



## Full wwPDB EM Validation Report ⓘ

Nov 14, 2022 – 05:04 PM JST

PDB ID : 6JG3  
EMDB ID : EMD-9823  
Title : Cryo-EM structure of RyR2 (Ca<sup>2+</sup> alone dataset)  
Authors : Chi, X.M.; Gong, D.S.; Ren, K.; Zhou, G.W.; Huang, G.X.Y.; Lei, J.L.; Zhou, Q.; Yan, N.  
Deposited on : 2019-02-13  
Resolution : 6.10 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](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

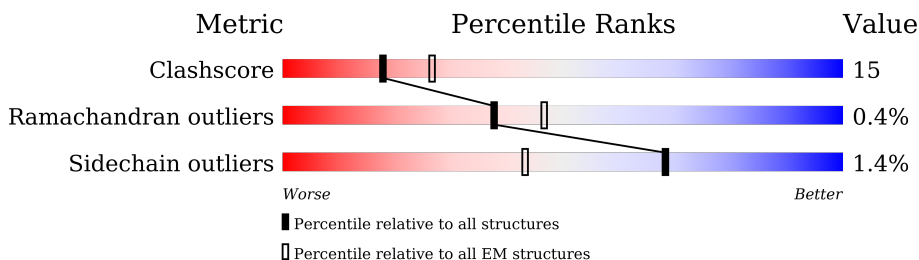
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 6.10 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	4968	
1	B	4968	
1	C	4968	
1	D	4968	

## 2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 106185 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 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3477	Total	C	N	O	S	0	0
			26546	16893	4545	4951	157		
1	B	3477	Total	C	N	O	S	0	0
			26546	16893	4545	4951	157		
1	C	3477	Total	C	N	O	S	0	0
			26546	16893	4545	4951	157		
1	D	3477	Total	C	N	O	S	0	0
			26543	16890	4545	4951	157		

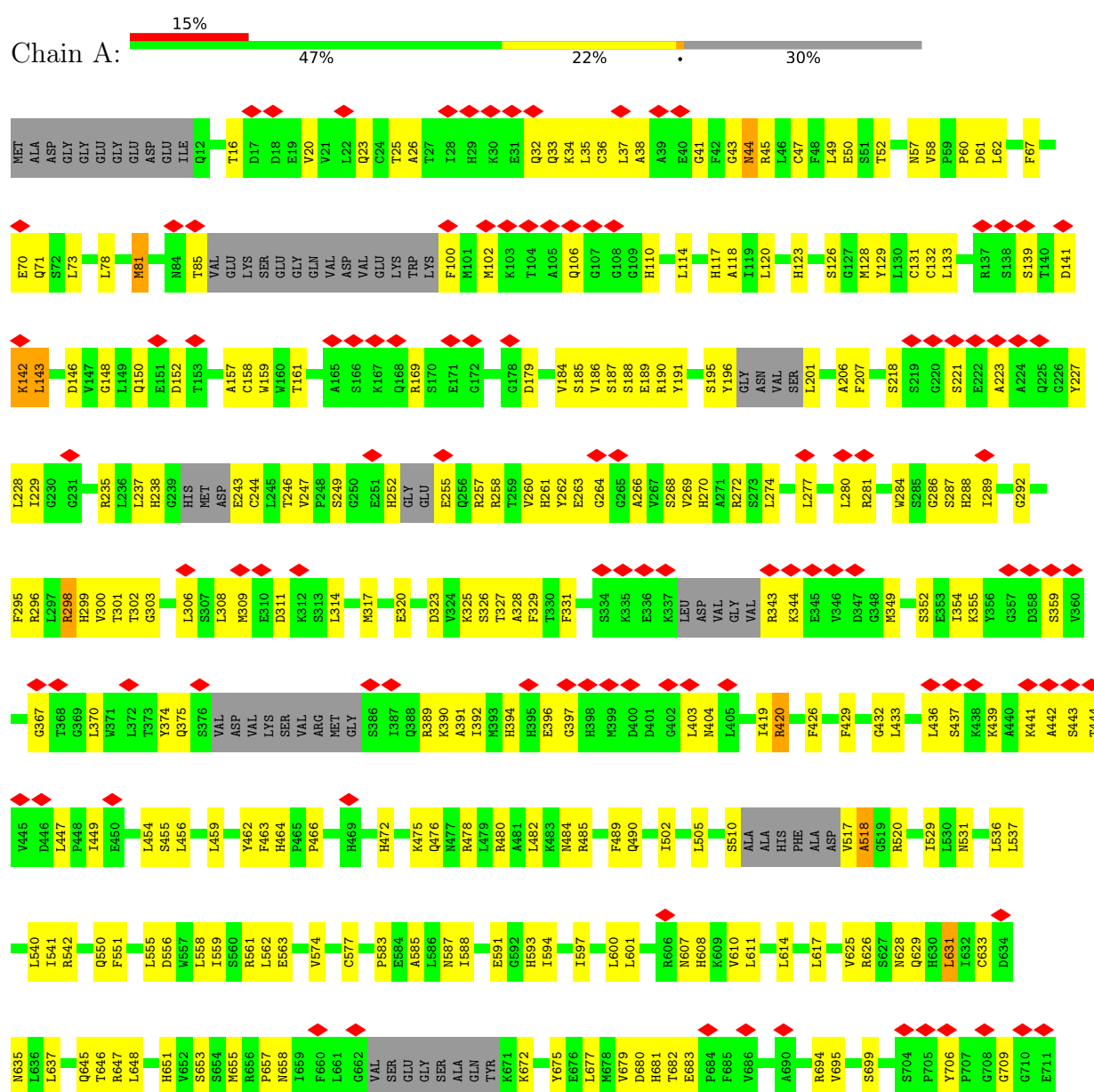
- Molecule 2 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

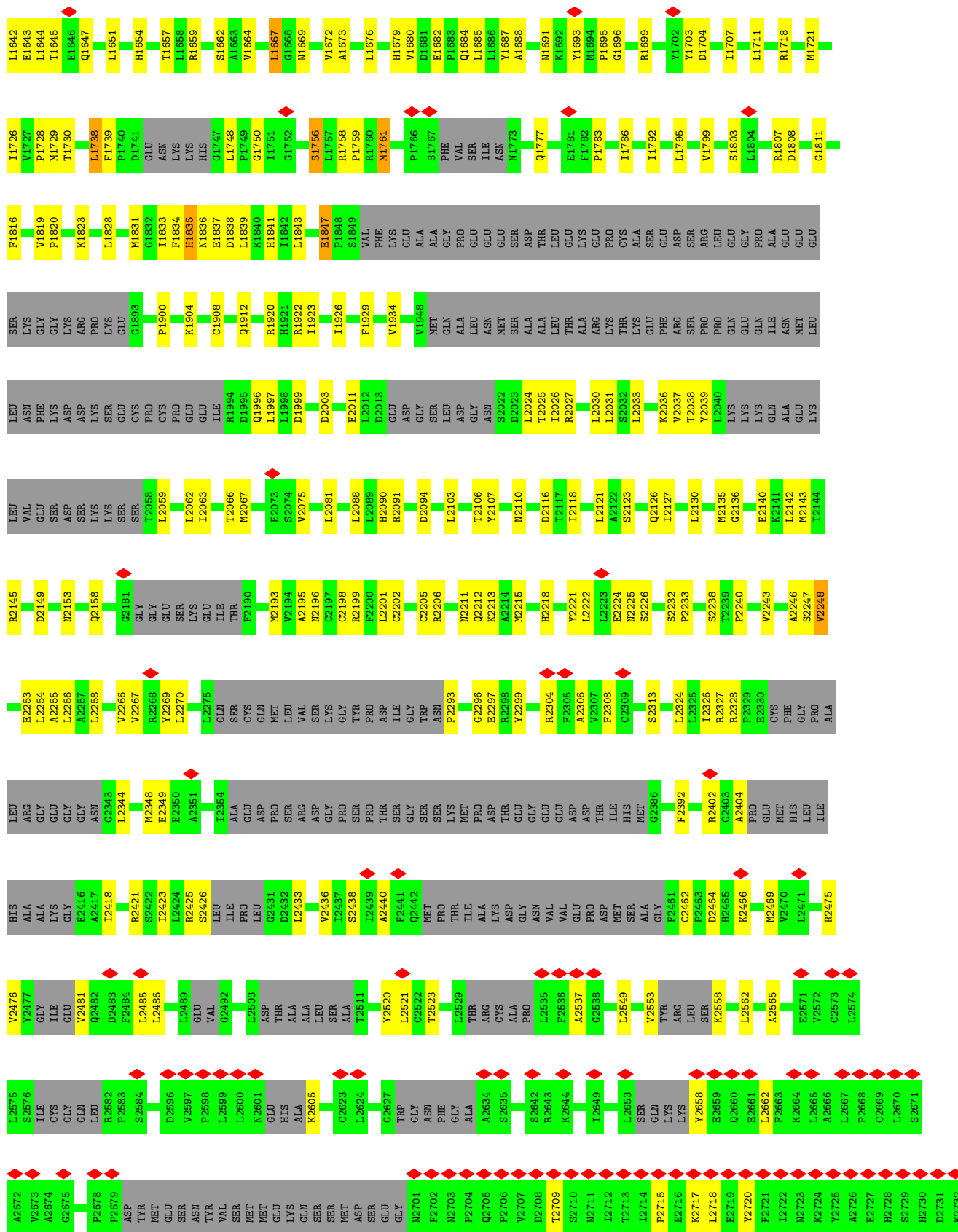
### 3 Residue-property plots

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 2















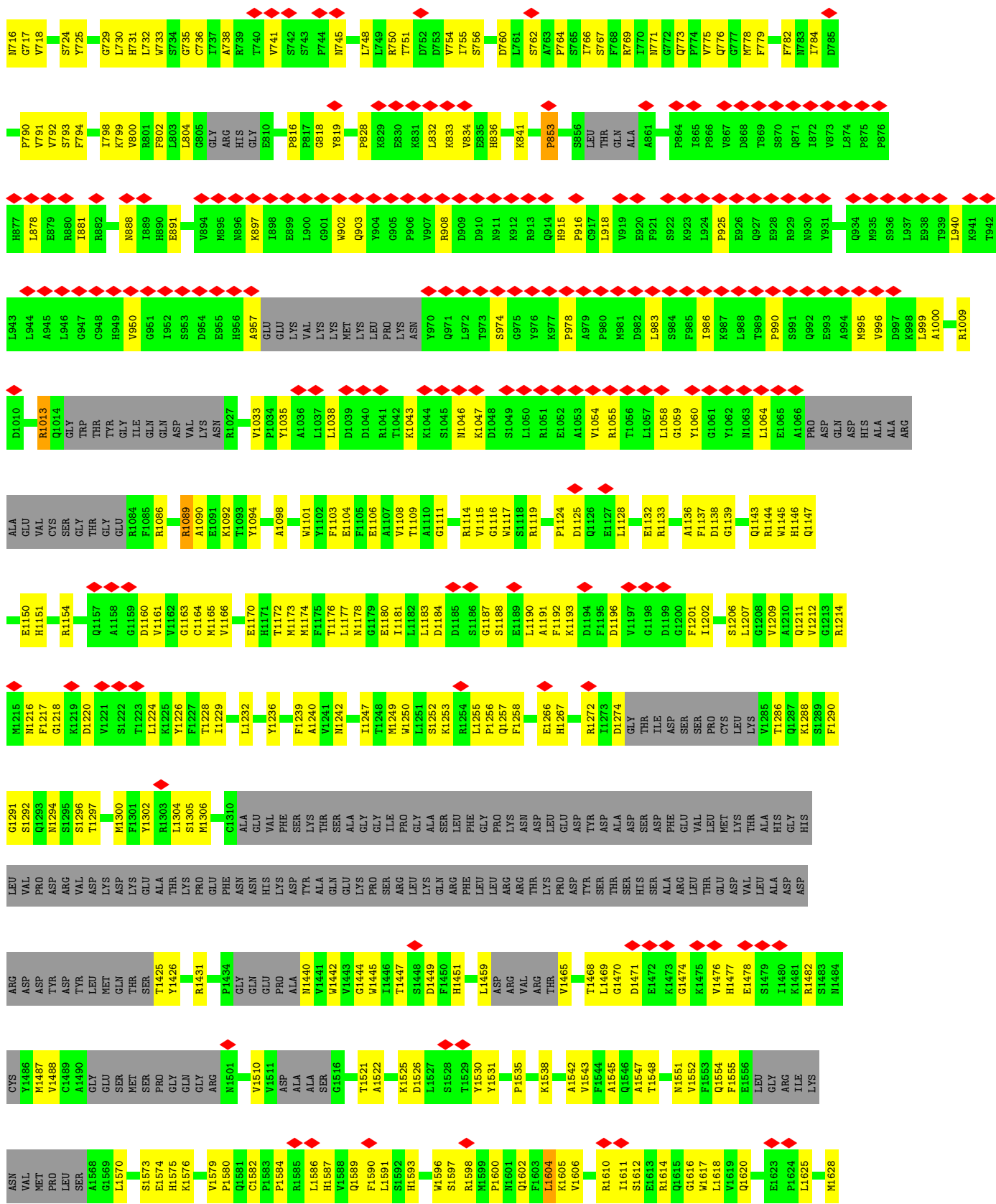










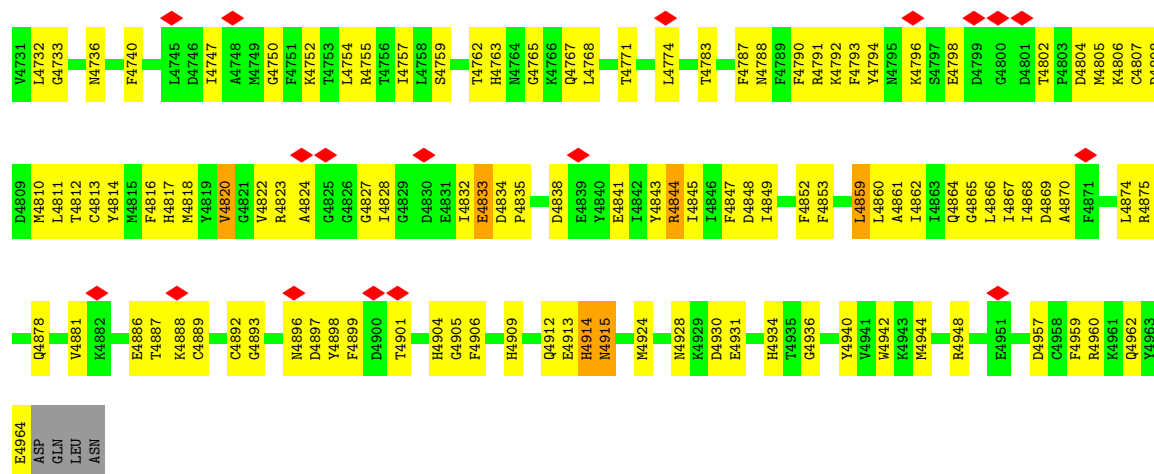




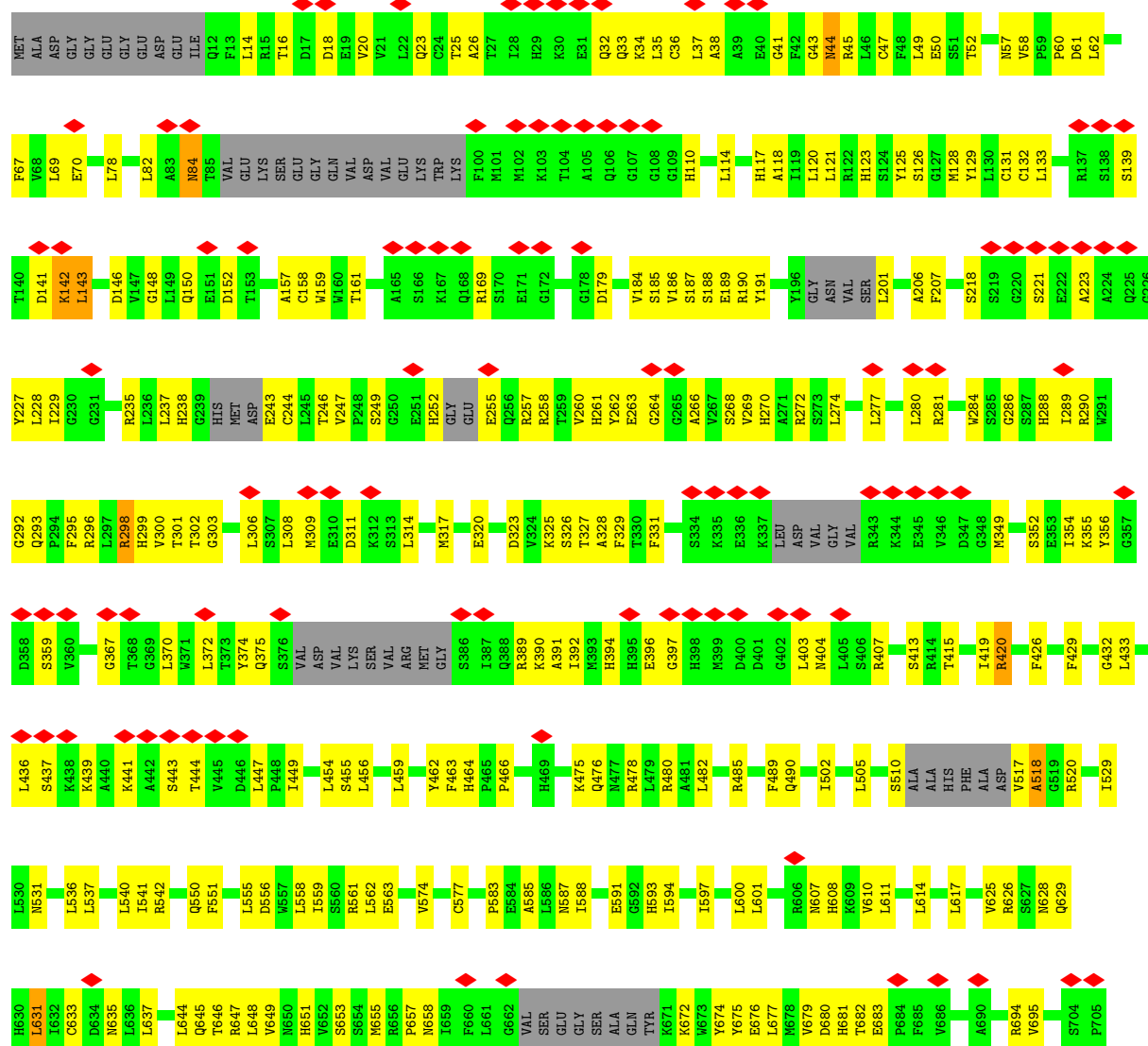








### • Molecule 1: Ryanodine receptor 2





L1618	L1619	L1620	E1623	P1624	L1625	Q1626	F1627	M1628	S1629	L1630	H1631	E1634	E1635	S1638	I1641	L1642	E1643	L1644	T1645	E1646	Q1647	L1650	L1651	H1654	T1657	L1658	R1659	S1662	L1663	V1664	L1667	G1668	N1669	V1672	A1673	L1676	H1679	V1680	D1681	P1682	Q1684	L1685	L1686	Y1687	M1691																
K1692	Y1693	M1694	P1695	G1696	R1699	L1702	Y1703	D1704	I1707	L1711	R1718	M1721	I1726	V1727	P1728	M1729	T1730	L1738	F1739	D1740	GLU	ASN	L1899	F1834	H1835	N1836	I1837	L1748	P1749	G1750	I1751	G1752	S1756	L1757	R1758	P1759	R1760	M1761	P1766	PHE	VAL	GLN	SER	ILE	L1685	L1686	Y1687	Q1777													
E1781	F1782	P1783	I1786	I1792	L1795	ASP	V1799	S1803	L1804	R1807	D1808	G1811	F1816	V1819	P1820	K1823	L1828	M1831	G1832	I1833	F1834	H1835	N1836	I1837	D1838	L1839	K1840	H1841	I1842	L1843	E1847	P1848	S1849	VAL	PHE	LYS	GLU	ALA	ALA	GLY	PRO	GLN	GLU	GLU	ASN	ASP	THR														
LEU	GLU	LYS	GLU	PRO	CYS	ALA	SER	ASP	ARG	ARG	GLU	PRO	GLN	GLU	GLN	ILE	ASN	GLU	CYS	K1898	L1899	P1900	K1904	C1908	Q1912	R1920	H1921	I1922	I1923	I1926	F1929	V1934	V1948	MET	GLN	ALA	LEU	ASP	GLY	ASN	MET	SER																			
ALA	ALA	THR	ALA	ARG	LYS	THR	LYS	GLU	PHE	ARG	SER	PRO	GLN	GLU	ILE	ASN	MET	LEU	ASN	PHE	LYS	ASP	GLU	CYS	PRO	T2068	L2069	L2062	I2063	T2066	M2067	V2075	L2081	F2086	V2087	L2088	L2089	H2090	R2091	D2094	A2102	L2103	P2104	K2105	T2106	Y2107															
N2110	D2116	T2117	L2118	L2121	A2122	S2123	Q2126	I2127	L2130	M2135	G2136	E2140	R2141	L2142	M2143	I2144	R2145	D2149	N2153	Q2158	G2181	GLY	GLU	SER	LYS	ILE	F2190	M2193	V2194	A2195	N2196	C2197	C2198	R2199	F2200	L2201	C2202	C2205	R2206	N2211	Q2212	K2213																			
K2214	M2215	H2218	Y2221	L2222	L2223	E2224	N2225	S2226	S2232	P2233	S2238	T2239	P2240	V2243	A2246	S2247	V2248	E2253	L2254	A2255	L2256	K2257	L2258	V2266	V2267	R2268	Y2269	L2270	L2275	GLN	SER	CYS	GLN	LEU	VAL	SER	LYS	THR	PRO	ASP	ILE	TRP	P2293	G2296	E2297																
R2298	Y2299	R2304	F2305	A2306	V2307	F2308	C2309	S2313	L2324	L2325	L2326	R2327	E2330	CYS	PHE	GLY	PRO	HIS	LEU	ILE	ARG	GLY	GLU	GLY	ASN	G2343	L2344	M2348	E2349	E2350	A2351	I2354	ALA	GLU	ASP	PRO	SER	ARG	ASP	PRO	THR	THR	GLY	SER	SER	LEU	MET	ASP	THR												
GLU	GLY	GLU	GLU	ASP	THR	ILE	HIS	MET	G2386	H2387	A2388	F2392	R2402	G2403	A2404	PRO	GLU	MET	HIS	LEU	ILE	HIS	ILE	ALA	ALA	GLY	GLN	E2416	A2417	I2418	R2421	S2422	I2423	R2425	S2426	LEU	ILE	PRO	ALA	ALA	LEU	SER	ALA	G2431	V2436	I2437	S2438	I2439	A2440	F2441	Q2442	MET	PRO	THR	THR	ILE	ALA	ALA	LYS	PRO	ASP
GLY	ASN	VAL	GLU	GLU	PRO	ASP	MET	ALA	F2461	C2462	P2463	D2464	H2465	K2466	M2469	V2470	L2471	R2475	V2476	Y2477	GLY	ILE	ILE	CYS	GLY	GLN	L2481	Q2482	D2483	F2484	L2485	L2489	GLU	VAL	G2492	L2503	ASP	THR	ALA	ALA	LEU	SER	ALA	T2511	Y2520	L2521	C2522	T2523	L2529	THR	ARG	CYS	ALA	ALA	PRO						
L2535	F2536	A2537	G2538	L2549	V2553	ARG	GLY	LEU	SER	K2558	L2562	A2565	E2571	F2572	C2573	L2574	L2575	S2576	ILE	CYS	GLY	GLN	LEU	R2582	P2583	S2584	D2596	V2597	P2598	L2599	L2600	N2601	GLU	HIS	VAL	K2605	K2609	T2612	C2623	L2624	G2627	TRP	GLY	ASN	PHE	GLY	ALA	A2634	S2635												
S2642	R2643	Y2644	L2649	L2653	SER	GLN	LYS	LYS	Y2658	E2659	Q2660	E2661	L2662	F2663	K2664	L2665	A2666	L2667	P2668	C2669	L2670	S2671	A2672	V2673	A2674	G2675	P2678	P2679	ASP	TYR	MET	GLU	SER	ASN	THR	VAL	SER	MET	MET	GLU	LYS	GLN	SER	MET	MET	ASP	GLU	GLY	ASN	GLY	N2701	F2702	N2703	P2704	Q2705	F2706					





P4954	F4719	T4802	F4871	
D4957	F4720	P4803	L4374	
C4958	L4721	D4804	R4875	
F4959	Y4722	M4805		
R4960	L4723	K4806	Q4878	
K4961	A4724	C4807		
Q4962	W4725	D4808	V4881	
Y4963		D4809	K4882	
E4964	S4730	M4810		
ASP	V4731	L4811	T4887	
GLN	L4732	T4812	K4888	
LEU	C4733	C4813	C4889	
ASN		Y4814		
	M4736			
	F4740	H4817	C4892	
		M4818	C4893	
		Y4819		
	L4745	V4820	M4896	
	D4746	G4821	D4897	
	L4747	Y4822	Y4898	
	A4748	R4823	F4899	
	M4749	A4824	D4900	
	C4750	G4825	T4901	
	F4751	G4826		
	K4752	G4827	H4904	
	T4753	I4828	C4905	
	L4754	G4829	F4906	
	R4755	D4830		
	T4756	E4831		
	Y4757	I4832	H4909	
	L4758	E4833	Q4912	
	S4759	D4834	E4913	
	S4760	P4835	H4914	
	V4761		M4915	
	T4762	D4838		
	H4763		M4924	
	M4764	E4841	M4928	
	C4765	T4842	K4929	
		Y4843	D4930	
	L4768	R4844	E4931	
		I4845		
	L4774	I4846	H4934	
		F4847	T4935	
	T4783	D4848	C4936	
		I4849		
	F4787	F4853	Y4940	
	M4788		V4941	
	F4789	L4859	W4942	
	F4790	L4860	K4943	
	R4791	A4861	M4944	
	K4792	I4862	Y4945	
	F4793	I4863	Q4946	
	Y4794	Q4864	E4947	
	M4795	G4865	R4948	
	K4796	L4866		
	S4797	I4867	E4951	
	E4798	I4868	F4952	
	D4799	D4869	F4953	
	C4800	A4870		
	D4801			



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	24250	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	48.6	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.258	Depositor
Minimum map value	-0.089	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.012	Depositor
Recommended contour level	0.065	Depositor
Map size (Å)	522.6, 522.6, 522.6	wwPDB
Map dimensions	200, 200, 200	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.613, 2.613, 2.613	Depositor

## 5 Model quality

### 5.1 Standard geometry

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

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	0.40	0/27034	0.64	13/36550 (0.0%)
1	B	0.40	0/27034	0.64	13/36550 (0.0%)
1	C	0.40	0/27034	0.65	16/36550 (0.0%)
1	D	0.40	0/27031	0.64	17/36546 (0.0%)
All	All	0.40	0/108133	0.64	59/146196 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	37
1	B	0	37
1	C	0	37
1	D	0	37
All	All	0	148

There are no bond length outliers.

All (59) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4820	VAL	CB-CA-C	-7.94	96.32	111.40
1	C	4833	GLU	CB-CA-C	7.71	125.81	110.40
1	D	4833	GLU	CB-CA-C	7.64	125.67	110.40
1	D	4519	LEU	CB-CA-C	-6.91	97.06	110.20
1	A	3742	LEU	CA-CB-CG	6.63	130.55	115.30
1	D	3742	LEU	CA-CB-CG	6.61	130.50	115.30
1	B	3742	LEU	CA-CB-CG	6.61	130.49	115.30
1	C	3742	LEU	CA-CB-CG	6.61	130.50	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1738	LEU	CA-CB-CG	6.30	129.79	115.30
1	C	1738	LEU	CA-CB-CG	6.28	129.75	115.30
1	D	1738	LEU	CA-CB-CG	6.28	129.75	115.30
1	B	1738	LEU	CA-CB-CG	6.26	129.71	115.30
1	A	555	LEU	CA-CB-CG	6.14	129.41	115.30
1	B	555	LEU	CA-CB-CG	6.13	129.39	115.30
1	C	555	LEU	CA-CB-CG	6.12	129.38	115.30
1	D	555	LEU	CA-CB-CG	6.12	129.38	115.30
1	C	4833	GLU	N-CA-C	-5.89	95.09	111.00
1	B	2038	THR	C-N-CA	5.83	136.28	121.70
1	A	2038	THR	C-N-CA	5.83	136.26	121.70
1	D	2038	THR	C-N-CA	5.82	136.26	121.70
1	D	4820	VAL	CB-CA-C	-5.82	100.35	111.40
1	C	2038	THR	C-N-CA	5.80	136.21	121.70
1	A	2039	TYR	N-CA-C	5.79	126.62	111.00
1	B	2039	TYR	N-CA-C	5.78	126.59	111.00
1	D	2039	TYR	N-CA-C	5.77	126.57	111.00
1	C	2039	TYR	N-CA-C	5.77	126.57	111.00
1	A	4573	LEU	CA-CB-CG	5.67	128.33	115.30
1	C	4573	LEU	CA-CB-CG	5.67	128.33	115.30
1	D	4573	LEU	CA-CB-CG	5.66	128.33	115.30
1	B	4573	LEU	CA-CB-CG	5.66	128.32	115.30
1	C	139	SER	C-N-CA	5.45	135.31	121.70
1	B	139	SER	C-N-CA	5.43	135.29	121.70
1	D	139	SER	C-N-CA	5.43	135.27	121.70
1	A	139	SER	C-N-CA	5.42	135.24	121.70
1	A	631	LEU	CA-CB-CG	5.41	127.74	115.30
1	B	631	LEU	CA-CB-CG	5.41	127.74	115.30
1	D	631	LEU	CA-CB-CG	5.41	127.73	115.30
1	C	631	LEU	CA-CB-CG	5.40	127.72	115.30
1	A	3880	LEU	CA-CB-CG	5.39	127.70	115.30
1	B	3880	LEU	CA-CB-CG	5.38	127.67	115.30
1	D	3880	LEU	CA-CB-CG	5.38	127.67	115.30
1	C	3880	LEU	CA-CB-CG	5.37	127.64	115.30
1	B	1630	LEU	CA-CB-CG	5.18	127.23	115.30
1	C	1630	LEU	CA-CB-CG	5.18	127.23	115.30
1	D	1630	LEU	CA-CB-CG	5.17	127.19	115.30
1	A	1630	LEU	CA-CB-CG	5.17	127.19	115.30
1	D	4833	GLU	N-CA-C	-5.17	97.05	111.00
1	B	2081	LEU	CA-CB-CG	5.12	127.08	115.30
1	A	2081	LEU	CA-CB-CG	5.11	127.06	115.30
1	D	2081	LEU	CA-CB-CG	5.11	127.05	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	2081	LEU	CA-CB-CG	5.10	127.03	115.30
1	C	1667	LEU	CA-CB-CG	5.06	126.94	115.30
1	D	1667	LEU	CA-CB-CG	5.04	126.91	115.30
1	B	1667	LEU	CA-CB-CG	5.04	126.89	115.30
1	A	1667	LEU	CA-CB-CG	5.03	126.87	115.30
1	D	456	LEU	CA-CB-CG	5.03	126.86	115.30
1	C	456	LEU	CA-CB-CG	5.01	126.83	115.30
1	B	456	LEU	CA-CB-CG	5.01	126.83	115.30
1	A	456	LEU	CA-CB-CG	5.01	126.81	115.30

There are no chirality outliers.

All (148) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1266	GLU	Peptide
1	A	141	ASP	Peptide
1	A	142	LYS	Peptide
1	A	1476	VAL	Peptide
1	A	1579	VAL	Peptide
1	A	1604	LEU	Peptide
1	A	1635	GLU	Peptide
1	A	1756	SER	Peptide
1	A	1777	GLN	Peptide
1	A	1835	HIS	Peptide
1	A	1847	GLU	Peptide
1	A	2075	VAL	Peptide
1	A	221	SER	Peptide
1	A	2232	SER	Peptide
1	A	2248	VAL	Peptide
1	A	2293	PRO	Peptide
1	A	2462	CYS	Peptide
1	A	3634	GLU	Peptide
1	A	3847	LEU	Peptide
1	A	3849	GLU	Peptide
1	A	3926	GLN	Peptide
1	A	4075	GLU	Peptide
1	A	4085	VAL	Peptide
1	A	4123	ALA	Peptide
1	A	4146	ILE	Peptide
1	A	4594	LEU	Peptide
1	A	4627	ILE	Peptide
1	A	4644	ASN	Peptide

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Mol	Chain	Res	Type	Group
1	A	4787	PHE	Peptide
1	A	4914	HIS	Peptide
1	A	4915	ASN	Peptide
1	A	518	ALA	Peptide
1	A	729	GLY	Peptide
1	A	775	VAL	Peptide
1	A	816	PRO	Peptide
1	A	818	GLY	Peptide
1	A	819	TYR	Peptide
1	B	1266	GLU	Peptide
1	B	141	ASP	Peptide
1	B	142	LYS	Peptide
1	B	1476	VAL	Peptide
1	B	1579	VAL	Peptide
1	B	1604	LEU	Peptide
1	B	1635	GLU	Peptide
1	B	1756	SER	Peptide
1	B	1777	GLN	Peptide
1	B	1835	HIS	Peptide
1	B	1847	GLU	Peptide
1	B	2075	VAL	Peptide
1	B	221	SER	Peptide
1	B	2232	SER	Peptide
1	B	2248	VAL	Peptide
1	B	2293	PRO	Peptide
1	B	2462	CYS	Peptide
1	B	3634	GLU	Peptide
1	B	3847	LEU	Peptide
1	B	3849	GLU	Peptide
1	B	3926	GLN	Peptide
1	B	4075	GLU	Peptide
1	B	4085	VAL	Peptide
1	B	4123	ALA	Peptide
1	B	4146	ILE	Peptide
1	B	4594	LEU	Peptide
1	B	4627	ILE	Peptide
1	B	4644	ASN	Peptide
1	B	4787	PHE	Peptide
1	B	4914	HIS	Peptide
1	B	4915	ASN	Peptide
1	B	518	ALA	Peptide
1	B	729	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	B	775	VAL	Peptide
1	B	816	PRO	Peptide
1	B	818	GLY	Peptide
1	B	819	TYR	Peptide
1	C	1266	GLU	Peptide
1	C	141	ASP	Peptide
1	C	142	LYS	Peptide
1	C	1476	VAL	Peptide
1	C	1579	VAL	Peptide
1	C	1604	LEU	Peptide
1	C	1635	GLU	Peptide
1	C	1756	SER	Peptide
1	C	1777	GLN	Peptide
1	C	1835	HIS	Peptide
1	C	1847	GLU	Peptide
1	C	2075	VAL	Peptide
1	C	221	SER	Peptide
1	C	2232	SER	Peptide
1	C	2248	VAL	Peptide
1	C	2293	PRO	Peptide
1	C	2462	CYS	Peptide
1	C	3634	GLU	Peptide
1	C	3847	LEU	Peptide
1	C	3849	GLU	Peptide
1	C	3926	GLN	Peptide
1	C	4075	GLU	Peptide
1	C	4085	VAL	Peptide
1	C	4123	ALA	Peptide
1	C	4146	ILE	Peptide
1	C	4594	LEU	Peptide
1	C	4627	ILE	Peptide
1	C	4644	ASN	Peptide
1	C	4787	PHE	Peptide
1	C	4914	HIS	Peptide
1	C	4915	ASN	Peptide
1	C	518	ALA	Peptide
1	C	729	GLY	Peptide
1	C	775	VAL	Peptide
1	C	816	PRO	Peptide
1	C	818	GLY	Peptide
1	C	819	TYR	Peptide
1	D	1266	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	D	141	ASP	Peptide
1	D	142	LYS	Peptide
1	D	1476	VAL	Peptide
1	D	1579	VAL	Peptide
1	D	1604	LEU	Peptide
1	D	1635	GLU	Peptide
1	D	1756	SER	Peptide
1	D	1777	GLN	Peptide
1	D	1835	HIS	Peptide
1	D	1847	GLU	Peptide
1	D	2075	VAL	Peptide
1	D	221	SER	Peptide
1	D	2232	SER	Peptide
1	D	2248	VAL	Peptide
1	D	2293	PRO	Peptide
1	D	2462	CYS	Peptide
1	D	3634	GLU	Peptide
1	D	3847	LEU	Peptide
1	D	3849	GLU	Peptide
1	D	3926	GLN	Peptide
1	D	4075	GLU	Peptide
1	D	4085	VAL	Peptide
1	D	4123	ALA	Peptide
1	D	4146	ILE	Peptide
1	D	4594	LEU	Peptide
1	D	4627	ILE	Peptide
1	D	4644	ASN	Peptide
1	D	4787	PHE	Peptide
1	D	4914	HIS	Peptide
1	D	4915	ASN	Peptide
1	D	518	ALA	Peptide
1	D	729	GLY	Peptide
1	D	775	VAL	Peptide
1	D	816	PRO	Peptide
1	D	818	GLY	Peptide
1	D	819	TYR	Peptide

## 5.2 Too-close contacts

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

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26546	0	25084	786	0
1	B	26546	0	25084	830	0
1	C	26546	0	25084	831	0
1	D	26543	0	25075	820	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	106185	0	100327	3072	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 15.

