



Full wwPDB EM Validation Report ⓘ

Nov 23, 2022 – 05:35 AM EST

PDB ID : 7UA5
EMDB ID : EMD-26415
Title : Structure of dephosphorylated human RyR2 in the closed state
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2022-03-11
Resolution : 2.83 Å (reported)
Based on initial model : 7U9Q

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

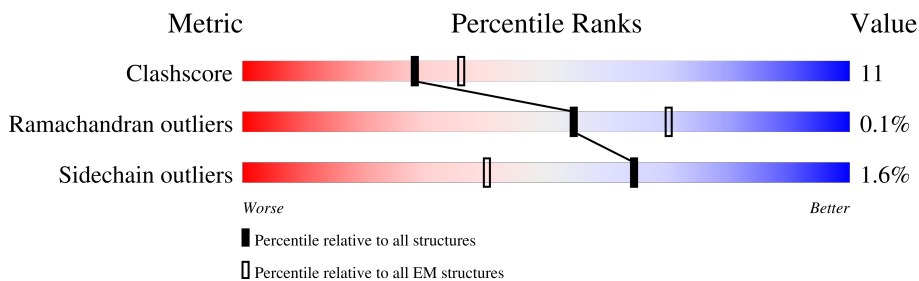
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 2.83 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	4967	
1	B	4967	
1	C	4967	
1	D	4967	
2	E	108	
2	F	108	
2	G	108	
2	H	108	

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 138608 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
			Total	C	N	O	S		
1	A	4224	33771	21516	5745	6280	230	2	0
1	B	4224	33771	21516	5745	6280	230	2	0
1	C	4224	33771	21516	5745	6280	230	2	0
1	D	4224	33771	21516	5745	6280	230	2	0

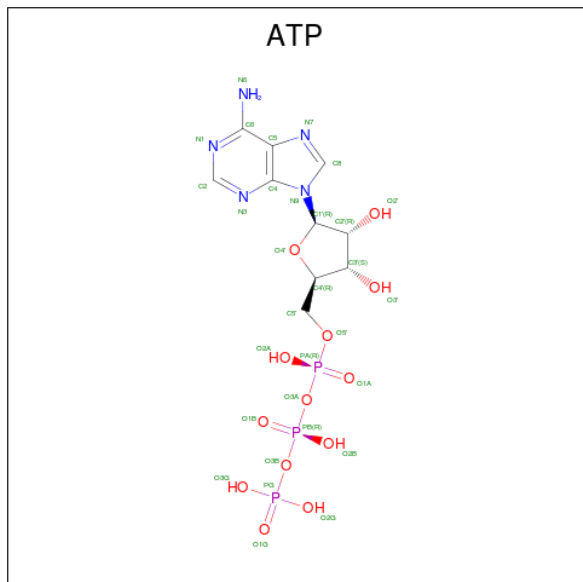
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	E	107	818	516	144	154	4	0	0
2	F	107	818	516	144	154	4	0	0
2	G	107	818	516	144	154	4	0	0
2	H	107	818	516	144	154	4	0	0

- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

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

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$) (labeled as "Ligand of Interest" by depositor).



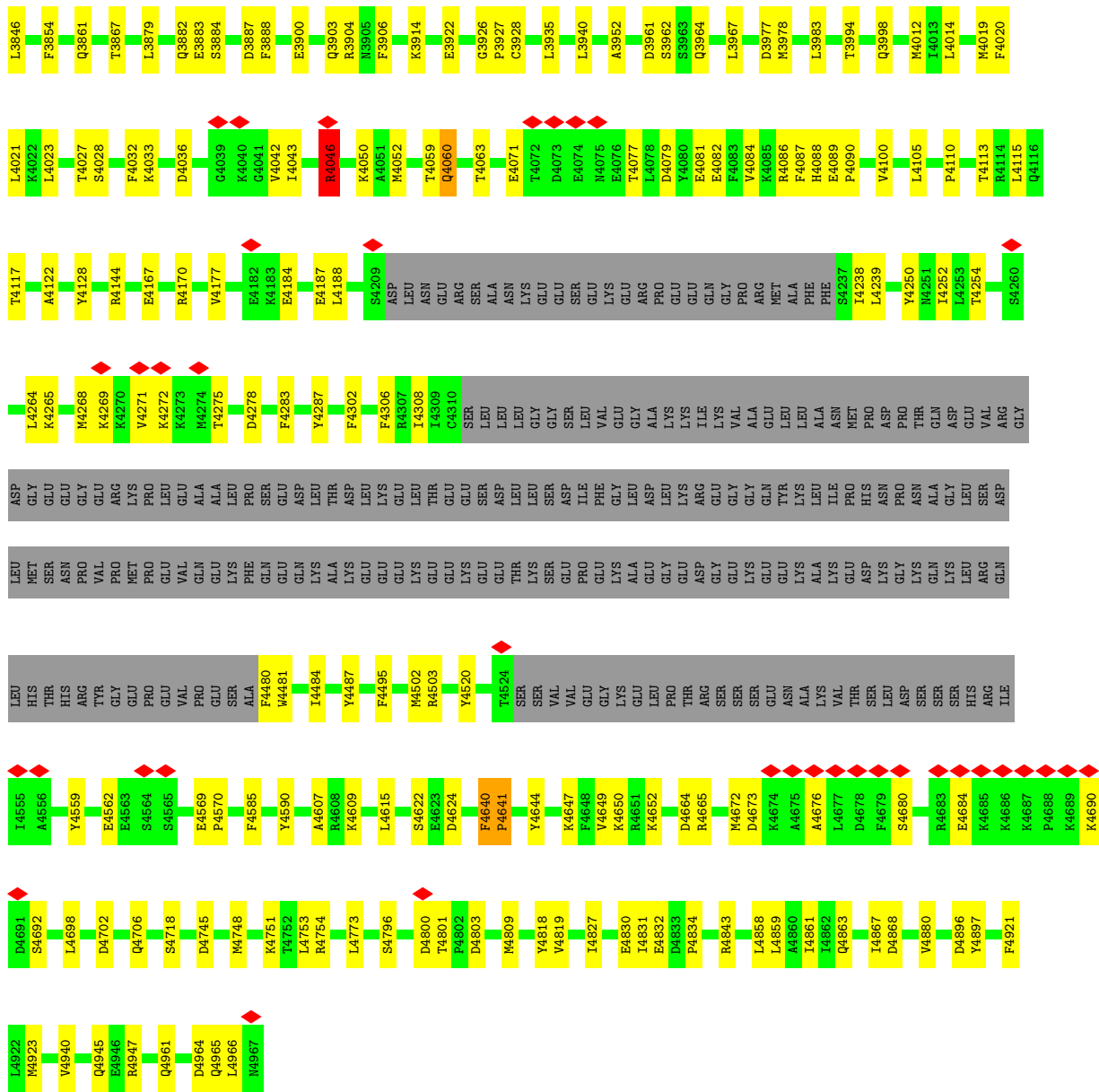
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
4	A	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	A	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	B	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	B	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	C	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	C	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	D	1	Total	C	N	O	P	0
			62	20	10	26	6	
4	D	1	Total	C	N	O	P	0
			62	20	10	26	6	

3 Residue-property plots

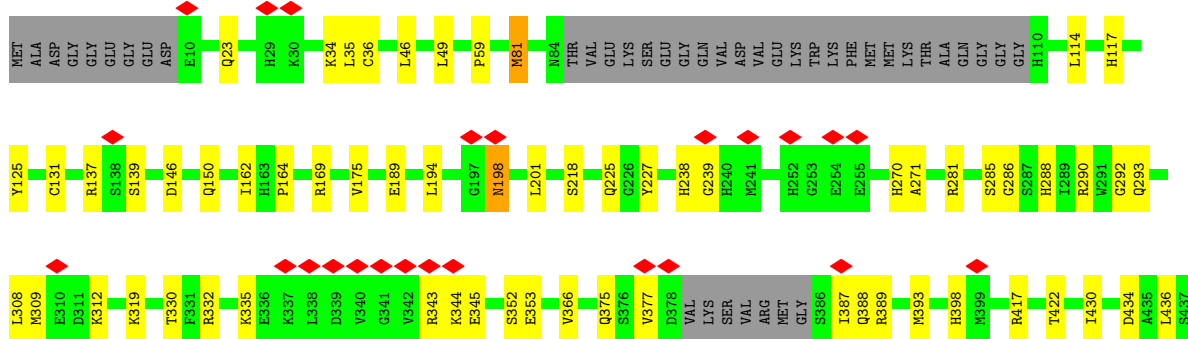
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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

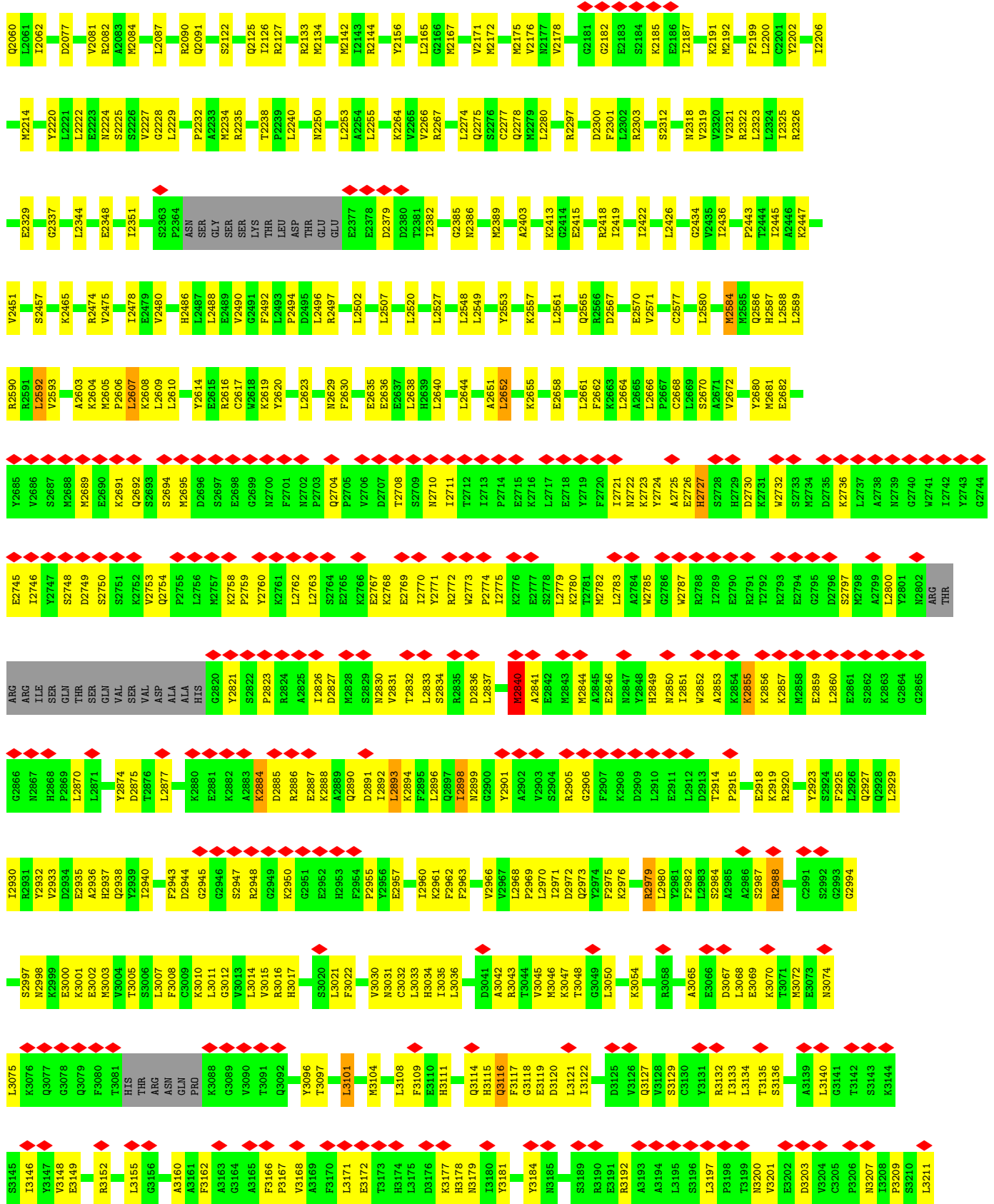


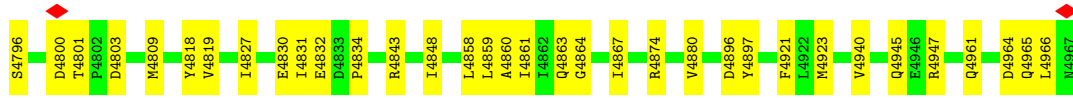
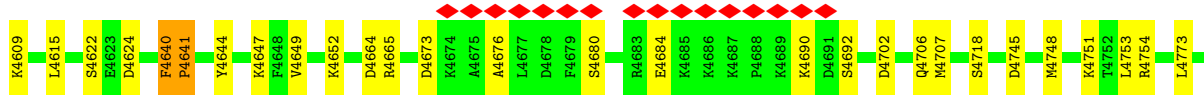


• Molecule 1: Ryanodine receptor 2

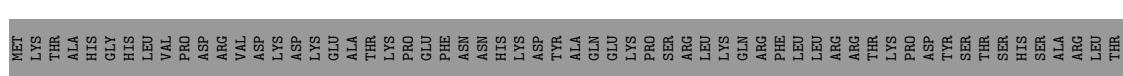
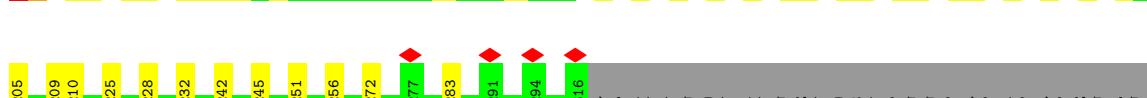
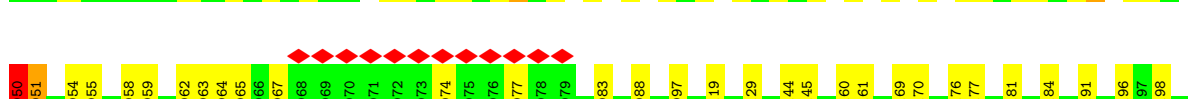
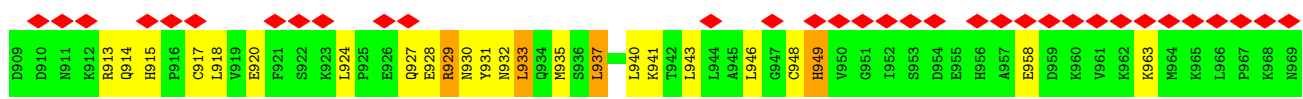
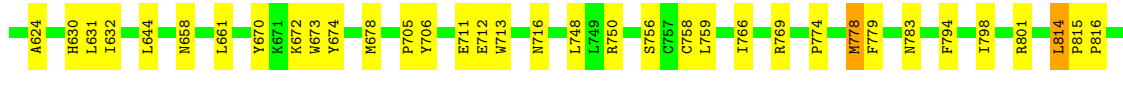
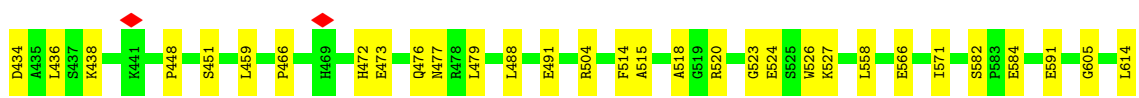
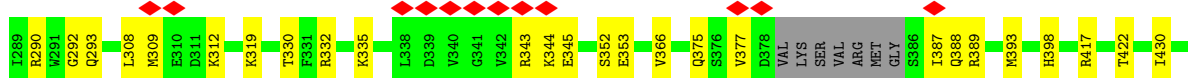
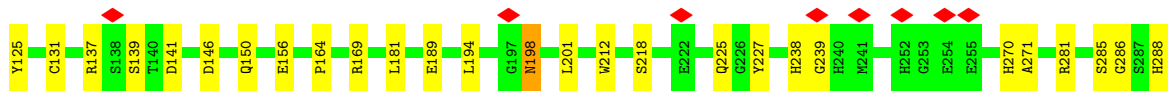


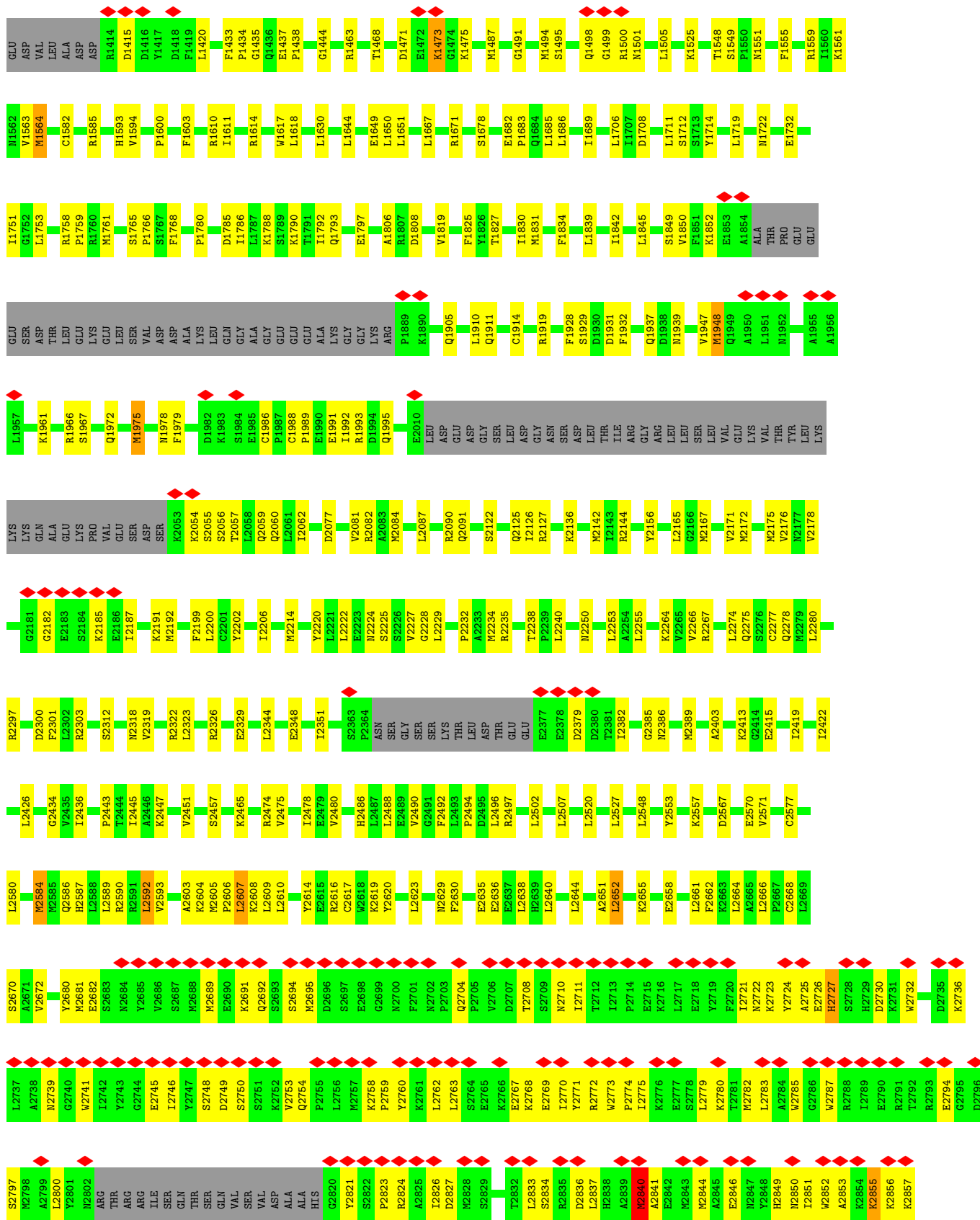


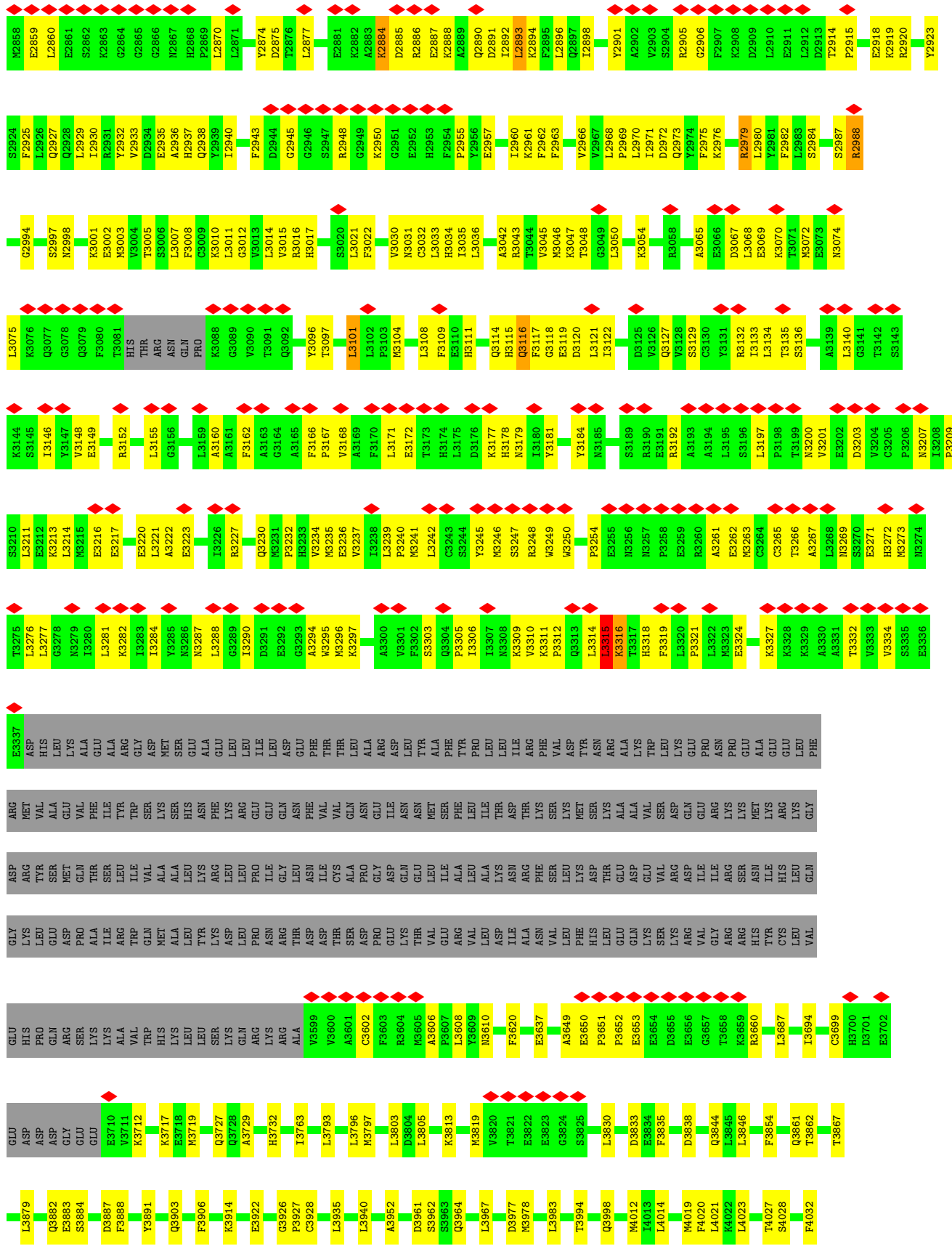


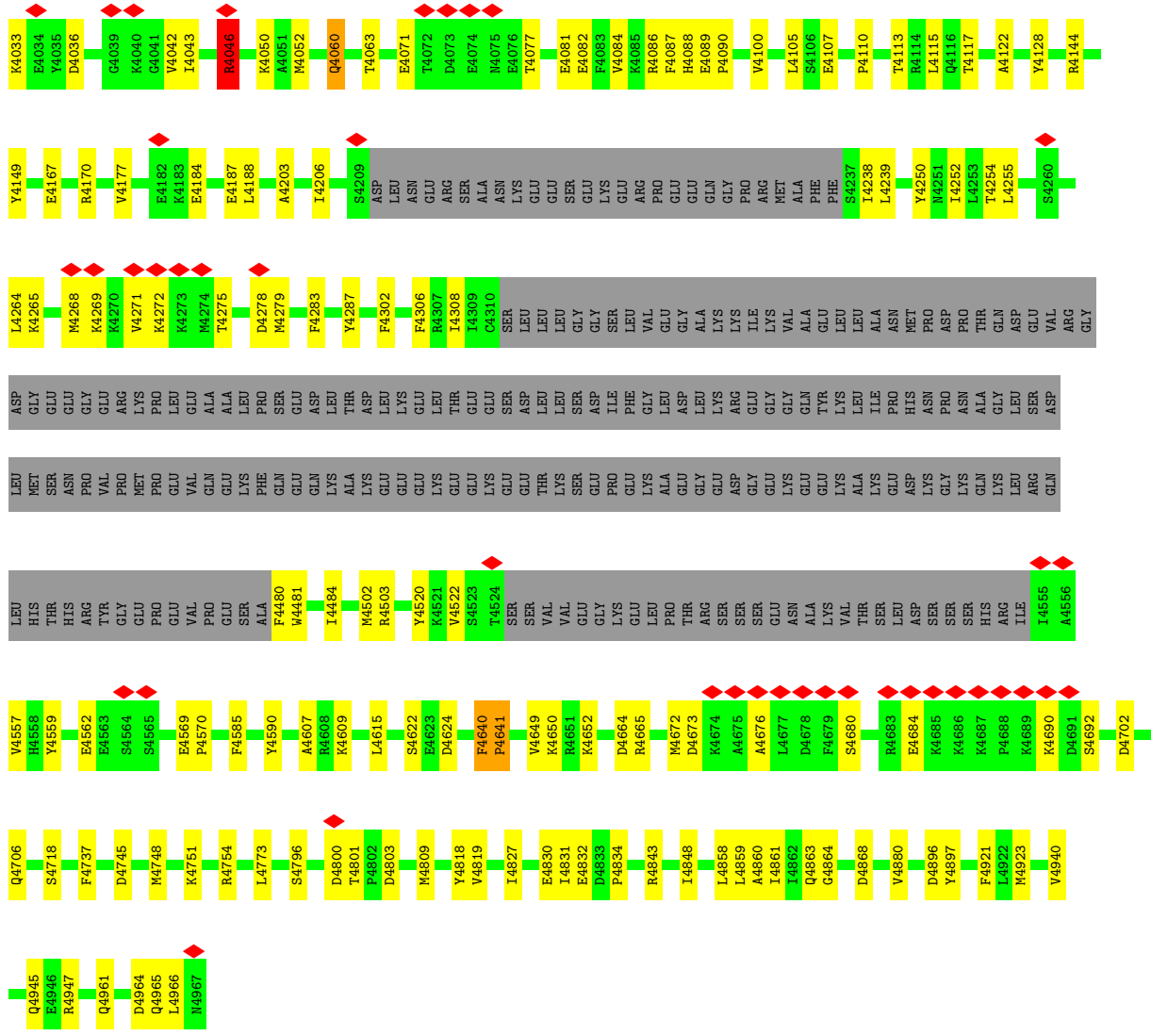


• Molecule 1: Ryanodine receptor 2

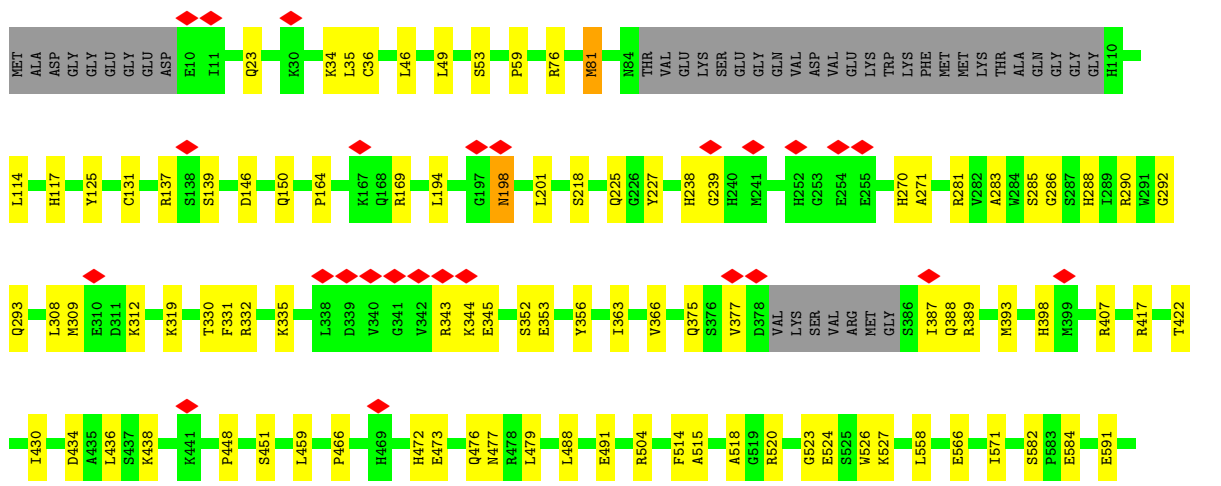




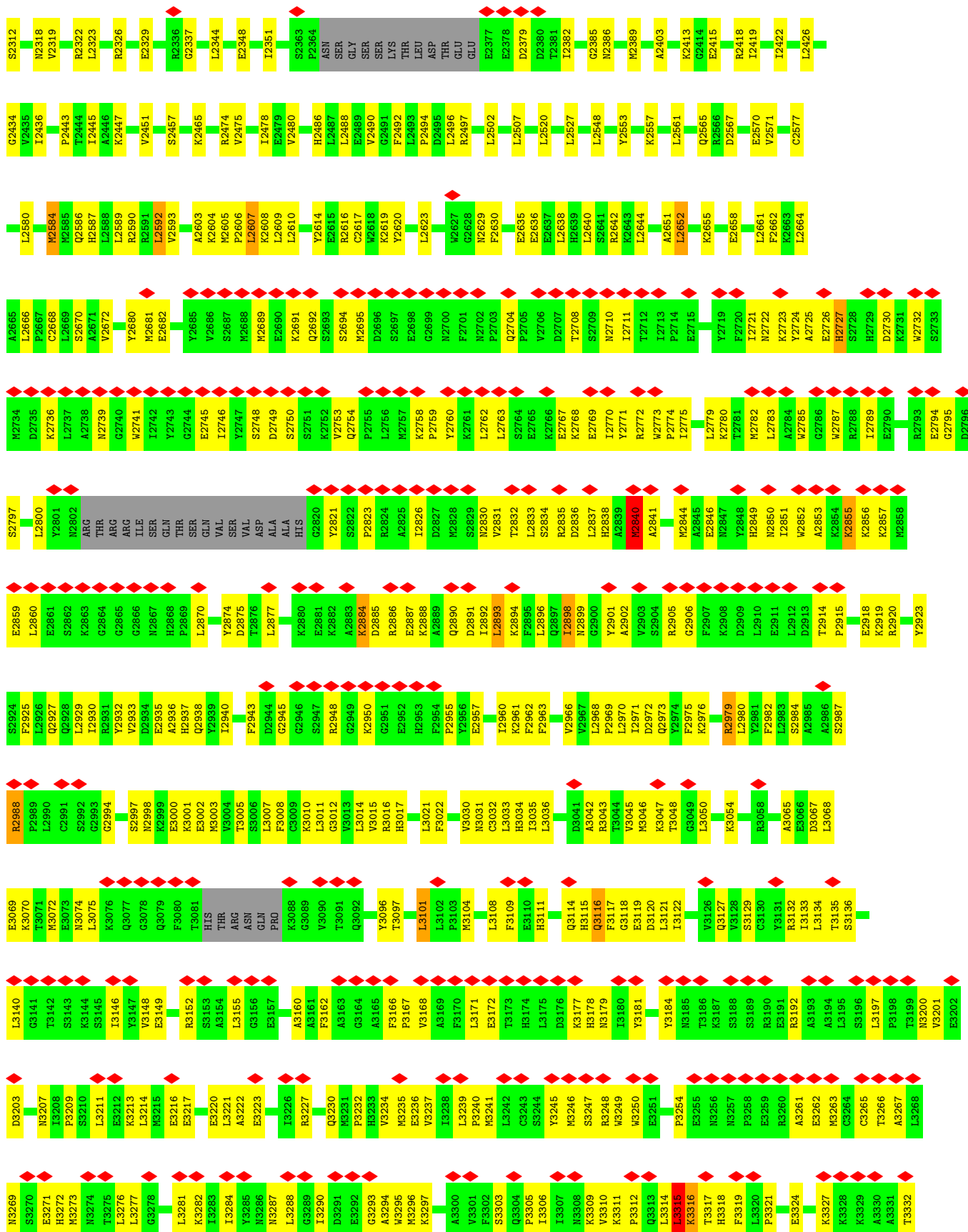


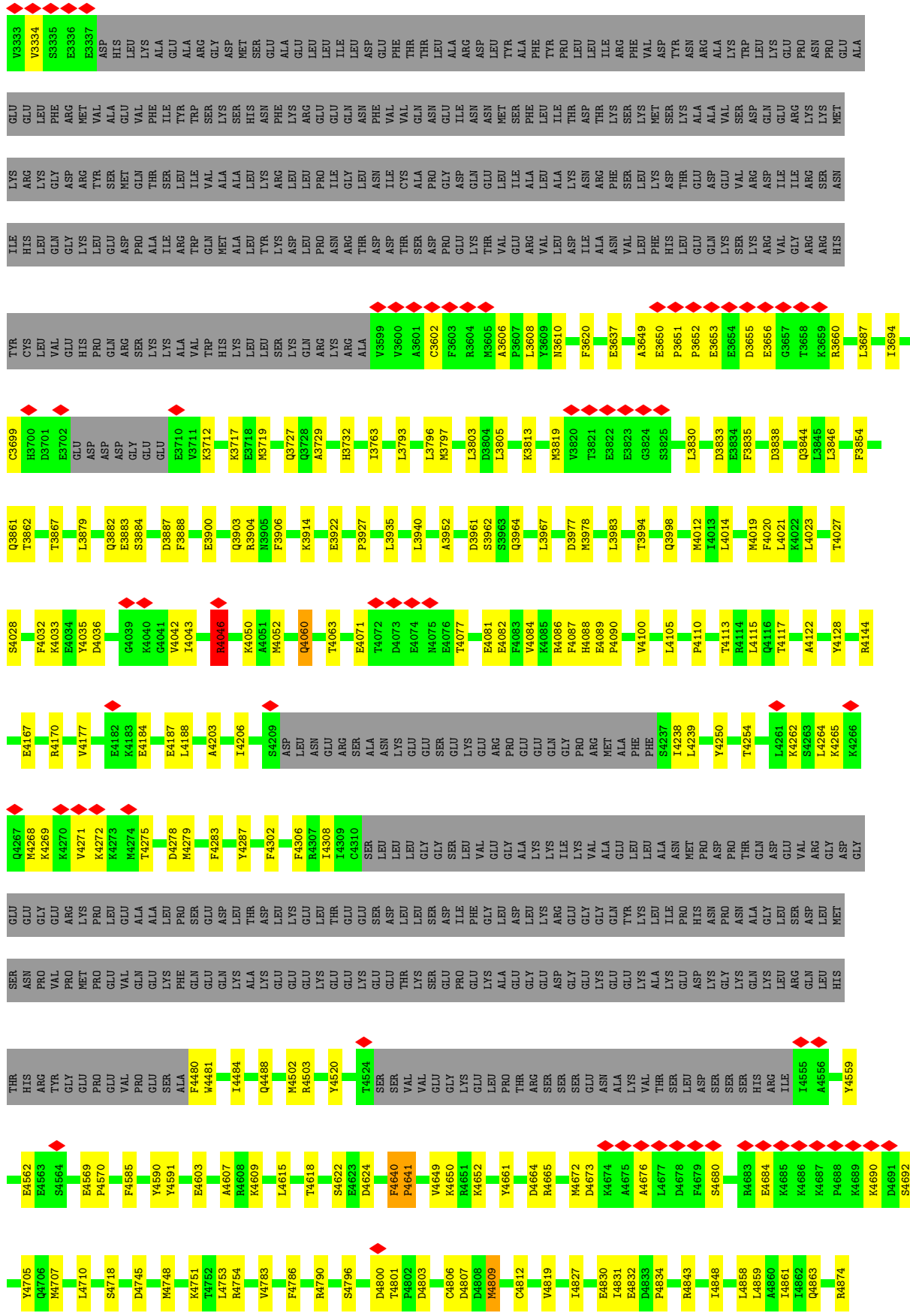


• Molecule 1: Ryanodine receptor 2



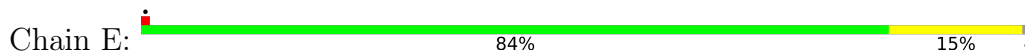
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GLU	SER	ASP	ASP	ASP	ASP	GLN	GLY	GLY	GLU	GLU	GLU	LYS	GLY	GLY	LYS	ARG	ARG	GLY	GLY	GLY	GLY	GLY	ASP	ASP	ASP	GLY	GLY	GLY	ASN	ASP	THR	THR	ILE	ARG	GLY	ARG	ARG	LEU	SER	LEU	LEU	VAL	LYS	THR	TYR	LEU	LYS	LYS	LYS	GLN	ALA	GLU	LYS	PRO	VAL				
M1975	M1978	F1979	D1982	K1983	S2055	S2056	T2057	L2058	Q2059	Q2060	L2061	P1989	E1990	E1991	I1992	R1993	L1994	Q1995	E2010	LEU	ASP	GLU	ASP	GLY	SER	GLY	ASP	ASN	ASP	THR	THR	ILE	ARG	GLY	ARG	ARG	LEU	SER	LEU	VAL	LYS	THR	TYR	LEU	LYS	LYS	GLN	ALA	GLU	LYS	PRO	VAL							
P1780	D1785	I1786	L1787	K1788	S1789	T1791	I1792	I1793	E1797	K1800	A1806	R1807	D1808	V1819	F1825	Y1826	T1827	I1830	M1831	F1834	L1839	I1842	L1845	S1849	V1850	F1851	K1852	E1853	A1854	THR	PRO	GLU	GLU	GLU	GLU	SER	ASP	THR	LEU	GLU	LYS	GLY	GLU	GLU	GLY	LEU	SER	VAL											
ASP	ASP	ALA	LYS	LEU	GLN	GLY	ALA	GLU	GLU	GLU	ALA	LYS	GLY	GLY	LYS	ARG	P1889	K1890	L1898	V1902	Q1905	L1910	Q1911	C1914	R1919	F1928	S1929	D1931	F1932	Q1937	D1938	M1939	V1947	M1948	L1951	M1952	A1955	A1956	L1957	K1961	R1966	S1967	Q1972																
P1600	F1603	R1610	I1611	R1614	K1615	Y1617	D1618	L1680	L1644	E1649	L1650	L1651	L1667	R1671	E1682	Q1683	L1685	L1686	I1689	L1706	I1707	D1708	L1711	S1712	S1713	Y1714	L1719	M1722	E1732	I1751	G1752	L1753	R1758	P1759	R1760	M1761	P1766	S1767	F1768																				
LEU	ALA	ASP	R1414	D1415	D1416	Y1417	D1418	L1420	P1438	G1444	R1463	T1468	D1471	E1472	K1473	G1474	K1475	M1487	G1491	M1494	S1495	Q1498	G1499	R1500	N1501	M1502	L1505	K1525	E1534	F1555	R1559	I1560	K1561	M1562	M1564	C1582	R1585	H1593	V1594																				
ALA	HIS	GLY	HIS	LEU	VAL	PRO	ASP	ARG	VAL	ASP	LYS	ASP	LYS	GLU	ALA	THR	LYS	PRO	PHE	ASN	ASN	HIS	LYS	ASP	TYR	ALA	THR	GLN	GLY	VAL	LEU	PHE	LEU	LEU	ARG	ARG	THR	LYS	PRO	ASP	TYR	SER	THR	SER	HIS	SER	ALA	ASP	PHE	ARG	LEU	GLY	THR	GLU	LEU	LYS	THR	VAL	
K1225	T1228	L1232	N1242	R1245	L1251	P1256	R1272	L1277	L1283	G1291	M1294	L1304	K1316	VAL	ALA	GLY	PRO	GLY	LEU	PRO	ARG	LYS	GLY	ALA	GLY	R1144	W1145	V1161	M1169	E1170	T1176	I1181	D1184	A1191	D1196	V1197	G1198	K1043	C1205	V1209	A1210																		
R1051	V1054	R1055	L1058	G1059	Y1062	N1063	L1064	P1067	D1068	Q1069	D1070	H1071	A1072	A1073	R1074	A1075	E1076	V1077	C1078	E1083	F1088	K1097	R1119	G1129	R1144	W1145	V1161	M1169	E1170	T1176	I1181	D1184	A1191	D1196	V1197	G1198	K1043	C1205	V1209	A1210																			
G905	P906	V907	R908	D909	N911	K912	R913	Q914	H915	P916	C917	Q918	E920	F921	S922	K923	L924	E926	Q927	R929	Y931	N932	R933	Q934	G1015	M935	S936	L937	L940	K941	L885	A886	E887	I888	H890	E891	H892	W893	M894	M895	N896	K897	I898	E899	E958	H956	A957	E958	K959	D959	K960	V961	K962	K963	M964	K965	L966	P967	K968
L814	P815	P816	Y819	E824	K829	E830	K831	L832	K833	K833	K841	Q842	E843	R844	R848	P853	T854	I865	P866	I872	P875	R876	H877	L878	E879	R880	L881	R882	E883	K884	L885	A886	E887	I888	H890	E891	H892	W893	M894	M895	N896	K897	I898	E899	E958	H956	A957	E958	K959	D959	K960	V961	K962	K963	M964	K965	L966	P967	K968
G605	L614	A624	H630	L631	L632	L644	N658	L661	Y670	K671	K671	K672	W673	Y674	M678	P705	Y706	E711	E712	W713	N716	I737	L748	L749	R750	S756	C757	C758	L759	I766	R769	P774	M778	F779	N783	F794	I798	R801																					



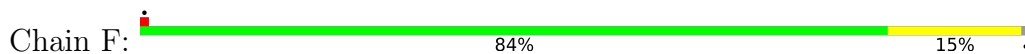




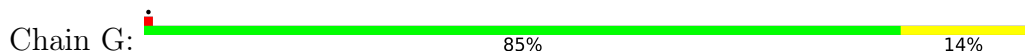
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



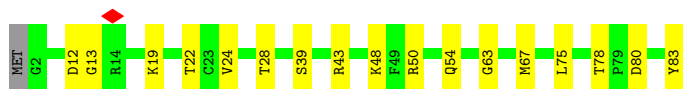
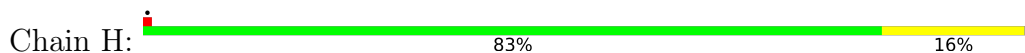
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	90375	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 ($e^-/\text{\AA}^2$)	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.667	Depositor
Minimum map value	-0.007	Depositor
Average map value	0.013	Depositor
Map value standard deviation	0.033	Depositor
Recommended contour level	0.13	Depositor
Map size (Å)	428.544, 428.544, 428.544	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.837, 0.837, 0.837	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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	0.26	0/34511	0.52	11/46614 (0.0%)
1	B	0.26	0/34511	0.52	11/46614 (0.0%)
1	C	0.26	0/34511	0.52	11/46614 (0.0%)
1	D	0.26	0/34511	0.52	11/46614 (0.0%)
2	E	0.29	0/834	0.55	0/1123
2	F	0.28	0/834	0.55	0/1123
2	G	0.28	0/834	0.55	0/1123
2	H	0.28	0/834	0.55	0/1123
All	All	0.26	0/141380	0.52	44/190948 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	3
1	B	0	3
1	C	0	3
1	D	0	3
All	All	0	12

There are no bond length outliers.

