	1:A:593:HIS:HB3	1.91	0.53
1:A:1530:TYR:O	1:A:1532:GLN:N	2.41	0.53
1:A:2725:TYR:HE2	1:A:2776:ILE:HG21	1.74	0.53
1:C:1089:ARG:NH1	1:C:1120:PRO:O	2.42	0.53
1:E:1004:HIS:O	1:E:1008:ALA:N	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1089:ARG:NH1	1:E:1120:PRO:O	2.42	0.53
1:E:1654:HIS:O	1:E:1657:THR:OG1	2.22	0.53
1:E:2642:SER:O	1:E:2646:PHE:N	2.39	0.53
1:E:4853:PHE:O	1:E:4857:VAL:N	2.30	0.53
1:G:1620:GLN:HG2	1:G:1622:LEU:HG	1.91	0.53
1:G:1680:VAL:O	1:G:1684:GLN:NE2	2.42	0.53
1:G:2837:ASP:HB3	1:G:2905:SER:HA	1.89	0.53
1:G:4801:ASP:N	1:G:4801:ASP:OD1	2.40	0.53
1:A:115:TYR:OH	1:A:179:ASP:OD2	2.27	0.53
1:A:418:VAL:O	1:A:422:THR:N	2.41	0.53
1:A:1720:MET:N	1:A:1720:MET:SD	2.81	0.53
1:A:2546:ILE:O	1:A:2550:LEU:N	2.41	0.53
1:C:115:TYR:OH	1:C:179:ASP:OD2	2.27	0.53
1:C:418:VAL:O	1:C:422:THR:N	2.41	0.53
1:C:771:ASN:O	1:C:773:GLN:NE2	2.42	0.53
1:C:2315:GLU:HA	1:C:2318:ALA:HB3	1.89	0.53
1:E:917:CYS:HB2	1:E:928:GLU:HB3	1.91	0.53
1:E:1136:ALA:HB3	1:E:1145:TRP:HB2	1.91	0.53
1:E:1260:GLN:HA	1:E:1593:HIS:HA	1.90	0.53
1:E:1445:TRP:HA	1:E:1541:PRO:HA	1.91	0.53
1:E:2264:GLU:OE2	1:E:2268:ARG:NE	2.42	0.53
1:G:417:ARG:O	1:G:421:SER:OG	2.25	0.53
1:G:4926:LEU:HA	1:G:4929:LYS:HB3	1.90	0.53
1:G:4960:ARG:HD2	1:G:4963:TYR:HB2	1.91	0.53
1:A:771:ASN:O	1:A:773:GLN:NE2	2.42	0.53
1:A:1043:LYS:O	1:A:1047:LYS:N	2.36	0.53
1:A:1445:TRP:HA	1:A:1541:PRO:HA	1.91	0.53
1:C:4887:THR:OG1	1:C:4888:LYS:NZ	2.40	0.53
1:E:364:GLN:NE2	1:E:365:HIS:O	2.42	0.53
1:E:1088:PHE:N	1:E:1205:CYS:O	2.38	0.53
1:E:1131:ASP:OD1	1:E:1131:ASP:N	2.41	0.53
1:E:1620:GLN:HG2	1:E:1622:LEU:HG	1.91	0.53
1:E:1680:VAL:O	1:E:1684:GLN:NE2	2.42	0.53
1:G:332:ARG:HD2	1:G:371:TRP:HH2	1.74	0.53
1:G:620:CYS:SG	1:G:621:HIS:N	2.80	0.53
1:G:721:ASP:OD1	1:G:721:ASP:N	2.35	0.53
1:G:771:ASN:O	1:G:773:GLN:NE2	2.42	0.53
1:G:917:CYS:HB2	1:G:928:GLU:HB3	1.91	0.53
1:G:2984:LEU:HA	1:G:2987:ALA:HB3	1.91	0.53
1:G:4601:PHE:O	1:G:4605:LYS:N	2.37	0.53
1:A:1089:ARG:NH1	1:A:1120:PRO:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1827:THR:HA	1:A:1830:ILE:HD12	1.91	0.52
1:A:2543:ALA:HA	1:A:2873:VAL:HG11	1.90	0.52
1:A:3106:LEU:O	1:A:3110:PHE:N	2.40	0.52
1:C:562:LEU:HA	1:C:571:ILE:HG21	1.91	0.52
1:C:1686:LEU:HA	1:C:1689:ILE:HD12	1.89	0.52
1:C:2546:ILE:O	1:C:2550:LEU:N	2.41	0.52
1:C:4960:ARG:HD2	1:C:4963:TYR:HB2	1.91	0.52
1:E:41:GLY:H	1:E:44:ASN:HB3	1.74	0.52
1:E:288:HIS:N	1:E:349:MET:O	2.38	0.52
1:E:1144:ARG:N	1:E:1150:GLU:O	2.41	0.52
1:E:2076:ILE:H	1:E:3667:GLN:HE22	1.57	0.52
1:E:2725:TYR:O	1:E:2729:SER:N	2.41	0.52
1:E:4566:SER:OG	1:E:4567:GLY:N	2.42	0.52
1:G:847:THR:OG1	1:G:1216:ASN:OD1	2.22	0.52
1:G:1089:ARG:NH1	1:G:1120:PRO:O	2.42	0.52
1:G:1944:ARG:HA	1:G:1947:GLU:HG2	1.91	0.52
1:G:1953:ASN:O	1:G:1986:GLU:N	2.42	0.52
1:G:2725:TYR:O	1:G:2729:SER:N	2.41	0.52
1:G:3809:PHE:O	1:G:3812:GLN:NE2	2.33	0.52
1:A:1680:VAL:O	1:A:1684:GLN:NE2	2.42	0.52
1:A:1839:LEU:HA	1:A:1842:ILE:HB	1.91	0.52
1:A:2264:GLU:OE2	1:A:2268:ARG:NE	2.42	0.52
1:C:15:ARG:HG2	1:C:110:HIS:HB3	1.91	0.52
1:C:1156:TRP:HE3	1:C:1160:ASP:HB2	1.75	0.52
1:C:1944:ARG:HA	1:C:1947:GLU:HG2	1.91	0.52
1:C:2264:GLU:OE2	1:C:2268:ARG:NE	2.42	0.52
1:C:4812:THR:O	1:C:4816:PHE:N	2.39	0.52
1:E:1146:HIS:HB2	1:E:1192:PHE:HE1	1.73	0.52
1:E:3137:SER:O	1:E:3141:LEU:N	2.42	0.52
1:E:4588:ILE:O	1:E:4592:TYR:N	2.43	0.52
1:G:1146:HIS:HB2	1:G:1192:PHE:HE1	1.73	0.52
1:G:1156:TRP:HE3	1:G:1160:ASP:HB2	1.75	0.52
1:G:2079:PRO:O	1:G:2083:ARG:N	2.35	0.52
1:A:332:ARG:HD2	1:A:371:TRP:HH2	1.74	0.52
1:A:886:ALA:O	1:A:890:HIS:N	2.37	0.52
1:A:1156:TRP:HE3	1:A:1160:ASP:HB2	1.75	0.52
1:A:4519:LEU:HD22	1:G:4811:LEU:HD11	1.90	0.52
1:A:4522:LYS:C	1:G:4809:ASP:O	2.47	0.52
1:C:1445:TRP:HA	1:C:1541:PRO:HA	1.91	0.52
1:C:2725:TYR:HE2	1:C:2776:ILE:HG21	1.74	0.52
1:E:268:SER:O	1:E:273:SER:OG	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:886:ALA:O	1:E:890:HIS:N	2.37	0.52
1:E:1156:TRP:HE3	1:E:1160:ASP:HB2	1.75	0.52
1:G:54:ASN:HD21	1:G:57:ASN:HB2	1.74	0.52
1:G:559:ILE:HD13	1:G:593:HIS:HB3	1.91	0.52
1:A:489:PHE:O	1:A:493:GLY:N	2.43	0.52
1:A:1138:ASP:HB2	1:A:1145:TRP:HE1	1.75	0.52
1:A:1260:GLN:HA	1:A:1593:HIS:HA	1.90	0.52
1:A:1288:LYS:NZ	1:A:1556:GLU:O	2.43	0.52
1:C:54:ASN:HD21	1:C:57:ASN:HB2	1.74	0.52
1:C:364:GLN:NE2	1:C:365:HIS:O	2.42	0.52
1:E:332:ARG:HD2	1:E:371:TRP:HH2	1.74	0.52
1:E:1014:GLN:O	1:E:1027:ARG:N	2.43	0.52
1:E:1699:ARG:HH22	1:E:1821:LEU:HD21	1.73	0.52
1:E:1944:ARG:HA	1:E:1947:GLU:HG2	1.91	0.52
1:G:886:ALA:O	1:G:890:HIS:N	2.37	0.52
1:G:1699:ARG:HH22	1:G:1821:LEU:HD21	1.73	0.52
1:G:1827:THR:HA	1:G:1830:ILE:HD12	1.91	0.52
1:G:4566:SER:OG	1:G:4567:GLY:N	2.42	0.52
1:A:364:GLN:NE2	1:A:365:HIS:O	2.42	0.52
1:A:3902:GLN:OE1	1:A:3905:ARG:NH2	2.41	0.52
1:C:268:SER:O	1:C:273:SER:OG	2.27	0.52
1:C:1014:GLN:O	1:C:1027:ARG:N	2.43	0.52
1:C:1155:SER:O	1:C:1157:GLN:NE2	2.35	0.52
1:C:1522:ALA:N	1:C:1525:LYS:O	2.43	0.52
1:C:3790:PHE:O	1:C:3793:SER:OG	2.22	0.52
1:C:4566:SER:OG	1:C:4567:GLY:N	2.42	0.52
1:C:4617:TYR:OH	1:C:4629:GLY:O	2.28	0.52
1:C:4713:VAL:O	1:C:4716:THR:OG1	2.24	0.52
1:E:15:ARG:HG2	1:E:110:HIS:HB3	1.91	0.52
1:E:54:ASN:HD21	1:E:57:ASN:HB2	1.74	0.52
1:E:2984:LEU:HA	1:E:2987:ALA:HB3	1.91	0.52
1:G:694:ARG:NH1	1:G:716:ASN:O	2.40	0.52
1:G:1522:ALA:N	1:G:1525:LYS:O	2.43	0.52
1:G:2644:LYS:O	1:G:2648:GLY:N	2.42	0.52
1:G:3137:SER:O	1:G:3141:LEU:N	2.42	0.52
1:G:4864:GLN:O	1:G:4868:ILE:N	2.40	0.52
1:A:54:ASN:HD21	1:A:57:ASN:HB2	1.74	0.52
1:A:1086:ARG:HH12	1:A:1254:ARG:HG2	1.75	0.52
1:A:1136:ALA:HB3	1:A:1145:TRP:HB2	1.91	0.52
1:A:1620:GLN:HG2	1:A:1622:LEU:HG	1.91	0.52
1:A:1680:VAL:HG22	1:A:1685:LEU:HD11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2399:LEU:HA	1:A:2402:ARG:HB2	1.92	0.52
1:C:1057:LEU:O	1:C:1062:TYR:N	2.43	0.52
1:C:1756:SER:HB2	1:C:1920:ARG:HH21	1.74	0.52
1:C:1997:LEU:HA	1:C:3605:ARG:HH12	1.75	0.52
1:C:3809:PHE:O	1:C:3812:GLN:NE2	2.33	0.52
1:E:602:ASP:O	1:E:1576:LYS:NZ	2.33	0.52
1:E:1677:CYS:HA	1:E:1680:VAL:HG12	1.90	0.52
1:G:364:GLN:NE2	1:G:365:HIS:O	2.42	0.52
1:G:2543:ALA:HA	1:G:2873:VAL:HG11	1.90	0.52
1:A:562:LEU:HA	1:A:571:ILE:HG21	1.91	0.52
1:A:2076:ILE:H	1:A:3667:GLN:HE22	1.57	0.52
1:A:2562:LEU:O	1:A:2566:GLN:N	2.43	0.52
1:A:2644:LYS:O	1:A:2648:GLY:N	2.42	0.52
1:A:3605:ARG:HG3	1:A:3608:PRO:HB2	1.92	0.52
1:A:4156:SER:O	1:A:4159:THR:OG1	2.22	0.52
1:C:185:SER:OG	1:C:186:VAL:N	2.40	0.52
1:C:626:ARG:O	1:C:630:HIS:N	2.34	0.52
1:C:1123:GLN:HB3	1:C:1125:ASP:HB3	1.90	0.52
1:C:1288:LYS:NZ	1:C:1556:GLU:O	2.43	0.52
1:C:2114:VAL:O	1:C:2117:THR:OG1	2.25	0.52
1:C:4156:SER:O	1:C:4159:THR:OG1	2.22	0.52
1:E:489:PHE:O	1:E:493:GLY:N	2.43	0.52
1:E:771:ASN:O	1:E:773:GLN:NE2	2.42	0.52
1:E:1839:LEU:HA	1:E:1842:ILE:HB	1.91	0.52
1:E:1953:ASN:O	1:E:1986:GLU:N	2.42	0.52
1:E:1997:LEU:HA	1:E:3605:ARG:HH12	1.75	0.52
1:E:2195:ALA:HA	1:E:2198:CYS:HB3	1.91	0.52
1:E:3990:ASN:HD21	1:E:3996:ILE:HG23	1.75	0.52
1:E:4667:ILE:O	1:E:4671:LEU:N	2.43	0.52
1:G:425:LEU:HA	1:G:428:ARG:HD2	1.92	0.52
1:G:489:PHE:O	1:G:493:GLY:N	2.43	0.52
1:G:1014:GLN:O	1:G:1027:ARG:N	2.43	0.52
1:G:1288:LYS:NZ	1:G:1556:GLU:O	2.43	0.52
1:G:1444:GLY:N	1:G:1542:ALA:O	2.40	0.52
1:G:1839:LEU:HA	1:G:1842:ILE:HB	1.91	0.52
1:G:1919:VAL:O	1:G:1923:ILE:N	2.39	0.52
1:G:2844:MET:O	1:G:2848:ASN:N	2.42	0.52
1:G:3605:ARG:HG3	1:G:3608:PRO:HB2	1.92	0.52
1:A:626:ARG:O	1:A:630:HIS:N	2.34	0.52
1:A:917:CYS:HB2	1:A:928:GLU:HB3	1.92	0.52
1:A:996:VAL:HA	1:A:999:LEU:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4820:VAL:O	1:A:4824:ALA:N	2.43	0.52
1:C:2421:ARG:HA	1:C:2424:LEU:HD12	1.92	0.52
1:C:3106:LEU:O	1:C:3110:PHE:N	2.40	0.52
1:E:1827:THR:HA	1:E:1830:ILE:HD12	1.91	0.52
1:E:2546:ILE:O	1:E:2550:LEU:N	2.41	0.52
1:E:4782:TYR:OH	1:E:4847:PHE:O	2.24	0.52
1:G:1680:VAL:HG22	1:G:1685:LEU:HD11	1.92	0.52
1:G:2195:ALA:HA	1:G:2198:CYS:HB3	1.91	0.52
1:A:27:THR:OG1	1:A:32:GLN:NE2	2.43	0.52
1:A:4616:LEU:HB2	1:A:4620:GLU:HB3	1.92	0.52
1:C:917:CYS:HB2	1:C:928:GLU:HB3	1.92	0.52
1:C:1620:GLN:HG2	1:C:1622:LEU:HG	1.91	0.52
1:C:1764:SER:OG	1:C:1779:SER:O	2.21	0.52
1:C:3137:SER:O	1:C:3141:LEU:N	2.42	0.52
1:E:170:SER:OG	1:E:171:GLU:N	2.43	0.52
1:E:1101:TRP:N	1:E:1166:VAL:O	2.38	0.52
1:E:1707:ILE:HG23	1:E:1711:LEU:HB2	1.91	0.52
1:G:268:SER:O	1:G:273:SER:OG	2.27	0.52
1:G:373:THR:HG21	1:G:397:GLY:HA3	1.92	0.52
1:G:462:TYR:O	1:G:485:ARG:NH1	2.43	0.52
1:G:1707:ILE:HG23	1:G:1711:LEU:HB2	1.91	0.52
1:G:2264:GLU:OE2	1:G:2268:ARG:NE	2.42	0.52
1:G:4500:PHE:O	1:G:4504:ARG:N	2.39	0.52
1:A:268:SER:O	1:A:273:SER:OG	2.27	0.52
1:A:425:LEU:HA	1:A:428:ARG:HD2	1.92	0.52
1:A:3137:SER:O	1:A:3141:LEU:N	2.42	0.52
1:A:3632:THR:O	1:A:3635:HIS:NE2	2.40	0.52
2:B:13:PHE:O	2:B:17:PHE:N	2.43	0.52
1:C:27:THR:OG1	1:C:32:GLN:NE2	2.43	0.52
1:C:1004:HIS:O	1:C:1008:ALA:N	2.40	0.52
1:C:1035:TYR:O	1:C:1043:LYS:NZ	2.36	0.52
1:C:2399:LEU:HA	1:C:2402:ARG:HB2	1.92	0.52
1:E:27:THR:OG1	1:E:32:GLN:NE2	2.43	0.52
1:E:607:ASN:HB3	1:E:610:VAL:HG22	1.92	0.52
1:E:2562:LEU:O	1:E:2566:GLN:N	2.43	0.52
1:E:3605:ARG:HG3	1:E:3608:PRO:HB2	1.92	0.52
1:E:4667:ILE:HA	1:E:4670:LEU:HB3	1.92	0.52
1:G:1445:TRP:HA	1:G:1541:PRO:HA	1.91	0.52
1:G:1764:SER:OG	1:G:1779:SER:O	2.21	0.52
1:G:2399:LEU:HA	1:G:2402:ARG:HB2	1.92	0.52
1:G:4653:LYS:O	1:G:4657:LYS:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:656:ARG:HG2	1:A:837:SER:HA	1.91	0.51
1:A:2326:ILE:CD1	1:G:207:PHE:HE1	2.24	0.51
1:A:2639:LEU:O	1:A:2643:ARG:N	2.41	0.51
1:A:3995:THR:OG1	1:A:3996:ILE:N	2.40	0.51
1:C:170:SER:OG	1:C:171:GLU:N	2.43	0.51
1:C:462:TYR:O	1:C:485:ARG:NH1	2.43	0.51
1:C:1839:LEU:HA	1:C:1842:ILE:HB	1.91	0.51
1:C:2079:PRO:O	1:C:2083:ARG:N	2.35	0.51
1:C:4899:PHE:HB2	1:C:4906:PHE:HD1	1.75	0.51
1:E:462:TYR:O	1:E:485:ARG:NH1	2.43	0.51
1:E:656:ARG:HG2	1:E:837:SER:HA	1.91	0.51
1:E:1086:ARG:HH12	1:E:1254:ARG:HG2	1.75	0.51
1:G:418:VAL:O	1:G:422:THR:N	2.41	0.51
1:G:1086:ARG:HH12	1:G:1254:ARG:HG2	1.75	0.51
1:G:2061:GLN:O	1:G:2064:SER:OG	2.26	0.51
1:G:3639:ASP:H	1:G:3698:LYS:HZ2	1.56	0.51
1:A:1088:PHE:N	1:A:1205:CYS:O	2.38	0.51
1:A:1522:ALA:N	1:A:1525:LYS:O	2.43	0.51
1:A:4960:ARG:HD2	1:A:4963:TYR:HB2	1.91	0.51
1:C:1086:ARG:HH12	1:C:1254:ARG:HG2	1.75	0.51
1:C:1707:ILE:HG23	1:C:1711:LEU:HB2	1.91	0.51
1:C:2076:ILE:H	1:C:3667:GLN:HE22	1.57	0.51
1:C:2195:ALA:HA	1:C:2198:CYS:HB3	1.91	0.51
1:C:2644:LYS:O	1:C:2648:GLY:N	2.42	0.51
1:C:2765:SER:OG	1:C:2766:GLU:N	2.44	0.51
1:C:4783:THR:HG21	1:C:4814:TYR:HB2	1.93	0.51
1:E:373:THR:HG21	1:E:397:GLY:HA3	1.92	0.51
1:E:1522:ALA:N	1:E:1525:LYS:O	2.43	0.51
1:E:4653:LYS:O	1:E:4657:LYS:N	2.42	0.51
1:G:651:HIS:N	1:G:1625:LEU:O	2.37	0.51
1:G:2250:ASP:OD2	1:G:2250:ASP:N	2.43	0.51
1:G:3990:ASN:HD21	1:G:3996:ILE:HG23	1.75	0.51
1:A:1444:GLY:N	1:A:1542:ALA:O	2.40	0.51
1:A:1953:ASN:O	1:A:1986:GLU:N	2.42	0.51
1:A:2195:ALA:HA	1:A:2198:CYS:HB3	1.91	0.51
1:A:2250:ASP:OD2	1:A:2250:ASP:N	2.43	0.51
1:A:4588:ILE:O	1:A:4592:TYR:N	2.43	0.51
1:A:4809:ASP:O	1:C:4522:LYS:C	2.49	0.51
1:C:332:ARG:HD2	1:C:371:TRP:HH2	1.74	0.51
1:C:1256:PRO:O	1:C:1451:HIS:ND1	2.39	0.51
1:C:1611:ILE:O	1:C:1620:GLN:N	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2725:TYR:O	1:C:2729:SER:N	2.41	0.51
2:D:31:LYS:O	2:D:31:LYS:NZ	2.43	0.51
1:E:562:LEU:HA	1:E:571:ILE:HG21	1.91	0.51
1:E:812:LYS:HD2	1:E:813:PHE:HB3	1.92	0.51
1:E:1138:ASP:HB2	1:E:1145:TRP:HE1	1.75	0.51
1:E:1288:LYS:NZ	1:E:1556:GLU:O	2.43	0.51
1:E:4820:VAL:O	1:E:4824:ALA:N	2.43	0.51
1:E:4960:ARG:HD2	1:E:4963:TYR:HB2	1.91	0.51
1:G:1004:HIS:O	1:G:1008:ALA:N	2.40	0.51
1:G:1756:SER:HB2	1:G:1920:ARG:HH21	1.74	0.51
2:H:13:PHE:O	2:H:17:PHE:N	2.43	0.51
1:A:812:LYS:HD2	1:A:813:PHE:HB3	1.92	0.51
1:A:2114:VAL:O	1:A:2117:THR:OG1	2.25	0.51
1:C:1953:ASN:O	1:C:1986:GLU:N	2.42	0.51
1:C:2148:GLY:O	1:C:2152:ASN:N	2.40	0.51
1:C:3605:ARG:HG3	1:C:3608:PRO:HB2	1.92	0.51
1:C:4590:GLY:O	1:C:4594:LEU:N	2.44	0.51
1:E:525:SER:HG	1:E:528:SER:HG	1.57	0.51
1:E:1057:LEU:O	1:E:1062:TYR:N	2.43	0.51
1:E:2644:LYS:O	1:E:2648:GLY:N	2.42	0.51
1:E:3809:PHE:O	1:E:3812:GLN:NE2	2.33	0.51
1:E:4718:ASN:O	1:E:4722:TYR:N	2.39	0.51
1:E:4783:THR:HG21	1:E:4814:TYR:HB2	1.93	0.51
2:F:31:LYS:O	2:F:31:LYS:NZ	2.43	0.51
1:G:2765:SER:OG	1:G:2766:GLU:N	2.43	0.51
1:G:4090:GLU:O	1:G:4092:ALA:N	2.44	0.51
1:G:4667:ILE:O	1:G:4671:LEU:N	2.43	0.51
1:G:4820:VAL:O	1:G:4824:ALA:N	2.43	0.51
1:A:590:LYS:H	1:A:593:HIS:CD2	2.29	0.51
1:A:1057:LEU:O	1:A:1062:TYR:N	2.43	0.51
1:A:4853:PHE:O	1:A:4857:VAL:N	2.30	0.51
1:A:4889:CYS:SG	1:A:4891:ILE:N	2.79	0.51
1:C:1007:TRP:O	1:C:1011:ARG:N	2.35	0.51
1:C:1530:TYR:O	1:C:1532:GLN:N	2.41	0.51
1:C:1991:GLU:O	1:C:1995:ASP:N	2.43	0.51
1:C:4090:GLU:O	1:C:4092:ALA:N	2.44	0.51
1:C:4115:ARG:O	1:C:4118:THR:OG1	2.21	0.51
1:C:4588:ILE:O	1:C:4592:TYR:N	2.43	0.51
1:C:4796:LYS:NZ	1:C:4806:LYS:O	2.43	0.51
1:C:4809:ASP:O	1:E:4522:LYS:C	2.48	0.51
1:E:2114:VAL:O	1:E:2117:THR:OG1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2399:LEU:HA	1:E:2402:ARG:HB2	1.92	0.51
1:G:27:THR:OG1	1:G:32:GLN:NE2	2.43	0.51
1:G:607:ASN:HB3	1:G:610:VAL:HG22	1.92	0.51
1:G:4590:GLY:O	1:G:4594:LEU:N	2.44	0.51
1:G:4889:CYS:SG	1:G:4891:ILE:N	2.79	0.51
1:A:288:HIS:N	1:A:349:MET:O	2.38	0.51
1:A:462:TYR:O	1:A:485:ARG:NH1	2.43	0.51
1:A:1707:ILE:HG23	1:A:1711:LEU:HB2	1.91	0.51
1:A:1991:GLU:O	1:A:1995:ASP:N	2.43	0.51
1:A:2421:ARG:HA	1:A:2424:LEU:HD12	1.92	0.51
1:A:2984:LEU:HA	1:A:2987:ALA:HB3	1.91	0.51
1:A:4783:THR:HG21	1:A:4814:TYR:HB2	1.93	0.51
1:C:489:PHE:O	1:C:493:GLY:N	2.43	0.51
1:C:3639:ASP:H	1:C:3698:LYS:HZ2	1.57	0.51
1:C:3919:ASN:O	1:C:3922:THR:OG1	2.28	0.51
1:E:417:ARG:O	1:E:421:SER:OG	2.25	0.51
1:E:1756:SER:HB2	1:E:1920:ARG:HH21	1.74	0.51
1:E:4616:LEU:HB2	1:E:4620:GLU:HB3	1.92	0.51
1:E:4860:LEU:HB2	1:G:4867:ILE:CD1	2.41	0.51
1:G:1057:LEU:O	1:G:1062:TYR:N	2.43	0.51
1:G:1144:ARG:NH1	1:G:1150:GLU:OE1	2.40	0.51
1:G:1991:GLU:O	1:G:1995:ASP:N	2.43	0.51
1:G:4783:THR:HG21	1:G:4814:TYR:HB2	1.93	0.51
1:A:1056:THR:O	1:A:1060:TYR:N	2.41	0.51
1:A:4090:GLU:O	1:A:4092:ALA:N	2.44	0.51
2:B:31:LYS:NZ	2:B:31:LYS:O	2.43	0.51
1:C:607:ASN:HB3	1:C:610:VAL:HG22	1.92	0.51
1:C:656:ARG:HG2	1:C:837:SER:HA	1.91	0.51
1:C:1101:TRP:N	1:C:1166:VAL:O	2.38	0.51
1:C:1680:VAL:HG22	1:C:1685:LEU:HD11	1.92	0.51
1:E:1680:VAL:HG22	1:E:1685:LEU:HD11	1.92	0.51
1:E:1991:GLU:O	1:E:1995:ASP:N	2.43	0.51
1:E:3012:LEU:O	1:E:3016:VAL:N	2.44	0.51
1:G:812:LYS:HD2	1:G:813:PHE:HB3	1.92	0.51
1:G:4617:TYR:OH	1:G:4629:GLY:O	2.28	0.51
1:A:330:THR:OG1	1:A:364:GLN:OE1	2.25	0.51
1:A:1210:ALA:N	1:A:1211:GLN:OE1	2.44	0.51
1:A:1756:SER:HB2	1:A:1920:ARG:HH21	1.74	0.51
1:A:4617:TYR:OH	1:A:4629:GLY:O	2.28	0.51
1:A:4867:ILE:CD1	1:G:4860:LEU:HB2	2.41	0.51
2:B:25:ASP:OD1	2:B:25:ASP:N	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:207:PHE:HE1	1:E:2326:ILE:CD1	2.24	0.51
1:C:277:LEU:HD11	1:C:295:PHE:HB3	1.93	0.51
1:C:812:LYS:HD2	1:C:813:PHE:HB3	1.92	0.51
1:C:2876:ASP:OD1	1:C:2876:ASP:N	2.33	0.51
1:C:4667:ILE:HA	1:C:4670:LEU:HB3	1.92	0.51
1:C:4820:VAL:O	1:C:4824:ALA:N	2.43	0.51
1:G:1138:ASP:HB2	1:G:1145:TRP:HE1	1.75	0.51
1:G:1654:HIS:O	1:G:1657:THR:OG1	2.22	0.51
1:G:2421:ARG:HA	1:G:2424:LEU:HD12	1.92	0.51
1:G:2728:HIS:NE2	1:G:2829:MET:SD	2.77	0.51
1:G:3037:LEU:O	1:G:3041:LEU:N	2.41	0.51
1:G:3902:GLN:OE1	1:G:3905:ARG:NH2	2.41	0.51
2:H:31:LYS:O	2:H:31:LYS:NZ	2.43	0.51
1:A:309:MET:HG2	1:A:312:LYS:H	1.76	0.51
1:A:694:ARG:NH1	1:A:716:ASN:O	2.40	0.51
1:A:1997:LEU:HA	1:A:3605:ARG:HH12	1.75	0.51
1:A:2844:MET:O	1:A:2848:ASN:N	2.42	0.51
1:A:3917:VAL:O	1:A:3920:THR:OG1	2.23	0.51
1:A:3990:ASN:HD21	1:A:3996:ILE:HG23	1.75	0.51
1:C:425:LEU:HA	1:C:428:ARG:HD2	1.92	0.51
1:C:1144:ARG:N	1:C:1150:GLU:O	2.41	0.51
1:C:2061:GLN:O	1:C:2064:SER:OG	2.26	0.51
1:E:591:GLU:OE2	1:E:635:ASN:ND2	2.44	0.51
1:E:2148:GLY:O	1:E:2152:ASN:N	2.40	0.51
1:E:4617:TYR:OH	1:E:4629:GLY:O	2.28	0.51
1:E:4899:PHE:HB2	1:E:4906:PHE:HD1	1.75	0.51
1:G:562:LEU:HA	1:G:571:ILE:HG21	1.91	0.51
1:G:656:ARG:HG2	1:G:837:SER:HA	1.91	0.51
1:G:4616:LEU:HB2	1:G:4620:GLU:HB3	1.92	0.51
1:A:207:PHE:HE1	1:C:2326:ILE:CD1	2.24	0.51
1:A:373:THR:HG21	1:A:397:GLY:HA3	1.92	0.51
1:A:833:LYS:HG2	1:A:1614:ARG:HH12	1.76	0.51
1:A:2148:GLY:O	1:A:2152:ASN:N	2.40	0.51
1:A:4650:VAL:HA	1:A:4653:LYS:HB2	1.93	0.51
1:A:4860:LEU:HB2	1:C:4867:ILE:CD1	2.41	0.51
1:C:2250:ASP:N	1:C:2250:ASP:OD2	2.43	0.51
1:C:2409:LEU:O	1:C:2413:ALA:N	2.43	0.51
1:C:2844:MET:O	1:C:2848:ASN:N	2.42	0.51
1:C:4616:LEU:HB2	1:C:4620:GLU:HB3	1.92	0.51
1:C:4860:LEU:HB2	1:E:4867:ILE:CD1	2.41	0.51
1:E:1003:ALA:O	1:E:1007:TRP:N	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2844:MET:O	1:E:2848:ASN:N	2.42	0.51
1:E:4115:ARG:O	1:E:4118:THR:OG1	2.21	0.51
1:G:590:LYS:H	1:G:593:HIS:CD2	2.29	0.51
1:G:591:GLU:OE2	1:G:635:ASN:ND2	2.44	0.51
1:G:1997:LEU:HA	1:G:3605:ARG:HH12	1.75	0.51
1:G:4667:ILE:HA	1:G:4670:LEU:HB3	1.92	0.51
1:A:937:LEU:O	1:A:941:LYS:N	2.44	0.50
1:A:1645:THR:OG1	1:A:1646:GLU:OE1	2.29	0.50
1:A:3851:HIS:HA	1:A:3856:GLN:HE22	1.76	0.50
1:C:373:THR:HG21	1:C:397:GLY:HA3	1.92	0.50
1:C:833:LYS:HG2	1:C:1614:ARG:HH12	1.76	0.50
1:C:2562:LEU:O	1:C:2566:GLN:N	2.43	0.50
1:C:3990:ASN:HD21	1:C:3996:ILE:HG23	1.75	0.50
1:E:288:HIS:ND1	1:E:349:MET:O	2.44	0.50
1:E:626:ARG:HA	1:E:629:GLN:HG2	1.93	0.50
1:E:833:LYS:HG2	1:E:1614:ARG:HH12	1.76	0.50
1:E:2765:SER:OG	1:E:2766:GLU:N	2.44	0.50
1:G:170:SER:OG	1:G:171:GLU:N	2.43	0.50
1:G:833:LYS:HG2	1:G:1614:ARG:HH12	1.76	0.50
1:A:1014:GLN:O	1:A:1027:ARG:N	2.43	0.50
1:A:1048:ASP:HA	1:A:1051:ARG:HD2	1.92	0.50
1:A:1716:THR:HA	1:A:1719:LEU:HD12	1.94	0.50
1:A:4838:ASP:OD1	1:A:4839:GLU:N	2.45	0.50
1:A:4863:ILE:HD11	1:G:4860:LEU:HD13	1.90	0.50
1:C:1118:SER:O	1:C:1202:ILE:N	2.38	0.50
1:C:1645:THR:OG1	1:C:1646:GLU:OE1	2.29	0.50
1:C:3037:LEU:O	1:C:3041:LEU:N	2.41	0.50
1:C:4064:THR:O	1:C:4068:LEU:N	2.40	0.50
1:C:4838:ASP:OD1	1:C:4839:GLU:N	2.45	0.50
1:E:805:GLY:H	1:E:810:GLU:HB2	1.77	0.50
1:E:2250:ASP:OD2	1:E:2250:ASP:N	2.43	0.50
1:E:2267:VAL:O	1:E:2271:ALA:N	2.45	0.50
1:E:2421:ARG:HA	1:E:2424:LEU:HD12	1.92	0.50
1:E:2432:ASP:OD1	1:E:2432:ASP:N	2.43	0.50
1:E:4838:ASP:OD1	1:E:4839:GLU:N	2.45	0.50
1:G:1088:PHE:N	1:G:1205:CYS:O	2.38	0.50
1:G:1716:THR:HA	1:G:1719:LEU:HD12	1.94	0.50
1:G:2267:VAL:O	1:G:2271:ALA:N	2.45	0.50
1:G:2546:ILE:O	1:G:2550:LEU:N	2.41	0.50
1:G:3012:LEU:O	1:G:3016:VAL:N	2.44	0.50
1:A:4590:GLY:O	1:A:4594:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4811:LEU:HD22	1:C:4519:LEU:HD13	1.93	0.50
1:A:4864:GLN:HB2	1:C:4867:ILE:HG21	1.93	0.50
1:A:4899:PHE:HB2	1:A:4906:PHE:HD1	1.75	0.50
1:E:1086:ARG:N	1:E:1207:LEU:O	2.45	0.50
1:E:1771:ILE:O	1:E:1775:CYS:N	2.37	0.50
1:E:2419:ARG:O	1:E:2422:SER:OG	2.29	0.50
1:E:4650:VAL:HA	1:E:4653:LYS:HB2	1.93	0.50
1:G:352:SER:O	1:G:352:SER:OG	2.28	0.50
1:A:45:ARG:HG2	1:A:454:LEU:HD21	1.94	0.50
1:A:277:LEU:HD11	1:A:295:PHE:HB3	1.93	0.50
1:A:607:ASN:HB3	1:A:610:VAL:HG22	1.92	0.50
1:A:626:ARG:HA	1:A:629:GLN:HG2	1.93	0.50
1:A:805:GLY:H	1:A:810:GLU:HB2	1.77	0.50
1:A:1086:ARG:N	1:A:1207:LEU:O	2.45	0.50
1:A:4788:ASN:HD21	1:C:4738:PHE:CB	2.18	0.50
1:C:1086:ARG:N	1:C:1207:LEU:O	2.45	0.50
1:C:1138:ASP:HB2	1:C:1145:TRP:HE1	1.75	0.50
1:C:1932:ASP:O	1:C:1936:LYS:N	2.37	0.50
1:E:425:LEU:HA	1:E:428:ARG:HD2	1.92	0.50
1:E:957:ALA:HB1	1:E:981:MET:HG3	1.94	0.50
1:E:1007:TRP:O	1:E:1011:ARG:N	2.35	0.50
1:E:2854:ALA:O	1:E:2858:LYS:N	2.43	0.50
1:E:4590:GLY:O	1:E:4594:LEU:N	2.44	0.50
1:G:556:ASP:O	1:G:560:SER:N	2.39	0.50
1:G:1086:ARG:N	1:G:1207:LEU:O	2.45	0.50
1:G:1932:ASP:O	1:G:1936:LYS:N	2.37	0.50
1:G:2419:ARG:O	1:G:2422:SER:OG	2.29	0.50
1:G:2612:THR:O	1:G:2616:GLU:N	2.45	0.50
1:A:234:LEU:HB2	1:A:407:ARG:HA	1.94	0.50
1:A:303:GLY:N	1:A:420:ARG:HH11	2.10	0.50
1:A:1224:LEU:HB3	1:A:1227:PHE:HB3	1.94	0.50
1:A:3037:LEU:O	1:A:3041:LEU:N	2.41	0.50
1:C:2315:GLU:O	1:C:2319:ASN:N	2.45	0.50
1:C:2319:ASN:OD1	1:C:2323:ARG:NH1	2.36	0.50
1:C:2482:GLN:HA	1:C:2485:LEU:HD13	1.94	0.50
1:E:3074:GLU:O	1:E:3078:GLN:N	2.42	0.50
1:E:4090:GLU:O	1:E:4092:ALA:N	2.44	0.50
1:E:4788:ASN:HD21	1:G:4738:PHE:CB	2.17	0.50
1:G:45:ARG:HG2	1:G:454:LEU:HD21	1.94	0.50
1:G:123:HIS:CD2	1:G:126:SER:H	2.30	0.50
1:G:150:GLN:NE2	1:G:152:ASP:O	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1048:ASP:HA	1:G:1051:ARG:HD2	1.92	0.50
1:G:1224:LEU:HB3	1:G:1227:PHE:HB3	1.94	0.50
1:A:150:GLN:NE2	1:A:152:ASP:O	2.45	0.50
1:A:1790:LYS:O	1:A:1794:MET:N	2.44	0.50
1:A:2765:SER:OG	1:A:2766:GLU:N	2.43	0.50
1:A:2842:ALA:HA	1:A:2845:MET:HB2	1.94	0.50
1:A:3982:MET:O	1:A:3985:SER:OG	2.22	0.50
1:C:694:ARG:NH1	1:C:716:ASN:O	2.40	0.50
1:C:1224:LEU:HB3	1:C:1227:PHE:HB3	1.94	0.50
1:C:1716:THR:HA	1:C:1719:LEU:HD12	1.94	0.50
1:C:2612:THR:O	1:C:2616:GLU:N	2.45	0.50
1:C:3074:GLU:O	1:C:3078:GLN:N	2.42	0.50
1:E:1645:THR:OG1	1:E:1646:GLU:OE1	2.29	0.50
1:E:2315:GLU:O	1:E:2319:ASN:N	2.45	0.50
1:G:288:HIS:ND1	1:G:349:MET:O	2.44	0.50
1:G:1749:PRO:HG3	1:G:1914:LEU:HD21	1.94	0.50
1:G:3074:GLU:O	1:G:3078:GLN:N	2.42	0.50
1:G:3851:HIS:HA	1:G:3856:GLN:HE22	1.76	0.50
1:A:957:ALA:HB1	1:A:981:MET:HG3	1.94	0.50
1:A:1442:TRP:N	1:A:1544:PHE:O	2.42	0.50
1:A:1749:PRO:HG3	1:A:1914:LEU:HD21	1.94	0.50
1:A:1818:PHE:HA	1:A:1821:LEU:HD12	1.94	0.50
2:B:92:VAL:O	2:B:95:LYS:NZ	2.38	0.50
1:C:281:ARG:O	1:C:285:SER:OG	2.30	0.50
1:C:590:LYS:H	1:C:593:HIS:CD2	2.29	0.50
1:C:957:ALA:HB1	1:C:981:MET:HG3	1.94	0.50
1:C:1210:ALA:N	1:C:1211:GLN:OE1	2.44	0.50
1:C:1732:GLU:O	1:C:1735:SER:OG	2.29	0.50
1:E:590:LYS:H	1:E:593:HIS:CD2	2.29	0.50
1:E:1716:THR:HA	1:E:1719:LEU:HD12	1.94	0.50
1:E:1818:PHE:HA	1:E:1821:LEU:HD12	1.94	0.50
1:E:4811:LEU:HD13	1:G:4519:LEU:CB	2.41	0.50
1:G:2432:ASP:OD1	1:G:2432:ASP:N	2.43	0.50
1:G:3038:GLY:O	1:G:3042:ASP:N	2.41	0.50
1:G:4899:PHE:HB2	1:G:4906:PHE:HD1	1.75	0.50
1:A:847:THR:OG1	1:A:1216:ASN:OD1	2.22	0.50
1:A:4667:ILE:HA	1:A:4670:LEU:HB3	1.92	0.50
2:B:59:ASP:N	2:B:68:GLU:OE2	2.45	0.50
1:C:2125:GLY:O	1:C:2129:SER:N	2.45	0.50
2:D:13:PHE:O	2:D:17:PHE:N	2.43	0.50
1:E:309:MET:HG2	1:E:312:LYS:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1116:GLY:HA2	1:E:1175:PHE:HZ	1.77	0.50
1:E:1224:LEU:HB3	1:E:1227:PHE:HB3	1.94	0.50
1:E:2061:GLN:O	1:E:2064:SER:OG	2.26	0.50
1:E:3851:HIS:HA	1:E:3856:GLN:HE22	1.76	0.50
2:F:13:PHE:O	2:F:17:PHE:N	2.43	0.50
1:G:15:ARG:HA	1:G:112:THR:HA	1.94	0.50
1:G:1310:CYS:SG	1:G:1516:GLY:N	2.84	0.50
1:G:1645:THR:OG1	1:G:1646:GLU:OE1	2.29	0.50
1:G:2148:GLY:O	1:G:2152:ASN:N	2.40	0.50
1:G:2854:ALA:O	1:G:2858:LYS:N	2.43	0.50
1:G:2874:PRO:O	1:G:2877:THR:OG1	2.30	0.50
1:A:1116:GLY:HA2	1:A:1175:PHE:HZ	1.77	0.50
1:A:3012:LEU:O	1:A:3016:VAL:N	2.44	0.50
1:C:45:ARG:HG2	1:C:454:LEU:HD21	1.94	0.50
1:C:288:HIS:ND1	1:C:349:MET:O	2.44	0.50
1:C:1048:ASP:HA	1:C:1051:ARG:HD2	1.92	0.50
1:C:1184:ASP:N	1:C:1188:SER:O	2.45	0.50
1:C:4788:ASN:HD21	1:E:4738:PHE:CB	2.17	0.50
1:E:1210:ALA:N	1:E:1211:GLN:OE1	2.44	0.50
1:E:2605:LYS:O	1:E:2609:LYS:N	2.45	0.50
1:E:4045:SER:OG	1:E:4046:LYS:N	2.45	0.50
1:E:4796:LYS:NZ	1:E:4806:LYS:O	2.43	0.50
2:F:59:ASP:N	2:F:68:GLU:OE2	2.45	0.50
1:G:234:LEU:HB2	1:G:407:ARG:HA	1.94	0.50
1:G:309:MET:HG2	1:G:312:LYS:H	1.76	0.50
1:A:123:HIS:CD2	1:A:126:SER:H	2.30	0.49
1:A:281:ARG:O	1:A:285:SER:OG	2.30	0.49
1:A:1184:ASP:N	1:A:1188:SER:O	2.45	0.49
1:A:1732:GLU:O	1:A:1735:SER:OG	2.29	0.49
1:A:2605:LYS:O	1:A:2609:LYS:N	2.45	0.49
1:A:2612:THR:O	1:A:2616:GLU:N	2.45	0.49
1:A:2728:HIS:NE2	1:A:2829:MET:SD	2.77	0.49
1:A:4045:SER:OG	1:A:4046:LYS:N	2.45	0.49
1:C:234:LEU:HB2	1:C:407:ARG:HA	1.94	0.49
1:C:486:GLN:NE2	1:C:539:ALA:O	2.35	0.49
1:C:1162:VAL:O	1:C:1176:THR:OG1	2.24	0.49
1:C:1790:LYS:O	1:C:1794:MET:N	2.43	0.49
1:C:2842:ALA:HA	1:C:2845:MET:HB2	1.94	0.49
1:C:4522:LYS:HD3	1:C:4560:TYR:HB3	1.94	0.49
1:C:4627:ILE:O	1:C:4631:TRP:N	2.43	0.49
1:E:556:ASP:O	1:E:560:SER:N	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2612:THR:O	1:E:2616:GLU:N	2.45	0.49
1:E:4522:LYS:HD3	1:E:4560:TYR:HB3	1.94	0.49
1:G:486:GLN:NE2	1:G:539:ALA:O	2.35	0.49
1:G:1669:ASN:O	1:G:1673:ALA:N	2.35	0.49
1:A:170:SER:OG	1:A:171:GLU:N	2.43	0.49
1:A:957:ALA:H	1:A:1060:TYR:HA	1.78	0.49
1:A:1764:SER:OG	1:A:1779:SER:O	2.21	0.49
1:A:2432:ASP:N	1:A:2432:ASP:OD1	2.43	0.49
1:A:2645:LEU:O	1:A:2649:ILE:N	2.43	0.49
1:A:3919:ASN:O	1:A:3922:THR:OG1	2.28	0.49
2:B:124:GLU:O	2:B:128:GLU:N	2.39	0.49
1:C:123:HIS:CD2	1:C:126:SER:H	2.30	0.49
1:C:150:GLN:NE2	1:C:152:ASP:O	2.45	0.49
1:C:626:ARG:HA	1:C:629:GLN:HG2	1.93	0.49
1:E:150:GLN:NE2	1:E:152:ASP:O	2.45	0.49
1:E:803:LEU:HD13	1:E:812:LYS:HB3	1.94	0.49
1:E:1118:SER:O	1:E:1202:ILE:N	2.38	0.49
1:E:1610:ARG:HA	1:E:1621:CYS:HA	1.94	0.49
