



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 09:14 PM UTC

PDB ID : 8X4B / pdb_00008x4b
EMDB ID : EMD-38045
Title : Cryo-EM structure of Ryanodine receptor 1 (TM helix S0,100 nM Ca²⁺, open state)
Authors : Chen, Q.; Hu, H.
Deposited on : 2023-11-15
Resolution : 4.20 Å(reported)

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

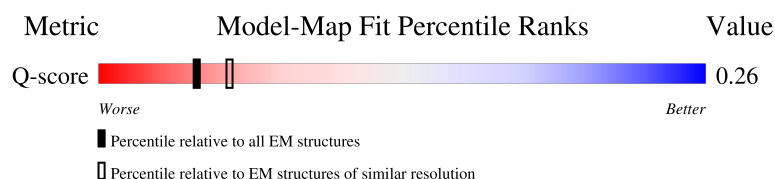
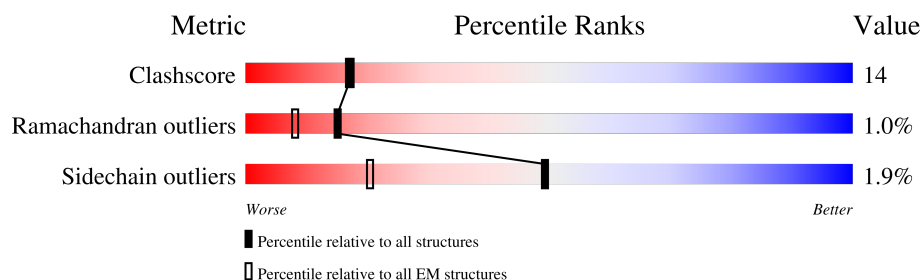
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 4.20 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	5410 (3.70 - 4.70)

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	5037	10% 66% 16% • 17%
1	B	5037	10% 65% 16% • 17%
1	C	5037	10% 66% 16% • 17%
1	D	5037	10% 66% 16% • 17%

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 110456 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 Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4173	Total	C	N	O	S	0	0
			27613	17058	5114	5292	149		
1	B	4173	Total	C	N	O	S	0	0
			27613	17058	5114	5292	149		
1	C	4173	Total	C	N	O	S	0	0
			27613	17058	5114	5292	149		
1	D	4173	Total	C	N	O	S	0	0
			27613	17058	5114	5292	149		

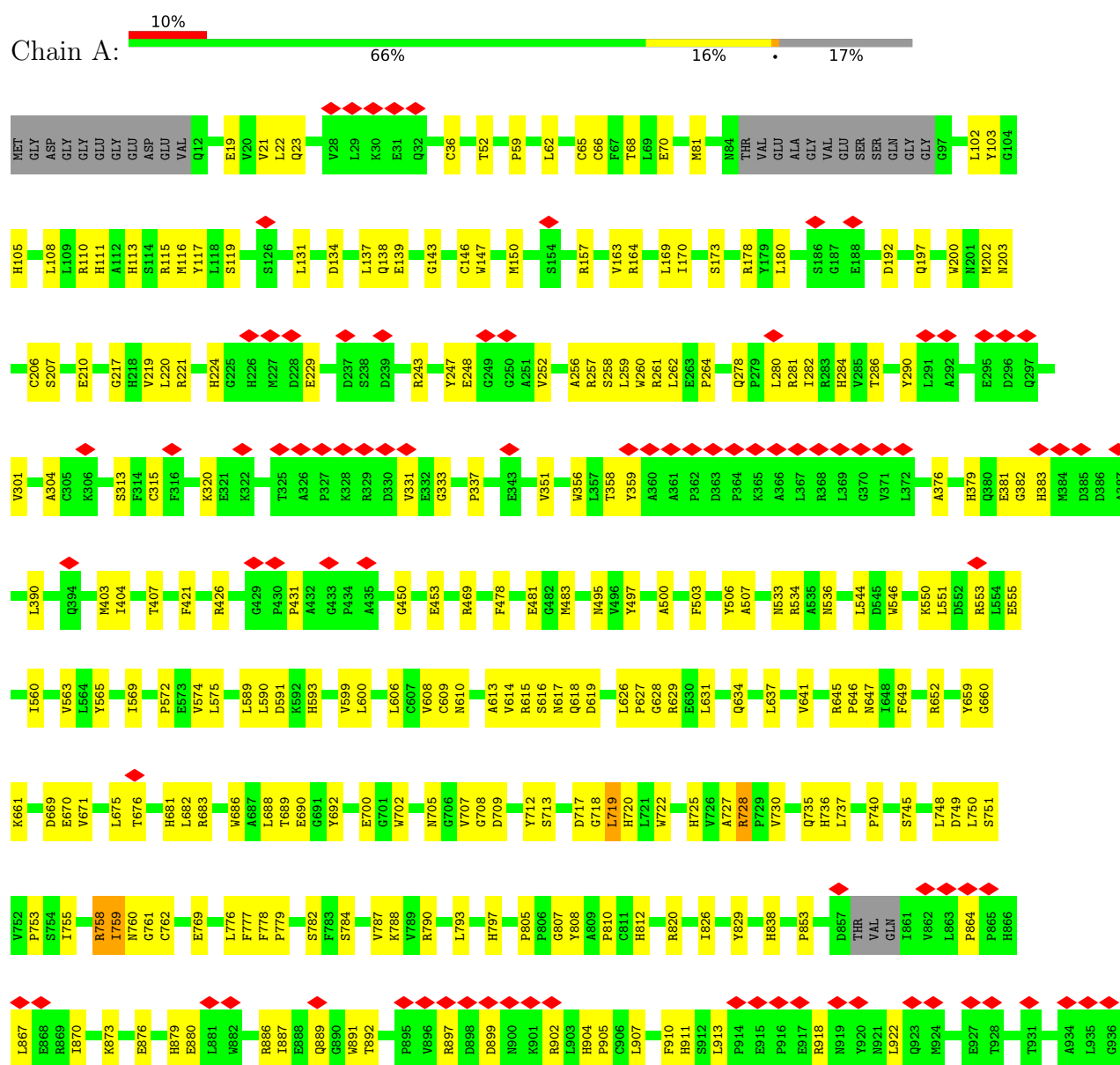
- Molecule 2 is CALCIUM ION (CCD ID: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

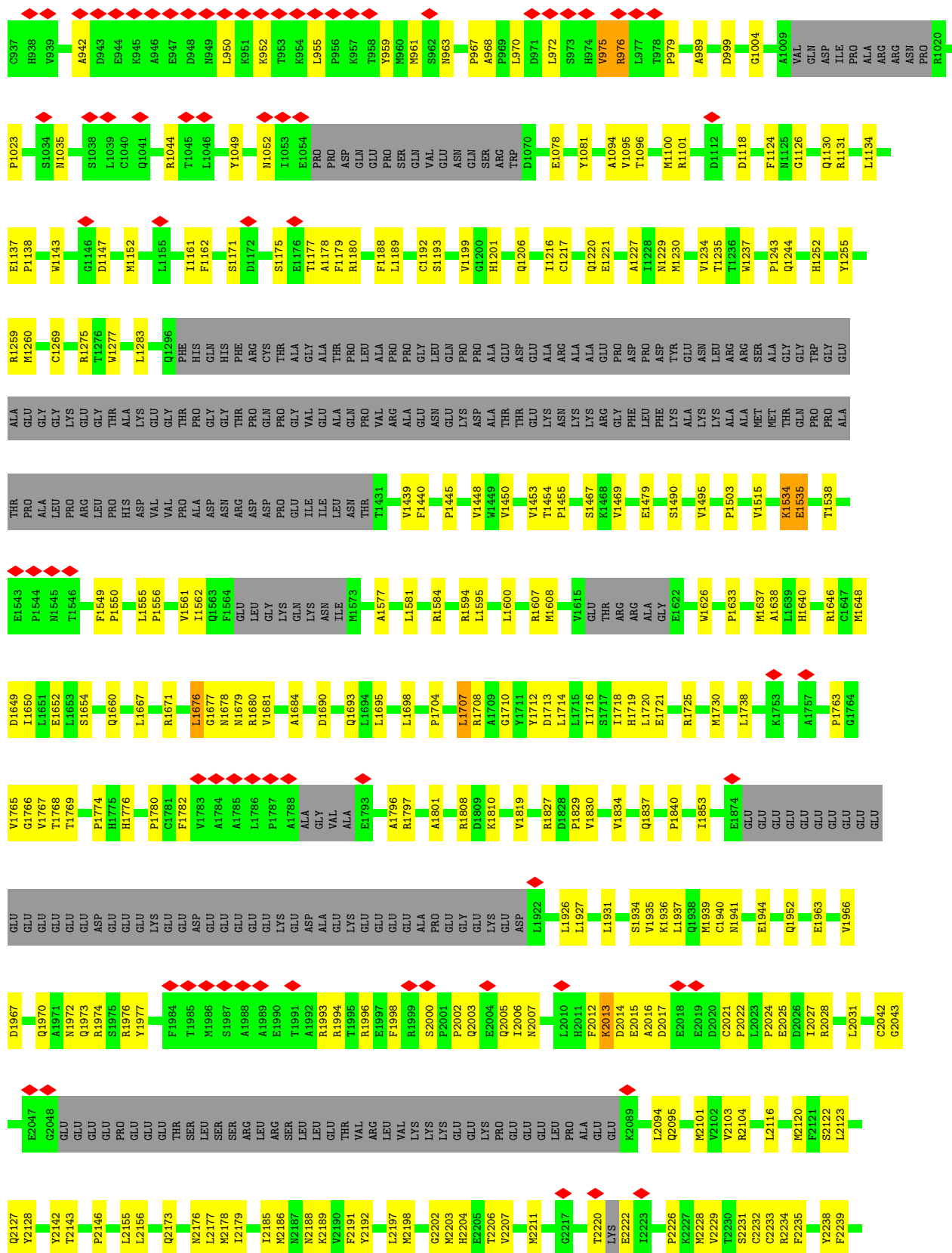
Mol	Chain	Residues	Atoms		AltConf
2	A	1	Total	Ca	0
			1	1	
2	B	1	Total	Ca	0
			1	1	
2	C	1	Total	Ca	0
			1	1	
2	D	1	Total	Ca	0
			1	1	

3 Residue-property plots

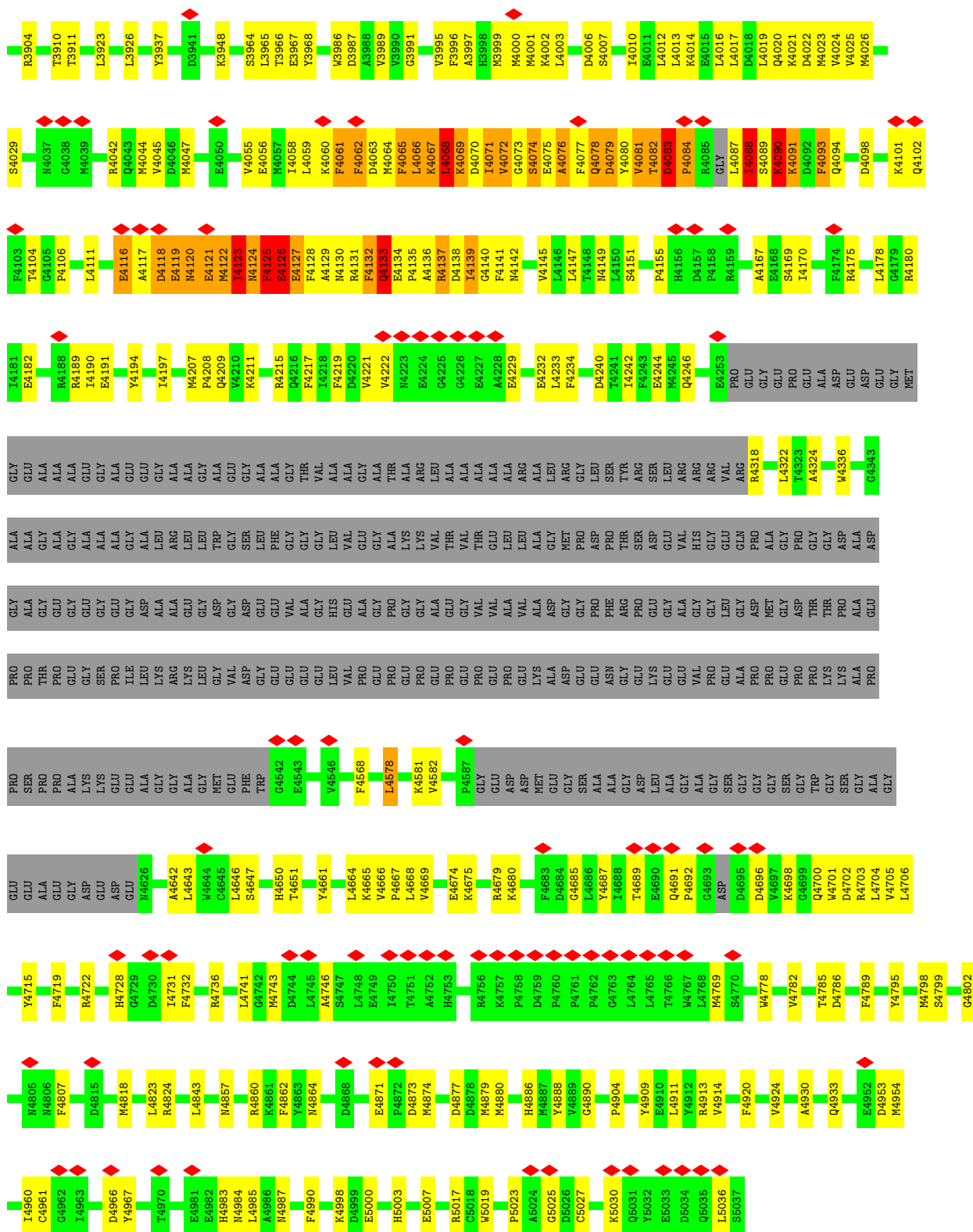
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: Ryanodine receptor 1









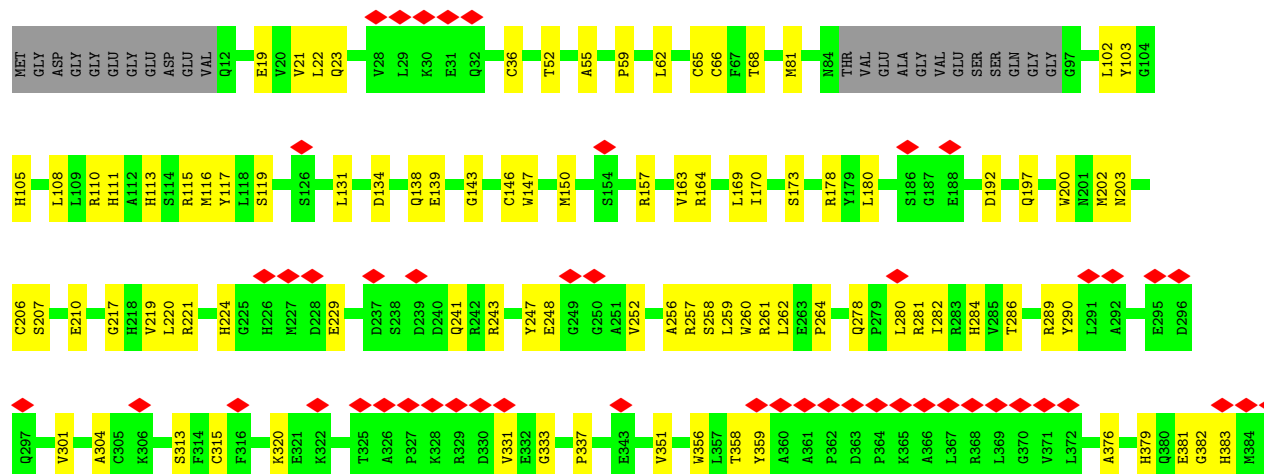
- Molecule 1: Ryanodine receptor 1





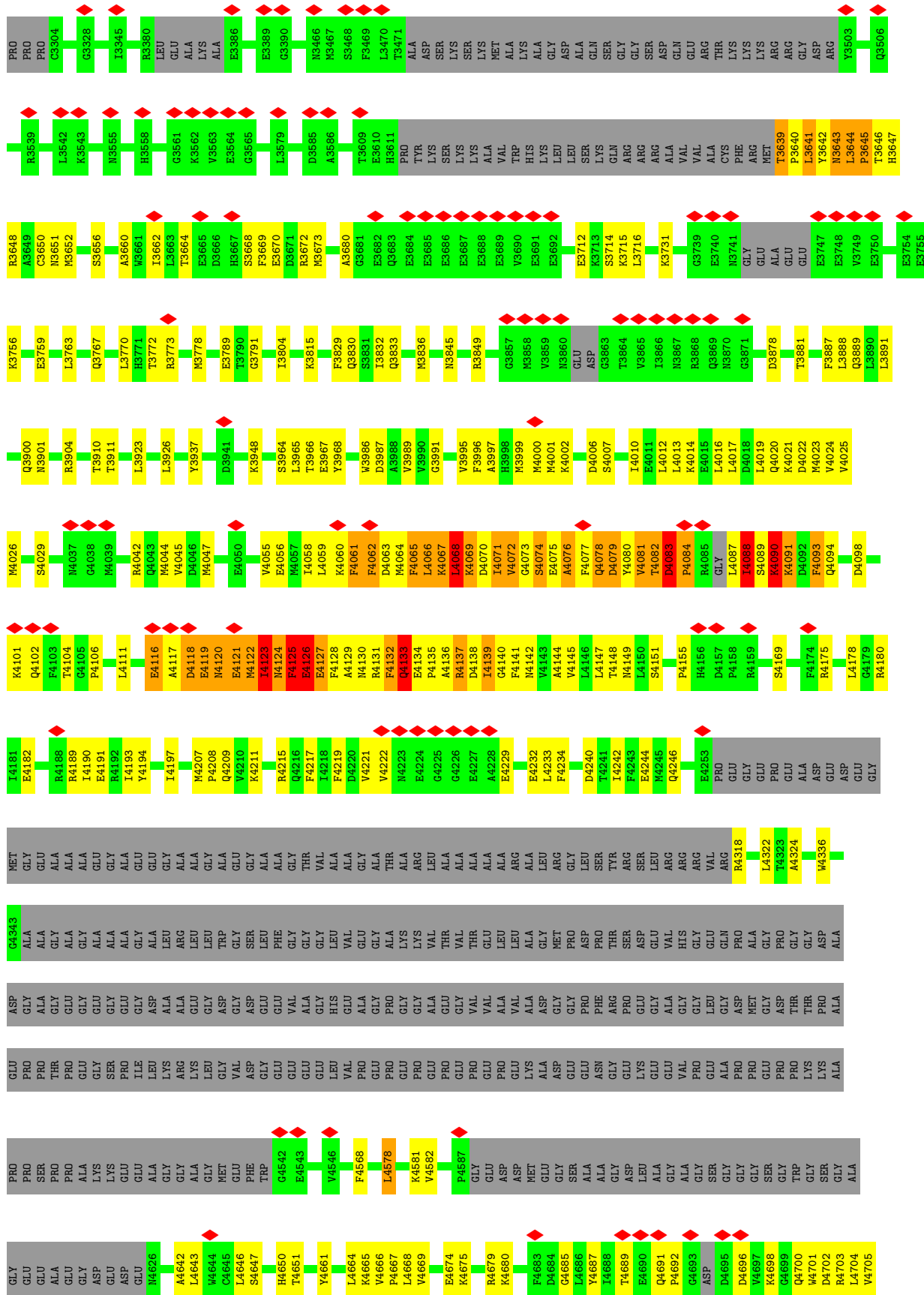


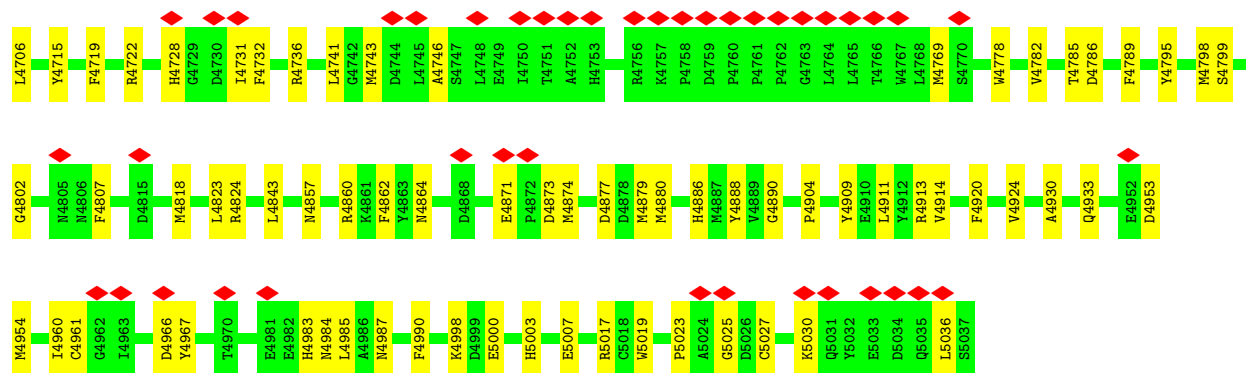




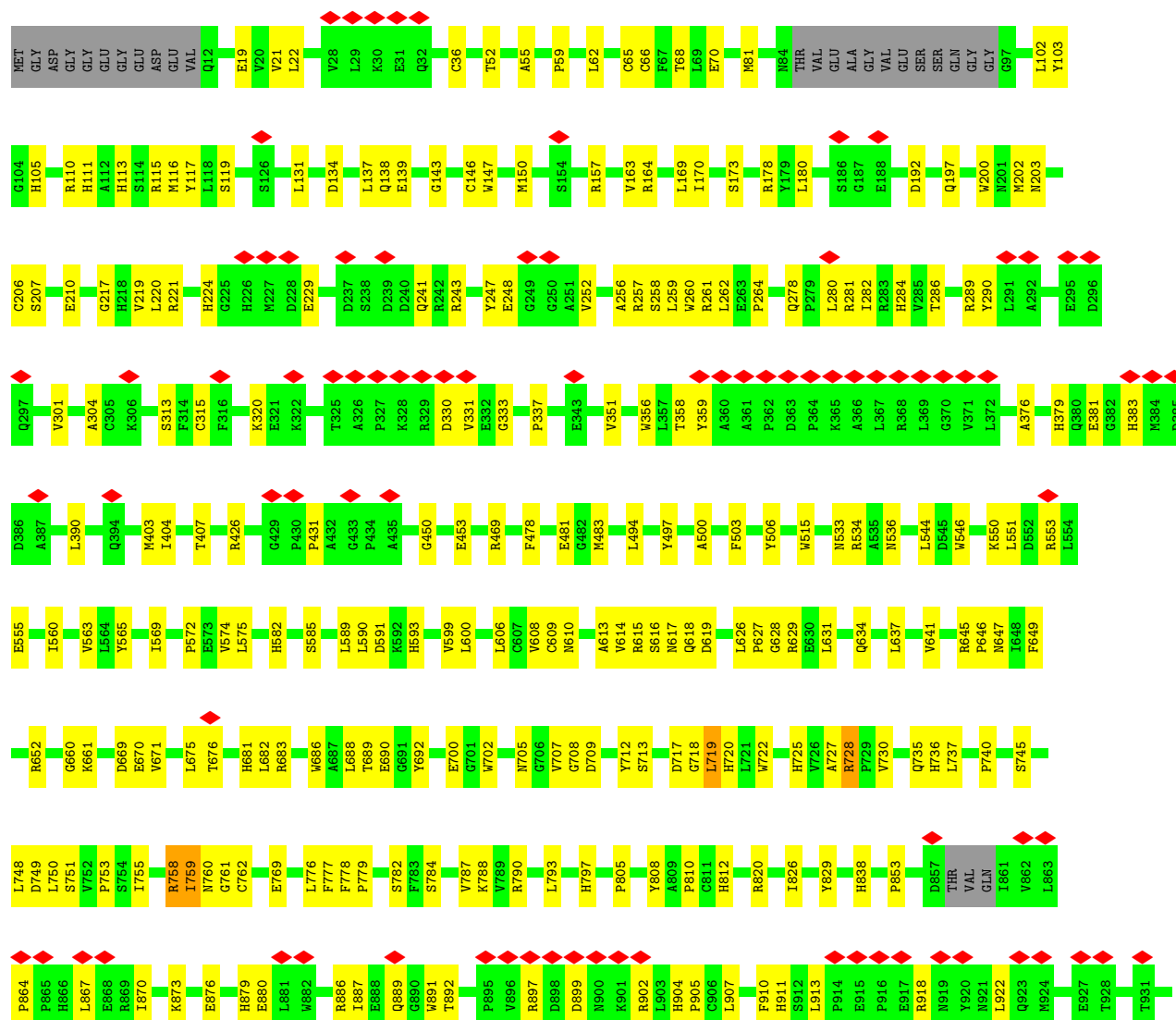








• Molecule 1: Ryanodine receptor 1



L2116	M2120	F2121	S2122	L2123	Q2127	Y2128	Y2142	T2143	P2146	L2155	L2156	Q2173	L2177	M2178	I2179	T2185	M2186	M2187	N2188	K2189	V2190	F2191	Y2192	L2197	M2198	M2203	T2206	V2207	M2211	G2217	T2220	LVS	E2222	I2223	P2226	K2227	M2228	V2229	T2230	S2231	C2232	C2233	R2234	F2235								
E1944	Q1952	E1963	V1966	D1967	Q1970	A1971	N1972	Q1973	R1974	S1975	Y1977	F1984	T1985	M1986	S1987	A1988	A1989	E1990	T1991	A1992	R1993	R1994	T1995	R1996	E1997	F1998	R1999	S2000	P2001	P2002	Q2003	E2004	Q2005	L2006	N2007	L2010	H2011	F2012	D2014	E2015	A2016	D2017	E2018	E2019	D2020	C2021	P2022	L2023	P2024	E2025	D2026	
I2027	R2028	L2031	C2042	G2043	E2047	G2048	GLU	GLU	GLU	GLU	PRO	GLU	THR	SER	LEU	SER	ARG	LEU	ARG	SER	LEU	GLU	THR	VAL	ARG	LEU	VAL	LYS	LYS	LYS	GLU	LYS	PRO	GLU	LEU	PRO	ALA	GLU	R2089	L2094	Q2095	M2101	V2102	V2103	R2104							
A1757	P1763	G1764	V1765	G1766	V1767	T1768	T1769	P1774	H1775	H1776	P1780	G1781	F1782	V1783	A1784	A1785	L1786	P1787	A1788	ALA	GLY	VAL	ALA	E1793	A1796	R1797	A1801	R1808	D1809	K1810	V1819	R1827	D1828	P1829	V1830	V1834	Q1837	P1840	I1853	E1867	P1868	E1874	GLU	GLU								
GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	ASP	GLU	GLU	LYS	GLU	ASP	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	ASP	L1922	L1926	L1927	L1931	S1934	V1935	K1936	L1937	Q1938	M1939	C1940	N1941							
R1646	C1647	M1648	D1649	I1650	L1651	E1652	L1653	S1654	Q1660	L1667	R1671	L1676	G1677	N1678	N1679	R1680	V1681	A1684	D1690	Q1693	L1694	L1695	L1698	P1704	L1707	R1708	A1709	G1710	Y1711	D1712	D1713	L1714	L1715	I1716	S1717	H1718	H1719	L1720	E1721	R1725	M1730	L1738	K1753									
E1535	T1538	E1543	P1544	M1545	T1546	F1549	P1550	L1555	P1556	V1561	I1562	Q1563	F1564	GLU	LEU	GLY	LYS	GLN	LYS	ASN	ILE	M1573	A1577	L1581	R1584	R1594	L1595	L1600	R1607	M1608	V1615	GLU	THR	ARG	ARG	ALA	E1622	W1626	P1633	M1637	A1638	L1639	H1640									
THR	PRO	ALA	LEU	ARG	LEU	PRO	HIS	ASP	VAL	VAL	PRO	ALA	ASN	ASP	ASP	PRO	GLU	ILE	LEU	ASN	THR	T1431	V1439	F1440	P1445	V1448	W1449	V1450	V1453	T1454	P1455	D1456	Y1457	S1467	K1468	V1469	E1479	S1490	V1495	W1496	G1497	P1503	V1515	K1534								
ALA	GLU	GLY	LYS	GLU	THR	ALA	GLY	GLN	THR	PRO	GLY	THR	PRO	GLY	VAL	GLU	ALA	PRO	LEU	ALA	ALA	GLY	GLY	GLY	LYS	ASP	PRO	GLU	GLY	THR	ASP	LEU	PHE	LEU	PHE	LYS	ALA	LYS	ALA	ALA	ARG	MET	NET	GLN	PRO	ALA						
R1259	M1260	C1269	R1275	T1276	W1277	L1283	Q1296	PHE	HIS	GLN	HIS	PHE	ARG	CYS	THR	ALA	GLY	ALA	THR	PRO	LEU	ALA	PRO	GLY	GLN	LEU	GLY	ASN	PRO	ASP	GLU	GLY	ASP	PRO	ASP	TYR	GLY	ASN	LEU	ARG	ARG	SER	ALA	GLY	THR	PRO	GLY	ALA				
L1134	E1137	P1138	W1143	G1146	D1147	M1152	L1155	I1161	F1162	S1171	D1172	S1175	E1176	T1177	A1178	F1179	R1180	C1192	S1193	V1199	G1200	H1201	Q1206	I1216	C1217	Q1220	E1221	A1227	I1228	N1229	M1230	V1234	T1235	T1236	W1237	P1243	Q1244	H1252	Y1255													
PRO	R1020	P1023	S1034	N1035	S1038	L1039	C1040	Q1041	R1044	T1045	L1046	Y1049	N1052	I1053	E1054	PRO	ASP	GLN	PRO	SER	GLN	VAL	GLU	ASN	GLN	SER	ARG	TRP	D1070	E1078	Y1081	A1094	V1095	T1096	M1100	R1101	D1112	D1118	F1124	N1125	G1126	Q1130	R1131									
A934	L935	G936	C937	H938	V939	A942	D943	E944	K945	A946	D948	N949	L950	K951	K952	T953	K954	L955	P956	K957	T958	Y959	K960	N961	S962	N963	P967	A968	P969	L970	D971	L972	S973	H974	V975	R976	L977	T978	P979	A989	D999	G1004	A1009	VAL	GLN	ASP	ILE	PRO	ALA	ARG	ASN	





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	52414	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	1.049	Depositor
Minimum map value	-0.431	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.046	Depositor
Recommended contour level	0.237	Depositor
Map size (Å)	523.2, 523.2, 523.2	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.09, 1.09, 1.09	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section:
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	0.22	1/28107 (0.0%)	0.46	11/37709 (0.0%)
1	B	0.22	1/28107 (0.0%)	0.46	11/37709 (0.0%)
1	C	0.22	1/28107 (0.0%)	0.46	11/37709 (0.0%)
1	D	0.22	1/28107 (0.0%)	0.46	11/37709 (0.0%)
All	All	0.22	4/112428 (0.0%)	0.46	44/150836 (0.0%)

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4125	PHE	C-O	5.61	1.31	1.24
1	B	4125	PHE	C-O	5.61	1.31	1.24
1	C	4125	PHE	C-O	5.61	1.31	1.24
1	D	4125	PHE	C-O	5.61	1.31	1.24

All (44) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4062	PHE	N-CA-C	-9.52	100.86	111.14
1	B	4062	PHE	N-CA-C	-9.52	100.86	111.14
1	C	4062	PHE	N-CA-C	-9.52	100.86	111.14
1	D	4062	PHE	N-CA-C	-9.52	100.86	111.14
1	A	4126	GLU	N-CA-C	-8.51	102.66	112.87
1	B	4126	GLU	N-CA-C	-8.51	102.66	112.87
1	C	4126	GLU	N-CA-C	-8.51	102.66	112.87
1	D	4126	GLU	N-CA-C	-8.51	102.66	112.87
1	A	4072	VAL	N-CA-C	-7.92	101.59	110.62
1	B	4072	VAL	N-CA-C	-7.92	101.59	110.62
1	C	4072	VAL	N-CA-C	-7.92	101.59	110.62
1	D	4072	VAL	N-CA-C	-7.92	101.59	110.62
1	A	4090	LYS	N-CA-C	-7.36	103.26	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	4090	LYS	N-CA-C	-7.36	103.26	111.28
1	C	4090	LYS	N-CA-C	-7.36	103.26	111.28
1	D	4090	LYS	N-CA-C	-7.36	103.26	111.28
1	A	1534	LYS	N-CA-C	-6.11	105.79	113.18
1	B	1534	LYS	N-CA-C	-6.11	105.79	113.18
1	C	1534	LYS	N-CA-C	-6.11	105.79	113.18
1	D	1534	LYS	N-CA-C	-6.11	105.79	113.18
1	A	4123	ILE	N-CA-C	5.49	116.88	110.62
1	B	4123	ILE	N-CA-C	5.49	116.88	110.62
1	C	4123	ILE	N-CA-C	5.49	116.88	110.62
1	D	4123	ILE	N-CA-C	5.49	116.88	110.62
1	A	4068	LEU	N-CA-C	-5.09	105.82	112.23
1	B	4068	LEU	N-CA-C	-5.09	105.82	112.23
1	C	4068	LEU	N-CA-C	-5.09	105.82	112.23
1	D	4068	LEU	N-CA-C	-5.09	105.82	112.23
1	A	4133	GLN	N-CA-C	5.06	121.57	110.80
1	B	4133	GLN	N-CA-C	5.06	121.57	110.80
1	C	4133	GLN	N-CA-C	5.06	121.57	110.80
1	D	4133	GLN	N-CA-C	5.06	121.57	110.80
1	A	4061	PHE	N-CA-C	-5.03	107.09	113.18
1	B	4061	PHE	N-CA-C	-5.03	107.09	113.18
1	C	4061	PHE	N-CA-C	-5.03	107.09	113.18
1	D	4061	PHE	N-CA-C	-5.03	107.09	113.18
1	A	4072	VAL	CA-C-N	-5.01	114.03	120.34
1	A	4072	VAL	C-N-CA	-5.01	114.03	120.34
1	B	4072	VAL	CA-C-N	-5.01	114.03	120.34
1	B	4072	VAL	C-N-CA	-5.01	114.03	120.34
1	C	4072	VAL	CA-C-N	-5.01	114.03	120.34
1	C	4072	VAL	C-N-CA	-5.01	114.03	120.34
1	D	4072	VAL	CA-C-N	-5.01	114.03	120.34
1	D	4072	VAL	C-N-CA	-5.01	114.03	120.34

There are no chirality outliers.

There are no planarity outliers.

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	27613	0	23271	731	0
1	B	27613	0	23271	744	0
1	C	27613	0	23271	731	0
1	D	27613	0	23271	726	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
All	All	110456	0	93084	2812	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 14.