All (44) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	3315	LEU	CA-CB-CG	11.88	142.62	115.30
1	B	3315	LEU	CA-CB-CG	11.88	142.61	115.30
1	A	3315	LEU	CA-CB-CG	11.87	142.60	115.30
1	D	3315	LEU	CA-CB-CG	11.86	142.59	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	937	LEU	CA-CB-CG	8.36	134.52	115.30
1	A	937	LEU	CA-CB-CG	8.35	134.51	115.30
1	D	937	LEU	CA-CB-CG	8.35	134.49	115.30
1	B	937	LEU	CA-CB-CG	8.33	134.45	115.30
1	D	2840	MET	CB-CG-SD	6.77	132.72	112.40
1	A	2840	MET	CB-CG-SD	6.76	132.69	112.40
1	C	2840	MET	CB-CG-SD	6.76	132.67	112.40
1	B	2840	MET	CB-CG-SD	6.75	132.65	112.40
1	C	2652	LEU	CB-CG-CD1	-6.02	100.76	111.00
1	A	2652	LEU	CB-CG-CD1	-6.01	100.78	111.00
1	B	2652	LEU	CB-CG-CD1	-6.01	100.78	111.00
1	D	2652	LEU	CB-CG-CD1	-6.00	100.81	111.00
1	C	4046	ARG	CG-CD-NE	5.92	124.23	111.80
1	A	4046	ARG	CG-CD-NE	5.91	124.21	111.80
1	D	4046	ARG	CG-CD-NE	5.91	124.20	111.80
1	B	4046	ARG	CG-CD-NE	5.89	124.17	111.80
1	D	1050	LEU	CB-CG-CD2	-5.84	101.08	111.00
1	A	1050	LEU	CB-CG-CD2	-5.83	101.09	111.00
1	B	1050	LEU	CB-CG-CD2	-5.83	101.10	111.00
1	C	1050	LEU	CB-CG-CD2	-5.81	101.12	111.00
1	B	2607	LEU	CA-CB-CG	5.48	127.91	115.30
1	A	2607	LEU	CA-CB-CG	5.47	127.89	115.30
1	C	2607	LEU	CA-CB-CG	5.47	127.89	115.30
1	D	2607	LEU	CA-CB-CG	5.46	127.87	115.30
1	A	882	ARG	CG-CD-NE	-5.40	100.46	111.80
1	C	882	ARG	CG-CD-NE	-5.40	100.46	111.80
1	D	2979	ARG	CA-CB-CG	5.38	125.25	113.40
1	B	882	ARG	CG-CD-NE	-5.38	100.50	111.80
1	B	2979	ARG	CA-CB-CG	5.38	125.22	113.40
1	A	2979	ARG	CA-CB-CG	5.37	125.22	113.40
1	D	882	ARG	CG-CD-NE	-5.37	100.52	111.80
1	C	2979	ARG	CA-CB-CG	5.36	125.20	113.40
1	B	1948	MET	CB-CG-SD	5.17	127.90	112.40
1	D	1948	MET	CB-CG-SD	5.17	127.89	112.40
1	C	1948	MET	CB-CG-SD	5.15	127.86	112.40
1	A	1948	MET	CB-CG-SD	5.15	127.84	112.40
1	B	2840	MET	CA-CB-CG	5.10	121.97	113.30
1	A	2840	MET	CA-CB-CG	5.09	121.95	113.30
1	C	2840	MET	CA-CB-CG	5.07	121.92	113.30
1	D	2840	MET	CA-CB-CG	5.06	121.91	113.30

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1051	ARG	Sidechain
1	A	4640	PHE	Peptide
1	A	882	ARG	Sidechain
1	B	1051	ARG	Sidechain
1	B	4640	PHE	Peptide
1	B	882	ARG	Sidechain
1	C	1051	ARG	Sidechain
1	C	4640	PHE	Peptide
1	C	882	ARG	Sidechain
1	D	1051	ARG	Sidechain
1	D	4640	PHE	Peptide
1	D	882	ARG	Sidechain

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	33771	0	33455	738	0
1	B	33771	0	33455	732	0
1	C	33771	0	33455	732	0
1	D	33771	0	33455	744	0
2	E	818	0	821	10	0
2	F	818	0	821	11	0
2	G	818	0	821	10	0
2	H	818	0	821	11	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	0	0
4	B	62	0	24	0	0
4	C	62	0	24	0	0
4	D	62	0	24	0	0
All	All	138608	0	137200	2898	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 11.