1:E:2874:PRO:O	1:E:2877:THR:OG1	2.30	0.49
1:G:1210:ALA:N	1:G:1211:GLN:OE1	2.44	0.49
1:A:591:GLU:OE2	1:A:635:ASN:ND2	2.44	0.49
1:A:3597:LYS:HB3	2:B:40:LEU:HD11	1.94	0.49
1:A:4635:VAL:O	1:A:4638:THR:OG1	2.29	0.49
1:A:4867:ILE:HG21	1:G:4864:GLN:HB2	1.93	0.49
1:C:15:ARG:HA	1:C:112:THR:HA	1.94	0.49
1:C:1749:PRO:HG3	1:C:1914:LEU:HD21	1.94	0.49
1:C:4500:PHE:O	1:C:4504:ARG:N	2.39	0.49
1:E:1749:PRO:HG3	1:E:1914:LEU:HD21	1.94	0.49
1:E:3919:ASN:O	1:E:3922:THR:OG1	2.28	0.49
1:G:330:THR:OG1	1:G:364:GLN:OE1	2.25	0.49
1:G:1162:VAL:O	1:G:1176:THR:OG1	2.24	0.49
1:G:2605:LYS:O	1:G:2609:LYS:N	2.45	0.49
1:G:4030:SER:O	1:G:4034:LYS:N	2.45	0.49
2:H:59:ASP:N	2:H:68:GLU:OE2	2.45	0.49
2:H:92:VAL:O	2:H:95:LYS:NZ	2.38	0.49
1:A:236:LEU:HB3	1:A:245:LEU:HD22	1.95	0.49
1:A:2267:VAL:O	1:A:2271:ALA:N	2.45	0.49
1:A:2315:GLU:O	1:A:2319:ASN:N	2.45	0.49
1:C:309:MET:HG2	1:C:312:LYS:H	1.76	0.49
1:C:591:GLU:OE2	1:C:635:ASN:ND2	2.44	0.49
1:C:2267:VAL:O	1:C:2271:ALA:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3851:HIS:HA	1:C:3856:GLN:HE22	1.76	0.49
1:C:3917:VAL:O	1:C:3920:THR:OG1	2.23	0.49
1:E:234:LEU:HB2	1:E:407:ARG:HA	1.94	0.49
1:E:281:ARG:O	1:E:285:SER:OG	2.30	0.49
1:E:847:THR:OG1	1:E:1216:ASN:OD1	2.22	0.49
1:E:1048:ASP:HA	1:E:1051:ARG:HD2	1.92	0.49
1:E:2079:PRO:O	1:E:2083:ARG:N	2.36	0.49
1:E:4864:GLN:HB2	1:G:4867:ILE:HG21	1.93	0.49
1:G:626:ARG:HA	1:G:629:GLN:HG2	1.93	0.49
1:G:937:LEU:O	1:G:941:LYS:N	2.44	0.49
1:G:1219:LYS:H	1:G:1240:ALA:HB3	1.77	0.49
1:G:1602:GLN:HE21	1:G:1603:PHE:H	1.59	0.49
1:A:218:SER:OG	1:A:286:GLY:O	2.30	0.49
1:A:1219:LYS:H	1:A:1240:ALA:HB3	1.77	0.49
1:A:2482:GLN:HA	1:A:2485:LEU:HD13	1.94	0.49
1:A:4519:LEU:HD22	1:G:4811:LEU:HD13	1.95	0.49
1:C:805:GLY:H	1:C:810:GLU:HB2	1.77	0.49
1:C:1818:PHE:HA	1:C:1821:LEU:HD12	1.94	0.49
1:C:4718:ASN:O	1:C:4722:TYR:N	2.39	0.49
1:E:45:ARG:HG2	1:E:454:LEU:HD21	1.94	0.49
1:E:1056:THR:O	1:E:1060:TYR:N	2.41	0.49
1:E:1443:VAL:HA	1:E:1543:VAL:HA	1.95	0.49
1:E:1602:GLN:HE21	1:E:1603:PHE:H	1.59	0.49
1:E:4780:TYR:OH	1:G:4515:ASN:O	2.24	0.49
1:G:277:LEU:HD11	1:G:295:PHE:HB3	1.93	0.49
1:G:1256:PRO:O	1:G:1451:HIS:ND1	2.39	0.49
1:G:1818:PHE:HA	1:G:1821:LEU:HD12	1.94	0.49
1:G:2482:GLN:HA	1:G:2485:LEU:HD13	1.94	0.49
1:G:4650:VAL:HA	1:G:4653:LYS:HB2	1.93	0.49
1:A:47:CYS:SG	1:A:48:PHE:N	2.86	0.49
1:A:288:HIS:ND1	1:A:349:MET:O	2.44	0.49
1:A:308:LEU:N	1:A:326:SER:O	2.44	0.49
1:A:1602:GLN:HE21	1:A:1603:PHE:H	1.59	0.49
1:A:1610:ARG:HA	1:A:1621:CYS:HA	1.94	0.49
1:C:236:LEU:HB3	1:C:245:LEU:HD22	1.95	0.49
1:C:308:LEU:N	1:C:326:SER:O	2.44	0.49
1:C:957:ALA:H	1:C:1060:TYR:HA	1.77	0.49
1:C:4045:SER:OG	1:C:4046:LYS:N	2.45	0.49
1:E:2482:GLN:HA	1:E:2485:LEU:HD13	1.94	0.49
1:E:3597:LYS:HB3	2:F:40:LEU:HD11	1.94	0.49
1:G:303:GLY:N	1:G:420:ARG:HH11	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:957:ALA:HB1	1:G:981:MET:HG3	1.94	0.49
1:G:1116:GLY:HA2	1:G:1175:PHE:HZ	1.77	0.49
1:G:2409:LEU:O	1:G:2413:ALA:N	2.43	0.49
1:G:3919:ASN:O	1:G:3922:THR:OG1	2.28	0.49
1:G:4838:ASP:HB3	1:G:4841:GLU:H	1.78	0.49
1:C:805:GLY:O	1:C:810:GLU:N	2.46	0.49
1:C:1443:VAL:HA	1:C:1543:VAL:HA	1.95	0.49
1:C:4667:ILE:O	1:C:4671:LEU:N	2.43	0.49
1:E:47:CYS:SG	1:E:48:PHE:N	2.86	0.49
1:E:123:HIS:CD2	1:E:126:SER:H	2.30	0.49
1:E:486:GLN:NE2	1:E:539:ALA:O	2.35	0.49
1:E:1253:LYS:HB3	1:E:1255:LEU:H	1.78	0.49
1:E:1310:CYS:SG	1:E:1516:GLY:N	2.84	0.49
1:E:4784:VAL:HA	1:E:4787:PHE:HB3	1.94	0.49
1:E:4887:THR:OG1	1:E:4888:LYS:NZ	2.40	0.49
1:G:236:LEU:HB3	1:G:245:LEU:HD22	1.95	0.49
1:G:805:GLY:H	1:G:810:GLU:HB2	1.77	0.49
1:G:1144:ARG:N	1:G:1150:GLU:O	2.41	0.49
1:G:2639:LEU:O	1:G:2643:ARG:N	2.41	0.49
1:G:4838:ASP:OD1	1:G:4839:GLU:N	2.45	0.49
1:A:40:GLU:HB3	1:A:44:ASN:HD22	1.78	0.49
1:A:357:GLY:O	1:A:404:ASN:ND2	2.37	0.49
1:A:2061:GLN:O	1:A:2064:SER:OG	2.26	0.49
1:A:2419:ARG:O	1:A:2422:SER:OG	2.29	0.49
1:C:2419:ARG:O	1:C:2422:SER:OG	2.30	0.49
1:C:2759:LYS:HD3	1:C:2763:LEU:HD23	1.95	0.49
1:C:4864:GLN:HB2	1:E:4867:ILE:HG21	1.94	0.49
1:E:236:LEU:HB3	1:E:245:LEU:HD22	1.95	0.49
1:E:410:HIS:O	1:E:413:SER:OG	2.28	0.49
1:E:1219:LYS:H	1:E:1240:ALA:HB3	1.77	0.49
1:E:2125:GLY:O	1:E:2129:SER:N	2.45	0.49
1:E:2759:LYS:HD3	1:E:2763:LEU:HD23	1.95	0.49
1:E:2842:ALA:HA	1:E:2845:MET:HB2	1.94	0.49
1:E:4809:ASP:O	1:G:4522:LYS:C	2.51	0.49
1:G:805:GLY:O	1:G:810:GLU:N	2.46	0.49
1:G:1007:TRP:O	1:G:1011:ARG:N	2.35	0.49
1:G:1184:ASP:N	1:G:1188:SER:O	2.45	0.49
1:G:3036:ILE:O	1:G:3040:THR:N	2.46	0.49
1:A:2641:LEU:O	1:A:2645:LEU:N	2.42	0.49
1:A:3790:PHE:O	1:A:3793:SER:OG	2.22	0.49
1:A:4024:LEU:O	1:A:4028:THR:HB	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4030:SER:O	1:A:4034:LYS:N	2.45	0.49
1:A:4794:TYR:H	1:A:4806:LYS:HZ2	1.60	0.49
2:B:66:PHE:HA	2:B:69:PHE:HB3	1.95	0.49
1:C:803:LEU:HD13	1:C:812:LYS:HB3	1.94	0.49
1:C:4861:ALA:HB2	1:E:4867:ILE:CG1	2.31	0.49
1:E:957:ALA:H	1:E:1060:TYR:HA	1.78	0.49
1:E:3038:GLY:O	1:E:3042:ASP:N	2.41	0.49
2:F:124:GLU:O	2:F:128:GLU:N	2.39	0.49
1:G:957:ALA:H	1:G:1060:TYR:HA	1.78	0.49
1:G:1118:SER:O	1:G:1202:ILE:N	2.38	0.49
1:A:805:GLY:O	1:A:810:GLU:N	2.46	0.49
1:A:1469:LEU:N	1:A:1477:HIS:O	2.41	0.49
1:A:3074:GLU:O	1:A:3078:GLN:N	2.42	0.49
1:A:4627:ILE:O	1:A:4631:TRP:N	2.42	0.49
1:A:4631:TRP:NE1	1:A:4709:TRP:O	2.44	0.49
1:A:4784:VAL:HA	1:A:4787:PHE:HB3	1.94	0.49
1:C:1116:GLY:HA2	1:C:1175:PHE:HZ	1.77	0.49
1:C:1602:GLN:HE21	1:C:1603:PHE:H	1.59	0.49
1:C:2605:LYS:O	1:C:2609:LYS:N	2.45	0.49
2:D:59:ASP:N	2:D:68:GLU:OE2	2.45	0.49
1:E:207:PHE:HE1	1:G:2326:ILE:CD1	2.26	0.49
2:F:46:GLU:HA	2:F:49:LEU:HB2	1.95	0.49
1:G:2315:GLU:O	1:G:2319:ASN:N	2.45	0.49
1:A:1443:VAL:HA	1:A:1543:VAL:HA	1.95	0.48
1:C:47:CYS:SG	1:C:48:PHE:N	2.85	0.48
1:C:948:CYS:HB3	1:C:1064:LEU:HB3	1.95	0.48
1:C:2267:VAL:HA	1:C:2270:LEU:HD12	1.95	0.48
1:C:4030:SER:O	1:C:4034:LYS:N	2.46	0.48
1:C:4784:VAL:HA	1:C:4787:PHE:HB3	1.95	0.48
1:C:4811:LEU:HD11	1:E:4519:LEU:HD22	1.95	0.48
2:D:46:GLU:HA	2:D:49:LEU:HB2	1.95	0.48
1:E:15:ARG:HA	1:E:112:THR:HA	1.94	0.48
1:E:452:VAL:O	1:E:456:LEU:N	2.44	0.48
1:E:4024:LEU:O	1:E:4028:THR:HB	2.13	0.48
1:G:47:CYS:SG	1:G:48:PHE:N	2.86	0.48
1:G:236:LEU:HD11	1:G:403:LEU:HB2	1.95	0.48
1:G:281:ARG:O	1:G:285:SER:OG	2.30	0.48
1:G:1253:LYS:HB3	1:G:1255:LEU:H	1.78	0.48
1:G:2267:VAL:HA	1:G:2270:LEU:HD12	1.95	0.48
1:G:4784:VAL:HA	1:G:4787:PHE:HB3	1.94	0.48
2:H:66:PHE:HA	2:H:69:PHE:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2409:LEU:O	1:A:2413:ALA:N	2.43	0.48
1:A:4522:LYS:HD3	1:A:4560:TYR:HB3	1.94	0.48
1:A:4848:ASP:O	1:A:4852:PHE:N	2.47	0.48
1:C:1257:GLN:N	1:C:1596:TRP:O	2.46	0.48
1:C:4024:LEU:O	1:C:4028:THR:HB	2.13	0.48
1:C:4650:VAL:HA	1:C:4653:LYS:HB2	1.93	0.48
1:C:4656:ASP:HA	1:C:4664:ARG:HH12	1.79	0.48
1:E:236:LEU:HD11	1:E:403:LEU:HB2	1.95	0.48
1:E:277:LEU:HD11	1:E:295:PHE:HB3	1.93	0.48
1:E:805:GLY:O	1:E:810:GLU:N	2.46	0.48
2:F:66:PHE:HA	2:F:69:PHE:HB3	1.95	0.48
1:G:1442:TRP:N	1:G:1544:PHE:O	2.42	0.48
1:G:1443:VAL:HA	1:G:1543:VAL:HA	1.95	0.48
1:G:4848:ASP:O	1:G:4852:PHE:N	2.46	0.48
1:A:1253:LYS:HB3	1:A:1255:LEU:H	1.78	0.48
1:C:1219:LYS:H	1:C:1240:ALA:HB3	1.77	0.48
1:C:1610:ARG:HA	1:C:1621:CYS:HA	1.94	0.48
1:C:4653:LYS:O	1:C:4657:LYS:N	2.42	0.48
1:E:2728:HIS:NE2	1:E:2829:MET:SD	2.77	0.48
1:E:4500:PHE:O	1:E:4504:ARG:N	2.39	0.48
1:E:4569:MET:O	1:E:4572:THR:OG1	2.25	0.48
2:F:92:VAL:O	2:F:95:LYS:NZ	2.38	0.48
1:G:1227:PHE:HE2	1:G:1238:PRO:HG3	1.79	0.48
1:G:2125:GLY:O	1:G:2129:SER:N	2.45	0.48
1:G:4588:ILE:O	1:G:4592:TYR:N	2.43	0.48
1:A:15:ARG:HA	1:A:112:THR:HA	1.94	0.48
1:A:803:LEU:HD13	1:A:812:LYS:HB3	1.94	0.48
1:A:1257:GLN:HG2	1:A:1451:HIS:HE1	1.78	0.48
1:A:1449:ASP:N	1:A:1449:ASP:OD1	2.47	0.48
1:A:2267:VAL:HA	1:A:2270:LEU:HD12	1.95	0.48
1:A:4718:ASN:O	1:A:4722:TYR:N	2.39	0.48
1:A:4861:ALA:HB2	1:C:4867:ILE:CG1	2.30	0.48
1:C:128:MET:HB2	1:C:149:LEU:HD13	1.95	0.48
1:C:277:LEU:HD23	1:C:289:ILE:HD13	1.96	0.48
1:C:478:ARG:O	1:C:482:LEU:N	2.45	0.48
1:C:1470:GLY:HA2	1:C:1474:GLY:HA2	1.96	0.48
1:C:2543:ALA:HB1	1:C:2873:VAL:HG21	1.95	0.48
1:C:4615:GLY:O	1:C:4619:THR:N	2.40	0.48
1:E:3613:PRO:HB2	1:E:3616:ARG:HB2	1.96	0.48
1:E:3984:LEU:HD21	1:E:4102:LEU:HB2	1.95	0.48
1:G:434:ASP:OD1	1:G:504:ARG:NE	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1040:ASP:OD1	1:G:1040:ASP:N	2.44	0.48
1:G:1610:ARG:HA	1:G:1621:CYS:HA	1.94	0.48
1:G:2645:LEU:O	1:G:2649:ILE:N	2.43	0.48
2:H:46:GLU:HA	2:H:49:LEU:HB2	1.95	0.48
1:A:417:ARG:O	1:A:421:SER:OG	2.25	0.48
1:A:1118:SER:O	1:A:1202:ILE:N	2.38	0.48
1:A:1227:PHE:HE2	1:A:1238:PRO:HG3	1.79	0.48
1:A:1669:ASN:O	1:A:1673:ALA:N	2.35	0.48
1:A:1771:ILE:O	1:A:1775:CYS:N	2.37	0.48
1:A:2125:GLY:O	1:A:2129:SER:N	2.45	0.48
1:A:4604:GLU:OE2	1:A:4644:ASN:N	2.45	0.48
2:B:18:SER:HA	2:B:21:ASP:HB3	1.96	0.48
1:C:40:GLU:HB3	1:C:44:ASN:HD22	1.78	0.48
1:C:1431:ARG:HG2	1:C:1554:GLN:HB3	1.96	0.48
1:C:1718:ARG:NH2	1:C:1758:ARG:O	2.32	0.48
1:C:4838:ASP:HB3	1:C:4841:GLU:H	1.78	0.48
1:E:712:GLU:HG2	1:E:1638:SER:HB2	1.95	0.48
1:E:3790:PHE:O	1:E:3793:SER:OG	2.22	0.48
1:E:4030:SER:O	1:E:4034:LYS:N	2.46	0.48
1:E:4812:THR:O	1:E:4816:PHE:N	2.39	0.48
1:G:1707:ILE:HG12	1:G:1711:LEU:HD12	1.96	0.48
1:G:2217:ASP:O	1:G:2220:SER:OG	2.31	0.48
1:G:2842:ALA:HA	1:G:2845:MET:HB2	1.94	0.48
1:G:3984:LEU:HD21	1:G:4102:LEU:HB2	1.95	0.48
1:A:277:LEU:HD23	1:A:289:ILE:HD13	1.96	0.48
1:A:1707:ILE:HG12	1:A:1711:LEU:HD12	1.96	0.48
1:A:1731:GLU:HA	1:A:1734:LYS:HD2	1.96	0.48
1:A:2217:ASP:O	1:A:2220:SER:OG	2.31	0.48
1:A:4615:GLY:O	1:A:4619:THR:N	2.40	0.48
1:A:4838:ASP:HB3	1:A:4841:GLU:H	1.78	0.48
1:C:591:GLU:HB2	1:C:631:LEU:HD11	1.96	0.48
1:C:608:HIS:HB2	1:C:1656:HIS:CD2	2.47	0.48
1:C:2039:TYR:OH	1:C:3634:GLU:OE2	2.25	0.48
1:C:3613:PRO:HB2	1:C:3616:ARG:HB2	1.96	0.48
1:C:4124:GLU:HG3	1:C:4128:ASN:HD21	1.79	0.48
1:E:1257:GLN:HG2	1:E:1451:HIS:HE1	1.78	0.48
1:E:1707:ILE:HG12	1:E:1711:LEU:HD12	1.96	0.48
1:E:1843:LEU:O	1:E:1847:GLU:N	2.41	0.48
1:E:2267:VAL:HA	1:E:2270:LEU:HD12	1.95	0.48
1:E:4627:ILE:HA	1:E:4630:GLN:HB2	1.96	0.48
1:G:40:GLU:HB3	1:G:44:ASN:HD22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:308:LEU:N	1:G:326:SER:O	2.44	0.48
1:G:1449:ASP:OD1	1:G:1449:ASP:N	2.47	0.48
1:G:2559:GLY:O	1:G:2563:THR:N	2.46	0.48
1:A:712:GLU:HG2	1:A:1638:SER:HB2	1.95	0.48
1:A:995:MET:O	1:A:999:LEU:N	2.44	0.48
1:A:1470:GLY:HA2	1:A:1474:GLY:HA2	1.96	0.48
1:A:3038:GLY:O	1:A:3042:ASP:N	2.41	0.48
1:A:3870:ASN:HD21	1:A:3872:ILE:HB	1.79	0.48
1:A:4031:ASP:HB3	1:A:4035:GLU:HB2	1.96	0.48
1:A:4656:ASP:HA	1:A:4664:ARG:HH12	1.78	0.48
2:B:46:GLU:HA	2:B:49:LEU:HB2	1.95	0.48
1:C:218:SER:OG	1:C:286:GLY:O	2.30	0.48
1:C:433:LEU:O	1:C:437:SER:N	2.47	0.48
1:C:1257:GLN:HG2	1:C:1451:HIS:HE1	1.78	0.48
1:C:2732:LYS:HG2	1:C:2829:MET:HB2	1.96	0.48
1:C:3597:LYS:HB3	2:D:40:LEU:HD11	1.94	0.48
1:C:4627:ILE:HA	1:C:4630:GLN:HB2	1.96	0.48
1:E:2308:PHE:O	1:E:2310:ASN:N	2.46	0.48
1:E:2732:LYS:HG2	1:E:2829:MET:HB2	1.96	0.48
1:E:4156:SER:O	1:E:4159:THR:OG1	2.22	0.48
1:G:803:LEU:HD13	1:G:812:LYS:HB3	1.94	0.48
1:G:1257:GLN:N	1:G:1596:TRP:O	2.46	0.48
1:G:1576:LYS:NZ	1:G:1589:GLN:OE1	2.36	0.48
1:G:1813:THR:OG1	1:G:1816:PHE:N	2.32	0.48
1:G:3597:LYS:HB3	2:H:40:LEU:HD11	1.94	0.48
1:G:3990:ASN:O	1:G:4145:ARG:NH2	2.47	0.48
1:G:4024:LEU:O	1:G:4028:THR:HB	2.13	0.48
1:G:4522:LYS:HD3	1:G:4560:TYR:HB3	1.94	0.48
1:G:4812:THR:O	1:G:4816:PHE:N	2.39	0.48
1:A:948:CYS:HB3	1:A:1064:LEU:HB3	1.95	0.48
1:A:2541:HIS:O	1:A:2545:LEU:N	2.47	0.48
1:A:2874:PRO:O	1:A:2877:THR:OG1	2.30	0.48
1:A:4777:VAL:HA	1:A:4780:TYR:HB3	1.96	0.48
1:C:49:LEU:HD21	1:C:203:VAL:HG11	1.96	0.48
1:C:434:ASP:OD1	1:C:504:ARG:NE	2.46	0.48
1:C:556:ASP:O	1:C:560:SER:N	2.39	0.48
1:C:1227:PHE:HE2	1:C:1238:PRO:HG3	1.79	0.48
1:C:1731:GLU:HA	1:C:1734:LYS:HD2	1.96	0.48
1:C:2432:ASP:N	1:C:2432:ASP:OD1	2.43	0.48
1:C:3990:ASN:O	1:C:4145:ARG:NH2	2.47	0.48
2:D:18:SER:HA	2:D:21:ASP:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:128:MET:HB2	1:E:149:LEU:HD13	1.95	0.48
1:E:608:HIS:HB2	1:E:1656:HIS:CD2	2.47	0.48
1:E:1520:PHE:H	1:E:1528:SER:HB2	1.79	0.48
1:E:1775:CYS:O	1:E:1777:GLN:N	2.47	0.48
1:E:1790:LYS:O	1:E:1794:MET:N	2.44	0.48
1:E:2541:HIS:O	1:E:2545:LEU:N	2.47	0.48
1:E:2543:ALA:HB1	1:E:2873:VAL:HG21	1.95	0.48
1:E:4118:THR:O	1:E:4122:LEU:CB	2.61	0.48
1:E:4514:ILE:HD11	1:E:4576:LEU:HB3	1.96	0.48
1:G:1106:GLU:N	1:G:1214:ARG:O	2.47	0.48
1:G:1154:ARG:H	1:G:1182:LEU:HD22	1.79	0.48
1:G:1257:GLN:HG2	1:G:1451:HIS:HE1	1.78	0.48
1:G:4031:ASP:HB3	1:G:4035:GLU:HB2	1.96	0.48
1:G:4045:SER:OG	1:G:4046:LYS:N	2.45	0.48
1:A:49:LEU:HD21	1:A:203:VAL:HG11	1.96	0.48
1:A:540:LEU:O	1:A:547:ASN:ND2	2.47	0.48
1:C:417:ARG:O	1:C:421:SER:OG	2.25	0.48
1:C:540:LEU:O	1:C:547:ASN:ND2	2.47	0.48
1:C:1520:PHE:H	1:C:1528:SER:HB2	1.79	0.48
1:C:1707:ILE:HG12	1:C:1711:LEU:HD12	1.96	0.48
1:E:591:GLU:HB2	1:E:631:LEU:HD11	1.96	0.48
1:E:948:CYS:HB3	1:E:1064:LEU:HB3	1.95	0.48
1:E:1154:ARG:H	1:E:1182:LEU:HD22	1.79	0.48
1:E:3990:ASN:O	1:E:4145:ARG:NH2	2.47	0.48
1:G:328:ALA:HB1	1:G:366:ILE:HD12	1.96	0.48
1:A:1256:PRO:O	1:A:1451:HIS:ND1	2.39	0.48
1:C:1253:LYS:HB3	1:C:1255:LEU:H	1.78	0.48
1:C:2058:THR:OG1	1:C:2059:LEU:N	2.47	0.48
1:C:2217:ASP:O	1:C:2220:SER:OG	2.31	0.48
1:C:2641:LEU:O	1:C:2645:LEU:N	2.42	0.48
1:C:4514:ILE:HD11	1:C:4576:LEU:HB3	1.96	0.48
1:C:4777:VAL:HA	1:C:4780:TYR:HB3	1.96	0.48
1:E:277:LEU:HD23	1:E:289:ILE:HD13	1.96	0.48
1:E:1227:PHE:HE2	1:E:1238:PRO:HG3	1.79	0.48
1:E:1731:GLU:HA	1:E:1734:LYS:HD2	1.96	0.48
1:E:2058:THR:OG1	1:E:2059:LEU:N	2.47	0.48
1:E:4656:ASP:HA	1:E:4664:ARG:HH12	1.78	0.48
1:E:4757:ILE:O	1:E:4760:SER:OG	2.22	0.48
1:E:4838:ASP:HB3	1:E:4841:GLU:H	1.78	0.48
1:E:4891:ILE:HD11	1:E:4916:LEU:HD13	1.96	0.48
1:G:433:LEU:O	1:G:437:SER:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1469:LEU:N	1:G:1477:HIS:O	2.41	0.48
1:G:2647:TRP:O	1:G:2651:ASP:N	2.47	0.48
1:G:4891:ILE:HD11	1:G:4916:LEU:HD13	1.96	0.48
2:H:18:SER:HA	2:H:21:ASP:HB3	1.96	0.48
1:A:128:MET:HB2	1:A:149:LEU:HD13	1.95	0.47
1:A:412:GLU:O	1:A:415:THR:OG1	2.32	0.47
1:A:1520:PHE:H	1:A:1528:SER:HB2	1.79	0.47
1:A:3587:VAL:HA	1:A:3590:LYS:HE2	1.96	0.47
1:C:1310:CYS:SG	1:C:1516:GLY:N	2.84	0.47
1:C:2854:ALA:O	1:C:2858:LYS:N	2.43	0.47
1:E:4124:GLU:HG3	1:E:4128:ASN:HD21	1.79	0.47
1:G:948:CYS:HB3	1:G:1064:LEU:HB3	1.95	0.47
1:G:1775:CYS:O	1:G:1777:GLN:N	2.47	0.47
1:G:2640:HIS:O	1:G:2644:LYS:N	2.43	0.47
1:A:1257:GLN:N	1:A:1596:TRP:O	2.46	0.47
1:A:2080:GLU:HA	1:A:2083:ARG:HB3	1.96	0.47
1:A:3984:LEU:HD21	1:A:4102:LEU:HB2	1.95	0.47
1:A:4861:ALA:CA	1:C:4867:ILE:HD13	2.42	0.47
1:C:303:GLY:N	1:C:420:ARG:HH11	2.10	0.47
1:C:452:VAL:O	1:C:456:LEU:N	2.44	0.47
1:C:651:HIS:N	1:C:1625:LEU:O	2.37	0.47
1:C:1106:GLU:N	1:C:1214:ARG:O	2.47	0.47
1:C:1798:ALA:O	1:C:1802:GLY:N	2.41	0.47
1:C:1843:LEU:O	1:C:1847:GLU:N	2.41	0.47
1:C:2425:ARG:HH22	1:C:2477:TYR:HA	1.79	0.47
1:C:4035:GLU:HG3	1:C:4039:ASP:HA	1.96	0.47
1:C:4616:LEU:HA	1:C:4620:GLU:H	1.79	0.47
1:C:4631:TRP:NE1	1:C:4709:TRP:O	2.44	0.47
1:C:4794:TYR:H	1:C:4806:LYS:HZ2	1.62	0.47
1:E:49:LEU:HD21	1:E:203:VAL:HG11	1.96	0.47
1:E:330:THR:OG1	1:E:364:GLN:OE1	2.25	0.47
1:E:412:GLU:O	1:E:415:THR:OG1	2.32	0.47
1:E:1106:GLU:N	1:E:1214:ARG:O	2.47	0.47
1:E:1257:GLN:N	1:E:1596:TRP:O	2.46	0.47
1:E:4811:LEU:O	1:E:4811:LEU:HG	2.14	0.47
1:G:71:GLN:NE2	1:G:73:LEU:HD21	2.30	0.47
1:G:540:LEU:O	1:G:547:ASN:ND2	2.47	0.47
1:G:1520:PHE:H	1:G:1528:SER:HB2	1.79	0.47
1:G:1771:ILE:O	1:G:1775:CYS:N	2.37	0.47
1:G:1790:LYS:O	1:G:1794:MET:N	2.44	0.47
1:G:3682:LYS:NZ	1:G:3683:LEU:O	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4794:TYR:H	1:G:4806:LYS:HZ2	1.61	0.47
1:A:433:LEU:O	1:A:437:SER:N	2.47	0.47
1:A:434:ASP:OD1	1:A:504:ARG:NE	2.46	0.47
1:A:1209:VAL:N	1:A:1211:GLN:OE1	2.48	0.47
1:A:1310:CYS:SG	1:A:1516:GLY:N	2.84	0.47
1:A:1775:CYS:O	1:A:1777:GLN:N	2.47	0.47
1:A:2420:ILE:HA	1:A:2423:ILE:HD12	1.96	0.47
1:C:243:GLU:HA	1:C:264:GLY:HA2	1.96	0.47
1:C:284:TRP:O	1:C:287:SER:OG	2.31	0.47
1:C:1154:ARG:H	1:C:1182:LEU:HD22	1.79	0.47
1:C:3984:LEU:HD21	1:C:4102:LEU:HB2	1.95	0.47
1:C:4891:ILE:HD11	1:C:4916:LEU:HD13	1.96	0.47
1:E:602:ASP:N	1:E:602:ASP:OD1	2.47	0.47
1:E:845:THR:OG1	1:E:846:TYR:N	2.48	0.47
2:F:31:LYS:HA	2:F:31:LYS:HD2	1.76	0.47
1:G:49:LEU:HD21	1:G:203:VAL:HG11	1.96	0.47
1:G:277:LEU:HD23	1:G:289:ILE:HD13	1.96	0.47
1:G:3670:LEU:O	1:G:3673:SER:OG	2.32	0.47
1:A:236:LEU:HD11	1:A:403:LEU:HB2	1.95	0.47
1:A:4616:LEU:HA	1:A:4620:GLU:H	1.79	0.47
1:A:4812:THR:O	1:A:4816:PHE:N	2.39	0.47
1:C:236:LEU:HD11	1:C:403:LEU:HB2	1.95	0.47
1:C:292:GLY:N	1:C:331:PHE:O	2.48	0.47
1:C:712:GLU:HG2	1:C:1638:SER:HB2	1.95	0.47
1:C:2728:HIS:NE2	1:C:2829:MET:SD	2.77	0.47
1:C:3012:LEU:O	1:C:3016:VAL:N	2.44	0.47
1:C:4118:THR:O	1:C:4122:LEU:CB	2.61	0.47
1:E:243:GLU:HA	1:E:264:GLY:HA2	1.96	0.47
1:E:1184:ASP:N	1:E:1188:SER:O	2.45	0.47
1:E:1594:VAL:HB	1:E:1596:TRP:CE2	2.49	0.47
1:E:1669:ASN:O	1:E:1673:ALA:N	2.35	0.47
1:G:357:GLY:O	1:G:404:ASN:ND2	2.37	0.47
1:G:1470:GLY:HA2	1:G:1474:GLY:HA2	1.96	0.47
1:G:2759:LYS:HD3	1:G:2763:LEU:HD23	1.95	0.47
1:G:3870:ASN:HD21	1:G:3872:ILE:HB	1.79	0.47
1:G:4627:ILE:O	1:G:4631:TRP:N	2.43	0.47
1:A:1431:ARG:HG2	1:A:1554:GLN:HB3	1.96	0.47
1:A:2759:LYS:HD3	1:A:2763:LEU:HD23	1.95	0.47
1:C:1209:VAL:N	1:C:1211:GLN:OE1	2.48	0.47
1:C:1309:GLU:OE2	1:C:1538:LYS:NZ	2.47	0.47
1:C:1449:ASP:OD1	1:C:1449:ASP:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1775:CYS:O	1:C:1777:GLN:N	2.47	0.47
1:C:3870:ASN:HD21	1:C:3872:ILE:HB	1.79	0.47
1:C:4108:GLU:OE2	1:C:4150:TYR:OH	2.33	0.47
1:C:4780:TYR:OH	1:E:4515:ASN:O	2.25	0.47
1:E:40:GLU:HB3	1:E:44:ASN:HD22	1.78	0.47
1:E:434:ASP:OD1	1:E:504:ARG:NE	2.46	0.47
1:E:540:LEU:O	1:E:547:ASN:ND2	2.47	0.47
1:E:2196:ASN:OD1	1:E:2199:ARG:NH2	2.38	0.47
1:E:3037:LEU:O	1:E:3041:LEU:N	2.41	0.47
1:E:4035:GLU:HG3	1:E:4039:ASP:HA	1.96	0.47
1:G:292:GLY:N	1:G:331:PHE:O	2.48	0.47
1:G:452:VAL:O	1:G:456:LEU:N	2.44	0.47
1:G:4064:THR:O	1:G:4068:LEU:N	2.40	0.47
1:G:4627:ILE:HA	1:G:4630:GLN:HB2	1.96	0.47
1:G:4796:LYS:NZ	1:G:4806:LYS:O	2.43	0.47
1:A:434:ASP:O	1:A:437:SER:OG	2.28	0.47
1:A:591:GLU:HB2	1:A:631:LEU:HD11	1.96	0.47
1:A:2425:ARG:HH22	1:A:2477:TYR:HA	1.79	0.47
1:A:3613:PRO:HB2	1:A:3616:ARG:HB2	1.96	0.47
1:C:886:ALA:O	1:C:890:HIS:N	2.37	0.47
1:C:1539:LEU:HD12	1:C:1539:LEU:HA	1.74	0.47
1:C:1938:GLN:HE21	1:C:1942:ARG:HH11	1.63	0.47
1:C:2420:ILE:HA	1:C:2423:ILE:HD12	1.96	0.47
1:C:2547:ASP:O	1:C:2551:HIS:N	2.46	0.47
1:C:3036:ILE:O	1:C:3040:THR:N	2.46	0.47
1:E:328:ALA:HB1	1:E:366:ILE:HD12	1.96	0.47
1:E:1469:LEU:N	1:E:1477:HIS:O	2.41	0.47
1:E:2080:GLU:HA	1:E:2083:ARG:HB3	1.96	0.47
1:E:2217:ASP:O	1:E:2220:SER:OG	2.31	0.47
1:E:2319:ASN:OD1	1:E:2323:ARG:NH1	2.36	0.47
1:E:4114:THR:OG1	1:E:4115:ARG:N	2.48	0.47
1:E:4848:ASP:O	1:E:4852:PHE:N	2.47	0.47
1:G:1731:GLU:HA	1:G:1734:LYS:HD2	1.96	0.47
1:G:2420:ILE:HA	1:G:2423:ILE:HD12	1.96	0.47
1:G:2641:LEU:O	1:G:2645:LEU:N	2.42	0.47
1:G:2732:LYS:HG2	1:G:2829:MET:HB2	1.96	0.47
1:G:3587:VAL:HA	1:G:3590:LYS:HE2	1.96	0.47
1:G:4514:ILE:HD11	1:G:4576:LEU:HB3	1.96	0.47
1:A:243:GLU:HA	1:A:264:GLY:HA2	1.96	0.47
1:A:1154:ARG:H	1:A:1182:LEU:HD22	1.79	0.47
1:A:2593:LEU:O	1:A:2597:VAL:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3990:ASN:O	1:A:4145:ARG:NH2	2.47	0.47
1:A:4124:GLU:HG3	1:A:4128:ASN:HD21	1.79	0.47
1:A:4654:VAL:O	1:A:4658:TYR:N	2.48	0.47
1:A:4667:ILE:O	1:A:4671:LEU:N	2.43	0.47
1:A:4867:ILE:CD1	1:G:4860:LEU:CB	2.93	0.47
1:C:182:ILE:HD11	1:C:211:LEU:HD13	1.97	0.47
1:C:595:LYS:HZ3	1:C:635:ASN:HB3	1.80	0.47
1:C:1594:VAL:HB	1:C:1596:TRP:CE2	2.49	0.47
1:C:1730:THR:O	1:C:1733:THR:OG1	2.26	0.47
1:C:2080:GLU:HA	1:C:2083:ARG:HB3	1.96	0.47
1:C:2647:TRP:O	1:C:2651:ASP:N	2.47	0.47
1:C:2874:PRO:O	1:C:2877:THR:OG1	2.30	0.47
1:C:3670:LEU:O	1:C:3673:SER:OG	2.32	0.47
1:C:4031:ASP:HB3	1:C:4035:GLU:HB2	1.96	0.47
1:C:4047:ARG:HA	1:C:4050:HIS:HB3	1.97	0.47
1:C:4616:LEU:O	1:C:4621:GLN:N	2.35	0.47
2:D:66:PHE:HA	2:D:69:PHE:HB3	1.95	0.47
1:E:38:ALA:O	1:E:48:PHE:N	2.47	0.47
1:E:71:GLN:NE2	1:E:73:LEU:HD21	2.29	0.47
1:E:433:LEU:O	1:E:437:SER:N	2.47	0.47
1:E:567:ALA:O	1:E:571:ILE:N	2.47	0.47
1:E:591:GLU:HG3	1:E:631:LEU:HD21	1.96	0.47
1:E:1197:VAL:HA	1:E:1201:PHE:HE2	1.79	0.47
1:E:1938:GLN:HE21	1:E:1942:ARG:HH11	1.63	0.47
1:E:2425:ARG:HH22	1:E:2477:TYR:HA	1.79	0.47
1:E:2638:GLU:O	1:E:2642:SER:N	2.44	0.47
1:E:2639:LEU:O	1:E:2643:ARG:N	2.41	0.47
1:E:3627:LYS:HB2	1:E:3627:LYS:HE2	1.72	0.47
1:E:3870:ASN:HD21	1:E:3872:ILE:HB	1.79	0.47
1:E:4047:ARG:HA	1:E:4050:HIS:HB3	1.97	0.47
2:F:28:ILE:HB	2:F:64:ILE:HB	1.97	0.47
1:G:591:GLU:HB2	1:G:631:LEU:HD11	1.96	0.47
1:G:608:HIS:HB2	1:G:1656:HIS:CD2	2.47	0.47
1:G:712:GLU:HG2	1:G:1638:SER:HB2	1.95	0.47
1:G:1209:VAL:N	1:G:1211:GLN:OE1	2.48	0.47
1:G:1309:GLU:OE2	1:G:1538:LYS:NZ	2.47	0.47
1:G:2593:LEU:O	1:G:2597:VAL:N	2.48	0.47
1:G:3917:VAL:O	1:G:3920:THR:OG1	2.23	0.47
1:G:4047:ARG:HA	1:G:4050:HIS:HB3	1.97	0.47
1:G:4842:ILE:HA	1:G:4845:ILE:HD12	1.96	0.47
1:A:721:ASP:OD1	1:A:721:ASP:N	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:845:THR:OG1	1:A:846:TYR:N	2.48	0.47
1:A:4114:THR:OG1	1:A:4115:ARG:N	2.48	0.47
1:G:478:ARG:O	1:G:482:LEU:N	2.45	0.47
1:G:1504:GLY:HA2	1:G:1523:ASN:HD22	1.80	0.47
1:G:2425:ARG:HH22	1:G:2477:TYR:HA	1.79	0.47
1:G:3613:PRO:HB2	1:G:3616:ARG:HB2	1.96	0.47
1:G:4124:GLU:HG3	1:G:4128:ASN:HD21	1.79	0.47
1:G:4563:GLU:OE2	1:G:4569:MET:N	2.41	0.47
1:G:4631:TRP:NE1	1:G:4709:TRP:O	2.44	0.47
1:G:4654:VAL:O	1:G:4658:TYR:N	2.48	0.47
1:A:328:ALA:HB1	1:A:366:ILE:HD12	1.96	0.47
1:A:2732:LYS:HG2	1:A:2829:MET:HB2	1.96	0.47
1:A:4627:ILE:HA	1:A:4630:GLN:HB2	1.96	0.47
1:C:278:GLU:O	1:C:296:ARG:N	2.47	0.47
1:C:1199:ASP:N	1:C:1199:ASP:OD1	2.48	0.47
1:C:1487:MET:HB3	1:C:1520:PHE:HZ	1.80	0.47
1:C:1669:ASN:O	1:C:1673:ALA:N	2.35	0.47
1:C:3624:GLY:HA2	1:C:3627:LYS:HE2	1.97	0.47
1:C:4848:ASP:O	1:C:4852:PHE:N	2.47	0.47
1:C:4860:LEU:CB	1:E:4867:ILE:CD1	2.93	0.47
1:C:4911:LEU:HA	1:C:4911:LEU:HD23	1.78	0.47
1:E:292:GLY:N	1:E:331:PHE:O	2.48	0.47
1:E:1309:GLU:OE2	1:E:1538:LYS:NZ	2.47	0.47
1:E:2409:LEU:O	1:E:2413:ALA:N	2.43	0.47
1:E:4108:GLU:OE2	1:E:4150:TYR:OH	2.33	0.47
1:E:4788:ASN:ND2	1:G:4738:PHE:CD1	2.83	0.47
1:E:4794:TYR:H	1:E:4806:LYS:HZ2	1.62	0.47
1:E:4842:ILE:HA	1:E:4845:ILE:HD12	1.96	0.47
1:E:4860:LEU:HD13	1:G:4863:ILE:HD11	1.90	0.47
1:G:525:SER:HG	1:G:528:SER:HG	1.55	0.47
1:G:845:THR:OG1	1:G:846:TYR:N	2.48	0.47
1:G:1197:VAL:HA	1:G:1201:PHE:HE2	1.79	0.47
1:G:1431:ARG:HG2	1:G:1554:GLN:HB3	1.96	0.47
1:G:2562:LEU:O	1:G:2566:GLN:N	2.43	0.47
2:H:28:ILE:HB	2:H:64:ILE:HB	1.97	0.47
1:A:182:ILE:HD11	1:A:211:LEU:HD13	1.97	0.47
1:A:292:GLY:N	1:A:331:PHE:O	2.48	0.47
1:A:1594:VAL:HB	1:A:1596:TRP:CE2	2.49	0.47
1:A:4500:PHE:O	1:A:4504:ARG:N	2.39	0.47
2:B:28:ILE:HB	2:B:64:ILE:HB	1.97	0.47
1:C:845:THR:OG1	1:C:846:TYR:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2308:PHE:O	1:C:2310:ASN:N	2.46	0.47
1:C:2541:HIS:O	1:C:2545:LEU:N	2.47	0.47
1:C:4162:GLU:H	1:C:4162:GLU:HG3	1.52	0.47
1:C:4861:ALA:CA	1:E:4867:ILE:HD13	2.43	0.47
1:E:1209:VAL:N	1:E:1211:GLN:OE1	2.48	0.47
1:E:1442:TRP:N	1:E:1544:PHE:O	2.42	0.47
1:E:1470:GLY:HA2	1:E:1474:GLY:HA2	1.96	0.47
1:E:1732:GLU:O	1:E:1735:SER:OG	2.29	0.47
1:E:2264:GLU:O	1:E:2268:ARG:N	2.45	0.47
1:E:2425:ARG:NH2	1:E:2476:VAL:HG12	2.29	0.47
1:E:2640:HIS:O	1:E:2644:LYS:N	2.43	0.47
1:E:2641:LEU:O	1:E:2645:LEU:N	2.42	0.47
2:F:18:SER:HA	2:F:21:ASP:HB3	1.96	0.47
1:G:1764:SER:HB3	1:G:1778:TYR:HD2	1.80	0.47
1:G:2058:THR:OG1	1:G:2059:LEU:N	2.47	0.47
1:A:452:VAL:O	1:A:456:LEU:N	2.44	0.46
1:A:591:GLU:HG3	1:A:631:LEU:HD21	1.96	0.46
1:A:2058:THR:OG1	1:A:2059:LEU:N	2.47	0.46
1:A:2543:ALA:HB1	1:A:2873:VAL:HG21	1.95	0.46
1:A:2854:ALA:O	1:A:2858:LYS:N	2.43	0.46
1:A:4025:LYS:HA	1:A:4089:HIS:CE1	2.50	0.46
1:A:4047:ARG:HA	1:A:4050:HIS:HB3	1.97	0.46
1:A:4514:ILE:HD11	1:A:4576:LEU:HB3	1.96	0.46
1:A:4868:ILE:HD11	1:G:4864:GLN:C	2.36	0.46
1:C:847:THR:OG1	1:C:1216:ASN:OD1	2.22	0.46
1:C:3587:VAL:HA	1:C:3590:LYS:HE2	1.96	0.46
1:C:4559:HIS:CG	1:C:4738:PHE:HZ	2.33	0.46
1:C:4654:VAL:O	1:C:4658:TYR:N	2.48	0.46
1:C:4788:ASN:ND2	1:E:4738:PHE:CD1	2.83	0.46
2:D:28:ILE:HB	2:D:64:ILE:HB	1.97	0.46
1:E:76:ARG:CB	1:G:3891:TRP:CB	2.93	0.46
1:E:2420:ILE:HA	1:E:2423:ILE:HD12	1.96	0.46
1:E:3587:VAL:HA	1:E:3590:LYS:HE2	1.96	0.46
1:E:4031:ASP:HB3	1:E:4035:GLU:HB2	1.96	0.46
1:E:4840:TYR:HA	1:E:4843:TYR:HD2	1.80	0.46
1:G:1594:VAL:HB	1:G:1596:TRP:CE2	2.49	0.46
1:G:4025:LYS:HA	1:G:4089:HIS:CE1	2.50	0.46
1:G:4035:GLU:HG3	1:G:4039:ASP:HA	1.96	0.46
1:G:4718:ASN:O	1:G:4722:TYR:N	2.39	0.46
