



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 12:42 PM UTC

PDB ID : 6JG3 / pdb_00006jg3
EMDB ID : EMD-9823
Title : Cryo-EM structure of RyR2 (Ca²⁺ 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

A user guide is available at

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

The types of validation reports are described at

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

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

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

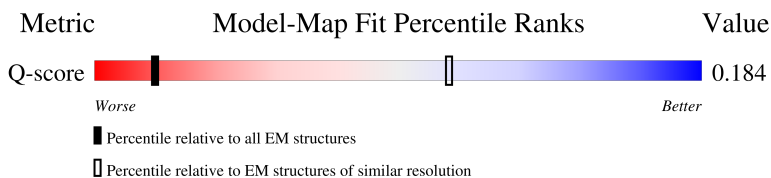
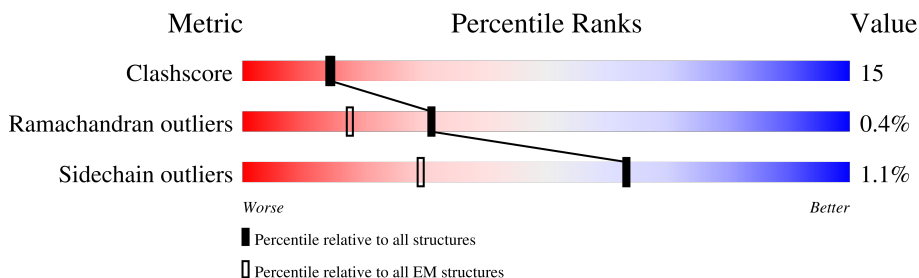
1 Overall quality at a glance

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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	531 (5.60 - 6.60)

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

Mol	Chain	Length	Quality of chain
1	A	4968	
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		

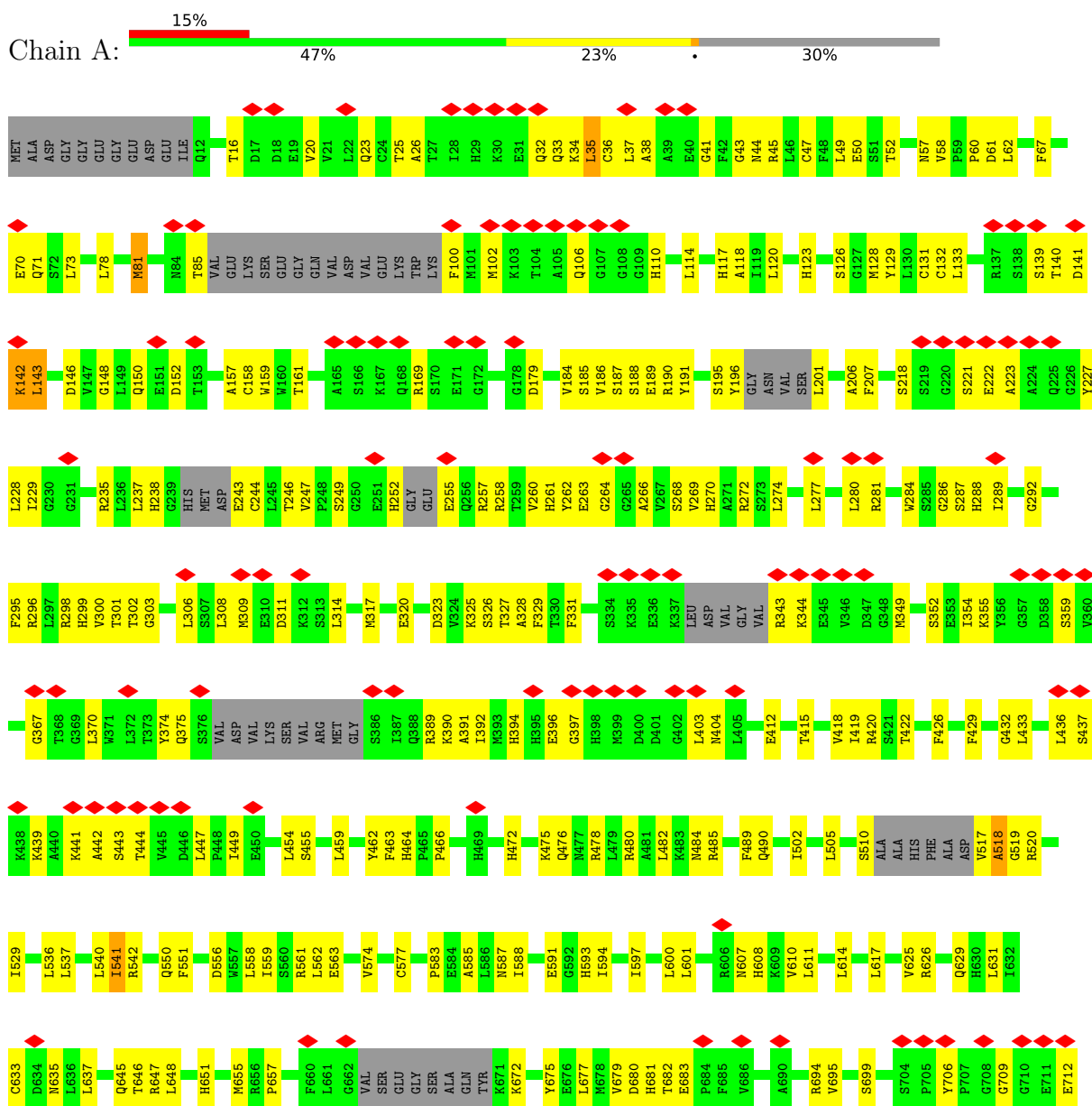
- Molecule 2 is ZINC ION (CCD ID: ZN) (formula: Zn).

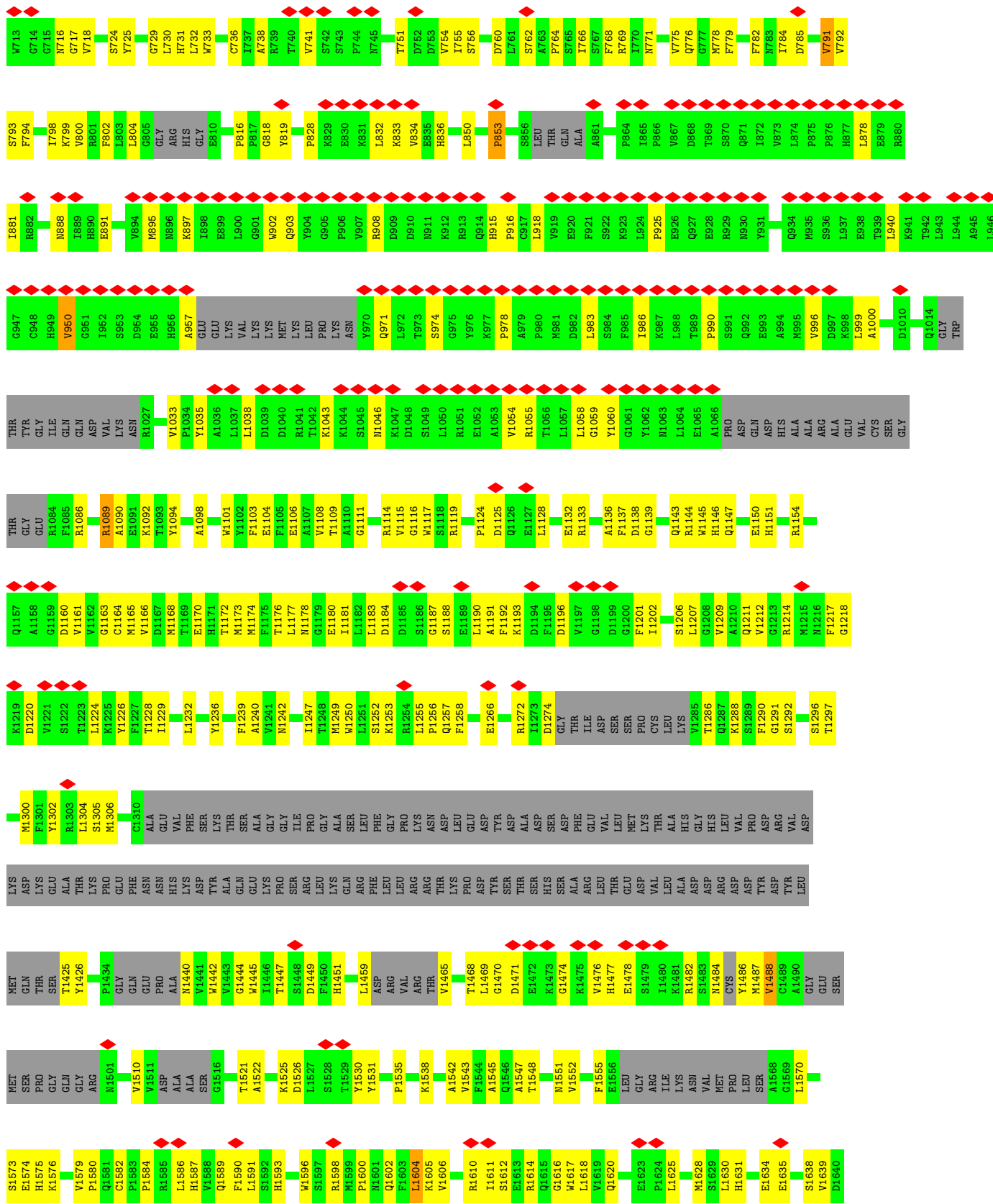
Mol	Chain	Residues	Atoms		AltConf
2	A	1	Total	Zn	0
			1	1	
2	B	1	Total	Zn	0
			1	1	
2	C	1	Total	Zn	0
			1	1	
2	D	1	Total	Zn	0
			1	1	