All (2898) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1498:GLN:NE2	1:D:2899:ASN:O	1.91	1.04
1:A:4060:GLN:HE21	1:A:4060:GLN:HA	1.21	1.04
1:A:882:ARG:NH2	1:A:933:LEU:O	1.92	1.03
1:B:4060:GLN:HA	1:B:4060:GLN:HE21	1.21	1.02
1:C:4060:GLN:HA	1:C:4060:GLN:HE21	1.21	1.01
1:D:4060:GLN:HE21	1:D:4060:GLN:HA	1.21	1.01
1:B:882:ARG:NH2	1:B:933:LEU:O	1.92	1.01
1:C:882:ARG:NH2	1:C:933:LEU:O	1.92	1.01
1:D:882:ARG:NH2	1:D:933:LEU:O	1.92	1.01
1:A:4036:ASP:HB2	1:A:4043:ILE:HD11	1.48	0.95
1:B:4036:ASP:HB2	1:B:4043:ILE:HD11	1.48	0.95
1:D:4036:ASP:HB2	1:D:4043:ILE:HD11	1.48	0.93
1:C:4036:ASP:HB2	1:C:4043:ILE:HD11	1.48	0.93
1:B:4834:PRO:HB3	1:B:4843:ARG:HD3	1.52	0.91
1:A:4834:PRO:HB3	1:A:4843:ARG:HD3	1.52	0.90
1:C:4834:PRO:HB3	1:C:4843:ARG:HD3	1.52	0.89
1:D:4834:PRO:HB3	1:D:4843:ARG:HD3	1.52	0.87
1:A:2874:TYR:HA	1:A:2877:LEU:HD12	1.58	0.85
1:B:2898:ILE:HD12	1:C:1499:GLY:HA3	1.56	0.85
1:B:983:LEU:HD11	1:B:1055:ARG:HG2	1.59	0.85
1:A:3246:MET:HE2	1:A:3276:LEU:HD22	1.59	0.85
1:A:983:LEU:HD11	1:A:1055:ARG:HG2	1.59	0.85
1:B:2874:TYR:HA	1:B:2877:LEU:HD12	1.58	0.85
1:C:2927:GLN:NE2	1:C:3003:MET:SD	2.50	0.85
1:D:2874:TYR:HA	1:D:2877:LEU:HD12	1.58	0.84
1:D:2927:GLN:NE2	1:D:3003:MET:SD	2.50	0.84
1:A:2927:GLN:NE2	1:A:3003:MET:SD	2.50	0.84
1:D:983:LEU:HD11	1:D:1055:ARG:HG2	1.59	0.84
1:C:983:LEU:HD11	1:C:1055:ARG:HG2	1.59	0.84
1:A:4265:LYS:HA	1:A:4268:MET:HG3	1.60	0.83
1:B:2927:GLN:NE2	1:B:3003:MET:SD	2.50	0.83
1:C:2874:TYR:HA	1:C:2877:LEU:HD12	1.58	0.83
1:D:3246:MET:HE2	1:D:3276:LEU:HD22	1.59	0.83
1:B:4265:LYS:HA	1:B:4268:MET:HG3	1.60	0.83
1:D:4265:LYS:HA	1:D:4268:MET:HG3	1.60	0.82
1:C:4265:LYS:HA	1:C:4268:MET:HG3	1.61	0.82
1:A:3235:MET:HA	1:A:3239:LEU:HD23	1.63	0.81
1:C:3235:MET:HA	1:C:3239:LEU:HD23	1.63	0.81
1:D:3235:MET:HA	1:D:3239:LEU:HD23	1.63	0.81
1:B:2899:ASN:O	1:C:1498:GLN:NE2	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2884:LYS:HG3	1:D:2885:ASP:N	1.96	0.80
1:A:2884:LYS:HG3	1:A:2885:ASP:N	1.96	0.80
1:B:3235:MET:HA	1:B:3239:LEU:HD23	1.63	0.80
1:B:2884:LYS:HG3	1:B:2885:ASP:N	1.96	0.79
1:C:2142:MET:HG2	1:C:2192:MET:HE3	1.64	0.79
1:C:2884:LYS:HG3	1:C:2885:ASP:N	1.96	0.79
1:C:3246:MET:HE2	1:C:3276:LEU:HD22	1.65	0.78
1:D:1074:ARG:HH11	1:D:1077:VAL:H	1.31	0.78
1:B:3246:MET:HE2	1:B:3276:LEU:HD22	1.63	0.78
1:D:2841:ALA:HA	1:D:2844:MET:HG3	1.65	0.78
1:B:2841:ALA:HA	1:B:2844:MET:HG3	1.65	0.78
1:A:1074:ARG:HH11	1:A:1077:VAL:H	1.31	0.77
1:D:1947:VAL:HG22	1:D:1961:LYS:HE2	1.66	0.77
1:A:2841:ALA:HA	1:A:2844:MET:HG3	1.65	0.77
1:C:1947:VAL:HG22	1:C:1961:LYS:HE2	1.66	0.77
1:B:3312:PRO:HA	1:B:3315:LEU:HG	1.67	0.77
1:A:1947:VAL:HG22	1:A:1961:LYS:HE2	1.66	0.77
1:B:875:PRO:HD2	1:B:878:LEU:HD12	1.68	0.76
1:B:1074:ARG:HH11	1:B:1077:VAL:H	1.31	0.76
1:A:2142:MET:HG2	1:A:2192:MET:HE3	1.67	0.76
1:B:1947:VAL:HG22	1:B:1961:LYS:HE2	1.66	0.76
1:C:1074:ARG:HH11	1:C:1077:VAL:H	1.31	0.76
1:C:2841:ALA:HA	1:C:2844:MET:HG3	1.65	0.76
1:D:3312:PRO:HA	1:D:3315:LEU:HG	1.67	0.76
1:A:875:PRO:HD2	1:A:878:LEU:HD12	1.68	0.76
1:D:2586:GLN:NE2	1:D:2636:GLU:OE1	2.19	0.75
1:D:3179:ASN:ND2	1:D:3265:CYS:SG	2.60	0.75
1:A:3227:ARG:HA	1:A:3290:ILE:HD12	1.68	0.75
1:C:2586:GLN:NE2	1:C:2636:GLU:OE1	2.19	0.75
1:A:2586:GLN:NE2	1:A:2636:GLU:OE1	2.19	0.75
1:C:3312:PRO:HA	1:C:3315:LEU:HG	1.67	0.75
1:B:2586:GLN:NE2	1:B:2636:GLU:OE1	2.19	0.75
1:B:948:CYS:HA	1:B:1067:PRO:HD3	1.69	0.75
1:C:875:PRO:HD2	1:C:878:LEU:HD12	1.68	0.75
1:A:883:GLU:OE2	1:A:929:ARG:NH2	2.20	0.75
1:B:3227:ARG:HA	1:B:3290:ILE:HD12	1.68	0.75
1:C:3179:ASN:ND2	1:C:3265:CYS:SG	2.60	0.75
1:D:883:GLU:OE2	1:D:929:ARG:NH2	2.20	0.75
1:A:3312:PRO:HA	1:A:3315:LEU:HG	1.66	0.74
1:B:3179:ASN:ND2	1:B:3265:CYS:SG	2.60	0.74
1:C:883:GLU:OE2	1:C:929:ARG:NH2	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3179:ASN:ND2	1:A:3265:CYS:SG	2.60	0.74
1:C:948:CYS:HA	1:C:1067:PRO:HD3	1.69	0.74
1:A:948:CYS:HA	1:A:1067:PRO:HD3	1.69	0.74
1:D:875:PRO:HD2	1:D:878:LEU:HD12	1.68	0.74
1:D:877:HIS:ND1	1:D:1062:TYR:OH	2.20	0.74
1:D:2142:MET:HG2	1:D:2192:MET:HE3	1.69	0.74
1:D:3227:ARG:HA	1:D:3290:ILE:HD12	1.68	0.74
1:C:3227:ARG:HA	1:C:3290:ILE:HD12	1.68	0.74
1:A:4690:LYS:HG3	1:A:4692:SER:H	1.53	0.74
1:B:2142:MET:HG2	1:B:2192:MET:HE3	1.70	0.73
1:A:877:HIS:ND1	1:A:1062:TYR:OH	2.20	0.73
1:B:2892:ILE:HG23	1:B:2893:LEU:HD23	1.71	0.73
1:C:877:HIS:ND1	1:C:1062:TYR:OH	2.20	0.73
1:D:948:CYS:HA	1:D:1067:PRO:HD3	1.69	0.73
1:B:877:HIS:ND1	1:B:1062:TYR:OH	2.20	0.73
1:C:2892:ILE:HG23	1:C:2893:LEU:HD23	1.71	0.73
1:D:2187:ILE:HG21	1:D:2227:VAL:HG13	1.71	0.73
1:D:4690:LYS:HG3	1:D:4692:SER:H	1.53	0.73
1:D:4268:MET:HA	1:D:4271:VAL:HG12	1.71	0.73
1:A:2187:ILE:HG21	1:A:2227:VAL:HG13	1.71	0.73
1:A:2758:LYS:HG3	1:A:2763:LEU:HD12	1.71	0.73
1:B:4268:MET:HA	1:B:4271:VAL:HG12	1.71	0.73
1:C:4690:LYS:HG3	1:C:4692:SER:H	1.53	0.73
1:D:2592:LEU:HD22	1:D:2610:LEU:HG	1.71	0.73
1:A:2592:LEU:HD22	1:A:2610:LEU:HG	1.71	0.72
1:A:4268:MET:HA	1:A:4271:VAL:HG12	1.71	0.72
1:B:883:GLU:OE2	1:B:929:ARG:NH2	2.20	0.72
1:C:2592:LEU:HD22	1:C:2610:LEU:HG	1.71	0.72
1:C:4557:VAL:HG21	1:D:4790:ARG:HH22	1.54	0.72
1:B:520:ARG:NH1	1:B:524:GLU:OE2	2.23	0.72
1:A:2892:ILE:HG23	1:A:2893:LEU:HD23	1.71	0.72
1:B:2592:LEU:HD22	1:B:2610:LEU:HG	1.71	0.72
1:D:2436:ILE:O	1:D:2465:LYS:NZ	2.23	0.72
1:D:2892:ILE:HG23	1:D:2893:LEU:HD23	1.71	0.72
1:A:3111:HIS:O	1:A:3115:HIS:ND1	2.23	0.72
1:C:520:ARG:NH1	1:C:524:GLU:OE2	2.23	0.72
1:D:520:ARG:NH1	1:D:524:GLU:OE2	2.23	0.72
1:A:1499:GLY:HA3	1:D:2898:ILE:HD12	1.72	0.72
1:C:4060:GLN:HA	1:C:4060:GLN:NE2	2.02	0.72
1:D:2758:LYS:HG3	1:D:2763:LEU:HD12	1.71	0.72
1:C:4268:MET:HA	1:C:4271:VAL:HG12	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4652:LYS:NZ	1:A:4945:GLN:OE1	2.23	0.71
1:B:2187:ILE:HG21	1:B:2227:VAL:HG13	1.71	0.71
1:C:2436:ILE:O	1:C:2465:LYS:NZ	2.23	0.71
1:D:2998:ASN:ND2	1:D:3048:THR:OG1	2.24	0.71
1:D:3111:HIS:O	1:D:3115:HIS:ND1	2.23	0.71
1:A:2436:ILE:O	1:A:2465:LYS:NZ	2.23	0.71
1:B:2436:ILE:O	1:B:2465:LYS:NZ	2.23	0.71
1:C:2758:LYS:HG3	1:C:2763:LEU:HD12	1.71	0.71
1:B:4690:LYS:HG3	1:B:4692:SER:H	1.53	0.71
1:A:4520:TYR:HE2	1:A:4559:TYR:HB3	1.56	0.71
1:B:2758:LYS:HG3	1:B:2763:LEU:HD12	1.71	0.71
1:B:3111:HIS:O	1:B:3115:HIS:ND1	2.23	0.71
1:B:4520:TYR:HE2	1:B:4559:TYR:HB3	1.56	0.71
1:B:2998:ASN:ND2	1:B:3048:THR:OG1	2.24	0.71
1:B:4652:LYS:NZ	1:B:4945:GLN:OE1	2.23	0.71
1:C:2998:ASN:ND2	1:C:3048:THR:OG1	2.24	0.71
1:D:4520:TYR:HE2	1:D:4559:TYR:HB3	1.56	0.71
1:C:4520:TYR:HE2	1:C:4559:TYR:HB3	1.56	0.70
1:C:2758:LYS:HE3	1:C:2763:LEU:HA	1.73	0.70
1:C:3111:HIS:O	1:C:3115:HIS:ND1	2.23	0.70
1:B:2758:LYS:HE3	1:B:2763:LEU:HA	1.73	0.70
1:C:2187:ILE:HG21	1:C:2227:VAL:HG13	1.71	0.70
1:A:2998:ASN:ND2	1:A:3048:THR:OG1	2.24	0.70
1:C:4652:LYS:NZ	1:C:4945:GLN:OE1	2.24	0.70
1:D:2937:HIS:HB2	1:D:3014:LEU:HD21	1.73	0.70
1:A:2937:HIS:HB2	1:A:3014:LEU:HD21	1.72	0.70
1:D:2758:LYS:HE3	1:D:2763:LEU:HA	1.73	0.70
1:B:2937:HIS:HB2	1:B:3014:LEU:HD21	1.73	0.69
1:A:520:ARG:NH1	1:A:524:GLU:OE2	2.23	0.69
1:A:1473:LYS:HE3	1:A:1475:LYS:HB2	1.75	0.69
1:A:4046:ARG:NE	1:A:4046:ARG:HA	2.07	0.69
1:C:1473:LYS:HE3	1:C:1475:LYS:HB2	1.75	0.69
1:D:1473:LYS:HE3	1:D:1475:LYS:HB2	1.74	0.69
1:B:1473:LYS:HE3	1:B:1475:LYS:HB2	1.74	0.69
1:C:2937:HIS:HB2	1:C:3014:LEU:HD21	1.72	0.69
1:A:2758:LYS:HE3	1:A:2763:LEU:HA	1.73	0.69
1:A:1548:THR:O	1:D:2832:THR:OG1	2.10	0.69
1:A:3699:CYS:O	1:A:3727:GLN:NE2	2.25	0.69
1:B:4060:GLN:HA	1:B:4060:GLN:NE2	2.02	0.69
1:B:3699:CYS:O	1:B:3727:GLN:NE2	2.26	0.69
1:C:4046:ARG:HA	1:C:4046:ARG:NE	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3699:CYS:O	1:C:3727:GLN:NE2	2.26	0.68
1:D:678:MET:SD	1:D:801:ARG:NH2	2.66	0.68
1:D:3699:CYS:O	1:D:3727:GLN:NE2	2.26	0.68
1:A:4868:ASP:OD1	1:D:4874:ARG:NH1	2.25	0.68
1:B:4046:ARG:NE	1:B:4046:ARG:HA	2.07	0.68
1:D:4046:ARG:NE	1:D:4046:ARG:HA	2.07	0.68
1:C:678:MET:SD	1:C:801:ARG:NH2	2.66	0.68
1:B:678:MET:SD	1:B:801:ARG:NH2	2.67	0.68
1:C:59:PRO:O	1:C:319:LYS:NZ	2.26	0.68
1:D:4520:TYR:CE2	1:D:4559:TYR:HB3	2.29	0.68
1:D:713:TRP:HH2	1:D:1251:LEU:HD21	1.58	0.68
1:A:4060:GLN:HA	1:A:4060:GLN:NE2	2.02	0.68
1:D:1001:GLU:OE2	1:D:1005:ASN:ND2	2.26	0.67
1:D:4652:LYS:NZ	1:D:4945:GLN:OE1	2.24	0.67
1:B:3246:MET:O	1:B:3250:TRP:CD1	2.48	0.67
1:A:678:MET:SD	1:A:801:ARG:NH2	2.67	0.67
1:A:713:TRP:HH2	1:A:1251:LEU:HD21	1.58	0.67
1:A:4520:TYR:CE2	1:A:4559:TYR:HB3	2.29	0.67
1:C:335:LYS:NZ	1:C:398:HIS:O	2.27	0.67
1:D:59:PRO:O	1:D:319:LYS:NZ	2.26	0.67
1:D:4052:MET:HE2	1:D:4063:THR:HG23	1.76	0.67
1:B:4052:MET:HE2	1:B:4063:THR:HG23	1.76	0.67
1:A:59:PRO:O	1:A:319:LYS:NZ	2.26	0.67
2:H:83:TYR:OH	1:D:1768:PHE:O	2.12	0.67
1:B:713:TRP:HH2	1:B:1251:LEU:HD21	1.58	0.67
1:D:3246:MET:O	1:D:3250:TRP:CD1	2.48	0.67
1:A:3246:MET:O	1:A:3250:TRP:CD1	2.48	0.67
1:B:1001:GLU:OE2	1:B:1005:ASN:ND2	2.26	0.67
1:C:713:TRP:HH2	1:C:1251:LEU:HD21	1.58	0.67
1:B:2326:ARG:HH22	1:C:189:GLU:HB3	1.60	0.66
1:D:335:LYS:NZ	1:D:398:HIS:O	2.27	0.66
1:B:854:THR:HG22	1:B:1210:ALA:HA	1.78	0.66
1:C:854:THR:HG22	1:C:1210:ALA:HA	1.78	0.66
1:D:3043:ARG:NH1	1:D:3116:GLN:O	2.29	0.66
1:C:3043:ARG:NH1	1:C:3116:GLN:O	2.29	0.66
1:D:880:ARG:NH1	1:D:881:ILE:HB	2.10	0.66
1:D:3032:CYS:HA	1:D:3035:ILE:HG12	1.78	0.66
1:A:4052:MET:HE2	1:A:4063:THR:HG23	1.77	0.66
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.77	0.66
1:D:2670:SER:HB2	1:D:2973:GLN:HG2	1.77	0.66
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3032:CYS:HA	1:C:3035:ILE:HG12	1.78	0.66
1:D:3046:MET:HG3	1:D:3121:LEU:HA	1.77	0.66
1:A:1498:GLN:NE2	1:D:2795:GLY:HA2	2.11	0.66
1:A:2235:ARG:HH11	1:A:2297:ARG:HE	1.44	0.66
1:B:880:ARG:NH1	1:B:881:ILE:HB	2.10	0.66
1:B:2235:ARG:HH11	1:B:2297:ARG:HE	1.44	0.66
1:B:3043:ARG:NH1	1:B:3116:GLN:O	2.29	0.66
1:D:2235:ARG:HH11	1:D:2297:ARG:HE	1.44	0.66
1:A:880:ARG:NH1	1:A:881:ILE:HB	2.10	0.66
1:A:3043:ARG:NH1	1:A:3116:GLN:O	2.29	0.66
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.78	0.66
1:C:4520:TYR:CE2	1:C:4559:TYR:HB3	2.29	0.66
1:A:1001:GLU:OE2	1:A:1005:ASN:ND2	2.26	0.66
1:A:3032:CYS:HA	1:A:3035:ILE:HG12	1.78	0.66
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.78	0.66
1:D:854:THR:HG22	1:D:1210:ALA:HA	1.78	0.66
1:C:3246:MET:O	1:C:3250:TRP:CD1	2.48	0.66
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.77	0.65
1:B:2670:SER:HB2	1:B:2973:GLN:HG2	1.77	0.65
1:B:3046:MET:HG3	1:B:3121:LEU:HA	1.77	0.65
1:C:2235:ARG:HH11	1:C:2297:ARG:HE	1.44	0.65
1:D:2846:GLU:OE2	1:D:2850:ASN:ND2	2.29	0.65
1:D:4060:GLN:HA	1:D:4060:GLN:NE2	2.02	0.65
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.77	0.65
1:B:2846:GLU:OE2	1:B:2850:ASN:ND2	2.29	0.65
1:B:4520:TYR:CE2	1:B:4559:TYR:HB3	2.29	0.65
1:C:880:ARG:NH1	1:C:881:ILE:HB	2.10	0.65
1:C:2670:SER:HB2	1:C:2973:GLN:HG2	1.78	0.65
1:C:882:ARG:HH22	1:C:937:LEU:HG	1.62	0.65
1:C:1001:GLU:OE2	1:C:1005:ASN:ND2	2.26	0.65
1:A:335:LYS:NZ	1:A:398:HIS:O	2.27	0.65
1:A:854:THR:HG22	1:A:1210:ALA:HA	1.78	0.65
1:B:335:LYS:NZ	1:B:398:HIS:O	2.27	0.65
1:C:2616:ARG:NE	1:C:2617:CYS:SG	2.69	0.65
1:A:3046:MET:HG3	1:A:3121:LEU:HA	1.77	0.65
1:B:2616:ARG:NE	1:B:2617:CYS:SG	2.69	0.65
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.30	0.65
1:C:2846:GLU:OE2	1:C:2850:ASN:ND2	2.29	0.65
1:A:2616:ARG:NE	1:A:2617:CYS:SG	2.69	0.65
1:A:2846:GLU:OE2	1:A:2850:ASN:ND2	2.29	0.65
1:B:3844:GLN:HG3	1:B:3922:GLU:HG3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.78	0.65
1:B:59:PRO:O	1:B:319:LYS:NZ	2.26	0.65
1:B:3032:CYS:HA	1:B:3035:ILE:HG12	1.78	0.64
1:C:1420:LEU:HB3	1:C:1564:MET:HE1	1.79	0.64
1:A:882:ARG:HH22	1:A:937:LEU:HG	1.62	0.64
1:A:2670:SER:HB2	1:A:2973:GLN:HG2	1.78	0.64
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.30	0.64
1:C:3046:MET:HG3	1:C:3121:LEU:HA	1.77	0.64
1:C:3135:THR:HA	1:C:3207:ASN:HD21	1.63	0.64
1:A:3171:LEU:HB3	1:A:3211:LEU:HB2	1.79	0.64
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.30	0.64
1:A:3184:TYR:O	1:A:3192:ARG:NH2	2.31	0.64
1:C:2666:LEU:HD11	1:C:2969:PRO:HB2	1.79	0.64
1:C:3844:GLN:HG3	1:C:3922:GLU:HG3	1.78	0.64
1:D:2616:ARG:NE	1:D:2617:CYS:SG	2.69	0.64
1:D:3135:THR:HA	1:D:3207:ASN:HD21	1.63	0.64
1:A:1937:GLN:NE2	1:A:3608:LEU:O	2.31	0.64
1:B:2834:SER:OG	1:B:2836:ASP:OD1	2.14	0.64
1:C:164:PRO:HB3	1:C:169:ARG:HB2	1.79	0.64
1:C:1937:GLN:NE2	1:C:3608:LEU:O	2.31	0.64
1:C:4052:MET:HE2	1:C:4063:THR:HG23	1.77	0.64
1:D:882:ARG:HH22	1:D:937:LEU:HG	1.62	0.64
1:A:3844:GLN:HG3	1:A:3922:GLU:HG3	1.78	0.64
1:C:3222:ALA:O	1:C:3282:LYS:NZ	2.28	0.64
1:D:2277:CYS:HB3	1:D:2280:LEU:HB2	1.80	0.64
1:D:3844:GLN:HG3	1:D:3922:GLU:HG3	1.78	0.64
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.78	0.64
1:B:3135:THR:HA	1:B:3207:ASN:HD21	1.63	0.64
1:C:3171:LEU:HB3	1:C:3211:LEU:HB2	1.79	0.64
1:D:3184:TYR:O	1:D:3192:ARG:NH2	2.31	0.64
1:B:1144:ARG:NH1	1:B:1184:ASP:OD2	2.32	0.63
1:B:1937:GLN:NE2	1:B:3608:LEU:O	2.31	0.63
1:C:3184:TYR:O	1:C:3192:ARG:NH2	2.31	0.63
1:D:164:PRO:HB3	1:D:169:ARG:HB2	1.79	0.63
1:A:288:HIS:O	1:A:290:ARG:NH1	2.31	0.63
1:A:943:LEU:HA	1:A:946:LEU:HD12	1.80	0.63
1:A:2229:LEU:HA	1:A:2297:ARG:HH11	1.63	0.63
1:A:3135:THR:HA	1:A:3207:ASN:HD21	1.63	0.63
1:B:882:ARG:HH22	1:B:937:LEU:HG	1.62	0.63
1:C:288:HIS:O	1:C:290:ARG:NH1	2.31	0.63
1:C:2488:LEU:HD11	1:C:2548:LEU:HD13	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:943:LEU:HA	1:D:946:LEU:HD12	1.80	0.63
1:D:2666:LEU:HD11	1:D:2969:PRO:HB2	1.79	0.63
1:D:2834:SER:OG	1:D:2836:ASP:OD1	2.14	0.63
1:A:3043:ARG:HH11	1:A:3117:PHE:HA	1.63	0.63
1:B:3043:ARG:HH11	1:B:3117:PHE:HA	1.62	0.63
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	1.80	0.63
1:A:3914:LYS:NZ	1:A:3977:ASP:OD2	2.31	0.63
1:B:164:PRO:HB3	1:B:169:ARG:HB2	1.79	0.63
1:B:801:ARG:HD3	1:B:1611:ILE:HD12	1.81	0.63
1:B:3184:TYR:O	1:B:3192:ARG:NH2	2.31	0.63
1:A:164:PRO:HB3	1:A:169:ARG:HB2	1.79	0.63
1:B:3914:LYS:NZ	1:B:3977:ASP:OD2	2.31	0.63
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.32	0.63
1:D:2386:ASN:ND2	1:D:2457:SER:O	2.28	0.63
1:D:3171:LEU:HB3	1:D:3211:LEU:HB2	1.79	0.63
1:C:2229:LEU:HA	1:C:2297:ARG:HH11	1.64	0.63
1:D:2229:LEU:HA	1:D:2297:ARG:HH11	1.63	0.63
1:A:801:ARG:HD3	1:A:1611:ILE:HD12	1.81	0.63
1:A:3043:ARG:NH1	1:A:3117:PHE:HA	2.14	0.63
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	1.80	0.63
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.32	0.63
1:D:992:GLN:HA	1:D:995:MET:HE3	1.81	0.63
1:D:2488:LEU:HD11	1:D:2548:LEU:HD13	1.81	0.63
1:D:2933:VAL:HG22	1:D:2963:PHE:HE1	1.63	0.63
1:D:3043:ARG:HH11	1:D:3117:PHE:HA	1.62	0.63
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.30	0.63
1:B:3171:LEU:HB3	1:B:3211:LEU:HB2	1.79	0.63
1:C:3914:LYS:NZ	1:C:3977:ASP:OD2	2.31	0.63
1:D:1144:ARG:NH1	1:D:1184:ASP:OD2	2.31	0.63
1:D:1937:GLN:NE2	1:D:3608:LEU:O	2.31	0.63
1:D:3043:ARG:NH1	1:D:3117:PHE:HA	2.14	0.63
1:A:992:GLN:HA	1:A:995:MET:HE3	1.81	0.62
1:A:2933:VAL:HG22	1:A:2963:PHE:HE1	1.63	0.62
1:A:3249:TRP:HB3	1:A:3266:THR:HG21	1.81	0.62
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.34	0.62
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.32	0.62
1:B:2488:LEU:HD11	1:B:2548:LEU:HD13	1.81	0.62
1:B:2975:PHE:HB2	1:B:3035:ILE:HD12	1.81	0.62
1:C:943:LEU:HA	1:C:946:LEU:HD12	1.80	0.62
1:C:2975:PHE:HB2	1:C:3035:ILE:HD12	1.81	0.62
1:D:3249:TRP:HB3	1:D:3266:THR:HG21	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:963:LYS:HB3	1:B:977:LYS:HE3	1.81	0.62
1:B:3043:ARG:NH1	1:B:3117:PHE:HA	2.14	0.62
1:D:963:LYS:HB3	1:D:977:LYS:HE3	1.81	0.62
1:D:3914:LYS:NZ	1:D:3977:ASP:OD2	2.32	0.62
1:A:963:LYS:HB3	1:A:977:LYS:HE3	1.81	0.62
1:A:1144:ARG:NH1	1:A:1184:ASP:OD2	2.32	0.62
1:B:2277:CYS:HB3	1:B:2280:LEU:HB2	1.80	0.62
1:C:801:ARG:HD3	1:C:1611:ILE:HD12	1.81	0.62
1:C:992:GLN:HA	1:C:995:MET:HE3	1.82	0.62
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.81	0.62
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	1.80	0.62
1:A:2975:PHE:HB2	1:A:3035:ILE:HD12	1.81	0.62
1:B:2666:LEU:HD11	1:B:2969:PRO:HB2	1.80	0.62
1:C:3043:ARG:NH1	1:C:3117:PHE:HA	2.14	0.62
1:C:3043:ARG:HH11	1:C:3117:PHE:HA	1.63	0.62
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.35	0.62
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.32	0.62
1:A:2277:CYS:HB3	1:A:2280:LEU:HB2	1.80	0.62
1:B:288:HIS:O	1:B:290:ARG:NH1	2.31	0.62
1:B:992:GLN:HA	1:B:995:MET:HE3	1.81	0.62
1:C:963:LYS:HB3	1:C:977:LYS:HE3	1.81	0.62
1:C:1144:ARG:NH1	1:C:1184:ASP:OD2	2.31	0.62
1:C:2277:CYS:HB3	1:C:2280:LEU:HB2	1.80	0.62
1:C:3249:TRP:HB3	1:C:3266:THR:HG21	1.81	0.62
1:B:2229:LEU:HA	1:B:2297:ARG:HH11	1.63	0.62
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.35	0.62
1:D:801:ARG:HD3	1:D:1611:ILE:HD12	1.81	0.62
1:A:2666:LEU:HD11	1:A:2969:PRO:HB2	1.80	0.62
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.81	0.62
1:B:2933:VAL:HG22	1:B:2963:PHE:HE1	1.63	0.62
1:D:288:HIS:O	1:D:290:ARG:NH1	2.31	0.62
1:C:2920:ARG:HH22	1:C:2997:SER:H	1.47	0.62
1:D:2975:PHE:HB2	1:D:3035:ILE:HD12	1.81	0.62
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.81	0.62
1:B:943:LEU:HA	1:B:946:LEU:HD12	1.80	0.62
1:B:3249:TRP:HB3	1:B:3266:THR:HG21	1.82	0.61
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.82	0.61
1:D:2727:HIS:CE1	1:D:2826:ILE:HG21	2.36	0.61
1:A:2488:LEU:HD11	1:A:2548:LEU:HD13	1.81	0.61
1:C:2727:HIS:CE1	1:C:2826:ILE:HG21	2.36	0.61
1:C:3294:ALA:HA	1:C:3297:LYS:HD3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	1.80	0.61
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.35	0.61
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.82	0.61
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.82	0.61
1:C:2933:VAL:HG22	1:C:2963:PHE:HE1	1.63	0.61
1:A:2920:ARG:HH22	1:A:2997:SER:H	1.47	0.61
1:B:2920:ARG:HH22	1:B:2997:SER:H	1.47	0.61
1:A:1420:LEU:HB3	1:A:1564:MET:HE1	1.82	0.61
1:A:2727:HIS:CE1	1:A:2826:ILE:HG21	2.36	0.61
1:B:2385:GLY:O	1:B:2389:MET:HG3	2.01	0.61
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.81	0.61
1:D:2920:ARG:HH22	1:D:2997:SER:H	1.47	0.61
1:B:2727:HIS:CE1	1:B:2826:ILE:HG21	2.36	0.61
1:C:2385:GLY:O	1:C:2389:MET:HG3	2.01	0.61
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.82	0.61
1:D:137:ARG:NE	1:D:139:SER:OG	2.34	0.61
1:C:658:ASN:HD21	1:C:833:LYS:HG2	1.66	0.61
1:A:2385:GLY:O	1:A:2389:MET:HG3	2.01	0.60
1:B:2830:ASN:HB3	1:C:1549:SER:HB2	1.82	0.60
1:D:3294:ALA:HA	1:D:3297:LYS:HD3	1.81	0.60
1:B:882:ARG:HH21	1:B:937:LEU:N	1.99	0.60
1:B:2759:PRO:HG2	1:B:2762:LEU:HD13	1.83	0.60
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.84	0.60
1:A:2759:PRO:HG2	1:A:2762:LEU:HD13	1.83	0.60
1:B:2337:GLY:O	1:C:141:ASP:HA	2.01	0.60
1:D:658:ASN:HD21	1:D:833:LYS:HG2	1.66	0.60
1:D:2127:ARG:NH2	1:D:2165:LEU:O	2.35	0.60
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.84	0.60
1:B:137:ARG:NE	1:B:139:SER:OG	2.34	0.60
1:C:137:ARG:NE	1:C:139:SER:OG	2.34	0.60
1:C:591:GLU:HG3	1:C:631:LEU:HD22	1.84	0.60
1:D:882:ARG:HH21	1:D:937:LEU:N	1.99	0.60
1:D:4751:LYS:HA	1:D:4754:ARG:HH11	1.67	0.60
1:A:977:LYS:NZ	1:A:979:ALA:O	2.34	0.60
1:B:977:LYS:NZ	1:B:979:ALA:O	2.35	0.60
1:B:3246:MET:CE	1:B:3276:LEU:HD22	2.32	0.60
1:B:3294:ALA:HA	1:B:3297:LYS:HD3	1.82	0.60
1:D:2385:GLY:O	1:D:2389:MET:HG3	2.01	0.60
1:A:658:ASN:HD21	1:A:833:LYS:HG2	1.66	0.60
1:A:3246:MET:CE	1:A:3276:LEU:HD22	2.31	0.60
1:C:2232:PRO:HG2	1:C:2379:ASP:HA	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.84	0.60
1:D:2122:SER:O	1:D:2126:ILE:HG12	2.02	0.60
1:B:293:GLN:HB2	1:B:343:ARG:HH22	1.67	0.60
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.84	0.60
1:C:1471:ASP:OD1	1:C:1475:LYS:N	2.34	0.60
1:C:4751:LYS:HA	1:C:4754:ARG:HH11	1.67	0.60
1:D:1471:ASP:OD1	1:D:1475:LYS:N	2.34	0.60
1:A:137:ARG:NE	1:A:139:SER:OG	2.34	0.60
1:A:2232:PRO:HG2	1:A:2379:ASP:HA	1.84	0.60
1:A:3269:ASN:HB2	1:A:3272:HIS:ND1	2.17	0.60
1:B:2122:SER:O	1:B:2126:ILE:HG12	2.02	0.60
1:B:2127:ARG:NH2	1:B:2165:LEU:O	2.35	0.60
1:B:3606:ALA:HB1	1:B:3610:ASN:HB2	1.84	0.60
1:A:3287:ASN:ND2	1:A:3295:TRP:HH2	2.00	0.60
1:A:3294:ALA:HA	1:A:3297:LYS:HD3	1.81	0.60
1:A:3606:ALA:HB1	1:A:3610:ASN:HB2	1.84	0.60
1:C:977:LYS:NZ	1:C:979:ALA:O	2.35	0.60
1:D:3222:ALA:O	1:D:3282:LYS:NZ	2.28	0.60
1:D:3269:ASN:HB2	1:D:3272:HIS:ND1	2.17	0.60
1:A:882:ARG:HH21	1:A:937:LEU:N	1.99	0.60
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.84	0.60
1:B:3269:ASN:HB2	1:B:3272:HIS:ND1	2.17	0.60
1:C:293:GLN:HB2	1:C:343:ARG:HH22	1.67	0.60
1:D:591:GLU:HG3	1:D:631:LEU:HD22	1.84	0.60
1:D:2759:PRO:HG2	1:D:2762:LEU:HD13	1.83	0.60
1:D:2851:ILE:O	1:D:2855:LYS:HE2	2.02	0.60
1:D:3287:ASN:ND2	1:D:3295:TRP:HH2	2.00	0.60
1:D:4832:GLU:O	1:D:4843:ARG:NH2	2.35	0.60
1:A:2122:SER:O	1:A:2126:ILE:HG12	2.02	0.59
1:B:3074:ASN:OD1	1:B:3075:LEU:N	2.35	0.59
1:C:882:ARG:HH21	1:C:937:LEU:N	1.99	0.59
1:C:4520:TYR:H	1:D:4809:MET:HB2	1.67	0.59
1:D:977:LYS:NZ	1:D:979:ALA:O	2.35	0.59
1:D:1074:ARG:HD3	1:D:1077:VAL:HB	1.85	0.59
1:B:658:ASN:HD21	1:B:833:LYS:HG2	1.66	0.59
1:B:2769:GLU:O	1:B:2771:TYR:N	2.31	0.59
1:C:2127:ARG:NH2	1:C:2165:LEU:O	2.35	0.59
1:C:2759:PRO:HG2	1:C:2762:LEU:HD13	1.83	0.59
1:C:3606:ALA:HB1	1:C:3610:ASN:HB2	1.84	0.59
1:D:1495:SER:HB2	1:D:1525:LYS:HE3	1.85	0.59
1:A:4832:GLU:O	1:A:4843:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2222:LEU:HB3	1:B:2264:LYS:HD2	1.84	0.59
1:C:4832:GLU:O	1:C:4843:ARG:NH2	2.35	0.59
1:D:995:MET:HA	1:D:998:LYS:HE2	1.84	0.59
1:D:1420:LEU:HB3	1:D:1564:MET:HE1	1.84	0.59
1:A:2127:ARG:NH2	1:A:2165:LEU:O	2.35	0.59
1:A:2222:LEU:HB3	1:A:2264:LYS:HD2	1.84	0.59
1:A:2724:TYR:HE2	1:A:2775:ILE:HG12	1.68	0.59
1:B:1471:ASP:OD1	1:B:1475:LYS:N	2.34	0.59
1:B:2232:PRO:HG2	1:B:2379:ASP:HA	1.84	0.59
1:B:2724:TYR:HE2	1:B:2775:ILE:HG12	1.68	0.59
1:C:2122:SER:O	1:C:2126:ILE:HG12	2.02	0.59
1:C:2386:ASN:ND2	1:C:2457:SER:O	2.28	0.59
1:C:2851:ILE:O	1:C:2855:LYS:HE2	2.02	0.59
1:A:3277:LEU:HD21	1:A:3319:PHE:HZ	1.68	0.59
1:B:1074:ARG:HD3	1:B:1077:VAL:HB	1.85	0.59
1:C:3287:ASN:ND2	1:C:3295:TRP:HH2	2.00	0.59
1:D:3246:MET:CE	1:D:3276:LEU:HD22	2.32	0.59
1:D:3606:ALA:HB1	1:D:3610:ASN:HB2	1.84	0.59
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.84	0.59
1:A:473:GLU:OE2	1:A:477:ASN:ND2	2.36	0.59
1:B:1495:SER:HB2	1:B:1525:LYS:HE3	1.85	0.59
1:B:2851:ILE:O	1:B:2855:LYS:HE2	2.02	0.59
1:B:3277:LEU:HD21	1:B:3319:PHE:HZ	1.68	0.59
1:B:4832:GLU:O	1:B:4843:ARG:NH2	2.35	0.59
1:C:769:ARG:HG2	1:C:774:PRO:HA	1.85	0.59
1:A:1074:ARG:HD3	1:A:1077:VAL:HB	1.85	0.59
1:B:769:ARG:HG2	1:B:774:PRO:HA	1.85	0.59
1:B:3140:LEU:HD13	1:B:3155:LEU:HD22	1.85	0.59
1:C:2445:ILE:HG22	1:C:2451:VAL:HG22	1.85	0.59
1:C:3269:ASN:HB2	1:C:3272:HIS:ND1	2.17	0.59
1:A:293:GLN:HB2	1:A:343:ARG:HH22	1.67	0.59
1:A:591:GLU:HG3	1:A:631:LEU:HD22	1.84	0.59
1:A:995:MET:HA	1:A:998:LYS:HE2	1.84	0.59
1:A:1495:SER:HB2	1:A:1525:LYS:HE3	1.85	0.59
1:A:2445:ILE:HG22	1:A:2451:VAL:HG22	1.85	0.59
1:A:3140:LEU:HD13	1:A:3155:LEU:HD22	1.85	0.59
1:A:4751:LYS:HA	1:A:4754:ARG:HH11	1.67	0.59
1:B:3287:ASN:ND2	1:B:3295:TRP:HH2	2.00	0.59
1:A:2834:SER:OG	1:A:2836:ASP:OD1	2.14	0.59
1:B:2899:ASN:C	1:C:1498:GLN:HE21	2.06	0.59
1:D:2222:LEU:HB3	1:D:2264:LYS:HD2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2232:PRO:HG2	1:D:2379:ASP:HA	1.84	0.59
1:D:2724:TYR:HE2	1:D:2775:ILE:HG12	1.68	0.59
1:A:769:ARG:HG2	1:A:774:PRO:HA	1.85	0.58
1:A:2275:GLN:NE2	1:A:2278:GLN:OE1	2.36	0.58
1:C:2721:ILE:HD11	1:C:2779:LEU:HD22	1.85	0.58
1:C:3074:ASN:OD1	1:C:3075:LEU:N	2.35	0.58
1:D:769:ARG:HG2	1:D:774:PRO:HA	1.85	0.58
1:D:1498:GLN:HG2	1:D:1499:GLY:H	1.68	0.58
1:D:3074:ASN:OD1	1:D:3075:LEU:N	2.36	0.58
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.84	0.58
1:A:3074:ASN:OD1	1:A:3075:LEU:N	2.36	0.58
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.85	0.58
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.85	0.58
1:B:473:GLU:OE2	1:B:477:ASN:ND2	2.36	0.58
1:C:995:MET:HA	1:C:998:LYS:HE2	1.84	0.58
1:C:2275:GLN:NE2	1:C:2278:GLN:OE1	2.36	0.58
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.84	0.58
1:D:2721:ILE:HD11	1:D:2779:LEU:HD22	1.85	0.58
1:A:877:HIS:HD1	1:A:1062:TYR:HH	1.44	0.58
1:A:1498:GLN:HE21	1:D:2899:ASN:C	2.04	0.58
1:A:2851:ILE:O	1:A:2855:LYS:HE2	2.02	0.58
1:B:591:GLU:HG3	1:B:631:LEU:HD22	1.84	0.58
1:B:995:MET:HA	1:B:998:LYS:HE2	1.84	0.58
1:B:2445:ILE:HG22	1:B:2451:VAL:HG22	1.85	0.58
1:B:4751:LYS:HA	1:B:4754:ARG:HH11	1.66	0.58
1:C:1074:ARG:HD3	1:C:1077:VAL:HB	1.85	0.58
1:D:473:GLU:OE2	1:D:477:ASN:ND2	2.36	0.58
1:C:3043:ARG:HD3	1:C:3117:PHE:CD1	2.39	0.58
1:C:3246:MET:CE	1:C:3276:LEU:HD22	2.32	0.58
1:D:293:GLN:HB2	1:D:343:ARG:HH22	1.67	0.58
1:A:3222:ALA:O	1:A:3282:LYS:NZ	2.28	0.58
1:B:2275:GLN:NE2	1:B:2278:GLN:OE1	2.36	0.58
1:B:3043:ARG:HD3	1:B:3117:PHE:CD1	2.39	0.58
1:A:1471:ASP:OD1	1:A:1475:LYS:N	2.34	0.58
1:A:3043:ARG:HD3	1:A:3117:PHE:CD1	2.39	0.58
1:A:4773:LEU:HD13	1:D:4753:LEU:HD21	1.84	0.58
1:C:1495:SER:HB2	1:C:1525:LYS:HE3	1.85	0.58
1:D:605:GLY:HA2	1:D:1585:ARG:HD2	1.86	0.58
1:D:2445:ILE:HG22	1:D:2451:VAL:HG22	1.85	0.58
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.85	0.58
1:B:2386:ASN:ND2	1:B:2457:SER:O	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3277:LEU:HD21	1:C:3319:PHE:HZ	1.68	0.58
1:D:3043:ARG:HD3	1:D:3117:PHE:CD1	2.39	0.58
1:D:3140:LEU:HD13	1:D:3155:LEU:HD22	1.85	0.58
1:D:3277:LEU:HD21	1:D:3319:PHE:HZ	1.68	0.58
1:D:4027:THR:HA	1:D:4032:PHE:CD1	2.39	0.58
1:A:2721:ILE:HD11	1:A:2779:LEU:HD22	1.85	0.58
1:A:3653:GLU:OE2	1:A:3660:ARG:NH2	2.37	0.58
1:B:434:ASP:OD1	1:B:504:ARG:NE	2.37	0.58
1:C:605:GLY:HA2	1:C:1585:ARG:HD2	1.86	0.58
1:A:2593:VAL:HG21	1:A:2640:LEU:HD11	1.85	0.58
1:A:4027:THR:HA	1:A:4032:PHE:CD1	2.39	0.58
1:C:473:GLU:OE2	1:C:477:ASN:ND2	2.36	0.58
1:C:2724:TYR:HE2	1:C:2775:ILE:HG12	1.68	0.58
1:D:2275:GLN:NE2	1:D:2278:GLN:OE1	2.36	0.58
1:D:2443:PRO:HG2	1:D:2502:LEU:HD21	1.86	0.58
1:D:2593:VAL:HG21	1:D:2640:LEU:HD11	1.85	0.58
1:D:2769:GLU:O	1:D:2771:TYR:N	2.31	0.58
1:A:1498:GLN:HG2	1:A:1499:GLY:H	1.68	0.57
1:A:2691:LYS:HG3	1:A:2694:SER:H	1.69	0.57
1:B:4027:THR:HA	1:B:4032:PHE:CD1	2.39	0.57
1:C:1058:LEU:HD12	1:C:1063:ASN:HB3	1.86	0.57
1:A:434:ASP:OD1	1:A:504:ARG:NE	2.37	0.57
1:A:1433:PHE:HB3	1:D:2830:ASN:HD22	1.67	0.57
1:A:2443:PRO:HG2	1:A:2502:LEU:HD21	1.86	0.57
1:B:891:GLU:O	1:B:895:MET:HG2	2.05	0.57
1:C:1498:GLN:HG2	1:C:1499:GLY:H	1.68	0.57
1:B:1498:GLN:HG2	1:B:1499:GLY:H	1.68	0.57
1:B:2593:VAL:HG21	1:B:2640:LEU:HD11	1.85	0.57
1:B:3246:MET:HG2	1:B:3273:MET:HE1	1.85	0.57
1:B:3796:LEU:HD22	1:B:3835:PHE:HZ	1.69	0.57
1:C:2222:LEU:HB3	1:C:2264:LYS:HD2	1.84	0.57
1:C:3140:LEU:HD13	1:C:3155:LEU:HD22	1.85	0.57
1:A:891:GLU:O	1:A:895:MET:HG2	2.05	0.57
1:A:2386:ASN:ND2	1:A:2457:SER:O	2.28	0.57
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.85	0.57
1:B:2721:ILE:HD11	1:B:2779:LEU:HD22	1.85	0.57
1:C:2691:LYS:HG3	1:C:2694:SER:H	1.69	0.57
1:D:434:ASP:OD1	1:D:504:ARG:NE	2.37	0.57
1:B:2691:LYS:HG3	1:B:2694:SER:H	1.69	0.57
1:B:3653:GLU:OE2	1:B:3660:ARG:NH2	2.37	0.57
1:B:1438:PRO:HG3	1:B:1500:ARG:HH12	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2443:PRO:HG2	1:B:2502:LEU:HD21	1.86	0.57
1:B:2768:LYS:O	1:B:2772:ARG:HG3	2.05	0.57
1:B:2827:ASP:H	1:C:1501:ASN:CG	2.08	0.57
1:C:2443:PRO:HG2	1:C:2502:LEU:HD21	1.86	0.57
1:C:4027:THR:HA	1:C:4032:PHE:CD1	2.39	0.57
1:D:2768:LYS:O	1:D:2772:ARG:HG3	2.05	0.57
1:D:3653:GLU:OE2	1:D:3660:ARG:NH2	2.37	0.57
1:A:2768:LYS:O	1:A:2772:ARG:HG3	2.05	0.57
1:C:2593:VAL:HG21	1:C:2640:LEU:HD11	1.85	0.57
1:C:2834:SER:OG	1:C:2836:ASP:OD1	2.14	0.57
1:C:3653:GLU:OE2	1:C:3660:ARG:NH2	2.37	0.57
1:C:4818:TYR:HD1	1:D:4848:ILE:HD11	1.70	0.57
1:D:891:GLU:O	1:D:895:MET:HG2	2.05	0.57
1:D:2691:LYS:HG3	1:D:2694:SER:H	1.70	0.57
1:A:876:PRO:HA	1:A:879:GLU:HG3	1.87	0.57
1:A:4028:SER:O	1:A:4033:LYS:NZ	2.38	0.57
1:B:1058:LEU:HD12	1:B:1063:ASN:HB3	1.86	0.57
1:A:2971:ILE:HG23	1:A:2975:PHE:CE2	2.40	0.56
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.69	0.56
1:A:605:GLY:HA2	1:A:1585:ARG:HD2	1.86	0.56
1:B:3222:ALA:O	1:B:3282:LYS:NZ	2.28	0.56
1:C:876:PRO:HA	1:C:879:GLU:HG3	1.87	0.56
1:C:891:GLU:O	1:C:895:MET:HG2	2.05	0.56
1:C:1438:PRO:HG3	1:C:1500:ARG:HH12	1.69	0.56
1:C:2691:LYS:NZ	1:C:2846:GLU:OE2	2.30	0.56
1:D:1438:PRO:HG3	1:D:1500:ARG:HH12	1.69	0.56
1:D:4028:SER:O	1:D:4033:LYS:NZ	2.38	0.56
1:A:2312:SER:OG	1:A:2474:ARG:NH2	2.39	0.56
1:A:2318:ASN:O	1:A:2322:ARG:HD3	2.06	0.56
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.87	0.56
1:B:1420:LEU:HD22	1:B:1564:MET:HE3	1.85	0.56
1:B:3332:THR:HG22	1:B:3334:VAL:H	1.71	0.56
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.87	0.56
1:C:3332:THR:HG22	1:C:3334:VAL:H	1.71	0.56
1:C:3796:LEU:HD22	1:C:3835:PHE:HZ	1.69	0.56
1:D:2312:SER:OG	1:D:2474:ARG:NH2	2.39	0.56
1:D:3241:MET:O	1:D:3245:TYR:CB	2.54	0.56
1:D:3332:THR:HG22	1:D:3334:VAL:H	1.70	0.56
1:D:3796:LEU:HD22	1:D:3835:PHE:HZ	1.69	0.56
1:A:3241:MET:O	1:A:3245:TYR:CB	2.54	0.56
1:A:3332:THR:HG22	1:A:3334:VAL:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:876:PRO:HA	1:B:879:GLU:HG3	1.86	0.56
1:B:876:PRO:O	1:B:879:GLU:HG3	2.05	0.56
1:B:2312:SER:OG	1:B:2474:ARG:NH2	2.39	0.56
1:B:3241:MET:O	1:B:3245:TYR:CB	2.54	0.56
1:C:434:ASP:OD1	1:C:504:ARG:NE	2.37	0.56
1:C:4028:SER:O	1:C:4033:LYS:NZ	2.38	0.56
1:B:605:GLY:HA2	1:B:1585:ARG:HD2	1.86	0.56
1:B:2318:ASN:O	1:B:2322:ARG:HD3	2.05	0.56
1:C:2971:ILE:HG23	1:C:2975:PHE:CE2	2.40	0.56
1:C:3241:MET:O	1:C:3245:TYR:CB	2.54	0.56
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.87	0.56
1:D:2318:ASN:O	1:D:2322:ARG:HD3	2.06	0.56
1:D:2651:ALA:O	1:D:2655:LYS:HB2	2.06	0.56
1:D:2971:ILE:HG23	1:D:2975:PHE:CE2	2.40	0.56
1:D:3097:THR:HA	1:D:3101:LEU:HG	1.88	0.56
1:B:3166:PHE:CE2	1:B:3168:VAL:HB	2.41	0.56
1:C:2312:SER:OG	1:C:2474:ARG:NH2	2.39	0.56
1:C:2318:ASN:O	1:C:2322:ARG:HD3	2.05	0.56
1:C:2651:ALA:O	1:C:2655:LYS:HB2	2.06	0.56
1:C:3166:PHE:CE2	1:C:3168:VAL:HB	2.41	0.56
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.39	0.56
1:A:876:PRO:O	1:A:879:GLU:HG3	2.05	0.56
1:A:1438:PRO:HG3	1:A:1500:ARG:HH12	1.69	0.56
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.39	0.56
1:C:271:ALA:HB2	1:C:488:LEU:HD22	1.88	0.56
1:A:1058:LEU:HD12	1:A:1063:ASN:HB3	1.86	0.56
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.39	0.56
1:A:2651:ALA:O	1:A:2655:LYS:HB2	2.06	0.56
1:A:3005:THR:HG21	1:A:3045:VAL:HG11	1.87	0.56
1:C:876:PRO:O	1:C:879:GLU:HG3	2.05	0.56
1:C:2937:HIS:HA	1:C:3014:LEU:HD11	1.88	0.56
1:D:876:PRO:HA	1:D:879:GLU:HG3	1.87	0.56
1:D:3005:THR:HG21	1:D:3045:VAL:HG11	1.87	0.56
1:A:2691:LYS:O	1:A:2695:MET:HB2	2.06	0.56
1:A:3097:THR:HA	1:A:3101:LEU:HG	1.88	0.56
1:A:4268:MET:O	1:A:4272:LYS:HG2	2.06	0.56
1:B:558:LEU:HG	1:B:571:ILE:HG23	1.88	0.56
1:C:2973:GLN:HA	1:C:2976:LYS:HG2	1.88	0.56
1:C:4268:MET:O	1:C:4272:LYS:HG2	2.06	0.56
1:D:3068:LEU:HD21	1:D:3133:ILE:HG12	1.87	0.56
1:A:2973:GLN:HA	1:A:2976:LYS:HG2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.39	0.55
1:A:3068:LEU:HD21	1:A:3133:ILE:HG12	1.87	0.55
1:B:2826:ILE:HG22	1:C:1501:ASN:ND2	2.22	0.55
1:B:3068:LEU:HD21	1:B:3133:ILE:HG12	1.87	0.55
1:B:4028:SER:O	1:B:4033:LYS:NZ	2.38	0.55
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.39	0.55
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.39	0.55
1:D:2973:GLN:HA	1:D:2976:LYS:HG2	1.88	0.55
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.87	0.55
1:A:658:ASN:ND2	1:A:833:LYS:HG2	2.21	0.55
1:A:3166:PHE:CE2	1:A:3168:VAL:HB	2.41	0.55
1:B:271:ALA:HB2	1:B:488:LEU:HD22	1.87	0.55
1:C:2768:LYS:O	1:C:2772:ARG:HG3	2.05	0.55
1:D:3152:ARG:NH1	1:D:3236:GLU:OE2	2.40	0.55
1:D:3246:MET:HE2	1:D:3276:LEU:CD2	2.33	0.55
1:A:3246:MET:HE2	1:A:3276:LEU:CD2	2.33	0.55
1:B:2691:LYS:O	1:B:2695:MET:HB2	2.06	0.55
1:B:2830:ASN:HD22	1:C:1433:PHE:HB3	1.71	0.55
1:B:2971:ILE:HG23	1:B:2975:PHE:CE2	2.40	0.55
1:B:3250:TRP:CE2	1:B:3309:LYS:HD3	2.41	0.55
1:B:4275:THR:HB	1:B:4278:ASP:HB2	1.89	0.55
1:C:558:LEU:HG	1:C:571:ILE:HG23	1.88	0.55
1:C:2445:ILE:HA	1:C:2451:VAL:HA	1.89	0.55
1:C:3068:LEU:HD21	1:C:3133:ILE:HG12	1.87	0.55
1:C:4520:TYR:O	1:D:4809:MET:HB2	2.06	0.55
1:C:2769:GLU:O	1:C:2771:TYR:N	2.31	0.55
1:D:4268:MET:O	1:D:4272:LYS:HG2	2.06	0.55
1:A:1498:GLN:HB2	1:D:2794:GLU:HG3	1.88	0.55
2:E:78:THR:HG23	2:E:80:ASP:OD1	2.07	0.55
2:H:12:ASP:OD2	2:H:13:GLY:N	2.40	0.55
1:B:2651:ALA:O	1:B:2655:LYS:HB2	2.06	0.55
1:B:4859:LEU:O	1:B:4863:GLN:HG2	2.07	0.55
1:B:4874:ARG:NH1	1:C:4868:ASP:OD1	2.39	0.55
1:D:271:ALA:HB2	1:D:488:LEU:HD22	1.88	0.55
1:D:1058:LEU:HD12	1:D:1063:ASN:HB3	1.86	0.55
1:A:2445:ILE:HA	1:A:2451:VAL:HA	1.89	0.55
1:A:4275:THR:HB	1:A:4278:ASP:HB2	1.88	0.55
1:B:2445:ILE:HA	1:B:2451:VAL:HA	1.89	0.55
1:C:2691:LYS:O	1:C:2695:MET:HB2	2.06	0.55
1:C:3250:TRP:CE2	1:C:3309:LYS:HD3	2.42	0.55
1:D:658:ASN:ND2	1:D:833:LYS:HG2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:905:GLY:HA3	1:A:914:GLN:OE1	2.07	0.55
2:E:12:ASP:OD2	2:E:13:GLY:N	2.40	0.55
2:F:12:ASP:OD2	2:F:13:GLY:N	2.40	0.55
2:G:12:ASP:OD2	2:G:13:GLY:N	2.40	0.55
1:B:2418:ARG:NH2	1:C:156:GLU:OE1	2.27	0.55
1:D:876:PRO:O	1:D:879:GLU:HG3	2.06	0.55
1:D:2691:LYS:O	1:D:2695:MET:HB2	2.06	0.55
1:D:3250:TRP:CE2	1:D:3309:LYS:HD3	2.41	0.55
1:A:271:ALA:HB2	1:A:488:LEU:HD22	1.88	0.55
1:A:2937:HIS:HA	1:A:3014:LEU:HD11	1.88	0.55
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.39	0.55
1:B:4268:MET:O	1:B:4272:LYS:HG2	2.06	0.55
1:C:3152:ARG:NH1	1:C:3236:GLU:OE2	2.40	0.55
1:C:4737:PHE:CD1	1:D:4783:VAL:HG13	2.41	0.55
1:A:3250:TRP:CE2	1:A:3309:LYS:HD3	2.41	0.55
2:G:78:THR:HG23	2:G:80:ASP:OD1	2.07	0.55
2:H:78:THR:HG23	2:H:80:ASP:OD1	2.07	0.55
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.39	0.55
1:C:2593:VAL:HG12	1:C:2644:LEU:HD13	1.89	0.55
1:C:3097:THR:HA	1:C:3101:LEU:HG	1.88	0.55
1:C:4622:SER:OG	1:C:4624:ASP:OD1	2.17	0.55
1:C:4859:LEU:O	1:C:4863:GLN:HG2	2.07	0.55
1:D:3166:PHE:CE2	1:D:3168:VAL:HB	2.41	0.55
2:F:78:THR:HG23	2:F:80:ASP:OD1	2.07	0.55
1:B:658:ASN:ND2	1:B:833:LYS:HG2	2.21	0.55
1:B:882:ARG:NH2	1:B:937:LEU:HG	2.22	0.55