All (2812) 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:A:4324:ALA:CB	1:B:4880:MET:HE3	1.39	1.53
1:B:4324:ALA:CB	1:C:4880:MET:HE3	1.39	1.52
1:A:4880:MET:HE3	1:D:4324:ALA:CB	1.39	1.48
1:C:4324:ALA:CB	1:D:4880:MET:HE3	1.39	1.46
1:C:1963:GLU:HA	1:C:3650:CYS:SG	1.69	1.32
1:B:1963:GLU:HA	1:B:3650:CYS:SG	1.69	1.31
1:D:1963:GLU:HA	1:D:3650:CYS:SG	1.69	1.30
1:A:1963:GLU:HA	1:A:3650:CYS:SG	1.69	1.29
1:B:4888:TYR:OH	1:C:4904:PRO:HG3	1.29	1.26
1:A:4888:TYR:OH	1:B:4904:PRO:HG3	1.29	1.26
1:C:4888:TYR:OH	1:D:4904:PRO:HG3	1.29	1.25
1:C:4089:SER:CA	1:C:4120:ASN:HA	1.67	1.25
1:A:4089:SER:HA	1:A:4120:ASN:CA	1.68	1.24
1:D:4089:SER:CA	1:D:4120:ASN:HA	1.67	1.24
1:B:4089:SER:CA	1:B:4120:ASN:HA	1.67	1.24
1:D:4089:SER:HA	1:D:4120:ASN:CA	1.68	1.24
1:B:4089:SER:HA	1:B:4120:ASN:CA	1.68	1.23
1:A:4089:SER:CA	1:A:4120:ASN:HA	1.67	1.23
1:A:4904:PRO:HG3	1:D:4888:TYR:OH	1.29	1.23
1:C:4089:SER:HA	1:C:4120:ASN:CA	1.68	1.22
1:C:4823:LEU:HD11	1:D:4843:LEU:CD1	1.71	1.20
1:A:4888:TYR:CD1	1:B:4914:VAL:HG12	1.77	1.19
1:A:4843:LEU:CD1	1:D:4823:LEU:HD11	1.71	1.19
1:B:4823:LEU:HD11	1:C:4843:LEU:CD1	1.71	1.19
1:B:4888:TYR:CD1	1:C:4914:VAL:HG12	1.77	1.19
1:A:4823:LEU:HD11	1:B:4843:LEU:CD1	1.71	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4914:VAL:HG12	1:D:4888:TYR:CD1	1.77	1.18
1:C:4888:TYR:CD1	1:D:4914:VAL:HG12	1.77	1.17
1:C:1974:ARG:HD2	1:C:3643:ASN:HB3	1.28	1.15
1:A:1974:ARG:HD2	1:A:3643:ASN:HB3	1.28	1.15
1:C:2478:THR:C	1:C:2485:LEU:CA	2.20	1.14
1:D:1974:ARG:HD2	1:D:3643:ASN:HB3	1.28	1.14
1:D:2478:THR:C	1:D:2485:LEU:CA	2.20	1.14
1:B:1974:ARG:HD2	1:B:3643:ASN:HB3	1.28	1.13
1:B:2478:THR:C	1:B:2485:LEU:CA	2.20	1.13
1:A:2478:THR:C	1:A:2485:LEU:CA	2.20	1.13
1:A:4324:ALA:HB1	1:B:4880:MET:CE	1.80	1.12
1:A:4880:MET:CE	1:D:4324:ALA:HB1	1.80	1.11
1:B:4324:ALA:HB1	1:C:4880:MET:CE	1.80	1.11
1:C:4324:ALA:HB1	1:D:4880:MET:CE	1.80	1.11
1:A:4324:ALA:CB	1:B:4880:MET:CE	2.29	1.10
1:A:4843:LEU:HD13	1:D:4823:LEU:HD11	1.32	1.09
1:B:4324:ALA:CB	1:C:4880:MET:CE	2.29	1.09
1:A:4880:MET:CE	1:D:4324:ALA:CB	2.29	1.09
1:C:4324:ALA:CB	1:D:4880:MET:CE	2.29	1.08
1:B:2478:THR:C	1:B:2485:LEU:C	2.22	1.08
1:A:2478:THR:C	1:A:2485:LEU:C	2.22	1.07
1:D:2478:THR:C	1:D:2485:LEU:C	2.22	1.07
1:C:2478:THR:C	1:C:2485:LEU:C	2.22	1.06
1:A:4880:MET:HE3	1:D:4324:ALA:HB2	1.38	1.06
1:C:4324:ALA:HB2	1:D:4880:MET:HE3	1.38	1.06
1:B:4324:ALA:HB2	1:C:4880:MET:HE3	1.38	1.05
1:B:4823:LEU:HD11	1:C:4843:LEU:HD13	1.32	1.03
1:C:4823:LEU:HD11	1:D:4843:LEU:HD13	1.32	1.03
1:B:4087:LEU:HD23	1:B:4121:GLU:HB3	1.40	1.03
1:C:2178:MET:SD	1:C:2228:MET:SD	2.57	1.03
1:A:2178:MET:SD	1:A:2228:MET:SD	2.57	1.02
1:A:1966:VAL:CB	1:A:3650:CYS:SG	2.48	1.02
1:C:1966:VAL:CB	1:C:3650:CYS:SG	2.48	1.02
1:A:4823:LEU:HD11	1:B:4843:LEU:HD13	1.32	1.02
1:B:1966:VAL:CB	1:B:3650:CYS:SG	2.48	1.02
1:B:2178:MET:SD	1:B:2228:MET:SD	2.57	1.02
1:D:4136:ALA:HA	1:D:4139:ILE:HD11	1.42	1.02
1:C:2186:MET:HE2	1:C:2235:PHE:HD1	1.24	1.02
1:D:2178:MET:SD	1:D:2228:MET:SD	2.57	1.02
1:D:4087:LEU:HD23	1:D:4121:GLU:HB3	1.40	1.02
1:D:1966:VAL:CB	1:D:3650:CYS:SG	2.48	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2186:MET:HE2	1:B:2235:PHE:HD1	1.24	1.01
1:A:4324:ALA:HB2	1:B:4880:MET:HE3	1.38	1.01
1:C:4136:ALA:HA	1:C:4139:ILE:HD11	1.42	1.00
1:A:4087:LEU:HD23	1:A:4121:GLU:HB3	1.40	1.00
1:D:2186:MET:HE2	1:D:2235:PHE:HD1	1.24	1.00
1:C:4087:LEU:HD23	1:C:4121:GLU:HB3	1.40	1.00
1:D:2186:MET:CE	1:D:2235:PHE:HD1	1.74	0.99
1:A:4136:ALA:HA	1:A:4139:ILE:HD11	1.42	0.99
1:A:2186:MET:HE2	1:A:2235:PHE:HD1	1.24	0.98
1:B:2186:MET:CE	1:B:2235:PHE:HD1	1.74	0.98
1:C:2186:MET:CE	1:C:2235:PHE:HD1	1.74	0.98
1:A:2186:MET:CE	1:A:2235:PHE:HD1	1.74	0.98
1:B:4136:ALA:HA	1:B:4139:ILE:HD11	1.42	0.98
1:C:2186:MET:HE2	1:C:2235:PHE:CD1	2.01	0.96
1:A:2186:MET:HE2	1:A:2235:PHE:CD1	2.01	0.95
1:D:2186:MET:HE2	1:D:2235:PHE:CD1	2.01	0.95
1:B:2186:MET:HE2	1:B:2235:PHE:CD1	2.01	0.94
1:B:2186:MET:CE	1:B:2235:PHE:CD1	2.51	0.94
1:A:4880:MET:HE3	1:D:4324:ALA:HB1	0.94	0.94
1:C:4823:LEU:HD11	1:D:4843:LEU:HD12	1.48	0.94
1:B:4823:LEU:HD11	1:C:4843:LEU:HD12	1.48	0.93
1:A:2186:MET:CE	1:A:2235:PHE:CD1	2.51	0.93
1:A:4843:LEU:HD12	1:D:4823:LEU:HD11	1.48	0.93
1:C:2186:MET:CE	1:C:2235:PHE:CD1	2.51	0.93
1:D:2186:MET:CE	1:D:2235:PHE:CD1	2.51	0.93
1:C:4324:ALA:HB1	1:D:4880:MET:HE3	0.94	0.92
1:B:4324:ALA:HB1	1:C:4880:MET:HE3	0.94	0.92
1:A:4324:ALA:HB1	1:B:4880:MET:HE3	0.94	0.92
1:B:4888:TYR:HH	1:C:4904:PRO:HG3	1.32	0.92
1:A:4823:LEU:HD11	1:B:4843:LEU:HD12	1.48	0.92
1:C:4089:SER:HA	1:C:4120:ASN:HA	0.93	0.91
1:A:4089:SER:HA	1:A:4120:ASN:HA	0.93	0.91
1:B:4089:SER:HA	1:B:4120:ASN:HA	0.93	0.91
1:D:4089:SER:HA	1:D:4120:ASN:HA	0.93	0.91
1:A:1963:GLU:CA	1:A:3650:CYS:SG	2.59	0.89
1:C:1963:GLU:CA	1:C:3650:CYS:SG	2.59	0.89
1:D:1963:GLU:CA	1:D:3650:CYS:SG	2.59	0.88
1:C:4087:LEU:HD13	1:C:4123:ILE:HA	1.56	0.88
1:A:4904:PRO:HG3	1:D:4888:TYR:CZ	2.09	0.88
1:D:4087:LEU:HD13	1:D:4123:ILE:HA	1.56	0.87
1:C:4091:LYS:HE3	1:C:4119:GLU:HA	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4888:TYR:CZ	1:D:4904:PRO:HG3	2.09	0.87
1:C:4888:TYR:HH	1:D:4904:PRO:HG3	1.30	0.87
1:A:4888:TYR:CZ	1:B:4904:PRO:HG3	2.09	0.87
1:B:4888:TYR:CZ	1:C:4904:PRO:HG3	2.09	0.87
1:B:4091:LYS:HE3	1:B:4119:GLU:HA	1.56	0.86
1:C:4135:PRO:O	1:C:4139:ILE:HG12	1.76	0.86
1:B:1963:GLU:CA	1:B:3650:CYS:SG	2.59	0.86
1:B:4135:PRO:O	1:B:4139:ILE:HG12	1.76	0.86
1:B:4087:LEU:HD13	1:B:4123:ILE:HA	1.56	0.86
1:A:4087:LEU:HD13	1:A:4123:ILE:HA	1.56	0.86
1:A:4135:PRO:O	1:A:4139:ILE:HG12	1.76	0.86
1:C:2186:MET:CE	1:C:2235:PHE:HB2	2.06	0.86
1:D:2186:MET:CE	1:D:2235:PHE:HB2	2.06	0.85
1:A:2186:MET:CE	1:A:2235:PHE:HB2	2.06	0.85
1:A:4091:LYS:HE3	1:A:4119:GLU:HA	1.56	0.85
1:D:4091:LYS:HE3	1:D:4119:GLU:HA	1.56	0.85
1:D:2186:MET:CE	1:D:2235:PHE:CB	2.55	0.85
1:D:4135:PRO:O	1:D:4139:ILE:HG12	1.76	0.84
1:B:2186:MET:CE	1:B:2235:PHE:HB2	2.06	0.84
1:A:2186:MET:CE	1:A:2235:PHE:CB	2.55	0.84
1:B:2186:MET:CE	1:B:2235:PHE:CB	2.55	0.84
1:C:2186:MET:CE	1:C:2235:PHE:CB	2.55	0.84
1:A:2186:MET:CE	1:A:2235:PHE:HA	2.07	0.84
1:D:2186:MET:CE	1:D:2235:PHE:HA	2.07	0.84
1:B:2186:MET:HE1	1:B:2235:PHE:HB2	1.60	0.84
1:A:2186:MET:HE1	1:A:2235:PHE:HB2	1.60	0.83
1:B:2186:MET:CE	1:B:2235:PHE:HA	2.07	0.83
1:B:720:HIS:HD2	1:B:727:ALA:HA	1.43	0.83
1:C:2186:MET:CE	1:C:2235:PHE:HA	2.07	0.83
1:D:2291:GLN:C	1:D:2293:GLN:H	1.87	0.83
1:C:2291:GLN:C	1:C:2293:GLN:H	1.87	0.83
1:D:2186:MET:HE1	1:D:2235:PHE:HB2	1.60	0.83
1:A:720:HIS:HD2	1:A:727:ALA:HA	1.43	0.83
1:A:4888:TYR:HH	1:B:4904:PRO:HG3	1.41	0.83
1:C:2186:MET:HE1	1:C:2235:PHE:HB2	1.60	0.83
1:A:4880:MET:CE	1:D:4324:ALA:HB2	2.02	0.82
1:B:2291:GLN:C	1:B:2293:GLN:H	1.87	0.82
1:C:4324:ALA:HB2	1:D:4880:MET:CE	2.02	0.82
1:C:720:HIS:HD2	1:C:727:ALA:HA	1.43	0.82
1:A:4904:PRO:HG3	1:D:4888:TYR:HH	1.43	0.82
1:D:720:HIS:HD2	1:D:727:ALA:HA	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2186:MET:HE1	1:A:2235:PHE:HA	1.62	0.81
1:A:4324:ALA:HB2	1:B:4880:MET:CE	2.02	0.81
1:A:2291:GLN:C	1:A:2293:GLN:H	1.87	0.81
1:C:4807:PHE:HE2	1:D:4857:ASN:ND2	1.79	0.81
1:A:2186:MET:HE1	1:A:2235:PHE:CA	2.10	0.80
1:A:4857:ASN:ND2	1:D:4807:PHE:HE2	1.79	0.80
1:B:4324:ALA:HB2	1:C:4880:MET:CE	2.02	0.80
1:B:4807:PHE:HE2	1:C:4857:ASN:ND2	1.79	0.80
1:D:2186:MET:HE1	1:D:2235:PHE:CA	2.10	0.80
1:B:2186:MET:HE1	1:B:2235:PHE:CA	2.10	0.80
1:C:2186:MET:HE1	1:C:2235:PHE:CA	2.10	0.80
1:D:2186:MET:HE1	1:D:2235:PHE:HA	1.62	0.80
1:D:4061:PHE:HA	1:D:4064:MET:CB	2.12	0.80
1:B:2186:MET:HE1	1:B:2235:PHE:CB	2.13	0.79
1:B:4061:PHE:HA	1:B:4064:MET:CB	2.12	0.79
1:A:2186:MET:HE1	1:A:2235:PHE:CB	2.13	0.79
1:D:4132:PHE:O	1:D:4134:GLU:N	2.16	0.79
1:C:2186:MET:HE1	1:C:2235:PHE:CB	2.13	0.79
1:C:4061:PHE:HA	1:C:4064:MET:CB	2.12	0.79
1:A:4061:PHE:HA	1:A:4064:MET:CB	2.12	0.79
1:A:4807:PHE:HE2	1:B:4857:ASN:ND2	1.79	0.79
1:A:4132:PHE:O	1:A:4134:GLU:N	2.16	0.78
1:C:2186:MET:HE1	1:C:2235:PHE:HA	1.62	0.78
1:C:4132:PHE:O	1:C:4134:GLU:N	2.16	0.78
1:C:4137:ARG:HH11	1:C:4138:ASP:HA	1.48	0.78
1:D:2186:MET:HE1	1:D:2235:PHE:CB	2.13	0.78
1:B:4888:TYR:CE1	1:C:4914:VAL:HG12	2.19	0.78
1:A:4807:PHE:CE2	1:B:4857:ASN:ND2	2.52	0.78
1:B:4807:PHE:CE2	1:C:4857:ASN:ND2	2.52	0.78
1:A:4137:ARG:HH11	1:A:4138:ASP:HA	1.48	0.78
1:A:4888:TYR:CE1	1:B:4914:VAL:HG12	2.19	0.78
1:A:4914:VAL:HG12	1:D:4888:TYR:CE1	2.19	0.78
1:B:2186:MET:HE1	1:B:2235:PHE:HA	1.62	0.77
1:C:4888:TYR:CE1	1:D:4914:VAL:HG12	2.19	0.77
1:A:645:ARG:HD3	1:A:826:ILE:HG22	1.66	0.77
1:D:4137:ARG:HH11	1:D:4138:ASP:HA	1.48	0.77
1:D:260:TRP:HB3	1:D:282:ILE:HD11	1.67	0.77
1:A:4087:LEU:HG	1:A:4088:ILE:HG22	1.67	0.77
1:D:645:ARG:HD3	1:D:826:ILE:HG22	1.66	0.77
1:C:2478:THR:C	1:C:2486:VAL:N	2.43	0.77
1:D:4087:LEU:HG	1:D:4088:ILE:HG22	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2478:THR:C	1:B:2486:VAL:N	2.43	0.77
1:A:260:TRP:HB3	1:A:282:ILE:HD11	1.67	0.76
1:B:1974:ARG:CD	1:B:3643:ASN:HB3	2.14	0.76
1:B:4087:LEU:HG	1:B:4088:ILE:HG22	1.67	0.76
1:B:4132:PHE:O	1:B:4134:GLU:N	2.16	0.76
1:D:2288:LEU:O	1:D:3849:ARG:NH1	2.18	0.76
1:B:637:LEU:HD23	1:B:1637:MET:HB3	1.67	0.76
1:B:4137:ARG:HH11	1:B:4138:ASP:HA	1.48	0.76
1:C:2288:LEU:O	1:C:3849:ARG:NH1	2.18	0.76
1:C:4807:PHE:CE2	1:D:4857:ASN:ND2	2.52	0.76
1:D:2478:THR:C	1:D:2486:VAL:N	2.43	0.76
1:A:4857:ASN:ND2	1:D:4807:PHE:CE2	2.52	0.76
1:A:2288:LEU:O	1:A:3849:ARG:NH1	2.18	0.76
1:C:4072:VAL:HG22	1:C:4126:GLU:HB3	1.68	0.76
1:C:645:ARG:HD3	1:C:826:ILE:HG22	1.66	0.76
1:A:4072:VAL:HG22	1:A:4126:GLU:HB3	1.68	0.76
1:B:260:TRP:HB3	1:B:282:ILE:HD11	1.67	0.76
1:B:645:ARG:HD3	1:B:826:ILE:HG22	1.66	0.76
1:B:2288:LEU:O	1:B:3849:ARG:NH1	2.18	0.76
1:C:260:TRP:HB3	1:C:282:ILE:HD11	1.67	0.76
1:C:4087:LEU:HG	1:C:4088:ILE:HG22	1.67	0.76
1:A:2478:THR:C	1:A:2486:VAL:N	2.43	0.75
1:B:358:THR:HG1	1:B:383:HIS:HD1	1.34	0.75
1:B:4072:VAL:HG22	1:B:4126:GLU:HB3	1.68	0.75
1:D:4072:VAL:HG22	1:D:4126:GLU:HB3	1.68	0.75
1:C:637:LEU:HD23	1:C:1637:MET:HB3	1.67	0.75
1:A:1738:LEU:HB3	1:A:2146:PRO:HD3	1.68	0.75
1:A:1974:ARG:CD	1:A:3643:ASN:HB3	2.14	0.75
1:D:637:LEU:HD23	1:D:1637:MET:HB3	1.67	0.75
1:D:2103:VAL:CG1	1:D:3680:ALA:HB1	2.17	0.75
1:A:637:LEU:HD23	1:A:1637:MET:HB3	1.67	0.75
1:C:2103:VAL:CG1	1:C:3680:ALA:HB1	2.17	0.75
1:B:4125:PHE:C	1:B:4127:GLU:H	1.95	0.74
1:C:1738:LEU:HB3	1:C:2146:PRO:HD3	1.68	0.74
1:B:2103:VAL:CG1	1:B:3680:ALA:HB1	2.17	0.74
1:A:4125:PHE:C	1:A:4127:GLU:H	1.95	0.74
1:D:1738:LEU:HB3	1:D:2146:PRO:HD3	1.68	0.74
1:D:4087:LEU:CD2	1:D:4121:GLU:HB3	2.18	0.74
1:C:4125:PHE:C	1:C:4127:GLU:N	2.42	0.74
1:A:358:THR:HG1	1:A:383:HIS:HD1	1.35	0.73
1:B:2186:MET:HE3	1:B:2235:PHE:CD1	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4081:VAL:HG23	1:D:4082:THR:H	1.53	0.73
1:A:4081:VAL:HG23	1:A:4082:THR:H	1.53	0.73
1:B:1738:LEU:HB3	1:B:2146:PRO:HD3	1.68	0.73
1:A:2103:VAL:CG1	1:A:3680:ALA:HB1	2.17	0.73
1:C:1974:ARG:CD	1:C:3643:ASN:HB3	2.14	0.73
1:D:4125:PHE:C	1:D:4127:GLU:N	2.42	0.73
1:D:2186:MET:HE3	1:D:2235:PHE:CD1	2.23	0.73
1:D:4125:PHE:C	1:D:4127:GLU:H	1.95	0.73
1:D:4124:ASN:HA	1:D:4127:GLU:HB3	1.71	0.72
1:A:4125:PHE:C	1:A:4127:GLU:N	2.42	0.72
1:B:1926:LEU:HG	1:B:1939:MET:HE1	1.71	0.72
1:C:2186:MET:HE3	1:C:2235:PHE:CD1	2.23	0.72
1:C:4081:VAL:HG23	1:C:4082:THR:H	1.53	0.72
1:C:1926:LEU:HG	1:C:1939:MET:HE1	1.71	0.72
1:D:1974:ARG:CD	1:D:3643:ASN:HB3	2.14	0.72
1:A:4087:LEU:CD2	1:A:4121:GLU:HB3	2.18	0.72
1:B:4087:LEU:CD2	1:B:4121:GLU:HB3	2.18	0.72
1:B:4081:VAL:HG23	1:B:4082:THR:H	1.53	0.72
1:B:4124:ASN:C	1:B:4127:GLU:HB3	2.15	0.72
1:A:4124:ASN:C	1:A:4127:GLU:HB3	2.15	0.72
1:C:4087:LEU:CD2	1:C:4121:GLU:HB3	2.18	0.72
1:D:4124:ASN:C	1:D:4127:GLU:HB3	2.15	0.72
1:B:4124:ASN:HA	1:B:4127:GLU:HB3	1.71	0.72
1:C:907:LEU:O	1:C:963:ASN:ND2	2.23	0.72
1:A:2186:MET:HE3	1:A:2235:PHE:CD1	2.23	0.71
1:B:907:LEU:O	1:B:963:ASN:ND2	2.23	0.71
1:D:4651:THR:HG22	1:D:4799:SER:HB3	1.71	0.71
1:A:4060:LYS:O	1:A:4064:MET:N	2.24	0.71
1:C:4125:PHE:C	1:C:4127:GLU:H	1.95	0.71
1:C:4124:ASN:HA	1:C:4127:GLU:HB3	1.71	0.71
1:A:907:LEU:O	1:A:963:ASN:ND2	2.23	0.71
1:A:1974:ARG:HG3	1:A:3642:TYR:CB	2.21	0.71
1:B:4651:THR:HG22	1:B:4799:SER:HB3	1.71	0.71
1:C:1260:MET:HB2	1:C:1269:CYS:H	1.56	0.71
1:C:4651:THR:HG22	1:C:4799:SER:HB3	1.71	0.71
1:D:1974:ARG:HG3	1:D:3642:TYR:CB	2.21	0.71
1:A:4124:ASN:HA	1:A:4127:GLU:HB3	1.71	0.71
1:B:1974:ARG:HG3	1:B:3642:TYR:CB	2.21	0.71
1:C:1974:ARG:HG3	1:C:3642:TYR:CB	2.21	0.71
1:D:4060:LYS:O	1:D:4064:MET:N	2.24	0.71
1:D:358:THR:HG1	1:D:383:HIS:HD1	1.37	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1926:LEU:HG	1:D:1939:MET:HE1	1.71	0.71
1:D:4069:LYS:HB2	1:D:4130:ASN:ND2	2.06	0.71
1:B:4741:LEU:HB2	1:B:4743:MET:HE1	1.73	0.71
1:A:1926:LEU:HG	1:A:1939:MET:HE1	1.71	0.70
1:A:4069:LYS:HB2	1:A:4130:ASN:ND2	2.06	0.70
1:C:4060:LYS:O	1:C:4064:MET:N	2.24	0.70
1:C:4124:ASN:C	1:C:4127:GLU:HB3	2.15	0.70
1:B:4125:PHE:C	1:B:4127:GLU:N	2.42	0.70
1:B:4060:LYS:O	1:B:4064:MET:N	2.24	0.70
1:C:4741:LEU:HB2	1:C:4743:MET:HE1	1.73	0.70
1:D:1260:MET:HB2	1:D:1269:CYS:H	1.56	0.70
1:C:358:THR:HG1	1:C:383:HIS:HD1	1.38	0.70
1:D:4680:LYS:HZ1	1:D:4687:TYR:H	1.39	0.70
1:D:4087:LEU:HB2	1:D:4122:MET:CA	2.21	0.70
1:A:1660:GLN:HG3	1:A:1707:LEU:HB2	1.74	0.70
1:A:4651:THR:HG22	1:A:4799:SER:HB3	1.71	0.70
1:C:4087:LEU:HB2	1:C:4122:MET:CA	2.21	0.70
1:B:4069:LYS:HB2	1:B:4130:ASN:ND2	2.06	0.70
1:A:1260:MET:HB2	1:A:1269:CYS:H	1.56	0.70
1:C:4069:LYS:HB2	1:C:4130:ASN:ND2	2.06	0.70
1:A:4741:LEU:HB2	1:A:4743:MET:HE1	1.73	0.70
1:A:551:LEU:O	1:A:553:ARG:NH2	2.25	0.70
1:A:4087:LEU:HB2	1:A:4122:MET:CA	2.21	0.70
1:B:4087:LEU:HB2	1:B:4122:MET:CA	2.21	0.69
1:C:551:LEU:O	1:C:553:ARG:NH2	2.25	0.69
1:C:4091:LYS:CE	1:C:4119:GLU:HA	2.22	0.69
1:B:1260:MET:HB2	1:B:1269:CYS:H	1.56	0.69
1:B:4091:LYS:CE	1:B:4119:GLU:HA	2.22	0.69
1:B:1660:GLN:HG3	1:B:1707:LEU:HB2	1.74	0.69
1:D:2155:LEU:HG	1:D:2185:ILE:HD11	1.73	0.69
1:C:2155:LEU:HG	1:C:2185:ILE:HD11	1.73	0.69
1:D:2186:MET:CE	1:D:2235:PHE:CA	2.69	0.69
1:A:2155:LEU:HG	1:A:2185:ILE:HD11	1.73	0.69
1:B:551:LEU:O	1:B:553:ARG:NH2	2.25	0.69
1:C:1660:GLN:HG3	1:C:1707:LEU:HB2	1.74	0.69
1:A:2186:MET:CE	1:A:2235:PHE:CA	2.69	0.69
1:D:4741:LEU:HB2	1:D:4743:MET:HE1	1.73	0.69
1:D:551:LEU:O	1:D:553:ARG:NH2	2.25	0.69
1:B:4135:PRO:HA	1:B:4138:ASP:OD2	1.93	0.69
1:C:4732:PHE:HB3	1:C:4736:ARG:HH11	1.58	0.69
1:D:907:LEU:O	1:D:963:ASN:ND2	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2003:GLN:O	1:B:2007:ASN:ND2	2.26	0.68
1:B:4732:PHE:HB3	1:B:4736:ARG:HH11	1.58	0.68
1:D:4091:LYS:CE	1:D:4119:GLU:HA	2.22	0.68
1:C:4078:GLN:HG3	1:C:4081:VAL:HG21	1.76	0.68
1:A:2003:GLN:O	1:A:2007:ASN:ND2	2.26	0.68
1:A:4135:PRO:HA	1:A:4138:ASP:OD2	1.93	0.68
1:D:4732:PHE:HB3	1:D:4736:ARG:HH11	1.58	0.68
1:A:4732:PHE:HB3	1:A:4736:ARG:HH11	1.58	0.68
1:B:4182:GLU:HB3	1:B:4190:ILE:HD11	1.76	0.68
1:D:4078:GLN:HG3	1:D:4081:VAL:HG21	1.76	0.68
1:B:2155:LEU:HG	1:B:2185:ILE:HD11	1.73	0.68
1:C:4135:PRO:HA	1:C:4138:ASP:OD2	1.93	0.68
1:D:4135:PRO:HA	1:D:4138:ASP:OD2	1.93	0.68
1:B:1259:ARG:NH2	1:B:1595:LEU:O	2.27	0.68
1:B:4089:SER:HA	1:B:4120:ASN:C	2.19	0.68
1:B:5027:CYS:SG	1:B:5030:LYS:NZ	2.67	0.68
1:C:4680:LYS:HZ1	1:C:4687:TYR:H	1.41	0.68
1:A:4078:GLN:HG3	1:A:4081:VAL:HG21	1.76	0.68
1:B:4130:ASN:OD1	1:B:4133:GLN:HB2	1.94	0.68
1:C:1259:ARG:NH2	1:C:1595:LEU:O	2.27	0.68
1:B:4680:LYS:HZ1	1:B:4687:TYR:H	1.41	0.68
1:A:4089:SER:HA	1:A:4120:ASN:C	2.19	0.67
1:C:2003:GLN:O	1:C:2007:ASN:ND2	2.26	0.67
1:D:4089:SER:HA	1:D:4120:ASN:C	2.19	0.67
1:A:5027:CYS:SG	1:A:5030:LYS:NZ	2.67	0.67
1:C:4089:SER:HA	1:C:4120:ASN:C	2.19	0.67
1:A:4091:LYS:CE	1:A:4119:GLU:HA	2.22	0.67
1:C:110:ARG:HH21	1:C:115:ARG:HB3	1.59	0.67
1:C:5027:CYS:SG	1:C:5030:LYS:NZ	2.67	0.67
1:D:1259:ARG:NH2	1:D:1595:LEU:O	2.27	0.67
1:A:626:LEU:HG	1:A:628:GLY:H	1.60	0.67
1:C:4130:ASN:OD1	1:C:4133:GLN:HB2	1.94	0.67
1:D:1660:GLN:HG3	1:D:1707:LEU:HB2	1.74	0.67
1:D:2003:GLN:O	1:D:2007:ASN:ND2	2.26	0.67
1:D:4182:GLU:HB3	1:D:4190:ILE:HD11	1.76	0.67
1:D:626:LEU:HG	1:D:628:GLY:H	1.60	0.67
1:A:1259:ARG:NH2	1:A:1595:LEU:O	2.27	0.67
1:B:4078:GLN:HG3	1:B:4081:VAL:HG21	1.76	0.67
1:C:4182:GLU:HB3	1:C:4190:ILE:HD11	1.76	0.67
1:D:4130:ASN:OD1	1:D:4133:GLN:HB2	1.94	0.67
1:A:4680:LYS:HZ1	1:A:4687:TYR:H	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:5027:CYS:SG	1:D:5030:LYS:NZ	2.67	0.67
1:C:4068:LEU:O	1:C:4072:VAL:HG23	1.95	0.67
1:A:4068:LEU:O	1:A:4072:VAL:HG23	1.95	0.66
1:D:110:ARG:HH21	1:D:115:ARG:HB3	1.59	0.66
1:C:4091:LYS:H	1:C:4091:LYS:HZ3	1.43	0.66
1:C:626:LEU:HG	1:C:628:GLY:H	1.60	0.66
1:A:4182:GLU:HB3	1:A:4190:ILE:HD11	1.76	0.66
1:B:626:LEU:HG	1:B:628:GLY:H	1.60	0.66
1:C:4087:LEU:HB2	1:C:4122:MET:HA	1.77	0.66
1:D:4068:LEU:O	1:D:4072:VAL:HG23	1.95	0.66
1:A:4130:ASN:OD1	1:A:4133:GLN:HB2	1.94	0.66
1:B:4087:LEU:HB2	1:B:4122:MET:HA	1.77	0.66
1:C:2015:GLU:C	1:C:2017:ASP:H	2.04	0.66
1:A:110:ARG:HH21	1:A:115:ARG:HB3	1.59	0.66
1:B:1827:ARG:C	1:B:1829:PRO:HD3	2.21	0.66
1:D:2015:GLU:C	1:D:2017:ASP:H	2.04	0.66
1:A:4087:LEU:HB2	1:A:4122:MET:HA	1.77	0.66
1:C:2186:MET:CE	1:C:2235:PHE:CA	2.69	0.66
1:B:110:ARG:HH21	1:B:115:ARG:HB3	1.59	0.66
1:C:3770:LEU:HD23	1:C:3804:ILE:HD11	1.78	0.66
1:B:4087:LEU:HD13	1:B:4123:ILE:CA	2.26	0.65
1:B:4087:LEU:HB3	1:B:4121:GLU:C	2.22	0.65
1:B:4961:CYS:HG	1:B:4983:HIS:HE2	1.43	0.65
1:C:4087:LEU:HD13	1:C:4123:ILE:CA	2.26	0.65
1:D:3770:LEU:HD23	1:D:3804:ILE:HD11	1.78	0.65
1:B:3770:LEU:HD23	1:B:3804:ILE:HD11	1.78	0.65
1:B:4068:LEU:O	1:B:4072:VAL:HG23	1.95	0.65
1:A:1827:ARG:C	1:A:1829:PRO:HD3	2.21	0.65
1:C:1827:ARG:C	1:C:1829:PRO:HD3	2.21	0.65
1:D:4087:LEU:HB2	1:D:4122:MET:HA	1.77	0.65
1:A:2002:PRO:HA	1:A:2005:GLN:HB3	1.78	0.65
1:A:3770:LEU:HD23	1:A:3804:ILE:HD11	1.78	0.65
1:B:4081:VAL:O	1:B:4082:THR:C	2.40	0.65
1:D:1827:ARG:C	1:D:1829:PRO:HD3	2.21	0.65
1:A:4124:ASN:HA	1:A:4127:GLU:CD	2.22	0.65
1:B:2015:GLU:C	1:B:2017:ASP:H	2.04	0.65
1:B:2186:MET:CE	1:B:2235:PHE:CA	2.69	0.65
1:B:4124:ASN:HA	1:B:4127:GLU:CD	2.22	0.65
1:B:4217:PHE:HZ	1:B:4234:PHE:HA	1.61	0.65
1:C:2291:GLN:C	1:C:2293:GLN:N	2.54	0.65
1:D:4217:PHE:HZ	1:D:4234:PHE:HA	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3923:LEU:HD12	1:A:3926:LEU:HD11	1.79	0.65
1:C:4087:LEU:HB3	1:C:4121:GLU:C	2.22	0.65
1:D:2002:PRO:HA	1:D:2005:GLN:HB3	1.78	0.65
1:A:4081:VAL:O	1:A:4082:THR:C	2.40	0.65
1:A:4217:PHE:HZ	1:A:4234:PHE:HA	1.61	0.65
1:C:111:HIS:CE1	1:C:113:HIS:HB3	2.32	0.65
1:C:3923:LEU:HD12	1:C:3926:LEU:HD11	1.79	0.65
1:D:4124:ASN:HA	1:D:4127:GLU:CD	2.22	0.65
1:B:21:VAL:HG12	1:B:66:CYS:HA	1.79	0.65
1:C:21:VAL:HG12	1:C:66:CYS:HA	1.79	0.65
1:C:2002:PRO:HA	1:C:2005:GLN:HB3	1.78	0.65
1:C:4082:THR:O	1:C:4083:ASP:C	2.40	0.65
1:C:4124:ASN:HA	1:C:4127:GLU:CD	2.22	0.65
1:D:111:HIS:CE1	1:D:113:HIS:HB3	2.32	0.65
1:A:4082:THR:O	1:A:4083:ASP:C	2.40	0.64
1:C:4217:PHE:HZ	1:C:4234:PHE:HA	1.61	0.64
1:A:2015:GLU:C	1:A:2017:ASP:H	2.04	0.64
1:B:3923:LEU:HD12	1:B:3926:LEU:HD11	1.79	0.64
1:A:4087:LEU:HB3	1:A:4121:GLU:C	2.22	0.64
1:B:111:HIS:CE1	1:B:113:HIS:HB3	2.32	0.64
1:D:614:VAL:HG22	1:D:616:SER:H	1.63	0.64
1:D:2291:GLN:C	1:D:2293:GLN:N	2.54	0.64
1:A:111:HIS:CE1	1:A:113:HIS:HB3	2.32	0.64
1:A:4087:LEU:HD13	1:A:4123:ILE:CA	2.26	0.64
1:A:4871:GLU:HB3	1:A:4874:MET:HE3	1.80	0.64
1:D:4208:PRO:HA	1:D:4211:LYS:HG2	1.79	0.64
1:D:3923:LEU:HD12	1:D:3926:LEU:HD11	1.79	0.64
1:A:614:VAL:HG22	1:A:616:SER:H	1.63	0.64
1:D:170:ILE:HD12	1:D:197:GLN:HB3	1.80	0.64
1:D:4087:LEU:HB3	1:D:4121:GLU:C	2.22	0.64
1:C:2186:MET:HE2	1:C:2235:PHE:HA	1.79	0.64
1:D:1684:ALA:HA	1:D:1782:PHE:HZ	1.63	0.64
1:B:170:ILE:HD12	1:B:197:GLN:HB3	1.80	0.64
1:B:2191:PHE:HZ	1:B:2239:PHE:HB2	1.63	0.64
1:C:614:VAL:HG22	1:C:616:SER:H	1.63	0.64
1:C:3900:GLN:NE2	1:C:3967:GLU:O	2.31	0.64
1:B:2186:MET:HE2	1:B:2235:PHE:HA	1.79	0.64
1:D:4082:THR:O	1:D:4083:ASP:C	2.40	0.64
1:A:21:VAL:HG12	1:A:66:CYS:HA	1.79	0.63
1:A:1671:ARG:NH2	1:A:1713:ASP:HB3	2.13	0.63
1:A:4078:GLN:OE1	1:A:4081:VAL:HG11	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1671:ARG:NH2	1:B:1713:ASP:HB3	2.13	0.63
1:C:2191:PHE:HZ	1:C:2239:PHE:HB2	1.63	0.63
1:A:2186:MET:HE2	1:A:2235:PHE:HA	1.79	0.63
1:B:4871:GLU:HB3	1:B:4874:MET:HE3	1.80	0.63
1:D:3900:GLN:NE2	1:D:3967:GLU:O	2.31	0.63
1:B:2002:PRO:HA	1:B:2005:GLN:HB3	1.78	0.63
1:C:1684:ALA:HA	1:C:1782:PHE:HZ	1.63	0.63
1:D:2186:MET:HE2	1:D:2235:PHE:HA	1.79	0.63
1:B:4082:THR:O	1:B:4083:ASP:C	2.40	0.63
1:C:4208:PRO:HA	1:C:4211:LYS:HG2	1.79	0.63
1:D:21:VAL:HG12	1:D:66:CYS:HA	1.79	0.63
1:A:3900:GLN:NE2	1:A:3967:GLU:O	2.31	0.63
1:B:4132:PHE:CE1	1:B:4135:PRO:HG2	2.34	0.63
1:D:4087:LEU:HD22	1:D:4122:MET:O	1.99	0.63
1:A:4208:PRO:HA	1:A:4211:LYS:HG2	1.79	0.63
1:B:3900:GLN:NE2	1:B:3967:GLU:O	2.31	0.63
1:D:4078:GLN:OE1	1:D:4081:VAL:HG11	1.99	0.63
1:A:4843:LEU:HD13	1:D:4823:LEU:CD1	2.20	0.63
1:B:614:VAL:HG22	1:B:616:SER:H	1.63	0.63
1:D:4871:GLU:HB3	1:D:4874:MET:HE3	1.80	0.63
1:A:170:ILE:HD12	1:A:197:GLN:HB3	1.80	0.63
1:C:170:ILE:HD12	1:C:197:GLN:HB3	1.80	0.63
1:C:4087:LEU:HD22	1:C:4122:MET:O	1.99	0.63
1:C:2022:PRO:O	1:C:2028:ARG:NH2	2.32	0.63
1:D:2191:PHE:HZ	1:D:2239:PHE:HB2	1.63	0.63
1:A:2191:PHE:HZ	1:A:2239:PHE:HB2	1.63	0.62
1:A:4132:PHE:CE1	1:A:4135:PRO:HG2	2.34	0.62
1:B:217:GLY:O	1:B:261:ARG:NH1	2.32	0.62
1:B:608:VAL:HG22	1:B:613:ALA:HB2	1.81	0.62
1:B:1684:ALA:HA	1:B:1782:PHE:HZ	1.63	0.62
1:B:1698:LEU:HD13	1:B:1810:LYS:HG2	1.82	0.62
1:B:4078:GLN:OE1	1:B:4081:VAL:HG11	1.99	0.62
1:B:4208:PRO:HA	1:B:4211:LYS:HG2	1.79	0.62
1:D:1671:ARG:NH2	1:D:1713:ASP:HB3	2.13	0.62
1:D:4132:PHE:CE1	1:D:4135:PRO:HG2	2.34	0.62
1:C:4871:GLU:HB3	1:C:4874:MET:HE3	1.80	0.62
1:D:404:ILE:HG21	1:D:481:GLU:HG3	1.81	0.62
1:D:608:VAL:HG22	1:D:613:ALA:HB2	1.81	0.62
1:A:1684:ALA:HA	1:A:1782:PHE:HZ	1.63	0.62
1:A:1808:ARG:HD3	1:A:1853:ILE:HG22	1.81	0.62
1:A:4087:LEU:HD22	1:A:4122:MET:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4232:GLU:OE1	1:A:5019:TRP:NE1	2.30	0.62
1:C:608:VAL:HG22	1:C:613:ALA:HB2	1.81	0.62
1:C:720:HIS:HD2	1:C:727:ALA:CA	2.12	0.62
1:C:1698:LEU:HD13	1:C:1810:LYS:HG2	1.82	0.62
1:C:4232:GLU:OE1	1:C:5019:TRP:NE1	2.30	0.62
1:D:2022:PRO:O	1:D:2028:ARG:NH2	2.32	0.62
1:D:4081:VAL:O	1:D:4082:THR:C	2.40	0.62
1:A:404:ILE:HG21	1:A:481:GLU:HG3	1.81	0.62
1:A:608:VAL:HG22	1:A:613:ALA:HB2	1.81	0.62
1:A:3888:LEU:HD13	1:A:3891:LEU:HD12	1.81	0.62
1:C:641:VAL:HG21	1:C:705:ASN:HA	1.82	0.62
1:C:989:ALA:O	1:C:1035:ASN:ND2	2.33	0.62
1:C:1808:ARG:HD3	1:C:1853:ILE:HG22	1.81	0.62
1:C:4132:PHE:CE1	1:C:4135:PRO:HG2	2.34	0.62
1:B:3888:LEU:HD13	1:B:3891:LEU:HD12	1.81	0.62
1:B:4063:ASP:HA	1:B:4066:LEU:HG	1.82	0.62
1:B:4091:LYS:H	1:B:4091:LYS:HZ3	1.48	0.62
1:C:1671:ARG:NH2	1:C:1713:ASP:HB3	2.13	0.62
1:C:4823:LEU:CD1	1:D:4843:LEU:HD13	2.20	0.62
1:D:217:GLY:O	1:D:261:ARG:NH1	2.32	0.62
1:D:3888:LEU:HD13	1:D:3891:LEU:HD12	1.81	0.62
1:D:4087:LEU:HD13	1:D:4123:ILE:CA	2.26	0.62
1:A:2128:TYR:CE2	1:A:3673:MET:CB	2.83	0.62
1:A:4025:VAL:O	1:A:4029:SER:OG	2.17	0.62
1:C:4081:VAL:O	1:C:4082:THR:C	2.40	0.62
1:D:989:ALA:O	1:D:1035:ASN:ND2	2.33	0.62
1:D:2128:TYR:CE2	1:D:3673:MET:CB	2.83	0.62
1:A:1698:LEU:HD13	1:A:1810:LYS:HG2	1.82	0.62
1:B:404:ILE:HG21	1:B:481:GLU:HG3	1.81	0.62
1:B:4087:LEU:HD22	1:B:4122:MET:O	1.99	0.62
1:C:4078:GLN:OE1	1:C:4081:VAL:HG11	1.99	0.62
1:A:4961:CYS:HG	1:A:4983:HIS:HE2	1.47	0.62
1:B:590:LEU:HD22	1:B:631:LEU:HD12	1.82	0.62
1:B:989:ALA:O	1:B:1035:ASN:ND2	2.33	0.62
1:D:4904:PRO:HB3	1:D:4913:ARG:HE	1.65	0.62
1:A:217:GLY:O	1:A:261:ARG:NH1	2.32	0.62
1:A:989:ALA:O	1:A:1035:ASN:ND2	2.33	0.62
1:A:1152:MET:HB2	1:A:1161:ILE:HB	1.82	0.62
1:B:1152:MET:HB2	1:B:1161:ILE:HB	1.82	0.62
1:C:404:ILE:HG21	1:C:481:GLU:HG3	1.81	0.62
1:C:590:LEU:HD22	1:C:631:LEU:HD12	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4904:PRO:HB3	1:C:4913:ARG:HE	1.65	0.62
1:B:2128:TYR:CE2	1:B:3673:MET:CB	2.83	0.62
1:B:4232:GLU:OE1	1:B:5019:TRP:NE1	2.30	0.62
1:C:217:GLY:O	1:C:261:ARG:NH1	2.32	0.62
1:D:320:LYS:NZ	1:D:381:GLU:O	2.32	0.62
1:D:641:VAL:HG21	1:D:705:ASN:HA	1.82	0.62
1:A:627:PRO:O	1:A:629:ARG:NH1	2.33	0.61
1:A:2022:PRO:O	1:A:2028:ARG:NH2	2.32	0.61
1:B:641:VAL:HG21	1:B:705:ASN:HA	1.82	0.61
1:C:3997:ALA:HA	1:C:4058:ILE:HD11	1.82	0.61
1:B:2022:PRO:O	1:B:2028:ARG:NH2	2.32	0.61
1:C:2128:TYR:CE2	1:C:3673:MET:CB	2.83	0.61
1:B:4904:PRO:HB3	1:B:4913:ARG:HE	1.65	0.61
1:D:627:PRO:O	1:D:629:ARG:NH1	2.33	0.61
1:A:720:HIS:HD2	1:A:727:ALA:CA	2.12	0.61
1:A:3997:ALA:HA	1:A:4058:ILE:HD11	1.82	0.61
1:A:4063:ASP:HA	1:A:4066:LEU:HG	1.82	0.61
1:B:1967:ASP:N	1:B:3646:THR:HG23	2.16	0.61
1:C:627:PRO:O	1:C:629:ARG:NH1	2.33	0.61
1:D:720:HIS:HD2	1:D:727:ALA:CA	2.12	0.61
1:D:1698:LEU:HD13	1:D:1810:LYS:HG2	1.82	0.61
1:D:1974:ARG:HB2	1:D:3643:ASN:CB	2.30	0.61
1:D:3997:ALA:HA	1:D:4058:ILE:HD11	1.82	0.61
1:A:1967:ASP:N	1:A:3646:THR:HG23	2.16	0.61
1:A:4719:PHE:HD1	1:A:4722:ARG:HH11	1.48	0.61
1:B:627:PRO:O	1:B:629:ARG:NH1	2.33	0.61
1:B:2103:VAL:CG1	1:B:3680:ALA:CB	2.79	0.61
1:D:590:LEU:HD22	1:D:631:LEU:HD12	1.82	0.61
1:A:641:VAL:HG21	1:A:705:ASN:HA	1.82	0.61
1:B:1095:VAL:HB	1:B:1199:VAL:HG23	1.83	0.61
1:C:2292:GLU:O	1:C:2293:GLN:C	2.44	0.61
1:A:590:LEU:HD22	1:A:631:LEU:HD12	1.82	0.61
1:A:2347:GLU:O	1:A:2351:ASN:N	2.31	0.61
1:B:1808:ARG:HD3	1:B:1853:ILE:HG22	1.81	0.61
1:B:3997:ALA:HA	1:B:4058:ILE:HD11	1.82	0.61
1:C:4961:CYS:HG	1:C:4983:HIS:HE2	1.49	0.61
1:D:1808:ARG:HD3	1:D:1853:ILE:HG22	1.81	0.61
1:D:1967:ASP:N	1:D:3646:THR:HG23	2.16	0.61
1:B:1178:ALA:HA	1:B:1180:ARG:HE	1.66	0.61
1:B:1974:ARG:HB2	1:B:3643:ASN:CB	2.30	0.61
1:B:4888:TYR:HD1	1:C:4914:VAL:HG12	1.60	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1152:MET:HB2	1:C:1161:ILE:HB	1.82	0.61
1:C:1178:ALA:HA	1:C:1180:ARG:HE	1.66	0.61
1:C:1974:ARG:HB2	1:C:3643:ASN:CB	2.30	0.61
1:C:4063:ASP:HA	1:C:4066:LEU:HG	1.82	0.61
1:D:4063:ASP:HA	1:D:4066:LEU:HG	1.82	0.61
1:D:4664:LEU:HD23	1:D:4665:LYS:HZ3	1.66	0.61
1:A:1974:ARG:HB2	1:A:3643:ASN:CB	2.30	0.61
1:A:2014:ASP:CB	1:A:3660:ALA:HB2	2.31	0.61
1:B:649:PHE:HB3	1:B:776:LEU:HD13	1.83	0.61
1:C:359:TYR:HA	1:C:376:ALA:HA	1.83	0.61
1:C:3888:LEU:HD13	1:C:3891:LEU:HD12	1.81	0.61
1:C:3889:GLN:HB2	1:C:3964:SER:HA	1.82	0.61
1:D:138:GLN:HG2	1:D:139:GLU:H	1.66	0.61
1:D:1152:MET:HB2	1:D:1161:ILE:HB	1.82	0.61
1:D:2103:VAL:CG1	1:D:3680:ALA:CB	2.79	0.61
1:D:4864:ASN:ND2	1:D:4871:GLU:OE1	2.33	0.61
1:B:864:PRO:HD2	1:B:867:LEU:HD12	1.83	0.60
1:B:2291:GLN:C	1:B:2293:GLN:N	2.54	0.60
1:C:544:LEU:HD12	1:C:574:VAL:HG13	1.83	0.60
1:C:4078:GLN:OE1	1:C:4081:VAL:HG21	2.01	0.60
1:A:544:LEU:HD12	1:A:574:VAL:HG13	1.83	0.60
1:A:864:PRO:HD2	1:A:867:LEU:HD12	1.83	0.60
1:A:2103:VAL:CG1	1:A:3680:ALA:CB	2.79	0.60
1:B:544:LEU:HD12	1:B:574:VAL:HG13	1.83	0.60
1:B:2292:GLU:O	1:B:2293:GLN:C	2.44	0.60
1:B:4719:PHE:HD1	1:B:4722:ARG:HH11	1.48	0.60
1:C:1967:ASP:N	1:C:3646:THR:HG23	2.16	0.60
1:A:143:GLY:HA3	1:A:147:TRP:HE1	1.66	0.60
1:A:1974:ARG:HB2	1:A:3643:ASN:HB2	1.83	0.60
1:A:3889:GLN:HB2	1:A:3964:SER:HA	1.82	0.60
1:B:4078:GLN:OE1	1:B:4081:VAL:HG21	2.01	0.60
1:D:143:GLY:HA3	1:D:147:TRP:HE1	1.66	0.60
1:A:1178:ALA:HA	1:A:1180:ARG:HE	1.66	0.60
1:A:3948:LYS:HG2	1:A:4012:LEU:HD22	1.84	0.60
1:A:4904:PRO:HB3	1:A:4913:ARG:HE	1.65	0.60
1:B:426:ARG:HE	1:B:431:PRO:HB3	1.67	0.60
1:C:138:GLN:HG2	1:C:139:GLU:H	1.66	0.60
1:C:3948:LYS:HG2	1:C:4012:LEU:HD22	1.84	0.60
1:C:4679:ARG:NH1	1:C:4715:TYR:OH	2.34	0.60
1:D:3948:LYS:HG2	1:D:4012:LEU:HD22	1.84	0.60
1:D:4078:GLN:OE1	1:D:4081:VAL:HG21	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:GLN:HG2	1:A:139:GLU:H	1.66	0.60
1:B:2014:ASP:CB	1:B:3660:ALA:HB2	2.31	0.60
1:C:426:ARG:HE	1:C:431:PRO:HB3	1.67	0.60
1:C:4071:ILE:O	1:C:4072:VAL:C	2.45	0.60
1:B:4124:ASN:CA	1:B:4127:GLU:HB3	2.32	0.60
1:D:544:LEU:HD12	1:D:574:VAL:HG13	1.83	0.60
1:D:2292:GLU:O	1:D:2293:GLN:C	2.44	0.60
1:B:1974:ARG:HB2	1:B:3643:ASN:HB2	1.83	0.60
1:B:3889:GLN:HB2	1:B:3964:SER:HA	1.82	0.60
1:B:3948:LYS:HG2	1:B:4012:LEU:HD22	1.84	0.60
1:C:1100:MET:HB2	1:C:1143:TRP:HZ3	1.67	0.60
1:D:131:LEU:HG	1:D:178:ARG:HH12	1.66	0.60
1:D:1178:ALA:HA	1:D:1180:ARG:HE	1.66	0.60
1:D:2014:ASP:CB	1:D:3660:ALA:HB2	2.31	0.60
1:D:4232:GLU:OE1	1:D:5019:TRP:NE1	2.30	0.60
1:D:4719:PHE:HD1	1:D:4722:ARG:HH11	1.48	0.60
1:A:131:LEU:HG	1:A:178:ARG:HH12	1.66	0.60
1:A:426:ARG:HE	1:A:431:PRO:HB3	1.67	0.60
1:B:320:LYS:NZ	1:B:381:GLU:O	2.32	0.60
1:C:649:PHE:HB3	1:C:776:LEU:HD13	1.83	0.60
1:C:1095:VAL:HB	1:C:1199:VAL:HG23	1.83	0.60
1:C:4124:ASN:CA	1:C:4127:GLU:HB3	2.32	0.60
1:D:359:TYR:HA	1:D:376:ALA:HA	1.83	0.60
1:A:469:ARG:NH2	1:A:3712:GLU:CB	2.65	0.60
1:A:4864:ASN:ND2	1:A:4871:GLU:OE1	2.33	0.60
1:D:2022:PRO:HB2	1:D:2024:PRO:HD2	1.84	0.60
1:D:3889:GLN:HB2	1:D:3964:SER:HA	1.82	0.60
1:A:649:PHE:HB3	1:A:776:LEU:HD13	1.83	0.60
1:A:671:VAL:HG22	1:A:740:PRO:HG3	1.84	0.60
1:A:1095:VAL:HB	1:A:1199:VAL:HG23	1.83	0.60
1:A:2022:PRO:HB2	1:A:2024:PRO:HD2	1.84	0.60
1:A:4071:ILE:O	1:A:4075:GLU:N	2.35	0.60
1:B:720:HIS:HD2	1:B:727:ALA:CA	2.12	0.60
1:C:313:SER:HB3	1:C:351:VAL:HB	1.84	0.60
1:C:4864:ASN:ND2	1:C:4871:GLU:OE1	2.33	0.60
1:D:4071:ILE:O	1:D:4072:VAL:C	2.45	0.60
1:D:4087:LEU:CD1	1:D:4123:ILE:HA	2.29	0.60
1:D:4679:ARG:NH1	1:D:4715:TYR:OH	2.34	0.60
1:A:4087:LEU:CD1	1:A:4123:ILE:HA	2.29	0.59
1:C:131:LEU:HG	1:C:178:ARG:HH12	1.66	0.59
1:C:2103:VAL:CG1	1:C:3680:ALA:CB	2.79	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4078:GLN:C	1:C:4081:VAL:HG22	2.27	0.59
1:D:649:PHE:HB3	1:D:776:LEU:HD13	1.83	0.59
1:D:4136:ALA:HA	1:D:4139:ILE:CD1	2.27	0.59
1:A:1100:MET:HB2	1:A:1143:TRP:HZ3	1.67	0.59
1:B:4078:GLN:C	1:B:4081:VAL:HG22	2.27	0.59
1:B:4130:ASN:O	1:B:4131:ARG:C	2.45	0.59
1:B:4679:ARG:NH1	1:B:4715:TYR:OH	2.34	0.59
1:C:671:VAL:HG22	1:C:740:PRO:HG3	1.84	0.59
1:D:469:ARG:NH2	1:D:3712:GLU:CB	2.65	0.59
1:A:4679:ARG:NH1	1:A:4715:TYR:OH	2.34	0.59
1:B:1100:MET:HB2	1:B:1143:TRP:HZ3	1.67	0.59
1:B:4071:ILE:O	1:B:4075:GLU:N	2.35	0.59
1:C:4664:LEU:HD23	1:C:4665:LYS:HZ3	1.67	0.59
1:D:1974:ARG:HB2	1:D:3643:ASN:HB2	1.83	0.59
1:A:2292:GLU:O	1:A:2293:GLN:C	2.44	0.59
1:B:1721:GLU:OE2	1:B:1725:ARG:NH2	2.36	0.59
1:C:469:ARG:NH2	1:C:3712:GLU:CB	2.65	0.59
1:C:4719:PHE:HD1	1:C:4722:ARG:HH11	1.48	0.59
1:D:4961:CYS:HG	1:D:4983:HIS:HE2	1.50	0.59
1:A:359:TYR:HA	1:A:376:ALA:HA	1.83	0.59
1:A:4090:LYS:HA	1:A:4093:PHE:HB2	1.85	0.59
1:B:469:ARG:NH2	1:B:3712:GLU:CB	2.65	0.59
1:B:2022:PRO:HB2	1:B:2024:PRO:HD2	1.84	0.59
1:B:4071:ILE:O	1:B:4072:VAL:C	2.45	0.59
1:B:4961:CYS:HB3	1:B:5023:PRO:HB2	1.84	0.59
1:C:4961:CYS:HB3	1:C:5023:PRO:HB2	1.84	0.59
1:D:864:PRO:HD2	1:D:867:LEU:HD12	1.83	0.59
1:D:4090:LYS:HA	1:D:4093:PHE:HB2	1.85	0.59
1:A:4180:ARG:NH1	1:A:4194:TYR:OH	2.36	0.59
1:B:131:LEU:HG	1:B:178:ARG:HH12	1.66	0.59
1:C:864:PRO:HD2	1:C:867:LEU:HD12	1.83	0.59
1:C:4021:LYS:HA	1:C:4024:VAL:HG22	1.85	0.59
1:D:4698:LYS:NZ	1:D:4785:THR:OG1	2.33	0.59
1:A:1243:PRO:HB2	1:A:1600:LEU:HD12	1.84	0.59
1:A:4021:LYS:HA	1:A:4024:VAL:HG22	1.85	0.59
1:B:138:GLN:HG2	1:B:139:GLU:H	1.66	0.59
1:B:359:TYR:HA	1:B:376:ALA:HA	1.83	0.59
1:B:671:VAL:HG22	1:B:740:PRO:HG3	1.84	0.59
1:D:426:ARG:HE	1:D:431:PRO:HB3	1.67	0.59
1:D:4025:VAL:O	1:D:4029:SER:OG	2.17	0.59
1:A:4078:GLN:C	1:A:4081:VAL:HG22	2.27	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:911:HIS:O	1:B:918:ARG:NH2	2.36	0.59
1:B:2347:GLU:O	1:B:2351:ASN:N	2.31	0.59
1:B:4021:LYS:HA	1:B:4024:VAL:HG22	1.85	0.59
1:B:4864:ASN:ND2	1:B:4871:GLU:OE1	2.33	0.59
1:C:4136:ALA:HA	1:C:4139:ILE:CD1	2.27	0.59
1:C:143:GLY:HA3	1:C:147:TRP:HE1	1.66	0.59
1:C:2022:PRO:HB2	1:C:2024:PRO:HD2	1.84	0.59
1:C:4180:ARG:NH1	1:C:4194:TYR:OH	2.36	0.59
1:D:4078:GLN:C	1:D:4081:VAL:HG22	2.27	0.59
1:D:4961:CYS:HB3	1:D:5023:PRO:HB2	1.84	0.59
1:A:4130:ASN:O	1:A:4131:ARG:C	2.45	0.59
1:B:143:GLY:HA3	1:B:147:TRP:HE1	1.66	0.59
1:B:313:SER:HB3	1:B:351:VAL:HB	1.84	0.59
1:B:4087:LEU:CD1	1:B:4123:ILE:HA	2.29	0.59
1:B:4180:ARG:NH1	1:B:4194:TYR:OH	2.36	0.59
1:C:1243:PRO:HB2	1:C:1600:LEU:HD12	1.84	0.59
1:C:2014:ASP:CB	1:C:3660:ALA:HB2	2.31	0.59
1:C:4025:VAL:O	1:C:4029:SER:OG	2.17	0.59
1:A:911:HIS:O	1:A:918:ARG:NH2	2.36	0.58
1:A:1721:GLU:OE2	1:A:1725:ARG:NH2	2.36	0.58
1:A:4124:ASN:CA	1:A:4127:GLU:HB3	2.32	0.58
1:D:534:ARG:HH21	1:D:572:PRO:HD2	1.67	0.58
1:D:4021:LYS:HA	1:D:4024:VAL:HG22	1.85	0.58
1:D:4998:LYS:NZ	1:D:5007:GLU:OE1	2.36	0.58
1:A:257:ARG:O	1:A:284:HIS:NE2	2.22	0.58
1:A:4078:GLN:OE1	1:A:4081:VAL:HG21	2.01	0.58
1:A:4578:LEU:C	1:B:4879:MET:CB	2.76	0.58
1:A:4823:LEU:CD1	1:B:4843:LEU:HD13	2.20	0.58
1:A:4879:MET:CB	1:D:4578:LEU:C	2.76	0.58
1:B:1243:PRO:HB2	1:B:1600:LEU:HD12	1.84	0.58
1:B:1695:LEU:HB3	1:B:1810:LYS:HZ3	1.68	0.58
1:C:1721:GLU:OE2	1:C:1725:ARG:NH2	2.36	0.58
1:C:1974:ARG:HB2	1:C:3643:ASN:HB2	1.83	0.58
1:C:4090:LYS:HA	1:C:4093:PHE:HB2	1.85	0.58
1:D:313:SER:HB3	1:D:351:VAL:HB	1.84	0.58
1:D:1095:VAL:HB	1:D:1199:VAL:HG23	1.83	0.58
1:D:4130:ASN:O	1:D:4131:ARG:C	2.45	0.58
1:A:313:SER:HB3	1:A:351:VAL:HB	1.84	0.58
1:A:4961:CYS:HB3	1:A:5023:PRO:HB2	1.84	0.58
1:B:4025:VAL:O	1:B:4029:SER:OG	2.17	0.58
1:C:534:ARG:HH21	1:C:572:PRO:HD2	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:911:HIS:O	1:D:918:ARG:NH2	2.36	0.58
1:D:4124:ASN:CA	1:D:4127:GLU:HB3	2.32	0.58
1:A:4998:LYS:NZ	1:A:5007:GLU:OE1	2.36	0.58
1:B:534:ARG:HH21	1:B:572:PRO:HD2	1.67	0.58
1:C:320:LYS:NZ	1:C:381:GLU:O	2.32	0.58
1:C:4087:LEU:CD1	1:C:4123:ILE:HA	2.29	0.58
1:C:4888:TYR:HD1	1:D:4914:VAL:HG12	1.60	0.58
1:D:1100:MET:HB2	1:D:1143:TRP:HZ3	1.67	0.58
1:D:1721:GLU:OE2	1:D:1725:ARG:NH2	2.36	0.58
1:D:671:VAL:HG22	1:D:740:PRO:HG3	1.84	0.58
1:D:2347:GLU:O	1:D:2351:ASN:N	2.31	0.58
1:B:670:GLU:HG3	1:B:788:LYS:H	1.69	0.58
1:B:4074:SER:O	1:B:4075:GLU:C	2.47	0.58
1:C:4998:LYS:NZ	1:C:5007:GLU:OE1	2.36	0.58
1:D:219:VAL:HG22	1:D:259:LEU:HD12	1.86	0.58
1:D:4180:ARG:NH1	1:D:4194:TYR:OH	2.36	0.58
1:C:911:HIS:O	1:C:918:ARG:NH2	2.36	0.58
1:D:1243:PRO:HB2	1:D:1600:LEU:HD12	1.84	0.58
1:B:2287:ALA:HA	1:B:2290:LEU:HD22	1.86	0.58
1:B:4578:LEU:C	1:C:4879:MET:CB	2.76	0.58
1:C:219:VAL:HG22	1:C:259:LEU:HD12	1.86	0.58
1:C:1126:GLY:HA3	1:C:1143:TRP:CE2	2.39	0.58
1:D:4071:ILE:O	1:D:4075:GLU:N	2.35	0.58
1:A:534:ARG:HH21	1:A:572:PRO:HD2	1.67	0.58
1:A:1126:GLY:HA3	1:A:1143:TRP:CE2	2.39	0.58
1:A:4074:SER:O	1:A:4075:GLU:C	2.47	0.58
1:A:4091:LYS:H	1:A:4091:LYS:HZ3	1.51	0.58
1:B:257:ARG:O	1:B:284:HIS:NE2	2.22	0.58
1:B:591:ASP:O	1:B:1594:ARG:NH2	2.37	0.58
1:B:4664:LEU:HD23	1:B:4665:LYS:HZ3	1.68	0.58
1:B:4823:LEU:CD1	1:C:4843:LEU:HD13	2.20	0.58
1:C:670:GLU:HG3	1:C:788:LYS:H	1.69	0.58
1:C:4578:LEU:C	1:D:4879:MET:CB	2.76	0.58
1:A:2173:GLN:O	1:A:2177:LEU:HD23	2.04	0.58
1:A:4071:ILE:O	1:A:4072:VAL:C	2.45	0.58
1:A:4242:ILE:O	1:A:4246:GLN:N	2.36	0.58
1:B:1126:GLY:HA3	1:B:1143:TRP:CE2	2.39	0.58
1:C:4020:GLN:HA	1:C:4023:MET:HE2	1.86	0.58
1:D:1126:GLY:HA3	1:D:1143:TRP:CE2	2.39	0.58
1:D:2173:GLN:O	1:D:2177:LEU:HD23	2.04	0.58
1:A:219:VAL:HG22	1:A:259:LEU:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:670:GLU:HG3	1:A:788:LYS:H	1.69	0.57
1:B:4090:LYS:HA	1:B:4093:PHE:HB2	1.85	0.57
1:C:591:ASP:O	1:C:1594:ARG:NH2	2.37	0.57
1:C:4074:SER:O	1:C:4075:GLU:C	2.47	0.57
1:A:591:ASP:O	1:A:1594:ARG:NH2	2.37	0.57
1:B:4966:ASP:OD1	1:B:4967:TYR:N	2.37	0.57
1:C:1718:ILE:HG13	1:C:1719:HIS:CD2	2.39	0.57
1:C:2173:GLN:O	1:C:2177:LEU:HD23	2.04	0.57
1:D:670:GLU:HG3	1:D:788:LYS:H	1.69	0.57
1:A:1718:ILE:HG13	1:A:1719:HIS:CD2	2.39	0.57
1:A:4843:LEU:HD12	1:D:4823:LEU:HD21	1.86	0.57
1:C:256:ALA:HB1	1:C:286:THR:HG21	1.87	0.57
1:D:257:ARG:O	1:D:284:HIS:NE2	2.22	0.57
1:D:1765:VAL:HG22	1:D:1766:GLY:H	1.70	0.57
1:D:4078:GLN:O	1:D:4081:VAL:N	2.36	0.57
1:A:256:ALA:HB1	1:A:286:THR:HG21	1.87	0.57
1:A:689:THR:H	1:A:778:PHE:HE2	1.53	0.57
1:B:661:LYS:HB3	1:B:808:TYR:CD2	2.40	0.57
1:B:1765:VAL:HG22	1:B:1766:GLY:H	1.70	0.57
1:D:4087:LEU:HD23	1:D:4121:GLU:CB	2.26	0.57
1:A:2292:GLU:CD	1:A:2296:GLU:HB2	2.29	0.57
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.37	0.57
1:C:1677:GLY:H	1:C:1721:GLU:CD	2.12	0.57
1:D:689:THR:H	1:D:778:PHE:HE2	1.53	0.57
1:D:4020:GLN:HA	1:D:4023:MET:HE2	1.86	0.57
1:D:4128:PHE:O	1:D:4129:ALA:C	2.47	0.57
1:A:2287:ALA:HA	1:A:2290:LEU:HD22	1.86	0.57
1:B:2292:GLU:CD	1:B:2296:GLU:HB2	2.29	0.57
1:D:591:ASP:O	1:D:1594:ARG:NH2	2.37	0.57
1:D:1677:GLY:H	1:D:1721:GLU:CD	2.12	0.57
1:D:4074:SER:O	1:D:4075:GLU:C	2.47	0.57
1:B:219:VAL:HG22	1:B:259:LEU:HD12	1.86	0.57
1:B:4071:ILE:C	1:B:4073:GLY:N	2.60	0.57
1:D:1718:ILE:HG13	1:D:1719:HIS:CD2	2.39	0.57
1:A:4020:GLN:HA	1:A:4023:MET:HE2	1.86	0.57
1:B:1677:GLY:H	1:B:1721:GLU:CD	2.12	0.57
1:B:2173:GLN:O	1:B:2177:LEU:HD23	2.04	0.57
1:C:1765:VAL:HG22	1:C:1766:GLY:H	1.70	0.57
1:C:4090:LYS:O	1:C:4091:LYS:C	2.48	0.57
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.34	0.57
1:D:256:ALA:HB1	1:D:286:THR:HG21	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:708:GLY:HA3	1:A:722:TRP:HB3	1.87	0.57
1:A:942:ALA:HB2	1:A:1052:ASN:HB2	1.86	0.57
1:A:1765:VAL:HG22	1:A:1766:GLY:H	1.70	0.57
1:A:4138:ASP:O	1:A:4141:PHE:N	2.38	0.57
1:B:4242:ILE:O	1:B:4246:GLN:N	2.36	0.57
1:D:4138:ASP:O	1:D:4141:PHE:N	2.38	0.57
1:A:661:LYS:HB3	1:A:808:TYR:CD2	2.40	0.57
1:C:257:ARG:O	1:C:284:HIS:NE2	2.22	0.57
1:C:4071:ILE:O	1:C:4075:GLU:N	2.35	0.57
1:C:4864:ASN:HA	1:C:4874:MET:HE1	1.87	0.57
1:B:689:THR:H	1:B:778:PHE:HE2	1.53	0.56
1:B:942:ALA:HB2	1:B:1052:ASN:HB2	1.86	0.56
1:C:4823:LEU:HD21	1:D:4843:LEU:HD12	1.86	0.56
1:D:2287:ALA:HA	1:D:2290:LEU:HD22	1.86	0.56
1:A:2291:GLN:C	1:A:2293:GLN:N	2.54	0.56
1:A:4864:ASN:HA	1:A:4874:MET:HE1	1.87	0.56
1:B:221:ARG:NE	1:B:258:SER:OG	2.36	0.56
1:B:1216:ILE:O	1:B:1220:GLN:NE2	2.39	0.56
1:C:629:ARG:HD3	1:C:634:GLN:HG2	1.87	0.56
1:C:1931:LEU:HB3	1:C:1935:VAL:HB	1.87	0.56
1:C:2287:ALA:HA	1:C:2290:LEU:HD22	1.86	0.56
1:C:4698:LYS:NZ	1:C:4785:THR:OG1	2.33	0.56
1:D:1931:LEU:HB3	1:D:1935:VAL:HB	1.87	0.56
1:D:2015:GLU:C	1:D:2017:ASP:N	2.63	0.56
1:D:4081:VAL:O	1:D:4083:ASP:N	2.38	0.56
1:A:1677:GLY:H	1:A:1721:GLU:CD	2.12	0.56
1:A:4322:LEU:O	1:C:4911:LEU:HD12	2.06	0.56
1:A:4664:LEU:HD23	1:A:4665:LYS:HZ3	1.70	0.56
1:A:4911:LEU:HD12	1:C:4322:LEU:O	2.06	0.56
1:B:256:ALA:HB1	1:B:286:THR:HG21	1.87	0.56
1:B:708:GLY:HA3	1:B:722:TRP:HB3	1.87	0.56
1:B:4823:LEU:HD21	1:C:4843:LEU:HD12	1.86	0.56
1:B:4864:ASN:HA	1:B:4874:MET:HE1	1.87	0.56
1:C:661:LYS:HB3	1:C:808:TYR:CD2	2.40	0.56
1:C:2347:GLU:O	1:C:2351:ASN:N	2.31	0.56
1:C:4138:ASP:O	1:C:4141:PHE:N	2.38	0.56
1:D:2191:PHE:HA	1:D:2198:MET:HE3	1.88	0.56
1:D:4063:ASP:HA	1:D:4066:LEU:CD2	2.35	0.56
1:B:4081:VAL:O	1:B:4083:ASP:N	2.38	0.56
1:C:4063:ASP:HA	1:C:4066:LEU:CD2	2.35	0.56
1:C:4081:VAL:O	1:C:4083:ASP:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.37	0.56
1:D:661:LYS:HB3	1:D:808:TYR:CD2	2.40	0.56
1:A:629:ARG:HD3	1:A:634:GLN:HG2	1.87	0.56
1:A:4094:GLN:NE2	1:A:4098:ASP:OD2	2.35	0.56
1:B:3641:LEU:O	1:B:3642:TYR:C	2.48	0.56
1:B:4138:ASP:O	1:B:4141:PHE:N	2.38	0.56
1:C:2292:GLU:CD	1:C:2296:GLU:HB2	2.29	0.56
1:C:4987:ASN:HA	1:C:4990:PHE:HD2	1.71	0.56
1:D:1216:ILE:O	1:D:1220:GLN:NE2	2.39	0.56
1:D:1695:LEU:HB3	1:D:1810:LYS:HZ3	1.71	0.56
1:D:4242:ILE:O	1:D:4246:GLN:N	2.36	0.56
1:D:4966:ASP:OD1	1:D:4967:TYR:N	2.37	0.56
1:A:4136:ALA:HA	1:A:4139:ILE:CD1	2.27	0.56
1:B:4136:ALA:HA	1:B:4139:ILE:CD1	2.27	0.56
1:B:4987:ASN:HA	1:B:4990:PHE:HD2	1.71	0.56
1:C:243:ARG:NH1	1:C:301:VAL:O	2.34	0.56
1:C:3641:LEU:O	1:C:3642:TYR:C	2.48	0.56
1:D:4130:ASN:O	1:D:4133:GLN:N	2.39	0.56
1:A:2326:CYS:SG	1:A:2327:GLY:N	2.79	0.56
1:A:4081:VAL:O	1:A:4083:ASP:N	2.38	0.56
1:A:4130:ASN:O	1:A:4133:GLN:N	2.39	0.56
1:B:629:ARG:HD3	1:B:634:GLN:HG2	1.87	0.56
1:B:2326:CYS:SG	1:B:2327:GLY:N	2.79	0.56
1:B:4020:GLN:HA	1:B:4023:MET:HE2	1.86	0.56
1:D:942:ALA:HB2	1:D:1052:ASN:HB2	1.86	0.56
1:D:1763:PRO:HG3	1:D:2094:LEU:HD21	1.88	0.56
1:D:3641:LEU:O	1:D:3642:TYR:C	2.48	0.56
1:D:4090:LYS:O	1:D:4091:LYS:C	2.48	0.56
1:D:4094:GLN:NE2	1:D:4098:ASP:OD2	2.35	0.56
1:A:1654:SER:HB3	1:A:1704:PRO:HG3	1.88	0.56
1:A:4823:LEU:HD21	1:B:4843:LEU:HD12	1.86	0.56
1:B:1718:ILE:HG13	1:B:1719:HIS:CD2	2.39	0.56
1:C:708:GLY:HA3	1:C:722:TRP:HB3	1.87	0.56
1:C:4087:LEU:HD13	1:C:4122:MET:C	2.31	0.56
1:A:4063:ASP:HA	1:A:4066:LEU:CD2	2.35	0.56
1:A:4244:GLU:HB2	1:A:4668:LEU:HD21	1.88	0.56
1:A:4698:LYS:NZ	1:A:4785:THR:OG1	2.33	0.56
1:B:4650:HIS:HE2	1:B:4795:TYR:HH	1.54	0.56
1:C:1763:PRO:HG3	1:C:2094:LEU:HD21	1.88	0.56
1:C:4130:ASN:O	1:C:4131:ARG:C	2.45	0.56
1:D:708:GLY:HA3	1:D:722:TRP:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2292:GLU:CD	1:D:2296:GLU:HB2	2.29	0.56
1:D:2326:CYS:SG	1:D:2327:GLY:N	2.79	0.56
1:A:1216:ILE:O	1:A:1220:GLN:NE2	2.39	0.56
1:A:4128:PHE:O	1:A:4129:ALA:C	2.47	0.56
1:A:4914:VAL:HG12	1:D:4888:TYR:HD1	1.60	0.56
1:B:1654:SER:HB3	1:B:1704:PRO:HG3	1.88	0.56
1:B:4001:MET:HE1	1:B:4061:PHE:HB2	1.88	0.56
1:B:4888:TYR:CZ	1:C:4904:PRO:CG	2.87	0.56
1:C:403:MET:O	1:C:407:THR:N	2.39	0.56
1:D:3937:TYR:O	1:D:4002:LYS:NZ	2.37	0.56
1:D:4864:ASN:HA	1:D:4874:MET:HE1	1.87	0.56
1:A:113:HIS:HE1	1:A:403:MET:HE3	1.71	0.55
1:A:2015:GLU:C	1:A:2017:ASP:N	2.63	0.55
1:A:2191:PHE:HA	1:A:2198:MET:HE3	1.88	0.55
1:A:3937:TYR:O	1:A:4002:LYS:NZ	2.37	0.55
1:A:4001:MET:HE1	1:A:4061:PHE:HB2	1.88	0.55
1:B:4130:ASN:O	1:B:4133:GLN:N	2.39	0.55
1:B:4823:LEU:CD1	1:C:4843:LEU:HD12	2.30	0.55
1:C:4798:MET:O	1:C:4802:GLY:N	2.39	0.55
1:D:629:ARG:HD3	1:D:634:GLN:HG2	1.87	0.55
1:D:1654:SER:HB3	1:D:1704:PRO:HG3	1.88	0.55
1:D:4091:LYS:NZ	1:D:4091:LYS:H	2.04	0.55
1:A:4090:LYS:O	1:A:4091:LYS:C	2.48	0.55
1:B:4087:LEU:HD13	1:B:4122:MET:C	2.31	0.55
1:C:689:THR:H	1:C:778:PHE:HE2	1.53	0.55
1:C:942:ALA:HB2	1:C:1052:ASN:HB2	1.86	0.55
1:C:1229:ASN:C	1:C:1230:MET:HE2	2.31	0.55
1:C:1695:LEU:HB3	1:C:1810:LYS:HZ2	1.71	0.55
1:C:4001:MET:HE1	1:C:4061:PHE:HB2	1.88	0.55
1:C:4661:TYR:HA	1:C:4665:LYS:HE2	1.89	0.55
1:D:4001:MET:HE1	1:D:4061:PHE:HB2	1.88	0.55
1:D:4786:ASP:OD2	1:D:4789:PHE:N	2.34	0.55
1:A:1763:PRO:HG3	1:A:2094:LEU:HD21	1.88	0.55
1:B:4661:TYR:HA	1:B:4665:LYS:HE2	1.89	0.55
1:C:4130:ASN:O	1:C:4133:GLN:N	2.39	0.55
1:D:111:HIS:N	1:D:116:MET:O	2.36	0.55
1:A:221:ARG:NE	1:A:258:SER:OG	2.36	0.55
1:A:1780:PRO:HD3	1:A:1801:ALA:H	1.72	0.55
1:A:4087:LEU:HD13	1:A:4123:ILE:N	2.21	0.55
1:B:113:HIS:HE1	1:B:403:MET:HE3	1.71	0.55
1:B:4087:LEU:HD23	1:B:4121:GLU:CB	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4087:LEU:HD13	1:B:4123:ILE:N	2.21	0.55
1:C:111:HIS:N	1:C:116:MET:O	2.36	0.55
1:A:403:MET:O	1:A:407:THR:N	2.39	0.55
1:A:4987:ASN:HA	1:A:4990:PHE:HD2	1.71	0.55
1:B:4798:MET:O	1:B:4802:GLY:N	2.39	0.55
1:B:4911:LEU:HD12	1:D:4322:LEU:O	2.06	0.55
1:C:2326:CYS:SG	1:C:2327:GLY:N	2.79	0.55