All (3072) 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:D:4820:VAL:O	1:D:4824:ALA:HB2	1.31	1.25
1:A:4783:THR:HG23	1:A:4817:HIS:CD2	1.75	1.21
1:B:4811:LEU:HB2	1:C:4519:LEU:CD1	1.71	1.18
1:A:4519:LEU:HD12	1:C:4811:LEU:HB2	1.28	1.16
1:B:4519:LEU:HD11	1:D:4811:LEU:HD13	1.28	1.13
1:B:4832:ILE:HD11	1:B:4844:ARG:HD3	1.20	1.12
1:C:4521:TYR:CE1	1:C:4561:VAL:CG2	2.33	1.12
1:A:4774:LEU:HD22	1:D:4754:LEU:CD2	1.79	1.12
1:B:4849:ILE:HG22	1:C:4822:VAL:CG1	1.80	1.11
1:C:4820:VAL:O	1:C:4820:VAL:CG1	1.99	1.10
1:A:4849:ILE:HG22	1:D:4822:VAL:HG11	1.22	1.09
1:A:4754:LEU:CD2	1:C:4774:LEU:HD22	1.83	1.09
1:B:4519:LEU:HB2	1:D:4814:TYR:CE2	1.88	1.08
1:A:4774:LEU:CD2	1:D:4754:LEU:HD22	1.85	1.07
1:A:81:MET:SD	1:A:102:MET:HA	1.95	1.07
1:B:4808:ASP:HB3	1:C:4523:VAL:CG2	1.84	1.07
1:B:4849:ILE:HG22	1:C:4822:VAL:HG11	1.14	1.07
1:B:4774:LEU:HD22	1:C:4754:LEU:CD2	1.84	1.06
1:A:4849:ILE:HG22	1:D:4822:VAL:CG1	1.84	1.06
1:C:4820:VAL:O	1:C:4820:VAL:HG12	1.46	1.05
1:A:4519:LEU:CD1	1:C:4811:LEU:HB2	1.86	1.05
1:B:4867:ILE:HG21	1:D:4861:ALA:HB1	1.08	1.04
1:C:4520:PHE:HB3	1:C:4562:LEU:CD2	1.87	1.04
1:C:4521:TYR:CE1	1:C:4561:VAL:HG22	1.92	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4519:LEU:CD1	1:D:4811:LEU:HD13	1.85	1.04
1:B:4849:ILE:CG2	1:C:4822:VAL:CG1	2.36	1.03
1:A:4520:PHE:HB3	1:A:4562:LEU:HD23	1.38	1.03
1:A:4754:LEU:HD22	1:C:4774:LEU:CD2	1.89	1.03
1:B:4754:LEU:HD22	1:D:4774:LEU:HD22	1.04	1.02
1:B:4808:ASP:HB3	1:C:4523:VAL:HG23	1.41	1.01
1:B:4774:LEU:CD2	1:C:4754:LEU:HD22	1.89	1.01
1:A:4867:ILE:HG21	1:C:4861:ALA:HB1	1.05	1.01
1:A:190:ARG:NH1	1:D:2423:ILE:HG23	1.75	1.00
1:B:4832:ILE:CD1	1:B:4844:ARG:HD3	1.90	1.00
1:B:4754:LEU:CD2	1:D:4774:LEU:HD22	1.91	1.00
1:B:4861:ALA:HB1	1:C:4867:ILE:HG21	1.06	1.00
1:B:4868:ILE:HG12	1:D:4865:GLY:HA2	1.42	0.99
1:A:4861:ALA:HB1	1:D:4867:ILE:HG21	1.02	0.99
1:A:4519:LEU:CD1	1:C:4811:LEU:HD13	1.94	0.98
1:A:4519:LEU:HD11	1:C:4811:LEU:HD13	1.44	0.97
1:B:4774:LEU:HD22	1:C:4754:LEU:HD22	0.98	0.97
1:C:4521:TYR:CE1	1:C:4561:VAL:HG23	1.98	0.97
1:A:190:ARG:HH12	1:D:2423:ILE:HG23	1.29	0.96
1:A:4849:ILE:CG2	1:D:4822:VAL:CG1	2.44	0.96
1:B:4811:LEU:HB2	1:C:4519:LEU:HD13	1.43	0.96
1:A:190:ARG:HH12	1:D:2423:ILE:CG2	1.77	0.96
1:A:4754:LEU:HD22	1:C:4774:LEU:HD22	0.98	0.95
1:A:4783:THR:CG2	1:A:4817:HIS:CD2	2.48	0.95
1:A:190:ARG:NH1	1:D:2423:ILE:CG2	2.29	0.95
1:B:190:ARG:NH1	1:C:2423:ILE:HG23	1.81	0.95
1:B:4754:LEU:HD22	1:D:4774:LEU:CD2	1.96	0.95
1:B:4519:LEU:CB	1:D:4814:TYR:HE2	1.80	0.94
1:B:4849:ILE:CG2	1:C:4822:VAL:HG11	1.97	0.94
1:B:4820:VAL:O	1:B:4824:ALA:HB2	1.64	0.94
1:B:4519:LEU:HD12	1:D:4811:LEU:HB2	1.50	0.94
1:C:4783:THR:HG23	1:C:4817:HIS:CD2	2.03	0.94
1:C:4521:TYR:HE1	1:C:4561:VAL:HG23	1.29	0.94
1:A:4817:HIS:ND1	1:A:4828:ILE:HD11	1.82	0.94
1:A:4861:ALA:CB	1:D:4867:ILE:HG21	1.96	0.94
1:A:2423:ILE:HG23	1:C:190:ARG:NH1	1.83	0.93
1:C:4820:VAL:O	1:C:4824:ALA:HB2	1.68	0.93
1:A:4865:GLY:HA2	1:D:4868:ILE:HG12	1.51	0.93
1:B:4519:LEU:HB2	1:D:4814:TYR:HE2	1.26	0.93
1:A:4868:ILE:HG12	1:C:4865:GLY:HA2	1.50	0.92
1:B:2423:ILE:HG23	1:D:190:ARG:NH1	1.84	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4832:ILE:HD11	1:A:4844:ARG:HD3	1.50	0.92
1:B:4865:GLY:HA2	1:C:4868:ILE:HG12	1.50	0.92
1:B:4822:VAL:HB	1:D:4849:ILE:CG2	1.99	0.91
1:B:4783:THR:HG23	1:B:4817:HIS:CD2	2.05	0.91
1:B:4868:ILE:HG12	1:D:4865:GLY:CA	2.00	0.91
1:A:4823:ARG:CB	1:C:4849:ILE:HD12	2.00	0.91
1:A:4774:LEU:HD22	1:D:4754:LEU:HD22	0.93	0.91
1:B:2423:ILE:CG2	1:D:190:ARG:HH12	1.84	0.91
1:A:4520:PHE:HB3	1:A:4562:LEU:CD2	2.00	0.91
1:A:2423:ILE:CG2	1:C:190:ARG:HH12	1.84	0.90
1:A:4861:ALA:HB1	1:D:4867:ILE:CG2	1.97	0.90
1:A:4867:ILE:HG21	1:C:4861:ALA:CB	1.99	0.90
1:B:190:ARG:HH12	1:C:2423:ILE:CG2	1.84	0.90
1:B:190:ARG:NH1	1:C:2423:ILE:CG2	2.35	0.89
1:B:2423:ILE:CG2	1:D:190:ARG:NH1	2.35	0.89
1:A:2423:ILE:HG23	1:C:190:ARG:HH12	1.37	0.88
1:B:4861:ALA:CB	1:C:4867:ILE:HG21	2.00	0.88
1:B:4523:VAL:HG23	1:D:4808:ASP:HB3	1.53	0.88
1:A:4822:VAL:CG1	1:C:4853:PHE:HB2	2.03	0.88
1:B:81:MET:SD	1:B:102:MET:HA	2.14	0.88
1:A:2423:ILE:CG2	1:C:190:ARG:NH1	2.36	0.87
1:B:4519:LEU:CD1	1:D:4811:LEU:CD1	2.52	0.86
1:B:4066:PHE:O	1:B:4070:CYS:HB2	1.76	0.86
1:D:4783:THR:HG23	1:D:4817:HIS:CD2	2.09	0.86
1:B:190:ARG:HH12	1:C:2423:ILE:HG23	1.37	0.86
1:A:4184:LYS:CB	1:D:4904:HIS:CE1	2.59	0.86
1:A:4867:ILE:CG2	1:C:4861:ALA:HB1	1.99	0.85
1:B:4861:ALA:HB1	1:C:4867:ILE:CG2	2.00	0.85
1:D:4066:PHE:O	1:D:4070:CYS:HB2	1.76	0.85
1:A:4822:VAL:HB	1:C:4849:ILE:HG22	1.58	0.85
1:B:4867:ILE:CG2	1:D:4861:ALA:HB1	2.02	0.85
1:A:4904:HIS:CE1	1:C:4184:LYS:CB	2.59	0.85
1:C:4066:PHE:O	1:C:4070:CYS:HB2	1.76	0.85
1:B:4822:VAL:HB	1:D:4849:ILE:HG22	1.56	0.85
1:A:4849:ILE:CG2	1:D:4822:VAL:HG11	2.05	0.84
1:B:4865:GLY:CA	1:C:4868:ILE:HG12	2.06	0.84
1:B:4519:LEU:CD1	1:D:4811:LEU:HB2	2.07	0.84
1:B:4833:GLU:HB3	1:B:4844:ARG:HH22	1.42	0.84
1:A:143:LEU:CB	1:D:2426:SER:HB3	2.07	0.84
1:A:4066:PHE:O	1:A:4070:CYS:HB2	1.76	0.84
1:C:4783:THR:HG23	1:C:4817:HIS:CG	2.12	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2423:ILE:HG23	1:D:190:ARG:HH12	1.40	0.83
1:A:4868:ILE:HG12	1:C:4865:GLY:CA	2.06	0.83
1:B:4184:LYS:CB	1:C:4904:HIS:CE1	2.61	0.83
1:A:4865:GLY:CA	1:D:4868:ILE:HG12	2.09	0.82
1:B:4849:ILE:HG23	1:C:4822:VAL:HG12	1.61	0.82
1:C:4520:PHE:O	1:C:4561:VAL:HG13	1.80	0.81
1:B:4822:VAL:HG13	1:D:4853:PHE:HB2	1.62	0.81
1:C:4813:CYS:SG	1:C:4817:HIS:HD2	2.03	0.81
1:A:4783:THR:HG23	1:A:4817:HIS:CG	2.16	0.81
1:A:4519:LEU:HD12	1:C:4811:LEU:CB	2.10	0.81
1:C:4521:TYR:CD1	1:C:4561:VAL:HG22	2.16	0.81
1:C:4832:ILE:HD11	1:C:4844:ARG:CD	2.10	0.81
1:A:4519:LEU:CD1	1:C:4811:LEU:CB	2.59	0.81
1:B:4819:TYR:HA	1:D:4849:ILE:HG21	1.63	0.80
1:B:4867:ILE:HG21	1:D:4861:ALA:CB	2.03	0.80
1:C:1799:VAL:O	1:C:1803:SER:HB3	1.82	0.80
1:A:1799:VAL:O	1:A:1803:SER:HB3	1.82	0.80
1:B:1799:VAL:O	1:B:1803:SER:HB3	1.82	0.80
1:D:1799:VAL:O	1:D:1803:SER:HB3	1.82	0.80
1:C:4520:PHE:HB3	1:C:4562:LEU:HD22	1.61	0.80
1:D:4820:VAL:O	1:D:4820:VAL:CG1	2.31	0.79
1:B:4832:ILE:CD1	1:B:4844:ARG:CD	2.59	0.79
1:D:4627:ILE:O	1:D:4631:TRP:HB2	1.83	0.79
1:A:4843:TYR:O	1:A:4847:PHE:HB2	1.83	0.79
1:B:4904:HIS:CE1	1:D:4184:LYS:CB	2.66	0.79
1:A:4627:ILE:O	1:A:4631:TRP:HB2	1.83	0.78
1:C:4843:TYR:O	1:C:4847:PHE:HB2	1.83	0.78
1:A:123:HIS:HD2	1:A:126:SER:H	1.30	0.78
1:B:4817:HIS:ND1	1:B:4828:ILE:HD11	1.98	0.78
1:B:143:LEU:CB	1:C:2426:SER:HB3	2.13	0.78
1:B:4627:ILE:O	1:B:4631:TRP:HB2	1.83	0.78
1:B:4843:TYR:O	1:B:4847:PHE:HB2	1.83	0.78
1:D:4843:TYR:O	1:D:4847:PHE:HB2	1.83	0.78
1:A:2426:SER:HB3	1:C:143:LEU:CB	2.14	0.78
1:D:123:HIS:HD2	1:D:126:SER:H	1.30	0.78
1:C:4018:PHE:O	1:C:4022:LEU:HB2	1.85	0.77
1:D:4561:VAL:HG22	1:D:4562:LEU:N	1.99	0.77
1:B:4018:PHE:O	1:B:4022:LEU:HB2	1.85	0.77
1:C:4627:ILE:O	1:C:4631:TRP:HB2	1.83	0.77
1:A:4018:PHE:O	1:A:4022:LEU:HB2	1.85	0.77
1:B:2426:SER:HB3	1:D:143:LEU:CB	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:123:HIS:HD2	1:B:126:SER:H	1.30	0.76
1:B:4808:ASP:HB3	1:C:4523:VAL:HG21	1.66	0.76
1:D:4018:PHE:O	1:D:4022:LEU:HB2	1.85	0.76
1:C:123:HIS:HD2	1:C:126:SER:H	1.30	0.76
1:D:4820:VAL:O	1:D:4824:ALA:CB	2.23	0.76
1:A:4519:LEU:CD1	1:C:4811:LEU:CD1	2.63	0.75
1:A:4904:HIS:NE2	1:C:4184:LYS:CB	2.49	0.75
1:B:4834:ASP:N	1:B:4834:ASP:OD1	2.19	0.75
1:A:706:TYR:HB2	1:A:709:GLY:HA3	1.69	0.75
1:B:4175:PHE:O	1:B:4179:ASN:HB2	1.86	0.75
1:C:706:TYR:HB2	1:C:709:GLY:HA3	1.69	0.75
1:C:4175:PHE:O	1:C:4179:ASN:HB2	1.86	0.74
1:B:706:TYR:HB2	1:B:709:GLY:HA3	1.69	0.74
1:B:4519:LEU:HD13	1:D:4811:LEU:CD1	2.17	0.74
1:D:4820:VAL:O	1:D:4820:VAL:HG12	1.87	0.74
1:B:4822:VAL:CB	1:D:4849:ILE:HG22	2.17	0.74
1:D:4175:PHE:O	1:D:4179:ASN:HB2	1.86	0.74
1:C:4832:ILE:HD11	1:C:4844:ARG:HD3	1.70	0.74
1:D:706:TYR:HB2	1:D:709:GLY:HA3	1.69	0.74
1:B:4811:LEU:CB	1:C:4519:LEU:HD13	2.16	0.74
1:B:2344:LEU:O	1:B:2348:MET:HB2	1.88	0.74
1:B:4820:VAL:O	1:B:4824:ALA:CB	2.34	0.74
1:C:4813:CYS:SG	1:C:4817:HIS:CD2	2.81	0.74
1:A:4175:PHE:O	1:A:4179:ASN:HB2	1.86	0.73
1:C:2344:LEU:O	1:C:2348:MET:HB2	1.88	0.73
1:A:4783:THR:CG2	1:A:4817:HIS:HD2	2.01	0.73
1:C:4517:ILE:HA	1:C:4520:PHE:HE2	1.52	0.73
1:B:4184:LYS:CB	1:C:4904:HIS:NE2	2.51	0.73
1:D:2344:LEU:O	1:D:2348:MET:HB2	1.88	0.73
1:D:4832:ILE:HD12	1:D:4848:ASP:OD2	1.88	0.73
1:A:4820:VAL:O	1:A:4824:ALA:HB2	1.90	0.72
1:C:4832:ILE:HD12	1:C:4848:ASP:OD2	1.88	0.72
1:A:4184:LYS:CB	1:D:4904:HIS:NE2	2.52	0.72
1:D:4813:CYS:SG	1:D:4817:HIS:HD2	2.12	0.72
1:C:4783:THR:CG2	1:C:4817:HIS:CD2	2.73	0.72
1:D:4783:THR:HG23	1:D:4817:HIS:CG	2.25	0.72
1:B:4849:ILE:CG2	1:C:4822:VAL:HG12	2.18	0.72
1:B:4904:HIS:NE2	1:D:4184:LYS:CB	2.53	0.72
1:A:4820:VAL:O	1:A:4824:ALA:N	2.23	0.71
1:B:776:GLN:HB3	1:B:1470:GLY:HA3	1.72	0.71
1:B:4811:LEU:HB2	1:C:4519:LEU:HD12	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2344:LEU:O	1:A:2348:MET:HB2	1.88	0.71
1:B:4517:ILE:HA	1:B:4520:PHE:CE2	2.25	0.71
1:C:4834:ASP:OD1	1:C:4834:ASP:N	2.23	0.71
1:D:776:GLN:HB3	1:D:1470:GLY:HA3	1.72	0.71
1:D:4817:HIS:ND1	1:D:4828:ILE:HD11	2.05	0.71
1:B:4808:ASP:CB	1:C:4523:VAL:CG2	2.67	0.71
1:D:4517:ILE:HA	1:D:4520:PHE:CE2	2.26	0.71
1:C:4002:ASP:HA	1:C:4115:ARG:HH22	1.56	0.70
1:D:4517:ILE:HA	1:D:4520:PHE:HE2	1.56	0.70
1:B:4832:ILE:HD11	1:B:4844:ARG:CD	2.11	0.70
1:A:4822:VAL:HB	1:C:4849:ILE:CG2	2.22	0.70
1:C:776:GLN:HB3	1:C:1470:GLY:HA3	1.72	0.70
1:B:4822:VAL:CG1	1:D:4849:ILE:HG22	2.21	0.70
1:D:4002:ASP:HA	1:D:4115:ARG:HH22	1.56	0.70
1:A:4864:GLN:HG3	1:D:4868:ILE:HD11	1.74	0.70
1:A:776:GLN:HB3	1:A:1470:GLY:HA3	1.72	0.70
1:A:4002:ASP:HA	1:A:4115:ARG:HH22	1.56	0.70
1:A:4522:LYS:HG2	1:A:4560:TYR:OH	1.92	0.70
1:B:3729:GLN:HE22	1:B:3769:GLY:H	1.40	0.70
1:B:4002:ASP:HA	1:B:4115:ARG:HH22	1.56	0.70
1:B:4519:LEU:HD12	1:D:4811:LEU:CB	2.22	0.70
1:C:4562:LEU:HG	1:C:4563:GLU:N	2.06	0.70
1:D:4561:VAL:CG2	1:D:4562:LEU:N	2.55	0.69
1:B:1124:PRO:HB2	1:B:1252:SER:HB3	1.74	0.69
1:B:4808:ASP:CB	1:C:4523:VAL:HG21	2.22	0.69
1:C:4519:LEU:HD12	1:C:4519:LEU:O	1.92	0.69
1:D:3729:GLN:HE22	1:D:3769:GLY:H	1.40	0.69
1:C:1124:PRO:HB2	1:C:1252:SER:HB3	1.75	0.69
1:A:190:ARG:NH1	1:D:2423:ILE:HG21	2.07	0.69
1:B:4519:LEU:CD1	1:D:4811:LEU:CB	2.70	0.69
1:D:4832:ILE:HD11	1:D:4844:ARG:CD	2.23	0.69
1:D:1124:PRO:HB2	1:D:1252:SER:HB3	1.74	0.69
1:A:601:LEU:HD11	1:A:607:ASN:H	1.58	0.68
1:B:2423:ILE:HG21	1:D:190:ARG:NH1	2.08	0.68
1:B:4796:LYS:H	1:B:4805:MET:HB3	1.59	0.68
1:C:694:ARG:HB2	1:C:793:SER:HB2	1.75	0.68
1:B:694:ARG:HB2	1:B:793:SER:HB2	1.75	0.68
1:A:4849:ILE:HG23	1:D:4822:VAL:HG12	1.74	0.68
1:B:4783:THR:CG2	1:B:4817:HIS:CD2	2.77	0.68
1:C:1642:LEU:HD21	1:C:1691:ASN:HB3	1.76	0.68
1:D:4796:LYS:H	1:D:4805:MET:HB3	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4868:ILE:HD11	1:C:4864:GLN:CG	2.24	0.68
1:A:1642:LEU:HD21	1:A:1691:ASN:HB3	1.76	0.68
1:A:4864:GLN:CG	1:D:4868:ILE:HD11	2.23	0.68
1:A:4832:ILE:HD11	1:A:4844:ARG:CD	2.23	0.68
1:C:3729:GLN:HE22	1:C:3769:GLY:H	1.40	0.68
1:D:1165:MET:HB2	1:D:1174:MET:HB2	1.76	0.68
1:A:694:ARG:HB2	1:A:793:SER:HB2	1.75	0.68
1:A:1124:PRO:HB2	1:A:1252:SER:HB3	1.74	0.68
1:A:1165:MET:HB2	1:A:1174:MET:HB2	1.76	0.68
1:B:601:LEU:HD11	1:B:607:ASN:H	1.58	0.68
1:C:1165:MET:HB2	1:C:1174:MET:HB2	1.76	0.68
1:B:1165:MET:HB2	1:B:1174:MET:HB2	1.76	0.68
1:A:3729:GLN:HE22	1:A:3769:GLY:H	1.40	0.68
1:C:4796:LYS:H	1:C:4805:MET:HB3	1.59	0.68
1:B:4522:LYS:HG2	1:B:4560:TYR:OH	1.93	0.67
1:D:4834:ASP:N	1:D:4834:ASP:OD1	2.27	0.67
1:B:1642:LEU:HD21	1:B:1691:ASN:HB3	1.76	0.67
1:D:601:LEU:HD11	1:D:607:ASN:H	1.58	0.67
1:D:694:ARG:HB2	1:D:793:SER:HB2	1.75	0.67
1:A:4820:VAL:O	1:A:4824:ALA:CB	2.42	0.67
1:B:4808:ASP:CG	1:C:4523:VAL:HG21	2.14	0.67
1:C:601:LEU:HD11	1:C:607:ASN:H	1.58	0.67
1:C:712:GLU:HA	1:C:1638:SER:HB2	1.77	0.67
1:D:502:ILE:O	1:D:561:ARG:NH1	2.27	0.67
1:A:4868:ILE:HD11	1:C:4864:GLN:HG3	1.76	0.67
1:C:502:ILE:O	1:C:561:ARG:NH1	2.27	0.66
1:B:3952:PHE:HB3	1:B:3976:GLN:HE21	1.61	0.66
1:D:712:GLU:HA	1:D:1638:SER:HB2	1.77	0.66
1:A:712:GLU:HA	1:A:1638:SER:HB2	1.77	0.66
1:A:4519:LEU:HD13	1:C:4811:LEU:HD13	1.75	0.66
1:A:4796:LYS:H	1:A:4805:MET:HB3	1.59	0.66
1:B:680:ASP:HB2	1:B:799:LYS:HG3	1.78	0.66
1:B:4864:GLN:CG	1:C:4868:ILE:HD11	2.25	0.66
1:C:4517:ILE:HA	1:C:4520:PHE:CE2	2.31	0.66
1:D:1642:LEU:HD21	1:D:1691:ASN:HB3	1.76	0.66
1:D:2308:PHE:HA	1:D:2313:SER:HA	1.78	0.66
1:A:4519:LEU:HD13	1:C:4811:LEU:CD1	2.25	0.66
1:B:2308:PHE:HA	1:B:2313:SER:HA	1.78	0.66
1:C:2308:PHE:HA	1:C:2313:SER:HA	1.78	0.66
1:C:3952:PHE:HB3	1:C:3976:GLN:HE21	1.61	0.66
1:A:1819:VAL:O	1:A:1823:LYS:HB2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3727:TYR:O	1:B:3731:ARG:HB2	1.96	0.66
1:D:3952:PHE:HB3	1:D:3976:GLN:HE21	1.61	0.66
1:A:3727:TYR:O	1:A:3731:ARG:HB2	1.96	0.66
1:C:1819:VAL:O	1:C:1823:LYS:HB2	1.96	0.66
1:C:3727:TYR:O	1:C:3731:ARG:HB2	1.96	0.66
1:D:3727:TYR:O	1:D:3731:ARG:HB2	1.96	0.66
1:B:1819:VAL:O	1:B:1823:LYS:HB2	1.96	0.66
1:B:4810:MET:CB	1:C:4519:LEU:HA	2.25	0.66
1:D:3924:TYR:HB3	1:D:3932:ASN:HD21	1.61	0.65
1:A:2308:PHE:HA	1:A:2313:SER:HA	1.78	0.65
1:B:712:GLU:HA	1:B:1638:SER:HB2	1.77	0.65
1:A:2791:GLU:H	1:A:2903:ALA:HB3	1.62	0.65
1:A:3924:TYR:HB3	1:A:3932:ASN:HD21	1.61	0.65
1:A:3952:PHE:HB3	1:A:3976:GLN:HE21	1.61	0.65
1:B:2791:GLU:H	1:B:2903:ALA:HB3	1.62	0.65
1:C:802:PHE:HB2	1:C:1617:TRP:HB2	1.79	0.65
1:C:3748:SER:HB2	1:C:3751:GLU:HB2	1.79	0.65
1:D:1819:VAL:O	1:D:1823:LYS:HB2	1.96	0.65
1:B:502:ILE:O	1:B:561:ARG:NH1	2.27	0.65
1:B:81:MET:SD	1:B:102:MET:CA	2.85	0.65
1:B:4523:VAL:CG2	1:D:4808:ASP:HB3	2.25	0.65
1:C:4520:PHE:HB3	1:C:4562:LEU:HD23	1.76	0.65
1:C:3924:TYR:HB3	1:C:3932:ASN:HD21	1.61	0.65
1:B:3748:SER:HB2	1:B:3751:GLU:HB2	1.78	0.65
1:B:4864:GLN:HG3	1:C:4868:ILE:HD11	1.77	0.65
1:C:680:ASP:HB2	1:C:799:LYS:HG3	1.78	0.65
1:C:1699:ARG:NH1	1:C:1816:PHE:O	2.30	0.65
1:A:1699:ARG:NH1	1:A:1816:PHE:O	2.30	0.65
1:B:190:ARG:NH1	1:C:2423:ILE:HG21	2.11	0.65
1:C:70:GLU:HB2	1:C:120:LEU:HB3	1.79	0.65
1:B:766:ILE:HB	1:B:779:PHE:HB2	1.79	0.65
1:B:3924:TYR:HB3	1:B:3932:ASN:HD21	1.61	0.65
1:B:81:MET:SD	1:B:102:MET:CB	2.86	0.64
1:C:2791:GLU:H	1:C:2903:ALA:HB3	1.62	0.64
1:D:2791:GLU:H	1:D:2903:ALA:HB3	1.62	0.64
1:A:70:GLU:HB2	1:A:120:LEU:HB3	1.79	0.64
1:A:680:ASP:HB2	1:A:799:LYS:HG3	1.78	0.64
1:D:1699:ARG:NH1	1:D:1816:PHE:O	2.30	0.64
1:B:1699:ARG:NH1	1:B:1816:PHE:O	2.30	0.64
1:C:1137:PHE:HA	1:C:1144:ARG:HA	1.80	0.64
1:A:2423:ILE:HG21	1:C:190:ARG:NH1	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4874:LEU:O	1:A:4878:GLN:NE2	2.31	0.64
1:B:802:PHE:HB2	1:B:1617:TRP:HB2	1.79	0.64
1:B:1137:PHE:HA	1:B:1144:ARG:HA	1.80	0.64
1:C:756:SER:HB3	1:C:769:ARG:HB2	1.80	0.64
1:D:766:ILE:HB	1:D:779:PHE:HB2	1.79	0.64
1:C:766:ILE:HB	1:C:779:PHE:HB2	1.79	0.64
1:D:680:ASP:HB2	1:D:799:LYS:HG3	1.78	0.64
1:D:3748:SER:HB2	1:D:3751:GLU:HB2	1.78	0.64
1:B:4511:ALA:HA	1:B:4514:ILE:HD12	1.80	0.63
1:C:4569:MET:O	1:C:4573:LEU:HB2	1.98	0.63
1:D:4783:THR:CG2	1:D:4817:HIS:CD2	2.81	0.63
1:A:756:SER:HB3	1:A:769:ARG:HB2	1.80	0.63
1:B:4874:LEU:O	1:B:4878:GLN:NE2	2.31	0.63
1:C:1256:PRO:HD2	1:C:1451:HIS:HB3	1.79	0.63
1:B:70:GLU:HB2	1:B:120:LEU:HB3	1.79	0.63
1:B:4822:VAL:CG1	1:D:4849:ILE:O	2.45	0.63
1:C:4874:LEU:O	1:C:4878:GLN:NE2	2.31	0.63
1:D:802:PHE:HB2	1:D:1617:TRP:HB2	1.79	0.63
1:C:4817:HIS:ND1	1:C:4828:ILE:HD11	2.13	0.63
1:D:4649:PHE:HB3	1:D:4653:LYS:HE3	1.81	0.63
1:D:4813:CYS:SG	1:D:4817:HIS:CD2	2.91	0.63
1:A:4649:PHE:HB3	1:A:4653:LYS:HE3	1.81	0.63
1:B:1256:PRO:HD2	1:B:1451:HIS:HB3	1.79	0.63
1:B:1258:PHE:HB2	1:B:1593:HIS:HB3	1.80	0.63
1:A:1137:PHE:HA	1:A:1144:ARG:HA	1.80	0.63
1:B:756:SER:HB3	1:B:769:ARG:HB2	1.80	0.63
1:B:4517:ILE:HA	1:B:4520:PHE:HE2	1.61	0.63
1:C:4889:CYS:O	1:C:4893:GLY:N	2.32	0.63
1:D:4874:LEU:O	1:D:4878:GLN:NE2	2.31	0.63
1:C:4511:ALA:HA	1:C:4514:ILE:HD12	1.80	0.63
1:D:1258:PHE:HB2	1:D:1593:HIS:HB3	1.80	0.63
1:A:1256:PRO:HD2	1:A:1451:HIS:HB3	1.79	0.63
1:A:3748:SER:HB2	1:A:3751:GLU:HB2	1.79	0.63
1:C:4520:PHE:CB	1:C:4562:LEU:CD2	2.72	0.63
1:D:70:GLU:HB2	1:D:120:LEU:HB3	1.79	0.63
1:D:1256:PRO:HD2	1:D:1451:HIS:HB3	1.79	0.63
1:A:4569:MET:O	1:A:4573:LEU:HB2	1.98	0.63
1:D:2158:GLN:O	1:D:3616:ARG:NH1	2.31	0.63
1:D:4511:ALA:HA	1:D:4514:ILE:HD12	1.80	0.63
1:A:2116:ASP:OD1	1:A:2153:ASN:ND2	2.32	0.62
1:B:2158:GLN:O	1:B:3616:ARG:NH1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4868:ILE:HD11	1:D:4864:GLN:CG	2.28	0.62
1:C:2158:GLN:O	1:C:3616:ARG:NH1	2.32	0.62
1:D:4569:MET:O	1:D:4573:LEU:HB2	1.98	0.62
1:A:802:PHE:HB2	1:A:1617:TRP:HB2	1.79	0.62
1:A:2158:GLN:O	1:A:3616:ARG:NH1	2.31	0.62
1:A:4519:LEU:HD12	1:A:4519:LEU:O	1.99	0.62
1:D:756:SER:HB3	1:D:769:ARG:HB2	1.80	0.62
1:D:1116:GLY:HA3	1:D:1136:ALA:HA	1.82	0.62
1:D:2116:ASP:OD1	1:D:2153:ASN:ND2	2.32	0.62
1:B:3665:LEU:HD23	1:B:3735:ARG:HD3	1.81	0.62
1:C:3665:LEU:HD23	1:C:3735:ARG:HD3	1.81	0.62
1:D:1089:ARG:HH21	1:D:1600:PRO:HG3	1.65	0.62
1:A:766:ILE:HB	1:A:779:PHE:HB2	1.79	0.62
1:B:1729:MET:HG2	1:B:2110:ASN:HA	1.81	0.62
1:B:4569:MET:O	1:B:4573:LEU:HB2	1.98	0.62
1:B:4649:PHE:HB3	1:B:4653:LYS:HE3	1.81	0.62
1:A:81:MET:SD	1:A:102:MET:CA	2.80	0.62
1:A:1258:PHE:HB2	1:A:1593:HIS:HB3	1.80	0.62
1:A:2215:MET:HA	1:A:2218:HIS:HD2	1.65	0.62
1:C:4649:PHE:HB3	1:C:4653:LYS:HE3	1.81	0.62
1:D:1425:THR:N	1:D:1510:VAL:O	2.33	0.62
1:D:3767:LEU:HD21	1:D:3774:VAL:HB	1.82	0.62
1:A:1089:ARG:HH21	1:A:1600:PRO:HG3	1.65	0.62
1:A:1116:GLY:HA3	1:A:1136:ALA:HA	1.82	0.62
1:A:4184:LYS:HA	1:D:4904:HIS:NE2	2.14	0.62
1:B:2215:MET:HA	1:B:2218:HIS:HD2	1.65	0.62
1:D:1137:PHE:HA	1:D:1144:ARG:HA	1.79	0.62
1:D:1729:MET:HG2	1:D:2110:ASN:HA	1.81	0.62
1:A:4849:ILE:HG23	1:D:4822:VAL:CG1	2.26	0.62
1:C:25:THR:HB	1:C:32:GLN:HB3	1.82	0.62
1:C:1258:PHE:HB2	1:C:1593:HIS:HB3	1.80	0.62
1:A:1425:THR:N	1:A:1510:VAL:O	2.33	0.62
1:B:25:THR:HB	1:B:32:GLN:HB3	1.82	0.62
1:C:1089:ARG:HH21	1:C:1600:PRO:HG3	1.65	0.62
1:A:4828:ILE:HG23	1:A:4828:ILE:O	2.00	0.61
1:B:1116:GLY:HA3	1:B:1136:ALA:HA	1.82	0.61
1:C:4820:VAL:O	1:C:4820:VAL:HG13	1.97	0.61
1:C:4832:ILE:HD11	1:C:4844:ARG:HD2	1.79	0.61
1:B:4519:LEU:CB	1:D:4814:TYR:CE2	2.64	0.61
1:C:1729:MET:HG2	1:C:2110:ASN:HA	1.81	0.61
1:D:3665:LEU:HD23	1:D:3735:ARG:HD3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3665:LEU:HD23	1:A:3735:ARG:HD3	1.81	0.61
1:A:4511:ALA:HA	1:A:4514:ILE:HD12	1.80	0.61
1:C:4820:VAL:O	1:C:4824:ALA:CB	2.45	0.61
1:C:4905:GLY:O	1:C:4909:HIS:HB2	2.00	0.61
1:B:1089:ARG:HH21	1:B:1600:PRO:HG3	1.65	0.61
1:B:3767:LEU:HD21	1:B:3774:VAL:HB	1.82	0.61
1:B:4822:VAL:CG1	1:D:4853:PHE:HB2	2.30	0.61
1:B:4889:CYS:O	1:B:4893:GLY:N	2.32	0.61
1:D:2215:MET:HA	1:D:2218:HIS:HD2	1.65	0.61
1:D:4517:ILE:O	1:D:4520:PHE:HD2	1.83	0.61
1:B:1425:THR:N	1:B:1510:VAL:O	2.33	0.61
1:B:4931:GLU:OE2	1:B:4942:TRP:NE1	2.34	0.61
1:C:1425:THR:N	1:C:1510:VAL:O	2.33	0.61
1:B:3903:GLY:O	1:B:3907:PHE:CB	2.49	0.61
1:B:4828:ILE:HG23	1:B:4828:ILE:O	2.01	0.61
1:D:25:THR:HB	1:D:32:GLN:HB3	1.82	0.61
1:D:3920:THR:O	1:D:3924:TYR:N	2.33	0.61
1:D:4931:GLU:OE2	1:D:4942:TRP:NE1	2.34	0.61
1:A:1272:ARG:NH1	1:A:1587:HIS:O	2.34	0.61
1:B:1272:ARG:NH1	1:B:1587:HIS:O	2.34	0.61
1:C:1116:GLY:HA3	1:C:1136:ALA:HA	1.82	0.61
1:D:4889:CYS:O	1:D:4893:GLY:N	2.32	0.61
1:A:4843:TYR:O	1:A:4847:PHE:CB	2.49	0.61
1:C:2215:MET:HA	1:C:2218:HIS:HD2	1.65	0.61
1:C:3767:LEU:HD21	1:C:3774:VAL:HB	1.82	0.61
1:D:1445:TRP:H	1:D:1487:MET:HB2	1.66	0.61
1:D:4905:GLY:O	1:D:4909:HIS:HB2	2.00	0.61
1:A:25:THR:HB	1:A:32:GLN:HB3	1.82	0.61
1:A:4905:GLY:O	1:A:4909:HIS:HB2	2.01	0.61
1:D:694:ARG:NH1	1:D:724:SER:OG	2.34	0.61
1:D:4828:ILE:O	1:D:4828:ILE:HG23	2.01	0.61
1:A:4931:GLU:OE2	1:A:4942:TRP:NE1	2.34	0.61
1:B:4783:THR:HG23	1:B:4817:HIS:CG	2.35	0.61
1:C:3903:GLY:O	1:C:3907:PHE:CB	2.49	0.61
1:C:4843:TYR:O	1:C:4847:PHE:CB	2.49	0.61
1:D:1272:ARG:NH1	1:D:1587:HIS:O	2.34	0.61
1:D:2195:ALA:HB1	1:D:2238:SER:HB2	1.82	0.61
1:A:694:ARG:NH1	1:A:724:SER:OG	2.34	0.60
1:A:1445:TRP:H	1:A:1487:MET:HB2	1.66	0.60
1:A:3903:GLY:O	1:A:3907:PHE:CB	2.49	0.60
1:B:4788:ASN:O	1:B:4791:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4931:GLU:OE2	1:C:4942:TRP:NE1	2.34	0.60
1:A:3767:LEU:HD21	1:A:3774:VAL:HB	1.82	0.60
1:B:694:ARG:NH1	1:B:724:SER:OG	2.34	0.60
1:B:1302:TYR:HB2	1:B:1543:VAL:HB	1.83	0.60
1:B:4843:TYR:O	1:B:4847:PHE:CB	2.49	0.60
1:A:2248:VAL:HG11	1:A:2306:ALA:HA	1.84	0.60
1:B:4905:GLY:O	1:B:4909:HIS:HB2	2.00	0.60
1:C:1302:TYR:HB2	1:C:1543:VAL:HB	1.83	0.60
1:C:2195:ALA:HB1	1:C:2238:SER:HB2	1.82	0.60
1:D:247:VAL:O	1:D:272:ARG:NH1	2.31	0.60
1:A:308:LEU:HD21	1:A:370:LEU:HD12	1.83	0.60
1:C:308:LEU:HD21	1:C:370:LEU:HD12	1.83	0.60
1:C:2248:VAL:HG11	1:C:2306:ALA:HA	1.84	0.60
1:C:4788:ASN:O	1:C:4791:ARG:NH2	2.35	0.60
1:A:4849:ILE:CG2	1:D:4822:VAL:HG12	2.28	0.60
1:B:1146:HIS:HB2	1:B:1192:PHE:HE1	1.67	0.60
1:C:694:ARG:NH1	1:C:724:SER:OG	2.34	0.60
1:C:1272:ARG:NH2	1:C:1590:PHE:O	2.34	0.60
1:D:1146:HIS:HB2	1:D:1192:PHE:HE1	1.67	0.60
1:A:247:VAL:O	1:A:272:ARG:NH1	2.31	0.60
1:B:4810:MET:CB	1:C:4519:LEU:O	2.50	0.60
1:D:1272:ARG:NH2	1:D:1590:PHE:O	2.34	0.60
1:B:1272:ARG:NH2	1:B:1590:PHE:O	2.34	0.60
1:B:1445:TRP:H	1:B:1487:MET:HB2	1.66	0.60
1:D:4788:ASN:O	1:D:4791:ARG:NH2	2.35	0.60
1:A:1729:MET:HG2	1:A:2110:ASN:HA	1.81	0.60
1:B:2195:ALA:HB1	1:B:2238:SER:HB2	1.82	0.60
1:A:281:ARG:NH2	1:A:284:TRP:O	2.35	0.60
1:C:1146:HIS:HB2	1:C:1192:PHE:HE1	1.67	0.60
1:D:3903:GLY:O	1:D:3907:PHE:CB	2.49	0.60
1:A:1146:HIS:HB2	1:A:1192:PHE:HE1	1.67	0.60
1:A:1272:ARG:NH2	1:A:1590:PHE:O	2.34	0.60
1:A:4148:ARG:NH2	1:A:4150:TYR:OH	2.35	0.60
1:A:4889:CYS:O	1:A:4893:GLY:N	2.32	0.60
1:B:3920:THR:O	1:B:3924:TYR:N	2.33	0.60
1:B:4148:ARG:NH2	1:B:4150:TYR:OH	2.35	0.60
1:B:4517:ILE:O	1:B:4520:PHE:HD2	1.85	0.60
1:C:281:ARG:NH2	1:C:284:TRP:O	2.35	0.60
1:C:1445:TRP:H	1:C:1487:MET:HB2	1.66	0.60
1:C:4558:VAL:HG13	1:C:4558:VAL:O	2.02	0.59
1:D:1190:LEU:HD12	1:D:1193:LYS:HE2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1302:TYR:HB2	1:D:1543:VAL:HB	1.83	0.59
1:A:1086:ARG:HB2	1:A:1207:LEU:HB2	1.84	0.59
1:A:4765:GLY:HA2	1:A:4768:LEU:HB2	1.85	0.59
1:B:1447:THR:HG23	1:B:1538:LYS:HB2	1.84	0.59
1:B:1482:ARG:HB3	1:B:1531:TYR:HD1	1.68	0.59
1:B:4868:ILE:HD11	1:D:4864:GLN:HG3	1.83	0.59
1:C:1272:ARG:NH1	1:C:1587:HIS:O	2.34	0.59
1:C:2116:ASP:OD1	1:C:2153:ASN:ND2	2.32	0.59
1:C:3903:GLY:O	1:C:3907:PHE:HB3	2.03	0.59
1:D:1106:GLU:HB3	1:D:1214:ARG:HB3	1.84	0.59
1:D:1447:THR:HG23	1:D:1538:LYS:HB2	1.84	0.59
1:D:2248:VAL:HG11	1:D:2306:ALA:HA	1.84	0.59
1:D:4765:GLY:HA2	1:D:4768:LEU:HB2	1.84	0.59
1:D:4832:ILE:HG23	1:D:4833:GLU:O	2.01	0.59
1:A:2195:ALA:HB1	1:A:2238:SER:HB2	1.82	0.59
1:B:4519:LEU:HD12	1:B:4519:LEU:O	2.02	0.59
1:C:4627:ILE:O	1:C:4631:TRP:CB	2.51	0.59
1:C:4828:ILE:HG23	1:C:4828:ILE:O	2.01	0.59
1:A:502:ILE:O	1:A:561:ARG:NH1	2.27	0.59
1:A:1482:ARG:HB3	1:A:1531:TYR:HD1	1.68	0.59
1:A:3844:LEU:HA	1:A:3847:LEU:HD13	1.84	0.59
1:A:4788:ASN:O	1:A:4791:ARG:NH2	2.34	0.59
1:A:4822:VAL:O	1:A:4822:VAL:HG12	2.01	0.59
1:C:4622:PRO:O	1:C:4630:GLN:NE2	2.36	0.59
1:A:4160:GLN:NE2	1:A:4201:MET:O	2.36	0.59
1:A:4642:PRO:HG2	1:A:4648:LYS:HD3	1.85	0.59
1:A:4904:HIS:NE2	1:C:4184:LYS:HA	2.18	0.59
1:B:2248:VAL:HG11	1:B:2306:ALA:HA	1.83	0.59
1:C:3844:LEU:HA	1:C:3847:LEU:HD13	1.84	0.59
1:C:4148:ARG:NH2	1:C:4150:TYR:OH	2.35	0.59
1:D:4642:PRO:HG2	1:D:4648:LYS:HD3	1.85	0.59