1:G:4777:VAL:HA	1:G:4780:TYR:HB3	1.96	0.46
1:A:556:ASP:O	1:A:560:SER:N	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1487:MET:HB3	1:A:1520:PHE:HZ	1.80	0.46
1:A:1539:LEU:HD12	1:A:1539:LEU:HA	1.74	0.46
1:A:2647:TRP:O	1:A:2651:ASP:N	2.47	0.46
1:A:4035:GLU:HG3	1:A:4039:ASP:HA	1.96	0.46
1:A:4891:ILE:HD11	1:A:4916:LEU:HD13	1.96	0.46
1:C:2256:LEU:O	1:C:3811:ARG:NH2	2.48	0.46
1:C:4121:GLU:HA	1:C:4124:GLU:HB2	1.97	0.46
1:E:308:LEU:HD23	1:E:365:HIS:CD2	2.50	0.46
1:E:1040:ASP:N	1:E:1040:ASP:OD1	2.44	0.46
1:E:1431:ARG:HG2	1:E:1554:GLN:HB3	1.96	0.46
1:E:2647:TRP:O	1:E:2651:ASP:N	2.47	0.46
1:E:4777:VAL:HA	1:E:4780:TYR:HB3	1.96	0.46
1:E:4860:LEU:CB	1:G:4867:ILE:CD1	2.93	0.46
1:G:128:MET:HB2	1:G:149:LEU:HD13	1.95	0.46
1:G:411:GLU:H	1:G:411:GLU:HG3	1.57	0.46
1:G:591:GLU:HG3	1:G:631:LEU:HD21	1.96	0.46
1:G:674:TYR:HE1	1:G:757:CYS:H	1.63	0.46
1:G:678:MET:N	1:G:801:ARG:O	2.48	0.46
1:G:995:MET:O	1:G:999:LEU:N	2.44	0.46
1:G:2429:PRO:HG2	1:G:2431:GLY:HA3	1.98	0.46
1:G:2543:ALA:HB1	1:G:2873:VAL:HG21	1.95	0.46
1:G:4656:ASP:HA	1:G:4664:ARG:HH12	1.78	0.46
1:A:731:HIS:HA	1:A:741:VAL:HB	1.98	0.46
1:A:4108:GLU:OE2	1:A:4150:TYR:OH	2.33	0.46
1:A:4860:LEU:CB	1:C:4867:ILE:CD1	2.94	0.46
1:C:640:ARG:HA	1:C:643:LEU:HD21	1.97	0.46
1:C:1442:TRP:N	1:C:1544:PHE:O	2.42	0.46
1:C:2328:ARG:NH2	1:C:2330:GLU:OE1	2.48	0.46
1:C:2992:CYS:O	1:C:2996:HIS:N	2.48	0.46
1:E:721:ASP:OD1	1:E:721:ASP:N	2.35	0.46
1:E:1256:PRO:O	1:E:1451:HIS:ND1	2.39	0.46
1:E:2593:LEU:O	1:E:2597:VAL:N	2.48	0.46
1:E:3624:GLY:HA2	1:E:3627:LYS:HE2	1.97	0.46
1:E:4121:GLU:HA	1:E:4124:GLU:HB2	1.98	0.46
1:E:4811:LEU:HD22	1:G:4519:LEU:CB	2.45	0.46
1:E:4861:ALA:CA	1:G:4867:ILE:HD13	2.43	0.46
1:G:182:ILE:HD11	1:G:211:LEU:HD13	1.97	0.46
1:G:2212:GLN:O	1:G:2247:SER:OG	2.33	0.46
1:G:4115:ARG:O	1:G:4118:THR:OG1	2.21	0.46
1:A:1764:SER:HB3	1:A:1778:TYR:HD2	1.80	0.46
1:A:2429:PRO:HG2	1:A:2431:GLY:HA3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2667:LEU:O	1:A:2671:SER:N	2.45	0.46
1:C:731:HIS:HA	1:C:741:VAL:HB	1.98	0.46
1:C:1197:VAL:HA	1:C:1201:PHE:HE2	1.79	0.46
1:C:1226:TYR:O	1:C:1230:CYS:N	2.48	0.46
1:C:1504:GLY:HA2	1:C:1523:ASN:HD22	1.80	0.46
1:C:1521:THR:HA	1:C:1526:ASP:HA	1.98	0.46
2:D:31:LYS:O	2:D:35:THR:OG1	2.26	0.46
1:E:182:ILE:HD11	1:E:211:LEU:HD13	1.97	0.46
1:E:674:TYR:HE1	1:E:757:CYS:H	1.63	0.46
1:E:937:LEU:O	1:E:941:LYS:N	2.44	0.46
1:E:1162:VAL:O	1:E:1176:THR:OG1	2.24	0.46
1:E:1764:SER:HB3	1:E:1778:TYR:HD2	1.80	0.46
1:E:4817:HIS:O	1:E:4821:GLY:N	2.49	0.46
1:G:426:PHE:O	1:G:430:ILE:N	2.48	0.46
1:G:711:GLU:HA	1:G:1637:ARG:HB2	1.98	0.46
1:G:1798:ALA:O	1:G:1802:GLY:N	2.41	0.46
1:G:1938:GLN:HE21	1:G:1942:ARG:HH11	1.63	0.46
1:G:2080:GLU:HA	1:G:2083:ARG:HB3	1.96	0.46
1:G:2992:CYS:O	1:G:2996:HIS:N	2.48	0.46
1:G:4796:LYS:NZ	1:G:4807:CYS:SG	2.73	0.46
1:A:308:LEU:HD23	1:A:365:HIS:CD2	2.50	0.46
1:A:1197:VAL:HA	1:A:1201:PHE:HE2	1.79	0.46
1:A:1225:LYS:O	1:A:1228:THR:OG1	2.34	0.46
1:C:207:PHE:CE1	1:E:2326:ILE:HD12	2.48	0.46
1:C:308:LEU:HD23	1:C:365:HIS:CD2	2.50	0.46
1:C:591:GLU:HG3	1:C:631:LEU:HD21	1.96	0.46
1:C:2461:PHE:HB3	1:C:2462:CYS:H	1.56	0.46
2:D:92:VAL:HG12	2:D:109:VAL:HG13	1.98	0.46
1:E:1576:LYS:NZ	1:E:1589:GLN:OE1	2.36	0.46
1:E:2212:GLN:O	1:E:2247:SER:OG	2.33	0.46
1:E:4616:LEU:HA	1:E:4620:GLU:H	1.79	0.46
1:E:4616:LEU:O	1:E:4621:GLN:N	2.35	0.46
1:G:640:ARG:HA	1:G:643:LEU:HD21	1.97	0.46
1:G:3627:LYS:HE2	1:G:3627:LYS:HB2	1.72	0.46
1:G:4114:THR:OG1	1:G:4115:ARG:N	2.48	0.46
1:G:4121:GLU:HA	1:G:4124:GLU:HB2	1.97	0.46
1:A:228:LEU:HD23	1:A:228:LEU:HA	1.83	0.46
1:A:1843:LEU:O	1:A:1847:GLU:N	2.41	0.46
1:A:1938:GLN:HE21	1:A:1942:ARG:HH11	1.63	0.46
1:A:2547:ASP:O	1:A:2551:HIS:N	2.46	0.46
1:A:4569:MET:O	1:A:4572:THR:OG1	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4653:LYS:O	1:A:4657:LYS:N	2.42	0.46
1:A:4864:GLN:C	1:C:4868:ILE:HD11	2.35	0.46
1:C:38:ALA:O	1:C:48:PHE:N	2.47	0.46
1:C:703:TYR:OH	1:C:706:TYR:O	2.30	0.46
1:C:1225:LYS:O	1:C:1228:THR:OG1	2.34	0.46
1:C:2433:LEU:H	1:C:2433:LEU:HG	1.55	0.46
1:C:3685:GLU:OE1	1:C:3687:PHE:N	2.49	0.46
1:E:434:ASP:O	1:E:437:SER:OG	2.28	0.46
1:E:651:HIS:HA	1:E:1627:PHE:CZ	2.51	0.46
1:E:995:MET:O	1:E:999:LEU:N	2.44	0.46
1:E:1226:TYR:O	1:E:1230:CYS:N	2.48	0.46
1:E:2992:CYS:O	1:E:2996:HIS:N	2.48	0.46
1:E:4606:GLU:O	1:E:4610:LYS:N	2.48	0.46
1:G:131:CYS:HB2	1:G:157:ALA:HB1	1.97	0.46
1:G:2126:GLN:O	1:G:2129:SER:OG	2.24	0.46
1:G:2328:ARG:NH2	1:G:2330:GLU:OE1	2.48	0.46
1:G:2405:PRO:HB3	1:G:2417:ALA:HB1	1.98	0.46
1:G:4108:GLU:OE2	1:G:4150:TYR:OH	2.33	0.46
1:G:4559:HIS:CG	1:G:4738:PHE:HZ	2.33	0.46
2:H:92:VAL:HG12	2:H:109:VAL:HG13	1.98	0.46
1:A:508:TYR:CG	1:A:517:VAL:HG13	2.51	0.46
1:A:1521:THR:HA	1:A:1526:ASP:HA	1.98	0.46
1:A:2079:PRO:O	1:A:2083:ARG:N	2.35	0.46
1:A:2405:PRO:HB3	1:A:2417:ALA:HB1	1.98	0.46
1:A:2638:GLU:O	1:A:2642:SER:N	2.44	0.46
2:B:92:VAL:HG12	2:B:109:VAL:HG13	1.98	0.46
1:C:328:ALA:HB1	1:C:366:ILE:HD12	1.96	0.46
1:C:651:HIS:HA	1:C:1627:PHE:CZ	2.51	0.46
1:C:2086:PHE:O	1:C:3692:TYR:OH	2.25	0.46
1:E:131:CYS:HB2	1:E:157:ALA:HB1	1.97	0.46
1:E:303:GLY:N	1:E:420:ARG:HH11	2.10	0.46
1:E:1217:PHE:HB3	1:E:1239:PHE:HB2	1.98	0.46
1:E:2559:GLY:O	1:E:2563:THR:N	2.46	0.46
1:E:4025:LYS:HA	1:E:4089:HIS:CE1	2.50	0.46
1:E:4864:GLN:C	1:G:4868:ILE:HD11	2.35	0.46
1:G:243:GLU:HA	1:G:264:GLY:HA2	1.96	0.46
1:G:472:HIS:CD2	1:G:3674:ARG:HH21	2.34	0.46
1:G:602:ASP:N	1:G:602:ASP:OD1	2.47	0.46
1:G:2541:HIS:O	1:G:2545:LEU:N	2.47	0.46
1:G:4817:HIS:O	1:G:4821:GLY:N	2.49	0.46
1:G:4889:CYS:HB3	1:G:4893:GLY:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1298:ASP:OD1	1:A:1298:ASP:N	2.49	0.46
1:A:1836:ASN:O	1:A:1840:LYS:N	2.49	0.46
1:A:3624:GLY:HA2	1:A:3627:LYS:HE2	1.97	0.46
1:A:4118:THR:O	1:A:4122:LEU:CB	2.61	0.46
1:A:4717:ASP:OD2	1:A:4720:PHE:N	2.37	0.46
1:A:4842:ILE:HA	1:A:4845:ILE:HD12	1.96	0.46
1:A:4867:ILE:HD13	1:G:4861:ALA:CA	2.43	0.46
1:C:207:PHE:HD1	1:E:2326:ILE:HG23	1.81	0.46
1:C:239:GLY:H	1:C:243:GLU:HB3	1.81	0.46
1:C:2212:GLN:O	1:C:2247:SER:OG	2.33	0.46
1:E:277:LEU:HD12	1:E:277:LEU:HA	1.82	0.46
1:E:640:ARG:HA	1:E:643:LEU:HD21	1.97	0.46
1:E:938:GLU:HA	1:E:941:LYS:HB2	1.97	0.46
1:E:2256:LEU:O	1:E:3811:ARG:NH2	2.48	0.46
1:E:4559:HIS:CG	1:E:4738:PHE:HZ	2.33	0.46
1:G:2163:MET:N	1:G:2163:MET:SD	2.89	0.46
1:G:3685:GLU:OE1	1:G:3687:PHE:N	2.49	0.46
1:G:3760:LEU:HD23	1:G:3760:LEU:HA	1.79	0.46
1:G:4840:TYR:HA	1:G:4843:TYR:HD2	1.80	0.46
1:A:163:HIS:O	1:A:182:ILE:N	2.49	0.46
1:A:651:HIS:HA	1:A:1627:PHE:CZ	2.51	0.46
1:A:1054:VAL:HA	1:A:1057:LEU:HG	1.98	0.46
1:A:1504:GLY:HA2	1:A:1523:ASN:HD22	1.80	0.46
1:A:4115:ARG:O	1:A:4118:THR:OG1	2.21	0.46
1:A:4121:GLU:HA	1:A:4124:GLU:HB2	1.97	0.46
1:C:1056:THR:O	1:C:1060:TYR:N	2.41	0.46
1:C:2832:VAL:HB	1:C:2895:LYS:HB2	1.98	0.46
1:C:3038:GLY:O	1:C:3042:ASP:N	2.41	0.46
1:C:4193:PHE:O	1:C:4197:THR:OG1	2.27	0.46
1:C:4842:ILE:HA	1:C:4845:ILE:HD12	1.96	0.46
1:C:4864:GLN:C	1:E:4868:ILE:HD11	2.36	0.46
1:E:136:SER:OG	1:E:142:LYS:O	2.32	0.46
1:E:218:SER:OG	1:E:286:GLY:O	2.30	0.46
1:E:593:HIS:O	1:E:596:SER:OG	2.24	0.46
1:E:3685:GLU:OE1	1:E:3687:PHE:N	2.49	0.46
1:E:4510:VAL:HG11	1:E:4580:HIS:HB2	1.98	0.46
1:G:22:LEU:HD22	1:G:212:TRP:HB3	1.98	0.46
1:G:2264:GLU:O	1:G:2268:ARG:N	2.45	0.46
1:G:3932:ASN:O	1:G:3935:SER:OG	2.33	0.46
1:G:4510:VAL:HG11	1:G:4580:HIS:HB2	1.98	0.46
2:H:14:LYS:HD2	2:H:17:PHE:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PHE:HD1	1:C:2326:ILE:HG23	1.80	0.46
1:A:472:HIS:CD2	1:A:3674:ARG:HH21	2.34	0.46
1:A:2425:ARG:NH2	1:A:2476:VAL:HG12	2.29	0.46
1:A:2992:CYS:O	1:A:2996:HIS:N	2.48	0.46
1:A:3968:LEU:HA	1:A:3971:GLU:HG2	1.98	0.46
1:A:4796:LYS:NZ	1:A:4807:CYS:SG	2.73	0.46
1:C:136:SER:OG	1:C:142:LYS:O	2.32	0.46
1:C:3968:LEU:HA	1:C:3971:GLU:HG2	1.98	0.46
1:E:2126:GLN:O	1:E:2129:SER:OG	2.24	0.46
1:E:3917:VAL:O	1:E:3920:THR:OG1	2.23	0.46
1:E:4015:LEU:HD23	1:E:4015:LEU:HA	1.75	0.46
2:F:92:VAL:HG12	2:F:109:VAL:HG13	1.98	0.46
1:G:308:LEU:HD23	1:G:365:HIS:CD2	2.50	0.46
1:G:1732:GLU:O	1:G:1735:SER:OG	2.29	0.46
1:G:3973:MET:HE3	1:G:4092:ALA:HA	1.98	0.46
1:G:4616:LEU:HA	1:G:4620:GLU:H	1.79	0.46
1:G:4779:VAL:HG13	1:G:4814:TYR:HE1	1.81	0.46
1:A:1217:PHE:HB3	1:A:1239:PHE:HB2	1.98	0.45
1:A:1813:THR:OG1	1:A:1816:PHE:N	2.32	0.45
1:A:2163:MET:SD	1:A:2163:MET:N	2.89	0.45
1:A:3685:GLU:OE1	1:A:3687:PHE:N	2.49	0.45
1:C:22:LEU:HD22	1:C:212:TRP:HB3	1.98	0.45
1:C:131:CYS:HB2	1:C:157:ALA:HB1	1.97	0.45
1:C:246:THR:OG1	1:C:247:VAL:N	2.49	0.45
1:C:508:TYR:CG	1:C:517:VAL:HG13	2.51	0.45
1:C:711:GLU:HA	1:C:1637:ARG:HB2	1.98	0.45
1:C:2429:PRO:HG2	1:C:2431:GLY:HA3	1.98	0.45
1:C:3682:LYS:NZ	1:C:3683:LEU:O	2.39	0.45
1:C:4025:LYS:HA	1:C:4089:HIS:CE1	2.50	0.45
1:E:595:LYS:HZ3	1:E:635:ASN:HB3	1.80	0.45
1:E:1154:ARG:NH2	1:E:1180:GLU:OE1	2.42	0.45
1:E:1521:THR:HA	1:E:1526:ASP:HA	1.98	0.45
1:E:1836:ASN:O	1:E:1840:LYS:N	2.49	0.45
1:E:2547:ASP:O	1:E:2551:HIS:N	2.46	0.45
1:E:3932:ASN:O	1:E:3935:SER:OG	2.33	0.45
1:G:278:GLU:O	1:G:296:ARG:N	2.47	0.45
1:G:2402:ARG:HA	1:G:2402:ARG:HD3	1.63	0.45
1:G:3694:ASP:HA	1:G:3697:ALA:HB3	1.98	0.45
1:A:239:GLY:H	1:A:243:GLU:HB3	1.81	0.45
1:A:602:ASP:OD1	1:A:602:ASP:N	2.47	0.45
1:A:640:ARG:HA	1:A:643:LEU:HD21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1591:LEU:HD23	1:A:1591:LEU:HA	1.83	0.45
1:A:2308:PHE:O	1:A:2310:ASN:N	2.46	0.45
1:A:4015:LEU:HD23	1:A:4015:LEU:HA	1.75	0.45
1:A:4106:LEU:O	1:A:4110:MET:N	2.50	0.45
1:A:4788:ASN:ND2	1:C:4738:PHE:CD1	2.83	0.45
1:C:357:GLY:O	1:C:404:ASN:ND2	2.37	0.45
1:C:938:GLU:HA	1:C:941:LYS:HB2	1.97	0.45
1:C:1054:VAL:HA	1:C:1057:LEU:HG	1.98	0.45
1:C:1764:SER:HB3	1:C:1778:TYR:HD2	1.80	0.45
1:E:22:LEU:HD22	1:E:212:TRP:HB3	1.98	0.45
1:E:653:SER:OG	1:E:794:PHE:O	2.32	0.45
1:E:1487:MET:HB3	1:E:1520:PHE:HZ	1.80	0.45
1:E:1714:TYR:HA	1:E:1717:ALA:HB3	1.97	0.45
1:E:2429:PRO:HG2	1:E:2431:GLY:HA3	1.98	0.45
1:E:2463:PRO:HB3	1:E:2516:ALA:HB2	1.99	0.45
1:E:4889:CYS:HB3	1:E:4893:GLY:N	2.31	0.45
1:G:508:TYR:CG	1:G:517:VAL:HG13	2.51	0.45
1:G:1154:ARG:NH2	1:G:1180:GLU:OE1	2.42	0.45
1:G:3830:VAL:HG21	1:G:3909:LYS:HD2	1.98	0.45
1:G:4022:LEU:HD23	1:G:4023:LYS:HZ2	1.80	0.45
1:A:22:LEU:HD22	1:A:212:TRP:HB3	1.98	0.45
1:A:417:ARG:HD2	1:A:417:ARG:HA	1.76	0.45
1:A:486:GLN:NE2	1:A:539:ALA:O	2.35	0.45
1:A:595:LYS:HZ3	1:A:635:ASN:HB3	1.81	0.45
1:A:601:LEU:HD12	1:A:601:LEU:HA	1.66	0.45
1:A:711:GLU:HA	1:A:1637:ARG:HB2	1.98	0.45
1:A:1040:ASP:OD1	1:A:1040:ASP:N	2.44	0.45
1:A:2212:GLN:O	1:A:2247:SER:OG	2.33	0.45
1:A:2326:ILE:HG23	1:G:207:PHE:HD1	1.80	0.45
1:A:2433:LEU:H	1:A:2433:LEU:HG	1.55	0.45
1:A:3830:VAL:HG21	1:A:3909:LYS:HD2	1.98	0.45
1:A:4763:HIS:CE1	1:A:4764:ASN:HB2	2.51	0.45
1:C:4840:TYR:HA	1:C:4843:TYR:HD2	1.80	0.45
1:E:1504:GLY:HA2	1:E:1523:ASN:HD22	1.80	0.45
1:E:1826:TYR:CZ	1:E:1830:ILE:HD11	2.52	0.45
1:E:2103:LEU:HD13	1:E:3626:GLU:HB2	1.99	0.45
1:E:2163:MET:N	1:E:2163:MET:SD	2.89	0.45
1:E:2405:PRO:HB3	1:E:2417:ALA:HB1	1.98	0.45
1:E:3634:GLU:H	1:E:3635:HIS:CE1	2.35	0.45
1:E:3973:MET:HE3	1:E:4092:ALA:HA	1.98	0.45
1:G:218:SER:OG	1:G:286:GLY:O	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1714:TYR:HA	1:G:1717:ALA:HB3	1.97	0.45
1:G:2256:LEU:O	1:G:3811:ARG:NH2	2.48	0.45
1:G:2463:PRO:HB3	1:G:2516:ALA:HB2	1.99	0.45
1:G:4763:HIS:CE1	1:G:4764:ASN:HB2	2.51	0.45
1:A:38:ALA:O	1:A:48:PHE:N	2.47	0.45
1:A:131:CYS:HB2	1:A:157:ALA:HB1	1.97	0.45
1:A:207:PHE:CE1	1:C:2326:ILE:HD12	2.48	0.45
1:A:674:TYR:HE1	1:A:757:CYS:H	1.63	0.45
1:A:1309:GLU:OE2	1:A:1538:LYS:NZ	2.47	0.45
1:A:2400:LEU:HD23	1:A:2400:LEU:HA	1.83	0.45
1:A:3036:ILE:O	1:A:3040:THR:N	2.46	0.45
1:A:4510:VAL:HG11	1:A:4580:HIS:HB2	1.98	0.45
2:B:14:LYS:HD2	2:B:17:PHE:HB3	1.98	0.45
1:C:915:HIS:CE1	1:C:917:CYS:HB3	2.52	0.45
1:C:2593:LEU:O	1:C:2597:VAL:N	2.48	0.45
1:C:3075:ASN:O	1:C:3079:GLY:N	2.49	0.45
1:C:4114:THR:OG1	1:C:4115:ARG:N	2.48	0.45
1:C:4510:VAL:HG11	1:C:4580:HIS:HB2	1.98	0.45
1:E:12:GLN:O	1:E:177:VAL:N	2.50	0.45
1:E:426:PHE:O	1:E:430:ILE:N	2.48	0.45
1:E:3036:ILE:O	1:E:3040:THR:N	2.46	0.45
1:E:3845:GLN:HG3	1:E:3923:GLU:HG3	1.99	0.45
1:E:4193:PHE:O	1:E:4197:THR:OG1	2.27	0.45
2:F:22:LYS:HB2	2:F:22:LYS:HE2	1.77	0.45
1:G:239:GLY:H	1:G:243:GLU:HB3	1.81	0.45
1:G:374:TYR:O	1:G:398:HIS:NE2	2.47	0.45
1:G:650:ASN:HA	1:G:1626:GLN:HA	1.98	0.45
1:G:915:HIS:CE1	1:G:917:CYS:HB3	2.52	0.45
1:G:2103:LEU:HD13	1:G:3626:GLU:HB2	1.98	0.45
1:G:2141:LYS:O	1:G:2145:ARG:NH2	2.48	0.45
1:G:2219:LEU:HA	1:G:2222:LEU:HB3	1.99	0.45
1:G:3075:ASN:O	1:G:3079:GLY:N	2.49	0.45
1:G:3624:GLY:HA2	1:G:3627:LYS:HE2	1.97	0.45
1:A:1714:TYR:HA	1:A:1717:ALA:HB3	1.97	0.45
1:C:412:GLU:O	1:C:415:THR:OG1	2.32	0.45
1:C:472:HIS:CD2	1:C:3674:ARG:HH21	2.34	0.45
1:C:1113:MET:HG3	1:C:1156:TRP:HE1	1.82	0.45
1:C:1826:TYR:CZ	1:C:1830:ILE:HD11	2.52	0.45
1:C:2163:MET:N	1:C:2163:MET:SD	2.89	0.45
1:C:2425:ARG:NH2	1:C:2476:VAL:HG12	2.29	0.45
1:C:3845:GLN:HG3	1:C:3923:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3973:MET:HE3	1:C:4092:ALA:HA	1.98	0.45
1:E:246:THR:OG1	1:E:247:VAL:N	2.49	0.45
1:E:308:LEU:N	1:E:326:SER:O	2.44	0.45
1:E:508:TYR:CG	1:E:517:VAL:HG13	2.51	0.45
1:E:732:LEU:HD23	1:E:741:VAL:HG21	1.98	0.45
1:E:915:HIS:CE1	1:E:917:CYS:HB3	2.52	0.45
1:E:2897:LEU:O	1:E:2902:TYR:N	2.37	0.45
1:E:4044:ILE:HG13	1:E:4045:SER:H	1.82	0.45
1:G:601:LEU:HA	1:G:601:LEU:HD12	1.66	0.45
1:G:1225:LYS:O	1:G:1228:THR:OG1	2.34	0.45
1:G:1521:THR:HA	1:G:1526:ASP:HA	1.98	0.45
1:G:2388:ALA:O	1:G:2392:PHE:N	2.48	0.45
1:G:4589:ILE:HA	1:G:4592:TYR:HB3	1.99	0.45
1:G:4906:PHE:HA	1:G:4909:HIS:HB3	1.99	0.45
1:A:246:THR:OG1	1:A:247:VAL:N	2.49	0.45
1:A:915:HIS:CE1	1:A:917:CYS:HB3	2.52	0.45
1:A:2256:LEU:O	1:A:3811:ARG:NH2	2.48	0.45
1:A:3075:ASN:O	1:A:3079:GLY:N	2.49	0.45
1:A:3694:ASP:HA	1:A:3697:ALA:HB3	1.98	0.45
1:A:4064:THR:O	1:A:4068:LEU:N	2.40	0.45
1:C:721:ASP:OD1	1:C:721:ASP:N	2.35	0.45
1:C:1714:TYR:HA	1:C:1717:ALA:HB3	1.97	0.45
1:C:1823:LYS:HB3	1:C:1823:LYS:HE2	1.79	0.45
1:C:2405:PRO:HB3	1:C:2417:ALA:HB1	1.98	0.45
1:C:2463:PRO:HB3	1:C:2516:ALA:HB2	1.99	0.45
1:C:2559:GLY:O	1:C:2563:THR:N	2.46	0.45
1:C:3136:THR:O	1:C:3140:ALA:N	2.50	0.45
1:C:4763:HIS:CE1	1:C:4764:ASN:HB2	2.51	0.45
1:E:278:GLU:O	1:E:296:ARG:N	2.47	0.45
1:E:2219:LEU:HA	1:E:2222:LEU:HB3	1.99	0.45
1:G:282:VAL:O	1:G:285:SER:OG	2.28	0.45
1:G:412:GLU:O	1:G:415:THR:OG1	2.33	0.45
1:G:595:LYS:HZ3	1:G:635:ASN:HB3	1.81	0.45
1:G:651:HIS:HA	1:G:1627:PHE:CZ	2.51	0.45
1:G:1054:VAL:HA	1:G:1057:LEU:HG	1.98	0.45
1:G:1217:PHE:HB3	1:G:1239:PHE:HB2	1.98	0.45
1:G:1487:MET:HB3	1:G:1520:PHE:HZ	1.80	0.45
1:G:1770:SER:O	1:G:1770:SER:OG	2.32	0.45
1:G:3634:GLU:H	1:G:3635:HIS:CE1	2.35	0.45
1:G:4044:ILE:HG13	1:G:4045:SER:H	1.82	0.45
1:A:352:SER:O	1:A:352:SER:OG	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:477:ASN:O	1:A:481:ALA:N	2.41	0.45
1:A:650:ASN:HA	1:A:1626:GLN:HA	1.98	0.45
1:A:732:LEU:HD23	1:A:741:VAL:HG21	1.98	0.45
1:A:2463:PRO:HB3	1:A:2516:ALA:HB2	1.99	0.45
1:A:2668:PRO:O	1:A:2672:ALA:N	2.48	0.45
1:A:3845:GLN:HG3	1:A:3923:GLU:HG3	1.99	0.45
1:A:4616:LEU:O	1:A:4621:GLN:N	2.35	0.45
1:A:4840:TYR:HA	1:A:4843:TYR:HD2	1.80	0.45
1:C:650:ASN:HA	1:C:1626:GLN:HA	1.98	0.45
1:C:1611:ILE:N	1:C:1620:GLN:O	2.49	0.45
1:C:4044:ILE:HG13	1:C:4045:SER:H	1.82	0.45
1:C:4779:VAL:HG13	1:C:4814:TYR:HE1	1.81	0.45
1:C:4817:HIS:O	1:C:4821:GLY:N	2.49	0.45
1:E:207:PHE:HD1	1:G:2326:ILE:HG23	1.81	0.45
1:E:1630:LEU:O	1:E:1638:SER:OG	2.24	0.45
1:E:2402:ARG:HD3	1:E:2402:ARG:HA	1.63	0.45
1:E:4717:ASP:OD2	1:E:4720:PHE:N	2.37	0.45
1:G:12:GLN:O	1:G:177:VAL:N	2.50	0.45
1:G:163:HIS:O	1:G:182:ILE:N	2.49	0.45
1:G:562:LEU:HG	1:G:600:LEU:HD21	1.99	0.45
1:G:653:SER:OG	1:G:794:PHE:O	2.32	0.45
1:G:2086:PHE:O	1:G:3692:TYR:OH	2.25	0.45
1:G:3790:PHE:O	1:G:3793:SER:OG	2.22	0.45
1:G:4156:SER:O	1:G:4159:THR:OG1	2.22	0.45
1:G:4786:ALA:HA	1:G:4790:PHE:HD2	1.82	0.45
1:A:59:PRO:HB3	1:A:296:ARG:CZ	2.47	0.45
1:A:1098:ALA:O	1:A:1101:TRP:NE1	2.38	0.45
1:A:1305:SER:HB3	1:A:1591:LEU:HB2	1.99	0.45
1:A:2035:GLU:O	1:A:2038:THR:OG1	2.30	0.45
1:A:2640:HIS:O	1:A:2644:LYS:N	2.43	0.45
1:C:2668:PRO:O	1:C:2672:ALA:N	2.48	0.45
1:C:3830:VAL:HG21	1:C:3909:LYS:HD2	1.98	0.45
1:C:4707:GLN:HA	1:C:4710:LYS:HE3	1.99	0.45
1:E:478:ARG:O	1:E:482:LEU:N	2.45	0.45
1:E:731:HIS:HA	1:E:741:VAL:HB	1.98	0.45
1:E:1225:LYS:O	1:E:1228:THR:OG1	2.34	0.45
1:E:1757:LEU:HD13	1:E:1757:LEU:HA	1.76	0.45
1:E:3921:LEU:HA	1:E:3921:LEU:HD23	1.83	0.45
1:E:3996:ILE:HA	1:E:3999:GLN:HG2	1.98	0.45
1:E:4721:LEU:O	1:E:4725:TRP:N	2.39	0.45
2:F:14:LYS:HD2	2:F:17:PHE:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:THR:OG1	1:G:247:VAL:N	2.50	0.45
1:G:1056:THR:O	1:G:1060:TYR:N	2.41	0.45
1:G:3136:THR:O	1:G:3140:ALA:N	2.50	0.45
2:H:23:ASP:OD1	2:H:23:ASP:N	2.50	0.45
1:A:878:LEU:HA	1:A:881:ILE:HB	1.99	0.45
1:A:1113:MET:HG3	1:A:1156:TRP:HE1	1.82	0.45
1:A:2832:VAL:HB	1:A:2895:LYS:HB2	1.98	0.45
1:A:3136:THR:O	1:A:3140:ALA:N	2.50	0.45
1:A:3682:LYS:NZ	1:A:3683:LEU:O	2.39	0.45
1:A:3973:MET:HE3	1:A:4092:ALA:HA	1.98	0.45
1:A:4707:GLN:HA	1:A:4710:LYS:HE3	1.99	0.45
1:A:4779:VAL:HG13	1:A:4814:TYR:HE1	1.81	0.45
1:A:4786:ALA:HA	1:A:4790:PHE:HD2	1.82	0.45
1:A:4796:LYS:NZ	1:A:4806:LYS:O	2.43	0.45
1:A:4906:PHE:HA	1:A:4909:HIS:HB3	1.99	0.45
1:C:1287:GLN:HB3	1:C:1554:GLN:NE2	2.32	0.45
1:C:1469:LEU:N	1:C:1477:HIS:O	2.41	0.45
1:C:4038:PRO:HG3	1:C:4044:ILE:HG22	1.99	0.45
1:E:59:PRO:HB3	1:E:296:ARG:CZ	2.47	0.45
1:E:2732:LYS:HE3	1:E:2829:MET:H	1.82	0.45
1:E:2832:VAL:HB	1:E:2895:LYS:HB2	1.98	0.45
1:E:3075:ASN:O	1:E:3079:GLY:N	2.49	0.45
1:E:4093:LYS:HE3	1:E:4093:LYS:HB2	1.79	0.45
1:G:417:ARG:HA	1:G:417:ARG:HD2	1.76	0.45
1:G:1305:SER:HB3	1:G:1591:LEU:HB2	1.99	0.45
1:G:2832:VAL:HB	1:G:2895:LYS:HB2	1.98	0.45
1:G:3845:GLN:HG3	1:G:3923:GLU:HG3	1.99	0.45
1:G:3982:MET:O	1:G:3985:SER:OG	2.22	0.45
1:G:3996:ILE:HA	1:G:3999:GLN:HG2	1.98	0.45
1:G:4038:PRO:HG3	1:G:4044:ILE:HG22	1.99	0.45
1:A:1287:GLN:HB3	1:A:1554:GLN:NE2	2.32	0.45
1:A:3882:VAL:O	1:A:3885:SER:OG	2.31	0.45
1:A:4038:PRO:HG3	1:A:4044:ILE:HG22	1.99	0.45
1:A:4563:GLU:OE2	1:A:4569:MET:N	2.41	0.45
1:C:674:TYR:HE1	1:C:757:CYS:H	1.63	0.45
1:C:937:LEU:O	1:C:941:LYS:N	2.44	0.45
1:C:1009:ARG:O	1:C:1013:ARG:NH1	2.50	0.45
1:C:3996:ILE:HA	1:C:3999:GLN:HG2	1.98	0.45
2:D:22:LYS:HE2	2:D:22:LYS:HB2	1.77	0.45
2:D:92:VAL:O	2:D:95:LYS:NZ	2.38	0.45
1:E:472:HIS:CD2	1:E:3674:ARG:HH21	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:502:ILE:H	1:E:502:ILE:HG13	1.63	0.45
1:E:1098:ALA:O	1:E:1101:TRP:NE1	2.38	0.45
1:E:1113:MET:HG3	1:E:1156:TRP:HE1	1.82	0.45
1:E:3968:LEU:HA	1:E:3971:GLU:HG2	1.98	0.45
1:E:4113:ASP:O	1:E:4117:GLN:NE2	2.48	0.45
1:E:4627:ILE:O	1:E:4631:TRP:N	2.42	0.45
1:G:120:LEU:HD12	1:G:120:LEU:HA	1.85	0.45
1:G:731:HIS:HA	1:G:741:VAL:HB	1.98	0.45
1:G:938:GLU:HA	1:G:941:LYS:HB2	1.97	0.45
1:G:1843:LEU:O	1:G:1847:GLU:N	2.41	0.45
2:H:124:GLU:O	2:H:128:GLU:N	2.39	0.45
1:A:12:GLN:O	1:A:177:VAL:N	2.50	0.44
1:A:426:PHE:O	1:A:430:ILE:N	2.48	0.44
1:A:1009:ARG:O	1:A:1013:ARG:NH1	2.50	0.44
1:A:1823:LYS:HE2	1:A:1823:LYS:HB3	1.79	0.44
1:A:4935:THR:N	1:A:4938:GLU:HB2	2.32	0.44
1:C:2732:LYS:HE3	1:C:2829:MET:H	1.82	0.44
1:C:3694:ASP:HA	1:C:3697:ALA:HB3	1.98	0.44
1:C:4093:LYS:NZ	1:C:4129:TYR:OH	2.36	0.44
1:E:418:VAL:O	1:E:422:THR:OG1	2.35	0.44
1:E:506:HIS:CE1	1:E:564:ARG:HG2	2.53	0.44
1:E:562:LEU:HG	1:E:600:LEU:HD21	1.99	0.44
1:E:711:GLU:HA	1:E:1637:ARG:HB2	1.98	0.44
1:E:2174:GLU:O	1:E:2178:ASN:N	2.38	0.44
1:E:3756:VAL:O	1:E:3759:THR:OG1	2.32	0.44
1:E:3874:SER:OG	1:E:3875:THR:N	2.50	0.44
1:E:4027:LEU:HD21	1:E:4058:HIS:ND1	2.33	0.44
1:E:4589:ILE:HA	1:E:4592:TYR:HB3	1.99	0.44
1:E:4763:HIS:CE1	1:E:4764:ASN:HB2	2.52	0.44
1:E:4779:VAL:HG13	1:E:4814:TYR:HE1	1.81	0.44
1:G:59:PRO:HB3	1:G:296:ARG:CZ	2.47	0.44
1:G:593:HIS:O	1:G:596:SER:OG	2.24	0.44
1:G:1138:ASP:HB2	1:G:1145:TRP:NE1	2.33	0.44
1:G:1226:TYR:O	1:G:1230:CYS:N	2.48	0.44
1:G:2308:PHE:O	1:G:2310:ASN:N	2.46	0.44
2:H:33:LEU:HD12	2:H:33:LEU:HA	1.85	0.44
1:A:506:HIS:CE1	1:A:564:ARG:HG2	2.53	0.44
1:A:562:LEU:HG	1:A:600:LEU:HD21	1.99	0.44
1:C:12:GLN:O	1:C:177:VAL:N	2.50	0.44
1:C:602:ASP:OD1	1:C:602:ASP:N	2.47	0.44
1:C:995:MET:O	1:C:999:LEU:N	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1757:LEU:HA	1:C:1757:LEU:HD13	1.76	0.44
1:C:1771:ILE:O	1:C:1775:CYS:N	2.37	0.44
1:C:4589:ILE:HA	1:C:4592:TYR:HB3	1.99	0.44
1:E:239:GLY:H	1:E:243:GLU:HB3	1.81	0.44
1:E:4038:PRO:HG3	1:E:4044:ILE:HG22	1.99	0.44
1:E:4654:VAL:O	1:E:4658:TYR:N	2.48	0.44
1:G:1113:MET:HG3	1:G:1156:TRP:HE1	1.82	0.44
1:G:1644:LEU:HD12	1:G:1647:GLN:HB2	1.99	0.44
1:G:2196:ASN:OD1	1:G:2199:ARG:NH2	2.38	0.44
1:G:2547:ASP:O	1:G:2551:HIS:N	2.46	0.44
1:G:3968:LEU:HA	1:G:3971:GLU:HG2	1.98	0.44
1:G:4027:LEU:HD21	1:G:4058:HIS:ND1	2.33	0.44
1:G:4140:MET:HE3	1:G:4144:LYS:HA	2.00	0.44
1:A:938:GLU:HA	1:A:941:LYS:HB2	1.97	0.44
1:A:1304:LEU:HD13	1:A:1304:LEU:HA	1.87	0.44
1:A:2219:LEU:HA	1:A:2222:LEU:HB3	1.99	0.44
1:A:3634:GLU:H	1:A:3635:HIS:CE1	2.35	0.44
1:A:3891:TRP:CB	1:G:76:ARG:CB	2.95	0.44
1:C:506:HIS:CE1	1:C:564:ARG:HG2	2.53	0.44
1:C:681:HIS:HA	1:C:751:THR:HG22	2.00	0.44
1:C:732:LEU:HD23	1:C:741:VAL:HG21	1.98	0.44
1:C:1469:LEU:HD12	1:C:1477:HIS:HA	2.00	0.44
1:C:2103:LEU:HD13	1:C:3626:GLU:HB2	1.99	0.44
1:C:4606:GLU:O	1:C:4610:LYS:N	2.48	0.44
1:C:4717:ASP:OD2	1:C:4720:PHE:N	2.37	0.44
1:G:506:HIS:CE1	1:G:564:ARG:HG2	2.53	0.44
1:G:681:HIS:HA	1:G:751:THR:HG22	2.00	0.44
1:G:1721:MET:N	1:G:1721:MET:SD	2.91	0.44
1:G:1826:TYR:CZ	1:G:1830:ILE:HD11	2.52	0.44
1:A:1644:LEU:HD12	1:A:1647:GLN:HB2	2.00	0.44
1:A:4027:LEU:HD21	1:A:4058:HIS:ND1	2.33	0.44
1:C:417:ARG:HD2	1:C:417:ARG:HA	1.76	0.44
1:C:678:MET:N	1:C:801:ARG:O	2.48	0.44
1:C:1659:ARG:O	1:C:1662:SER:OG	2.32	0.44
1:C:1721:MET:N	1:C:1721:MET:SD	2.91	0.44
1:C:4889:CYS:HB3	1:C:4893:GLY:N	2.31	0.44
2:D:14:LYS:HD2	2:D:17:PHE:HB3	1.98	0.44
1:E:163:HIS:O	1:E:182:ILE:N	2.49	0.44
1:E:1009:ARG:O	1:E:1013:ARG:NH1	2.50	0.44
1:E:1721:MET:N	1:E:1721:MET:SD	2.91	0.44
1:E:3136:THR:O	1:E:3140:ALA:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3694:ASP:HA	1:E:3697:ALA:HB3	1.98	0.44
1:E:4064:THR:O	1:E:4068:LEU:N	2.40	0.44
1:E:4906:PHE:HA	1:E:4909:HIS:HB3	1.99	0.44
1:G:486:GLN:HE22	1:G:542:ARG:H	1.66	0.44
1:G:732:LEU:HD23	1:G:741:VAL:HG21	1.98	0.44
1:G:1287:GLN:HB3	1:G:1554:GLN:NE2	2.32	0.44
1:G:1757:LEU:HD13	1:G:1757:LEU:HA	1.76	0.44
1:G:3859:LEU:HD23	1:G:3859:LEU:HA	1.82	0.44
1:G:4106:LEU:O	1:G:4110:MET:N	2.50	0.44
1:G:4935:THR:N	1:G:4938:GLU:HB2	2.32	0.44
1:A:713:TRP:HZ3	1:A:1627:PHE:HB2	1.83	0.44
1:A:4044:ILE:HG13	1:A:4045:SER:H	1.82	0.44
1:A:4817:HIS:O	1:A:4821:GLY:N	2.49	0.44
1:C:163:HIS:O	1:C:182:ILE:N	2.49	0.44
1:C:713:TRP:HZ3	1:C:1627:PHE:HB2	1.83	0.44
1:C:3663:ASP:OD1	1:C:3735:ARG:NH1	2.51	0.44
1:C:4047:ARG:HE	1:C:4047:ARG:HB2	1.56	0.44
1:E:681:HIS:HA	1:E:751:THR:HG22	2.00	0.44
1:E:878:LEU:HA	1:E:881:ILE:HB	1.99	0.44
1:E:1054:VAL:HA	1:E:1057:LEU:HG	1.98	0.44
1:E:1123:GLN:HG3	1:E:1133:ARG:HH12	1.83	0.44
1:G:878:LEU:HA	1:G:881:ILE:HB	1.99	0.44
1:G:1098:ALA:O	1:G:1101:TRP:NE1	2.38	0.44
1:G:1630:LEU:O	1:G:1638:SER:OG	2.24	0.44
1:G:2638:GLU:O	1:G:2642:SER:N	2.44	0.44
1:A:593:HIS:O	1:A:596:SER:OG	2.24	0.44
1:A:804:LEU:HB3	1:A:822:CYS:SG	2.58	0.44
1:A:1010:ASP:HA	1:A:1013:ARG:HH22	1.83	0.44
1:A:2103:LEU:HD13	1:A:3626:GLU:HB2	1.99	0.44
1:A:4854:PHE:HA	1:A:4858:ILE:HG12	2.00	0.44
1:C:78:LEU:HD22	1:C:78:LEU:HA	1.82	0.44
1:C:1217:PHE:HB3	1:C:1239:PHE:HB2	1.98	0.44
1:C:1305:SER:HB3	1:C:1591:LEU:HB2	1.99	0.44
1:E:1160:ASP:HB3	1:E:1177:LEU:HD11	2.00	0.44
1:E:1612:SER:HA	1:E:1619:VAL:HA	2.00	0.44
1:E:2035:GLU:O	1:E:2038:THR:OG1	2.30	0.44
1:E:4047:ARG:HE	1:E:4047:ARG:HB2	1.56	0.44
1:E:4615:GLY:O	1:E:4619:THR:N	2.40	0.44
1:E:4635:VAL:O	1:E:4638:THR:OG1	2.29	0.44
1:G:1718:ARG:O	1:G:1722:ASN:ND2	2.51	0.44
1:G:2117:THR:OG1	1:G:2118:ILE:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4501:TYR:HA	1:G:4504:ARG:HB3	1.99	0.44
1:G:4854:PHE:HA	1:G:4858:ILE:HG12	2.00	0.44
1:A:1106:GLU:N	1:A:1214:ARG:O	2.47	0.44
1:A:1162:VAL:O	1:A:1176:THR:OG1	2.24	0.44
1:A:2303:LEU:HD23	1:A:2303:LEU:HA	1.82	0.44
1:A:2876:ASP:OD1	1:A:2876:ASP:N	2.33	0.44
1:A:3663:ASP:OD1	1:A:3735:ARG:NH1	2.51	0.44
1:C:207:PHE:CD1	1:E:2326:ILE:HG23	2.53	0.44
1:C:274:LEU:HD23	1:C:274:LEU:HA	1.81	0.44
1:C:562:LEU:HG	1:C:600:LEU:HD21	1.99	0.44
1:C:1297:THR:O	1:C:1297:THR:OG1	2.30	0.44
1:C:2120:LEU:O	1:C:2124:LEU:N	2.51	0.44
1:C:2639:LEU:O	1:C:2643:ARG:N	2.41	0.44
1:C:4786:ALA:HA	1:C:4790:PHE:HD2	1.82	0.44
1:E:525:SER:OG	1:E:528:SER:OG	2.30	0.44
1:E:650:ASN:HA	1:E:1626:GLN:HA	1.98	0.44