1:C:4087:LEU:HD13	1:C:4123:ILE:N	2.21	0.55
1:D:889:GLN:O	1:D:902:ARG:NH1	2.40	0.55
1:D:1229:ASN:C	1:D:1230:MET:HE2	2.31	0.55
1:D:4087:LEU:HD13	1:D:4122:MET:C	2.31	0.55
1:D:4124:ASN:O	1:D:4125:PHE:O	2.25	0.55
1:A:3641:LEU:O	1:A:3642:TYR:C	2.48	0.55
1:A:4091:LYS:H	1:A:4091:LYS:NZ	2.04	0.55
1:B:1763:PRO:HG3	1:B:2094:LEU:HD21	1.88	0.55
1:B:2015:GLU:C	1:B:2017:ASP:N	2.63	0.55
1:C:113:HIS:HE1	1:C:403:MET:HE3	1.71	0.55
1:C:1216:ILE:O	1:C:1220:GLN:NE2	2.39	0.55
1:C:1993:ARG:O	1:C:1996:ARG:NH2	2.40	0.55
1:C:2015:GLU:C	1:C:2017:ASP:N	2.63	0.55
1:C:4650:HIS:HE2	1:C:4795:TYR:HH	1.54	0.55
1:D:403:MET:O	1:D:407:THR:N	2.39	0.55
1:D:3647:HIS:CD2	1:D:3648:ARG:HD2	2.42	0.55
1:D:4091:LYS:H	1:D:4091:LYS:HZ3	1.53	0.55
1:A:1229:ASN:C	1:A:1230:MET:HE2	2.31	0.55
1:A:3647:HIS:CD2	1:A:3648:ARG:HD2	2.42	0.55
1:A:4124:ASN:O	1:A:4125:PHE:O	2.25	0.55
1:B:1229:ASN:C	1:B:1230:MET:HE2	2.31	0.55
1:B:4063:ASP:HA	1:B:4066:LEU:CD2	2.35	0.55
1:B:4067:LYS:O	1:B:4071:ILE:HD12	2.07	0.55
1:B:4091:LYS:H	1:B:4091:LYS:NZ	2.04	0.55
1:C:331:VAL:HG12	1:C:333:GLY:H	1.72	0.55
1:C:1654:SER:HB3	1:C:1704:PRO:HG3	1.88	0.55
1:A:1931:LEU:HB3	1:A:1935:VAL:HB	1.87	0.55
1:A:4071:ILE:C	1:A:4073:GLY:N	2.60	0.55
1:B:1931:LEU:HB3	1:B:1935:VAL:HB	1.87	0.55
1:B:2191:PHE:HA	1:B:2198:MET:HE3	1.88	0.55
1:B:4017:LEU:HD12	1:B:4132:PHE:CZ	2.42	0.55
1:C:4078:GLN:O	1:C:4081:VAL:N	2.36	0.55
1:D:3668:SER:O	1:D:3672:ARG:NE	2.40	0.55
1:D:4087:LEU:HD13	1:D:4123:ILE:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2203:MET:O	1:A:2206:THR:OG1	2.24	0.55
1:B:331:VAL:HG12	1:B:333:GLY:H	1.72	0.55
1:B:4078:GLN:O	1:B:4079:ASP:C	2.50	0.55
1:B:4078:GLN:O	1:B:4081:VAL:N	2.36	0.55
1:B:4322:LEU:O	1:D:4911:LEU:HD12	2.06	0.55
1:B:4998:LYS:NZ	1:B:5007:GLU:OE1	2.36	0.55
1:C:1577:ALA:HB1	1:C:1584:ARG:HA	1.89	0.55
1:D:4017:LEU:HD12	1:D:4132:PHE:CZ	2.42	0.55
1:D:4987:ASN:HA	1:D:4990:PHE:HD2	1.71	0.55
1:A:4067:LYS:O	1:A:4071:ILE:HD12	2.07	0.55
1:A:4888:TYR:CZ	1:B:4904:PRO:CG	2.87	0.55
1:C:4244:GLU:HB2	1:C:4668:LEU:HD21	1.88	0.55
1:D:331:VAL:HG12	1:D:333:GLY:H	1.72	0.55
1:D:4067:LYS:O	1:D:4071:ILE:HD12	2.07	0.55
1:A:1096:THR:HG23	1:A:1199:VAL:HG22	1.89	0.54
1:A:4017:LEU:HD12	1:A:4132:PHE:CZ	2.42	0.54
1:A:4078:GLN:O	1:A:4081:VAL:N	2.36	0.54
1:B:889:GLN:O	1:B:902:ARG:NH1	2.40	0.54
1:B:4089:SER:N	1:B:4120:ASN:HA	2.21	0.54
1:B:4244:GLU:HB2	1:B:4668:LEU:HD21	1.88	0.54
1:C:2186:MET:CE	1:C:2235:PHE:CG	2.90	0.54
1:C:4017:LEU:HD12	1:C:4132:PHE:CZ	2.42	0.54
1:C:4091:LYS:H	1:C:4091:LYS:NZ	2.04	0.54
1:D:1780:PRO:HD3	1:D:1801:ALA:H	1.72	0.54
1:A:4650:HIS:HE2	1:A:4795:TYR:HH	1.54	0.54
1:B:3668:SER:O	1:B:3672:ARG:NE	2.40	0.54
1:B:4090:LYS:O	1:B:4091:LYS:C	2.48	0.54
1:B:4189:ARG:NH1	1:B:4191:GLU:HB3	2.23	0.54
1:D:4244:GLU:HB2	1:D:4668:LEU:HD21	1.88	0.54
1:A:720:HIS:CD2	1:A:727:ALA:HA	2.34	0.54
1:A:4078:GLN:O	1:A:4079:ASP:C	2.50	0.54
1:A:4189:ARG:NH1	1:A:4191:GLU:HB3	2.23	0.54
1:B:1096:THR:HG23	1:B:1199:VAL:HG22	1.89	0.54
1:B:1780:PRO:HD3	1:B:1801:ALA:H	1.72	0.54
1:B:2015:GLU:O	1:B:2017:ASP:N	2.37	0.54
1:B:4128:PHE:O	1:B:4129:ALA:C	2.47	0.54
1:C:1244:GLN:OE1	1:C:1646:ARG:NH1	2.40	0.54
1:C:4189:ARG:NH1	1:C:4191:GLU:HB3	2.23	0.54
1:D:1577:ALA:HB1	1:D:1584:ARG:HA	1.89	0.54
1:D:4189:ARG:NH1	1:D:4191:GLU:HB3	2.23	0.54
1:A:331:VAL:HG12	1:A:333:GLY:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4888:TYR:HD1	1:B:4914:VAL:HG12	1.60	0.54
1:B:1244:GLN:OE1	1:B:1646:ARG:NH1	2.40	0.54
1:B:3647:HIS:CD2	1:B:3648:ARG:HD2	2.42	0.54
1:D:4661:TYR:HA	1:D:4665:LYS:HE2	1.89	0.54
1:A:1244:GLN:OE1	1:A:1646:ARG:NH1	2.40	0.54
1:A:2291:GLN:O	1:A:2293:GLN:N	2.41	0.54
1:A:4087:LEU:HD13	1:A:4122:MET:C	2.31	0.54
1:B:243:ARG:NH1	1:B:301:VAL:O	2.34	0.54
1:B:2186:MET:CE	1:B:2235:PHE:CG	2.90	0.54
1:C:4124:ASN:O	1:C:4125:PHE:O	2.25	0.54
1:D:4069:LYS:HB2	1:D:4130:ASN:HD21	1.73	0.54
1:A:1993:ARG:O	1:A:1996:ARG:NH2	2.40	0.54
1:A:2186:MET:CE	1:A:2235:PHE:CG	2.90	0.54
1:A:4661:TYR:HA	1:A:4665:LYS:HE2	1.89	0.54
1:C:889:GLN:O	1:C:902:ARG:NH1	2.40	0.54
1:C:2013:LYS:CB	1:C:2031:LEU:HD22	2.38	0.54
1:C:3668:SER:O	1:C:3672:ARG:NE	2.40	0.54
1:C:4087:LEU:HD23	1:C:4121:GLU:CB	2.26	0.54
1:C:4094:GLN:NE2	1:C:4098:ASP:OD2	2.35	0.54
1:C:4696:ASP:HB3	1:C:4700:GLN:HB2	1.89	0.54
1:D:2143:THR:HB	1:D:3651:ASN:HD21	1.73	0.54
1:D:4078:GLN:O	1:D:4079:ASP:C	2.50	0.54
1:B:1993:ARG:O	1:B:1996:ARG:NH2	2.40	0.54
1:B:3830:GLN:HA	1:B:3833:GLN:HG2	1.90	0.54
1:C:1780:PRO:HD3	1:C:1801:ALA:H	1.72	0.54
1:C:2143:THR:HB	1:C:3651:ASN:HD21	1.73	0.54
1:C:2191:PHE:HA	1:C:2198:MET:HE3	1.88	0.54
1:D:113:HIS:HE1	1:D:403:MET:HE3	1.71	0.54
1:D:1680:ARG:HA	1:D:1797:ARG:HD3	1.90	0.54
1:D:4071:ILE:C	1:D:4073:GLY:N	2.60	0.54
1:D:4104:THR:HG22	1:D:4106:PRO:HD2	1.90	0.54
1:A:1081:TYR:HE2	1:A:1234:VAL:HG22	1.73	0.54
1:A:4798:MET:O	1:A:4802:GLY:N	2.39	0.54
1:B:4703:ARG:HA	1:B:4706:LEU:HD13	1.90	0.54
1:C:4104:THR:HG22	1:C:4106:PRO:HD2	1.90	0.54
1:A:889:GLN:O	1:A:902:ARG:NH1	2.40	0.54
1:A:3830:GLN:HA	1:A:3833:GLN:HG2	1.90	0.54
1:A:4904:PRO:CG	1:D:4888:TYR:CZ	2.87	0.54
1:B:111:HIS:N	1:B:116:MET:O	2.36	0.54
1:B:2013:LYS:CB	1:B:2031:LEU:HD22	2.38	0.54
1:C:3647:HIS:CD2	1:C:3648:ARG:HD2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4067:LYS:O	1:C:4071:ILE:HD12	2.07	0.54
1:D:221:ARG:NE	1:D:258:SER:OG	2.36	0.54
1:D:1081:TYR:HE2	1:D:1234:VAL:HG22	1.73	0.54
1:D:4798:MET:O	1:D:4802:GLY:N	2.39	0.54
1:A:3668:SER:O	1:A:3672:ARG:NE	2.40	0.54
1:B:1577:ALA:HB1	1:B:1584:ARG:HA	1.89	0.54
1:B:4124:ASN:O	1:B:4125:PHE:O	2.25	0.54
1:B:4786:ASP:OD2	1:B:4789:PHE:N	2.34	0.54
1:C:3772:THR:OG1	1:C:3815:LYS:NZ	2.41	0.54
1:D:2291:GLN:O	1:D:2293:GLN:N	2.41	0.54
1:D:3830:GLN:HA	1:D:3833:GLN:HG2	1.90	0.54
1:A:2013:LYS:CB	1:A:2031:LEU:HD22	2.38	0.53
1:C:3830:GLN:HA	1:C:3833:GLN:HG2	1.90	0.53
1:D:4138:ASP:O	1:D:4139:ILE:C	2.51	0.53
1:A:4080:TYR:O	1:A:4081:VAL:C	2.52	0.53
1:A:4104:THR:HG22	1:A:4106:PRO:HD2	1.90	0.53
1:B:2143:THR:HB	1:B:3651:ASN:HD21	1.73	0.53
1:C:2186:MET:HE3	1:C:2235:PHE:HD1	1.61	0.53
1:C:4128:PHE:O	1:C:4129:ALA:C	2.47	0.53
1:D:683:ARG:HG2	1:D:717:ASP:HB3	1.90	0.53
1:D:1993:ARG:O	1:D:1996:ARG:NH2	2.40	0.53
1:D:2013:LYS:CB	1:D:2031:LEU:HD22	2.38	0.53
1:D:2186:MET:CE	1:D:2235:PHE:CG	2.90	0.53
1:D:4696:ASP:HB3	1:D:4700:GLN:HB2	1.89	0.53
1:A:1680:ARG:HA	1:A:1797:ARG:HD3	1.90	0.53
1:A:4703:ARG:HA	1:A:4706:LEU:HD13	1.90	0.53
1:B:403:MET:O	1:B:407:THR:N	2.39	0.53
1:B:4698:LYS:NZ	1:B:4785:THR:OG1	2.33	0.53
1:C:221:ARG:NE	1:C:258:SER:OG	2.36	0.53
1:C:793:LEU:HB2	1:C:797:HIS:H	1.74	0.53
1:C:2291:GLN:O	1:C:2293:GLN:N	2.41	0.53
1:C:4691:GLN:NE2	1:C:4692:PRO:HD2	2.24	0.53
1:A:243:ARG:NH1	1:A:301:VAL:O	2.34	0.53
1:A:1577:ALA:HB1	1:A:1584:ARG:HA	1.89	0.53
1:A:4087:LEU:HD23	1:A:4121:GLU:CB	2.26	0.53
1:A:4696:ASP:HB3	1:A:4700:GLN:HB2	1.89	0.53
1:B:582:HIS:O	1:B:585:SER:OG	2.24	0.53
1:B:682:LEU:HD13	1:B:787:VAL:HG11	1.90	0.53
1:B:4696:ASP:HB3	1:B:4700:GLN:HB2	1.89	0.53
1:C:4078:GLN:HA	1:C:4081:VAL:CG1	2.39	0.53
1:C:4823:LEU:CD1	1:D:4843:LEU:HD12	2.30	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4073:GLY:O	1:D:4077:PHE:N	2.42	0.53
1:B:793:LEU:HB2	1:B:797:HIS:H	1.74	0.53
1:B:4104:THR:HG22	1:B:4106:PRO:HD2	1.90	0.53
1:C:1680:ARG:HA	1:C:1797:ARG:HD3	1.90	0.53
1:C:4069:LYS:HB2	1:C:4130:ASN:HD21	1.73	0.53
1:D:1096:THR:HG23	1:D:1199:VAL:HG22	1.89	0.53
1:C:683:ARG:HG2	1:C:717:ASP:HB3	1.90	0.53
1:C:4138:ASP:O	1:C:4139:ILE:C	2.51	0.53
1:A:4073:GLY:O	1:A:4077:PHE:N	2.42	0.53
1:A:4078:GLN:HA	1:A:4081:VAL:CG1	2.39	0.53
1:B:3987:ASP:OD1	1:B:3987:ASP:N	2.41	0.53
1:B:4078:GLN:HA	1:B:4081:VAL:CG1	2.39	0.53
1:C:264:PRO:HA	1:C:280:LEU:HD22	1.91	0.53
1:C:4071:ILE:C	1:C:4073:GLY:N	2.60	0.53
1:D:4650:HIS:NE2	1:D:4795:TYR:OH	2.40	0.53
1:A:3987:ASP:OD1	1:A:3987:ASP:N	2.41	0.53
1:A:4069:LYS:HB2	1:A:4130:ASN:HD21	1.73	0.53
1:B:615:ARG:NH1	1:B:1678:ASN:HB2	2.24	0.53
1:B:2291:GLN:O	1:B:2293:GLN:N	2.41	0.53
1:B:4073:GLY:O	1:B:4077:PHE:N	2.42	0.53
1:B:4138:ASP:O	1:B:4139:ILE:C	2.51	0.53
1:B:4685:GLY:O	1:B:4689:THR:N	2.24	0.53
1:D:4078:GLN:HA	1:D:4081:VAL:CG1	2.39	0.53
1:A:4823:LEU:CD1	1:B:4843:LEU:HD12	2.30	0.53
1:B:2186:MET:HE3	1:B:2235:PHE:HD1	1.61	0.53
1:C:1081:TYR:HE2	1:C:1234:VAL:HG22	1.73	0.53
1:C:2267:MET:HE3	1:C:2268:GLN:HG2	1.91	0.53
1:D:615:ARG:NH1	1:D:1678:ASN:HB2	2.24	0.53
1:D:675:LEU:HG	1:D:676:THR:H	1.74	0.53
1:A:659:TYR:OH	1:A:807:GLY:O	2.21	0.53
1:B:1081:TYR:HE2	1:B:1234:VAL:HG22	1.73	0.53
1:B:2292:GLU:O	1:B:2294:ASP:N	2.42	0.53
1:B:4691:GLN:NE2	1:B:4692:PRO:HD2	2.24	0.53
1:C:1096:THR:HG23	1:C:1199:VAL:HG22	1.89	0.53
1:D:682:LEU:HD13	1:D:787:VAL:HG11	1.90	0.53
1:D:3987:ASP:OD1	1:D:3987:ASP:N	2.41	0.53
1:D:4078:GLN:O	1:D:4081:VAL:HG22	2.09	0.53
1:A:262:LEU:HD21	1:A:280:LEU:HD13	1.91	0.52
1:A:4088:ILE:HG23	1:A:4093:PHE:CE2	2.44	0.52
1:C:615:ARG:NH1	1:C:1678:ASN:HB2	2.24	0.52
1:D:2186:MET:HE3	1:D:2235:PHE:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:MET:HE1	1:A:169:LEU:HB3	1.91	0.52
1:A:2143:THR:HB	1:A:3651:ASN:HD21	1.73	0.52
1:B:675:LEU:HG	1:B:676:THR:H	1.74	0.52
1:B:4078:GLN:O	1:B:4081:VAL:HG22	2.09	0.52
1:C:838:HIS:HA	1:C:1201:HIS:HB3	1.91	0.52
1:C:4073:GLY:O	1:C:4077:PHE:N	2.42	0.52
1:C:4078:GLN:O	1:C:4081:VAL:HG22	2.09	0.52
1:D:793:LEU:HB2	1:D:797:HIS:H	1.74	0.52
1:D:838:HIS:HA	1:D:1201:HIS:HB3	1.91	0.52
1:D:1244:GLN:OE1	1:D:1646:ARG:NH1	2.40	0.52
1:A:675:LEU:HG	1:A:676:THR:H	1.74	0.52
1:A:4078:GLN:O	1:A:4081:VAL:HG22	2.09	0.52
1:B:264:PRO:HA	1:B:280:LEU:HD22	1.91	0.52
1:C:2292:GLU:O	1:C:2294:ASP:N	2.42	0.52
1:C:4703:ARG:HA	1:C:4706:LEU:HD13	1.90	0.52
1:C:4888:TYR:CZ	1:D:4904:PRO:CG	2.87	0.52
1:D:192:ASP:OD1	1:D:192:ASP:N	2.43	0.52
1:A:1970:GLN:CB	1:A:3643:ASN:HA	2.40	0.52
1:C:682:LEU:HD13	1:C:787:VAL:HG11	1.90	0.52
1:D:243:ARG:NH1	1:D:301:VAL:O	2.34	0.52
1:A:793:LEU:HB2	1:A:797:HIS:H	1.74	0.52
1:A:4336:TRP:CZ2	1:A:4568:PHE:HD1	2.28	0.52
1:A:4691:GLN:NE2	1:A:4692:PRO:HD2	2.24	0.52
1:B:262:LEU:HD21	1:B:280:LEU:HD13	1.91	0.52
1:B:793:LEU:HD12	1:B:797:HIS:HB2	1.91	0.52
1:B:1680:ARG:HA	1:B:1797:ARG:HD3	1.90	0.52
1:B:1970:GLN:CB	1:B:3643:ASN:HA	2.40	0.52
1:B:4088:ILE:HG23	1:B:4093:PHE:CE2	2.44	0.52
1:B:4336:TRP:CZ2	1:B:4568:PHE:HD1	2.28	0.52
1:C:426:ARG:HB2	1:C:506:TYR:HA	1.92	0.52
1:C:892:THR:O	1:C:904:HIS:N	2.37	0.52
1:D:793:LEU:HD12	1:D:797:HIS:HB2	1.91	0.52
1:D:4088:ILE:HG23	1:D:4093:PHE:CE2	2.44	0.52
1:D:4691:GLN:NE2	1:D:4692:PRO:HD2	2.24	0.52
1:D:4703:ARG:HA	1:D:4706:LEU:HD13	1.90	0.52
1:A:320:LYS:NZ	1:A:381:GLU:O	2.32	0.52
1:A:615:ARG:NH1	1:A:1678:ASN:HB2	2.24	0.52
1:A:838:HIS:HA	1:A:1201:HIS:HB3	1.91	0.52
1:B:150:MET:HE1	1:B:169:LEU:HB3	1.91	0.52
1:C:4088:ILE:HG23	1:C:4093:PHE:CE2	2.44	0.52
1:C:4704:LEU:HB3	1:C:4778:TRP:HD1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4719:PHE:HA	1:C:4722:ARG:NH1	2.25	0.52
1:A:683:ARG:HG2	1:A:717:ASP:HB3	1.90	0.52
1:A:4719:PHE:HA	1:A:4722:ARG:NH1	2.25	0.52
1:C:262:LEU:HD21	1:C:280:LEU:HD13	1.91	0.52
1:C:688:LEU:HD12	1:C:777:PHE:HE1	1.75	0.52
1:C:2186:MET:HE3	1:C:2235:PHE:HB2	1.91	0.52
1:D:3948:LYS:HE3	1:D:4012:LEU:HB2	1.92	0.52
1:A:682:LEU:HD13	1:A:787:VAL:HG11	1.90	0.52
1:A:688:LEU:HD12	1:A:777:PHE:HE1	1.75	0.52
1:A:2267:MET:HE3	1:A:2268:GLN:HG2	1.91	0.52
1:B:426:ARG:HB2	1:B:506:TYR:HA	1.92	0.52
1:B:646:PRO:HD2	1:B:779:PRO:HB2	1.92	0.52
1:B:688:LEU:HD12	1:B:777:PHE:HE1	1.75	0.52
1:B:1730:MET:SD	1:B:2156:LEU:HD21	2.50	0.52
1:B:4080:TYR:O	1:B:4081:VAL:C	2.52	0.52
1:C:150:MET:HE1	1:C:169:LEU:HB3	1.91	0.52
1:C:675:LEU:HG	1:C:676:THR:H	1.74	0.52
1:C:1970:GLN:CB	1:C:3643:ASN:HA	2.40	0.52
1:C:4078:GLN:O	1:C:4079:ASP:C	2.50	0.52
1:C:4080:TYR:O	1:C:4081:VAL:C	2.52	0.52
1:D:264:PRO:HA	1:D:280:LEU:HD22	1.91	0.52
1:D:1131:ARG:N	1:D:1137:GLU:O	2.41	0.52
1:D:2292:GLU:O	1:D:2294:ASP:N	2.42	0.52
1:D:3772:THR:OG1	1:D:3815:LYS:NZ	2.41	0.52
1:D:4336:TRP:CZ2	1:D:4568:PHE:HD1	2.28	0.52
1:A:4081:VAL:HG23	1:A:4082:THR:N	2.25	0.52
1:B:2267:MET:HE3	1:B:2268:GLN:HG2	1.91	0.52
1:C:157:ARG:HH21	1:C:164:ARG:HD2	1.75	0.52
1:C:793:LEU:HD12	1:C:797:HIS:HB2	1.91	0.52
1:D:262:LEU:HD21	1:D:280:LEU:HD13	1.91	0.52
1:A:4704:LEU:HB3	1:A:4778:TRP:HD1	1.74	0.52
1:B:683:ARG:HG2	1:B:717:ASP:HB3	1.90	0.52
1:B:2095:GLN:NE2	1:B:2127:GLN:O	2.25	0.52
1:B:4719:PHE:HA	1:B:4722:ARG:NH1	2.25	0.52
1:C:1131:ARG:N	1:C:1137:GLU:O	2.41	0.52
1:C:3987:ASP:N	1:C:3987:ASP:OD1	2.41	0.52
1:C:4207:MET:HG3	1:C:4209:GLN:H	1.75	0.52
1:D:681:HIS:HE1	1:D:705:ASN:HB3	1.75	0.52
1:D:688:LEU:HD12	1:D:777:PHE:HE1	1.75	0.52
1:D:1730:MET:SD	1:D:2156:LEU:HD21	2.50	0.52
1:D:4089:SER:N	1:D:4120:ASN:HA	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4685:GLY:O	1:D:4689:THR:N	2.24	0.52
1:A:955:LEU:HD13	1:A:959:TYR:CG	2.45	0.51
1:A:1094:ALA:HB3	1:A:1147:ASP:HB3	1.93	0.51
1:A:4089:SER:N	1:A:4120:ASN:HA	2.21	0.51
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.34	0.51
1:B:4207:MET:HG3	1:B:4209:GLN:H	1.75	0.51
1:D:2267:MET:HE3	1:D:2268:GLN:HG2	1.91	0.51
1:A:4063:ASP:HA	1:A:4066:LEU:CG	2.40	0.51
1:A:4138:ASP:O	1:A:4139:ILE:C	2.51	0.51
1:C:700:GLU:HB2	1:C:725:HIS:NE2	2.26	0.51
1:D:157:ARG:HH21	1:D:164:ARG:HD2	1.75	0.51
1:D:1970:GLN:CB	1:D:3643:ASN:HA	2.40	0.51
1:D:4063:ASP:HA	1:D:4066:LEU:CG	2.40	0.51
1:A:111:HIS:N	1:A:116:MET:O	2.36	0.51
1:A:647:ASN:ND2	1:A:820:ARG:O	2.43	0.51
1:A:652:ARG:HD2	1:A:750:LEU:HB3	1.92	0.51
1:A:793:LEU:HD12	1:A:797:HIS:HB2	1.91	0.51
1:A:4221:VAL:HG23	1:A:4222:VAL:HG13	1.93	0.51
1:B:278:GLN:N	1:B:315:CYS:SG	2.83	0.51
1:C:220:LEU:HD12	1:C:390:LEU:HB3	1.92	0.51
1:D:700:GLU:HB2	1:D:725:HIS:NE2	2.26	0.51
1:A:700:GLU:HB2	1:A:725:HIS:NE2	2.26	0.51
1:A:2292:GLU:O	1:A:2294:ASP:N	2.42	0.51
1:A:4207:MET:HG3	1:A:4209:GLN:H	1.75	0.51
1:B:652:ARG:HD2	1:B:750:LEU:HB3	1.92	0.51
1:B:955:LEU:HD13	1:B:959:TYR:CG	2.45	0.51
1:B:1094:ALA:HB3	1:B:1147:ASP:HB3	1.93	0.51
1:D:150:MET:HE1	1:D:169:LEU:HB3	1.91	0.51
1:D:913:LEU:O	1:D:918:ARG:NH2	2.44	0.51
1:D:955:LEU:HD13	1:D:959:TYR:CG	2.45	0.51
1:D:4221:VAL:HG23	1:D:4222:VAL:HG13	1.93	0.51
1:D:4667:PRO:HG2	1:D:4668:LEU:HD12	1.93	0.51
1:B:157:ARG:HH21	1:B:164:ARG:HD2	1.75	0.51
1:B:805:PRO:HB2	1:B:808:TYR:CD1	2.46	0.51
1:B:952:LYS:HB3	1:B:968:ALA:HB1	1.93	0.51
1:B:2226:PRO:HA	1:B:2229:VAL:HG12	1.93	0.51
1:C:2226:PRO:HA	1:C:2229:VAL:HG12	1.93	0.51
1:C:4336:TRP:CZ2	1:C:4568:PHE:HD1	2.28	0.51
1:C:4685:GLY:O	1:C:4689:THR:N	2.24	0.51
1:D:4719:PHE:HA	1:D:4722:ARG:NH1	2.25	0.51
1:A:278:GLN:N	1:A:315:CYS:SG	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:646:PRO:HD2	1:A:779:PRO:HB2	1.92	0.51
1:A:1730:MET:SD	1:A:2156:LEU:HD21	2.50	0.51
1:A:3948:LYS:HE3	1:A:4012:LEU:HB2	1.92	0.51
1:B:838:HIS:HA	1:B:1201:HIS:HB3	1.91	0.51
1:C:646:PRO:HD2	1:C:779:PRO:HB2	1.92	0.51
1:C:681:HIS:HE1	1:C:705:ASN:HB3	1.75	0.51
1:D:1094:ALA:HB3	1:D:1147:ASP:HB3	1.93	0.51
1:D:4704:LEU:HB3	1:D:4778:TRP:HD1	1.74	0.51
1:A:264:PRO:HA	1:A:280:LEU:HD22	1.91	0.51
1:A:546:TRP:O	1:A:550:LYS:NZ	2.40	0.51
1:A:4063:ASP:O	1:A:4066:LEU:HG	2.11	0.51
1:B:192:ASP:N	1:B:192:ASP:OD1	2.43	0.51
1:B:619:ASP:OD1	1:B:1680:ARG:NH1	2.43	0.51
1:B:4063:ASP:HA	1:B:4066:LEU:CG	2.40	0.51
1:B:4130:ASN:HA	1:B:4133:GLN:CD	2.36	0.51
1:C:652:ARG:HD2	1:C:750:LEU:HB3	1.92	0.51
1:C:3948:LYS:HE3	1:C:4012:LEU:HB2	1.92	0.51
1:C:4063:ASP:O	1:C:4066:LEU:HG	2.11	0.51
1:D:646:PRO:HD2	1:D:779:PRO:HB2	1.92	0.51
1:D:3910:THR:HG23	1:D:3911:THR:HG23	1.93	0.51
1:D:4056:GLU:HA	1:D:4059:LEU:HG	1.93	0.51
1:A:681:HIS:HE1	1:A:705:ASN:HB3	1.75	0.51
1:A:719:LEU:HD23	1:A:736:HIS:C	2.36	0.51
1:A:805:PRO:HB2	1:A:808:TYR:CD1	2.46	0.51
1:A:1808:ARG:NH1	1:A:1853:ILE:O	2.40	0.51
1:A:2015:GLU:O	1:A:2017:ASP:N	2.37	0.51
1:A:2192:TYR:OH	1:A:2238:TYR:CD1	2.61	0.51
1:B:110:ARG:NH2	1:B:115:ARG:HB3	2.26	0.51
1:B:719:LEU:HD23	1:B:736:HIS:C	2.36	0.51
1:B:3910:THR:HG23	1:B:3911:THR:HG23	1.93	0.51
1:C:913:LEU:O	1:C:918:ARG:NH2	2.44	0.51
1:A:192:ASP:OD1	1:A:192:ASP:N	2.43	0.51
1:A:952:LYS:HB3	1:A:968:ALA:HB1	1.93	0.51
1:A:1100:MET:HB2	1:A:1143:TRP:CZ3	2.46	0.51
1:A:1678:ASN:HD21	1:A:1681:VAL:HG21	1.76	0.51
1:B:647:ASN:ND2	1:B:820:ARG:O	2.43	0.51
1:B:913:LEU:O	1:B:918:ARG:NH2	2.44	0.51
1:C:192:ASP:N	1:C:192:ASP:OD1	2.43	0.51
1:C:1678:ASN:HD21	1:C:1681:VAL:HG21	1.76	0.51
1:C:4091:LYS:HZ3	1:C:4091:LYS:N	2.07	0.51
1:C:4667:PRO:HG2	1:C:4668:LEU:HD12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:110:ARG:NH2	1:D:115:ARG:HB3	2.26	0.51
1:D:652:ARG:HD2	1:D:750:LEU:HB3	1.92	0.51
1:D:719:LEU:HD23	1:D:736:HIS:C	2.36	0.51
1:A:110:ARG:NH2	1:A:115:ARG:HB3	2.26	0.51
1:A:913:LEU:O	1:A:918:ARG:NH2	2.44	0.51
1:A:4667:PRO:HG2	1:A:4668:LEU:HD12	1.93	0.51
1:B:720:HIS:CD2	1:B:727:ALA:HA	2.34	0.51
1:B:879:HIS:CE1	1:B:913:LEU:HD21	2.46	0.51
1:B:4063:ASP:O	1:B:4066:LEU:HG	2.11	0.51
1:C:805:PRO:HB2	1:C:808:TYR:CD1	2.46	0.51
1:C:3910:THR:HG23	1:C:3911:THR:HG23	1.93	0.51
1:D:426:ARG:HB2	1:D:506:TYR:HA	1.92	0.51
1:D:2339:VAL:HG12	1:D:2344:GLU:HA	1.93	0.51
1:D:2471:SER:O	1:D:2473:PRO:HD3	2.11	0.51
1:D:4130:ASN:HA	1:D:4133:GLN:CD	2.36	0.51
1:A:4843:LEU:HD12	1:D:4823:LEU:CD1	2.30	0.50
1:B:220:LEU:HD12	1:B:390:LEU:HB3	1.92	0.50
1:B:3937:TYR:O	1:B:4002:LYS:NZ	2.37	0.50
1:B:4704:LEU:HB3	1:B:4778:TRP:HD1	1.74	0.50
1:C:1094:ALA:HB3	1:C:1147:ASP:HB3	1.93	0.50
1:C:2339:VAL:HG12	1:C:2344:GLU:HA	1.93	0.50
1:C:4014:LYS:HA	1:C:4132:PHE:CZ	2.47	0.50
1:C:4063:ASP:HA	1:C:4066:LEU:CG	2.40	0.50
1:C:4130:ASN:HA	1:C:4133:GLN:CD	2.36	0.50
1:C:4650:HIS:NE2	1:C:4795:TYR:OH	2.40	0.50
1:D:805:PRO:HB2	1:D:808:TYR:CD1	2.46	0.50
1:D:2226:PRO:HA	1:D:2229:VAL:HG12	1.93	0.50
1:D:4080:TYR:O	1:D:4081:VAL:C	2.52	0.50
1:A:426:ARG:HB2	1:A:506:TYR:HA	1.92	0.50
1:A:3910:THR:HG23	1:A:3911:THR:HG23	1.93	0.50
1:B:134:ASP:N	1:B:134:ASP:OD1	2.43	0.50
1:B:169:LEU:HD11	1:B:202:MET:HG2	1.93	0.50
1:B:1970:GLN:CB	1:B:3644:LEU:H	2.25	0.50
1:C:719:LEU:HD23	1:C:736:HIS:C	2.36	0.50
1:C:1131:ARG:HD2	1:C:1179:PHE:CZ	2.47	0.50
1:D:647:ASN:ND2	1:D:820:ARG:O	2.43	0.50
1:D:879:HIS:CE1	1:D:913:LEU:HD21	2.46	0.50
1:B:19:GLU:OE1	1:B:68:THR:OG1	2.27	0.50
1:B:2203:MET:O	1:B:2206:THR:OG1	2.24	0.50
1:B:2339:VAL:HG12	1:B:2344:GLU:HA	1.93	0.50
1:B:4122:MET:SD	1:B:4123:ILE:N	2.83	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:134:ASP:OD1	1:C:134:ASP:N	2.43	0.50
1:C:955:LEU:HD13	1:C:959:TYR:CG	2.45	0.50
1:C:4089:SER:N	1:C:4120:ASN:HA	2.21	0.50
1:D:4089:SER:OG	1:D:4091:LYS:HB2	2.12	0.50
1:A:134:ASP:OD1	1:A:134:ASP:N	2.43	0.50
1:A:681:HIS:HB3	1:A:784:SER:HB3	1.94	0.50
1:A:892:THR:O	1:A:904:HIS:N	2.37	0.50
1:A:1970:GLN:CB	1:A:3644:LEU:H	2.25	0.50
1:A:2339:VAL:HG12	1:A:2344:GLU:HA	1.93	0.50
1:A:4079:ASP:C	1:A:4081:VAL:H	2.20	0.50
1:A:4685:GLY:O	1:A:4689:THR:N	2.24	0.50
1:B:3948:LYS:HE3	1:B:4012:LEU:HB2	1.92	0.50
1:B:4013:LEU:O	1:B:4017:LEU:HG	2.11	0.50
1:B:4089:SER:OG	1:B:4091:LYS:HB2	2.12	0.50
1:C:647:ASN:ND2	1:C:820:ARG:O	2.43	0.50
1:C:1730:MET:SD	1:C:2156:LEU:HD21	2.50	0.50
1:C:4888:TYR:CD1	1:D:4914:VAL:CG1	2.72	0.50
1:D:4079:ASP:C	1:D:4081:VAL:H	2.20	0.50
1:A:619:ASP:OD1	1:A:1680:ARG:NH1	2.43	0.50
1:A:879:HIS:CE1	1:A:913:LEU:HD21	2.46	0.50
1:A:2226:PRO:HA	1:A:2229:VAL:HG12	1.93	0.50
1:A:2471:SER:O	1:A:2473:PRO:HD3	2.11	0.50
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.11	0.50
1:A:4130:ASN:HA	1:A:4133:GLN:CD	2.36	0.50
1:B:681:HIS:HB3	1:B:784:SER:HB3	1.94	0.50
1:B:700:GLU:HB2	1:B:725:HIS:NE2	2.26	0.50
1:C:4132:PHE:HE1	1:C:4135:PRO:HG2	1.77	0.50
1:D:220:LEU:HD12	1:D:390:LEU:HB3	1.92	0.50
1:D:1131:ARG:HD2	1:D:1179:PHE:CZ	2.47	0.50
1:D:4063:ASP:O	1:D:4066:LEU:HG	2.11	0.50
1:D:4207:MET:HG3	1:D:4209:GLN:H	1.75	0.50
1:A:4087:LEU:CB	1:A:4121:GLU:C	2.85	0.50
1:A:4197:ILE:HG23	1:A:4990:PHE:HB3	1.94	0.50
1:B:1131:ARG:HD2	1:B:1179:PHE:CZ	2.47	0.50
1:B:4078:GLN:HA	1:B:4081:VAL:HG13	1.94	0.50
1:C:4079:ASP:C	1:C:4081:VAL:H	2.20	0.50
1:A:157:ARG:HH21	1:A:164:ARG:HD2	1.75	0.50
1:A:169:LEU:HD11	1:A:202:MET:HG2	1.93	0.50
1:A:220:LEU:HD12	1:A:390:LEU:HB3	1.92	0.50
1:A:2095:GLN:NE2	1:A:2127:GLN:O	2.25	0.50
1:A:4078:GLN:HA	1:A:4081:VAL:HG13	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4132:PHE:HE1	1:A:4135:PRO:HG2	1.77	0.50
1:B:1100:MET:HB2	1:B:1143:TRP:CZ3	2.46	0.50
1:B:1808:ARG:NH1	1:B:1853:ILE:O	2.40	0.50
1:B:3772:THR:OG1	1:B:3815:LYS:NZ	2.41	0.50
1:B:4079:ASP:C	1:B:4081:VAL:H	2.20	0.50
1:C:879:HIS:CE1	1:C:913:LEU:HD21	2.46	0.50
1:C:1100:MET:HB2	1:C:1143:TRP:CZ3	2.46	0.50
1:C:1970:GLN:CB	1:C:3644:LEU:H	2.25	0.50
1:C:4125:PHE:O	1:C:4127:GLU:N	2.45	0.50
1:D:4124:ASN:HA	1:D:4127:GLU:CB	2.40	0.50
1:D:4650:HIS:HE2	1:D:4795:TYR:HH	1.58	0.50
1:A:2012:PHE:CD1	1:A:2022:PRO:HD3	2.47	0.50
1:A:4056:GLU:HA	1:A:4059:LEU:HG	1.93	0.50
1:B:551:LEU:O	1:B:553:ARG:HD3	2.12	0.50
1:B:1678:ASN:HD21	1:B:1681:VAL:HG21	1.76	0.50
1:B:4014:LYS:HA	1:B:4132:PHE:CZ	2.47	0.50
1:B:4069:LYS:HB2	1:B:4130:ASN:HD21	1.73	0.50
1:B:4197:ILE:HG23	1:B:4990:PHE:HB3	1.94	0.50
1:B:4667:PRO:HG2	1:B:4668:LEU:HD12	1.93	0.50
1:C:952:LYS:HB3	1:C:968:ALA:HB1	1.93	0.50
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.11	0.50
1:C:4056:GLU:HA	1:C:4059:LEU:HG	1.93	0.50
1:C:4089:SER:OG	1:C:4091:LYS:HB2	2.12	0.50
1:D:553:ARG:HG3	1:D:593:HIS:HE1	1.77	0.50
1:D:952:LYS:HB3	1:D:968:ALA:HB1	1.93	0.50
1:D:1808:ARG:NH1	1:D:1853:ILE:O	2.40	0.50
1:D:2203:MET:O	1:D:2206:THR:OG1	2.24	0.50
1:D:4132:PHE:HE1	1:D:4135:PRO:HG2	1.77	0.50
1:A:1131:ARG:HD2	1:A:1179:PHE:CZ	2.47	0.50
1:A:4089:SER:OG	1:A:4091:LYS:HB2	2.12	0.50
1:A:4125:PHE:O	1:A:4127:GLU:N	2.45	0.50
1:A:4125:PHE:O	1:A:4126:GLU:C	2.54	0.50
1:B:759:ILE:HG22	1:B:760:ASN:HD22	1.77	0.50
1:C:4221:VAL:HG23	1:C:4222:VAL:HG13	1.93	0.50
1:D:759:ILE:HG22	1:D:760:ASN:HD22	1.77	0.50
1:A:1131:ARG:N	1:A:1137:GLU:O	2.41	0.49
1:A:3772:THR:OG1	1:A:3815:LYS:NZ	2.41	0.49
1:B:1937:LEU:HB3	1:B:2116:LEU:HD13	1.94	0.49
1:B:4087:LEU:CB	1:B:4121:GLU:C	2.85	0.49
1:B:4125:PHE:O	1:B:4127:GLU:N	2.45	0.49
1:B:4132:PHE:HE1	1:B:4135:PRO:HG2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:619:ASP:OD1	1:C:1680:ARG:NH1	2.43	0.49
1:C:1937:LEU:HB3	1:C:2116:LEU:HD13	1.94	0.49
1:C:2012:PHE:CD1	1:C:2022:PRO:HD3	2.47	0.49
1:C:4242:ILE:O	1:C:4246:GLN:N	2.36	0.49
1:D:1970:GLN:CB	1:D:3644:LEU:H	2.25	0.49
1:D:2015:GLU:O	1:D:2017:ASP:N	2.37	0.49
1:A:131:LEU:HB3	1:A:178:ARG:HH22	1.77	0.49
1:A:1937:LEU:HB3	1:A:2116:LEU:HD13	1.94	0.49
1:B:2012:PHE:CD1	1:B:2022:PRO:HD3	2.47	0.49
1:B:4056:GLU:HA	1:B:4059:LEU:HG	1.93	0.49
1:C:138:GLN:N	1:C:138:GLN:OE1	2.45	0.49
1:D:551:LEU:O	1:D:553:ARG:HD3	2.12	0.49
1:D:1937:LEU:HB3	1:D:2116:LEU:HD13	1.94	0.49
1:D:2012:PHE:CD1	1:D:2022:PRO:HD3	2.47	0.49
1:D:2203:MET:O	1:D:2207:VAL:HG23	2.13	0.49
1:D:4013:LEU:O	1:D:4017:LEU:HG	2.11	0.49
1:D:4014:LYS:HA	1:D:4132:PHE:CZ	2.47	0.49
1:A:759:ILE:HG22	1:A:760:ASN:HD22	1.77	0.49
1:A:1124:PHE:HB2	1:A:1162:PHE:CE2	2.48	0.49
1:A:2203:MET:O	1:A:2207:VAL:HG23	2.13	0.49
1:A:4888:TYR:CD1	1:B:4914:VAL:CG1	2.72	0.49
1:C:887:ILE:HD12	1:C:967:PRO:HG3	1.95	0.49
1:C:2471:SER:O	1:C:2473:PRO:HD3	2.11	0.49
1:C:4122:MET:SD	1:C:4123:ILE:N	2.83	0.49
1:C:4961:CYS:HB2	1:C:5025:GLY:H	1.78	0.49
1:D:278:GLN:N	1:D:315:CYS:SG	2.83	0.49
1:A:652:ARG:HB2	1:A:750:LEU:HD13	1.95	0.49
1:A:887:ILE:HD12	1:A:967:PRO:HG3	1.95	0.49
1:B:138:GLN:OE1	1:B:138:GLN:N	2.45	0.49
1:B:683:ARG:HB2	1:B:782:SER:HB3	1.95	0.49
1:B:892:THR:O	1:B:904:HIS:N	2.37	0.49
1:B:1994:ARG:HA	1:B:1996:ARG:NH2	2.27	0.49
1:B:2203:MET:O	1:B:2207:VAL:HG23	2.13	0.49
1:B:2337:PHE:HA	1:B:2340:PHE:HB2	1.95	0.49
1:B:4094:GLN:NE2	1:B:4098:ASP:OD2	2.35	0.49
1:B:4221:VAL:HG23	1:B:4222:VAL:HG13	1.93	0.49
1:C:2015:GLU:O	1:C:2017:ASP:N	2.37	0.49
1:D:134:ASP:N	1:D:134:ASP:OD1	2.43	0.49
1:D:169:LEU:HD11	1:D:202:MET:HG2	1.93	0.49
1:D:1100:MET:HB2	1:D:1143:TRP:CZ3	2.46	0.49
1:D:4961:CYS:HB2	1:D:5025:GLY:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:248:GLU:HB3	1:A:252:VAL:HG12	1.95	0.49
1:A:2337:PHE:HA	1:A:2340:PHE:HB2	1.95	0.49
1:A:3644:LEU:HB3	1:A:3645:PRO:HD2	1.95	0.49
1:A:4014:LYS:HA	1:A:4132:PHE:CZ	2.47	0.49
1:B:546:TRP:O	1:B:550:LYS:NZ	2.40	0.49
1:B:652:ARG:HB2	1:B:750:LEU:HD13	1.95	0.49
1:B:887:ILE:HD12	1:B:967:PRO:HG3	1.95	0.49
1:B:1124:PHE:HB2	1:B:1162:PHE:CE2	2.48	0.49
1:B:2192:TYR:OH	1:B:2238:TYR:CD1	2.61	0.49
1:B:2471:SER:O	1:B:2473:PRO:HD3	2.11	0.49
1:B:4137:ARG:C	1:B:4137:ARG:HE	2.21	0.49
1:C:553:ARG:HG3	1:C:593:HIS:HE1	1.77	0.49
1:C:681:HIS:HB3	1:C:784:SER:HB3	1.94	0.49
1:C:793:LEU:HD21	1:C:1626:TRP:CD1	2.48	0.49
1:C:1994:ARG:HA	1:C:1996:ARG:NH2	2.27	0.49
1:C:4137:ARG:C	1:C:4137:ARG:HE	2.21	0.49
1:C:4197:ILE:HG23	1:C:4990:PHE:HB3	1.94	0.49
1:D:138:GLN:OE1	1:D:138:GLN:N	2.45	0.49
1:D:3644:LEU:HB3	1:D:3645:PRO:HD2	1.95	0.49
1:D:4125:PHE:O	1:D:4127:GLU:N	2.45	0.49
1:A:138:GLN:OE1	1:A:138:GLN:N	2.45	0.49
1:A:683:ARG:HB2	1:A:782:SER:HB3	1.95	0.49
1:A:1998:PHE:CD1	1:A:3639:THR:HG21	2.48	0.49
1:B:681:HIS:HE1	1:B:705:ASN:HB3	1.75	0.49
1:B:2012:PHE:CD1	1:B:2021:CYS:HA	2.47	0.49
1:C:169:LEU:HD11	1:C:202:MET:HG2	1.93	0.49
1:C:551:LEU:O	1:C:553:ARG:HD3	2.12	0.49
1:C:1124:PHE:HB2	1:C:1162:PHE:CE2	2.48	0.49
1:C:2203:MET:O	1:C:2207:VAL:HG23	2.13	0.49
1:D:793:LEU:HD21	1:D:1626:TRP:CD1	2.48	0.49
1:A:1994:ARG:HA	1:A:1996:ARG:NH2	2.27	0.49
1:A:2012:PHE:CD1	1:A:2021:CYS:HA	2.47	0.49
1:A:4137:ARG:HE	1:A:4137:ARG:C	2.21	0.49
1:A:4961:CYS:HB2	1:A:5025:GLY:H	1.78	0.49
1:B:793:LEU:HD21	1:B:1626:TRP:CD1	2.48	0.49
1:C:278:GLN:N	1:C:315:CYS:SG	2.83	0.49
1:C:2012:PHE:CD1	1:C:2021:CYS:HA	2.47	0.49
1:C:4079:ASP:OD1	1:C:4079:ASP:N	2.46	0.49
1:D:1124:PHE:HB2	1:D:1162:PHE:CE2	2.48	0.49
1:D:1678:ASN:HD21	1:D:1681:VAL:HG21	1.76	0.49
1:D:1994:ARG:HA	1:D:1996:ARG:NH2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4132:PHE:O	1:D:4135:PRO:HD2	2.13	0.49
1:A:551:LEU:O	1:A:553:ARG:HD3	2.12	0.49
1:B:4961:CYS:HB2	1:B:5025:GLY:H	1.78	0.49
1:C:356:TRP:O	1:C:379:HIS:N	2.45	0.49
1:D:4087:LEU:CB	1:D:4121:GLU:C	2.85	0.49
1:A:769:GLU:O	1:A:1515:VAL:N	2.46	0.49
1:A:4122:MET:SD	1:A:4123:ILE:N	2.83	0.49
1:B:248:GLU:HB3	1:B:252:VAL:HG12	1.95	0.49
1:C:224:HIS:HE2	1:C:359:TYR:HE2	1.61	0.49
1:C:652:ARG:HB2	1:C:750:LEU:HD13	1.95	0.49
1:C:1667:LEU:HD21	1:C:1671:ARG:HH22	1.78	0.49
1:C:1973:GLN:O	1:C:1977:TYR:N	2.45	0.49
1:C:4078:GLN:HA	1:C:4081:VAL:HG13	1.94	0.49
1:D:224:HIS:HE2	1:D:359:TYR:HE2	1.61	0.49
1:D:450:GLY:HA2	1:D:453:GLU:HG3	1.95	0.49
1:C:3937:TYR:O	1:C:4002:LYS:NZ	2.37	0.49
1:C:4087:LEU:CB	1:C:4121:GLU:C	2.85	0.49
1:D:652:ARG:HB2	1:D:750:LEU:HD13	1.95	0.49
1:D:1667:LEU:HD21	1:D:1671:ARG:HH22	1.78	0.49
1:D:1927:LEU:HD13	1:D:2101:MET:HG3	1.95	0.49
1:D:2337:PHE:HA	1:D:2340:PHE:HB2	1.95	0.49
1:D:4137:ARG:HE	1:D:4137:ARG:C	2.21	0.49
1:A:553:ARG:HG3	1:A:593:HIS:HE1	1.77	0.48
1:A:4079:ASP:OD1	1:A:4079:ASP:N	2.46	0.48
1:B:1131:ARG:N	1:B:1137:GLU:O	2.41	0.48
1:B:4132:PHE:O	1:B:4135:PRO:HD2	2.13	0.48
1:B:4874:MET:HB2	1:B:4877:ASP:OD2	2.13	0.48
1:C:131:LEU:HB3	1:C:178:ARG:HH22	1.77	0.48
1:C:2231:SER:HA	1:C:2234:ARG:HG2	1.94	0.48
1:C:4666:VAL:HG23	1:C:4669:VAL:HB	1.95	0.48
1:D:1118:ASP:HA	1:D:1134:LEU:HD23	1.95	0.48
1:D:4874:MET:HB2	1:D:4877:ASP:OD2	2.13	0.48
1:B:553:ARG:HG3	1:B:593:HIS:HE1	1.77	0.48
1:D:887:ILE:HD12	1:D:967:PRO:HG3	1.95	0.48
1:D:1827:ARG:O	1:D:1829:PRO:HD3	2.13	0.48
1:D:4197:ILE:HG23	1:D:4990:PHE:HB3	1.94	0.48
1:A:853:PRO:HB3	1:A:1023:PRO:HA	1.96	0.48
1:A:1927:LEU:HD13	1:A:2101:MET:HG3	1.95	0.48
1:A:4132:PHE:O	1:A:4135:PRO:HD2	2.13	0.48
1:A:4666:VAL:HG23	1:A:4669:VAL:HB	1.95	0.48
1:B:1667:LEU:HD21	1:B:1671:ARG:HH22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2231:SER:HA	1:B:2234:ARG:HG2	1.94	0.48
1:B:4666:VAL:HG23	1:B:4669:VAL:HB	1.95	0.48
1:C:119:SER:HA	1:C:146:CYS:HA	1.95	0.48
1:C:759:ILE:HG22	1:C:760:ASN:HD22	1.77	0.48
1:C:761:GLY:O	1:C:762:CYS:C	2.56	0.48
1:C:4874:MET:HB2	1:C:4877:ASP:OD2	2.13	0.48
1:D:131:LEU:HB3	1:D:178:ARG:HH22	1.77	0.48
1:D:4079:ASP:N	1:D:4079:ASP:OD1	2.46	0.48
1:A:565:TYR:CZ	1:A:569:ILE:HD11	2.48	0.48
1:B:173:SER:HB3	1:B:178:ARG:H	1.79	0.48
1:B:1676:LEU:H	1:B:1676:LEU:HG	1.30	0.48
1:B:4920:PHE:O	1:B:4924:VAL:HG22	2.14	0.48
1:C:1118:ASP:HA	1:C:1134:LEU:HD23	1.95	0.48
1:C:1827:ARG:O	1:C:1829:PRO:HD3	2.13	0.48
1:C:3644:LEU:HB3	1:C:3645:PRO:HD2	1.95	0.48
1:C:4132:PHE:O	1:C:4135:PRO:HD2	2.13	0.48
1:A:1827:ARG:O	1:A:1829:PRO:HD3	2.13	0.48
1:B:2186:MET:HE3	1:B:2235:PHE:HB2	1.91	0.48
1:C:853:PRO:HB3	1:C:1023:PRO:HA	1.96	0.48
1:C:1998:PHE:CD1	1:C:3639:THR:HG21	2.48	0.48
1:C:4089:SER:HB2	1:C:4091:LYS:HE2	1.96	0.48
1:C:4124:ASN:HA	1:C:4127:GLU:CB	2.40	0.48
1:D:4078:GLN:HA	1:D:4081:VAL:HG13	1.94	0.48
1:D:4089:SER:HB2	1:D:4091:LYS:HE2	1.96	0.48
1:A:1118:ASP:HA	1:A:1134:LEU:HD23	1.95	0.48
1:B:131:LEU:HB3	1:B:178:ARG:HH22	1.77	0.48
1:B:761:GLY:O	1:B:762:CYS:C	2.56	0.48
1:D:248:GLU:HB3	1:D:252:VAL:HG12	1.95	0.48
1:D:681:HIS:HB3	1:D:784:SER:HB3	1.94	0.48
1:B:450:GLY:HA2	1:B:453:GLU:HG3	1.95	0.48
1:B:4581:LYS:NZ	1:B:4582:VAL:O	2.33	0.48
1:C:450:GLY:HA2	1:C:453:GLU:HG3	1.95	0.48
1:C:2337:PHE:HA	1:C:2340:PHE:HB2	1.95	0.48
1:D:683:ARG:HB2	1:D:782:SER:HB3	1.95	0.48
1:D:2012:PHE:CD1	1:D:2021:CYS:HA	2.47	0.48
1:D:2231:SER:HA	1:D:2234:ARG:HG2	1.94	0.48
1:A:450:GLY:HA2	1:A:453:GLU:HG3	1.95	0.48
1:A:761:GLY:O	1:A:762:CYS:C	2.56	0.48
1:C:247:TYR:HE2	1:C:376:ALA:HB2	1.79	0.48
1:D:4081:VAL:HG23	1:D:4082:THR:N	2.25	0.48
1:A:1667:LEU:HD21	1:A:1671:ARG:HH22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2231:SER:HA	1:A:2234:ARG:HG2	1.94	0.48
1:A:3670:GLU:HG2	1:A:3731:LYS:HE3	1.96	0.48
1:A:4124:ASN:HA	1:A:4127:GLU:CB	2.40	0.48
1:B:565:TYR:CZ	1:B:569:ILE:HD11	2.48	0.48
1:B:3644:LEU:HB3	1:B:3645:PRO:HD2	1.95	0.48
1:C:769:GLU:O	1:C:1515:VAL:N	2.46	0.48
1:C:2007:ASN:HA	1:C:3656:SER:CB	2.44	0.48
1:D:356:TRP:O	1:D:379:HIS:N	2.45	0.48
1:D:619:ASP:OD1	1:D:1680:ARG:NH1	2.43	0.48
1:D:1998:PHE:CD1	1:D:3639:THR:HG21	2.48	0.48
1:D:4642:ALA:O	1:D:4646:LEU:N	2.41	0.48
1:D:4666:VAL:HG23	1:D:4669:VAL:HB	1.95	0.48
1:A:36:CYS:SG	1:A:65:CYS:HB3	2.54	0.48
1:A:81:MET:HE2	1:A:81:MET:HA	1.96	0.48
1:A:173:SER:HB3	1:A:178:ARG:H	1.79	0.48
1:A:793:LEU:HD21	1:A:1626:TRP:CD1	2.48	0.48
1:A:4680:LYS:NZ	1:A:4687:TYR:H	2.12	0.48
1:A:4874:MET:HB2	1:A:4877:ASP:OD2	2.13	0.48
1:A:4920:PHE:O	1:A:4924:VAL:HG22	2.14	0.48
1:B:356:TRP:O	1:B:379:HIS:N	2.45	0.48
1:B:626:LEU:HG	1:B:628:GLY:N	2.28	0.48
1:B:4091:LYS:HZ3	1:B:4091:LYS:N	2.10	0.48
1:C:173:SER:HB3	1:C:178:ARG:H	1.79	0.48
1:C:248:GLU:HB3	1:C:252:VAL:HG12	1.95	0.48
1:C:565:TYR:CZ	1:C:569:ILE:HD11	2.48	0.48
1:C:683:ARG:HB2	1:C:782:SER:HB3	1.95	0.48
1:C:1936:LYS:O	1:C:1940:CYS:N	2.35	0.48
1:D:119:SER:HA	1:D:146:CYS:HA	1.95	0.48
1:A:4010:ILE:HG21	1:A:4128:PHE:CE1	2.49	0.47
1:B:2142:TYR:CD2	1:B:2197:LEU:HD13	2.49	0.47
1:C:36:CYS:SG	1:C:65:CYS:HB3	2.54	0.47
1:C:1808:ARG:NH1	1:C:1853:ILE:O	2.40	0.47
1:C:2101:MET:O	1:C:2104:ARG:HG2	2.14	0.47
1:D:565:TYR:CZ	1:D:569:ILE:HD11	2.48	0.47
1:D:4215:ARG:HH12	1:D:4219:PHE:HB2	1.79	0.47
1:A:2101:MET:O	1:A:2104:ARG:HG2	2.14	0.47
1:B:36:CYS:SG	1:B:65:CYS:HB3	2.54	0.47
1:B:1118:ASP:HA	1:B:1134:LEU:HD23	1.95	0.47
1:B:1708:ARG:C	1:B:1710:GLY:H	2.22	0.47
1:B:1827:ARG:O	1:B:1829:PRO:HD3	2.13	0.47
1:C:210:GLU:HG3	1:C:337:PRO:HG3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:81:MET:HA	1:D:81:MET:HE2	1.96	0.47
1:D:173:SER:HB3	1:D:178:ARG:H	1.79	0.47
1:D:769:GLU:O	1:D:1515:VAL:N	2.46	0.47
1:D:1101:ARG:N	1:D:1193:SER:OG	2.47	0.47
1:A:2007:ASN:HA	1:A:3656:SER:CB	2.44	0.47
1:A:2128:TYR:HB3	1:A:3669:PHE:CB	2.44	0.47
1:A:3643:ASN:O	1:A:3644:LEU:HD13	2.15	0.47
1:B:81:MET:HE2	1:B:81:MET:HA	1.96	0.47
1:B:224:HIS:HE2	1:B:359:TYR:HE2	1.61	0.47
1:B:769:GLU:O	1:B:1515:VAL:N	2.46	0.47
1:B:3670:GLU:HG2	1:B:3731:LYS:HE3	1.96	0.47
1:B:4125:PHE:O	1:B:4126:GLU:C	2.54	0.47
1:C:1101:ARG:N	1:C:1193:SER:OG	2.47	0.47
1:C:1708:ARG:C	1:C:1710:GLY:H	2.22	0.47
1:C:4823:LEU:CD1	1:D:4843:LEU:CD1	2.66	0.47
1:D:247:TYR:HE2	1:D:376:ALA:HB2	1.79	0.47
1:D:2101:MET:O	1:D:2104:ARG:HG2	2.14	0.47
1:A:224:HIS:HE2	1:A:359:TYR:HE2	1.61	0.47
1:A:2186:MET:HE3	1:A:2235:PHE:HB2	1.91	0.47
1:B:247:TYR:HE2	1:B:376:ALA:HB2	1.79	0.47
1:B:853:PRO:HB3	1:B:1023:PRO:HA	1.96	0.47
1:B:1774:PRO:HG2	1:B:1776:HIS:NE2	2.30	0.47
1:B:1998:PHE:CD1	1:B:3639:THR:HG21	2.48	0.47
1:C:4081:VAL:HG23	1:C:4082:THR:N	2.25	0.47
1:D:892:THR:O	1:D:904:HIS:N	2.37	0.47
1:D:3670:GLU:HG2	1:D:3731:LYS:HE3	1.96	0.47
1:D:4743:MET:HB3	1:D:4746:ALA:HB3	1.97	0.47
1:A:2142:TYR:CD2	1:A:2197:LEU:HD13	2.49	0.47
1:B:119:SER:HA	1:B:146:CYS:HA	1.95	0.47
1:C:2095:GLN:NE2	1:C:2127:GLN:O	2.25	0.47
1:C:4920:PHE:O	1:C:4924:VAL:HG22	2.14	0.47
1:D:36:CYS:SG	1:D:65:CYS:HB3	2.54	0.47
1:D:2142:TYR:CD2	1:D:2197:LEU:HD13	2.49	0.47
1:D:3643:ASN:O	1:D:3644:LEU:HD13	2.15	0.47
1:A:247:TYR:HE2	1:A:376:ALA:HB2	1.79	0.47
1:A:4823:LEU:CD1	1:B:4843:LEU:CD1	2.66	0.47
1:B:1927:LEU:HD13	1:B:2101:MET:HG3	1.95	0.47
1:B:2007:ASN:HA	1:B:3656:SER:CB	2.44	0.47
1:B:3999:MET:SD	1:B:3999:MET:N	2.86	0.47
1:C:1927:LEU:HD13	1:C:2101:MET:HG3	1.95	0.47
1:C:4010:ILE:HG21	1:C:4128:PHE:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:210:GLU:HG3	1:D:337:PRO:HG3	1.95	0.47
1:D:853:PRO:HB3	1:D:1023:PRO:HA	1.96	0.47
1:D:1774:PRO:HG2	1:D:1776:HIS:NE2	2.30	0.47
1:D:2007:ASN:HA	1:D:3656:SER:CB	2.44	0.47
1:D:4920:PHE:O	1:D:4924:VAL:HG22	2.14	0.47
1:A:4091:LYS:HZ3	1:A:4091:LYS:N	2.12	0.47
1:A:4101:LYS:O	1:A:4102:GLN:HG2	2.15	0.47
1:A:4126:GLU:HA	1:A:4129:ALA:HB3	1.97	0.47
1:A:4215:ARG:HH12	1:A:4219:PHE:HB2	1.79	0.47
1:B:210:GLU:HG3	1:B:337:PRO:HG3	1.95	0.47
1:B:4010:ILE:HG21	1:B:4128:PHE:CE1	2.49	0.47
1:B:4079:ASP:N	1:B:4079:ASP:OD1	2.46	0.47
1:B:4116:GLU:CD	1:B:4116:GLU:N	2.73	0.47
1:B:4215:ARG:HH12	1:B:4219:PHE:HB2	1.79	0.47
1:B:4679:ARG:HE	1:B:5017:ARG:CZ	2.28	0.47
1:C:575:LEU:HD13	1:C:609:CYS:HB3	1.97	0.47
1:C:1708:ARG:C	1:C:1710:GLY:N	2.72	0.47
1:C:4215:ARG:HH12	1:C:4219:PHE:HB2	1.79	0.47
1:C:4743:MET:HB3	1:C:4746:ALA:HB3	1.97	0.47
1:D:720:HIS:CD2	1:D:727:ALA:HA	2.34	0.47
1:D:2095:GLN:NE2	1:D:2127:GLN:O	2.25	0.47
1:D:4581:LYS:NZ	1:D:4582:VAL:O	2.33	0.47
1:B:180:LEU:HD22	1:B:200:TRP:NE1	2.30	0.47
1:B:290:TYR:HD2	1:B:304:ALA:HA	1.80	0.47
1:B:4089:SER:HB2	1:B:4091:LYS:HE2	1.96	0.47
1:C:180:LEU:HD22	1:C:200:TRP:NE1	2.30	0.47
1:C:2128:TYR:HB3	1:C:3669:PHE:CB	2.44	0.47
1:C:2142:TYR:CD2	1:C:2197:LEU:HD13	2.49	0.47
1:C:3670:GLU:HG2	1:C:3731:LYS:HE3	1.96	0.47
1:D:180:LEU:HD22	1:D:200:TRP:NE1	2.30	0.47
1:D:4010:ILE:HG21	1:D:4128:PHE:CE1	2.49	0.47
1:D:4016:LEU:HA	1:D:4019:LEU:HD13	1.96	0.47
1:D:4072:VAL:HG22	1:D:4126:GLU:CB	2.43	0.47
1:D:4122:MET:SD	1:D:4123:ILE:N	2.83	0.47
1:A:19:GLU:OE1	1:A:68:THR:OG1	2.27	0.47
1:A:356:TRP:O	1:A:379:HIS:N	2.45	0.47
1:A:972:LEU:HB3	1:A:975:VAL:HG12	1.97	0.47
1:A:2474:LEU:HB2	1:A:2475:GLN:H	1.54	0.47
1:B:2101:MET:O	1:B:2104:ARG:HG2	2.14	0.47
1:C:81:MET:HE2	1:C:81:MET:HA	1.96	0.47
1:D:1649:ASP:OD1	1:D:1650:ILE:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:102:LEU:HB2	1:A:105:HIS:NE2	2.30	0.47
1:A:1774:PRO:HG2	1:A:1776:HIS:NE2	2.30	0.47
1:A:2186:MET:HE3	1:A:2235:PHE:HD1	1.61	0.47
1:A:4873:ASP:O	1:A:4874:MET:HE2	2.15	0.47
1:B:138:GLN:HG2	1:B:139:GLU:N	2.30	0.47
1:B:4240:ASP:CG	1:B:4675:LYS:HZ3	2.23	0.47
1:C:21:VAL:HG22	1:C:203:ASN:HB2	1.97	0.47
1:C:4125:PHE:O	1:C:4126:GLU:C	2.54	0.47
1:D:102:LEU:HB2	1:D:105:HIS:NE2	2.30	0.47
1:D:961:MET:HE2	1:D:961:MET:HA	1.97	0.47
1:D:1927:LEU:HD23	1:D:1939:MET:HE3	1.97	0.47
1:A:119:SER:HA	1:A:146:CYS:HA	1.95	0.46
1:A:748:LEU:HD12	1:A:755:ILE:HG12	1.97	0.46
1:A:4089:SER:HB2	1:A:4091:LYS:HE2	1.96	0.46
1:B:21:VAL:HG22	1:B:203:ASN:HB2	1.97	0.46
1:B:609:CYS:SG	1:B:610:ASN:N	2.89	0.46
1:B:2295:LEU:HA	1:B:2298:VAL:HG22	1.97	0.46
1:B:4078:GLN:CG	1:B:4081:VAL:HG21	2.43	0.46
1:B:4126:GLU:HA	1:B:4129:ALA:HB3	1.97	0.46
1:C:1774:PRO:HG2	1:C:1776:HIS:NE2	2.30	0.46
1:D:761:GLY:O	1:D:762:CYS:C	2.56	0.46
1:D:1676:LEU:HA	1:D:1721:GLU:CD	2.41	0.46
1:D:1708:ARG:C	1:D:1710:GLY:H	2.22	0.46
1:D:4873:ASP:O	1:D:4874:MET:HE2	2.15	0.46
1:A:727:ALA:O	1:A:728:ARG:C	2.58	0.46
1:A:4679:ARG:HE	1:A:5017:ARG:CZ	2.28	0.46
1:B:727:ALA:O	1:B:728:ARG:C	2.58	0.46
1:B:2128:TYR:HB3	1:B:3669:PHE:CB	2.44	0.46
1:B:4983:HIS:ND1	1:B:4983:HIS:O	2.49	0.46
1:C:553:ARG:HG3	1:C:593:HIS:CE1	2.51	0.46
1:C:1676:LEU:HA	1:C:1721:GLU:CD	2.41	0.46
1:C:2295:LEU:HA	1:C:2298:VAL:HG22	1.97	0.46
1:C:3845:ASN:O	1:C:3849:ARG:HG2	2.16	0.46
1:C:3878:ASP:HA	1:C:3881:THR:HG22	1.98	0.46
1:C:4873:ASP:O	1:C:4874:MET:HE2	2.15	0.46
1:D:290:TYR:HD2	1:D:304:ALA:HA	1.80	0.46
1:D:4101:LYS:O	1:D:4102:GLN:HG2	2.15	0.46
1:A:180:LEU:HD22	1:A:200:TRP:NE1	2.30	0.46
1:A:210:GLU:HG3	1:A:337:PRO:HG3	1.95	0.46
1:A:961:MET:HE2	1:A:961:MET:HA	1.97	0.46
1:A:1695:LEU:HD23	1:A:1810:LYS:HZ2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1708:ARG:C	1:A:1710:GLY:N	2.72	0.46
1:B:553:ARG:HG3	1:B:593:HIS:CE1	2.51	0.46
1:B:1676:LEU:HA	1:B:1721:GLU:CD	2.41	0.46
1:B:4101:LYS:O	1:B:4102:GLN:HG2	2.15	0.46
1:B:4873:ASP:O	1:B:4874:MET:HE2	2.15	0.46
1:C:102:LEU:HB2	1:C:105:HIS:NE2	2.30	0.46
1:C:4016:LEU:HA	1:C:4019:LEU:HD13	1.96	0.46
1:D:138:GLN:HG2	1:D:139:GLU:N	2.30	0.46
1:D:748:LEU:HD12	1:D:755:ILE:HG12	1.97	0.46
1:D:1973:GLN:O	1:D:1977:TYR:N	2.45	0.46
1:D:3878:ASP:HA	1:D:3881:THR:HG22	1.98	0.46
1:D:4087:LEU:HB3	1:D:4121:GLU:HB3	1.97	0.46
1:D:4240:ASP:CG	1:D:4675:LYS:HZ3	2.24	0.46
1:A:609:CYS:SG	1:A:610:ASN:N	2.89	0.46
1:A:999:ASP:O	1:A:1004:GLY:N	2.49	0.46
1:A:1927:LEU:HD23	1:A:1939:MET:HE3	1.97	0.46
1:A:4743:MET:HB3	1:A:4746:ALA:HB3	1.97	0.46
1:B:102:LEU:HB2	1:B:105:HIS:NE2	2.30	0.46
1:B:748:LEU:HD12	1:B:755:ILE:HG12	1.97	0.46
1:B:961:MET:HE2	1:B:961:MET:HA	1.97	0.46
1:B:999:ASP:O	1:B:1004:GLY:N	2.49	0.46
1:B:3789:GLU:HG2	1:B:3791:GLY:H	1.81	0.46
1:B:4128:PHE:CD1	1:B:4128:PHE:C	2.92	0.46
1:C:110:ARG:NH2	1:C:115:ARG:HB3	2.26	0.46
1:C:720:HIS:CD2	1:C:727:ALA:HA	2.34	0.46
1:C:1638:ALA:HB1	1:C:1648:MET:O	2.16	0.46
1:C:3643:ASN:O	1:C:3644:LEU:HD13	2.15	0.46
1:C:3778:MET:HE3	1:C:3778:MET:HB3	1.76	0.46
1:C:4116:GLU:CD	1:C:4116:GLU:N	2.73	0.46
1:C:4581:LYS:NZ	1:C:4582:VAL:O	2.33	0.46
1:D:1638:ALA:HB1	1:D:1648:MET:O	2.16	0.46
1:D:2128:TYR:HB3	1:D:3669:PHE:CB	2.44	0.46
1:D:4116:GLU:CD	1:D:4116:GLU:N	2.73	0.46
1:D:4125:PHE:O	1:D:4126:GLU:C	2.54	0.46
1:A:1638:ALA:HB1	1:A:1648:MET:O	2.16	0.46
1:A:1676:LEU:HA	1:A:1721:GLU:CD	2.41	0.46
1:A:4087:LEU:HB3	1:A:4121:GLU:HB3	1.97	0.46
1:A:4642:ALA:O	1:A:4646:LEU:N	2.41	0.46
1:B:1649:ASP:OD1	1:B:1650:ILE:N	2.48	0.46
1:B:3643:ASN:O	1:B:3644:LEU:HD13	2.15	0.46
1:B:4318:ARG:CB	1:D:4909:TYR:OH	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1649:ASP:OD1	1:C:1650:ILE:N	2.48	0.46
1:D:21:VAL:HG22	1:D:203:ASN:HB2	1.97	0.46
1:D:575:LEU:HD13	1:D:609:CYS:HB3	1.97	0.46
1:D:3845:ASN:O	1:D:3849:ARG:HG2	2.16	0.46
1:D:4679:ARG:HE	1:D:5017:ARG:CZ	2.28	0.46
1:A:553:ARG:HG3	1:A:593:HIS:CE1	2.51	0.46
1:A:4076:ALA:O	1:A:4077:PHE:C	2.59	0.46
1:C:290:TYR:HD2	1:C:304:ALA:HA	1.80	0.46
1:C:961:MET:HE2	1:C:961:MET:HA	1.97	0.46
1:C:976:ARG:HH12	1:C:979:PRO:HD3	1.81	0.46
1:C:2299:VAL:O	1:C:2303:ALA:N	2.49	0.46
1:C:4101:LYS:O	1:C:4102:GLN:HG2	2.15	0.46
1:D:582:HIS:O	1:D:585:SER:OG	2.24	0.46
1:D:727:ALA:O	1:D:728:ARG:C	2.58	0.46
1:D:972:LEU:HB3	1:D:975:VAL:HG12	1.97	0.46
1:D:999:ASP:O	1:D:1004:GLY:N	2.49	0.46
1:D:4983:HIS:ND1	1:D:4983:HIS:O	2.49	0.46
1:A:3845:ASN:O	1:A:3849:ARG:HG2	2.16	0.46
1:A:3878:ASP:HA	1:A:3881:THR:HG22	1.98	0.46
1:B:810:PRO:O	1:B:812:HIS:ND1	2.49	0.46
1:C:810:PRO:O	1:C:812:HIS:ND1	2.49	0.46
1:C:999:ASP:O	1:C:1004:GLY:N	2.49	0.46
1:C:1041:GLN:O	1:C:1045:THR:OG1	2.32	0.46
1:C:1994:ARG:HA	1:C:1996:ARG:HH21	1.81	0.46
1:C:3901:ASN:OD1	1:C:3904:ARG:NH2	2.48	0.46
1:C:4240:ASP:CG	1:C:4675:LYS:HZ3	2.24	0.46
1:C:4704:LEU:HD23	1:C:4778:TRP:HB2	1.98	0.46
1:D:4076:ALA:O	1:D:4077:PHE:C	2.59	0.46
1:D:4128:PHE:CD1	1:D:4128:PHE:C	2.92	0.46
1:D:4643:LEU:O	1:D:4647:SER:N	2.47	0.46
1:D:4704:LEU:HD23	1:D:4778:TRP:HB2	1.98	0.46
1:A:4240:ASP:CG	1:A:4675:LYS:HZ3	2.23	0.46
1:B:4076:ALA:O	1:B:4077:PHE:C	2.59	0.46
1:B:4743:MET:HB3	1:B:4746:ALA:HB3	1.97	0.46
1:C:4089:SER:CB	1:C:4120:ASN:HA	2.42	0.46
1:D:810:PRO:O	1:D:812:HIS:ND1	2.49	0.46
1:D:870:ILE:HD11	1:D:1049:TYR:CG	2.51	0.46
1:D:4122:MET:HE3	1:D:4123:ILE:HG22	1.98	0.46
1:A:876:GLU:O	1:A:880:GLU:HG2	2.16	0.46
1:A:1101:ARG:N	1:A:1193:SER:OG	2.47	0.46
1:A:1708:ARG:C	1:A:1710:GLY:H	2.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4016:LEU:HA	1:A:4019:LEU:HD13	1.96	0.46
1:B:1708:ARG:C	1:B:1710:GLY:N	2.72	0.46
1:B:4136:ALA:O	1:B:4139:ILE:HG13	2.16	0.46
1:B:4909:TYR:OH	1:D:4318:ARG:CB	2.64	0.46
1:C:727:ALA:O	1:C:728:ARG:C	2.58	0.46
1:C:870:ILE:HD11	1:C:1049:TYR:CG	2.51	0.46
1:C:1972:ASN:O	1:C:1976:ARG:N	2.40	0.46
1:C:4679:ARG:HE	1:C:5017:ARG:CZ	2.28	0.46
1:A:21:VAL:HG22	1:A:203:ASN:HB2	1.97	0.46
1:A:870:ILE:HD11	1:A:1049:TYR:CG	2.51	0.46
1:A:1649:ASP:OD1	1:A:1650:ILE:N	2.48	0.46
1:A:4078:GLN:CG	1:A:4081:VAL:HG21	2.43	0.46
1:A:4318:ARG:CB	1:C:4909:TYR:OH	2.64	0.46
1:A:4983:HIS:ND1	1:A:4983:HIS:O	2.49	0.46
1:B:686:TRP:CH2	1:B:748:LEU:HD22	2.51	0.46
1:B:1638:ALA:HB1	1:B:1648:MET:O	2.16	0.46
1:B:4642:ALA:O	1:B:4646:LEU:N	2.41	0.46
1:C:972:LEU:HB3	1:C:975:VAL:HG12	1.97	0.46
1:D:3789:GLU:HG2	1:D:3791:GLY:H	1.81	0.46
1:D:3999:MET:SD	1:D:3999:MET:N	2.86	0.46
1:D:4126:GLU:HA	1:D:4129:ALA:HB3	1.97	0.46
1:A:2211:MET:HE2	1:A:2211:MET:HB3	1.82	0.45
1:B:575:LEU:HD13	1:B:609:CYS:HB3	1.97	0.45
1:B:870:ILE:HD11	1:B:1049:TYR:CG	2.51	0.45
1:B:1994:ARG:HA	1:B:1996:ARG:HH21	1.81	0.45
1:B:4124:ASN:HA	1:B:4127:GLU:CB	2.40	0.45
1:C:626:LEU:HG	1:C:628:GLY:N	2.28	0.45
1:C:1927:LEU:HD23	1:C:1939:MET:HE3	1.97	0.45
1:D:609:CYS:SG	1:D:610:ASN:N	2.89	0.45
1:D:976:ARG:HH12	1:D:979:PRO:HD3	1.81	0.45
1:D:2192:TYR:OH	1:D:2238:TYR:CD1	2.61	0.45
1:D:4010:ILE:HG21	1:D:4128:PHE:HE1	1.81	0.45
1:A:575:LEU:HD13	1:A:609:CYS:HB3	1.97	0.45
1:A:829:TYR:HE2	1:A:1608:MET:HE3	1.81	0.45
1:A:2295:LEU:HA	1:A:2298:VAL:HG22	1.97	0.45
1:A:4078:GLN:O	1:A:4081:VAL:HG13	2.17	0.45
1:A:4128:PHE:CG	1:A:4129:ALA:N	2.84	0.45
1:B:1936:LYS:O	1:B:1940:CYS:N	2.35	0.45
1:B:2299:VAL:O	1:B:2303:ALA:N	2.49	0.45
1:B:4010:ILE:HG21	1:B:4128:PHE:HE1	1.81	0.45
1:C:609:CYS:SG	1:C:610:ASN:N	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:748:LEU:HD12	1:C:755:ILE:HG12	1.97	0.45
1:D:2295:LEU:HA	1:D:2298:VAL:HG22	1.97	0.45
1:D:4136:ALA:O	1:D:4139:ILE:HG13	2.16	0.45
1:A:4116:GLU:CD	1:A:4116:GLU:N	2.73	0.45
1:C:551:LEU:HD21	1:C:589:LEU:HD13	1.98	0.45
1:C:892:THR:N	1:C:902:ARG:O	2.48	0.45
1:C:4087:LEU:HB3	1:C:4121:GLU:HB3	1.97	0.45
1:C:4126:GLU:HA	1:C:4129:ALA:HB3	1.97	0.45