1:D:4752:LYS:HG3	1:D:4755:ARG:HE	1.68	0.59
1:D:4798:GLU:H	1:D:4802:THR:HG1	1.49	0.59
1:A:4622:PRO:O	1:A:4630:GLN:NE2	2.36	0.59
1:B:3903:GLY:O	1:B:3907:PHE:HB3	2.02	0.59
1:B:4517:ILE:O	1:B:4520:PHE:CD2	2.56	0.59
1:B:4752:LYS:HG3	1:B:4755:ARG:HE	1.68	0.59
1:C:3920:THR:O	1:C:3924:TYR:N	2.33	0.59
1:A:4849:ILE:CG2	1:D:4822:VAL:HB	2.32	0.59
1:B:308:LEU:HD21	1:B:370:LEU:HD12	1.83	0.59
1:B:3663:ASP:OD2	1:B:3735:ARG:NH2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3901:GLU:OE1	1:B:3902:GLN:NE2	2.36	0.59
1:C:4642:PRO:HG2	1:C:4648:LYS:HD3	1.85	0.59
1:C:4796:LYS:NZ	1:C:4816:PHE:CD1	2.70	0.59
1:D:4622:PRO:O	1:D:4630:GLN:NE2	2.36	0.59
1:B:281:ARG:NH2	1:B:284:TRP:O	2.35	0.59
1:B:3805:ASP:OD2	1:B:3809:PHE:N	2.33	0.59
1:B:4089:HIS:O	1:B:4093:LYS:N	2.35	0.59
1:B:4642:PRO:HG2	1:B:4648:LYS:HD3	1.85	0.59
1:C:374:TYR:HA	1:C:391:ALA:HA	1.85	0.59
1:D:1086:ARG:HB2	1:D:1207:LEU:HB2	1.84	0.59
1:D:4148:ARG:NH2	1:D:4150:TYR:OH	2.35	0.59
1:D:4561:VAL:CG2	1:D:4562:LEU:H	2.14	0.59
1:A:3901:GLU:OE1	1:A:3902:GLN:NE2	2.36	0.59
1:A:4627:ILE:O	1:A:4631:TRP:CB	2.51	0.59
1:D:4832:ILE:HD11	1:D:4844:ARG:HD3	1.83	0.59
1:A:1447:THR:HG23	1:A:1538:LYS:HB2	1.84	0.59
1:A:2212:GLN:NE2	1:A:2246:ALA:O	2.36	0.59
1:A:4747:ILE:HD12	1:A:4750:GLY:HA3	1.85	0.59
1:B:247:VAL:O	1:B:272:ARG:NH1	2.31	0.59
1:B:1291:GLY:HA2	1:B:1551:ASN:H	1.68	0.59
1:B:4627:ILE:O	1:B:4631:TRP:CB	2.51	0.59
1:B:4765:GLY:HA2	1:B:4768:LEU:HB2	1.85	0.59
1:C:1106:GLU:HB3	1:C:1214:ARG:HB3	1.84	0.59
1:C:1447:THR:HG23	1:C:1538:LYS:HB2	1.84	0.59
1:C:4747:ILE:HD12	1:C:4750:GLY:HA3	1.85	0.59
1:D:1482:ARG:HB3	1:D:1531:TYR:HD1	1.68	0.59
1:D:4936:GLY:O	1:D:4940:TYR:HB2	2.03	0.59
1:A:1291:GLY:HA2	1:A:1551:ASN:H	1.68	0.58
1:A:1302:TYR:HB2	1:A:1543:VAL:HB	1.83	0.58
1:B:1086:ARG:HB2	1:B:1207:LEU:HB2	1.84	0.58
1:C:4160:GLN:NE2	1:C:4201:MET:O	2.36	0.58
1:C:4752:LYS:HG3	1:C:4755:ARG:HE	1.68	0.58
1:C:4936:GLY:O	1:C:4940:TYR:HB2	2.03	0.58
1:D:308:LEU:HD21	1:D:370:LEU:HD12	1.83	0.58
1:D:3901:GLU:OE1	1:D:3902:GLN:NE2	2.36	0.58
1:A:374:TYR:HA	1:A:391:ALA:HA	1.85	0.58
1:A:1106:GLU:HB3	1:A:1214:ARG:HB3	1.84	0.58
1:B:754:VAL:HB	1:B:771:ASN:HA	1.86	0.58
1:B:4936:GLY:O	1:B:4940:TYR:HB2	2.03	0.58
1:C:299:HIS:HD2	1:C:302:THR:H	1.51	0.58
1:C:1086:ARG:HB2	1:C:1207:LEU:HB2	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1291:GLY:HA2	1:C:1551:ASN:H	1.68	0.58
1:D:281:ARG:NH2	1:D:284:TRP:O	2.35	0.58
1:D:4843:TYR:O	1:D:4847:PHE:CB	2.49	0.58
1:B:4160:GLN:NE2	1:B:4201:MET:O	2.36	0.58
1:B:4887:THR:HA	1:B:4896:ASN:HB2	1.86	0.58
1:C:150:GLN:NE2	1:C:158:CYS:SG	2.76	0.58
1:C:754:VAL:HB	1:C:771:ASN:HA	1.85	0.58
1:C:1482:ARG:HB3	1:C:1531:TYR:HD1	1.68	0.58
1:C:2212:GLN:NE2	1:C:2246:ALA:O	2.36	0.58
1:D:4887:THR:HA	1:D:4896:ASN:HB2	1.86	0.58
1:A:754:VAL:HB	1:A:771:ASN:HA	1.85	0.58
1:B:4519:LEU:HD11	1:D:4811:LEU:CD1	2.13	0.58
1:C:3856:GLN:NE2	1:C:3923:GLU:O	2.37	0.58
1:D:150:GLN:NE2	1:D:158:CYS:SG	2.76	0.58
1:A:26:ALA:HB3	1:A:33:GLN:HB3	1.86	0.58
1:A:3663:ASP:OD2	1:A:3735:ARG:NH2	2.36	0.58
1:A:3856:GLN:NE2	1:A:3923:GLU:O	2.36	0.58
1:B:35:LEU:HD13	1:B:49:LEU:HD22	1.86	0.58
1:B:4622:PRO:O	1:B:4630:GLN:NE2	2.36	0.58
1:C:247:VAL:O	1:C:272:ARG:NH1	2.31	0.58
1:C:1288:LYS:HB2	1:C:1555:PHE:HB2	1.86	0.58
1:C:4765:GLY:HA2	1:C:4768:LEU:HB2	1.84	0.58
1:C:4887:THR:HA	1:C:4896:ASN:HB2	1.85	0.58
1:D:3663:ASP:OD2	1:D:3735:ARG:NH2	2.36	0.58
1:D:4627:ILE:O	1:D:4631:TRP:CB	2.51	0.58
1:A:299:HIS:HD2	1:A:302:THR:H	1.51	0.58
1:A:731:HIS:HE1	1:A:738:ALA:HB1	1.69	0.58
1:A:4752:LYS:HG3	1:A:4755:ARG:HE	1.68	0.58
1:A:4936:GLY:O	1:A:4940:TYR:HB2	2.03	0.58
1:B:1190:LEU:HD12	1:B:1193:LYS:HE2	1.84	0.58
1:B:3844:LEU:HA	1:B:3847:LEU:HD13	1.84	0.58
1:B:4747:ILE:HD12	1:B:4750:GLY:HA3	1.85	0.58
1:C:731:HIS:HE1	1:C:738:ALA:HB1	1.69	0.58
1:C:3901:GLU:OE1	1:C:3902:GLN:NE2	2.36	0.58
1:D:754:VAL:HB	1:D:771:ASN:HA	1.86	0.58
1:A:277:LEU:HD22	1:A:295:PHE:HB3	1.86	0.58
1:B:26:ALA:HB3	1:B:33:GLN:HB3	1.86	0.58
1:C:35:LEU:HD13	1:C:49:LEU:HD22	1.86	0.58
1:C:4616:LEU:HA	1:C:4620:GLU:HB2	1.86	0.58
1:C:4754:LEU:HA	1:C:4757:ILE:HD12	1.86	0.58
1:D:277:LEU:HD22	1:D:295:PHE:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4747:ILE:HD12	1:D:4750:GLY:HA3	1.85	0.58
1:A:150:GLN:NE2	1:A:158:CYS:SG	2.76	0.58
1:A:4617:TYR:OH	1:A:4629:GLY:O	2.22	0.58
1:A:4754:LEU:HA	1:A:4757:ILE:HD12	1.86	0.58
1:D:1291:GLY:HA2	1:D:1551:ASN:H	1.68	0.58
1:D:2212:GLN:NE2	1:D:2246:ALA:O	2.36	0.58
1:A:71:GLN:NE2	1:A:106:GLN:H	2.02	0.58
1:A:3805:ASP:OD2	1:A:3809:PHE:N	2.33	0.58
1:A:3903:GLY:O	1:A:3907:PHE:HB3	2.02	0.58
1:A:4888:LYS:HB3	1:A:4893:GLY:HA2	1.86	0.58
1:B:237:LEU:HB2	1:B:404:ASN:HB3	1.86	0.58
1:B:3856:GLN:NE2	1:B:3923:GLU:O	2.36	0.58
1:B:4184:LYS:HA	1:C:4904:HIS:NE2	2.19	0.58
1:C:26:ALA:HB3	1:C:33:GLN:HB3	1.86	0.58
1:C:1482:ARG:NH1	1:C:1530:TYR:O	2.37	0.58
1:D:237:LEU:HB2	1:D:404:ASN:HB3	1.86	0.58
1:A:4887:THR:HA	1:A:4896:ASN:HB2	1.86	0.58
1:B:1106:GLU:HB3	1:B:1214:ARG:HB3	1.84	0.58
1:C:1190:LEU:HD12	1:C:1193:LYS:HE2	1.84	0.58
1:C:4617:TYR:OH	1:C:4629:GLY:O	2.22	0.58
1:D:26:ALA:HB3	1:D:33:GLN:HB3	1.86	0.58
1:D:3844:LEU:HA	1:D:3847:LEU:HD13	1.84	0.58
1:D:3856:GLN:NE2	1:D:3923:GLU:O	2.36	0.58
1:D:4160:GLN:NE2	1:D:4201:MET:O	2.36	0.58
1:D:4754:LEU:HA	1:D:4757:ILE:HD12	1.85	0.58
1:A:1190:LEU:HD12	1:A:1193:LYS:HE2	1.84	0.57
1:B:2212:GLN:NE2	1:B:2246:ALA:O	2.36	0.57
1:B:4616:LEU:HA	1:B:4620:GLU:HB2	1.86	0.57
1:C:3806:LEU:O	1:C:3810:GLU:N	2.37	0.57
1:D:374:TYR:HA	1:D:391:ALA:HA	1.85	0.57
1:D:1288:LYS:HB2	1:D:1555:PHE:HB2	1.86	0.57
1:D:1926:ILE:HD13	1:D:2037:VAL:HG11	1.86	0.57
1:B:1482:ARG:NH1	1:B:1530:TYR:O	2.37	0.57
1:B:3806:LEU:O	1:B:3810:GLU:N	2.37	0.57
1:C:237:LEU:HB2	1:C:404:ASN:HB3	1.86	0.57
1:A:4616:LEU:HA	1:A:4620:GLU:HB2	1.86	0.57
1:C:2404:ALA:HB2	1:C:2475:ARG:HE	1.69	0.57
1:C:3663:ASP:OD2	1:C:3735:ARG:NH2	2.36	0.57
1:D:608:HIS:HA	1:D:611:LEU:HD13	1.86	0.57
1:D:2404:ALA:HB2	1:D:2475:ARG:HE	1.69	0.57
1:A:2404:ALA:HB2	1:A:2475:ARG:HE	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:150:GLN:NE2	1:B:158:CYS:SG	2.76	0.57
1:B:1288:LYS:HB2	1:B:1555:PHE:HB2	1.86	0.57
1:B:2116:ASP:OD1	1:B:2153:ASN:ND2	2.32	0.57
1:B:4754:LEU:HA	1:B:4757:ILE:HD12	1.86	0.57
1:C:655:MET:HG2	1:C:836:HIS:HA	1.87	0.57
1:D:35:LEU:HD13	1:D:49:LEU:HD22	1.86	0.57
1:D:299:HIS:HD2	1:D:302:THR:H	1.51	0.57
1:D:731:HIS:HE1	1:D:738:ALA:HB1	1.69	0.57
1:A:71:GLN:NE2	1:A:106:GLN:N	2.53	0.57
1:A:237:LEU:HB2	1:A:404:ASN:HB3	1.86	0.57
1:B:585:ALA:HA	1:B:588:ILE:HD12	1.86	0.57
1:C:4520:PHE:CB	1:C:4562:LEU:HD23	2.33	0.57
1:D:4013:MET:N	1:D:4013:MET:SD	2.78	0.57
1:D:4142:SER:O	1:D:4144:LYS:NZ	2.38	0.57
1:A:235:ARG:NH2	1:A:268:SER:O	2.38	0.57
1:A:439:LYS:HD3	1:A:441:LYS:HB2	1.87	0.57
1:A:4832:ILE:HG23	1:A:4833:GLU:O	2.05	0.57
1:B:374:TYR:HA	1:B:391:ALA:HA	1.85	0.57
1:B:4013:MET:N	1:B:4013:MET:SD	2.78	0.57
1:B:4617:TYR:OH	1:B:4629:GLY:O	2.22	0.57
1:B:4835:PRO:HB3	1:B:4845:ILE:HG13	1.87	0.57
1:C:439:LYS:HD3	1:C:441:LYS:HB2	1.87	0.57
1:C:741:VAL:HG22	1:C:1469:LEU:HD23	1.87	0.57
1:D:741:VAL:HG22	1:D:1469:LEU:HD23	1.87	0.57
1:D:3903:GLY:O	1:D:3907:PHE:HB3	2.02	0.57
1:A:608:HIS:HA	1:A:611:LEU:HD13	1.86	0.57
1:A:741:VAL:HG22	1:A:1469:LEU:HD23	1.87	0.57
1:A:4814:TYR:HE2	1:D:4519:LEU:CB	2.18	0.57
1:B:4810:MET:CB	1:C:4519:LEU:CA	2.82	0.57
1:C:1926:ILE:HD13	1:C:2037:VAL:HG11	1.86	0.57
1:A:35:LEU:HD13	1:A:49:LEU:HD22	1.86	0.57
1:A:646:THR:HG23	1:A:1684:GLN:HE22	1.70	0.57
1:A:3920:THR:O	1:A:3924:TYR:N	2.33	0.57
1:B:235:ARG:NH2	1:B:268:SER:O	2.38	0.57
1:B:439:LYS:HD3	1:B:441:LYS:HB2	1.87	0.57
1:B:741:VAL:HG22	1:B:1469:LEU:HD23	1.87	0.57
1:D:1482:ARG:NH1	1:D:1530:TYR:O	2.37	0.57
1:D:4959:PHE:O	1:D:4962:GLN:NE2	2.35	0.57
1:A:4013:MET:N	1:A:4013:MET:SD	2.78	0.57
1:A:4959:PHE:O	1:A:4962:GLN:NE2	2.35	0.57
1:B:299:HIS:HD2	1:B:302:THR:H	1.51	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:731:HIS:HE1	1:B:738:ALA:HB1	1.69	0.57
1:B:1926:ILE:HD13	1:B:2037:VAL:HG11	1.86	0.57
1:C:277:LEU:HD22	1:C:295:PHE:HB3	1.86	0.57
1:C:3805:ASP:OD2	1:C:3809:PHE:N	2.34	0.57
1:A:655:MET:HG2	1:A:836:HIS:HA	1.87	0.57
1:A:677:LEU:HB2	1:A:755:ILE:HB	1.87	0.57
1:B:655:MET:HG2	1:B:836:HIS:HA	1.87	0.57
1:B:4849:ILE:HD12	1:C:4823:ARG:CB	2.34	0.57
1:C:2760:PRO:HD2	1:C:2763:LEU:HD12	1.87	0.57
1:D:4835:PRO:HB3	1:D:4845:ILE:HG13	1.87	0.57
1:A:4189:LEU:HD23	1:A:4192:ASN:HD22	1.70	0.56
1:A:4849:ILE:CG2	1:D:4822:VAL:CB	2.83	0.56
1:C:1104:GLU:HA	1:C:1163:GLY:HA2	1.86	0.56
1:C:4835:PRO:HB3	1:C:4845:ILE:HG13	1.87	0.56
1:C:4888:LYS:HB3	1:C:4893:GLY:HA2	1.86	0.56
1:D:235:ARG:NH2	1:D:268:SER:O	2.38	0.56
1:A:2760:PRO:HD2	1:A:2763:LEU:HD12	1.87	0.56
1:A:4516:PHE:O	1:A:4519:LEU:HD23	2.05	0.56
1:B:277:LEU:HD22	1:B:295:PHE:HB3	1.86	0.56
1:B:2221:TYR:O	1:B:2225:ASN:ND2	2.38	0.56
1:C:626:ARG:NH1	1:C:1667:LEU:O	2.39	0.56
1:C:1125:ASP:HA	1:C:1598:ARG:HG3	1.88	0.56
1:D:4617:TYR:OH	1:D:4629:GLY:O	2.22	0.56
1:A:1482:ARG:NH1	1:A:1530:TYR:O	2.37	0.56
1:A:2026:ILE:HG23	1:A:2030:LEU:HD12	1.87	0.56
1:A:2221:TYR:O	1:A:2225:ASN:ND2	2.38	0.56
1:B:677:LEU:HB2	1:B:755:ILE:HB	1.87	0.56
1:B:1125:ASP:HA	1:B:1598:ARG:HG3	1.87	0.56
1:B:1250:TRP:HE1	1:B:1643:GLU:HG3	1.71	0.56
1:B:2440:ALA:HA	1:B:2466:LYS:HD2	1.87	0.56
1:B:4888:LYS:HB3	1:B:4893:GLY:HA2	1.86	0.56
1:B:4904:HIS:NE2	1:D:4184:LYS:HA	2.20	0.56
1:C:235:ARG:NH2	1:C:268:SER:O	2.38	0.56
1:C:1250:TRP:HE1	1:C:1643:GLU:HG3	1.71	0.56
1:C:2026:ILE:HG23	1:C:2030:LEU:HD12	1.87	0.56
1:C:2221:TYR:O	1:C:2225:ASN:ND2	2.38	0.56
1:C:4013:MET:SD	1:C:4013:MET:N	2.78	0.56
1:C:4142:SER:O	1:C:4144:LYS:NZ	2.38	0.56
1:D:677:LEU:HB2	1:D:755:ILE:HB	1.87	0.56
1:D:3805:ASP:OD2	1:D:3809:PHE:N	2.34	0.56
1:D:4189:LEU:HD23	1:D:4192:ASN:HD22	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:585:ALA:HA	1:A:588:ILE:HD12	1.86	0.56
1:A:1926:ILE:HD13	1:A:2037:VAL:HG11	1.86	0.56
1:B:2715:PRO:HD2	1:B:2718:LEU:HD12	1.88	0.56
1:D:655:MET:HG2	1:D:836:HIS:HA	1.87	0.56
1:D:1250:TRP:HE1	1:D:1643:GLU:HG3	1.71	0.56
1:D:2221:TYR:O	1:D:2225:ASN:ND2	2.38	0.56
1:D:2440:ALA:HA	1:D:2466:LYS:HD2	1.87	0.56
1:D:4616:LEU:HA	1:D:4620:GLU:HB2	1.86	0.56
1:B:2760:PRO:HD2	1:B:2763:LEU:HD12	1.87	0.56
1:C:1098:ALA:O	1:C:1101:TRP:NE1	2.38	0.56
1:C:2440:ALA:HA	1:C:2466:LYS:HD2	1.87	0.56
1:C:4189:LEU:HD23	1:C:4192:ASN:HD22	1.70	0.56
1:D:1098:ALA:O	1:D:1101:TRP:NE1	2.38	0.56
1:D:1104:GLU:HA	1:D:1163:GLY:HA2	1.86	0.56
1:A:626:ARG:NH1	1:A:1667:LEU:O	2.39	0.56
1:B:2193:MET:HA	1:B:2196:ASN:HD22	1.70	0.56
1:B:4189:LEU:HD23	1:B:4192:ASN:HD22	1.70	0.56
1:B:4832:ILE:HD13	1:B:4844:ARG:CD	2.35	0.56
1:C:2193:MET:HA	1:C:2196:ASN:HD22	1.70	0.56
1:C:4089:HIS:O	1:C:4093:LYS:N	2.35	0.56
1:D:1125:ASP:HA	1:D:1598:ARG:HG3	1.87	0.56
1:D:3862:GLN:OE1	1:D:3865:ASN:ND2	2.39	0.56
1:A:1104:GLU:HA	1:A:1163:GLY:HA2	1.86	0.56
1:A:1144:ARG:N	1:A:1150:GLU:O	2.35	0.56
1:A:3862:GLN:OE1	1:A:3865:ASN:ND2	2.39	0.56
1:A:4819:TYR:HA	1:C:4849:ILE:HG21	1.87	0.56
1:B:185:SER:OG	1:B:186:VAL:N	2.39	0.56
1:B:608:HIS:HA	1:B:611:LEU:HD13	1.86	0.56
1:B:626:ARG:NH1	1:B:1667:LEU:O	2.39	0.56
1:B:2404:ALA:HB2	1:B:2475:ARG:HE	1.69	0.56
1:B:4519:LEU:HB3	1:D:4814:TYR:HE2	1.67	0.56
1:C:585:ALA:HA	1:C:588:ILE:HD12	1.87	0.56
1:C:986:ILE:HD12	1:C:1059:GLY:HA2	1.88	0.56
1:C:3862:GLN:OE1	1:C:3865:ASN:ND2	2.39	0.56
1:D:1522:ALA:N	1:D:1525:LYS:O	2.39	0.56
1:A:2213:LYS:HA	1:A:2254:LEU:HD21	1.88	0.56
1:A:4822:VAL:HG13	1:C:4853:PHE:HB2	1.84	0.56
1:B:986:ILE:HD12	1:B:1059:GLY:HA2	1.88	0.56
1:B:1104:GLU:HA	1:B:1163:GLY:HA2	1.86	0.56
1:C:288:HIS:ND1	1:C:349:MET:O	2.39	0.56
1:C:677:LEU:HB2	1:C:755:ILE:HB	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2715:PRO:HD2	1:C:2718:LEU:HD12	1.88	0.56
1:D:585:ALA:HA	1:D:588:ILE:HD12	1.87	0.56
1:D:4089:HIS:O	1:D:4093:LYS:N	2.35	0.56
1:D:4888:LYS:HB3	1:D:4893:GLY:HA2	1.86	0.56
1:B:646:THR:HG23	1:B:1684:GLN:HE22	1.70	0.56
1:B:2213:LYS:HA	1:B:2254:LEU:HD21	1.88	0.56
1:B:4822:VAL:HG11	1:D:4849:ILE:O	2.05	0.56
1:B:4957:ASP:OD1	1:B:4957:ASP:N	2.39	0.56
1:C:185:SER:OG	1:C:186:VAL:N	2.39	0.56
1:D:249:SER:O	1:D:257:ARG:NH2	2.39	0.56
1:A:1288:LYS:HB2	1:A:1555:PHE:HB2	1.86	0.56
1:A:2440:ALA:HA	1:A:2466:LYS:HD2	1.87	0.56
1:C:1522:ALA:N	1:C:1525:LYS:O	2.39	0.56
1:D:2715:PRO:HD2	1:D:2718:LEU:HD12	1.88	0.56
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.88	0.55
1:A:1783:PRO:HB3	1:A:1786:ILE:HD12	1.88	0.55
1:B:4052:ALA:O	1:B:4056:HIS:ND1	2.40	0.55
1:C:2213:LYS:HA	1:C:2254:LEU:HD21	1.88	0.55
1:D:439:LYS:HD3	1:D:441:LYS:HB2	1.87	0.55
1:D:878:LEU:HD23	1:D:881:ILE:HD13	1.89	0.55
1:D:2760:PRO:HD2	1:D:2763:LEU:HD12	1.87	0.55
1:D:4717:ASP:HB3	1:D:4720:PHE:HB3	1.88	0.55
1:A:1922:ARG:NH1	1:A:2037:VAL:O	2.39	0.55
1:A:4052:ALA:O	1:A:4056:HIS:ND1	2.40	0.55
1:A:4089:HIS:O	1:A:4093:LYS:N	2.35	0.55
1:B:878:LEU:HD23	1:B:881:ILE:HD13	1.88	0.55
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.88	0.55
1:C:878:LEU:HD23	1:C:881:ILE:HD13	1.88	0.55
1:C:3842:ARG:NH1	1:C:3845:GLN:OE1	2.40	0.55
1:D:646:THR:HG23	1:D:1684:GLN:HE22	1.70	0.55
1:D:2213:LYS:HA	1:D:2254:LEU:HD21	1.88	0.55
1:A:249:SER:O	1:A:257:ARG:NH2	2.39	0.55
1:A:4717:ASP:HB3	1:A:4720:PHE:HB3	1.88	0.55
1:B:3862:GLN:OE1	1:B:3865:ASN:ND2	2.38	0.55
1:B:3959:LEU:HD23	1:B:3965:GLN:HB3	1.89	0.55
1:B:4820:VAL:O	1:B:4824:ALA:N	2.38	0.55
1:C:4717:ASP:HB3	1:C:4720:PHE:HB3	1.88	0.55
1:D:185:SER:OG	1:D:186:VAL:N	2.39	0.55
1:D:626:ARG:NH1	1:D:1667:LEU:O	2.39	0.55
1:D:2213:LYS:HG2	1:D:2254:LEU:HD11	1.89	0.55
1:A:1125:ASP:HA	1:A:1598:ARG:HG3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1912:GLN:O	1:A:2091:ARG:NH1	2.37	0.55
1:A:4085:VAL:O	1:A:4089:HIS:N	2.36	0.55
1:A:4487:ALA:O	1:A:4491:LYS:HB2	2.07	0.55
1:B:300:VAL:O	1:B:420:ARG:NH2	2.40	0.55
1:B:2026:ILE:HG23	1:B:2030:LEU:HD12	1.87	0.55
1:B:3926:GLN:HG3	1:B:4936:GLY:H	1.72	0.55
1:C:608:HIS:HA	1:C:611:LEU:HD13	1.86	0.55
1:C:1570:LEU:O	1:C:1573:SER:OG	2.24	0.55
1:C:3959:LEU:HD23	1:C:3965:GLN:HB3	1.89	0.55
1:C:4616:LEU:HD12	1:C:4622:PRO:HG3	1.88	0.55
1:C:4832:ILE:HG23	1:C:4833:GLU:O	2.06	0.55
1:D:37:LEU:HD11	1:D:47:CYS:HB3	1.88	0.55
1:D:228:LEU:HB3	1:D:289:ILE:HB	1.89	0.55
1:D:288:HIS:ND1	1:D:349:MET:O	2.39	0.55
1:D:1573:SER:HB3	1:D:1582:CYS:HA	1.89	0.55
1:D:1922:ARG:NH1	1:D:2037:VAL:O	2.39	0.55
1:D:4832:ILE:HD11	1:D:4844:ARG:HD2	1.88	0.55
1:D:4957:ASP:N	1:D:4957:ASP:OD1	2.39	0.55
1:A:300:VAL:O	1:A:420:ARG:NH2	2.40	0.55
1:A:1250:TRP:HE1	1:A:1643:GLU:HG3	1.71	0.55
1:A:1522:ALA:N	1:A:1525:LYS:O	2.39	0.55
1:A:1573:SER:HB3	1:A:1582:CYS:HA	1.89	0.55
1:B:249:SER:O	1:B:257:ARG:NH2	2.39	0.55
1:B:1226:TYR:HD1	1:B:1229:ILE:HD12	1.71	0.55
1:B:1645:THR:HG22	1:B:1695:PRO:HG3	1.89	0.55
1:B:1783:PRO:HB3	1:B:1786:ILE:HD12	1.88	0.55
1:B:4487:ALA:O	1:B:4491:LYS:HB2	2.07	0.55
1:C:300:VAL:O	1:C:420:ARG:NH2	2.40	0.55
1:C:2213:LYS:HG2	1:C:2254:LEU:HD11	1.89	0.55
1:D:169:ARG:NH2	1:D:179:ASP:OD1	2.39	0.55
1:A:185:SER:OG	1:A:186:VAL:N	2.39	0.55
1:B:1922:ARG:NH1	1:B:2037:VAL:O	2.39	0.55
1:C:1922:ARG:NH1	1:C:2037:VAL:O	2.39	0.55
1:C:4136:ARG:NH2	1:C:4150:TYR:OH	2.40	0.55
1:C:4487:ALA:O	1:C:4491:LYS:HB2	2.07	0.55
1:D:1645:THR:HG22	1:D:1695:PRO:HG3	1.89	0.55
1:A:228:LEU:HB3	1:A:289:ILE:HB	1.89	0.55
1:A:2255:ALA:HA	1:A:2258:LEU:HD23	1.89	0.55
1:A:2715:PRO:HD2	1:A:2718:LEU:HD12	1.88	0.55
1:A:4136:ARG:NH2	1:A:4150:TYR:OH	2.40	0.55
1:A:4184:LYS:CA	1:D:4904:HIS:NE2	2.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:563:GLU:HG2	1:B:600:LEU:HD13	1.89	0.55
1:C:249:SER:O	1:C:257:ARG:NH2	2.39	0.55
1:C:1573:SER:HB3	1:C:1582:CYS:HA	1.89	0.55
1:C:4957:ASP:OD1	1:C:4957:ASP:N	2.39	0.55
1:D:1226:TYR:HD1	1:D:1229:ILE:HD12	1.71	0.55
1:D:1300:MET:HB2	1:D:1545:ALA:HB3	1.89	0.55
1:D:2255:ALA:HA	1:D:2258:LEU:HD23	1.89	0.55
1:A:288:HIS:ND1	1:A:349:MET:O	2.39	0.55
1:A:878:LEU:HD23	1:A:881:ILE:HD13	1.88	0.55
1:A:1242:ASN:HB3	1:A:1807:ARG:HB2	1.89	0.55
1:B:3842:ARG:NH1	1:B:3845:GLN:OE1	2.40	0.55
1:B:4142:SER:O	1:B:4144:LYS:NZ	2.38	0.55
1:B:4833:GLU:HB3	1:B:4844:ARG:NH2	2.19	0.55
1:C:646:THR:HG23	1:C:1684:GLN:HE22	1.70	0.55
1:D:4141:GLY:N	1:D:4147:GLU:OE1	2.40	0.55
1:D:4616:LEU:HD12	1:D:4622:PRO:HG3	1.88	0.55
1:A:394:HIS:HD2	1:A:397:GLY:H	1.55	0.55
1:A:682:THR:H	1:A:751:THR:HG22	1.72	0.55
1:A:986:ILE:HD12	1:A:1059:GLY:HA2	1.88	0.55
1:A:1602:GLN:HB3	1:A:1604:LEU:HD12	1.89	0.55
1:A:4142:SER:O	1:A:4144:LYS:NZ	2.38	0.55
1:A:4178:VAL:HG11	1:A:4881:VAL:HA	1.89	0.55
1:A:4759:SER:HA	1:A:4762:THR:HG22	1.89	0.55
1:B:1573:SER:HB3	1:B:1582:CYS:HA	1.89	0.55
1:B:2213:LYS:HG2	1:B:2254:LEU:HD11	1.89	0.55
1:C:4820:VAL:C	1:C:4824:ALA:HB2	2.27	0.55
1:D:394:HIS:HD2	1:D:397:GLY:H	1.55	0.55
1:D:682:THR:H	1:D:751:THR:HG22	1.72	0.55
1:D:3842:ARG:NH1	1:D:3845:GLN:OE1	2.40	0.55
1:A:169:ARG:NH2	1:A:179:ASP:OD1	2.39	0.55
1:A:246:THR:N	1:A:261:HIS:O	2.32	0.55
1:A:2193:MET:HA	1:A:2196:ASN:HD22	1.71	0.55
1:A:3926:GLN:HG3	1:A:4936:GLY:H	1.72	0.55
1:B:228:LEU:HB3	1:B:289:ILE:HB	1.89	0.55
1:B:682:THR:H	1:B:751:THR:HG22	1.72	0.55
1:C:243:GLU:HA	1:C:264:GLY:HA2	1.89	0.55
1:C:1117:TRP:HB3	1:C:1201:PHE:HB3	1.89	0.55
1:C:1242:ASN:HB3	1:C:1807:ARG:HB2	1.89	0.55
1:C:4759:SER:HA	1:C:4762:THR:HG22	1.89	0.55
1:D:563:GLU:HG2	1:D:600:LEU:HD13	1.89	0.55
1:D:3727:TYR:O	1:D:3731:ARG:CB	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3926:GLN:HG3	1:D:4936:GLY:H	1.72	0.55
1:A:3806:LEU:O	1:A:3810:GLU:N	2.37	0.54
1:A:3925:ILE:HD11	1:A:3936:LEU:HD13	1.89	0.54
1:A:3959:LEU:HD23	1:A:3965:GLN:HB3	1.89	0.54
1:B:1522:ALA:N	1:B:1525:LYS:O	2.39	0.54
1:B:3727:TYR:O	1:B:3731:ARG:CB	2.55	0.54
1:B:4178:VAL:HG11	1:B:4881:VAL:HA	1.89	0.54
1:C:3911:ILE:HG23	1:C:3975:LEU:HD22	1.89	0.54
1:C:4052:ALA:O	1:C:4056:HIS:ND1	2.40	0.54
1:D:3911:ILE:HG23	1:D:3975:LEU:HD22	1.90	0.54
1:D:4487:ALA:O	1:D:4491:LYS:HB2	2.07	0.54
1:A:2059:LEU:HA	1:A:2062:LEU:HG	1.89	0.54
1:A:2213:LYS:HG2	1:A:2254:LEU:HD11	1.89	0.54
1:B:2255:ALA:HA	1:B:2258:LEU:HD23	1.89	0.54
1:C:2059:LEU:HA	1:C:2062:LEU:HG	1.90	0.54
1:C:3925:ILE:HD11	1:C:3936:LEU:HD13	1.89	0.54
1:D:300:VAL:O	1:D:420:ARG:NH2	2.40	0.54
1:D:1144:ARG:N	1:D:1150:GLU:O	2.35	0.54
1:D:2193:MET:HA	1:D:2196:ASN:HD22	1.70	0.54
1:D:4052:ALA:O	1:D:4056:HIS:ND1	2.40	0.54
1:A:3727:TYR:O	1:A:3731:ARG:CB	2.55	0.54
1:A:3842:ARG:NH1	1:A:3845:GLN:OE1	2.40	0.54
1:B:1300:MET:HB2	1:B:1545:ALA:HB3	1.89	0.54
1:C:682:THR:H	1:C:751:THR:HG22	1.72	0.54
1:C:1602:GLN:HB3	1:C:1604:LEU:HD12	1.89	0.54
1:C:4178:VAL:HG11	1:C:4881:VAL:HA	1.89	0.54
1:D:1602:GLN:HB3	1:D:1604:LEU:HD12	1.89	0.54
1:A:480:ARG:NH2	1:A:3679:GLU:OE2	2.41	0.54
1:A:1300:MET:HB2	1:A:1545:ALA:HB3	1.89	0.54
1:B:2059:LEU:HA	1:B:2062:LEU:HG	1.90	0.54
1:B:3696:MET:O	1:B:3699:SER:OG	2.26	0.54
1:B:4717:ASP:HB3	1:B:4720:PHE:HB3	1.88	0.54
1:C:228:LEU:HB3	1:C:289:ILE:HB	1.89	0.54
1:C:246:THR:N	1:C:261:HIS:O	2.33	0.54
1:C:1783:PRO:HB3	1:C:1786:ILE:HD12	1.88	0.54
1:C:2255:ALA:HA	1:C:2258:LEU:HD23	1.89	0.54
1:D:1132:GLU:HB3	1:D:1147:GLN:HE21	1.73	0.54
1:D:1999:ASP:O	1:D:2003:ASP:N	2.40	0.54
1:D:2026:ILE:HG23	1:D:2030:LEU:HD12	1.87	0.54
1:D:3925:ILE:HD11	1:D:3936:LEU:HD13	1.89	0.54
1:D:4178:VAL:HG11	1:D:4881:VAL:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:GLN:HG3	1:A:152:ASP:H	1.72	0.54
1:A:1117:TRP:HB3	1:A:1201:PHE:HB3	1.89	0.54
1:B:150:GLN:HG3	1:B:152:ASP:H	1.72	0.54
1:B:1999:ASP:O	1:B:2003:ASP:N	2.40	0.54
1:B:3729:GLN:O	1:B:3733:HIS:ND1	2.32	0.54
1:B:4136:ARG:NH2	1:B:4150:TYR:OH	2.40	0.54
1:C:1611:ILE:O	1:C:1620:GLN:N	2.38	0.54
1:C:1843:LEU:O	1:C:1847:GLU:N	2.40	0.54
1:C:1999:ASP:O	1:C:2003:ASP:N	2.40	0.54
1:A:243:GLU:HA	1:A:264:GLY:HA2	1.89	0.54
1:A:563:GLU:HG2	1:A:600:LEU:HD13	1.89	0.54
1:A:1132:GLU:HB3	1:A:1147:GLN:HE21	1.73	0.54
1:A:1645:THR:HG22	1:A:1695:PRO:HG3	1.89	0.54
1:A:3911:ILE:HG23	1:A:3975:LEU:HD22	1.89	0.54
1:A:4849:ILE:HG22	1:D:4822:VAL:CB	2.37	0.54
1:B:243:GLU:HA	1:B:264:GLY:HA2	1.89	0.54
1:B:2196:ASN:OD1	1:B:2199:ARG:NH1	2.41	0.54
1:B:4616:LEU:HD12	1:B:4622:PRO:HG3	1.88	0.54
1:C:150:GLN:HG3	1:C:152:ASP:H	1.72	0.54
1:C:563:GLU:HG2	1:C:600:LEU:HD13	1.89	0.54
1:C:4833:GLU:O	1:C:4844:ARG:NH2	2.41	0.54
1:D:243:GLU:HA	1:D:264:GLY:HA2	1.89	0.54
1:D:2304:ARG:HG3	1:D:2402:ARG:HG3	1.90	0.54
1:A:375:GLN:HE21	1:A:392:ILE:HD13	1.73	0.54
1:B:169:ARG:NH2	1:B:179:ASP:OD1	2.39	0.54
1:B:375:GLN:HE21	1:B:392:ILE:HD13	1.73	0.54
1:B:1611:ILE:O	1:B:1620:GLN:N	2.38	0.54
1:B:2304:ARG:HG3	1:B:2402:ARG:HG3	1.90	0.54
1:B:3925:ILE:HD11	1:B:3936:LEU:HD13	1.89	0.54
1:B:4849:ILE:CG2	1:C:4822:VAL:CB	2.86	0.54
1:C:1726:ILE:HD11	1:C:2121:LEU:HD11	1.90	0.54
1:D:536:LEU:HG	1:D:540:LEU:HD13	1.90	0.54
1:D:986:ILE:HD12	1:D:1059:GLY:HA2	1.88	0.54
1:A:43:GLY:H	1:A:45:ARG:HH12	1.56	0.54
1:B:288:HIS:ND1	1:B:349:MET:O	2.39	0.54
1:B:536:LEU:HG	1:B:540:LEU:HD13	1.90	0.54
1:B:1132:GLU:HB3	1:B:1147:GLN:HE21	1.73	0.54
1:B:1242:ASN:HB3	1:B:1807:ARG:HB2	1.89	0.54
1:B:3911:ILE:HG23	1:B:3975:LEU:HD22	1.89	0.54
1:C:43:GLY:H	1:C:45:ARG:HH12	1.56	0.54
1:D:1726:ILE:HD11	1:D:2121:LEU:HD11	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3696:MET:O	1:D:3699:SER:OG	2.26	0.54
1:D:3806:LEU:O	1:D:3810:GLU:N	2.37	0.54
1:D:3917:VAL:O	1:D:3920:THR:OG1	2.21	0.54
1:D:3959:LEU:HD23	1:D:3965:GLN:HB3	1.89	0.54
1:A:4616:LEU:HD12	1:A:4622:PRO:HG3	1.88	0.54
1:B:1117:TRP:HB3	1:B:1201:PHE:HB3	1.89	0.54
1:B:3748:SER:O	1:B:3793:SER:OG	2.25	0.54
1:B:4959:PHE:O	1:B:4962:GLN:NE2	2.35	0.54
1:C:1226:TYR:HD1	1:C:1229:ILE:HD12	1.71	0.54
1:D:150:GLN:HG3	1:D:152:ASP:H	1.72	0.54
1:D:1228:THR:HA	1:D:1232:LEU:HD12	1.90	0.54
1:D:1242:ASN:HB3	1:D:1807:ARG:HB2	1.89	0.54
1:D:1783:PRO:HB3	1:D:1786:ILE:HD12	1.88	0.54
1:A:536:LEU:HG	1:A:540:LEU:HD13	1.90	0.54
1:A:4640:SER:O	1:A:4643:ASN:ND2	2.41	0.54
1:A:4924:MET:O	1:A:4928:ASN:N	2.36	0.54
1:B:37:LEU:HD11	1:B:47:CYS:HB3	1.88	0.54
1:B:4141:GLY:N	1:B:4147:GLU:OE1	2.40	0.54
1:B:4594:LEU:HG	1:B:4595:LYS:HG3	1.90	0.54
1:B:4822:VAL:CB	1:D:4849:ILE:CG2	2.80	0.54
1:C:1300:MET:HB2	1:C:1545:ALA:HB3	1.89	0.54
1:C:3983:LEU:O	1:C:3987:LEU:HB2	2.08	0.54
1:C:4783:THR:HG21	1:C:4817:HIS:HB2	1.90	0.54
1:C:4813:CYS:O	1:C:4817:HIS:HB2	2.08	0.54
1:D:150:GLN:NE2	1:D:152:ASP:O	2.41	0.54
1:D:480:ARG:NH2	1:D:3679:GLU:OE2	2.41	0.54
1:D:1300:MET:N	1:D:1545:ALA:O	2.40	0.54
1:D:1589:GLN:NE2	1:D:1634:GLU:OE1	2.41	0.54
1:A:1226:TYR:HD1	1:A:1229:ILE:HD12	1.71	0.53
1:A:1999:ASP:O	1:A:2003:ASP:N	2.40	0.53
1:A:4141:GLY:N	1:A:4147:GLU:OE1	2.40	0.53
1:A:4519:LEU:HB2	1:C:4814:TYR:CE2	2.43	0.53
1:B:43:GLY:H	1:B:45:ARG:HH12	1.56	0.53
1:C:1119:ARG:NH2	1:C:1196:ASP:O	2.42	0.53
1:C:4141:GLY:N	1:C:4147:GLU:OE1	2.40	0.53
1:D:2196:ASN:OD1	1:D:2199:ARG:NH1	2.41	0.53
1:D:4558:VAL:O	1:D:4558:VAL:HG13	2.07	0.53
1:A:295:PHE:N	1:A:329:PHE:O	2.40	0.53
1:A:694:ARG:NH1	1:A:716:ASN:O	2.41	0.53
1:A:2304:ARG:HG3	1:A:2402:ARG:HG3	1.90	0.53
1:B:150:GLN:NE2	1:B:152:ASP:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:394:HIS:HD2	1:B:397:GLY:H	1.55	0.53
1:B:480:ARG:NH2	1:B:3679:GLU:OE2	2.41	0.53
1:B:1098:ALA:O	1:B:1101:TRP:NE1	2.38	0.53
1:B:2832:VAL:O	1:B:2895:LYS:NZ	2.40	0.53
1:B:4085:VAL:O	1:B:4089:HIS:N	2.36	0.53
1:C:295:PHE:N	1:C:329:PHE:O	2.39	0.53
1:C:1228:THR:HA	1:C:1232:LEU:HD12	1.90	0.53
1:C:1288:LYS:H	1:C:1555:PHE:H	1.57	0.53
1:C:3696:MET:O	1:C:3699:SER:OG	2.26	0.53