1:E:695:VAL:HG13	1:E:792:VAL:HG12	1.99	0.44
1:E:1177:LEU:HD12	1:E:1177:LEU:HA	1.81	0.44
1:E:1798:ALA:O	1:E:1802:GLY:N	2.41	0.44
1:E:2117:THR:OG1	1:E:2118:ILE:N	2.51	0.44
1:G:73:LEU:HA	1:G:117:HIS:CE1	2.53	0.44
1:G:2400:LEU:HD23	1:G:2400:LEU:HA	1.83	0.44
1:G:3620:LEU:HD23	1:G:3620:LEU:HA	1.86	0.44
1:G:3797:LEU:HD23	1:G:3797:LEU:HA	1.86	0.44
1:G:4707:GLN:HA	1:G:4710:LYS:HE3	1.99	0.44
1:A:486:GLN:HE22	1:A:542:ARG:H	1.66	0.44
1:A:1611:ILE:N	1:A:1620:GLN:O	2.49	0.44
1:A:1826:TYR:CZ	1:A:1830:ILE:HD11	2.52	0.44
1:A:2559:GLY:O	1:A:2563:THR:N	2.46	0.44
1:A:3996:ILE:HA	1:A:3999:GLN:HG2	1.98	0.44
1:C:59:PRO:HB3	1:C:296:ARG:CZ	2.47	0.44
1:C:2175:VAL:O	1:C:2179:VAL:N	2.51	0.44
1:C:4015:LEU:HD23	1:C:4015:LEU:HA	1.75	0.44
1:C:4027:LEU:HD21	1:C:4058:HIS:ND1	2.33	0.44
1:C:4569:MET:O	1:C:4572:THR:OG1	2.25	0.44
1:E:1305:SER:HB3	1:E:1591:LEU:HB2	1.99	0.44
1:E:1622:LEU:HA	1:E:1622:LEU:HD23	1.86	0.44
1:E:1682:GLU:HA	1:E:1685:LEU:HD13	2.00	0.44
1:E:1718:ARG:O	1:E:1722:ASN:ND2	2.51	0.44
1:E:4106:LEU:O	1:E:4110:MET:N	2.50	0.44
1:E:4578:ILE:O	1:E:4581:THR:OG1	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:31:LYS:O	2:F:35:THR:OG1	2.26	0.44
1:G:410:HIS:O	1:G:414:ARG:N	2.47	0.44
1:G:2433:LEU:H	1:G:2433:LEU:HG	1.55	0.44
1:G:3715:PHE:HA	1:G:3718:LYS:HE3	1.99	0.44
1:G:4118:THR:O	1:G:4122:LEU:CB	2.61	0.44
1:A:1469:LEU:HD12	1:A:1477:HIS:HA	2.00	0.44
1:A:2039:TYR:OH	1:A:3634:GLU:OE2	2.25	0.44
1:A:2307:VAL:HG12	1:A:2317:ASN:HB3	2.00	0.44
1:C:327:THR:O	1:C:327:THR:OG1	2.34	0.44
1:C:426:PHE:O	1:C:430:ILE:N	2.48	0.44
1:C:567:ALA:O	1:C:571:ILE:N	2.47	0.44
1:C:878:LEU:HA	1:C:881:ILE:HB	1.99	0.44
1:C:1160:ASP:HB3	1:C:1177:LEU:HD11	2.00	0.44
1:C:1836:ASN:O	1:C:1840:LYS:N	2.49	0.44
1:C:2174:GLU:O	1:C:2178:ASN:N	2.38	0.44
1:C:4906:PHE:HA	1:C:4909:HIS:HB3	1.99	0.44
1:E:678:MET:N	1:E:801:ARG:O	2.48	0.44
1:E:1287:GLN:HB3	1:E:1554:GLN:NE2	2.32	0.44
1:E:1823:LYS:HB3	1:E:1823:LYS:HE2	1.79	0.44
1:E:3663:ASP:OD1	1:E:3735:ARG:NH1	2.51	0.44
1:E:3830:VAL:HG21	1:E:3909:LYS:HD2	1.98	0.44
1:E:4786:ALA:HA	1:E:4790:PHE:HD2	1.82	0.44
1:E:4935:THR:N	1:E:4938:GLU:HB2	2.32	0.44
1:G:1009:ARG:O	1:G:1013:ARG:NH1	2.50	0.44
1:G:1010:ASP:HA	1:G:1013:ARG:HH22	1.83	0.44
1:G:1836:ASN:O	1:G:1840:LYS:N	2.49	0.44
1:G:2120:LEU:O	1:G:2124:LEU:N	2.51	0.44
1:G:2732:LYS:HE3	1:G:2829:MET:H	1.82	0.44
1:G:3069:LEU:O	1:G:3073:MET:N	2.51	0.44
1:G:4663:GLY:H	1:G:4666:ARG:NE	2.16	0.44
1:A:486:GLN:HE22	1:A:542:ARG:N	2.16	0.43
1:A:1138:ASP:HB2	1:A:1145:TRP:NE1	2.33	0.43
1:A:1231:GLY:H	1:A:1234:GLU:HG3	1.83	0.43
1:A:2061:GLN:H	1:A:2061:GLN:HG3	1.63	0.43
1:A:2117:THR:OG1	1:A:2118:ILE:N	2.51	0.43
1:A:4113:ASP:O	1:A:4117:GLN:NE2	2.48	0.43
1:A:4663:GLY:H	1:A:4666:ARG:NE	2.16	0.43
1:C:120:LEU:HD12	1:C:120:LEU:HA	1.85	0.43
1:C:238:HIS:N	1:C:243:GLU:O	2.50	0.43
1:C:306:LEU:HA	1:C:316:LEU:HA	2.00	0.43
1:C:557:TRP:O	1:C:560:SER:OG	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:733:TRP:HA	1:C:737:ILE:O	2.18	0.43
1:C:1089:ARG:NH1	1:C:1122:CYS:O	2.51	0.43
1:C:1503:ASN:O	1:C:1523:ASN:ND2	2.52	0.43
1:C:2219:LEU:HA	1:C:2222:LEU:HB3	1.99	0.43
1:C:2640:HIS:O	1:C:2644:LYS:N	2.43	0.43
1:C:4144:LYS:HE2	1:C:4144:LYS:HB2	1.82	0.43
1:E:486:GLN:HE22	1:E:542:ARG:H	1.66	0.43
1:E:1440:ASN:OD1	1:E:1440:ASN:N	2.51	0.43
1:E:2388:ALA:O	1:E:2392:PHE:N	2.48	0.43
1:E:4604:GLU:OE2	1:E:4644:ASN:N	2.45	0.43
1:E:4707:GLN:HA	1:E:4710:LYS:HE3	1.99	0.43
1:G:2489:LEU:HD23	1:G:2489:LEU:HA	1.87	0.43
1:G:3874:SER:OG	1:G:3875:THR:N	2.50	0.43
1:G:3978:ASP:OD1	1:G:3978:ASP:N	2.50	0.43
1:G:4015:LEU:HA	1:G:4015:LEU:HD23	1.75	0.43
1:G:4018:PHE:HZ	1:G:4095:ILE:HB	1.83	0.43
1:A:681:HIS:HA	1:A:751:THR:HG22	2.00	0.43
1:A:929:ARG:O	1:A:933:LEU:N	2.48	0.43
1:A:1440:ASN:N	1:A:1440:ASN:OD1	2.51	0.43
1:A:1770:SER:O	1:A:1770:SER:OG	2.32	0.43
1:A:2326:ILE:HG23	1:G:207:PHE:CD1	2.53	0.43
1:A:3956:GLN:O	1:A:3960:SER:OG	2.30	0.43
1:A:4811:LEU:HD13	1:C:4519:LEU:CB	2.45	0.43
1:C:477:ASN:O	1:C:481:ALA:N	2.41	0.43
1:C:601:LEU:HD12	1:C:601:LEU:HA	1.66	0.43
1:C:653:SER:OG	1:C:794:PHE:O	2.32	0.43
1:C:695:VAL:HG13	1:C:792:VAL:HG12	1.99	0.43
1:C:1040:ASP:OD1	1:C:1040:ASP:N	2.44	0.43
1:C:1138:ASP:HB2	1:C:1145:TRP:NE1	2.33	0.43
1:C:1718:ARG:O	1:C:1722:ASN:ND2	2.51	0.43
1:C:3634:GLU:H	1:C:3635:HIS:CE1	2.35	0.43
1:E:306:LEU:HA	1:E:316:LEU:HA	2.00	0.43
1:E:804:LEU:HB3	1:E:822:CYS:SG	2.58	0.43
1:E:1469:LEU:HD12	1:E:1477:HIS:HA	2.00	0.43
1:E:1503:ASN:O	1:E:1523:ASN:ND2	2.52	0.43
1:G:1298:ASP:OD1	1:G:1298:ASP:N	2.49	0.43
1:G:1304:LEU:HD13	1:G:1304:LEU:HA	1.87	0.43
1:G:3882:VAL:O	1:G:3885:SER:OG	2.31	0.43
1:G:3945:VAL:O	1:G:3949:LEU:HG	2.19	0.43
1:G:4032:THR:O	1:G:4056:HIS:NE2	2.51	0.43
1:G:4578:ILE:O	1:G:4581:THR:OG1	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PHE:CD1	1:C:2326:ILE:HG23	2.52	0.43
1:A:411:GLU:H	1:A:411:GLU:HG3	1.57	0.43
1:A:733:TRP:HA	1:A:737:ILE:O	2.18	0.43
1:A:2120:LEU:O	1:A:2124:LEU:N	2.51	0.43
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.38	0.43
1:A:2402:ARG:HD3	1:A:2402:ARG:HA	1.63	0.43
1:A:3715:PHE:HA	1:A:3718:LYS:HE3	1.99	0.43
1:A:4869:ASP:OD2	1:C:4871:PHE:HD1	2.01	0.43
2:B:122:VAL:HA	2:B:125:MET:HB2	2.01	0.43
1:C:527:LYS:HZ2	1:C:531:ASN:HD21	1.66	0.43
1:C:1231:GLY:H	1:C:1234:GLU:HG3	1.83	0.43
1:C:1622:LEU:HA	1:C:1622:LEU:HD23	1.86	0.43
1:C:1644:LEU:HD12	1:C:1647:GLN:HB2	1.99	0.43
1:C:1682:GLU:HA	1:C:1685:LEU:HD13	2.00	0.43
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.38	0.43
1:C:3945:VAL:O	1:C:3949:LEU:HG	2.19	0.43
1:C:4663:GLY:H	1:C:4666:ARG:NE	2.16	0.43
2:D:23:ASP:N	2:D:23:ASP:OD1	2.50	0.43
1:E:890:HIS:HB3	1:E:921:PHE:HB2	2.00	0.43
1:E:1251:LEU:O	1:E:1601:ASN:N	2.48	0.43
1:E:3715:PHE:HA	1:E:3718:LYS:HE3	1.99	0.43
1:E:4187:MET:HA	1:E:4190:PHE:HB3	2.00	0.43
1:E:4663:GLY:H	1:E:4666:ARG:NE	2.16	0.43
1:G:486:GLN:HE22	1:G:542:ARG:N	2.16	0.43
1:G:713:TRP:HZ3	1:G:1627:PHE:HB2	1.83	0.43
1:G:804:LEU:HB3	1:G:822:CYS:SG	2.58	0.43
1:G:1611:ILE:N	1:G:1620:GLN:O	2.49	0.43
1:A:1652:LYS:HA	1:A:1655:TYR:HB3	2.01	0.43
1:A:2319:ASN:OD1	1:A:2323:ARG:NH1	2.36	0.43
1:A:4138:GLU:HA	1:A:4148:ARG:HA	2.01	0.43
1:A:4501:TYR:HA	1:A:4504:ARG:HB3	1.99	0.43
1:C:1298:ASP:N	1:C:1298:ASP:OD1	2.49	0.43
1:C:1612:SER:HA	1:C:1619:VAL:HA	2.00	0.43
1:C:1631:HIS:HA	1:C:1638:SER:HA	2.01	0.43
1:C:3762:LEU:HD12	1:C:3762:LEU:HA	1.82	0.43
1:C:4113:ASP:O	1:C:4117:GLN:NE2	2.48	0.43
1:C:4563:GLU:OE2	1:C:4569:MET:N	2.41	0.43
1:E:462:TYR:CZ	1:E:485:ARG:HD2	2.54	0.43
1:E:1652:LYS:HA	1:E:1655:TYR:HB3	2.01	0.43
1:E:2141:LYS:O	1:E:2145:ARG:NH2	2.48	0.43
1:E:2258:LEU:H	1:E:2258:LEU:HG	1.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:801:ARG:NH2	1:G:810:GLU:OE1	2.43	0.43
1:G:1652:LYS:HA	1:G:1655:TYR:HB3	2.01	0.43
2:H:122:VAL:HA	2:H:125:MET:HB2	2.01	0.43
1:A:238:HIS:N	1:A:243:GLU:O	2.50	0.43
1:A:306:LEU:HA	1:A:316:LEU:HA	2.00	0.43
1:A:1718:ARG:O	1:A:1722:ASN:ND2	2.51	0.43
1:C:929:ARG:O	1:C:933:LEU:N	2.48	0.43
1:C:1443:VAL:HG22	1:C:1543:VAL:HG22	2.01	0.43
1:C:1937:LEU:HD12	1:C:1937:LEU:HA	1.82	0.43
1:C:3715:PHE:HA	1:C:3718:LYS:HE3	1.99	0.43
1:E:557:TRP:O	1:E:560:SER:OG	2.34	0.43
1:E:1089:ARG:NH1	1:E:1122:CYS:O	2.51	0.43
1:E:1704:ASP:HA	1:E:1707:ILE:HD12	2.01	0.43
1:E:2328:ARG:NH2	1:E:2330:GLU:OE1	2.48	0.43
1:E:4501:TYR:HA	1:E:4504:ARG:HB3	1.99	0.43
1:E:4779:VAL:O	1:E:4783:THR:N	2.51	0.43
1:G:38:ALA:O	1:G:48:PHE:N	2.47	0.43
1:G:2307:VAL:HG12	1:G:2317:ASN:HB3	2.00	0.43
1:G:2314:VAL:HG13	1:G:2317:ASN:HB2	2.01	0.43
1:G:4615:GLY:O	1:G:4619:THR:N	2.40	0.43
2:H:22:LYS:HB2	2:H:22:LYS:HE2	1.77	0.43
1:A:278:GLU:O	1:A:296:ARG:N	2.47	0.43
1:A:1757:LEU:HA	1:A:1757:LEU:HD13	1.76	0.43
1:A:2119:ASN:OD1	1:A:2120:LEU:N	2.49	0.43
1:A:2168:MET:H	1:A:2168:MET:HG3	1.56	0.43
1:A:2264:GLU:O	1:A:2268:ARG:N	2.45	0.43
1:A:2732:LYS:HE3	1:A:2829:MET:H	1.82	0.43
1:A:3670:LEU:O	1:A:3673:SER:OG	2.32	0.43
1:A:3874:SER:OG	1:A:3875:THR:N	2.50	0.43
1:A:4589:ILE:HA	1:A:4592:TYR:HB3	1.99	0.43
1:A:4871:PHE:HD1	1:G:4869:ASP:OD2	2.01	0.43
1:A:4927:ILE:HD13	1:A:4927:ILE:HA	1.84	0.43
1:C:1652:LYS:HA	1:C:1655:TYR:HB3	2.01	0.43
1:C:2314:VAL:HG13	1:C:2317:ASN:HB2	2.01	0.43
1:C:3901:GLU:OE1	1:C:3905:ARG:NH1	2.52	0.43
1:C:4935:THR:N	1:C:4938:GLU:HB2	2.32	0.43
2:D:122:VAL:HA	2:D:125:MET:HB2	2.01	0.43
1:E:352:SER:O	1:E:352:SER:OG	2.28	0.43
1:E:1138:ASP:HB2	1:E:1145:TRP:NE1	2.33	0.43
1:E:2717:LYS:HG3	1:E:2718:LEU:HG	2.01	0.43
1:E:4018:PHE:HZ	1:E:4095:ILE:HB	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:122:VAL:HA	2:F:125:MET:HB2	2.01	0.43
1:G:228:LEU:HD23	1:G:228:LEU:HA	1.83	0.43
1:G:462:TYR:CZ	1:G:485:ARG:HD2	2.54	0.43
1:G:1231:GLY:H	1:G:1234:GLU:HG3	1.83	0.43
1:G:1303:ARG:NH1	1:G:1304:LEU:H	2.17	0.43
1:G:1631:HIS:HA	1:G:1638:SER:HA	2.01	0.43
1:G:2175:VAL:O	1:G:2179:VAL:N	2.51	0.43
2:H:45:THR:O	2:H:49:LEU:N	2.46	0.43
1:A:136:SER:OG	1:A:142:LYS:O	2.32	0.43
1:A:1089:ARG:NH1	1:A:1122:CYS:O	2.51	0.43
1:A:1245:ARG:HD3	1:A:1245:ARG:HA	1.89	0.43
1:A:1621:CYS:SG	1:A:1622:LEU:N	2.92	0.43
1:A:2175:VAL:O	1:A:2179:VAL:N	2.51	0.43
1:A:3945:VAL:O	1:A:3949:LEU:HG	2.19	0.43
1:A:4779:VAL:O	1:A:4783:THR:N	2.51	0.43
2:B:101:ILE:N	2:B:137:VAL:O	2.43	0.43
1:C:804:LEU:HB3	1:C:822:CYS:SG	2.58	0.43
1:C:1010:ASP:HA	1:C:1013:ARG:HH22	1.83	0.43
1:C:2126:GLN:O	1:C:2129:SER:OG	2.24	0.43
1:E:82:LEU:HD12	1:E:82:LEU:C	2.38	0.43
1:E:713:TRP:HZ3	1:E:1627:PHE:HB2	1.83	0.43
1:E:874:LEU:HA	1:E:875:PRO:HD3	1.91	0.43
1:E:1298:ASP:OD1	1:E:1298:ASP:N	2.49	0.43
1:E:1591:LEU:HD23	1:E:1591:LEU:HA	1.83	0.43
1:E:1659:ARG:O	1:E:1662:SER:OG	2.32	0.43
1:E:3069:LEU:O	1:E:3073:MET:N	2.51	0.43
1:E:3945:VAL:O	1:E:3949:LEU:HG	2.19	0.43
1:G:72:SER:O	1:G:117:HIS:ND1	2.52	0.43
1:G:194:LEU:HA	1:G:203:VAL:HG12	2.01	0.43
1:G:1469:LEU:HD12	1:G:1477:HIS:HA	2.00	0.43
1:G:1503:ASN:O	1:G:1523:ASN:ND2	2.52	0.43
1:G:4138:GLU:HA	1:G:4148:ARG:HA	2.01	0.43
1:A:653:SER:OG	1:A:794:PHE:O	2.32	0.43
1:A:1303:ARG:NH1	1:A:1304:LEU:H	2.17	0.43
1:A:1631:HIS:HA	1:A:1638:SER:HA	2.01	0.43
1:A:2842:ALA:HB2	1:A:2894:LEU:HD12	2.01	0.43
1:A:3630:ILE:H	1:A:3631:GLU:HG3	1.84	0.43
1:A:3901:GLU:OE1	1:A:3905:ARG:NH1	2.52	0.43
1:C:486:GLN:HE22	1:C:542:ARG:H	1.66	0.43
1:C:909:ASP:HB2	1:C:914:GLN:HB2	2.01	0.43
1:C:1004:HIS:HA	1:C:1007:TRP:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2307:VAL:HG12	1:C:2317:ASN:HB3	2.00	0.43
1:C:2388:ALA:O	1:C:2392:PHE:N	2.48	0.43
1:C:4041:LYS:HD3	1:C:4041:LYS:HA	1.88	0.43
1:C:4501:TYR:HA	1:C:4504:ARG:HB3	1.99	0.43
1:C:4723:LEU:HD13	1:C:4723:LEU:HA	1.85	0.43
1:C:4869:ASP:OD2	1:E:4871:PHE:HD1	2.01	0.43
1:E:527:LYS:HZ2	1:E:531:ASN:HD21	1.66	0.43
1:E:681:HIS:CE1	1:E:683:GLU:HG3	2.54	0.43
1:E:733:TRP:HA	1:E:737:ILE:O	2.18	0.43
1:E:1644:LEU:HD12	1:E:1647:GLN:HB2	1.99	0.43
1:E:4869:ASP:OD2	1:G:4871:PHE:HD1	2.01	0.43
1:G:335:LYS:HD3	1:G:396:GLU:HA	2.01	0.43
1:G:733:TRP:HA	1:G:737:ILE:O	2.18	0.43
1:G:1440:ASN:N	1:G:1440:ASN:OD1	2.52	0.43
1:G:1548:THR:OG1	1:G:1549:SER:N	2.52	0.43
1:G:4911:LEU:HD23	1:G:4911:LEU:HA	1.78	0.43
2:H:31:LYS:HD2	2:H:31:LYS:HA	1.76	0.43
1:A:194:LEU:HA	1:A:203:VAL:HG12	2.01	0.43
1:A:483:LYS:O	1:A:487:ASN:N	2.52	0.43
1:A:695:VAL:HG13	1:A:792:VAL:HG12	1.99	0.43
1:A:1443:VAL:HG22	1:A:1543:VAL:HG22	2.01	0.43
1:A:1612:SER:HA	1:A:1619:VAL:HA	2.00	0.43
1:A:2314:VAL:HG13	1:A:2317:ASN:HB2	2.01	0.43
1:A:2326:ILE:HD12	1:G:207:PHE:CE1	2.47	0.43
1:C:462:TYR:CZ	1:C:485:ARG:HD2	2.54	0.43
1:C:869:THR:O	1:C:869:THR:OG1	2.36	0.43
1:C:1634:GLU:H	1:C:1634:GLU:HG2	1.55	0.43
1:C:3158:GLU:O	1:C:3162:ALA:N	2.43	0.43
1:C:3627:LYS:HE2	1:C:3627:LYS:HB2	1.72	0.43
1:C:3882:VAL:O	1:C:3885:SER:OG	2.31	0.43
1:C:4032:THR:O	1:C:4056:HIS:NE2	2.51	0.43
1:C:4138:GLU:HA	1:C:4148:ARG:HA	2.01	0.43
1:C:4642:PRO:HG2	1:C:4648:LYS:HG3	2.01	0.43
1:C:4936:GLY:O	1:C:4939:SER:OG	2.35	0.43
1:E:2314:VAL:HG13	1:E:2317:ASN:HB2	2.01	0.43
1:E:2668:PRO:O	1:E:2672:ALA:N	2.48	0.43
1:E:4631:TRP:NE1	1:E:4709:TRP:O	2.44	0.43
2:F:91:ARG:HD3	2:F:91:ARG:HA	1.84	0.43
1:G:288:HIS:ND1	1:G:350:GLY:O	2.52	0.43
1:G:770:ILE:HD13	1:G:770:ILE:HA	1.80	0.43
1:G:909:ASP:HB2	1:G:914:GLN:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1123:GLN:HG3	1:G:1133:ARG:HH12	1.83	0.43
1:G:1682:GLU:HA	1:G:1685:LEU:HD13	2.00	0.43
1:G:1823:LYS:HE2	1:G:1823:LYS:HB3	1.79	0.43
1:G:3663:ASP:OD1	1:G:3735:ARG:NH1	2.51	0.43
1:A:288:HIS:ND1	1:A:350:GLY:O	2.52	0.43
1:A:1432:ILE:HD13	1:A:1441:VAL:HG21	2.01	0.43
1:A:1503:ASN:O	1:A:1523:ASN:ND2	2.52	0.43
1:A:1603:PHE:HD2	1:A:1605:LYS:HA	1.84	0.43
1:A:1833:ILE:HG22	1:A:1834:PHE:H	1.84	0.43
1:C:194:LEU:HA	1:C:203:VAL:HG12	2.01	0.43
1:C:215:ALA:HA	1:C:216:PRO:HD3	1.91	0.43
1:C:552:SER:OG	1:C:584:GLU:OE2	2.29	0.43
1:C:593:HIS:O	1:C:596:SER:OG	2.24	0.43
1:C:3586:ALA:HA	1:C:3589:HIS:CD2	2.54	0.43
1:C:3874:SER:OG	1:C:3875:THR:N	2.50	0.43
1:C:3925:ILE:HD11	1:C:3936:LEU:HD13	2.00	0.43
1:C:4578:ILE:O	1:C:4581:THR:OG1	2.35	0.43
1:C:4779:VAL:O	1:C:4783:THR:N	2.51	0.43
1:E:897:LYS:HG2	1:E:918:LEU:HD11	2.01	0.43
1:E:1004:HIS:HA	1:E:1007:TRP:HB3	2.01	0.43
1:E:1231:GLY:H	1:E:1234:GLU:HG3	1.83	0.43
1:E:3670:LEU:O	1:E:3673:SER:OG	2.32	0.43
1:E:3925:ILE:HD11	1:E:3936:LEU:HD13	2.00	0.43
1:E:3978:ASP:N	1:E:3978:ASP:OD1	2.50	0.43
1:E:4642:PRO:HG2	1:E:4648:LYS:HG3	2.01	0.43
1:E:4664:ARG:O	1:E:4668:SER:N	2.46	0.43
1:G:34:LYS:HE3	1:G:34:LYS:HB3	1.86	0.43
1:G:527:LYS:HZ2	1:G:531:ASN:HD21	1.66	0.43
1:G:1251:LEU:O	1:G:1601:ASN:N	2.48	0.43
1:G:2035:GLU:O	1:G:2038:THR:OG1	2.30	0.43
1:G:2119:ASN:OD1	1:G:2120:LEU:N	2.49	0.43
1:G:2241:LEU:HD13	1:G:2241:LEU:HA	1.90	0.43
1:G:2402:ARG:O	1:G:2475:ARG:NH2	2.52	0.43
1:G:3630:ILE:H	1:G:3631:GLU:HG3	1.84	0.43
1:G:4093:LYS:HB2	1:G:4093:LYS:HE3	1.79	0.43
1:G:4927:ILE:HD13	1:G:4927:ILE:HA	1.84	0.43
1:A:145:PHE:HB2	1:A:205:ALA:HB3	2.01	0.42
1:A:426:PHE:HB3	1:A:497:LEU:HD11	2.01	0.42
1:A:567:ALA:O	1:A:571:ILE:N	2.47	0.42
1:A:1160:ASP:HB3	1:A:1177:LEU:HD11	2.00	0.42
1:A:1199:ASP:OD1	1:A:1199:ASP:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1433:PHE:CE2	1:A:1554:GLN:HB2	2.54	0.42
1:A:1721:MET:SD	1:A:1721:MET:N	2.91	0.42
1:A:1942:ARG:HA	1:A:1945:TYR:HB3	2.01	0.42
1:A:2027:ARG:H	1:A:2027:ARG:HG3	1.55	0.42
1:A:2141:LYS:O	1:A:2145:ARG:NH2	2.48	0.42
1:A:3932:ASN:O	1:A:3935:SER:OG	2.33	0.42
1:A:4642:PRO:HG2	1:A:4648:LYS:HG3	2.01	0.42
1:A:4899:PHE:O	1:A:4906:PHE:N	2.52	0.42
1:A:4904:HIS:O	1:A:4904:HIS:CG	2.72	0.42
2:B:22:LYS:HE2	2:B:22:LYS:HB2	1.77	0.42
1:C:486:GLN:HE22	1:C:542:ARG:N	2.16	0.42
1:C:681:HIS:CE1	1:C:683:GLU:HG3	2.54	0.42
1:C:997:ASP:HA	1:C:1047:LYS:HG2	2.01	0.42
1:C:1123:GLN:HG3	1:C:1133:ARG:HH12	1.83	0.42
1:C:1261:VAL:HA	1:C:1596:TRP:HH2	1.84	0.42
1:C:3645:LEU:HB3	1:C:3665:LEU:HB2	2.01	0.42
1:C:4854:PHE:HA	1:C:4858:ILE:HG12	2.00	0.42
1:E:335:LYS:HD3	1:E:396:GLU:HA	2.01	0.42
1:E:374:TYR:O	1:E:398:HIS:NE2	2.46	0.42
1:E:482:LEU:HA	1:E:485:ARG:HH21	1.84	0.42
1:E:1190:LEU:HB2	1:E:1193:LYS:HE3	2.01	0.42
1:E:1631:HIS:HA	1:E:1638:SER:HA	2.01	0.42
1:E:2120:LEU:O	1:E:2124:LEU:N	2.51	0.42
1:E:3645:LEU:HB3	1:E:3665:LEU:HB2	2.01	0.42
1:E:4854:PHE:HA	1:E:4858:ILE:HG12	2.00	0.42
1:E:4864:GLN:HB2	1:G:4867:ILE:HG22	2.01	0.42
1:G:306:LEU:HA	1:G:316:LEU:HA	2.00	0.42
1:G:897:LYS:HG2	1:G:918:LEU:HD11	2.01	0.42
1:G:1089:ARG:NH1	1:G:1122:CYS:O	2.51	0.42
1:G:1704:ASP:HA	1:G:1707:ILE:HD12	2.01	0.42
1:G:2668:PRO:O	1:G:2672:ALA:N	2.48	0.42
1:G:2717:LYS:HG3	1:G:2718:LEU:HG	2.01	0.42
1:G:3640:LYS:HE3	1:G:3640:LYS:HB3	1.79	0.42
1:G:3901:GLU:OE1	1:G:3905:ARG:NH1	2.52	0.42
1:G:3984:LEU:HD23	1:G:3984:LEU:HA	1.84	0.42
1:G:4642:PRO:HG2	1:G:4648:LYS:HG3	2.01	0.42
1:G:4664:ARG:O	1:G:4668:SER:N	2.46	0.42
1:G:4721:LEU:O	1:G:4725:TRP:N	2.39	0.42
1:A:1041:ARG:HA	1:A:1044:LYS:HD2	2.01	0.42
1:A:1123:GLN:HG3	1:A:1133:ARG:HH12	1.83	0.42
1:A:1548:THR:OG1	1:A:1549:SER:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3140:ALA:O	1:A:3144:SER:N	2.40	0.42
1:A:4702:ILE:HD12	1:A:4702:ILE:HA	1.90	0.42
1:A:4889:CYS:HB3	1:A:4893:GLY:N	2.31	0.42
2:B:33:LEU:HA	2:B:33:LEU:HD12	1.85	0.42
1:C:1645:THR:H	1:C:1645:THR:HG23	1.55	0.42
1:C:1833:ILE:HG22	1:C:1834:PHE:H	1.84	0.42
1:C:2883:LYS:HA	1:C:2883:LYS:HD2	1.90	0.42
1:C:3922:THR:HG22	1:C:3982:MET:HA	2.01	0.42
1:C:4022:LEU:HD12	1:C:4022:LEU:HA	1.83	0.42
1:E:238:HIS:N	1:E:243:GLU:O	2.50	0.42
1:E:357:GLY:O	1:E:404:ASN:ND2	2.37	0.42
1:E:601:LEU:HD12	1:E:601:LEU:HA	1.66	0.42
1:E:997:ASP:HA	1:E:1047:LYS:HG2	2.01	0.42
1:E:1010:ASP:HA	1:E:1013:ARG:HH22	1.83	0.42
1:G:136:SER:OG	1:G:142:LYS:O	2.32	0.42
1:G:567:ALA:O	1:G:571:ILE:N	2.47	0.42
1:G:695:VAL:HG13	1:G:792:VAL:HG12	1.99	0.42
1:G:812:LYS:HB3	1:G:812:LYS:HE3	1.86	0.42
1:G:1999:ASP:O	1:G:2003:ASP:N	2.42	0.42
1:G:4899:PHE:O	1:G:4906:PHE:N	2.52	0.42
1:A:410:HIS:O	1:A:414:ARG:N	2.47	0.42
1:A:424:PHE:HB3	1:A:428:ARG:NH2	2.34	0.42
1:A:462:TYR:CZ	1:A:485:ARG:HD2	2.54	0.42
1:A:564:ARG:HD3	1:A:564:ARG:HA	1.88	0.42
1:A:678:MET:N	1:A:801:ARG:O	2.48	0.42
1:A:909:ASP:HB2	1:A:914:GLN:HB2	2.01	0.42
1:A:1429:SER:HA	1:A:1507:ILE:HG12	2.01	0.42
1:A:1795:LEU:HD21	1:A:1821:LEU:HB3	2.02	0.42
1:A:2326:ILE:O	1:G:207:PHE:HB3	2.19	0.42
1:A:4093:LYS:HB2	1:A:4093:LYS:HE3	1.79	0.42
1:C:145:PHE:HB2	1:C:205:ALA:HB3	2.01	0.42
1:C:335:LYS:HD3	1:C:396:GLU:HA	2.01	0.42
1:C:711:GLU:OE2	1:C:1448:SER:OG	2.31	0.42
1:C:1041:ARG:HA	1:C:1044:LYS:HD2	2.01	0.42
1:C:1154:ARG:NH2	1:C:1180:GLU:OE1	2.43	0.42
1:C:1427:TYR:HE1	1:C:1568:ALA:HB1	1.85	0.42
1:C:1548:THR:OG1	1:C:1549:SER:N	2.52	0.42
1:C:1942:ARG:HA	1:C:1945:TYR:HB3	2.01	0.42
1:C:2119:ASN:OD1	1:C:2120:LEU:N	2.49	0.42
1:C:2717:LYS:HG3	1:C:2718:LEU:HG	2.01	0.42
1:C:4106:LEU:O	1:C:4110:MET:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4642:PRO:HG2	1:C:4648:LYS:HA	2.01	0.42
1:C:4900:ASP:OD1	1:C:4905:GLY:N	2.53	0.42
2:D:53:ILE:O	2:D:57:ASP:N	2.49	0.42
1:E:145:PHE:HB2	1:E:205:ALA:HB3	2.01	0.42
1:E:194:LEU:HA	1:E:203:VAL:HG12	2.01	0.42
1:E:486:GLN:HE22	1:E:542:ARG:N	2.16	0.42
1:E:1429:SER:HA	1:E:1507:ILE:HG12	2.01	0.42
1:E:3586:ALA:HA	1:E:3589:HIS:CD2	2.54	0.42
1:G:482:LEU:HA	1:G:485:ARG:HH21	1.84	0.42
1:G:890:HIS:HB3	1:G:921:PHE:HB2	2.00	0.42
1:G:1160:ASP:HB3	1:G:1177:LEU:HD11	2.00	0.42
1:G:1429:SER:HA	1:G:1507:ILE:HG12	2.01	0.42
1:G:1432:ILE:HD13	1:G:1441:VAL:HG21	2.01	0.42
1:G:1443:VAL:HG22	1:G:1543:VAL:HG22	2.01	0.42
1:G:2842:ALA:HB2	1:G:2894:LEU:HD12	2.01	0.42
1:G:3586:ALA:HA	1:G:3589:HIS:CD2	2.54	0.42
1:A:182:ILE:HD13	1:A:182:ILE:HA	1.86	0.42
1:A:335:LYS:HD3	1:A:396:GLU:HA	2.01	0.42
1:A:608:HIS:HB2	1:A:1656:HIS:CD2	2.47	0.42
1:A:697:TRP:HB2	1:A:766:ILE:HD13	2.01	0.42
1:A:997:ASP:HA	1:A:1047:LYS:HG2	2.01	0.42
1:A:1177:LEU:HD12	1:A:1177:LEU:HA	1.81	0.42
1:A:1766:PRO:HD3	1:A:1781:GLU:H	1.85	0.42
1:A:2328:ARG:NH2	1:A:2330:GLU:OE1	2.48	0.42
1:A:4018:PHE:HZ	1:A:4095:ILE:HB	1.83	0.42
1:A:4041:LYS:HD3	1:A:4041:LYS:HA	1.88	0.42
1:A:4785:VAL:H	1:A:4785:VAL:HG12	1.58	0.42
1:C:207:PHE:HB3	1:E:2326:ILE:O	2.19	0.42
1:C:238:HIS:HA	1:C:403:LEU:HD22	2.01	0.42
1:C:405:LEU:HD13	1:C:405:LEU:HA	1.92	0.42
1:C:549:ALA:O	1:C:552:SER:OG	2.38	0.42
1:C:770:ILE:HD13	1:C:770:ILE:HA	1.80	0.42
1:C:1098:ALA:O	1:C:1101:TRP:NE1	2.38	0.42
1:C:1440:ASN:OD1	1:C:1440:ASN:N	2.51	0.42
1:C:2667:LEU:O	1:C:2671:SER:N	2.45	0.42
1:C:3977:LYS:HA	1:C:4095:ILE:HG23	2.02	0.42
1:C:4187:MET:HA	1:C:4190:PHE:HB3	2.00	0.42
1:C:4899:PHE:O	1:C:4906:PHE:N	2.52	0.42
1:C:4904:HIS:CG	1:C:4904:HIS:O	2.72	0.42
1:E:72:SER:O	1:E:117:HIS:ND1	2.52	0.42
1:E:207:PHE:CE1	1:G:2326:ILE:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1041:ARG:HA	1:E:1044:LYS:HD2	2.01	0.42
1:E:1432:ILE:HG22	1:E:1434:PRO:HD2	2.00	0.42
1:E:3901:GLU:OE1	1:E:3905:ARG:NH1	2.52	0.42
1:E:4899:PHE:O	1:E:4906:PHE:N	2.52	0.42
1:G:426:PHE:HB3	1:G:497:LEU:HD11	2.01	0.42
1:G:681:HIS:CE1	1:G:683:GLU:HG3	2.54	0.42
1:G:1177:LEU:HD12	1:G:1177:LEU:HA	1.81	0.42
1:G:1621:CYS:SG	1:G:1622:LEU:N	2.92	0.42
1:G:2258:LEU:H	1:G:2258:LEU:HG	1.63	0.42
1:G:2264:GLU:HA	1:G:2267:VAL:HG22	2.01	0.42
1:G:3925:ILE:HD11	1:G:3936:LEU:HD13	2.00	0.42
1:G:4732:LEU:HD13	1:G:4732:LEU:HA	1.87	0.42
1:A:112:THR:HG23	1:A:114:LEU:HD21	2.02	0.42
1:A:207:PHE:HB3	1:C:2326:ILE:O	2.19	0.42
1:A:527:LYS:HZ2	1:A:531:ASN:HD21	1.67	0.42
1:A:1226:TYR:O	1:A:1230:CYS:N	2.48	0.42
1:A:1427:TYR:HE1	1:A:1568:ALA:HB1	1.85	0.42
1:A:1798:ALA:O	1:A:1802:GLY:N	2.41	0.42
1:A:3586:ALA:HA	1:A:3589:HIS:CD2	2.54	0.42
1:A:3925:ILE:HD11	1:A:3936:LEU:HD13	2.00	0.42
1:A:4900:ASP:OD1	1:A:4905:GLY:N	2.53	0.42
2:B:45:THR:O	2:B:49:LEU:N	2.46	0.42
1:C:374:TYR:O	1:C:398:HIS:NE2	2.46	0.42
1:C:769:ARG:NH1	1:C:772:GLY:O	2.44	0.42
1:C:1432:ILE:HG22	1:C:1434:PRO:HD2	2.00	0.42
1:C:1433:PHE:CE2	1:C:1554:GLN:HB2	2.54	0.42
1:C:3647:LYS:N	1:C:3663:ASP:OD2	2.53	0.42
1:C:4851:PHE:O	1:C:4855:VAL:N	2.50	0.42
1:E:483:LYS:O	1:E:487:ASN:N	2.52	0.42
1:E:1433:PHE:CE2	1:E:1554:GLN:HB2	2.54	0.42
1:E:1937:LEU:HD12	1:E:1937:LEU:HA	1.82	0.42
1:E:1938:GLN:HE21	1:E:1942:ARG:HE	1.68	0.42
1:E:3647:LYS:N	1:E:3663:ASP:OD2	2.53	0.42
1:E:3882:VAL:O	1:E:3885:SER:OG	2.31	0.42
1:E:4632:ASP:OD1	1:E:4709:TRP:NE1	2.46	0.42
1:E:4642:PRO:HG2	1:E:4648:LYS:HA	2.01	0.42
1:G:145:PHE:HB2	1:G:205:ALA:HB3	2.01	0.42
1:G:998:LYS:O	1:G:1002:ASN:N	2.53	0.42
1:G:2168:MET:H	1:G:2168:MET:HG3	1.56	0.42
1:G:4048:ASP:HA	1:G:4051:LYS:HG2	2.02	0.42
1:G:4606:GLU:O	1:G:4610:LYS:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4897:ASP:O	1:G:4901:THR:OG1	2.33	0.42
1:A:897:LYS:HG2	1:A:918:LEU:HD11	2.01	0.42
1:A:1261:VAL:HA	1:A:1596:TRP:HH2	1.84	0.42
1:A:1432:ILE:HG22	1:A:1434:PRO:HD2	2.00	0.42
1:A:2717:LYS:HG3	1:A:2718:LEU:HG	2.01	0.42
1:A:3647:LYS:N	1:A:3663:ASP:OD2	2.53	0.42
1:A:3977:LYS:HA	1:A:4095:ILE:HG23	2.02	0.42
1:A:4048:ASP:HA	1:A:4051:LYS:HG2	2.02	0.42
1:A:4187:MET:HA	1:A:4190:PHE:HB3	2.00	0.42
2:B:23:ASP:OD1	2:B:23:ASP:N	2.50	0.42
1:C:424:PHE:HB3	1:C:428:ARG:NH2	2.34	0.42
1:C:426:PHE:HB3	1:C:497:LEU:HD11	2.01	0.42
1:C:890:HIS:HB3	1:C:921:PHE:HB2	2.00	0.42
1:C:1303:ARG:NH1	1:C:1304:LEU:H	2.17	0.42
1:C:1766:PRO:HD3	1:C:1781:GLU:H	1.85	0.42
1:C:2402:ARG:HD3	1:C:2402:ARG:HA	1.63	0.42
1:C:2842:ALA:HB2	1:C:2894:LEU:HD12	2.01	0.42
1:C:2897:LEU:O	1:C:2902:TYR:N	2.38	0.42
2:D:124:GLU:O	2:D:128:GLU:N	2.39	0.42
1:E:207:PHE:CD1	1:G:2326:ILE:HG23	2.54	0.42
1:E:288:HIS:ND1	1:E:350:GLY:O	2.52	0.42
1:E:424:PHE:HB3	1:E:428:ARG:NH2	2.34	0.42
1:E:426:PHE:HB3	1:E:497:LEU:HD11	2.01	0.42
1:E:549:ALA:O	1:E:552:SER:OG	2.38	0.42
1:E:679:VAL:HA	1:E:800:VAL:HG23	2.01	0.42
1:E:909:ASP:HB2	1:E:914:GLN:HB2	2.01	0.42
1:E:998:LYS:O	1:E:1002:ASN:N	2.53	0.42
1:E:1548:THR:OG1	1:E:1549:SER:N	2.52	0.42
1:E:1705:LEU:HD23	1:E:1705:LEU:HA	1.89	0.42
1:E:2307:VAL:HG12	1:E:2317:ASN:HB3	2.00	0.42
1:E:2433:LEU:H	1:E:2433:LEU:HG	1.55	0.42
1:E:3982:MET:O	1:E:3985:SER:OG	2.22	0.42
1:E:4851:PHE:O	1:E:4855:VAL:N	2.50	0.42
1:G:1041:ARG:HA	1:G:1044:LYS:HD2	2.01	0.42
1:G:1432:ILE:HG22	1:G:1434:PRO:HD2	2.00	0.42
1:G:1603:PHE:HD2	1:G:1605:LYS:HA	1.84	0.42
1:G:1938:GLN:HE21	1:G:1942:ARG:HE	1.68	0.42
1:G:2308:PHE:CG	1:G:2402:ARG:HD2	2.55	0.42
1:G:4513:ALA:HA	1:G:4516:PHE:HB3	2.02	0.42
1:G:4717:ASP:OD2	1:G:4720:PHE:N	2.37	0.42
1:A:238:HIS:HA	1:A:403:LEU:HD22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:TRP:O	1:A:287:SER:OG	2.31	0.42
1:A:681:HIS:CE1	1:A:683:GLU:HG3	2.54	0.42
1:A:890:HIS:HB3	1:A:921:PHE:HB2	2.00	0.42
1:A:1253:LYS:HZ1	1:A:1599:MET:HB2	1.85	0.42
1:A:1682:GLU:HA	1:A:1685:LEU:HD13	2.00	0.42
1:C:998:LYS:O	1:C:1002:ASN:N	2.53	0.42
1:C:1429:SER:HA	1:C:1507:ILE:HG12	2.01	0.42
1:C:1576:LYS:NZ	1:C:1589:GLN:OE1	2.36	0.42
1:C:1704:ASP:HA	1:C:1707:ILE:HD12	2.01	0.42
1:C:2264:GLU:HA	1:C:2267:VAL:HG22	2.01	0.42
1:C:3671:LEU:O	1:C:3675:THR:OG1	2.28	0.42
1:C:3932:ASN:O	1:C:3935:SER:OG	2.33	0.42
1:C:4046:LYS:HD3	1:C:4077:GLU:HB3	2.02	0.42
1:C:4184:LYS:CB	1:E:4904:HIS:ND1	2.83	0.42
1:C:4860:LEU:HD13	1:E:4863:ILE:HD11	1.90	0.42
1:E:1476:VAL:HG13	1:E:1477:HIS:H	1.85	0.42
1:E:4046:LYS:HD3	1:E:4077:GLU:HB3	2.02	0.42
1:E:4702:ILE:HD12	1:E:4702:ILE:HA	1.90	0.42
1:E:4900:ASP:OD1	1:E:4905:GLY:N	2.53	0.42
1:G:483:LYS:O	1:G:487:ASN:N	2.52	0.42
1:G:1092:LYS:HA	1:G:1202:ILE:HD11	2.02	0.42
1:G:1190:LEU:HB2	1:G:1193:LYS:HE3	2.01	0.42
1:G:1433:PHE:CE2	1:G:1554:GLN:HB2	2.54	0.42
1:G:1833:ILE:HG22	1:G:1834:PHE:H	1.84	0.42
1:G:1938:GLN:NE2	1:G:3611:ASN:O	2.50	0.42
1:G:2256:LEU:HD23	1:G:2256:LEU:HA	1.89	0.42
1:G:4518:LEU:HD12	1:G:4518:LEU:HA	1.82	0.42
1:G:4569:MET:O	1:G:4572:THR:OG1	2.25	0.42
1:A:244:CYS:N	1:A:263:GLU:O	2.47	0.42
1:A:1707:ILE:H	1:A:1707:ILE:HG13	1.69	0.42
1:A:3922:THR:HG22	1:A:3982:MET:HA	2.01	0.42