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

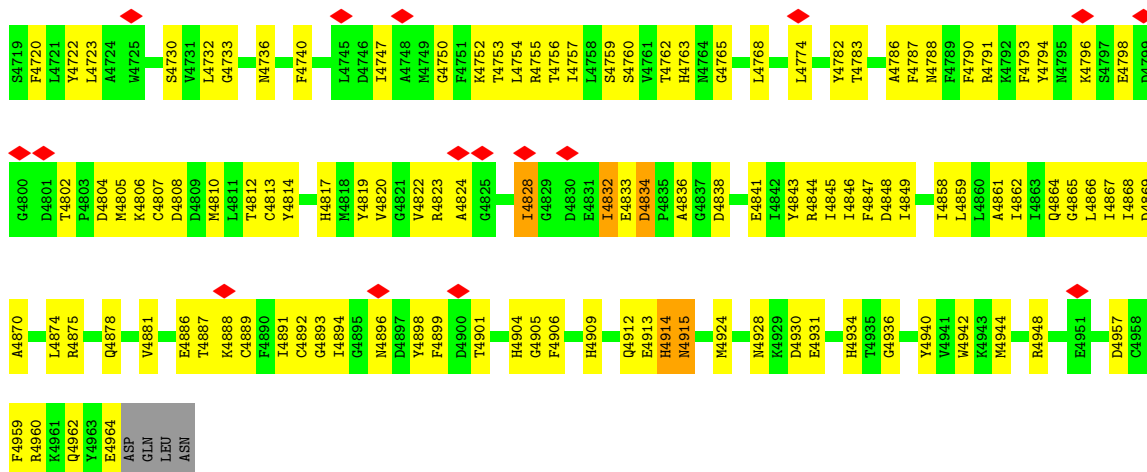




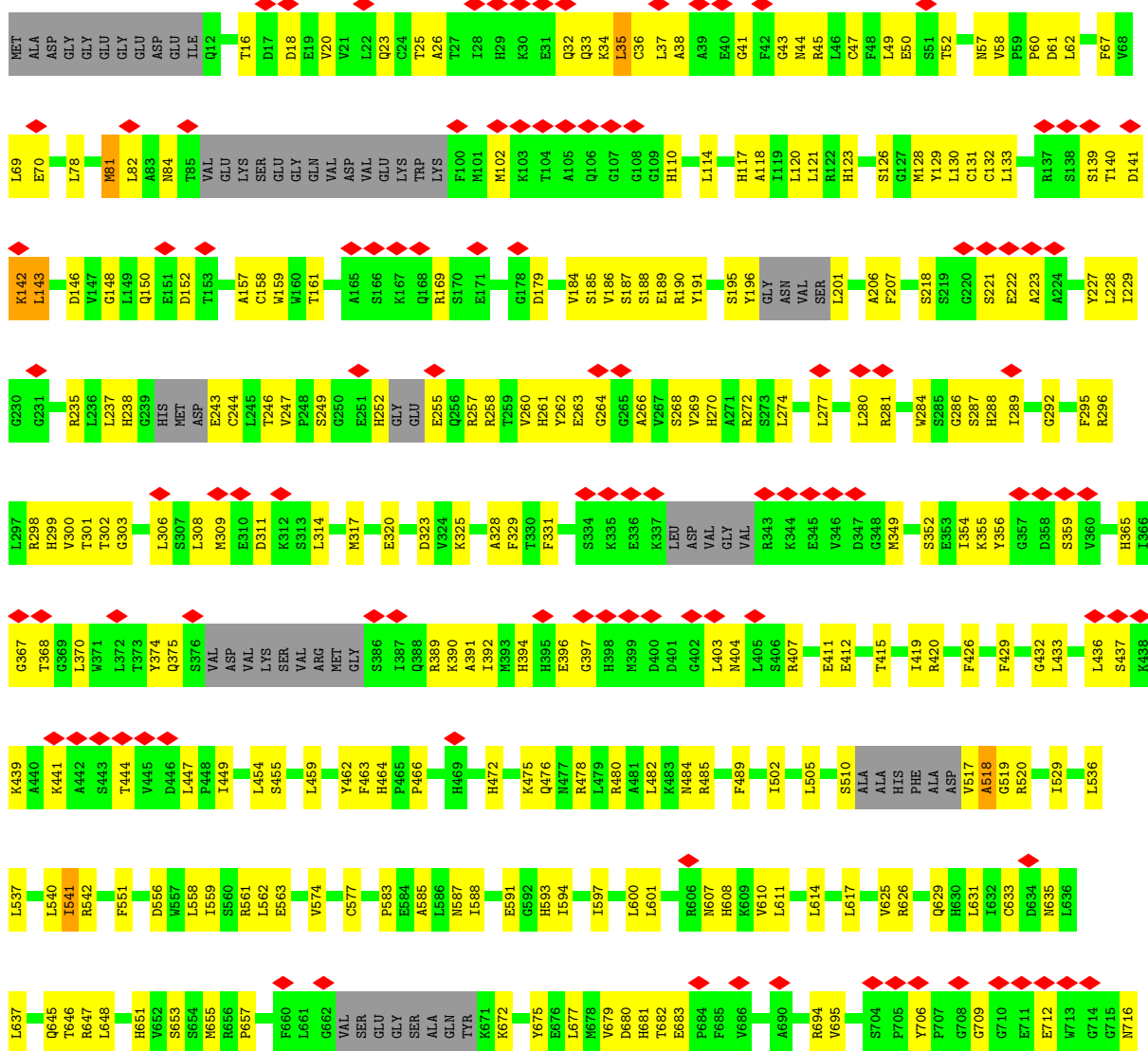


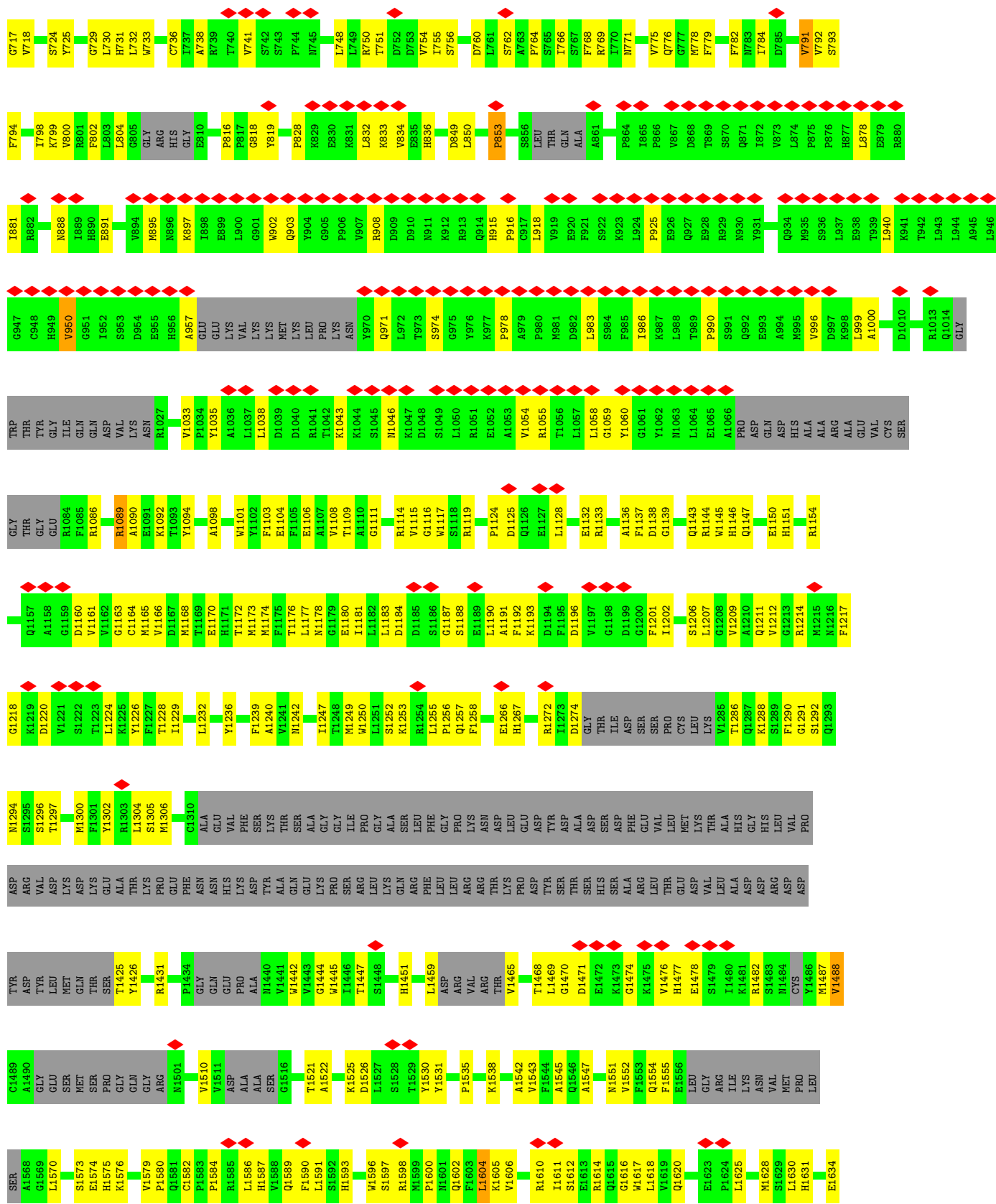






• Molecule 1: Ryanodine receptor 2

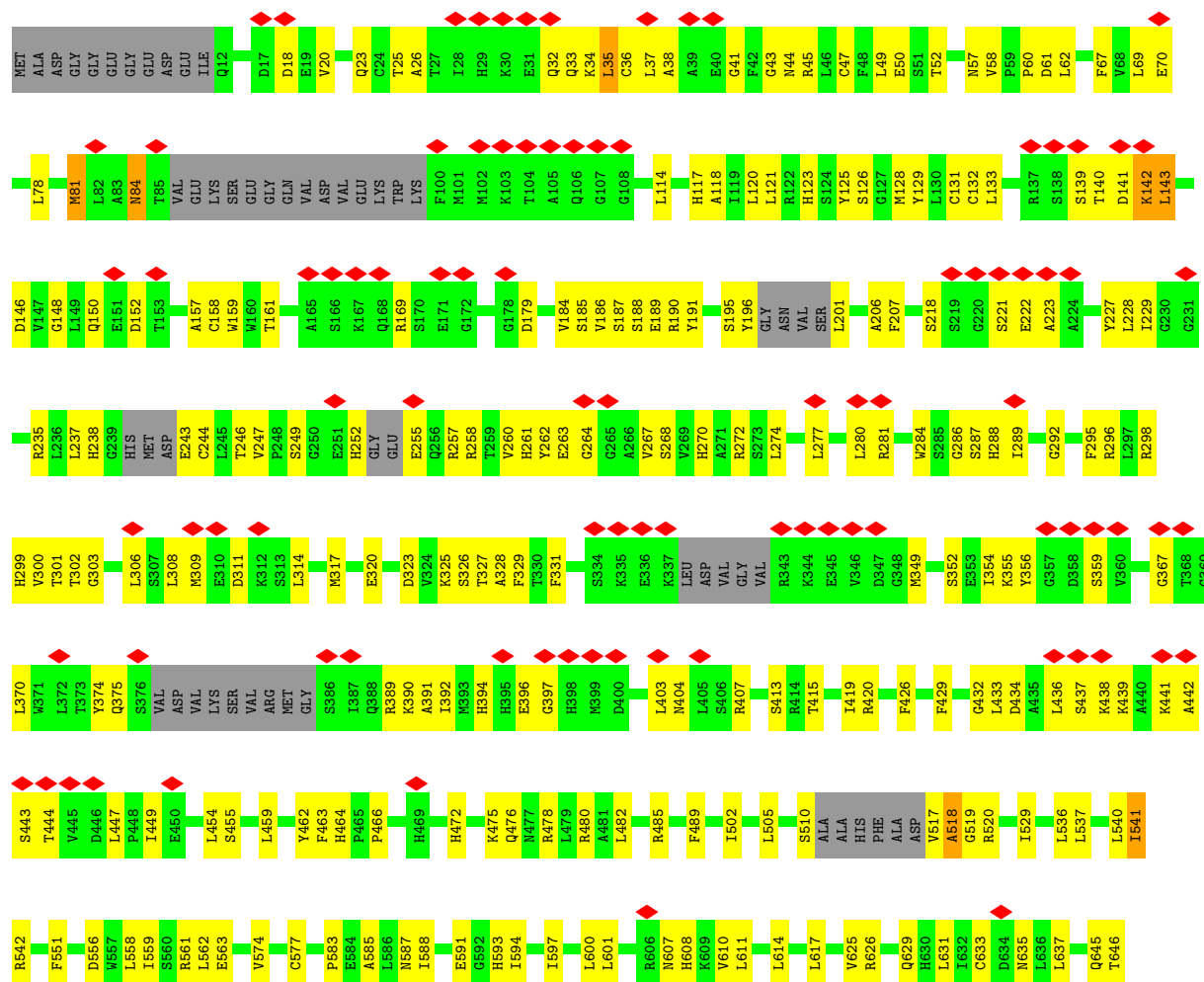










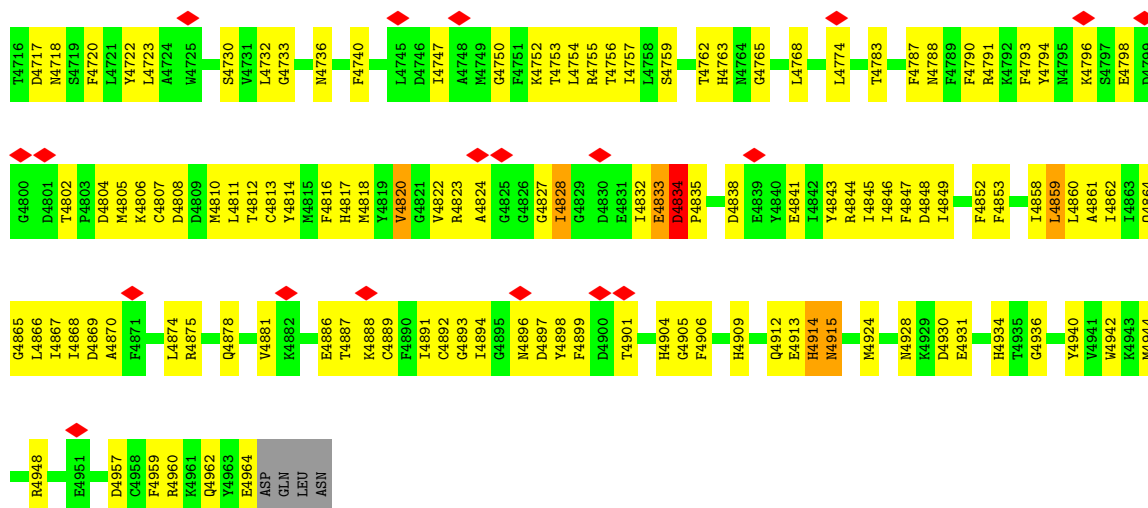




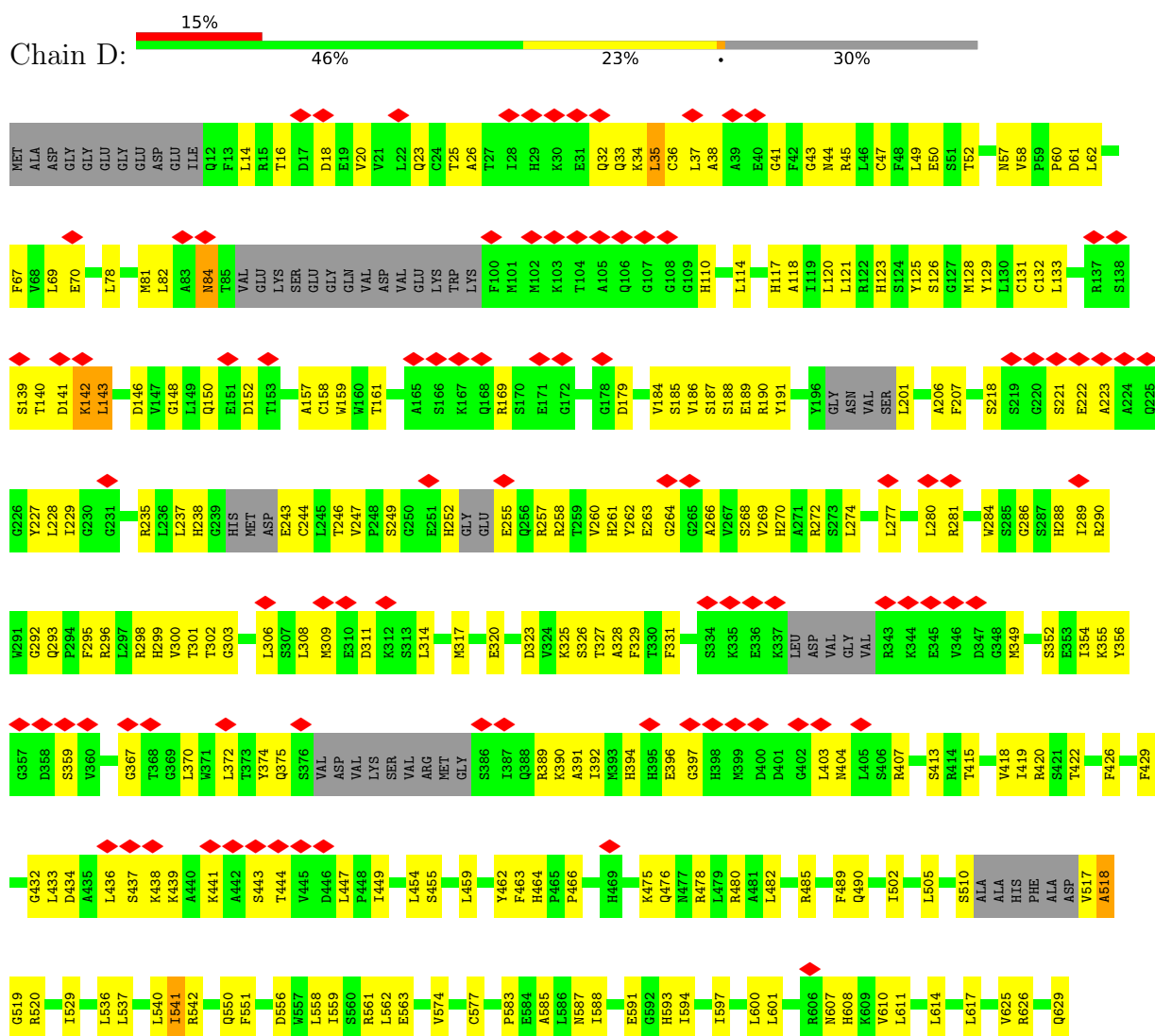
THR	ARG	CYS	ALA	PRO	L2535	F2536	A2537	G2538	L2549	V2553	TYR	ARG	LEU	SER	K2558	L2562	A2565	E2571	S2576	I2576	R2475	V2476	V2477	GLY	ILE	R2582	P2583	S2584	D2596	V2597	L2598	L2600	N2601	GLU	HIS	ALA	K2605	K2609	C2623	L2624	G2627	TRP	GLY	ASN	PHE	GLY	ALA	A2634	S2635						
THR	ILE	ALA	LYS	ASP	GLY	ASN	VAL	VAL	PRO	ASP	MET	SER	ALA	F2461	P2463	D2464	H2465	K2466	M2469	V2470	L2471	R2475	V2476	V2477	GLY	ILE	R2582	P2583	S2584	D2596	V2597	L2598	L2600	N2601	GLU	HIS	ALA	K2605	K2609	C2623	L2624	G2627	TRP	GLY	ASN	PHE	GLY	ALA	A2634	S2635					
PRO	ASP	THR	GLY	GLU	GLY	ASP	ASP	THR	ILE	HIS	MET	SER	ALA	A2388	F2392	R2402	G2403	A2404	PRO	GLU	MET	HIS	LEU	ILE	HIS	ALA	ALA	R2421	S2422	L2423	R2425	S2426	LEU	ILE	PRO	ASP	PRO	THR	ASP	GLY	TRP	ASN	P2293												
G2296	E2297	R2298	Y2299	L2303	R2304	F2305	A2306	V2307	C2308	C2309	S2313	L2324	L2325	L2326	R2327	E2330	CYS	PHE	GLY	PRO	ALA	LEU	ARG	L2254	A2255	L2256	A2257	L2258	V2265	V2267	R2268	Y2269	L2270	L2275	GLN	SER	CYS	GLN	MET	LEU	VAL	SER	LYS	GLY	TYR	PRO	ASP	ILE	GLY	TRP	ASN	P2293			
A2214	M2215	H2218	Y2221	L2222	L2223	E2224	N2225	S2226	S2227	V2228	S2232	P2233	S2238	T2239	P2240	V2243	A2246	S2247	V2248	E2253	L2254	A2255	L2256	A2257	L2258	V2265	V2267	R2268	Y2269	L2270	L2275	GLN	SER	CYS	GLN	MET	LEU	VAL	SER	LYS	GLY	TYR	PRO	ASP	ILE	GLY	TRP	ASN	P2293						
I2118	L2121	A2122	S2123	Q2126	L2127	R2128	S2129	L2130	V2133	R2134	M2135	G2136	E2140	K2141	L2142	M2143	I2144	R2145	D2149	N2153	F2156	Y2157	Q2158	M2173	G2181	GLY	GLU	SER	LYS	ILE	THR	F2190	M2193	V2194	A2195	N2196	C2197	C2198	R2199	F2200	L2201	C2202	C2205	Q2212	K2213										
T2038	Y2039	L2040	LYS	LYS	GLN	ALA	GLU	LYS	VAL	GLU	SER	ASP	LYS	LYS	SER	T2058	L2059	L2062	L2063	T2066	M2067	V2070	V2075	M2085	F2086	L2088	L2089	R2090	R2091	D2094	G2095	L2096	V2100	R2101	A2102	L2103	F2104	K2105	T2106	Y2107	N2110	V2114	E2115	D2116	T2117										