1:C:4136:ALA:O	1:C:4139:ILE:HG13	2.16	0.45
1:D:19:GLU:OE1	1:D:68:THR:OG1	2.27	0.45
1:D:1708:ARG:C	1:D:1710:GLY:N	2.72	0.45
1:A:707:VAL:HG23	1:A:713:SER:HB2	1.98	0.45
1:A:1716:ILE:HG23	1:A:1720:LEU:HD13	1.98	0.45
1:A:4136:ALA:O	1:A:4139:ILE:HG13	2.16	0.45
1:A:4909:TYR:OH	1:C:4318:ARG:CB	2.64	0.45
1:B:976:ARG:HH12	1:B:979:PRO:HD3	1.81	0.45
1:B:1649:ASP:HB3	1:B:1652:GLU:HG3	1.99	0.45
1:B:3878:ASP:HA	1:B:3881:THR:HG22	1.98	0.45
1:B:4016:LEU:HA	1:B:4019:LEU:HD13	1.96	0.45
1:B:4087:LEU:HD11	1:B:4125:PHE:HE2	1.82	0.45
1:B:4155:PRO:HD2	1:B:5036:LEU:HD23	1.99	0.45
1:C:1534:LYS:O	1:C:1535:GLU:C	2.60	0.45
1:C:2024:PRO:HB2	1:C:2027:ILE:HG12	1.98	0.45
1:C:4010:ILE:HG21	1:C:4128:PHE:HE1	1.81	0.45
1:C:4144:ALA:O	1:C:4148:THR:OG1	2.29	0.45
1:D:553:ARG:HG3	1:D:593:HIS:CE1	2.51	0.45
1:D:876:GLU:O	1:D:880:GLU:HG2	2.16	0.45
1:D:2191:PHE:CZ	1:D:2239:PHE:HB2	2.49	0.45
1:A:138:GLN:HG2	1:A:139:GLU:N	2.30	0.45
1:A:2000:SER:O	1:A:2005:GLN:HB2	2.17	0.45
1:A:3789:GLU:HG2	1:A:3791:GLY:H	1.81	0.45
1:B:707:VAL:HG23	1:B:713:SER:HB2	1.98	0.45
1:B:975:VAL:O	1:B:1044:ARG:NH2	2.49	0.45
1:B:1927:LEU:HD23	1:B:1939:MET:HE3	1.97	0.45
1:B:3773:ARG:N	1:B:3815:LYS:HZ3	2.14	0.45
1:B:3845:ASN:O	1:B:3849:ARG:HG2	2.16	0.45
1:B:4704:LEU:HD23	1:B:4778:TRP:HB2	1.98	0.45
1:D:224:HIS:HB3	1:D:229:GLU:HG2	1.98	0.45
1:D:1994:ARG:HA	1:D:1996:ARG:HH21	1.81	0.45
1:D:4091:LYS:HZ3	1:D:4091:LYS:N	2.14	0.45
1:D:4128:PHE:CG	1:D:4129:ALA:N	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4147:LEU:O	1:D:4151:SER:OG	2.31	0.45
1:A:290:TYR:HD2	1:A:304:ALA:HA	1.80	0.45
1:A:1534:LYS:O	1:A:1535:GLU:C	2.60	0.45
1:A:4843:LEU:CD1	1:D:4823:LEU:CD1	2.66	0.45
1:B:829:TYR:HE2	1:B:1608:MET:HE3	1.81	0.45
1:B:4081:VAL:HG23	1:B:4082:THR:N	2.25	0.45
1:B:4122:MET:HE3	1:B:4123:ILE:HG22	1.98	0.45
1:C:669:ASP:OD2	1:C:790:ARG:NH2	2.50	0.45
1:C:891:TRP:HZ3	1:C:899:ASP:HA	1.82	0.45
1:C:4063:ASP:HA	1:C:4066:LEU:HD21	1.99	0.45
1:C:4122:MET:HE3	1:C:4123:ILE:HG22	1.98	0.45
1:C:4983:HIS:ND1	1:C:4983:HIS:O	2.49	0.45
1:D:206:CYS:SG	1:D:207:SER:N	2.90	0.45
1:D:891:TRP:HZ3	1:D:899:ASP:HA	1.82	0.45
1:A:224:HIS:HB3	1:A:229:GLU:HG2	1.98	0.45
1:A:551:LEU:HD21	1:A:589:LEU:HD13	1.98	0.45
1:A:686:TRP:CH2	1:A:748:LEU:HD22	2.51	0.45
1:A:2012:PHE:CG	1:A:2022:PRO:HD3	2.52	0.45
1:A:3965:LEU:HA	1:A:3968:TYR:CE2	2.52	0.45
1:A:4010:ILE:HG21	1:A:4128:PHE:HE1	1.81	0.45
1:A:4063:ASP:HA	1:A:4066:LEU:HD21	1.99	0.45
1:B:972:LEU:HB3	1:B:975:VAL:HG12	1.97	0.45
1:B:1130:GLN:HG2	1:B:1138:PRO:HA	1.99	0.45
1:C:206:CYS:SG	1:C:207:SER:N	2.90	0.45
1:C:1649:ASP:HB3	1:C:1652:GLU:HG3	1.99	0.45
1:C:3789:GLU:HG2	1:C:3791:GLY:H	1.81	0.45
1:C:4076:ALA:O	1:C:4077:PHE:C	2.59	0.45
1:D:686:TRP:CH2	1:D:748:LEU:HD22	2.51	0.45
1:D:1130:GLN:HG2	1:D:1138:PRO:HA	1.99	0.45
1:D:2012:PHE:CG	1:D:2022:PRO:HD3	2.52	0.45
1:A:810:PRO:O	1:A:812:HIS:ND1	2.49	0.45
1:A:891:TRP:HZ3	1:A:899:ASP:HA	1.82	0.45
1:A:976:ARG:HH12	1:A:979:PRO:HD3	1.81	0.45
1:B:2447:LYS:HG3	1:B:2449:GLU:H	1.82	0.45
1:B:3901:ASN:OD1	1:B:3904:ARG:NH2	2.48	0.45
1:C:686:TRP:CH2	1:C:748:LEU:HD22	2.51	0.45
1:D:702:TRP:HE1	1:D:1640:HIS:CG	2.34	0.45
1:D:4022:ASP:O	1:D:4026:MET:HG2	2.17	0.45
1:D:4578:LEU:HD12	1:D:4578:LEU:HA	1.76	0.45
1:A:1649:ASP:HB3	1:A:1652:GLU:HG3	1.99	0.45
1:B:206:CYS:SG	1:B:207:SER:N	2.90	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4072:VAL:HG22	1:B:4126:GLU:CB	2.43	0.45
1:C:702:TRP:HE1	1:C:1640:HIS:CG	2.34	0.45
1:C:750:LEU:HA	1:C:753:PRO:HB3	1.99	0.45
1:C:1970:GLN:O	1:C:3643:ASN:HB2	2.17	0.45
1:C:4074:SER:C	1:C:4076:ALA:N	2.73	0.45
1:C:4087:LEU:HD11	1:C:4125:PHE:HE2	1.82	0.45
1:C:4128:PHE:CD1	1:C:4128:PHE:C	2.92	0.45
1:D:497:TYR:HA	1:D:503:PHE:CE2	2.52	0.45
1:D:2000:SER:O	1:D:2005:GLN:HB2	2.17	0.45
1:D:2116:LEU:HG	1:D:2120:MET:HE1	1.99	0.45
1:D:3640:PRO:O	1:D:3641:LEU:C	2.60	0.45
1:A:3778:MET:HE3	1:A:3778:MET:HB3	1.76	0.45
1:B:891:TRP:HZ3	1:B:899:ASP:HA	1.82	0.45
1:C:707:VAL:HG23	1:C:713:SER:HB2	1.98	0.45
1:C:728:ARG:HA	1:C:728:ARG:HD3	1.75	0.45
1:C:876:GLU:O	1:C:880:GLU:HG2	2.16	0.45
1:C:2012:PHE:CG	1:C:2022:PRO:HD3	2.52	0.45
1:C:2447:LYS:HG3	1:C:2449:GLU:H	1.82	0.45
1:D:2006:ILE:HG13	1:D:3652:MET:CB	2.47	0.45
1:D:3901:ASN:OD1	1:D:3904:ARG:NH2	2.48	0.45
1:A:206:CYS:SG	1:A:207:SER:N	2.90	0.44
1:A:497:TYR:HA	1:A:503:PHE:CE2	2.52	0.44
1:A:702:TRP:HE1	1:A:1640:HIS:CG	2.34	0.44
1:A:1237:TRP:CH2	1:A:1607:ARG:HB2	2.52	0.44
1:A:1973:GLN:O	1:A:1977:TYR:N	2.45	0.44
1:A:1994:ARG:HA	1:A:1996:ARG:HH21	1.81	0.44
1:A:2024:PRO:HB2	1:A:2027:ILE:HG12	1.98	0.44
1:A:4022:ASP:O	1:A:4026:MET:HG2	2.17	0.44
1:A:4072:VAL:HG22	1:A:4126:GLU:CB	2.43	0.44
1:B:551:LEU:HD21	1:B:589:LEU:HD13	1.98	0.44
1:B:718:GLY:HA3	1:B:737:LEU:HA	2.00	0.44
1:B:750:LEU:HA	1:B:753:PRO:HB3	1.99	0.44
1:B:1078:GLU:OE2	1:B:1235:THR:HG22	2.17	0.44
1:B:1101:ARG:N	1:B:1193:SER:OG	2.47	0.44
1:B:1534:LYS:O	1:B:1535:GLU:C	2.60	0.44
1:B:2472:LEU:HD23	1:B:2472:LEU:HA	1.80	0.44
1:B:4823:LEU:CD1	1:C:4843:LEU:CD1	2.66	0.44
1:C:19:GLU:OE1	1:C:68:THR:OG1	2.27	0.44
1:C:143:GLY:HA2	1:C:146:CYS:SG	2.57	0.44
1:C:224:HIS:HB3	1:C:229:GLU:HG2	1.98	0.44
1:C:829:TYR:HE2	1:C:1608:MET:HE3	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2006:ILE:HG13	1:C:3652:MET:CB	2.47	0.44
1:C:2243:SER:HB3	1:C:2246:ASN:H	1.82	0.44
1:C:4078:GLN:CG	1:C:4081:VAL:HG21	2.43	0.44
1:D:707:VAL:HG23	1:D:713:SER:HB2	1.98	0.44
1:A:718:GLY:HA3	1:A:737:LEU:HA	2.00	0.44
1:A:1130:GLN:HG2	1:A:1138:PRO:HA	1.99	0.44
1:A:1941:ASN:HA	1:A:1944:GLU:OE1	2.17	0.44
1:A:2116:LEU:HG	1:A:2120:MET:HE1	1.99	0.44
1:A:4122:MET:HE3	1:A:4123:ILE:HG22	1.98	0.44
1:A:4155:PRO:HD2	1:A:5036:LEU:HD23	1.99	0.44
1:B:143:GLY:HA2	1:B:146:CYS:SG	2.57	0.44
1:B:224:HIS:HB3	1:B:229:GLU:HG2	1.98	0.44
1:B:876:GLU:O	1:B:880:GLU:HG2	2.16	0.44
1:B:2012:PHE:CG	1:B:2022:PRO:HD3	2.52	0.44
1:B:4022:ASP:O	1:B:4026:MET:HG2	2.17	0.44
1:B:4078:GLN:O	1:B:4081:VAL:HG13	2.17	0.44
1:C:675:LEU:HD21	1:C:1633:PRO:HB3	2.00	0.44
1:C:2000:SER:O	1:C:2005:GLN:HB2	2.17	0.44
1:D:1534:LYS:O	1:D:1535:GLU:C	2.60	0.44
1:D:1936:LYS:O	1:D:1940:CYS:N	2.35	0.44
1:D:2024:PRO:HB2	1:D:2027:ILE:HG12	1.98	0.44
1:D:4087:LEU:HD11	1:D:4125:PHE:HE2	1.82	0.44
1:A:1229:ASN:HB2	1:A:1827:ARG:HE	1.83	0.44
1:A:2243:SER:HB3	1:A:2246:ASN:H	1.82	0.44
1:A:3773:ARG:N	1:A:3815:LYS:HZ3	2.16	0.44
1:A:4807:PHE:CD2	1:B:4857:ASN:ND2	2.84	0.44
1:B:681:HIS:CE1	1:B:705:ASN:HB3	2.52	0.44
1:B:2006:ILE:HG13	1:B:3652:MET:CB	2.47	0.44
1:B:2243:SER:HB3	1:B:2246:ASN:H	1.82	0.44
1:B:3991:GLY:O	1:B:3995:VAL:HG23	2.18	0.44
1:B:3996:PHE:HA	1:B:3999:MET:SD	2.58	0.44
1:B:4074:SER:C	1:B:4076:ALA:N	2.73	0.44
1:B:4087:LEU:HB3	1:B:4121:GLU:HB3	1.97	0.44
1:C:3716:LEU:HD12	1:C:3716:LEU:HA	1.85	0.44
1:C:4022:ASP:O	1:C:4026:MET:HG2	2.17	0.44
1:D:829:TYR:HE2	1:D:1608:MET:HE3	1.81	0.44
1:D:1237:TRP:CH2	1:D:1607:ARG:HB2	2.52	0.44
1:D:1716:ILE:HG23	1:D:1720:LEU:HD13	1.98	0.44
1:D:1941:ASN:HA	1:D:1944:GLU:OE1	2.17	0.44
1:D:1972:ASN:O	1:D:1976:ARG:N	2.40	0.44
1:D:3716:LEU:HD12	1:D:3716:LEU:HA	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4961:CYS:SG	1:D:4983:HIS:NE2	2.82	0.44
1:A:669:ASP:OD2	1:A:790:ARG:NH2	2.50	0.44
1:A:4704:LEU:HD23	1:A:4778:TRP:HB2	1.98	0.44
1:B:1439:VAL:O	1:B:1440:PHE:C	2.61	0.44
1:B:1934:SER:O	1:B:1937:LEU:HG	2.18	0.44
1:B:2000:SER:O	1:B:2005:GLN:HB2	2.17	0.44
1:C:497:TYR:HA	1:C:503:PHE:CE2	2.52	0.44
1:C:1078:GLU:OE2	1:C:1235:THR:HG22	2.17	0.44
1:C:1716:ILE:HG23	1:C:1720:LEU:HD13	1.98	0.44
1:C:3773:ARG:N	1:C:3815:LYS:HZ3	2.16	0.44
1:C:3996:PHE:HA	1:C:3999:MET:SD	2.58	0.44
1:C:4138:ASP:O	1:C:4140:GLY:N	2.51	0.44
1:C:4138:ASP:C	1:C:4140:GLY:N	2.75	0.44
1:C:4155:PRO:HD2	1:C:5036:LEU:HD23	1.99	0.44
1:D:143:GLY:HA2	1:D:146:CYS:SG	2.57	0.44
1:D:2103:VAL:HG13	1:D:3680:ALA:CB	2.48	0.44
1:D:4063:ASP:HA	1:D:4066:LEU:HD21	1.99	0.44
1:A:1970:GLN:O	1:A:3643:ASN:HB2	2.17	0.44
1:A:3991:GLY:O	1:A:3995:VAL:HG23	2.18	0.44
1:A:4138:ASP:O	1:A:4140:GLY:N	2.51	0.44
1:B:1217:CYS:SG	1:B:1221:GLU:HG3	2.58	0.44
1:B:1970:GLN:O	1:B:3643:ASN:HB2	2.17	0.44
1:B:2024:PRO:HB2	1:B:2027:ILE:HG12	1.98	0.44
1:B:4138:ASP:C	1:B:4140:GLY:N	2.75	0.44
1:C:950:LEU:HB3	1:C:970:LEU:HD22	1.99	0.44
1:C:1217:CYS:SG	1:C:1221:GLU:HG3	2.58	0.44
1:C:1439:VAL:O	1:C:1440:PHE:C	2.61	0.44
1:C:4078:GLN:O	1:C:4081:VAL:HG13	2.17	0.44
1:D:718:GLY:HA3	1:D:737:LEU:HA	2.00	0.44
1:D:1690:ASP:CB	1:D:1693:GLN:HG2	2.48	0.44
1:D:3662:ILE:O	1:D:3664:THR:N	2.50	0.44
1:D:4078:GLN:O	1:D:4081:VAL:HG13	2.17	0.44
1:A:660:GLY:HA2	1:A:750:LEU:HD12	1.99	0.44
1:A:2103:VAL:HG13	1:A:3680:ALA:CB	2.48	0.44
1:B:4643:LEU:O	1:B:4647:SER:N	2.47	0.44
1:B:4807:PHE:CD2	1:C:4857:ASN:ND2	2.84	0.44
1:C:1679:ASN:O	1:C:1680:ARG:C	2.60	0.44
1:C:1941:ASN:HA	1:C:1944:GLU:OE1	2.17	0.44
1:D:749:ASP:OD2	1:D:751:SER:OG	2.25	0.44
1:D:1229:ASN:HB2	1:D:1827:ARG:HE	1.83	0.44
1:A:1679:ASN:O	1:A:1680:ARG:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4044:MET:HA	1:A:4047:MET:HG3	2.00	0.44
1:B:4044:MET:HA	1:B:4047:MET:HG3	2.00	0.44
1:B:4063:ASP:HA	1:B:4066:LEU:HD21	1.99	0.44
1:C:1934:SER:O	1:C:1937:LEU:HG	2.18	0.44
1:C:3662:ILE:O	1:C:3664:THR:N	2.50	0.44
1:C:4886:HIS:O	1:C:4890:GLY:N	2.51	0.44
1:D:599:VAL:HG23	1:D:600:LEU:HD12	2.00	0.44
1:A:2432:LEU:O	1:A:2436:CYS:N	2.49	0.44
1:A:2447:LYS:HG3	1:A:2449:GLU:H	1.82	0.44
1:B:702:TRP:HE1	1:B:1640:HIS:CG	2.34	0.44
1:B:4128:PHE:CG	1:B:4129:ALA:N	2.84	0.44
1:C:660:GLY:HA2	1:C:750:LEU:HD12	1.99	0.44
1:C:1130:GLN:HG2	1:C:1138:PRO:HA	1.99	0.44
1:C:2042:CYS:SG	1:C:2043:GLY:N	2.90	0.44
1:C:3965:LEU:HA	1:C:3968:TYR:CE2	2.52	0.44
1:D:551:LEU:HD21	1:D:589:LEU:HD13	1.98	0.44
1:D:950:LEU:HB3	1:D:970:LEU:HD22	1.99	0.44
1:D:1078:GLU:OE2	1:D:1235:THR:HG22	2.17	0.44
1:D:1649:ASP:HB3	1:D:1652:GLU:HG3	1.99	0.44
1:D:2299:VAL:O	1:D:2303:ALA:N	2.49	0.44
1:D:4138:ASP:O	1:D:4140:GLY:N	2.51	0.44
1:A:110:ARG:HA	1:A:117:TYR:HA	2.00	0.44
1:A:1078:GLU:OE2	1:A:1235:THR:HG22	2.17	0.44
1:A:1217:CYS:SG	1:A:1221:GLU:HG3	2.58	0.44
1:A:3996:PHE:HA	1:A:3999:MET:SD	2.58	0.44
1:A:4128:PHE:CD1	1:A:4128:PHE:C	2.92	0.44
1:B:1600:LEU:HD23	1:B:1600:LEU:H	1.83	0.44
1:B:3640:PRO:O	1:B:3641:LEU:C	2.60	0.44
1:C:718:GLY:HA3	1:C:737:LEU:HA	2.00	0.44
1:C:2116:LEU:HG	1:C:2120:MET:HE1	1.99	0.44
1:C:2188:ASN:O	1:C:2189:LYS:HG2	2.18	0.44
1:C:4642:ALA:O	1:C:4646:LEU:N	2.41	0.44
1:D:626:LEU:HG	1:D:628:GLY:N	2.28	0.44
1:D:660:GLY:HA2	1:D:750:LEU:HD12	1.99	0.44
1:D:2243:SER:HB3	1:D:2246:ASN:H	1.82	0.44
1:D:2447:LYS:HG3	1:D:2449:GLU:H	1.82	0.44
1:A:749:ASP:OD2	1:A:751:SER:OG	2.25	0.43
1:A:892:THR:N	1:A:902:ARG:O	2.48	0.43
1:A:1439:VAL:O	1:A:1440:PHE:C	2.61	0.43
1:A:1972:ASN:O	1:A:1976:ARG:N	2.40	0.43
1:B:1237:TRP:CH2	1:B:1607:ARG:HB2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1716:ILE:HG23	1:B:1720:LEU:HD13	1.98	0.43
1:C:110:ARG:HA	1:C:117:TYR:HA	2.00	0.43
1:C:1237:TRP:CH2	1:C:1607:ARG:HB2	2.52	0.43
1:C:3644:LEU:O	1:C:3645:PRO:C	2.61	0.43
1:C:4017:LEU:HD12	1:C:4132:PHE:HZ	1.83	0.43
1:C:4068:LEU:HD22	1:C:4071:ILE:HD13	2.00	0.43
1:C:4088:ILE:O	1:C:4089:SER:C	2.61	0.43
1:C:4698:LYS:HZ1	1:C:4782:VAL:HA	1.83	0.43
1:D:110:ARG:HA	1:D:117:TYR:HA	2.00	0.43
1:D:892:THR:N	1:D:902:ARG:O	2.48	0.43
1:D:1970:GLN:O	1:D:3643:ASN:HB2	2.17	0.43
1:D:3644:LEU:O	1:D:3645:PRO:C	2.61	0.43
1:A:1690:ASP:CB	1:A:1693:GLN:HG2	2.48	0.43
1:A:2006:ILE:HG13	1:A:3652:MET:CB	2.47	0.43
1:B:2116:LEU:HG	1:B:2120:MET:HE1	1.99	0.43
1:B:2188:ASN:O	1:B:2189:LYS:HG2	2.18	0.43
1:B:3965:LEU:HA	1:B:3968:TYR:CE2	2.52	0.43
1:C:681:HIS:CE1	1:C:705:ASN:HB3	2.52	0.43
1:C:1600:LEU:HD23	1:C:1600:LEU:H	1.83	0.43
1:C:3966:THR:N	1:C:4026:MET:HE1	2.33	0.43
1:C:3999:MET:SD	1:C:3999:MET:N	2.86	0.43
1:C:4643:LEU:HA	1:C:4646:LEU:HB2	2.00	0.43
1:D:1217:CYS:SG	1:D:1221:GLU:HG3	2.58	0.43
1:D:4078:GLN:CG	1:D:4081:VAL:HG21	2.43	0.43
1:D:4155:PRO:HD2	1:D:5036:LEU:HD23	1.99	0.43
1:A:4221:VAL:HG12	1:A:4233:LEU:HD11	2.01	0.43
1:B:110:ARG:HA	1:B:117:TYR:HA	2.00	0.43
1:B:497:TYR:HA	1:B:503:PHE:CE2	2.52	0.43
1:B:660:GLY:HA2	1:B:750:LEU:HD12	1.99	0.43
1:B:1690:ASP:CB	1:B:1693:GLN:HG2	2.48	0.43
1:C:138:GLN:HG2	1:C:139:GLU:N	2.30	0.43
1:C:599:VAL:HG23	1:C:600:LEU:HD12	2.00	0.43
1:C:1229:ASN:HB2	1:C:1827:ARG:HE	1.83	0.43
1:C:3829:PHE:HA	1:C:3832:ILE:HG12	2.00	0.43
1:C:4042:ARG:HH22	1:C:4045:VAL:HG21	1.84	0.43
1:C:4079:ASP:HB2	1:C:4080:TYR:H	1.63	0.43
1:C:4124:ASN:O	1:C:4128:PHE:HD2	2.01	0.43
1:C:4704:LEU:HB3	1:C:4778:TRP:CD1	2.53	0.43
1:D:533:ASN:ND2	1:D:536:ASN:OD1	2.51	0.43
1:D:675:LEU:HD21	1:D:1633:PRO:HB3	2.00	0.43
1:D:4042:ARG:HH22	1:D:4045:VAL:HG21	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4067:LYS:HD3	1:D:4067:LYS:HA	1.31	0.43
1:D:4068:LEU:HD22	1:D:4071:ILE:HD13	2.00	0.43
1:D:4089:SER:CB	1:D:4120:ASN:HA	2.42	0.43
1:D:4229:GLU:HA	1:D:4232:GLU:HB3	2.00	0.43
1:A:681:HIS:CE1	1:A:705:ASN:HB3	2.52	0.43
1:A:750:LEU:HA	1:A:753:PRO:HB3	1.99	0.43
1:A:4042:ARG:HH22	1:A:4045:VAL:HG21	1.84	0.43
1:A:4087:LEU:HD11	1:A:4125:PHE:HE2	1.82	0.43
1:A:4643:LEU:HA	1:A:4646:LEU:HB2	2.00	0.43
1:A:4702:ASP:O	1:A:4705:VAL:HG12	2.18	0.43
1:B:533:ASN:ND2	1:B:536:ASN:OD1	2.51	0.43
1:B:1973:GLN:O	1:B:1977:TYR:N	2.45	0.43
1:B:2005:GLN:NE2	1:B:3640:PRO:HG3	2.33	0.43
1:B:3829:PHE:HA	1:B:3832:ILE:HG12	2.00	0.43
1:B:4088:ILE:O	1:B:4089:SER:C	2.61	0.43
1:C:2271:THR:HG22	1:C:2273:LEU:H	1.84	0.43
1:C:4141:PHE:HE1	1:C:4178:LEU:HD13	1.84	0.43
1:D:681:HIS:CE1	1:D:705:ASN:HB3	2.52	0.43
1:D:4144:ALA:O	1:D:4148:THR:OG1	2.29	0.43
1:A:143:GLY:HA2	1:A:146:CYS:SG	2.57	0.43
1:A:533:ASN:ND2	1:A:536:ASN:OD1	2.51	0.43
1:A:1934:SER:O	1:A:1937:LEU:HG	2.18	0.43
1:A:3662:ILE:O	1:A:3664:THR:N	2.50	0.43
1:A:4138:ASP:C	1:A:4140:GLY:N	2.75	0.43
1:B:1229:ASN:HB2	1:B:1827:ARG:HE	1.83	0.43
1:C:975:VAL:O	1:C:1044:ARG:NH2	2.49	0.43
1:C:2432:LEU:O	1:C:2436:CYS:N	2.49	0.43
1:C:4078:GLN:HG3	1:C:4081:VAL:CG2	2.46	0.43
1:D:750:LEU:HA	1:D:753:PRO:HB3	1.99	0.43
1:D:1934:SER:O	1:D:1937:LEU:HG	2.18	0.43
1:D:4044:MET:HA	1:D:4047:MET:HG3	2.00	0.43
1:D:4065:PHE:HA	1:D:4068:LEU:HB2	2.00	0.43
1:D:4088:ILE:O	1:D:4089:SER:C	2.61	0.43
1:D:4953:ASP:OD1	1:D:4954:MET:N	2.52	0.43
1:A:2005:GLN:NE2	1:A:3640:PRO:HG3	2.33	0.43
1:A:3829:PHE:HA	1:A:3832:ILE:HG12	2.00	0.43
1:B:1941:ASN:HA	1:B:1944:GLU:OE1	2.17	0.43
1:B:2103:VAL:HG13	1:B:3680:ALA:CB	2.48	0.43
1:B:4042:ARG:HH22	1:B:4045:VAL:HG21	1.84	0.43
1:B:4120:ASN:CG	1:B:4121:GLU:H	2.26	0.43
1:B:4124:ASN:O	1:B:4128:PHE:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4138:ASP:O	1:B:4140:GLY:N	2.51	0.43
1:B:4953:ASP:OD1	1:B:4954:MET:N	2.52	0.43
1:C:1690:ASP:CB	1:C:1693:GLN:HG2	2.48	0.43
1:C:3887:PHE:O	1:C:3891:LEU:HG	2.18	0.43
1:D:3763:LEU:HG	1:D:3767:GLN:HE22	1.84	0.43
1:D:3965:LEU:HA	1:D:3968:TYR:CE2	2.52	0.43
1:D:3996:PHE:HA	1:D:3999:MET:SD	2.58	0.43
1:A:626:LEU:HG	1:A:628:GLY:N	2.28	0.43
1:A:2188:ASN:O	1:A:2189:LYS:HG2	2.18	0.43
1:A:4120:ASN:CG	1:A:4121:GLU:H	2.26	0.43
1:B:3966:THR:N	1:B:4026:MET:HE1	2.33	0.43
1:B:4065:PHE:HA	1:B:4068:LEU:HB2	2.00	0.43
1:B:4643:LEU:HA	1:B:4646:LEU:HB2	2.00	0.43
1:B:4702:ASP:O	1:B:4705:VAL:HG12	2.18	0.43
1:C:2423:MET:O	1:C:2427:ALA:N	2.48	0.43
1:C:3991:GLY:O	1:C:3995:VAL:HG23	2.18	0.43
1:C:4044:MET:HA	1:C:4047:MET:HG3	2.00	0.43
1:D:1679:ASN:O	1:D:1680:ARG:C	2.60	0.43
1:D:4124:ASN:O	1:D:4128:PHE:HD2	2.01	0.43
1:D:4221:VAL:HG12	1:D:4233:LEU:HD11	2.01	0.43
1:A:22:LEU:HD12	1:A:200:TRP:CE3	2.54	0.43
1:A:3763:LEU:HG	1:A:3767:GLN:HE22	1.84	0.43
1:B:950:LEU:HB3	1:B:970:LEU:HD22	1.99	0.43
1:B:1220:GLN:HG2	1:B:1221:GLU:HG2	2.00	0.43
1:B:4698:LYS:HZ1	1:B:4782:VAL:HA	1.84	0.43
1:B:4704:LEU:HB3	1:B:4778:TRP:CD1	2.53	0.43
1:C:730:VAL:O	1:C:735:GLN:NE2	2.52	0.43
1:C:2203:MET:O	1:C:2206:THR:OG1	2.24	0.43
1:C:4229:GLU:HA	1:C:4232:GLU:HB3	2.00	0.43
1:C:4680:LYS:NZ	1:C:4687:TYR:H	2.12	0.43
1:D:2188:ASN:O	1:D:2189:LYS:HG2	2.18	0.43
1:D:3756:LYS:O	1:D:3759:GLU:HG2	2.19	0.43
1:D:4138:ASP:C	1:D:4140:GLY:N	2.75	0.43
1:D:4141:PHE:HE1	1:D:4178:LEU:HD13	1.84	0.43
1:A:599:VAL:HG23	1:A:600:LEU:HD12	2.00	0.43
1:A:675:LEU:HD21	1:A:1633:PRO:HB3	2.00	0.43
1:A:975:VAL:O	1:A:1044:ARG:NH2	2.49	0.43
1:A:3770:LEU:HD12	1:A:3770:LEU:HA	1.84	0.43
1:A:3833:GLN:HA	1:A:3836:MET:HG3	2.01	0.43
1:A:4055:VAL:HG12	1:A:4059:LEU:HD23	2.01	0.43
1:B:22:LEU:HD12	1:B:200:TRP:CE3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:892:THR:N	1:B:902:ARG:O	2.48	0.43
1:B:972:LEU:HB3	1:B:975:VAL:CG1	2.49	0.43
1:B:3832:ILE:O	1:B:3836:MET:HG3	2.19	0.43
1:B:4886:HIS:O	1:B:4890:GLY:N	2.51	0.43
1:C:972:LEU:HB3	1:C:975:VAL:CG1	2.49	0.43
1:C:2005:GLN:NE2	1:C:3640:PRO:HG3	2.33	0.43
1:C:3833:GLN:HA	1:C:3836:MET:HG3	2.01	0.43
1:C:4128:PHE:CG	1:C:4129:ALA:N	2.84	0.43
1:D:330:ASP:OD1	1:D:330:ASP:N	2.52	0.43
1:D:3829:PHE:HA	1:D:3832:ILE:HG12	2.00	0.43
1:D:3832:ILE:O	1:D:3836:MET:HG3	2.19	0.43
1:D:3991:GLY:O	1:D:3995:VAL:HG23	2.18	0.43
1:D:4702:ASP:O	1:D:4705:VAL:HG12	2.18	0.43
1:D:4886:HIS:O	1:D:4890:GLY:N	2.51	0.43
1:D:5000:GLU:HA	1:D:5003:HIS:ND1	2.34	0.43
1:A:950:LEU:HB3	1:A:970:LEU:HD22	1.99	0.43
1:A:2299:VAL:O	1:A:2303:ALA:N	2.49	0.43
1:A:3640:PRO:O	1:A:3641:LEU:C	2.60	0.43
1:A:3832:ILE:O	1:A:3836:MET:HG3	2.19	0.43
1:A:3966:THR:N	1:A:4026:MET:HE1	2.33	0.43
1:A:4067:LYS:HA	1:A:4067:LYS:HD3	1.31	0.43
1:A:4229:GLU:HA	1:A:4232:GLU:HB3	2.00	0.43
1:A:5000:GLU:HA	1:A:5003:HIS:ND1	2.34	0.43
1:B:618:GLN:OE1	1:B:1678:ASN:ND2	2.52	0.43
1:B:1768:THR:HB	1:B:1952:GLN:HE22	1.84	0.43
1:B:3833:GLN:HA	1:B:3836:MET:HG3	2.01	0.43
1:B:4017:LEU:HD12	1:B:4132:PHE:CE2	2.54	0.43
1:B:4125:PHE:CD1	1:B:4126:GLU:N	2.87	0.43
1:C:618:GLN:OE1	1:C:1678:ASN:ND2	2.52	0.43
1:C:2103:VAL:HG13	1:C:3680:ALA:CB	2.48	0.43
1:C:4643:LEU:O	1:C:4647:SER:N	2.47	0.43
1:D:730:VAL:O	1:D:735:GLN:NE2	2.52	0.43
1:D:1439:VAL:O	1:D:1440:PHE:C	2.61	0.43
1:D:1600:LEU:HD23	1:D:1600:LEU:H	1.83	0.43
1:D:3887:PHE:O	1:D:3891:LEU:HG	2.18	0.43
1:A:1671:ARG:HH21	1:A:1714:LEU:N	2.17	0.42
1:A:4643:LEU:O	1:A:4647:SER:N	2.47	0.42
1:B:3644:LEU:O	1:B:3645:PRO:C	2.61	0.42
1:B:4124:ASN:O	1:B:4125:PHE:C	2.61	0.42
1:B:4221:VAL:HG12	1:B:4233:LEU:HD11	2.01	0.42
1:C:22:LEU:HD12	1:C:200:TRP:CE3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:533:ASN:ND2	1:C:536:ASN:OD1	2.51	0.42
1:C:4125:PHE:CD1	1:C:4126:GLU:N	2.87	0.42
1:C:4701:TRP:CZ2	1:C:4778:TRP:HA	2.54	0.42
1:D:2220:THR:O	1:D:2222:GLU:N	2.52	0.42
1:D:3966:THR:N	1:D:4026:MET:HE1	2.33	0.42
1:D:4079:ASP:HB2	1:D:4080:TYR:H	1.63	0.42
1:D:4643:LEU:HA	1:D:4646:LEU:HB2	2.00	0.42
1:A:1698:LEU:HA	1:A:1712:TYR:OH	2.19	0.42
1:A:2257:LEU:HD11	1:A:2276:ALA:HB2	2.02	0.42
1:A:2271:THR:HG22	1:A:2273:LEU:H	1.84	0.42
1:A:3887:PHE:O	1:A:3891:LEU:HG	2.18	0.42
1:A:4141:PHE:HE1	1:A:4178:LEU:HD13	1.84	0.42
1:A:4324:ALA:HB2	1:B:4880:MET:HE1	1.97	0.42
1:A:4702:ASP:HA	1:A:4778:TRP:HE1	1.85	0.42
1:A:4930:ALA:CB	1:D:4933:GLN:HE21	2.32	0.42
1:B:599:VAL:HG23	1:B:600:LEU:HD12	2.00	0.42
1:B:897:ARG:HB2	1:B:905:PRO:HG3	2.01	0.42
1:B:2271:THR:HG22	1:B:2273:LEU:H	1.84	0.42
1:B:3763:LEU:HG	1:B:3767:GLN:HE22	1.84	0.42
1:B:4701:TRP:CZ2	1:B:4778:TRP:HA	2.54	0.42
1:C:1830:VAL:N	1:C:1837:GLN:OE1	2.53	0.42
1:C:2151:ASP:O	1:C:2154:SER:OG	2.32	0.42
1:C:4702:ASP:O	1:C:4705:VAL:HG12	2.18	0.42
1:D:606:LEU:O	1:D:617:ASN:ND2	2.52	0.42
1:D:669:ASP:OD2	1:D:790:ARG:NH2	2.50	0.42
1:D:4063:ASP:CA	1:D:4066:LEU:HG	2.49	0.42
1:A:897:ARG:HB2	1:A:905:PRO:HG3	2.01	0.42
1:A:1600:LEU:HD23	1:A:1600:LEU:H	1.83	0.42
1:A:4017:LEU:HD12	1:A:4132:PHE:CE2	2.54	0.42
1:A:4065:PHE:HA	1:A:4068:LEU:HB2	2.00	0.42
1:A:4124:ASN:O	1:A:4128:PHE:HD2	2.01	0.42
1:A:4674:GLU:HB3	1:A:4715:TYR:HB2	2.01	0.42
1:A:4701:TRP:CZ2	1:A:4778:TRP:HA	2.54	0.42
1:B:219:VAL:HG13	1:B:219:VAL:O	2.20	0.42
1:B:4933:GLN:HE21	1:C:4930:ALA:CB	2.32	0.42
1:C:55:ALA:O	1:C:281:ARG:NH2	2.48	0.42
1:C:478:PHE:CD2	1:C:483:MET:HG3	2.54	0.42
1:C:1220:GLN:HG2	1:C:1221:GLU:HG2	2.00	0.42
1:C:3640:PRO:O	1:C:3641:LEU:C	2.60	0.42
1:C:4116:GLU:O	1:C:4117:ALA:C	2.62	0.42
1:C:4674:GLU:HB3	1:C:4715:TYR:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:22:LEU:HD12	1:D:200:TRP:CE3	2.54	0.42
1:D:241:GLN:O	1:D:289:ARG:NH1	2.47	0.42
1:D:972:LEU:HB3	1:D:975:VAL:CG1	2.49	0.42
1:D:2271:THR:HG22	1:D:2273:LEU:H	1.84	0.42
1:D:2332:LEU:HD13	1:D:2335:LEU:HD12	2.01	0.42
1:D:4116:GLU:O	1:D:4117:ALA:C	2.62	0.42
1:A:730:VAL:O	1:A:735:GLN:NE2	2.52	0.42
1:A:972:LEU:HB3	1:A:975:VAL:CG1	2.49	0.42
1:A:1767:VAL:HG12	1:A:1769:THR:H	1.84	0.42
1:A:3644:LEU:O	1:A:3645:PRO:C	2.61	0.42
1:A:3901:ASN:OD1	1:A:3904:ARG:NH2	2.48	0.42
1:A:4074:SER:C	1:A:4076:ALA:N	2.73	0.42
1:B:1671:ARG:HH21	1:B:1714:LEU:N	2.17	0.42
1:B:1819:VAL:HG22	1:B:1926:LEU:HD13	2.01	0.42
1:C:4065:PHE:HA	1:C:4068:LEU:HB2	2.00	0.42
1:C:4933:GLN:HE21	1:D:4930:ALA:CB	2.32	0.42
1:C:4953:ASP:OD1	1:C:4954:MET:N	2.52	0.42
1:D:546:TRP:O	1:D:550:LYS:NZ	2.40	0.42
1:D:810:PRO:HG2	1:D:812:HIS:ND1	2.35	0.42
1:D:1767:VAL:HG12	1:D:1769:THR:H	1.84	0.42
1:D:2432:LEU:O	1:D:2436:CYS:N	2.49	0.42
1:D:4674:GLU:HB3	1:D:4715:TYR:HB2	2.01	0.42
1:A:219:VAL:O	1:A:219:VAL:HG13	2.20	0.42
1:A:606:LEU:O	1:A:617:ASN:ND2	2.52	0.42
1:A:1220:GLN:HG2	1:A:1221:GLU:HG2	2.00	0.42
1:A:3756:LYS:O	1:A:3759:GLU:HG2	2.19	0.42
1:A:4125:PHE:CD1	1:A:4126:GLU:N	2.87	0.42
1:A:4217:PHE:CZ	1:A:4234:PHE:HA	2.49	0.42
1:A:4769:MET:N	1:A:4769:MET:SD	2.93	0.42
1:A:4930:ALA:HB1	1:D:4933:GLN:HE21	1.84	0.42
1:A:4953:ASP:OD1	1:A:4954:MET:N	2.52	0.42
1:A:4960:ILE:HD11	1:A:4985:LEU:HB3	2.02	0.42
1:A:4961:CYS:SG	1:A:4983:HIS:NE2	2.82	0.42
1:B:330:ASP:OD1	1:B:330:ASP:N	2.52	0.42
1:B:606:LEU:O	1:B:617:ASN:ND2	2.52	0.42
1:B:688:LEU:HD12	1:B:777:PHE:CE1	2.55	0.42
1:B:1679:ASN:O	1:B:1680:ARG:C	2.60	0.42
1:B:3887:PHE:O	1:B:3891:LEU:HG	2.18	0.42
1:B:4116:GLU:HB2	1:B:4117:ALA:H	1.46	0.42
1:C:582:HIS:O	1:C:585:SER:OG	2.24	0.42
1:C:4124:ASN:O	1:C:4125:PHE:C	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4960:ILE:HD11	1:C:4985:LEU:HB3	2.02	0.42
1:D:1698:LEU:HA	1:D:1712:TYR:OH	2.19	0.42
1:D:1998:PHE:HD1	1:D:3639:THR:HG21	1.85	0.42
1:D:2290:LEU:HD12	1:D:2290:LEU:HA	1.74	0.42
1:D:3833:GLN:HA	1:D:3836:MET:HG3	2.01	0.42
1:D:4769:MET:N	1:D:4769:MET:SD	2.93	0.42
1:A:910:PHE:HZ	1:A:922:LEU:HD21	1.84	0.42
1:A:1275:ARG:O	1:A:1277:TRP:N	2.53	0.42
1:A:1830:VAL:N	1:A:1837:GLN:OE1	2.53	0.42
1:A:4581:LYS:NZ	1:A:4582:VAL:O	2.33	0.42
1:A:4933:GLN:HE21	1:B:4930:ALA:CB	2.32	0.42
1:B:2211:MET:HE2	1:B:2211:MET:HB3	1.82	0.42
1:B:2220:THR:O	1:B:2222:GLU:N	2.52	0.42
1:B:2290:LEU:HD12	1:B:2290:LEU:HA	1.74	0.42
1:B:4068:LEU:HD22	1:B:4071:ILE:HD13	2.00	0.42
1:C:1177:THR:HG22	1:C:1179:PHE:HD2	1.84	0.42
1:C:1671:ARG:HH21	1:C:1714:LEU:N	2.17	0.42
1:C:3756:LYS:O	1:C:3759:GLU:HG2	2.19	0.42
1:C:4067:LYS:HA	1:C:4067:LYS:HD3	1.31	0.42
1:C:4117:ALA:O	1:C:4118:ASP:HB3	2.20	0.42
1:C:4933:GLN:HE21	1:D:4930:ALA:HB1	1.84	0.42
1:D:870:ILE:HD12	1:D:873:LYS:HB2	2.02	0.42
1:D:2005:GLN:NE2	1:D:3640:PRO:HG3	2.33	0.42
1:D:2178:MET:SD	1:D:2179:ILE:HG13	2.60	0.42
1:D:2438:PRO:HB3	1:D:2453:ILE:HB	2.02	0.42
1:D:4698:LYS:HZ1	1:D:4782:VAL:HA	1.84	0.42
1:D:4701:TRP:CZ2	1:D:4778:TRP:HA	2.54	0.42
1:A:320:LYS:HG2	1:A:356:TRP:NE1	2.35	0.42
1:A:421:PHE:CZ	1:A:507:ALA:HB2	2.55	0.42
1:A:870:ILE:HD12	1:A:873:LYS:HB2	2.02	0.42
1:A:1252:HIS:HB3	1:A:1255:TYR:O	2.20	0.42
1:A:1998:PHE:HD1	1:A:3639:THR:HG21	1.85	0.42
1:A:4063:ASP:CA	1:A:4066:LEU:HG	2.49	0.42
1:A:4088:ILE:O	1:A:4089:SER:C	2.61	0.42
1:A:4124:ASN:O	1:A:4125:PHE:C	2.61	0.42
1:B:810:PRO:HG2	1:B:812:HIS:ND1	2.35	0.42
1:B:1275:ARG:O	1:B:1277:TRP:N	2.53	0.42
1:B:1998:PHE:HD1	1:B:3639:THR:HG21	1.85	0.42
1:B:2257:LEU:HD11	1:B:2276:ALA:HB2	2.02	0.42
1:B:4000:MET:SD	1:B:4001:MET:HG2	2.60	0.42
1:B:4055:VAL:HG12	1:B:4059:LEU:HD23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4141:PHE:HE1	1:B:4178:LEU:HD13	1.84	0.42
1:B:4674:GLU:HB3	1:B:4715:TYR:HB2	2.01	0.42
1:B:4960:ILE:HD11	1:B:4985:LEU:HB3	2.02	0.42
1:C:606:LEU:O	1:C:617:ASN:ND2	2.52	0.42
1:C:1698:LEU:HA	1:C:1712:TYR:OH	2.19	0.42
1:C:4961:CYS:SG	1:C:4983:HIS:NE2	2.82	0.42
1:D:55:ALA:O	1:D:281:ARG:NH2	2.48	0.42
1:D:320:LYS:HG2	1:D:356:TRP:NE1	2.35	0.42
1:D:3986:TRP:HA	1:D:3989:VAL:HG22	2.01	0.42
1:D:4960:ILE:HD11	1:D:4985:LEU:HB3	2.02	0.42
1:A:618:GLN:OE1	1:A:1678:ASN:ND2	2.52	0.42
1:A:688:LEU:HD12	1:A:777:PHE:CE1	2.55	0.42
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.20	0.42
1:A:2423:MET:O	1:A:2427:ALA:N	2.48	0.42
1:A:4068:LEU:HD22	1:A:4071:ILE:HD13	2.00	0.42
1:A:4142:ASN:HA	1:A:4145:VAL:HG12	2.02	0.42
1:A:4862:PHE:CD2	1:A:4913:ARG:HD2	2.55	0.42
1:B:52:THR:HG21	1:B:62:LEU:HD21	2.02	0.42
1:B:320:LYS:HG2	1:B:356:TRP:NE1	2.35	0.42
1:B:705:ASN:HB2	1:B:709:ASP:OD2	2.20	0.42
1:B:3778:MET:HE3	1:B:3778:MET:HB3	1.76	0.42
1:B:4017:LEU:HD12	1:B:4132:PHE:HZ	1.83	0.42
1:B:4078:GLN:HG3	1:B:4081:VAL:CG2	2.46	0.42
1:B:4217:PHE:CZ	1:B:4234:PHE:HA	2.49	0.42
1:C:870:ILE:HD12	1:C:873:LYS:HB2	2.02	0.42
1:C:2191:PHE:CZ	1:C:2239:PHE:HB2	2.49	0.42
1:D:618:GLN:OE1	1:D:1678:ASN:ND2	2.52	0.42
1:D:1220:GLN:HG2	1:D:1221:GLU:HG2	2.00	0.42
1:D:1671:ARG:HH21	1:D:1714:LEU:N	2.17	0.42
1:D:4125:PHE:CD1	1:D:4126:GLU:N	2.87	0.42
1:D:4702:ASP:HA	1:D:4778:TRP:HE1	1.85	0.42
1:A:810:PRO:HG2	1:A:812:HIS:HD1	1.85	0.42
1:A:1936:LYS:O	1:A:1940:CYS:N	2.35	0.42
1:A:2178:MET:SD	1:A:2179:ILE:HG13	2.60	0.42
1:A:2472:LEU:HD23	1:A:2472:LEU:HA	1.80	0.42
1:A:4582:VAL:HG11	1:B:4860:ARG:CD	2.50	0.42
1:B:675:LEU:HD21	1:B:1633:PRO:HB3	2.00	0.42
1:B:749:ASP:OD2	1:B:751:SER:OG	2.25	0.42
1:B:1252:HIS:HB3	1:B:1255:TYR:O	2.20	0.42
1:B:1767:VAL:HG12	1:B:1769:THR:H	1.84	0.42
1:B:1830:VAL:N	1:B:1837:GLN:OE1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4818:MET:O	1:B:4824:ARG:HG3	2.20	0.42
1:B:5000:GLU:HA	1:B:5003:HIS:ND1	2.34	0.42
1:C:745:SER:HB2	1:C:758:ARG:HB3	2.02	0.42
1:C:886:ARG:HB3	1:C:891:TRP:HB2	2.02	0.42
1:C:1819:VAL:HG22	1:C:1926:LEU:HD13	2.01	0.42
1:C:1998:PHE:HD1	1:C:3639:THR:HG21	1.85	0.42
1:C:3670:GLU:N	1:C:3670:GLU:OE1	2.53	0.42
1:C:3832:ILE:O	1:C:3836:MET:HG3	2.19	0.42
1:C:4000:MET:SD	1:C:4001:MET:HG2	2.60	0.42
1:C:4147:LEU:O	1:C:4151:SER:OG	2.31	0.42
1:C:4221:VAL:HG12	1:C:4233:LEU:HD11	2.01	0.42
1:C:4702:ASP:HA	1:C:4778:TRP:HE1	1.85	0.42
1:D:2474:LEU:HB2	1:D:2475:GLN:H	1.54	0.42
1:D:4017:LEU:HD12	1:D:4132:PHE:CE2	2.54	0.42
1:D:4142:ASN:HA	1:D:4145:VAL:HG12	2.02	0.42
1:D:4704:LEU:HB3	1:D:4778:TRP:CD1	2.53	0.42
1:D:4862:PHE:CD2	1:D:4913:ARG:HD2	2.55	0.42
1:A:705:ASN:HB2	1:A:709:ASP:OD2	2.20	0.42
1:A:810:PRO:HG2	1:A:812:HIS:ND1	2.35	0.42
1:B:421:PHE:CZ	1:B:507:ALA:HB2	2.55	0.42
1:B:2332:LEU:HD13	1:B:2335:LEU:HD12	2.01	0.42
1:B:4702:ASP:HA	1:B:4778:TRP:HE1	1.85	0.42
1:B:4862:PHE:CD2	1:B:4913:ARG:HD2	2.55	0.42
1:C:897:ARG:HB2	1:C:905:PRO:HG3	2.01	0.42
1:C:1676:LEU:H	1:C:1676:LEU:HG	1.30	0.42
1:C:2438:PRO:HB3	1:C:2453:ILE:HB	2.02	0.42
1:C:3986:TRP:HA	1:C:3989:VAL:HG22	2.01	0.42
1:C:4017:LEU:HD12	1:C:4132:PHE:CE2	2.54	0.42
1:C:4055:VAL:HG12	1:C:4059:LEU:HD23	2.01	0.42
1:C:4071:ILE:HD13	1:C:4111:LEU:HD11	2.02	0.42
1:C:4125:PHE:HB2	1:C:4126:GLU:H	1.39	0.42
1:D:219:VAL:O	1:D:219:VAL:HG13	2.20	0.42
1:D:745:SER:HB2	1:D:758:ARG:HB3	2.02	0.42
1:D:897:ARG:HB2	1:D:905:PRO:HG3	2.01	0.42
1:D:910:PHE:HZ	1:D:922:LEU:HD21	1.84	0.42
1:D:1252:HIS:HB3	1:D:1255:TYR:O	2.20	0.42
1:D:2211:MET:HE2	1:D:2211:MET:HB3	1.82	0.42
1:D:4071:ILE:HD13	1:D:4111:LEU:HD11	2.02	0.42
1:A:886:ARG:HB3	1:A:891:TRP:HB2	2.02	0.41
1:A:1768:THR:HB	1:A:1952:GLN:HE22	1.84	0.41
1:A:4000:MET:SD	1:A:4001:MET:HG2	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4147:LEU:O	1:A:4151:SER:OG	2.31	0.41
1:A:4698:LYS:HZ1	1:A:4782:VAL:HA	1.84	0.41
1:A:4933:GLN:HE21	1:B:4930:ALA:HB1	1.84	0.41
1:B:103:TYR:CZ	1:B:163:VAL:HG22	2.55	0.41
1:B:2178:MET:SD	1:B:2179:ILE:HG13	2.60	0.41
1:B:4090:LYS:HB3	1:B:4090:LYS:HE2	1.79	0.41
1:B:4229:GLU:HA	1:B:4232:GLU:HB3	2.00	0.41
1:B:4582:VAL:HG11	1:C:4860:ARG:CD	2.50	0.41
1:C:219:VAL:O	1:C:219:VAL:HG13	2.20	0.41
1:C:320:LYS:HG2	1:C:356:TRP:NE1	2.35	0.41
1:C:705:ASN:HB2	1:C:709:ASP:OD2	2.20	0.41
1:C:1767:VAL:HG12	1:C:1769:THR:H	1.84	0.41
1:C:2178:MET:SD	1:C:2179:ILE:HG13	2.60	0.41
1:C:4072:VAL:HG22	1:C:4126:GLU:CB	2.43	0.41
1:C:4082:THR:OG1	1:C:4083:ASP:N	2.53	0.41
1:C:4142:ASN:HA	1:C:4145:VAL:HG12	2.02	0.41
1:C:4818:MET:O	1:C:4824:ARG:HG3	2.20	0.41
1:C:5000:GLU:HA	1:C:5003:HIS:ND1	2.34	0.41
1:D:478:PHE:CD2	1:D:483:MET:HG3	2.54	0.41
1:D:705:ASN:HB2	1:D:709:ASP:OD2	2.20	0.41
1:D:1768:THR:HB	1:D:1952:GLN:HE22	1.84	0.41
1:D:2257:LEU:HD11	1:D:2276:ALA:HB2	2.02	0.41
1:D:4000:MET:SD	1:D:4001:MET:HG2	2.60	0.41
1:A:690:GLU:HB3	1:A:712:TYR:CD2	2.56	0.41
1:A:1819:VAL:HG22	1:A:1926:LEU:HD13	2.01	0.41
1:A:1834:VAL:HA	1:A:1837:GLN:HB3	2.02	0.41
1:A:2220:THR:O	1:A:2222:GLU:N	2.52	0.41
1:A:2292:GLU:C	1:A:2294:ASP:N	2.78	0.41
1:B:669:ASP:OD2	1:B:790:ARG:NH2	2.50	0.41
1:B:690:GLU:HB3	1:B:712:TYR:CD2	2.56	0.41
1:B:730:VAL:O	1:B:735:GLN:NE2	2.52	0.41
1:B:3756:LYS:O	1:B:3759:GLU:HG2	2.19	0.41
1:C:421:PHE:CZ	1:C:507:ALA:HB2	2.55	0.41
1:C:810:PRO:HG2	1:C:812:HIS:ND1	2.35	0.41
1:C:1252:HIS:HB3	1:C:1255:TYR:O	2.20	0.41
1:C:1768:THR:HB	1:C:1952:GLN:HE22	1.84	0.41
1:C:1834:VAL:HA	1:C:1837:GLN:HB3	2.02	0.41
1:C:2332:LEU:HD13	1:C:2335:LEU:HD12	2.01	0.41
1:C:4862:PHE:CD2	1:C:4913:ARG:HD2	2.55	0.41
1:D:2292:GLU:C	1:D:2294:ASP:N	2.78	0.41
1:D:3670:GLU:OE1	1:D:3670:GLU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:THR:HG21	1:A:62:LEU:HD21	2.02	0.41
1:A:2332:LEU:HD13	1:A:2335:LEU:HD12	2.01	0.41
1:A:4914:VAL:CG1	1:D:4888:TYR:CD1	2.72	0.41
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.20	0.41
1:B:2438:PRO:HB3	1:B:2453:ILE:HB	2.02	0.41
1:B:3770:LEU:HD12	1:B:3770:LEU:HA	1.84	0.41
1:B:4006:ASP:OD1	1:B:4007:SER:N	2.53	0.41
1:C:52:THR:HG21	1:C:62:LEU:HD21	2.02	0.41
1:C:910:PHE:HZ	1:C:922:LEU:HD21	1.84	0.41
1:C:4090:LYS:HB3	1:C:4090:LYS:HE2	1.79	0.41
1:C:4984:ASN:O	1:C:4985:LEU:HG	2.21	0.41
1:D:103:TYR:CZ	1:D:163:VAL:HG22	2.55	0.41
1:D:886:ARG:HB3	1:D:891:TRP:HB2	2.02	0.41
1:D:2472:LEU:HD23	1:D:2472:LEU:HA	1.80	0.41
1:D:4055:VAL:HG12	1:D:4059:LEU:HD23	2.01	0.41
1:A:70:GLU:HG3	1:A:117:TYR:HE1	1.86	0.41
1:A:478:PHE:CD2	1:A:483:MET:HG3	2.54	0.41
1:A:3986:TRP:HA	1:A:3989:VAL:HG22	2.01	0.41
1:A:4578:LEU:HA	1:A:4578:LEU:HD12	1.76	0.41
1:A:4650:HIS:NE2	1:A:4795:TYR:OH	2.40	0.41
1:A:4857:ASN:ND2	1:D:4807:PHE:CD2	2.84	0.41
1:B:1118:ASP:N	1:B:1118:ASP:OD1	2.53	0.41
1:B:2292:GLU:C	1:B:2294:ASP:N	2.78	0.41
1:B:4071:ILE:HD13	1:B:4111:LEU:HD11	2.02	0.41
1:B:4141:PHE:CE1	1:B:4178:LEU:HD13	2.55	0.41
1:B:4175:ARG:HH21	1:B:4178:LEU:HD23	1.86	0.41
1:C:4063:ASP:CA	1:C:4066:LEU:HG	2.49	0.41
1:D:690:GLU:HB3	1:D:712:TYR:CD2	2.56	0.41
1:D:1177:THR:HG22	1:D:1179:PHE:HD2	1.84	0.41
1:D:1819:VAL:HG22	1:D:1926:LEU:HD13	2.01	0.41
1:D:4117:ALA:O	1:D:4118:ASP:HB3	2.20	0.41
1:D:4124:ASN:O	1:D:4125:PHE:C	2.61	0.41
1:A:4071:ILE:HD13	1:A:4111:LEU:HD11	2.02	0.41
1:A:4818:MET:O	1:A:4824:ARG:HG3	2.20	0.41
1:B:157:ARG:NH2	1:B:164:ARG:HD2	2.36	0.41
1:B:1698:LEU:HA	1:B:1712:TYR:OH	2.19	0.41
1:B:1834:VAL:HA	1:B:1837:GLN:HB3	2.02	0.41
1:B:2423:MET:O	1:B:2427:ALA:N	2.48	0.41
1:B:4067:LYS:HA	1:B:4067:LYS:HD3	1.31	0.41
1:B:4082:THR:OG1	1:B:4083:ASP:N	2.53	0.41
1:C:241:GLN:O	1:C:289:ARG:NH1	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:810:PRO:HG2	1:C:812:HIS:HD1	1.85	0.41
1:C:2220:THR:O	1:C:2222:GLU:N	2.52	0.41
1:D:4074:SER:C	1:D:4076:ALA:N	2.73	0.41
1:D:4145:VAL:HG22	1:D:4149:ASN:OD1	2.21	0.41
1:A:103:TYR:CZ	1:A:163:VAL:HG22	2.55	0.41
1:A:2122:SER:HB3	1:A:3721:LEU:CD1	2.51	0.41
1:A:3670:GLU:OE1	1:A:3670:GLU:N	2.53	0.41
1:A:4145:VAL:HG22	1:A:4149:ASN:OD1	2.21	0.41
1:A:4175:ARG:HH21	1:A:4178:LEU:HD23	1.86	0.41
1:A:4704:LEU:HB3	1:A:4778:TRP:CD1	2.53	0.41
1:B:358:THR:HG21	1:B:382:GLY:HA2	2.03	0.41
1:B:870:ILE:HD12	1:B:873:LYS:HB2	2.02	0.41
1:B:886:ARG:HB3	1:B:891:TRP:HB2	2.02	0.41
1:B:910:PHE:HZ	1:B:922:LEU:HD21	1.84	0.41
1:B:1158:ASN:HB3	1:B:1182:ILE:H	1.85	0.41
1:B:2432:LEU:O	1:B:2436:CYS:N	2.49	0.41
1:B:3986:TRP:HA	1:B:3989:VAL:HG22	2.01	0.41
1:B:4142:ASN:HA	1:B:4145:VAL:HG12	2.02	0.41
1:C:2257:LEU:HD11	1:C:2276:ALA:HB2	2.02	0.41
1:C:4145:VAL:HG22	1:C:4149:ASN:OD1	2.21	0.41
1:D:1192:CYS:SG	1:D:1193:SER:N	2.94	0.41
1:D:1275:ARG:O	1:D:1277:TRP:N	2.53	0.41
1:D:1676:LEU:H	1:D:1676:LEU:HG	1.30	0.41
1:D:1830:VAL:N	1:D:1837:GLN:OE1	2.53	0.41
1:D:1834:VAL:HA	1:D:1837:GLN:HB3	2.02	0.41
1:D:4141:PHE:CE1	1:D:4178:LEU:HD13	2.55	0.41
1:D:4818:MET:O	1:D:4824:ARG:HG3	2.20	0.41
1:A:1206:GLN:HA	1:A:1227:ALA:O	2.20	0.41
1:A:2438:PRO:HB3	1:A:2453:ILE:HB	2.02	0.41
1:A:4000:MET:HE1	1:A:4061:PHE:CD1	2.56	0.41
1:A:4116:GLU:O	1:A:4117:ALA:C	2.62	0.41
1:A:4984:ASN:O	1:A:4985:LEU:HG	2.21	0.41
1:B:2176:ASN:OD1	1:B:2176:ASN:N	2.53	0.41
1:B:4116:GLU:O	1:B:4117:ALA:C	2.62	0.41
1:B:4123:ILE:HA	1:B:4123:ILE:HD12	1.85	0.41
1:B:4145:VAL:HG22	1:B:4149:ASN:OD1	2.21	0.41
1:C:169:LEU:CD1	1:C:202:MET:HG2	2.50	0.41
1:C:688:LEU:HD12	1:C:777:PHE:CE1	2.55	0.41
1:C:1867:GLU:N	1:C:1868:PRO:HD2	2.36	0.41
1:C:3763:LEU:HG	1:C:3767:GLN:HE22	1.84	0.41
1:C:4020:GLN:O	1:C:4024:VAL:HG13	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4125:PHE:HD1	1:C:4126:GLU:N	2.18	0.41
1:C:4728:HIS:HA	1:C:4731:ILE:HG12	2.02	0.41
1:D:1171:SER:OG	1:D:1175:SER:N	2.53	0.41
1:D:1206:GLN:HA	1:D:1227:ALA:O	2.20	0.41
1:D:2122:SER:HB3	1:D:3721:LEU:CD1	2.51	0.41
1:A:137:LEU:H	1:A:137:LEU:HD23	1.86	0.41
1:A:891:TRP:CZ3	1:A:899:ASP:HA	2.56	0.41
1:A:4078:GLN:HG3	1:A:4081:VAL:CG2	2.46	0.41
1:A:4082:THR:OG1	1:A:4083:ASP:N	2.53	0.41
1:A:4090:LYS:HG2	1:A:4091:LYS:N	2.32	0.41
1:A:4886:HIS:O	1:A:4890:GLY:N	2.51	0.41
1:B:70:GLU:HG3	1:B:117:TYR:HE1	1.86	0.41
1:B:720:HIS:CD2	1:B:727:ALA:CA	3.00	0.41
1:B:1177:THR:HG22	1:B:1179:PHE:HD2	1.84	0.41
1:B:1192:CYS:SG	1:B:1193:SER:N	2.94	0.41
1:B:3670:GLU:OE1	1:B:3670:GLU:N	2.53	0.41
1:B:4020:GLN:O	1:B:4024:VAL:HG13	2.21	0.41
1:B:4144:ALA:O	1:B:4148:THR:OG1	2.29	0.41
1:B:4680:LYS:NZ	1:B:4687:TYR:H	2.12	0.41
1:D:70:GLU:HG3	1:D:117:TYR:HE1	1.86	0.41
1:D:688:LEU:HD12	1:D:777:PHE:CE1	2.55	0.41
1:D:1867:GLU:N	1:D:1868:PRO:HD2	2.36	0.41
1:D:2123:LEU:O	1:D:2127:GLN:HG2	2.20	0.41
1:D:4125:PHE:HD1	1:D:4126:GLU:N	2.18	0.41
1:D:4728:HIS:HA	1:D:4731:ILE:HG12	2.02	0.41
1:A:23:GLN:H	1:A:200:TRP:HE3	1.68	0.41
1:A:555:GLU:OE1	1:A:555:GLU:N	2.54	0.41
1:A:891:TRP:CE3	1:A:902:ARG:HA	2.56	0.41
1:A:1676:LEU:HA	1:A:1721:GLU:OE2	2.21	0.41
1:A:2025:GLU:HA	1:A:2028:ARG:NE	2.36	0.41
1:A:4082:THR:O	1:A:4084:PRO:N	2.54	0.41
1:A:4117:ALA:O	1:A:4118:ASP:HB3	2.20	0.41
1:A:4125:PHE:HD1	1:A:4126:GLU:N	2.18	0.41
1:A:4728:HIS:HA	1:A:4731:ILE:HG12	2.02	0.41
1:B:478:PHE:CD2	1:B:483:MET:HG3	2.54	0.41
1:B:745:SER:HB2	1:B:758:ARG:HB3	2.02	0.41
1:B:810:PRO:HG2	1:B:812:HIS:HD1	1.85	0.41
1:B:889:GLN:HB2	1:B:891:TRP:HD1	1.86	0.41
1:B:891:TRP:CE3	1:B:902:ARG:HA	2.56	0.41
1:B:891:TRP:CZ3	1:B:899:ASP:HA	2.56	0.41
1:B:2042:CYS:SG	1:B:2043:GLY:N	2.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2232:CYS:SG	1:B:2233:CYS:N	2.94	0.41
1:B:3716:LEU:HD12	1:B:3716:LEU:HA	1.85	0.41
1:B:4000:MET:HE1	1:B:4061:PHE:CD1	2.56	0.41
1:B:4079:ASP:C	1:B:4081:VAL:N	2.79	0.41
1:B:4134:GLU:N	1:B:4135:PRO:CD	2.84	0.41
1:B:4769:MET:SD	1:B:4769:MET:N	2.93	0.41
1:B:4888:TYR:CD1	1:C:4914:VAL:CG1	2.72	0.41
1:B:4933:GLN:HE21	1:C:4930:ALA:HB1	1.84	0.41
1:B:4984:ASN:O	1:B:4985:LEU:HG	2.21	0.41
1:C:23:GLN:H	1:C:200:TRP:HE3	1.68	0.41
1:C:157:ARG:NH2	1:C:164:ARG:HD2	2.36	0.41
1:C:358:THR:HG21	1:C:382:GLY:HA2	2.03	0.41
1:C:494:LEU:HD12	1:C:494:LEU:HA	1.94	0.41
1:C:494:LEU:HG	1:C:515:TRP:HE1	1.86	0.41
1:C:891:TRP:CZ3	1:C:899:ASP:HA	2.56	0.41
1:C:1158:ASN:HB3	1:C:1182:ILE:H	1.85	0.41
1:C:1206:GLN:HA	1:C:1227:ALA:O	2.20	0.41
1:C:1676:LEU:HA	1:C:1721:GLU:OE2	2.21	0.41
1:C:2025:GLU:HA	1:C:2028:ARG:NE	2.36	0.41
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.20	0.41
1:C:2176:ASN:OD1	1:C:2176:ASN:N	2.53	0.41
1:C:2232:CYS:SG	1:C:2233:CYS:N	2.94	0.41
1:C:2292:GLU:C	1:C:2294:ASP:N	2.78	0.41
1:C:4082:THR:O	1:C:4084:PRO:N	2.54	0.41
1:C:4141:PHE:CE1	1:C:4178:LEU:HD13	2.55	0.41
1:C:4769:MET:SD	1:C:4769:MET:N	2.93	0.41
1:D:52:THR:HG21	1:D:62:LEU:HD21	2.02	0.41
1:D:59:PRO:HB3	1:D:281:ARG:NH1	2.36	0.41
1:D:137:LEU:H	1:D:137:LEU:HD23	1.86	0.41
1:D:555:GLU:OE1	1:D:555:GLU:N	2.54	0.41
1:D:889:GLN:HB2	1:D:891:TRP:HD1	1.86	0.41
1:D:891:TRP:CE3	1:D:902:ARG:HA	2.56	0.41
1:D:1236:THR:OG1	1:D:1608:MET:SD	2.79	0.41
1:D:2025:GLU:HA	1:D:2028:ARG:NE	2.36	0.41
1:D:2042:CYS:SG	1:D:2043:GLY:N	2.90	0.41
1:D:2232:CYS:SG	1:D:2233:CYS:N	2.94	0.41
1:D:4217:PHE:CZ	1:D:4234:PHE:HA	2.49	0.41
1:D:4680:LYS:NZ	1:D:4687:TYR:H	2.12	0.41
1:A:59:PRO:HB3	1:A:281:ARG:NH1	2.36	0.41
1:A:169:LEU:CD1	1:A:202:MET:HG2	2.50	0.41
1:A:745:SER:HB2	1:A:758:ARG:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1177:THR:HG22	1:A:1179:PHE:HD2	1.84	0.41
1:A:1192:CYS:SG	1:A:1193:SER:N	2.94	0.41
1:A:2042:CYS:SG	1:A:2043:GLY:N	2.90	0.41
1:A:2176:ASN:OD1	1:A:2176:ASN:N	2.53	0.41
1:A:2202:GLY:HA2	1:A:2204:HIS:CE1	2.56	0.41
1:A:2232:CYS:SG	1:A:2233:CYS:N	2.94	0.41
1:A:4090:LYS:HE2	1:A:4090:LYS:HB3	1.79	0.41
1:B:495:ASN:HD21	1:B:550:LYS:HD2	1.86	0.41
1:B:560:ILE:HA	1:B:563:VAL:HG12	2.03	0.41
1:B:2346:VAL:HG13	1:B:2349:ASN:H	1.86	0.41
1:B:4066:LEU:HD21	1:B:4169:SER:OG	2.21	0.41
1:B:4117:ALA:O	1:B:4118:ASP:HB3	2.20	0.41
1:B:4650:HIS:NE2	1:B:4795:TYR:OH	2.40	0.41
1:C:555:GLU:OE1	1:C:555:GLU:N	2.54	0.41
1:C:690:GLU:HB3	1:C:712:TYR:CD2	2.56	0.41
1:C:889:GLN:HB2	1:C:891:TRP:HD1	1.86	0.41
1:C:4006:ASP:OD1	1:C:4007:SER:N	2.53	0.41
1:C:4066:LEU:HD21	1:C:4169:SER:OG	2.21	0.41
1:D:157:ARG:NH2	1:D:164:ARG:HD2	2.36	0.41
1:D:500:ALA:H	1:D:503:PHE:HB3	1.86	0.41
1:D:810:PRO:HG2	1:D:812:HIS:HD1	1.85	0.41
1:D:3773:ARG:N	1:D:3815:LYS:HZ3	2.19	0.41
1:D:4082:THR:O	1:D:4084:PRO:N	2.54	0.41
1:D:4134:GLU:N	1:D:4135:PRO:CD	2.84	0.41
1:D:4175:ARG:HH21	1:D:4178:LEU:HD23	1.86	0.41
1:A:889:GLN:HB2	1:A:891:TRP:HD1	1.86	0.40
1:A:4141:PHE:CE1	1:A:4178:LEU:HD13	2.55	0.40
1:B:137:LEU:HD23	1:B:137:LEU:H	1.86	0.40
1:B:692:TYR:H	1:B:826:ILE:HD12	1.85	0.40
1:B:728:ARG:HA	1:B:728:ARG:HD3	1.75	0.40
1:B:1972:ASN:O	1:B:1976:ARG:N	2.40	0.40
1:B:4125:PHE:HD1	1:B:4126:GLU:N	2.18	0.40
1:B:4125:PHE:HB2	1:B:4126:GLU:H	1.39	0.40
1:C:59:PRO:HB3	1:C:281:ARG:NH1	2.36	0.40
1:D:494:LEU:HG	1:D:515:TRP:HE1	1.86	0.40
1:D:692:TYR:H	1:D:826:ILE:HD12	1.85	0.40
1:D:4003:LEU:HB3	1:D:4013:LEU:HD21	2.03	0.40
1:D:4006:ASP:OD1	1:D:4007:SER:N	2.53	0.40
1:D:4066:LEU:HD21	1:D:4169:SER:OG	2.21	0.40
1:D:4984:ASN:O	1:D:4985:LEU:HG	2.21	0.40
1:A:1118:ASP:OD1	1:A:1118:ASP:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1581:LEU:O	1:A:1581:LEU:HD23	2.21	0.40
1:A:4003:LEU:HB3	1:A:4013:LEU:HD21	2.03	0.40
1:A:4006:ASP:OD1	1:A:4007:SER:N	2.53	0.40
1:B:108:LEU:HB2	1:B:147:TRP:CZ3	2.57	0.40
1:B:169:LEU:CD1	1:B:202:MET:HG2	2.50	0.40
1:B:3662:ILE:O	1:B:3664:THR:N	2.50	0.40
1:B:4167:ALA:HB1	1:B:4170:ILE:HD13	2.03	0.40
1:B:4728:HIS:HA	1:B:4731:ILE:HG12	2.02	0.40
1:C:108:LEU:HB2	1:C:147:TRP:CZ3	2.57	0.40
1:C:572:PRO:HB3	1:C:609:CYS:HB2	2.04	0.40
1:C:3714:SER:O	1:C:3715:LYS:HD2	2.21	0.40
1:C:3770:LEU:HA	1:C:3770:LEU:HD12	1.84	0.40
1:D:169:LEU:CD1	1:D:202:MET:HG2	2.50	0.40
1:D:560:ILE:HA	1:D:563:VAL:HG12	2.03	0.40
1:D:1457:TYR:N	1:D:1497:GLY:O	2.32	0.40
1:D:1796:ALA:HB1	1:D:1797:ARG:HH21	1.86	0.40
1:A:108:LEU:HB2	1:A:147:TRP:CZ3	2.57	0.40
1:A:358:THR:HG21	1:A:382:GLY:HA2	2.03	0.40
1:A:692:TYR:H	1:A:826:ILE:HD12	1.85	0.40
1:A:1188:PHE:C	1:A:1189:LEU:HD12	2.47	0.40
1:A:4089:SER:CB	1:A:4120:ASN:HA	2.42	0.40
1:A:4167:ALA:HB1	1:A:4170:ILE:HD13	2.03	0.40
1:A:4860:ARG:CD	1:D:4582:VAL:HG11	2.50	0.40
1:B:500:ALA:H	1:B:503:PHE:HB3	1.86	0.40
1:B:572:PRO:HB3	1:B:609:CYS:HB2	2.04	0.40
1:B:664:PHE:HB2	1:B:746:CYS:HB2	2.04	0.40
1:B:1867:GLU:N	1:B:1868:PRO:HD2	2.36	0.40
1:B:2025:GLU:HA	1:B:2028:ARG:NE	2.36	0.40
1:B:4193:ILE:C	1:B:4194:TYR:HD1	2.30	0.40
1:B:4578:LEU:HD12	1:B:4578:LEU:HA	1.76	0.40
1:C:103:TYR:CZ	1:C:163:VAL:HG22	2.55	0.40
1:C:891:TRP:CE3	1:C:902:ARG:HA	2.56	0.40
1:C:1192:CYS:SG	1:C:1193:SER:N	2.94	0.40
1:C:1275:ARG:O	1:C:1277:TRP:N	2.53	0.40
1:C:4134:GLU:N	1:C:4135:PRO:CD	2.84	0.40
1:C:4175:ARG:HH21	1:C:4178:LEU:HD23	1.86	0.40
1:C:4582:VAL:HG11	1:D:4860:ARG:CD	2.50	0.40
1:D:720:HIS:CD2	1:D:727:ALA:CA	3.00	0.40
1:D:975:VAL:O	1:D:1044:ARG:NH2	2.49	0.40
1:D:1581:LEU:O	1:D:1581:LEU:HD23	2.21	0.40
1:D:4017:LEU:HD12	1:D:4132:PHE:HZ	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:157:ARG:NH2	1:A:164:ARG:HD2	2.36	0.40
1:A:495:ASN:HD21	1:A:550:LYS:HD2	1.86	0.40
1:A:500:ALA:H	1:A:503:PHE:HB3	1.86	0.40
1:A:560:ILE:HA	1:A:563:VAL:HG12	2.03	0.40
1:A:1796:ALA:HB1	1:A:1797:ARG:HH21	1.86	0.40
1:A:4066:LEU:HD21	1:A:4169:SER:OG	2.21	0.40
1:A:4074:SER:HA	1:A:4077:PHE:CB	2.52	0.40
1:B:38:ALA:HB1	1:B:64:ILE:HG22	2.03	0.40
1:B:59:PRO:HB3	1:B:281:ARG:NH1	2.36	0.40
1:B:1171:SER:OG	1:B:1175:SER:N	2.53	0.40
1:B:1188:PHE:C	1:B:1189:LEU:HD12	2.47	0.40
1:B:2327:GLY:HA2	1:B:2330:ARG:HD3	2.03	0.40
1:B:2474:LEU:HB2	1:B:2475:GLN:H	1.54	0.40
1:C:2202:GLY:HA2	1:C:2204:HIS:CE1	2.56	0.40
1:C:4000:MET:HE1	1:C:4061:PHE:CD1	2.56	0.40
1:C:4193:ILE:C	1:C:4194:TYR:HD1	2.30	0.40
1:D:2468:GLY:O	1:D:2472:LEU:HG	2.21	0.40
1:D:3652:MET:O	1:D:3656:SER:N	2.41	0.40
1:A:1171:SER:OG	1:A:1175:SER:N	2.53	0.40
1:A:4078:GLN:HB3	1:A:4079:ASP:H	1.71	0.40
1:A:4134:GLU:N	1:A:4135:PRO:CD	2.84	0.40
1:B:494:LEU:HG	1:B:515:TRP:HE1	1.86	0.40
1:B:555:GLU:OE1	1:B:555:GLU:N	2.54	0.40
1:B:709:ASP:HA	1:B:725:HIS:H	1.87	0.40
1:B:752:VAL:HB	1:B:753:PRO:C	2.46	0.40
1:B:1206:GLN:HA	1:B:1227:ALA:O	2.20	0.40
1:B:1796:ALA:HB1	1:B:1797:ARG:HH21	1.86	0.40
1:B:2202:GLY:HA2	1:B:2204:HIS:CE1	2.56	0.40
1:B:4189:ARG:HH11	1:B:4191:GLU:HB3	1.87	0.40
1:C:560:ILE:HA	1:C:563:VAL:HG12	2.03	0.40
1:C:720:HIS:CD2	1:C:727:ALA:CA	3.00	0.40
1:C:1188:PHE:C	1:C:1189:LEU:HD12	2.47	0.40
1:C:1581:LEU:O	1:C:1581:LEU:HD23	2.21	0.40
1:C:2192:TYR:OH	1:C:2238:TYR:CD1	2.61	0.40
1:C:4123:ILE:HA	1:C:4123:ILE:HD12	1.85	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.49	0.40
1:D:1676:LEU:HA	1:D:1721:GLU:OE2	2.21	0.40
1:D:3847:PHE:O	1:D:3850:GLN:HG3	2.22	0.40
1:D:4322:LEU:HD23	1:D:4322:LEU:HA	1.84	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	4107/5037 (82%)	3689 (90%)	378 (9%)	40 (1%)	12	47
1	B	4107/5037 (82%)	3689 (90%)	378 (9%)	40 (1%)	12	47
1	C	4107/5037 (82%)	3689 (90%)	378 (9%)	40 (1%)	12	47
1	D	4107/5037 (82%)	3689 (90%)	378 (9%)	40 (1%)	12	47
All	All	16428/20148 (82%)	14756 (90%)	1512 (9%)	160 (1%)	15	47