1:D:694:ARG:NH1	1:D:716:ASN:O	2.41	0.53
1:D:1630:LEU:HD22	1:D:1641:ILE:HD13	1.90	0.53
1:D:2059:LEU:HA	1:D:2062:LEU:HG	1.90	0.53
1:D:4136:ARG:NH2	1:D:4150:TYR:OH	2.40	0.53
1:A:1119:ARG:NH2	1:A:1196:ASP:O	2.42	0.53
1:A:1288:LYS:H	1:A:1555:PHE:H	1.57	0.53
1:A:1589:GLN:NE2	1:A:1634:GLU:OE1	2.41	0.53
1:A:3696:MET:O	1:A:3699:SER:OG	2.26	0.53
1:B:4519:LEU:HD13	1:D:4811:LEU:HD12	1.88	0.53
1:C:1300:MET:N	1:C:1545:ALA:O	2.40	0.53
1:C:1589:GLN:NE2	1:C:1634:GLU:OE1	2.41	0.53
1:C:2304:ARG:HG3	1:C:2402:ARG:HG3	1.90	0.53
1:C:3748:SER:O	1:C:3793:SER:OG	2.25	0.53
1:D:43:GLY:H	1:D:45:ARG:HH12	1.56	0.53
1:D:375:GLN:N	1:D:390:LYS:O	2.40	0.53
1:D:1117:TRP:HB3	1:D:1201:PHE:HB3	1.89	0.53
1:D:1756:SER:O	1:D:1920:ARG:NH2	2.42	0.53
1:A:2011:GLU:O	1:A:2027:ARG:NH2	2.42	0.53
1:A:4092:ALA:HA	1:A:4095:ILE:HD12	1.90	0.53
1:A:4957:ASP:N	1:A:4957:ASP:OD1	2.39	0.53
1:B:1630:LEU:HD22	1:B:1641:ILE:HD13	1.90	0.53
1:C:150:GLN:NE2	1:C:152:ASP:O	2.41	0.53
1:C:252:HIS:HB3	1:C:255:GLU:HB2	1.90	0.53
1:C:536:LEU:HG	1:C:540:LEU:HD13	1.90	0.53
1:C:1132:GLU:HB3	1:C:1147:GLN:HE21	1.73	0.53
1:C:1143:GLN:HA	1:C:1151:HIS:HA	1.91	0.53
1:C:1645:THR:HG22	1:C:1695:PRO:HG3	1.89	0.53
1:C:1703:TYR:HD2	1:C:1820:PRO:HB2	1.74	0.53
1:C:1756:SER:O	1:C:1920:ARG:NH2	2.42	0.53
1:C:4594:LEU:HG	1:C:4595:LYS:HG3	1.90	0.53
1:D:436:LEU:HD21	1:D:444:THR:HG21	1.91	0.53
1:D:645:GLN:HB3	1:D:1631:HIS:HE1	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3729:GLN:O	1:D:3733:HIS:ND1	2.32	0.53
1:A:1761:MET:SD	1:A:1761:MET:N	2.70	0.53
1:C:694:ARG:NH1	1:C:716:ASN:O	2.41	0.53
1:C:1912:GLN:O	1:C:2091:ARG:NH1	2.37	0.53
1:C:3926:GLN:HG3	1:C:4936:GLY:H	1.72	0.53
1:D:246:THR:N	1:D:261:HIS:O	2.32	0.53
1:D:375:GLN:HE21	1:D:392:ILE:HD13	1.73	0.53
1:D:1288:LYS:H	1:D:1555:PHE:H	1.57	0.53
1:A:150:GLN:NE2	1:A:152:ASP:O	2.41	0.53
1:A:252:HIS:HB3	1:A:255:GLU:HB2	1.90	0.53
1:A:1570:LEU:O	1:A:1573:SER:OG	2.24	0.53
1:A:2196:ASN:OD1	1:A:2199:ARG:NH1	2.41	0.53
1:A:4517:ILE:C	1:A:4519:LEU:H	2.11	0.53
1:B:1602:GLN:HB3	1:B:1604:LEU:HD12	1.89	0.53
1:B:1756:SER:O	1:B:1920:ARG:NH2	2.42	0.53
1:B:3983:LEU:O	1:B:3987:LEU:HB2	2.08	0.53
1:C:375:GLN:HE21	1:C:392:ILE:HD13	1.73	0.53
1:C:394:HIS:HD2	1:C:397:GLY:H	1.55	0.53
1:C:1218:GLY:HA3	1:C:1240:ALA:H	1.73	0.53
1:C:2011:GLU:O	1:C:2027:ARG:NH2	2.42	0.53
1:D:1912:GLN:HE21	1:D:2088:LEU:HD23	1.74	0.53
1:D:4640:SER:O	1:D:4643:ASN:ND2	2.41	0.53
1:D:4722:TYR:HD2	1:D:4723:LEU:HD12	1.74	0.53
1:A:3983:LEU:O	1:A:3987:LEU:HB2	2.08	0.53
1:A:4187:MET:HA	1:A:4190:PHE:HB3	1.91	0.53
1:A:4869:ASP:HB3	1:D:4875:ARG:HH21	1.73	0.53
1:A:4930:ASP:O	1:A:4934:HIS:N	2.42	0.53
1:A:4960:ARG:NH1	1:A:4964:GLU:O	2.42	0.53
1:B:1143:GLN:HA	1:B:1151:HIS:HA	1.91	0.53
1:B:1218:GLY:HA3	1:B:1240:ALA:H	1.73	0.53
1:B:3917:VAL:O	1:B:3920:THR:OG1	2.21	0.53
1:B:4092:ALA:HA	1:B:4095:ILE:HD12	1.90	0.53
1:C:436:LEU:HD21	1:C:444:THR:HG21	1.91	0.53
1:C:1912:GLN:HE21	1:C:2088:LEU:HD23	1.74	0.53
1:C:2196:ASN:OD1	1:C:2199:ARG:NH1	2.41	0.53
1:C:3727:TYR:O	1:C:3731:ARG:CB	2.55	0.53
1:C:4722:TYR:HD2	1:C:4723:LEU:HD12	1.74	0.53
1:D:4838:ASP:HB3	1:D:4841:GLU:HB2	1.91	0.53
1:D:4960:ARG:NH1	1:D:4964:GLU:O	2.42	0.53
1:A:436:LEU:HD21	1:A:444:THR:HG21	1.91	0.53
1:A:2857:LYS:HE3	1:A:2861:LEU:HD11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4722:TYR:HD2	1:A:4723:LEU:HD12	1.74	0.53
1:B:436:LEU:HD21	1:B:444:THR:HG21	1.91	0.53
1:B:1228:THR:HA	1:B:1232:LEU:HD12	1.90	0.53
1:B:2011:GLU:O	1:B:2027:ARG:NH2	2.42	0.53
1:C:480:ARG:NH2	1:C:3679:GLU:OE2	2.41	0.53
1:C:645:GLN:HB3	1:C:1631:HIS:HE1	1.74	0.53
1:C:4959:PHE:O	1:C:4962:GLN:NE2	2.35	0.53
1:D:681:HIS:HB2	1:D:799:LYS:HG2	1.91	0.53
1:D:4187:MET:HA	1:D:4190:PHE:HB3	1.91	0.53
1:A:49:LEU:HD12	1:A:201:LEU:HB3	1.90	0.53
1:A:238:HIS:HA	1:A:403:LEU:HD13	1.91	0.53
1:A:4774:LEU:HD13	1:D:4754:LEU:HD13	1.91	0.53
1:B:1154:ARG:HH22	1:B:1180:GLU:HB2	1.74	0.53
1:B:2224:GLU:O	1:B:2269:TYR:OH	2.27	0.53
1:B:4516:PHE:O	1:B:4520:PHE:CE2	2.62	0.53
1:B:4640:SER:O	1:B:4643:ASN:ND2	2.41	0.53
1:C:4898:TYR:O	1:C:4901:THR:OG1	2.23	0.53
1:D:49:LEU:HD12	1:D:201:LEU:HB3	1.90	0.53
1:D:252:HIS:HB3	1:D:255:GLU:HB2	1.90	0.53
1:D:957:ALA:H	1:D:1060:TYR:HA	1.74	0.53
1:D:1611:ILE:O	1:D:1620:GLN:N	2.38	0.53
1:A:645:GLN:HB3	1:A:1631:HIS:HE1	1.74	0.53
1:A:4904:HIS:NE2	1:C:4184:LYS:CA	2.72	0.53
1:B:238:HIS:HA	1:B:403:LEU:HD13	1.91	0.53
1:B:252:HIS:HB3	1:B:255:GLU:HB2	1.90	0.53
1:B:957:ALA:H	1:B:1060:TYR:HA	1.74	0.53
1:B:1119:ARG:NH2	1:B:1196:ASP:O	2.42	0.53
1:B:2857:LYS:HE3	1:B:2861:LEU:HD11	1.91	0.53
1:B:4722:TYR:HD2	1:B:4723:LEU:HD12	1.74	0.53
1:B:4759:SER:HA	1:B:4762:THR:HG22	1.89	0.53
1:C:2857:LYS:HE3	1:C:2861:LEU:HD11	1.91	0.53
1:D:2011:GLU:O	1:D:2027:ARG:NH2	2.42	0.53
1:D:4759:SER:HA	1:D:4762:THR:HG22	1.89	0.53
1:D:4807:CYS:SG	1:D:4812:THR:OG1	2.59	0.53
1:D:4930:ASP:O	1:D:4934:HIS:N	2.42	0.53
1:A:1143:GLN:HA	1:A:1151:HIS:HA	1.91	0.52
1:A:1218:GLY:HA3	1:A:1240:ALA:H	1.73	0.52
1:A:3728:GLN:O	1:A:3732:LEU:N	2.42	0.52
1:B:1288:LYS:H	1:B:1555:PHE:H	1.56	0.52
1:B:1726:ILE:HD11	1:B:2121:LEU:HD11	1.90	0.52
1:B:1912:GLN:O	1:B:2091:ARG:NH1	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3956:GLN:HA	1:B:3959:LEU:HB2	1.91	0.52
1:B:4838:ASP:HB3	1:B:4841:GLU:HB2	1.91	0.52
1:C:49:LEU:HD12	1:C:201:LEU:HB3	1.90	0.52
1:C:3956:GLN:HA	1:C:3959:LEU:HB2	1.91	0.52
1:D:1703:TYR:HD2	1:D:1820:PRO:HB2	1.74	0.52
1:D:4936:GLY:O	1:D:4940:TYR:CB	2.58	0.52
1:A:1154:ARG:HH22	1:A:1180:GLU:HB2	1.74	0.52
1:A:1611:ILE:O	1:A:1620:GLN:N	2.38	0.52
1:A:1703:TYR:HD2	1:A:1820:PRO:HB2	1.74	0.52
1:A:4594:LEU:HG	1:A:4595:LYS:HG3	1.90	0.52
1:B:49:LEU:HD12	1:B:201:LEU:HB3	1.90	0.52
1:B:1703:TYR:HD2	1:B:1820:PRO:HB2	1.74	0.52
1:C:3890:TYR:O	1:C:3894:SER:HB3	2.09	0.52
1:C:4640:SER:O	1:C:4643:ASN:ND2	2.41	0.52
1:D:123:HIS:N	1:D:128:MET:O	2.34	0.52
1:D:1143:GLN:HA	1:D:1151:HIS:HA	1.91	0.52
1:A:1726:ILE:HD11	1:A:2121:LEU:HD11	1.90	0.52
1:D:1108:VAL:HG12	1:D:1109:THR:HG23	1.92	0.52
1:D:1119:ARG:NH2	1:D:1196:ASP:O	2.42	0.52
1:D:1218:GLY:HA3	1:D:1240:ALA:H	1.73	0.52
1:D:2832:VAL:O	1:D:2895:LYS:NZ	2.40	0.52
1:D:2857:LYS:HE3	1:D:2861:LEU:HD11	1.91	0.52
1:D:4092:ALA:HA	1:D:4095:ILE:HD12	1.90	0.52
1:A:957:ALA:H	1:A:1060:TYR:HA	1.74	0.52
1:A:1257:GLN:O	1:A:1596:TRP:N	2.36	0.52
1:A:1630:LEU:HD22	1:A:1641:ILE:HD13	1.90	0.52
1:A:1756:SER:O	1:A:1920:ARG:NH2	2.42	0.52
1:B:694:ARG:NH1	1:B:716:ASN:O	2.41	0.52
1:B:1108:VAL:HG12	1:B:1109:THR:HG23	1.92	0.52
1:B:1589:GLN:NE2	1:B:1634:GLU:OE1	2.41	0.52
1:B:4960:ARG:NH1	1:B:4964:GLU:O	2.42	0.52
1:C:695:VAL:HG22	1:C:792:VAL:HG13	1.91	0.52
1:C:957:ALA:H	1:C:1060:TYR:HA	1.74	0.52
1:C:1154:ARG:HH22	1:C:1180:GLU:HB2	1.74	0.52
1:C:1292:SER:OG	1:C:1296:SER:O	2.28	0.52
1:D:238:HIS:N	1:D:243:GLU:O	2.43	0.52
1:D:725:TYR:HA	1:D:732:LEU:HA	1.92	0.52
1:D:1184:ASP:OD2	1:D:1188:SER:OG	2.27	0.52
1:D:2425:ARG:NH2	1:D:2476:VAL:O	2.43	0.52
1:D:4594:LEU:HG	1:D:4595:LYS:HG3	1.90	0.52
1:D:4924:MET:O	1:D:4928:ASN:N	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:681:HIS:HB2	1:B:799:LYS:HG2	1.91	0.52
1:B:1184:ASP:OD2	1:B:1188:SER:OG	2.27	0.52
1:C:2425:ARG:NH2	1:C:2476:VAL:O	2.43	0.52
1:C:4138:GLU:HA	1:C:4148:ARG:HA	1.91	0.52
1:C:4960:ARG:NH1	1:C:4964:GLU:O	2.42	0.52
1:D:1570:LEU:O	1:D:1573:SER:OG	2.24	0.52
1:A:2090:HIS:O	1:A:2094:ASP:N	2.43	0.52
1:A:2425:ARG:NH2	1:A:2476:VAL:O	2.43	0.52
1:B:38:ALA:HB2	1:B:50:GLU:HB2	1.92	0.52
1:D:3983:LEU:O	1:D:3987:LEU:HB2	2.08	0.52
1:D:4814:TYR:O	1:D:4818:MET:HB2	2.09	0.52
1:A:1108:VAL:HG12	1:A:1109:THR:HG23	1.92	0.52
1:A:1300:MET:N	1:A:1545:ALA:O	2.40	0.52
1:A:3956:GLN:HA	1:A:3959:LEU:HB2	1.91	0.52
1:B:725:TYR:HA	1:B:732:LEU:HA	1.92	0.52
1:B:733:TRP:HB3	1:B:736:CYS:HA	1.92	0.52
1:B:2090:HIS:O	1:B:2094:ASP:N	2.43	0.52
1:B:2425:ARG:NH2	1:B:2476:VAL:O	2.43	0.52
1:C:4092:ALA:HA	1:C:4095:ILE:HD12	1.90	0.52
1:D:3956:GLN:HA	1:D:3959:LEU:HB2	1.91	0.52
1:A:1470:GLY:HA2	1:A:1474:GLY:HA2	1.92	0.52
1:A:3919:ASN:O	1:A:3922:THR:OG1	2.27	0.52
1:A:4807:CYS:SG	1:A:4812:THR:OG1	2.59	0.52
1:A:4838:ASP:HB3	1:A:4841:GLU:HB2	1.91	0.52
1:C:38:ALA:HB2	1:C:50:GLU:HB2	1.92	0.52
1:C:681:HIS:HB2	1:C:799:LYS:HG2	1.91	0.52
1:D:238:HIS:HA	1:D:403:LEU:HD13	1.91	0.52
1:D:695:VAL:HG22	1:D:792:VAL:HG13	1.91	0.52
1:D:1154:ARG:HH22	1:D:1180:GLU:HB2	1.74	0.52
1:D:2090:HIS:O	1:D:2094:ASP:N	2.43	0.52
1:A:1912:GLN:HE21	1:A:2088:LEU:HD23	1.74	0.52
1:A:3890:TYR:O	1:A:3894:SER:HB3	2.09	0.52
1:B:1172:THR:HB	1:B:1190:LEU:HD22	1.92	0.52
1:B:3890:TYR:O	1:B:3894:SER:HB3	2.09	0.52
1:B:4187:MET:HA	1:B:4190:PHE:HB3	1.91	0.52
1:B:4936:GLY:O	1:B:4940:TYR:CB	2.58	0.52
1:C:1108:VAL:HG12	1:C:1109:THR:HG23	1.92	0.52
1:D:244:CYS:O	1:D:263:GLU:N	2.40	0.52
1:D:633:CYS:O	1:D:637:LEU:N	2.41	0.52
1:A:280:LEU:HD23	1:A:296:ARG:HH11	1.75	0.52
1:A:733:TRP:HB3	1:A:736:CYS:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1228:THR:HA	1:A:1232:LEU:HD12	1.90	0.52
1:A:3729:GLN:O	1:A:3733:HIS:ND1	2.32	0.52
1:B:695:VAL:HG22	1:B:792:VAL:HG13	1.91	0.52
1:B:1292:SER:OG	1:B:1296:SER:O	2.28	0.52
1:B:4862:ILE:O	1:B:4866:LEU:HB2	2.10	0.52
1:C:1304:LEU:HG	1:C:1591:LEU:H	1.75	0.52
1:C:2090:HIS:O	1:C:2094:ASP:N	2.43	0.52
1:C:3692:TYR:HA	1:C:3695:ILE:HD12	1.92	0.52
1:D:1459:LEU:HD13	1:D:1465:VAL:HG23	1.92	0.52
1:D:3692:TYR:HA	1:D:3695:ILE:HD12	1.92	0.52
1:D:4138:GLU:HA	1:D:4148:ARG:HA	1.91	0.52
1:A:2027:ARG:HH12	1:A:2031:LEU:HB2	1.75	0.51
1:B:280:LEU:HD23	1:B:296:ARG:HH11	1.75	0.51
1:B:1570:LEU:O	1:B:1573:SER:OG	2.24	0.51
1:B:3692:TYR:HA	1:B:3695:ILE:HD12	1.92	0.51
1:B:4930:ASP:O	1:B:4934:HIS:N	2.42	0.51
1:C:25:THR:HG22	1:C:34:LYS:HG2	1.92	0.51
1:C:238:HIS:HA	1:C:403:LEU:HD13	1.91	0.51
1:C:559:ILE:HG21	1:C:593:HIS:HD1	1.75	0.51
1:C:733:TRP:HB3	1:C:736:CYS:HA	1.92	0.51
1:C:4085:VAL:O	1:C:4089:HIS:N	2.36	0.51
1:C:4930:ASP:O	1:C:4934:HIS:N	2.42	0.51
1:D:262:TYR:HB2	1:D:389:ARG:HB3	1.92	0.51
1:A:38:ALA:HB2	1:A:50:GLU:HB2	1.92	0.51
1:A:681:HIS:HB2	1:A:799:LYS:HG2	1.91	0.51
1:A:725:TYR:HA	1:A:732:LEU:HA	1.92	0.51
1:A:1459:LEU:HD13	1:A:1465:VAL:HG23	1.92	0.51
1:A:1843:LEU:O	1:A:1847:GLU:N	2.40	0.51
1:A:3692:TYR:HA	1:A:3695:ILE:HD12	1.92	0.51
1:A:3743:GLN:NE2	1:A:3781:TYR:OH	2.35	0.51
1:A:4936:GLY:O	1:A:4940:TYR:CB	2.57	0.51
1:B:645:GLN:HB3	1:B:1631:HIS:HE1	1.74	0.51
1:B:1912:GLN:HE21	1:B:2088:LEU:HD23	1.74	0.51
1:B:4184:LYS:CA	1:C:4904:HIS:NE2	2.73	0.51
1:B:4849:ILE:CG2	1:C:4822:VAL:HB	2.40	0.51
1:D:280:LEU:HD23	1:D:296:ARG:HH11	1.75	0.51
1:A:459:LEU:HA	1:A:462:TYR:HB3	1.92	0.51
1:A:4862:ILE:O	1:A:4866:LEU:HB2	2.10	0.51
1:B:1304:LEU:HG	1:B:1591:LEU:H	1.75	0.51
1:C:280:LEU:HD23	1:C:296:ARG:HH11	1.75	0.51
1:C:1184:ASP:OD2	1:C:1188:SER:OG	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1630:LEU:HD22	1:C:1641:ILE:HD13	1.90	0.51
1:C:2297:GLU:HB3	1:C:2392:PHE:HD1	1.75	0.51
1:C:4487:ALA:O	1:C:4491:LYS:CB	2.59	0.51
1:D:38:ALA:HB2	1:D:50:GLU:HB2	1.92	0.51
1:D:4487:ALA:O	1:D:4491:LYS:CB	2.59	0.51
1:A:2224:GLU:O	1:A:2269:TYR:OH	2.27	0.51
1:A:2832:VAL:O	1:A:2895:LYS:NZ	2.40	0.51
1:B:1470:GLY:HA2	1:B:1474:GLY:HA2	1.92	0.51
1:C:1209:VAL:N	1:C:1211:GLN:OE1	2.44	0.51
1:C:3917:VAL:O	1:C:3920:THR:OG1	2.21	0.51
1:C:4187:MET:HA	1:C:4190:PHE:HB3	1.91	0.51
1:C:4838:ASP:HB3	1:C:4841:GLU:HB2	1.91	0.51
1:C:4924:MET:O	1:C:4928:ASN:N	2.36	0.51
1:D:2297:GLU:HB3	1:D:2392:PHE:HD1	1.75	0.51
1:D:4763:HIS:HE1	1:D:4870:ALA:HB1	1.76	0.51
1:B:2297:GLU:HB3	1:B:2392:PHE:HD1	1.75	0.51
1:C:725:TYR:HA	1:C:732:LEU:HA	1.92	0.51
1:C:4936:GLY:O	1:C:4940:TYR:CB	2.58	0.51
1:D:185:SER:HB3	1:D:189:GLU:H	1.76	0.51
1:D:1304:LEU:HG	1:D:1591:LEU:H	1.76	0.51
1:D:3890:TYR:O	1:D:3894:SER:HB3	2.09	0.51
1:D:4862:ILE:O	1:D:4866:LEU:HB2	2.10	0.51
1:A:559:ILE:HG21	1:A:593:HIS:HD1	1.75	0.51
1:A:1304:LEU:HG	1:A:1591:LEU:H	1.75	0.51
1:A:2297:GLU:HB3	1:A:2392:PHE:HD1	1.75	0.51
1:B:185:SER:HB3	1:B:189:GLU:H	1.76	0.51
1:B:1459:LEU:HD13	1:B:1465:VAL:HG23	1.92	0.51
1:B:1642:LEU:HD23	1:B:1693:TYR:HB2	1.93	0.51
1:B:4016:LYS:O	1:B:4020:MET:HB2	2.11	0.51
1:B:4487:ALA:O	1:B:4491:LYS:CB	2.59	0.51
1:C:2027:ARG:HH12	1:C:2031:LEU:HB2	1.75	0.51
1:C:4561:VAL:HG12	1:C:4562:LEU:N	2.25	0.51
1:C:4862:ILE:O	1:C:4866:LEU:HB2	2.10	0.51
1:D:733:TRP:HB3	1:D:736:CYS:HA	1.92	0.51
1:D:1172:THR:HB	1:D:1190:LEU:HD22	1.92	0.51
1:A:25:THR:HG22	1:A:34:LYS:HG2	1.92	0.51
1:B:1738:LEU:HG	1:B:2037:VAL:HG22	1.92	0.51
1:B:4138:GLU:HA	1:B:4148:ARG:HA	1.91	0.51
1:B:4798:GLU:H	1:B:4802:THR:HG1	1.59	0.51
1:D:295:PHE:N	1:D:329:PHE:O	2.39	0.51
1:D:1470:GLY:HA2	1:D:1474:GLY:HA2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2224:GLU:O	1:D:2269:TYR:OH	2.27	0.51
1:A:238:HIS:N	1:A:243:GLU:O	2.43	0.51
1:A:375:GLN:N	1:A:390:LYS:O	2.40	0.51
1:A:1172:THR:HB	1:A:1190:LEU:HD22	1.92	0.51
1:A:1934:VAL:HG11	1:A:3618:VAL:HA	1.93	0.51
1:B:1570:LEU:HD13	1:B:1584:PRO:HD3	1.93	0.51
1:B:4763:HIS:HE1	1:B:4870:ALA:HB1	1.76	0.51
1:C:1642:LEU:HD23	1:C:1693:TYR:HB2	1.93	0.51
1:C:2103:LEU:HA	1:C:2106:THR:HG22	1.93	0.51
1:C:3893:TYR:O	1:C:3958:LYS:NZ	2.44	0.51
1:D:2027:ARG:HH12	1:D:2031:LEU:HB2	1.75	0.51
1:A:1184:ASP:OD2	1:A:1188:SER:OG	2.27	0.51
1:A:2149:ASP:O	1:A:2153:ASN:N	2.44	0.51
1:A:4733:GLY:HA3	1:A:4740:PHE:HD1	1.76	0.51
1:A:4763:HIS:HE1	1:A:4870:ALA:HB1	1.76	0.51
1:B:2198:CYS:HA	1:B:2201:LEU:HB2	1.93	0.51
1:B:3743:GLN:NE2	1:B:3781:TYR:OH	2.35	0.51
1:C:2149:ASP:O	1:C:2153:ASN:N	2.44	0.51
1:C:2436:VAL:HG22	1:C:2469:MET:HB3	1.93	0.51
1:D:131:CYS:N	1:D:148:GLY:O	2.43	0.51
1:D:1738:LEU:HG	1:D:2037:VAL:HG22	1.92	0.51
1:D:1934:VAL:HG11	1:D:3618:VAL:HA	1.93	0.51
1:A:262:TYR:HB2	1:A:389:ARG:HB3	1.92	0.51
1:A:432:GLY:HA3	1:A:447:LEU:HD12	1.93	0.51
1:A:717:GLY:O	1:A:736:CYS:N	2.36	0.51
1:A:3897:ASP:OD1	1:A:3958:LYS:NZ	2.40	0.51
1:A:4016:LYS:O	1:A:4020:MET:HB2	2.11	0.51
1:B:459:LEU:HA	1:B:462:TYR:HB3	1.92	0.51
1:B:559:ILE:HG21	1:B:593:HIS:HD1	1.75	0.51
1:B:4124:GLU:HA	1:B:4127:LEU:HD13	1.93	0.51
1:C:169:ARG:NH2	1:C:179:ASP:OD1	2.39	0.51
1:C:1470:GLY:HA2	1:C:1474:GLY:HA2	1.92	0.51
1:C:1738:LEU:HG	1:C:2037:VAL:HG22	1.92	0.51
1:D:1642:LEU:HD23	1:D:1693:TYR:HB2	1.93	0.51
1:D:2198:CYS:HA	1:D:2201:LEU:HB2	1.93	0.51
1:A:1718:ARG:NH2	1:A:1759:PRO:O	2.44	0.50
1:A:1792:ILE:HA	1:A:1795:LEU:HD12	1.93	0.50
1:A:4138:GLU:HA	1:A:4148:ARG:HA	1.91	0.50
1:B:238:HIS:N	1:B:243:GLU:O	2.43	0.50
1:B:295:PHE:N	1:B:329:PHE:O	2.39	0.50
1:B:1934:VAL:HG11	1:B:3618:VAL:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1128:LEU:HD13	1:C:1206:SER:HB2	1.92	0.50
1:C:3803:VAL:HG22	1:C:3878:TYR:HE1	1.76	0.50
1:C:4016:LYS:O	1:C:4020:MET:HB2	2.11	0.50
1:C:4733:GLY:HA3	1:C:4740:PHE:HD1	1.76	0.50
1:D:132:CYS:H	1:D:157:ALA:HB1	1.76	0.50
1:D:1209:VAL:N	1:D:1211:GLN:OE1	2.44	0.50
1:D:3893:TYR:O	1:D:3958:LYS:NZ	2.44	0.50
1:D:4124:GLU:HA	1:D:4127:LEU:HD13	1.93	0.50
1:A:1128:LEU:HD13	1:A:1206:SER:HB2	1.92	0.50
1:A:4487:ALA:O	1:A:4491:LYS:CB	2.59	0.50
1:A:4519:LEU:HD11	1:C:4811:LEU:HB2	1.88	0.50
1:B:897:LYS:HB3	1:B:902:TRP:HB2	1.94	0.50
1:B:2103:LEU:HA	1:B:2106:THR:HG22	1.93	0.50
1:B:2436:VAL:HG22	1:B:2469:MET:HB3	1.93	0.50
1:C:299:HIS:NE2	1:C:301:THR:OG1	2.41	0.50
1:C:432:GLY:HA3	1:C:447:LEU:HD12	1.93	0.50
1:C:897:LYS:HB3	1:C:902:TRP:HB2	1.94	0.50
1:C:940:LEU:HD22	1:C:950:VAL:HG21	1.94	0.50
1:C:1934:VAL:HG11	1:C:3618:VAL:HA	1.93	0.50
1:D:672:LYS:HA	1:D:760:ASP:HA	1.94	0.50
1:D:2149:ASP:O	1:D:2153:ASN:N	2.44	0.50
1:D:2553:VAL:O	1:D:2605:LYS:N	2.44	0.50
1:A:1738:LEU:HG	1:A:2037:VAL:HG22	1.92	0.50
1:A:3893:TYR:O	1:A:3958:LYS:NZ	2.44	0.50
1:B:132:CYS:H	1:B:157:ALA:HB1	1.76	0.50
1:B:262:TYR:HB2	1:B:389:ARG:HB3	1.92	0.50
1:B:1304:LEU:HD23	1:B:1306:MET:H	1.77	0.50
1:B:4813:CYS:SG	1:B:4817:HIS:HD2	2.34	0.50
1:B:4822:VAL:HG12	1:B:4822:VAL:O	2.12	0.50
1:C:459:LEU:HA	1:C:462:TYR:HB3	1.92	0.50
1:C:1111:GLY:HA3	1:C:1211:GLN:HE21	1.77	0.50
1:C:2224:GLU:O	1:C:2269:TYR:OH	2.27	0.50
1:D:1292:SER:OG	1:D:1296:SER:O	2.28	0.50
1:D:1570:LEU:HD13	1:D:1584:PRO:HD3	1.93	0.50
1:D:2436:VAL:HG22	1:D:2469:MET:HB3	1.93	0.50
1:D:4733:GLY:HA3	1:D:4740:PHE:HD1	1.76	0.50
1:A:695:VAL:HG22	1:A:792:VAL:HG13	1.91	0.50
1:A:2436:VAL:HG22	1:A:2469:MET:HB3	1.93	0.50
1:A:3733:HIS:NE2	1:A:3734:ASP:OD1	2.45	0.50
1:B:41:GLY:H	1:B:44:ASN:HB3	1.77	0.50
1:B:940:LEU:HD22	1:B:950:VAL:HG11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1209:VAL:N	1:B:1211:GLN:OE1	2.44	0.50
1:B:1761:MET:SD	1:B:1761:MET:N	2.70	0.50
1:B:4581:THR:HA	1:B:4730:SER:HB3	1.93	0.50
1:B:4822:VAL:HG11	1:D:4849:ILE:HG22	1.93	0.50
1:C:132:CYS:H	1:C:157:ALA:HB1	1.76	0.50
1:C:672:LYS:HA	1:C:760:ASP:HA	1.94	0.50
1:C:2024:LEU:HD23	1:C:2025:THR:H	1.76	0.50
1:C:2198:CYS:HA	1:C:2201:LEU:HB2	1.93	0.50
1:C:3728:GLN:O	1:C:3732:LEU:N	2.42	0.50
1:C:3743:GLN:NE2	1:C:3781:TYR:OH	2.35	0.50
1:D:897:LYS:HB3	1:D:902:TRP:HB2	1.94	0.50
1:A:1209:VAL:N	1:A:1211:GLN:OE1	2.44	0.50
1:A:1642:LEU:HD23	1:A:1693:TYR:HB2	1.93	0.50
1:A:4522:LYS:CG	1:A:4560:TYR:OH	2.60	0.50
1:B:679:VAL:HA	1:B:800:VAL:HG12	1.94	0.50
1:B:2149:ASP:O	1:B:2153:ASN:N	2.44	0.50
1:B:3685:GLU:OE1	1:B:3755:MET:N	2.43	0.50
1:C:41:GLY:H	1:C:44:ASN:HB3	1.77	0.50
1:C:1304:LEU:HD23	1:C:1306:MET:H	1.77	0.50
1:C:1459:LEU:HD13	1:C:1465:VAL:HG23	1.92	0.50
1:C:2553:VAL:O	1:C:2605:LYS:N	2.44	0.50
1:C:3733:HIS:NE2	1:C:3734:ASP:OD1	2.45	0.50
1:D:299:HIS:NE2	1:D:301:THR:OG1	2.41	0.50
1:D:559:ILE:HG21	1:D:593:HIS:HD1	1.75	0.50
1:D:4016:LYS:O	1:D:4020:MET:HB2	2.11	0.50
1:A:832:LEU:O	1:A:1614:ARG:NH1	2.45	0.50
1:A:1111:GLY:HA3	1:A:1211:GLN:HE21	1.77	0.50
1:A:1426:TYR:HB2	1:A:1574:GLU:HB2	1.94	0.50
1:A:3803:VAL:HG22	1:A:3878:TYR:HE1	1.76	0.50
1:B:672:LYS:HA	1:B:760:ASP:HA	1.94	0.50
1:B:2024:LEU:HD23	1:B:2025:THR:H	1.76	0.50
1:B:2558:LYS:O	1:B:2562:LEU:N	2.41	0.50
1:B:3803:VAL:HG22	1:B:3878:TYR:HE1	1.76	0.50
1:B:4171:ARG:HH12	1:B:4175:PHE:HB2	1.77	0.50
1:B:4733:GLY:HA3	1:B:4740:PHE:HD1	1.76	0.50
1:B:4898:TYR:O	1:B:4901:THR:OG1	2.23	0.50
1:C:4827:GLY:HA3	1:C:4852:PHE:CB	2.42	0.50
1:D:1912:GLN:O	1:D:2091:ARG:NH1	2.37	0.50
1:D:2103:LEU:HA	1:D:2106:THR:HG22	1.93	0.50
1:D:3811:ARG:O	1:D:3815:ALA:N	2.43	0.50
1:A:1837:GLU:O	1:A:1841:HIS:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4144:LYS:N	1:A:4147:GLU:OE2	2.45	0.50
1:A:4813:CYS:SG	1:A:4817:HIS:CD2	3.05	0.50
1:A:4834:ASP:N	1:A:4834:ASP:OD1	2.27	0.50
1:A:4875:ARG:HH21	1:C:4869:ASP:HB3	1.77	0.50
1:A:4892:CYS:HB2	1:A:4914:HIS:CD2	2.47	0.50
1:B:1444:GLY:N	1:B:1542:ALA:O	2.39	0.50
1:B:2027:ARG:HH12	1:B:2031:LEU:HB2	1.75	0.50
1:C:23:GLN:HA	1:C:36:CYS:HA	1.93	0.50
1:C:1172:THR:HB	1:C:1190:LEU:HD22	1.92	0.50
1:C:1426:TYR:HB2	1:C:1574:GLU:HB2	1.94	0.50
1:C:1469:LEU:N	1:C:1477:HIS:O	2.45	0.50
1:D:1843:LEU:O	1:D:1847:GLU:N	2.40	0.50
1:A:185:SER:HB3	1:A:189:GLU:H	1.76	0.50
1:B:1300:MET:N	1:B:1545:ALA:O	2.40	0.50
1:B:3893:TYR:O	1:B:3958:LYS:NZ	2.44	0.50
1:C:426:PHE:HA	1:C:429:PHE:HB3	1.94	0.50
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.94	0.50
1:D:25:THR:HG22	1:D:34:LYS:HG2	1.92	0.50
1:D:940:LEU:HD22	1:D:950:VAL:HG21	1.94	0.50
1:D:1111:GLY:HA3	1:D:1211:GLN:HE21	1.77	0.50
1:D:1469:LEU:N	1:D:1477:HIS:O	2.45	0.50
1:D:2558:LYS:O	1:D:2562:LEU:N	2.41	0.50
1:D:3741:VAL:HG13	1:D:3759:THR:HB	1.94	0.50
1:A:41:GLY:H	1:A:44:ASN:HB3	1.77	0.50
1:A:426:PHE:HA	1:A:429:PHE:HB3	1.94	0.50
1:A:2324:LEU:HD23	1:A:2327:ARG:HD2	1.94	0.50
1:A:3741:VAL:HG13	1:A:3759:THR:HB	1.94	0.50
1:B:3741:VAL:HG13	1:B:3759:THR:HB	1.94	0.50
1:C:262:TYR:HB2	1:C:389:ARG:HB3	1.92	0.50
1:C:1718:ARG:NH2	1:C:1759:PRO:O	2.44	0.50
1:C:3076:LEU:O	1:C:3080:GLN:N	2.45	0.50
1:C:3685:GLU:OE1	1:C:3755:MET:N	2.43	0.50
1:C:4581:THR:HA	1:C:4730:SER:HB3	1.93	0.50
1:D:591:GLU:HG3	1:D:635:ASN:HD21	1.77	0.50
1:D:832:LEU:O	1:D:1614:ARG:NH1	2.45	0.50
1:D:3813:ASN:OD1	1:D:3892:TYR:OH	2.30	0.50
1:D:4144:LYS:N	1:D:4147:GLU:OE2	2.45	0.50
1:A:23:GLN:HA	1:A:36:CYS:HA	1.93	0.49
1:A:2103:LEU:HA	1:A:2106:THR:HG22	1.93	0.49
1:A:4581:THR:HA	1:A:4730:SER:HB3	1.93	0.49
1:B:23:GLN:HA	1:B:36:CYS:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:244:CYS:O	1:B:263:GLU:N	2.40	0.49
1:B:832:LEU:O	1:B:1614:ARG:NH1	2.45	0.49
1:B:1792:ILE:HA	1:B:1795:LEU:HD12	1.93	0.49
1:B:4813:CYS:SG	1:B:4817:HIS:CD2	3.05	0.49
1:C:2033:LEU:HA	1:C:2036:LYS:HE3	1.94	0.49
1:C:2296:GLY:HA2	1:C:2299:TYR:HD2	1.76	0.49
1:C:3741:VAL:HG13	1:C:3759:THR:HB	1.94	0.49
1:C:3960:SER:OG	1:C:4070:CYS:SG	2.60	0.49
1:C:4832:ILE:CD1	1:C:4844:ARG:CD	2.88	0.49
1:C:4892:CYS:HB2	1:C:4914:HIS:CD2	2.47	0.49
1:D:23:GLN:HA	1:D:36:CYS:HA	1.93	0.49
1:D:432:GLY:HA3	1:D:447:LEU:HD12	1.93	0.49
1:D:459:LEU:HA	1:D:462:TYR:HB3	1.92	0.49
1:D:1792:ILE:HA	1:D:1795:LEU:HD12	1.93	0.49
1:D:2033:LEU:HA	1:D:2036:LYS:HE3	1.94	0.49
1:D:2296:GLY:HA2	1:D:2299:TYR:HD2	1.76	0.49
1:D:4155:GLU:OE2	1:D:4158:ARG:NH2	2.45	0.49
1:D:4520:PHE:HB3	1:D:4562:LEU:CD2	2.41	0.49
1:D:4581:THR:HA	1:D:4730:SER:HB3	1.93	0.49
1:A:25:THR:O	1:A:32:GLN:NE2	2.45	0.49
1:A:131:CYS:N	1:A:148:GLY:O	2.43	0.49
1:A:614:LEU:HD23	1:A:617:LEU:HD12	1.94	0.49
1:A:1304:LEU:HD23	1:A:1306:MET:H	1.77	0.49
1:A:1570:LEU:HD13	1:A:1584:PRO:HD3	1.93	0.49
1:A:2418:ILE:HA	1:A:2421:ARG:HB2	1.95	0.49
1:B:1128:LEU:HD13	1:B:1206:SER:HB2	1.92	0.49
1:B:4144:LYS:N	1:B:4147:GLU:OE2	2.45	0.49
1:B:4892:CYS:HB2	1:B:4914:HIS:CD2	2.47	0.49
1:B:4944:MET:O	1:B:4948:ARG:N	2.45	0.49
1:C:237:LEU:N	1:C:404:ASN:O	2.45	0.49
1:C:258:ARG:NH1	1:C:317:MET:SD	2.86	0.49
1:C:3813:ASN:OD1	1:C:3892:TYR:OH	2.30	0.49
1:D:41:GLY:H	1:D:44:ASN:HB3	1.77	0.49
1:D:1094:TYR:OH	1:D:1808:ASP:OD1	2.30	0.49
1:D:1304:LEU:HD23	1:D:1306:MET:H	1.77	0.49
1:D:3854:ASP:OD1	1:D:3854:ASP:N	2.46	0.49
1:D:4193:PHE:O	1:D:4197:THR:OG1	2.26	0.49
1:D:4892:CYS:HB2	1:D:4914:HIS:CD2	2.47	0.49
1:A:132:CYS:H	1:A:157:ALA:HB1	1.76	0.49
1:A:591:GLU:HG3	1:A:635:ASN:HD21	1.77	0.49
1:A:672:LYS:HA	1:A:760:ASP:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:897:LYS:HB3	1:A:902:TRP:HB2	1.94	0.49
1:A:4794:TYR:H	1:A:4806:LYS:HD3	1.77	0.49
1:A:4944:MET:O	1:A:4948:ARG:N	2.46	0.49
1:B:614:LEU:HD23	1:B:617:LEU:HD12	1.94	0.49
1:B:3919:ASN:O	1:B:3922:THR:OG1	2.27	0.49
1:B:4904:HIS:NE2	1:D:4184:LYS:CA	2.76	0.49
1:C:244:CYS:O	1:C:263:GLU:N	2.40	0.49
1:C:1570:LEU:HD13	1:C:1584:PRO:HD3	1.93	0.49
1:C:1792:ILE:HA	1:C:1795:LEU:HD12	1.93	0.49
1:C:3919:ASN:O	1:C:3922:THR:OG1	2.27	0.49
1:C:4124:GLU:HA	1:C:4127:LEU:HD13	1.93	0.49
1:D:57:ASN:HA	1:D:323:ASP:HA	1.95	0.49
1:D:4171:ARG:HH12	1:D:4175:PHE:HB2	1.77	0.49
1:D:4944:MET:O	1:D:4948:ARG:N	2.45	0.49
1:A:940:LEU:HD22	1:A:950:VAL:HG11	1.94	0.49
1:A:2296:GLY:HA2	1:A:2299:TYR:HD2	1.76	0.49
1:A:2553:VAL:O	1:A:2605:LYS:N	2.44	0.49
1:A:3076:LEU:O	1:A:3080:GLN:N	2.45	0.49
1:B:633:CYS:O	1:B:637:LEU:N	2.41	0.49
1:B:3733:HIS:NE2	1:B:3734:ASP:OD1	2.45	0.49
1:B:3742:LEU:HD11	1:B:3782:LEU:HD21	1.94	0.49
1:C:482:LEU:HA	1:C:485:ARG:HE	1.78	0.49
1:C:2418:ILE:HA	1:C:2421:ARG:HB2	1.95	0.49
1:C:4763:HIS:HE1	1:C:4870:ALA:HB1	1.76	0.49
1:D:258:ARG:NH1	1:D:317:MET:SD	2.86	0.49
1:A:3813:ASN:OD1	1:A:3892:TYR:OH	2.30	0.49
1:A:4832:ILE:CD1	1:A:4844:ARG:CD	2.89	0.49
1:B:432:GLY:HA3	1:B:447:LEU:HD12	1.93	0.49
1:B:510:SER:HA	1:B:517:VAL:HG11	1.95	0.49
1:B:1144:ARG:N	1:B:1150:GLU:O	2.35	0.49
1:B:2553:VAL:O	1:B:2605:LYS:N	2.44	0.49
1:B:3813:ASN:OD1	1:B:3892:TYR:OH	2.30	0.49
1:C:296:ARG:HA	1:C:328:ALA:HA	1.94	0.49