PRO	GLN	GLU	GLN	ILE	ASN	MET	LEU	ASN	PHE	LYS	ASP	ASP	LYS	LYS	GLY	CYS	PRO	CYS	PRO	GLU	ILE	R1994	D1995	Q1912	R1920	H1921	H1922	I1923	D2003	E2011	L2012	F1929	PHE	LYS	GLU	ALA	GLY	PRO	GLU	ASN	MET	SER	ALA	THR	LEU	THR	ALA	PRO	CYS	LYS	ALA	GLU	PHE	ARG	PRO
LEU	GLU	GLY	PRO	ALA	GLU	GLU	SER	LYS	GLY	LYS	ARG	PRO	LYS	GLU	M1830	M1831	G1832	I1833	F1834	H1835	N1836	D1837	E1838	L1839	K1840	I1841	L1842	L1843	E1847	F1848	S1849	PHE	LYS	GLU	ALA	GLY	PRO	GLU	ASN	MET	SER	ALA	THR	LEU	THR	ALA	PRO	CYS	LYS	ALA	GLU	PHE	ARG	PRO	
R1807	D1808	G1811	F1816	V1819	P1820	K1823	Y1826	T1827	L1828	L1829	I1830	M1831	G1832	I1833	F1834	H1835	N1836	D1837	E1838	L1839	K1840	I1841	L1842	L1843	E1847	F1848	S1849	PHE	LYS	GLU	ALA	GLY	PRO	GLU	ASN	M1773	Q1777	E1781	F1782	P1783	I1786	I1792	L1795	V1799	S1803	L1804									
SER	A1568	G1569	L1570	S1573	E1574	H1575	K1576	V1579	P1580	O1581	C1582	P1583	R1585	L1586	H1587	V1588	Q1589	F1590	L1591	S1592	H1593	W1596	S1597	R1598	W1599	P1600	N1601	Q1602	F1603	L1604	K1605	V1606	R1610	I1611	S1612	E1613	R1614	O1615	G1616	W1617	Q1620	E1623	P1624	L1625	M1628	S1629	L1630	H1631	E1634	E1635					
S1638	V1639	D1640	I1641	L1642	E1643	L1644	T1645	E1646	Q1647	L1651	H1654	T1657	L1658	R1659	S1662	A1663	V1664	L1667	G1668	N1669	V1672	A1673	L1676	H1679	V1680	D1681	E1682	P1683	Q1684	L1685	L1686	Y1687	A1688	N1691	K1692	Y1693	M1694	G1696	R1699	Y1703	D1704	I1707	L1711												
R1718	L1719	M1720	M1721	I1726	V1727	P1728	M1729	T1730	L1738	F1739	D1741	ASN	LYS	LYS	HIS	G1747	L1748	P1749	I1751	G1752	S1756	L1757	R1758	P1759	M1761	P1766	S1767	PHE	VAL	SER	ILE	ASN	M1773	Q1777	E1781	F1782	P1783	I1786	I1792	L1795	V1799	S1803	L1804												







• Molecule 1: Ryanodine receptor 2

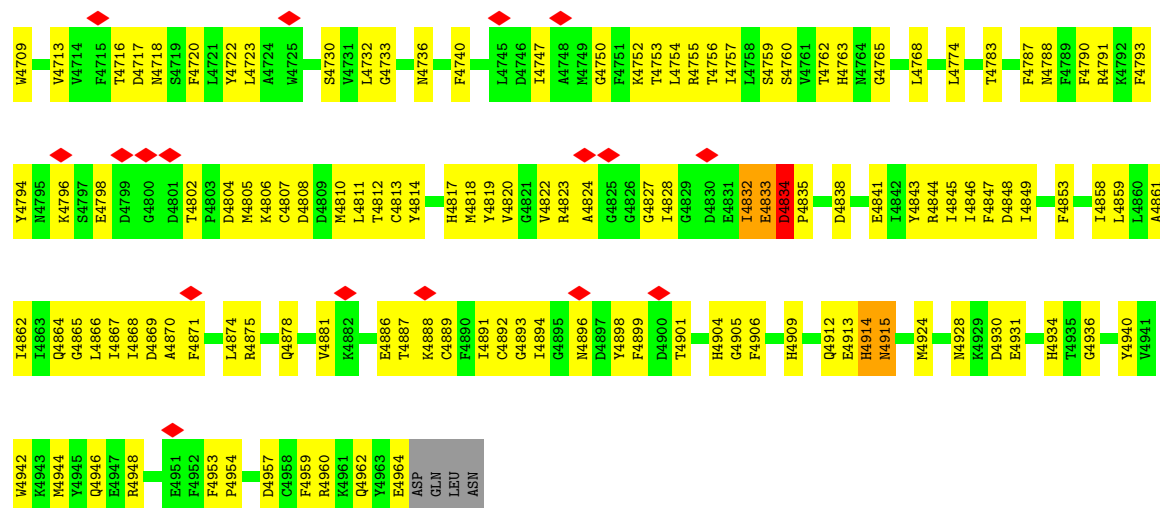












4 Experimental information

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 ($\text{\AA}$)	522.6, 522.6, 522.6	wwPDB
Map dimensions	200, 200, 200	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	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	0.37	0/27034	0.71	26/36550 (0.1%)
1	B	0.37	0/27034	0.71	27/36550 (0.1%)
1	C	0.36	0/27034	0.72	30/36550 (0.1%)
1	D	0.37	0/27031	0.71	30/36546 (0.1%)
All	All	0.37	0/108133	0.71	113/146196 (0.1%)