1:A:3962:ASP:OD2	1:A:3965:GLN:NE2	2.48	0.42
1:C:2117:THR:OG1	1:C:2118:ILE:N	2.51	0.42
1:C:2251:ASN:HD22	1:C:2251:ASN:HA	1.65	0.42
1:C:2638:GLU:O	1:C:2642:SER:N	2.44	0.42
1:C:4018:PHE:HZ	1:C:4095:ILE:HB	1.83	0.42
1:C:4864:GLN:HB2	1:E:4867:ILE:HG22	2.01	0.42
1:E:1199:ASP:OD1	1:E:1199:ASP:N	2.48	0.42
1:E:1766:PRO:HD3	1:E:1781:GLU:H	1.85	0.42
1:E:1813:THR:OG1	1:E:1816:PHE:N	2.32	0.42
1:E:2876:ASP:OD1	1:E:2876:ASP:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4184:LYS:CB	1:G:4904:HIS:ND1	2.83	0.42
1:E:4796:LYS:NZ	1:E:4807:CYS:SG	2.73	0.42
1:E:4904:HIS:O	1:E:4904:HIS:CG	2.72	0.42
1:G:1612:SER:HA	1:G:1619:VAL:HA	2.00	0.42
1:G:2032:SER:O	1:G:2036:LYS:N	2.52	0.42
1:G:2119:ASN:OD1	1:G:2119:ASN:N	2.53	0.42
1:G:3921:LEU:HA	1:G:3921:LEU:HD23	1.83	0.42
1:G:4182:GLY:O	1:G:4186:LYS:N	2.53	0.42
1:G:4187:MET:HA	1:G:4190:PHE:HB3	2.00	0.42
1:A:679:VAL:HA	1:A:800:VAL:HG23	2.01	0.42
1:A:998:LYS:O	1:A:1002:ASN:N	2.53	0.42
1:A:1169:THR:OG1	1:A:1170:GLU:N	2.53	0.42
1:A:1938:GLN:HE21	1:A:1942:ARG:HE	1.68	0.42
1:A:2308:PHE:CG	1:A:2402:ARG:HD2	2.55	0.42
1:A:2765:SER:OG	1:A:2766:GLU:OE2	2.38	0.42
1:A:3724:LYS:HD3	1:A:3724:LYS:HA	1.82	0.42
1:A:3762:LEU:HD12	1:A:3762:LEU:HA	1.82	0.42
1:A:4022:LEU:HD23	1:A:4023:LYS:HZ2	1.85	0.42
1:A:4642:PRO:HG2	1:A:4648:LYS:HA	2.01	0.42
1:C:482:LEU:HA	1:C:485:ARG:HH21	1.84	0.42
1:C:682:THR:HG23	1:C:751:THR:HG23	2.02	0.42
1:C:812:LYS:HB3	1:C:812:LYS:HE3	1.86	0.42
1:C:1621:CYS:SG	1:C:1622:LEU:N	2.92	0.42
1:C:2141:LYS:O	1:C:2145:ARG:NH2	2.48	0.42
1:C:2308:PHE:CG	1:C:2402:ARG:HD2	2.55	0.42
1:C:3630:ILE:H	1:C:3631:GLU:HG3	1.84	0.42
1:C:3978:ASP:N	1:C:3978:ASP:OD1	2.50	0.42
1:C:3982:MET:O	1:C:3985:SER:OG	2.22	0.42
2:D:29:THR:HA	2:D:63:THR:HG22	2.02	0.42
1:E:915:HIS:ND1	1:E:918:LEU:HG	2.35	0.42
1:E:1097:LYS:NZ	1:E:1198:GLY:O	2.36	0.42
1:E:1169:THR:OG1	1:E:1170:GLU:N	2.53	0.42
1:E:1432:ILE:HD13	1:E:1441:VAL:HG21	2.01	0.42
1:E:2086:PHE:O	1:E:3692:TYR:OH	2.25	0.42
1:E:4138:GLU:HA	1:E:4148:ARG:HA	2.01	0.42
1:G:915:HIS:ND1	1:G:918:LEU:HG	2.35	0.42
1:G:1004:HIS:HA	1:G:1007:TRP:HB3	2.01	0.42
1:G:4113:ASP:O	1:G:4117:GLN:NE2	2.48	0.42
1:G:4130:PHE:HA	1:G:4133:PHE:HD2	1.85	0.42
1:G:4642:PRO:HG2	1:G:4648:LYS:HA	2.01	0.42
1:G:4900:ASP:OD1	1:G:4905:GLY:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4904:HIS:CG	1:G:4904:HIS:O	2.72	0.42
1:A:23:GLN:N	1:A:213:SER:O	2.53	0.42
1:A:1004:HIS:HA	1:A:1007:TRP:HB3	2.01	0.42
1:A:1190:LEU:HB2	1:A:1193:LYS:HE3	2.01	0.42
1:A:2264:GLU:HA	1:A:2267:VAL:HG22	2.01	0.42
1:A:4513:ALA:HA	1:A:4516:PHE:HB3	2.02	0.42
1:A:4723:LEU:HD13	1:A:4723:LEU:HA	1.85	0.42
1:C:1795:LEU:HD21	1:C:1821:LEU:HB3	2.02	0.42
1:C:1938:GLN:HE21	1:C:1942:ARG:HE	1.68	0.42
1:C:3620:LEU:HA	1:C:3620:LEU:HD23	1.86	0.42
1:C:4811:LEU:HD13	1:E:4519:LEU:HD22	2.00	0.42
1:E:355:LYS:HE3	1:E:355:LYS:HB3	1.91	0.42
1:E:1261:VAL:HA	1:E:1596:TRP:HH2	1.84	0.42
1:E:1303:ARG:NH1	1:E:1304:LEU:H	2.17	0.42
1:E:1427:TYR:HE1	1:E:1568:ALA:HB1	1.85	0.42
1:E:1621:CYS:SG	1:E:1622:LEU:N	2.92	0.42
1:E:1730:THR:O	1:E:1733:THR:OG1	2.26	0.42
1:E:3637:PHE:N	1:E:3638:GLU:OE1	2.53	0.42
1:G:1766:PRO:HD3	1:G:1781:GLU:H	1.85	0.42
1:G:3788:VAL:N	1:G:3865:ASN:OD1	2.53	0.42
1:A:71:GLN:NE2	1:A:73:LEU:HD21	2.35	0.41
1:A:482:LEU:HA	1:A:485:ARG:HH21	1.84	0.41
1:A:1476:VAL:HG13	1:A:1477:HIS:H	1.85	0.41
1:A:1934:VAL:HG23	1:A:3614:ARG:HH12	1.85	0.41
1:A:3978:ASP:N	1:A:3978:ASP:OD1	2.50	0.41
1:A:4904:HIS:ND1	1:G:4184:LYS:CB	2.83	0.41
1:C:72:SER:CB	1:C:113:LEU:HG	2.50	0.41
1:C:502:ILE:H	1:C:502:ILE:HG13	1.63	0.41
1:C:897:LYS:HG2	1:C:918:LEU:HD11	2.01	0.41
1:C:1171:HIS:O	1:C:1194:ASP:N	2.53	0.41
1:C:1253:LYS:HZ1	1:C:1599:MET:HB2	1.85	0.41
1:C:1603:PHE:HD2	1:C:1605:LYS:HA	1.84	0.41
1:C:2032:SER:O	1:C:2036:LYS:N	2.52	0.41
1:C:2241:LEU:HD13	1:C:2241:LEU:HA	1.90	0.41
1:E:112:THR:HG23	1:E:114:LEU:HD21	2.02	0.41
1:E:417:ARG:HA	1:E:417:ARG:HD2	1.76	0.41
1:E:1092:LYS:HA	1:E:1202:ILE:HD11	2.02	0.41
1:E:1934:VAL:HG23	1:E:3614:ARG:HH12	1.85	0.41
1:E:3630:ILE:H	1:E:3631:GLU:HG3	1.84	0.41
1:E:3788:VAL:N	1:E:3865:ASN:OD1	2.53	0.41
1:E:4114:THR:HA	1:E:4117:GLN:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:697:TRP:HB2	1:G:766:ILE:HD13	2.01	0.41
1:G:1304:LEU:HG	1:G:1541:PRO:HG2	2.02	0.41
1:G:1427:TYR:HE1	1:G:1568:ALA:HB1	1.85	0.41
1:G:1659:ARG:O	1:G:1662:SER:OG	2.32	0.41
1:G:4489:GLN:O	1:G:4493:LEU:N	2.53	0.41
1:A:274:LEU:HD23	1:A:274:LEU:HA	1.81	0.41
1:A:568:SER:HA	1:A:571:ILE:HB	2.02	0.41
1:A:1304:LEU:HG	1:A:1541:PRO:HG2	2.03	0.41
1:A:3622:LEU:HD13	1:A:3622:LEU:HA	1.92	0.41
1:A:3859:LEU:HA	1:A:3859:LEU:HD23	1.82	0.41
1:A:4182:GLY:O	1:A:4186:LYS:N	2.53	0.41
1:C:288:HIS:ND1	1:C:350:GLY:O	2.52	0.41
1:C:352:SER:O	1:C:352:SER:OG	2.28	0.41
1:C:483:LYS:O	1:C:487:ASN:N	2.52	0.41
1:C:2645:LEU:O	1:C:2649:ILE:N	2.43	0.41
1:C:3680:LYS:HA	1:C:3680:LYS:HD3	1.83	0.41
1:C:3784:GLU:H	1:C:3784:GLU:HG2	1.61	0.41
1:C:4757:ILE:O	1:C:4760:SER:OG	2.22	0.41
1:E:2256:LEU:HD23	1:E:2256:LEU:HA	1.90	0.41
1:E:3591:LEU:HD11	2:F:109:VAL:HG12	2.02	0.41
1:E:4032:THR:O	1:E:4056:HIS:NE2	2.51	0.41
1:G:238:HIS:HA	1:G:403:LEU:HD22	2.01	0.41
1:G:505:LEU:HA	1:G:505:LEU:HD23	1.79	0.41
1:G:1171:HIS:O	1:G:1194:ASP:N	2.53	0.41
1:G:1645:THR:HG1	1:G:1646:GLU:N	2.17	0.41
1:G:1795:LEU:HD21	1:G:1821:LEU:HB3	2.02	0.41
1:G:1934:VAL:HG23	1:G:3614:ARG:HH12	1.85	0.41
1:G:2883:LYS:HA	1:G:2883:LYS:HD2	1.90	0.41
1:G:4054:GLU:HG3	1:G:4061:GLN:HE21	1.85	0.41
1:G:4162:GLU:H	1:G:4162:GLU:HG3	1.52	0.41
1:A:72:SER:CB	1:A:113:LEU:HG	2.50	0.41
1:A:120:LEU:HD12	1:A:120:LEU:HA	1.85	0.41
1:A:374:TYR:O	1:A:398:HIS:NE2	2.46	0.41
1:A:1092:LYS:HA	1:A:1202:ILE:HD11	2.02	0.41
1:A:1630:LEU:HD22	1:A:1641:ILE:HD13	2.02	0.41
1:A:1704:ASP:HA	1:A:1707:ILE:HD12	2.01	0.41
1:A:4068:LEU:HD23	1:A:4068:LEU:HA	1.93	0.41
1:A:4578:ILE:O	1:A:4581:THR:OG1	2.35	0.41
1:C:58:VAL:HG13	1:C:319:LYS:HB2	2.03	0.41
1:C:72:SER:O	1:C:117:HIS:ND1	2.53	0.41
1:C:1813:THR:OG1	1:C:1816:PHE:N	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2119:ASN:OD1	1:C:2119:ASN:N	2.53	0.41
1:C:2852:ILE:O	1:C:2856:LYS:N	2.54	0.41
1:C:3647:LYS:HA	1:C:3648:PRO:HD3	1.93	0.41
1:E:238:HIS:HA	1:E:403:LEU:HD22	2.01	0.41
1:E:415:THR:O	1:E:419:ILE:HG13	2.20	0.41
1:E:682:THR:HG23	1:E:751:THR:HG23	2.02	0.41
1:E:1300:MET:HB3	1:E:1302:TYR:CZ	2.56	0.41
1:E:1833:ILE:HG22	1:E:1834:PHE:H	1.84	0.41
1:E:2026:ILE:H	1:E:2026:ILE:HG13	1.71	0.41
1:E:3640:LYS:HE3	1:E:3640:LYS:HB3	1.79	0.41
1:E:4048:ASP:HA	1:E:4051:LYS:HG2	2.02	0.41
1:E:4874:LEU:HD12	1:E:4874:LEU:HA	1.89	0.41
1:G:1245:ARG:HA	1:G:1245:ARG:HD3	1.89	0.41
1:G:3637:PHE:N	1:G:3638:GLU:OE1	2.53	0.41
1:G:3645:LEU:HB3	1:G:3665:LEU:HB2	2.01	0.41
1:G:3647:LYS:N	1:G:3663:ASP:OD2	2.53	0.41
1:G:4114:THR:HA	1:G:4117:GLN:HG2	2.02	0.41
1:A:282:VAL:O	1:A:285:SER:OG	2.28	0.41
1:A:288:HIS:CD2	1:A:352:SER:HA	2.56	0.41
1:A:1171:HIS:O	1:A:1194:ASP:N	2.53	0.41
1:A:1938:GLN:NE2	1:A:3611:ASN:O	2.50	0.41
1:A:2402:ARG:O	1:A:2475:ARG:NH2	2.52	0.41
1:A:3788:VAL:N	1:A:3865:ASN:OD1	2.53	0.41
1:A:4184:LYS:CB	1:C:4904:HIS:ND1	2.83	0.41
1:C:19:GLU:O	1:C:217:ILE:N	2.47	0.41
1:C:161:THR:HG1	1:C:163:HIS:CE1	2.38	0.41
1:C:288:HIS:CD2	1:C:352:SER:HA	2.56	0.41
1:C:434:ASP:O	1:C:437:SER:OG	2.28	0.41
1:C:568:SER:HA	1:C:571:ILE:HB	2.02	0.41
1:C:1092:LYS:HA	1:C:1202:ILE:HD11	2.02	0.41
1:C:1432:ILE:HD13	1:C:1441:VAL:HG21	2.01	0.41
1:C:1934:VAL:HG23	1:C:3614:ARG:HH12	1.85	0.41
1:C:2518:ASN:HA	1:C:2521:LEU:HG	2.03	0.41
1:C:3788:VAL:N	1:C:3865:ASN:OD1	2.53	0.41
1:C:4054:GLU:HG3	1:C:4061:GLN:HE21	1.85	0.41
1:C:4664:ARG:O	1:C:4668:SER:N	2.46	0.41
1:E:58:VAL:HG13	1:E:319:LYS:HB2	2.03	0.41
1:E:274:LEU:HA	1:E:274:LEU:HD23	1.81	0.41
1:E:1253:LYS:HZ1	1:E:1599:MET:HB2	1.85	0.41
1:E:2308:PHE:CG	1:E:2402:ARG:HD2	2.55	0.41
1:E:2765:SER:OG	1:E:2766:GLU:OE2	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2852:ILE:O	1:E:2856:LYS:N	2.54	0.41
1:E:4927:ILE:HD13	1:E:4927:ILE:HA	1.84	0.41
1:G:424:PHE:HB3	1:G:428:ARG:NH2	2.34	0.41
1:G:997:ASP:HA	1:G:1047:LYS:HG2	2.01	0.41
1:G:1038:LEU:O	1:G:1043:LYS:NZ	2.52	0.41
1:G:1048:ASP:HA	1:G:1051:ARG:HB2	2.03	0.41
1:G:1253:LYS:HZ1	1:G:1599:MET:HB2	1.85	0.41
1:G:1942:ARG:HA	1:G:1945:TYR:HB3	2.01	0.41
1:G:2319:ASN:OD1	1:G:2323:ARG:NH1	2.36	0.41
1:A:59:PRO:HG3	1:A:296:ARG:HD2	2.03	0.41
1:A:415:THR:O	1:A:419:ILE:HG13	2.21	0.41
1:A:687:THR:HB	1:A:689:GLU:HB3	2.02	0.41
1:A:2518:ASN:HA	1:A:2521:LEU:HG	2.03	0.41
1:A:4632:ASP:OD1	1:A:4709:TRP:NE1	2.46	0.41
1:C:687:THR:HB	1:C:689:GLU:HB3	2.02	0.41
1:C:1731:GLU:H	1:C:1731:GLU:HG3	1.57	0.41
1:C:2264:GLU:O	1:C:2268:ARG:N	2.45	0.41
1:C:3640:LYS:HB3	1:C:3640:LYS:HE3	1.79	0.41
1:C:4093:LYS:HB2	1:C:4093:LYS:HE3	1.79	0.41
1:E:161:THR:HG1	1:E:163:HIS:CE1	2.38	0.41
1:E:1443:VAL:HG22	1:E:1543:VAL:HG22	2.01	0.41
1:E:1942:ARG:HA	1:E:1945:TYR:HB3	2.01	0.41
1:E:1999:ASP:O	1:E:2003:ASP:N	2.42	0.41
1:E:2119:ASN:OD1	1:E:2119:ASN:N	2.53	0.41
1:E:4489:GLN:O	1:E:4493:LEU:N	2.53	0.41
1:G:477:ASN:O	1:G:481:ALA:N	2.41	0.41
1:G:2850:HIS:HB2	1:G:2883:LYS:HE2	2.03	0.41
1:G:2852:ILE:O	1:G:2856:LYS:N	2.54	0.41
1:G:3591:LEU:HD11	2:H:109:VAL:HG12	2.02	0.41
1:A:1048:ASP:HA	1:A:1051:ARG:HB2	2.03	0.41
1:A:3984:LEU:HA	1:A:3984:LEU:HD23	1.84	0.41
1:A:4022:LEU:HA	1:A:4022:LEU:HD12	1.83	0.41
1:C:71:GLN:O	1:C:119:ILE:HB	2.20	0.41
1:C:679:VAL:HA	1:C:800:VAL:HG23	2.01	0.41
1:C:1190:LEU:HB2	1:C:1193:LYS:HE3	2.01	0.41
1:C:4182:GLY:O	1:C:4186:LYS:N	2.53	0.41
1:C:4702:ILE:HD12	1:C:4702:ILE:HA	1.90	0.41
1:E:929:ARG:O	1:E:933:LEU:N	2.48	0.41
1:E:2175:VAL:O	1:E:2179:VAL:N	2.51	0.41
1:E:2842:ALA:HB2	1:E:2894:LEU:HD12	2.01	0.41
1:E:2850:HIS:HB2	1:E:2883:LYS:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4054:GLU:HG3	1:E:4061:GLN:HE21	1.85	0.41
1:E:4853:PHE:HA	1:E:4856:ILE:HB	2.02	0.41
1:G:321:LYS:O	1:G:323:ASP:N	2.52	0.41
1:G:549:ALA:O	1:G:552:SER:OG	2.38	0.41
1:G:705:PRO:HG2	1:G:840:TYR:HB3	2.03	0.41
1:G:2303:LEU:HD23	1:G:2303:LEU:HA	1.82	0.41
1:G:4874:LEU:HD12	1:G:4874:LEU:HA	1.89	0.41
2:H:53:ILE:O	2:H:57:ASP:N	2.49	0.41
1:A:71:GLN:O	1:A:119:ILE:HB	2.20	0.41
1:A:549:ALA:O	1:A:552:SER:OG	2.38	0.41
1:A:874:LEU:HA	1:A:875:PRO:HD3	1.91	0.41
1:A:915:HIS:ND1	1:A:918:LEU:HG	2.35	0.41
1:A:1300:MET:HB3	1:A:1302:TYR:CZ	2.56	0.41
1:A:2119:ASN:OD1	1:A:2119:ASN:N	2.53	0.41
1:A:2850:HIS:HB2	1:A:2883:LYS:HE2	2.03	0.41
1:A:3640:LYS:HE3	1:A:3640:LYS:HB3	1.79	0.41
1:A:4046:LYS:HD3	1:A:4077:GLU:HB3	2.02	0.41
1:A:4853:PHE:HA	1:A:4856:ILE:HB	2.02	0.41
1:A:4867:ILE:HG22	1:G:4864:GLN:HB2	2.01	0.41
1:A:4897:ASP:O	1:A:4901:THR:N	2.54	0.41
2:B:29:THR:HA	2:B:63:THR:HG22	2.02	0.41
1:C:112:THR:HG23	1:C:114:LEU:HD21	2.01	0.41
1:C:219:SER:O	1:C:219:SER:OG	2.35	0.41
1:C:505:LEU:HD22	1:C:526:TRP:CD1	2.56	0.41
1:C:1169:THR:OG1	1:C:1170:GLU:N	2.53	0.41
1:C:1591:LEU:HD23	1:C:1591:LEU:HA	1.83	0.41
1:C:2107:TYR:CG	1:C:2162:LEU:HD12	2.56	0.41
1:C:2256:LEU:HD23	1:C:2256:LEU:HA	1.90	0.41
1:C:3588:TRP:HZ3	2:D:142:PHE:HD1	1.67	0.41
1:C:3637:PHE:N	1:C:3638:GLU:OE1	2.53	0.41
1:C:4114:THR:HA	1:C:4117:GLN:HG2	2.02	0.41
1:C:4897:ASP:O	1:C:4901:THR:N	2.54	0.41
1:E:1630:LEU:HD22	1:E:1641:ILE:HD13	2.02	0.41
1:E:2667:LEU:O	1:E:2671:SER:N	2.45	0.41
1:E:3922:THR:HG22	1:E:3982:MET:HA	2.01	0.41
1:E:4785:VAL:H	1:E:4785:VAL:HG12	1.58	0.41
2:F:29:THR:HA	2:F:63:THR:HG22	2.02	0.41
1:G:58:VAL:HG13	1:G:319:LYS:HB2	2.02	0.41
1:G:112:THR:HG23	1:G:114:LEU:HD21	2.02	0.41
1:G:415:THR:O	1:G:419:ILE:HG13	2.21	0.41
1:G:564:ARG:HD3	1:G:564:ARG:HA	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:679:VAL:HA	1:G:800:VAL:HG23	2.01	0.41
1:G:1476:VAL:HG13	1:G:1477:HIS:H	1.85	0.41
1:G:3588:TRP:HZ3	2:H:142:PHE:HD1	1.67	0.41
1:G:3786:LYS:HZ2	1:G:3786:LYS:HG2	1.66	0.41
1:G:4203:LEU:HD13	1:G:4203:LEU:HA	1.89	0.41
1:G:4636:ILE:H	1:G:4636:ILE:HG12	1.70	0.41
1:G:4779:VAL:O	1:G:4783:THR:N	2.51	0.41
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.79	0.41
1:A:557:TRP:O	1:A:560:SER:OG	2.34	0.41
1:A:711:GLU:OE2	1:A:1448:SER:OG	2.31	0.41
1:A:770:ILE:HD13	1:A:770:ILE:HA	1.80	0.41
1:A:1100:ARG:HB3	1:A:1236:TYR:CZ	2.56	0.41
1:A:1269:GLU:O	1:A:1290:PHE:HA	2.21	0.41
1:A:1576:LYS:NZ	1:A:1589:GLN:OE1	2.36	0.41
1:A:2782:THR:O	1:A:2782:THR:OG1	2.39	0.41
1:A:4114:THR:HA	1:A:4117:GLN:HG2	2.02	0.41
1:A:4130:PHE:HA	1:A:4133:PHE:HD2	1.85	0.41
1:A:4140:MET:HE3	1:A:4144:LYS:HA	2.03	0.41
1:A:4911:LEU:HA	1:A:4911:LEU:HD23	1.78	0.41
1:C:59:PRO:HG3	1:C:296:ARG:HD2	2.03	0.41
1:C:1269:GLU:O	1:C:1290:PHE:HA	2.21	0.41
1:C:3760:LEU:HD23	1:C:3760:LEU:HA	1.79	0.41
1:C:4048:ASP:HA	1:C:4051:LYS:HG2	2.02	0.41
1:C:4489:GLN:O	1:C:4493:LEU:N	2.53	0.41
1:C:4512:PHE:HD1	1:C:4512:PHE:HA	1.74	0.41
1:E:59:PRO:HG3	1:E:296:ARG:HD2	2.03	0.41
1:E:697:TRP:HB2	1:E:766:ILE:HD13	2.01	0.41
1:E:1603:PHE:HD2	1:E:1605:LYS:HA	1.84	0.41
1:E:2119:ASN:OD1	1:E:2120:LEU:N	2.49	0.41
1:E:2264:GLU:HA	1:E:2267:VAL:HG22	2.01	0.41
1:E:4038:PRO:HG2	1:E:4040:GLY:HA2	2.03	0.41
1:E:4182:GLY:O	1:E:4186:LYS:N	2.53	0.41
1:G:59:PRO:HG3	1:G:296:ARG:HD2	2.03	0.41
1:G:1300:MET:HB3	1:G:1302:TYR:CZ	2.56	0.41
1:G:1599:MET:O	1:G:1601:ASN:ND2	2.54	0.41
1:G:2518:ASN:HA	1:G:2521:LEU:HG	2.03	0.41
1:G:3977:LYS:HA	1:G:4095:ILE:HG23	2.02	0.41
1:G:3993:ASN:ND2	1:G:4111:PRO:HD2	2.36	0.41
1:A:427:ASN:OD1	1:A:427:ASN:N	2.53	0.41
1:A:505:LEU:HD22	1:A:526:TRP:CD1	2.56	0.41
1:A:695:VAL:HG22	1:A:792:VAL:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1105:PHE:CD1	1:A:1215:MET:HG2	2.56	0.41
1:A:1154:ARG:NH2	1:A:1180:GLU:OE1	2.43	0.41
1:A:1599:MET:O	1:A:1601:ASN:ND2	2.54	0.41
1:A:2063:ILE:O	1:A:2066:THR:OG1	2.39	0.41
1:A:2164:ARG:NH2	1:A:2210:GLN:OE1	2.54	0.41
1:A:3645:LEU:HB3	1:A:3665:LEU:HB2	2.01	0.41
1:A:4054:GLU:HG3	1:A:4061:GLN:HE21	1.85	0.41
1:C:697:TRP:HB2	1:C:766:ILE:HD13	2.01	0.41
1:C:1048:ASP:HA	1:C:1051:ARG:HB2	2.03	0.41
1:C:1105:PHE:CD1	1:C:1215:MET:HG2	2.56	0.41
1:C:1652:LYS:HB3	1:C:1652:LYS:HE3	1.87	0.41
1:C:2400:LEU:HD23	1:C:2400:LEU:HA	1.83	0.41
1:C:3016:VAL:O	1:C:3020:ILE:N	2.54	0.41
1:C:4006:GLU:H	1:C:4006:GLU:HG2	1.67	0.41
1:C:4635:VAL:O	1:C:4638:THR:OG1	2.29	0.41
1:C:4730:SER:HA	1:C:4740:PHE:HE1	1.86	0.41
1:E:321:LYS:O	1:E:323:ASP:N	2.52	0.41
1:E:687:THR:OG1	1:E:689:GLU:O	2.37	0.41
1:E:872:ILE:HD12	1:E:945:ALA:HB2	2.03	0.41
1:E:1171:HIS:O	1:E:1194:ASP:N	2.53	0.41
1:E:1304:LEU:HG	1:E:1541:PRO:HG2	2.03	0.41
1:E:1795:LEU:HD21	1:E:1821:LEU:HB3	2.02	0.41
1:E:2518:ASN:HA	1:E:2521:LEU:HG	2.03	0.41
1:E:3977:LYS:HA	1:E:4095:ILE:HG23	2.02	0.41
1:E:4130:PHE:HA	1:E:4133:PHE:HD2	1.85	0.41
2:F:45:THR:O	2:F:49:LEU:N	2.46	0.41
1:G:23:GLN:N	1:G:213:SER:O	2.53	0.41
1:G:288:HIS:CD2	1:G:352:SER:HA	2.56	0.41
1:G:505:LEU:HD22	1:G:526:TRP:CD1	2.56	0.41
1:G:568:SER:HA	1:G:571:ILE:HB	2.02	0.41
1:G:929:ARG:O	1:G:933:LEU:N	2.48	0.41
1:G:1156:TRP:CZ3	1:G:1158:ALA:HA	2.56	0.41
1:G:1199:ASP:N	1:G:1199:ASP:OD1	2.48	0.41
1:G:2087:VAL:O	1:G:2091:ARG:N	2.43	0.41
1:G:2432:ASP:O	1:G:2435:GLY:N	2.46	0.41
1:G:3922:THR:HG22	1:G:3982:MET:HA	2.01	0.41
1:G:4038:PRO:HG2	1:G:4040:GLY:HA2	2.03	0.41
1:G:4100:ALA:O	1:G:4104:THR:OG1	2.29	0.41
1:G:4730:SER:HA	1:G:4740:PHE:HE1	1.86	0.41
1:G:4897:ASP:O	1:G:4901:THR:N	2.54	0.41
1:A:72:SER:O	1:A:117:HIS:ND1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1156:TRP:CZ3	1:A:1158:ALA:HA	2.56	0.41
1:A:1632:ILE:HG12	1:A:1637:ARG:HG2	2.03	0.41
1:A:2388:ALA:O	1:A:2392:PHE:N	2.48	0.41
1:A:3627:LYS:HE2	1:A:3627:LYS:HB2	1.72	0.41
1:A:3637:PHE:N	1:A:3638:GLU:OE1	2.53	0.41
1:A:3993:ASN:ND2	1:A:4111:PRO:HD2	2.36	0.41
1:A:4489:GLN:O	1:A:4493:LEU:N	2.53	0.41
1:A:4864:GLN:HB2	1:C:4867:ILE:HG22	2.01	0.41
1:C:246:THR:HG1	1:C:272:ARG:NH1	2.18	0.41
1:C:415:THR:O	1:C:419:ILE:HG13	2.21	0.41
1:C:1245:ARG:HA	1:C:1245:ARG:HD3	1.89	0.41
1:C:1476:VAL:HG13	1:C:1477:HIS:H	1.85	0.41
1:C:2303:LEU:HA	1:C:2303:LEU:HD23	1.82	0.41
1:C:3909:LYS:O	1:C:3913:VAL:HG23	2.21	0.41
1:C:4004:LEU:HD13	1:C:4004:LEU:HA	1.87	0.41
1:C:4140:MET:HE3	1:C:4144:LYS:HA	2.03	0.41
1:C:4513:ALA:HA	1:C:4516:PHE:HB3	2.02	0.41
1:E:120:LEU:HD12	1:E:120:LEU:HA	1.85	0.41
1:E:810:GLU:N	1:E:823:TYR:OH	2.50	0.41
1:E:954:ASP:HB3	1:E:1061:GLY:HA3	2.03	0.41
1:E:1156:TRP:CZ3	1:E:1158:ALA:HA	2.56	0.41
1:E:1697:LEU:HD23	1:E:1697:LEU:HA	1.94	0.41
1:E:1835:HIS:O	1:E:1837:GLU:N	2.54	0.41
1:E:3140:ALA:O	1:E:3144:SER:N	2.40	0.41
1:E:3588:TRP:HZ3	2:F:142:PHE:HD1	1.67	0.41
1:E:3784:GLU:H	1:E:3784:GLU:HG2	1.61	0.41
1:E:3992:VAL:HG23	1:E:3993:ASN:H	1.86	0.41
1:E:4041:LYS:HA	1:E:4041:LYS:HD3	1.88	0.41
1:E:4897:ASP:O	1:E:4901:THR:OG1	2.33	0.41
1:G:502:ILE:H	1:G:502:ILE:HG13	1.63	0.41
1:G:695:VAL:HG22	1:G:792:VAL:HA	2.03	0.41
1:G:1591:LEU:HD23	1:G:1591:LEU:HA	1.83	0.41
1:G:4794:TYR:HB3	1:G:4807:CYS:SG	2.61	0.41
1:A:499:LEU:HD12	1:A:499:LEU:HA	1.95	0.40
1:A:705:PRO:HG2	1:A:840:TYR:HB3	2.02	0.40
1:A:1835:HIS:O	1:A:1837:GLU:N	2.54	0.40
1:A:4038:PRO:HG2	1:A:4040:GLY:HA2	2.03	0.40
1:A:4080:ASP:HB3	1:A:4083:GLU:HB3	2.04	0.40
1:A:4738:PHE:HD1	1:G:4788:ASN:HD21	1.66	0.40
1:A:4794:TYR:HB3	1:A:4807:CYS:SG	2.61	0.40
1:C:590:LYS:H	1:C:593:HIS:HD2	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:705:PRO:HG2	1:C:840:TYR:HB3	2.02	0.40
1:C:1300:MET:HB3	1:C:1302:TYR:CZ	2.56	0.40
1:C:1632:ILE:HG12	1:C:1637:ARG:HG2	2.03	0.40
1:C:3069:LEU:O	1:C:3073:MET:N	2.51	0.40
1:C:3871:ILE:O	1:C:3874:SER:OG	2.26	0.40
1:C:3962:ASP:OD2	1:C:3965:GLN:NE2	2.48	0.40
1:C:3992:VAL:HG23	1:C:3993:ASN:H	1.86	0.40
1:C:3996:ILE:H	1:C:3996:ILE:HG22	1.63	0.40
1:E:191:TYR:CD2	1:E:209:GLN:HG2	2.56	0.40
1:E:288:HIS:CD2	1:E:352:SER:HA	2.56	0.40
1:E:436:LEU:HD23	1:E:436:LEU:HA	1.94	0.40
1:E:568:SER:HA	1:E:571:ILE:HB	2.02	0.40
1:E:705:PRO:HG2	1:E:840:TYR:HB3	2.02	0.40
1:E:866:PRO:HB3	1:E:1002:ASN:O	2.22	0.40
1:E:3620:LEU:HA	1:E:3620:LEU:HD23	1.86	0.40
1:E:4022:LEU:HA	1:E:4022:LEU:HD12	1.83	0.40
1:E:4513:ALA:HA	1:E:4516:PHE:HB3	2.02	0.40
1:E:4563:GLU:OE2	1:E:4569:MET:N	2.41	0.40
1:G:191:TYR:CD2	1:G:209:GLN:HG2	2.56	0.40
1:G:682:THR:HG23	1:G:751:THR:HG23	2.02	0.40
1:G:832:LEU:HD22	1:G:1617:TRP:CE2	2.56	0.40
1:G:1169:THR:OG1	1:G:1170:GLU:N	2.53	0.40
1:G:3587:VAL:HG21	2:H:122:VAL:HG13	2.03	0.40
1:G:3767:LEU:HA	1:G:3767:LEU:HD23	1.93	0.40
2:H:31:LYS:O	2:H:35:THR:OG1	2.26	0.40
1:A:478:ARG:O	1:A:482:LEU:N	2.45	0.40
1:A:490:GLN:O	1:A:490:GLN:NE2	2.55	0.40
1:A:1799:VAL:O	1:A:1803:SER:N	2.54	0.40
1:A:3588:TRP:HZ3	2:B:142:PHE:HD1	1.67	0.40
1:A:3909:LYS:O	1:A:3913:VAL:HG23	2.21	0.40
1:A:4105:ASN:O	1:A:4109:HIS:CB	2.69	0.40
2:B:31:LYS:O	2:B:35:THR:OG1	2.26	0.40
1:C:22:LEU:HA	1:C:22:LEU:HD23	1.89	0.40
1:C:262:TYR:HE2	1:C:374:TYR:HB3	1.87	0.40
1:C:801:ARG:NH2	1:C:810:GLU:OE1	2.43	0.40
1:C:915:HIS:ND1	1:C:918:LEU:HG	2.35	0.40
1:C:1100:ARG:HB3	1:C:1236:TYR:CZ	2.56	0.40
1:C:1110:ALA:HB1	1:C:1140:PHE:CZ	2.57	0.40
1:C:1304:LEU:HG	1:C:1541:PRO:HG2	2.03	0.40
1:C:2765:SER:OG	1:C:2766:GLU:OE2	2.38	0.40
1:C:3622:LEU:HD13	1:C:3622:LEU:HA	1.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4105:ASN:O	1:C:4109:HIS:CB	2.69	0.40
1:E:34:LYS:HE3	1:E:34:LYS:HB3	1.86	0.40
1:E:207:PHE:HB3	1:G:2326:ILE:O	2.21	0.40
1:E:490:GLN:O	1:E:490:GLN:NE2	2.55	0.40
1:E:1048:ASP:HA	1:E:1051:ARG:HB2	2.03	0.40
1:E:1224:LEU:HA	1:E:1224:LEU:HD23	1.88	0.40
1:E:3671:LEU:O	1:E:3675:THR:OG1	2.28	0.40
1:E:3909:LYS:O	1:E:3913:VAL:HG23	2.21	0.40
1:E:4602:LYS:HB3	1:E:4602:LYS:HE2	1.84	0.40
1:E:4894:ILE:HD13	1:E:4894:ILE:HA	1.90	0.40
1:G:277:LEU:HD12	1:G:277:LEU:HA	1.82	0.40
1:G:718:VAL:HA	1:G:736:CYS:H	1.86	0.40
1:G:1705:LEU:HD23	1:G:1705:LEU:HA	1.89	0.40
1:G:2024:LEU:HA	1:G:2024:LEU:HD23	1.90	0.40
1:G:3016:VAL:O	1:G:3020:ILE:N	2.54	0.40
1:G:3633:GLU:HA	1:G:3635:HIS:CD2	2.57	0.40
1:G:4635:VAL:O	1:G:4638:THR:OG1	2.29	0.40
1:G:4851:PHE:O	1:G:4855:VAL:N	2.50	0.40
1:A:262:TYR:HE2	1:A:374:TYR:HB3	1.87	0.40
1:A:277:LEU:HD12	1:A:277:LEU:HA	1.82	0.40
1:A:1587:HIS:HB2	1:A:1590:PHE:HD2	1.87	0.40
1:A:1761:MET:HB3	1:A:1763:PHE:CZ	2.57	0.40
1:A:1937:LEU:HA	1:A:1937:LEU:HD12	1.82	0.40
1:C:872:ILE:HD12	1:C:945:ALA:HB2	2.03	0.40
1:C:1587:HIS:HB2	1:C:1590:PHE:HD2	1.87	0.40
1:C:1799:VAL:O	1:C:1803:SER:N	2.54	0.40
1:C:3061:PHE:O	1:C:3065:ALA:N	2.55	0.40
1:C:3587:VAL:HG21	2:D:122:VAL:HG13	2.03	0.40
1:C:3633:GLU:HA	1:C:3635:HIS:CD2	2.57	0.40
1:C:3690:MET:HE3	1:C:3690:MET:HB3	1.96	0.40
1:C:3743:GLN:O	1:C:3746:SER:OG	2.37	0.40
1:E:73:LEU:HA	1:E:117:HIS:CE1	2.56	0.40
1:E:505:LEU:HD22	1:E:526:TRP:CD1	2.56	0.40
1:E:1100:ARG:HB3	1:E:1236:TYR:CZ	2.56	0.40
1:E:3016:VAL:O	1:E:3020:ILE:N	2.54	0.40
1:E:4140:MET:HE3	1:E:4144:LYS:HA	2.03	0.40
1:E:4897:ASP:O	1:E:4901:THR:N	2.54	0.40
1:G:238:HIS:N	1:G:243:GLU:O	2.50	0.40
1:G:405:LEU:HD13	1:G:405:LEU:HA	1.92	0.40
1:G:427:ASN:N	1:G:427:ASN:OD1	2.53	0.40
1:G:557:TRP:O	1:G:560:SER:OG	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:586:LEU:H	1:G:586:LEU:HG	1.67	0.40
1:G:1644:LEU:HD12	1:G:1644:LEU:HA	1.92	0.40
1:G:1799:VAL:O	1:G:1803:SER:N	2.54	0.40
1:G:2107:TYR:CG	1:G:2162:LEU:HD12	2.56	0.40
1:G:2765:SER:OG	1:G:2766:GLU:OE2	2.38	0.40
1:G:4046:LYS:HD3	1:G:4077:GLU:HB3	2.02	0.40
1:A:58:VAL:HG13	1:A:319:LYS:HB2	2.03	0.40
1:A:769:ARG:NH1	1:A:772:GLY:O	2.44	0.40
1:A:954:ASP:HB3	1:A:1061:GLY:HA3	2.03	0.40
1:A:2086:PHE:O	1:A:3692:TYR:OH	2.25	0.40
1:A:2107:TYR:CG	1:A:2162:LEU:HD12	2.56	0.40
1:A:2883:LYS:HA	1:A:2883:LYS:HD2	1.90	0.40
1:A:3155:ALA:O	1:A:3159:CYS:N	2.40	0.40
1:A:3688:LEU:H	1:A:3688:LEU:HD23	1.87	0.40
1:C:228:LEU:HD22	1:C:289:ILE:HD12	2.04	0.40
1:C:718:VAL:HA	1:C:736:CYS:H	1.87	0.40
1:C:832:LEU:HD22	1:C:1617:TRP:CE2	2.56	0.40
1:C:866:PRO:HB3	1:C:1002:ASN:O	2.22	0.40
1:C:918:LEU:HA	1:C:918:LEU:HD23	1.89	0.40
1:C:1761:MET:HB3	1:C:1763:PHE:CZ	2.57	0.40
1:C:1770:SER:O	1:C:1770:SER:OG	2.32	0.40
1:C:2119:ASN:O	1:C:2123:SER:OG	2.33	0.40
1:C:3756:VAL:O	1:C:3759:THR:OG1	2.32	0.40
1:C:3815:ALA:HA	1:C:3818:LEU:HG	2.04	0.40
1:C:4080:ASP:HB3	1:C:4083:GLU:HB3	2.04	0.40
1:C:4130:PHE:HA	1:C:4133:PHE:HD2	1.85	0.40
1:E:228:LEU:HD22	1:E:289:ILE:HD12	2.04	0.40
1:E:262:TYR:HE2	1:E:374:TYR:HB3	1.87	0.40
1:E:764:PRO:O	1:E:780:GLU:HA	2.21	0.40
1:E:1259:LEU:HA	1:E:1259:LEU:HD12	1.90	0.40
1:E:1269:GLU:O	1:E:1290:PHE:HA	2.21	0.40
1:E:2107:TYR:CG	1:E:2162:LEU:HD12	2.56	0.40
1:E:3859:LEU:HD23	1:E:3859:LEU:HA	1.82	0.40
1:E:4911:LEU:HD23	1:E:4911:LEU:HA	1.78	0.40
1:G:764:PRO:O	1:G:780:GLU:HA	2.21	0.40
1:G:1105:PHE:CD1	1:G:1215:MET:HG2	2.56	0.40
1:G:1259:LEU:HA	1:G:1259:LEU:HD12	1.90	0.40
1:G:1835:HIS:O	1:G:1837:GLU:N	2.54	0.40
1:G:2026:ILE:H	1:G:2026:ILE:HG13	1.70	0.40
1:G:3061:PHE:O	1:G:3065:ALA:N	2.55	0.40
1:A:228:LEU:HD22	1:A:289:ILE:HD12	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3966:ILE:O	1:A:3970:LYS:HG2	2.22	0.40
1:C:554:SER:O	1:C:558:LEU:HD12	2.22	0.40
1:C:1038:LEU:O	1:C:1043:LYS:NZ	2.52	0.40
1:C:1251:LEU:O	1:C:1601:ASN:N	2.48	0.40
1:C:1599:MET:O	1:C:1601:ASN:ND2	2.54	0.40
1:C:2087:VAL:O	1:C:2091:ARG:N	2.43	0.40
1:C:2164:ARG:NH2	1:C:2210:GLN:OE1	2.54	0.40
2:D:45:THR:O	2:D:49:LEU:N	2.46	0.40
1:E:661:LEU:O	1:E:788:PHE:N	2.55	0.40
1:E:812:LYS:HB3	1:E:812:LYS:HE3	1.86	0.40
1:E:1297:THR:O	1:E:1297:THR:OG1	2.30	0.40
1:E:1303:ARG:NH2	1:E:1304:LEU:O	2.55	0.40
1:E:1599:MET:O	1:E:1601:ASN:ND2	2.54	0.40
1:E:1632:ILE:HG12	1:E:1637:ARG:HG2	2.03	0.40
1:E:2164:ARG:NH2	1:E:2210:GLN:OE1	2.54	0.40
1:E:3633:GLU:HA	1:E:3635:HIS:CD2	2.57	0.40
1:E:3786:LYS:HE3	1:E:3786:LYS:HB3	1.97	0.40
1:E:4051:LYS:O	1:E:4055:SER:CB	2.70	0.40
1:E:4105:ASN:O	1:E:4109:HIS:CB	2.69	0.40
1:E:4144:LYS:HE2	1:E:4144:LYS:HB2	1.82	0.40
1:E:4730:SER:HA	1:E:4740:PHE:HE1	1.86	0.40
1:E:4872:GLY:O	1:E:4876:ASP:N	2.51	0.40
1:G:228:LEU:HD22	1:G:289:ILE:HD12	2.04	0.40
1:G:434:ASP:O	1:G:437:SER:OG	2.28	0.40
1:G:687:THR:HB	1:G:689:GLU:HB3	2.02	0.40
1:G:1100:ARG:HB3	1:G:1236:TYR:CZ	2.56	0.40
1:G:1261:VAL:HA	1:G:1596:TRP:HH2	1.84	0.40
1:G:1761:MET:HB3	1:G:1763:PHE:CZ	2.57	0.40
1:G:2667:LEU:O	1:G:2671:SER:N	2.45	0.40
1:G:3014:VAL:O	1:G:3018:HIS:N	2.54	0.40
1:G:4853:PHE:HA	1:G:4856:ILE:HB	2.02	0.40
1:G:4872:GLY:O	1:G:4876:ASP:N	2.51	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	3387/4968 (68%)	2919 (86%)	459 (14%)	9 (0%)	41	76
1	C	3387/4968 (68%)	2917 (86%)	460 (14%)	10 (0%)	41	76
1	E	3387/4968 (68%)	2921 (86%)	457 (14%)	9 (0%)	41	76
1	G	3387/4968 (68%)	2920 (86%)	458 (14%)	9 (0%)	41	76
2	B	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	D	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	F	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	H	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
All	All	14060/20468 (69%)	12157 (86%)	1866 (13%)	37 (0%)	44	76