All (160) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1455	PRO
1	A	1490	SER
1	A	1495	VAL
1	A	1503	PRO
1	A	1549	PHE
1	A	1556	PRO
1	A	2341	VAL
1	A	4078	GLN
1	A	4084	PRO
1	A	4125	PHE
1	A	4133	GLN
1	B	1455	PRO
1	B	1490	SER
1	B	1495	VAL
1	B	1503	PRO
1	B	1549	PHE
1	B	1556	PRO
1	B	2341	VAL
1	B	4078	GLN
1	B	4084	PRO
1	B	4125	PHE
1	B	4133	GLN

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Mol	Chain	Res	Type
1	C	1455	PRO
1	C	1490	SER
1	C	1495	VAL
1	C	1503	PRO
1	C	1549	PHE
1	C	1556	PRO
1	C	2341	VAL
1	C	4078	GLN
1	C	4084	PRO
1	C	4125	PHE
1	C	4133	GLN
1	D	1455	PRO
1	D	1490	SER
1	D	1495	VAL
1	D	1503	PRO
1	D	1549	PHE
1	D	1556	PRO
1	D	2341	VAL
1	D	4078	GLN
1	D	4084	PRO
1	D	4125	PHE
1	D	4133	GLN
1	A	1283	LEU
1	A	1445	PRO
1	A	1448	VAL
1	A	1469	VAL
1	A	1550	PRO
1	A	1561	VAL
1	A	1562	ILE
1	A	2293	GLN
1	A	4088	ILE
1	A	4118	ASP
1	A	4139	ILE
1	B	1283	LEU
1	B	1445	PRO
1	B	1448	VAL
1	B	1469	VAL
1	B	1550	PRO
1	B	1561	VAL
1	B	1562	ILE
1	B	2293	GLN
1	B	4088	ILE