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 (113) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4833	GLU	CB-CA-C	9.63	125.81	109.53
1	C	4833	GLU	N-CA-C	-9.57	95.09	110.20
1	C	4820	VAL	CB-CA-C	-9.13	96.32	111.29
1	A	2156	PHE	N-CA-C	-9.10	101.08	113.18
1	B	2156	PHE	N-CA-C	-9.10	101.08	113.18
1	D	2156	PHE	N-CA-C	-9.10	101.08	113.18
1	C	2156	PHE	N-CA-C	-9.08	101.10	113.18
1	D	4833	GLU	N-CA-C	-9.08	97.05	110.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	4833	GLU	CB-CA-C	8.81	125.67	109.46
1	A	2039	TYR	N-CA-C	8.49	126.62	113.72
1	B	2039	TYR	N-CA-C	8.47	126.59	113.72
1	D	2039	TYR	N-CA-C	8.45	126.57	113.72
1	C	2039	TYR	N-CA-C	8.45	126.57	113.72
1	B	4834	ASP	N-CA-C	-8.06	98.59	110.20
1	D	4519	LEU	CB-CA-C	-7.95	97.06	110.81
1	C	139	SER	CA-C-N	7.56	135.31	121.70
1	C	139	SER	C-N-CA	7.56	135.31	121.70
1	B	139	SER	CA-C-N	7.55	135.29	121.70
1	B	139	SER	C-N-CA	7.55	135.29	121.70
1	D	139	SER	CA-C-N	7.54	135.27	121.70
1	D	139	SER	C-N-CA	7.54	135.27	121.70
1	A	139	SER	CA-C-N	7.52	135.24	121.70
1	A	139	SER	C-N-CA	7.52	135.24	121.70
1	A	2022	SER	CA-C-N	6.65	133.66	121.70
1	A	2022	SER	C-N-CA	6.65	133.66	121.70
1	B	2022	SER	CA-C-N	6.65	133.66	121.70
1	B	2022	SER	C-N-CA	6.65	133.66	121.70
1	C	2022	SER	CA-C-N	6.65	133.66	121.70
1	C	2022	SER	C-N-CA	6.65	133.66	121.70
1	D	2022	SER	CA-C-N	6.65	133.66	121.70
1	D	2022	SER	C-N-CA	6.65	133.66	121.70
1	C	2133	VAL	CA-C-N	6.61	133.59	121.70
1	C	2133	VAL	C-N-CA	6.61	133.59	121.70
1	D	2133	VAL	CA-C-N	6.58	133.55	121.70
1	D	2133	VAL	C-N-CA	6.58	133.55	121.70
1	A	2133	VAL	CA-C-N	6.56	133.50	121.70
1	A	2133	VAL	C-N-CA	6.56	133.50	121.70
1	B	2133	VAL	CA-C-N	6.56	133.50	121.70
1	B	2133	VAL	C-N-CA	6.56	133.50	121.70
1	B	2038	THR	CA-C-N	6.40	136.28	125.02
1	B	2038	THR	C-N-CA	6.40	136.28	125.02
1	A	2038	THR	CA-C-N	6.39	136.26	125.02
1	A	2038	THR	C-N-CA	6.39	136.26	125.02
1	D	2038	THR	CA-C-N	6.39	136.26	125.02
1	D	2038	THR	C-N-CA	6.39	136.26	125.02
1	C	2038	THR	CA-C-N	6.36	136.21	125.02
1	C	2038	THR	C-N-CA	6.36	136.21	125.02
1	D	4834	ASP	N-CA-C	-5.94	101.64	110.20
1	B	4074	ASP	CA-C-N	5.67	132.38	121.54
1	B	4074	ASP	C-N-CA	5.67	132.38	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4074	ASP	CA-C-N	5.67	132.38	121.54
1	C	4074	ASP	C-N-CA	5.67	132.38	121.54
1	D	4074	ASP	CA-C-N	5.67	132.38	121.54
1	D	4074	ASP	C-N-CA	5.67	132.38	121.54
1	A	4074	ASP	CA-C-N	5.67	132.37	121.54
1	A	4074	ASP	C-N-CA	5.67	132.37	121.54
1	B	140	THR	CA-C-N	5.66	131.88	121.70
1	B	140	THR	C-N-CA	5.66	131.88	121.70
1	C	140	THR	CA-C-N	5.63	131.83	121.70
1	C	140	THR	C-N-CA	5.63	131.83	121.70
1	D	140	THR	CA-C-N	5.63	131.83	121.70
1	D	140	THR	C-N-CA	5.63	131.83	121.70
1	A	140	THR	CA-C-N	5.61	131.79	121.70
1	A	140	THR	C-N-CA	5.61	131.79	121.70
1	A	2039	TYR	CA-C-N	5.52	131.63	121.70
1	A	2039	TYR	C-N-CA	5.52	131.63	121.70
1	C	4834	ASP	N-CA-C	-5.49	102.29	110.20
1	B	2039	TYR	CA-C-N	5.49	131.58	121.70
1	B	2039	TYR	C-N-CA	5.49	131.58	121.70
1	D	2039	TYR	CA-C-N	5.49	131.58	121.70
1	D	2039	TYR	C-N-CA	5.49	131.58	121.70
1	C	2039	TYR	CA-C-N	5.47	131.54	121.70
1	C	2039	TYR	C-N-CA	5.47	131.54	121.70
1	C	4084	PHE	CA-C-N	-5.39	117.43	122.66
1	C	4084	PHE	C-N-CA	-5.39	117.43	122.66
1	A	222	GLU	CA-C-N	5.37	131.36	121.70
1	A	222	GLU	C-N-CA	5.37	131.36	121.70
1	B	222	GLU	CA-C-N	5.37	131.36	121.70
1	B	222	GLU	C-N-CA	5.37	131.36	121.70
1	C	222	GLU	CA-C-N	5.37	131.36	121.70
1	C	222	GLU	C-N-CA	5.37	131.36	121.70
1	D	222	GLU	CA-C-N	5.37	131.36	121.70
1	D	222	GLU	C-N-CA	5.37	131.36	121.70
1	A	4084	PHE	CA-C-N	-5.35	117.47	122.66
1	A	4084	PHE	C-N-CA	-5.35	117.47	122.66
1	B	4084	PHE	CA-C-N	-5.35	117.47	122.66
1	B	4084	PHE	C-N-CA	-5.35	117.47	122.66
1	D	4084	PHE	CA-C-N	-5.35	117.47	122.66
1	D	4084	PHE	C-N-CA	-5.35	117.47	122.66
1	C	2228	VAL	N-CA-C	-5.32	108.66	113.71
1	B	2202	CYS	CA-C-N	5.29	128.10	120.38
1	B	2202	CYS	C-N-CA	5.29	128.10	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2228	VAL	N-CA-C	-5.28	108.69	113.71
1	D	2228	VAL	N-CA-C	-5.28	108.69	113.71
1	C	2202	CYS	CA-C-N	5.27	128.08	120.38
1	C	2202	CYS	C-N-CA	5.27	128.08	120.38
1	D	2202	CYS	CA-C-N	5.27	128.08	120.38
1	D	2202	CYS	C-N-CA	5.27	128.08	120.38
1	B	2228	VAL	N-CA-C	-5.26	108.71	113.71
1	A	2202	CYS	CA-C-N	5.26	128.06	120.38
1	A	2202	CYS	C-N-CA	5.26	128.06	120.38
1	A	1997	LEU	CA-C-N	5.25	131.16	121.70
1	A	1997	LEU	C-N-CA	5.25	131.16	121.70
1	D	1997	LEU	CA-C-N	5.25	131.15	121.70
1	D	1997	LEU	C-N-CA	5.25	131.15	121.70
1	C	1997	LEU	CA-C-N	5.25	131.14	121.70
1	C	1997	LEU	C-N-CA	5.25	131.14	121.70
1	B	1997	LEU	CA-C-N	5.23	131.11	121.70
1	B	1997	LEU	C-N-CA	5.23	131.11	121.70
1	C	519	GLY	N-CA-C	-5.04	101.24	113.18
1	B	519	GLY	N-CA-C	-5.03	101.25	113.18
1	D	519	GLY	N-CA-C	-5.03	101.25	113.18
1	A	519	GLY	N-CA-C	-5.03	101.26	113.18