All (37) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	4521	TYR
1	A	853	PRO
1	A	1580	PRO
1	A	2309	CYS
1	C	853	PRO
1	C	1580	PRO
1	C	2309	CYS
1	E	853	PRO
1	E	1580	PRO
1	E	2309	CYS
1	G	853	PRO
1	G	1580	PRO
1	G	2309	CYS
1	A	3631	GLU
1	C	3631	GLU
1	E	3631	GLU
1	G	3631	GLU
1	A	828	PRO
1	A	1990	PRO
1	A	4646	TRP
1	C	828	PRO
1	C	1990	PRO
1	C	4646	TRP

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Mol	Chain	Res	Type
1	E	828	PRO
1	E	1990	PRO
1	E	4646	TRP
1	G	828	PRO
1	G	1990	PRO
1	G	4646	TRP
1	A	1848	PRO
1	C	1848	PRO
1	E	1848	PRO
1	G	1848	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	2675/4355 (61%)	2627 (98%)	48 (2%)	59	77
1	C	2675/4355 (61%)	2627 (98%)	48 (2%)	59	77
1	E	2676/4355 (61%)	2626 (98%)	50 (2%)	57	75
1	G	2675/4355 (61%)	2626 (98%)	49 (2%)	59	77
2	B	112/127 (88%)	112 (100%)	0	100	100
2	D	112/127 (88%)	112 (100%)	0	100	100
2	F	112/127 (88%)	112 (100%)	0	100	100
2	H	112/127 (88%)	112 (100%)	0	100	100
All	All	11149/17928 (62%)	10954 (98%)	195 (2%)	62	78