1:B:2779:LEU:O	1:B:2782:MET:HG2	2.07	0.55
1:C:905:GLY:HA3	1:C:914:GLN:OE1	2.07	0.55
1:C:3005:THR:HG21	1:C:3045:VAL:HG11	1.87	0.55
1:C:4275:THR:HB	1:C:4278:ASP:HB2	1.88	0.55
1:D:882:ARG:NH2	1:D:937:LEU:HG	2.22	0.55
1:D:2445:ILE:HA	1:D:2451:VAL:HA	1.89	0.55
1:D:2936:ALA:O	1:D:2940:ILE:HG12	2.07	0.55
1:A:558:LEU:HG	1:A:571:ILE:HG23	1.88	0.54
1:A:4859:LEU:O	1:A:4863:GLN:HG2	2.07	0.54
1:B:2973:GLN:HA	1:B:2976:LYS:HG2	1.88	0.54
1:B:3005:THR:HG21	1:B:3045:VAL:HG11	1.87	0.54
1:B:3097:THR:HA	1:B:3101:LEU:HG	1.88	0.54
1:B:3152:ARG:NH1	1:B:3236:GLU:OE2	2.40	0.54
1:D:2593:VAL:HG12	1:D:2644:LEU:HD13	1.89	0.54
1:A:882:ARG:NH2	1:A:937:LEU:HG	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4113:THR:O	1:A:4117:THR:HG23	2.08	0.54
1:B:2937:HIS:HA	1:B:3014:LEU:HD11	1.88	0.54
1:C:3803:LEU:HB2	1:C:3884:SER:HB2	1.90	0.54
1:D:2779:LEU:O	1:D:2782:MET:HG2	2.07	0.54
1:D:2937:HIS:HA	1:D:3014:LEU:HD11	1.88	0.54
1:B:4239:LEU:HD12	1:B:4308:ILE:HD12	1.90	0.54
1:B:4753:LEU:HD21	1:C:4773:LEU:HD13	1.89	0.54
1:A:1551:ASN:ND2	1:D:2830:ASN:OD1	2.27	0.54
1:A:3152:ARG:NH1	1:A:3236:GLU:OE2	2.40	0.54
1:A:4239:LEU:HD12	1:A:4308:ILE:HD12	1.90	0.54
1:B:3245:TYR:HA	1:B:3249:TRP:CZ3	2.43	0.54
1:D:866:PRO:HD2	1:D:1009:ARG:NH2	2.23	0.54
1:D:4113:THR:O	1:D:4117:THR:HG23	2.08	0.54
1:A:3232:PRO:HA	1:A:3235:MET:SD	2.48	0.54
1:C:658:ASN:ND2	1:C:833:LYS:HG2	2.21	0.54
1:D:3245:TYR:HA	1:D:3249:TRP:CZ3	2.43	0.54
1:A:866:PRO:HD2	1:A:1009:ARG:NH2	2.23	0.54
1:A:996:VAL:HB	1:A:1051:ARG:NH1	2.23	0.54
1:A:2593:VAL:HG12	1:A:2644:LEU:HD13	1.89	0.54
1:A:2898:ILE:HD12	1:B:1499:GLY:HA3	1.90	0.54
1:B:996:VAL:HB	1:B:1051:ARG:NH1	2.23	0.54
1:B:4059:THR:O	1:B:4063:THR:OG1	2.22	0.54
1:D:905:GLY:HA3	1:D:914:GLN:OE1	2.07	0.54
1:D:3008:PHE:CZ	1:D:3108:LEU:HD21	2.43	0.54
1:D:3232:PRO:HA	1:D:3235:MET:SD	2.48	0.54
1:D:3803:LEU:HB2	1:D:3884:SER:HB2	1.90	0.54
1:C:2936:ALA:O	1:C:2940:ILE:HG12	2.07	0.54
1:A:2769:GLU:O	1:A:2771:TYR:N	2.31	0.54
1:A:3119:GLU:HG3	1:A:3167:PRO:HB3	1.89	0.54
1:A:4265:LYS:HA	1:A:4268:MET:CG	2.35	0.54
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.43	0.54
1:B:2326:ARG:NH2	1:C:189:GLU:HB3	2.22	0.54
1:B:2936:ALA:O	1:B:2940:ILE:HG12	2.07	0.54
1:C:2779:LEU:O	1:C:2782:MET:HG2	2.07	0.54
1:C:3232:PRO:HA	1:C:3235:MET:SD	2.48	0.54
1:C:3245:TYR:HA	1:C:3249:TRP:CZ3	2.43	0.54
1:D:558:LEU:HG	1:D:571:ILE:HG23	1.88	0.54
1:D:996:VAL:HB	1:D:1051:ARG:NH1	2.23	0.54
1:D:4859:LEU:O	1:D:4863:GLN:HG2	2.07	0.54
1:A:3250:TRP:NE1	1:A:3309:LYS:HD3	2.23	0.54
1:B:902:TRP:NE1	1:B:915:HIS:HB2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:905:GLY:HA3	1:B:914:GLN:OE1	2.07	0.54
1:B:2826:ILE:CG2	1:C:1501:ASN:ND2	2.71	0.54
1:C:902:TRP:NE1	1:C:915:HIS:HB2	2.23	0.54
1:C:3119:GLU:HG3	1:C:3167:PRO:HB3	1.90	0.54
1:C:3311:LYS:HB2	1:C:3314:LEU:HD13	1.90	0.54
1:D:2300:ASP:OD1	1:D:2301:PHE:N	2.41	0.54
1:D:4275:THR:HB	1:D:4278:ASP:HB2	1.88	0.54
1:A:2779:LEU:O	1:A:2782:MET:HG2	2.07	0.54
1:B:866:PRO:HD2	1:B:1009:ARG:NH2	2.22	0.54
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.08	0.54
1:B:2604:LYS:HD2	1:B:2664:LEU:HD23	1.90	0.54
1:B:3879:LEU:O	1:B:3882:GLN:HG3	2.08	0.54
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.90	0.54
1:C:882:ARG:NH2	1:C:937:LEU:HG	2.22	0.54
1:C:3008:PHE:CZ	1:C:3108:LEU:HD21	2.43	0.54
1:C:3108:LEU:O	1:C:3111:HIS:ND1	2.41	0.54
1:C:3250:TRP:NE1	1:C:3309:LYS:HD3	2.23	0.54
1:C:4239:LEU:HD12	1:C:4308:ILE:HD12	1.90	0.54
1:D:448:PRO:HB2	1:D:451:SER:OG	2.08	0.54
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.08	0.54
1:B:2300:ASP:OD1	1:B:2301:PHE:N	2.41	0.53
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.08	0.53
1:A:2691:LYS:NZ	1:A:2846:GLU:OE2	2.30	0.53
1:A:3008:PHE:CZ	1:A:3108:LEU:HD21	2.43	0.53
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.08	0.53
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.43	0.53
1:C:448:PRO:HB2	1:C:451:SER:OG	2.08	0.53
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.08	0.53
1:C:4113:THR:O	1:C:4117:THR:HG23	2.08	0.53
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.90	0.53
1:D:1420:LEU:HD22	1:D:1564:MET:HE3	1.90	0.53
1:D:3119:GLU:O	1:D:3181:TYR:OH	2.27	0.53
1:D:3903:GLN:NE2	1:D:3964:GLN:OE1	2.41	0.53
1:A:2235:ARG:NH1	1:A:2297:ARG:HE	2.07	0.53
1:A:2936:ALA:O	1:A:2940:ILE:HG12	2.07	0.53
1:B:2666:LEU:HD13	1:B:2966:VAL:HA	1.90	0.53
1:B:3119:GLU:HG3	1:B:3167:PRO:HB3	1.90	0.53
1:C:2300:ASP:OD1	1:C:2301:PHE:N	2.41	0.53
1:C:2957:GLU:HA	1:C:2960:ILE:HG12	1.91	0.53
1:C:3246:MET:HE2	1:C:3276:LEU:CD2	2.38	0.53
1:D:902:TRP:NE1	1:D:915:HIS:HB2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2235:ARG:NH1	1:D:2297:ARG:HE	2.07	0.53
1:D:3119:GLU:HG3	1:D:3167:PRO:HB3	1.89	0.53
1:D:3160:ALA:HB2	1:D:3240:PRO:HB3	1.91	0.53
1:D:4239:LEU:HD12	1:D:4308:ILE:HD12	1.90	0.53
1:A:448:PRO:HB2	1:A:451:SER:OG	2.08	0.53
1:A:2300:ASP:OD1	1:A:2301:PHE:N	2.41	0.53
1:A:2957:GLU:HA	1:A:2960:ILE:HG12	1.91	0.53
1:A:3119:GLU:O	1:A:3181:TYR:OH	2.27	0.53
1:A:3245:TYR:HA	1:A:3249:TRP:CZ3	2.43	0.53
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.08	0.53
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.43	0.53
1:D:2957:GLU:HA	1:D:2960:ILE:HG12	1.91	0.53
1:D:3248:ARG:HD2	1:D:3249:TRP:CE2	2.44	0.53
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.43	0.53
1:A:1420:LEU:HD22	1:A:1564:MET:HE3	1.91	0.53
1:A:2821:TYR:CE2	1:A:2823:PRO:HG3	2.44	0.53
1:A:3248:ARG:HD2	1:A:3249:TRP:CE2	2.44	0.53
1:A:3803:LEU:HB2	1:A:3884:SER:HB2	1.90	0.53
1:A:3879:LEU:O	1:A:3882:GLN:HG3	2.08	0.53
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.09	0.53
1:B:2593:VAL:HG12	1:B:2644:LEU:HD13	1.89	0.53
1:B:3250:TRP:NE1	1:B:3309:LYS:HD3	2.23	0.53
1:D:2821:TYR:CE2	1:D:2823:PRO:HG3	2.44	0.53
2:F:28:THR:HG23	2:F:39:SER:HB2	1.91	0.53
1:B:2821:TYR:CE2	1:B:2823:PRO:HG3	2.44	0.53
1:B:3008:PHE:CZ	1:B:3108:LEU:HD21	2.43	0.53
1:B:3232:PRO:HA	1:B:3235:MET:SD	2.48	0.53
1:B:3248:ARG:HD2	1:B:3249:TRP:CE2	2.44	0.53
1:B:4113:THR:O	1:B:4117:THR:HG23	2.08	0.53
1:C:3805:LEU:HD21	1:C:3888:PHE:HA	1.91	0.53
1:C:3903:GLN:NE2	1:C:3964:GLN:OE1	2.41	0.53
1:A:4664:ASP:OD1	1:A:4665:ARG:N	2.42	0.53
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.08	0.53
1:C:4557:VAL:HG21	1:D:4790:ARG:NH2	2.23	0.53
1:C:4664:ASP:OD1	1:C:4665:ARG:N	2.42	0.53
1:D:3311:LYS:HB2	1:D:3314:LEU:HD13	1.90	0.53
1:A:466:PRO:HG2	1:A:479:LEU:HG	1.91	0.53
1:A:880:ARG:HH11	1:A:881:ILE:HB	1.74	0.53
1:B:3108:LEU:O	1:B:3111:HIS:ND1	2.41	0.53
1:B:3246:MET:HE2	1:B:3276:LEU:CD2	2.36	0.53
1:C:996:VAL:HB	1:C:1051:ARG:NH1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2821:TYR:CE2	1:C:2823:PRO:HG3	2.44	0.53
1:C:2972:ASP:HA	1:C:3035:ILE:CD1	2.39	0.53
1:D:2604:LYS:HD2	1:D:2664:LEU:HD23	1.90	0.53
1:D:3250:TRP:NE1	1:D:3309:LYS:HD3	2.23	0.53
1:D:3805:LEU:HD21	1:D:3888:PHE:HA	1.91	0.53
1:A:902:TRP:NE1	1:A:915:HIS:HB2	2.23	0.53
1:A:2666:LEU:HD13	1:A:2966:VAL:HA	1.90	0.53
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.90	0.53
1:D:2666:LEU:HD13	1:D:2966:VAL:HA	1.90	0.53
1:D:2972:ASP:HA	1:D:3035:ILE:CD1	2.39	0.53
1:A:3160:ALA:HB2	1:A:3240:PRO:HB3	1.91	0.53
2:G:28:THR:HG23	2:G:39:SER:HB2	1.91	0.53
1:B:2593:VAL:HA	1:B:2644:LEU:HD13	1.91	0.53
1:B:4265:LYS:HA	1:B:4268:MET:CG	2.35	0.53
1:C:866:PRO:HD2	1:C:1009:ARG:NH2	2.23	0.53
1:C:2666:LEU:HD13	1:C:2966:VAL:HA	1.90	0.53
1:C:3906:PHE:HB3	1:C:3967:LEU:HD11	1.91	0.53
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.09	0.53
1:D:3108:LEU:O	1:D:3111:HIS:ND1	2.41	0.53
1:D:4664:ASP:OD1	1:D:4665:ARG:N	2.42	0.53
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.90	0.52
1:A:2833:LEU:HB2	1:A:2838[B]:HIS:CE1	2.44	0.52
1:B:2972:ASP:HA	1:B:3035:ILE:CD1	2.39	0.52
1:B:3311:LYS:HB2	1:B:3314:LEU:HD13	1.90	0.52
1:C:2604:LYS:HD2	1:C:2664:LEU:HD23	1.90	0.52
1:C:2998:ASN:HA	1:C:3001:LYS:HG2	1.91	0.52
1:D:2502:LEU:HG	1:D:2507:LEU:HD13	1.91	0.52
1:D:2833:LEU:HD13	1:D:2837:LEU:HD23	1.92	0.52
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.08	0.52
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.08	0.52
1:A:1939:ASN:ND2	1:A:1989:PRO:HG2	2.25	0.52
1:A:2652:LEU:HD11	1:A:2662:PHE:CD1	2.45	0.52
1:A:3035:ILE:HG13	1:A:3036:LEU:HD12	1.91	0.52
1:A:3108:LEU:O	1:A:3111:HIS:ND1	2.41	0.52
1:A:3903:GLN:NE2	1:A:3964:GLN:OE1	2.41	0.52
1:A:3906:PHE:HB3	1:A:3967:LEU:HD11	1.91	0.52
2:H:28:THR:HG23	2:H:39:SER:HB2	1.91	0.52
1:B:448:PRO:HB2	1:B:451:SER:OG	2.08	0.52
1:B:1849:SER:HA	1:B:1852:LYS:HE2	1.92	0.52
1:B:2502:LEU:HG	1:B:2507:LEU:HD13	1.91	0.52
1:B:3906:PHE:HB3	1:B:3967:LEU:HD11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4664:ASP:OD1	1:B:4665:ARG:N	2.42	0.52
1:A:1050:LEU:O	1:A:1054:VAL:HG22	2.10	0.52
1:A:1498:GLN:CD	1:D:2795:GLY:HA2	2.29	0.52
1:A:1849:SER:HA	1:A:1852:LYS:HE2	1.92	0.52
1:A:2998:ASN:HA	1:A:3001:LYS:HG2	1.92	0.52
1:B:4302:PHE:HB3	1:B:4306:PHE:HE2	1.75	0.52
1:B:4622:SER:OG	1:B:4624:ASP:OD1	2.17	0.52
1:C:904:TYR:HD1	1:C:918:LEU:HD12	1.75	0.52
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.09	0.52
1:D:466:PRO:HG2	1:D:479:LEU:HG	1.91	0.52
1:D:2652:LEU:HD11	1:D:2662:PHE:CD1	2.45	0.52
1:A:2502:LEU:HG	1:A:2507:LEU:HD13	1.91	0.52
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.09	0.52
1:A:2833:LEU:HB2	1:A:2838[A]:HIS:CE1	2.44	0.52
1:A:2833:LEU:HD13	1:A:2837:LEU:HD23	1.92	0.52
1:B:2957:GLU:HA	1:B:2960:ILE:HG12	1.91	0.52
1:C:672:LYS:HG2	1:C:819:TYR:HA	1.92	0.52
1:C:880:ARG:HH11	1:C:881:ILE:HB	1.74	0.52
1:C:2235:ARG:NH1	1:C:2297:ARG:HE	2.07	0.52
1:C:3269:ASN:HB3	1:C:3271:GLU:HG3	1.91	0.52
1:D:672:LYS:HG2	1:D:819:TYR:HA	1.91	0.52
1:D:2918:GLU:HA	1:D:2923:TYR:CG	2.45	0.52
1:A:2658:GLU:OE2	1:A:2661:LEU:N	2.24	0.52
1:B:3803:LEU:HB2	1:B:3884:SER:HB2	1.90	0.52
1:C:794:PHE:HB2	1:C:798:ILE:HG13	1.92	0.52
1:C:2502:LEU:HG	1:C:2507:LEU:HD13	1.92	0.52
1:C:3248:ARG:HD2	1:C:3249:TRP:CE2	2.44	0.52
1:C:4302:PHE:HB3	1:C:4306:PHE:HE2	1.75	0.52
1:D:2156:TYR:HE1	1:D:2202:TYR:HE2	1.57	0.52
1:D:3035:ILE:HG13	1:D:3036:LEU:HD12	1.91	0.52
1:D:4302:PHE:HB3	1:D:4306:PHE:HE2	1.75	0.52
1:A:141:ASP:HA	1:D:2337:GLY:O	2.10	0.52
1:A:2918:GLU:HA	1:A:2923:TYR:CG	2.45	0.52
1:A:2972:ASP:HA	1:A:3035:ILE:CD1	2.39	0.52
1:A:3069:GLU:HG3	1:A:3132:ARG:NH2	2.24	0.52
1:A:3072:MET:HE2	1:A:3136:SER:HB2	1.91	0.52
1:A:3269:ASN:HB3	1:A:3271:GLU:HG3	1.92	0.52
1:B:1050:LEU:O	1:B:1054:VAL:HG22	2.10	0.52
1:B:2708:THR:HB	1:B:2780:LYS:HG2	1.92	0.52
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.44	0.52
1:C:2200:LEU:HD22	1:C:2214:MET:SD	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2652:LEU:HD11	1:C:2662:PHE:CD1	2.45	0.52
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.08	0.52
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.44	0.52
1:D:2593:VAL:HA	1:D:2644:LEU:HD13	1.91	0.52
1:D:3069:GLU:HG3	1:D:3132:ARG:NH2	2.24	0.52
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.45	0.52
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.44	0.52
1:A:2200:LEU:HD22	1:A:2214:MET:SD	2.49	0.52
1:A:2604:LYS:HD2	1:A:2664:LEU:HD23	1.90	0.52
1:A:4110:PRO:HG3	1:A:4966:LEU:HD23	1.92	0.52
1:B:904:TYR:HD1	1:B:918:LEU:HD12	1.75	0.52
1:C:1849:SER:HA	1:C:1852:LYS:HE2	1.92	0.52
1:C:3069:GLU:HG3	1:C:3132:ARG:NH2	2.24	0.52
1:C:3122:ILE:O	1:C:3181:TYR:OH	2.28	0.52
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.45	0.52
1:D:904:TYR:HD1	1:D:918:LEU:HD12	1.75	0.52
1:D:1819:VAL:HG13	1:D:1905:GLN:HE22	1.75	0.52
1:D:2200:LEU:HD22	1:D:2214:MET:SD	2.49	0.52
1:A:1245:ARG:NH1	1:A:1808:ASP:OD2	2.43	0.52
1:A:4086:ARG:HH21	1:A:4087:PHE:HE2	1.57	0.52
1:B:672:LYS:HG2	1:B:819:TYR:HA	1.91	0.52
1:B:2833:LEU:HD13	1:B:2837:LEU:HD23	1.92	0.52
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.45	0.52
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.43	0.52
1:C:3016:ARG:HA	1:C:3096:TYR:OH	2.10	0.52
1:D:880:ARG:HH11	1:D:881:ILE:HB	1.74	0.52
1:D:1245:ARG:NH1	1:D:1808:ASP:OD2	2.43	0.52
1:D:4086:ARG:HH21	1:D:4087:PHE:HE2	1.57	0.52
1:A:3311:LYS:HB2	1:A:3314:LEU:HD13	1.90	0.52
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.45	0.52
1:B:3069:GLU:HG3	1:B:3132:ARG:NH2	2.24	0.52
1:B:3122:ILE:O	1:B:3181:TYR:OH	2.28	0.52
1:B:3805:LEU:HD21	1:B:3888:PHE:HA	1.91	0.52
1:B:4896:ASP:OD1	1:B:4897:TYR:N	2.43	0.52
1:D:4110:PRO:HG3	1:D:4966:LEU:HD23	1.92	0.52
1:A:672:LYS:HG2	1:A:819:TYR:HA	1.91	0.52
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.10	0.52
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.43	0.52
1:B:2652:LEU:HD11	1:B:2662:PHE:CD1	2.44	0.52
1:B:3952:ALA:HB1	1:B:4012:MET:HE2	1.92	0.52
1:C:1050:LEU:O	1:C:1054:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2918:GLU:HA	1:C:2923:TYR:CG	2.45	0.52
1:C:4110:PRO:HG3	1:C:4966:LEU:HD23	1.92	0.52
1:A:712:GLU:HG3	1:A:713:TRP:CE3	2.45	0.51
1:A:1228:THR:HG22	1:A:1232:LEU:HD22	1.92	0.51
1:A:2593:VAL:HA	1:A:2644:LEU:HD13	1.91	0.51
1:A:4302:PHE:HB3	1:A:4306:PHE:HE2	1.75	0.51
2:E:28:THR:HG23	2:E:39:SER:HB2	1.91	0.51
1:B:1939:ASN:ND2	1:B:1989:PRO:HG2	2.25	0.51
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.44	0.51
1:B:2200:LEU:HD22	1:B:2214:MET:SD	2.49	0.51
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.44	0.51
1:C:3209:PRO:HB3	1:C:3213:LYS:HD2	1.92	0.51
1:D:1228:THR:HG22	1:D:1232:LEU:HD22	1.92	0.51
1:D:1849:SER:HA	1:D:1852:LYS:HE2	1.92	0.51
1:D:3906:PHE:HB3	1:D:3967:LEU:HD11	1.91	0.51
1:A:904:TYR:HD1	1:A:918:LEU:HD12	1.75	0.51
1:A:1819:VAL:HG13	1:A:1905:GLN:HE22	1.75	0.51
1:A:2708:THR:HB	1:A:2780:LYS:HG2	1.92	0.51
1:B:3160:ALA:HB2	1:B:3240:PRO:HB3	1.91	0.51
1:C:466:PRO:HG2	1:C:479:LEU:HG	1.91	0.51
1:C:1228:THR:HG22	1:C:1232:LEU:HD22	1.92	0.51
1:C:1245:ARG:NH1	1:C:1808:ASP:OD2	2.43	0.51
1:C:2593:VAL:HA	1:C:2644:LEU:HD13	1.91	0.51
1:C:4265:LYS:HA	1:C:4268:MET:CG	2.36	0.51
1:D:3287:ASN:HD21	1:D:3295:TRP:HH2	1.58	0.51
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.10	0.51
1:A:3209:PRO:HB3	1:A:3213:LYS:HD2	1.92	0.51
1:B:1245:ARG:NH1	1:B:1808:ASP:OD2	2.43	0.51
1:B:4086:ARG:HH21	1:B:4087:PHE:HE2	1.57	0.51
1:C:1119:ARG:NH2	1:C:1196:ASP:OD1	2.43	0.51
1:C:2156:TYR:HE1	1:C:2202:TYR:HE2	1.57	0.51
1:C:2833:LEU:HD13	1:C:2837:LEU:HD23	1.92	0.51
1:D:4144:ARG:HB3	1:D:4961:GLN:HE22	1.76	0.51
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.43	0.51
1:A:3245:TYR:HD2	1:A:3246:MET:SD	2.34	0.51
1:A:3287:ASN:HD21	1:A:3295:TRP:HH2	1.58	0.51
1:A:3805:LEU:HD21	1:A:3888:PHE:HA	1.91	0.51
1:B:3035:ILE:HG13	1:B:3036:LEU:HD12	1.91	0.51
1:C:281:ARG:NH1	1:C:345:GLU:OE1	2.44	0.51
1:C:2708:THR:HB	1:C:2780:LYS:HG2	1.92	0.51
1:C:4144:ARG:HB3	1:C:4961:GLN:HE22	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.44	0.51
1:D:4896:ASP:OD1	1:D:4897:TYR:N	2.43	0.51
1:A:794:PHE:HB2	1:A:798:ILE:HG13	1.92	0.51
1:A:1119:ARG:NH2	1:A:1196:ASP:OD1	2.43	0.51
1:A:1988:CYS:O	1:A:1993:ARG:NE	2.38	0.51
1:A:4896:ASP:OD1	1:A:4897:TYR:N	2.43	0.51
1:B:281:ARG:NH1	1:B:345:GLU:OE1	2.44	0.51
1:B:466:PRO:HG2	1:B:479:LEU:HG	1.91	0.51
1:B:2081:VAL:HA	1:B:2084:MET:HE2	1.93	0.51
1:B:3903:GLN:NE2	1:B:3964:GLN:OE1	2.41	0.51
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.10	0.51
1:C:3035:ILE:HG13	1:C:3036:LEU:HD12	1.91	0.51
1:C:4287:TYR:HE1	1:D:4591:TYR:CD2	2.28	0.51
1:D:712:GLU:HG3	1:D:713:TRP:CE3	2.45	0.51
1:D:1119:ARG:NH2	1:D:1196:ASP:OD1	2.43	0.51
1:D:3952:ALA:HB1	1:D:4012:MET:HE2	1.92	0.51
1:A:2081:VAL:HA	1:A:2084:MET:HE2	1.93	0.51
1:B:880:ARG:HH11	1:B:881:ILE:HB	1.74	0.51
1:B:2918:GLU:HA	1:B:2923:TYR:CG	2.45	0.51
1:B:2998:ASN:HA	1:B:3001:LYS:HG2	1.92	0.51
1:B:3245:TYR:HD2	1:B:3246:MET:SD	2.33	0.51
1:C:1939:ASN:ND2	1:C:1989:PRO:HG2	2.25	0.51
1:C:2081:VAL:HA	1:C:2084:MET:HE2	1.93	0.51
1:C:2824:ARG:NH2	1:D:1502:ASN:O	2.44	0.51
1:C:3952:ALA:HB1	1:C:4012:MET:HE2	1.93	0.51
1:A:3016:ARG:HA	1:A:3096:TYR:OH	2.10	0.51
1:B:794:PHE:HB2	1:B:798:ILE:HG13	1.92	0.51
1:B:1819:VAL:HG13	1:B:1905:GLN:HE22	1.75	0.51
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.44	0.51
1:B:3209:PRO:HB3	1:B:3213:LYS:HD2	1.92	0.51
1:C:948:CYS:SG	1:C:1064:LEU:HB3	2.51	0.51
1:C:993:GLU:OE2	1:C:1051:ARG:NE	2.44	0.51
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.76	0.51
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.10	0.51
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.43	0.51
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.76	0.51
1:A:2984:SER:OG	1:A:2994:GLY:O	2.27	0.51
1:A:3011:LEU:HD21	1:A:3036:LEU:HD22	1.93	0.51
1:A:3246:MET:HB3	1:A:3273:MET:HE3	1.93	0.51
1:A:3952:ALA:HB1	1:A:4012:MET:HE2	1.92	0.51
1:A:4059:THR:O	1:A:4063:THR:OG1	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4622:SER:OG	1:A:4624:ASP:OD1	2.17	0.51
1:B:712:GLU:HG3	1:B:713:TRP:CE3	2.46	0.51
1:B:1119:ARG:NH2	1:B:1196:ASP:OD1	2.43	0.51
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.93	0.51
1:C:1819:VAL:HG13	1:C:1905:GLN:HE22	1.75	0.51
1:D:2998:ASN:HA	1:D:3001:LYS:HG2	1.92	0.51
1:D:3016:ARG:HA	1:D:3096:TYR:OH	2.10	0.51
1:D:3245:TYR:HD2	1:D:3246:MET:SD	2.33	0.51
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.93	0.51
1:A:81:MET:O	1:A:81:MET:HG2	2.11	0.51
1:A:1014:GLN:O	1:A:1027:ARG:NH2	2.44	0.51
1:A:2156:TYR:HE1	1:A:2202:TYR:HE2	1.57	0.51
1:B:993:GLU:OE2	1:B:1051:ARG:NE	2.44	0.51
1:B:1228:THR:HG22	1:B:1232:LEU:HD22	1.92	0.51
1:B:2984:SER:OG	1:B:2994:GLY:O	2.27	0.51
1:B:3016:ARG:HA	1:B:3096:TYR:OH	2.10	0.51
1:B:3269:ASN:HB3	1:B:3271:GLU:HG3	1.92	0.51
1:C:81:MET:O	1:C:81:MET:HG2	2.11	0.51
1:C:995:MET:O	1:C:999:LEU:HD23	2.11	0.51
1:D:281:ARG:NH1	1:D:345:GLU:OE1	2.44	0.51
1:D:3209:PRO:HB3	1:D:3213:LYS:HD2	1.92	0.51
1:A:948:CYS:SG	1:A:1064:LEU:HB3	2.51	0.51
1:A:993:GLU:OE2	1:A:1051:ARG:NE	2.44	0.51
1:A:1074:ARG:HH11	1:A:1077:VAL:N	2.06	0.51
1:A:3030:VAL:HA	1:A:3033:LEU:HB2	1.93	0.51
1:A:3227:ARG:HB3	1:A:3230:GLN:OE1	2.11	0.51
1:B:948:CYS:SG	1:B:1064:LEU:HB3	2.51	0.51
1:B:1014:GLN:O	1:B:1027:ARG:NH2	2.44	0.51
1:B:3245:TYR:HA	1:B:3249:TRP:HZ3	1.75	0.51
1:C:712:GLU:HG3	1:C:713:TRP:CE3	2.45	0.51
1:C:3011:LEU:HD21	1:C:3036:LEU:HD22	1.93	0.51
1:D:1074:ARG:HH11	1:D:1077:VAL:N	2.06	0.51
1:D:3269:ASN:HB3	1:D:3271:GLU:HG3	1.91	0.51
1:A:2403:ALA:HB2	1:A:2475:VAL:HG22	1.93	0.50
1:A:2975:PHE:HD1	1:A:2982:PHE:CE1	2.29	0.50
1:B:2235:ARG:NH1	1:B:2297:ARG:HE	2.07	0.50
1:B:2933:VAL:HG12	1:B:3010:LYS:HE2	1.93	0.50
1:C:3160:ALA:HB2	1:C:3240:PRO:HB3	1.91	0.50
1:C:3245:TYR:HD2	1:C:3246:MET:SD	2.33	0.50
1:C:3246:MET:HB3	1:C:3273:MET:HE3	1.93	0.50
1:C:4086:ARG:HH21	1:C:4087:PHE:HE2	1.57	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4896:ASP:OD1	1:C:4897:TYR:N	2.43	0.50
1:D:794:PHE:HB2	1:D:798:ILE:HG13	1.92	0.50
1:D:1050:LEU:O	1:D:1054:VAL:HG22	2.10	0.50
1:D:1939:ASN:ND2	1:D:1989:PRO:HG2	2.25	0.50
1:A:4144:ARG:HB3	1:A:4961:GLN:HE22	1.76	0.50
1:B:4110:PRO:HG3	1:B:4966:LEU:HD23	1.92	0.50
1:B:4144:ARG:HB3	1:B:4961:GLN:HE22	1.76	0.50
1:C:1420:LEU:HD22	1:C:1564:MET:HE3	1.93	0.50
1:C:2975:PHE:HD1	1:C:2982:PHE:CE1	2.29	0.50
1:D:948:CYS:SG	1:D:1064:LEU:HB3	2.51	0.50
1:D:2081:VAL:HA	1:D:2084:MET:HE2	1.93	0.50
1:D:2403:ALA:HB2	1:D:2475:VAL:HG22	1.93	0.50
1:D:2708:THR:HB	1:D:2780:LYS:HG2	1.92	0.50
1:D:3030:VAL:HA	1:D:3033:LEU:HB2	1.93	0.50
1:A:290:ARG:HG3	1:A:353:GLU:HG3	1.94	0.50
1:A:932:ASN:O	1:A:935:MET:HG3	2.12	0.50
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.93	0.50
1:B:2156:TYR:HE1	1:B:2202:TYR:HE2	1.57	0.50
1:B:2691:LYS:NZ	1:B:2846:GLU:OE2	2.30	0.50
1:D:932:ASN:O	1:D:935:MET:HG3	2.12	0.50
1:D:2692:GLN:HG2	1:D:2704:GLN:CD	2.32	0.50
1:A:281:ARG:NH1	1:A:345:GLU:OE1	2.44	0.50
1:A:292:GLY:HA2	1:A:332:ARG:HH12	1.77	0.50
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.43	0.50
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.76	0.50
1:B:995:MET:O	1:B:999:LEU:HD23	2.11	0.50
1:B:3011:LEU:HD21	1:B:3036:LEU:HD22	1.93	0.50
1:C:1711:LEU:HB3	1:C:1831:MET:SD	2.52	0.50
1:C:1732:GLU:HB2	1:C:1753:LEU:HD21	1.94	0.50
1:C:4562:GLU:OE1	1:C:4562:GLU:N	2.45	0.50
1:D:2238:THR:HG21	1:D:2297:ARG:HH12	1.76	0.50
1:D:2975:PHE:HD1	1:D:2982:PHE:CE1	2.29	0.50
1:A:995:MET:O	1:A:999:LEU:HD23	2.11	0.50
1:B:4014:LEU:HD13	1:B:4122:ALA:HB2	1.92	0.50
1:B:4818:TYR:HA	1:C:4848:ILE:HD11	1.94	0.50
1:C:2403:ALA:HB2	1:C:2475:VAL:HG22	1.93	0.50
1:C:2968:LEU:HB3	1:C:2969:PRO:HD3	1.94	0.50
1:C:3245:TYR:HA	1:C:3249:TRP:HZ3	1.76	0.50
1:C:4014:LEU:HD13	1:C:4122:ALA:HB2	1.92	0.50
1:D:829:LYS:NZ	1:D:1037:LEU:O	2.45	0.50
1:D:993:GLU:OE2	1:D:1051:ARG:NE	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2945:GLY:HA2	1:D:2948:ARG:NH2	2.27	0.50
1:A:3118:GLY:O	1:A:3122:ILE:HG22	2.12	0.50
1:B:1682:GLU:HG2	1:B:1683:PRO:HD3	1.94	0.50
1:B:1711:LEU:HB3	1:B:1831:MET:SD	2.52	0.50
1:B:2692:GLN:HG2	1:B:2704:GLN:CD	2.32	0.50
1:C:330:THR:HG23	1:C:366:VAL:HG22	1.94	0.50
1:C:1014:GLN:O	1:C:1027:ARG:NH2	2.44	0.50
1:C:2692:GLN:HG2	1:C:2704:GLN:CD	2.32	0.50
1:C:2933:VAL:HG12	1:C:3010:LYS:HE2	1.94	0.50
1:C:3227:ARG:HB3	1:C:3230:GLN:OE1	2.11	0.50
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.93	0.50
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.12	0.50
1:D:711:GLU:OE1	1:D:716:ASN:ND2	2.44	0.50
1:A:3237:VAL:C	1:A:3240:PRO:HD2	2.32	0.50
1:B:2238:THR:HG21	1:B:2297:ARG:HH12	1.76	0.50
1:B:2968:LEU:HB3	1:B:2969:PRO:HD3	1.94	0.50
1:C:1793:GLN:NE2	1:C:1797:GLU:OE2	2.43	0.50
1:C:2608:LYS:HG2	1:C:2664:LEU:HD11	1.94	0.50
1:C:3030:VAL:HA	1:C:3033:LEU:HB2	1.93	0.50
1:C:4748:MET:O	1:C:4754:ARG:NH2	2.45	0.50
1:D:1014:GLN:O	1:D:1027:ARG:NH2	2.44	0.50
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	1.94	0.50
1:D:2968:LEU:HB3	1:D:2969:PRO:HD3	1.94	0.50
1:D:4748:MET:O	1:D:4754:ARG:NH2	2.45	0.50
1:A:2608:LYS:HG2	1:A:2664:LEU:HD11	1.94	0.50
1:A:2827:ASP:H	1:B:1501:ASN:ND2	2.10	0.50
1:A:2945:GLY:HA2	1:A:2948:ARG:NH2	2.27	0.50
1:B:932:ASN:O	1:B:935:MET:HG3	2.12	0.50
1:B:2608:LYS:HG2	1:B:2664:LEU:HD11	1.94	0.50
1:B:3140:LEU:HD13	1:B:3155:LEU:CD2	2.42	0.50
1:B:4748:MET:O	1:B:4754:ARG:NH2	2.45	0.50
1:C:292:GLY:HA2	1:C:332:ARG:HH12	1.77	0.50
1:C:932:ASN:O	1:C:935:MET:HG3	2.12	0.50
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	1.94	0.50
1:C:3213:LYS:O	1:C:3216:GLU:HG3	2.12	0.50
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.47	0.50
1:D:995:MET:O	1:D:999:LEU:HD23	2.11	0.50
1:D:2608:LYS:HG2	1:D:2664:LEU:HD11	1.94	0.50
1:D:3245:TYR:HA	1:D:3249:TRP:HZ3	1.75	0.50
1:D:4014:LEU:HD13	1:D:4122:ALA:HB2	1.92	0.50
1:A:2935:GLU:O	1:A:2938:GLN:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3140:LEU:HD13	1:A:3155:LEU:CD2	2.42	0.50
1:A:4609:LYS:HD2	1:A:4615:LEU:HD22	1.94	0.50
1:B:829:LYS:NZ	1:B:1037:LEU:O	2.45	0.50
1:B:2890:GLN:HB3	1:B:2894:LYS:HE2	1.94	0.50
1:B:4609:LYS:HD2	1:B:4615:LEU:HD22	1.94	0.50
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.12	0.50
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.76	0.50
1:C:829:LYS:NZ	1:C:1037:LEU:O	2.45	0.50
1:C:1682:GLU:HG2	1:C:1683:PRO:HD3	1.94	0.50
1:C:2945:GLY:HA2	1:C:2948:ARG:NH2	2.27	0.50
1:D:1711:LEU:HB3	1:D:1831:MET:SD	2.52	0.50
1:A:1711:LEU:HB3	1:A:1831:MET:SD	2.52	0.49
1:A:4562:GLU:OE1	1:A:4562:GLU:N	2.45	0.49
1:B:292:GLY:HA2	1:B:332:ARG:HH12	1.77	0.49
1:B:972:LEU:HD23	1:B:972:LEU:H	1.77	0.49
1:B:2403:ALA:HB2	1:B:2475:VAL:HG22	1.93	0.49
1:B:2945:GLY:HA2	1:B:2948:ARG:NH2	2.27	0.49
1:B:3072:MET:HE2	1:B:3136:SER:HB2	1.94	0.49
1:B:3287:ASN:HD21	1:B:3295:TRP:HH2	1.58	0.49
1:C:972:LEU:HD23	1:C:972:LEU:H	1.77	0.49
1:C:3245:TYR:O	1:C:3249:TRP:HE3	1.95	0.49
1:C:4023:LEU:HG	1:C:4084:VAL:HG12	1.93	0.49
1:D:3011:LEU:HD21	1:D:3036:LEU:HD22	1.93	0.49
1:A:2238:THR:HG21	1:A:2297:ARG:HH12	1.76	0.49
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.47	0.49
1:A:4753:LEU:HD21	1:B:4773:LEU:HD13	1.94	0.49
1:B:1732:GLU:HB2	1:B:1753:LEU:HD21	1.94	0.49
1:B:3030:VAL:HA	1:B:3033:LEU:HB2	1.93	0.49
1:B:3237:VAL:C	1:B:3240:PRO:HD2	2.32	0.49
1:B:4023:LEU:HG	1:B:4084:VAL:HG12	1.93	0.49
1:A:705:PRO:HG2	1:A:706:TYR:CE1	2.47	0.49
1:A:972:LEU:HD23	1:A:972:LEU:H	1.77	0.49
1:A:2603:ALA:C	1:A:2606:PRO:HD2	2.33	0.49
1:A:3245:TYR:HA	1:A:3249:TRP:HZ3	1.75	0.49
1:B:1988:CYS:O	1:B:1993:ARG:NE	2.38	0.49
1:B:2603:ALA:C	1:B:2606:PRO:HD2	2.33	0.49
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.47	0.49
1:C:2794:GLU:HG3	1:D:1498:GLN:HB2	1.94	0.49
1:C:4609:LYS:HD2	1:C:4615:LEU:HD22	1.94	0.49
1:D:3118:GLY:O	1:D:3122:ILE:HG22	2.12	0.49
1:D:3227:ARG:HB3	1:D:3230:GLN:OE1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:829:LYS:NZ	1:A:1037:LEU:O	2.45	0.49
1:A:3213:LYS:O	1:A:3216:GLU:HG3	2.12	0.49
1:B:3245:TYR:O	1:B:3249:TRP:HE3	1.95	0.49
1:C:711:GLU:OE1	1:C:716:ASN:ND2	2.44	0.49
1:C:2890:GLN:HB3	1:C:2894:LYS:HE2	1.94	0.49
1:C:3072:MET:HE2	1:C:3136:SER:HB2	1.94	0.49
1:D:1611:ILE:HD11	1:D:1618:LEU:HD22	1.94	0.49
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.12	0.49
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	1.94	0.49
1:A:2182:GLY:HA2	1:A:2185:LYS:HE2	1.94	0.49
1:A:2692:GLN:HG2	1:A:2704:GLN:CD	2.32	0.49
1:A:2918:GLU:HG3	1:A:2923:TYR:CZ	2.48	0.49
1:B:290:ARG:HG3	1:B:353:GLU:HG3	1.94	0.49
1:B:2732:TRP:O	1:B:2736:LYS:HG3	2.13	0.49
1:B:2927:GLN:HA	1:B:2930:ILE:HD12	1.94	0.49
1:B:2935:GLU:O	1:B:2938:GLN:HG3	2.12	0.49
1:B:2975:PHE:HD1	1:B:2982:PHE:CE1	2.29	0.49
1:B:3227:ARG:HB3	1:B:3230:GLN:OE1	2.11	0.49
1:C:290:ARG:HG3	1:C:353:GLU:HG3	1.94	0.49
1:C:2182:GLY:HA2	1:C:2185:LYS:HE2	1.94	0.49
1:C:2736:LYS:HE2	1:C:2754:GLN:NE2	2.28	0.49
1:C:3287:ASN:HD21	1:C:3295:TRP:HH2	1.58	0.49
1:D:3213:LYS:O	1:D:3216:GLU:HG3	2.12	0.49
1:A:2968:LEU:HB3	1:A:2969:PRO:HD3	1.94	0.49
1:A:4014:LEU:HD13	1:A:4122:ALA:HB2	1.92	0.49
1:A:4023:LEU:HG	1:A:4084:VAL:HG12	1.93	0.49
1:B:3118:GLY:O	1:B:3122:ILE:HG22	2.12	0.49
1:B:3213:LYS:O	1:B:3216:GLU:HG3	2.12	0.49
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.48	0.49
1:C:705:PRO:HG2	1:C:706:TYR:CE1	2.48	0.49
1:C:4271:VAL:O	1:D:4480:PHE:HZ	1.95	0.49
1:D:705:PRO:HG2	1:D:706:TYR:CE1	2.48	0.49
1:D:2732:TRP:O	1:D:2736:LYS:HG3	2.13	0.49
1:D:3140:LEU:HD13	1:D:3155:LEU:CD2	2.42	0.49
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.47	0.49
1:A:1686:LEU:HD22	1:A:1790:LYS:HE3	1.94	0.49
1:A:2724:TYR:CE2	1:A:2775:ILE:HG12	2.47	0.49
1:A:3245:TYR:O	1:A:3249:TRP:HE3	1.95	0.49
1:A:3321:PRO:HA	1:A:3324:GLU:HG3	1.94	0.49
1:B:198:ASN:HD22	1:B:198:ASN:C	2.16	0.49
1:B:766:ILE:HB	1:B:779:PHE:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4562:GLU:OE1	1:B:4562:GLU:N	2.45	0.49
1:C:387:ILE:HB	1:C:389:ARG:HG3	1.95	0.49
1:C:2238:THR:HG21	1:C:2297:ARG:HH12	1.76	0.49
1:D:972:LEU:HD23	1:D:972:LEU:H	1.77	0.49
1:D:1686:LEU:HD22	1:D:1790:LYS:HE3	1.94	0.49
1:D:1732:GLU:HB2	1:D:1753:LEU:HD21	1.94	0.49
1:D:2182:GLY:HA2	1:D:2185:LYS:HE2	1.94	0.49
1:D:3237:VAL:C	1:D:3240:PRO:HD2	2.32	0.49
1:A:1793:GLN:NE2	1:A:1797:GLU:OE2	2.43	0.49
1:A:2890:GLN:HB3	1:A:2894:LYS:HE2	1.94	0.49
1:B:330:THR:HG23	1:B:366:VAL:HG22	1.94	0.49
1:C:2603:ALA:C	1:C:2606:PRO:HD2	2.33	0.49
1:D:387:ILE:HB	1:D:389:ARG:HG3	1.95	0.49
1:D:3321:PRO:HA	1:D:3324:GLU:HG3	1.94	0.49
1:D:4622:SER:OG	1:D:4624:ASP:OD1	2.17	0.49
1:A:387:ILE:HB	1:A:389:ARG:HG3	1.95	0.49
1:A:2853:ALA:O	1:A:2857:LYS:HG3	2.13	0.49
1:A:2933:VAL:HG12	1:A:3010:LYS:HE2	1.94	0.49
1:A:3016:ARG:HH21	1:A:3017:HIS:HE1	1.60	0.49
1:A:4640:PHE:CG	1:A:4641:PRO:HD3	2.48	0.49
1:A:4748:MET:O	1:A:4754:ARG:NH2	2.45	0.49
1:B:2853:ALA:O	1:B:2857:LYS:HG3	2.13	0.49
1:C:1686:LEU:HD22	1:C:1790:LYS:HE3	1.94	0.49
1:C:2724:TYR:CE2	1:C:2775:ILE:HG12	2.47	0.49
1:C:3321:PRO:HA	1:C:3324:GLU:HG3	1.94	0.49
1:C:4302:PHE:O	1:C:4306:PHE:HD2	1.96	0.49
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.48	0.49
1:D:292:GLY:HA2	1:D:332:ARG:HH12	1.77	0.49
1:D:2603:ALA:C	1:D:2606:PRO:HD2	2.33	0.49
1:D:2933:VAL:HG12	1:D:3010:LYS:HE2	1.94	0.49
1:D:4302:PHE:O	1:D:4306:PHE:HD2	1.96	0.49
1:A:2827:ASP:H	1:B:1501:ASN:HD21	1.60	0.49
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.12	0.49
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	1.94	0.49
1:C:930:ASN:HA	1:C:933:LEU:HG	1.95	0.49
1:C:2905:ARG:HH11	1:C:2906:GLY:H	1.61	0.49
1:C:2918:GLU:HG3	1:C:2923:TYR:CZ	2.48	0.49
1:C:3016:ARG:HH21	1:C:3017:HIS:HE1	1.60	0.49
1:C:3134:LEU:HD13	1:C:3162:PHE:CE2	2.48	0.49
1:D:2724:TYR:CE2	1:D:2775:ILE:HG12	2.47	0.49
1:D:2905:ARG:HH11	1:D:2906:GLY:H	1.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2918:GLU:HG3	1:D:2923:TYR:CZ	2.48	0.49
1:D:2935:GLU:O	1:D:2938:GLN:HG3	2.12	0.49
1:D:4023:LEU:HG	1:D:4084:VAL:HG12	1.93	0.49
1:D:4562:GLU:N	1:D:4562:GLU:OE1	2.45	0.49
1:A:3241:MET:O	1:A:3245:TYR:HB2	2.13	0.48
1:B:387:ILE:HB	1:B:389:ARG:HG3	1.95	0.48
1:B:2724:TYR:CE2	1:B:2775:ILE:HG12	2.47	0.48
1:C:1611:ILE:HD11	1:C:1618:LEU:HD22	1.94	0.48
1:C:2658:GLU:OE2	1:C:2661:LEU:N	2.24	0.48
1:C:2927:GLN:HA	1:C:2930:ILE:HD12	1.94	0.48
1:C:2935:GLU:O	1:C:2938:GLN:HG3	2.12	0.48
1:D:330:THR:HG23	1:D:366:VAL:HG22	1.94	0.48
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.48	0.48
1:A:766:ILE:HB	1:A:779:PHE:HB2	1.95	0.48
1:A:1611:ILE:HD11	1:A:1618:LEU:HD22	1.94	0.48
1:A:2175:MET:HA	1:A:2178:VAL:HG22	1.95	0.48
1:A:3134:LEU:HD13	1:A:3162:PHE:CE2	2.48	0.48
1:A:3232:PRO:O	1:A:3236:GLU:HG2	2.13	0.48
2:G:19:LYS:HE2	2:G:19:LYS:HA	1.95	0.48
1:B:705:PRO:HG2	1:B:706:TYR:CE1	2.48	0.48
1:B:1611:ILE:HD11	1:B:1618:LEU:HD22	1.94	0.48
1:B:3016:ARG:HH21	1:B:3017:HIS:HE1	1.60	0.48
1:C:1074:ARG:HH11	1:C:1077:VAL:N	2.06	0.48
1:C:3140:LEU:HD13	1:C:3155:LEU:CD2	2.42	0.48
1:C:3237:VAL:C	1:C:3240:PRO:HD2	2.32	0.48
1:C:3287:ASN:ND2	1:C:3295:TRP:CH2	2.81	0.48
1:D:1682:GLU:HG2	1:D:1683:PRO:HD3	1.94	0.48
1:D:4283:PHE:CE1	1:D:4287:TYR:HE2	2.31	0.48
1:A:2580:LEU:HD11	1:A:2584:MET:SD	2.53	0.48
1:A:3115:HIS:HB2	1:A:3117:PHE:H	1.79	0.48
1:A:4698:LEU:HD13	1:D:4262:LYS:HD3	1.94	0.48
2:F:19:LYS:HE2	2:F:19:LYS:HA	1.95	0.48
1:B:2182:GLY:HA2	1:B:2185:LYS:HE2	1.94	0.48
1:B:3321:PRO:HA	1:B:3324:GLU:HG3	1.94	0.48
1:C:766:ILE:HB	1:C:779:PHE:HB2	1.95	0.48
1:C:3118:GLY:O	1:C:3122:ILE:HG22	2.12	0.48
1:D:877:HIS:CE1	1:D:1062:TYR:HH	2.31	0.48
1:D:930:ASN:HA	1:D:933:LEU:HG	1.95	0.48
1:D:2736:LYS:HE2	1:D:2754:GLN:NE2	2.28	0.48
1:D:2754:GLN:OE1	1:D:2754:GLN:HA	2.13	0.48
1:D:3016:ARG:HH21	1:D:3017:HIS:HE1	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1732:GLU:HB2	1:A:1753:LEU:HD21	1.93	0.48
1:A:2754:GLN:HA	1:A:2754:GLN:OE1	2.13	0.48
1:A:2976:LYS:HA	1:A:2979:ARG:CZ	2.43	0.48
1:A:3000:GLU:HA	1:A:3003:MET:HE3	1.95	0.48
1:A:4252:ILE:HG21	1:B:4707:MET:HG3	1.94	0.48
1:B:930:ASN:HA	1:B:933:LEU:HG	1.95	0.48
1:B:2580:LEU:HD11	1:B:2584:MET:SD	2.53	0.48
1:C:2853:ALA:O	1:C:2857:LYS:HG3	2.13	0.48
1:C:3241:MET:O	1:C:3245:TYR:HB2	2.13	0.48
1:D:114:LEU:HB2	1:D:117:HIS:CD2	2.49	0.48
1:D:290:ARG:HG3	1:D:353:GLU:HG3	1.94	0.48
1:D:2927:GLN:HA	1:D:2930:ILE:HD12	1.94	0.48
1:A:2171:VAL:HG21	1:A:2199:PHE:CE2	2.49	0.48
1:A:2824:ARG:NH2	1:B:1502:ASN:O	2.47	0.48
1:A:2905:ARG:HH11	1:A:2906:GLY:H	1.61	0.48
1:B:711:GLU:OE1	1:B:716:ASN:ND2	2.44	0.48
1:B:1420:LEU:HB3	1:B:1564:MET:HE1	1.96	0.48
1:B:2736:LYS:HE2	1:B:2754:GLN:NE2	2.28	0.48
1:C:2580:LEU:HD11	1:C:2584:MET:SD	2.53	0.48
1:C:2754:GLN:OE1	1:C:2754:GLN:HA	2.13	0.48
1:C:3272:HIS:O	1:C:3276:LEU:HD23	2.14	0.48
1:C:4184:GLU:HG3	1:C:4188:LEU:HG	1.95	0.48
1:D:2853:ALA:O	1:D:2857:LYS:HG3	2.13	0.48
1:D:2976:LYS:HA	1:D:2979:ARG:CZ	2.44	0.48
1:D:3115:HIS:HB2	1:D:3117:PHE:H	1.79	0.48
1:D:3287:ASN:ND2	1:D:3295:TRP:CH2	2.81	0.48
1:A:1682:GLU:HG2	1:A:1683:PRO:HD3	1.94	0.48
1:A:2229:LEU:HD23	1:A:2297:ARG:NH1	2.29	0.48
1:A:2855:LYS:O	1:A:2859:GLU:HG3	2.14	0.48
1:A:2927:GLN:HA	1:A:2930:ILE:HD12	1.94	0.48
1:A:4184:GLU:HG3	1:A:4188:LEU:HG	1.95	0.48
1:A:4283:PHE:CE1	1:A:4287:TYR:HE2	2.31	0.48
2:E:63:GLY:HA3	2:E:75:LEU:HD21	1.96	0.48
2:F:63:GLY:HA3	2:F:75:LEU:HD21	1.96	0.48
1:B:2918:GLU:HG3	1:B:2923:TYR:CZ	2.48	0.48
1:C:198:ASN:C	1:C:198:ASN:HD22	2.16	0.48
1:C:853:PRO:O	1:C:1209:VAL:HA	2.14	0.48
1:C:1988:CYS:O	1:C:1993:ARG:NE	2.38	0.48
1:C:2171:VAL:HG21	1:C:2199:PHE:CE2	2.48	0.48
1:D:2171:VAL:HG21	1:D:2199:PHE:CE2	2.48	0.48
1:D:2175:MET:HA	1:D:2178:VAL:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4609:LYS:HD2	1:D:4615:LEU:HD22	1.94	0.48
1:A:114:LEU:HB2	1:A:117:HIS:CD2	2.49	0.48
1:A:2732:TRP:O	1:A:2736:LYS:HG3	2.13	0.48
1:A:3035:ILE:HG13	1:A:3036:LEU:N	2.29	0.48
1:A:4302:PHE:O	1:A:4306:PHE:HD2	1.96	0.48
2:H:63:GLY:HA3	2:H:75:LEU:HD21	1.96	0.48
1:B:1686:LEU:HD22	1:B:1790:LYS:HE3	1.94	0.48
1:C:2976:LYS:HA	1:C:2979:ARG:CZ	2.43	0.48
1:C:3119:GLU:O	1:C:3181:TYR:OH	2.27	0.48
1:C:3232:PRO:O	1:C:3236:GLU:HG2	2.13	0.48
1:C:4283:PHE:CE1	1:C:4287:TYR:HE2	2.31	0.48
1:D:2855:LYS:O	1:D:2859:GLU:HG3	2.14	0.48
1:D:3245:TYR:O	1:D:3249:TRP:HE3	1.95	0.48
1:A:194:LEU:HD11	1:A:201:LEU:HD22	1.95	0.48
1:A:330:THR:HG23	1:A:366:VAL:HG22	1.94	0.48
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.47	0.48
1:B:2171:VAL:HG21	1:B:2199:PHE:CE2	2.48	0.48
1:B:2229:LEU:HD23	1:B:2297:ARG:NH1	2.29	0.48
1:B:2905:ARG:HH11	1:B:2906:GLY:H	1.61	0.48
1:B:3134:LEU:HD13	1:B:3162:PHE:CE2	2.48	0.48
1:B:3241:MET:O	1:B:3245:TYR:HB2	2.13	0.48
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.45	0.48
1:C:2732:TRP:O	1:C:2736:LYS:HG3	2.13	0.48
1:C:3035:ILE:HG13	1:C:3036:LEU:N	2.29	0.48
1:D:2890:GLN:HB3	1:D:2894:LYS:HE2	1.94	0.48
1:D:3134:LEU:HD13	1:D:3162:PHE:CE2	2.48	0.48
1:D:3241:MET:O	1:D:3245:TYR:HB2	2.13	0.48
1:A:198:ASN:C	1:A:198:ASN:HD22	2.16	0.48
1:A:882:ARG:NH2	1:A:937:LEU:N	2.62	0.48
1:A:902:TRP:HA	1:A:913:ARG:HD3	1.96	0.48
1:A:2736:LYS:HE2	1:A:2754:GLN:NE2	2.28	0.48
1:A:3072:MET:CE	1:A:3136:SER:HB2	2.44	0.48
1:A:3272:HIS:O	1:A:3276:LEU:HD23	2.14	0.48
1:B:308:LEU:HD11	1:B:312:LYS:HA	1.96	0.48
1:C:2229:LEU:HD23	1:C:2297:ARG:NH1	2.29	0.48
1:D:3035:ILE:HG13	1:D:3036:LEU:N	2.29	0.48
1:A:2326:ARG:HH22	1:B:189:GLU:HB3	1.78	0.48
1:B:853:PRO:O	1:B:1210:ALA:N	2.39	0.48
1:B:902:TRP:HA	1:B:913:ARG:HD3	1.96	0.48
1:B:2831:VAL:HG22	1:C:1435:GLY:HA2	1.95	0.48