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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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 [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26546	0	25085	814	0
1	B	26546	0	25085	849	0
1	C	26546	0	25085	848	0
1	D	26543	0	25076	839	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	100331	3153	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 (3153) 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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4808:ASP:CG	1:C:4523:VAL:HG21	2.14	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:D:3996:ILE:HG12	1:D:4000:MET:HE3	1.80	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:756:SER:HB3	1:B:769:ARG:HB2	1.80	0.63
1:B:3996:ILE:HG12	1:B:4000:MET:HE3	1.79	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:A:3996:ILE:HG12	1:A:4000:MET:HE3	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
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:C:3996:ILE:HG12	1:C:4000:MET:HE3	1.79	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:B:1720:MET:HE2	1:B:2128:ARG:HG2	1.82	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:D:1720:MET:HE2	1:D:2128:ARG:HG2	1.82	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1720:MET:HE2	1:C:2128:ARG:HG2	1.82	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
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:1720:MET:HE2	1:A:2128:ARG:HG2	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4807:CYS:SG	1:A:4812:THR:OG1	2.59	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:D:4807:CYS:SG	1:D:4812:THR:OG1	2.59	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
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:C:4820:VAL:C	1:C:4824:ALA:HB2	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1729:MET:HE1	1:D:3614:ARG:HB3	1.85	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:C:4807:CYS:SG	1:C:4812:THR:OG1	2.59	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1729:MET:HE1	1:B:3614:ARG:HB3	1.85	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1173:MET:HE2	1:A:1192:PHE:HB2	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:1173:MET:HE2	1:B:1192:PHE:HB2	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:4517:ILE:C	1:A:4519:LEU:H	2.11	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
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:C:1173:MET:HE2	1:C:1192:PHE:HB2	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:D:1173:MET:HE2	1:D:1192:PHE:HB2	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:C:1729:MET:HE1	1:C:3614:ARG:HB3	1.85	0.57
1:A:1729:MET:HE1	1:A:3614:ARG:HB3	1.85	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1487:MET:HE1	1:A:1531:TYR:H	1.70	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:1487:MET:HE1	1:C:1531:TYR:H	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:3917:VAL:O	1:D:3920:THR:OG1	2.21	0.56
1:D:4189:LEU:HD23	1:D:4192:ASN:HD22	1.70	0.56
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1487:MET:HE1	1:D:1531:TYR:H	1.70	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
1:C:2715:PRO:HD2	1:C:2718:LEU:HD12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:B:4142:SER:O	1:B:4144:LYS:NZ	2.38	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:895:MET:HE1	1:B:971:GLN:HB2	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: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:A:4898:TYR:O	1:A:4901:THR:OG1	2.23	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:B:1922:ARG:NH1	1:B:2037:VAL:O	2.39	0.55
1:C:895:MET:HE1	1:C:971:GLN:HB2	1.88	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4184:LYS:CA	1:D:4904:HIS:NE2	2.70	0.55
1:B:563:GLU:HG2	1:B:600:LEU:HD13	1.89	0.55
1:B:1487:MET:HE1	1:B:1531:TYR:H	1.70	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: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:C:2832:VAL:O	1:C:2895:LYS:NZ	2.40	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:2832:VAL:O	1:A:2895:LYS:NZ	2.40	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:563:GLU:HG2	1:D:600:LEU:HD13	1.89	0.55
1:D:895:MET:HE1	1:D:971:GLN:HB2	1.88	0.55
1:D:3727:TYR:O	1:D:3731:ARG:CB	2.55	0.55
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1570:LEU:O	1:B:1573:SER:OG	2.24	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:3959:LEU:HD23	1:D:3965:GLN:HB3	1.89	0.54
1:D:4898:TYR:O	1:D:4901:THR:OG1	2.23	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: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:3917:VAL:O	1:A:3920:THR:OG1	2.21	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:SER:OG	1:A:186:VAL:N	2.39	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
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:895:MET:HE1	1:A:971:GLN:HB2	1.88	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:D:2832:VAL:O	1:D:2895:LYS:NZ	2.40	0.53
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: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:185:SER:OG	1:D:186:VAL:N	2.39	0.53
1:D:1912:GLN:HE21	1:D:2088:LEU:HD23	1.74	0.53
1:D:3919:ASN:O	1:D:3922:THR:OG1	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:C:3919:ASN:O	1:C:3922:THR:OG1	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:2102:ALA:HA	1:C:2105:LYS:HZ1	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:D:4713:VAL:O	1:D:4716:THR:OG1	2.26	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:4838:ASP:HB3	1:A:4841:GLU:HB2	1.91	0.52
1:B:4798:GLU:H	1:B:4802:THR:HG1	1.58	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:A:4104:THR:O	1:A:4107:SER:OG	2.28	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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:1292:SER:OG	1:D:1296:SER:O	2.28	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:4104:THR:O	1:C:4107:SER:OG	2.28	0.51
1:C:4561:VAL:HG12	1:C:4562:LEU:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:3834:ASP:O	1:A:3837:THR:OG1	2.28	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: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
1:D:2224:GLU:O	1:D:2269:TYR:OH	2.27	0.51
1:D:4104:THR:O	1:D:4107:SER:OG	2.28	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:B:4519:LEU:C	1:D:4810:MET:CB	2.84	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:85:THR:C	1:A:100:PHE:N	2.69	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:OD1	1:A:4834:ASP:N	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:A:2086:PHE:O	1:A:3692:TYR:OH	2.25	0.50
1:A:4154:SER:OG	1:A:4156:SER:OG	2.30	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:B:4810:MET:CB	1:C:4519:LEU:C	2.84	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1659:ARG:O	1:D:1662:SER:OG	2.30	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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:D:2114:VAL:O	1:D:2117:THR:OG1	2.21	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2070:TRP:HE3	1:B:2085:MET:HE3	1.77	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
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: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: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:2070:TRP:HE3	1:D:2085:MET:HE3	1.77	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:2086:PHE:O	1:B:3692:TYR:OH	2.25	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2070:TRP:HE3	1:C:2085:MET:HE3	1.77	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
1:D:4154:SER:OG	1:D:4156:SER:OG	2.30	0.49
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:D:2086:PHE:O	1:D:3692:TYR:OH	2.25	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:A:4798:GLU:H	1:A:4802:THR:HG1	1.56	0.48
1:B:375:GLN:N	1:B:390:LYS:O	2.40	0.48
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:1659:ARG:O	1:A:1662:SER:OG	2.30	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:82:LEU:HD23	1:B:82:LEU:C	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2086:PHE:O	1:C:3692:TYR:OH	2.25	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
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:4103:LEU:HD23	1:C:4106:LEU:HD12	1.95	0.48
1:C:4651:LYS:HZ1	1:C:4670:LEU:C	2.22	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:1900:PRO:O	1:A:1904:LYS:NZ	2.44	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:B:4193:PHE:O	1:B:4197:THR:OG1	2.26	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: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
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:A:3921:LEU:HD13	1:A:3982:MET:HE3	1.95	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:4651:LYS:HZ1	1:A:4670:LEU:C	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:D:3921:LEU:HD13	1:D:3982:MET:HE3	1.95	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:1166:VAL:HG11	1:D:1168:MET:HE2	1.96	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
1:B:768:PHE:H	1:B:778:MET:HE2	1.79	0.48
1:B:1166:VAL:HG11	1:B:1168:MET:HE2	1.96	0.48
1:B:1605:LYS:HD3	1:B:1606:VAL:HG23	1.95	0.48
1:B:2463:PRO:O	1:B:2520:TYR:OH	2.26	0.48
1:B:4733:GLY:HA3	1:B:4740:PHE:CD1	2.49	0.48
1:C:768:PHE:H	1:C:778:MET:HE2	1.79	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:2070:TRP:HE3	1:A:2085:MET:HE3	1.77	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:768:PHE:H	1:D:778:MET:HE2	1.79	0.47
1:D:1160:ASP:OD1	1:D:1178:ASN:ND2	2.47	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:3921:LEU:HD13	1:B:3982:MET:HE3	1.95	0.47
1:B:4104:THR:O	1:B:4107:SER:OG	2.28	0.47
1:B:4198:ILE:HG12	1:B:4924:MET:HG2	1.95	0.47
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:768:PHE:H	1:A:778:MET:HE2	1.79	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: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:D:1610:ARG:NH1	1:D:1612:SER:OG	2.48	0.47
1:A:419:ILE:HG12	1:A:489:PHE:HE1	1.80	0.47
1:A:1166:VAL:HG11	1:A:1168:MET:HE2	1.96	0.47
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:B:3834:ASP:O	1:B:3837:THR:OG1	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3897:ASP:OD1	1:B:3958:LYS:NZ	2.40	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:3921:LEU:HD13	1:C:3982:MET:HE3	1.95	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:C:4798:GLU:H	1:C:4802:THR:HG1	1.60	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2102:ALA:HA	1:A:2105:LYS:HZ1	1.78	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:A:4713:VAL:O	1:A:4716:THR:OG1	2.26	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:2463:PRO:O	1:A:2520:TYR:OH	2.26	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:1166:VAL:HG11	1:C:1168:MET:HE2	1.96	0.46
1:C:1610:ARG:NH1	1:C:1612:SER:OG	2.48	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:81:MET:HE2	1:A:81:MET:HB3	1.71	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1799:VAL:O	1:C:1803:SER:CB	2.59	0.46
1:C:3854:ASP:N	1:C:3854:ASP:OD1	2.46	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:B:4713:VAL:O	1:B:4716:THR:OG1	2.26	0.46
1:C:1837:GLU:O	1:C:1841:HIS:N	2.45	0.46
1:C:3748:SER:O	1:C:3793:SER:OG	2.25	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:2102:ALA:HA	1:D:2105:LYS:HZ1	1.80	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: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: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
1:B:299:HIS:NE2	1:B:301:THR:OG1	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:D:4651:LYS:HZ1	1:D:4670:LEU:C	2.23	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:4193:PHE:O	1:A:4197:THR:OG1	2.26	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:3834:ASP:O	1:C:3837:THR:OG1	2.28	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:2173:MET:HB2	1:C:2173:MET:HE3	1.65	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:A:1252:SER:HB2	1:A:1598:ARG:HB2	1.97	0.45
1:B:4651:LYS:HZ1	1:B:4670:LEU:C	2.23	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: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:802:PHE:N	1:A:1616:GLY:O	2.50	0.45
1:A:2114:VAL:O	1:A:2117:THR:OG1	2.21	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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: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:4597:PRO:HA	1:B:4600:ILE:HG22	1.99	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:C:3834:ASP:OD1	1:C:3834:ASP:N	2.47	0.45
1:D:443:SER:HA	1:D:444:THR:HA	1.52	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:4820:VAL:C	1:A:4824:ALA:HB2	2.41	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4814:TYR:O	1:C:4818:MET:HB2	2.16	0.44
1:D:1447:THR:OG1	1:D:1538:LYS:O	2.28	0.44
1:D:4503:MET:HE1	1:D:4587:CYS:HB3	2.00	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
1:A:229:ILE:HA	1:A:288:HIS:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2102:ALA:HA	1:B:2105:LYS:HZ1	1.83	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: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
1:B:394:HIS:CD2	1:B:396:GLU:H	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:4187:MET:HE2	1:B:4891:ILE:HA	2.00	0.44
1:B:4503:MET:HE1	1:B:4587:CYS:HB3	2.00	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:A:4503:MET:HE1	1:A:4587:CYS:HB3	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:HIS:N	1:C:128:MET:O	2.34	0.44
1:C:434:ASP:O	1:C:438:LYS:NZ	2.43	0.44
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:3986:MET:HB2	1:D:3986:MET:HE3	1.76	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:850:LEU:HD11	1:A:1249:MET:HE1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:A:4581:THR:O	1:A:4584:SER:OG	2.29	0.43
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.53	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:C:4753:THR:O	1:C:4756:THR:OG1	2.26	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:D:4187:MET:HE2	1:D:4891:ILE:HA	2.00	0.43
1:A:418:VAL:O	1:A:422:THR:OG1	2.31	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: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:3748:SER:O	1:B:3793:SER:OG	2.25	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:1246:ASP:H	1:C:1693:TYR:HH	1.62	0.43
1:C:1297:THR:HA	1:C:1547:ALA:HB3	2.00	0.43
1:C:2029:ARG:O	1:C:2032:SER:OG	2.36	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:850:LEU:HD11	1:C:1249:MET:HE1	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:794:PHE:HB2	1:A:798:ILE:HD12	2.01	0.43
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:2173:MET:HB2	1:A:2173:MET:HE3	1.65	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:C:2349:GLU:OE2	1:C:2438:SER:OG	2.35	0.43
1:C:4187:MET:HE2	1:C:4891:ILE:HA	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:3986:MET:HE3	1:A:3986:MET:HB2	1.76	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:556:ASP:OD1	1:B:556:ASP:N	2.51	0.43
1:B:1165:MET:HB3	1:B:1236:TYR:CZ	2.54	0.43
1:B:2029:ARG:O	1:B:2032:SER:OG	2.36	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:4664:ARG:CZ	1:D:4667:ILE:HG13	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:4187:MET:HE2	1:A:4891:ILE:HA	2.00	0.43
1:B:433:LEU:O	1:B:437:SER:CB	2.67	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
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:4503:MET:HE1	1:C:4587:CYS:HB3	2.00	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:434:ASP:O	1:D:438:LYS:NZ	2.43	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: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:850:LEU:HD11	1:D:1249:MET:HE1	2.00	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2173:MET:HB2	1:D:2173:MET:HE3	1.65	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
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:A:4810:MET:CB	1:D:4519:LEU:C	2.92	0.42
1:B:412:GLU:O	1:B:415:THR:OG1	2.37	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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2793:THR:OG1	1:B:2901:GLY:O	2.33	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:D:292:GLY:N	1:D:331:PHE:O	2.52	0.42
1:D:799:LYS:HZ1	1:D:1618:LEU:HD13	1.84	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
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:A:4517:ILE:C	1:A:4519:LEU:N	2.77	0.42
1:B:799:LYS:HZ1	1:B:1618:LEU:HD13	1.83	0.42
1:B:850:LEU:HD11	1:B:1249:MET:HE1	2.00	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: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:1168:MET:HE1	1:C:1201:PHE:HD2	1.85	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:4197:THR:HG22	1:C:4201:MET:HE3	2.01	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:3970:LYS:HA	1:C:3973:MET:HE2	2.02	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
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:799:LYS:HZ1	1:A:1618:LEU:HD13	1.84	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:418:VAL:O	1:D:422:THR:OG1	2.31	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:412:GLU:O	1:A:415:THR:OG1	2.37	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:4197:THR:HG22	1:A:4201:MET:HE3	2.01	0.42
1:A:4790:PHE:HA	1:A:4793:PHE:HE2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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: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:1168:MET:HE1	1:A:1201:PHE:HD2	1.85	0.42
1:A:1628:MET:HB2	1:A:1687:TYR:HE2	1.84	0.42
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:1168:MET:HE1	1:B:1201:PHE:HD2	1.85	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:3970:LYS:HA	1:B:3973:MET:HE2	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:A:298:ARG:HE	1:A:303:GLY:HA2	1.85	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:3986:MET:HE3	1:B:3986:MET:HB2	1.76	0.42
1:B:4197:THR:HG22	1:B:4201:MET:HE3	2.01	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:1089:ARG:O	1:D:1250:TRP:N	2.40	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:4197:THR:HG22	1:D:4201:MET:HE3	2.01	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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: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: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:681:HIS:ND1	1:B:683:GLU:OE2	2.53	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:3970:LYS:HA	1:D:3973:MET:HE2	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:D:591:GLU:HA	1:D:631:LEU:HD21	2.03	0.41
1:D:1168:MET:HE1	1:D:1201:PHE:HD2	1.85	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:B:4114:THR:HA	1:B:4117:GLN:HB2	2.02	0.41
1:B:4523:VAL:HG21	1:D:4808:ASP:CG	2.46	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:2114:VAL:O	1:C:2117:THR:OG1	2.21	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:556:ASP:N	1:D:556:ASP:OD1	2.51	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:81:MET:HE2	1:C:81:MET:HB3	1.95	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:1721:MET:HE1	1:C:2121:LEU:HD22	2.03	0.41
1:C:2433:LEU:HA	1:C:2436:VAL:HB	2.02	0.41
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: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:591:GLU:HA	1:C:631:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1721:MET:HE1	1:A:2121:LEU:HD22	2.03	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:3748:SER:O	1:A:3793:SER:OG	2.25	0.41
1:A:3882:VAL:O	1:A:3886:ILE:HG12	2.20	0.41
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:2173:MET:HE3	1:B:2173:MET:HB2	1.65	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3970:LYS:HA	1:A:3973:MET:HE2	2.02	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3982:MET:O	1:D:3985:SER:OG	2.29	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:B:1685:LEU:HA	1:B:1688:ALA:HB3	2.04	0.40
1:B:1721:MET:HE1	1:B:2121:LEU:HD22	2.03	0.40
1:B:2222:LEU:O	1:B:2226:SER:N	2.36	0.40
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:187:SER:OG	1:C:188:SER:N	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4160:GLN:HE22	1:B:4204:ALA:HB3	1.86	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:655:MET:HE2	1:A:655:MET:HB3	1.95	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
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: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

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%)	30	67
1	B	3355/4968 (68%)	2936 (88%)	407 (12%)	12 (0%)	30	67
1	C	3355/4968 (68%)	2934 (88%)	408 (12%)	13 (0%)	30	67
1	D	3355/4968 (68%)	2938 (88%)	405 (12%)	12 (0%)	30	67
All	All	13420/19872 (68%)	11742 (88%)	1628 (12%)	50 (0%)	31	67

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	143	LEU
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

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Mol	Chain	Res	Type
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
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%)	2648 (99%)	30 (1%)	65	76
1	B	2678/4355 (62%)	2649 (99%)	29 (1%)	65	76
1	C	2677/4355 (62%)	2647 (99%)	30 (1%)	65	76
1	D	2676/4355 (61%)	2648 (99%)	28 (1%)	68	78
All	All	10709/17420 (62%)	10592 (99%)	117 (1%)	63	76

All (117) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	35	LEU
1	A	78	LEU
1	A	81	MET
1	A	541	ILE

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Mol	Chain	Res	Type
1	A	625	VAL
1	A	791	VAL
1	A	925	PRO
1	A	950	VAL
1	A	990	PRO
1	A	1054	VAL
1	A	1089	ARG
1	A	1488	VAL
1	A	1639	VAL
1	A	1738	LEU
1	A	1748	LEU
1	A	2024	LEU
1	A	2026	ILE
1	A	2118	ILE
1	A	4139	ILE
1	A	4518	LEU
1	A	4519	LEU
1	A	4562	LEU
1	A	4632	ASP
1	A	4828	ILE
1	A	4832	ILE
1	A	4834	ASP
1	A	4846	ILE
1	A	4858	ILE
1	A	4859	LEU
1	A	4894	ILE
1	B	35	LEU
1	B	78	LEU
1	B	81	MET
1	B	84	ASN
1	B	541	ILE
1	B	625	VAL
1	B	791	VAL
1	B	925	PRO
1	B	950	VAL
1	B	990	PRO
1	B	1054	VAL
1	B	1089	ARG
1	B	1488	VAL
1	B	1639	VAL
1	B	1738	LEU
1	B	1748	LEU