All (195) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	15	ARG

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Mol	Chain	Res	Type
1	A	73	LEU
1	A	78	LEU
1	A	79	GLN
1	A	81	MET
1	A	176	ARG
1	A	203	VAL
1	A	237	LEU
1	A	602	ASP
1	A	647	ARG
1	A	789	PHE
1	A	841	LYS
1	A	989	THR
1	A	1013	ARG
1	A	1214	ARG
1	A	1228	THR
1	A	1298	ASP
1	A	1601	ASN
1	A	1652	LYS
1	A	1930	SER
1	A	2070	TRP
1	A	2198	CYS
1	A	2217	ASP
1	A	2392	PHE
1	A	2420	ILE
1	A	3694	ASP
1	A	3840	LEU
1	A	3855	PHE
1	A	3893	TYR
1	A	3900	ASP
1	A	3936	LEU
1	A	3941	LEU
1	A	3943	ASP
1	A	3983	LEU
1	A	4009	ASN
1	A	4010	ASN
1	A	4047	ARG
1	A	4048	ASP
1	A	4049	PHE
1	A	4079	LEU
1	A	4087	ARG
1	A	4095	ILE
1	A	4115	ARG

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Mol	Chain	Res	Type
1	A	4781	LEU
1	A	4785	VAL
1	A	4809	ASP
1	A	4876	ASP
1	A	4962	GLN
1	C	15	ARG
1	C	73	LEU
1	C	78	LEU
1	C	79	GLN
1	C	81	MET
1	C	176	ARG
1	C	203	VAL
1	C	237	LEU
1	C	602	ASP
1	C	647	ARG
1	C	789	PHE
1	C	841	LYS
1	C	989	THR
1	C	1013	ARG
1	C	1214	ARG
1	C	1228	THR
1	C	1298	ASP
1	C	1601	ASN
1	C	1652	LYS
1	C	1930	SER
1	C	2070	TRP
1	C	2198	CYS
1	C	2217	ASP
1	C	2392	PHE
1	C	2420	ILE
1	C	3694	ASP
1	C	3840	LEU
1	C	3855	PHE
1	C	3893	TYR
1	C	3900	ASP
1	C	3936	LEU
1	C	3941	LEU
1	C	3943	ASP
1	C	3983	LEU
1	C	4009	ASN
1	C	4010	ASN
1	C	4047	ARG

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Mol	Chain	Res	Type
1	C	4048	ASP
1	C	4049	PHE
1	C	4079	LEU
1	C	4087	ARG
1	C	4095	ILE
1	C	4115	ARG
1	C	4781	LEU
1	C	4785	VAL
1	C	4809	ASP
1	C	4876	ASP
1	C	4962	GLN
1	E	15	ARG
1	E	73	LEU
1	E	78	LEU
1	E	79	GLN
1	E	81	MET
1	E	82	LEU
1	E	84	ASN
1	E	176	ARG
1	E	203	VAL
1	E	237	LEU
1	E	602	ASP
1	E	647	ARG
1	E	789	PHE
1	E	841	LYS
1	E	989	THR
1	E	1013	ARG
1	E	1214	ARG
1	E	1228	THR
1	E	1298	ASP
1	E	1601	ASN
1	E	1652	LYS
1	E	1930	SER
1	E	2070	TRP
1	E	2198	CYS
1	E	2217	ASP
1	E	2392	PHE
1	E	2420	ILE
1	E	3694	ASP
1	E	3840	LEU
1	E	3855	PHE
1	E	3893	TYR

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Mol	Chain	Res	Type
1	E	3900	ASP
1	E	3936	LEU
1	E	3941	LEU
1	E	3943	ASP
1	E	3983	LEU
1	E	4009	ASN
1	E	4010	ASN
1	E	4047	ARG
1	E	4048	ASP
1	E	4049	PHE
1	E	4079	LEU
1	E	4087	ARG
1	E	4095	ILE
1	E	4115	ARG
1	E	4781	LEU
1	E	4785	VAL
1	E	4809	ASP
1	E	4876	ASP
1	E	4962	GLN
1	G	15	ARG
1	G	73	LEU
1	G	78	LEU
1	G	79	GLN
1	G	81	MET
1	G	82	LEU
1	G	176	ARG
1	G	203	VAL
1	G	237	LEU
1	G	602	ASP
1	G	647	ARG
1	G	789	PHE
1	G	841	LYS
1	G	989	THR
1	G	1013	ARG
1	G	1214	ARG
1	G	1228	THR
1	G	1298	ASP
1	G	1601	ASN
1	G	1652	LYS
1	G	1930	SER
1	G	2070	TRP
1	G	2198	CYS

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Mol	Chain	Res	Type
1	G	2217	ASP
1	G	2392	PHE
1	G	2420	ILE
1	G	3694	ASP
1	G	3840	LEU
1	G	3855	PHE
1	G	3893	TYR
1	G	3900	ASP
1	G	3936	LEU
1	G	3941	LEU
1	G	3943	ASP
1	G	3983	LEU
1	G	4009	ASN
1	G	4010	ASN
1	G	4047	ARG
1	G	4048	ASP
1	G	4049	PHE
1	G	4079	LEU
1	G	4087	ARG
1	G	4095	ILE
1	G	4115	ARG
1	G	4781	LEU
1	G	4785	VAL
1	G	4809	ASP
1	G	4876	ASP
1	G	4962	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (202) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	32	GLN
1	A	57	ASN
1	A	84	ASN
1	A	123	HIS
1	A	394	HIS
1	A	476	GLN
1	A	531	ASN
1	A	593	HIS
1	A	628	ASN
1	A	681	HIS
1	A	836	HIS

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Mol	Chain	Res	Type
1	A	1149	ASN
1	A	1265	HIS
1	A	1440	ASN
1	A	1523	ASN
1	A	1601	ASN
1	A	1602	GLN
1	A	1654	HIS
1	A	1656	HIS
1	A	1722	ASN
1	A	1906	GLN
1	A	1938	GLN
1	A	1940	ASN
1	A	1941	GLN
1	A	2211	ASN
1	A	2251	ASN
1	A	2317	ASN
1	A	2442	GLN
1	A	2831	ASN
1	A	2839	HIS
1	A	3729	GLN
1	A	3743	GLN
1	A	3776	GLN
1	A	3856	GLN
1	A	3906	ASN
1	A	3916	GLN
1	A	3926	GLN
1	A	3932	ASN
1	A	3961	GLN
1	A	3990	ASN
1	A	3993	ASN
1	A	4098	ASN
1	A	4128	ASN
1	A	4179	ASN
1	A	4499	ASN
1	A	4515	ASN
1	A	4643	ASN
1	A	4763	HIS
1	A	4918	ASN
1	C	23	GLN
1	C	32	GLN
1	C	57	ASN
1	C	84	ASN

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Mol	Chain	Res	Type
1	C	123	HIS
1	C	394	HIS
1	C	476	GLN
1	C	531	ASN
1	C	593	HIS
1	C	628	ASN
1	C	681	HIS
1	C	836	HIS
1	C	1149	ASN
1	C	1265	HIS
1	C	1440	ASN
1	C	1523	ASN
1	C	1601	ASN
1	C	1602	GLN
1	C	1654	HIS
1	C	1656	HIS
1	C	1722	ASN
1	C	1906	GLN
1	C	1938	GLN
1	C	1940	ASN
1	C	1941	GLN
1	C	2211	ASN
1	C	2251	ASN
1	C	2317	ASN
1	C	2442	GLN
1	C	2831	ASN
1	C	2839	HIS
1	C	3729	GLN
1	C	3743	GLN
1	C	3776	GLN
1	C	3856	GLN
1	C	3906	ASN
1	C	3916	GLN
1	C	3926	GLN
1	C	3932	ASN
1	C	3961	GLN
1	C	3990	ASN
1	C	3993	ASN
1	C	4098	ASN
1	C	4117	GLN
1	C	4128	ASN
1	C	4131	GLN

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Mol	Chain	Res	Type
1	C	4179	ASN
1	C	4499	ASN
1	C	4515	ASN
1	C	4643	ASN
1	C	4763	HIS
1	C	4918	ASN
1	E	23	GLN
1	E	32	GLN
1	E	57	ASN
1	E	84	ASN
1	E	123	HIS
1	E	394	HIS
1	E	476	GLN
1	E	531	ASN
1	E	593	HIS
1	E	628	ASN
1	E	681	HIS
1	E	836	HIS
1	E	1149	ASN
1	E	1265	HIS
1	E	1440	ASN
1	E	1523	ASN
1	E	1601	ASN
1	E	1602	GLN
1	E	1654	HIS
1	E	1656	HIS
1	E	1722	ASN
1	E	1906	GLN
1	E	1938	GLN
1	E	1940	ASN
1	E	1941	GLN
1	E	2211	ASN
1	E	2251	ASN
1	E	2317	ASN
1	E	2442	GLN
1	E	2831	ASN
1	E	2839	HIS
1	E	3729	GLN
1	E	3743	GLN
1	E	3776	GLN
1	E	3856	GLN
1	E	3906	ASN

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Mol	Chain	Res	Type
1	E	3916	GLN
1	E	3926	GLN
1	E	3932	ASN
1	E	3961	GLN
1	E	3990	ASN
1	E	3993	ASN
1	E	4098	ASN
1	E	4128	ASN
1	E	4179	ASN
1	E	4499	ASN
1	E	4515	ASN
1	E	4643	ASN
1	E	4763	HIS
1	E	4918	ASN
1	G	23	GLN
1	G	32	GLN
1	G	57	ASN
1	G	84	ASN
1	G	123	HIS
1	G	394	HIS
1	G	476	GLN
1	G	531	ASN
1	G	593	HIS
1	G	628	ASN
1	G	681	HIS
1	G	836	HIS
1	G	1149	ASN
1	G	1265	HIS
1	G	1440	ASN
1	G	1523	ASN
1	G	1601	ASN
1	G	1602	GLN
1	G	1654	HIS
1	G	1656	HIS
1	G	1722	ASN
1	G	1906	GLN
1	G	1938	GLN
1	G	1940	ASN
1	G	1941	GLN
1	G	2211	ASN
1	G	2251	ASN
1	G	2317	ASN

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Mol	Chain	Res	Type
1	G	2442	GLN
1	G	2831	ASN
1	G	2839	HIS
1	G	3729	GLN
1	G	3743	GLN
1	G	3776	GLN
1	G	3856	GLN
1	G	3906	ASN
1	G	3916	GLN
1	G	3926	GLN
1	G	3932	ASN
1	G	3961	GLN
1	G	3990	ASN
1	G	3993	ASN
1	G	4098	ASN
1	G	4128	ASN
1	G	4179	ASN
1	G	4499	ASN
1	G	4515	ASN
1	G	4643	ASN
1	G	4763	HIS
1	G	4918	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 24 ligands modelled in this entry, 24 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

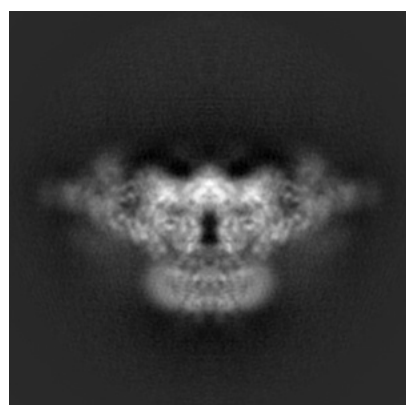
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9889. These allow visual inspection of the internal detail of the map and identification of artifacts.