1:C:717:GLY:O	1:C:736:CYS:N	2.37	0.49
1:C:832:LEU:O	1:C:1614:ARG:NH1	2.45	0.49
1:C:3742:LEU:HD11	1:C:3782:LEU:HD21	1.94	0.49
1:C:4144:LYS:N	1:C:4147:GLU:OE2	2.44	0.49
1:C:4154:SER:OG	1:C:4156:SER:OG	2.30	0.49
1:D:237:LEU:N	1:D:404:ASN:O	2.45	0.49
1:D:1837:GLU:O	1:D:1841:HIS:N	2.45	0.49
1:A:118:ALA:HB1	1:A:159:TRP:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:258:ARG:NH1	1:A:317:MET:SD	2.86	0.49
1:A:2024:LEU:HD23	1:A:2025:THR:H	1.77	0.49
1:A:3917:VAL:O	1:A:3920:THR:OG1	2.21	0.49
1:B:57:ASN:HA	1:B:323:ASP:HA	1.95	0.49
1:B:258:ARG:NH1	1:B:317:MET:SD	2.86	0.49
1:B:1704:ASP:HA	1:B:1707:ILE:HD12	1.95	0.49
1:B:2324:LEU:HD23	1:B:2327:ARG:HD2	1.94	0.49
1:C:185:SER:HB3	1:C:189:GLU:H	1.76	0.49
1:C:228:LEU:HD12	1:C:354:ILE:HB	1.95	0.49
1:C:375:GLN:N	1:C:390:LYS:O	2.40	0.49
1:C:4155:GLU:OE2	1:C:4158:ARG:NH2	2.45	0.49
1:D:426:PHE:HA	1:D:429:PHE:HB3	1.94	0.49
1:D:510:SER:HA	1:D:517:VAL:HG11	1.95	0.49
1:D:674:TYR:OH	1:D:676:GLU:OE2	2.25	0.49
1:D:1128:LEU:HD13	1:D:1206:SER:HB2	1.92	0.49
1:D:1426:TYR:HB2	1:D:1574:GLU:HB2	1.94	0.49
1:D:3803:VAL:HG22	1:D:3878:TYR:HE1	1.76	0.49
1:A:1094:TYR:OH	1:A:1808:ASP:OD1	2.30	0.49
1:A:2198:CYS:HA	1:A:2201:LEU:HB2	1.93	0.49
1:A:4124:GLU:HA	1:A:4127:LEU:HD13	1.93	0.49
1:B:25:THR:O	1:B:32:GLN:NE2	2.45	0.49
1:B:25:THR:HG22	1:B:34:LYS:HG2	1.92	0.49
1:B:2296:GLY:HA2	1:B:2299:TYR:HD2	1.76	0.49
1:B:4869:ASP:HB3	1:C:4875:ARG:HH21	1.77	0.49
1:C:614:LEU:HD23	1:C:617:LEU:HD12	1.94	0.49
1:C:996:VAL:HA	1:C:999:LEU:HD12	1.95	0.49
1:C:3897:ASP:OD1	1:C:3958:LYS:NZ	2.40	0.49
1:D:25:THR:O	1:D:32:GLN:NE2	2.45	0.49
1:D:1761:MET:SD	1:D:1761:MET:N	2.70	0.49
1:D:3685:GLU:OE1	1:D:3755:MET:N	2.43	0.49
1:A:1521:THR:HA	1:A:1526:ASP:HA	1.95	0.49
1:A:2243:VAL:O	1:A:2247:SER:N	2.46	0.49
1:A:3854:ASP:N	1:A:3854:ASP:OD1	2.46	0.49
1:B:228:LEU:HD12	1:B:354:ILE:HB	1.95	0.49
1:B:4103:LEU:HD23	1:B:4106:LEU:HD12	1.95	0.49
1:C:510:SER:HA	1:C:517:VAL:HG11	1.95	0.49
1:C:591:GLU:HG3	1:C:635:ASN:HD21	1.77	0.49
1:C:1094:TYR:OH	1:C:1808:ASP:OD1	2.30	0.49
1:D:296:ARG:HA	1:D:328:ALA:HA	1.94	0.49
1:D:1521:THR:HA	1:D:1526:ASP:HA	1.95	0.49
1:D:3733:HIS:NE2	1:D:3734:ASP:OD1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:633:CYS:O	1:A:637:LEU:N	2.41	0.49
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.94	0.49
1:A:4103:LEU:HD23	1:A:4106:LEU:HD12	1.95	0.49
1:B:426:PHE:HA	1:B:429:PHE:HB3	1.94	0.49
1:B:482:LEU:HA	1:B:485:ARG:HE	1.78	0.49
1:B:558:LEU:O	1:B:562:LEU:HB2	2.13	0.49
1:B:591:GLU:HG3	1:B:635:ASN:HD21	1.77	0.49
1:B:1843:LEU:O	1:B:1847:GLU:N	2.40	0.49
1:B:2027:ARG:HH22	1:B:2031:LEU:HD22	1.78	0.49
1:B:4155:GLU:OE2	1:B:4158:ARG:NH2	2.45	0.49
1:C:4807:CYS:SG	1:C:4812:THR:OG1	2.59	0.49
1:C:4944:MET:O	1:C:4948:ARG:N	2.45	0.49
1:D:2024:LEU:HD23	1:D:2025:THR:H	1.77	0.49
1:D:2196:ASN:HA	1:D:2199:ARG:HD2	1.95	0.49
1:D:2324:LEU:HD23	1:D:2327:ARG:HD2	1.94	0.49
1:D:2418:ILE:HA	1:D:2421:ARG:HB2	1.95	0.49
1:D:3076:LEU:O	1:D:3080:GLN:N	2.45	0.49
1:D:4085:VAL:O	1:D:4089:HIS:N	2.36	0.49
1:D:4198:ILE:HG12	1:D:4924:MET:HG2	1.95	0.49
1:D:4912:GLN:O	1:D:4915:ASN:ND2	2.46	0.49
1:A:57:ASN:HA	1:A:323:ASP:HA	1.95	0.49
1:A:1469:LEU:N	1:A:1477:HIS:O	2.45	0.49
1:A:4519:LEU:HD11	1:C:4811:LEU:CD1	2.26	0.49
1:B:476:GLN:NE2	1:B:3679:GLU:OE1	2.39	0.49
1:B:891:GLU:HB2	1:B:978:PRO:HG3	1.95	0.49
1:B:1111:GLY:HA3	1:B:1211:GLN:HE21	1.77	0.49
1:B:1469:LEU:N	1:B:1477:HIS:O	2.45	0.49
1:B:3076:LEU:O	1:B:3080:GLN:N	2.45	0.49
1:B:4794:TYR:H	1:B:4806:LYS:HD3	1.77	0.49
1:B:4912:GLN:O	1:B:4915:ASN:ND2	2.46	0.49
1:C:57:ASN:HA	1:C:323:ASP:HA	1.95	0.49
1:C:558:LEU:O	1:C:562:LEU:HB2	2.13	0.49
1:C:1521:THR:HA	1:C:1526:ASP:HA	1.95	0.49
1:C:1996:GLN:HA	1:C:1997:LEU:HD23	1.95	0.49
1:D:306:LEU:HD11	1:D:314:LEU:HG	1.95	0.49
1:D:717:GLY:O	1:D:736:CYS:N	2.36	0.49
1:D:2027:ARG:HH22	1:D:2031:LEU:HD22	1.78	0.49
1:A:296:ARG:HA	1:A:328:ALA:HA	1.94	0.48
1:A:996:VAL:HA	1:A:999:LEU:HD12	1.95	0.48
1:A:3685:GLU:OE1	1:A:3755:MET:N	2.43	0.48
1:B:375:GLN:N	1:B:390:LYS:O	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1426:TYR:HB2	1:B:1574:GLU:HB2	1.94	0.48
1:B:2418:ILE:HA	1:B:2421:ARG:HB2	1.95	0.48
1:B:4807:CYS:SG	1:B:4812:THR:OG1	2.59	0.48
1:C:306:LEU:HD11	1:C:314:LEU:HG	1.95	0.48
1:C:4783:THR:CG2	1:C:4817:HIS:CB	2.91	0.48
1:C:4912:GLN:O	1:C:4915:ASN:ND2	2.46	0.48
1:D:558:LEU:O	1:D:562:LEU:HB2	2.13	0.48
1:D:2463:PRO:O	1:D:2520:TYR:OH	2.26	0.48
1:D:4103:LEU:HD23	1:D:4106:LEU:HD12	1.95	0.48
1:A:143:LEU:CB	1:D:2426:SER:CB	2.85	0.48
1:A:482:LEU:HA	1:A:485:ARG:HE	1.78	0.48
1:A:510:SER:HA	1:A:517:VAL:HG11	1.95	0.48
1:A:2558:LYS:O	1:A:2562:LEU:N	2.41	0.48
1:A:4198:ILE:HG12	1:A:4924:MET:HG2	1.95	0.48
1:B:296:ARG:HA	1:B:328:ALA:HA	1.94	0.48
1:B:1094:TYR:OH	1:B:1808:ASP:OD1	2.30	0.48
1:C:633:CYS:O	1:C:637:LEU:N	2.41	0.48
1:C:891:GLU:HB2	1:C:978:PRO:HG3	1.95	0.48
1:C:2243:VAL:O	1:C:2247:SER:N	2.46	0.48
1:D:118:ALA:HB1	1:D:159:TRP:HB3	1.94	0.48
1:D:2243:VAL:O	1:D:2247:SER:N	2.46	0.48
1:A:1117:TRP:HE1	1:A:1164:CYS:HB3	1.79	0.48
1:A:2481:VAL:O	1:A:2485:LEU:N	2.46	0.48
1:A:4912:GLN:O	1:A:4915:ASN:ND2	2.46	0.48
1:B:1521:THR:HA	1:B:1526:ASP:HA	1.95	0.48
1:B:1628:MET:HG3	1:B:1641:ILE:HG13	1.95	0.48
1:B:1696:GLY:H	1:B:1811:GLY:HA2	1.78	0.48
1:B:2033:LEU:HA	1:B:2036:LYS:HE3	1.94	0.48
1:B:2243:VAL:O	1:B:2247:SER:N	2.46	0.48
1:B:3854:ASP:OD1	1:B:3854:ASP:N	2.46	0.48
1:C:594:ILE:HA	1:C:597:ILE:HD12	1.95	0.48
1:C:4804:ASP:OD1	1:C:4804:ASP:N	2.46	0.48
1:D:679:VAL:HA	1:D:800:VAL:HG12	1.94	0.48
1:D:1166:VAL:HA	1:D:1173:MET:HG3	1.96	0.48
1:D:1257:GLN:O	1:D:1596:TRP:N	2.36	0.48
1:D:1704:ASP:HA	1:D:1707:ILE:HD12	1.94	0.48
1:A:306:LEU:HD11	1:A:314:LEU:HG	1.95	0.48
1:A:1098:ALA:O	1:A:1101:TRP:NE1	2.38	0.48
1:A:1696:GLY:H	1:A:1811:GLY:HA2	1.78	0.48
1:A:1996:GLN:HA	1:A:1997:LEU:HD23	1.95	0.48
1:C:2135:MET:HA	1:C:2136:GLY:HA3	1.65	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2324:LEU:HD23	1:C:2327:ARG:HD2	1.94	0.48
1:C:2481:VAL:O	1:C:2485:LEU:N	2.46	0.48
1:C:3854:ASP:N	1:C:3854:ASP:OD1	2.46	0.48
1:C:4103:LEU:HD23	1:C:4106:LEU:HD12	1.95	0.48
1:C:4794:TYR:H	1:C:4806:LYS:HD3	1.77	0.48
1:D:614:LEU:HD23	1:D:617:LEU:HD12	1.94	0.48
1:D:891:GLU:HB2	1:D:978:PRO:HG3	1.95	0.48
1:D:1119:ARG:HB2	1:D:1133:ARG:HD3	1.96	0.48
1:A:228:LEU:HD12	1:A:354:ILE:HB	1.95	0.48
1:A:558:LEU:O	1:A:562:LEU:HB2	2.13	0.48
1:A:2549:LEU:O	1:A:2553:VAL:N	2.46	0.48
1:B:118:ALA:HB1	1:B:159:TRP:HB3	1.94	0.48
1:B:131:CYS:N	1:B:148:GLY:O	2.43	0.48
1:B:306:LEU:HD11	1:B:314:LEU:HG	1.95	0.48
1:B:583:PRO:O	1:B:587:ASN:ND2	2.46	0.48
1:B:594:ILE:HA	1:B:597:ILE:HD12	1.95	0.48
1:B:1718:ARG:NH2	1:B:1759:PRO:O	2.44	0.48
1:B:4924:MET:O	1:B:4928:ASN:N	2.36	0.48
1:C:129:TYR:O	1:C:150:GLN:N	2.44	0.48
1:C:897:LYS:HD3	1:C:918:LEU:HD21	1.96	0.48
1:C:2549:LEU:O	1:C:2553:VAL:N	2.46	0.48
1:D:129:TYR:O	1:D:150:GLN:N	2.44	0.48
1:D:583:PRO:O	1:D:587:ASN:ND2	2.46	0.48
1:D:4794:TYR:H	1:D:4806:LYS:HD3	1.77	0.48
1:A:583:PRO:O	1:A:587:ASN:ND2	2.46	0.48
1:A:897:LYS:HD3	1:A:918:LEU:HD21	1.96	0.48
1:A:2033:LEU:HA	1:A:2036:LYS:HE3	1.94	0.48
1:A:4798:GLU:H	1:A:4802:THR:HG1	1.56	0.48
1:B:355:LYS:O	1:B:359:SER:OG	2.32	0.48
1:B:1837:GLU:O	1:B:1841:HIS:N	2.45	0.48
1:C:25:THR:O	1:C:32:GLN:NE2	2.45	0.48
1:C:1117:TRP:HE1	1:C:1164:CYS:HB3	1.79	0.48
1:C:1166:VAL:HA	1:C:1173:MET:HG3	1.96	0.48
1:C:1696:GLY:H	1:C:1811:GLY:HA2	1.78	0.48
1:C:2027:ARG:HH22	1:C:2031:LEU:HD22	1.78	0.48
1:C:2196:ASN:HA	1:C:2199:ARG:HD2	1.95	0.48
1:C:2832:VAL:O	1:C:2895:LYS:NZ	2.40	0.48
1:C:4171:ARG:HH12	1:C:4175:PHE:HB2	1.77	0.48
1:D:355:LYS:O	1:D:359:SER:OG	2.32	0.48
1:D:897:LYS:HD3	1:D:918:LEU:HD21	1.96	0.48
1:D:4804:ASP:OD1	1:D:4804:ASP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1119:ARG:HB2	1:A:1133:ARG:HD3	1.96	0.48
1:A:1704:ASP:HA	1:A:1707:ILE:HD12	1.94	0.48
1:A:2196:ASN:HA	1:A:2199:ARG:HD2	1.95	0.48
1:A:3742:LEU:HD11	1:A:3782:LEU:HD21	1.94	0.48
1:B:129:TYR:O	1:B:150:GLN:N	2.44	0.48
1:B:4822:VAL:HG12	1:D:4849:ILE:O	2.14	0.48
1:C:463:PHE:HE1	1:C:485:ARG:HB3	1.79	0.48
1:C:1628:MET:HG3	1:C:1641:ILE:HG13	1.95	0.48
1:D:133:LEU:HB2	1:D:146:ASP:HB2	1.96	0.48
1:D:228:LEU:HD12	1:D:354:ILE:HB	1.95	0.48
1:D:1718:ARG:NH2	1:D:1759:PRO:O	2.44	0.48
1:A:129:TYR:O	1:A:150:GLN:N	2.44	0.48
1:A:463:PHE:HE1	1:A:485:ARG:HB3	1.79	0.48
1:A:891:GLU:HB2	1:A:978:PRO:HG3	1.95	0.48
1:A:2027:ARG:HH22	1:A:2031:LEU:HD22	1.78	0.48
1:A:4898:TYR:O	1:A:4901:THR:OG1	2.23	0.48
1:B:261:HIS:HA	1:B:390:LYS:HA	1.96	0.48
1:B:1154:ARG:NH2	1:B:1180:GLU:OE1	2.47	0.48
1:B:1160:ASP:OD1	1:B:1178:ASN:ND2	2.47	0.48
1:B:4154:SER:OG	1:B:4156:SER:OG	2.30	0.48
1:C:1154:ARG:NH2	1:C:1180:GLU:OE1	2.47	0.48
1:C:1704:ASP:HA	1:C:1707:ILE:HD12	1.94	0.48
1:C:4198:ILE:HG12	1:C:4924:MET:HG2	1.95	0.48
1:D:1256:PRO:O	1:D:1451:HIS:ND1	2.37	0.48
1:D:1799:VAL:O	1:D:1803:SER:CB	2.59	0.48
1:A:133:LEU:HB2	1:A:146:ASP:HB2	1.96	0.48
1:A:237:LEU:N	1:A:404:ASN:O	2.45	0.48
1:A:355:LYS:O	1:A:359:SER:OG	2.32	0.48
1:A:1444:GLY:N	1:A:1542:ALA:O	2.39	0.48
1:B:246:THR:N	1:B:261:HIS:O	2.32	0.48
1:B:897:LYS:HD3	1:B:918:LEU:HD21	1.96	0.48
1:B:1996:GLN:HA	1:B:1997:LEU:HD23	1.95	0.48
1:C:238:HIS:N	1:C:243:GLU:O	2.43	0.48
1:C:4783:THR:HG23	1:C:4817:HIS:CB	2.43	0.48
1:D:541:ILE:HG12	1:D:551:PHE:CE2	2.49	0.48
1:D:3742:LEU:HD11	1:D:3782:LEU:HD21	1.94	0.48
1:A:541:ILE:HG12	1:A:551:PHE:CE2	2.49	0.48
1:A:1154:ARG:NH2	1:A:1180:GLU:OE1	2.47	0.48
1:A:4849:ILE:HG21	1:D:4819:TYR:HA	1.96	0.48
1:B:133:LEU:HB2	1:B:146:ASP:HB2	1.96	0.48
1:B:717:GLY:O	1:B:736:CYS:N	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1605:LYS:HD3	1:B:1606:VAL:HG23	1.95	0.48
1:B:4733:GLY:HA3	1:B:4740:PHE:CD1	2.49	0.48
1:C:3762:LEU:O	1:C:3766:ILE:N	2.42	0.48
1:C:4045:SER:O	1:C:4049:PHE:N	2.44	0.48
1:D:261:HIS:HA	1:D:390:LYS:HA	1.96	0.48
1:D:1605:LYS:HD3	1:D:1606:VAL:HG23	1.95	0.48
1:A:1292:SER:OG	1:A:1296:SER:O	2.28	0.47
1:A:2658:TYR:O	1:A:2662:LEU:N	2.47	0.47
1:A:3834:ASP:N	1:A:3834:ASP:OD1	2.47	0.47
1:B:20:VAL:O	1:B:67:PHE:N	2.45	0.47
1:B:4558:VAL:O	1:B:4558:VAL:HG13	2.14	0.47
1:C:133:LEU:HB2	1:C:146:ASP:HB2	1.96	0.47
1:C:1644:LEU:HG	1:C:1647:GLN:HB2	1.96	0.47
1:C:4733:GLY:HA3	1:C:4740:PHE:CD1	2.49	0.47
1:D:1160:ASP:OD1	1:D:1178:ASN:ND2	2.47	0.47
1:D:4898:TYR:O	1:D:4901:THR:OG1	2.23	0.47
1:A:677:LEU:HD11	1:A:792:VAL:HG21	1.96	0.47
1:A:1628:MET:HG3	1:A:1641:ILE:HG13	1.95	0.47
1:B:1166:VAL:HA	1:B:1173:MET:HG3	1.96	0.47
1:C:84:ASN:O	1:C:84:ASN:ND2	2.47	0.47
1:C:118:ALA:HB1	1:C:159:TRP:HB3	1.94	0.47
1:C:1444:GLY:N	1:C:1542:ALA:O	2.40	0.47
1:C:1669:ASN:O	1:C:1673:ALA:N	2.43	0.47
1:D:996:VAL:HA	1:D:999:LEU:HD12	1.95	0.47
1:D:1644:LEU:HG	1:D:1647:GLN:HB2	1.96	0.47
1:D:2549:LEU:O	1:D:2553:VAL:N	2.46	0.47
1:A:4018:PHE:O	1:A:4022:LEU:CB	2.61	0.47
1:C:583:PRO:O	1:C:587:ASN:ND2	2.46	0.47
1:C:1160:ASP:OD1	1:C:1178:ASN:ND2	2.47	0.47
1:D:482:LEU:HA	1:D:485:ARG:HE	1.78	0.47
1:D:833:LYS:HG2	1:D:1614:ARG:HH22	1.80	0.47
1:D:1154:ARG:NH2	1:D:1180:GLU:OE1	2.47	0.47
1:D:1738:LEU:HD13	1:D:1739:PHE:HB3	1.96	0.47
1:A:466:PRO:HB2	1:A:475:LYS:HG3	1.96	0.47
1:A:908:ARG:HA	1:A:916:PRO:HD3	1.97	0.47
1:A:1272:ARG:HD2	1:A:1586:LEU:HB3	1.97	0.47
1:A:1605:LYS:HD3	1:A:1606:VAL:HG23	1.95	0.47
1:A:4733:GLY:HA3	1:A:4740:PHE:CD1	2.49	0.47
1:B:1738:LEU:HD13	1:B:1739:PHE:HB3	1.96	0.47
1:B:2549:LEU:O	1:B:2553:VAL:N	2.46	0.47
1:B:4198:ILE:HG12	1:B:4924:MET:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1605:LYS:HD3	1:C:1606:VAL:HG23	1.95	0.47
1:C:2520:TYR:HA	1:C:2523:THR:HB	1.96	0.47
1:C:2658:TYR:O	1:C:2662:LEU:N	2.47	0.47
1:C:4018:PHE:O	1:C:4022:LEU:CB	2.61	0.47
1:D:20:VAL:O	1:D:67:PHE:N	2.45	0.47
1:D:594:ILE:HA	1:D:597:ILE:HD12	1.95	0.47
1:D:677:LEU:HD11	1:D:792:VAL:HG21	1.96	0.47
1:D:1117:TRP:HE1	1:D:1164:CYS:HB3	1.79	0.47
1:D:1696:GLY:H	1:D:1811:GLY:HA2	1.78	0.47
1:D:1996:GLN:HA	1:D:1997:LEU:HD23	1.95	0.47
1:D:4113:ASP:HB2	1:D:4116:LEU:HB3	1.96	0.47
1:A:261:HIS:HA	1:A:390:LYS:HA	1.96	0.47
1:A:464:HIS:O	1:A:478:ARG:NH2	2.48	0.47
1:A:4155:GLU:OE2	1:A:4158:ARG:NH2	2.45	0.47
1:B:58:VAL:HG22	1:B:320:GLU:HA	1.97	0.47
1:B:143:LEU:CB	1:C:2426:SER:CB	2.89	0.47
1:B:464:HIS:O	1:B:478:ARG:NH2	2.48	0.47
1:B:908:ARG:HA	1:B:916:PRO:HD3	1.97	0.47
1:B:996:VAL:HA	1:B:999:LEU:HD12	1.95	0.47
1:B:2196:ASN:HA	1:B:2199:ARG:HD2	1.95	0.47
1:B:2520:TYR:HA	1:B:2523:THR:HB	1.97	0.47
1:C:833:LYS:HG2	1:C:1614:ARG:HH22	1.80	0.47
1:C:1144:ARG:N	1:C:1150:GLU:O	2.35	0.47
1:C:1173:MET:O	1:C:1191:ALA:N	2.48	0.47
1:D:908:ARG:HA	1:D:916:PRO:HD3	1.97	0.47
1:D:3919:ASN:O	1:D:3922:THR:OG1	2.27	0.47
1:D:3922:THR:O	1:D:3926:GLN:N	2.43	0.47
1:A:443:SER:HA	1:A:444:THR:HA	1.52	0.47
1:A:2464:ASP:OD1	1:A:2464:ASP:N	2.47	0.47
1:A:4171:ARG:HH12	1:A:4175:PHE:HB2	1.77	0.47
1:A:4808:ASP:HB3	1:D:4523:VAL:HG23	1.96	0.47
1:B:1119:ARG:HB2	1:B:1133:ARG:HD3	1.95	0.47
1:B:2464:ASP:OD1	1:B:2464:ASP:N	2.47	0.47
1:B:4519:LEU:HD12	1:D:4811:LEU:CA	2.45	0.47
1:B:4632:ASP:HA	1:B:4709:TRP:HE1	1.80	0.47
1:C:58:VAL:HG22	1:C:320:GLU:HA	1.97	0.47
1:C:355:LYS:O	1:C:359:SER:OG	2.32	0.47
1:C:4767:GLN:O	1:C:4771:THR:OG1	2.23	0.47
1:D:1610:ARG:NH1	1:D:1612:SER:OG	2.48	0.47
1:D:4635:VAL:O	1:D:4638:THR:OG1	2.30	0.47
1:A:419:ILE:HG12	1:A:489:PHE:HE1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1166:VAL:HA	1:A:1173:MET:HG3	1.96	0.47
1:A:1173:MET:O	1:A:1191:ALA:N	2.48	0.47
1:A:2222:LEU:O	1:A:2226:SER:N	2.37	0.47
1:B:463:PHE:HE1	1:B:485:ARG:HB3	1.79	0.47
1:B:541:ILE:HG12	1:B:551:PHE:CE2	2.49	0.47
1:B:903:GLN:HG3	1:B:974:SER:HB2	1.97	0.47
1:B:1109:THR:OG1	1:B:1212:VAL:N	2.48	0.47
1:B:1117:TRP:HE1	1:B:1164:CYS:HB3	1.79	0.47
1:B:1252:SER:HB2	1:B:1598:ARG:HB2	1.97	0.47
1:B:1644:LEU:HG	1:B:1647:GLN:HB2	1.96	0.47
1:C:464:HIS:O	1:C:478:ARG:NH2	2.48	0.47
1:C:466:PRO:HB2	1:C:475:LYS:HG3	1.96	0.47
1:C:903:GLN:HG3	1:C:974:SER:HB2	1.97	0.47
1:C:1033:VAL:HG23	1:C:1038:LEU:HB3	1.97	0.47
1:C:1106:GLU:HA	1:C:1161:VAL:HG22	1.97	0.47
1:C:1761:MET:SD	1:C:1761:MET:N	2.70	0.47
1:C:4113:ASP:HB2	1:C:4116:LEU:HB3	1.96	0.47
1:D:308:LEU:HA	1:D:314:LEU:HA	1.97	0.47
1:D:464:HIS:O	1:D:478:ARG:NH2	2.48	0.47
1:D:764:PRO:HG3	1:D:782:PHE:H	1.80	0.47
1:D:3728:GLN:O	1:D:3732:LEU:N	2.42	0.47
1:D:4733:GLY:HA3	1:D:4740:PHE:CD1	2.49	0.47
1:A:594:ILE:HA	1:A:597:ILE:HD12	1.95	0.47
1:A:1115:VAL:O	1:A:1137:PHE:N	2.48	0.47
1:A:1610:ARG:NH1	1:A:1612:SER:OG	2.48	0.47
1:A:1644:LEU:HG	1:A:1647:GLN:HB2	1.96	0.47
1:A:4113:ASP:HB2	1:A:4116:LEU:HB3	1.96	0.47
1:B:466:PRO:HB2	1:B:475:LYS:HG3	1.96	0.47
1:B:3728:GLN:O	1:B:3732:LEU:N	2.42	0.47
1:B:4804:ASP:N	1:B:4804:ASP:OD1	2.46	0.47
1:C:261:HIS:HA	1:C:390:LYS:HA	1.96	0.47
1:C:419:ILE:HG12	1:C:489:PHE:HE1	1.80	0.47
1:C:677:LEU:HD11	1:C:792:VAL:HG21	1.96	0.47
1:C:1119:ARG:HB2	1:C:1133:ARG:HD3	1.96	0.47
1:C:1272:ARG:HD2	1:C:1586:LEU:HB3	1.97	0.47
1:C:1576:LYS:NZ	1:C:1589:GLN:OE1	2.48	0.47
1:D:463:PHE:HE1	1:D:485:ARG:HB3	1.79	0.47
1:D:1109:THR:OG1	1:D:1212:VAL:N	2.48	0.47
1:D:1628:MET:HG3	1:D:1641:ILE:HG13	1.95	0.47
1:D:2520:TYR:HA	1:D:2523:THR:HB	1.97	0.47
1:A:1106:GLU:HA	1:A:1161:VAL:HG22	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1576:LYS:NZ	1:A:1589:GLN:OE1	2.48	0.47
1:A:1738:LEU:HD13	1:A:1739:PHE:HB3	1.96	0.47
1:B:123:HIS:N	1:B:128:MET:O	2.34	0.47
1:B:647:ARG:HH11	1:B:1684:GLN:HB2	1.80	0.47
1:B:3834:ASP:OD1	1:B:3834:ASP:N	2.47	0.47
1:C:908:ARG:HA	1:C:916:PRO:HD3	1.97	0.47
1:D:629:GLN:HB3	1:D:1664:VAL:HG13	1.97	0.47
1:D:1252:SER:HB2	1:D:1598:ARG:HB2	1.97	0.47
1:D:3993:ASN:HD21	1:D:4111:PRO:HD2	1.80	0.47
1:A:308:LEU:HA	1:A:314:LEU:HA	1.97	0.47
1:A:1033:VAL:HG23	1:A:1038:LEU:HB3	1.97	0.47
1:A:1160:ASP:OD1	1:A:1178:ASN:ND2	2.47	0.47
1:A:1669:ASN:O	1:A:1673:ALA:N	2.43	0.47
1:A:3960:SER:OG	1:A:4070:CYS:SG	2.60	0.47
1:A:4558:VAL:HG13	1:A:4558:VAL:O	2.15	0.47
1:B:651:HIS:N	1:B:1625:LEU:O	2.45	0.47
1:B:677:LEU:HD11	1:B:792:VAL:HG21	1.96	0.47
1:B:1173:MET:O	1:B:1191:ALA:N	2.48	0.47
1:B:1576:LYS:NZ	1:B:1589:GLN:OE1	2.48	0.47
1:C:718:VAL:HG12	1:C:736:CYS:HB2	1.97	0.47
1:D:466:PRO:HB2	1:D:475:LYS:HG3	1.96	0.47
1:D:3743:GLN:NE2	1:D:3781:TYR:OH	2.35	0.47
1:A:903:GLN:HG3	1:A:974:SER:HB2	1.97	0.46
1:A:1109:THR:OG1	1:A:1212:VAL:N	2.48	0.46
1:A:4045:SER:O	1:A:4049:PHE:N	2.44	0.46
1:A:4517:ILE:HA	1:A:4520:PHE:CE2	2.50	0.46
1:C:131:CYS:N	1:C:148:GLY:O	2.43	0.46
1:C:541:ILE:HG12	1:C:551:PHE:CE2	2.49	0.46
1:C:1000:ALA:HB1	1:C:1046:ASN:HB3	1.97	0.46
1:C:1610:ARG:NH1	1:C:1612:SER:OG	2.48	0.46
1:C:2086:PHE:O	1:C:3692:TYR:OH	2.25	0.46
1:C:2558:LYS:O	1:C:2562:LEU:N	2.41	0.46
1:C:3729:GLN:O	1:C:3733:HIS:ND1	2.32	0.46
1:C:4522:LYS:HD2	1:C:4522:LYS:HA	1.47	0.46
1:D:419:ILE:HG12	1:D:489:PHE:HE1	1.80	0.46
1:D:1000:ALA:HB1	1:D:1046:ASN:HB3	1.97	0.46
1:D:1576:LYS:NZ	1:D:1589:GLN:OE1	2.48	0.46
1:D:3834:ASP:N	1:D:3834:ASP:OD1	2.47	0.46
1:A:123:HIS:N	1:A:128:MET:O	2.34	0.46
1:A:833:LYS:HG2	1:A:1614:ARG:HH22	1.80	0.46
1:A:2486:LEU:HD13	1:A:2537:ALA:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1000:ALA:HB1	1:B:1046:ASN:HB3	1.97	0.46
1:B:4518:LEU:HG	1:B:4741:ALA:HB2	1.97	0.46
1:B:4849:ILE:HG22	1:C:4822:VAL:CB	2.43	0.46
1:C:1799:VAL:O	1:C:1803:SER:CB	2.59	0.46
1:D:476:GLN:NE2	1:D:3679:GLU:OE1	2.39	0.46
1:D:903:GLN:HG3	1:D:974:SER:HB2	1.97	0.46
1:D:1115:VAL:O	1:D:1137:PHE:N	2.48	0.46
1:A:58:VAL:HG22	1:A:320:GLU:HA	1.97	0.46
1:A:629:GLN:HB3	1:A:1664:VAL:HG13	1.97	0.46
1:A:764:PRO:HG3	1:A:782:PHE:H	1.80	0.46
1:A:1000:ALA:HB1	1:A:1046:ASN:HB3	1.98	0.46
1:A:4011:VAL:HA	1:A:4014:ILE:HG12	1.98	0.46
1:A:4632:ASP:HA	1:A:4709:TRP:HE1	1.80	0.46
1:A:4754:LEU:HD13	1:C:4774:LEU:HD13	1.97	0.46
1:A:4906:PHE:HA	1:A:4909:HIS:HB3	1.98	0.46
1:B:629:GLN:HB3	1:B:1664:VAL:HG13	1.97	0.46
1:B:718:VAL:HG12	1:B:736:CYS:HB2	1.97	0.46
1:B:4113:ASP:HB2	1:B:4116:LEU:HB3	1.96	0.46
1:C:1837:GLU:O	1:C:1841:HIS:N	2.45	0.46
1:D:433:LEU:O	1:D:437:SER:HB3	2.16	0.46
1:D:718:VAL:HG12	1:D:736:CYS:HB2	1.97	0.46
1:D:1444:GLY:N	1:D:1542:ALA:O	2.39	0.46
1:D:4158:ARG:O	1:D:4162:GLU:N	2.48	0.46
1:A:433:LEU:O	1:A:437:SER:HB3	2.16	0.46
1:A:2520:TYR:HA	1:A:2523:THR:HB	1.96	0.46
1:B:542:ARG:NE	1:B:577:CYS:SG	2.89	0.46
1:B:1257:GLN:O	1:B:1596:TRP:N	2.36	0.46
1:B:1610:ARG:NH1	1:B:1612:SER:OG	2.48	0.46
1:C:308:LEU:HA	1:C:314:LEU:HA	1.97	0.46
1:C:542:ARG:NE	1:C:577:CYS:SG	2.89	0.46
1:C:1109:THR:OG1	1:C:1212:VAL:N	2.48	0.46
1:C:2464:ASP:N	1:C:2464:ASP:OD1	2.47	0.46
1:C:4632:ASP:HA	1:C:4709:TRP:HE1	1.80	0.46
1:D:2481:VAL:O	1:D:2485:LEU:N	2.46	0.46
1:D:3960:SER:OG	1:D:4070:CYS:SG	2.60	0.46
1:D:4632:ASP:HA	1:D:4709:TRP:HE1	1.80	0.46
1:A:718:VAL:HG12	1:A:736:CYS:HB2	1.97	0.46
1:B:308:LEU:HA	1:B:314:LEU:HA	1.97	0.46
1:B:1272:ARG:HD2	1:B:1586:LEU:HB3	1.97	0.46
1:B:1836:ASN:HA	1:B:1839:LEU:HD12	1.98	0.46
1:B:2266:VAL:O	1:B:2270:LEU:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2426:SER:CB	1:D:143:LEU:CB	2.90	0.46
1:C:762:SER:H	1:C:784:ILE:HD11	1.80	0.46
1:C:1115:VAL:O	1:C:1137:PHE:N	2.48	0.46
1:C:1252:SER:HB2	1:C:1598:ARG:HB2	1.97	0.46
1:D:1033:VAL:HG23	1:D:1038:LEU:HB3	1.97	0.46
1:D:1828:LEU:HD12	1:D:1831:MET:HB2	1.97	0.46
1:D:2464:ASP:OD1	1:D:2464:ASP:N	2.47	0.46
1:D:3748:SER:O	1:D:3793:SER:OG	2.25	0.46
1:D:4045:SER:O	1:D:4049:PHE:N	2.44	0.46
1:D:4906:PHE:HA	1:D:4909:HIS:HB3	1.98	0.46
1:A:244:CYS:O	1:A:263:GLU:N	2.39	0.46
1:A:3993:ASN:HD21	1:A:4111:PRO:HD2	1.80	0.46
1:A:4523:VAL:HG23	1:C:4808:ASP:HB3	1.98	0.46
1:A:4635:VAL:O	1:A:4638:THR:OG1	2.30	0.46
1:B:1115:VAL:O	1:B:1137:PHE:N	2.48	0.46
1:B:1828:LEU:HD12	1:B:1831:MET:HB2	1.97	0.46
1:B:3786:LYS:HD2	1:B:3865:ASN:HA	1.97	0.46
1:B:3922:THR:O	1:B:3926:GLN:N	2.43	0.46
1:B:3993:ASN:HD21	1:B:4111:PRO:HD2	1.80	0.46
1:B:4519:LEU:C	1:D:4810:MET:CB	2.84	0.46
1:B:4827:GLY:HA3	1:B:4852:PHE:CB	2.45	0.46
1:B:4845:ILE:O	1:B:4849:ILE:HG12	2.16	0.46
1:C:433:LEU:O	1:C:437:SER:HB3	2.16	0.46
1:C:647:ARG:HH11	1:C:1684:GLN:HB2	1.80	0.46
1:D:2135:MET:HA	1:D:2136:GLY:HA3	1.65	0.46
1:D:3831:LEU:HA	1:D:3832:GLN:HA	1.71	0.46
1:A:1468:THR:HA	1:A:1478:GLU:HA	1.98	0.46
1:A:4905:GLY:O	1:A:4909:HIS:CB	2.63	0.46
1:B:4906:PHE:HA	1:B:4909:HIS:HB3	1.98	0.46
1:C:443:SER:HA	1:C:444:THR:HA	1.52	0.46
1:C:629:GLN:HB3	1:C:1664:VAL:HG13	1.97	0.46
1:C:4906:PHE:HA	1:C:4909:HIS:HB3	1.98	0.46
1:D:58:VAL:HG22	1:D:320:GLU:HA	1.97	0.46
1:D:1173:MET:O	1:D:1191:ALA:N	2.48	0.46
1:D:2266:VAL:O	1:D:2270:LEU:N	2.48	0.46
1:A:260:VAL:O	1:A:391:ALA:N	2.47	0.46
1:A:270:HIS:HB3	1:A:272:ARG:HG2	1.97	0.46
1:A:1176:THR:HG22	1:A:1181:ILE:HA	1.98	0.46
1:A:2135:MET:HA	1:A:2136:GLY:HA3	1.65	0.46
1:A:4804:ASP:OD1	1:A:4804:ASP:N	2.46	0.46
1:B:229:ILE:HA	1:B:288:HIS:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:299:HIS:NE2	1:B:301:THR:OG1	2.41	0.46
1:B:419:ILE:HG12	1:B:489:PHE:HE1	1.80	0.46
1:B:833:LYS:HG2	1:B:1614:ARG:HH22	1.80	0.46
1:B:1183:LEU:HB3	1:B:1187:GLY:HA2	1.97	0.46
1:C:229:ILE:HA	1:C:288:HIS:HA	1.98	0.46
1:C:1217:PHE:HB3	1:C:1247:ILE:HD12	1.98	0.46
1:C:1836:ASN:HA	1:C:1839:LEU:HD12	1.98	0.46
1:C:3834:ASP:OD1	1:C:3834:ASP:N	2.47	0.46
1:D:1119:ARG:HH11	1:D:1133:ARG:HG2	1.81	0.46
1:D:4011:VAL:HA	1:D:4014:ILE:HG12	1.97	0.46
1:A:299:HIS:NE2	1:A:301:THR:OG1	2.41	0.46
1:A:1217:PHE:HB3	1:A:1247:ILE:HD12	1.98	0.46
1:A:1305:SER:HB2	1:A:1591:LEU:HD12	1.98	0.46
1:A:3786:LYS:HD2	1:A:3865:ASN:HA	1.97	0.46
1:A:4813:CYS:SG	1:A:4817:HIS:HD2	2.39	0.46
1:A:4845:ILE:O	1:A:4849:ILE:HG12	2.16	0.46
1:B:762:SER:H	1:B:784:ILE:HD11	1.80	0.46
1:B:764:PRO:HG3	1:B:782:PHE:H	1.80	0.46
1:B:1176:THR:HG22	1:B:1181:ILE:HA	1.98	0.46
1:B:4037:ASP:OD2	1:B:4042:GLY:N	2.49	0.46
1:B:4160:GLN:HB3	1:B:4201:MET:HB3	1.98	0.46
1:B:4522:LYS:HB3	1:B:4560:TYR:CZ	2.51	0.46
1:C:121:LEU:HD23	1:C:121:LEU:HA	1.81	0.46
1:C:1738:LEU:HD13	1:C:1739:PHE:HB3	1.96	0.46
1:C:2222:LEU:O	1:C:2226:SER:N	2.37	0.46
1:C:4905:GLY:O	1:C:4909:HIS:CB	2.63	0.46
1:D:4905:GLY:O	1:D:4909:HIS:CB	2.63	0.46
1:A:695:VAL:HG13	1:A:792:VAL:HG22	1.98	0.46
1:A:4486:ILE:N	1:A:4489:GLN:OE1	2.49	0.46
1:B:270:HIS:HB3	1:B:272:ARG:HG2	1.97	0.46
1:B:1033:VAL:HG23	1:B:1038:LEU:HB3	1.97	0.46
1:B:1106:GLU:HA	1:B:1161:VAL:HG22	1.97	0.46
1:B:4774:LEU:HD13	1:C:4754:LEU:HD13	1.98	0.46
1:C:260:VAL:O	1:C:391:ALA:N	2.47	0.46
1:C:1828:LEU:HD12	1:C:1831:MET:HB2	1.97	0.46
1:C:3922:THR:O	1:C:3926:GLN:N	2.43	0.46
1:D:1305:SER:HB2	1:D:1591:LEU:HD12	1.98	0.46
1:D:1468:THR:HA	1:D:1478:GLU:HA	1.98	0.46
1:D:3786:LYS:HD2	1:D:3865:ASN:HA	1.97	0.46
1:D:4160:GLN:HB3	1:D:4201:MET:HB3	1.98	0.46
1:A:699:SER:OG	1:A:785:ASP:O	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1252:SER:HB2	1:A:1598:ARG:HB2	1.97	0.45
1:C:764:PRO:HG3	1:C:782:PHE:H	1.80	0.45
1:C:1305:SER:HB2	1:C:1591:LEU:HD12	1.98	0.45
1:C:4521:TYR:CD1	1:C:4561:VAL:CG2	2.85	0.45
1:D:695:VAL:HG13	1:D:792:VAL:HG22	1.98	0.45
1:D:1183:LEU:HB3	1:D:1187:GLY:HA2	1.97	0.45
1:D:1836:ASN:HA	1:D:1839:LEU:HD12	1.98	0.45
1:D:2063:ILE:O	1:D:2066:THR:OG1	2.31	0.45
1:A:476:GLN:NE2	1:A:3679:GLU:OE1	2.39	0.45
1:A:762:SER:H	1:A:784:ILE:HD11	1.81	0.45
1:A:1828:LEU:HD12	1:A:1831:MET:HB2	1.97	0.45
1:A:4037:ASP:OD2	1:A:4042:GLY:N	2.49	0.45
1:A:4158:ARG:O	1:A:4162:GLU:N	2.48	0.45
1:B:1669:ASN:O	1:B:1673:ALA:N	2.43	0.45
1:B:4600:ILE:HD12	1:B:4603:ARG:HB3	1.99	0.45
1:B:4635:VAL:O	1:B:4638:THR:OG1	2.30	0.45
1:B:4905:GLY:O	1:B:4909:HIS:CB	2.63	0.45
1:D:647:ARG:HH11	1:D:1684:GLN:HB2	1.80	0.45