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Mol	Chain	Res	Type
1	B	4118	ASP
1	B	4139	ILE
1	C	1283	LEU
1	C	1445	PRO
1	C	1448	VAL
1	C	1469	VAL
1	C	1550	PRO
1	C	1561	VAL
1	C	1562	ILE
1	C	2293	GLN
1	C	4088	ILE
1	C	4118	ASP
1	C	4139	ILE
1	D	1283	LEU
1	D	1445	PRO
1	D	1448	VAL
1	D	1469	VAL
1	D	1550	PRO
1	D	1561	VAL
1	D	1562	ILE
1	D	2293	GLN
1	D	4088	ILE
1	D	4118	ASP
1	D	4139	ILE
1	A	2013	LYS
1	A	3643	ASN
1	A	4082	THR
1	A	4120	ASN
1	A	4127	GLU
1	B	2013	LYS
1	B	3643	ASN
1	B	4082	THR
1	B	4120	ASN
1	B	4127	GLU
1	C	2013	LYS
1	C	3643	ASN
1	C	4082	THR
1	C	4120	ASN
1	C	4127	GLU
1	D	2013	LYS
1	D	3643	ASN
1	D	4082	THR

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Mol	Chain	Res	Type
1	D	4120	ASN
1	D	4127	GLU
1	A	1450	VAL
1	A	1454	THR
1	A	1467	SER
1	A	1479	GLU
1	A	1538	THR
1	A	2016	ALA
1	A	4076	ALA
1	B	1450	VAL
1	B	1454	THR
1	B	1467	SER
1	B	1479	GLU
1	B	1538	THR
1	B	2016	ALA
1	B	4076	ALA
1	C	1450	VAL
1	C	1454	THR
1	C	1467	SER
1	C	1479	GLU
1	C	1538	THR
1	C	2016	ALA
1	C	4076	ALA
1	D	1450	VAL
1	D	1454	THR
1	D	1467	SER
1	D	1479	GLU
1	D	1538	THR
1	D	2016	ALA
1	D	4076	ALA
1	A	1535	GLU
1	A	1555	LEU
1	B	1535	GLU
1	B	1555	LEU
1	C	1535	GLU
1	C	1555	LEU
1	D	1535	GLU
1	D	1555	LEU
1	A	1453	VAL
1	A	3645	PRO
1	B	1453	VAL
1	B	3645	PRO