1:B:2976:LYS:HA	1:B:2979:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3031:ASN:HA	1:B:3034:HIS:ND1	2.29	0.48
1:B:4184:GLU:HG3	1:B:4188:LEU:HG	1.95	0.48
1:B:4302:PHE:O	1:B:4306:PHE:HD2	1.96	0.48
1:B:4964:ASP:OD1	1:B:4965:GLN:N	2.47	0.48
1:C:2855:LYS:O	1:C:2859:GLU:HG3	2.14	0.48
1:C:4081:GLU:HG2	1:C:4082:GLU:N	2.29	0.48
1:D:766:ILE:HB	1:D:779:PHE:HB2	1.95	0.48
1:D:3072:MET:CE	1:D:3136:SER:HB2	2.44	0.48
1:D:3108:LEU:HA	1:D:3111:HIS:ND1	2.29	0.48
1:D:3122:ILE:O	1:D:3181:TYR:OH	2.28	0.48
1:D:3192:ARG:HG3	1:D:3197:LEU:HD23	1.96	0.48
1:D:4265:LYS:HA	1:D:4268:MET:CG	2.36	0.48
1:A:853:PRO:O	1:A:1209:VAL:HA	2.14	0.47
1:A:3108:LEU:HA	1:A:3111:HIS:ND1	2.29	0.47
1:A:3287:ASN:ND2	1:A:3295:TRP:CH2	2.81	0.47
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.54	0.47
1:B:882:ARG:NH2	1:B:937:LEU:N	2.62	0.47
1:B:4081:GLU:HG2	1:B:4082:GLU:N	2.29	0.47
1:C:114:LEU:HB2	1:C:117:HIS:CD2	2.49	0.47
1:C:2827:ASP:H	1:D:1501:ASN:HD21	1.62	0.47
1:D:2658:GLU:OE2	1:D:2661:LEU:N	2.24	0.47
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.47	0.47
1:A:2322:ARG:NH1	1:A:2419:ILE:HD11	2.29	0.47
1:A:3254:PRO:HD2	1:A:3267:ALA:HA	1.97	0.47
2:H:19:LYS:HA	2:H:19:LYS:HE2	1.96	0.47
1:B:1074:ARG:HH11	1:B:1077:VAL:N	2.06	0.47
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.45	0.47
1:B:2142:MET:HG2	1:B:2192:MET:CE	2.41	0.47
1:B:2175:MET:HA	1:B:2178:VAL:HG22	1.95	0.47
1:B:2754:GLN:OE1	1:B:2754:GLN:HA	2.13	0.47
1:B:3042:ALA:HB1	1:B:3121:LEU:HB2	1.95	0.47
1:B:4042:VAL:HG12	1:B:4077:THR:HB	1.96	0.47
1:B:4283:PHE:CE1	1:B:4287:TYR:HE2	2.31	0.47
1:C:2998:ASN:O	1:C:3002:GLU:OE1	2.32	0.47
1:C:3108:LEU:HA	1:C:3111:HIS:ND1	2.29	0.47
1:C:4042:VAL:HG12	1:C:4077:THR:HB	1.96	0.47
1:D:1988:CYS:O	1:D:1993:ARG:NE	2.38	0.47
1:D:2322:ARG:NH1	1:D:2419:ILE:HD11	2.29	0.47
1:D:3031:ASN:HA	1:D:3034:HIS:ND1	2.29	0.47
1:D:4964:ASP:OD1	1:D:4965:GLN:N	2.47	0.47
1:A:1768:PHE:O	2:E:83:TYR:OH	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2710:ASN:OD1	1:A:2711:ILE:N	2.48	0.47
1:A:3192:ARG:HG3	1:A:3197:LEU:HD23	1.96	0.47
1:B:194:LEU:HD11	1:B:201:LEU:HD22	1.95	0.47
1:B:2057:THR:HB	1:B:2060:GLN:HG3	1.96	0.47
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.54	0.47
1:D:194:LEU:HD11	1:D:201:LEU:HD22	1.96	0.47
1:D:902:TRP:HA	1:D:913:ARG:HD3	1.96	0.47
1:D:2229:LEU:HD23	1:D:2297:ARG:NH1	2.29	0.47
1:D:2580:LEU:HD11	1:D:2584:MET:SD	2.53	0.47
1:D:3232:PRO:O	1:D:3236:GLU:HG2	2.14	0.47
1:D:3272:HIS:O	1:D:3276:LEU:HD23	2.14	0.47
1:A:2772:ARG:HA	1:A:2775:ILE:HD12	1.96	0.47
1:A:2998:ASN:O	1:A:3002:GLU:OE1	2.32	0.47
1:A:3042:ALA:HB1	1:A:3121:LEU:HB2	1.95	0.47
2:G:63:GLY:HA3	2:G:75:LEU:HD21	1.96	0.47
1:B:3108:LEU:HA	1:B:3111:HIS:ND1	2.29	0.47
1:B:3232:PRO:O	1:B:3236:GLU:HG2	2.13	0.47
1:C:877:HIS:CE1	1:C:1062:TYR:HH	2.31	0.47
1:C:882:ARG:NH2	1:C:937:LEU:N	2.62	0.47
1:C:2175:MET:HA	1:C:2178:VAL:HG22	1.95	0.47
1:C:2710:ASN:OD1	1:C:2711:ILE:N	2.47	0.47
1:C:2760:TYR:HA	1:C:2763:LEU:HD13	1.96	0.47
1:C:3031:ASN:HA	1:C:3034:HIS:ND1	2.29	0.47
1:D:2760:TYR:O	1:D:2768:LYS:NZ	2.46	0.47
1:A:156:GLU:OE1	1:D:2418:ARG:NH2	2.28	0.47
1:A:2235:ARG:NH2	1:A:2300:ASP:OD2	2.40	0.47
1:A:2553:TYR:HE1	1:A:2606:PRO:HG3	1.80	0.47
1:A:3031:ASN:HA	1:A:3034:HIS:ND1	2.29	0.47
2:E:19:LYS:HA	2:E:19:LYS:HE2	1.95	0.47
1:B:853:PRO:O	1:B:1209:VAL:HA	2.14	0.47
1:B:3287:ASN:ND2	1:B:3295:TRP:CH2	2.81	0.47
1:C:3254:PRO:HD2	1:C:3267:ALA:HA	1.97	0.47
1:D:853:PRO:O	1:D:1209:VAL:HA	2.13	0.47
1:D:2235:ARG:NH2	1:D:2300:ASP:OD2	2.41	0.47
1:D:3246:MET:HB3	1:D:3273:MET:HE3	1.96	0.47
1:D:4184:GLU:HG3	1:D:4188:LEU:HG	1.95	0.47
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.54	0.47
1:B:114:LEU:HB2	1:B:117:HIS:CD2	2.49	0.47
1:B:2553:TYR:HE1	1:B:2606:PRO:HG3	1.80	0.47
1:B:3115:HIS:HB2	1:B:3117:PHE:H	1.79	0.47
1:B:3272:HIS:O	1:B:3276:LEU:HD23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2797:SER:HA	1:C:2800:LEU:HG	1.96	0.47
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.54	0.47
1:D:816:PRO:HB2	1:D:819:TYR:CD1	2.50	0.47
1:D:882:ARG:NH2	1:D:937:LEU:N	2.62	0.47
1:D:1444:GLY:HA3	1:D:1487:MET:HA	1.96	0.47
1:D:2852:TRP:O	1:D:2856:LYS:HD3	2.15	0.47
1:D:2984:SER:OG	1:D:2994:GLY:O	2.27	0.47
1:A:711:GLU:OE1	1:A:716:ASN:ND2	2.44	0.47
1:A:824:GLU:HG2	1:A:1020:ILE:HG22	1.96	0.47
1:A:1031:ARG:HG3	1:A:1038:LEU:HD11	1.96	0.47
1:A:1610:ARG:HH21	1:A:1617:TRP:HZ2	1.63	0.47
1:A:2344:LEU:HD22	1:A:2434:GLY:HA3	1.97	0.47
1:A:2760:TYR:O	1:A:2768:LYS:NZ	2.46	0.47
1:A:4081:GLU:HG2	1:A:4082:GLU:N	2.29	0.47
1:B:748:LEU:O	1:B:750:ARG:HG3	2.15	0.47
1:B:1564:MET:HE2	1:B:1564:MET:HA	1.96	0.47
1:B:2235:ARG:NH2	1:B:2300:ASP:OD2	2.41	0.47
1:B:2322:ARG:NH1	1:B:2419:ILE:HD11	2.29	0.47
1:B:2760:TYR:HA	1:B:2763:LEU:HD13	1.96	0.47
1:B:2855:LYS:O	1:B:2859:GLU:HG3	2.14	0.47
1:B:3035:ILE:HG13	1:B:3036:LEU:N	2.29	0.47
1:B:3192:ARG:HG3	1:B:3197:LEU:HD23	1.96	0.47
1:C:308:LEU:HD11	1:C:312:LYS:HA	1.96	0.47
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.80	0.47
1:C:1929:SER:HG	1:C:3620:PHE:HD2	1.61	0.47
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.47	0.47
1:C:2322:ARG:NH1	1:C:2419:ILE:HD11	2.29	0.47
1:C:2553:TYR:HE1	1:C:2606:PRO:HG3	1.80	0.47
1:C:2760:TYR:O	1:C:2768:LYS:NZ	2.46	0.47
1:D:824:GLU:HG2	1:D:1020:ILE:HG22	1.96	0.47
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.47	0.47
1:D:1989:PRO:HD2	1:D:1992:ILE:HD13	1.97	0.47
1:D:2225:SER:HB2	1:D:2240:LEU:HD13	1.96	0.47
1:D:2710:ASN:OD1	1:D:2711:ILE:N	2.48	0.47
1:D:3861:GLN:H	1:D:3867:THR:HG23	1.80	0.47
1:D:4081:GLU:HG2	1:D:4082:GLU:N	2.29	0.47
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.80	0.47
1:A:1016:TRP:HH2	1:A:1024:VAL:HG12	1.80	0.47
1:A:2057:THR:HB	1:A:2060:GLN:HG3	1.96	0.47
1:A:2225:SER:HB2	1:A:2240:LEU:HD13	1.96	0.47
1:A:4042:VAL:HG12	1:A:4077:THR:HB	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:816:PRO:HB2	1:B:819:TYR:CD1	2.50	0.47
1:B:3172:GLU:OE1	1:B:3267:ALA:N	2.48	0.47
1:C:902:TRP:HA	1:C:913:ARG:HD3	1.96	0.47
1:A:930:ASN:HA	1:A:933:LEU:HG	1.95	0.47
1:A:2797:SER:HA	1:A:2800:LEU:HG	1.97	0.47
1:A:3067:ASP:OD1	1:A:3070:LYS:NZ	2.48	0.47
1:B:2250:ASN:HB3	1:B:2253:LEU:HB2	1.97	0.47
1:B:3072:MET:CE	1:B:3136:SER:HB2	2.44	0.47
1:C:3067:ASP:OD1	1:C:3070:LYS:NZ	2.48	0.47
1:D:2250:ASN:HB3	1:D:2253:LEU:HB2	1.97	0.47
1:D:2344:LEU:HD22	1:D:2434:GLY:HA3	1.97	0.47
1:D:2553:TYR:HE1	1:D:2606:PRO:HG3	1.80	0.47
1:D:2886:ARG:O	1:D:2890:GLN:HG2	2.15	0.47
1:D:2918:GLU:HA	1:D:2923:TYR:CD1	2.50	0.47
1:A:2142:MET:HG2	1:A:2192:MET:CE	2.41	0.47
1:A:2827:ASP:N	1:B:1501:ASN:HD21	2.13	0.47
1:A:2886:ARG:O	1:A:2890:GLN:HG2	2.15	0.47
1:A:2918:GLU:HA	1:A:2923:TYR:CD1	2.50	0.47
1:A:4964:ASP:OD1	1:A:4965:GLN:N	2.47	0.47
1:B:1610:ARG:HH21	1:B:1617:TRP:HZ2	1.63	0.47
1:B:2710:ASN:OD1	1:B:2711:ILE:N	2.48	0.47
1:B:2772:ARG:HA	1:B:2775:ILE:HD12	1.96	0.47
1:C:748:LEU:O	1:C:750:ARG:HG3	2.15	0.47
1:C:816:PRO:HB2	1:C:819:TYR:CD1	2.50	0.47
1:C:1610:ARG:HH21	1:C:1617:TRP:HZ2	1.63	0.47
1:C:2772:ARG:HA	1:C:2775:ILE:HD12	1.96	0.47
1:C:2918:GLU:HA	1:C:2923:TYR:CD1	2.50	0.47
1:C:4107:GLU:OE1	1:C:4149:TYR:OH	2.23	0.47
1:C:4964:ASP:OD1	1:C:4965:GLN:N	2.47	0.47
1:D:3012:GLY:HA2	1:D:3015:VAL:HG12	1.97	0.47
1:A:1549:SER:HA	1:D:2832:THR:HG21	1.98	0.46
1:A:1714:TYR:CZ	1:A:1761:MET:HB2	2.50	0.46
1:A:2763:LEU:HB3	1:A:2767:GLU:OE1	2.15	0.46
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.80	0.46
1:B:1644:LEU:HD23	1:B:1651:LEU:HA	1.97	0.46
1:B:2125:GLN:OE1	1:B:2144:ARG:NH2	2.47	0.46
1:B:2344:LEU:HD22	1:B:2434:GLY:HA3	1.97	0.46
1:B:2658:GLU:OE2	1:B:2661:LEU:N	2.24	0.46
1:B:2763:LEU:HB3	1:B:2767:GLU:OE1	2.16	0.46
1:C:2852:TRP:O	1:C:2856:LYS:HD3	2.15	0.46
1:D:81:MET:O	1:D:81:MET:HG2	2.11	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:308:LEU:HD11	1:D:312:LYS:HA	1.96	0.46
1:D:387:ILE:HD12	1:D:389:ARG:HD3	1.97	0.46
1:D:748:LEU:O	1:D:750:ARG:HG3	2.15	0.46
1:D:2998:ASN:O	1:D:3002:GLU:OE1	2.32	0.46
1:A:748:LEU:O	1:A:750:ARG:HG3	2.15	0.46
1:A:1644:LEU:HD23	1:A:1651:LEU:HA	1.97	0.46
1:A:2852:TRP:O	1:A:2856:LYS:HD3	2.15	0.46
1:A:3861:GLN:H	1:A:3867:THR:HG23	1.80	0.46
1:A:4271:VAL:O	1:B:4480:PHE:HZ	1.98	0.46
1:B:1751:ILE:HD11	1:B:1839:LEU:HB2	1.98	0.46
1:B:2830:ASN:HB2	1:C:1434:PRO:O	2.16	0.46
1:B:3067:ASP:OD1	1:B:3070:LYS:NZ	2.48	0.46
1:B:3254:PRO:HD2	1:B:3267:ALA:HA	1.97	0.46
1:C:824:GLU:HG2	1:C:1020:ILE:HG22	1.96	0.46
1:C:1911:GLN:NE2	1:C:2090:ARG:HH11	2.14	0.46
1:C:1989:PRO:HD2	1:C:1992:ILE:HD13	1.97	0.46
1:C:2250:ASN:HB3	1:C:2253:LEU:HB2	1.97	0.46
1:C:2984:SER:OG	1:C:2994:GLY:O	2.27	0.46
1:D:1714:TYR:CZ	1:D:1761:MET:HB2	2.50	0.46
1:D:2763:LEU:HB3	1:D:2767:GLU:OE1	2.16	0.46
1:A:125:TYR:CZ	1:A:417:ARG:HD3	2.51	0.46
1:A:387:ILE:HD12	1:A:389:ARG:HD3	1.97	0.46
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.45	0.46
1:A:2652:LEU:HG	1:A:2962:PHE:HE1	1.79	0.46
1:B:81:MET:O	1:B:81:MET:HG2	2.11	0.46
1:B:1031:ARG:HG3	1:B:1038:LEU:HD11	1.97	0.46
1:B:1714:TYR:CZ	1:B:1761:MET:HB2	2.50	0.46
1:B:2225:SER:HB2	1:B:2240:LEU:HD13	1.96	0.46
1:B:2918:GLU:HA	1:B:2923:TYR:CD1	2.50	0.46
1:B:3119:GLU:O	1:B:3181:TYR:OH	2.27	0.46
1:B:3296:MET:SD	1:B:3334:VAL:HG11	2.56	0.46
1:C:125:TYR:CZ	1:C:417:ARG:HD3	2.51	0.46
1:C:1714:TYR:CZ	1:C:1761:MET:HB2	2.50	0.46
1:C:1751:ILE:HD11	1:C:1839:LEU:HB2	1.98	0.46
1:C:2886:ARG:O	1:C:2890:GLN:HG2	2.15	0.46
1:C:3115:HIS:HB2	1:C:3117:PHE:H	1.79	0.46
1:C:3184:TYR:CE2	1:C:3201:VAL:HB	2.51	0.46
1:C:3861:GLN:H	1:C:3867:THR:HG23	1.80	0.46
1:D:3042:ALA:HB1	1:D:3121:LEU:HB2	1.96	0.46
1:D:3067:ASP:OD1	1:D:3070:LYS:NZ	2.48	0.46
1:D:4042:VAL:HG12	1:D:4077:THR:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:816:PRO:HB2	1:A:819:TYR:CD1	2.50	0.46
1:A:3012:GLY:HA2	1:A:3015:VAL:HG12	1.98	0.46
1:A:3172:GLU:OE1	1:A:3267:ALA:N	2.48	0.46
1:A:4020:PHE:CD1	1:A:4087:PHE:HB3	2.51	0.46
1:B:1016:TRP:HH2	1:B:1024:VAL:HG12	1.80	0.46
1:B:1444:GLY:HA3	1:B:1487:MET:HA	1.96	0.46
1:B:2760:TYR:O	1:B:2768:LYS:NZ	2.46	0.46
1:B:2998:ASN:O	1:B:3002:GLU:OE1	2.32	0.46
1:B:4027:THR:HA	1:B:4032:PHE:HD1	1.81	0.46
1:C:194:LEU:HD11	1:C:201:LEU:HD22	1.96	0.46
1:C:713:TRP:CE2	1:C:1600:PRO:HD3	2.51	0.46
1:C:1991:GLU:HG2	1:C:1992:ILE:HD12	1.98	0.46
1:C:3042:ALA:HB1	1:C:3121:LEU:HB2	1.95	0.46
1:C:3172:GLU:OE1	1:C:3267:ALA:N	2.48	0.46
1:C:3805:LEU:HD11	1:C:3887:ASP:HB3	1.98	0.46
1:C:4020:PHE:CD1	1:C:4087:PHE:HB3	2.51	0.46
1:C:4522:VAL:HG11	1:D:4790:ARG:CD	2.45	0.46
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.80	0.46
1:D:1685:LEU:HD22	1:D:1706:LEU:HB2	1.98	0.46
1:D:1911:GLN:NE2	1:D:2090:ARG:HH11	2.14	0.46
1:D:3297:LYS:NZ	1:D:3334:VAL:HG13	2.31	0.46
1:A:281:ARG:O	1:A:285:SER:OG	2.33	0.46
2:F:43:ARG:NH1	1:B:1766:PRO:O	2.47	0.46
1:B:387:ILE:HD12	1:B:389:ARG:HD3	1.97	0.46
1:B:1929:SER:HG	1:B:3620:PHE:HD2	1.62	0.46
1:B:2077:ASP:O	1:B:2081:VAL:HG23	2.15	0.46
1:B:2652:LEU:HG	1:B:2962:PHE:HE1	1.79	0.46
1:B:2797:SER:HA	1:B:2800:LEU:HG	1.97	0.46
1:B:3122:ILE:HG13	1:B:3127:GLN:HE21	1.81	0.46
1:B:3861:GLN:H	1:B:3867:THR:HG23	1.80	0.46
1:C:915:HIS:NE2	1:C:917:CYS:HB2	2.31	0.46
1:C:1444:GLY:HA3	1:C:1487:MET:HA	1.96	0.46
1:C:3072:MET:CE	1:C:3136:SER:HB2	2.44	0.46
1:C:3192:ARG:HG3	1:C:3197:LEU:HD23	1.96	0.46
1:C:3296:MET:SD	1:C:3334:VAL:HG11	2.56	0.46
1:D:915:HIS:NE2	1:D:917:CYS:HB2	2.31	0.46
1:D:2142:MET:HG2	1:D:2192:MET:CE	2.41	0.46
1:D:2652:LEU:HG	1:D:2962:PHE:HE1	1.80	0.46
1:D:3172:GLU:OE1	1:D:3267:ALA:N	2.48	0.46
1:A:2126:ILE:HD12	1:A:2142:MET:SD	2.56	0.46
1:A:2614:TYR:CD2	1:A:2672:VAL:HG22	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2830:ASN:HB3	1:B:1549:SER:HB2	1.98	0.46
1:A:3184:TYR:CE2	1:A:3201:VAL:HB	2.51	0.46
1:A:3297:LYS:NZ	1:A:3334:VAL:HG13	2.31	0.46
1:B:2614:TYR:CD2	1:B:2672:VAL:HG22	2.51	0.46
1:B:4020:PHE:CD1	1:B:4087:PHE:HB3	2.51	0.46
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.56	0.46
1:C:375:GLN:HG2	1:C:377:VAL:HG13	1.98	0.46
1:C:2225:SER:HB2	1:C:2240:LEU:HD13	1.96	0.46
1:C:2652:LEU:HG	1:C:2962:PHE:HE1	1.79	0.46
1:D:125:TYR:CZ	1:D:417:ARG:HD3	2.51	0.46
1:D:238:HIS:CD2	1:D:239:GLY:H	2.34	0.46
1:A:853:PRO:O	1:A:1210:ALA:N	2.39	0.46
1:A:1435:GLY:HA2	1:D:2831:VAL:HG22	1.97	0.46
1:A:1444:GLY:HA3	1:A:1487:MET:HA	1.96	0.46
1:A:2250:ASN:HB3	1:A:2253:LEU:HB2	1.97	0.46
1:A:2749:ASP:OD1	1:A:2750:SER:N	2.49	0.46
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.56	0.46
1:B:824:GLU:HG2	1:B:1020:ILE:HG22	1.96	0.46
1:B:1991:GLU:HG2	1:B:1992:ILE:HD12	1.98	0.46
1:B:2749:ASP:OD1	1:B:2750:SER:N	2.49	0.46
1:B:2852:TRP:O	1:B:2856:LYS:HD3	2.15	0.46
1:B:3649:ALA:HB1	1:B:3652:PRO:HB2	1.98	0.46
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	1.98	0.46
1:C:3712:LYS:O	1:C:3717:LYS:NZ	2.49	0.46
1:C:3961:ASP:OD1	1:C:3962:SER:N	2.49	0.46
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.56	0.46
1:D:1016:TRP:HH2	1:D:1024:VAL:HG12	1.80	0.46
1:D:2760:TYR:HA	1:D:2763:LEU:HD13	1.96	0.46
1:D:2772:ARG:HA	1:D:2775:ILE:HD12	1.97	0.46
1:D:2957:GLU:O	1:D:2961:LYS:HG2	2.16	0.46
1:D:3184:TYR:CE2	1:D:3201:VAL:HB	2.51	0.46
1:D:3246:MET:HG2	1:D:3273:MET:HE1	1.96	0.46
1:D:3254:PRO:HD2	1:D:3267:ALA:HA	1.97	0.46
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.56	0.46
1:A:308:LEU:HD11	1:A:312:LYS:HA	1.96	0.46
1:A:915:HIS:NE2	1:A:917:CYS:HB2	2.31	0.46
1:A:2957:GLU:O	1:A:2961:LYS:HG2	2.16	0.46
1:A:3122:ILE:O	1:A:3181:TYR:OH	2.28	0.46
1:A:3712:LYS:O	1:A:3717:LYS:NZ	2.49	0.46
1:B:125:TYR:CZ	1:B:417:ARG:HD3	2.51	0.46
1:B:915:HIS:NE2	1:B:917:CYS:HB2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1914:CYS:SG	1:B:2091:GLN:NE2	2.82	0.46
1:B:2126:ILE:HD12	1:B:2142:MET:SD	2.56	0.46
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	1.98	0.46
1:C:2057:THR:HB	1:C:2060:GLN:HG3	1.96	0.46
1:C:2266:VAL:HG11	1:C:2323:LEU:HB3	1.97	0.46
1:C:2344:LEU:HD22	1:C:2434:GLY:HA3	1.97	0.46
1:C:2763:LEU:HB3	1:C:2767:GLU:OE1	2.16	0.46
1:C:3012:GLY:HA2	1:C:3015:VAL:HG12	1.98	0.46
1:C:3122:ILE:HG13	1:C:3127:GLN:HE21	1.80	0.46
1:D:713:TRP:CE2	1:D:1600:PRO:HD3	2.51	0.46
1:D:853:PRO:O	1:D:1210:ALA:N	2.39	0.46
1:D:1610:ARG:HH21	1:D:1617:TRP:HZ2	1.63	0.46
1:D:3712:LYS:O	1:D:3717:LYS:NZ	2.49	0.46
1:A:238:HIS:CD2	1:A:239:GLY:H	2.34	0.46
1:A:877:HIS:CE1	1:A:1062:TYR:HH	2.29	0.46
1:A:3122:ILE:HG13	1:A:3127:GLN:HE21	1.81	0.46
1:A:4867:ILE:HG12	1:B:4864:GLY:HA2	1.98	0.46
1:B:1911:GLN:NE2	1:B:2090:ARG:HH11	2.14	0.46
1:C:2077:ASP:O	1:C:2081:VAL:HG23	2.16	0.46
1:D:292:GLY:HA2	1:D:332:ARG:NH1	2.31	0.46
1:D:1793:GLN:NE2	1:D:1797:GLU:OE2	2.43	0.46
1:D:2057:THR:HB	1:D:2060:GLN:HG3	1.96	0.46
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	1.98	0.46
1:D:3122:ILE:HG13	1:D:3127:GLN:HE21	1.81	0.46
1:D:3129:SER:O	1:D:3133:ILE:HG13	2.16	0.46
1:A:34:LYS:H	1:A:53:SER:HG	1.61	0.46
1:A:1594:VAL:HG13	1:A:1594:VAL:O	2.16	0.46
1:A:2725:ALA:HB1	1:A:2760:TYR:CZ	2.51	0.46
1:A:3296:MET:SD	1:A:3334:VAL:HG11	2.56	0.46
1:B:375:GLN:HG2	1:B:377:VAL:HG13	1.98	0.46
1:C:387:ILE:HD12	1:C:389:ARG:HD3	1.97	0.46
1:C:3649:ALA:HB1	1:C:3652:PRO:HB2	1.98	0.46
1:D:2725:ALA:HB1	1:D:2760:TYR:CZ	2.51	0.46
1:D:2797:SER:HA	1:D:2800:LEU:HG	1.96	0.46
1:D:3148:VAL:HG23	1:D:3155:LEU:HD12	1.98	0.46
1:D:3961:ASP:OD1	1:D:3962:SER:N	2.49	0.46
1:A:713:TRP:CE2	1:A:1600:PRO:HD3	2.51	0.45
1:A:1685:LEU:HD22	1:A:1706:LEU:HB2	1.98	0.45
1:A:1989:PRO:HD2	1:A:1992:ILE:HD13	1.97	0.45
1:A:2760:TYR:HA	1:A:2763:LEU:HD13	1.97	0.45
2:F:63:GLY:O	2:F:67:MET:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:63:GLY:O	2:G:67:MET:HG3	2.17	0.45
1:B:238:HIS:CD2	1:B:239:GLY:H	2.34	0.45
1:B:2725:ALA:HB1	1:B:2760:TYR:CZ	2.51	0.45
1:B:2886:ARG:O	1:B:2890:GLN:HG2	2.15	0.45
1:C:238:HIS:CD2	1:C:239:GLY:H	2.34	0.45
1:C:756:SER:OG	1:C:769:ARG:HB2	2.17	0.45
1:C:1594:VAL:HG13	1:C:1594:VAL:O	2.16	0.45
1:C:2749:ASP:OD1	1:C:2750:SER:N	2.49	0.45
1:D:198:ASN:C	1:D:198:ASN:HD22	2.16	0.45
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.45	0.45
1:D:1594:VAL:O	1:D:1594:VAL:HG13	2.16	0.45
1:D:2749:ASP:OD1	1:D:2750:SER:N	2.49	0.45
1:D:3296:MET:SD	1:D:3334:VAL:HG11	2.56	0.45
1:A:23:GLN:HB3	1:A:34:LYS:HD2	1.98	0.45
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	1.98	0.45
1:A:3961:ASP:OD1	1:A:3962:SER:N	2.49	0.45
1:A:4495:PHE:CE2	1:D:4283:PHE:HE2	2.34	0.45
1:B:1989:PRO:HD2	1:B:1992:ILE:HD13	1.97	0.45
1:B:2266:VAL:HG11	1:B:2323:LEU:HB3	1.97	0.45
1:B:3297:LYS:NZ	1:B:3334:VAL:HG13	2.31	0.45
1:B:3712:LYS:O	1:B:3717:LYS:NZ	2.49	0.45
1:B:3961:ASP:OD1	1:B:3962:SER:N	2.49	0.45
1:C:23:GLN:HB3	1:C:34:LYS:HD2	1.98	0.45
1:C:1031:ARG:HG3	1:C:1038:LEU:HD11	1.97	0.45
1:C:4520:TYR:HB3	1:D:4809:MET:HG2	1.98	0.45
1:D:1031:ARG:HG3	1:D:1038:LEU:HD11	1.97	0.45
1:D:4027:THR:HA	1:D:4032:PHE:HD1	1.81	0.45
1:A:1991:GLU:HG2	1:A:1992:ILE:HD12	1.98	0.45
1:A:2759:PRO:O	1:A:2762:LEU:N	2.50	0.45
1:B:865:ILE:HD12	1:B:865:ILE:HA	1.77	0.45
1:B:1793:GLN:NE2	1:B:1797:GLU:OE2	2.43	0.45
1:B:1842:ILE:HD12	1:B:1845:LEU:HD12	1.98	0.45
1:B:2587:HIS:HB3	1:B:2875:ASP:OD2	2.16	0.45
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	1.98	0.45
1:B:3015:VAL:HA	1:B:3022:PHE:HE2	1.81	0.45
1:B:3805:LEU:HD11	1:B:3887:ASP:HB3	1.98	0.45
1:C:2725:ALA:HB1	1:C:2760:TYR:CZ	2.51	0.45
1:C:3015:VAL:HA	1:C:3022:PHE:HE2	1.81	0.45
1:C:3306:ILE:O	1:C:3310:VAL:HG23	2.16	0.45
1:D:877:HIS:CE1	1:D:1062:TYR:OH	2.70	0.45
1:D:2077:ASP:O	1:D:2081:VAL:HG23	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	1.98	0.45
1:A:3303:SER:HA	1:A:3306:ILE:HG12	1.99	0.45
1:B:2167:MET:SD	1:B:2199:PHE:HZ	2.39	0.45
1:B:2957:GLU:O	1:B:2961:LYS:HG2	2.16	0.45
1:B:3012:GLY:HA2	1:B:3015:VAL:HG12	1.98	0.45
1:B:3184:TYR:CE2	1:B:3201:VAL:HB	2.51	0.45
1:C:1644:LEU:HD23	1:C:1651:LEU:HA	1.97	0.45
1:C:2125:GLN:OE1	1:C:2144:ARG:NH2	2.47	0.45
1:C:2614:TYR:CD2	1:C:2672:VAL:HG22	2.51	0.45
1:C:3303:SER:HA	1:C:3306:ILE:HG12	1.99	0.45
1:C:4283:PHE:HB2	1:D:4488:GLN:HE22	1.82	0.45
1:D:1751:ILE:HD11	1:D:1839:LEU:HB2	1.98	0.45
1:D:1991:GLU:HG2	1:D:1992:ILE:HD12	1.98	0.45
1:D:3303:SER:HA	1:D:3306:ILE:HG12	1.99	0.45
1:A:270:HIS:CE1	1:A:491:GLU:HG3	2.52	0.45
1:A:1751:ILE:HD11	1:A:1839:LEU:HB2	1.98	0.45
1:A:3129:SER:O	1:A:3133:ILE:HG13	2.16	0.45
1:A:3805:LEU:HD11	1:A:3887:ASP:HB3	1.98	0.45
2:H:63:GLY:O	2:H:67:MET:HG3	2.16	0.45
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.99	0.45
1:B:713:TRP:CE2	1:B:1600:PRO:HD3	2.51	0.45
1:B:756:SER:OG	1:B:769:ARG:HB2	2.17	0.45
1:B:3129:SER:O	1:B:3133:ILE:HG13	2.17	0.45
1:C:877:HIS:CE1	1:C:1062:TYR:OH	2.70	0.45
1:C:1914:CYS:SG	1:C:2091:GLN:NE2	2.82	0.45
1:C:4252:ILE:CG2	1:D:4707:MET:HG3	2.46	0.45
1:C:4800:ASP:OD1	1:C:4801:THR:N	2.50	0.45
1:D:1644:LEU:HD23	1:D:1651:LEU:HA	1.97	0.45
1:D:2748:SER:HB2	1:D:2753:VAL:CG2	2.46	0.45
1:D:4503:ARG:HA	1:D:4503:ARG:HD2	1.74	0.45
1:A:375:GLN:HG2	1:A:377:VAL:HG13	1.98	0.45
1:A:756:SER:OG	1:A:769:ARG:HB2	2.17	0.45
1:A:2136:LYS:HD3	1:A:2136:LYS:HA	1.83	0.45
1:A:2785:TRP:CE3	1:A:2787:TRP:CZ2	3.05	0.45
1:A:2830:ASN:HB2	1:B:1434:PRO:O	2.17	0.45
1:B:292:GLY:HA2	1:B:332:ARG:NH1	2.31	0.45
1:B:1594:VAL:O	1:B:1594:VAL:HG13	2.16	0.45
1:B:3148:VAL:HG23	1:B:3155:LEU:HD12	1.98	0.45
1:B:3306:ILE:O	1:B:3310:VAL:HG23	2.16	0.45
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	1.99	0.45
1:C:527:LYS:HE2	1:C:566:GLU:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:890:HIS:HB2	1:C:932:ASN:ND2	2.32	0.45
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	1.98	0.45
1:C:2785:TRP:CE3	1:C:2787:TRP:CZ2	3.05	0.45
1:C:2966:VAL:HG12	1:C:2970:LEU:HD23	1.99	0.45
1:C:3297:LYS:NZ	1:C:3334:VAL:HG13	2.31	0.45
1:D:375:GLN:HG2	1:D:377:VAL:HG13	1.98	0.45
1:D:756:SER:OG	1:D:769:ARG:HB2	2.17	0.45
1:D:890:HIS:HB2	1:D:932:ASN:ND2	2.32	0.45
1:D:2126:ILE:HD12	1:D:2142:MET:SD	2.56	0.45
1:D:2167:MET:SD	1:D:2199:PHE:HZ	2.39	0.45
1:D:3805:LEU:HD11	1:D:3887:ASP:HB3	1.98	0.45
1:D:4020:PHE:CD1	1:D:4087:PHE:HB3	2.51	0.45
1:A:292:GLY:HA2	1:A:332:ARG:NH1	2.31	0.45
1:A:1842:ILE:HD12	1:A:1845:LEU:HD12	1.98	0.45
1:A:2966:VAL:HG12	1:A:2970:LEU:HD23	1.99	0.45
1:A:3246:MET:O	1:A:3250:TRP:HD1	1.99	0.45
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	1.98	0.45
1:B:270:HIS:CE1	1:B:491:GLU:HG3	2.52	0.45
1:B:877:HIS:CE1	1:B:1062:TYR:HH	2.31	0.45
1:B:904:TYR:CD1	1:B:918:LEU:HD12	2.52	0.45
1:B:1685:LEU:HD22	1:B:1706:LEU:HB2	1.98	0.45
1:B:2264:LYS:O	1:B:2267:ARG:HG2	2.17	0.45
1:B:2748:SER:HB2	1:B:2753:VAL:CG2	2.46	0.45
1:B:3043:ARG:HA	1:B:3120:ASP:OD2	2.17	0.45
1:B:4800:ASP:OD1	1:B:4801:THR:N	2.50	0.45
1:C:1047:LYS:O	1:C:1051:ARG:HG2	2.17	0.45
1:C:2957:GLU:O	1:C:2961:LYS:HG2	2.16	0.45
1:C:3129:SER:O	1:C:3133:ILE:HG13	2.16	0.45
1:D:2614:TYR:CD2	1:D:2672:VAL:HG22	2.51	0.45
1:D:3043:ARG:HA	1:D:3120:ASP:OD2	2.17	0.45
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.99	0.45
1:A:1176:THR:HG22	1:A:1181:ILE:HA	1.99	0.45
1:A:2077:ASP:O	1:A:2081:VAL:HG23	2.15	0.45
1:A:2748:SER:HB2	1:A:2753:VAL:CG2	2.46	0.45
1:A:3043:ARG:HA	1:A:3120:ASP:OD2	2.17	0.45
1:B:877:HIS:CE1	1:B:1062:TYR:OH	2.70	0.45
1:B:3303:SER:HA	1:B:3306:ILE:HG12	1.99	0.45
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.99	0.45
1:C:2126:ILE:HD12	1:C:2142:MET:SD	2.56	0.45
1:C:3043:ARG:HA	1:C:3120:ASP:OD2	2.17	0.45
1:C:3046:MET:HA	1:C:3054:LYS:NZ	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1176:THR:HG22	1:D:1181:ILE:HA	1.99	0.45
1:A:3250:TRP:CH2	1:A:3273:MET:HG3	2.52	0.45
1:A:4027:THR:HA	1:A:4032:PHE:HD1	1.81	0.45
1:A:4089:GLU:HB2	1:A:4090:PRO:HD3	1.99	0.45
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	1.99	0.45
1:B:527:LYS:HE2	1:B:566:GLU:HB2	1.99	0.45
1:B:3250:TRP:CH2	1:B:3273:MET:HG3	2.52	0.45
1:C:2925:PHE:CE2	1:C:2929:LEU:HD11	2.52	0.45
1:D:270:HIS:CE1	1:D:491:GLU:HG3	2.52	0.45
1:D:2785:TRP:CE3	1:D:2787:TRP:CZ2	3.05	0.45
1:D:3306:ILE:O	1:D:3310:VAL:HG23	2.16	0.45
1:A:2125:GLN:OE1	1:A:2144:ARG:NH2	2.47	0.45
1:A:2167:MET:SD	1:A:2199:PHE:HZ	2.39	0.45
1:A:2264:LYS:O	1:A:2267:ARG:HG2	2.17	0.45
1:A:2587:HIS:HB3	1:A:2875:ASP:OD2	2.16	0.45
1:A:3306:ILE:O	1:A:3310:VAL:HG23	2.16	0.45
2:E:63:GLY:O	2:E:67:MET:HG3	2.17	0.45
1:B:2488:LEU:HA	1:B:2492:PHE:HB2	1.99	0.45
1:B:2785:TRP:CE3	1:B:2787:TRP:CZ2	3.05	0.45
1:C:270:HIS:CE1	1:C:491:GLU:HG3	2.52	0.45
1:C:1842:ILE:HD12	1:C:1845:LEU:HD12	1.98	0.45
1:D:2266:VAL:HG11	1:D:2323:LEU:HB3	1.97	0.45
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.99	0.45
1:D:2925:PHE:CE2	1:D:2929:LEU:HD11	2.52	0.45
1:D:3649:ALA:HB1	1:D:3652:PRO:HB2	1.98	0.45
1:D:4084:VAL:O	1:D:4088:HIS:CB	2.65	0.45
1:A:3015:VAL:HA	1:A:3022:PHE:HE2	1.81	0.44
1:A:3284:ILE:HA	1:A:3287:ASN:OD1	2.17	0.44
1:B:23:GLN:HB3	1:B:34:LYS:HD2	1.98	0.44
1:B:890:HIS:HB2	1:B:932:ASN:ND2	2.32	0.44
1:B:2732:TRP:CD2	1:B:2736:LYS:NZ	2.85	0.44
1:B:4863:GLN:OE1	1:C:4860:ALA:HB2	2.17	0.44
1:C:1016:TRP:HH2	1:C:1024:VAL:HG12	1.80	0.44
1:C:1169:ASN:OD1	1:C:1170:GLU:HG2	2.17	0.44
1:C:1939:ASN:HD21	1:C:1989:PRO:HG2	1.82	0.44
1:C:2732:TRP:CD2	1:C:2736:LYS:NZ	2.85	0.44
1:C:2896:LEU:HG	1:C:2901:TYR:HB2	2.00	0.44
1:D:23:GLN:HB3	1:D:34:LYS:HD2	1.98	0.44
1:D:527:LYS:HE2	1:D:566:GLU:HB2	1.98	0.44
1:D:2587:HIS:HA	1:D:2590:ARG:HH11	1.83	0.44
1:A:527:LYS:HE2	1:A:566:GLU:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1788:LYS:HG3	1:A:1834:PHE:CE1	2.53	0.44
1:A:2896:LEU:HG	1:A:2901:TYR:HB2	1.99	0.44
1:A:3148:VAL:HG23	1:A:3155:LEU:HD12	1.98	0.44
1:A:4800:ASP:OD1	1:A:4801:THR:N	2.50	0.44
1:B:1047:LYS:O	1:B:1051:ARG:HG2	2.17	0.44
1:B:2759:PRO:O	1:B:2762:LEU:N	2.50	0.44
1:B:3149:GLU:O	1:B:3152:ARG:HG2	2.17	0.44
1:C:2167:MET:SD	1:C:2199:PHE:HZ	2.39	0.44
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.99	0.44
1:C:3148:VAL:HG23	1:C:3155:LEU:HD12	1.98	0.44
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.99	0.44
1:D:2966:VAL:HG12	1:D:2970:LEU:HD23	1.99	0.44
1:D:3250:TRP:CH2	1:D:3273:MET:HG3	2.52	0.44
1:D:4800:ASP:OD1	1:D:4801:THR:N	2.50	0.44
1:A:890:HIS:HB2	1:A:932:ASN:ND2	2.32	0.44
1:A:2266:VAL:HG11	1:A:2323:LEU:HB3	1.97	0.44
1:A:3649:ALA:HB1	1:A:3652:PRO:HB2	1.98	0.44
1:A:4818:TYR:HA	1:B:4848:ILE:HD11	1.98	0.44
1:B:2322:ARG:O	1:B:2326:ARG:HG2	2.17	0.44
1:B:3284:ILE:HA	1:B:3287:ASN:OD1	2.17	0.44
1:C:2587:HIS:HB3	1:C:2875:ASP:OD2	2.16	0.44
1:C:3149:GLU:O	1:C:3152:ARG:HG2	2.17	0.44
1:C:4084:VAL:O	1:C:4088:HIS:CB	2.65	0.44
1:D:1979:PHE:HB3	1:D:1986:CYS:SG	2.57	0.44
1:A:1272:ARG:NH2	1:A:1582:CYS:SG	2.91	0.44
1:A:1825:PHE:CE1	1:A:1842:ILE:HG12	2.53	0.44
1:A:2587:HIS:HA	1:A:2590:ARG:HH11	1.82	0.44
1:A:3111:HIS:HB2	1:A:3115:HIS:HE1	1.82	0.44
1:A:3114:GLN:HE21	1:A:3115:HIS:CE1	2.36	0.44
1:B:1176:THR:HG22	1:B:1181:ILE:HA	1.99	0.44
1:B:2925:PHE:CE2	1:B:2929:LEU:HD11	2.52	0.44
1:C:181:LEU:N	1:C:212:TRP:O	2.45	0.44
1:C:292:GLY:HA2	1:C:332:ARG:NH1	2.31	0.44
1:C:1685:LEU:HD22	1:C:1706:LEU:HB2	1.98	0.44
1:C:3994:THR:O	1:C:3998:GLN:HG3	2.18	0.44
1:D:281:ARG:O	1:D:285:SER:OG	2.33	0.44
1:D:2082:ARG:HG3	1:D:3687:LEU:HD22	2.00	0.44
1:D:2587:HIS:HB3	1:D:2875:ASP:OD2	2.16	0.44
1:D:3015:VAL:HA	1:D:3022:PHE:HE2	1.81	0.44
1:D:3284:ILE:HA	1:D:3287:ASN:OD1	2.18	0.44
1:A:2322:ARG:O	1:A:2326:ARG:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3994:THR:O	1:A:3998:GLN:HG3	2.18	0.44
1:B:1169:ASN:OD1	1:B:1170:GLU:HG2	2.17	0.44
1:B:1788:LYS:HG3	1:B:1834:PHE:CE1	2.53	0.44
1:B:2422:ILE:O	1:B:2426:LEU:HG	2.18	0.44
1:B:2896:LEU:HG	1:B:2901:TYR:HB2	1.99	0.44
1:B:3046:MET:HA	1:B:3054:LYS:NZ	2.32	0.44
1:B:3994:THR:O	1:B:3998:GLN:HG3	2.18	0.44
1:B:4084:VAL:O	1:B:4088:HIS:CB	2.66	0.44
1:B:4867:ILE:HG12	1:C:4864:GLY:HA2	1.99	0.44
1:C:227:TYR:CG	1:C:352:SER:HB3	2.53	0.44
1:C:853:PRO:O	1:C:1210:ALA:N	2.39	0.44
1:C:1819:VAL:HG13	1:C:1905:GLN:NE2	2.33	0.44
1:C:2670:SER:HB2	1:C:2973:GLN:CG	2.47	0.44
1:D:1842:ILE:HD12	1:D:1845:LEU:HD12	1.98	0.44
1:D:2348:GLU:HA	1:D:2351:ILE:HG12	2.00	0.44
1:D:3000:GLU:HA	1:D:3003:MET:HE3	1.98	0.44
1:D:3072:MET:HE2	1:D:3136:SER:HB2	1.98	0.44
1:A:897:LYS:HA	1:A:900:LEU:HG	2.00	0.44
1:A:1034:PRO:HG2	1:A:1037:LEU:HB2	2.00	0.44
1:A:1911:GLN:NE2	1:A:2090:ARG:HH11	2.14	0.44
1:A:2348:GLU:HA	1:A:2351:ILE:HG12	2.00	0.44
1:B:308:LEU:HD13	1:B:393:MET:HG3	2.00	0.44
1:B:928:GLU:HA	1:B:931:TYR:HD2	1.82	0.44
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.33	0.44
1:B:2932:TYR:CE2	1:B:2963:PHE:HD1	2.36	0.44
1:C:1788:LYS:HG3	1:C:1834:PHE:CE1	2.53	0.44
1:C:2348:GLU:HA	1:C:2351:ILE:HG12	1.99	0.44
1:C:2748:SER:HB2	1:C:2753:VAL:CG2	2.46	0.44
1:C:3284:ILE:HA	1:C:3287:ASN:OD1	2.18	0.44
1:C:4089:GLU:HB2	1:C:4090:PRO:HD3	1.99	0.44
1:D:227:TYR:CG	1:D:352:SER:HB3	2.53	0.44
1:D:1788:LYS:HG3	1:D:1834:PHE:CE1	2.53	0.44
1:D:3114:GLN:HE21	1:D:3115:HIS:CE1	2.36	0.44
1:A:1169:ASN:OD1	1:A:1170:GLU:HG2	2.17	0.44
1:A:1434:PRO:O	1:D:2830:ASN:HB2	2.17	0.44
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.33	0.44
1:A:2732:TRP:CD2	1:A:2736:LYS:NZ	2.85	0.44
1:B:281:ARG:O	1:B:285:SER:OG	2.33	0.44
1:B:1272:ARG:NH2	1:B:1582:CYS:SG	2.91	0.44
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.99	0.44
1:B:2966:VAL:HG12	1:B:2970:LEU:HD23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1034:PRO:HG2	1:C:1037:LEU:HB2	2.00	0.44
1:C:1041:ARG:O	1:C:1044:LYS:HG3	2.17	0.44
1:C:3250:TRP:CH2	1:C:3273:MET:HG3	2.52	0.44
1:D:1041:ARG:O	1:D:1044:LYS:HG3	2.17	0.44
1:D:1169:ASN:OD1	1:D:1170:GLU:HG2	2.17	0.44
1:D:1825:PHE:CE1	1:D:1842:ILE:HG12	2.53	0.44
1:D:1967:SER:O	1:D:1972:GLN:NE2	2.49	0.44
1:D:2255:LEU:HD21	1:D:3813:LYS:HD3	2.00	0.44
1:D:2264:LYS:O	1:D:2267:ARG:HG2	2.17	0.44
1:D:2759:PRO:O	1:D:2762:LEU:N	2.50	0.44
1:D:2932:TYR:CE2	1:D:2963:PHE:HD1	2.36	0.44
1:A:841:LYS:O	1:A:848:ARG:NH2	2.50	0.44
1:A:928:GLU:HA	1:A:931:TYR:HD2	1.82	0.44
1:A:1979:PHE:HB3	1:A:1986:CYS:SG	2.57	0.44
1:A:2255:LEU:HD21	1:A:3813:LYS:HD3	2.00	0.44
1:A:2925:PHE:CE2	1:A:2929:LEU:HD11	2.52	0.44
1:A:3046:MET:HA	1:A:3054:LYS:NZ	2.32	0.44
1:B:3114:GLN:HE21	1:B:3115:HIS:CE1	2.36	0.44
1:C:778:MET:HG2	1:C:1468:THR:HB	2.00	0.44
1:C:1989:PRO:O	1:C:1993:ARG:HG3	2.18	0.44
1:C:2255:LEU:HD21	1:C:3813:LYS:HD3	2.00	0.44
1:C:2422:ILE:O	1:C:2426:LEU:HG	2.18	0.44
1:C:2759:PRO:O	1:C:2762:LEU:N	2.50	0.44
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.33	0.44
1:D:1989:PRO:O	1:D:1993:ARG:HG3	2.18	0.44
1:D:2322:ARG:O	1:D:2326:ARG:HG2	2.18	0.44
1:A:218:SER:HB2	1:A:286:GLY:HA3	2.00	0.44
1:A:472:HIS:O	1:A:476:GLN:HG2	2.18	0.44
1:A:877:HIS:CE1	1:A:1062:TYR:OH	2.70	0.44
1:A:1819:VAL:HG13	1:A:1905:GLN:NE2	2.33	0.44
1:A:2422:ILE:O	1:A:2426:LEU:HG	2.18	0.44
1:A:4084:VAL:O	1:A:4088:HIS:CB	2.65	0.44
1:B:1041:ARG:O	1:B:1044:LYS:HG3	2.17	0.44
1:B:1819:VAL:HG13	1:B:1905:GLN:NE2	2.33	0.44
1:B:1939:ASN:HD21	1:B:1989:PRO:HG2	1.82	0.44
1:B:1979:PHE:HB3	1:B:1986:CYS:SG	2.58	0.44
1:B:1989:PRO:O	1:B:1993:ARG:HG3	2.18	0.44
1:B:2635:GLU:HA	1:B:2638:LEU:HB2	2.00	0.44
1:B:3650:GLU:HG2	1:B:3660:ARG:CZ	2.48	0.44
1:C:1176:THR:HG22	1:C:1181:ILE:HA	1.99	0.44
1:C:1825:PHE:CE1	1:C:1842:ILE:HG12	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2082:ARG:HG3	1:C:3687:LEU:HD22	2.00	0.44
1:C:2136:LYS:HA	1:C:2136:LYS:HD3	1.83	0.44
1:C:2264:LYS:O	1:C:2267:ARG:HG2	2.17	0.44
1:C:2488:LEU:HA	1:C:2492:PHE:HB2	1.99	0.44
1:C:2635:GLU:HA	1:C:2638:LEU:HB2	2.00	0.44
1:C:2668:CYS:O	1:C:2672:VAL:HG23	2.18	0.44
1:D:903:GLN:OE1	1:D:913:ARG:HD2	2.18	0.44
1:D:1047:LYS:O	1:D:1051:ARG:HG2	2.17	0.44
1:D:2488:LEU:HA	1:D:2492:PHE:HB2	1.99	0.44
1:D:2896:LEU:HG	1:D:2901:TYR:HB2	2.00	0.44
1:D:3046:MET:HA	1:D:3054:LYS:NZ	2.32	0.44
1:D:4650:LYS:HB3	1:D:4672:MET:HE2	2.00	0.44
1:B:1966:ARG:HB3	1:B:3602:CYS:HB3	2.00	0.43
1:C:999:LEU:HB3	1:C:1050:LEU:HD21	2.00	0.43
1:C:1966:ARG:HB3	1:C:3602:CYS:HB3	2.00	0.43
1:C:2943:PHE:CE1	1:C:2955:PRO:HD2	2.53	0.43
1:D:841:LYS:O	1:D:848:ARG:NH2	2.50	0.43
1:D:897:LYS:HA	1:D:900:LEU:HG	2.00	0.43
1:D:904:TYR:CD1	1:D:918:LEU:HD12	2.52	0.43
1:D:1827:THR:O	1:D:1831:MET:HG3	2.18	0.43
1:D:1914:CYS:SG	1:D:2091:GLN:NE2	2.82	0.43
1:D:2413:LYS:NZ	1:D:2415:GLU:HB3	2.33	0.43
1:D:2635:GLU:HA	1:D:2638:LEU:HB2	2.00	0.43
1:D:3111:HIS:HB2	1:D:3115:HIS:HE1	1.82	0.43
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	1.99	0.43
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	2.01	0.43
1:A:1040:ASP:HA	1:A:1043:LYS:HG2	2.00	0.43
1:A:1047:LYS:O	1:A:1051:ARG:HG2	2.17	0.43
1:A:2082:ARG:HG3	1:A:3687:LEU:HD22	2.00	0.43
1:A:2635:GLU:HA	1:A:2638:LEU:HB2	2.00	0.43
1:B:472:HIS:O	1:B:476:GLN:HG2	2.18	0.43
1:B:2057:THR:HG22	1:B:2059:GLN:H	1.83	0.43
1:C:904:TYR:CD1	1:C:918:LEU:HD12	2.52	0.43
1:C:3111:HIS:HB2	1:C:3115:HIS:HE1	1.83	0.43
1:C:3305:PRO:HB2	1:C:3309:LYS:NZ	2.33	0.43
1:D:999:LEU:HB3	1:D:1050:LEU:HD21	2.00	0.43
1:D:1040:ASP:HA	1:D:1043:LYS:HG2	2.00	0.43
1:D:1272:ARG:NH2	1:D:1582:CYS:SG	2.91	0.43
1:D:1491:GLY:HA2	1:D:1494:MET:HE2	2.00	0.43
1:D:2222:LEU:HD23	1:D:2222:LEU:HA	1.86	0.43
1:D:2422:ILE:O	1:D:2426:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2943:PHE:CE1	1:D:2955:PRO:HD2	2.53	0.43
1:A:227:TYR:CG	1:A:352:SER:HB3	2.53	0.43
1:A:1292:SER:O	1:D:2835:ARG:NH2	2.36	0.43
1:A:1551:ASN:HB2	1:D:2830:ASN:ND2	2.33	0.43
1:A:1975:MET:HA	1:A:1978:ASN:ND2	2.33	0.43
1:A:2488:LEU:HA	1:A:2492:PHE:HB2	1.99	0.43
1:A:2932:TYR:CE2	1:A:2963:PHE:HD1	2.36	0.43
1:A:3650:GLU:HG2	1:A:3660:ARG:CZ	2.48	0.43
1:B:227:TYR:CG	1:B:352:SER:HB3	2.53	0.43
1:B:778:MET:HG2	1:B:1468:THR:HB	2.00	0.43
1:B:1825:PHE:CE1	1:B:1842:ILE:HG12	2.53	0.43
1:B:2255:LEU:HD21	1:B:3813:LYS:HD3	2.00	0.43
1:B:2619:LYS:HB3	1:B:2623:LEU:HD12	1.99	0.43
1:B:2668:CYS:O	1:B:2672:VAL:HG23	2.18	0.43
1:B:4089:GLU:HB2	1:B:4090:PRO:HD3	1.99	0.43
1:B:4607:ALA:HB1	1:B:4649:VAL:HG21	2.00	0.43
1:C:472:HIS:O	1:C:476:GLN:HG2	2.18	0.43
1:C:1272:ARG:NH2	1:C:1582:CYS:SG	2.91	0.43
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.33	0.43
1:C:1979:PHE:HB3	1:C:1986:CYS:SG	2.58	0.43
1:C:3043:ARG:HB3	1:C:3047:LYS:HE2	2.01	0.43
1:C:3650:GLU:HG2	1:C:3660:ARG:CZ	2.48	0.43
1:C:4252:ILE:HG21	1:D:4707:MET:HG3	1.99	0.43
1:D:928:GLU:HA	1:D:931:TYR:HD2	1.82	0.43
1:D:3983:LEU:HD21	1:D:4100:VAL:HG12	2.00	0.43
1:A:778:MET:HG2	1:A:1468:THR:HB	2.00	0.43
1:A:903:GLN:OE1	1:A:913:ARG:HD2	2.18	0.43
1:A:904:TYR:CD1	1:A:918:LEU:HD12	2.52	0.43
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.99	0.43
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	2.00	0.43
1:B:1040:ASP:HA	1:B:1043:LYS:HG2	2.00	0.43
1:B:2062:ILE:HG21	1:B:2087:LEU:HG	2.00	0.43
1:B:2348:GLU:HA	1:B:2351:ILE:HG12	2.00	0.43
1:C:308:LEU:HD13	1:C:393:MET:HG3	2.00	0.43
1:C:658:ASN:ND2	1:C:831:LYS:O	2.50	0.43
1:C:917:CYS:HB3	1:C:924:LEU:HD12	2.00	0.43
1:C:1048:ASP:HA	1:C:1051:ARG:CG	2.49	0.43
1:C:1967:SER:O	1:C:1972:GLN:NE2	2.49	0.43
1:C:2587:HIS:HA	1:C:2590:ARG:HH11	1.83	0.43
1:C:2726:GLU:OE1	1:C:2726:GLU:N	2.51	0.43
1:C:2932:TYR:CE2	1:C:2963:PHE:HD1	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	1.99	0.43
1:D:308:LEU:HD13	1:D:393:MET:HG3	2.00	0.43
1:D:658:ASN:ND2	1:D:831:LYS:O	2.50	0.43
1:D:1034:PRO:HG2	1:D:1037:LEU:HB2	2.00	0.43
1:D:1939:ASN:HD21	1:D:1989:PRO:HG2	1.82	0.43
1:D:1966:ARG:HB3	1:D:3602:CYS:HB3	2.00	0.43
1:D:2914:THR:N	1:D:2915:PRO:HD2	2.34	0.43
1:A:917:CYS:HB3	1:A:924:LEU:HD12	2.00	0.43
1:A:1041:ARG:O	1:A:1044:LYS:HG3	2.18	0.43
1:A:1719:LEU:HD21	1:A:1830:ILE:HD12	2.01	0.43
1:A:1989:PRO:O	1:A:1993:ARG:HG3	2.18	0.43
1:A:2413:LYS:NZ	1:A:2415:GLU:HB3	2.33	0.43
1:A:3324:GLU:HA	1:A:3327:LYS:NZ	2.33	0.43
1:A:3983:LEU:HD21	1:A:4100:VAL:HG12	2.00	0.43
1:A:4275:THR:HG22	1:A:4278:ASP:H	1.84	0.43
1:A:4607:ALA:HB1	1:A:4649:VAL:HG21	2.00	0.43
1:B:897:LYS:HA	1:B:900:LEU:HG	2.00	0.43
1:B:1719:LEU:HD21	1:B:1830:ILE:HD12	2.01	0.43
1:B:2413:LYS:NZ	1:B:2415:GLU:HB3	2.33	0.43
1:B:3305:PRO:HB2	1:B:3309:LYS:NZ	2.34	0.43
1:B:4275:THR:HG22	1:B:4278:ASP:H	1.84	0.43
1:C:1040:ASP:HA	1:C:1043:LYS:HG2	2.00	0.43
1:C:4522:VAL:HG22	1:D:4807:ASP:O	2.18	0.43
1:D:218:SER:HB2	1:D:286:GLY:HA3	2.00	0.43
1:D:430:ILE:HG23	1:D:504:ARG:HD2	2.00	0.43
1:D:882:ARG:HG2	1:D:883:GLU:N	2.17	0.43
1:D:1792:ILE:HD11	1:D:1834:PHE:CE1	2.54	0.43