1:D:762:SER:H	1:D:784:ILE:HD11	1.80	0.45
1:D:4597:PRO:HA	1:D:4600:ILE:HG22	1.98	0.45
1:A:85:THR:C	1:A:100:PHE:N	2.69	0.45
1:A:802:PHE:N	1:A:1616:GLY:O	2.50	0.45
1:B:433:LEU:O	1:B:437:SER:HB3	2.16	0.45
1:B:3949:LEU:HD23	1:B:3952:PHE:HD2	1.82	0.45
1:C:133:LEU:N	1:C:146:ASP:O	2.46	0.45
1:C:1124:PRO:HG3	1:C:1600:PRO:HD3	1.98	0.45
1:C:1748:LEU:HD13	1:C:1750:GLY:H	1.81	0.45
1:C:2266:VAL:O	1:C:2270:LEU:N	2.48	0.45
1:C:4600:ILE:HD12	1:C:4603:ARG:HB3	1.99	0.45
1:D:121:LEU:HD23	1:D:121:LEU:HA	1.81	0.45
1:D:1106:GLU:HA	1:D:1161:VAL:HG22	1.97	0.45
1:D:3762:LEU:O	1:D:3766:ILE:N	2.42	0.45
1:D:3984:LEU:HG	1:D:4102:LEU:HD12	1.98	0.45
1:D:4037:ASP:OD2	1:D:4042:GLY:N	2.49	0.45
1:A:1119:ARG:HH11	1:A:1133:ARG:HG2	1.81	0.45
1:B:1748:LEU:HD13	1:B:1750:GLY:H	1.81	0.45
1:B:4486:ILE:N	1:B:4489:GLN:OE1	2.49	0.45
1:C:476:GLN:NE2	1:C:3679:GLU:OE1	2.39	0.45
1:C:1176:THR:HG22	1:C:1181:ILE:HA	1.98	0.45
1:C:3993:ASN:HD21	1:C:4111:PRO:HD2	1.80	0.45
1:C:4486:ILE:N	1:C:4489:GLN:OE1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:542:ARG:NE	1:D:577:CYS:SG	2.89	0.45
1:D:1124:PRO:HG3	1:D:1600:PRO:HD3	1.98	0.45
1:D:4171:ARG:NH1	1:D:4175:PHE:HB2	2.32	0.45
1:D:4486:ILE:N	1:D:4489:GLN:OE1	2.49	0.45
1:D:4845:ILE:O	1:D:4849:ILE:HG12	2.16	0.45
1:A:647:ARG:HH11	1:A:1684:GLN:HB2	1.80	0.45
1:A:1183:LEU:HB3	1:A:1187:GLY:HA2	1.97	0.45
1:A:3984:LEU:HG	1:A:4102:LEU:HD12	1.98	0.45
1:A:4139:ILE:HD12	1:A:4147:GLU:HB2	1.99	0.45
1:A:4171:ARG:NH1	1:A:4175:PHE:HB2	2.32	0.45
1:B:274:LEU:H	1:B:299:HIS:CE1	2.35	0.45
1:B:1468:THR:HA	1:B:1478:GLU:HA	1.98	0.45
1:B:4810:MET:CB	1:C:4519:LEU:C	2.84	0.45
1:B:4816:PHE:O	1:B:4820:VAL:HG23	2.16	0.45
1:C:517:VAL:HB	1:C:520:ARG:HG2	1.99	0.45
1:C:3811:ARG:O	1:C:3815:ALA:N	2.43	0.45
1:C:3984:LEU:HG	1:C:4102:LEU:HD12	1.98	0.45
1:C:4717:ASP:OD1	1:C:4718:ASN:N	2.50	0.45
1:D:61:ASP:OD1	1:D:62:LEU:N	2.50	0.45
1:D:229:ILE:HA	1:D:288:HIS:HA	1.98	0.45
1:D:802:PHE:N	1:D:1616:GLY:O	2.50	0.45
1:D:1176:THR:HG22	1:D:1181:ILE:HA	1.98	0.45
1:D:1659:ARG:O	1:D:1662:SER:OG	2.30	0.45
1:D:1676:LEU:HA	1:D:1679:HIS:HB2	1.99	0.45
1:D:1748:LEU:HD13	1:D:1750:GLY:H	1.81	0.45
1:D:2123:SER:O	1:D:2126:GLN:NE2	2.50	0.45
1:D:4018:PHE:O	1:D:4022:LEU:CB	2.61	0.45
1:D:4717:ASP:OD1	1:D:4718:ASN:N	2.50	0.45
1:A:20:VAL:O	1:A:67:PHE:N	2.45	0.45
1:A:4594:LEU:O	1:A:4596:VAL:N	2.50	0.45
1:B:1676:LEU:HA	1:B:1679:HIS:HB2	1.99	0.45
1:B:1732:GLU:O	1:B:1735:SER:OG	2.30	0.45
1:B:4597:PRO:HA	1:B:4600:ILE:HG22	1.99	0.45
1:C:653:SER:OG	1:C:794:PHE:O	2.33	0.45
1:C:1183:LEU:HB3	1:C:1187:GLY:HA2	1.97	0.45
1:C:2123:SER:O	1:C:2126:GLN:NE2	2.50	0.45
1:C:3786:LYS:HD2	1:C:3865:ASN:HA	1.98	0.45
1:D:443:SER:HA	1:D:444:THR:HA	1.52	0.45
1:D:1086:ARG:O	1:D:1206:SER:OG	2.30	0.45
1:D:3763:GLY:HA2	1:D:3766:ILE:HD12	1.98	0.45
1:D:3890:TYR:HE1	1:D:3954:HIS:HB2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1659:ARG:O	1:A:1662:SER:OG	2.30	0.45
1:A:1748:LEU:HD13	1:A:1750:GLY:H	1.81	0.45
1:A:2349:GLU:OE2	1:A:2438:SER:OG	2.35	0.45
1:B:1106:GLU:N	1:B:1214:ARG:O	2.50	0.45
1:B:1305:SER:HB2	1:B:1591:LEU:HD12	1.98	0.45
1:B:4018:PHE:O	1:B:4022:LEU:CB	2.61	0.45
1:C:270:HIS:HB3	1:C:272:ARG:HG2	1.97	0.45
1:C:1256:PRO:O	1:C:1451:HIS:ND1	2.37	0.45
1:C:2313:SER:OG	1:C:2475:ARG:NH2	2.50	0.45
1:C:3949:LEU:HD23	1:C:3952:PHE:HD2	1.82	0.45
1:C:4037:ASP:OD2	1:C:4042:GLY:N	2.49	0.45
1:C:4845:ILE:O	1:C:4849:ILE:HG12	2.16	0.45
1:D:1106:GLU:N	1:D:1214:ARG:O	2.50	0.45
1:D:1272:ARG:HD2	1:D:1586:LEU:HB3	1.97	0.45
1:D:3870:ASN:HD21	1:D:3872:ILE:HD12	1.82	0.45
1:A:1836:ASN:HA	1:A:1839:LEU:HD12	1.98	0.45
1:A:2313:SER:OG	1:A:2475:ARG:NH2	2.50	0.45
1:A:3763:GLY:HA2	1:A:3766:ILE:HD12	1.98	0.45
1:B:1119:ARG:HH11	1:B:1133:ARG:HG2	1.81	0.45
1:B:2313:SER:OG	1:B:2475:ARG:NH2	2.50	0.45
1:B:3763:GLY:HA2	1:B:3766:ILE:HD12	1.98	0.45
1:B:4171:ARG:NH1	1:B:4175:PHE:HB2	2.32	0.45
1:B:4811:LEU:HB2	1:C:4519:LEU:HD11	1.86	0.45
1:C:394:HIS:CD2	1:C:396:GLU:H	2.35	0.45
1:C:4594:LEU:O	1:C:4596:VAL:N	2.50	0.45
1:D:274:LEU:H	1:D:299:HIS:CE1	2.35	0.45
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.50	0.45
1:A:1676:LEU:HA	1:A:1679:HIS:HB2	1.99	0.45
1:A:2123:SER:O	1:A:2126:GLN:NE2	2.50	0.45
1:A:2793:THR:OG1	1:A:2901:GLY:O	2.33	0.45
1:A:4717:ASP:OD1	1:A:4718:ASN:N	2.50	0.45
1:B:517:VAL:HB	1:B:520:ARG:HG2	1.99	0.45
1:B:1217:PHE:HB3	1:B:1247:ILE:HD12	1.98	0.45
1:B:2110:ASN:HB3	1:B:3615:HIS:HB3	1.99	0.45
1:B:2123:SER:O	1:B:2126:GLN:NE2	2.50	0.45
1:B:4594:LEU:O	1:B:4596:VAL:N	2.50	0.45
1:B:4717:ASP:OD1	1:B:4718:ASN:N	2.50	0.45
1:C:1106:GLU:N	1:C:1214:ARG:O	2.50	0.45
1:C:1468:THR:HA	1:C:1478:GLU:HA	1.98	0.45
1:C:3763:GLY:HA2	1:C:3766:ILE:HD12	1.98	0.45
1:C:3903:GLY:O	1:C:3907:PHE:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4158:ARG:O	1:C:4162:GLU:N	2.48	0.45
1:C:4160:GLN:HB3	1:C:4201:MET:HB3	1.98	0.45
1:D:1217:PHE:HB3	1:D:1247:ILE:HD12	1.98	0.45
1:A:61:ASP:OD1	1:A:62:LEU:N	2.50	0.45
1:A:517:VAL:HB	1:A:520:ARG:HG2	1.99	0.45
1:A:542:ARG:NE	1:A:577:CYS:SG	2.89	0.45
1:A:2222:LEU:HD11	1:A:2240:PRO:HB2	2.00	0.45
1:A:3806:LEU:HD21	1:A:3892:TYR:HB2	1.99	0.45
1:A:3831:LEU:HA	1:A:3832:GLN:HA	1.71	0.45
1:A:4160:GLN:HB3	1:A:4201:MET:HB3	1.98	0.45
1:A:4600:ILE:HD12	1:A:4603:ARG:HB3	1.99	0.45
1:B:237:LEU:N	1:B:404:ASN:O	2.45	0.45
1:B:2326:ILE:HG22	1:D:207:PHE:CB	2.47	0.45
1:C:61:ASP:OD1	1:C:62:LEU:N	2.50	0.45
1:C:274:LEU:H	1:C:299:HIS:CE1	2.35	0.45
1:C:1119:ARG:HH11	1:C:1133:ARG:HG2	1.81	0.45
1:D:270:HIS:HB3	1:D:272:ARG:HG2	1.97	0.45
1:D:2110:ASN:HB3	1:D:3615:HIS:HB3	1.99	0.45
1:D:2136:GLY:O	1:D:2140:GLU:N	2.49	0.45
1:D:4600:ILE:HD12	1:D:4603:ARG:HB3	1.99	0.45
1:D:4783:THR:HG21	1:D:4817:HIS:HB2	1.97	0.45
1:A:133:LEU:N	1:A:146:ASP:O	2.46	0.44
1:A:207:PHE:CB	1:D:2326:ILE:HG22	2.47	0.44
1:A:4849:ILE:HD12	1:D:4823:ARG:CB	2.46	0.44
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.50	0.44
1:B:1669:ASN:HB3	1:B:1672:VAL:HB	1.99	0.44
1:B:4886:GLU:O	1:B:4896:ASN:ND2	2.50	0.44
1:C:459:LEU:O	1:C:463:PHE:N	2.35	0.44
1:C:802:PHE:N	1:C:1616:GLY:O	2.50	0.44
1:C:1669:ASN:HB3	1:C:1672:VAL:HB	1.99	0.44
1:C:2110:ASN:HB3	1:C:3615:HIS:HB3	1.99	0.44
1:C:2349:GLU:OE2	1:C:2438:SER:OG	2.35	0.44
1:C:4814:TYR:O	1:C:4818:MET:HB2	2.16	0.44
1:A:1124:PRO:HG3	1:A:1600:PRO:HD3	1.98	0.44
1:A:1274:ASP:HA	1:A:1286:THR:H	1.82	0.44
1:A:2266:VAL:O	1:A:2270:LEU:N	2.48	0.44
1:A:3890:TYR:HE1	1:A:3954:HIS:HB2	1.82	0.44
1:B:81:MET:SD	1:B:102:MET:HB3	2.57	0.44
1:B:3984:LEU:HG	1:B:4102:LEU:HD12	1.98	0.44
1:C:4171:ARG:NH1	1:C:4175:PHE:HB2	2.32	0.44
1:D:4046:LYS:HG3	1:D:4068:LEU:HD22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:229:ILE:HA	1:A:288:HIS:HA	1.98	0.44
1:A:1106:GLU:N	1:A:1214:ARG:O	2.50	0.44
1:A:4886:GLU:O	1:A:4896:ASN:ND2	2.50	0.44
1:B:695:VAL:HG13	1:B:792:VAL:HG22	1.98	0.44
1:B:802:PHE:N	1:B:1616:GLY:O	2.50	0.44
1:B:1124:PRO:HG3	1:B:1600:PRO:HD3	1.98	0.44
1:B:1274:ASP:HA	1:B:1286:THR:H	1.82	0.44
1:B:3642:ILE:HD13	1:B:3645:LEU:HD12	2.00	0.44
1:B:3808:ALA:HA	1:B:3811:ARG:HD3	2.00	0.44
1:B:3890:TYR:HE1	1:B:3954:HIS:HB2	1.82	0.44
1:B:4139:ILE:HD12	1:B:4147:GLU:HB2	1.99	0.44
1:B:4158:ARG:O	1:B:4162:GLU:N	2.48	0.44
1:C:1055:ARG:HA	1:C:1058:LEU:HB2	2.00	0.44
1:C:2253:GLU:HA	1:C:2256:LEU:HD12	2.00	0.44
1:C:3806:LEU:HD21	1:C:3892:TYR:HB2	1.99	0.44
1:C:4011:VAL:HA	1:C:4014:ILE:HG12	1.97	0.44
1:C:4139:ILE:HD12	1:C:4147:GLU:HB2	1.99	0.44
1:D:1220:ASP:O	1:D:1224:LEU:N	2.51	0.44
1:D:1669:ASN:HB3	1:D:1672:VAL:HB	1.99	0.44
1:A:190:ARG:HH12	1:D:2423:ILE:HG21	1.67	0.44
1:A:1669:ASN:HB3	1:A:1672:VAL:HB	1.99	0.44
1:A:1799:VAL:O	1:A:1803:SER:CB	2.59	0.44
1:A:3870:ASN:HD21	1:A:3872:ILE:HD12	1.82	0.44
1:A:4154:SER:OG	1:A:4156:SER:OG	2.30	0.44
1:B:274:LEU:HD23	1:B:274:LEU:HA	1.88	0.44
1:B:541:ILE:HG12	1:B:551:PHE:HE2	1.83	0.44
1:B:3811:ARG:O	1:B:3815:ALA:N	2.43	0.44
1:B:3870:ASN:HD21	1:B:3872:ILE:HD12	1.82	0.44
1:B:4045:SER:O	1:B:4049:PHE:N	2.44	0.44
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.50	0.44
1:C:3808:ALA:HA	1:C:3811:ARG:HD3	2.00	0.44
1:C:3890:TYR:HE1	1:C:3954:HIS:HB2	1.82	0.44
1:C:4886:GLU:O	1:C:4896:ASN:ND2	2.50	0.44
1:D:394:HIS:CD2	1:D:396:GLU:H	2.35	0.44
1:D:1055:ARG:HA	1:D:1058:LEU:HB2	2.00	0.44
1:D:1900:PRO:O	1:D:1904:LYS:NZ	2.44	0.44
1:D:2253:GLU:HA	1:D:2256:LEU:HD12	2.00	0.44
1:A:2253:GLU:HA	1:A:2256:LEU:HD12	2.00	0.44
1:A:4046:LYS:HG3	1:A:4068:LEU:HD22	2.00	0.44
1:A:4834:ASP:O	1:A:4836:ALA:N	2.51	0.44
1:B:299:HIS:CD2	1:B:302:THR:H	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:394:HIS:CD2	1:B:396:GLU:H	2.35	0.44
1:B:1835:HIS:O	1:B:1838:ASP:N	2.47	0.44
1:B:3983:LEU:HD23	1:B:4102:LEU:HD11	2.00	0.44
1:C:4597:PRO:HA	1:C:4600:ILE:HG22	1.99	0.44
1:D:1297:THR:HA	1:D:1547:ALA:HB3	2.00	0.44
1:D:2313:SER:OG	1:D:2475:ARG:NH2	2.50	0.44
1:D:3642:ILE:HD13	1:D:3645:LEU:HD12	2.00	0.44
1:D:3911:ILE:HD12	1:D:3975:LEU:HD22	1.99	0.44
1:D:4517:ILE:O	1:D:4520:PHE:CD2	2.67	0.44
1:D:4594:LEU:O	1:D:4596:VAL:N	2.50	0.44
1:D:4820:VAL:O	1:D:4820:VAL:HG13	2.17	0.44
1:A:394:HIS:CD2	1:A:396:GLU:H	2.35	0.44
1:A:4597:PRO:HA	1:A:4600:ILE:HG22	1.98	0.44
1:A:4814:TYR:CE2	1:D:4519:LEU:CB	3.00	0.44
1:B:43:GLY:HA2	1:B:454:LEU:HG	2.00	0.44
1:B:655:MET:HE2	1:B:655:MET:HB3	1.87	0.44
1:B:675:TYR:HB2	1:B:804:LEU:HD21	1.99	0.44
1:B:1055:ARG:HA	1:B:1058:LEU:HB2	2.00	0.44
1:B:1799:VAL:O	1:B:1803:SER:CB	2.59	0.44
1:B:2481:VAL:O	1:B:2485:LEU:N	2.46	0.44
1:B:4011:VAL:HA	1:B:4014:ILE:HG12	1.97	0.44
1:B:4848:ASP:OD1	1:B:4849:ILE:N	2.51	0.44
1:C:541:ILE:HG12	1:C:551:PHE:HE2	1.83	0.44
1:C:648:LEU:HD23	1:C:1684:GLN:HA	2.00	0.44
1:C:695:VAL:HG13	1:C:792:VAL:HG22	1.98	0.44
1:C:1160:ASP:HA	1:C:1178:ASN:HD21	1.83	0.44
1:C:3831:LEU:HA	1:C:3832:GLN:HA	1.71	0.44
1:C:3852:ASN:O	1:C:3856:GLN:N	2.39	0.44
1:C:3977:LYS:HE2	1:C:3977:LYS:HB3	1.88	0.44
1:C:4046:LYS:HG3	1:C:4068:LEU:HD22	2.00	0.44
1:D:114:LEU:HB2	1:D:117:HIS:CE1	2.53	0.44
1:D:648:LEU:HD23	1:D:1684:GLN:HA	2.00	0.44
1:D:2222:LEU:HD11	1:D:2240:PRO:HB2	2.00	0.44
1:A:436:LEU:HD22	1:A:518:ALA:HA	2.00	0.44
1:A:1055:ARG:HA	1:A:1058:LEU:HB2	2.00	0.44
1:A:3892:TYR:CZ	1:A:3896:LYS:HE3	2.53	0.44
1:B:61:ASP:OD1	1:B:62:LEU:N	2.50	0.44
1:B:2253:GLU:HA	1:B:2256:LEU:HD12	2.00	0.44
1:B:3806:LEU:HD21	1:B:3892:TYR:HB2	1.99	0.44
1:C:114:LEU:HB2	1:C:117:HIS:CE1	2.53	0.44
1:C:123:HIS:N	1:C:128:MET:O	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1676:LEU:HA	1:C:1679:HIS:HB2	1.99	0.44
1:C:3892:TYR:CZ	1:C:3896:LYS:HE3	2.53	0.44
1:D:43:GLY:HA2	1:D:454:LEU:HG	2.00	0.44
1:D:4820:VAL:HG11	1:D:4828:ILE:HG13	2.00	0.44
1:D:4886:GLU:O	1:D:4896:ASN:ND2	2.50	0.44
1:A:114:LEU:HB2	1:A:117:HIS:CE1	2.53	0.44
1:A:161:THR:N	1:A:184:VAL:O	2.50	0.44
1:A:274:LEU:H	1:A:299:HIS:CE1	2.35	0.44
1:A:1089:ARG:O	1:A:1250:TRP:N	2.40	0.44
1:A:2136:GLY:O	1:A:2140:GLU:N	2.49	0.44
1:A:2486:LEU:HD13	1:A:2537:ALA:HB3	2.00	0.44
1:A:3959:LEU:HD13	1:A:3969:LEU:HA	2.00	0.44
1:B:3831:LEU:HA	1:B:3832:GLN:HA	1.71	0.44
1:B:4519:LEU:O	1:D:4810:MET:CB	2.66	0.44
1:C:43:GLY:HA2	1:C:454:LEU:HG	2.00	0.44
1:C:1900:PRO:O	1:C:1904:LYS:NZ	2.44	0.44
1:C:3760:LEU:HD22	1:C:3840:LEU:HA	2.00	0.44
1:C:3993:ASN:HD22	1:C:4110:MET:HG3	1.83	0.44
1:D:299:HIS:CD2	1:D:302:THR:H	2.34	0.44
1:D:541:ILE:HG12	1:D:551:PHE:HE2	1.83	0.44
1:D:675:TYR:HB2	1:D:804:LEU:HD21	1.99	0.44
1:D:1274:ASP:HA	1:D:1286:THR:H	1.82	0.44
1:D:3760:LEU:HD22	1:D:3840:LEU:HA	2.00	0.44
1:D:3949:LEU:HD23	1:D:3952:PHE:HD2	1.82	0.44
1:D:4848:ASP:OD1	1:D:4849:ILE:N	2.51	0.44
1:A:43:GLY:HA2	1:A:454:LEU:HG	2.00	0.44
1:A:675:TYR:HB2	1:A:804:LEU:HD21	1.99	0.44
1:B:121:LEU:HD23	1:B:121:LEU:HA	1.81	0.44
1:B:2222:LEU:HD11	1:B:2240:PRO:HB2	2.00	0.44
1:B:3960:SER:OG	1:B:4070:CYS:SG	2.60	0.44
1:C:281:ARG:NH2	1:C:287:SER:OG	2.44	0.44
1:C:675:TYR:HB2	1:C:804:LEU:HD21	1.99	0.44
1:D:517:VAL:HB	1:D:520:ARG:HG2	1.99	0.44
1:D:2793:THR:OG1	1:D:2901:GLY:O	2.33	0.44
1:D:4139:ILE:HD12	1:D:4147:GLU:HB2	1.99	0.44
1:D:4757:ILE:O	1:D:4760:SER:OG	2.30	0.44
1:A:541:ILE:HG12	1:A:551:PHE:HE2	1.83	0.43
1:A:1996:GLN:HA	1:A:1997:LEU:HA	1.82	0.43
1:A:3762:LEU:O	1:A:3766:ILE:N	2.42	0.43
1:A:3911:ILE:HD12	1:A:3975:LEU:HD22	1.99	0.43
1:A:3949:LEU:HD23	1:A:3952:PHE:HD2	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.53	0.43
1:B:556:ASP:N	1:B:556:ASP:OD1	2.51	0.43
1:B:2024:LEU:H	1:B:2027:ARG:HB3	1.83	0.43
1:B:4023:LYS:HA	1:B:4026:ASP:HB2	1.99	0.43
1:B:4627:ILE:HA	1:B:4630:GLN:HB2	2.00	0.43
1:C:2222:LEU:HD11	1:C:2240:PRO:HB2	2.00	0.43
1:C:3959:LEU:HD13	1:C:3969:LEU:HA	2.00	0.43
1:C:4023:LYS:HA	1:C:4026:ASP:HB2	1.99	0.43
1:D:325:LYS:HB2	1:D:367:GLY:HA3	2.00	0.43
1:D:3808:ALA:HA	1:D:3811:ARG:HD3	2.00	0.43
1:D:4023:LYS:HA	1:D:4026:ASP:HB2	1.99	0.43
1:A:3760:LEU:HD22	1:A:3840:LEU:HA	2.00	0.43
1:A:4023:LYS:HA	1:A:4026:ASP:HB2	1.99	0.43
1:A:4757:ILE:O	1:A:4760:SER:OG	2.29	0.43
1:B:82:LEU:HD23	1:B:82:LEU:C	2.37	0.43
1:B:648:LEU:HD23	1:B:1684:GLN:HA	2.00	0.43
1:B:853:PRO:HD3	1:B:1086:ARG:HG2	2.00	0.43
1:B:1718:ARG:NH2	1:B:1758:ARG:O	2.52	0.43
1:B:3760:LEU:HD22	1:B:3840:LEU:HA	2.00	0.43
1:B:4046:LYS:HG3	1:B:4068:LEU:HD22	2.00	0.43
1:C:436:LEU:HD22	1:C:518:ALA:HA	2.00	0.43
1:C:1297:THR:HA	1:C:1547:ALA:HB3	2.00	0.43
1:C:3983:LEU:HD23	1:C:4102:LEU:HD11	2.00	0.43
1:D:853:PRO:HD3	1:D:1086:ARG:HG2	2.00	0.43
1:D:3892:TYR:CZ	1:D:3896:LYS:HE3	2.53	0.43
1:A:853:PRO:HD3	1:A:1086:ARG:HG2	2.00	0.43
1:A:1288:LYS:HE3	1:A:1555:PHE:HD2	1.83	0.43
1:A:3808:ALA:HA	1:A:3811:ARG:HD3	2.00	0.43
1:A:4848:ASP:OD1	1:A:4849:ILE:N	2.51	0.43
1:B:325:LYS:HB2	1:B:367:GLY:HA3	2.01	0.43
1:B:3730:ALA:HA	1:B:3733:HIS:CE1	2.53	0.43
1:B:4783:THR:HG21	1:B:4814:TYR:HA	2.01	0.43
1:C:853:PRO:HD3	1:C:1086:ARG:HG2	2.00	0.43
1:C:1274:ASP:HA	1:C:1286:THR:H	1.82	0.43
1:C:3870:ASN:HD21	1:C:3872:ILE:HD12	1.82	0.43
1:C:3911:ILE:HD12	1:C:3975:LEU:HD22	1.99	0.43
1:C:4783:THR:HG21	1:C:4814:TYR:HA	2.01	0.43
1:D:133:LEU:N	1:D:146:ASP:O	2.46	0.43
1:D:1738:LEU:HD22	1:D:1739:PHE:H	1.84	0.43
1:D:1996:GLN:HA	1:D:1997:LEU:HA	1.82	0.43
1:D:2024:LEU:H	1:D:2027:ARG:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3730:ALA:HA	1:D:3733:HIS:CE1	2.53	0.43
1:D:3959:LEU:HD13	1:D:3969:LEU:HA	2.00	0.43
1:A:888:ASN:HB3	1:A:983:LEU:HD21	2.00	0.43
1:A:1160:ASP:HA	1:A:1178:ASN:HD21	1.83	0.43
1:A:2843:GLU:OE2	1:A:2875:TYR:OH	2.24	0.43
1:A:3791:PHE:HB3	1:A:3869:VAL:HG11	2.01	0.43
1:B:1220:ASP:O	1:B:1224:LEU:N	2.51	0.43
1:B:1471:ASP:H	1:B:1474:GLY:H	1.66	0.43
1:B:2349:GLU:OE2	1:B:2438:SER:OG	2.35	0.43
1:B:3892:TYR:CZ	1:B:3896:LYS:HE3	2.53	0.43
1:B:3997:GLY:HA2	1:B:4000:MET:SD	2.59	0.43
1:C:1165:MET:HB3	1:C:1236:TYR:CZ	2.54	0.43
1:C:3642:ILE:HD13	1:C:3645:LEU:HD12	2.00	0.43
1:C:3791:PHE:HB3	1:C:3869:VAL:HG11	2.01	0.43
1:C:4783:THR:CG2	1:C:4817:HIS:CG	2.93	0.43
1:C:4899:PHE:O	1:C:4906:PHE:N	2.52	0.43
1:D:651:HIS:N	1:D:1625:LEU:O	2.45	0.43
1:D:888:ASN:HB3	1:D:983:LEU:HD21	2.00	0.43
1:D:1253:LYS:HB3	1:D:1255:LEU:H	1.84	0.43
1:D:2894:LEU:HD23	1:D:2897:LEU:HD12	2.00	0.43
1:A:1220:ASP:O	1:A:1224:LEU:N	2.51	0.43
1:A:4899:PHE:O	1:A:4906:PHE:N	2.52	0.43
1:B:292:GLY:N	1:B:331:PHE:O	2.52	0.43
1:B:1297:THR:HA	1:B:1547:ALA:HB3	2.00	0.43
1:B:3903:GLY:O	1:B:3907:PHE:HB2	2.17	0.43
1:B:3959:LEU:HD13	1:B:3969:LEU:HA	2.00	0.43
1:B:4522:LYS:HA	1:B:4522:LYS:HD2	1.87	0.43
1:B:4899:PHE:O	1:B:4906:PHE:N	2.52	0.43
1:C:161:THR:N	1:C:184:VAL:O	2.50	0.43
1:C:2024:LEU:H	1:C:2027:ARG:HB3	1.83	0.43
1:C:2063:ILE:O	1:C:2066:THR:OG1	2.31	0.43
1:C:3730:ALA:HA	1:C:3733:HIS:CE1	2.53	0.43
1:C:3997:GLY:HA2	1:C:4000:MET:SD	2.59	0.43
1:D:1718:ARG:NH2	1:D:1758:ARG:O	2.52	0.43
1:D:3806:LEU:HD21	1:D:3892:TYR:HB2	1.99	0.43
1:D:4627:ILE:HA	1:D:4630:GLN:HB2	2.00	0.43
1:A:292:GLY:N	1:A:331:PHE:O	2.52	0.43
1:A:648:LEU:HD23	1:A:1684:GLN:HA	2.00	0.43
1:A:651:HIS:N	1:A:1625:LEU:O	2.45	0.43
1:A:653:SER:OG	1:A:794:PHE:O	2.33	0.43
1:A:794:PHE:HB2	1:A:798:ILE:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1306:MET:HB3	1:A:1575:HIS:CE1	2.54	0.43
1:A:1718:ARG:NH2	1:A:1758:ARG:O	2.52	0.43
1:A:2063:ILE:O	1:A:2066:THR:OG1	2.31	0.43
1:A:2202:CYS:O	1:A:2205:CYS:N	2.52	0.43
1:A:3642:ILE:HD13	1:A:3645:LEU:HD12	2.00	0.43
1:B:794:PHE:HB2	1:B:798:ILE:HD12	2.01	0.43
1:B:1256:PRO:O	1:B:1451:HIS:ND1	2.37	0.43
1:B:1738:LEU:HD22	1:B:1739:PHE:H	1.84	0.43
1:B:3791:PHE:HB3	1:B:3869:VAL:HG11	2.01	0.43
1:C:1092:LYS:HG2	1:C:1202:ILE:HD13	2.00	0.43
1:D:3791:PHE:HB3	1:D:3869:VAL:HG11	2.01	0.43
1:D:4783:THR:HG21	1:D:4814:TYR:HA	2.00	0.43
1:A:1738:LEU:HD22	1:A:1739:PHE:H	1.84	0.43
1:A:2110:ASN:HB3	1:A:3615:HIS:HB3	1.99	0.43
1:A:3993:ASN:HD22	1:A:4110:MET:HA	1.83	0.43
1:A:3993:ASN:HD22	1:A:4110:MET:HG3	1.83	0.43
1:A:4094:ASP:O	1:A:4098:ASN:ND2	2.52	0.43
1:A:4189:LEU:HA	1:A:4192:ASN:HD22	1.84	0.43
1:B:1165:MET:HB3	1:B:1236:TYR:CZ	2.54	0.43
1:B:4824:ALA:HB1	1:B:4827:GLY:O	2.18	0.43
1:C:20:VAL:O	1:C:67:PHE:N	2.45	0.43
1:C:218:SER:HB3	1:C:286:GLY:HA3	2.01	0.43
1:C:1220:ASP:O	1:C:1224:LEU:N	2.51	0.43
1:C:1738:LEU:HD22	1:C:1739:PHE:H	1.83	0.43
1:C:4561:VAL:CG1	1:C:4562:LEU:N	2.81	0.43
1:D:655:MET:HE2	1:D:655:MET:HB3	1.88	0.43
1:D:4664:ARG:CZ	1:D:4667:ILE:HG13	2.49	0.43
1:A:2024:LEU:H	1:A:2027:ARG:HB3	1.83	0.43
1:A:3730:ALA:HA	1:A:3733:HIS:CE1	2.53	0.43
1:B:433:LEU:O	1:B:437:SER:CB	2.67	0.43
1:B:995:MET:HE3	1:B:1064:LEU:HD22	2.00	0.43
1:B:1160:ASP:HA	1:B:1178:ASN:HD21	1.83	0.43
1:B:1306:MET:HB3	1:B:1575:HIS:CE1	2.54	0.43
1:B:1920:ARG:HA	1:B:1923:ILE:HD12	2.01	0.43
1:B:2658:TYR:O	1:B:2662:LEU:N	2.47	0.43
1:B:2894:LEU:HD23	1:B:2897:LEU:HD12	2.00	0.43
1:B:3911:ILE:HD12	1:B:3975:LEU:HD22	1.99	0.43
1:B:3993:ASN:HD22	1:B:4110:MET:HG3	1.83	0.43
1:B:4664:ARG:CZ	1:B:4667:ILE:HG13	2.49	0.43
1:B:4783:THR:CG2	1:B:4817:HIS:HD2	2.30	0.43
1:C:888:ASN:HB3	1:C:983:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1898:LYS:NZ	1:C:1899:LEU:O	2.51	0.43
1:C:3857:ASN:OD1	1:C:3860:ARG:NH2	2.52	0.43
1:C:4104:THR:O	1:C:4107:SER:OG	2.28	0.43
1:C:4581:THR:O	1:C:4584:SER:OG	2.29	0.43
1:C:4848:ASP:OD1	1:C:4849:ILE:N	2.51	0.43
1:D:649:VAL:O	1:D:1627:PHE:N	2.31	0.43
1:D:716:ASN:ND2	1:D:791:VAL:O	2.52	0.43
1:D:4899:PHE:O	1:D:4906:PHE:N	2.52	0.43
1:A:309:MET:HG2	1:A:311:ASP:H	1.84	0.43
1:A:1297:THR:HA	1:A:1547:ALA:HB3	2.00	0.43
1:A:1487:MET:SD	1:A:1531:TYR:HB2	2.59	0.43
1:A:1654:HIS:O	1:A:1657:THR:OG1	2.26	0.43
1:B:1654:HIS:O	1:B:1657:THR:OG1	2.26	0.43
1:C:309:MET:HG2	1:C:311:ASP:H	1.84	0.43
1:C:1726:ILE:HG22	1:C:2107:TYR:HB3	2.01	0.43
1:C:2894:LEU:HD23	1:C:2897:LEU:HD12	2.00	0.43
1:D:260:VAL:O	1:D:391:ALA:N	2.47	0.43
1:D:3993:ASN:HD22	1:D:4110:MET:HG3	1.83	0.43
1:D:4093:LYS:HG2	1:D:4130:PHE:CZ	2.54	0.43
1:A:1092:LYS:HG2	1:A:1202:ILE:HD13	2.00	0.43
1:B:1253:LYS:HB3	1:B:1255:LEU:H	1.84	0.43
1:B:4093:LYS:HG2	1:B:4130:PHE:CZ	2.54	0.43
1:B:4909:HIS:O	1:B:4913:GLU:HB2	2.19	0.43
1:C:292:GLY:N	1:C:331:PHE:O	2.52	0.43
1:C:433:LEU:O	1:C:437:SER:CB	2.67	0.43
1:C:995:MET:HE3	1:C:1064:LEU:HD22	2.01	0.43
1:C:1288:LYS:HE3	1:C:1555:PHE:HD2	1.83	0.43
1:C:1680:VAL:HG22	1:C:1685:LEU:HD11	2.01	0.43
1:C:4664:ARG:CZ	1:C:4667:ILE:HG13	2.49	0.43
1:D:187:SER:OG	1:D:188:SER:N	2.52	0.43
1:D:238:HIS:HB3	1:D:243:GLU:HB3	2.01	0.43
1:D:1165:MET:HB3	1:D:1236:TYR:CZ	2.54	0.43
1:D:1306:MET:HB3	1:D:1575:HIS:CE1	2.54	0.43
1:D:1487:MET:SD	1:D:1531:TYR:HB2	2.59	0.43
1:D:2605:LYS:O	1:D:2609:LYS:N	2.49	0.43
1:A:238:HIS:HB3	1:A:243:GLU:HB3	2.01	0.42
1:A:433:LEU:O	1:A:437:SER:CB	2.67	0.42
1:A:601:LEU:HB2	1:A:610:VAL:HG11	2.01	0.42
1:A:1090:ALA:HA	1:A:1249:MET:HA	2.01	0.42
1:A:1165:MET:HB3	1:A:1236:TYR:CZ	2.54	0.42
1:A:2894:LEU:HD23	1:A:2897:LEU:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4519:LEU:HB2	1:C:4814:TYR:HE2	1.80	0.42
1:A:4664:ARG:CZ	1:A:4667:ILE:HG13	2.49	0.42
1:A:4670:LEU:HD13	1:A:4670:LEU:HA	1.83	0.42
1:A:4783:THR:HG21	1:A:4814:TYR:HA	2.00	0.42
1:B:436:LEU:HD22	1:B:518:ALA:HA	2.00	0.42
1:B:716:ASN:ND2	1:B:791:VAL:O	2.52	0.42
1:B:1092:LYS:HG2	1:B:1202:ILE:HD13	2.00	0.42
1:B:2136:GLY:O	1:B:2140:GLU:N	2.49	0.42
1:C:794:PHE:HB2	1:C:798:ILE:HD12	2.01	0.42
1:C:1035:TYR:CZ	1:C:1043:LYS:HG2	2.54	0.42
1:C:1718:ARG:NH2	1:C:1758:ARG:O	2.52	0.42
1:D:794:PHE:HB2	1:D:798:ILE:HD12	2.01	0.42
1:D:2349:GLU:OE2	1:D:2438:SER:OG	2.35	0.42
1:D:3903:GLY:O	1:D:3907:PHE:HB2	2.17	0.42
1:D:3983:LEU:HD23	1:D:4102:LEU:HD11	2.00	0.42
1:D:4561:VAL:HG22	1:D:4562:LEU:O	2.19	0.42
1:D:4713:VAL:O	1:D:4716:THR:OG1	2.26	0.42
1:A:325:LYS:HB2	1:A:367:GLY:HA3	2.01	0.42
1:A:556:ASP:N	1:A:556:ASP:OD1	2.51	0.42
1:A:1726:ILE:HG22	1:A:2107:TYR:HB3	2.01	0.42
1:A:3996:ILE:HG12	1:A:4000:MET:HE3	2.01	0.42
1:A:4005:VAL:HG21	1:A:4115:ARG:HB3	2.01	0.42
1:B:235:ARG:HE	1:B:274:LEU:HD21	1.84	0.42
1:B:260:VAL:O	1:B:391:ALA:N	2.47	0.42
1:B:411:GLU:H	1:B:411:GLU:HG3	1.62	0.42
1:B:1442:TRP:HD1	1:B:1488:VAL:HG13	1.84	0.42
1:B:2737:LYS:HD2	1:B:2755:GLN:HE22	1.84	0.42
1:C:235:ARG:HE	1:C:274:LEU:HD21	1.84	0.42
1:C:325:LYS:HB2	1:C:367:GLY:HA3	2.01	0.42
1:C:1138:ASP:HB2	1:C:1145:TRP:HE1	1.85	0.42
1:C:1835:HIS:O	1:C:1838:ASP:N	2.47	0.42
1:C:4093:LYS:HG2	1:C:4130:PHE:CZ	2.53	0.42
1:C:4798:GLU:H	1:C:4802:THR:HG1	1.62	0.42
1:D:292:GLY:N	1:D:331:PHE:O	2.52	0.42
1:D:1035:TYR:CZ	1:D:1043:LYS:HG2	2.54	0.42
1:D:1090:ALA:HA	1:D:1249:MET:HA	2.01	0.42
1:D:1288:LYS:HE3	1:D:1555:PHE:HD2	1.83	0.42
1:D:1471:ASP:H	1:D:1474:GLY:H	1.66	0.42
1:D:1835:HIS:O	1:D:1838:ASP:N	2.47	0.42
1:D:4094:ASP:O	1:D:4098:ASN:ND2	2.52	0.42
1:D:4135:GLY:N	1:D:4151:PHE:O	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:897:LYS:HE2	1:A:915:HIS:CG	2.54	0.42
1:A:1138:ASP:HB2	1:A:1145:TRP:HE1	1.85	0.42
1:A:1929:PHE:CZ	1:A:2030:LEU:HB3	2.55	0.42
1:B:799:LYS:HZ1	1:B:1618:LEU:HD13	1.83	0.42
1:B:888:ASN:HB3	1:B:983:LEU:HD21	2.00	0.42
1:B:1288:LYS:HE3	1:B:1555:PHE:HD2	1.83	0.42
1:B:1487:MET:SD	1:B:1531:TYR:HB2	2.59	0.42
1:B:3857:ASN:OD1	1:B:3860:ARG:NH2	2.52	0.42
1:B:4104:THR:O	1:B:4107:SER:OG	2.28	0.42
1:B:4113:ASP:O	1:B:4117:GLN:N	2.47	0.42
1:C:238:HIS:HB3	1:C:243:GLU:HB3	2.01	0.42
1:C:1154:ARG:HE	1:C:1177:LEU:HD23	1.84	0.42
1:C:1253:LYS:HB3	1:C:1255:LEU:H	1.84	0.42
1:C:1442:TRP:HD1	1:C:1488:VAL:HG13	1.85	0.42
1:C:4627:ILE:HA	1:C:4630:GLN:HB2	2.00	0.42
1:D:1160:ASP:HA	1:D:1178:ASN:HD21	1.83	0.42
1:D:1442:TRP:HD1	1:D:1488:VAL:HG13	1.84	0.42
1:D:1628:MET:HB2	1:D:1687:TYR:HE2	1.84	0.42
1:A:73:LEU:O	1:A:117:HIS:CG	2.73	0.42
1:A:995:MET:HE3	1:A:1064:LEU:HD22	2.01	0.42
1:A:1256:PRO:O	1:A:1451:HIS:ND1	2.37	0.42
1:A:1442:TRP:HD1	1:A:1488:VAL:HG13	1.84	0.42
1:A:2717:LYS:HA	1:A:2720:TYR:HD2	1.85	0.42
1:A:3983:LEU:HD23	1:A:4102:LEU:HD11	2.00	0.42
1:A:4093:LYS:HG2	1:A:4130:PHE:CZ	2.53	0.42
1:A:4627:ILE:HA	1:A:4630:GLN:HB2	2.00	0.42
1:B:281:ARG:NH2	1:B:287:SER:OG	2.44	0.42
1:B:1929:PHE:CZ	1:B:2030:LEU:HB3	2.55	0.42
1:B:2202:CYS:O	1:B:2205:CYS:N	2.52	0.42
1:B:4094:ASP:O	1:B:4098:ASN:ND2	2.52	0.42
1:C:138:SER:O	1:C:140:THR:OG1	2.26	0.42
1:C:191:TYR:N	1:C:206:ALA:O	2.52	0.42
1:C:601:LEU:HB2	1:C:610:VAL:HG11	2.01	0.42
1:C:716:ASN:ND2	1:C:791:VAL:O	2.52	0.42
1:C:897:LYS:HE2	1:C:915:HIS:CG	2.54	0.42
1:C:2202:CYS:O	1:C:2205:CYS:N	2.52	0.42
1:C:4635:VAL:O	1:C:4638:THR:OG1	2.30	0.42
1:D:14:LEU:HD23	1:D:14:LEU:HA	1.89	0.42
1:D:745:ASN:ND2	1:D:773:GLN:OE1	2.38	0.42
1:D:2222:LEU:O	1:D:2226:SER:N	2.37	0.42