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Mol	Chain	Res	Type
1	C	1453	VAL
1	C	3645	PRO
1	D	1453	VAL
1	D	3645	PRO
1	A	1840	PRO
1	A	4083	ASP
1	B	1840	PRO
1	B	4083	ASP
1	C	1840	PRO
1	C	4083	ASP
1	D	1840	PRO
1	D	4083	ASP

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	2310/4276 (54%)	2267 (98%)	43 (2%)	50	66
1	B	2310/4276 (54%)	2267 (98%)	43 (2%)	50	66
1	C	2310/4276 (54%)	2267 (98%)	43 (2%)	50	66
1	D	2310/4276 (54%)	2267 (98%)	43 (2%)	50	66
All	All	9240/17104 (54%)	9068 (98%)	172 (2%)	49	66

All (172) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	719	LEU
1	A	728	ARG
1	A	758	ARG
1	A	759	ILE
1	A	975	VAL
1	A	976	ARG
1	A	1676	LEU
1	A	1707	LEU
1	A	2290	LEU

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Mol	Chain	Res	Type
1	A	2291	GLN
1	A	2292	GLU
1	A	2339	VAL
1	A	2342	ASN
1	A	2474	LEU
1	A	3639	THR
1	A	3641	LEU
1	A	3644	LEU
1	A	4062	PHE
1	A	4065	PHE
1	A	4066	LEU
1	A	4067	LYS
1	A	4068	LEU
1	A	4069	LYS
1	A	4070	ASP
1	A	4071	ILE
1	A	4074	SER
1	A	4079	ASP
1	A	4081	VAL
1	A	4083	ASP
1	A	4088	ILE
1	A	4090	LYS
1	A	4091	LYS
1	A	4093	PHE
1	A	4116	GLU
1	A	4119	GLU
1	A	4121	GLU
1	A	4122	MET
1	A	4123	ILE
1	A	4124	ASN
1	A	4126	GLU
1	A	4132	PHE
1	A	4137	ARG
1	A	4578	LEU
1	B	719	LEU
1	B	728	ARG
1	B	758	ARG
1	B	759	ILE
1	B	975	VAL
1	B	976	ARG
1	B	1676	LEU
1	B	1707	LEU

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Mol	Chain	Res	Type
1	B	2290	LEU
1	B	2291	GLN
1	B	2292	GLU
1	B	2339	VAL
1	B	2342	ASN
1	B	2474	LEU
1	B	3639	THR
1	B	3641	LEU
1	B	3644	LEU
1	B	4062	PHE
1	B	4065	PHE
1	B	4066	LEU
1	B	4067	LYS
1	B	4068	LEU
1	B	4069	LYS
1	B	4070	ASP
1	B	4071	ILE
1	B	4074	SER
1	B	4079	ASP
1	B	4081	VAL
1	B	4083	ASP
1	B	4088	ILE
1	B	4090	LYS
1	B	4091	LYS
1	B	4093	PHE
1	B	4116	GLU
1	B	4119	GLU
1	B	4121	GLU
1	B	4122	MET
1	B	4123	ILE
1	B	4124	ASN
1	B	4126	GLU
1	B	4132	PHE
1	B	4137	ARG
1	B	4578	LEU
1	C	719	LEU
1	C	728	ARG
1	C	758	ARG
1	C	759	ILE
1	C	975	VAL
1	C	976	ARG
1	C	1676	LEU

Continued on next page...

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Mol	Chain	Res	Type
1	C	1707	LEU
1	C	2290	LEU
1	C	2291	GLN
1	C	2292	GLU
1	C	2339	VAL
1	C	2342	ASN
1	C	2474	LEU
1	C	3639	THR
1	C	3641	LEU
1	C	3644	LEU
1	C	4062	PHE
1	C	4065	PHE
1	C	4066	LEU
1	C	4067	LYS
1	C	4068	LEU
1	C	4069	LYS
1	C	4070	ASP
1	C	4071	ILE
1	C	4074	SER
1	C	4079	ASP
1	C	4081	VAL
1	C	4083	ASP
1	C	4088	ILE
1	C	4090	LYS
1	C	4091	LYS
1	C	4093	PHE
1	C	4116	GLU
1	C	4119	GLU
1	C	4121	GLU
1	C	4122	MET
1	C	4123	ILE
1	C	4124	ASN
1	C	4126	GLU
1	C	4132	PHE
1	C	4137	ARG
1	C	4578	LEU
1	D	719	LEU
1	D	728	ARG
1	D	758	ARG
1	D	759	ILE
1	D	975	VAL
1	D	976	ARG

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Mol	Chain	Res	Type
1	D	1676	LEU
1	D	1707	LEU
1	D	2290	LEU
1	D	2291	GLN
1	D	2292	GLU
1	D	2339	VAL
1	D	2342	ASN
1	D	2474	LEU
1	D	3639	THR
1	D	3641	LEU
1	D	3644	LEU
1	D	4062	PHE
1	D	4065	PHE
1	D	4066	LEU
1	D	4067	LYS
1	D	4068	LEU
1	D	4069	LYS
1	D	4070	ASP
1	D	4071	ILE
1	D	4074	SER
1	D	4079	ASP
1	D	4081	VAL
1	D	4083	ASP
1	D	4088	ILE
1	D	4090	LYS
1	D	4091	LYS
1	D	4093	PHE
1	D	4116	GLU
1	D	4119	GLU
1	D	4121	GLU
1	D	4122	MET
1	D	4123	ILE
1	D	4124	ASN
1	D	4126	GLU
1	D	4132	PHE
1	D	4137	ARG
1	D	4578	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (127) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	113	HIS

Continued on next page...

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Mol	Chain	Res	Type
1	A	489	ASN
1	A	520	ASN
1	A	593	HIS
1	A	720	HIS
1	A	904	HIS
1	A	974	HIS
1	A	1206	GLN
1	A	1254	HIS
1	A	1678	ASN
1	A	1861	GLN
1	A	1952	GLN
1	A	1953	HIS
1	A	2005	GLN
1	A	2036	GLN
1	A	2260	ASN
1	A	2420	HIS
1	A	3651	ASN
1	A	3781	GLN
1	A	3882	GLN
1	A	3897	ASN
1	A	3900	GLN
1	A	3950	ASN
1	A	3960	GLN
1	A	4109	GLN
1	A	4124	ASN
1	A	4133	GLN
1	A	4691	GLN
1	A	4832	HIS
1	A	4933	GLN
1	A	5031	GLN
1	B	113	HIS
1	B	405	HIS
1	B	489	ASN
1	B	720	HIS
1	B	765	GLN
1	B	866	HIS
1	B	904	HIS
1	B	974	HIS
1	B	1206	GLN
1	B	1254	HIS
1	B	1678	ASN
1	B	1861	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	1949	GLN
1	B	1952	GLN
1	B	1953	HIS
1	B	2005	GLN
1	B	2036	GLN
1	B	2260	ASN
1	B	2420	HIS
1	B	3651	ASN
1	B	3781	GLN
1	B	3882	GLN
1	B	3897	ASN
1	B	3900	GLN
1	B	3950	ASN
1	B	3960	GLN
1	B	4109	GLN
1	B	4124	ASN
1	B	4133	GLN
1	B	4691	GLN
1	B	4728	HIS
1	B	4832	HIS
1	B	4933	GLN
1	B	5031	GLN
1	C	113	HIS
1	C	405	HIS
1	C	489	ASN
1	C	593	HIS
1	C	720	HIS
1	C	765	GLN
1	C	904	HIS
1	C	974	HIS
1	C	1206	GLN
1	C	1254	HIS
1	C	1678	ASN
1	C	1861	GLN
1	C	1949	GLN
1	C	1952	GLN
1	C	1953	HIS
1	C	2005	GLN
1	C	2036	GLN
1	C	2260	ASN
1	C	2420	HIS
1	C	3651	ASN

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Mol	Chain	Res	Type
1	C	3781	GLN
1	C	3882	GLN
1	C	3897	ASN
1	C	3900	GLN
1	C	3950	ASN
1	C	3960	GLN
1	C	4124	ASN
1	C	4133	GLN
1	C	4223	ASN
1	C	4691	GLN
1	C	4933	GLN
1	C	5031	GLN
1	D	113	HIS
1	D	593	HIS
1	D	720	HIS
1	D	904	HIS
1	D	974	HIS
1	D	1206	GLN
1	D	1254	HIS
1	D	1678	ASN
1	D	1861	GLN
1	D	1949	GLN
1	D	1952	GLN
1	D	1953	HIS
1	D	2005	GLN
1	D	2036	GLN
1	D	2260	ASN
1	D	2420	HIS
1	D	3651	ASN
1	D	3882	GLN
1	D	3897	ASN
1	D	3900	GLN
1	D	3950	ASN
1	D	3960	GLN
1	D	4109	GLN
1	D	4124	ASN
1	D	4133	GLN
1	D	4691	GLN
1	D	4728	HIS
1	D	4832	HIS
1	D	4933	GLN
1	D	5031	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

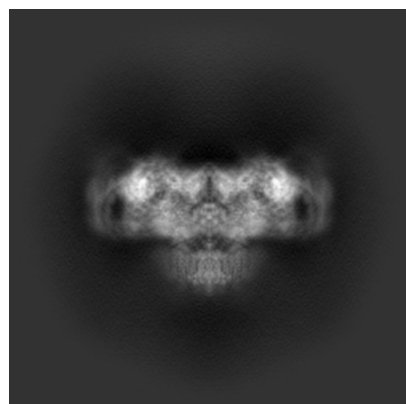
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-38045. These allow visual inspection of the internal detail of the map and identification of artifacts.