1:D:2668:CYS:O	1:D:2672:VAL:HG23	2.18	0.43
1:D:3994:THR:O	1:D:3998:GLN:HG3	2.18	0.43
1:A:1914:CYS:SG	1:A:2091:GLN:NE2	2.82	0.43
1:A:2779:LEU:O	1:A:2783:LEU:HG	2.19	0.43
1:A:2914:THR:N	1:A:2915:PRO:HD2	2.34	0.43
1:A:3237:VAL:O	1:A:3240:PRO:HD2	2.19	0.43
1:A:3305:PRO:HB2	1:A:3309:LYS:NZ	2.33	0.43
1:B:3067:ASP:HA	1:B:3070:LYS:HZ3	1.84	0.43
1:C:1051:ARG:HG2	1:C:1051:ARG:HH21	1.84	0.43
1:C:1437:GLU:HA	1:C:1438:PRO:HD3	1.90	0.43
1:C:1765:SER:HA	1:C:1766:PRO:HD3	1.90	0.43
1:C:1827:THR:O	1:C:1831:MET:HG3	2.18	0.43
1:C:1975:MET:HA	1:C:1978:ASN:ND2	2.33	0.43
1:C:2827:ASP:H	1:D:1501:ASN:ND2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1048:ASP:HA	1:D:1051:ARG:CG	2.49	0.43
1:A:865:ILE:HD12	1:A:865:ILE:HA	1.77	0.43
1:A:1939:ASN:HD21	1:A:1989:PRO:HG2	1.82	0.43
1:A:2884:LYS:O	1:A:2887:GLU:HG3	2.19	0.43
1:A:2943:PHE:CE1	1:A:2955:PRO:HD2	2.54	0.43
1:B:903:GLN:OE1	1:B:913:ARG:HD2	2.18	0.43
1:B:1827:THR:O	1:B:1831:MET:HG3	2.18	0.43
1:B:2577:CYS:HB2	1:B:2609:LEU:HD11	2.01	0.43
1:B:3043:ARG:HB3	1:B:3047:LYS:HE2	2.01	0.43
1:C:2235:ARG:NH2	1:C:2300:ASP:OD2	2.40	0.43
1:C:2884:LYS:O	1:C:2887:GLU:HG3	2.19	0.43
1:C:3983:LEU:HD21	1:C:4100:VAL:HG12	2.00	0.43
1:D:3149:GLU:O	1:D:3152:ARG:HG2	2.18	0.43
1:D:3305:PRO:HB2	1:D:3309:LYS:NZ	2.33	0.43
1:D:4089:GLU:HB2	1:D:4090:PRO:HD3	1.99	0.43
1:A:876:PRO:HA	1:A:879:GLU:CG	2.49	0.43
1:A:1048:ASP:HA	1:A:1051:ARG:CG	2.49	0.43
1:A:1827:THR:O	1:A:1831:MET:HG3	2.18	0.43
1:A:1966:ARG:HB3	1:A:3602:CYS:HB3	2.00	0.43
1:A:2062:ILE:HG21	1:A:2087:LEU:HG	2.00	0.43
1:A:2668:CYS:O	1:A:2672:VAL:HG23	2.18	0.43
1:A:3149:GLU:O	1:A:3152:ARG:HG2	2.18	0.43
1:A:4046:ARG:HB3	1:A:4050:LYS:NZ	2.34	0.43
1:B:658:ASN:ND2	1:B:831:LYS:O	2.50	0.43
1:B:876:PRO:HA	1:B:879:GLU:CG	2.49	0.43
1:B:2587:HIS:HA	1:B:2590:ARG:HH11	1.82	0.43
1:B:2670:SER:HB2	1:B:2973:GLN:CG	2.47	0.43
1:B:2832:THR:OG1	1:C:1548:THR:O	2.22	0.43
1:B:3983:LEU:HD21	1:B:4100:VAL:HG12	1.99	0.43
1:C:281:ARG:O	1:C:285:SER:OG	2.33	0.43
1:C:928:GLU:HA	1:C:931:TYR:HD2	1.82	0.43
1:C:2057:THR:HG22	1:C:2059:GLN:H	1.83	0.43
1:C:2322:ARG:O	1:C:2326:ARG:HG2	2.18	0.43
1:C:2567:ASP:O	1:C:2571:VAL:HG23	2.19	0.43
1:C:2619:LYS:HB3	1:C:2623:LEU:HD12	1.99	0.43
1:C:3148:VAL:HG22	1:C:3152:ARG:NH2	2.34	0.43
1:C:3316:LYS:O	1:C:3318:HIS:ND1	2.52	0.43
1:C:3324:GLU:HA	1:C:3327:LYS:NZ	2.33	0.43
1:C:4275:THR:HG22	1:C:4278:ASP:H	1.84	0.43
1:C:4607:ALA:HB1	1:C:4649:VAL:HG21	2.00	0.43
1:D:876:PRO:HA	1:D:879:GLU:CG	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1929:SER:HG	1:D:3620:PHE:HD2	1.64	0.43
1:D:2062:ILE:HG21	1:D:2087:LEU:HG	2.00	0.43
1:D:2125:GLN:OE1	1:D:2144:ARG:NH2	2.47	0.43
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	2.01	0.43
1:D:2726:GLU:OE1	1:D:2726:GLU:N	2.51	0.43
1:D:3033:LEU:HD13	1:D:3104:MET:HB3	2.01	0.43
1:D:3067:ASP:HA	1:D:3070:LYS:NZ	2.34	0.43
1:D:3247:SER:HA	1:D:3309:LYS:HE2	2.01	0.43
1:D:3650:GLU:HG2	1:D:3660:ARG:CZ	2.48	0.43
1:D:4607:ALA:HB1	1:D:4649:VAL:HG21	2.00	0.43
1:A:1792:ILE:HD11	1:A:1834:PHE:CE1	2.54	0.43
1:A:2577:CYS:HB2	1:A:2609:LEU:HD11	2.01	0.43
1:A:3830:LEU:HB3	1:A:3833:ASP:OD2	2.19	0.43
1:B:1517:LEU:HD12	1:B:1517:LEU:HA	1.91	0.43
1:B:2779:LEU:O	1:B:2783:LEU:HG	2.19	0.43
1:B:3000:GLU:HA	1:B:3003:MET:HE3	2.00	0.43
1:B:3111:HIS:HB2	1:B:3115:HIS:HE1	1.82	0.43
1:B:3324:GLU:HA	1:B:3327:LYS:NZ	2.33	0.43
1:B:3882:GLN:NE2	1:B:3883:GLU:HG3	2.34	0.43
1:C:903:GLN:OE1	1:C:913:ARG:HD2	2.18	0.43
1:C:3067:ASP:HA	1:C:3070:LYS:NZ	2.34	0.43
1:C:3247:SER:HA	1:C:3309:LYS:HE2	2.01	0.43
1:C:3830:LEU:HB3	1:C:3833:ASP:OD2	2.19	0.43
1:D:422:THR:HG21	1:D:459:LEU:HD11	2.01	0.43
1:D:472:HIS:O	1:D:476:GLN:HG2	2.18	0.43
1:D:1242:ASN:HB3	1:D:1806:ALA:HA	2.01	0.43
1:D:2779:LEU:O	1:D:2783:LEU:HG	2.19	0.43
1:D:2884:LYS:O	1:D:2887:GLU:HG3	2.19	0.43
1:D:3237:VAL:O	1:D:3240:PRO:HD2	2.19	0.43
1:A:2222:LEU:HD23	1:A:2222:LEU:HA	1.86	0.43
1:A:2726:GLU:OE1	1:A:2726:GLU:N	2.51	0.43
1:A:2849:HIS:CE1	1:A:2877:LEU:HD11	2.54	0.43
1:A:3246:MET:HG2	1:A:3273:MET:HE1	2.00	0.43
1:A:3316:LYS:O	1:A:3318:HIS:ND1	2.52	0.43
1:A:3882:GLN:NE2	1:A:3883:GLU:HG3	2.34	0.43
1:B:218:SER:HB2	1:B:286:GLY:HA3	2.00	0.43
1:B:917:CYS:HB3	1:B:924:LEU:HD12	2.00	0.43
1:B:1034:PRO:HG2	1:B:1037:LEU:HB2	2.00	0.43
1:B:1048:ASP:HA	1:B:1051:ARG:CG	2.49	0.43
1:B:1242:ASN:HB3	1:B:1806:ALA:HA	2.01	0.43
1:B:1975:MET:HA	1:B:1978:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	2.01	0.43
1:B:2638:LEU:HB3	1:B:2680:TYR:CE1	2.54	0.43
1:B:3247:SER:HA	1:B:3309:LYS:HE2	2.01	0.43
1:C:35:LEU:HD23	1:C:49:LEU:HB3	2.01	0.43
1:C:897:LYS:HA	1:C:900:LEU:HG	2.00	0.43
1:C:1242:ASN:HB3	1:C:1806:ALA:HA	2.01	0.43
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	2.01	0.43
1:C:4027:THR:HA	1:C:4032:PHE:HD1	1.81	0.43
1:C:4255:LEU:HD23	1:D:4710:LEU:HD13	2.01	0.43
1:D:2577:CYS:HB2	1:D:2609:LEU:HD11	2.01	0.43
1:D:3148:VAL:HG22	1:D:3152:ARG:NH2	2.34	0.43
1:D:3241:MET:O	1:D:3245:TYR:HB3	2.19	0.43
1:D:4046:ARG:HB3	1:D:4050:LYS:NZ	2.34	0.43
1:A:1088:PHE:HB2	1:A:1205:CYS:SG	2.59	0.42
1:A:2619:LYS:HB3	1:A:2623:LEU:HD12	1.99	0.42
1:A:3033:LEU:HD13	1:A:3104:MET:HB3	2.01	0.42
1:A:3067:ASP:HA	1:A:3070:LYS:NZ	2.34	0.42
1:B:430:ILE:HG23	1:B:504:ARG:HD2	2.00	0.42
1:B:853:PRO:HG3	1:B:1083:GLU:OE1	2.19	0.42
1:B:920:GLU:O	1:B:924:LEU:N	2.52	0.42
1:B:999:LEU:HB3	1:B:1050:LEU:HD21	2.00	0.42
1:B:1758:ARG:HG3	1:B:1759:PRO:HD2	2.01	0.42
1:B:1792:ILE:HD11	1:B:1834:PHE:CE1	2.54	0.42
1:B:2849:HIS:CE1	1:B:2877:LEU:HD11	2.54	0.42
1:B:3237:VAL:O	1:B:3240:PRO:HD2	2.19	0.42
1:C:876:PRO:HA	1:C:879:GLU:CG	2.49	0.42
1:C:1491:GLY:HA2	1:C:1494:MET:HE2	2.01	0.42
1:C:2156:TYR:HE1	1:C:2202:TYR:CE2	2.37	0.42
1:C:2638:LEU:HB3	1:C:2680:TYR:CE1	2.54	0.42
1:D:778:MET:HG2	1:D:1468:THR:HB	2.00	0.42
1:D:1719:LEU:HG	1:D:1830:ILE:HG21	2.01	0.42
1:D:2567:ASP:O	1:D:2571:VAL:HG23	2.19	0.42
1:D:2638:LEU:HB3	1:D:2680:TYR:CE1	2.54	0.42
1:D:3281:LEU:HA	1:D:3284:ILE:HG12	2.01	0.42
1:D:3324:GLU:HA	1:D:3327:LYS:NZ	2.33	0.42
1:D:4167:GLU:OE2	1:D:4170:ARG:NH1	2.52	0.42
1:A:308:LEU:HD13	1:A:393:MET:HG3	2.00	0.42
1:A:884:LYS:O	1:A:887:GLU:HG3	2.20	0.42
1:A:2567:ASP:O	1:A:2571:VAL:HG23	2.19	0.42
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	2.01	0.42
1:A:3241:MET:O	1:A:3245:TYR:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2172:MET:HE2	1:B:2172:MET:HB3	1.95	0.42
1:B:2837:LEU:HA	1:B:2840:MET:HB2	2.00	0.42
1:B:2884:LYS:O	1:B:2887:GLU:HG3	2.19	0.42
1:B:2929:LEU:HD22	1:B:2971:ILE:HD11	2.01	0.42
1:C:218:SER:HB2	1:C:286:GLY:HA3	2.00	0.42
1:C:430:ILE:HG23	1:C:504:ARG:HD2	2.00	0.42
1:C:614:LEU:HD22	1:C:632:ILE:HG12	2.02	0.42
1:C:1792:ILE:HD11	1:C:1834:PHE:CE1	2.54	0.42
1:C:2980:LEU:O	1:C:2984:SER:N	2.52	0.42
1:C:4167:GLU:OE2	1:C:4170:ARG:NH1	2.52	0.42
1:C:4279:MET:SD	1:D:4484:ILE:HB	2.59	0.42
1:D:2837:LEU:HA	1:D:2840:MET:HB2	2.00	0.42
1:D:3830:LEU:HB3	1:D:3833:ASP:OD2	2.19	0.42
1:A:46:LEU:HD11	1:A:146:ASP:HB3	2.01	0.42
1:A:1051:ARG:HG2	1:A:1051:ARG:HH21	1.84	0.42
1:A:1242:ASN:HB3	1:A:1806:ALA:HA	2.01	0.42
2:F:54:GLN:N	2:F:54:GLN:OE1	2.52	0.42
1:B:2082:ARG:HG3	1:B:3687:LEU:HD22	2.00	0.42
1:B:3178:HIS:CE1	1:B:3263:MET:HB3	2.55	0.42
1:B:3220:GLU:O	1:B:3223:GLU:HG3	2.19	0.42
1:B:3935:LEU:HD23	1:B:3940:LEU:HD22	2.01	0.42
1:B:3962:SER:OG	1:B:4071:GLU:HB3	2.19	0.42
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	2.01	0.42
1:C:2494:PRO:HA	1:C:2497:ARG:HD3	2.02	0.42
1:C:2577:CYS:HB2	1:C:2609:LEU:HD11	2.01	0.42
1:C:3114:GLN:HE21	1:C:3115:HIS:CE1	2.36	0.42
1:C:3246:MET:HG2	1:C:3273:MET:HE1	2.00	0.42
1:D:865:ILE:HD12	1:D:1009:ARG:HH21	1.85	0.42
1:D:1051:ARG:HG2	1:D:1051:ARG:HH21	1.84	0.42
1:D:1975:MET:HA	1:D:1978:ASN:ND2	2.33	0.42
1:D:3962:SER:OG	1:D:4071:GLU:HB3	2.19	0.42
1:A:422:THR:HG21	1:A:459:LEU:HD11	2.01	0.42
1:A:929:ARG:HD3	1:A:933:LEU:HD23	2.01	0.42
1:A:2057:THR:HG22	1:A:2059:GLN:H	1.84	0.42
1:A:2837:LEU:HA	1:A:2840:MET:HB2	2.00	0.42
1:A:2987:SER:O	1:A:2988:ARG:HB2	2.19	0.42
1:A:3178:HIS:CE1	1:A:3263:MET:HB3	2.55	0.42
1:A:4252:ILE:CG2	1:B:4707:MET:HG3	2.49	0.42
2:G:54:GLN:OE1	2:G:54:GLN:N	2.52	0.42
1:B:929:ARG:HD3	1:B:933:LEU:HD23	2.01	0.42
1:B:1561:LYS:O	1:B:1563:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2943:PHE:CE1	1:B:2955:PRO:HD2	2.53	0.42
1:B:3067:ASP:HA	1:B:3070:LYS:NZ	2.34	0.42
1:B:3148:VAL:HG22	1:B:3152:ARG:NH2	2.34	0.42
1:B:3763:ILE:HD11	1:B:3838:ASP:O	2.19	0.42
1:C:865:ILE:HD12	1:C:1009:ARG:HH21	1.85	0.42
1:C:1161:VAL:HG21	1:C:1225:LYS:HE3	2.02	0.42
1:D:853:PRO:HG3	1:D:1083:GLU:OE1	2.20	0.42
1:D:920:GLU:O	1:D:924:LEU:N	2.52	0.42
1:D:1088:PHE:HB2	1:D:1205:CYS:SG	2.59	0.42
1:D:1819:VAL:HG13	1:D:1905:GLN:NE2	2.33	0.42
1:D:2619:LYS:HB3	1:D:2623:LEU:HD12	1.99	0.42
1:D:3178:HIS:CE1	1:D:3263:MET:HB3	2.55	0.42
1:D:4603:GLU:OE2	1:D:4705:TYR:OH	2.30	0.42
1:A:814:LEU:HD12	1:A:815:PRO:HD2	2.01	0.42
1:A:3281:LEU:HA	1:A:3284:ILE:HG12	2.01	0.42
1:A:3962:SER:OG	1:A:4071:GLU:HB3	2.19	0.42
1:A:4167:GLU:OE2	1:A:4170:ARG:NH1	2.52	0.42
1:A:4503:ARG:HA	1:A:4503:ARG:HD2	1.74	0.42
1:B:614:LEU:HD22	1:B:632:ILE:HG12	2.01	0.42
1:B:1051:ARG:HG2	1:B:1051:ARG:HH21	1.84	0.42
1:B:1928:PHE:HE1	1:B:1995:GLN:HG2	1.85	0.42
1:B:2830:ASN:ND2	1:C:1551:ASN:HB2	2.34	0.42
1:B:3033:LEU:HD13	1:B:3104:MET:HB3	2.01	0.42
1:C:422:THR:HG21	1:C:459:LEU:HD11	2.01	0.42
1:C:2062:ILE:HG21	1:C:2087:LEU:HG	2.00	0.42
1:C:2413:LYS:NZ	1:C:2415:GLU:HB3	2.33	0.42
1:C:2914:THR:N	1:C:2915:PRO:HD2	2.34	0.42
1:C:3241:MET:O	1:C:3245:TYR:HB3	2.19	0.42
1:C:3637:GLU:HG2	1:C:3694:ILE:HA	2.02	0.42
1:C:3763:ILE:HD11	1:C:3838:ASP:O	2.19	0.42
1:C:3962:SER:OG	1:C:4071:GLU:HB3	2.19	0.42
1:D:3637:GLU:HG2	1:D:3694:ILE:HA	2.02	0.42
1:D:3882:GLN:NE2	1:D:3883:GLU:HG3	2.34	0.42
1:A:430:ILE:HG23	1:A:504:ARG:HD2	2.00	0.42
1:A:658:ASN:ND2	1:A:831:LYS:O	2.50	0.42
1:A:783:ASN:OD1	1:A:1463:ARG:HA	2.20	0.42
1:A:881:ILE:O	1:A:885:LEU:HD23	2.20	0.42
1:A:882:ARG:HG2	1:A:883:GLU:N	2.16	0.42
1:A:920:GLU:O	1:A:924:LEU:N	2.52	0.42
1:B:1719:LEU:HG	1:B:1830:ILE:HG21	2.01	0.42
1:B:2494:PRO:HA	1:B:2497:ARG:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2745:GLU:HG2	1:B:2746:ILE:HG23	2.02	0.42
1:B:3246:MET:O	1:B:3250:TRP:HD1	1.99	0.42
1:B:3637:GLU:HG2	1:B:3694:ILE:HA	2.02	0.42
1:B:4167:GLU:OE2	1:B:4170:ARG:NH1	2.52	0.42
1:C:884:LYS:O	1:C:887:GLU:HG3	2.19	0.42
1:C:2620:TYR:CD1	1:C:2630:PHE:HB3	2.54	0.42
1:C:3033:LEU:HD13	1:C:3104:MET:HB3	2.01	0.42
1:C:3220:GLU:O	1:C:3223:GLU:HG3	2.19	0.42
1:D:2156:TYR:HE1	1:D:2202:TYR:CE2	2.37	0.42
1:D:2849:HIS:CE1	1:D:2877:LEU:HD11	2.54	0.42
1:A:582:SER:OG	1:A:584:GLU:OE1	2.34	0.42
1:A:999:LEU:HB3	1:A:1050:LEU:HD21	2.00	0.42
1:A:1256:PRO:HG3	1:A:1593:HIS:NE2	2.35	0.42
1:A:1719:LEU:HG	1:A:1830:ILE:HG21	2.00	0.42
1:A:3247:SER:HA	1:A:3309:LYS:HE2	2.01	0.42
1:A:3763:ILE:HD11	1:A:3838:ASP:O	2.19	0.42
1:B:841:LYS:O	1:B:848:ARG:NH2	2.50	0.42
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.52	0.42
1:B:2274:LEU:HG	1:B:2329:GLU:HG3	2.02	0.42
1:B:2567:ASP:O	1:B:2571:VAL:HG23	2.19	0.42
1:C:1283:LEU:HB2	1:C:1555:PHE:HB2	2.02	0.42
1:C:1500:ARG:HE	1:C:1505:LEU:N	2.18	0.42
1:C:2779:LEU:O	1:C:2783:LEU:HG	2.19	0.42
1:C:4046:ARG:HB3	1:C:4050:LYS:NZ	2.34	0.42
1:C:4522:VAL:HG11	1:D:4790:ARG:HD3	2.01	0.42
1:D:1438:PRO:CG	1:D:1500:ARG:HH12	2.33	0.42
1:D:2682:GLU:O	1:D:2919:LYS:HD2	2.20	0.42
1:D:3221:LEU:CD2	1:D:3234:VAL:HG11	2.50	0.42
1:D:4238:ILE:HD12	1:D:4238:ILE:H	1.85	0.42
1:A:35:LEU:HD23	1:A:49:LEU:HB3	2.01	0.42
1:A:1928:PHE:HE1	1:A:1995:GLN:HG2	1.85	0.42
1:A:2561:LEU:HD23	1:A:2565:GLN:HB3	2.02	0.42
1:A:2620:TYR:CD1	1:A:2630:PHE:HB3	2.54	0.42
1:A:2940:ILE:HG23	1:A:3021:LEU:HD23	2.02	0.42
1:A:3637:GLU:HG2	1:A:3694:ILE:HA	2.02	0.42
1:A:4650:LYS:HB3	1:A:4672:MET:HE2	2.01	0.42
1:A:4858:LEU:HD23	1:A:4861:ILE:HD12	2.02	0.42
1:B:35:LEU:HD23	1:B:49:LEU:HB3	2.01	0.42
1:B:783:ASN:OD1	1:B:1463:ARG:HA	2.20	0.42
1:B:865:ILE:HD12	1:B:1009:ARG:HH21	1.85	0.42
1:B:1256:PRO:HG3	1:B:1593:HIS:NE2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1500:ARG:HE	1:B:1505:LEU:N	2.18	0.42
1:B:2682:GLU:O	1:B:2919:LYS:HD2	2.20	0.42
1:B:2980:LEU:O	1:B:2984:SER:N	2.52	0.42
1:B:3281:LEU:HA	1:B:3284:ILE:HG12	2.01	0.42
1:C:841:LYS:O	1:C:848:ARG:NH2	2.50	0.42
1:C:1561:LYS:O	1:C:1563:VAL:HG23	2.20	0.42
1:C:1719:LEU:HD21	1:C:1830:ILE:HD12	2.01	0.42
1:C:2478:ILE:HD12	1:C:2527:LEU:HD21	2.02	0.42
1:C:3312:PRO:HA	1:C:3315:LEU:CG	2.45	0.42
1:C:4021:LEU:HD22	1:C:4128:TYR:CE2	2.55	0.42
1:D:582:SER:OG	1:D:584:GLU:OE1	2.34	0.42
1:D:614:LEU:HD22	1:D:632:ILE:HG12	2.02	0.42
1:D:917:CYS:HB3	1:D:924:LEU:HD12	2.00	0.42
1:D:1016:TRP:HZ3	1:D:1022:GLN:HE22	1.68	0.42
1:D:1256:PRO:HG3	1:D:1593:HIS:NE2	2.35	0.42
1:D:1928:PHE:HE1	1:D:1995:GLN:HG2	1.85	0.42
1:D:2553:TYR:CE2	1:D:2557:LYS:HE2	2.55	0.42
1:D:2561:LEU:HD23	1:D:2565:GLN:HB3	2.02	0.42
1:D:2620:TYR:CD1	1:D:2630:PHE:HB3	2.54	0.42
1:D:2940:ILE:HG23	1:D:3021:LEU:HD23	2.02	0.42
1:D:3318:HIS:C	1:D:3321:PRO:HD2	2.40	0.42
1:A:1708:ASP:HA	1:A:1712:SER:HB3	2.02	0.42
1:A:2478:ILE:HD12	1:A:2527:LEU:HD21	2.02	0.42
1:A:2682:GLU:O	1:A:2919:LYS:HD2	2.20	0.42
1:A:2745:GLU:HG2	1:A:2746:ILE:HG23	2.02	0.42
1:A:3109:PHE:CE2	1:A:3162:PHE:HD1	2.38	0.42
1:A:3208:ILE:HA	1:A:3209:PRO:HD3	1.89	0.42
1:B:434:ASP:HB3	1:B:438:LYS:NZ	2.35	0.42
1:B:872:ILE:HB	1:B:941:LYS:HE2	2.02	0.42
1:B:2620:TYR:CD1	1:B:2630:PHE:HB3	2.54	0.42
1:B:2722:ASN:O	1:B:2723:LYS:HB2	2.20	0.42
1:B:3316:LYS:O	1:B:3318:HIS:ND1	2.52	0.42
1:C:853:PRO:HG3	1:C:1083:GLU:OE1	2.20	0.42
1:C:958:GLU:OE1	1:C:958:GLU:N	2.45	0.42
1:C:1438:PRO:CG	1:C:1500:ARG:HH12	2.33	0.42
1:C:2280:LEU:HD21	1:C:2382:ILE:HD12	2.02	0.42
1:C:2745:GLU:HG2	1:C:2746:ILE:HG23	2.02	0.42
1:C:3891:TYR:HA	1:D:76:ARG:NH1	2.34	0.42
1:C:3935:LEU:HD23	1:C:3940:LEU:HD22	2.01	0.42
1:D:46:LEU:HD11	1:D:146:ASP:HB3	2.01	0.42
1:D:674:TYR:HB2	1:D:819:TYR:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:884:LYS:O	1:D:887:GLU:HG3	2.20	0.42
1:D:1708:ASP:HA	1:D:1712:SER:HB3	2.02	0.42
1:D:2836:ASP:OD1	1:D:2837:LEU:N	2.53	0.42
1:D:3220:GLU:O	1:D:3223:GLU:HG3	2.19	0.42
1:D:4021:LEU:HD22	1:D:4128:TYR:CE2	2.55	0.42
1:D:4275:THR:HG22	1:D:4278:ASP:H	1.84	0.42
1:A:3043:ARG:HB3	1:A:3047:LYS:HE2	2.01	0.42
1:A:3148:VAL:HG22	1:A:3152:ARG:NH2	2.34	0.42
2:E:54:GLN:OE1	2:E:54:GLN:N	2.52	0.42
2:H:54:GLN:OE1	2:H:54:GLN:N	2.52	0.42
1:B:902:TRP:HE1	1:B:915:HIS:HB2	1.85	0.42
1:B:2976:LYS:HA	1:B:2979:ARG:NH2	2.35	0.42
1:B:4021:LEU:HD22	1:B:4128:TYR:CE2	2.55	0.42
1:B:4046:ARG:HB3	1:B:4050:LYS:NZ	2.34	0.42
1:C:981:MET:CE	1:C:1059:GLY:HA3	2.50	0.42
1:C:1928:PHE:HE1	1:C:1995:GLN:HG2	1.85	0.42
1:C:2837:LEU:HA	1:C:2840:MET:HB2	2.00	0.42
1:C:3281:LEU:HA	1:C:3284:ILE:HG12	2.01	0.42
1:C:4796:SER:HB3	1:C:4803:ASP:HB2	2.02	0.42
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	2.01	0.42
1:D:2745:GLU:HG2	1:D:2746:ILE:HG23	2.02	0.42
1:D:3935:LEU:HD23	1:D:3940:LEU:HD22	2.01	0.42
1:A:436:LEU:HD13	1:A:518:ALA:HB2	2.02	0.41
1:A:865:ILE:HD12	1:A:1009:ARG:HH21	1.85	0.41
1:A:872:ILE:HB	1:A:941:LYS:HE2	2.02	0.41
1:A:2319:VAL:O	1:A:2323:LEU:HG	2.20	0.41
1:A:2326:ARG:HA	1:A:2326:ARG:HD3	1.86	0.41
1:A:2722:ASN:O	1:A:2723:LYS:HB2	2.20	0.41
1:B:882:ARG:HA	1:B:885:LEU:HB2	2.02	0.41
1:B:983:LEU:HD11	1:B:1055:ARG:CG	2.41	0.41
1:B:1708:ASP:HA	1:B:1712:SER:HB3	2.02	0.41
1:C:436:LEU:HD13	1:C:518:ALA:HB2	2.02	0.41
1:C:1016:TRP:HZ3	1:C:1022:GLN:HE22	1.67	0.41
1:C:2722:ASN:C	1:C:2724:TYR:H	2.24	0.41
1:C:2849:HIS:CE1	1:C:2877:LEU:HD11	2.54	0.41
1:C:2929:LEU:HD22	1:C:2971:ILE:HD11	2.01	0.41
1:C:2987:SER:O	1:C:2988:ARG:HB2	2.19	0.41
1:C:4522:VAL:HG13	1:D:4786:PHE:CZ	2.55	0.41
1:C:4650:LYS:HB3	1:C:4672:MET:HE2	2.02	0.41
1:D:34:LYS:H	1:D:53:SER:HG	1.62	0.41
1:D:434:ASP:HB3	1:D:438:LYS:NZ	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:783:ASN:OD1	1:D:1463:ARG:HA	2.20	0.41
1:D:882:ARG:HA	1:D:885:LEU:HB2	2.02	0.41
1:D:929:ARG:HD3	1:D:933:LEU:HD23	2.01	0.41
1:D:2057:THR:HG22	1:D:2059:GLN:H	1.84	0.41
1:D:2670:SER:HB2	1:D:2973:GLN:CG	2.47	0.41
1:D:2852:TRP:CD1	1:D:2856:LYS:NZ	2.83	0.41
1:D:3109:PHE:CE2	1:D:3162:PHE:HD1	2.38	0.41
1:D:3763:ILE:HD11	1:D:3838:ASP:O	2.19	0.41
1:A:434:ASP:HB3	1:A:438:LYS:NZ	2.35	0.41
1:A:1283:LEU:HB2	1:A:1555:PHE:HB2	2.02	0.41
1:A:1561:LYS:O	1:A:1563:VAL:HG23	2.20	0.41
1:A:1850:VAL:HG22	1:A:2055:SER:HB3	2.02	0.41
1:A:2553:TYR:CE2	1:A:2557:LYS:HE2	2.55	0.41
1:A:2638:LEU:HB3	1:A:2680:TYR:CE1	2.54	0.41
1:A:3069:GLU:HG3	1:A:3132:ARG:CZ	2.50	0.41
1:A:4644:TYR:O	1:A:4647:LYS:NZ	2.52	0.41
1:A:4673:ASP:OD1	1:A:4676:ALA:HB3	2.20	0.41
1:A:4796:SER:HB3	1:A:4803:ASP:HB2	2.02	0.41
1:B:814:LEU:HD12	1:B:815:PRO:HD2	2.01	0.41
1:B:884:LYS:O	1:B:887:GLU:HG3	2.20	0.41
1:B:3318:HIS:C	1:B:3321:PRO:HD2	2.40	0.41
1:C:783:ASN:OD1	1:C:1463:ARG:HA	2.20	0.41
1:C:882:ARG:HA	1:C:885:LEU:HB2	2.02	0.41
1:C:920:GLU:O	1:C:924:LEU:N	2.53	0.41
1:C:1719:LEU:HG	1:C:1830:ILE:HG21	2.01	0.41
1:C:3237:VAL:O	1:C:3240:PRO:HD2	2.19	0.41
1:C:3318:HIS:C	1:C:3321:PRO:HD2	2.40	0.41
1:D:902:TRP:HE1	1:D:915:HIS:HB2	1.85	0.41
1:D:2136:LYS:HA	1:D:2136:LYS:HD3	1.83	0.41
1:D:3316:LYS:O	1:D:3317:THR:OG1	2.36	0.41
1:D:3316:LYS:O	1:D:3318:HIS:ND1	2.52	0.41
1:D:4105:LEU:HB3	1:D:4115:LEU:HD21	2.02	0.41
1:A:614:LEU:HD22	1:A:632:ILE:HG12	2.02	0.41
1:A:674:TYR:HB2	1:A:819:TYR:HB3	2.02	0.41
1:A:915:HIS:HB3	1:A:918:LEU:HG	2.03	0.41
1:A:2836:ASP:OD1	1:A:2837:LEU:N	2.53	0.41
1:A:3318:HIS:C	1:A:3321:PRO:HD2	2.40	0.41
1:B:2722:ASN:C	1:B:2724:TYR:H	2.24	0.41
1:B:2914:THR:N	1:B:2915:PRO:HD2	2.34	0.41
1:B:3293:GLY:O	1:B:3296:MET:HG2	2.20	0.41
1:B:3830:LEU:HB3	1:B:3833:ASP:OD2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4105:LEU:HB3	1:B:4115:LEU:HD21	2.02	0.41
1:B:4238:ILE:H	1:B:4238:ILE:HD12	1.85	0.41
1:B:4858:LEU:HD23	1:B:4861:ILE:HD12	2.02	0.41
1:C:881:ILE:O	1:C:885:LEU:HD23	2.20	0.41
1:C:929:ARG:HD3	1:C:933:LEU:HD23	2.01	0.41
1:C:1256:PRO:HG3	1:C:1593:HIS:NE2	2.35	0.41
1:C:2486:HIS:O	1:C:2490:VAL:HG22	2.21	0.41
1:C:2682:GLU:O	1:C:2919:LYS:HD2	2.20	0.41
1:C:2976:LYS:HA	1:C:2979:ARG:NH2	2.35	0.41
1:C:3109:PHE:CE2	1:C:3162:PHE:HD1	2.38	0.41
1:C:3171:LEU:HA	1:C:3171:LEU:HD23	1.79	0.41
1:C:3178:HIS:CE1	1:C:3263:MET:HB3	2.55	0.41
1:C:3305:PRO:O	1:C:3309:LYS:HG3	2.21	0.41
1:C:3846:LEU:HD13	1:C:3854:PHE:CZ	2.56	0.41
1:C:3882:GLN:NE2	1:C:3883:GLU:HG3	2.34	0.41
1:C:4105:LEU:HB3	1:C:4115:LEU:HD21	2.03	0.41
1:C:4203:ALA:HA	1:C:4206:ILE:HG12	2.02	0.41
1:C:4503:ARG:NH2	1:C:4745:ASP:OD1	2.54	0.41
1:D:1161:VAL:HG21	1:D:1225:LYS:HE3	2.02	0.41
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.91	0.41
1:D:1719:LEU:HD21	1:D:1830:ILE:HD12	2.01	0.41
1:D:2319:VAL:O	1:D:2323:LEU:HG	2.20	0.41
1:D:2976:LYS:HA	1:D:2979:ARG:NH2	2.35	0.41
1:D:3213:LYS:O	1:D:3217:GLU:OE1	2.39	0.41
1:A:902:TRP:HE1	1:A:915:HIS:HB2	1.85	0.41
1:A:958:GLU:OE1	1:A:958:GLU:N	2.45	0.41
1:A:992:GLN:O	1:A:996:VAL:HG23	2.21	0.41
1:A:2494:PRO:HA	1:A:2497:ARG:HD3	2.01	0.41
1:A:2727:HIS:O	1:A:2730:ASP:N	2.54	0.41
1:A:4105:LEU:HB3	1:A:4115:LEU:HD21	2.02	0.41
1:A:4680:SER:HA	1:A:4684:GLU:HB2	2.02	0.41
1:B:422:THR:HG21	1:B:459:LEU:HD11	2.01	0.41
1:B:1491:GLY:HA2	1:B:1494:MET:HE2	2.01	0.41
1:B:2326:ARG:HD3	1:B:2326:ARG:HA	1.86	0.41
1:B:3241:MET:O	1:B:3245:TYR:HB3	2.19	0.41
1:B:4480:PHE:O	1:B:4484:ILE:HG23	2.20	0.41
1:B:4673:ASP:OD1	1:B:4676:ALA:HB3	2.20	0.41
1:C:661:LEU:HD11	1:C:759:LEU:HD23	2.02	0.41
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.55	0.41
1:C:2274:LEU:HG	1:C:2329:GLU:HG3	2.02	0.41
1:C:2836:ASP:OD1	1:C:2837:LEU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3221:LEU:CD2	1:C:3234:VAL:HG11	2.50	0.41
1:D:915:HIS:HB3	1:D:918:LEU:HG	2.03	0.41
1:D:981:MET:CE	1:D:1059:GLY:HA3	2.50	0.41
1:D:4673:ASP:OD1	1:D:4676:ALA:HB3	2.20	0.41
1:D:4796:SER:HB3	1:D:4803:ASP:HB2	2.02	0.41
1:A:853:PRO:HG3	1:A:1083:GLU:OE1	2.20	0.41
1:A:1758:ARG:HG3	1:A:1759:PRO:HD2	2.02	0.41
1:A:1898:LEU:HD13	1:A:1902:VAL:HG12	2.03	0.41
1:A:3200:ASN:HB2	1:A:3203:ASP:HB2	2.03	0.41
1:A:3220:GLU:O	1:A:3223:GLU:HG3	2.19	0.41
1:A:3846:LEU:HD13	1:A:3854:PHE:CZ	2.56	0.41
1:A:4487:TYR:HD2	1:D:4279:MET:HE3	1.85	0.41
1:B:661:LEU:HD11	1:B:759:LEU:HD23	2.02	0.41
1:B:992:GLN:O	1:B:996:VAL:HG23	2.21	0.41
1:B:1048:ASP:O	1:B:1051:ARG:HB2	2.21	0.41
1:B:1850:VAL:HG22	1:B:2055:SER:HB3	2.02	0.41
1:B:2478:ILE:HD12	1:B:2527:LEU:HD21	2.02	0.41
1:B:3245:TYR:CD1	1:B:3249:TRP:CZ3	3.09	0.41
1:C:1088:PHE:HB2	1:C:1205:CYS:SG	2.59	0.41
1:C:2553:TYR:CE2	1:C:2557:LYS:HE2	2.55	0.41
1:C:2722:ASN:O	1:C:2723:LYS:HB2	2.20	0.41
1:D:35:LEU:HD23	1:D:49:LEU:HB3	2.01	0.41
1:D:1898:LEU:HD13	1:D:1902:VAL:HG12	2.03	0.41
1:D:2494:PRO:HA	1:D:2497:ARG:HD3	2.02	0.41
1:D:2722:ASN:C	1:D:2724:TYR:H	2.24	0.41
1:D:4503:ARG:NH2	1:D:4745:ASP:OD1	2.54	0.41
1:A:882:ARG:HA	1:A:885:LEU:HB2	2.02	0.41
1:A:2976:LYS:HA	1:A:2979:ARG:NH2	2.35	0.41
1:A:3261:ALA:O	1:A:3262:GLU:HB3	2.21	0.41
1:A:4503:ARG:NH2	1:A:4745:ASP:OD1	2.54	0.41
1:B:46:LEU:HD11	1:B:146:ASP:HB3	2.01	0.41
1:B:436:LEU:HD13	1:B:518:ALA:HB2	2.02	0.41
1:B:1088:PHE:HB2	1:B:1205:CYS:SG	2.59	0.41
1:B:2054:LYS:HD2	1:B:2056:SER:N	2.36	0.41
1:B:2319:VAL:O	1:B:2323:LEU:HG	2.20	0.41
1:B:2553:TYR:CE2	1:B:2557:LYS:HE2	2.55	0.41
1:B:2652:LEU:HA	1:B:2652:LEU:HD12	1.89	0.41
1:B:2857:LYS:HA	1:B:2860:LEU:HG	2.03	0.41
1:B:3305:PRO:O	1:B:3309:LYS:HG3	2.21	0.41
1:C:872:ILE:HB	1:C:941:LYS:HE2	2.02	0.41
1:C:2142:MET:HG2	1:C:2192:MET:CE	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2857:LYS:HA	1:C:2860:LEU:HG	2.03	0.41
1:C:4858:LEU:HD23	1:C:4861:ILE:HD12	2.02	0.41
1:D:387:ILE:HG13	1:D:388:GLN:N	2.35	0.41
1:D:872:ILE:HB	1:D:941:LYS:HE2	2.02	0.41
1:D:1561:LYS:O	1:D:1563:VAL:HG23	2.20	0.41
1:D:1758:ARG:HG3	1:D:1759:PRO:HD2	2.01	0.41
1:D:2224:ASN:O	1:D:2227:VAL:HG23	2.21	0.41
1:D:2478:ILE:HD12	1:D:2527:LEU:HD21	2.02	0.41
1:D:2722:ASN:O	1:D:2723:LYS:HB2	2.20	0.41
1:D:2987:SER:O	1:D:2988:ARG:HB2	2.19	0.41
1:D:3293:GLY:O	1:D:3296:MET:HG2	2.20	0.41
1:A:1048:ASP:O	1:A:1051:ARG:HB2	2.21	0.41
1:A:1161:VAL:HG21	1:A:1225:LYS:HE3	2.01	0.41
1:A:1499:GLY:CA	1:D:2898:ILE:HD12	2.46	0.41
1:A:2274:LEU:HG	1:A:2329:GLU:HG3	2.02	0.41
1:A:3016:ARG:NH2	1:A:3017:HIS:HE1	2.19	0.41
1:A:3065:ALA:O	1:A:3068:LEU:HG	2.21	0.41
1:B:23:GLN:HG2	1:B:36:CYS:SG	2.61	0.41
1:B:674:TYR:HB2	1:B:819:TYR:HB3	2.02	0.41
1:B:881:ILE:O	1:B:885:LEU:HD23	2.20	0.41
1:B:915:HIS:HB3	1:B:918:LEU:HG	2.03	0.41
1:B:2224:ASN:O	1:B:2227:VAL:HG23	2.21	0.41
1:B:2280:LEU:HD21	1:B:2382:ILE:HD12	2.02	0.41
1:B:2836:ASP:OD1	1:B:2837:LEU:N	2.53	0.41
1:B:3846:LEU:HD13	1:B:3854:PHE:CZ	2.55	0.41
1:B:4796:SER:HB3	1:B:4803:ASP:HB2	2.02	0.41
1:C:2652:LEU:HA	1:C:2652:LEU:HD12	1.89	0.41
1:C:4522:VAL:HG11	1:D:4790:ARG:NE	2.36	0.41
1:D:881:ILE:O	1:D:885:LEU:HD23	2.20	0.41
1:D:2739:ASN:HD21	1:D:2741:TRP:HE1	1.69	0.41
1:D:3043:ARG:HB3	1:D:3047:LYS:HE2	2.01	0.41
1:A:387:ILE:HG13	1:A:388:GLN:N	2.35	0.41
1:A:624:ALA:HB3	1:A:2132:VAL:HG12	2.02	0.41
1:A:2739:ASN:HD21	1:A:2741:TRP:HE1	1.69	0.41
1:A:2841:ALA:HA	1:A:2844:MET:CG	2.44	0.41
1:A:3213:LYS:O	1:A:3217:GLU:OE1	2.38	0.41
1:A:3245:TYR:CD1	1:A:3249:TRP:CZ3	3.09	0.41
1:A:3649:ALA:C	1:A:3652:PRO:HD2	2.41	0.41
2:H:43:ARG:HA	1:D:1682:GLU:OE2	2.21	0.41
1:B:758:CYS:HB3	1:B:819:TYR:CE2	2.56	0.41
1:B:981:MET:CE	1:B:1059:GLY:HA3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2827:ASP:H	1:C:1501:ASN:ND2	2.18	0.41
1:B:2827:ASP:N	1:C:1501:ASN:OD1	2.38	0.41
1:B:2972:ASP:HA	1:B:3035:ILE:HD11	2.03	0.41
1:B:2987:SER:O	1:B:2988:ARG:HB2	2.19	0.41
1:B:3069:GLU:HG3	1:B:3132:ARG:CZ	2.50	0.41
1:B:4680:SER:HA	1:B:4684:GLU:HB2	2.02	0.41
1:C:434:ASP:HB3	1:C:438:LYS:NZ	2.35	0.41
1:C:902:TRP:HE1	1:C:915:HIS:HB2	1.85	0.41
1:C:915:HIS:HB3	1:C:918:LEU:HG	2.03	0.41
1:C:1708:ASP:HA	1:C:1712:SER:HB3	2.02	0.41
1:C:1758:ARG:HG3	1:C:1759:PRO:HD2	2.02	0.41
1:C:2224:ASN:O	1:C:2227:VAL:HG23	2.21	0.41
1:C:2319:VAL:O	1:C:2323:LEU:HG	2.20	0.41
1:C:2870:LEU:HD22	1:C:2877:LEU:CD2	2.51	0.41
1:C:3200:ASN:HB2	1:C:3203:ASP:HB2	2.03	0.41
1:C:4238:ILE:HD12	1:C:4238:ILE:H	1.85	0.41
1:C:4480:PHE:O	1:C:4484:ILE:HG23	2.20	0.41
1:C:4702:ASP:O	1:C:4706:GLN:HG2	2.21	0.41
1:D:436:LEU:HD13	1:D:518:ALA:HB2	2.02	0.41
1:D:661:LEU:HD11	1:D:759:LEU:HD23	2.02	0.41
1:D:958:GLU:OE1	1:D:958:GLU:N	2.45	0.41
1:D:2732:TRP:CD2	1:D:2736:LYS:NZ	2.85	0.41
1:D:2870:LEU:HD22	1:D:2877:LEU:CD2	2.51	0.41
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	2.21	0.41
1:D:2929:LEU:HD22	1:D:2971:ILE:HD11	2.02	0.41
1:D:3312:PRO:HA	1:D:3315:LEU:CG	2.45	0.41
1:D:4590:TYR:OH	1:D:4718:SER:HB2	2.21	0.41
1:A:758:CYS:HB3	1:A:819:TYR:CE2	2.56	0.41
1:A:981:MET:CE	1:A:1059:GLY:HA3	2.50	0.41
1:A:1016:TRP:HZ3	1:A:1022:GLN:HE22	1.67	0.41
1:A:1491:GLY:HA2	1:A:1494:MET:HE2	2.01	0.41
1:A:1500:ARG:HE	1:A:1505:LEU:N	2.18	0.41
1:A:1929:SER:HG	1:A:3620:PHE:HD2	1.64	0.41
1:A:1967:SER:O	1:A:1972:GLN:NE2	2.49	0.41
1:A:2054:LYS:HD2	1:A:2056:SER:N	2.36	0.41
1:A:2549:LEU:HD13	1:A:2588:LEU:HD22	2.03	0.41
1:A:2669:LEU:HD23	1:A:2669:LEU:HA	1.96	0.41
1:A:2722:ASN:C	1:A:2724:TYR:H	2.24	0.41
1:A:2929:LEU:HD22	1:A:2971:ILE:HD11	2.02	0.41
1:A:3712:LYS:HE3	1:A:3717:LYS:HG2	2.03	0.41
1:A:3935:LEU:HD23	1:A:3940:LEU:HD22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4238:ILE:HD12	1:A:4238:ILE:H	1.85	0.41
1:A:4480:PHE:O	1:A:4484:ILE:HG23	2.20	0.41
1:B:670:TYR:O	1:B:673:TRP:NE1	2.54	0.41
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.55	0.41
1:B:981:MET:HE2	1:B:1059:GLY:HA3	2.02	0.41
1:B:1161:VAL:HG21	1:B:1225:LYS:HE3	2.02	0.41
1:B:1304:LEU:HD23	1:B:1304:LEU:HA	1.91	0.41
1:B:1765:SER:HA	1:B:1766:PRO:HD3	1.90	0.41
1:B:2156:TYR:HE1	1:B:2202:TYR:CE2	2.37	0.41
1:B:2570:GLU:HG2	1:B:2605:MET:CG	2.49	0.41
1:B:2726:GLU:OE1	1:B:2726:GLU:N	2.51	0.41
1:B:3109:PHE:CE2	1:B:3162:PHE:HD1	2.38	0.41
1:B:3261:ALA:O	1:B:3262:GLU:HB3	2.21	0.41
1:B:3312:PRO:HA	1:B:3315:LEU:CG	2.45	0.41
1:B:3712:LYS:HE3	1:B:3717:LYS:HG2	2.03	0.41
1:C:46:LEU:HD11	1:C:146:ASP:HB3	2.01	0.41
1:C:670:TYR:O	1:C:673:TRP:NE1	2.54	0.41
1:C:758:CYS:HB3	1:C:819:TYR:CE2	2.56	0.41
1:C:865:ILE:HD12	1:C:865:ILE:HA	1.77	0.41
1:C:992:GLN:O	1:C:996:VAL:HG23	2.21	0.41
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	2.21	0.41
1:C:2972:ASP:HA	1:C:3035:ILE:HD11	2.03	0.41
1:C:3069:GLU:HG3	1:C:3132:ARG:CZ	2.50	0.41
1:C:3213:LYS:O	1:C:3217:GLU:OE1	2.39	0.41
1:C:3245:TYR:CD1	1:C:3249:TRP:CZ3	3.09	0.41
1:C:3926:GLY:O	1:C:3928:CYS:N	2.54	0.41
1:C:4831:ILE:HD12	1:C:4843:ARG:HE	1.86	0.41
1:D:225:GLN:HG2	1:D:3862:THR:O	2.21	0.41
1:D:624:ALA:HB3	1:D:2132:VAL:HG12	2.02	0.41
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.55	0.41
1:D:814:LEU:HD12	1:D:815:PRO:HD2	2.01	0.41
1:D:1283:LEU:HB2	1:D:1555:PHE:HB2	2.02	0.41
1:D:1500:ARG:HE	1:D:1505:LEU:N	2.18	0.41
1:D:2280:LEU:HD21	1:D:2382:ILE:HD12	2.02	0.41
1:D:2727:HIS:O	1:D:2730:ASP:N	2.54	0.41
1:D:2831:VAL:O	1:D:2894:LYS:NZ	2.35	0.41
1:D:3016:ARG:NH2	1:D:3017:HIS:HE1	2.19	0.41
1:D:3065:ALA:O	1:D:3068:LEU:HG	2.21	0.41
1:D:3178:HIS:O	1:D:3178:HIS:CD2	2.74	0.41
1:D:3200:ASN:HB2	1:D:3203:ASP:HB2	2.03	0.41
1:D:3712:LYS:HE3	1:D:3717:LYS:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3793:LEU:O	1:D:3797:MET:HG3	2.21	0.41
1:D:4203:ALA:HA	1:D:4206:ILE:HG12	2.02	0.41
1:D:4858:LEU:HD23	1:D:4861:ILE:HD12	2.02	0.41
1:A:737:ILE:HG21	1:A:1534:GLU:OE1	2.21	0.41
1:A:1517:LEU:HD12	1:A:1517:LEU:HA	1.91	0.41
1:A:2980:LEU:O	1:A:2984:SER:N	2.52	0.41
1:A:3221:LEU:CD2	1:A:3234:VAL:HG11	2.50	0.41
1:A:3926:GLY:O	1:A:3928:CYS:N	2.54	0.41
1:A:4590:TYR:OH	1:A:4718:SER:HB2	2.21	0.41
2:G:67:MET:HE3	2:G:67:MET:HB3	1.96	0.41
1:B:1437:GLU:HA	1:B:1438:PRO:HD3	1.90	0.41
1:B:2486:HIS:O	1:B:2490:VAL:HG22	2.21	0.41
1:B:2898:ILE:HD12	1:B:2898:ILE:HA	1.80	0.41
1:B:2944:ASP:O	1:B:2947:SER:OG	2.39	0.41
1:B:2976:LYS:HA	1:B:2979:ARG:NH1	2.36	0.41
1:B:3016:ARG:NH2	1:B:3017:HIS:HE1	2.19	0.41
1:B:3171:LEU:HD23	1:B:3171:LEU:HA	1.79	0.41
1:B:3200:ASN:HB2	1:B:3203:ASP:HB2	2.03	0.41
1:B:3221:LEU:CD2	1:B:3234:VAL:HG11	2.50	0.41
1:B:4702:ASP:O	1:B:4706:GLN:HG2	2.21	0.41
1:C:23:GLN:HG2	1:C:36:CYS:SG	2.61	0.41
1:C:225:GLN:HG2	1:C:3862:THR:O	2.21	0.41
1:C:387:ILE:HG13	1:C:388:GLN:N	2.35	0.41
1:C:814:LEU:HD12	1:C:815:PRO:HD2	2.01	0.41
1:C:2054:LYS:HD2	1:C:2056:SER:N	2.36	0.41
1:C:2727:HIS:O	1:C:2730:ASP:N	2.54	0.41
1:C:3016:ARG:NH2	1:C:3017:HIS:HE1	2.19	0.41
1:C:3242:LEU:HG	1:C:3246:MET:HE1	2.03	0.41
1:C:3261:ALA:O	1:C:3262:GLU:HB3	2.21	0.41
1:C:4680:SER:HA	1:C:4684:GLU:HB2	2.02	0.41
1:D:281:ARG:NE	1:D:283:ALA:O	2.48	0.41
1:D:670:TYR:O	1:D:673:TRP:NE1	2.54	0.41
1:D:992:GLN:O	1:D:996:VAL:HG23	2.21	0.41
1:D:3171:LEU:HD23	1:D:3171:LEU:HA	1.79	0.41
1:A:874:LEU:HA	1:A:875:PRO:HD3	1.83	0.40
1:A:2280:LEU:HD21	1:A:2382:ILE:HD12	2.02	0.40
1:A:2321:VAL:O	1:A:2325:ILE:HG12	2.22	0.40
1:A:3312:PRO:HA	1:A:3315:LEU:CG	2.45	0.40
1:A:3793:LEU:O	1:A:3797:MET:HG3	2.21	0.40
1:A:3967:LEU:HD12	1:A:3967:LEU:HA	1.92	0.40
1:A:4702:ASP:O	1:A:4706:GLN:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:387:ILE:HG13	1:B:388:GLN:N	2.36	0.40
1:B:894:VAL:O	1:B:898:ILE:HG12	2.22	0.40
1:B:1016:TRP:HZ3	1:B:1022:GLN:HE22	1.67	0.40
1:B:1967:SER:O	1:B:1972:GLN:NE2	2.49	0.40
1:B:4590:TYR:OH	1:B:4718:SER:HB2	2.21	0.40
1:C:927:GLN:HG2	1:C:928:GLU:N	2.37	0.40
1:C:2940:ILE:HG23	1:C:3021:LEU:HD23	2.02	0.40
1:D:758:CYS:HB3	1:D:819:TYR:CE2	2.56	0.40
1:D:894:VAL:O	1:D:898:ILE:HG12	2.22	0.40
1:D:2789:ILE:HA	1:D:2902:ALA:O	2.21	0.40
1:D:3245:TYR:CD1	1:D:3249:TRP:CZ3	3.09	0.40
1:D:4806:CYS:HA	1:D:4812:CYS:HB2	2.03	0.40
1:A:274:LEU:HD23	1:A:274:LEU:HA	1.93	0.40
1:A:661:LEU:HD11	1:A:759:LEU:HD23	2.02	0.40
1:A:2789:ILE:HA	1:A:2902:ALA:O	2.22	0.40
1:A:2870:LEU:HD22	1:A:2877:LEU:CD2	2.51	0.40
1:A:3178:HIS:CD2	1:A:3178:HIS:O	2.74	0.40
1:A:4021:LEU:HD22	1:A:4128:TYR:CE2	2.55	0.40
1:A:4863:GLN:OE1	1:B:4860:ALA:HB2	2.21	0.40
1:B:225:GLN:HG2	1:B:3862:THR:O	2.21	0.40
1:B:890:HIS:O	1:B:894:VAL:HG12	2.21	0.40
1:B:1283:LEU:HB2	1:B:1555:PHE:HB2	2.02	0.40
1:B:2321:VAL:O	1:B:2325:ILE:HG12	2.22	0.40
1:B:2549:LEU:HD13	1:B:2588:LEU:HD22	2.03	0.40
1:B:2561:LEU:HD23	1:B:2565:GLN:HB3	2.02	0.40
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	2.21	0.40
1:B:4203:ALA:HA	1:B:4206:ILE:HG12	2.02	0.40
1:C:949:HIS:O	1:C:1065:GLU:HB2	2.21	0.40
1:C:1850:VAL:HG22	1:C:2055:SER:HB3	2.02	0.40
1:C:3793:LEU:O	1:C:3797:MET:HG3	2.21	0.40
1:D:737:ILE:HG21	1:D:1534:GLU:OE1	2.21	0.40
1:D:1800:LYS:HD3	1:D:1890:LYS:HE2	2.04	0.40
1:D:2857:LYS:HA	1:D:2860:LEU:HG	2.03	0.40
1:D:3284:ILE:O	1:D:3288:LEU:HG	2.21	0.40
1:D:3305:PRO:O	1:D:3309:LYS:HG3	2.21	0.40
1:D:4480:PHE:O	1:D:4484:ILE:HG23	2.20	0.40
1:D:4680:SER:HA	1:D:4684:GLU:HB2	2.02	0.40
1:A:23:GLN:HG2	1:A:36:CYS:SG	2.61	0.40
1:A:670:TYR:O	1:A:673:TRP:NE1	2.54	0.40
1:A:1438:PRO:CG	1:A:1500:ARG:HH12	2.33	0.40
1:A:2156:TYR:HE1	1:A:2202:TYR:CE2	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2228:GLY:HA3	1:A:2234:MET:SD	2.61	0.40
1:A:2642:ARG:NH1	1:A:2682:GLU:HB2	2.36	0.40
1:A:2857:LYS:HA	1:A:2860:LEU:HG	2.03	0.40
1:A:3284:ILE:O	1:A:3288:LEU:HG	2.21	0.40
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.22	0.40
1:A:4698:LEU:HB2	1:D:4262:LYS:NZ	2.36	0.40
1:B:2228:GLY:HA3	1:B:2234:MET:SD	2.61	0.40
1:B:2830:ASN:ND2	1:C:1433:PHE:HB3	2.35	0.40
1:B:2940:ILE:HG23	1:B:3021:LEU:HD23	2.02	0.40
1:B:3065:ALA:O	1:B:3068:LEU:HG	2.21	0.40
1:C:582:SER:OG	1:C:584:GLU:OE1	2.34	0.40
1:C:630:HIS:CE1	1:C:1671:ARG:HE	2.39	0.40
1:C:674:TYR:HB2	1:C:819:TYR:HB3	2.02	0.40
1:C:3284:ILE:O	1:C:3288:LEU:HG	2.21	0.40
1:C:4590:TYR:OH	1:C:4718:SER:HB2	2.21	0.40
1:C:4673:ASP:OD1	1:C:4676:ALA:HB3	2.20	0.40
1:D:1850:VAL:HG22	1:D:2055:SER:HB3	2.02	0.40
1:D:2274:LEU:HG	1:D:2329:GLU:HG3	2.02	0.40
1:D:2642:ARG:NH1	1:D:2682:GLU:HB2	2.36	0.40
1:D:2980:LEU:O	1:D:2984:SER:N	2.52	0.40
1:D:3655:ASP:OD1	1:D:3656:GLU:N	2.55	0.40
1:A:674:TYR:CE1	1:A:756:SER:HB2	2.55	0.40
1:A:890:HIS:O	1:A:894:VAL:HG12	2.21	0.40
1:A:927:GLN:HG2	1:A:928:GLU:N	2.37	0.40
1:A:3104:MET:HG3	1:A:3105:LEU:N	2.37	0.40
1:A:3293:GLY:O	1:A:3296:MET:HG2	2.20	0.40
1:B:927:GLN:HG2	1:B:928:GLU:N	2.37	0.40
1:B:2727:HIS:O	1:B:2730:ASP:N	2.54	0.40
1:B:2870:LEU:HD22	1:B:2877:LEU:CD2	2.51	0.40
1:B:3178:HIS:CD2	1:B:3178:HIS:O	2.74	0.40
1:B:4503:ARG:NH2	1:B:4745:ASP:OD1	2.54	0.40
1:C:890:HIS:O	1:C:894:VAL:HG12	2.21	0.40
1:C:1678:SER:HB2	1:C:1768:PHE:CE2	2.57	0.40
1:C:2172:MET:HE2	1:C:2172:MET:HB3	1.94	0.40
1:C:2228:GLY:HA3	1:C:2234:MET:SD	2.61	0.40
1:C:2739:ASN:HD21	1:C:2741:TRP:HE1	1.69	0.40
1:C:3065:ALA:O	1:C:3068:LEU:HG	2.21	0.40
1:C:3712:LYS:HE3	1:C:3717:LYS:HG2	2.03	0.40
1:D:23:GLN:HG2	1:D:36:CYS:SG	2.61	0.40
1:D:331:PHE:HE1	1:D:363:ILE:HG12	1.86	0.40
1:D:356:TYR:CZ	1:D:407:ARG:HB2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:630:HIS:CE1	1:D:1671:ARG:HE	2.39	0.40
1:D:1048:ASP:O	1:D:1051:ARG:HB2	2.21	0.40
1:D:2228:GLY:HA3	1:D:2234:MET:SD	2.61	0.40
1:D:2486:HIS:O	1:D:2490:VAL:HG22	2.21	0.40
1:D:3012:GLY:O	1:D:3016:ARG:HG3	2.21	0.40
1:D:3069:GLU:HG3	1:D:3132:ARG:CZ	2.50	0.40
1:D:3649:ALA:C	1:D:3652:PRO:HD2	2.41	0.40
1:A:2133:ARG:HG2	1:A:2134:MET:N	2.37	0.40
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	2.21	0.40
1:A:2976:LYS:HA	1:A:2979:ARG:NH1	2.36	0.40
1:A:3900:GLU:O	1:A:3904:ARG:HG2	2.22	0.40
2:F:67:MET:HE3	2:F:67:MET:HB3	1.96	0.40
1:B:162:ILE:HD12	1:B:175:VAL:HG21	2.03	0.40
1:B:2133:ARG:HG2	1:B:2134:MET:N	2.37	0.40
1:B:2787:TRP:CH2	1:B:2840:MET:HE2	2.57	0.40
1:B:3783:GLU:OE2	1:B:3784:LYS:NZ	2.55	0.40
1:B:3926:GLY:O	1:B:3928:CYS:N	2.54	0.40
1:B:4644:TYR:O	1:B:4647:LYS:NZ	2.53	0.40
1:C:866:PRO:HD2	1:C:1009:ARG:CZ	2.52	0.40
1:C:1160:ASP:HB3	1:C:1177:LEU:HD11	2.04	0.40
1:D:2976:LYS:HA	1:D:2979:ARG:NH1	2.36	0.40
1:D:3261:ALA:O	1:D:3262:GLU:HB3	2.21	0.40
1:D:3900:GLU:O	1:D:3904:ARG:HG2	2.22	0.40
1:D:4035:TYR:HE1	1:D:4050:LYS:HE2	1.87	0.40
1:D:4618:THR:HG22	1:D:4661:TYR:OH	2.22	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	4198/4967 (84%)	4067 (97%)	127 (3%)	4 (0%)	51 75