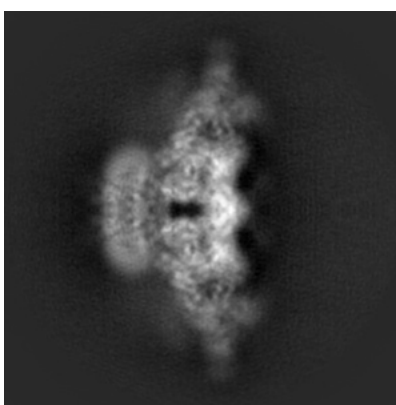
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

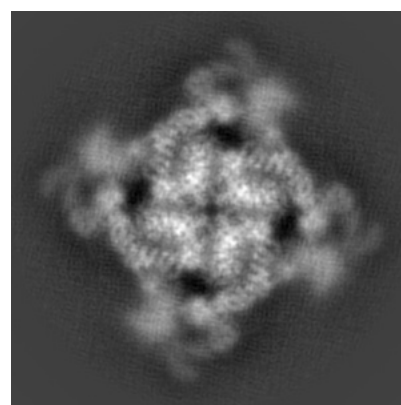
6.1.1 Primary map



X



Y

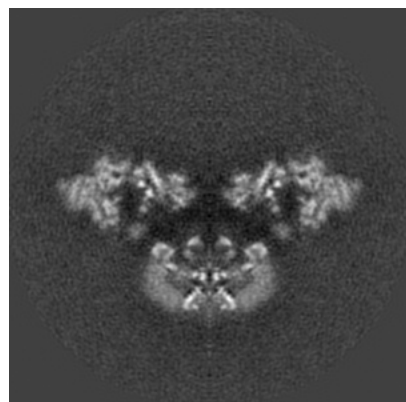


Z

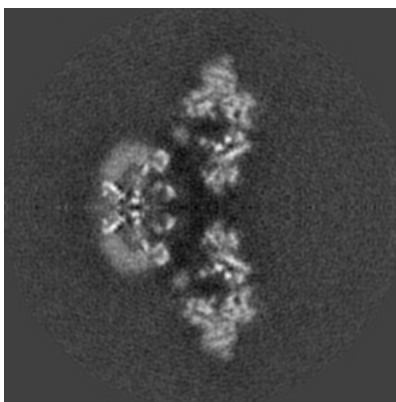
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

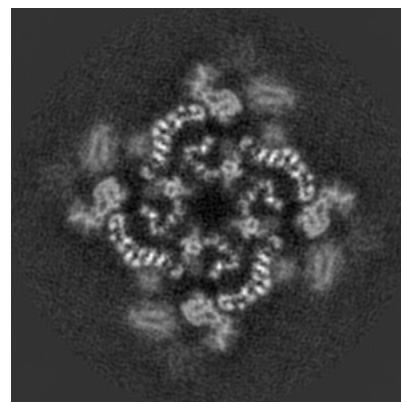
6.2.1 Primary map



X Index: 200



Y Index: 200

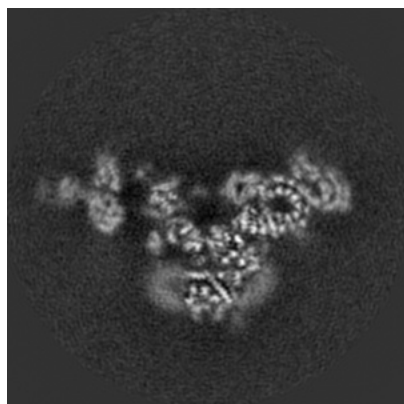


Z Index: 200

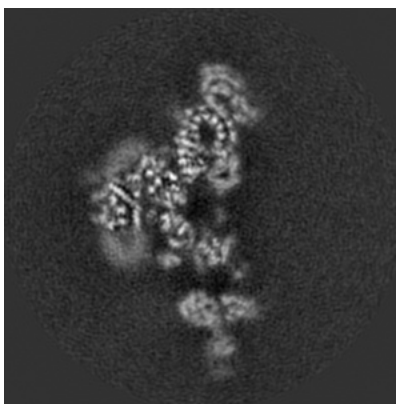
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

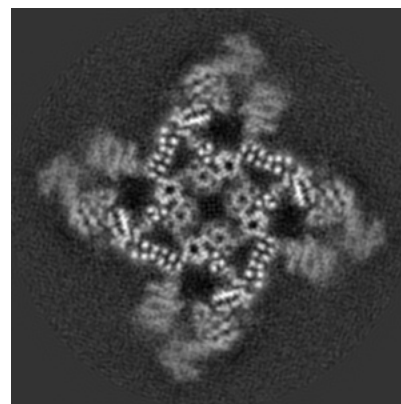
6.3.1 Primary map



X Index: 187



Y Index: 213



Z Index: 211

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

6.4 Orthogonal surface views [i](#)

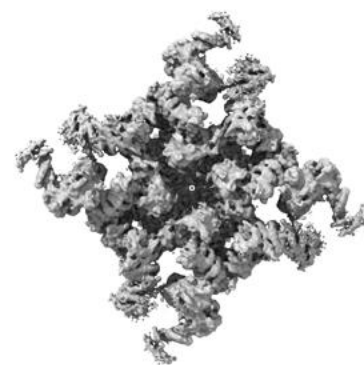
6.4.1 Primary map



X



Y



Z

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.

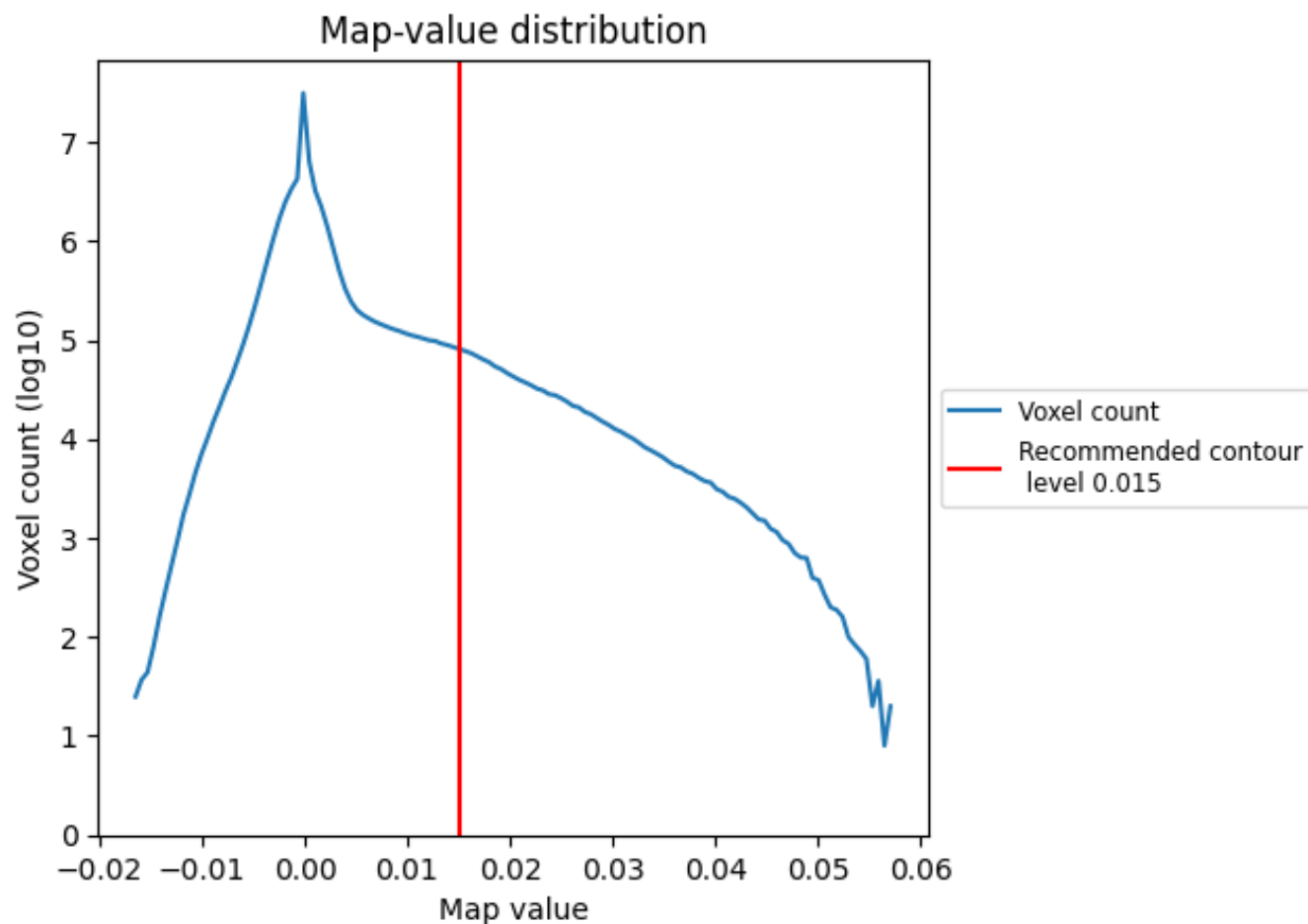
6.5 Mask visualisation

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

7 Map analysis [i](#)

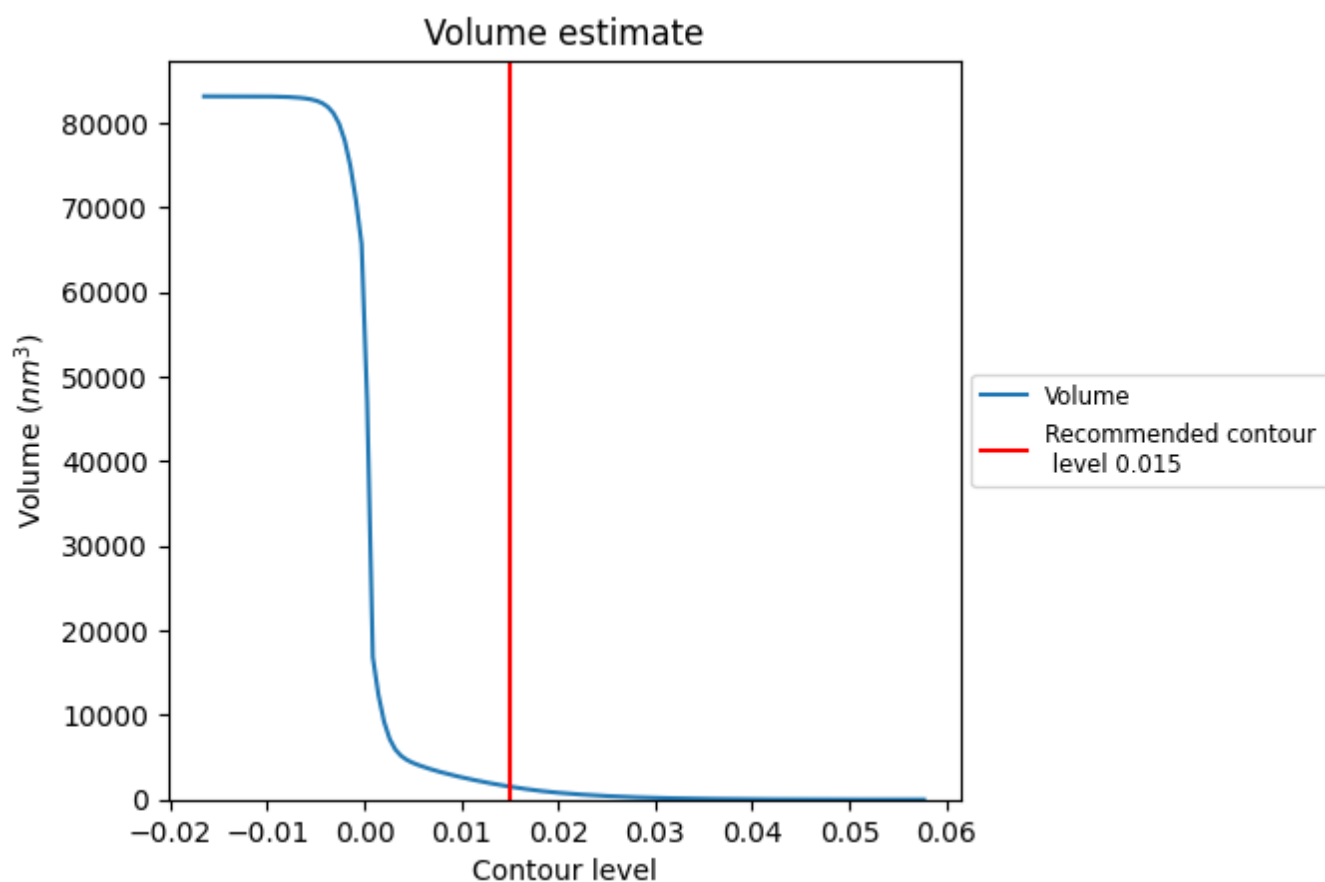
This section contains the results of statistical analysis of the map.

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.

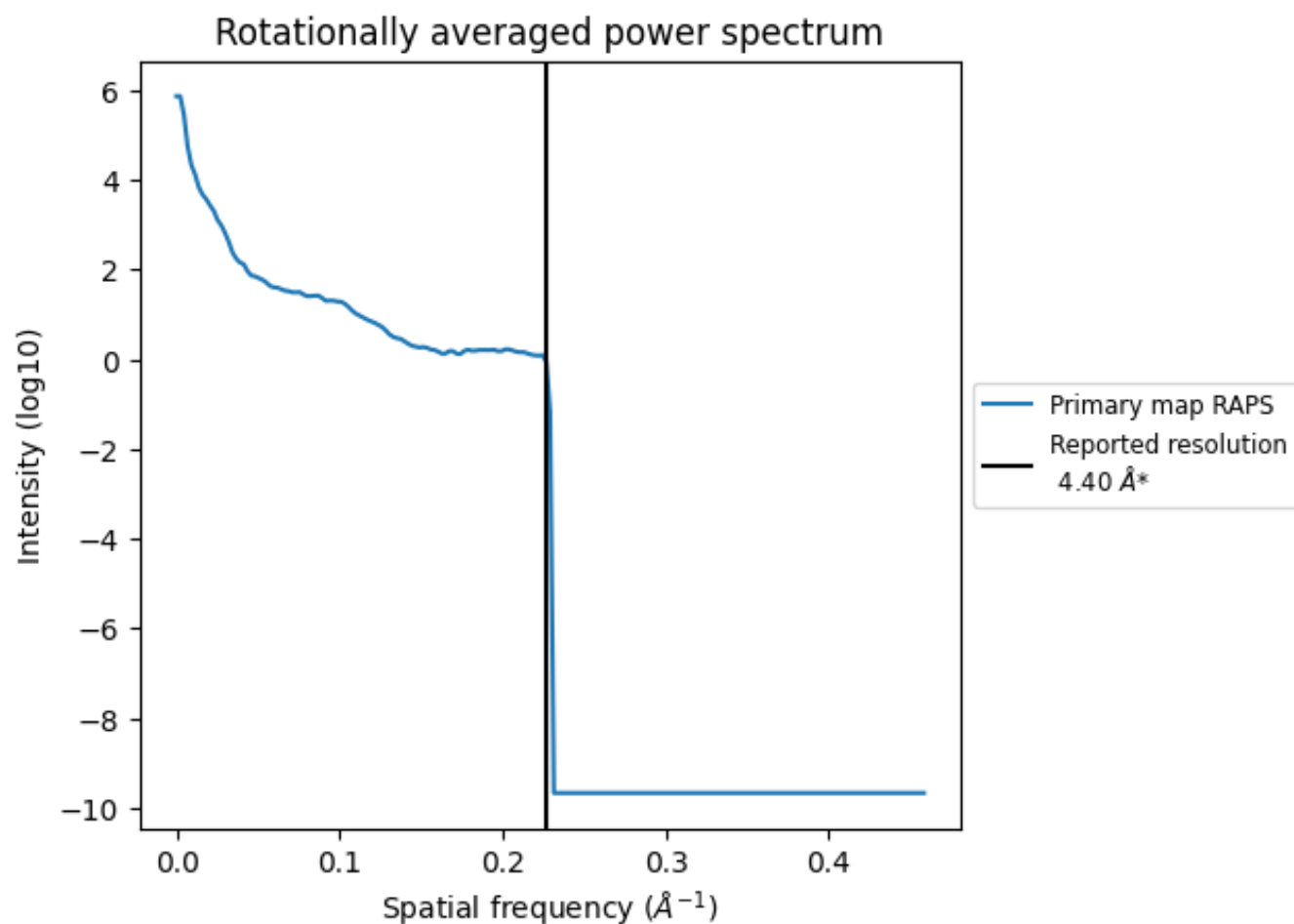
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1535 nm³; this corresponds to an approximate mass of 1386 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 ⓘ

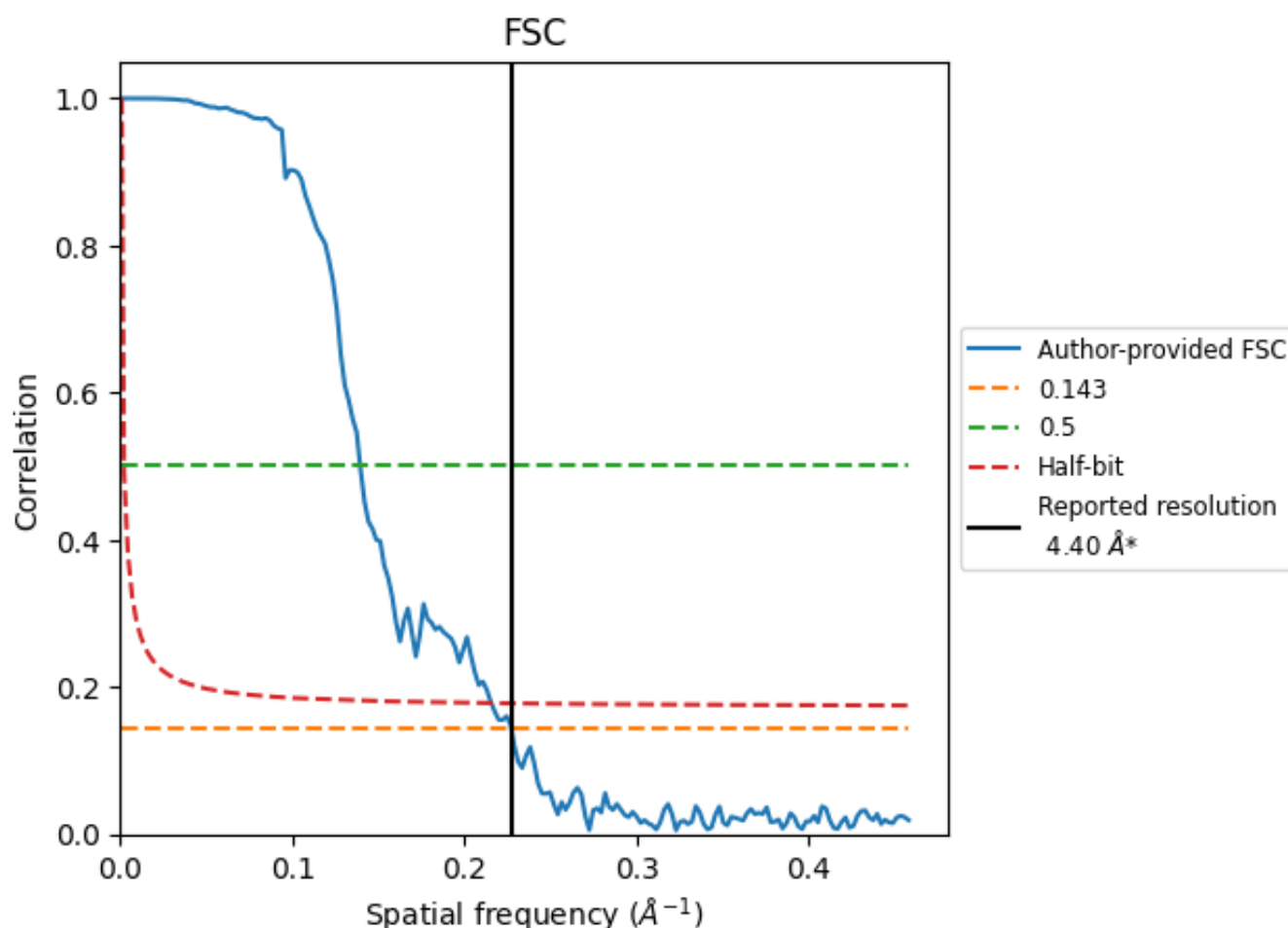


*Reported resolution corresponds to spatial frequency of 0.227 Å⁻¹

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 0.227 Å⁻¹

8.2 Resolution estimates [i](#)

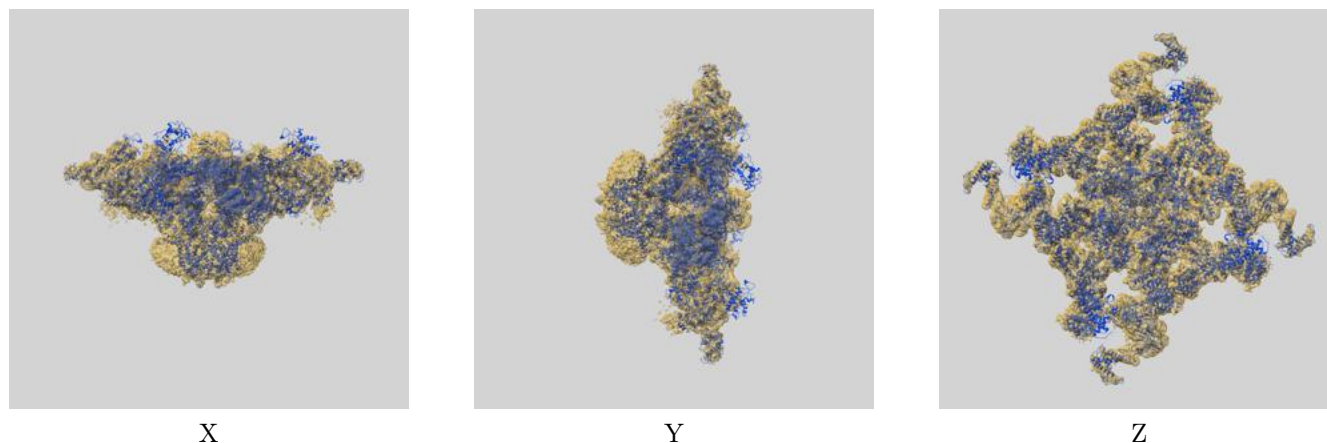
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.40	-	-
Author-provided FSC curve	4.40	7.17	4.64
Unmasked-calculated*	-	-	-

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

9 Map-model fit [i](#)

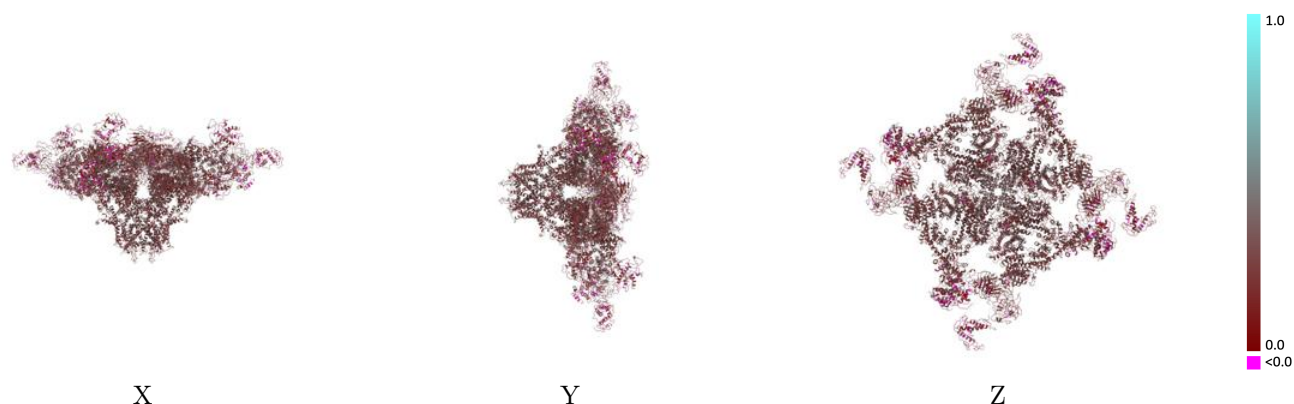
This section contains information regarding the fit between EMDB map EMD-9889 and PDB model 6JV2. Per-residue inclusion information can be found in section [3](#) on page [5](#).

9.1 Map-model overlay [i](#)



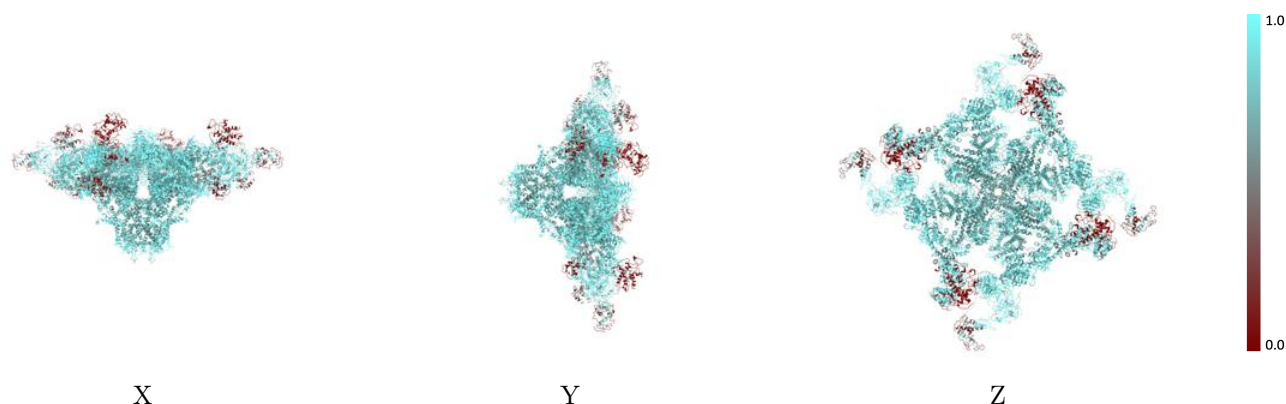
The images above show the 3D surface view of the map at the recommended contour level 0.015 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



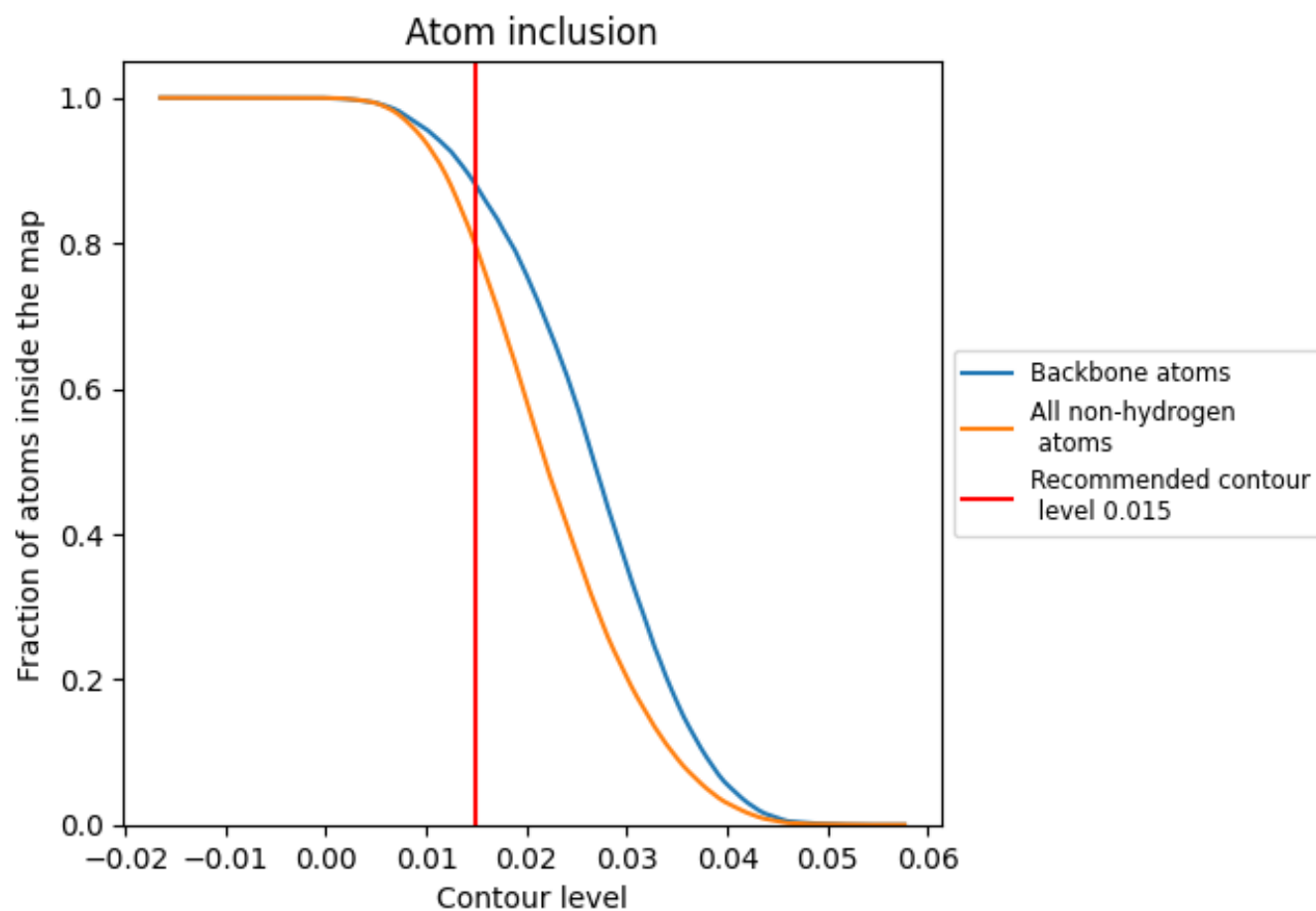
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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, 88% 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	<div></div> 0.7942	<div></div> 0.2670
A	<div></div> 0.8125	<div></div> 0.2680
B	<div></div> 0.3295	<div></div> 0.2230
C	<div></div> 0.8126	<div></div> 0.2690
D	<div></div> 0.3285	<div></div> 0.2250
E	<div></div> 0.8128	<div></div> 0.2680
F	<div></div> 0.3295	<div></div> 0.2220
G	<div></div> 0.8121	<div></div> 0.2680
H	<div></div> 0.3285	<div></div> 0.2210