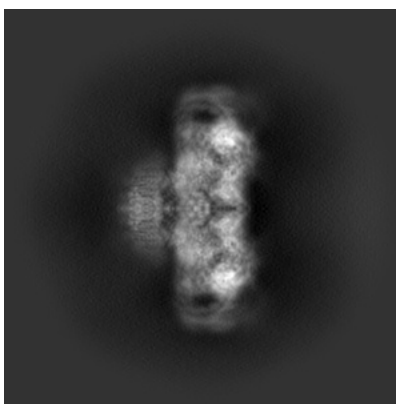
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

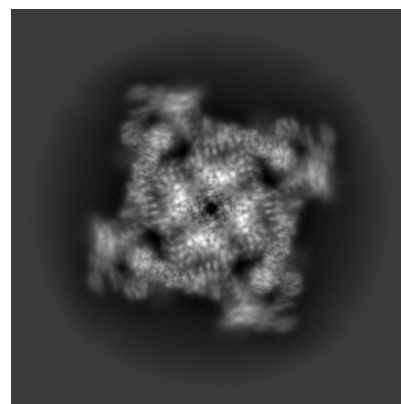
6.1.1 Primary map



X

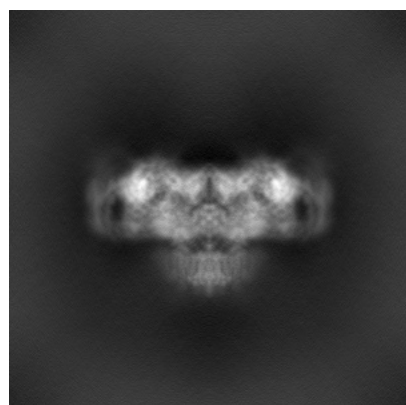


Y

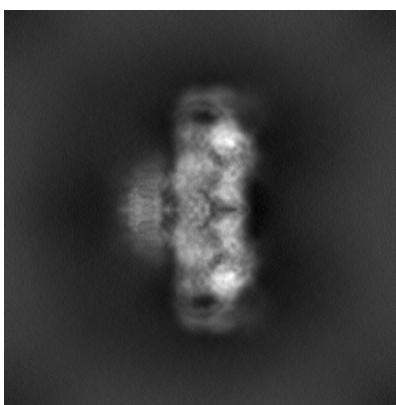


Z

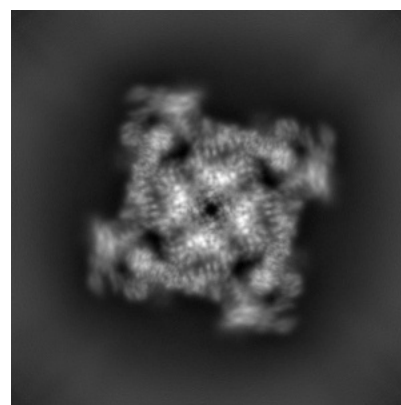
6.1.2 Raw map



X



Y

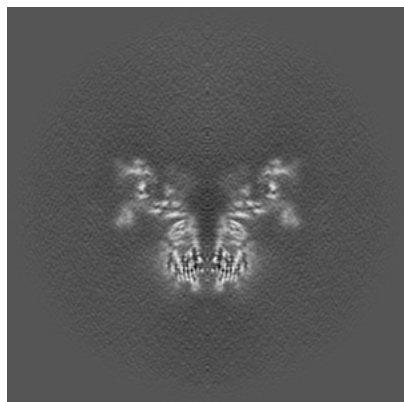


Z

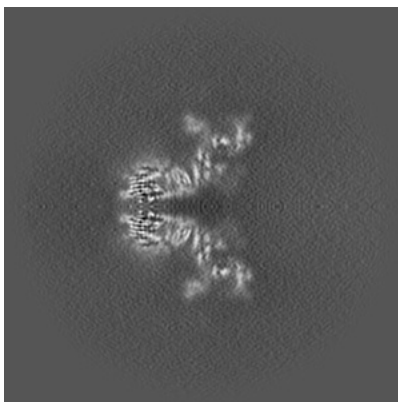
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

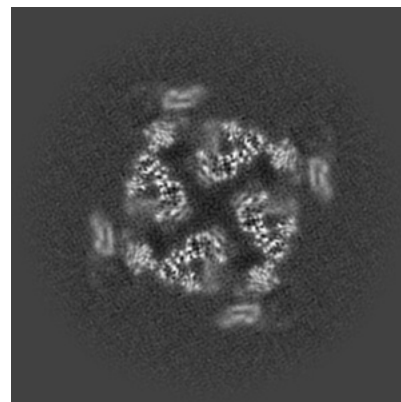
6.2.1 Primary map



X Index: 240

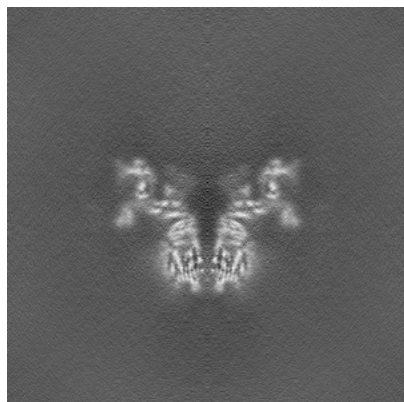


Y Index: 240

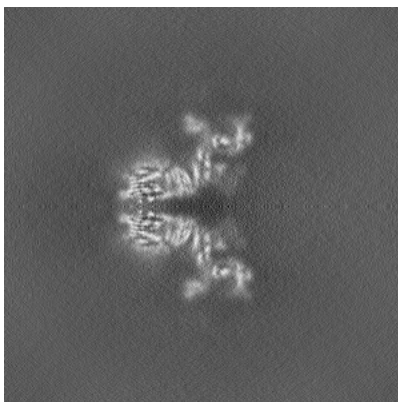


Z Index: 240

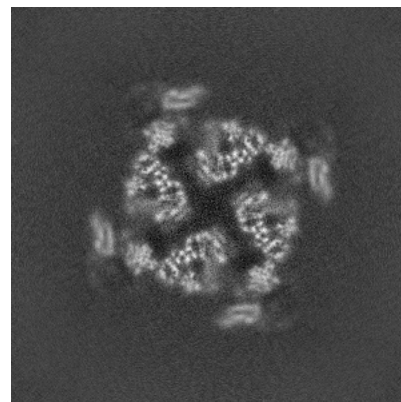
6.2.2 Raw map



X Index: 240



Y Index: 240

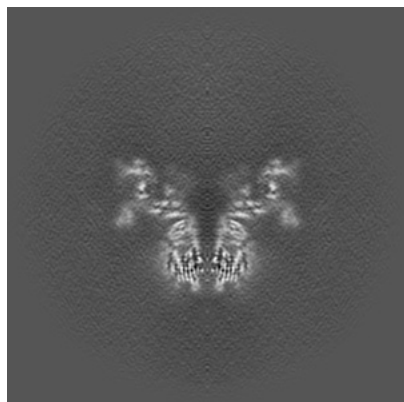


Z Index: 240

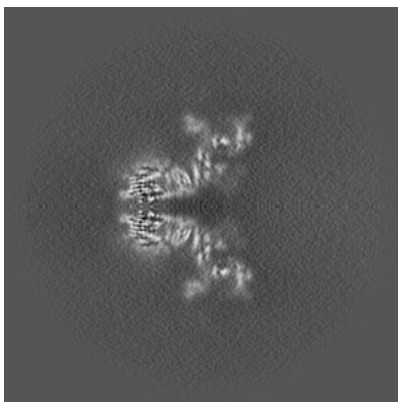
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

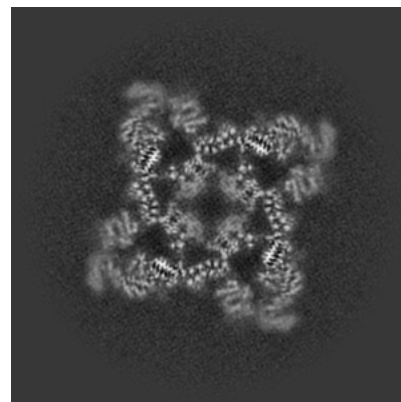
6.3.1 Primary map



X Index: 240

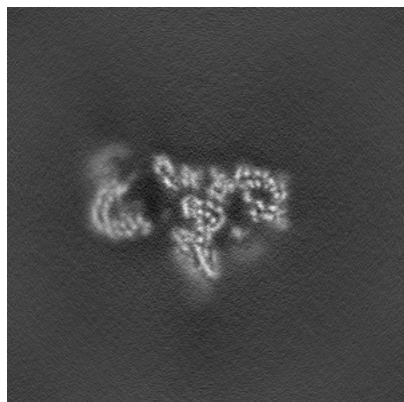


Y Index: 240

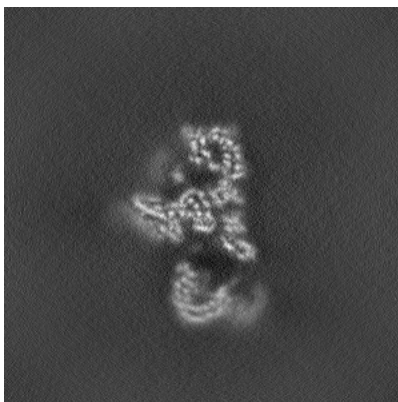


Z Index: 262

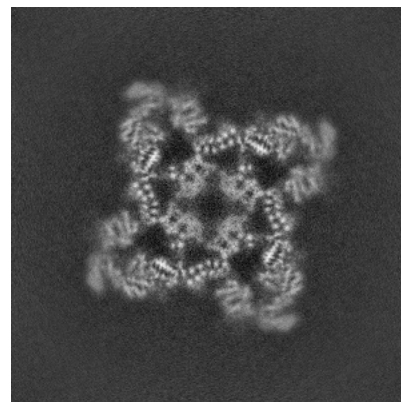
6.3.2 Raw map



X Index: 281



Y Index: 199

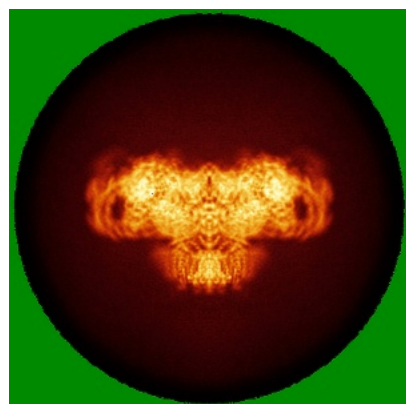


Z Index: 262

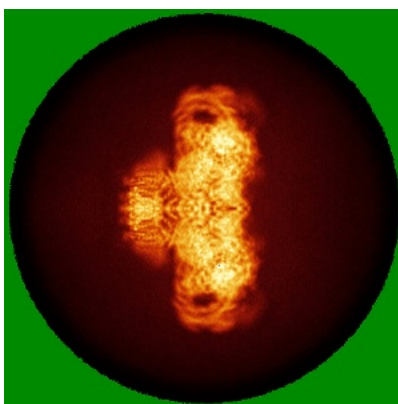
The images above show the largest variance slices of the map in three orthogonal directions.

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

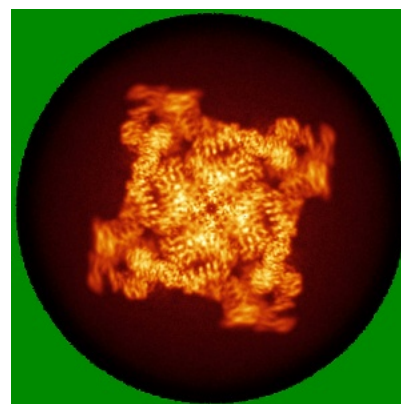
6.4.1 Primary map



X

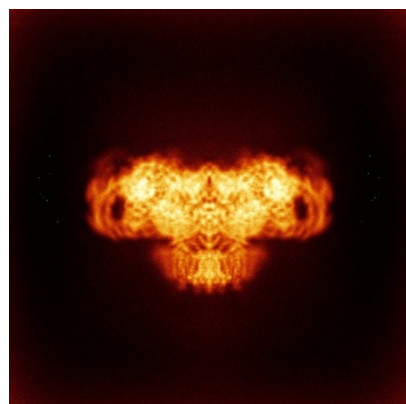


Y

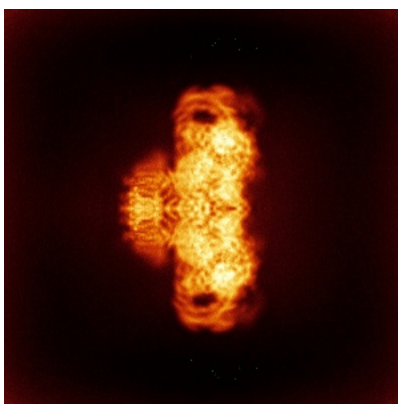


Z

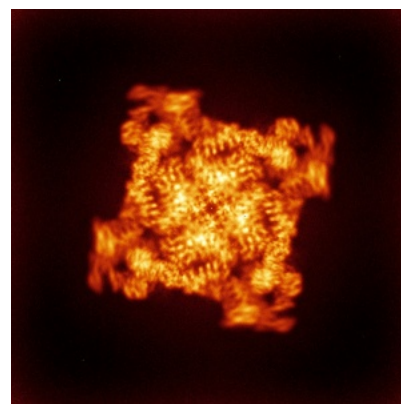
6.4.2 Raw map



X



Y

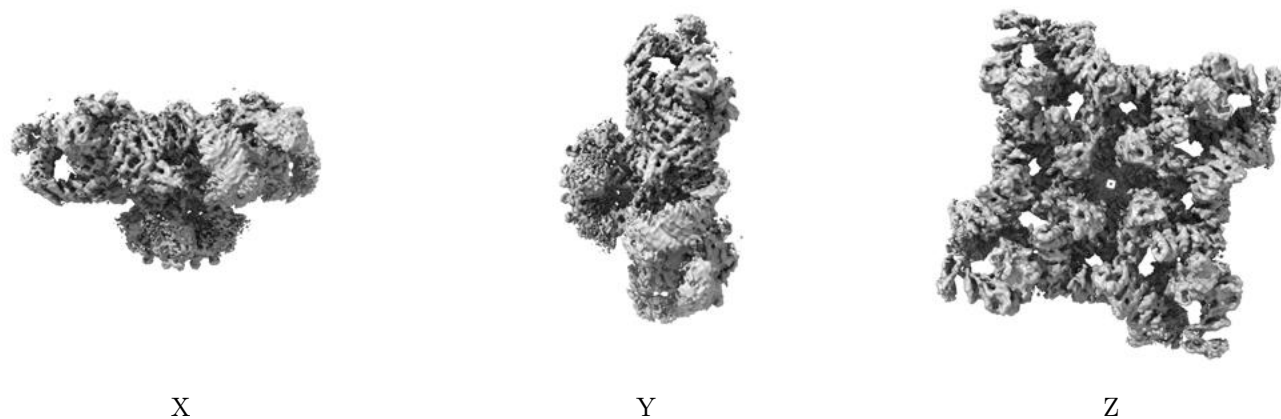


Z

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

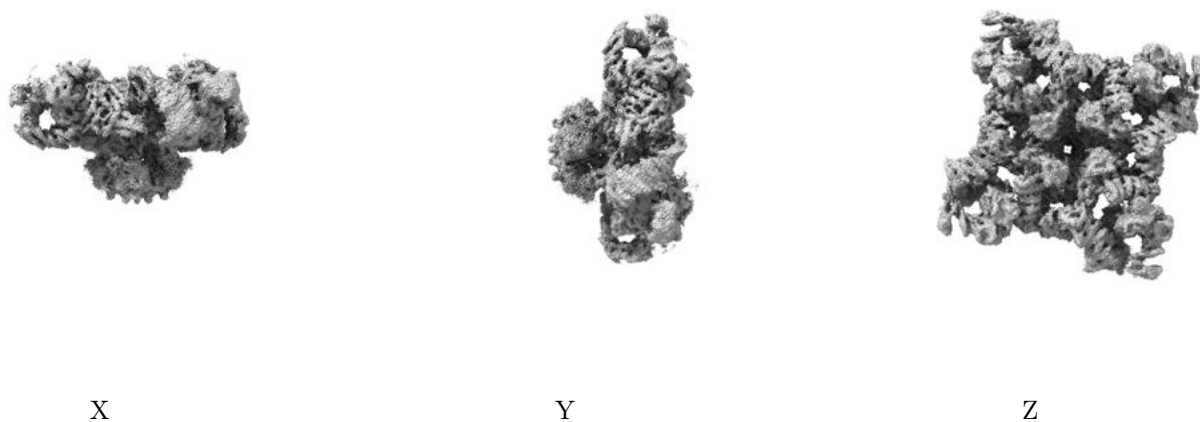
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.237. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

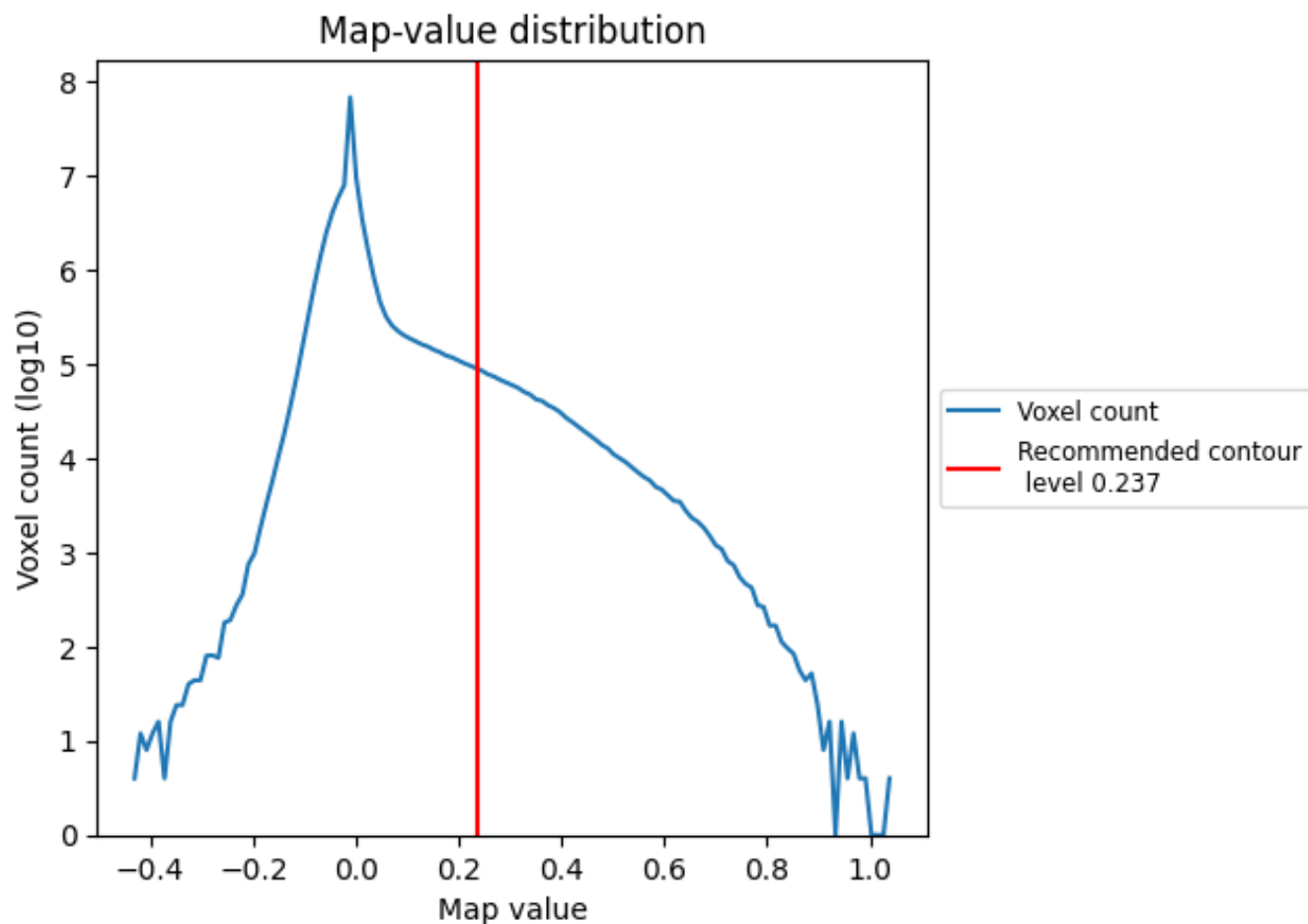
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

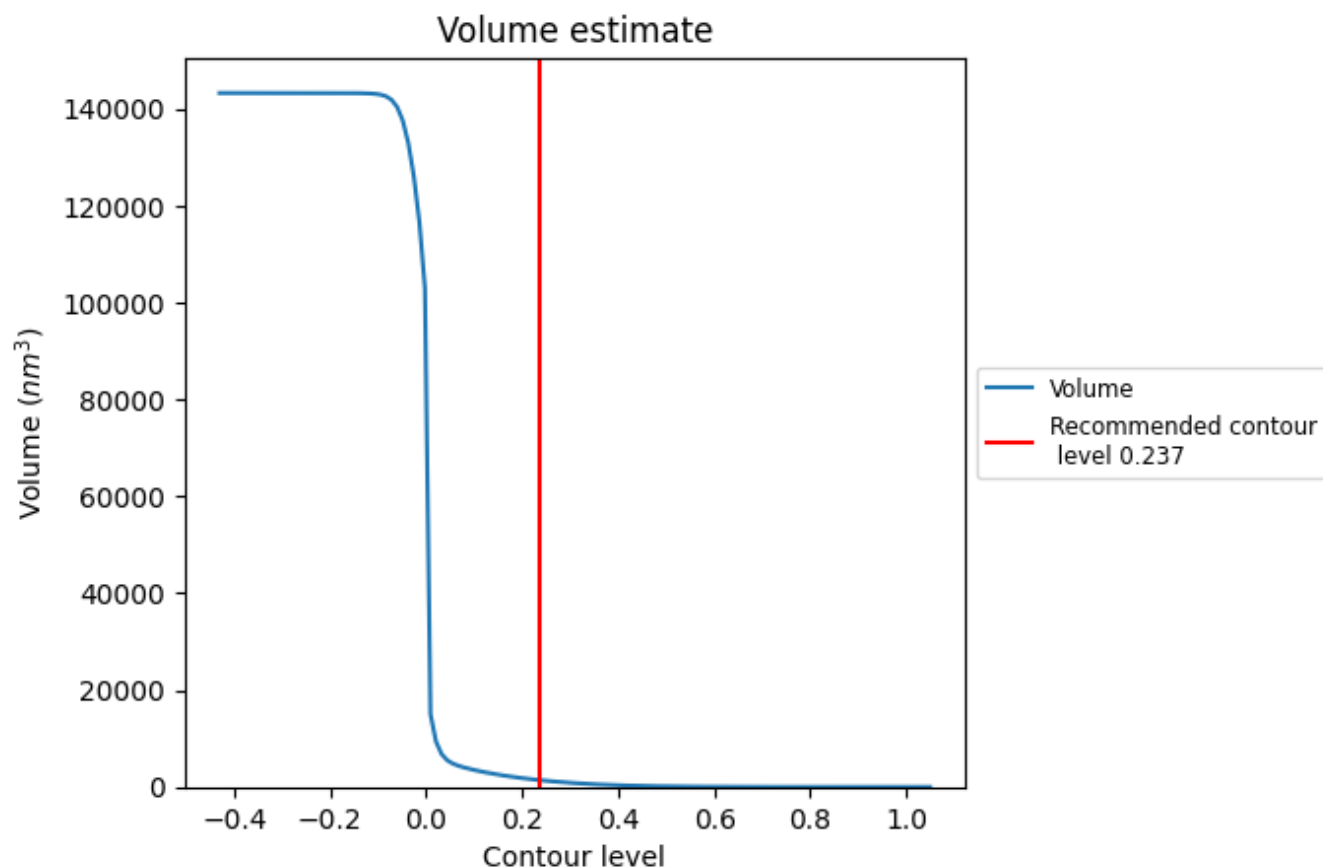
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

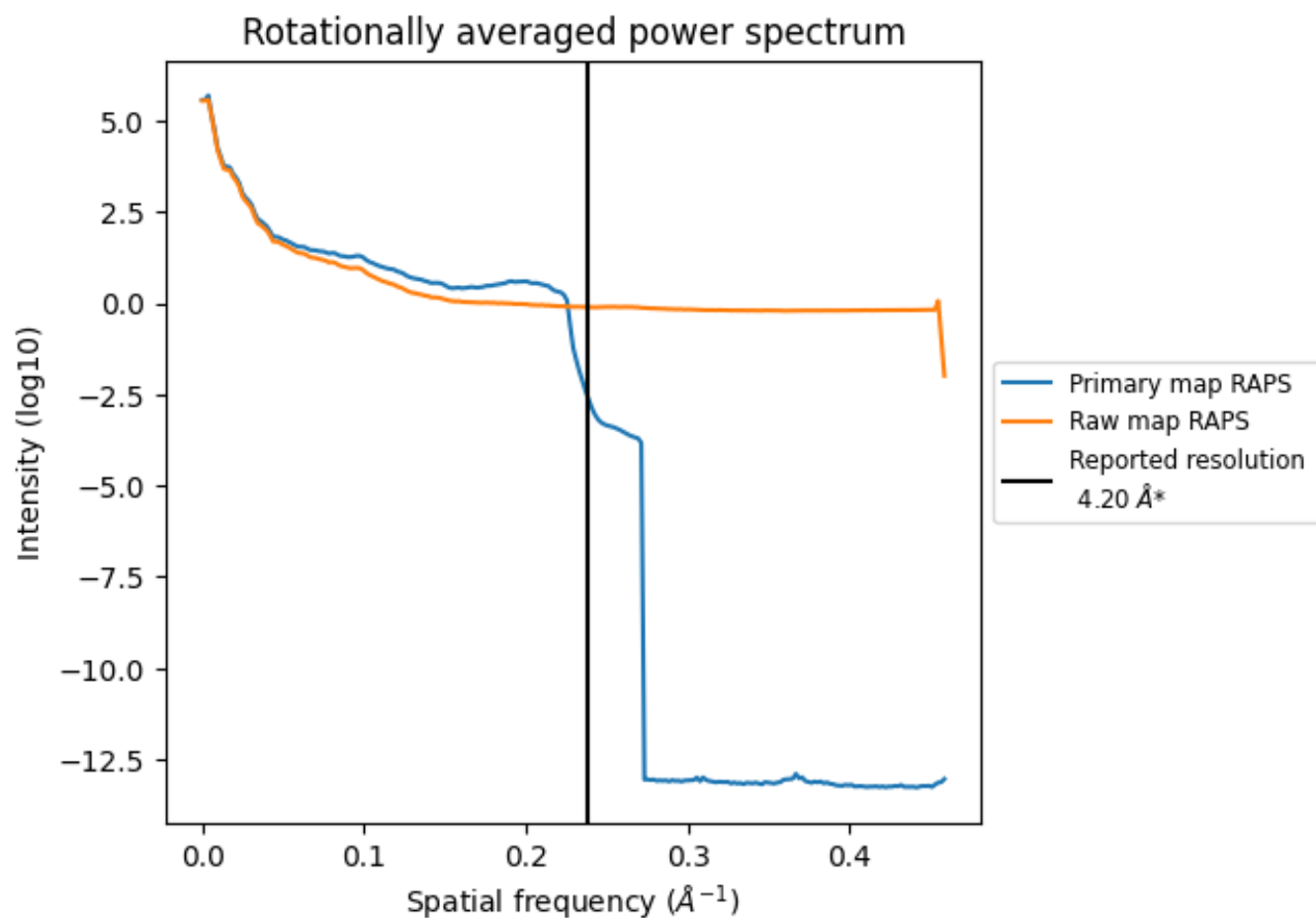
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1401 nm³; this corresponds to an approximate mass of 1265 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 ⓘ

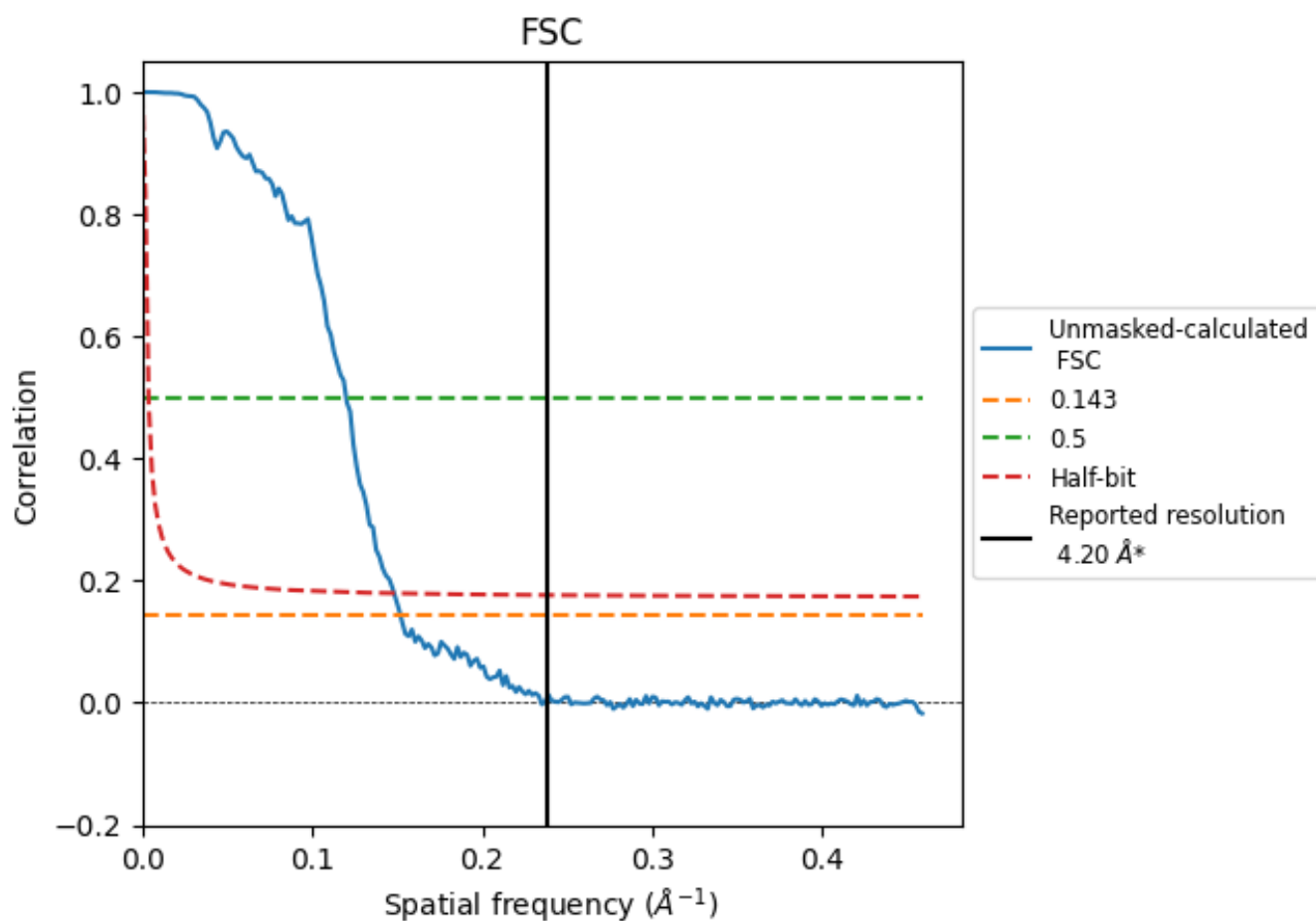


*Reported resolution corresponds to spatial frequency of 0.238 $\text{\AA}^{-1}$

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 0.238 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

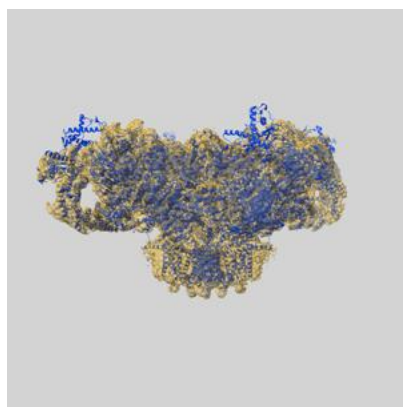
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.20	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	6.58	8.33	6.75

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.58 differs from the reported value 4.2 by more than 10 %

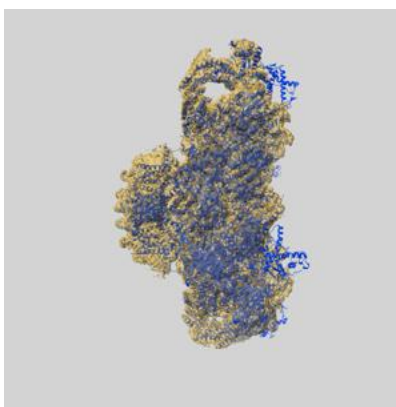
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-38045 and PDB model 8X4B. Per-residue inclusion information can be found in section [3](#) on page [4](#).

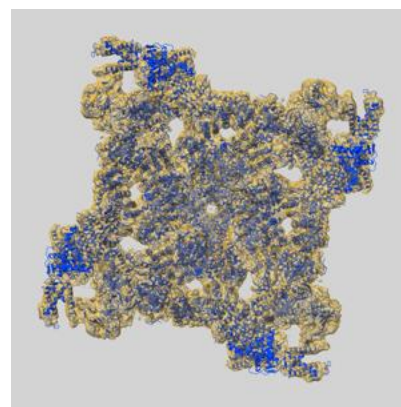
9.1 Map-model overlay [i](#)



X



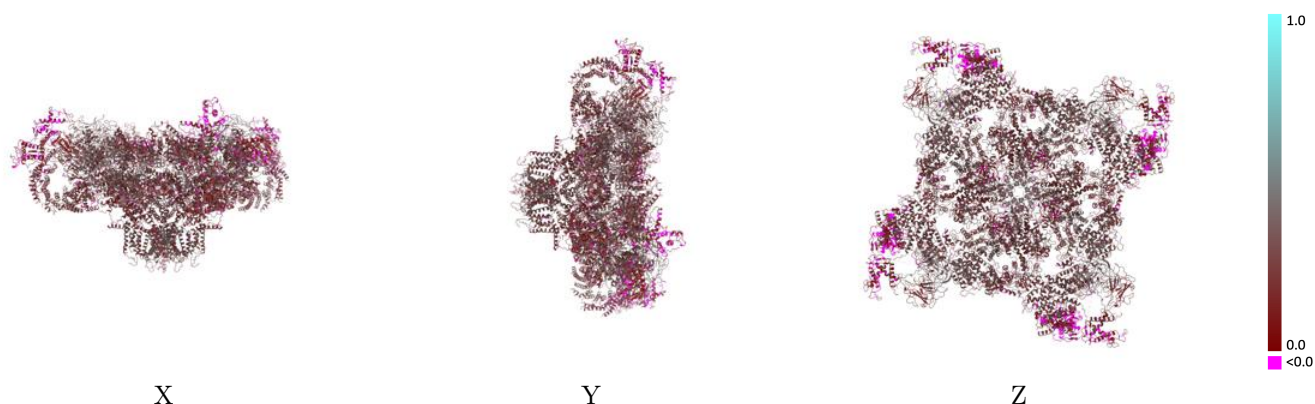
Y



Z

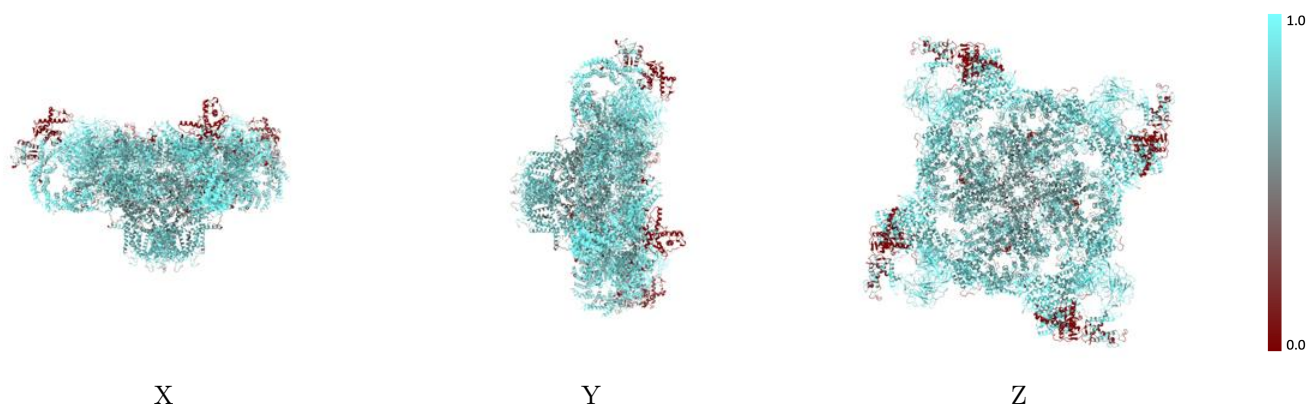
The images above show the 3D surface view of the map at the recommended contour level 0.237 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



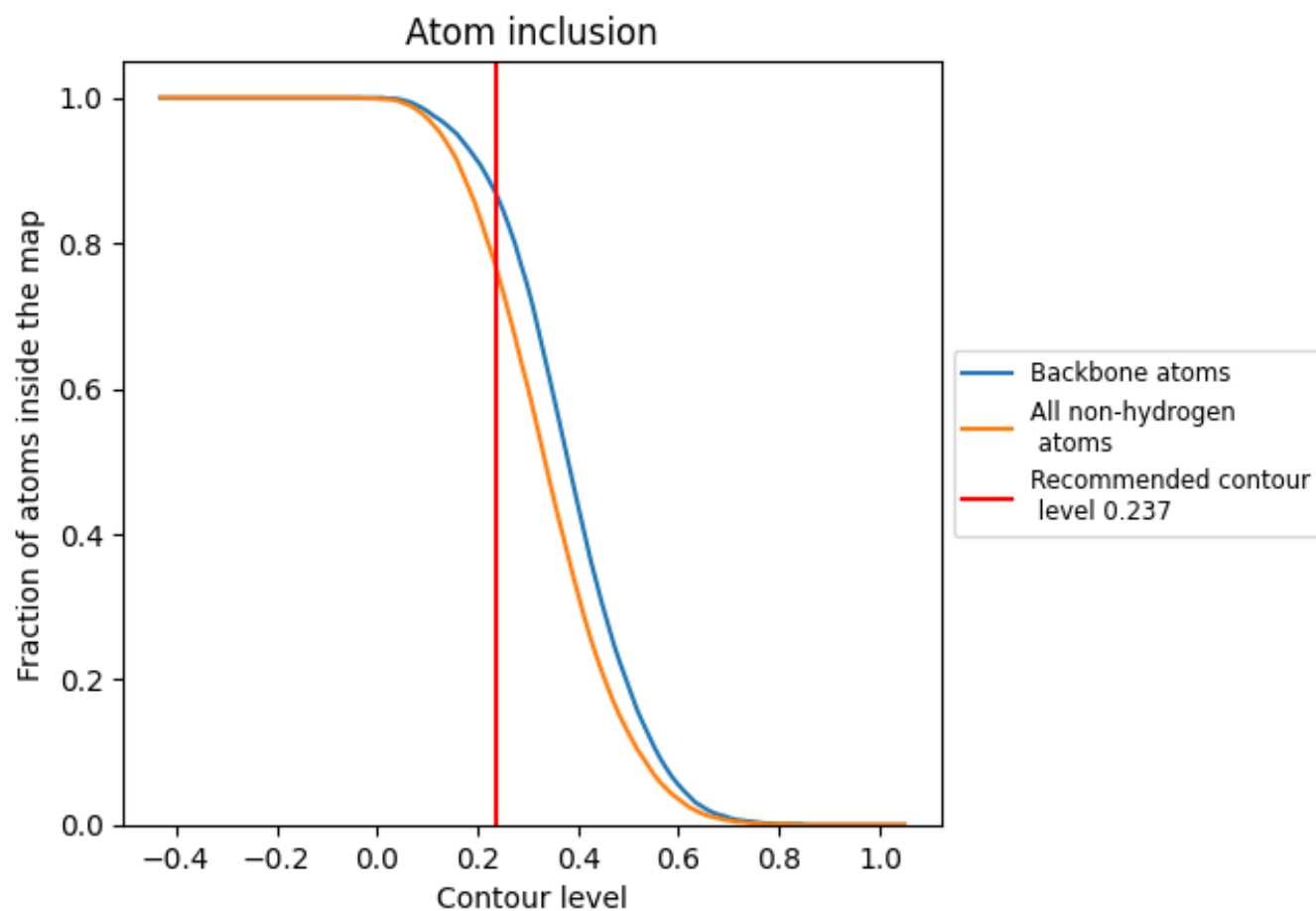
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.237).

9.4 Atom inclusion [i](#)



At the recommended contour level, 87% of all backbone atoms, 77% 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 (0.237) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7670	0.2600
A	0.7670	0.2600
B	0.7670	0.2600
C	0.7670	0.2600
D	0.7670	0.2600