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Mol	Chain	Res	Type
1	B	2024	LEU
1	B	2026	ILE
1	B	2118	ILE
1	B	4139	ILE
1	B	4519	LEU
1	B	4562	LEU
1	B	4632	ASP
1	B	4832	ILE
1	B	4834	ASP
1	B	4846	ILE
1	B	4858	ILE
1	B	4859	LEU
1	B	4894	ILE
1	C	35	LEU
1	C	78	LEU
1	C	81	MET
1	C	84	ASN
1	C	541	ILE
1	C	625	VAL
1	C	791	VAL
1	C	925	PRO
1	C	990	PRO
1	C	1054	VAL
1	C	1089	ARG
1	C	1488	VAL
1	C	1639	VAL
1	C	1738	LEU
1	C	1748	LEU
1	C	2024	LEU
1	C	2026	ILE
1	C	2118	ILE
1	C	4139	ILE
1	C	4518	LEU
1	C	4519	LEU
1	C	4522	LYS
1	C	4562	LEU
1	C	4632	ASP
1	C	4828	ILE
1	C	4834	ASP
1	C	4846	ILE
1	C	4858	ILE
1	C	4859	LEU

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Mol	Chain	Res	Type
1	C	4894	ILE
1	D	35	LEU
1	D	78	LEU
1	D	81	MET
1	D	82	LEU
1	D	84	ASN
1	D	541	ILE
1	D	625	VAL
1	D	791	VAL
1	D	925	PRO
1	D	990	PRO
1	D	1054	VAL
1	D	1089	ARG
1	D	1488	VAL
1	D	1639	VAL
1	D	1738	LEU
1	D	1748	LEU
1	D	2024	LEU
1	D	2026	ILE
1	D	2118	ILE
1	D	4139	ILE
1	D	4561	VAL
1	D	4632	ASP
1	D	4832	ILE
1	D	4834	ASP
1	D	4846	ILE
1	D	4858	ILE
1	D	4859	LEU
1	D	4894	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (212) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	12	GLN
1	A	23	GLN
1	A	71	GLN
1	A	84	ASN
1	A	123	HIS
1	A	150	GLN
1	A	364	GLN
1	A	375	GLN
1	A	394	HIS

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Mol	Chain	Res	Type
1	A	484	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	1147	GLN
1	A	1257	GLN
1	A	1267	HIS
1	A	1294	ASN
1	A	1631	HIS
1	A	1654	HIS
1	A	1684	GLN
1	A	1710	HIS
1	A	1946	ASN
1	A	2152	ASN
1	A	2218	HIS
1	A	2442	GLN
1	A	2831	ASN
1	A	2900	ASN
1	A	3666	HIS
1	A	3667	GLN
1	A	3729	GLN
1	A	3743	GLN
1	A	3792	GLN
1	A	3870	ASN
1	A	3919	ASN
1	A	3926	GLN
1	A	3932	ASN
1	A	3954	HIS
1	A	3993	ASN
1	A	4009	ASN
1	A	4098	ASN
1	A	4128	ASN
1	A	4160	GLN
1	A	4172	GLN
1	A	4179	ASN
1	A	4192	ASN
1	A	4817	HIS
1	A	4878	GLN

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Mol	Chain	Res	Type
1	A	4918	ASN
1	B	12	GLN
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	364	GLN
1	B	375	GLN
1	B	394	HIS
1	B	484	ASN
1	B	587	ASN
1	B	604	HIS
1	B	608	HIS
1	B	628	ASN
1	B	630	HIS
1	B	635	ASN
1	B	658	ASN
1	B	1147	GLN
1	B	1257	GLN
1	B	1267	HIS
1	B	1294	ASN
1	B	1631	HIS
1	B	1654	HIS
1	B	1656	HIS
1	B	1684	GLN
1	B	1710	HIS
1	B	1946	ASN
1	B	2218	HIS
1	B	2442	GLN
1	B	2518	ASN
1	B	2900	ASN
1	B	3666	HIS
1	B	3667	GLN
1	B	3729	GLN
1	B	3743	GLN
1	B	3792	GLN
1	B	3870	ASN
1	B	3919	ASN
1	B	3926	GLN
1	B	3932	ASN

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Mol	Chain	Res	Type
1	B	3954	HIS
1	B	3993	ASN
1	B	3999	GLN
1	B	4098	ASN
1	B	4128	ASN
1	B	4160	GLN
1	B	4172	GLN
1	B	4179	ASN
1	B	4192	ASN
1	B	4817	HIS
1	B	4878	GLN
1	B	4918	ASN
1	C	12	GLN
1	C	23	GLN
1	C	84	ASN
1	C	117	HIS
1	C	123	HIS
1	C	150	GLN
1	C	364	GLN
1	C	375	GLN
1	C	394	HIS
1	C	484	ASN
1	C	587	ASN
1	C	604	HIS
1	C	608	HIS
1	C	628	ASN
1	C	630	HIS
1	C	635	ASN
1	C	658	ASN
1	C	781	ASN
1	C	1147	GLN
1	C	1257	GLN
1	C	1267	HIS
1	C	1294	ASN
1	C	1631	HIS
1	C	1654	HIS
1	C	1656	HIS
1	C	1684	GLN
1	C	1710	HIS
1	C	1946	ASN
1	C	2218	HIS
1	C	2442	GLN

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Mol	Chain	Res	Type
1	C	2900	ASN
1	C	3666	HIS
1	C	3667	GLN
1	C	3729	GLN
1	C	3743	GLN
1	C	3792	GLN
1	C	3813	ASN
1	C	3870	ASN
1	C	3919	ASN
1	C	3926	GLN
1	C	3932	ASN
1	C	3954	HIS
1	C	3993	ASN
1	C	4098	ASN
1	C	4128	ASN
1	C	4160	GLN
1	C	4172	GLN
1	C	4179	ASN
1	C	4192	ASN
1	C	4817	HIS
1	C	4878	GLN
1	C	4918	ASN
1	D	12	GLN
1	D	23	GLN
1	D	84	ASN
1	D	117	HIS
1	D	123	HIS
1	D	150	GLN
1	D	364	GLN
1	D	375	GLN
1	D	394	HIS
1	D	484	ASN
1	D	587	ASN
1	D	604	HIS
1	D	608	HIS
1	D	628	ASN
1	D	630	HIS
1	D	635	ASN
1	D	658	ASN
1	D	781	ASN
1	D	1147	GLN
1	D	1257	GLN

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Mol	Chain	Res	Type
1	D	1267	HIS
1	D	1294	ASN
1	D	1631	HIS
1	D	1654	HIS
1	D	1656	HIS
1	D	1684	GLN
1	D	1710	HIS
1	D	1946	ASN
1	D	2218	HIS
1	D	2442	GLN
1	D	2518	ASN
1	D	2900	ASN
1	D	3666	HIS
1	D	3667	GLN
1	D	3729	GLN
1	D	3743	GLN
1	D	3792	GLN
1	D	3813	ASN
1	D	3856	GLN
1	D	3870	ASN
1	D	3919	ASN
1	D	3926	GLN
1	D	3932	ASN
1	D	3954	HIS
1	D	3993	ASN
1	D	3999	GLN
1	D	4098	ASN
1	D	4128	ASN
1	D	4160	GLN
1	D	4172	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 [i](#)

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

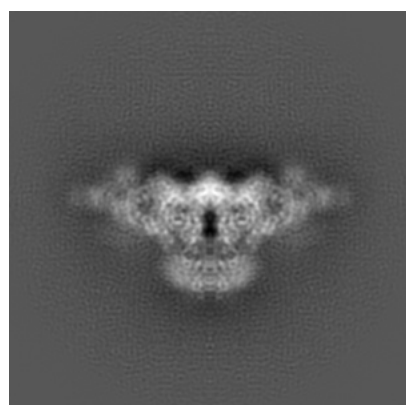
6 Map visualisation [i](#)

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

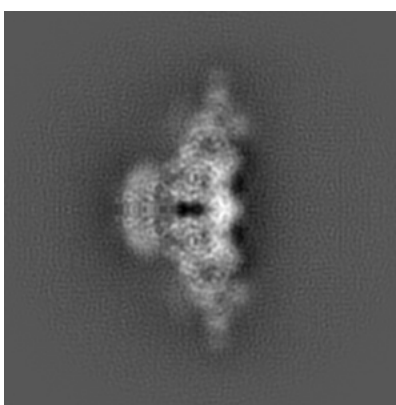
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

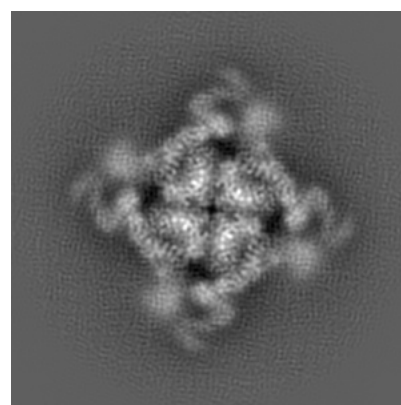
6.1.1 Primary map



X



Y

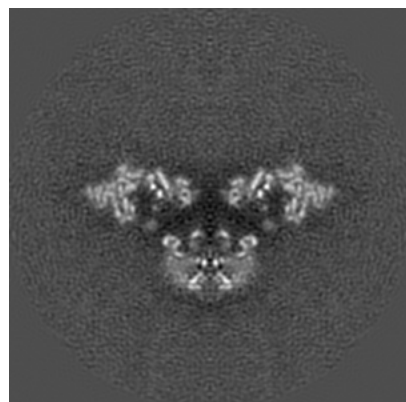


Z

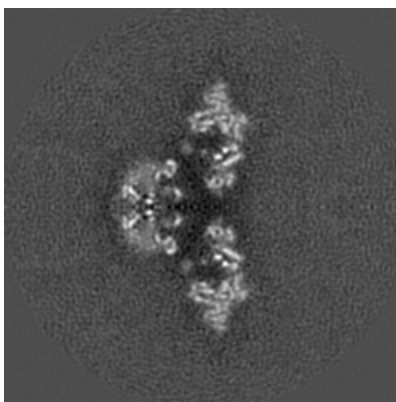
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

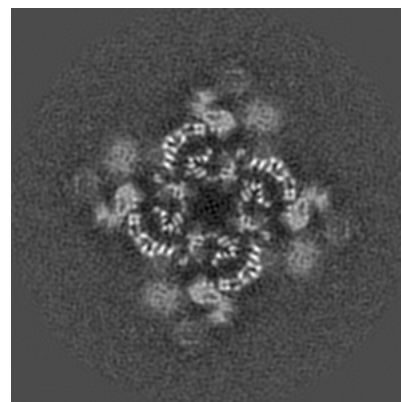
6.2.1 Primary map



X Index: 100



Y Index: 100

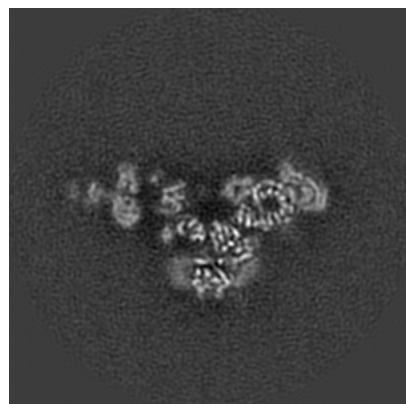


Z Index: 100

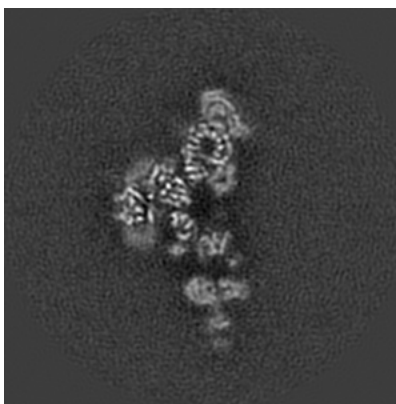
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

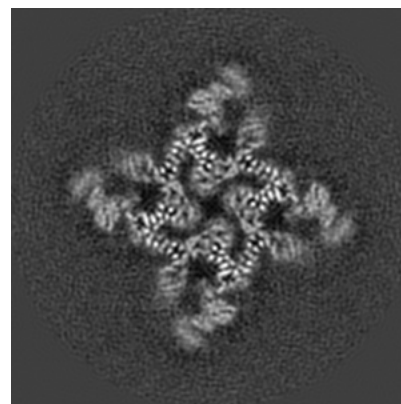
6.3.1 Primary map



X Index: 95



Y Index: 105

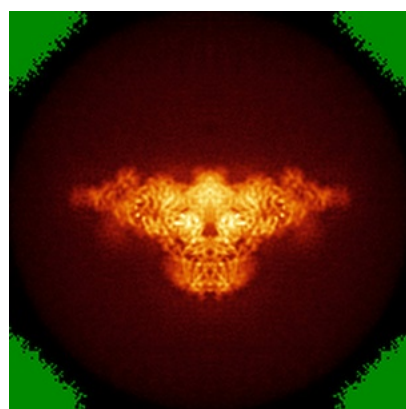


Z Index: 107

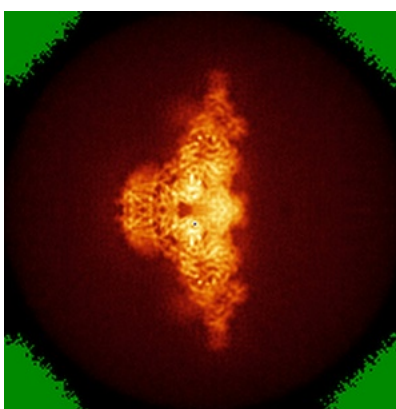
The images above show the largest variance slices of the map in three orthogonal directions.