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	4198/4967 (84%)	4065 (97%)	129 (3%)	4 (0%)	51	75
1	C	4198/4967 (84%)	4064 (97%)	130 (3%)	4 (0%)	51	75
1	D	4198/4967 (84%)	4063 (97%)	131 (3%)	4 (0%)	51	75
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
All	All	17212/20300 (85%)	16667 (97%)	529 (3%)	16 (0%)	54	75

All (16) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2988	ARG
1	A	3927	PRO
1	A	4641	PRO
1	B	2988	ARG
1	B	3927	PRO
1	B	4641	PRO
1	C	2988	ARG
1	C	3927	PRO
1	C	4641	PRO
1	D	2988	ARG
1	D	3927	PRO
1	D	4641	PRO
1	A	2770	ILE
1	B	2770	ILE
1	D	2770	ILE
1	C	2770	ILE

5.3.2 Protein sidechains [i](#)

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	3708/4358 (85%)	3649 (98%)	59 (2%)	62	81
1	B	3708/4358 (85%)	3649 (98%)	59 (2%)	62	81
1	C	3708/4358 (85%)	3649 (98%)	59 (2%)	62	81
1	D	3708/4358 (85%)	3647 (98%)	61 (2%)	62	81
2	E	88/89 (99%)	88 (100%)	0	100	100
2	F	88/89 (99%)	88 (100%)	0	100	100
2	G	88/89 (99%)	88 (100%)	0	100	100
2	H	88/89 (99%)	88 (100%)	0	100	100
All	All	15184/17788 (85%)	14946 (98%)	238 (2%)	64	81

All (238) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	81	MET
1	A	198	ASN
1	A	309	MET
1	A	344	LYS
1	A	778	MET
1	A	814	LEU
1	A	844	ARG
1	A	865	ILE
1	A	872	ILE
1	A	880	ARG
1	A	882	ARG
1	A	888	ASN
1	A	929	ARG
1	A	933	LEU
1	A	940	LEU
1	A	949	HIS
1	A	999	LEU
1	A	1044	LYS
1	A	1050	LEU
1	A	1473	LYS
1	A	1564	MET
1	A	1614	ARG
1	A	1948	MET
1	A	1975	MET
1	A	2191	LYS
1	A	2303	ARG
1	A	2447	LYS

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Mol	Chain	Res	Type
1	A	2480	VAL
1	A	2584	MET
1	A	2592	LEU
1	A	2607	LEU
1	A	2681	MET
1	A	2689	MET
1	A	2727	HIS
1	A	2840	MET
1	A	2855	LYS
1	A	2884	LYS
1	A	2893	LEU
1	A	2898	ILE
1	A	2950	LYS
1	A	3007	LEU
1	A	3050	LEU
1	A	3101	LEU
1	A	3116	GLN
1	A	3146	ILE
1	A	3177	LYS
1	A	3214	LEU
1	A	3315	LEU
1	A	3316	LYS
1	A	3719	MET
1	A	3819	MET
1	A	3978	MET
1	A	4019	MET
1	A	4046	ARG
1	A	4060	GLN
1	A	4264	LEU
1	A	4269	LYS
1	A	4809	MET
1	A	4923	MET
1	B	81	MET
1	B	198	ASN
1	B	309	MET
1	B	344	LYS
1	B	778	MET
1	B	814	LEU
1	B	844	ARG
1	B	865	ILE
1	B	872	ILE
1	B	880	ARG

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Mol	Chain	Res	Type
1	B	882	ARG
1	B	888	ASN
1	B	929	ARG
1	B	933	LEU
1	B	940	LEU
1	B	949	HIS
1	B	999	LEU
1	B	1044	LYS
1	B	1050	LEU
1	B	1473	LYS
1	B	1564	MET
1	B	1614	ARG
1	B	1948	MET
1	B	1975	MET
1	B	2191	LYS
1	B	2303	ARG
1	B	2447	LYS
1	B	2480	VAL
1	B	2584	MET
1	B	2592	LEU
1	B	2607	LEU
1	B	2681	MET
1	B	2689	MET
1	B	2727	HIS
1	B	2840	MET
1	B	2855	LYS
1	B	2884	LYS
1	B	2893	LEU
1	B	2898	ILE
1	B	2950	LYS
1	B	3007	LEU
1	B	3050	LEU
1	B	3101	LEU
1	B	3116	GLN
1	B	3146	ILE
1	B	3177	LYS
1	B	3214	LEU
1	B	3315	LEU
1	B	3316	LYS
1	B	3719	MET
1	B	3819	MET
1	B	3978	MET

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Mol	Chain	Res	Type
1	B	4019	MET
1	B	4046	ARG
1	B	4060	GLN
1	B	4264	LEU
1	B	4269	LYS
1	B	4809	MET
1	B	4923	MET
1	C	81	MET
1	C	198	ASN
1	C	309	MET
1	C	344	LYS
1	C	778	MET
1	C	814	LEU
1	C	844	ARG
1	C	865	ILE
1	C	872	ILE
1	C	880	ARG
1	C	882	ARG
1	C	888	ASN
1	C	929	ARG
1	C	933	LEU
1	C	940	LEU
1	C	949	HIS
1	C	999	LEU
1	C	1044	LYS
1	C	1050	LEU
1	C	1473	LYS
1	C	1564	MET
1	C	1614	ARG
1	C	1948	MET
1	C	1975	MET
1	C	2191	LYS
1	C	2303	ARG
1	C	2447	LYS
1	C	2480	VAL
1	C	2584	MET
1	C	2592	LEU
1	C	2607	LEU
1	C	2681	MET
1	C	2689	MET
1	C	2727	HIS
1	C	2840	MET

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Mol	Chain	Res	Type
1	C	2855	LYS
1	C	2884	LYS
1	C	2893	LEU
1	C	2898	ILE
1	C	2950	LYS
1	C	3007	LEU
1	C	3050	LEU
1	C	3101	LEU
1	C	3116	GLN
1	C	3146	ILE
1	C	3177	LYS
1	C	3214	LEU
1	C	3315	LEU
1	C	3316	LYS
1	C	3719	MET
1	C	3819	MET
1	C	3978	MET
1	C	4019	MET
1	C	4046	ARG
1	C	4060	GLN
1	C	4264	LEU
1	C	4269	LYS
1	C	4809	MET
1	C	4923	MET
1	D	81	MET
1	D	198	ASN
1	D	309	MET
1	D	344	LYS
1	D	778	MET
1	D	814	LEU
1	D	844	ARG
1	D	865	ILE
1	D	872	ILE
1	D	880	ARG
1	D	882	ARG
1	D	888	ASN
1	D	929	ARG
1	D	933	LEU
1	D	940	LEU
1	D	949	HIS
1	D	999	LEU
1	D	1044	LYS

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Mol	Chain	Res	Type
1	D	1050	LEU
1	D	1473	LYS
1	D	1564	MET
1	D	1614	ARG
1	D	1948	MET
1	D	1975	MET
1	D	2191	LYS
1	D	2303	ARG
1	D	2447	LYS
1	D	2480	VAL
1	D	2584	MET
1	D	2592	LEU
1	D	2607	LEU
1	D	2681	MET
1	D	2689	MET
1	D	2727	HIS
1	D	2838[A]	HIS
1	D	2838[B]	HIS
1	D	2840	MET
1	D	2855	LYS
1	D	2884	LYS
1	D	2893	LEU
1	D	2898	ILE
1	D	2950	LYS
1	D	3007	LEU
1	D	3050	LEU
1	D	3101	LEU
1	D	3116	GLN
1	D	3146	ILE
1	D	3177	LYS
1	D	3214	LEU
1	D	3315	LEU
1	D	3316	LYS
1	D	3719	MET
1	D	3819	MET
1	D	3978	MET
1	D	4019	MET
1	D	4046	ARG
1	D	4060	GLN
1	D	4264	LEU
1	D	4269	LYS
1	D	4809	MET

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Mol	Chain	Res	Type
1	D	4923	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (27) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	2850	ASN
1	A	3017	HIS
1	A	3114	GLN
1	A	3127	GLN
1	A	3178	HIS
1	A	3179	ASN
1	A	4060	GLN
1	B	2850	ASN
1	B	3017	HIS
1	B	3114	GLN
1	B	3127	GLN
1	B	3178	HIS
1	B	3179	ASN
1	B	4060	GLN
1	C	2850	ASN
1	C	3017	HIS
1	C	3114	GLN
1	C	3127	GLN
1	C	3178	HIS
1	C	3179	ASN
1	C	4060	GLN
1	D	3017	HIS
1	D	3114	GLN
1	D	3127	GLN
1	D	3178	HIS
1	D	3179	ASN
1	D	4060	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 12 ligands modelled in this entry, 4 are monoatomic - leaving 8 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	ATP	D	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
4	ATP	D	5003	-	26,33,33	0.59	0	31,52,52	0.74	2 (6%)
4	ATP	B	5002	-	26,33,33	0.59	0	31,52,52	0.76	2 (6%)
4	ATP	B	5003	-	26,33,33	0.59	0	31,52,52	0.74	2 (6%)
4	ATP	C	5003	-	26,33,33	0.59	0	31,52,52	0.74	2 (6%)
4	ATP	C	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
4	ATP	A	5003	-	26,33,33	0.59	0	31,52,52	0.74	2 (6%)
4	ATP	A	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	D	5002	-	-	5/18/38/38	0/3/3/3
4	ATP	D	5003	-	-	9/18/38/38	0/3/3/3
4	ATP	B	5002	-	-	5/18/38/38	0/3/3/3
4	ATP	B	5003	-	-	9/18/38/38	0/3/3/3
4	ATP	C	5003	-	-	9/18/38/38	0/3/3/3
4	ATP	C	5002	-	-	5/18/38/38	0/3/3/3
4	ATP	A	5003	-	-	9/18/38/38	0/3/3/3
4	ATP	A	5002	-	-	5/18/38/38	0/3/3/3

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	C	5003	ATP	C5-C6-N6	2.31	123.86	120.35
4	B	5003	ATP	C5-C6-N6	2.30	123.85	120.35
4	D	5002	ATP	C5-C6-N6	2.30	123.85	120.35
4	D	5003	ATP	C5-C6-N6	2.30	123.85	120.35
4	B	5002	ATP	C5-C6-N6	2.28	123.82	120.35
4	A	5003	ATP	C5-C6-N6	2.27	123.81	120.35
4	A	5002	ATP	C5-C6-N6	2.27	123.80	120.35
4	C	5002	ATP	C5-C6-N6	2.26	123.78	120.35
4	C	5003	ATP	PB-O3B-PG	2.07	139.95	132.83
4	B	5003	ATP	PB-O3B-PG	2.06	139.90	132.83
4	A	5003	ATP	PB-O3B-PG	2.06	139.90	132.83
4	D	5003	ATP	PB-O3B-PG	2.06	139.89	132.83
4	C	5002	ATP	PB-O3B-PG	2.05	139.87	132.83
4	D	5002	ATP	PB-O3B-PG	2.05	139.85	132.83
4	A	5002	ATP	PB-O3B-PG	2.04	139.82	132.83
4	B	5002	ATP	PB-O3B-PG	2.03	139.80	132.83

There are no chirality outliers.

All (56) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	PB-O3A-PA-O5'
4	A	5002	ATP	C3'-C4'-C5'-O5'
4	A	5003	ATP	C5'-O5'-PA-O1A
4	A	5003	ATP	C5'-O5'-PA-O2A
4	A	5003	ATP	C5'-O5'-PA-O3A
4	A	5003	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	PB-O3A-PA-O5'
4	B	5002	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	C5'-O5'-PA-O1A
4	B	5003	ATP	C5'-O5'-PA-O2A
4	B	5003	ATP	C5'-O5'-PA-O3A
4	B	5003	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	PB-O3A-PA-O5'
4	C	5002	ATP	C3'-C4'-C5'-O5'
4	C	5003	ATP	C5'-O5'-PA-O1A
4	C	5003	ATP	C5'-O5'-PA-O2A
4	C	5003	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	PB-O3A-PA-O5'

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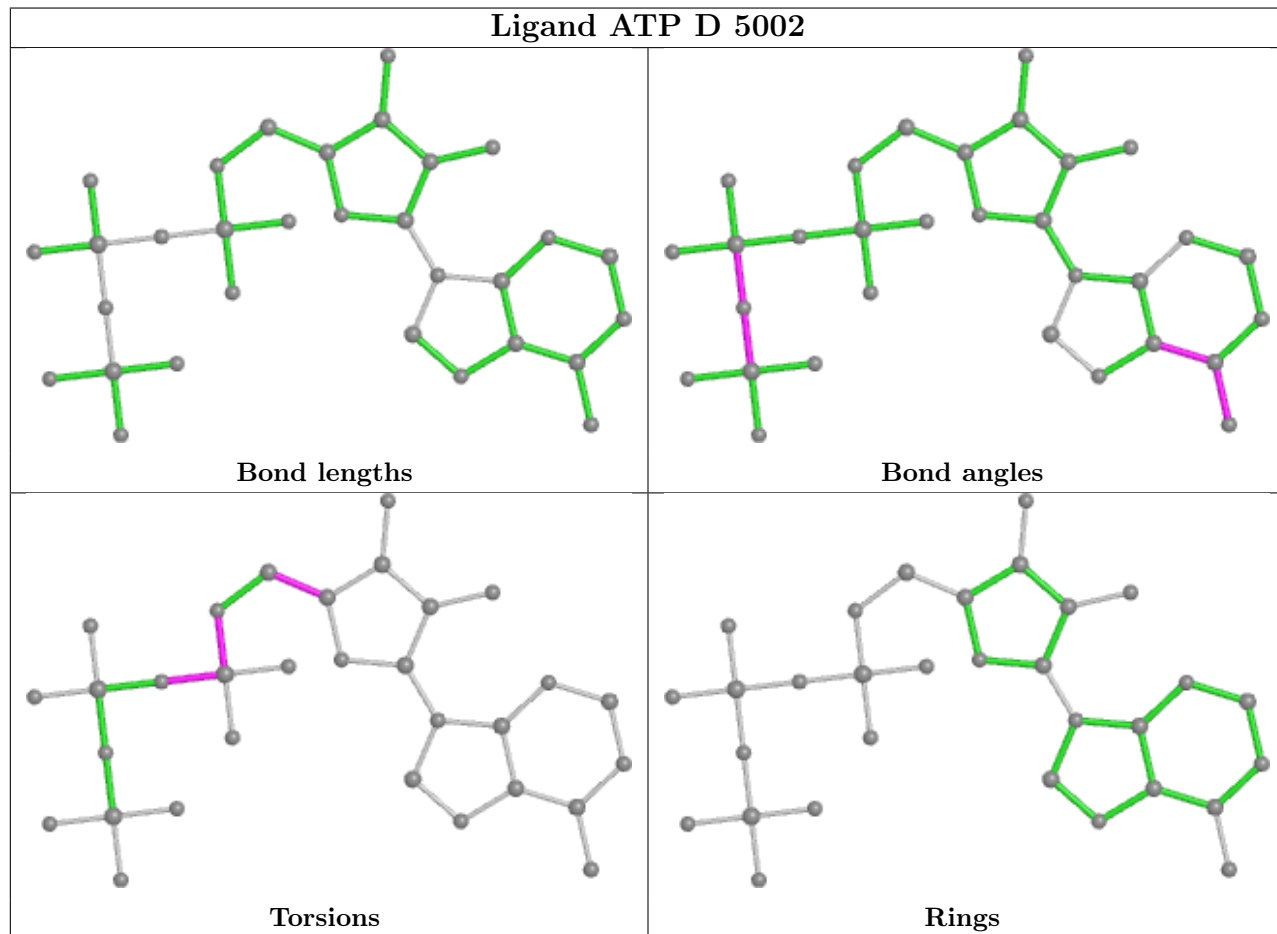
Mol	Chain	Res	Type	Atoms
4	D	5002	ATP	C3'-C4'-C5'-O5'
4	D	5003	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	C3'-C4'-C5'-O5'
4	C	5003	ATP	C3'-C4'-C5'-O5'
4	D	5003	ATP	C3'-C4'-C5'-O5'
4	A	5002	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	PG-O3B-PB-O3A
4	B	5003	ATP	PG-O3B-PB-O3A
4	C	5003	ATP	PG-O3B-PB-O3A
4	D	5003	ATP	PG-O3B-PB-O3A
4	A	5003	ATP	PB-O3A-PA-O2A
4	B	5003	ATP	PB-O3A-PA-O2A
4	C	5003	ATP	PB-O3A-PA-O2A
4	D	5003	ATP	PB-O3A-PA-O2A
4	A	5003	ATP	PB-O3B-PG-O2G
4	B	5003	ATP	PB-O3B-PG-O2G
4	C	5003	ATP	PB-O3B-PG-O2G
4	D	5003	ATP	PB-O3B-PG-O2G
4	A	5002	ATP	C5'-O5'-PA-O3A
4	B	5002	ATP	C5'-O5'-PA-O3A
4	C	5002	ATP	C5'-O5'-PA-O3A
4	D	5002	ATP	C5'-O5'-PA-O3A
4	A	5002	ATP	PB-O3A-PA-O1A
4	A	5003	ATP	PB-O3A-PA-O1A
4	B	5002	ATP	PB-O3A-PA-O1A
4	B	5003	ATP	PB-O3A-PA-O1A
4	C	5002	ATP	PB-O3A-PA-O1A
4	C	5003	ATP	PB-O3A-PA-O1A
4	D	5002	ATP	PB-O3A-PA-O1A
4	D	5003	ATP	PB-O3A-PA-O1A

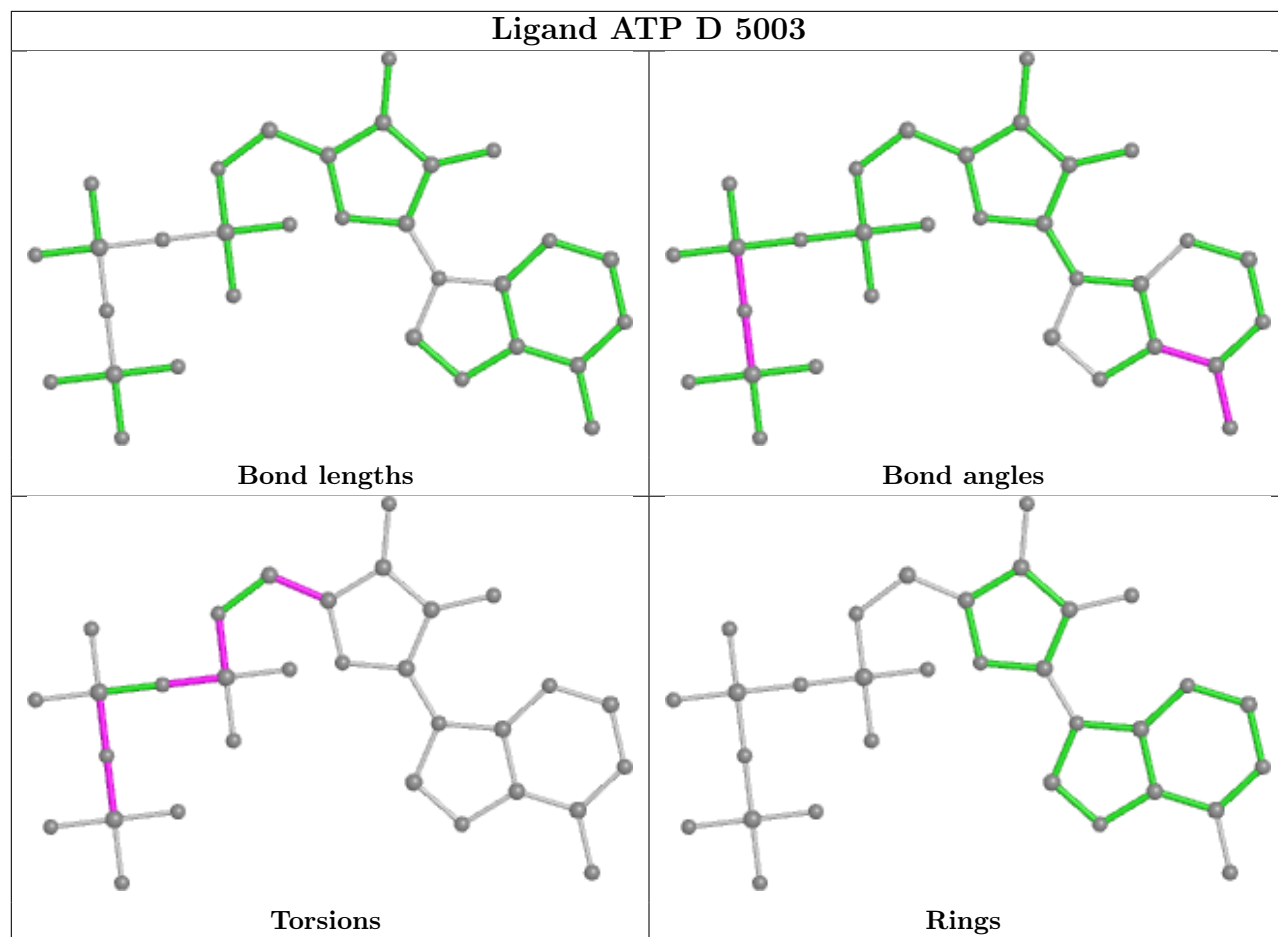
There are no ring outliers.

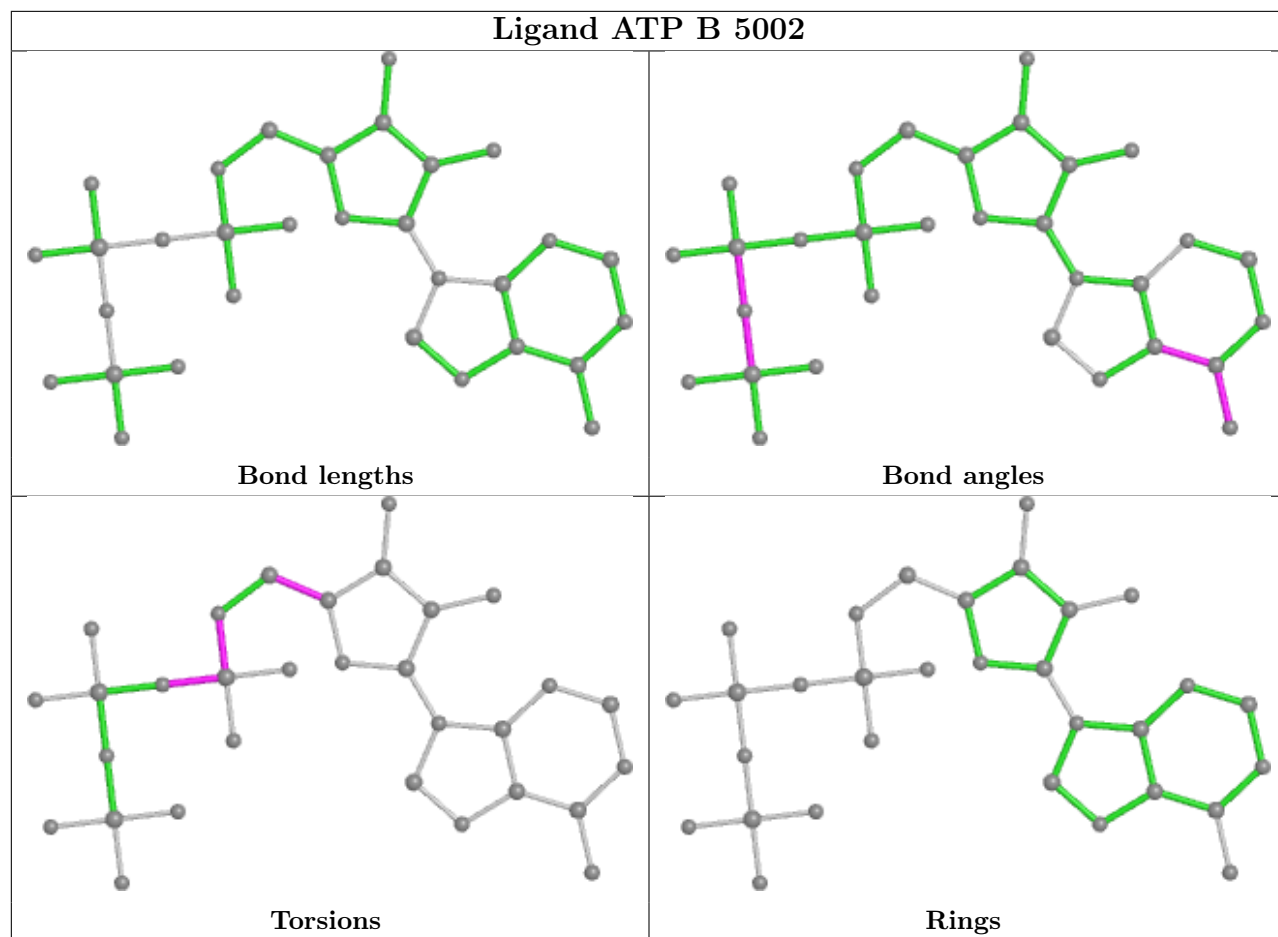
No monomer is involved in short contacts.