1:D:2658:TYR:O	1:D:2662:LEU:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3993:ASN:HD22	1:D:4110:MET:HA	1.84	0.42
1:D:4953:PHE:HA	1:D:4954:PRO:HD3	1.86	0.42
1:A:71:GLN:HE22	1:A:106:GLN:H	1.65	0.42
1:A:716:ASN:ND2	1:A:791:VAL:O	2.52	0.42
1:A:1664:VAL:HG12	1:A:1672:VAL:HG11	2.01	0.42
1:A:1920:ARG:HA	1:A:1923:ILE:HD12	2.01	0.42
1:B:218:SER:HB3	1:B:286:GLY:HA3	2.01	0.42
1:B:1154:ARG:HE	1:B:1177:LEU:HD23	1.85	0.42
1:C:1471:ASP:H	1:C:1474:GLY:H	1.66	0.42
1:C:1487:MET:SD	1:C:1531:TYR:HB2	2.59	0.42
1:C:1929:PHE:CZ	1:C:2030:LEU:HB3	2.55	0.42
1:D:84:ASN:ND2	1:D:84:ASN:O	2.52	0.42
1:D:1718:ARG:HA	1:D:1721:MET:HB2	2.02	0.42
1:D:2202:CYS:O	1:D:2205:CYS:N	2.52	0.42
1:D:3857:ASN:OD1	1:D:3860:ARG:NH2	2.52	0.42
1:D:3897:ASP:OD1	1:D:3958:LYS:NZ	2.40	0.42
1:A:218:SER:HB3	1:A:286:GLY:HA3	2.01	0.42
1:A:799:LYS:HZ1	1:A:1618:LEU:HD13	1.84	0.42
1:A:1035:TYR:CZ	1:A:1043:LYS:HG2	2.55	0.42
1:A:3766:ILE:HG22	1:A:3767:LEU:HG	2.02	0.42
1:A:3857:ASN:OD1	1:A:3860:ARG:NH2	2.52	0.42
1:A:4790:PHE:HA	1:A:4793:PHE:HE2	1.85	0.42
1:B:207:PHE:CB	1:C:2326:ILE:HG22	2.50	0.42
1:B:244:CYS:N	1:B:263:GLU:O	2.41	0.42
1:B:537:LEU:HD23	1:B:574:VAL:HG21	2.02	0.42
1:B:653:SER:OG	1:B:794:PHE:O	2.33	0.42
1:B:1035:TYR:CZ	1:B:1043:LYS:HG2	2.54	0.42
1:B:2063:ILE:O	1:B:2066:THR:OG1	2.31	0.42
1:B:4757:ILE:O	1:B:4760:SER:OG	2.30	0.42
1:C:1257:GLN:O	1:C:1596:TRP:N	2.36	0.42
1:C:1728:PRO:HB2	1:C:1730:THR:HG23	2.02	0.42
1:C:2793:THR:OG1	1:C:2901:GLY:O	2.33	0.42
1:C:3993:ASN:HD22	1:C:4110:MET:HA	1.84	0.42
1:C:4790:PHE:HA	1:C:4793:PHE:HE2	1.85	0.42
1:D:537:LEU:HD23	1:D:574:VAL:HG21	2.02	0.42
1:D:556:ASP:N	1:D:556:ASP:OD1	2.51	0.42
1:D:799:LYS:HZ1	1:D:1618:LEU:HD13	1.84	0.42
1:D:3997:GLY:HA2	1:D:4000:MET:SD	2.59	0.42
1:D:4832:ILE:CD1	1:D:4848:ASP:OD2	2.65	0.42
1:A:235:ARG:HE	1:A:274:LEU:HD21	1.84	0.42
1:A:1628:MET:HB2	1:A:1687:TYR:HE2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1651:LEU:HD11	1:A:1695:PRO:HG2	2.02	0.42
1:A:3983:LEU:HD12	1:A:3983:LEU:HA	1.82	0.42
1:A:4833:GLU:HG2	1:A:4834:ASP:OD1	2.20	0.42
1:A:4865:GLY:HA3	1:D:4871:PHE:CD2	2.54	0.42
1:B:601:LEU:HB2	1:B:610:VAL:HG11	2.01	0.42
1:B:1680:VAL:HG22	1:B:1685:LEU:HD11	2.01	0.42
1:B:1728:PRO:HB2	1:B:1730:THR:HG23	2.02	0.42
1:B:2142:LEU:HD23	1:B:2145:ARG:HD2	2.02	0.42
1:B:3993:ASN:HD22	1:B:4110:MET:HA	1.84	0.42
1:C:657:PRO:HA	1:C:834:VAL:HA	2.02	0.42
1:C:1654:HIS:O	1:C:1657:THR:OG1	2.26	0.42
1:C:4094:ASP:O	1:C:4098:ASN:ND2	2.52	0.42
1:D:43:GLY:HA3	1:D:455:SER:HB2	2.02	0.42
1:D:1651:LEU:HD11	1:D:1695:PRO:HG2	2.02	0.42
1:D:1664:VAL:HG12	1:D:1672:VAL:HG11	2.01	0.42
1:D:1920:ARG:HA	1:D:1923:ILE:HD12	2.01	0.42
1:D:4747:ILE:HD12	1:D:4747:ILE:HA	1.95	0.42
1:D:4909:HIS:O	1:D:4913:GLU:HB2	2.19	0.42
1:A:657:PRO:HA	1:A:834:VAL:HA	2.02	0.42
1:A:1253:LYS:HB3	1:A:1255:LEU:H	1.84	0.42
1:A:1471:ASP:H	1:A:1474:GLY:H	1.66	0.42
1:A:2142:LEU:HD23	1:A:2145:ARG:HD2	2.02	0.42
1:A:3811:ARG:O	1:A:3815:ALA:N	2.43	0.42
1:A:3997:GLY:HA2	1:A:4000:MET:SD	2.59	0.42
1:B:1090:ALA:HA	1:B:1249:MET:HA	2.01	0.42
1:B:1898:LYS:NZ	1:B:1899:LEU:O	2.51	0.42
1:B:2102:ALA:HA	1:B:2105:LYS:HZ1	1.85	0.42
1:B:2717:LYS:HA	1:B:2720:TYR:HD2	1.85	0.42
1:B:4189:LEU:HA	1:B:4192:ASN:HD22	1.84	0.42
1:C:43:GLY:HA3	1:C:455:SER:HB2	2.01	0.42
1:C:1256:PRO:HB3	1:C:1597:SER:HA	2.02	0.42
1:C:1306:MET:HB3	1:C:1575:HIS:CE1	2.54	0.42
1:C:1651:LEU:HD11	1:C:1695:PRO:HG2	2.02	0.42
1:C:1659:ARG:O	1:C:1662:SER:OG	2.30	0.42
1:C:1838:ASP:HA	1:C:1841:HIS:HB3	2.02	0.42
1:C:3694:ASP:O	1:C:3698:LYS:HG2	2.20	0.42
1:D:218:SER:HB3	1:D:286:GLY:HA3	2.01	0.42
1:D:436:LEU:HD22	1:D:518:ALA:HA	2.00	0.42
1:D:897:LYS:HE2	1:D:915:HIS:CG	2.54	0.42
1:D:2737:LYS:HD2	1:D:2755:GLN:HE22	1.84	0.42
1:A:187:SER:OG	1:A:188:SER:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:298:ARG:HE	1:A:303:GLY:HA2	1.85	0.42
1:A:767:SER:HA	1:A:778:MET:HE2	2.00	0.42
1:A:1170:GLU:O	1:A:1172:THR:N	2.52	0.42
1:A:1680:VAL:HG22	1:A:1685:LEU:HD11	2.01	0.42
1:A:1728:PRO:HB2	1:A:1730:THR:HG23	2.02	0.42
1:A:4909:HIS:O	1:A:4913:GLU:HB2	2.19	0.42
1:B:238:HIS:HB3	1:B:243:GLU:HB3	2.01	0.42
1:B:1726:ILE:HG22	1:B:2107:TYR:HB3	2.01	0.42
1:B:1900:PRO:O	1:B:1904:LYS:NZ	2.44	0.42
1:B:2086:PHE:O	1:B:3692:TYR:OH	2.25	0.42
1:B:4833:GLU:O	1:B:4844:ARG:NH2	2.52	0.42
1:C:2521:LEU:HD22	1:C:2565:ALA:HB2	2.02	0.42
1:C:3766:ILE:HG22	1:C:3767:LEU:HG	2.02	0.42
1:C:4909:HIS:O	1:C:4913:GLU:HB2	2.19	0.42
1:D:161:THR:N	1:D:184:VAL:O	2.50	0.42
1:D:433:LEU:O	1:D:437:SER:CB	2.67	0.42
1:D:653:SER:OG	1:D:794:PHE:O	2.33	0.42
1:D:767:SER:HA	1:D:778:MET:HE2	2.02	0.42
1:D:1089:ARG:O	1:D:1250:TRP:N	2.40	0.42
1:D:1626:GLN:O	1:D:1687:TYR:OH	2.31	0.42
1:D:2709:THR:HB	1:D:2781:LYS:HB3	2.02	0.42
1:D:4189:LEU:HA	1:D:4192:ASN:HD22	1.84	0.42
1:D:4670:LEU:HA	1:D:4670:LEU:HD13	1.83	0.42
1:A:1696:GLY:HA2	1:A:1699:ARG:HB3	2.02	0.42
1:A:2126:GLN:O	1:A:2130:LEU:HB2	2.20	0.42
1:A:2127:ILE:HD11	1:A:2143:MET:HG3	2.02	0.42
1:A:3812:GLN:HA	1:A:3815:ALA:HB3	2.02	0.42
1:A:3922:THR:O	1:A:3926:GLN:N	2.43	0.42
1:A:4782:TYR:O	1:A:4786:ALA:N	2.35	0.42
1:B:187:SER:OG	1:B:188:SER:N	2.52	0.42
1:B:356:TYR:CD1	1:B:407:ARG:HB3	2.55	0.42
1:B:1838:ASP:HA	1:B:1841:HIS:HB3	2.02	0.42
1:B:1929:PHE:HZ	1:B:2030:LEU:HB3	1.85	0.42
1:B:2035:GLU:O	1:B:2038:THR:OG1	2.37	0.42
1:B:4790:PHE:HA	1:B:4793:PHE:HE2	1.85	0.42
1:C:326:SER:OG	1:C:327:THR:N	2.53	0.42
1:C:1089:ARG:O	1:C:1250:TRP:N	2.40	0.42
1:C:2142:LEU:HD23	1:C:2145:ARG:HD2	2.02	0.42
1:C:2737:LYS:HD2	1:C:2755:GLN:HE22	1.84	0.42
1:C:4189:LEU:HA	1:C:4192:ASN:HD22	1.84	0.42
1:D:235:ARG:HE	1:D:274:LEU:HD21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1726:ILE:HG22	1:D:2107:TYR:HB3	2.01	0.42
1:D:2717:LYS:HA	1:D:2720:TYR:HD2	1.85	0.42
1:D:3812:GLN:HA	1:D:3815:ALA:HB3	2.02	0.42
1:D:4790:PHE:HA	1:D:4793:PHE:HE2	1.85	0.42
1:A:43:GLY:HA3	1:A:455:SER:HB2	2.02	0.41
1:A:343:ARG:HB3	1:A:344:LYS:H	1.68	0.41
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.50	0.41
1:A:3637:PHE:O	1:A:3641:LEU:N	2.51	0.41
1:A:3903:GLY:O	1:A:3907:PHE:HB2	2.17	0.41
1:B:52:THR:HA	1:B:60:PRO:HG3	2.02	0.41
1:B:161:THR:N	1:B:184:VAL:O	2.50	0.41
1:B:190:ARG:HH11	1:C:2423:ILE:HG23	1.79	0.41
1:B:748:LEU:HB2	1:B:750:ARG:HG3	2.02	0.41
1:B:897:LYS:HE2	1:B:915:HIS:CG	2.54	0.41
1:B:1696:GLY:HA2	1:B:1699:ARG:HB3	2.02	0.41
1:B:2521:LEU:HD22	1:B:2565:ALA:HB2	2.02	0.41
1:C:537:LEU:HD23	1:C:574:VAL:HG21	2.02	0.41
1:C:556:ASP:N	1:C:556:ASP:OD1	2.51	0.41
1:C:1090:ALA:HA	1:C:1249:MET:HA	2.01	0.41
1:C:2605:LYS:O	1:C:2609:LYS:N	2.49	0.41
1:C:3666:HIS:HE1	1:C:3670:LEU:HD12	1.85	0.41
1:C:4135:GLY:N	1:C:4151:PHE:O	2.48	0.41
1:D:1092:LYS:HG2	1:D:1202:ILE:HD13	2.00	0.41
1:D:1680:VAL:HG22	1:D:1685:LEU:HD11	2.01	0.41
1:D:1728:PRO:HB2	1:D:1730:THR:HG23	2.02	0.41
1:D:2142:LEU:HD23	1:D:2145:ARG:HD2	2.02	0.41
1:A:281:ARG:NH2	1:A:287:SER:OG	2.44	0.41
1:A:433:LEU:HD21	1:A:505:LEU:HG	2.02	0.41
1:A:1654:HIS:HA	1:A:1657:THR:HG23	2.02	0.41
1:A:1838:ASP:HA	1:A:1841:HIS:HB3	2.02	0.41
1:A:2521:LEU:HD22	1:A:2565:ALA:HB2	2.01	0.41
1:B:223:ALA:HB2	1:B:349:MET:HG3	2.03	0.41
1:B:415:THR:HG21	1:B:485:ARG:HG2	2.02	0.41
1:B:849:ASP:OD2	1:B:1214:ARG:NE	2.53	0.41
1:B:1833:ILE:HG22	1:B:1834:PHE:H	1.85	0.41
1:B:2709:THR:HB	1:B:2781:LYS:HB3	2.02	0.41
1:C:52:THR:HA	1:C:60:PRO:HG3	2.02	0.41
1:C:681:HIS:ND1	1:C:683:GLU:OE2	2.53	0.41
1:C:799:LYS:HZ1	1:C:1618:LEU:HD13	1.86	0.41
1:C:1696:GLY:HA2	1:C:1699:ARG:HB3	2.02	0.41
1:C:1718:ARG:HA	1:C:1721:MET:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:298:ARG:HE	1:D:303:GLY:HA2	1.85	0.41
1:D:309:MET:HG2	1:D:311:ASP:H	1.84	0.41
1:D:1137:PHE:CE2	1:D:1139:GLY:HA2	2.56	0.41
1:D:1154:ARG:HE	1:D:1177:LEU:HD23	1.84	0.41
1:D:1170:GLU:O	1:D:1172:THR:N	2.52	0.41
1:D:1929:PHE:HZ	1:D:2030:LEU:HB3	1.85	0.41
1:D:3996:ILE:HG12	1:D:4000:MET:HE3	2.01	0.41
1:A:223:ALA:HB2	1:A:349:MET:HG3	2.03	0.41
1:A:1137:PHE:CE2	1:A:1139:GLY:HA2	2.56	0.41
1:A:4193:PHE:O	1:A:4197:THR:OG1	2.26	0.41
1:A:4519:LEU:HD12	1:C:4811:LEU:CA	2.50	0.41
1:A:4732:LEU:O	1:A:4736:ASN:N	2.52	0.41
1:B:309:MET:HG2	1:B:311:ASP:H	1.84	0.41
1:B:326:SER:OG	1:B:327:THR:N	2.53	0.41
1:B:681:HIS:ND1	1:B:683:GLU:OE2	2.53	0.41
1:B:767:SER:HA	1:B:778:MET:HE2	2.02	0.41
1:B:1256:PRO:HB3	1:B:1597:SER:HA	2.02	0.41
1:B:1664:VAL:HG12	1:B:1672:VAL:HG11	2.01	0.41
1:B:2196:ASN:HA	1:B:2199:ARG:HH11	1.86	0.41
1:B:2433:LEU:HA	1:B:2436:VAL:HB	2.02	0.41
1:B:3694:ASP:O	1:B:3698:LYS:HG2	2.20	0.41
1:B:4632:ASP:OD1	1:B:4632:ASP:N	2.53	0.41
1:C:472:HIS:O	1:C:476:GLN:HG2	2.21	0.41
1:C:4495:TYR:HA	1:C:4498:ARG:HG2	2.03	0.41
1:D:1138:ASP:HB2	1:D:1145:TRP:HE1	1.85	0.41
1:D:1833:ILE:HG22	1:D:1834:PHE:H	1.85	0.41
1:D:4005:VAL:HG21	1:D:4115:ARG:HB3	2.01	0.41
1:D:4732:LEU:O	1:D:4736:ASN:N	2.52	0.41
1:A:449:ILE:HG23	1:A:529:ILE:HD11	2.02	0.41
1:A:1835:HIS:O	1:A:1838:ASP:N	2.47	0.41
1:A:3694:ASP:O	1:A:3698:LYS:HG2	2.20	0.41
1:B:591:GLU:HA	1:B:631:LEU:HD21	2.03	0.41
1:B:1431:ARG:HB3	1:B:1554:GLN:HB2	2.03	0.41
1:B:1628:MET:HB2	1:B:1687:TYR:HE2	1.84	0.41
1:B:1651:LEU:HD11	1:B:1695:PRO:HG2	2.02	0.41
1:B:1654:HIS:HA	1:B:1657:THR:HG23	2.02	0.41
1:B:3766:ILE:HG22	1:B:3767:LEU:HG	2.01	0.41
1:B:4754:LEU:HD13	1:D:4774:LEU:HD13	2.02	0.41
1:C:298:ARG:HE	1:C:303:GLY:HA2	1.85	0.41
1:C:449:ILE:HG23	1:C:529:ILE:HD11	2.02	0.41
1:C:1654:HIS:HA	1:C:1657:THR:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:591:GLU:HA	1:D:631:LEU:HD21	2.03	0.41
1:D:1828:LEU:HD12	1:D:1828:LEU:HA	1.91	0.41
1:D:3694:ASP:O	1:D:3698:LYS:HG2	2.20	0.41
1:A:472:HIS:O	1:A:476:GLN:HG2	2.21	0.41
1:A:559:ILE:HD13	1:A:593:HIS:HB3	2.02	0.41
1:A:681:HIS:ND1	1:A:683:GLU:OE2	2.53	0.41
1:A:1154:ARG:HE	1:A:1177:LEU:HD23	1.85	0.41
1:B:43:GLY:HA3	1:B:455:SER:HB2	2.01	0.41
1:B:246:THR:HG1	1:B:272:ARG:NH1	2.19	0.41
1:B:1138:ASP:HB2	1:B:1145:TRP:HE1	1.85	0.41
1:B:1170:GLU:O	1:B:1172:THR:N	2.52	0.41
1:B:3882:VAL:O	1:B:3886:ILE:HG12	2.20	0.41
1:B:4495:TYR:HA	1:B:4498:ARG:HG2	2.03	0.41
1:B:4782:TYR:O	1:B:4786:ALA:N	2.35	0.41
1:C:1920:ARG:HA	1:C:1923:ILE:HD12	2.01	0.41
1:C:2126:GLN:O	1:C:2130:LEU:HB2	2.20	0.41
1:C:2709:THR:HB	1:C:2781:LYS:HB3	2.01	0.41
1:C:2717:LYS:HA	1:C:2720:TYR:HD2	1.85	0.41
1:C:3666:HIS:CE1	1:C:3670:LEU:HD12	2.56	0.41
1:C:4114:THR:HA	1:C:4117:GLN:HB2	2.02	0.41
1:D:125:TYR:OH	1:D:413:SER:O	2.38	0.41
1:D:326:SER:OG	1:D:327:THR:N	2.53	0.41
1:D:356:TYR:CD1	1:D:407:ARG:HB3	2.55	0.41
1:D:748:LEU:HB2	1:D:750:ARG:HG3	2.02	0.41
1:D:2196:ASN:HA	1:D:2199:ARG:HH11	1.86	0.41
1:D:2521:LEU:HD22	1:D:2565:ALA:HB2	2.01	0.41
1:D:3627:LYS:HE2	1:D:3627:LYS:HB3	1.84	0.41
1:A:191:TYR:N	1:A:206:ALA:O	2.52	0.41
1:A:223:ALA:HB3	1:A:288:HIS:CE1	2.56	0.41
1:A:326:SER:OG	1:A:327:THR:N	2.53	0.41
1:A:2196:ASN:HA	1:A:2199:ARG:HH11	1.86	0.41
1:A:2709:THR:HB	1:A:2781:LYS:HB3	2.01	0.41
1:A:2737:LYS:HD2	1:A:2755:GLN:HE22	1.84	0.41
1:A:4495:TYR:HA	1:A:4498:ARG:HG2	2.03	0.41
1:B:277:LEU:HD23	1:B:277:LEU:HA	1.93	0.41
1:B:1090:ALA:HA	1:B:1249:MET:HG2	2.03	0.41
1:B:1290:PHE:HB2	1:B:1552:VAL:HG12	2.02	0.41
1:B:2063:ILE:O	1:B:2067:MET:HG2	2.21	0.41
1:B:3637:PHE:O	1:B:3641:LEU:N	2.51	0.41
1:B:3666:HIS:CE1	1:B:3670:LEU:HD12	2.56	0.41
1:B:4005:VAL:HG21	1:B:4115:ARG:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4114:THR:HA	1:B:4117:GLN:HB2	2.02	0.41
1:C:244:CYS:N	1:C:263:GLU:O	2.41	0.41
1:C:299:HIS:CD2	1:C:302:THR:H	2.34	0.41
1:C:356:TYR:CD1	1:C:407:ARG:HB3	2.55	0.41
1:C:1137:PHE:CE2	1:C:1139:GLY:HA2	2.55	0.41
1:C:1628:MET:HB2	1:C:1687:TYR:HE2	1.84	0.41
1:C:1664:VAL:HG12	1:C:1672:VAL:HG11	2.01	0.41
1:C:2388:ALA:O	1:C:2392:PHE:HB2	2.21	0.41
1:C:4005:VAL:HG21	1:C:4115:ARG:HB3	2.01	0.41
1:C:4160:GLN:HE22	1:C:4204:ALA:HB3	1.86	0.41
1:C:4610:LYS:O	1:C:4614:ASP:HB2	2.21	0.41
1:D:277:LEU:HD23	1:D:277:LEU:HA	1.93	0.41
1:D:490:GLN:NE2	1:D:550:GLN:HG3	2.36	0.41
1:D:681:HIS:ND1	1:D:683:GLU:OE2	2.53	0.41
1:D:1103:PHE:HB3	1:D:1239:PHE:CE2	2.56	0.41
1:D:1838:ASP:HA	1:D:1841:HIS:HB3	2.02	0.41
1:D:2063:ILE:O	1:D:2067:MET:HG2	2.21	0.41
1:D:2127:ILE:HD11	1:D:2143:MET:HG3	2.02	0.41
1:D:3666:HIS:HE1	1:D:3670:LEU:HD12	1.85	0.41
1:D:3766:ILE:HG22	1:D:3767:LEU:HG	2.01	0.41
1:D:4753:THR:O	1:D:4756:THR:OG1	2.26	0.41
1:A:441:LYS:HA	1:A:442:ALA:HA	1.84	0.41
1:A:1103:PHE:HB3	1:A:1239:PHE:CE2	2.56	0.41
1:A:3677:LEU:HD23	1:A:3677:LEU:HA	1.83	0.41
1:A:3733:HIS:HA	1:A:3737:ALA:HB3	2.02	0.41
1:A:4114:THR:HA	1:A:4117:GLN:HB2	2.02	0.41
1:A:4610:LYS:O	1:A:4614:ASP:HB2	2.21	0.41
1:B:266:ALA:HB1	1:B:269:VAL:HB	2.03	0.41
1:B:449:ILE:HG23	1:B:529:ILE:HD11	2.02	0.41
1:B:1659:ARG:O	1:B:1662:SER:OG	2.30	0.41
1:B:1718:ARG:HA	1:B:1721:MET:HB2	2.02	0.41
1:B:2135:MET:HA	1:B:2136:GLY:HA3	1.65	0.41
1:B:2388:ALA:O	1:B:2392:PHE:HB2	2.21	0.41
1:B:3666:HIS:HE1	1:B:3670:LEU:HD12	1.85	0.41
1:B:4517:ILE:HA	1:B:4520:PHE:CD2	2.55	0.41
1:B:4600:ILE:HD12	1:B:4600:ILE:HA	1.96	0.41
1:B:4753:THR:O	1:B:4756:THR:OG1	2.26	0.41
1:C:223:ALA:HB3	1:C:288:HIS:CE1	2.56	0.41
1:C:227:TYR:CD2	1:C:352:SER:HB2	2.56	0.41
1:C:274:LEU:HD23	1:C:274:LEU:HA	1.88	0.41
1:C:2433:LEU:HA	1:C:2436:VAL:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:223:ALA:HB2	1:D:349:MET:HG3	2.03	0.41
1:D:227:TYR:CD2	1:D:352:SER:HB2	2.56	0.41
1:D:657:PRO:HA	1:D:834:VAL:HA	2.02	0.41
1:D:1092:LYS:H	1:D:1250:TRP:HZ3	1.68	0.41
1:D:1669:ASN:O	1:D:1673:ALA:N	2.43	0.41
1:D:1696:GLY:HA2	1:D:1699:ARG:HB3	2.02	0.41
1:D:2388:ALA:O	1:D:2392:PHE:HB2	2.21	0.41
1:D:3882:VAL:O	1:D:3886:ILE:HG12	2.20	0.41
1:D:4520:PHE:HB2	1:D:4561:VAL:HG23	2.03	0.41
1:D:4768:LEU:HG	1:D:4866:LEU:HD23	2.02	0.41
1:A:52:THR:HA	1:A:60:PRO:HG3	2.02	0.41
1:A:227:TYR:CD2	1:A:352:SER:HB2	2.56	0.41
1:A:490:GLN:NE2	1:A:550:GLN:HG3	2.36	0.41
1:A:1440:ASN:HB2	1:A:1548:THR:HG21	2.03	0.41
1:A:1900:PRO:O	1:A:1904:LYS:NZ	2.44	0.41
1:A:1929:PHE:HZ	1:A:2030:LEU:HB3	1.85	0.41
1:A:3627:LYS:HE2	1:A:3627:LYS:HB3	1.84	0.41
1:A:3977:LYS:HE2	1:A:3977:LYS:HB3	1.88	0.41
1:A:4753:THR:O	1:A:4756:THR:OG1	2.26	0.41
1:B:227:TYR:CD2	1:B:352:SER:HB2	2.56	0.41
1:B:601:LEU:HD13	1:B:610:VAL:HG21	2.03	0.41
1:B:1137:PHE:CE2	1:B:1139:GLY:HA2	2.55	0.41
1:B:3762:LEU:O	1:B:3766:ILE:N	2.42	0.41
1:B:3852:ASN:O	1:B:3856:GLN:N	2.39	0.41
1:C:187:SER:OG	1:C:188:SER:N	2.52	0.41
1:C:591:GLU:HA	1:C:631:LEU:HD21	2.03	0.41
1:C:767:SER:HA	1:C:778:MET:HE2	2.02	0.41
1:C:4768:LEU:HG	1:C:4866:LEU:HD23	2.03	0.41
1:D:601:LEU:HB2	1:D:610:VAL:HG11	2.01	0.41
1:D:849:ASP:OD2	1:D:1214:ARG:NE	2.53	0.41
1:D:1819:VAL:O	1:D:1823:LYS:CB	2.66	0.41
1:D:1929:PHE:CZ	1:D:2030:LEU:HB3	2.55	0.41
1:D:2102:ALA:HA	1:D:2105:LYS:HZ1	1.86	0.41
1:D:4495:TYR:HA	1:D:4498:ARG:HG2	2.03	0.41
1:A:266:ALA:HB1	1:A:269:VAL:HB	2.03	0.41
1:A:299:HIS:CD2	1:A:302:THR:H	2.34	0.41
1:A:537:LEU:HD23	1:A:574:VAL:HG21	2.02	0.41
1:A:1718:ARG:HA	1:A:1721:MET:HB2	2.02	0.41
1:A:2426:SER:CB	1:C:143:LEU:CB	2.91	0.41
1:A:3666:HIS:HE1	1:A:3670:LEU:HD12	1.85	0.41
1:A:3882:VAL:O	1:A:3886:ILE:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4004:LEU:HD13	1:A:4004:LEU:HA	1.88	0.41
1:A:4747:ILE:HD12	1:A:4747:ILE:HA	1.95	0.41
1:B:16:THR:N	1:B:110:HIS:O	2.54	0.41
1:B:298:ARG:HE	1:B:303:GLY:HA2	1.85	0.41
1:B:559:ILE:HD13	1:B:593:HIS:HB3	2.02	0.41
1:B:647:ARG:HH12	1:B:1683:PRO:HG2	1.86	0.41
1:B:657:PRO:HA	1:B:834:VAL:HA	2.02	0.41
1:B:1103:PHE:HB3	1:B:1239:PHE:CE2	2.56	0.41
1:B:1267:HIS:HB3	1:B:1294:ASN:HD21	1.86	0.41
1:B:2096:ILE:O	1:B:2100:VAL:N	2.53	0.41
1:B:3812:GLN:HA	1:B:3815:ALA:HB3	2.02	0.41
1:B:4610:LYS:O	1:B:4614:ASP:HB2	2.21	0.41
1:C:120:LEU:HB2	1:C:159:TRP:CH2	2.56	0.41
1:C:125:TYR:OH	1:C:413:SER:O	2.38	0.41
1:C:223:ALA:HB2	1:C:349:MET:HG3	2.03	0.41
1:C:415:THR:HG21	1:C:485:ARG:HG2	2.02	0.41
1:C:717:GLY:O	1:C:735:GLY:N	2.54	0.41
1:C:832:LEU:HD12	1:C:1617:TRP:CG	2.56	0.41
1:C:1009:ARG:O	1:C:1013:ARG:NH1	2.45	0.41
1:C:1043:LYS:O	1:C:1047:LYS:HB2	2.21	0.41
1:C:1103:PHE:HB3	1:C:1239:PHE:CE2	2.56	0.41
1:C:1267:HIS:HB3	1:C:1294:ASN:HD21	1.86	0.41
1:C:1440:ASN:HB2	1:C:1548:THR:HG21	2.03	0.41
1:C:1929:PHE:HZ	1:C:2030:LEU:HB3	1.85	0.41
1:C:2035:GLU:O	1:C:2038:THR:OG1	2.37	0.41
1:C:2127:ILE:HD11	1:C:2143:MET:HG3	2.02	0.41
1:C:3733:HIS:HA	1:C:3737:ALA:HB3	2.02	0.41
1:C:3812:GLN:HA	1:C:3815:ALA:HB3	2.02	0.41
1:C:4575:ILE:O	1:C:4579:LEU:HB2	2.21	0.41
1:D:52:THR:HA	1:D:60:PRO:HG3	2.02	0.41
1:D:120:LEU:HB2	1:D:159:TRP:CH2	2.56	0.41
1:D:274:LEU:HD23	1:D:274:LEU:HA	1.88	0.41
1:D:433:LEU:HD21	1:D:505:LEU:HG	2.02	0.41
1:D:449:ILE:HG23	1:D:529:ILE:HD11	2.02	0.41
1:D:559:ILE:HD13	1:D:593:HIS:HB3	2.02	0.41
1:D:4160:GLN:HE22	1:D:4204:ALA:HB3	1.86	0.41
1:D:4610:LYS:O	1:D:4614:ASP:HB2	2.21	0.41
1:A:1484:ASN:H	1:A:1486:TYR:HA	1.86	0.41
1:A:4135:GLY:N	1:A:4151:PHE:O	2.48	0.41
1:B:120:LEU:HB2	1:B:159:TRP:CH2	2.56	0.41
1:B:472:HIS:O	1:B:476:GLN:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4942:TRP:O	1:B:4946:GLN:HG2	2.21	0.41
1:C:748:LEU:HB2	1:C:750:ARG:HG3	2.02	0.41
1:C:2096:ILE:O	1:C:2100:VAL:N	2.53	0.41
1:C:3882:VAL:O	1:C:3886:ILE:HG12	2.20	0.41
1:D:266:ALA:HB1	1:D:269:VAL:HB	2.03	0.41
1:D:647:ARG:HH12	1:D:1683:PRO:HG2	1.86	0.41
1:D:1043:LYS:O	1:D:1047:LYS:HB2	2.21	0.41
1:D:1431:ARG:HB3	1:D:1554:GLN:HB2	2.03	0.41
1:D:4942:TRP:O	1:D:4946:GLN:HG2	2.21	0.41
1:A:16:THR:N	1:A:110:HIS:O	2.54	0.40
1:A:1250:TRP:CD1	1:A:1602:GLN:HA	2.57	0.40
1:A:2267:VAL:HG21	1:A:2328:ARG:HH21	1.87	0.40
1:A:3831:LEU:HA	1:A:3831:LEU:HD23	1.92	0.40
1:A:4090:GLU:HA	1:A:4093:LYS:HB3	2.03	0.40
1:A:4160:GLN:HE22	1:A:4204:ALA:HB3	1.86	0.40
1:B:18:ASP:HB2	1:B:69:LEU:HD12	2.02	0.40
1:B:832:LEU:HD12	1:B:1617:TRP:CG	2.56	0.40
1:B:1092:LYS:H	1:B:1250:TRP:HZ3	1.68	0.40
1:B:1826:TYR:CZ	1:B:1830:ILE:HD11	2.56	0.40
1:B:2126:GLN:O	1:B:2130:LEU:HB2	2.20	0.40
1:B:2605:LYS:O	1:B:2609:LYS:N	2.49	0.40
1:C:433:LEU:HD21	1:C:505:LEU:HG	2.02	0.40
1:C:556:ASP:HA	1:C:559:ILE:HD12	2.03	0.40
1:C:1431:ARG:HB3	1:C:1554:GLN:HB2	2.03	0.40
1:C:1449:ASP:N	1:C:1449:ASP:OD1	2.55	0.40
1:C:1833:ILE:HG22	1:C:1834:PHE:H	1.85	0.40
1:C:2136:GLY:O	1:C:2140:GLU:N	2.49	0.40
1:D:1290:PHE:HB2	1:D:1552:VAL:HG12	2.02	0.40
1:D:1440:ASN:HB2	1:D:1548:THR:HG21	2.03	0.40
1:D:4090:GLU:HA	1:D:4093:LYS:HB3	2.03	0.40
1:D:4824:ALA:HB1	1:D:4827:GLY:O	2.20	0.40
1:A:556:ASP:HA	1:A:559:ILE:HD12	2.03	0.40
1:A:1290:PHE:HB2	1:A:1552:VAL:HG12	2.02	0.40
1:A:1711:LEU:HD22	1:A:1828:LEU:HD13	2.03	0.40
1:A:1833:ILE:HG22	1:A:1834:PHE:H	1.85	0.40
1:A:2063:ILE:O	1:A:2067:MET:HG2	2.21	0.40
1:A:2326:ILE:HG22	1:C:207:PHE:CB	2.51	0.40
1:A:4097:PHE:HB2	1:A:4130:PHE:CE1	2.57	0.40
1:A:4651:LYS:HZ1	1:A:4670:LEU:C	2.25	0.40
1:B:1685:LEU:HA	1:B:1688:ALA:HB3	2.04	0.40
1:B:2222:LEU:O	1:B:2226:SER:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4875:ARG:HH21	1:D:4869:ASP:HB3	1.85	0.40
1:C:18:ASP:HB2	1:C:69:LEU:HD12	2.02	0.40
1:C:195:SER:OG	1:C:196:TYR:N	2.55	0.40
1:C:441:LYS:HA	1:C:442:ALA:HA	1.84	0.40
1:C:1711:LEU:HD22	1:C:1828:LEU:HD13	2.03	0.40
1:C:2196:ASN:HA	1:C:2199:ARG:HH11	1.86	0.40
1:C:2266:VAL:HG11	1:C:2303:LEU:HD11	2.04	0.40
1:D:18:ASP:HB2	1:D:69:LEU:HD12	2.02	0.40
1:D:415:THR:HG21	1:D:485:ARG:HG2	2.02	0.40
1:D:717:GLY:O	1:D:735:GLY:N	2.54	0.40
1:D:1090:ALA:HA	1:D:1249:MET:HG2	2.03	0.40
1:D:1654:HIS:HA	1:D:1657:THR:HG23	2.02	0.40
1:D:1711:LEU:HD22	1:D:1828:LEU:HD13	2.03	0.40
1:A:1685:LEU:HA	1:A:1688:ALA:HB3	2.03	0.40
1:A:2433:LEU:HA	1:A:2436:VAL:HB	2.02	0.40
1:B:433:LEU:HD21	1:B:505:LEU:HG	2.02	0.40
1:B:556:ASP:HA	1:B:559:ILE:HD12	2.03	0.40
1:B:782:PHE:HE1	1:B:1465:VAL:HG13	1.86	0.40
1:B:1250:TRP:CD1	1:B:1602:GLN:HA	2.57	0.40
1:B:1711:LEU:HD22	1:B:1828:LEU:HD13	2.03	0.40
1:B:2127:ILE:HD11	1:B:2143:MET:HG3	2.02	0.40
1:B:3666:HIS:HB2	1:B:3735:ARG:HG2	2.04	0.40
1:B:4022:LEU:HD21	1:B:4129:TYR:CE2	2.57	0.40
1:B:4160:GLN:HE22	1:B:4204:ALA:HB3	1.86	0.40
1:B:4651:LYS:HZ1	1:B:4670:LEU:C	2.24	0.40
1:B:4768:LEU:HG	1:B:4866:LEU:HD23	2.03	0.40
1:C:263:GLU:HB3	1:C:267:VAL:HG11	2.04	0.40
1:C:651:HIS:N	1:C:1625:LEU:O	2.45	0.40
1:C:1090:ALA:HA	1:C:1249:MET:HG2	2.03	0.40
1:C:1685:LEU:HA	1:C:1688:ALA:HB3	2.04	0.40
1:C:1819:VAL:O	1:C:1823:LYS:CB	2.66	0.40
1:C:4097:PHE:HB2	1:C:4130:PHE:CE1	2.57	0.40
1:C:4897:ASP:OD1	1:C:4897:ASP:N	2.55	0.40
1:D:16:THR:N	1:D:110:HIS:O	2.54	0.40
1:D:191:TYR:N	1:D:206:ALA:O	2.52	0.40
1:D:844:ARG:HH22	1:D:1212:VAL:HG11	1.86	0.40
1:D:1256:PRO:HB3	1:D:1597:SER:HA	2.02	0.40
1:D:1898:LYS:NZ	1:D:1899:LEU:O	2.51	0.40
1:D:3977:LYS:HE2	1:D:3977:LYS:HB3	1.88	0.40
1:A:195:SER:OG	1:A:196:TYR:N	2.55	0.40
1:A:591:GLU:HA	1:A:631:LEU:HD21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4768:LEU:HG	1:A:4866:LEU:HD23	2.03	0.40
1:B:365:HIS:HD2	1:B:368:THR:HG23	1.87	0.40
1:B:1819:VAL:O	1:B:1823:LYS:CB	2.66	0.40
1:B:2266:VAL:HG11	1:B:2303:LEU:HD11	2.04	0.40
1:B:4822:VAL:CG1	1:D:4849:ILE:CG2	2.96	0.40
1:C:228:LEU:HA	1:C:228:LEU:HD23	1.85	0.40
1:C:246:THR:HG1	1:C:272:ARG:NH1	2.20	0.40
1:C:559:ILE:HD13	1:C:593:HIS:HB3	2.02	0.40
1:C:745:ASN:ND2	1:C:773:GLN:OE1	2.38	0.40
1:C:782:PHE:HE1	1:C:1465:VAL:HG13	1.86	0.40
1:C:1170:GLU:O	1:C:1172:THR:N	2.52	0.40
1:C:1290:PHE:HB2	1:C:1552:VAL:HG12	2.02	0.40
1:C:1828:LEU:HD12	1:C:1828:LEU:HA	1.91	0.40
1:C:3907:PHE:O	1:C:3911:ILE:HG12	2.21	0.40
1:C:4732:LEU:O	1:C:4736:ASN:N	2.51	0.40
1:C:4859:LEU:HD23	1:C:4860:LEU:HG	2.04	0.40
1:D:223:ALA:HB3	1:D:288:HIS:CE1	2.56	0.40
1:D:372:LEU:HD11	1:D:391:ALA:HB1	2.04	0.40
1:D:601:LEU:HD13	1:D:610:VAL:HG21	2.03	0.40
1:D:644:LEU:HD11	1:D:1650:LEU:HD11	2.03	0.40
1:D:2126:GLN:O	1:D:2130:LEU:HB2	2.20	0.40
1:D:3666:HIS:HB2	1:D:3735:ARG:HG2	2.04	0.40
1:D:3666:HIS:CE1	1:D:3670:LEU:HD12	2.56	0.40
1:D:3733:HIS:HA	1:D:3737:ALA:HB3	2.02	0.40
1:D:3831:LEU:HA	1:D:3831:LEU:HD23	1.92	0.40
1:D:4516:PHE:O	1:D:4520:PHE:CE2	2.74	0.40
1:D:4575:ILE:O	1:D:4579:LEU:HB2	2.21	0.40
1:A:480:ARG:HG2	1:A:484:ASN:HD21	1.87	0.40
1:A:1449:ASP:OD1	1:A:1449:ASP:N	2.55	0.40
1:A:3907:PHE:O	1:A:3911:ILE:HG12	2.21	0.40
1:A:4519:LEU:HA	1:C:4810:MET:CB	2.52	0.40
1:B:130:LEU:HA	1:B:130:LEU:HD12	1.89	0.40
1:B:190:ARG:HH12	1:C:2423:ILE:HG21	1.72	0.40
1:B:191:TYR:N	1:B:206:ALA:O	2.52	0.40
1:B:195:SER:OG	1:B:196:TYR:N	2.54	0.40
1:B:223:ALA:HB3	1:B:288:HIS:CE1	2.56	0.40
1:B:228:LEU:HD23	1:B:228:LEU:HA	1.85	0.40
1:B:480:ARG:HG2	1:B:484:ASN:HD21	1.87	0.40
1:B:2027:ARG:NH1	1:B:2031:LEU:HB2	2.37	0.40
1:B:3983:LEU:HD12	1:B:3983:LEU:HA	1.82	0.40
1:B:4501:TYR:HD1	1:B:4501:TYR:HA	1.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:129:TYR:N	1:C:150:GLN:O	2.39	0.40
1:C:675:TYR:CE1	1:C:790:PRO:HB3	2.57	0.40
1:C:1214:ARG:HD3	1:C:1216:ASN:HD21	1.87	0.40
1:C:1447:THR:OG1	1:C:1538:LYS:O	2.28	0.40
1:C:1826:TYR:CZ	1:C:1830:ILE:HD11	2.57	0.40
1:C:2063:ILE:O	1:C:2067:MET:HG2	2.21	0.40
1:D:129:TYR:N	1:D:150:GLN:O	2.39	0.40
1:D:290:ARG:H	1:D:293:GLN:NE2	2.20	0.40
1:D:1250:TRP:CD1	1:D:1602:GLN:HA	2.57	0.40
1:D:1449:ASP:N	1:D:1449:ASP:OD1	2.55	0.40
1:D:2086:PHE:O	1:D:3692:TYR:OH	2.25	0.40
1:D:3767:LEU:HD23	1:D:3767:LEU:HA	1.86	0.40
1:D:4114:THR:HA	1:D:4117:GLN:HB2	2.02	0.40
1:D:4651:LYS:HZ1	1:D:4670:LEU:C	2.24	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3355/4968 (68%)	2934 (88%)	408 (12%)	13 (0%)	34	72
1	B	3355/4968 (68%)	2936 (88%)	407 (12%)	12 (0%)	34	72
1	C	3355/4968 (68%)	2934 (88%)	408 (12%)	13 (0%)	34	72
1	D	3355/4968 (68%)	2938 (88%)	405 (12%)	12 (0%)	34	72
All	All	13420/19872 (68%)	11742 (88%)	1628 (12%)	50 (0%)	38	72