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

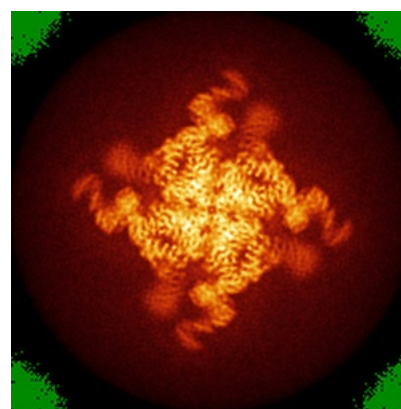
6.4.1 Primary map



X



Y

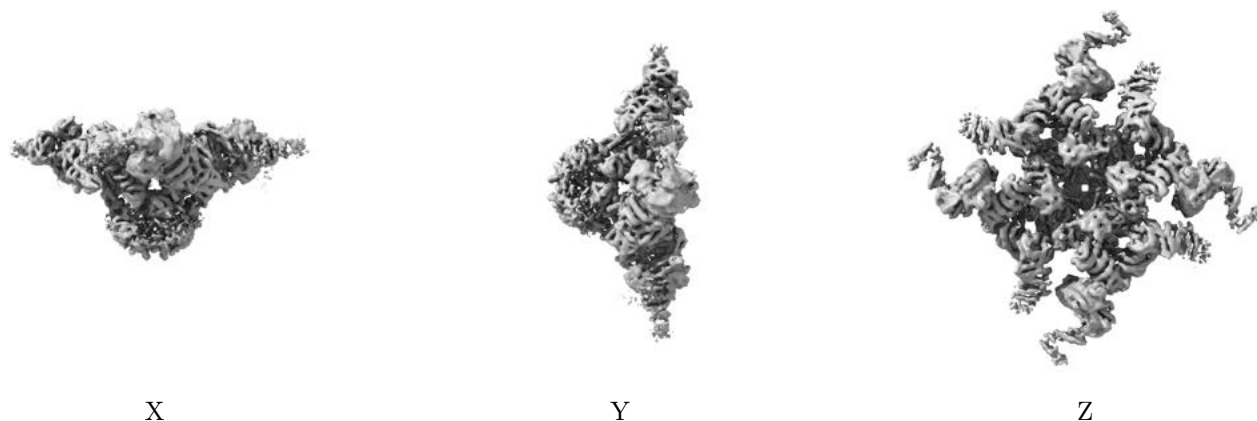


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



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

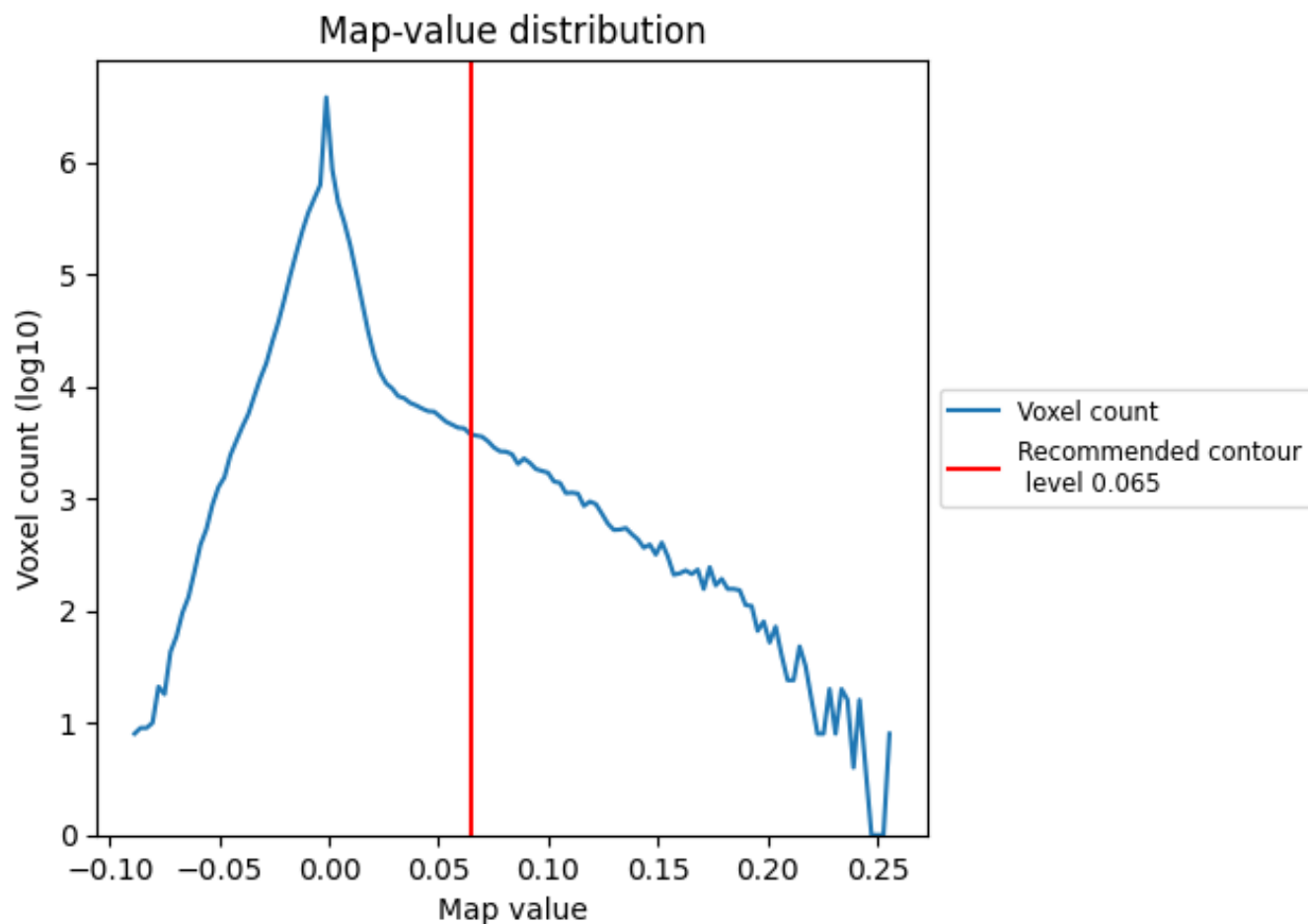
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

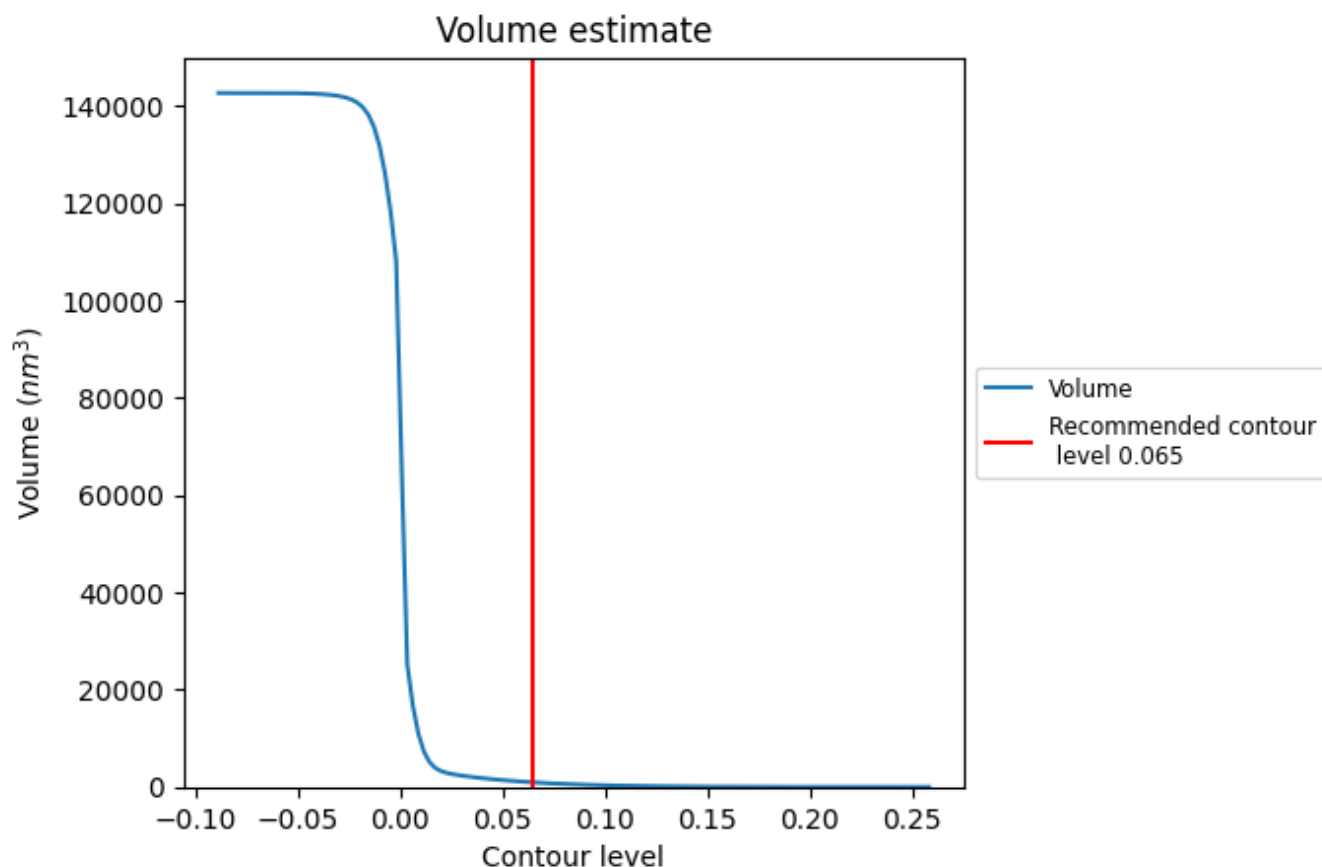
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

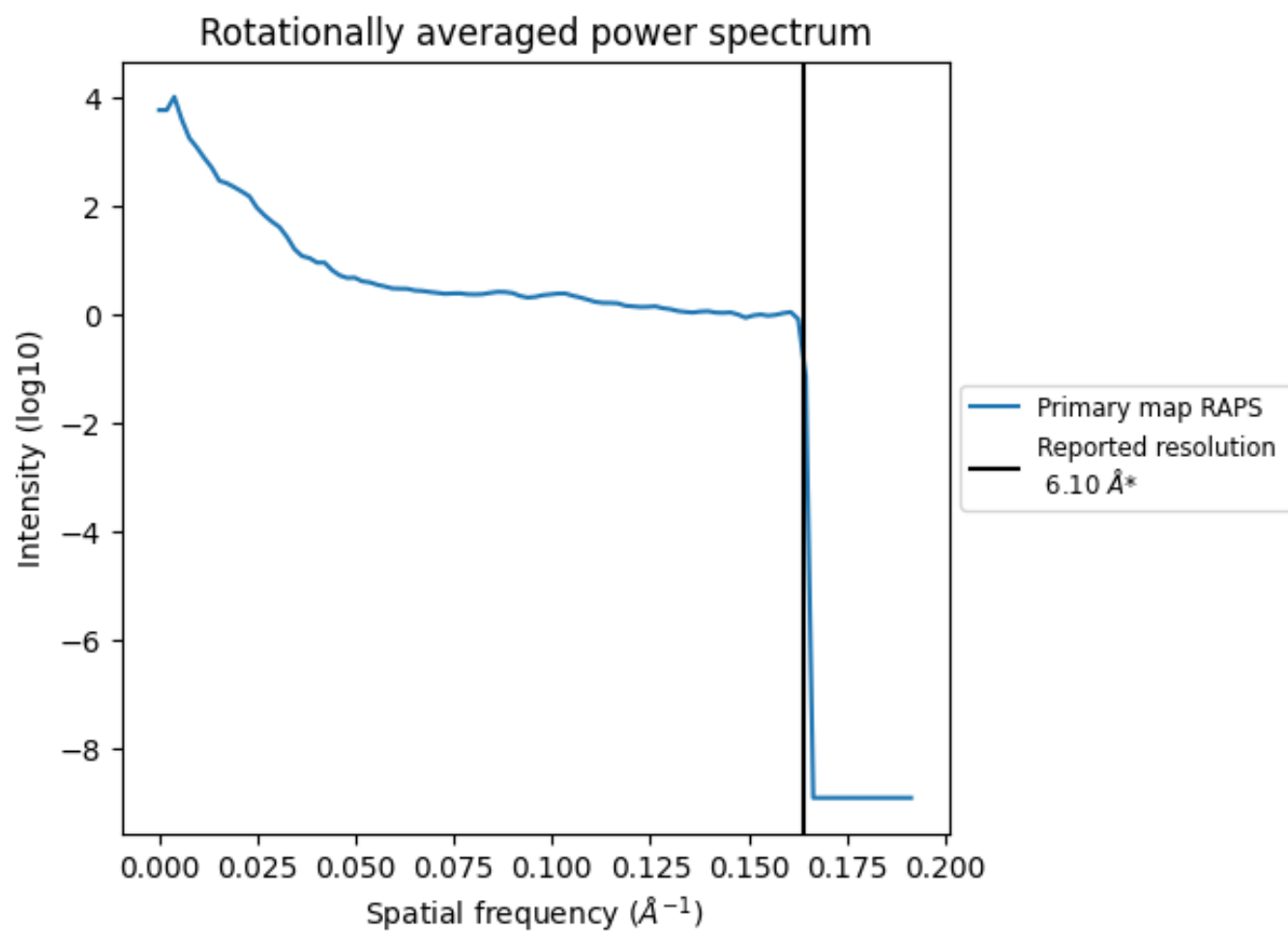
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 947 nm^3 ; 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 ⓘ