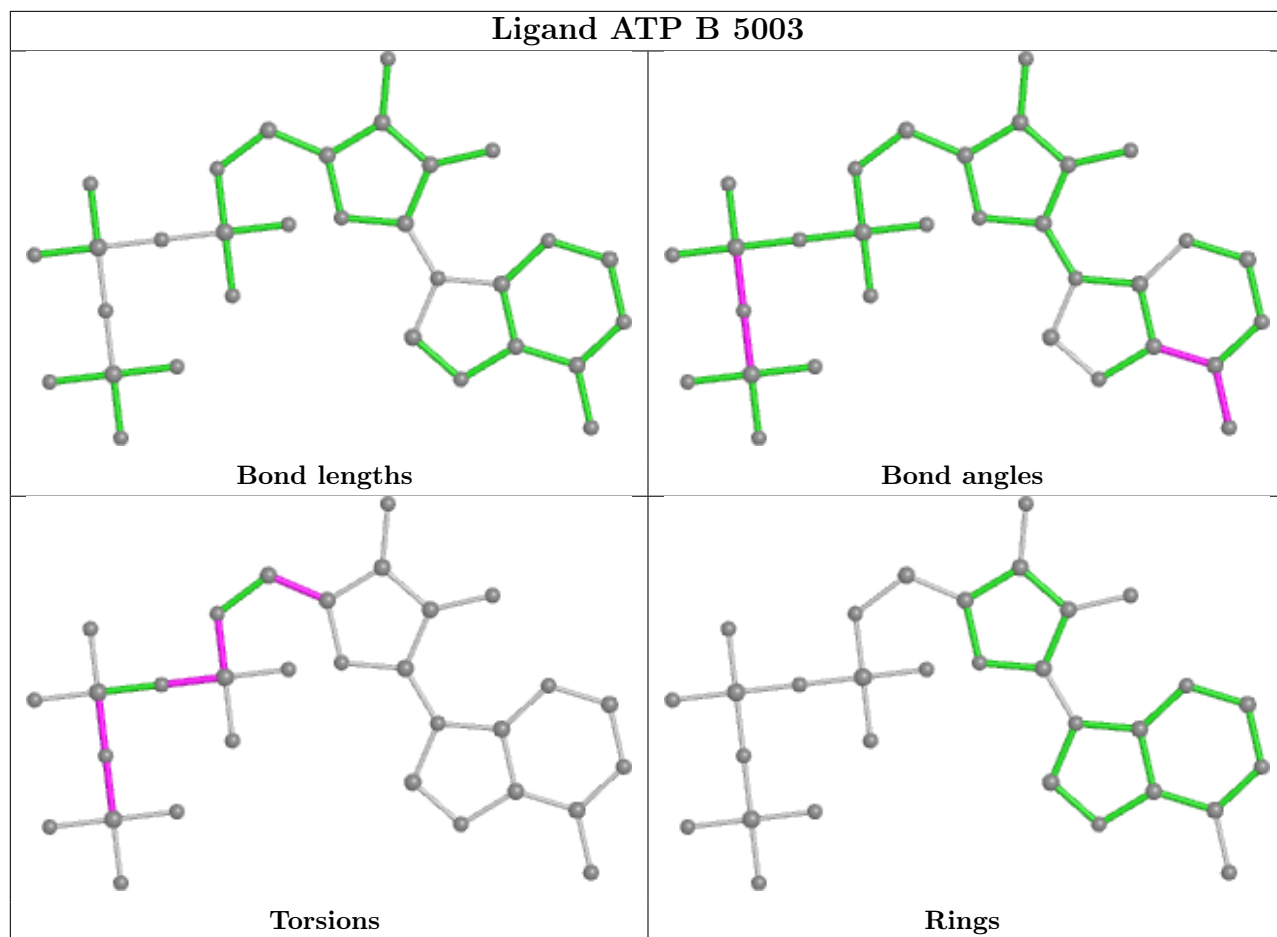
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In

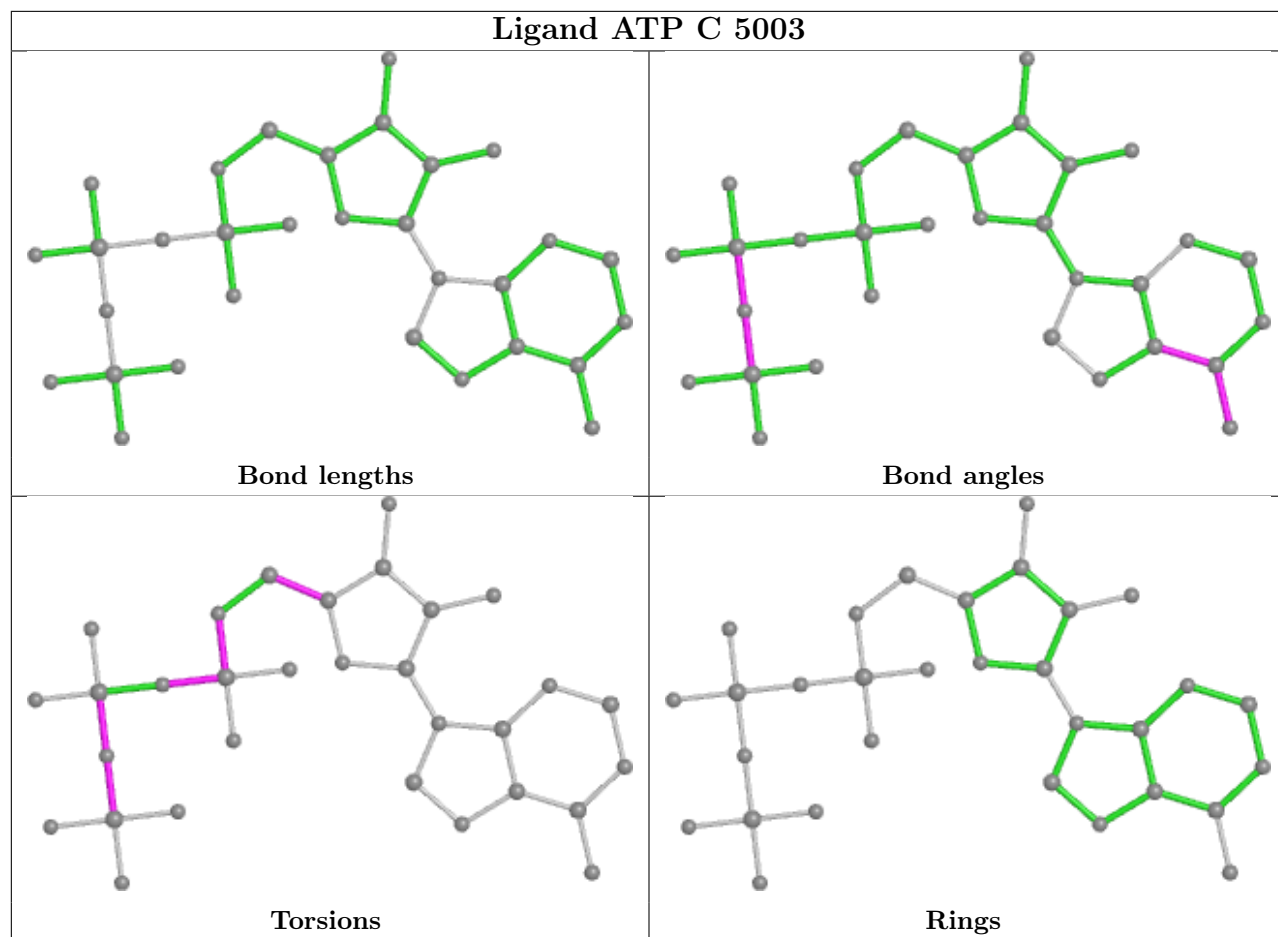
addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

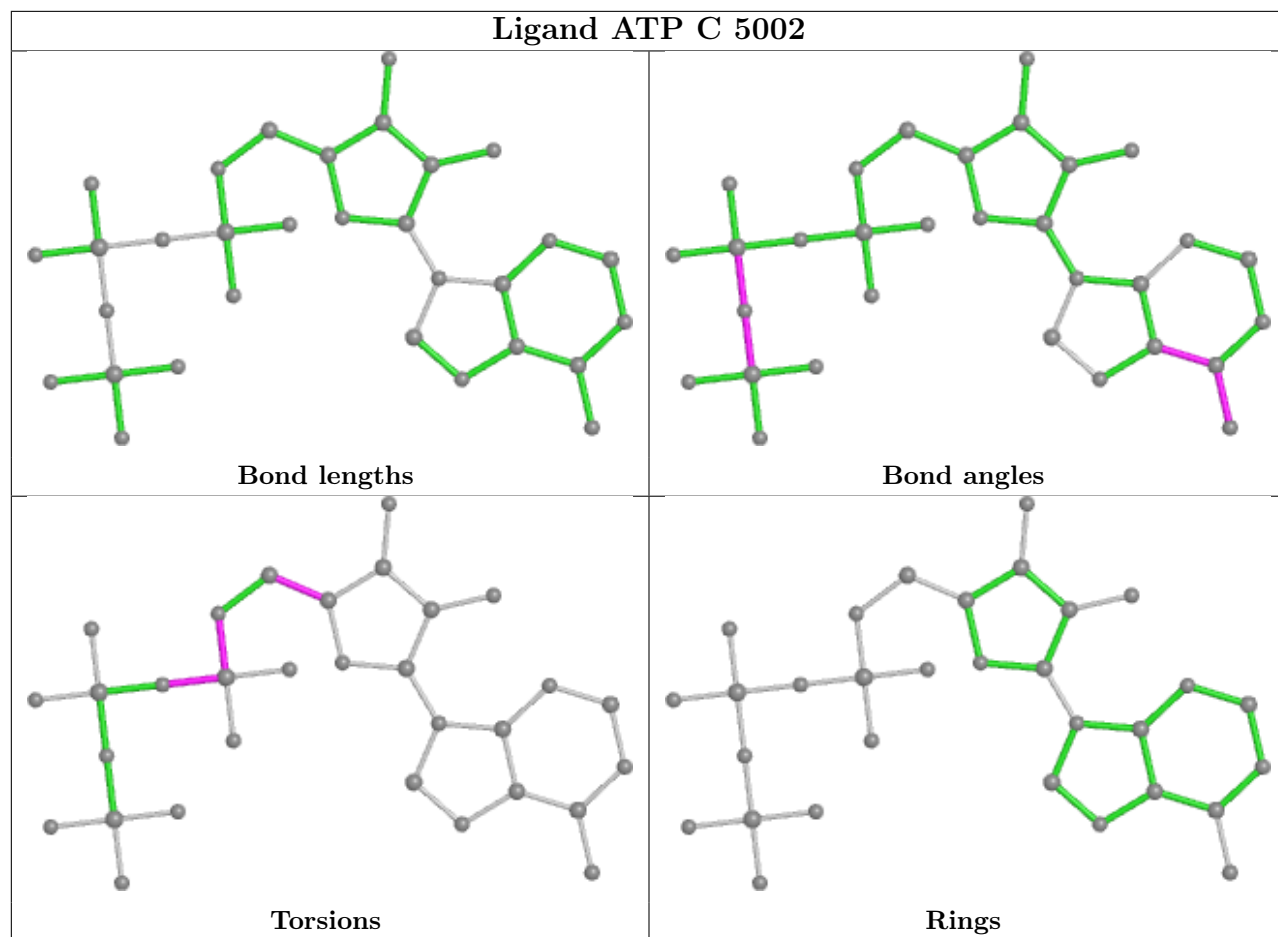


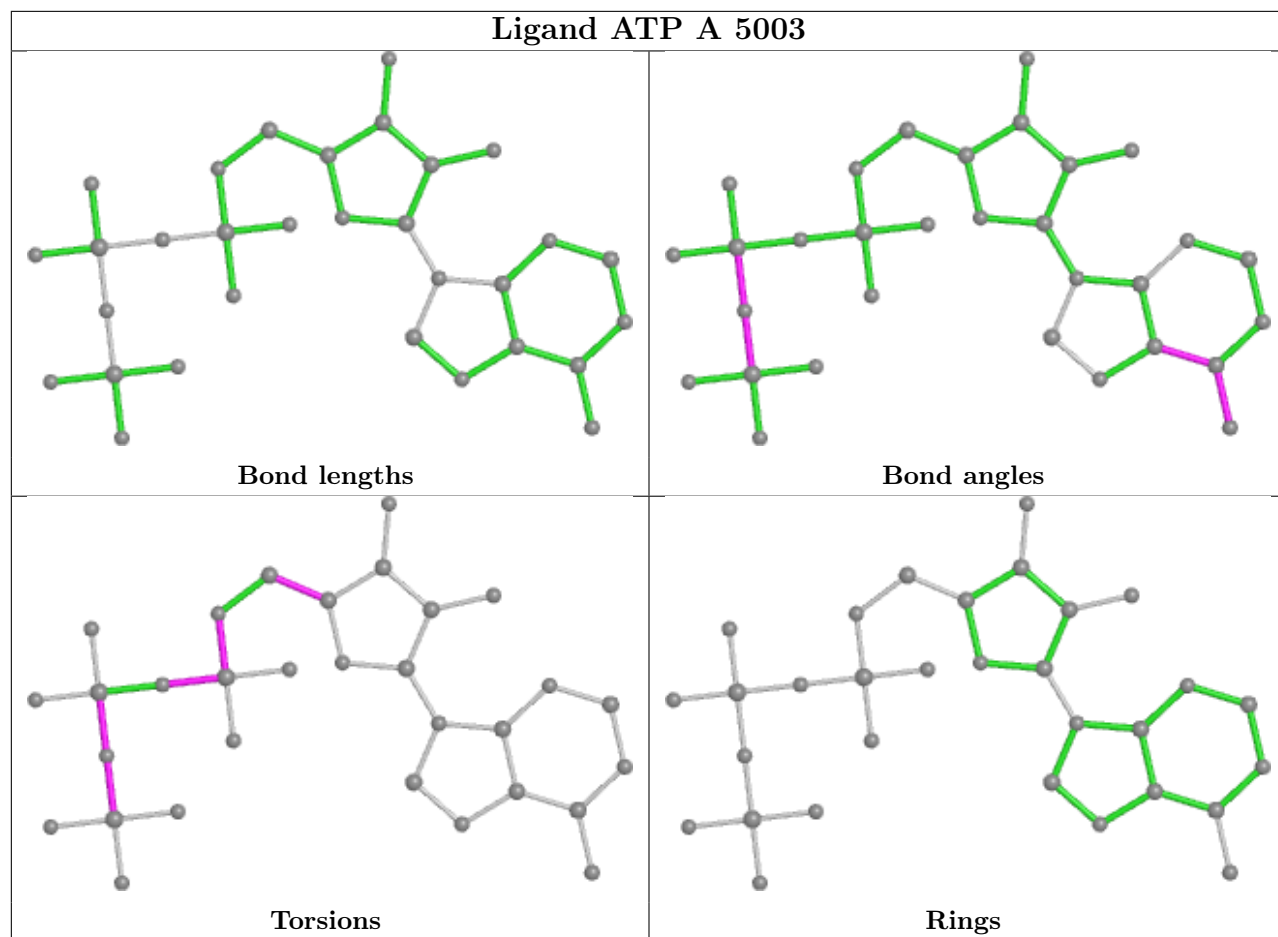


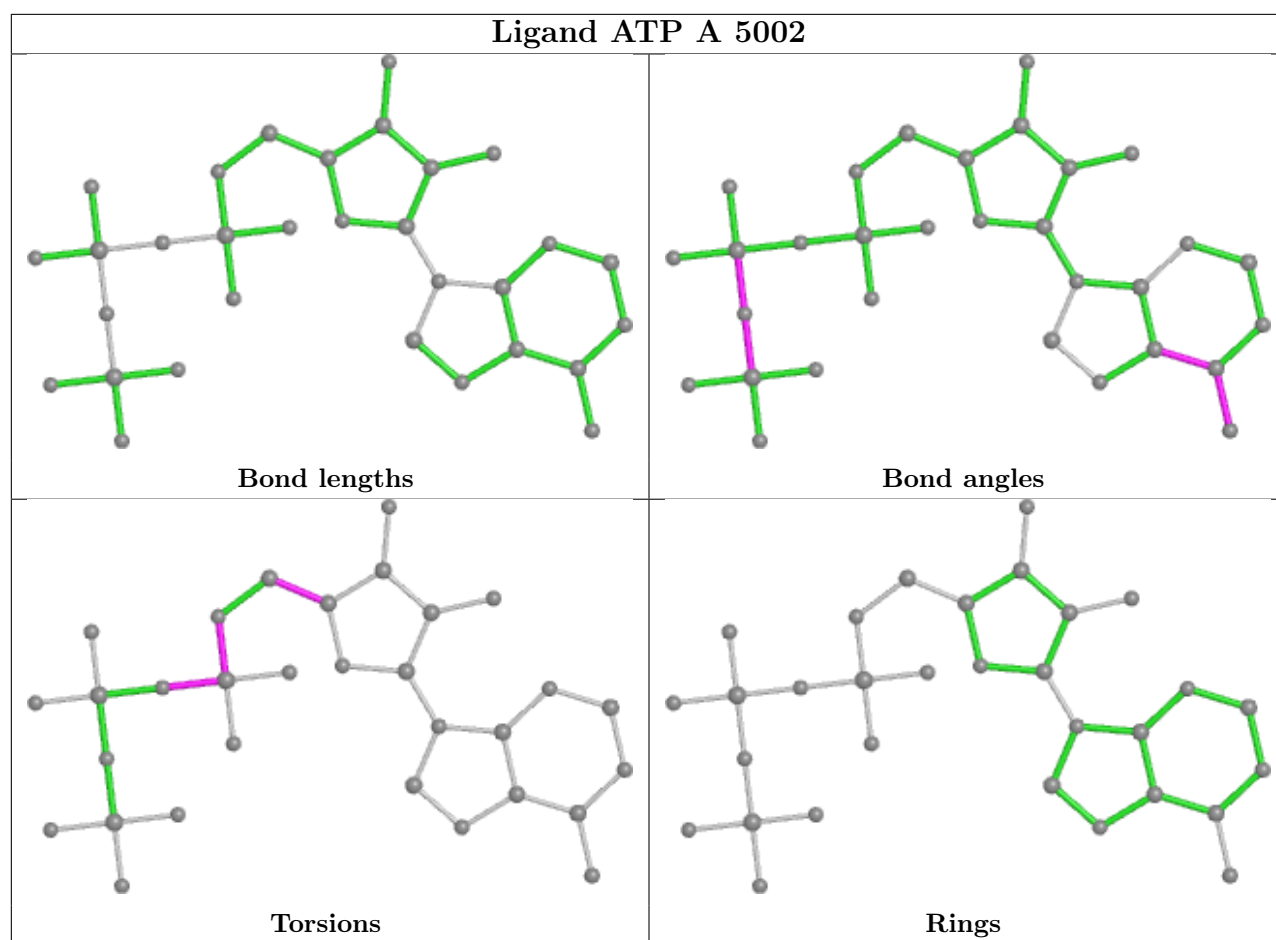












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

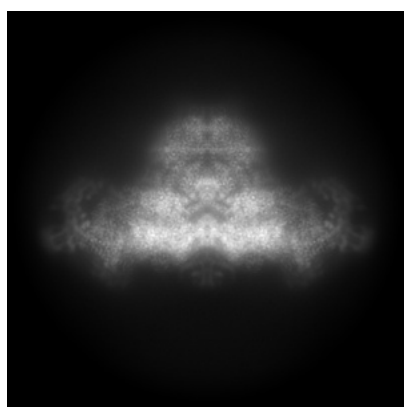
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-26415. These allow visual inspection of the internal detail of the map and identification of artifacts.

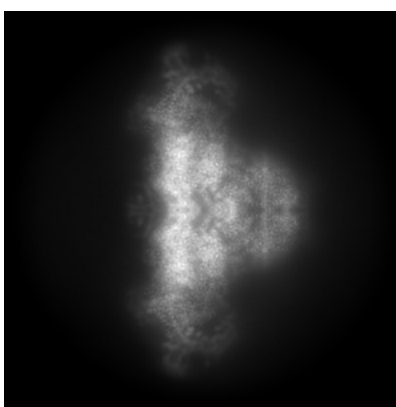
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

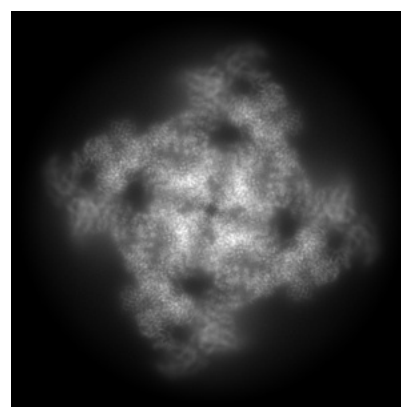
6.1.1 Primary map



X



Y

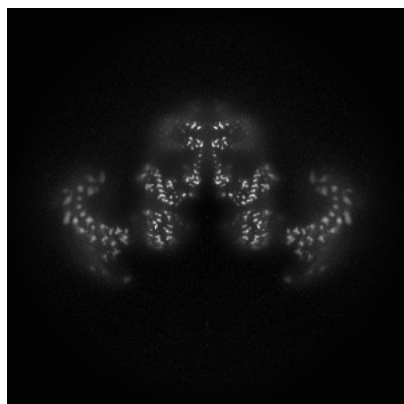


Z

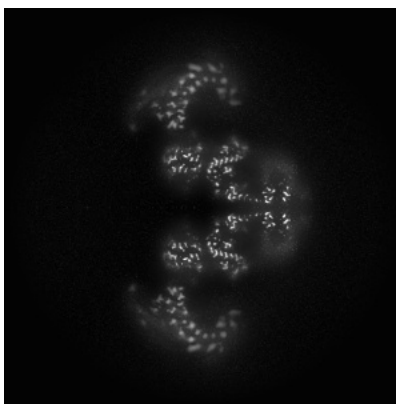
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

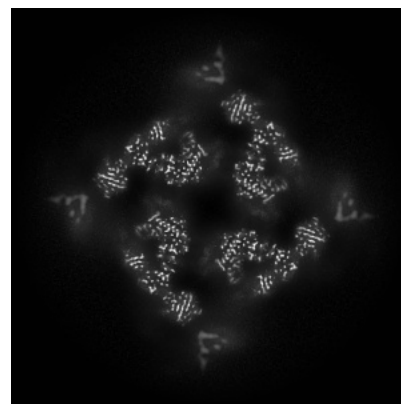
6.2.1 Primary map



X Index: 256



Y Index: 256

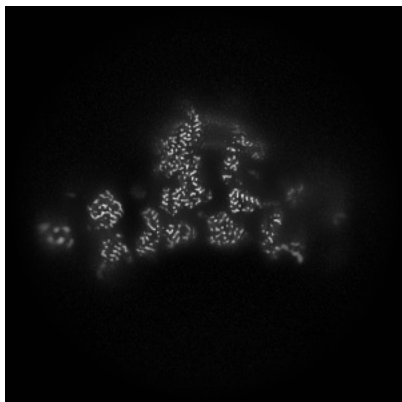


Z Index: 256

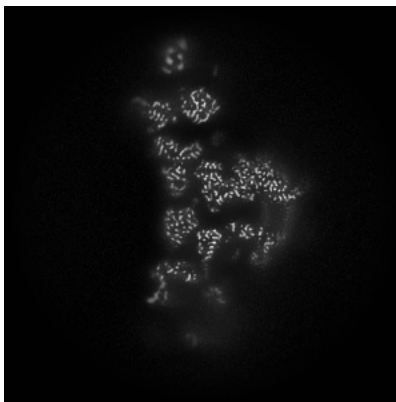
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

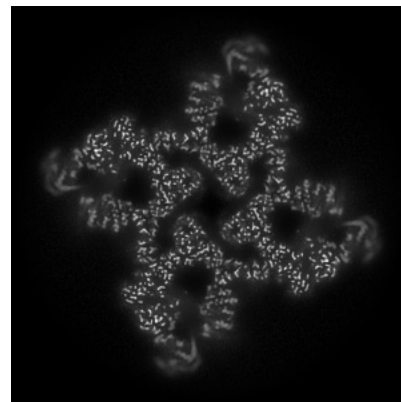
6.3.1 Primary map



X Index: 219



Y Index: 219

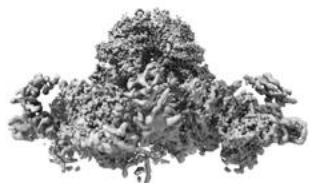


Z Index: 223

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

6.4 Orthogonal surface views [i](#)

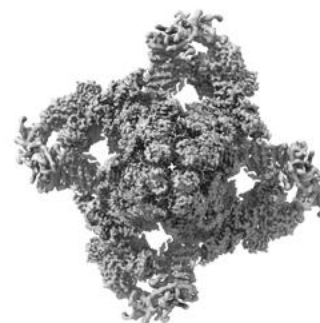
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.13. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

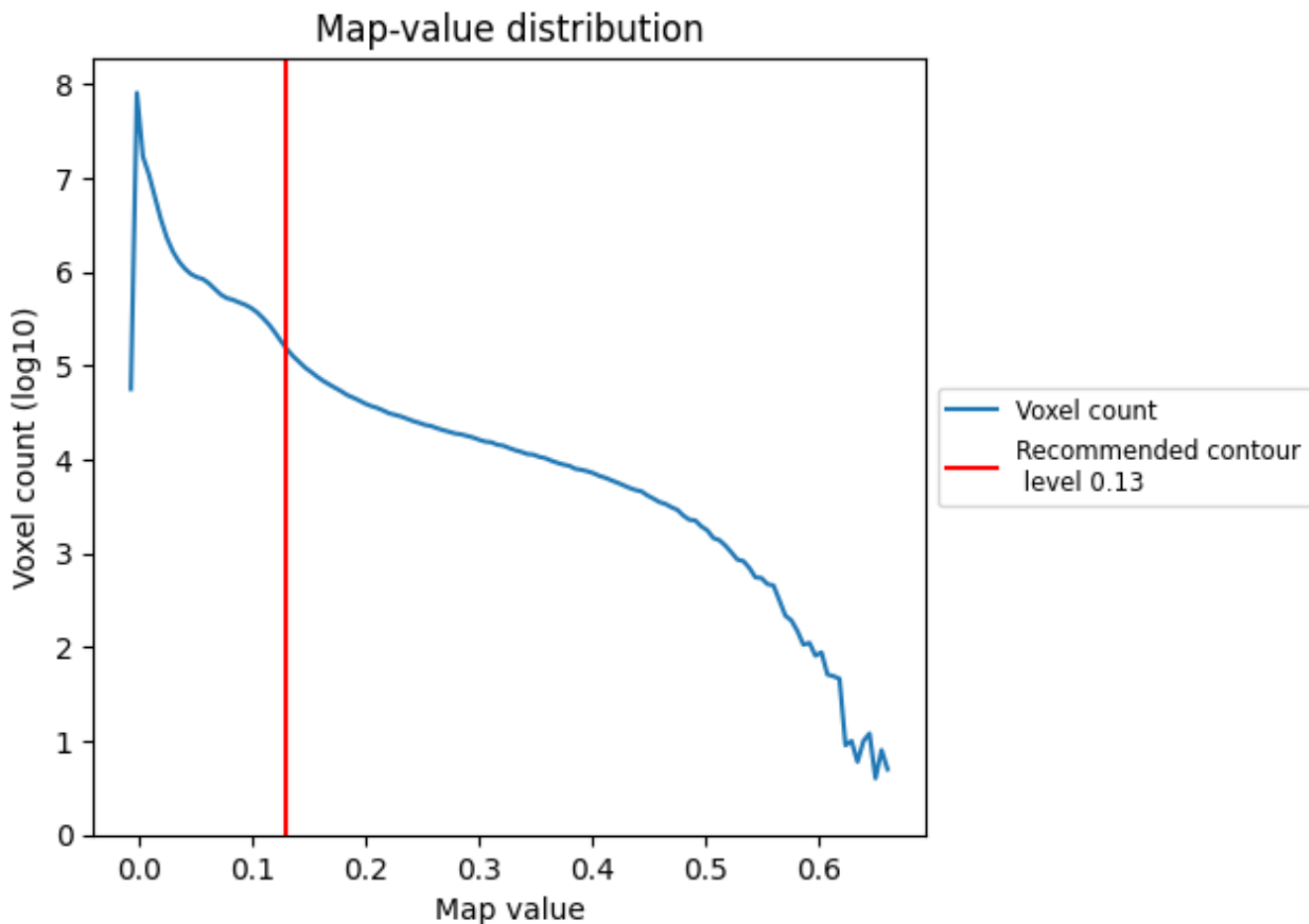
6.5 Mask visualisation

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

7 Map analysis [i](#)

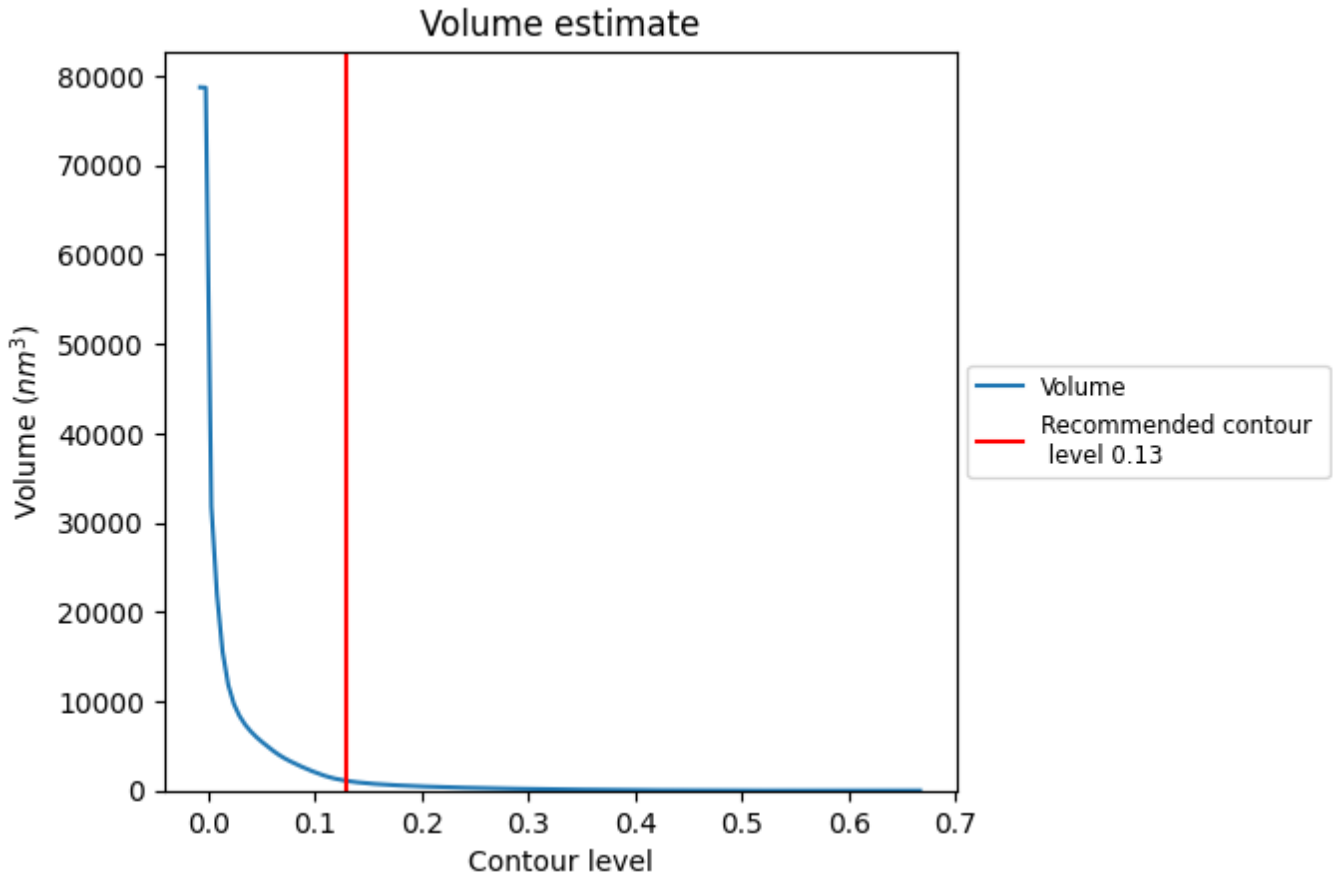
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

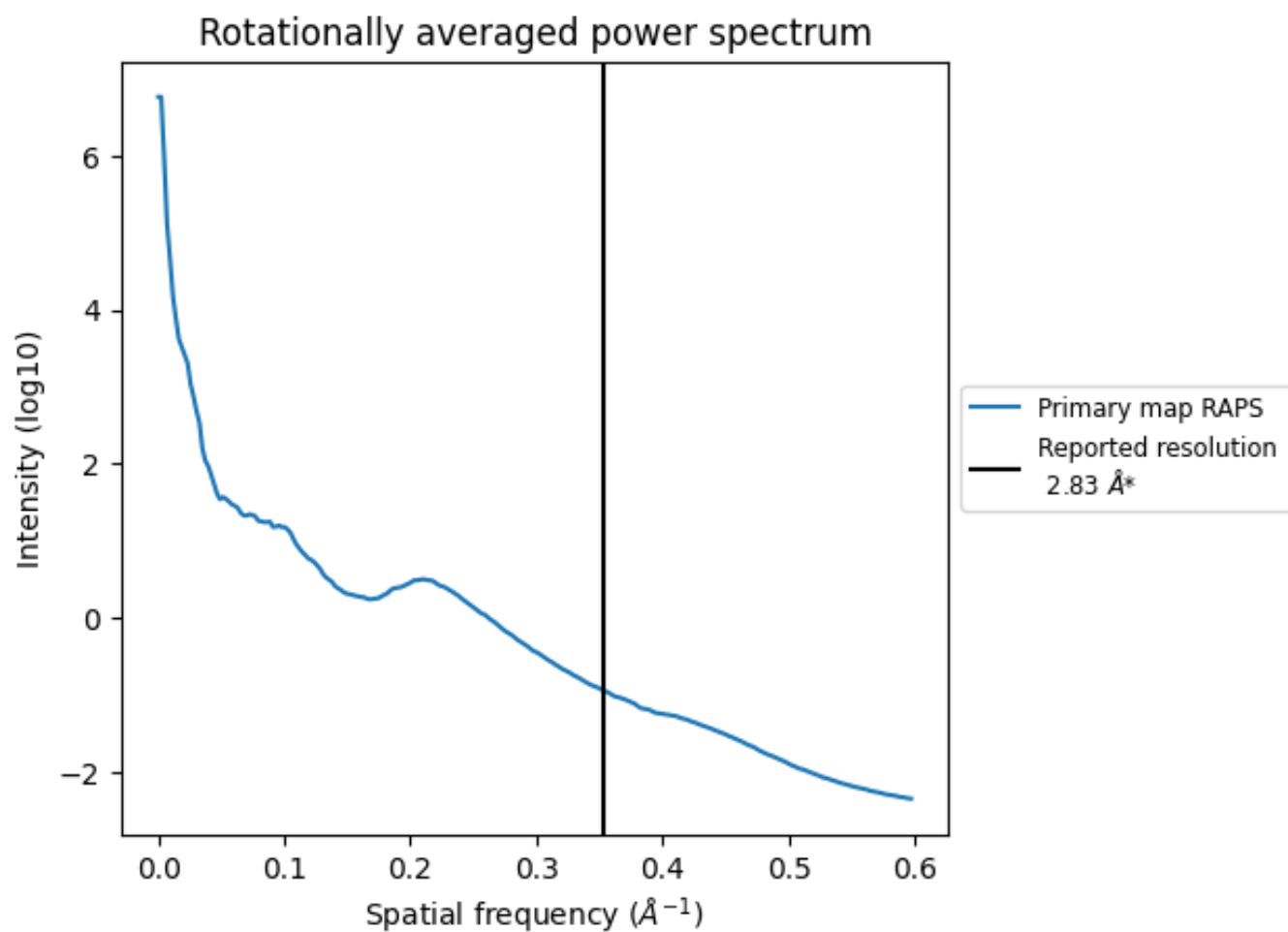
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1083 nm³; this corresponds to an approximate mass of 978 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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.353 \AA^{-1}

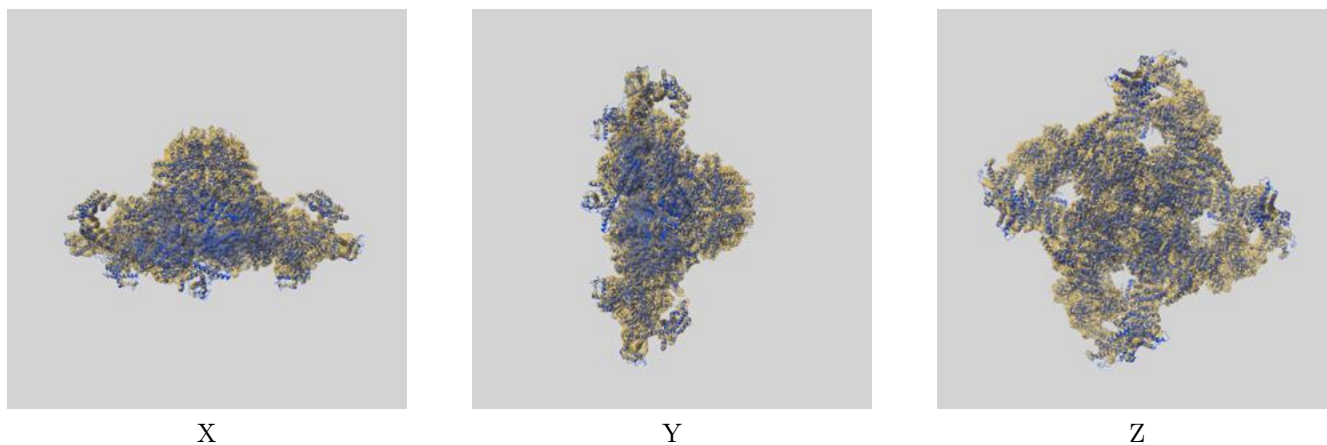
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

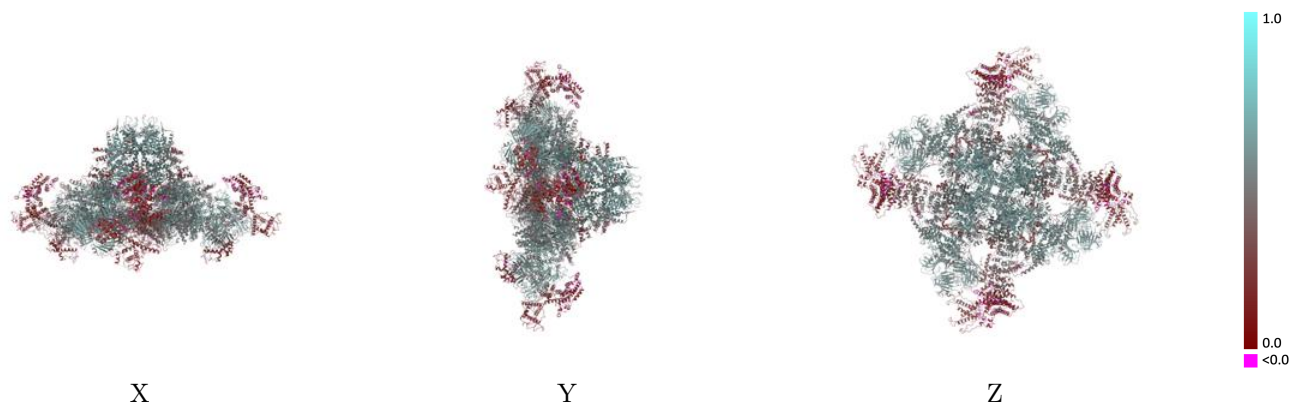
This section contains information regarding the fit between EMDB map EMD-26415 and PDB model 7UA5. Per-residue inclusion information can be found in section [3](#) on page [5](#).

9.1 Map-model overlay [i](#)



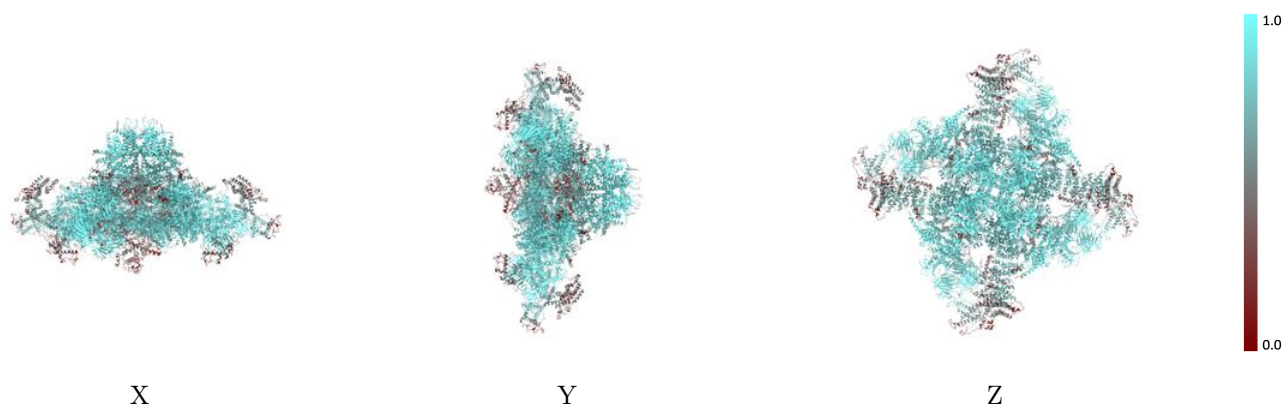
The images above show the 3D surface view of the map at the recommended contour level 0.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



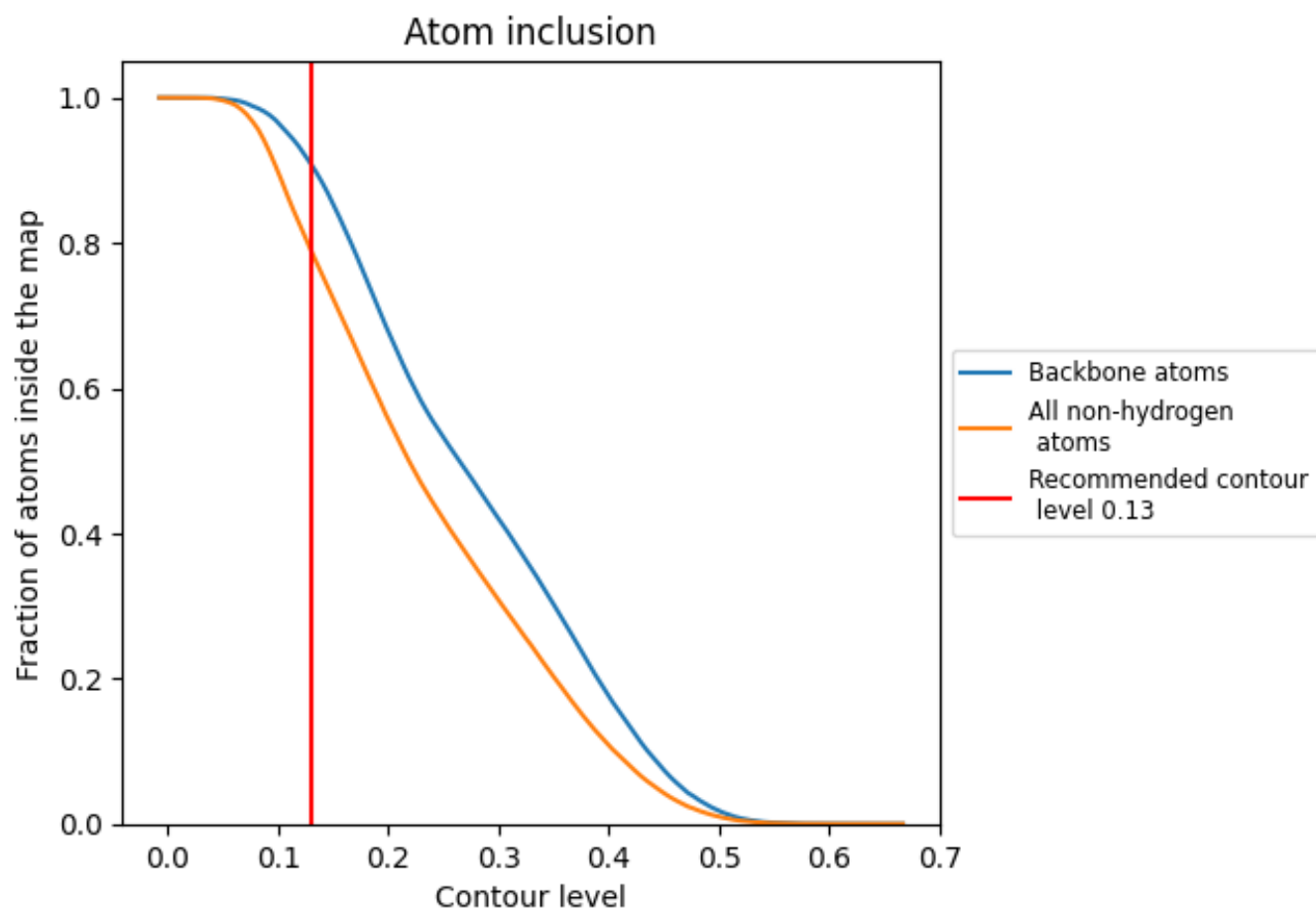
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.13).



















9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 79% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7906	 0.4480
A	 0.7878	 0.4490
B	 0.7880	 0.4480
C	 0.7885	 0.4470
D	 0.7851	 0.4380
E	 0.9218	 0.5670
F	 0.9256	 0.5600
G	 0.9218	 0.5650
H	 0.9231	 0.5640