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	143	LEU

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Mol	Chain	Res	Type
1	B	143	LEU
1	C	143	LEU
1	D	143	LEU
1	A	142	LYS
1	A	730	LEU
1	B	142	LYS
1	B	730	LEU
1	C	142	LYS
1	C	730	LEU
1	D	142	LYS
1	D	730	LEU
1	A	4518	LEU
1	A	4595	LYS
1	B	4595	LYS
1	C	4595	LYS
1	D	4595	LYS
1	A	853	PRO
1	A	1580	PRO
1	B	853	PRO
1	B	1580	PRO
1	C	853	PRO
1	C	1580	PRO
1	D	853	PRO
1	D	1580	PRO
1	A	828	PRO
1	A	2233	PRO
1	A	4071	ALA
1	B	828	PRO
1	B	2233	PRO
1	B	4071	ALA
1	C	828	PRO
1	C	2233	PRO
1	C	4071	ALA
1	C	4519	LEU
1	D	828	PRO
1	D	2233	PRO
1	D	4071	ALA
1	A	1535	PRO
1	B	1535	PRO
1	C	1535	PRO
1	D	1535	PRO
1	B	1682	GLU

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Mol	Chain	Res	Type
1	A	1682	GLU
1	C	1682	GLU
1	D	1682	GLU
1	A	3803	VAL
1	B	3803	VAL
1	C	3803	VAL
1	D	3803	VAL

### 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	2678/4355 (62%)	2640 (99%)	38 (1%)	67	80
1	B	2678/4355 (62%)	2640 (99%)	38 (1%)	67	80
1	C	2677/4355 (62%)	2641 (99%)	36 (1%)	69	82
1	D	2676/4355 (61%)	2642 (99%)	34 (1%)	69	82
All	All	10709/17420 (62%)	10563 (99%)	146 (1%)	68	80

All (146) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	44	ASN
1	A	78	LEU
1	A	81	MET
1	A	298	ARG
1	A	420	ARG
1	A	531	ASN
1	A	625	VAL
1	A	628	ASN
1	A	658	ASN
1	A	841	LYS
1	A	925	PRO
1	A	950	VAL
1	A	990	PRO
1	A	1013	ARG

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Mol	Chain	Res	Type
1	A	1054	VAL
1	A	1089	ARG
1	A	1761	MET
1	A	1908	CYS
1	A	2118	ILE
1	A	2206	ARG
1	A	2211	ASN
1	A	3813	ASN
1	A	3870	ASN
1	A	3906	ASN
1	A	4087	ARG
1	A	4136	ARG
1	A	4171	ARG
1	A	4179	ASN
1	A	4499	ASN
1	A	4518	LEU
1	A	4519	LEU
1	A	4562	LEU
1	A	4652	ARG
1	A	4792	LYS
1	A	4828	ILE
1	A	4834	ASP
1	A	4844	ARG
1	A	4859	LEU
1	B	44	ASN
1	B	78	LEU
1	B	81	MET
1	B	84	ASN
1	B	298	ARG
1	B	420	ARG
1	B	531	ASN
1	B	625	VAL
1	B	628	ASN
1	B	658	ASN
1	B	841	LYS
1	B	925	PRO
1	B	950	VAL
1	B	990	PRO
1	B	1013	ARG
1	B	1054	VAL
1	B	1089	ARG
1	B	1761	MET

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Mol	Chain	Res	Type
1	B	1908	CYS
1	B	2118	ILE
1	B	2206	ARG
1	B	2211	ASN
1	B	3813	ASN
1	B	3870	ASN
1	B	3906	ASN
1	B	4087	ARG
1	B	4136	ARG
1	B	4171	ARG
1	B	4179	ASN
1	B	4499	ASN
1	B	4519	LEU
1	B	4562	LEU
1	B	4652	ARG
1	B	4792	LYS
1	B	4832	ILE
1	B	4834	ASP
1	B	4844	ARG
1	B	4859	LEU
1	C	44	ASN
1	C	78	LEU
1	C	81	MET
1	C	84	ASN
1	C	298	ARG
1	C	420	ARG
1	C	531	ASN
1	C	625	VAL
1	C	628	ASN
1	C	658	ASN
1	C	841	LYS
1	C	925	PRO
1	C	990	PRO
1	C	1013	ARG
1	C	1054	VAL
1	C	1089	ARG
1	C	1761	MET
1	C	1908	CYS
1	C	2118	ILE
1	C	2206	ARG
1	C	2211	ASN
1	C	3813	ASN

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Mol	Chain	Res	Type
1	C	3870	ASN
1	C	3906	ASN
1	C	4087	ARG
1	C	4136	ARG
1	C	4171	ARG
1	C	4179	ASN
1	C	4499	ASN
1	C	4518	LEU
1	C	4522	LYS
1	C	4562	LEU
1	C	4652	ARG
1	C	4792	LYS
1	C	4844	ARG
1	C	4859	LEU
1	D	44	ASN
1	D	78	LEU
1	D	82	LEU
1	D	84	ASN
1	D	298	ARG
1	D	420	ARG
1	D	531	ASN
1	D	625	VAL
1	D	628	ASN
1	D	658	ASN
1	D	841	LYS
1	D	925	PRO
1	D	990	PRO
1	D	1013	ARG
1	D	1054	VAL
1	D	1089	ARG
1	D	1761	MET
1	D	1908	CYS
1	D	2118	ILE
1	D	2206	ARG
1	D	2211	ASN
1	D	3813	ASN
1	D	3870	ASN
1	D	3906	ASN
1	D	4087	ARG
1	D	4136	ARG
1	D	4171	ARG
1	D	4179	ASN

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Mol	Chain	Res	Type
1	D	4499	ASN
1	D	4521	TYR
1	D	4652	ARG
1	D	4792	LYS
1	D	4844	ARG
1	D	4859	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (230) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	44	ASN
1	A	71	GLN
1	A	84	ASN
1	A	123	HIS
1	A	150	GLN
1	A	293	GLN
1	A	375	GLN
1	A	394	HIS
1	A	484	ASN
1	A	490	GLN
1	A	531	ASN
1	A	587	ASN
1	A	604	HIS
1	A	608	HIS
1	A	628	ASN
1	A	635	ASN
1	A	658	ASN
1	A	781	ASN
1	A	888	ASN
1	A	1147	GLN
1	A	1257	GLN
1	A	1267	HIS
1	A	1294	ASN
1	A	1631	HIS
1	A	1656	HIS
1	A	1684	GLN
1	A	1710	HIS
1	A	1946	ASN
1	A	2211	ASN
1	A	2218	HIS
1	A	3666	HIS

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Mol	Chain	Res	Type
1	A	3667	GLN
1	A	3729	GLN
1	A	3743	GLN
1	A	3799	GLN
1	A	3813	ASN
1	A	3870	ASN
1	A	3904	GLN
1	A	3916	GLN
1	A	3919	ASN
1	A	3926	GLN
1	A	3932	ASN
1	A	3954	HIS
1	A	3956	GLN
1	A	3965	GLN
1	A	3976	GLN
1	A	3993	ASN
1	A	4098	ASN
1	A	4128	ASN
1	A	4160	GLN
1	A	4179	ASN
1	A	4192	ASN
1	A	4817	HIS
1	A	4878	GLN
1	A	4918	ASN
1	B	23	GLN
1	B	44	ASN
1	B	84	ASN
1	B	117	HIS
1	B	123	HIS
1	B	150	GLN
1	B	293	GLN
1	B	375	GLN
1	B	394	HIS
1	B	484	ASN
1	B	490	GLN
1	B	531	ASN
1	B	587	ASN
1	B	604	HIS
1	B	608	HIS
1	B	628	ASN
1	B	635	ASN
1	B	658	ASN

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Mol	Chain	Res	Type
1	B	781	ASN
1	B	888	ASN
1	B	1147	GLN
1	B	1257	GLN
1	B	1267	HIS
1	B	1294	ASN
1	B	1631	HIS
1	B	1656	HIS
1	B	1684	GLN
1	B	1710	HIS
1	B	1946	ASN
1	B	2211	ASN
1	B	2212	GLN
1	B	2218	HIS
1	B	3666	HIS
1	B	3667	GLN
1	B	3729	GLN
1	B	3743	GLN
1	B	3799	GLN
1	B	3813	ASN
1	B	3870	ASN
1	B	3904	GLN
1	B	3916	GLN
1	B	3919	ASN
1	B	3926	GLN
1	B	3932	ASN
1	B	3954	HIS
1	B	3956	GLN
1	B	3965	GLN
1	B	3976	GLN
1	B	3990	ASN
1	B	3993	ASN
1	B	4098	ASN
1	B	4128	ASN
1	B	4160	GLN
1	B	4179	ASN
1	B	4192	ASN
1	B	4817	HIS
1	B	4878	GLN
1	B	4918	ASN
1	C	23	GLN
1	C	44	ASN

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Mol	Chain	Res	Type
1	C	84	ASN
1	C	117	HIS
1	C	123	HIS
1	C	150	GLN
1	C	293	GLN
1	C	375	GLN
1	C	394	HIS
1	C	484	ASN
1	C	490	GLN
1	C	531	ASN
1	C	587	ASN
1	C	604	HIS
1	C	608	HIS
1	C	628	ASN
1	C	635	ASN
1	C	658	ASN
1	C	781	ASN
1	C	888	ASN
1	C	1147	GLN
1	C	1257	GLN
1	C	1267	HIS
1	C	1294	ASN
1	C	1631	HIS
1	C	1656	HIS
1	C	1684	GLN
1	C	1710	HIS
1	C	1946	ASN
1	C	2211	ASN
1	C	2212	GLN
1	C	2218	HIS
1	C	3666	HIS
1	C	3667	GLN
1	C	3729	GLN
1	C	3743	GLN
1	C	3799	GLN
1	C	3813	ASN
1	C	3870	ASN
1	C	3904	GLN
1	C	3916	GLN
1	C	3919	ASN
1	C	3926	GLN
1	C	3932	ASN

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Mol	Chain	Res	Type
1	C	3954	HIS
1	C	3956	GLN
1	C	3965	GLN
1	C	3976	GLN
1	C	3990	ASN
1	C	3993	ASN
1	C	4098	ASN
1	C	4128	ASN
1	C	4160	GLN
1	C	4179	ASN
1	C	4192	ASN
1	C	4817	HIS
1	C	4878	GLN
1	C	4918	ASN
1	D	23	GLN
1	D	44	ASN
1	D	84	ASN
1	D	117	HIS
1	D	123	HIS
1	D	150	GLN
1	D	293	GLN
1	D	375	GLN
1	D	394	HIS
1	D	484	ASN
1	D	490	GLN
1	D	531	ASN
1	D	587	ASN
1	D	604	HIS
1	D	608	HIS
1	D	628	ASN
1	D	635	ASN
1	D	658	ASN
1	D	781	ASN
1	D	888	ASN
1	D	1147	GLN
1	D	1257	GLN
1	D	1267	HIS
1	D	1294	ASN
1	D	1631	HIS
1	D	1656	HIS
1	D	1684	GLN
1	D	1710	HIS

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Mol	Chain	Res	Type
1	D	1946	ASN
1	D	2211	ASN
1	D	2212	GLN
1	D	2218	HIS
1	D	3666	HIS
1	D	3667	GLN
1	D	3729	GLN
1	D	3743	GLN
1	D	3799	GLN
1	D	3813	ASN
1	D	3870	ASN
1	D	3904	GLN
1	D	3916	GLN
1	D	3919	ASN
1	D	3926	GLN
1	D	3932	ASN
1	D	3954	HIS
1	D	3956	GLN
1	D	3965	GLN
1	D	3976	GLN
1	D	3990	ASN
1	D	3993	ASN
1	D	4098	ASN
1	D	4128	ASN
1	D	4160	GLN
1	D	4179	ASN
1	D	4192	ASN
1	D	4817	HIS
1	D	4878	GLN
1	D	4918	ASN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides 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.



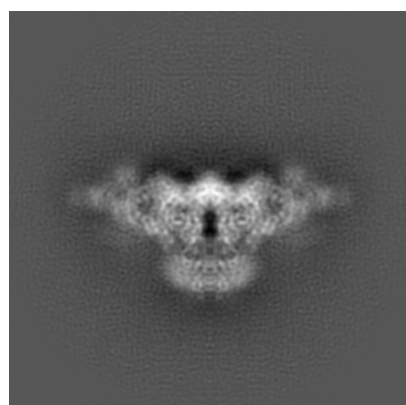
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9823. These allow visual inspection of the internal detail of the map and identification of artifacts.

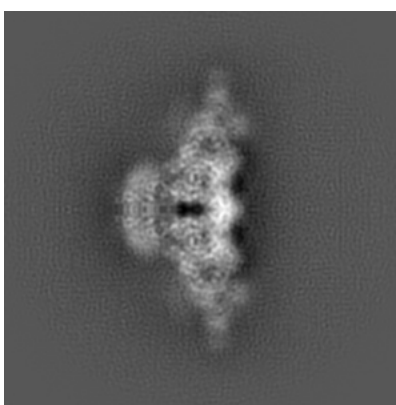
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

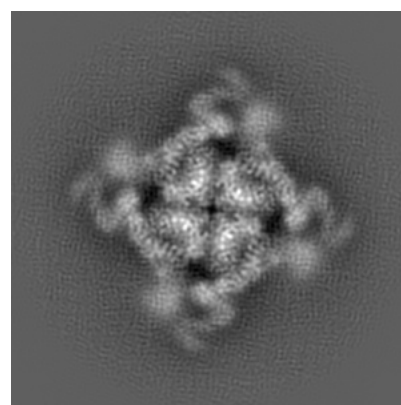
#### 6.1.1 Primary map



X



Y

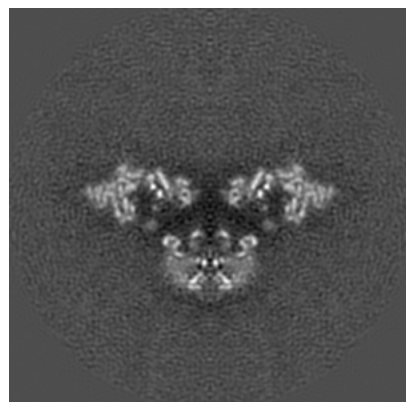


Z

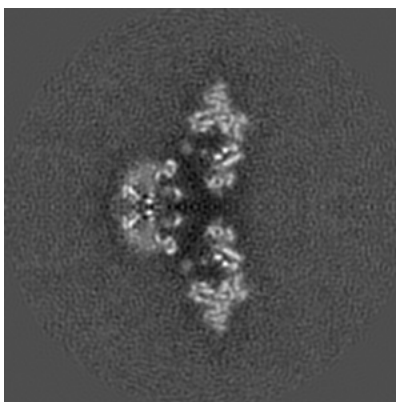
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

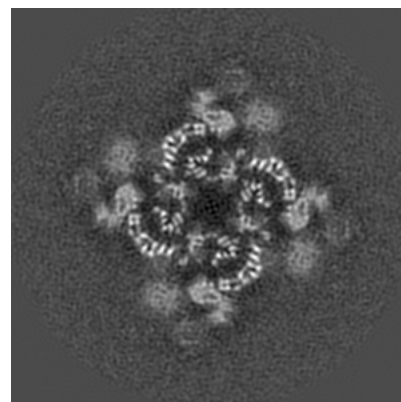
#### 6.2.1 Primary map



X Index: 100



Y Index: 100

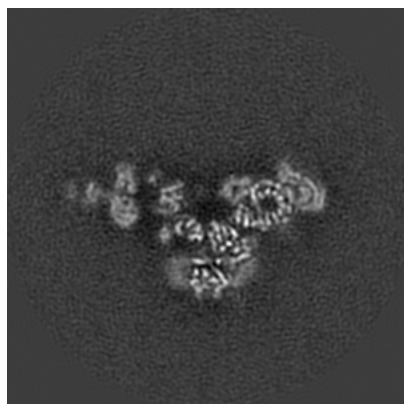


Z Index: 100

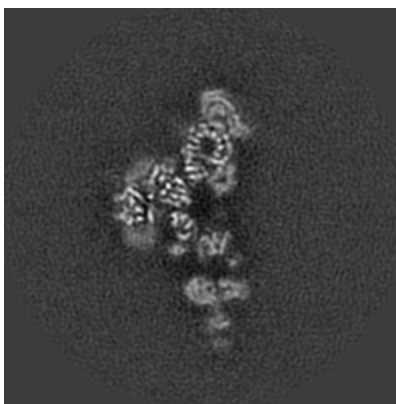
The images above show central slices of the map in three orthogonal directions.

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

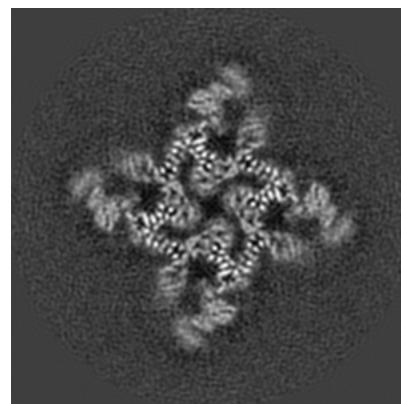
### 6.3.1 Primary map



X Index: 95



Y Index: 105



Z Index: 107

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

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

### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.065. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

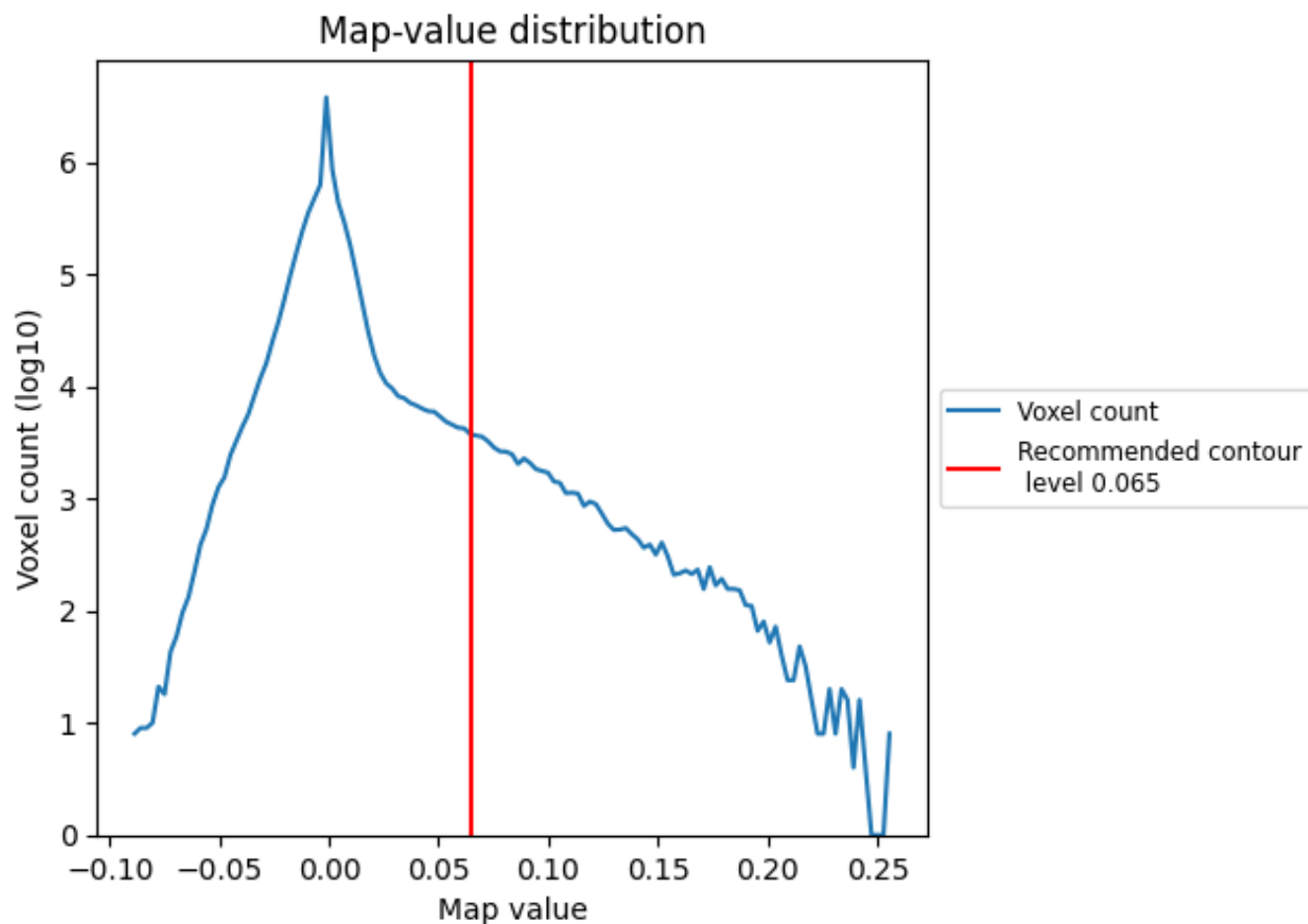
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

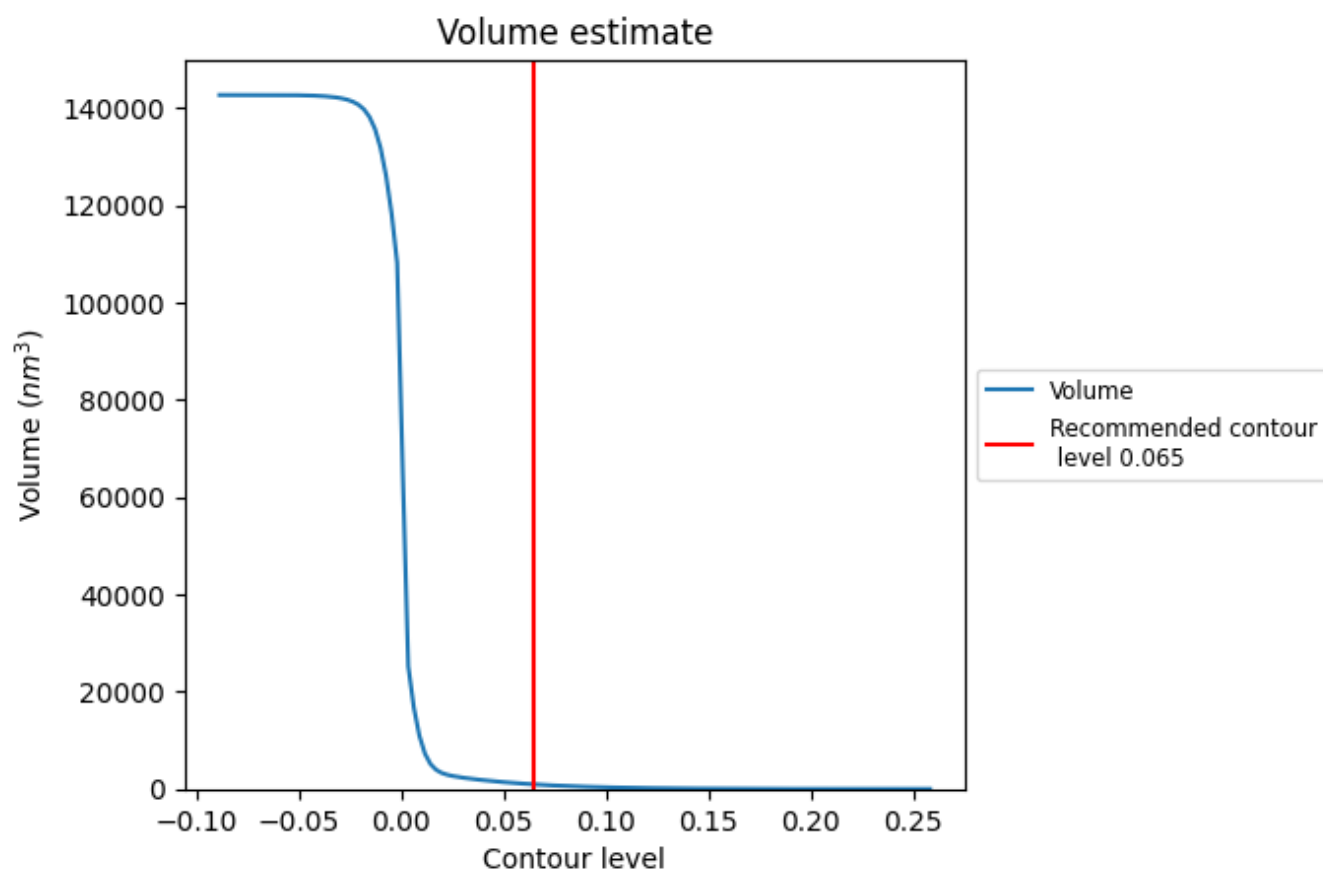
This section contains the results of statistical analysis of the map.

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



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

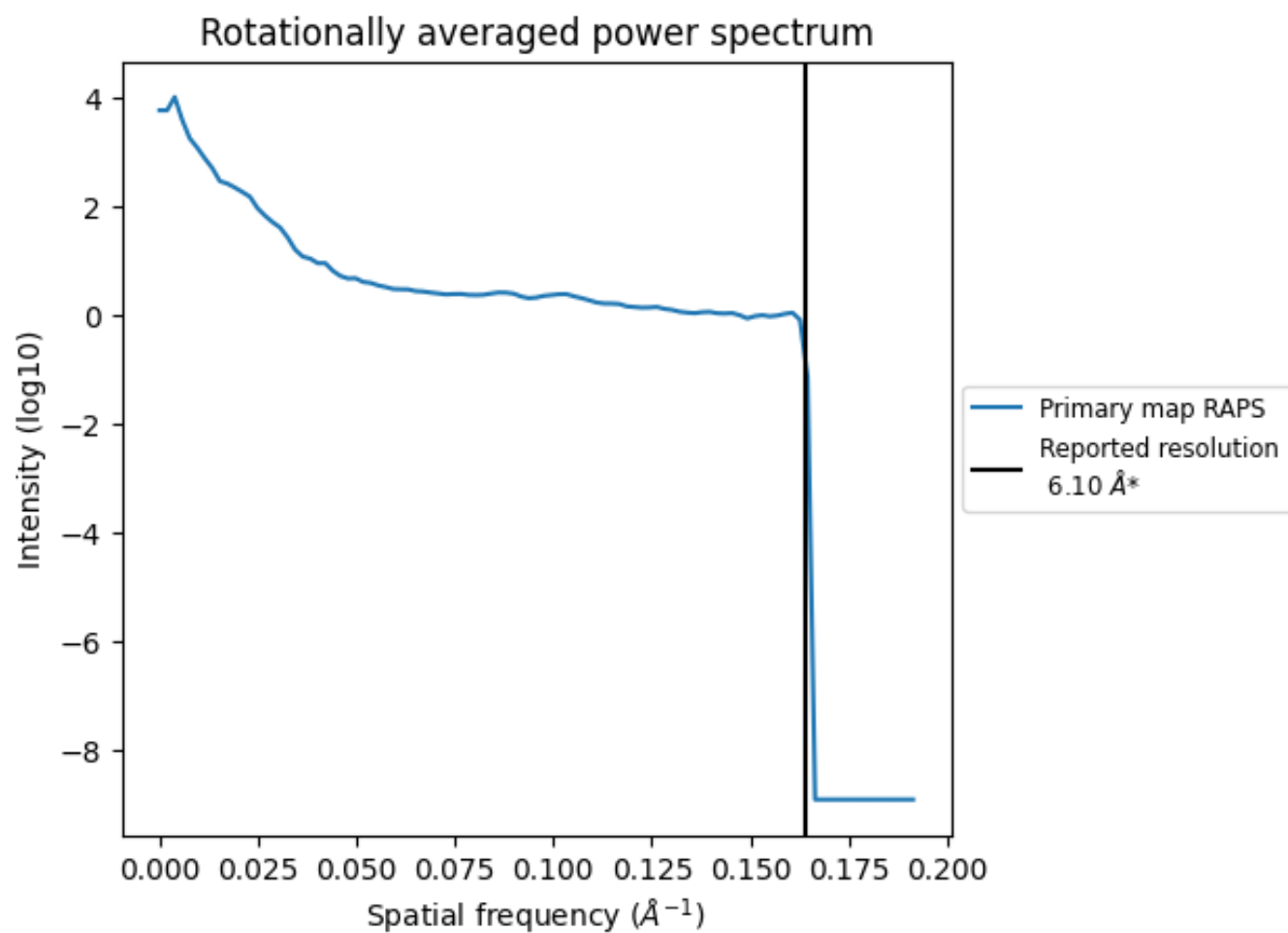
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 947 nm<sup>3</sup>; this corresponds to an approximate mass of 855 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 ⓘ

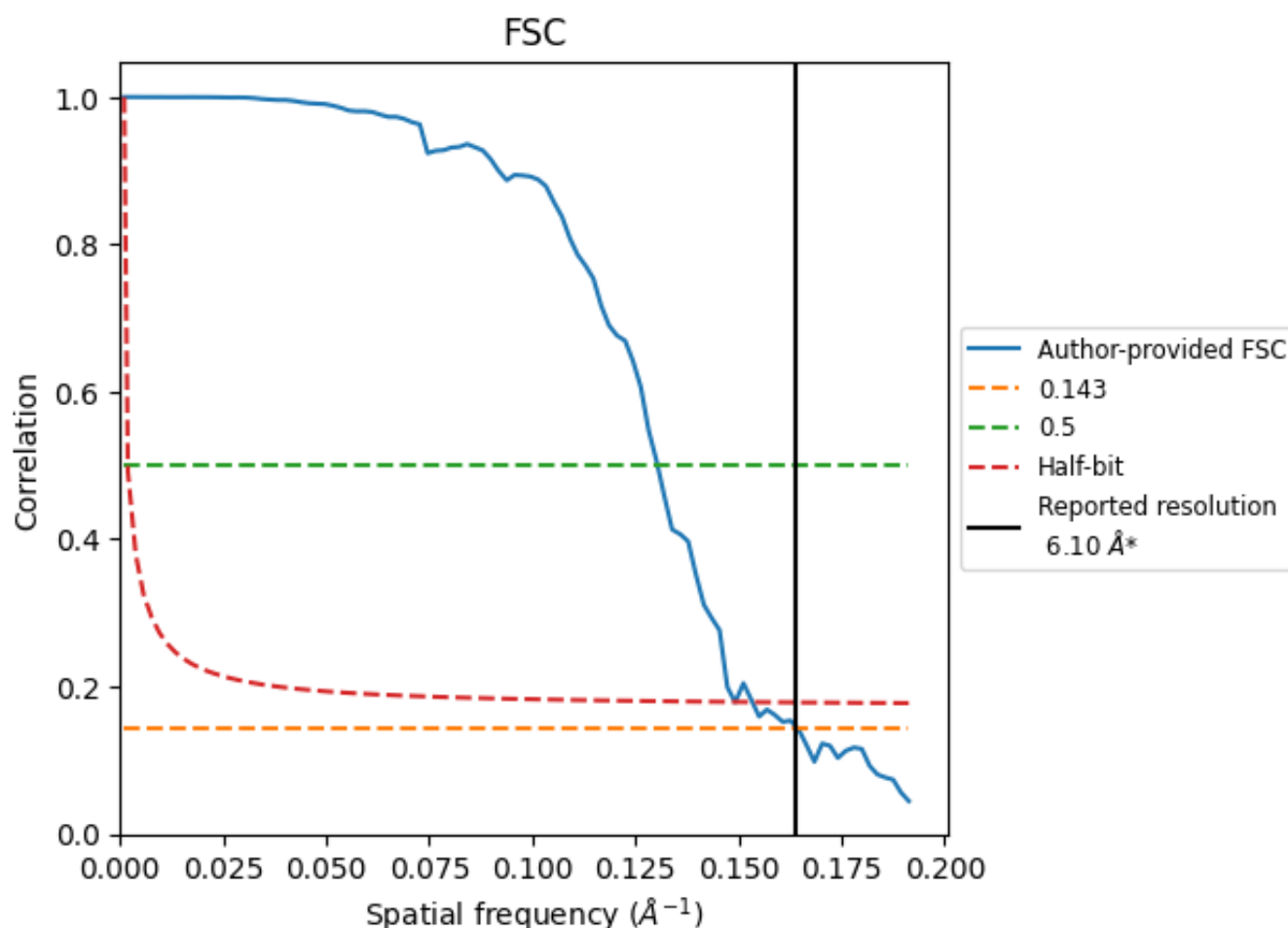


\*Reported resolution corresponds to spatial frequency of 0.164 Å<sup>-1</sup>

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

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.164 Å<sup>-1</sup>



## 8.2 Resolution estimates [i](#)

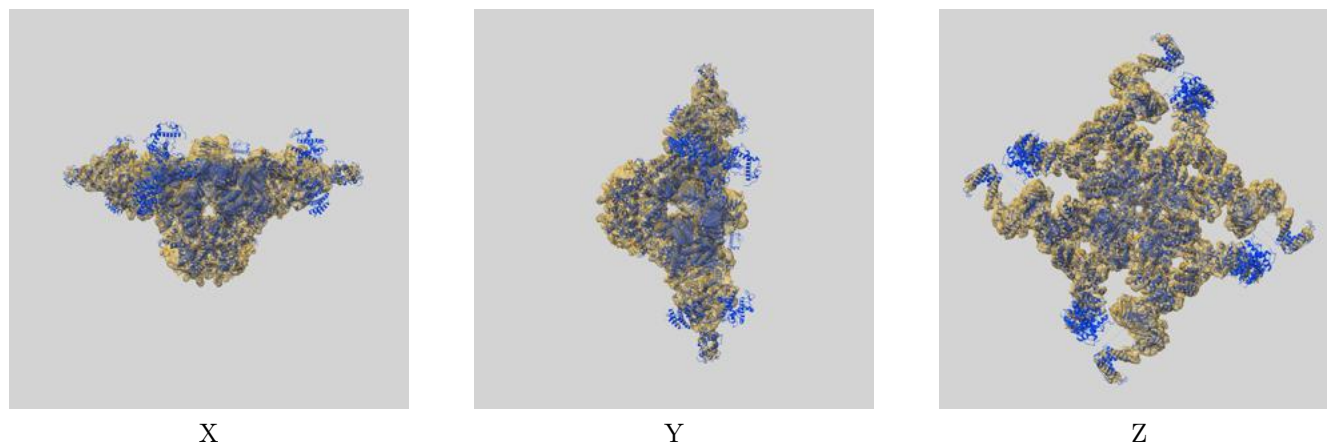
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	6.10	-	-
Author-provided FSC curve	6.09	7.67	6.70
Unmasked-calculated*	-	-	-

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

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

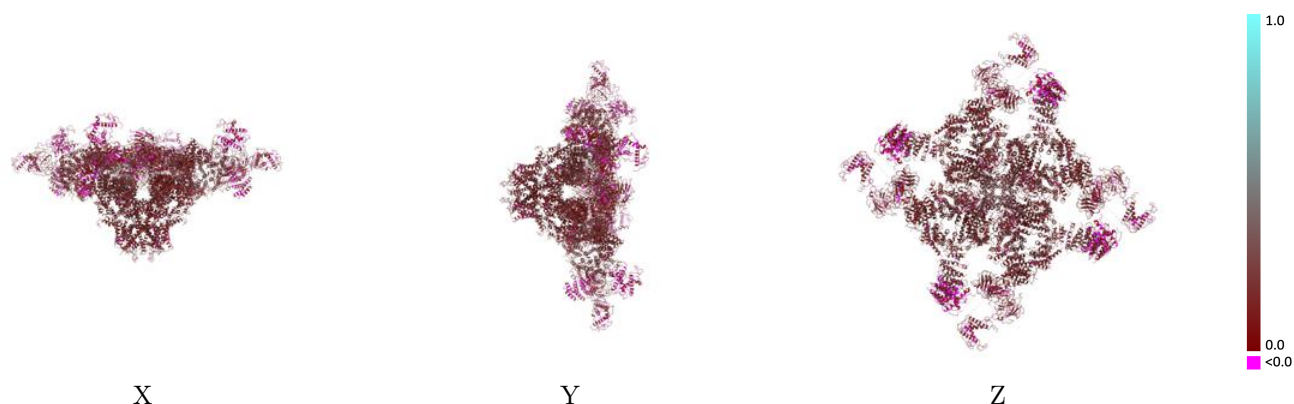
This section contains information regarding the fit between EMDB map EMD-9823 and PDB model 6JG3. Per-residue inclusion information can be found in section [3](#) on page [4](#).

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



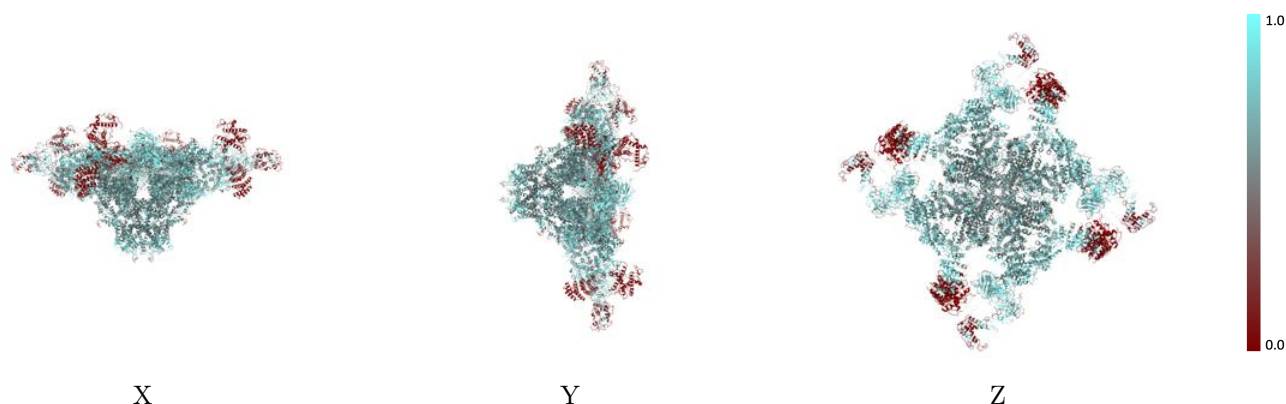
The images above show the 3D surface view of the map at the recommended contour level 0.065 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



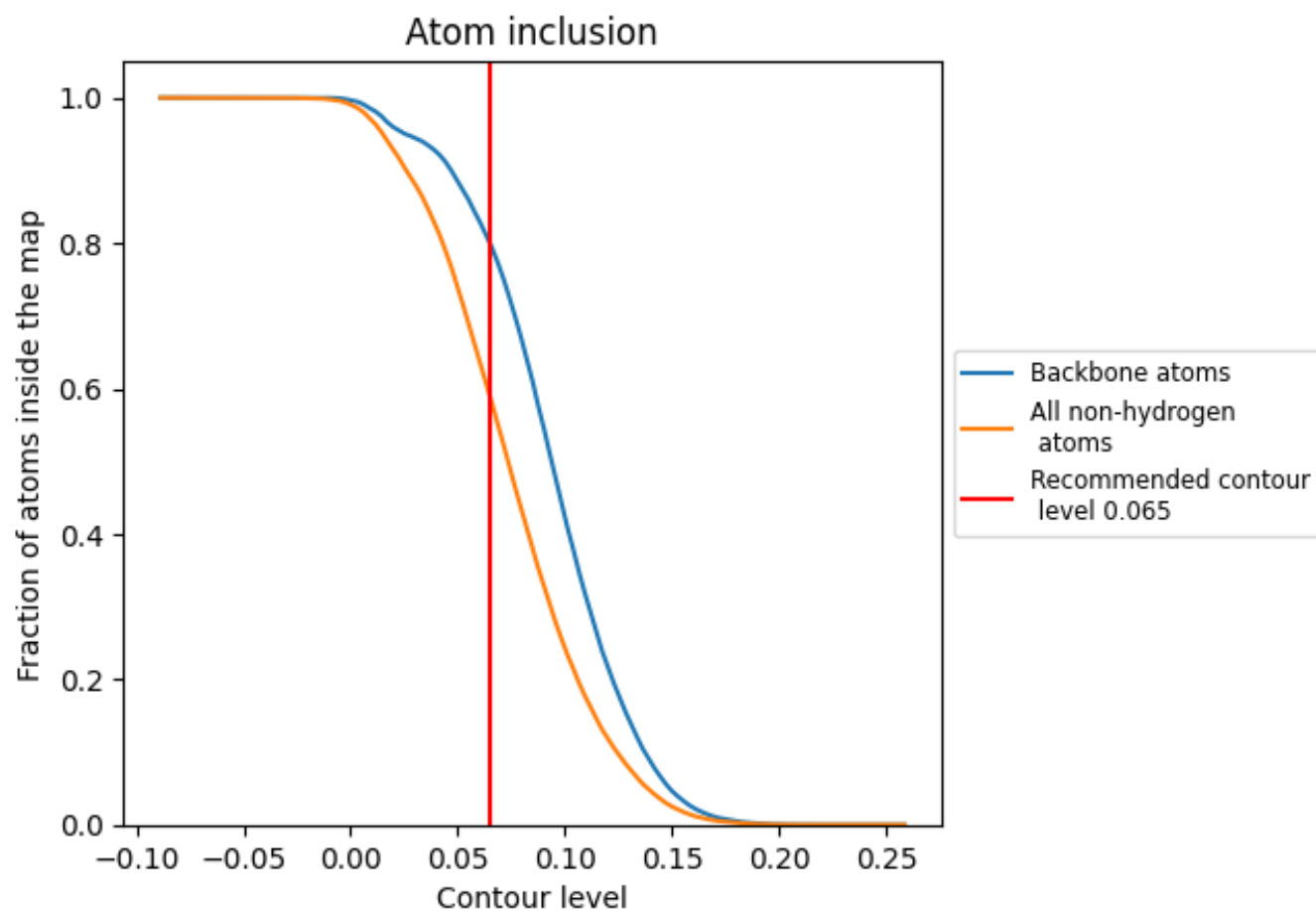
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.065).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 80% of all backbone atoms, 59% 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 (0.065) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div></div> 0.5898	<div></div> 0.1840
A	<div></div> 0.5898	<div></div> 0.1830
B	<div></div> 0.5897	<div></div> 0.1850
C	<div></div> 0.5898	<div></div> 0.1840
D	<div></div> 0.5899	<div></div> 0.1840