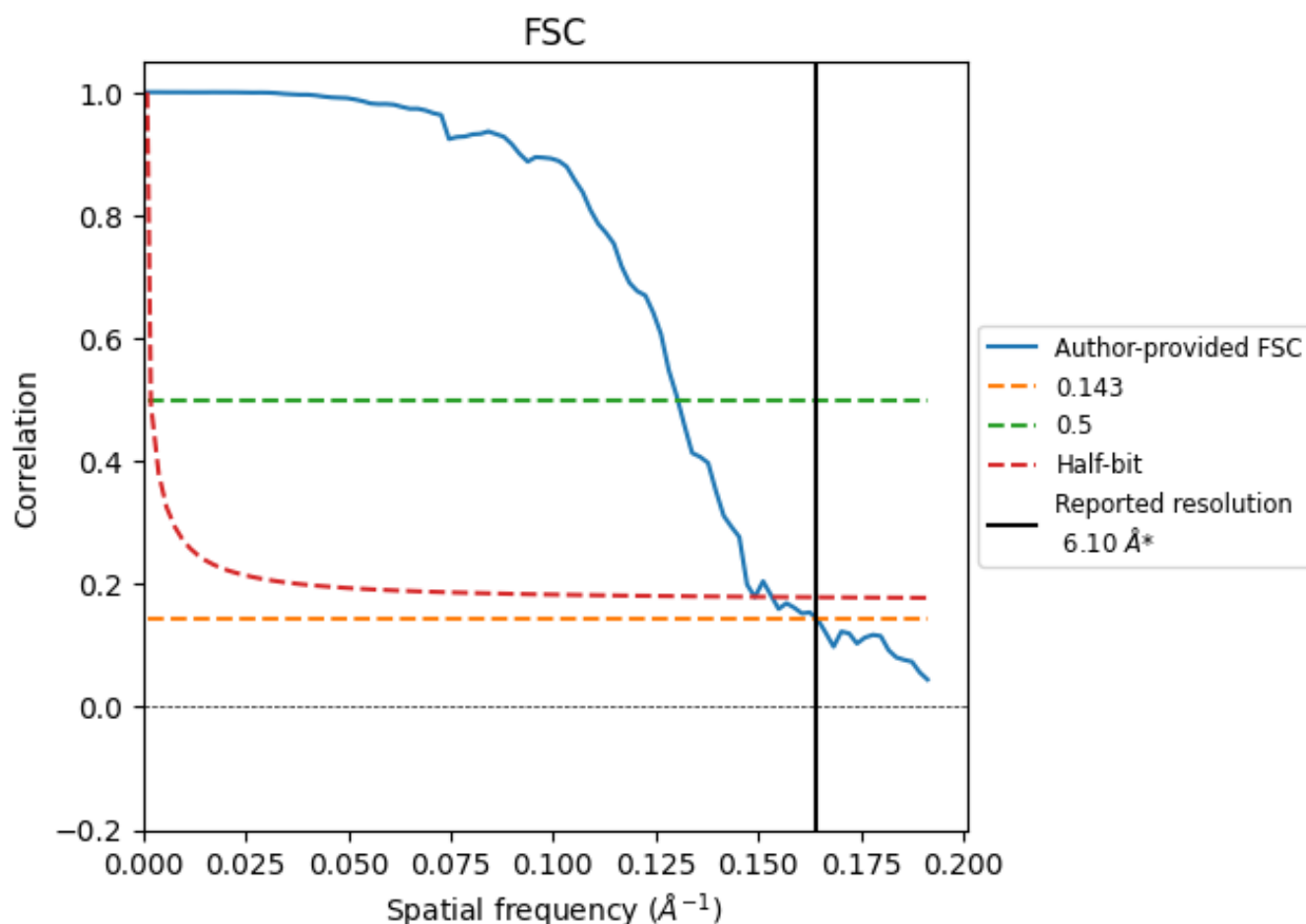


*Reported resolution corresponds to spatial frequency of 0.164 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.164 Å⁻¹

8.2 Resolution estimates [i](#)

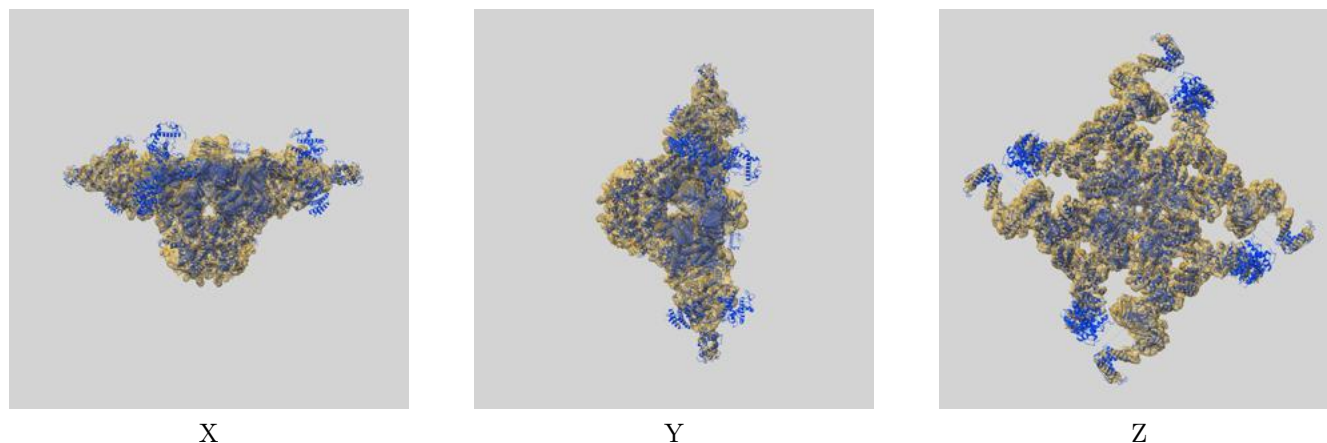
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	6.10	-	-
Author-provided FSC curve	6.09	7.67	6.70
Unmasked-calculated*	-	-	-

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

9 Map-model fit [i](#)

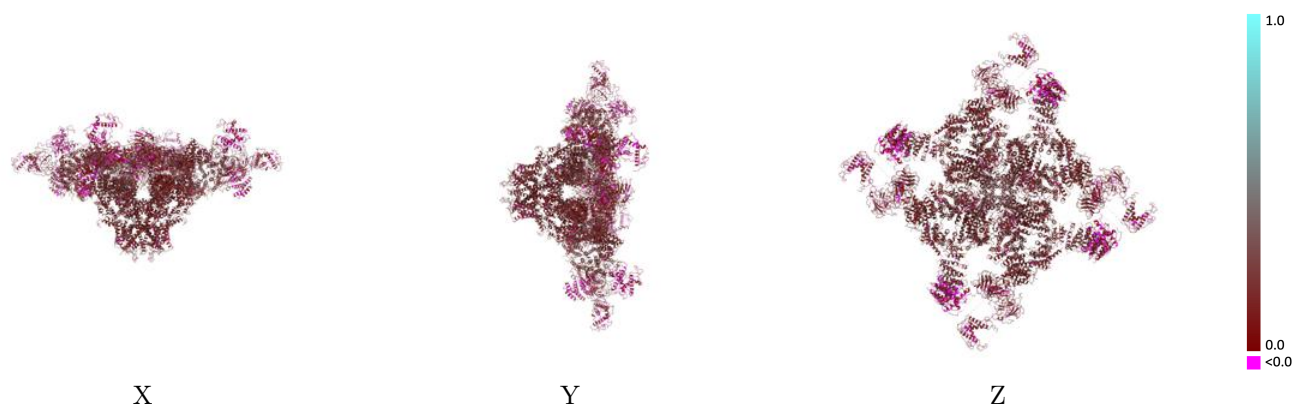
This section contains information regarding the fit between EMDB map EMD-9823 and PDB model 6JG3. Per-residue inclusion information can be found in section [3](#) on page [4](#).

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](#)

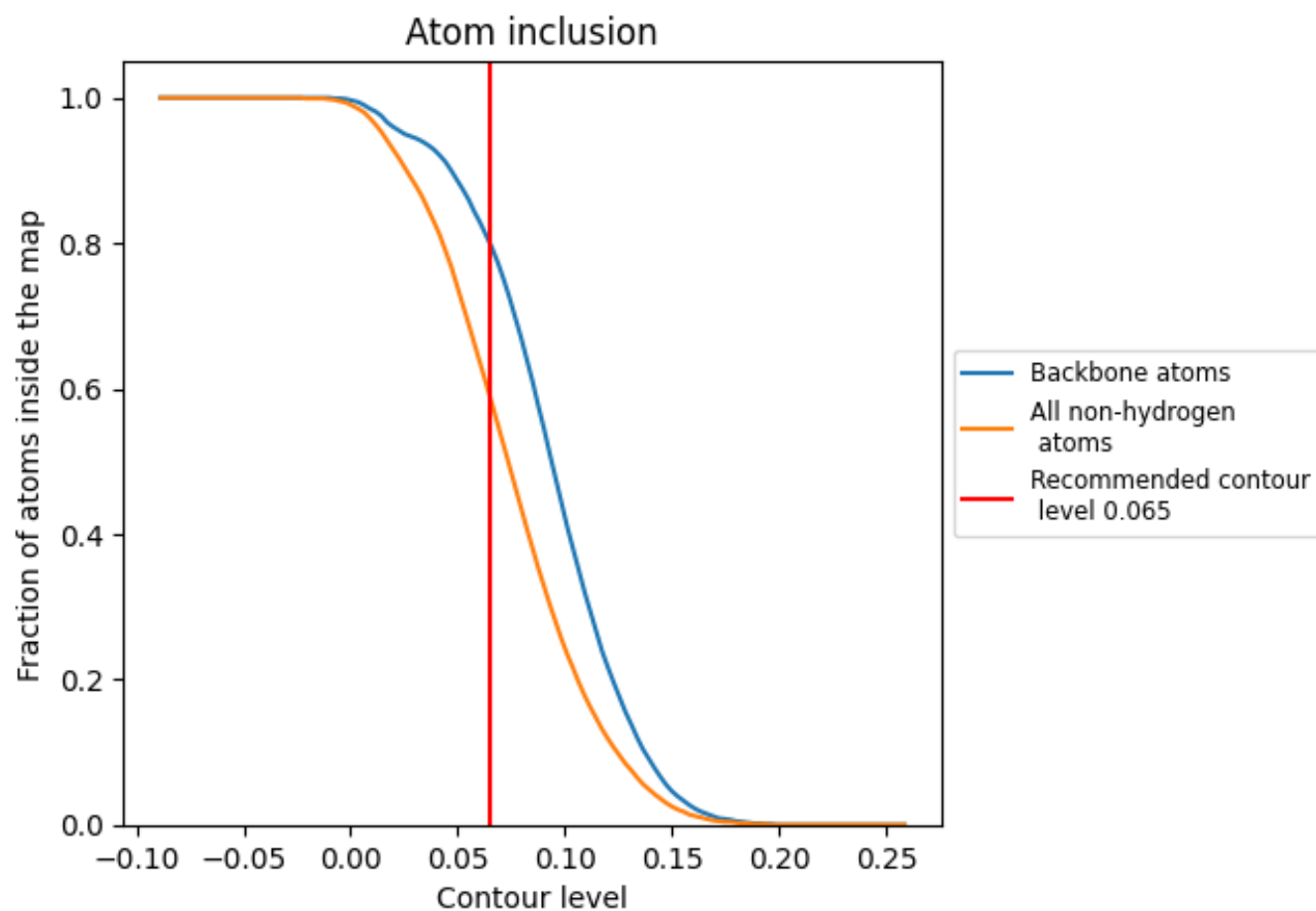


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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

This section was not generated.

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	0.5900	0.1840
A	0.5900	0.1830
B	0.5900	0.1850
C	0.5900	0.1840
D	0.5900	0.1840

